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MRS. PINCE'S BLACK MUSCAT may now be seen in full perfection. This is acknowledged to be the best Grape extant. Splendid Canes are now ready for immediate planting, 7s. 6d., 10s. 6d., and 12s. each. Fine planting Canes of other kinds, a LIST of which can be sent on application.
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Strong Fruiting Vines.
C. PADMAN has still on hand a quantity of BLACK and MUSCAT HAMBURGS, price 5s. to 7s. 6d. The usual discount to the Trade.
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S. WILLIAMS has all the best kinds, in splendid condition, warranted clean. Prices on application.
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S. WILLIAMS' STOCK this season is remarkably fine, and in good condition for sending out. Kinds and prices to be had on application.
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MESSRS. JOHN STANDISH AND CO. are now selling fine strong plants of this extraordinarily productive VINE at 22s., 42s., and 65s. each.
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FRANCIS & ARTHUR DICKSON & SONS have to offer several thousand extra strong, thoroughly well-ripened, jointed VINES, of the best known kinds, including the NEW VINES of this season. Inspection invited. All who have seen them pronounce them to be as fine a lot of Vines as were ever grown.
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VEBB'S PRIZE COB FILBERTS, and other PRIZE COB NUTS and FILBERTS. LIST of these varieties from Mr. Wrenn, Calcot, Reading.

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FRANCIS & ARTHUR DICKSON & SONS have a most extensive Stock of all kinds of FRUIT TREES, all the leading varieties, thoroughly well grown, and many of them of large size, which will bear fruit the first season.
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CHARLES TURNER can strongly recommend PRINCESS ROYAL and ALBERT VICTOR as the most beautiful and dissimilar of the Horticultural Society's New Coleus. Orders are now being received, and will be executed in rotation in March next. 7s. 6d. each.—The Royal Nurseries, Slough.

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To the Trade.—Gladiolus Breuchleyensis.
JAMES CARTER AND CO. have a large stock of very fine Bulbs. Price on application.
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ROBERT SIM will send, post free for six postage stamps, Part I. (British Ferns and their varieties, 30 pages, including prices of Hardy Exotic Ferns) of his PRICED DESCRIPTIVE CATALOGUE OF BRITISH and EXOTIC FERNS, No. 7. Foot's Cray Nursery, S.E.

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Please send sample and price to WILLIAM FRITCHARD, Nurseryman, Shrewsbury.

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SUTTONS' RINGLEADER PEA, price 2s. per quart.
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TELEGRAPH, from seed of own saving, selected stock, warranted true, in any quantity.
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Do. do., and 3 years bedded, extra stout, never cut from, have grown this summer 5 to 6 feet high, fit for forcing, 5s. per 100; price per 1000 on application.
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SUTTONS' DESCRIPTIVE LIST of the above for Early, Medium, and Late Crops is now ready, and may be had gratis and post free.
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Choice Scarlet Rhododendrons.
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Excelsed by none.
DOBSON'S PRIZE CALCEOLARIA SEED.—Our collection embraces the most magnificent varieties, whether for compactness of habit, variety, richness or distinctness of colour, abundance of bloom, &c., and brought to that state of perfection as does not admit of any improvement. Our collection this season has been more than usually rich and brilliant in colour, and we feel quite satisfied that we have never before offered Seed with so much confidence as we can do this season. Our collections invariably take prizes at the London Exhibitions, viz.—International Exhibition, Royal Horticultural and Royal Botanic Societies, and Crystal Palace. Seed in sealed packets, 1s. 6d., 2s. 6d., 3s. 6d., and 5s. each.

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COMPLETE COLLECTIONS
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 To suit Gardens of various sizes,
 10s. 6d., 21s., 42s., 63s., and 84s. each.

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"THE WHITE GRAPE, ABOVE ALL OTHERS, FOR GENERAL CULTIVATION."

SEE THE FOLLOWING EXTRACTS:—

"This is indeed a noble Grape, and one which will take the highest rank amongst White varieties. It supplies a desideratum which has long been felt, viz. the possession of a White Grape of easy culture like the Black Hamburg."—*H. in Gardeners' Chronicle.*

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"Robust in constitution and free bearing as a Black Grape, this is certainly the best White Grape (always excepting the one of Alexandria), the world—so far as we know of it—has ever seen."—*Nottingham Guardian.*

Plants are now being sent out, price 21s. and 42s. each.
 Strong Fruiting Canes, 63s. each.

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THE FINEST MELON IN CULTIVATION.

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INVALUABLE AS A WINTER DECORATIVE PLANT.

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Have great pleasure in introducing to the Public this

NEW LONG WHITE-PODDED VARIETY OF RAPHANUS CAUDATUS.

Which is much more delicate in flavour and attractive in appearance than the old brown-podded sort. Only a few Hundred Seeds having arrived in this country, an early application will be necessary from those who wish to obtain this new and improved variety.

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Good Plants of this splendid Allamanda, 21s. each; a few Larger, 31s. 6d. & 42s. each.

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Including many Novelties, is now ready, and may be had Free by Post on application

In proof of QUALITY he need only refer to the numerous Prizes awarded at various Horticultural Shows throughout the country, for both Vegetables and Flowers grown from his Seeds...

To purchasers who are unacquainted with the best varieties of Vegetables and Flowers, or who wish to save the trouble of writing a List, the following Collections are made up on equally liberal terms with any other House in the Kingdom...

VEGETABLE SEEDS.

- No. 1. The WALTHAM COLLECTION OF VEGETABLE SEEDS, for a Large Garden, price £3 3s.
No. 2. The WALTHAM COLLECTION OF VEGETABLE SEEDS, for a medium-sized Garden, price £2 2s.
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FLOWER SEEDS.

- 1 The WALTHAM COLLECTION OF FLOWER SEEDS, including the finest imported Asters, Stocks, &c., price £2 2s.
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3 The WALTHAM COLLECTION OF FLOWER SEEDS, including the most effective for a Small Garden, price 10s. 6d.
4 PAUL'S CHOICE COLLECTION OF HOLLYHOCKS, in 12 distinct named sorts, price 5s.

NOVELTIES, OR VARIETIES OF SUPERIOR MERIT.

- NET, Fine superb crimson, 1s. per packet.
ROSCOLI, Lauder's Superb Protecting Late White, 2s. 6d. per pkt.
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SALFLOUNDER, HILL'S Dwarf, 1s. 6d. per packet.
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For more particular information, see Seed Catalogue.
LILIUM AURATUM—Flowering bulbs, 2s. to 7s. 6d. each, 18s. to 72s. per dozen.
LALIOI.—A very fine assortment to name, 6s. to 24s. per dozen.
ROSES—A fine stock still on hand, Standards, Dwarf standards, Dwarfs, and in pots for forcing.
FRUIT TREES—Standards, Pyramids and Dwarf-trained, and a large general Nursery Stock in excellent condition.

PRICED CATALOGUES Free by Post.

IMPORTANT.—To prevent confusion, all Letters should be addressed WILLIAM PAUL—the Christian name full, as above.

NOTICE IS HEREBY GIVEN, that the PARTNERSHIP heretofore subsisting between us, the undersigned, ANTHONY WATERER and ROBERT GODFREY, carrying on business as Nurserymen and Farmers at Enap Hill Nursery, near Woking, in the County of Surrey, under the style or Firm of WATERER & GODFREY, was DISSOLVED on the 24th day of JUNE last...

STEPHEN BROWN begs most respectfully to tender his best thanks to the Nobility, Gentry, and his Customers generally for the very liberal patronage he has received during the number of years he has been in Business, and has much pleasure in recommending as his successor MR. DAVID GOLD MCKAY, who has purchased the BUSINESS and STOCK in TRADE carried on at 11, Market Hill, Sudbury, and he is sure the Business will be conducted with satisfaction to those who may favour him with their patronage.

DAVID GOLD MCKAY, who has Purchased and Succeeded to the above Business, begs respectfully to solicit from the Nobility, Gentry, and the Public generally, a continuance of the support so long and so liberally bestowed upon his predecessor, and assure them it is his full determination, combined with his long experience in the Trade, to send out Seeds True to Name, Genuine, and Unadulterated, at strictly moderate prices (see Catalogue), and from those who have not hitherto favoured his predecessor with Orders he respectfully solicits a trial, believing it would lead to increased confidence. All orders (however small) shall receive his careful and personal attention, and be executed with the greatest possible dispatch.

STEPHEN BROWN offers the following at the annexed low prices:—
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25 choice do., larger size 70 0
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do., extra splendid, large fruiting trees, each 3s. to 5 0
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other fine and popular sorts—per 100, 3s. to 5 0
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PAMPAS GRASS, very strong per doz. 6s. to 15 0
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NURSERY, HERBACEOUS, and BULB CATALOGUES free on application.

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Choice New Seeds.

THE FOLLOWING have been either saved at the ROYAL NURSERIES, or from stocks selected by CHARLES TURNER.
BALSAM, from a prize collection, 1s. per packet
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Collection of 24 named varieties, 5s.
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MELON, BAILEY'S ECLIPSE, 2s. 6d. per packet
" GOLDEN QUEEN, 2s. 6d. per packet
" BEECHWOOD, True, 1s. per packet
PEAS, LITTLE GEM, First Crop, 2s. per quart
" ADVANCER, Second Crop, 2s. per quart
" PREMIER Third Crop, 2s. per quart
SAVOY, NEW FRENCH, 1s. per packet
CHARLES TURNER'S NEW SEED CATALOGUE, containing all the newest and best varieties, can now be had post free on application.

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FOSTER'S 'X' FINE LONG RIDGE CUCUMBER.—This is a variety of a remarkably fine hardy long dark green cucumber and one that can be recommended with the greatest confidence. It is very prolific and keeps its colour to the last. All who have seen it or sown are satisfied that it cannot be surpassed, and those who have tried it favour are convinced of its excellent quality, and such that the small quantity of seed raised is a ready nearly exhausted. Length 1s. to 18 inches. Price per packet of 12 seeds 6s. 1s.
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DIXON'S MAMMOTH WHITE CELERY, per packet 1s.
DIXON'S YORKSHIRE NEW PEA, per quart 1s.
FOSTER'S EMPEROR, fine frame CUCUMBER, per packet 2s.
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THE ADVANTAGES OF PROCURING SEEDS DIRECT FROM THE GROWERS CANNOT BE OVER-ESTIMATED.

LONDON.

JAMES CARTER & CO.,

SEED FARMERS AND NURSERYMEN,

237, 238, AND 261, HIGH HOLBORN, LONDON, W.C.



1862.

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FOR LARGE OR SMALL GARDENS.

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Table with 10 columns (No. 1-4 and No. 1-3) listing various vegetable seeds like Beans, Cabbages, Carrots, etc., with their respective quantities and prices.

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POTATOS, the most approved varieties } For Prices see { SEAKALE, strong roots for forcing ASPARAGUS, fine 2 and 3-year old plants

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Just published, and forwarded Post Free for 12 stamps (Gratis to Customers), containing illustrations and full descriptions of the most desirable Floral and Vegetable Novelties of the season.

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Genuine and First-class Seeds.

W. M. PAUL begs to announce that his NEW CATALOGUE OF VEGETABLE and FLOWER SEEDS is now ready for sale...

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4000 Polianthes tuberosa (Double Tuberoses) at EUGENE VERDIER, Fils Aine, SEEDSMAN, 3, Rue Dunois, Paris.

Gladioli, Gladioli, Gladioli.

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Standard and Dwarf Roses—To the Trade.

EUGENE VERDIER, Fils Aine, NURSEYMAN, 3, Rue Dunois, Paris, has still for disposal several Thousands of ROSES of the best sorts and at the very lowest prices.

TRICOLOR PELARGONIUM. LADY CULLUM, 2s. per doz. ITALIA UNITA, 5s. p. doz. SOULIA DUMARESCQUE, 15s. p. doz. PICTURATA, 6s. per doz. SUNSET, 6s. per dozen.

VARIETATED PELARGONIUMS. Lady Grieve, Queen of Tricolors, Sophia Dumaresque, etc.

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RICHARD PARKER begs to announce that his NEW GENERAL CATALOGUE of 92 Pages, containing SKETCH DESCRIPTIVE, and PRICED LISTS, of New and Rare Plants...

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GEOFFREY JACKMAN AND SON are desirous of drawing the attention of those who intend using their Climbers for a garden...

They have in their several varieties the very colour of which our nursery catalogues are a great measure deficient. J. F. (Clarendon) writes in the Gardeners' Chronicle August 31: "They are the highest value I have seen in any of the present catalogues in this way being pointed out as the best."

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Stocks, Stocks, Stocks. B. S. WILLIAMS has much pleasure in offering a new and selected SEED of the superior EAST LOTHIAN...

Standard Roses, and Dwarf Maiden Peaches and Nectarines. STANDARD ROSES, best flowering sorts, 70s. per 100.

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PRIZE MEDALLISTS, LONDON, 1862, for GENERAL COLLECTION of SEEDS.



PRIZE MEDALLISTS, PARIS, 1867, for EXCELLENCE of QUALITY of GRASS SEEDS.

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JAMES CARTER & Co. are prepared to supply on the 15th of January next the following Four handsome New Varieties of Coleus.

COLEUS HER MAJESTY.—This variety is of very free habit, and the broad leaves are of a deep bronzy red...

COLEUS PRINCE OF WALES.—A free-growing variety, with leaves of a deep purplish red, marked with deeper coloured blotches...

COLEUS PRINCESS OF WALES.—This has still less yellow than either Queen Victoria or Princess Royal, but has instead a much more decided and deeper glow of purple.

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New Double Zonal Geranium for 1869, WILHELM PFITZER (Lemona).—A novelty without a rival, possessing all the desirable qualities to make it a valuable addition to every collection.

Lilium auratum (Golden-rayed Lily). Fresh imported Bulbs, 2s. 6d. each, and upwards.

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CARTER'S PRIZE MEDAL LAWN GRASS will produce a Permanent Turf of finest quality. 1s. per lb.; 20s. per bushel.

CARTER'S FERTILIZER, the best Manure for the Garden. In Tins, 1s. 9d. and 4s. 6d. each. In Bags, 15s. and 25s. each.

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Superb New Plant, Gesnera Exoniensis. NOW READY

LUCOMBE, PINCE AND CO. beg to call attention to this magnificent new Winter-blooming Plant. For Table or other Decoration it surpasses anything ever before seen.

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Seeds direct from the Growers the best means of preventing disappointment.

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List of contents of the above on application, and any article not required may be omitted and others substituted.

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Sutton & Sons, Seedsmen to the Queen, Reading.

The Gardeners' Chronicle.

SATURDAY, JANUARY 2, 1869.

In reviewing the events of the PAST YEAR in its horticultural aspect, we can no more help calling to mind the political doings of the same period than, according to SHAKESPEARE, the gardeners of RICHARD THE SECOND'S time did under similar circumstances.

"Superfluous branches Lop away, that bearing boughs may live;"

while, on the other hand, there are others whose policy is to

"Give some supportance to the bending twigs."

Fortunately for us in regard to these matters

"All must be even in our government"

while in matters purely pertaining to our craft, and wherein our neutrality is not enforced, there is happily, in spite of minor differences, a unanimity of purpose and a singleness of aim directing all our efforts to

"Keep law and form and due proportion Within the compass of our pale."

True, the means of doing this are very varied. While some

"Cut off the heads of too fast growing sprays,"

others -

"Root away The noisome weeds, that without profit suck The soil's fertility from wholesome flowers."

And so in gardening matters—using the phrase in its widest sense—while the aim of all is the general advancement of the craft and of the craftsmen, the means of effecting this end are not a little different. Speaking broadly, there are those whose anxious forethought and watchful care are made manifest by the brilliant and solid results they lavish on our exhibition tables, while there are others equally hard working, with the self-same ultimate object in view, joying in their work, though with a sense that the "results" may not so speedily be realised or presented in so attractive a form.

Among the Horticultural Exhibitions of the year the two most noticeable were those of Ghent and Leicester. The former, which was of an international character, was again strongly suggestive, as most of the foreign shows are, of the desirableness of a more picturesque arrangement of the plants brought together—a feature which to some extent regulates the prize schedule, inasmuch as such bold objects as large Palms, Ferns, and Cycads, are more freely used than with ourselves. This picturesque disposition is obtained mainly by the economical abandonment of staging, the dwarfier plants being set en masse on the surface, and the taller ones used either as "starers" to break the view at particular points, or to hide the retaining walls. Single graceful plants set up thus on slender pedestals, here and there, produce far more effect than when all are staged alike in formal phalanx. The Leicester show confirmed the experiment of the preceding year at Bury, and though not so successful in a pecuniary sense, showed conclusively that the provincial visits of the leading horticultural body must to a greater or less extent stir up the horticultural

talent of the country, and thus be productive of benefit both to gardening and gardeners

Another feature, which we may certainly note with pleasure, is the steady progress of the taste for Spring Gardening. It is not every one who could hope to compete with Chiveden, Belvoir, or Nuneham in these matters. It is not every one who is endowed with the taste or the enthusiasm of the proprietress of Wardie Lodge, but there is not a suburban fore-court a red square in extent, but might be brightened at a trifling cost by the tender children of the spring.

Turning to other departments—the establishment of a Scientific Committee by the Royal Horticultural Society to co-operate with the other committees, is a real matter for congratulation. Discussion by men competent in their several departments—free, open, unbiassed discussion—will be most serviceable in many matters connected with horticulture. Again, the sub-committees told off to investigate and report on such subjects as spot in Orchards, the relation of manures to the growth of particular plants, the best modes of pruning, and the like, cannot fail to do good service, even if they do not entirely settle the points in dispute. One thing we may remark with reference to this committee. If it is to become one of the chief means, as we hope it is, of educating the horticultural talent of the country—if it is to be the focus through which the rays of chemistry, of botany, of geology, and what not, are to be converged on horticulture—it must have some more efficient means of bringing its work before the public than it now has. Up to the present time our own columns have, as we believe, formed almost the only channel through which the doings of the committee have been made known to those most concerned. It is our duty, no less than our pleasure, to act as chroniclers in this matter, but we can but feel that the communications that are made to the committee are deserving more full publicity than the abstract that our space permits us to give.

The publication of Mr. DARWIN'S work on the Variation of animals and plants under domestication is another of the features of the year. We do not hesitate for a moment in saying that this work will exercise a powerful influence on practical gardening and agriculture in the future, none the less powerful in that its effects will be made manifest by practitioners to whom the very name of the author may be unknown. Looked on merely as a repertory of facts, we do not know where else the student could find, collected together in one book, such a mass of details relating to the history of our domesticated animals and plants, and of their manifold varieties, as is collected together in these volumes, while the chapters on inheritance, hybridisation, selection and variation teem with lessons and suggestions which the thoughtful practitioner will not fail to turn to good account. The work in question may well encourage observers to record the results of their experience, when they see the use made of them. In this sense it is with peculiar pleasure that we find our own columns, and those of our contemporaries, have furnished so many facts and illustrations to the author.

The Obituary of the year—always a painful list to look on—is perhaps not so full of great names as has unfortunately been the case of late years. Still we have had to lament the loss, within the cycle, of persons so intimately connected with horticulture as HENRI VILMORIN and NATHANIEL BAGSHAW WARD, both of whom seem to have had the faculty of securing the esteem of all with whom they came in contact. Among botanical collectors—that enterprising band to whom we owe so much—the losses have been severe, how severe the names of PEACOCK, HOWMAN, HURTON suffice to indicate. Among botanists and travellers we have had recently to record the death of WALKER-ARNOTT, VON MARTIUS, SCHNIZLEIN, and POPPIG, the two latter better known in Germany than here, the two former of world-wide repute. Sadly it is a violation of propriety to speak in the same breath of the loss of these great men, and of the destruction of the dragon tree of Teneriffe, to which so much interest attached. To us all the idea of being the first to record the overthrow of this famous tree, which had an interest for the general public almost as great as for professed plant-lovers.

Of our own share in the work of the year we must of course say but little. We have endeavoured to keep our readers conversant with what has been doing in the horticultural world, and to afford them a free stage for the discussion of all matters of interest to them.

Thanks to our correspondents, we have been enabled to give illustrations of gardening and cognate matters, not only in this country but from China to Peru—at any rate, in Tuscany and in Australia, in the Riviera and in New Zealand, in Russia and in India, in Switzerland and in Spain. The year before us is one that promises to be full of interest for plant-lovers of all descriptions. With the assistance of our correspondents we hope to do our part as faithful chroniclers of its events.

THE recently published triple number of M. VAN HOUTTE'S "Flora des Serres" contains pictures of some remarkably beautiful NOVEL GLOXINIAS (*Lageria speciosa*). One of these in particular, called *Fleur de Flandre*, is the most charming we have yet seen. It is one of the drooping flowered race, the corolla being white, with an internal belt of crimson halfway down the tube, which, beyond this to the base, is minutely dotted, as in the new French sorts, while the throat and inner portion of the limb is pure white, the extreme margin being also a narrow line of pure white, just within which is a bold and pretty feathered band of red-lilac-violet. This combination of colours has a most charming effect. Another, called *Rose et Hermine*, is erect-flowered, white, with the limb almost wholly of a mottled carmine tint. *Centure d'Hebe* is semi-drooping, with a white tube and narrow even white border, while the limb segments are of a carmine rose dashed with lilac. *Cordon lavande* is erect-flowered white, with a narrow belt or edging of pale lilac. *Violette neigeeuse*, a drooping-flowered sort, is of an entirely novel and curious mottled tint of dark heavy purple. Finally, *Leon Van Jer Wee* is a very richly coloured drooping-flowered variety, with the lower part of the tube pale and spotted, the upper part and the throat of a deep rich purple-crimson, coloured equally all round the tube, this passing off into bright carmine over the centre of each limb segment, and surrounded with a broad edging of white. These lovely flowers have wonderfully improved of late, and M. VAN HOUTTE'S establishment has long been famous for the successful hybridisation of these and other Gesneriads witness the splendid *Plectopomas*, recently alluded to in our list of Plant Portraits.

— We have before us fine blooming specimens of the noble *LASIANDEA MACRANTHA*, sent us by Mr. BILL, which shows that the flowers of this grand plant may be had in winter as well as in summer, which is an additional recommendation. Notwithstanding what may seem to be an unfavourable season, the blossoms are even now nearly five inches across, and are of the richest violet hue, a tint which has not been reproduced in any of the illustrations which have yet appeared.

— We are requested to state that the pamphlet advertised as "THE IMPROVED METHOD OF GROWING FRUIT," is by the Rev. JNO. FOUNTAINE, and is merely a slight variation on orchard-house culture. The subject was mentioned in our columns, 1867, p. 1193.

— For the benefit of a rapidly increasing class, we this week commence a series of notes on TOWN GARDENING, by one of the most successful practitioners of gardening under difficulties.

APPLE STOCKS.

1. *The English Paradise*—This was introduced from Holland early in the last century, and is called by Miller in his Dictionary the "Dutch Paradise." It is quite distinct from the stock called the *Dauvin* in France. A very near relative of this kind of stock is to be found among the stock-growers in Surrey. To quote Miller, "This sort will not decay or canker as the other—the French Paradise, nor does it stunt the grafts so much, so is generally preferred for planting espaliers or dwarfs, being easily kept within the compass usually allotted to these trees."

Since the time of Miller there have been doubtless, other surface-rooting seedling Apples raised having the same effect on the graft as the above, and here we called English Paradise stocks. I can testify to two kinds raised here from seed some 40 years since, and now found so eligible for cordons, bushes, or pyramids, as to supersede all other kinds of dwarfing Apple stocks, and to lead to the planting here alone of from 60,000 to 70,000 annually. One of these stocks, the *Nonsuch* gives such a prolific habit to Apple trees, that small bushes only 1 foot high are crowded with blossom buds, and some trees exhibited at South Kensington in October last were equally crowded with fruit, although but 18 inches in height. Besides these kinds of Paradise stocks, Mr. Scott, of Crewkerne, has, I believe, raised one or two kinds of Paradise Apple stocks equally eligible. Hence I am enabled to contradict decidedly Mr. Robinson's assertion in a contemporary, that the term "English Paradise" is a misnomer, if by that he implies that no such stock exists.

2. *The Doucin*.—This is used in France for pyramidal Apples in gardens. There are several varieties under this name in the different departments of France, some of them very inferior, with small leaves, and a stunted, storky habit; the best kind approaches the habit of the English Paradise in having broad, shining leaves, but on the whole, is not equal to it, as the stock does not swish so regularly with the graft in our climate. It is, as Mr. Robinson says, an inferior stock for cordons, and not at all equal to our English Paradise stocks for that, and all other garden purposes.

3. *The Barr Knot*—Some years since, when making a call on Mr. Fleming at Trentham, he mentioned this stock as being an excellent one for garden Apple trees,

inasmuch as it seemed to suit the soil and climate. This turned my attention to it, and I found it was well known in this county, as a Mr. Byde, a magistrate or then living at Ware Park, had planted it extensively, calling it his "walking-stick Apple," because he used to cut off a truncheon from an old tree, and after sawing it as a walking-stick, plant it in his garden, where it planted itself by its 18 inches, it would root and bear fruit the second year. Independently of its bearing a really good kitchen Apple, it forms a good stock, being at the surface, and inducing fruitfulness, a more difficult of propagation than the English Paradise stock, its young shoots not rooting so freely. Near North, South Wales, there is a race of the so-called Knot Apples, all the varieties of which root freely at the surface, and make good stocks for garden Apple trees.

4. *The French Paradise*, or *Pommier du Paradis* of our French neighbours. My knowledge of this stock dates from 1827, that of Mr. Robinson's being so long a date—and if the old saw-sawyer's verb, *experientia docet* means anything, I can know something about it. There is no doubt that being one of the dwarf Apples—*Armenia*, as I had had them both under cultivation and the early Paradise cultivators most probably names, under the name it came thence. In those old times, however, the stock was entertained that the site of Paradise was in the highlands of Armenia, considering the text, Genesis points to a position near the sources of the rivers the Pison, the Tigris, the Gihon, and the Araxes. *Armenia* being an old Apple-growing country would give such a habit of root—as dwarf Apples—after the manner that Japan and China give various and other strange varieties of trees and shrubs, are the effects of domestication. England is now being old in Apple cultivation, hence it is that if any of our old varieties of Apples are sown, they displace dwarf-surface varieties, sorts fit for stocks for garden trees. One variety raised from seed here is so small that I call it my pigmy stock, it is the same habit as *Armenian* or *French Paradise*, but is smaller in all parts, so that an Apple tree grafted on it will grow in a breakfast cup. The unmeaning given to this stock probably had its origin in the middle of the 17th century there was a deeper Christian, or perhaps superstitious, feeling the Continent than in these times, and the little Apple trees brought from Armenia would be looked upon with great interest, and some of the natured priest would perhaps suggest that, as it was sown in Armenia, that it be the *Apple of Paradise*, and hence the name. In Evelyn's time, even before then, this stock seems to have been in gardens, for in noticing double grafting I shall on occasion to mention a very old writer on fruit trees seems never to have made much progress, however, fashion for a few years having to some writer to be seen the little trees in France, and then come home and talking and writing of the marvels he had seen, and then going out, as has been the case in ladies fashions, for doubtless chignons were not before the Flood! In Miller's time (the middle of the last century) the French Paradise seems to have been in common cultivation in England, for he says "Paradise Apple hath of late years greatly obtained stocks to graft a bud upon, but these are of no duration unless they are planted so low that the graft take root, when it is equal to a stock. These trees have been much more esteemed in France but being so curious are not esteemed in England." May it be so, before we hear again about this stock, a special correspondent seems to have lived and collected praises. The truth, I believe, is, that fruit gardening was confined to the orchard of the farmer, and all perfect walled-in gardens of the wealthy, and all Paradise stocks and other stocks were of no use to me for I remember, in 1825 to 1830 buying several Paradise stocks of Messrs. Buchanan, of Cambridge, they were grafted here, and but few were seen, gardeners would not believe that any stock would grow on a tree dwarf and prolific. I believe I was inclined to go with them, but I soon found that the path led lead forwards. I planted some of these stocks, and grafted them with Sturmer Pippins. They are still here.

I have in a preceding paragraph disputed Mr. Robinson's assertion, that the English Paradise was a misnomer. I must, in the case of truth, be equally peremptory with respect to Apple trees grafted on the French Paradise, being fit for horizontal single cordons, trained on wire. I simply and decidedly assert that in England they are the most unfit of all for that purpose, the question why? I answer because the tree is bent down to be fastened to the wire, and the clusters of blossom spurs at the bend, that there is enough of vital force in the stock to throw out a young shoot to be tied to the wire, and thus continue edging; thus, if trees are planted only 4 or 6 feet high they are long before they touch each other, and instead of cordons they become stumps. It would be pleasant to take one's friend into the fruit garden to be compelled to say *Voici mes chignons* (look at my stumps) instead of cordons. The English Paradise stock, on the contrary, forms a nice continuation of the young shoot being more vigorous, so that it may be grafted on to its brother in front.

Again, I am compelled to be decisive. Mr. Robinson's cold clayey soils than in those that are more fertile. This, as regards the soil, is a complete mistake it is the exact converse of the truth. In France, as to the heat and dryness of the climate, the French Paradise stock requires a cool, moist, retentive soil. England a light, generous loam, and a warm summer. It is not tender as regards frost, and the well known, *Armenia* is very cold. It is quite

real advantages, which cannot be claimed for any other kind of tree whatever, we trust your readers will allow that the contents have advanced good reasons for clearing them...

Ascertaining how healthy what the French stock is not, we are entitled to an equally lucid explanation of what it is. It is the more needful to have this matter of the stocks cleared up, from the fact of the importance given to it in connection with the importation by your correspondent of over 1000 Apple trees from France...

LIME APPLE PESTS

I HAVE lately corrected your columns some remarks on the pests culture, &c. of this noble fruit and wish to state a few facts, and make a few remarks in reference thereto. One correspondent tells us that by some mischance or oversight he once got on to his fruiting plants in bloom and out of bloom that troubled me and others...

As a result I will venture to relate what I once witnessed at a thriving little manufacturing town. A company of mountebanks had pitched their tent, and commenced their various and other tricks for the amusement of the yokels...

May I be allowed to inquire of Mr Hamilton how to reach and exterminate those heavy-bugs with their legs and young broods, which are always nested in the soil, the cracks of the paths the drainage the porous materials the fissures in the walls or rafters...

Home Correspondence.

Names of Plants. Some time since the meaning of the word 'Applering' was asked by one of your correspondents and various explanations were given. I lately met with a copy of Dr. James's Scottish Dictionary, and found the word was, as one of your correspondents thought it, of French origin.

under Boyd, who is said to have been an extraordinary genius, was born in 1562. Among his many works there is one called 'Hymni,' the subject of which is, not hymns as might be supposed, but a description of different plants. The titles of his poems are: 1. Rosa, 2. Vicia, 3. Lilium, 4. Hyacinthus, 5. Primula, 6. Petrus, 7. Narcissus, 8. Phlox, 9. Lavandula, 10. Camerula, 11. Iris, 12. Crocus.

Water Tanks.—A "Subscriber," at p. 1817, 1868, asks for information relative to a water-tank. Having had three of them in the course of 30 years, I will give him my experience. In the first place, I think if he requires a large tank it should be underground, and might be covered with a mound sown with Grass...

Orchard-house Lettuces.—I forward samples of some Lettuces grown in my Cherry-house. The rows of trees plunged in pots are 3 feet apart, and one foot space in the centre between each row, is devoted to winter Lettuces. Part of the crop of those sent has been in use all the month the seed was sown early in September, those sown in October will come into use in February and March.

Earliness of the Season.—The season is much earlier than usual this year. The fruit-buds begin to swell, and very soon the hail-flicks will attack the young tender ones. In this neighbourhood there are great numbers which at present content themselves with the seeds on Brambles and Heath, and also the young buds of Larch, to shoot them all is impossible.

Snakes. I beg to suggest to "Enquirer" a simple method of keeping the snakes which trouble him so much in moderate bounds without killing them. If at the proper season he will have the leaves of better preparation for kitchen garden use, or deposits of similar material, where mowings of Grass, peats, or garden rubbish of any kind are thrown in addition, well searched he will most likely find large masses of the eggs of the ringed snake, and destroying these will do him much good.

Adulteration of Seeds.—I have seen with some surprise that one of your correspondents considers the inquiry which the Council of the Royal Horticultural Society has been making into the adulteration of seeds

a far-ol one. I can assure him the public do anything comical or farcical in it, and I trust the time is far distant when an inquiry into the conduct of the British tradesman will be so unbecomingly large has been made to an appearance most certainly the principal seed dealers not only anonymous but by a subscription of the Royal Horticultural Society...

Pines and Mealy-Bug.—I beg to thank Mr. Cott and Mr. Hamilton for their very touching fruiting Pines. We have here four houses now for the growth of Pines. The fruiting house is the only one infested with the bug, and was brought about by placing in it a few stoves of these infested, which were sent as a present to a neighbor.

Peacock Butterflies.—I have this day, Dec. 22, in the open field, a beautiful peacock butterfly, which was very common, but I had never seen it before. I had a good view of its wings, but it was in the act of flying, and I was unable to get a better view than my sketch at this date.

Autumn Fruiting Raspberries. In the garden at Netcham Park, near Aylesbury, can be seen, October some red and yellow variegated Raspberries, loaded with fruit of fine quality. Was the aspect presented on the 4th of October when a visit was paid to the garden. They bear fruit about the second week in August, and before Christmas if the weather be not favourable, frost does the fruit but little harm, but if wet and stormy weather be followed by frost, the gets destroyed.

Crickets. If your correspondent R. W. Pines will procure and send me a small quantity of the same, I will send you a small quantity of the same, I will send you a small quantity of the same, I will send you a small quantity of the same.

Princess of Wales Peach.—Mr. Rivers states that the Peach ripens just before Late Admirable. Dr. Hogg, in his "Fruit Manual," says it does not ripen till the end of November. Which is correct? Each of the Princess of Wales Peach ripens, as Mr. Hogg states, just before Late Admirable. The discrepancy in the two reports may be accounted for by the fact that when the work referred to was issued, the Peach, being almost new, ripened its fruits later than now.

Keeping Grapes in Water.—I was much interested in reading an article in the Gardeners' Chronicle, published by Mr. Rivers on keeping Grapes in water. Having kept them myself as late as May, it may be interesting to know my treatment. Grapes were grown in a cold vinery, and I were of November 1867, and put in water in a tub of water with a tea-spoonful of a fine salt-water solution. I then inserted from 2 to 3 inches of the stem of the bunch in the neck of the bottle, if the stem

Garden Operations.

(For the ensuing week).

PLANT HOUSES

AMONGST Orchids, there are some varieties of Zygopetalum which have lately flowered, and which in a general way will have formed young shoots, or growths. These should receive every encouragement, by placing them in the lightest and warmest corner of any structure adapted to their wants. Oidium flexuosum will also be making fresh growth, and will need a like share of care and attention. I have frequently found that the few Orchids which thus stand against our best efforts to check them, upon forming fresh growths at this dull season, are very much exposed to the attacks of nocturnal and other pests, their young and tender roots being instinctively sought after by wood lice, cockroaches, slugs and snails; the latter to protect them, it is at all times advisable to place them over pans that are constantly filled with water. This has its usefulness in other ways, where it may not be convenient to syringe the plants, or to afford a general body of atmospheric moisture around them, the slight amount of evaporation constantly going on will prove a valuable assistance to the young growing roots. I have found that the pretty Cypripedium-like Labium floribundum adapts itself to almost any form of treatment. It may be grown with ordinary care in any cool greenhouse. Whilst in the stove or intermediate house it quickly forms compact, neat, bush-like plants. Large plants, when attainable, will prove at this season invaluable for conservatory decoration. They form a most delicate and a good succession may be kept up constantly, if needed. Except to push forward a few very early ones, such forcing is not necessary, as they were last month in full bloom. I have a plant at the present time some three feet high, and as much in circumference, which is very gay. Old plants of Tydaea, which have just ceased flowering, should be cut down, if good strong young growths exist at the base. Give the young shoots every encouragement to grow, and any that are sufficiently large and are easily raised from the mother plants, may be at once separated, and potted in separate pots. They delight in an admixture of peat, leaf-mould, and silver sand. As the days wear on, and the light and the sun gains more power, give attention to the stems and similar structures. Give early attention to draining and close the gutters, and water every day by one check. By stopping it is possible to secure a few degrees of heat from the sun's warmth.

FORCING HOUSES

Take advantage of every ray of sunlight in this department to afford more air, with which a larger outlay of moisture will be possible. Light and air, it should be understood, are the two prime movers in all cases pertaining to the growth of vegetation; and moisture is the valuable and necessary ally, and can only be made use of, and turned to successful account, according to the amount of heat and air. It is well to try and check the tendency to over-watering, by means of moisture or rain, that may be supplied by the leaves in the process of elaboration, which goes on but slowly at this season even with the best of glass. Excess of water at the root deranges the delicate spongy cells, which are forced on to, and in contact with, the leaf surface, even should it not cause damping or decay, does cause injury to the delicate organism, however minute or inappreciable it may be. Be particular, in increasing the amount of moisture with that of the light, not to give a too great proportion of the former. The whole surface foliage of forced plants should be perfectly dry once at least in every twenty-four hours. Should we be favoured with more sun, it will be observed that many of the forced plants will flag. This in the majority of instances will not be caused by exhaustion brought on by want of water, as many would surmise, but rather from inability to withstand the sun's increasing influence. Afford in all such instances a slight shading for about half an hour at a time, when the better to surmount such trying periods. Figs in pots intended for an early supply of fruit should now be plunged into a good bottom-heat of from 70° to 75°. Do not water them too freely at this season, and be particularly careful to make. But these and all other subjects similarly treated, and more especially deciduous plants, are benefited at this early stage by being constantly syringed previous to the actual formation of leaves. One of French Beans, which have been sown a week or two back, will have assumed the rough leaf by this time, and will therefore require shifting into 16 or 21-in. pots. They should be sown in rows, and sown with properly decayed manure. They should be potted rather early, taking care to give them to bury some part of the roots in the soil, and rather drawn footstake in the front, so as to gradually afford them as much light and air as possible.

HEAVY FLOWER GARDEN

Tulips planted out in open borders and beds have already the tips of their leaves peeping through the ground. Where vacant plantings exist, no delay should occur in placing the necessary materials beside them, or to land, ready for their protection should frosts arrive. The fancy only know how much the after-beauty is destroyed by attention to these matters. The old, but very beautiful, Grape Hyacinths, are already some inches above ground, which is very early for them, and which is an excellent opportunity to transplant them where necessary. An dried roots of such bulbs as Crocus, Anemone, &c. should now be planted if they are required to flower this season. These and other similar bulbous plants, which are now showing through the ground, may also be taken up, and safely replanted, by all who contemplate any re-arrangement.

HARDY FRUIT GARDEN

Proceed with the pruning and nailing of Morello and other Cherries upon north walls during mild weather. The young wood, especially of Morello, with flower-buds attached, should all be retained, if not too thick. Remove with a sharp knife all old fruiting portions which do not seem likely to bear again, or which may be replaced by younger and more healthy shoots. I have observed black-fly still alive upon some Cherry wood, so that without rather severe weather ensues, resort must be had to the winter dressing of these amongst other things. Plums should be pruned but sparingly when the trees are established and have filled the necessary vacancies. It should be borne in mind that the fruit is formed upon the short spurs which emanate from branches a few years older than themselves, these old branches must, therefore, be retained, if fruitfulness is intended; should the formation of fresh and younger wood be required, the removal of these in part, or wholly, will of course be necessary.

KITCHEN GARDEN.

Where Rhubarb and Seakale are forced in Mushroom-houses, or other similar places, it is advisable to take up a good seasonal supply of crowns or stools to store away in some protected place, preliminary to their being wanted on an early day. This will tend to advance them a stage, in the event of frosty weather setting in. It is not advisable to take them up when the ground is more or less frozen, as then the sudden extreme from cold to heat will prove injurious in its general effects upon them. A seasonal light or two of Asparagus will also be needed with the necessary roots, to succeed those now showing. Attend to any draining operations in contemplation, water the soil, holds too much stagnant water, and embrace the opportunity to burn up a bit of brush or heaps of waste. H. E.

TOWN GARDENING

The principal operation to be performed now in the town garden is the preparation of the soil. I shall therefore in the first place, call attention to this subject, for without a good soil, the best and most careful culture will be less a success. It is quite certain that all the parts of plants are enlarged during summer by the nutriment taken up by the roots. Not only is the soil in the course of time exhausted, by the plants withdrawing all the essentials of vegetation, but it is often naturally poisoned by soil and cats and dog with the accumulated rubbish of years. In our large towns, therefore, as much of the old soil as is unfit for vegetation must be removed, and its place supplied with fresh loam—the stiffer the better, so that it is not actually clay, with a mixture of rotten dung. I prefer good stiff loam for town gardening for this reason—the neighbourhood is so limited by sewers, pipes, &c., that the percolation of water goes on at too great a rate. I therefore recommend the use of stiff loam and mulch, and over the roots. The dry atmosphere and influence of the sun is very prejudicial to vegetation, we miss these sadly by day so essential, but so seldom experienced, in towns, and to compensate for this as much as possible, syringing over the tops every fine evening should be had recourse to, and this, with a removal of the soil, will have a tendency to purify the atmosphere. By mulching the roots and syringing the tops, and making a suitable selection of plants, every lover of gardening may succeed in growing and keeping plants even in the most confined spots where it has hitherto been thought difficult to keep them barely alive. This is also the time to attend to the Irish Ivy which is one of the most useful plants for covering walls. Now it close and take off all superfluous stems of old plants and press down close to use used for coverings. Hyacinths which were put in the autumn, and set in a dark place, should now be brought to the light, and the glasses filled up with soft water. Plants in frames should be kept dry and clean, and have plenty of air; they must also be well protected from frost. J. D.

STATE OF THE WEATHER AT CHISWICK NEAR LONDON

Table with columns for Date, Barometer, Wind, and other weather metrics. Includes a summary of the week's weather and a note about the temperature during the week.

STATE OF THE WEATHER AT CHISWICK

Table showing the state of the weather at Chiswick during the last 41 years, for the ensuing week ending Jan 7, 1891. Columns include Date, Average, and other weather-related data.

Large vertical table on the right side of the page, likely a continuation of the weather or agricultural data, with many columns and rows of numbers and text.

Notices to Correspondents.
DECEASED COOPER: F. C. The post...
NAMES OF PLANTS: W. T. Begonia Dregel, alia...
H. P. We cannot guess what plant it was you saw...
P. M. peltis Billardieri, 2, Athyrium Filix-foemina...
P. M. We cannot undertake to recommend...
See our advertisement columns.

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See Gardeners' Chronicle, page 1345, Dec 26, 1868, from which the following is extracted - "The crop (of Bromus) was perfectly satisfactory as regards both the quantity and quality of its produce. The Horsekeepers buying it preferred it to Italian Ryegrass, and the Farmer - being it was very much inclined to agree with them"

F. DAVIS, Esq., Pubright, Guildford, writes -

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"I purchased some seed to test its value, and it occurred to me that a report of my experience might prove of interest.

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The Agricultural Gazette. SATURDAY, JANUARY 2, 1869.

Is anybody satisfied, or ought any person to be satisfied, with the existing CONDITION of AGRICULTURE and of agriculturists in this country?

Rents, indeed, are gradually rising, and the value of land for sale is increasing even faster than its value to the tilling tenant. The landlord, therefore, probably least of all has reason to complain. His social supremacy remains unchallenged, his wealth increases with every agricultural improvement, and, as just suggested, it is still more influenced by every addition to the wealth of all other classes. For the advantages of his position - whether its political influence, its personal endowments, or the enjoyments of life within its reach - he is envied even more than ever hitherto, and on all these grounds he is quite as much as ever to be congratulated. And though even he is often shackled and disabled by conditions very much of his own creation, which interfere with the immediate serviceableness of his property, and which damage his power to deal with the responsibilities he has to bear, yet we cannot suppose that he has much reason for the complaint suggested in our opening sentence.

Come now, however, to the tenant of his land. No doubt country homes are as comfortable as ever, rents are paid with promptitude enough, and wages are paid at least as easily as they used to be, and we do not suppose that any one will say the condition of things as regards the farmer has suffered upon the whole during the past quarter of a century. On the contrary, there has been improvement, but it has been improvement of a kind which only indicates the character and quality of the progress which is still required. In all the materials of his occupation he is no doubt better off than five-and-twenty years ago. Drainage Companies, created by Lands' Improvement legislation, have been at work for him. Many hundred thousands of acres have had their fertility immensely increased, and many hundreds of farms have been equipped with buildings properly adapted for an increased and more valuable stock and crop. The manure importers and manufacturers have been at work for him. Millions of tons have been added to the staple of English soil, during all these years, of just those ingredients on which its fertility depends, and in which it is naturally deficient. Implement makers have been at work for him. His land is cultivated, and its products are dealt with, more effectively and economically than was formerly the case. The ordinary plough is an implement of easier draught, and of increased efficiency. The steam-plough is now our willing and efficient servant, and hundreds of farms are testifying to its powers. The flock-master and the cattle-breeder have been at work for him. The means of economically consuming the green produce of his land are, if not cheaper than they used to be, at least better and more abundant, and this great division of his business - the meat manufacture - has been improved by the supply of imported cattle foods, as well as by the power of using better stock. Certainly in all the material details of his occupation the farmer is better furnished and more capable than he used to be. But as to his position socially, while that of

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The best EARLY PEAS in Cultivation is DICKSON'S 'FIRST PRIZE' EARLY PEAS, which are raised at the FARM, one of our best seed farms, and are raised from the best stock.

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advancement of our other green crops I may mention that I was first induced to eat the Grass on account of my pony showing symptoms of illness, and having his ordinary food, and I was gratified to find Bromus greedily consumed." James Carter & Co., H. H. ... B. C.

Societies.

COVENTRY.—At the 25th anniversary of this Society, which was celebrated last week, there was some useful agricultural discussion, which we extract from the columns of the Coventry Chronicle. SUTTON WESTERN, who presided, referred, among other subjects, to that of game. He felt as strongly as any man that no one had any right to keep up an estate with a large number of hares or rabbits, he might call it a sporting estate, but it was not only of no use to the land, but it was a great expense to the landowner. He said he was very glad to see something done to remedy the abuses under which the tenants were labouring, and he thought the landowner would be in a better position if there was not such a multiplicity of hares and rabbits as seemed to run about in parts of the country. There were no new doctrines of his, or much of any kind, always entertained, and anybody who knew anything about their family estate knew how to manage it. The great desire of the owner of the estate was, that no rabbits to any extent should be preserved, and that many tenants on the estate should have a right to the land. If any excess of four-footed animals, he had no objection to make his complaint, and it would be remedied at once.

Mr. MERRITT, who was the answer to a personal toast, said as this was an agricultural meeting it might not be amiss if he said something about agriculture. His object in improving his farm was to increase its profit, and he laid it down as an axiom that he thought should always be accepted as a rule, that anything done in agriculture that did not pay for itself was not worth doing. There were several things which were left undone in agriculture that could be done, but they were neglected, because they would be profitable. He knew there was there among some of the very best farmers in England he meant as far as regards the cultivation and cultivation of the soil, but if he asked whether they had studied their own profit and the greatest amount of money they could get out of the land, he would find a good deal to learn with regard to the management of the soil. He said that very recently, and he named one point on which he thought they were short-sighted. Every farmer of 800 acres or less should have a little fixed steam engine for the purpose of preparing the food for his stock, or for grinding corn, and doing things of that sort. He said that he had six or seven hundred acres of land, sent to him, and he had a profit of £1,000 a year, and he had a fixed steam engine of 6-horse power for 150l. and with it he could work his chaff-cutter, his pump-outter, cake-breaker, grinding-mill, threshing-machine, &c., if he chose, and pump all his water in what was his annual cost? In his own case, he had a fixed steam engine of 6-horse power, and it cost him £1,000 a year. Those who have sent him to be ground were therefore foolish, and he was speaking of a great mistake, he was speaking on the subject of a fixed engine as he had a portable one. He told him he always cut his own chaff and employed two horses constantly at chaff-cutting. He immediately pointed out to him that the cost of it would be at the least 50l. per year, besides the cost of a larger expense than he (Mr. Mechi) for the work of his farm. That was clearly a mistake, he was speaking of every man with the large quantity of a fixed engine. Generally speaking, agriculture was progressing tolerably rapidly. He looked at the cultivation of the soil, and he believed as they did more and more accustomed to it, its progress would be very considerably extended. He was gratified at seeing from his dining-room window that his neighbours using steam cultivators, and he was glad to know that one of them was ready to come to his (Mr. Mechi's) land when he required it, for it was hardly answer to purpose to have another engine on the farm. As regarded the preparation of food for the cattle, he had received from Glasgow a sample of some of the best Beans, Peas, Italian Corn, and so on, and this was sent very largely from Glasgow to Aberdeen for sale by those fine fat bullocks with which the Aberdeenshire farmers supplied the London market. His own experience was greatly in favour of feeding food for cattle, and this year, with some bullocks and 300 or 400 sheep, he had no difficulty

in finding food, in spite of the small supply of roots, and he still had enough roots to last three or four months. If they wanted confirmation of what he said, he could show it to them. This was not the time for detail, but on taking up a Scotch paper he found that one very intelligent farmer had put up a fixed engine and cooked all his cattle food; and this was a very important point for undoubtedly stock must be the sheet-anchor of the farmer—not for its direct profit, for he did not believe there was any direct profit in feeding stock, but he was sure from 25 years' experience that the more stock they kept and the more stock they fed with something that did not grow on the farm, the larger would be their crops of corn and other produce. One weak point in agriculture was that there was not meat enough made on their farms to produce a large quantity of manure. He thought they could not complain of the price of their meat, for at this very moment they were selling it at 8d a pound in the carcass, and if it were true that 7 lb. or 8 lb. of cake would make a pound of meat they might lose a little by cattle feeding directly, but indirectly it was the cheapest way of obtaining manure he knew of, and far superior to guano and artificial manure generally. As a rule, farmers do not keep half stock enough. Then came the question, whether their landlords would not help them a little in the improvement of their buildings for the increased quantity of their stock. He believed the old open farmyard mast, as a source of profit, be given up. Their bullocks should not go out into the open, neither should they be in an open yard, and if anybody doubted this let him read Professor Voelcker's analysis of farmyard manure, in which he states that the best parts of the manure are rendered comparatively worthless by allowing the water of heaven to fall on it, and wash out the solutions down the brooks. These were improvements that ought to be adopted on every farm in the kingdom, and if they doubted it let them try them on a small scale. For instance, a man might rent a shed for 20 bullocks for 15l. Let him pay his landlord 6l. for it, and keep his bullocks and his manure under cover, and he would soon see the advantage of it, and would find his crops considerably better than when he used manure from an open farmyard, or artificial manure. He begged to thank them for the patience with which they had listened to him, and for the honour they had done him in drinking his health on that occasion.

Mr. HILLS, the secretary, said—As regarded the remarks of his friend Mr. Mechi, he had not a fixed engine himself because he held two or three farms, which though in the same parish, were a little distance from each other, and therefore he had a portable engine. He must say that as yet he had not found engineering cheap work, though he did not know how it would be in the end. He had no doubt that a portable engine could be bought as cheaply as a fixed one.

Mr. MERRITT—No.

Mr. HILLS said that was matter of opinion. A portable engine could be sent round to their neighbours, and his (Mr. Hill's) engine could be had by anybody when he did not want it himself.

Mr. MECHE.—Do you grind your corn for your cattle?

Mr. HILLS said yes, of course he did, but he sent it to the millers, where it was properly ground. He had a friend in his neighbourhood who had a fixed engine, and had attempted to grind his corn, but he had been obliged to give it up and go back to the miller. What did farmers know about grinding? They knew a good deal more about grinding. If they let the farmer and miller be one they would rub on together very comfortably, but for any man to monopolise three or four trades he didn't think was right at all.

The CHAIRMAN proposed "The health of Mr. Catchpool," with thanks to him for placing his land at the disposal of the Society.

Mr. E. CATCHPOOL said, considering the state of the land, he had never seen the ploughing done better. The boys' work was remarkably well done, and one little boy, hardly higher than the ploughstaff, was almost equal to some of the men, showing what a lad might do by application and attention. As to the digging he was sure every one present must have felt proud of the way in which the men went to their work, they dug pretty nearly 14 inches deep, and he had no doubt he should have the benefit of it in his crops. The vegetables were very good for the season, the Potatoes particularly so, and he thought he might say that their poorer neighbours understood the cultivation of things of that kind as well as any labourers in the kingdom. This Society was not established for the benefit of the farmers. It did not give prizes for fat bullocks or big Mangels, but was intended to benefit their poorer neighbours. Farmers did not come there to praise each other, and, indeed, he had sometimes thought that they rather came to abuse each other. He was not yet convinced that a fixed engine was cheaper than a hired portable one. He once had an engine of his own, but he found the repairs were so enormous that he thought it was better for somebody else to pay for the repairs and bring the engine to him to do his work. He happened to drive through Mr. Mechi's farm about the beginning of harvest, and there he saw a hired portable engine knocking out the sacks of Wheat by wholesale. "Halloa," he said, "here is Mahomet come to the mountain;" and he asked the man about it, and was told that he had persuaded his master to hire it as he thought it was cheaper. When he got to Mr. Mechi's house his friend told him they had just stocked 600 quarters, but he (Mr. Catchpool) certainly could not understand why he had done it in that way if a fixed engine was cheaper than a portable one.

Mr. MECHE said what his friend had stated was quite true. He hired the engine for two or three days, but, as he afterwards explained to his man, the cost was taking a very moderate figure, 3l. a day, and he had

to fuel coals, and as they worked their engine 160 days in the year, that would come in a year to 190l., whereas it only cost him 32l. a year for coals for his own fixed engine.

Reviews.

First Report of the Commissioners on the Employment of Children, Young Persons, and Women, in Agriculture. Her Majesty's Stationery Office.

In this Blue Book we have first, the report of Messrs. Fremantle and Palfreer, Her Majesty's Commissioners, in which they recapitulate the topics of the inquiry, discuss in detail the reports of the Assistant Commissioners, and refer in particular to the allotment system, the effect of inclosures upon the condition of the labourer, and the condition of the cottages in which, for the most part, agricultural labourers live. The second part of the book includes all the district reports received from the assistant inspectors, and to a few extracts from the first of them, that of the Rev. J. Fraser, who visited the counties of Norfolk, Essex, Sussex, and Gloucester, we shall now direct the attention of our readers.

The Education of Country Children.—Instead, therefore, of appearing, with very doubtful prospects of success, the regulations of the Factory Acts to agriculture, I should like to see, as the Commissioners of 1861 wished to see, the Factory Acts themselves revised. I am satisfied that the age of 8 is too early, on physical grounds, for children to go to constant work, I am satisfied that the age of 8 is too early, on educational grounds, for them to commence half-time or periodic attendance at school. But whether the Factory Acts are thought to require revision or not, it will be seen by any one who cares to peruse the evidence that I have collected, that it is the almost unanimous opinion of every person and body of persons who have expressed opinions upon the subject, that the best mode of promoting the education of children in agricultural districts would be (1) to prohibit their employment on the land under the age of 10, (2) to make provision for securing their regular attendance at school for the five years preceding that age, and in several cases the suggestion was added that (3) to prevent the possible loss, by disease, of what they had attained, the children, when emancipated from entire restriction, should still be required to fulfil a certain amount of winter attendance—say 150 hours—either at day or night school, for two years more. I should add that not only do farmers think that this mode of dealing with the subject would be the mode least embarrassing to them in the cultivation of their land, but that managers and teachers of schools declare that they could do more for the children's education in this way, than they could hope to do if regular attendance ceased at 8, and intermittent attendance took its place till 13. My own opinion, formed upon an experience of 20 years as manager and (to a considerable extent) teacher of a rural school, entirely coincides with theirs. It is the opinion of the teachers particularly, that irregularity of attendance is the most formidable difficulty with which they have at present to contend,—children kept at home for all sorts of frivolous purposes by the parents, or withdrawn for all sorts of varying lengths of time by the farmer, and that a child kept constantly at school till 10 ought to be able to pass in the Government's Fourth Standard, indicating an amount of attainment which, though something of its completeness may be detracted by the friction of life, is likely, in its main elements, to stick to him to the end. I found a perfect agreement amongst the farmers that, whether his education makes him a better labourer or not, every English labouring man ought to have placed within his reach the opportunity of education, and that his education ought, at least, to extend as far as the power to read, to write, and to cipher, and the admission was very frankly made that the present general standard of attainment is far below this. I entirely go along, also, with the opinion very frequently expressed, that the ability to write and to cipher are of secondary importance compared with the ability to read. They can be easily and quickly secured, if the desire exists, at almost any period of life, and there will always be abundant motives for securing them; but the power to read, if not acquired in youth, is rarely acquired with any facility at all, while it is, emphatically, the key of all subsequent knowledge and self-improvement. And there is a certain analogy between the capacity to read and the capacity to swim. A man whose mastery of this useful accomplishment, when a boy, was limited to the power of sustaining himself in the water for half-a-dozen strokes, and whose practice stopped there, if he should unhappily fall into deep water 20 years afterwards, even within easy distance of the bank, would infamously be drowned; but he who has once accomplished the feat of swimming across the Thames will find that he has endowed himself with a power that he will never lose. So too with reading.

Agricultural Cottages.—"I am happy to say that at all my meetings the farmers were quite as loud and outspoken as the clergy in denouncing the mischievous results of the present condition of too many English cottages. It was unanimously agreed to, again and again, that every cottage inhabited by a labourer with a mixed family ought to have three bedrooms. It was more than once suggested that something in the shape of a Building Act should be introduced which should require a certain proportion of the cottages of every proprietor to have this amount of accommodation. Inspection of cottages by an independent officer like the ex-justice, who should have power to limit the number of the inmates in some proportion to the number and cubical capacity of their rooms, was in many cases urgently advised. While still stronger, perhaps, and, under the circumstances, even more natural, was the feeling of the farmers about "close"

fishes. Indeed anything more selfish, and, I will venture to say, wicked, than the motive which led to the creation of such parishes, it is difficult to conceive. They arose from a desire to rid one self of a just share of a burden which is only tolerable when borne by all equally. Mixed with this was a desire to get rid of an eyesore and of a nuisance, of people intruding upon the squire's privacy or disturbing his game. Added to which was an utter abolition of all moral and social responsibility in respect of those whose labour was producing our wealth, and whose strength and muscle was being worn out in our service. By the change in the law of settlement, it is true, *non est tunc change fuit causa*. At least we have changed the principle, though it will be long before we have undone all the effects of the practice. Just now a righteous Nemesis has fallen upon the creators of these parishes. They find their rates increased three and four-fold. They sometimes experience a difficulty in letting their farms. I am informed that a farmer's question when he comes to look at a farm no longer is, 'What are the rates?' because he knows they will be equal throughout the union, but 'How many cottages, and what supply of labour can I command?' Tenants are beginning to fight shy of farms without cottages, and of a labour supply that has to be fetched three or four miles. It would be almost a less loss and a less inconvenience to a farmer to go that distance after his water. The proper proportion of cottages to each 100 acres of land depends very much on the nature of the soil, whether heavy or light, the mode of cultivation, whether arable or in grass, and the kind of labour employed, whether chiefly adult male, or that of women and children too. In the dairy district of the Vale of Berkeley one or at the most two cottages to the 100 acres is considered a sufficient supply. In Essex and Sussex where female labour is less used four cottages is the proportion desired. In Norfolk and on the Cotswolds, from two and a half to three. Heavy land requires more labour than light arable land than pasture, a district that produces corn than a district that produces butter and cheese, while the labour of women and children, of course, to a certain extent displaces the labour of men. I consider, however, that in an average district, where the farming is of a mixed description and the labour employed mixed, three cottages to 100 acres would be an adequate, perhaps almost an excessive, proportion.

The Statute Law.—The system of monthly hiring, which is the rule of domestic service as applied in farm labour whenever workmen are engaged for the purpose by time at all to the ordinary instance of the harvest. Those who are emphatically called farm servants are hired mostly by the year. This applies chiefly to the labourers without whose services the farm could not be carried on for a single day, and whom, therefore, the farmer considers himself obliged to secure by bonds not easily broken—the shepherd, the carter, the stockman, the ploughboys, the dairymaid. The usual periods of such hirings are in the spring, or, more commonly, in the autumn; and, where those abominations exist, the transaction generally takes place at the 'mop' or statute fair. I believe that in law a verbal agreement, if it can be proved, is as valid as a written one, and as a matter of fact, the terms of the contract are seldom put upon paper, what weighs most on the mind of the young farm recruit, and impresses him with the strongest sense of obligation, is the mystical shilling which passes from the palm of his new master into his own, and which may be regarded as the agricultural sacramentum. These yearly hirings appear to me to operate ill in many ways. The statute law, which is one of their accompaniments in many counties, in Gloucestershire to wit, is one of those ancient customs which, however out of keeping with our present state of civilization, however tending in their modern abuse, still hold their ground in this conservative country, simply because they are ancient. A contract entered into between two parties, each probably previously a stranger to the other, and in which small account is made of character on either side, cannot but too often issue in a result unwelcome to both, the servant and he has got an unsatisfactory master the master that he has hired an unprofitable servant. The boys often run away, and the master does not thank them worth the cost and trouble of a pursuit.

Mr Fraser's report is full of information and suggestions on education, cottage accommodation, modes of hiring servants, the multiplication of beer-houses, the system of larceny and harvest frolics, the preservation of game, and the co-operative system applied to agriculture, and to those, and the topics of the other reports in this valuable Blue Book, we shall draw attention from week to week.

Farm Memoranda.

ESTATES IN GALWAY AND IN MAYO.—I will select four estates, two in the county of Galway and two in the less favoured county of Mayo. The two in Galway are Creggs and Glynck, now the property of Adlan Pollock, Esq., a resident proprietor, and in Mayo, the two extensive estates of Lord Dillon and the Earl of Arran, both generally absentees. I select these, not alone because I have been long and intimately acquainted with them, but also because the late management of the Galway estates has been the greatest possible contrast to the management of the Mayo estates.

I will begin with the Galway estates, where I was professionally engaged to value and report upon about 15 years ago, pending a sale in the Encumbered Estates' Court, just prior to Mr Pollock's purchase of both. The state of the people on the lands of Creggs I found to be bad enough, but certainly not worse than I had seen on other properties. But when I came to the Glynck division—the arable land of which is natural good, and the reclaimed land equally so—the condition, both of

the people and of the land, was indescribably wretched. Seeing this I lingered longer than might under other circumstances be necessary for my general inspection to ascertain the fundamental causes of such a wretched state of things, and I learned from both clergyman and parishioners that such industrial improvements would be carried out, and such an increase of rent would be undertaken, as I would advise. Notwithstanding, however, my successful experience in such matters previously, I, on mature consideration, advised my principal to have nothing whatever to do with the property, and Mr Pollock coming in soon after, purchased the two estates of Glynck and Creggs, and the agricultural world has since heard much of both. On the latter he effected such improvements as Ireland at least had never before witnessed but with what pecuniary results to himself the public are not now, I fear, likely to be made acquainted, whilst many political economists believe that the same or even a far less expenditure of capital on smaller farms would have contributed far more to the wealth and strength of the nation. Some even go so far as to say privately, what they would not do publicly in proving publicly, that Mr Pollock's speculative improvements have been to him personally a losing game.

Mr Pollock's large farms and expensively large homesteads can hardly be productive of such gains as if the manufacturing capabilities of the district had been also utilized. Nor should we now in all probability be hearing as we do, that Mr Pollock is advertising to be let four townlands varying in extent, of farms from 100 to 1000 acres splendidly supplied with farm buildings, and 4000 acres on the Glynck estate less expensively equipped. Let me now take a turn into Mayo, and give a short notice of the two estates already named there with which I am more intimately acquainted. Lord Dillon's property in Mayo contains nearly 100,000 acres and on the whole of this vast range there were not, when I was professionally engaged on it, nor have I any reason to think there are yet, 12 farms that would average 50 acres each, nor 12 ploughs, 12 carts, or 12 horses that an English or intelligent Scotch farmer would call worthy of their names. At that time the only farms that could not be profitably let were a few of the very best parts of the estate. In fact there was not an estate in England, or perhaps I might add, Great Britain, on which the rents in all cases fair ones, were more unjustly paid. This happy state of things arose from the simple fact of having the estate managed by an agent and his subalterns who knew their respective duties and had them executed with strict justice to both land and tenants. Instead of clearing off the small holders, though in some cases previously all but pauperized by middlemen, till then so common in Ireland, each of them had his farm well tilled and revalued, and for approved improvements by themselves ready money was paid by the agent. Beyond this, although the re-adjusted rents were fully 50 per cent less than they were under the middlemen yet each townland was raised from 25 to 50 per cent higher on the landlord's rent-roll than they used to stand.

I have now but to add a few words in regard to the Earl of Arran's estate Mayo. I am led to understand that when his lordship came into the management of this estate both it and its occupants were in a condition socially as bad as those on the Glynck estate when I inspected it. When I last saw Lord Arran's property, in adjudicating on the merits of his tenants for prizes offered by his lordship, those tenants were in a state which might well be copied anywhere. How did his lordship in a few years—some of which were the worst for such purposes, effect these extraordinary reformations? Was it by ejecting tenantry and expelling thousands of pounds in clearing and enlarging farms, and building partial homesteads? Was it by paying the tenants for leaving their little holdings, as on Lord Dillon's property? No, it was first in getting rid of harpers that lured them and robbed them secondly, in having their farms and rents re-adjusted and finally by giving them practical instruction in the reclamation and culture of their lands, without expending one penny in such improvements beyond the salaries of the two instructors engaged, and the prizes for merit already alluded to.

Now as Ireland is believed to be on the eve of a social revolution, would it not be well to have the foregoing crudely-expressed facts well studied by your great English capitalists? They are seeking for certainly less profitable investments in other countries. Let them first consider how far such investment could be made in Ireland, and thereby help to strengthen the United Kingdom while benefiting themselves. *Finis.*

NORTH RIDING OF YORKSHIRE. Dec. 20. Two months, now near the close has been unparalleled for the amount of rainfall and unseasonably mild weather. A sudden change has, however, now taken place, and as we write the snow flakes are flying, and we have a cover of snow about an inch in depth.

The weather in one respect has been favourable for stock, inasmuch as on dry porous soils the warmth has induced a growth of grass, and tended to eke out the short crops of roots; but on the other hand, owing to so much rain sheep stock have done very indifferently during the month, and this more especially on high-lying situations. Should the storm be a lengthened one, all sorts of fodder will run high, and the question will be—not how to fatten either sheep or cattle, for few are attempting that, but how to find food to keep them alive.

Catch crops of Rape, &c., of which so much was expected, have, in this district at least, proved a failure. In our own case we had the oats stocked at wide intervals, and immediately the corn was cut had the stubbles cultivated and sown with Rape, applying 2 cwt. of guano as manure, and although the seed was sown before the 12th of August, the crops have proved

meagre in the extreme, and we are of opinion that some money spent in cake would have proved a better investment. Some of the Turnip fields on the plants had failed were resown with Golden Wonder Turnips about the same time, but with no success.

Fat cattle and sheep are now in few hands, the carcasses of another month will be very scarce. Christmas beef has made from 8s 6d to 10s 11d, and mutton 8d per lb.

At our low lands have been laid under water on some of the non-drained and badly drained soils the excessive wet has damaged the Wheat, but on dry porous soils it looks well. My own experience proves the last Wheat crop to be an average yield. *H. J. M.*

The Poultry Yard.

THE MANCHESTER POULTRY SHOW

We have to report progress, and that progress, on a show that, in the face of many difficulties, holds its own right manfully. The imposing list of patrons and vice patrons, and the imposing committee, are alike wanting from the list of the Manchester show. George Jenkinson, Esq., *et cetera*.

The eighth Christmas meeting, which closed on the 28th Dec., was characterized by the competition of birds of unusual merit. Judging from catalogue one would imagine that the best birds from Birmingham and Liverpool combined their forces at Manchester. In the 1st class for Dorking cocks Admiral Hornby took the first prize, followed by Messrs. Longwell and Martin. The exhibitors at Manchester and Mr. Statter's contented themselves with consolation, every one knew that competition was more than keen. In the class for hens, the same exhibitor won first, Mr. Gibson second, and the Duke of Newcastle third. The prizes were distributed among exhibitors who assisted to better fare. Mr. Statter, of Stratford took first in the class for Dorking cockerels with a grand bird, one that is likely to be heard of some day. Ryder took the second prize, and Mrs. Arkwright 3d. The competition in Dorking pullets was very keen indeed, the quality of the hens very high, Mr. Wright, Admiral Hornby and the Hon. H. W. Williams took the prizes in the order in which we passed them. An examination of the birds will give evidence of the great amount of merit in the Dorking fowl in production to its breed.

Mr. John Martin and his wife the Duke of Newcastle took 1st and 2d for the rose-combed Dorking. The class for silver grey Dorking cocks brought out one adult bird—at least no bird was in the catalogue as over one year. This colour of Dorkings is not a satisfactory one to those who see these birds with agriculturists' eyes. Uniform feather is very pretty, and in some breeds, such as the Dorking it is nearly always obtained in quantities of some quantity more valuable. Mr. Wright was the winner for cocks, and Mr. Kames for the silver grey classes at Manchester.

The class for white Dorkings was a failure, winner Mr. Longwell, a breaker, to whom at poultry shows is a very heavy or erroneous result would very possibly have been the same. Competition here great.

We have no flock of fowls in which the success of certain strains is so fully exemplified as in the Spanish. We see exhibition of eminence, achieve success, and the strain becomes standard after as one from which to show or sale. There were 20 pens of these birds at Manchester and among the principal exhibitors were the Hon. Messrs. De la Penne, Lady Tessa, Comber Hall, &c.

In the class for red Game cocks, Mr. Wright was successful with a very fine specimen of Mapplebeck and White taking 1st and 2d. Mr. Julius Schmet took 1st, Mr. Mapplebeck 2d and 3d, and also 1st for pullets.

No one will be surprised to read that Mr. Wright was 1st both with cock and hen in the class for dark-coloured birds; Mr. J. A. Taylor was 2d with pullets. The show of white Cochins was very poor in number, but here, as at Birmingham the quality of the birds was very fine. The bird of Mr. Smalley placed 1st, and to the exhibitor went both 1st and 2d in the class for cock and pullets.

Mr. Julius Schmet may be well proud of winning such a class of Brahma cocks with Mr. Wright Greaves and the Rev. E. Alder 2d and 3d. Mr. Lingwood, Messrs. Pamfret and Hargreaves were the winners for hens and pullets.

The light Brahmas are working hard for exhibition, and find many supporters, but we do not see they can distance the pens of titos. Mr. Lucy took both firsts, Mr. John Pares 2d and 3d. Mr. Dawsett also two prizes.

The Polish fowls were not exhibited in two pens, and, we think, wisely. No doubt the exhibitor complains, but the breed loses rather than makes, and ready has but little to recommend it. It has been hard for Mr. Atkins' birds to find themselves anywhere but first—but so was it. Mr. Wright was 1st with a cock and 1st Mr. Senior for hen.

The Crows were an excellent, the prize names were known at an early date. The exhibitors of French produce Messrs. Cooper, Fitzwilliam and Co. and Worsley were successful.

Mr. Julius Schmet took 1st for Houdan, and J. C. Cooper for La Faisle. Mr. W. C. Brinley won 1st with a black-bone game cock, that was much admired. Mr. Board

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Everyone will be prepared to read that Mr. James was successful with brown-red game cocks. Mr. Aykroyd 1st for hens, and 1st for a young cock, and 1st for pullets.

For ducking game, Mr. Aykroyd for cocks, and Mr. Riggs for hens, Miss Sadler and Mr. John Halsall for cockerel and pullet.

Mr. Hensley was again a winner in the last class for game cocks.

The classes of Rouen drakes and ducks were well worth seeing and gave great satisfaction as well as much hard work to the judges, as nearly every pen was contested. Mr. Scatter was first with a giant drake, and Mr. Hensley with two ducks of unusual merit.

The Aylesburys were few, but the quality of them was the parent when we say that Mrs. Seaman's was the best.

A large and interesting class of waterfowl was very attractive to all visitors. Mr. Ley winning first for Mallards, Mr. John Jenkinson, 2nd and 3rd for Pintails and Canada geese.

The turkeys, geese, and pigeons must receive notice next week.

Miscellaneous.

The Royal Agricultural College, Cirencester. My own habits of thought and action induced me to give the fullest consideration I was able to the internal discipline and general arrangements of the college. After a long and careful examination of the college arrangements, I was naturally of opinion that the college arrangements were not only for its own sake, but for the benefit of the country. I was anxious to see the system of agriculture, not only for its own sake, but for the benefit of the country. I was anxious to see the system of agriculture, not only for its own sake, but for the benefit of the country.

Notices to Correspondents.

Experiment has proved that 100 lbs. of water will take up and hold 2 1/2 lbs. of water before it will set. It is found that 100 lbs. of water will take up and hold 2 1/2 lbs. of water before it will set. It is found that 100 lbs. of water will take up and hold 2 1/2 lbs. of water before it will set.

NEW HYBRIDIZED COLEUS SEED, &c.

Seed of the above obtained by cross hybridization from the finest varieties of 1868, 6s. per dozen seeds.

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The finest golden-leaved bedding plant offered in seed, from which it comes perfectly true, more even in growth, and less liable to form flower buds.

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Finest tall variety for effective bed, 6d. and 1s. per packet.

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The finest variety for bedding purposes, as the dwarfest, most compact, and most effective pure white leaved plant in the whole group. Vigorous seedling plants.

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The same List, with the Descriptive Flower Seed Catalogue, by the middle of January.

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- 200 HYACINTHS | 200 Garden NARCISSUS | 300 CROCUSES | 300 RANUNCULUS
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Half the above quantities, Two Guineas; Quarter of the above quantities, One Guinea; Eighth of the above quantities, 10s. 6d.

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SATURDAY, JANUARY 9.

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No. 2.—1869.]

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ROYAL HORTICULTURAL SOCIETY, 1869.

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TO BE HELD AT THE GARDENS, SOUTH KENSINGTON, W.

SHOW of HYACINTHS and SPRING FLOWERS.

SATURDAY, MARCH 13, 1869.

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1. 14 Hyacinths, distinct (Amateurs), £1, 10s., 10s.
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7. 6 Hyacinths, distinct (Amateurs), £1, 10s., 10s.
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9. 6 Hyacinths, distinct (Amateurs), £1, 10s., 10s.
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3. 6 Greenhouse Azaleas, distinct (Amateurs), £5, £3, £2.
4. 6 Greenhouse Azaleas, in pots not more than 13 inches in diameter (Amateurs), £3, £2, £1.
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6. 6 Roses, distinct, in pots not more than 13 inches in diameter (Open), £9, £7, £5.
7. 6 Roses, distinct, in pots not more than 13 inches in diameter (Open for exhibitors not showing in Class 6), £4, £3, £2.
8. 6 New Roses, not sent out previous to 1868 or 1867, in any sized pot (Open), £3, £2, £1.
9. 6 Show Pelargoniums, distinct, in pots not larger than 8 inches in diameter (Amateurs), £5, £3, £2.
10. 6 Show Pelargoniums, distinct, in pots not larger than 8 inches in diameter (Amateurs), £5, £3, £2.
11. 6 Fancy Pelargoniums, distinct, in pots not larger than 8 inches in diameter (Amateurs), £5, £3, £2.
12. 6 Fancy Pelargoniums, distinct, in pots not larger than 8 inches in diameter (Amateurs), £5, £3, £2.
13. 6 Zonal Pelargoniums, distinct—Nosegay and Variegated sorts (Amateurs), £5, £3, £2.
14. 6 Zonal Pelargoniums, distinct—Nosegay and Variegated sorts (Amateurs), £5, £3, £2.
15. 6 Nosegay or Hybrid Nosegay Pelargoniums, distinct (Open), £5, £3, £2.
16. 6 Fuchsias, distinct, in pots not larger than 13 inches in diameter (Open), £3, £2, £1.
17. 6 Herbaceous plants, in pots, distinct (Open), £3, £2, £1.
18. 3 Lilies, in pots, distinct (Open), £2, £1, 10s.
19. 12 Early Pinks, in pots, three or more varieties (Open), £1, 10s., 10s.
20. 12 Early Pinks, in pots, three or more varieties (Open), £1, 10s., 10s.
21. 12 Early Pinks, in pots, three or more varieties (Open), £1, 10s., 10s.
22. 12 Early Pinks, in pots, three or more varieties (Open), £1, 10s., 10s.
23. 12 Early Pinks, in pots, three or more varieties (Open), £1, 10s., 10s.
24. 12 Early Pinks, in pots, three or more varieties (Open), £1, 10s., 10s.
25. 12 Early Pinks, in pots, three or more varieties (Open), £1, 10s., 10s.
26. 12 Early Pinks, in pots, three or more varieties (Open), £1, 10s., 10s.
27. 12 Early Pinks, in pots, three or more varieties (Open), £1, 10s., 10s.
28. 12 Early Pinks, in pots, three or more varieties (Open), £1, 10s., 10s.
29. 12 Early Pinks, in pots, three or more varieties (Open), £1, 10s., 10s.
30. 12 Early Pinks, in pots, three or more varieties (Open), £1, 10s., 10s.

PLANTS CHIEFLY SHOWN FOR THEIR FOLIAGE.

- 34. 6 Fine-leaved Stove or Greenhouse Plants, distinct, including Variegated Plants (Open), £7, £5, £3.
35. 6 Fine-leaved Stove or Greenhouse Plants, distinct, including Variegated Plants (Amateurs), £5, £3, £2.
36. 12 Coleus, distinct, in pots not larger than 8 inches in diameter (Open), £3, £2, £1.
37. Echeverias, in or out of flower, distinct (Open), £3, £2, £1.
38. Pair of Greenhouse Yuccas or Bananias, &c. (Open), £3, £2, £1.
39. 1 Pair of Dracaenas or Cordylines (Open), £3, £2, £1.
40. 6 Agaves, distinct (Open), £3, £2, £1.
41. 6 Variegated Zonal Pelargoniums, distinct (Open), £5, £3, £2.
42. 12 Stove or Greenhouse Ferns, distinct (Open), £6, £4, £3.
43. 6 Stove or Greenhouse Ferns, distinct (Amateurs), £3, £2, £1.
44. 12 Hardy Ferns, species or varieties, distinct (Open), £3, £2, £1.
45. 1 Pair of Tree Ferns (Open), £4, £3, £2.
46. Collection of 12 Hardy Variegated Alpine Plants, in boxes 1 foot square each, distinct (Open), £3, £2, £1.

NEW PLANTS AND SEEDLINGS.

- 47. 6 New Plants, of any description in or out of flower, distinct (Open). Silver Flora Medal—Bronze Flora Medal—Certificates.
48. 1 New Plant, shown for the first time in flower (Open). Silver Flora Medal—Bronze Flora Medal—Certificates.
49. 1 New Plant, in or out of flower, not found in commerce (Open). Silver Flora Medal—Bronze Flora Medal—Certificates.
50. Seedling Florists' Flower, of any kind, named (Open). Certificate.
51. New Garden Variety, named (Open). Certificate.

Nov.—The Certificates in the Classes of New Plants will be awarded by Judges selected from the Floral Committee.

MISCELLANEOUS.

- 52. Miscellaneous Plants or Flowers, not specially invited in the preceding sections (Open), £3, £2, £1, 10s., £1, 10s.

FRUIT.

- A. Pine-apple, any variety, £2, £1 10s., £1.
B. Grapes, Black, single dish, £2, £1 10s., £1.
C. Grapes, White, single dish, £2, £1 10s., £1.
D. Peaches, single dish, £2, £1 10s., £1.
E. Nectarines, single dish, £2, £1 10s., £1.
F. Apricots, single dish, £1 10s., £1, 10s.
G. Figs, single dish, £1, 10s., 10s.
H. Coorries, single dish, £1, 10s., 10s.
I. Strawberries, single dish, £1, 10s., 10s.
J. Melon, green-fleshed, £1, 10s., 10s.
K. Melon, scarlet-fleshed, £1, 10s., 10s.
L. Miscellaneous, for Fruit not mentioned in Schedule, £1, 10s., 10s.

Nov.—A dish of Grapes to consist of 3 bunches; Peaches, Nectarines, Apricots, and Figs, of 6 Fruits each, and Strawberries and Cherries of 50 Fruits each. All fruit must be ripe and fit for table. The Classes are all open.

Certificates of the Fruit Committee will also be awarded, at the discretion of a Sub-Committee of that body, to any meritorious object not eligible under any of the above Classes.

GREAT ROSE SHOW, TUESDAY, JUNE 23.

The National Rose Show is incorporated with this Exhibition.

- 72. Cut Roses, distinct, 1 truss of each (Nurserymen), £5, £4, £3, £2.
73. Cut Roses, distinct, 3 trusses of each (Nurserymen), £6, £4, £3, £2.
74. Cut Roses, Hybrid Perpetuals only, distinct, 3 trusses of each (Nurserymen), £4, £3, £2, £1.
75. Cut Roses, distinct, 1 truss of each (Amateurs), £3, £2, £1, 10s.
76. Cut Roses, distinct, 1 truss of each (Amateurs), £3, £2, £1, 10s.
77. Cut Roses, distinct, 1 truss of each (Amateurs), £3, £2, £1, 10s.
78. Cut Roses, distinct, 1 truss of each (Amateurs), £3, £2, £1, 10s.
79. Cut Roses, distinct, 1 truss of each (Amateurs), £3, £2, £1, 10s.
80. Cut Roses, distinct, 1 truss of each (Amateurs), £3, £2, £1, 10s.
81. Cut Roses, distinct, 1 truss of each (Amateurs), £3, £2, £1, 10s.
82. Cut Roses, distinct, 1 truss of each (Amateurs), £3, £2, £1, 10s.
83. Cut Roses, distinct, 1 truss of each (Amateurs), £3, £2, £1, 10s.
84. Cut Roses, distinct, 1 truss of each (Amateurs), £3, £2, £1, 10s.
85. Cut Roses, distinct, 1 truss of each (Amateurs), £3, £2, £1, 10s.
86. Cut Roses, distinct, 1 truss of each (Amateurs), £3, £2, £1, 10s.
87. Cut Roses, distinct, 1 truss of each (Amateurs), £3, £2, £1, 10s.
88. Cut Roses, distinct, 1 truss of each (Amateurs), £3, £2, £1, 10s.
89. Cut Roses, distinct, 1 truss of each (Amateurs), £3, £2, £1, 10s.
90. Cut Roses, distinct, 1 truss of each (Amateurs), £3, £2, £1, 10s.
91. Cut Roses, distinct, 1 truss of each (Amateurs), £3, £2, £1, 10s.
92. Cut Roses, distinct, 1 truss of each (Amateurs), £3, £2, £1, 10s.
93. Cut Roses, distinct, 1 truss of each (Amateurs), £3, £2, £1, 10s.
94. Cut Roses, distinct, 1 truss of each (Amateurs), £3, £2, £1, 10s.
95. Cut Roses, distinct, 1 truss of each (Amateurs), £3, £2, £1, 10s.
96. Cut Roses, distinct, 1 truss of each (Amateurs), £3, £2, £1, 10s.
97. Cut Roses, distinct, 1 truss of each (Amateurs), £3, £2, £1, 10s.
98. Cut Roses, distinct, 1 truss of each (Amateurs), £3, £2, £1, 10s.
99. Cut Roses, distinct, 1 truss of each (Amateurs), £3, £2, £1, 10s.
100. Cut Roses, distinct, 1 truss of each (Amateurs), £3, £2, £1, 10s.

Nov.—Each bouquet to be shown separately, in a hyacinth glass, or some similar kind of stand.

GREAT ROSE SHOW (Continued).

- 19. 6 Moss Roses, distinct kinds (Open), £1, 10s., 10s.
20. 24 Roses in pots, not fewer than 15 distinct kinds, the pots to exceed 8 inches in diameter (Open), £3, £2, £1.
21. 20 New Roses of 1866, 1867, or 1868, in pots, not fewer than 15 distinct kinds, the pots not to exceed 8 inches in diameter (Open), £3, £2, £1.

Nov.—Exhibitors can only show in two of the classes 5, 6, 7, 8. New Roses are to date from the time when put in commerce, either in this country or abroad.

TUESDAY SCIENTIFIC, FRUIT AND FLORAL MEETINGS.

Jan. 10.—Fruit and Floral Committees at 11 a.m., Scientific meeting at 1.30 p.m., General Meeting at 3 p.m.
Feb. 16.—Fruit and Floral Committees at 11 a.m., Scientific meeting at 1.30 p.m.; General Meeting at 3 p.m.

PRIZES OFFERED.

- 1. Dessert Apples, single dish (Open), £1, 10s., 10s.
2. Dessert Pears, single dish (Open), £1, 10s., 10s.
3. Dessert Apples, three dishes (Open), £1, 10s., 10s.
4. Apples, 6 dishes of the best kept fruits (Open), £1, 10s., 10s.
March 2.—Fruit and Floral Committees at 11 a.m., Scientific meeting at 1.30 p.m., General Meeting at 3 p.m.
March 16.—Fruit and Floral Committees at 11 a.m., Scientific meeting at 1.30 p.m., General Meeting at 3 p.m.
April 6.—Fruit and Floral Committees at 11 a.m., Scientific meeting at 1.30 p.m., General Meeting at 3 p.m.

PRIZES OFFERED.

- 1. White-spined Cucumber, 1 brace, of 1 sort only (Open), £1, 10s., 10s.
2. Black-spined Cucumber, 1 brace, of 1 sort only (Open), £1, 10s., 10s.
3. Smooth Cucumber, 1 brace, of 1 sort only (Open), £1, 10s., 10s.
4. Cucumbers, not confined to one sort (Open), £2, £1.
April 20.—Fruit and Floral Committees at 11 a.m., Scientific meeting at 1.30 p.m., General Meeting at 3 p.m.
May 4.—Fruit and Floral Committees at 11 a.m., Scientific meeting at 1.30 p.m., General Meeting at 3 p.m.
May 18.—Fruit and Floral Committees at 11 a.m., Scientific meeting at 1.30 p.m., General Meeting at 3 p.m.
June 1.—Fruit and Floral Committees at 11 a.m., Scientific meeting at 1.30 p.m., General Meeting at 3 p.m.
June 15.—Fruit and Floral Committees at 11 a.m., Scientific meeting at 1.30 p.m., General Meeting at 3 p.m.

PRIZES OFFERED BY W. WILSON SAUNDERS, Esq., F.R.H.S.

- 1. 12 Herbaceous Plants, in flower, distinct, to be exhibited in boxes, £1 10s., £1, 10s.

PRIZES OFFERED.

- 2. 24 Pinks, cut blooms, distinct (Nurserymen), £1 5s., £1, 5s.
3. 12 Pinks, cut blooms, distinct (Amateurs), 15s., 10s., 7s.
4. 6 Carnations, distinct, in bloom (Open), £2, £1 10s., £1.
5. 6 Double-flowered Zonal Pelargoniums, 3 sorts, in bloom (Open), £2, £1 10s., £1.
6. 1 Double-flowered Zonal Pelargonium, in bloom (Open), £1, 10s., 10s.

PRIZES OFFERED.

- 1. 24 Carnations, cut blooms, distinct (Nurserymen), £1 5s., £1, 5s.
2. 12 Carnations, cut blooms, distinct (Amateurs), 15s., 10s., 7s.
3. 6 Carnations, cut blooms, distinct (Amateurs), 10s., 7s., 5s.
4. 24 Picotees, cut blooms, distinct (Nurserymen), £1 5s., £1, 5s.
5. 12 Picotees, cut blooms, distinct (Amateurs), 15s., 10s., 7s.
6. 6 Picotees, cut blooms, distinct (Amateurs), 10s., 7s., 5s.
7. 36 Carnations, Picotees, and Cloves, mixed, cut blooms (Nurserymen), £1 10s., £1.
8. 12 Carnations, Picotees, and Cloves, mixed, cut blooms (Amateurs), 15s., 10s., 7s.

PRIZES OFFERED.

- 1. Peaches, single dish, from pot plants (Open), £1, 10s.
2. Peaches, single dish, grown on planted-out trees, under glass (Open), £1, 10s.
3. Nectarines, single dish, from pot plants (Open), £1, 10s.
4. Nectarines, single dish, grown on planted-out trees, under glass (Open), £1, 10s.
5. Peaches and Nectarines, best collection, named (Open), £1, 10s.

PRIZES OFFERED.

- 1. 24 Gladioli, cut spikes, distinct (Open), £2, £1 10s., £1.
2. 12 Gladioli, cut spikes, distinct (Nurserymen), £1, 10s., 10s.
3. 12 Gladioli, cut spikes, distinct (Amateurs), £1, 10s., 10s.
4. 6 Gladioli, cut spikes, distinct (Amateurs), 10s., 7s., 5s.
5. 6 Hollyhocks, cut spikes, distinct (Open), £1, 10s., 10s.
6. 24 Hollyhocks, cut blooms, distinct (Nurserymen), 15s., 10s., 7s.
7. 12 Hollyhocks, cut blooms, distinct (Amateurs), 10s., 7s., 5s.

PRIZES OFFERED.

- 1. 24 Gladioli, cut spikes, distinct (Open), £2, £1 10s., £1.
2. 12 Gladioli, cut spikes, distinct (Nurserymen), £1, 10s., 10s.
3. 12 Gladioli, cut spikes, distinct (Amateurs), £1, 10s., 10s.
4. 6 Gladioli, cut spikes, distinct (Amateurs), 10s., 7s., 5s.
5. 6 Hollyhocks, cut spikes, distinct (Open), £1, 10s., 10s.
6. 24 Hollyhocks, cut blooms, distinct (Nurserymen), 15s., 10s., 7s.
7. 12 Hollyhocks, cut blooms, distinct (Amateurs), 10s., 7s., 5s.

PRIZES OFFERED.

- 1. Peaches grown on standards out-of-doors, not less than 18 inches high, £2, £1.

PRIZES OFFERED BY H. G. BOHN, Esq., F.R.H.S.

- 1. Peaches grown on standards out-of-doors, not less than 18 inches high, £2, £1.

PRIZES OFFERED BY W. WILSON SAUNDERS, Esq., F.R.H.S.

- 1. Collection of Edible and Poisonous Fungi, £3, £3, £3.
* These should be tastefully set up, and, as far as possible, correctly and conspicuously named.

PRIZES OFFERED.

- 2. Grapes, 3 bunches of Chasselas Musqué (Open), £1, 10s.
3. Grapes, 3 bunches of Muscat Hamburg (Open), £1, 10s.
4. Grapes, 3 bunches of Frankenthal, or Hamburg (Open), £1, 10s.
5. Grapes, 3 bunches of White Muscat of Alexandria (Open), £1, 10s.
6. Grapes, 3 bunches of Al canto (Open), £1, 10s.
7. Grapes, 3 bunches of any new or recent variety (Open), £1, 10s.
8. Grapes, the best collection named (Open), £2 10s.

PRIZES OFFERED BY THE REV. GEO. KEMP, F.R.H.S.

- 1. For the best dish of Grapes, consisting of 6 bunches of variety, grown in the open air against a wall, without protection whatever, £3, £2.

PRIZES OFFERED BY W. WILSON SAUNDERS, Esq., F.R.H.S.

- 1. Collection of Winter Bedding Plants, to be exhibited in boxes, £3, £1.

PRIZES OFFERED.

- 2. 4 Chrysanthemums, large-flowered, in pots, distinct (Open), £1, 10s., 10s.
3. 4 Chrysanthemums, Pompones, in pots, distinct (Open), £1, 10s., 10s.
4. 12 Chrysanthemums, cut blooms, distinct (Nurserymen), 15s., 10s., 7s.
5. 6 Chrysanthemums, cut blooms, distinct (Amateurs), 10s., 7s., 5s.

PRIZES OFFERED BY THE REV. GEO. KEMP, F.R.H.S.

- 1. For the best winter dessert of Apples and Pears, 3 dishes each, £3, £2.

SUTTONS' HOME-GROWN SEEDS, NEW AND UNADULTERATED, CARRIAGE FREE.

SEEDS DIRECT FROM THE GROWERS THE BEST MEANS OF PREVENTING DISAPPOINTMENT

SUTTON AND SONS, ROYAL BERKS SEED ESTABLISHMENT, READING. WERE AWARDED A FIRST PRIZE SILVER MEDAL.



PARIS, 1867, for their HOME-GROWN SEEDS.

SUTTONS' COMPLETE COLLECTIONS of VEGETABLE and FLOWER SEEDS, for One Year's Supply, Carriage Free.

Table with 2 columns: Collection name and Price. Includes 'Collections of Vegetable Seeds' and 'Collections of Flower Seeds'.

Particulars of the above Collections may be had on application, and any articles not required will be excluded, and others included according to the wish of the purchaser.

SUTTONS' PRIMA COLLECTION of CHOICE VEGETABLE SEEDS, containing the following excellent varieties, forwarded, Carriage Free, to any Station in England.

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Suttons' Priced Descriptive Catalogues.

VEGETABLE SEEDS and FLOWER SEEDS. Includes logo for Suttons' Home-Grown Seeds and Paris 1867 Silver Medal.

SUTTONS' RINGLEADER PEA, The earliest in cultivation, price 2s per quart

SUTTONS' CHOICE POTATOS FOR PLANTING.

- List of potato varieties: EARLY RACEHORSE, BERRSHIRE KIDNEY, GOLDEN BLOSSOM KIDNEY, etc.

SUTTON AND SONS, SEEDSMEN TO THE QUEEN, LEADING.

Lansdowne & Co. Seed Growers

237, 238, and 261, HIGH HOLBORN, LONDON, W.C.

PRIZE MEDALLISTS

LONDON.

PARIS.



1862.



1867.

CARTER'S GENUINE GARDEN SEEDS, in assorted Collections, to suit large or small Gardens.

- No. 1. For Cottage Gardens .. 12s 6d. No. 2 For Small Gardens .. 21s. No. 3 For Medium Gardens .. 40s. No. 4. For Large Gardens .. 63s.

No charge for packing

CARTER'S PRIZE MEDAL FLOWER SEEDS, in assorted Collections, to produce the most effective display.

- Collection A, 10s. 6d.; Free by Post, 11s. B, 16s.; Free by Post, 15s. 6d. C, 21s.; Free by Post, 21s. 6d. D, 42s.; Free by Post, 42s. 6d. E, 63s.; Free by Post, 63s.

JAMES CARTER & Co. are prepared to supply on the 15th of January next the following Four handsome

New Varieties of Coleus,

Raised at the Gardens of the Royal Horticultural Society, and purchased by them at the Public Auction on the 10th of December, 1868.

- COLEUS HER MAJESTY. This variety is of very free habit, and the broad leaves are of a deep bronzy red, with the narrow banding edged somewhat gold. Price 6s. each. COLEUS PRINCE OF WALES. A free growing variety, with leaves of a deep purplish red, marked with deeper coloured blotches, and having scarcely any golden markings at the edge. Price 6s. each. COLEUS PRINCESS OF WALES. This has still less yellow than either Queen Victoria or Princess Royal, but has instead a much more decided and deeper glow of purple. Price 6s. each. COLEUS PRINCE ARTHUR. The leaves of this variety have a yellowish ground colour, while the veins, the costa, and the principal veins are heavily marked with deep purplish red, the margin also being red. Price 6s. each.

New Double Zonal Geranium for 1869,

WILHELM FEITZER (Lansdowne). A novelty without a rival, possessing all the desirable qualities to make it a valuable addition to every collection; dwarf, free-blooming habit, and brilliancy of colour. Plants not higher than 6 inches had two and three trusses fully expanded each measuring rather more than 5 inches across, the individual flowers are large, very double, of the most perfect shape, and dazzling orange-scarlet colour.

Lilium auratum (Golden-rayed Lily). Fresh imported Bulbs, 2s. 6d. each, and upwards.

For full descriptions, see

CARTER'S GARDENER'S AND FARMER'S VADE MECUM FOR 1869

(Illustrated), 34th year of publication. Post Free for 12 Stamps; Gratis to Customers.

CARTER'S PRIZE MEDAL LAWN GRASS will produce a Permanent Turf of finest quality. 1s. per lb.; 20s. per bushel.

CARTER'S FERTILIZER, the best Manure for the Garden. In Tins, 1s 9d and 4s 6d each. In Bags, 16s. and 26s. each.

See CARTER'S "Gardener's and Farmer's Vade Mecum for 1869" (Illustrated), 34th year of publication. Post Free for 12 Stamps; Gratis to Customers.

JAMES CARTER AND CO., SEED GROWERS, 237 and 238, and 261, High Holborn, London, W.C.

Superb New Plant, Gesnera Exoniensis.

LUCOMBE, PINCE AND CO. beg to call attention to this magnificent new Winter-blooming Plant. For Table or other Decoration it surpasses anything ever before seen.

HENRY GODFREY, NURSERYMAN, Stourbridge, has to offer a large quantity of HERBACEOUS CALCULARIAS, raised from seed saved from a particularly fine strain, established in small pots from 1s. to 3s. per dozen, basket and package included.

SUTTONS' HOME-GROWN SEEDS, Carriage Free

Seeds direct from the growers the best. Includes logo for Suttons' Home-Grown Seeds and Paris 1867 Silver Medal.

The Gardeners' Chronicle. SATURDAY, JANUARY 9, 1869.

ONE of the most pleasant of our editorial tasks is that of taking a retrospective glance, at the end of each recurring year, over the many valuable NOVELTIES which in the course of the season have been brought specially under notice.

Let us look into the stove department, and inspect the company of recruits stationed there. Of the flowering series, the plant of the year is certainly the noble Lasiandra macrantha, whose gigantic flowers, as we mentioned last week, are borne in winter as well as in summer.

Great and grand have been the additions made to the group of handsome-leaved stove plants, among which the first place must be assigned to the numerous, varied, and beautiful forms of Codium variegatum, which we have already described at length.

efforts in her own garden have beyond question been successful, for her kale beds would add both grace and beauty to the most imposing flower garden. Gardens at this time of year are generally remarkable for baldness, and for the want of diverse tints to brighten up what are looked upon as the choicest spots out-of-doors. Miss Hope's garden, after being divested of its summer furniture, is equally well and comfortably dressed with material so table for winter clothing, and forsooth, it wears by no means sordid habiliments. The gaiety and diversity of the colours greatly astonished me.

Let me cite two or three examples for illustration, beginning first with the centre piece of the design. It is a circle divided into eight segments, the partitions being variegated. At intervals, the centre is a portable specimen of the Irish Yew, and the sections filled or rather packed in with divers-coloured Kales. Now, those who never saw such an arrangement might suppose that the bed was a tall, gaunt, hideous looking thing, with a goodly portion of bare-legged kale stocks staring you in the face, but it is no such thing. The labour incurred in sowing the hundreds of them required for the bed in question, so as to have the leaves resting flat upon the soil, must be something considerable, but the effect is such as to repay the labour. That bed has a fine bizarre appearance, and is all the more conspicuous from being elevated above its fellows. By far the most chaste beds are, however, some curved parallelograms surrounding the central or key bed, and they are of ample size to afford scope for design. Laying across the beds are four diamonds, equidistant, and forming raised panels, filled with red, yellow, and whitish Kales, while in the centre of the diamonds are standards about the size of an umbrella, upon which variegated and choice Ivies are climbing. These beds are quite as effective, and more quiet and chaste than some summer beds I have seen. The groundwork is planted with Rue, which has a good effect

against the variegated Hollies which form the boundaries of the diamonds, and the belting of variegated Ivy that marks the outline of the beds. No hardy shrubs, even of the rarest and most commanding character, could at all cope with this for effect. Moreover, the groups are easily surveyed by the eye, and would be generally acceptable to admirers of effort.

Again, the subsidiary and detached beds that team upon the grass-plot are each of them beds worthy of inspection, and have something individually to recommend them. Nothing could be less objectionable than beds of *Stonacropa*, with the most finely out-leaved and highest coloured Kales set amongst them, and the whole enclosed within the variegated *Periwinkle*. The more select Flages are inserted at intervals in some of the arrangements, and then there are both ground-work and broad beltings of the fine-leaved *Tymium*, and edgings of the *Gnaphalium lanatum*, which very much relieve the sameness of the Kales. The whole forms an example of accomplished gardening art. An effect can positively be given, which those who have never seen it little dream of, and the undulating style which Miss Hope patronises—now raising, now flattening the beds, and duly balancing size and colour—is such as evinces correct taste, and makes her winter garden quite as worthy of a critical examination as a fine landscape from an artist's pencil.

Careful selection and a determined elimination is evidently required to procure such an admirable breed, whose quality is combined with desirable variations in colour. The question that escaped my lips, and which must present itself to most readers, is, "How do they stand the frost?" "They have stood every season," replied Miss Hope, "with impunity, when even the hardest of the curly greens have been injured." This is most important evidence, and is the best certificate possible for maintaining the Kales in their prominent position throughout four of the coldest months of the season.

As regards preparation, there must be growing space

afforded during summer proportionate to the demand, and this is what most people will be ready to do. You may talk of stunts and their stability for a sort of work but the kale can be used quite effectively, and at one time of the season. So says Miss Hope, and I need hardly point by way of comparison, the accommodation provided for the most valuable of the summer bedders, to the cost of spring bedding to the labour incident on the setting up of the beautiful articles used in spring garden work, the labour involved in the making of these beds, and the various beds must however be by no means inconsiderable. If feet of their stems are buried in the ground, and they offer no opposition to the frost. Then they are packed together as if one were packed for economy of space. With Miss Hope they are inserted in beds on a grassy green-work, and seems to be the better way of exhibiting them to advantage. Order of the highest character is maintained, and litter scrupulously looked after, and lawn rolled and kept firm as a bowling-green.

One word as to the different phases of decorative gardening. It seems to be an unsatisfactory mode of summer bedding in the same parterre, if it be instruction that each is to be of representative character. Beds are beautiful in flower but when the green foliage springs up or shows symptoms of decay. It is true winter gardening and summer bedding can be managed thoroughly. Spring bedding does not come a bit too soon for the anxious admirer of flowers, but it has a tendency to tread too upon the heels of bedding out proper, and many lots of bulb foliage have to be prematurely sacrificed or otherwise the whole removed to auxiliary quarters. All the phases may be had respectably, but one ambitious now-a-days that something near irreproachable decorative gardening at all the seasons is the aim of both the sightseer and the grower. J. A.

METEOROLOGICAL TABLE FOR THE QUARTER ENDING DECEMBER 31, 1887.

Observed at Weybridge Heath, Surrey. Lat 51° 21' 18" N.; long. 0h. 1m. 46s. W. 150 feet above mean sea level, on the Lower Bagshot sand. Soil and subsoil fine sand.—By W. F. Harrison, Esq., F.M.S.

Mean pressure of dry air in inches at sea level.	Highest temperature of the air in the shade.			Mean of all highest.	Mean of all lowest.	Mean monthly range of temperature.	Mean daily range of temperature.	Mean temperature of the air.	Mean temperature of the dew point.	Mean reading of thermometer in sun's rays.	Mean ditto on grass.	Mean temperature of the earth.		Mean elastic force of vapour.	Mean weight of vapour in a cubic foot of air.	Mean altitudinal weight reduced for subnormality.	Mean density of humidity (complete saturation = 100).	Mean weight of a cubic foot of air.	Mean estimated strength (—0).	WIND.				Mean amount of rain.	Mean amount of snow.
	One foot deep.	Two feet deep.	N.									E.	S.							W.					
29.874	80° 00'	84° 20'	90° 30'	85° 20'	35° 30'	31° 20'	11° 74'	47° 80'	39° 80'	65° 46'	34° 62'	44° 42'	43° 74'	.248	3.5	0.5	84.33	540.0	1.22	31	5	73	17	6	0

Home Correspondence.

Arboriculture.—It is really astonishing how few landed proprietors take the least interest in the management of their woodlands. The few who do so are well paid for the time spent in studying "arboriculture," not only in the pleasure they must derive from such study, but from the handsome profits realized out of their woods. It is true that timber does not now give such returns as it formerly did, which circumstance may to a certain extent account for so many proprietors feeling indifferent on the subject. About sixteen years ago the writer could readily obtain 2s. 6d. per foot, cubic, for large oak wood, 1s. 8d. is now about the highest it will realise, larch which sold for 1s. 6d., now sells for 1s. and 1s. 2d.; Scotch fir sold for 10d. and 1s., present value 8d. or so. Notwithstanding these low prices, it is probable that three times the quantity then used is now consumed, and if it be so, it might reasonably be expected that the value of timber ought to be proportionately higher, but such is not the case. The reason of the inquiry, why has the value of timber not fallen so much? There may be many causes at work tending to produce this result, but the main one I believe, is the quantity of foreign timber imported into the country, and however disagreeable the fact, to those who are interested in the culture of home-grown wood, it is undeniable that free trade in timber has reduced the value to a minimum. And so long as we are not able to supply the increased consumption from our home woods, it is certain we must depend on foreign timber, for the payment of which money must be sent out of the country which should be spent in improving our own. Next to our food and clothing, wood holds the third place, sheltering us from the storm, and supplying fuel for our fires, which it would do, even though our coal mines, as some fear will be the case, were exhausted. Hence, not only are landed proprietors interested in the proper management of woods, but the public is more or less so, and this raises the question, whether, if the immense tracts of waste lands throughout the country were converted into woodlands, and afterwards managed as they ought to be, it would not be possible to grow such a supply of timber from our home woods as to present, or at all events prevent their being glutted as at present, to the almost total exclusion of our own produce? It must not be supposed that it is possible to do without foreign timber for house building and other like purposes. I am firmly convinced, however, that home-grown wood of good quality is vastly superior to foreign for outdoor uses, such as fences and other erections exposed to our variable climate, as also for the cheapest house-grown wood will be of less value than

it has been. The preference given to foreign for outdoor use, because of its cheapness, appears to me to be, in common language, "penny wise and pound foolish," as has been proved by our railways purchasing foreign sleepers, which are said to last about one-third the time that larch or good Scotch fir sleepers do, they are of course much cheaper, but if they require to be renewed in the proportion of three to one, entailing the same expense in felling and relaying as the others, there cannot be much saving. *A Forester*.—I am glad to observe in your impression of December 19 that you take this subject up. Arboriculture has been too long looked upon as a name more than anything else. It very frequently occurs that from the poor encouragement given, parties are appointed to the charge of plantations who, by reason of a limited education, and a want of professional skill, do not reflect credit on the profession, or tend to advance the science. The remedy for this lies in a higher quarter than with the foresters a one. No doubt foresters can do much, and ought to take the initiative, but their endeavours can never be fully successful unless they are seconded by the real parties who will be benefited, viz., proprietors. Books have been written on the subject, and many other efforts have been made in Scotland to improve the status of forestry. Among other endeavours, the Scottish Arboricultural Society was instituted about 14 years ago, and since that time it has been plodding away, by dint of sheer perseverance, as the part of two or three indomitable foresters, with varied success, but it has now assumed a position higher and more influential than it ever did before, because the good effects of its efforts are now beginning to speak for themselves on the sylvan appearance of the country, and also on the incomes of the landlords. This Society has done much, but it still has a great deal to do, and it is to be desired that all parties interested will see it to be their duty to give their support to the advancement of a cause which will do material good to the country, and improve the value of lands which are at the present time utterly worthless. Mr Brown, factor, Invercauld, read a paper before the British Association two years ago on "The Claims of Arboriculture as a Science," this paper was very favourably received, and it may be hoped will have some effect. A deputation of the Scottish Arboricultural Society also attended the meeting of the same Association last year at Norwich, and pressed similar claims, and I entertain the hope, from the encouragement then accorded by that learned body, that on a future occasion they will see it their interest to recognise arboriculture as a science calculated to improve the internal and commercial interests of Great Britain. The admission contained in your valuable article, "that we are obliged to send a poor young man

to France and Germany to acquire a knowledge of forestry for the Indian forest appointments," is certainly very humbling to us, and ought to make us bestir ourselves in that direction, so as at least to equal our continental neighbours. Great difficulties lie in the way of establishing forest schools upon the same basis as forests here are quite different to what they are on the Continent, but by establishing societies similar to those in Scotland, and having these societies resided over and managed by a staff of thoroughly practical men with scientific knowledge, I think much may be done towards improving the cultivation of forests and filling up the blanks which at present exist. *Shoulder to Shoulder*.

Winter Temperature for Variegated Zonal Pelargoniums.—If "Requarer" will turn to Mr Griev's handy little book upon the propagation and culture of these plants a book which ought to be in the hands of every grower—he will find at page 102 the following useful practical information on the matter in a temperature not under 50°, kept near them to the glass, and watered them very sparingly. These three points comprehend all that is needed to carry them safely through the winter. These plants suffer most in the fall season from being left in the open being placed far from the glass, and they are not to be watered. Mr Griev says not under 50° they may safely have a temperature of 50° if placed near to the glass, and kept rather short of water. In such a position the author assures us that the plants will be filled with roots, and the plants may be shifted into 10 or 12-inch pots. The pots must be clean and the drainage so perfect as to occupy at least one-fourth of the entire depth of the pot. Over this layer of earth a covering of 1 inch of moss is to be spread to keep the soil from mixing with it, and choking up its interstices in various ways. Mr Griev recommends a rather soft mould potting enriched with a portion of rotted manure well rotted, the finer parts being rejected through a ½ inch sieve. The roughest soil is then placed in a layer of Moss, and a small portion of the finest soil used to smooth off the surface. Pot firmly, return to the same quarters, water sparingly at first and keep close and moist with surface syringes for a fortnight or so after potting. Early in June, the winter and spring treatment comes to an end, and the plants are removed to their summer quarters in a cold pit, or upon ashes, the glass only being used as a protection against heavy rain and frost. Such a treatment Mr Griev's winter, spring, and summer treatment is not exactly in his own words, and it would be presumptuous, as it is wholly unnecessary, to say anything to them. I can most heartily commend

covering of the hive, believing that it is better to have the hive of a single thickness of board, say seven eighths of an inch, in order that the heat of the sun may easily penetrate it, and warm up the hive almost fully, thus giving the bees an opportunity to bring to the central part of the hive fresh supplies of food from the outer combs. This may lead to a somewhat greater consumption of honey, but if a swarm of bees will give its owner from 50 to 100 lbs of surplus honey in a season, as mine have done the past summer, he ought to be entirely willing to have them eat all they need during the winter. I have removed all the honey-beards, placed two half or three quarter inch strips across the frames and covered the whole top of the frames with any old wooden elements that could be found about the house. Push them in as you would pack a truck, two, three or half-an-inch thicknesses will make no difference. The moisture will pass through as readily as the insensible perspiration of our bodies will pass through our best clothing. The hives will remain dry and the bees warm.
S. Bevan Fox.

(To be Continued.)

Miscellaneous.

Early Peas in Pots.—Having the advantage of a great length of glass walls covering I made a trial of all the earliest Peas in cultivation, and took means to have them true from the raisers. They were all sown on the same day early in February, in the same sized pots, soil, and situation. The varieties were Carter's First Crop, Sutton's Ringleader, Dickson's First and Best, Taber's Perfection, Dickson's Profits, and Sangster's No. 1. The First Crop and Ringleader showed flower at the same time. Taber's Perfection and Dickson's First and Best were two days later. Dickson's Profits was equal with the sprouts early for it was a week later than any other in flowering, and Sangster's No. 1 the last. The first dish was gathered off Carter's First Crop and Ringleader as they are identical in growth and earliness, on the 15th of May. Dickson's First and Best and Taber's Perfection were only two days later in furnishing their first dish. Sangster's No. 1 and Dickson's Profits were two days later. The rows were sown as follows:—First Crop and Dickson's First and Best were only three and four Peas in a pot, and came in nearly a fortnight. By far the best potter and for or was Taber's Perfection, for I average four and five Peas in a pot of good size and was well favoured. The sort I had for Dickson's Profits was similar to Sangster's No. 1, for they were both really at nearly the same time, and resemble each other in the size of the pods and in growth. I had a long low pot filled with Marlean's Little Gem, which produced by far the finest and earliest Peas I have ever grown in May. The first batch of pots was sown in November, and came in in the end of April, and two other sowings made in December produced some good dishes in the beginning of May. In fact the pots and Peas were as large as those produced in summer, and quite of the Marrow flavour. For the future I intend discarding all the tall early Peas for forcing, and only using Little Gem and Tom Thumb, with Advancer for the tallest variety.
W. Tillery, in "Florist and Pomologist."

Garden Operations.

(For the ensuing week).

PLANT HOUSES.

Caladiums, which are now at rest, require a more than ordinary amount of care during this their dormant period, to enable them to retain such an amount of vitality as will insure a good vigorous growth at a future date. More of these valuable tuberous-rooted plants are lost at this time of the year than during the whole period of their growth, simply through the want of a little closer study of their characteristic peculiarities. I believe that dry-rot destroys more of them than any form of dampness or latent moisture is capable of doing. This is invariably brought on by great fluctuations of temperature and dryness in excess. Their succulent roots become scorched in either case, that they are incapable of retaining a sufficient quantity of nourishment to maintain a proper vitality, and hence rot is induced, even in form which permeates the whole. To insure the plants against this state of things, endeavour at all times to keep the pots as far as possible from any source of heat, whether pipes or flues, but in a temperature never less than 55°. If any condensation exists in the atmosphere, a sufficient quantity will attach itself to the pots and soil. I would, however, recommend that the pots, which should lay upon their sides, be occasionally sprinkled over with tepid water. A good deal might no doubt be learnt in regard to these plants by a reference to the native Arum of our woods and hedges. These are generally found in dry situations, not always, it is true, the wet of our long winter months with entire immunity from injuries of this sort. *Caladiums* will now be expanding a few of the first blooms, or some among them will have the buds forming very prominently. Where the least symptoms of green-fly or other pests exist a good fumigation should be given, as when once these gain a lodgment at this season or at the next flowering period, they generally succeed in destroying some of the younger buds, and damaging the beauty of the plant. Good waterings with liquid manure should be given them from now onwards. Continue putting successive batches of *Herbaceous Caladiums* as quickly as their roots advance to the sides of the pots, until they are finally shifted into the flowering ones. Early *Cybe Telarjuniensis* should have gentle and artificial them by a slight amount of heat being kept in the pipes daily. Those however, which are intended for the ordinary blooming season should be kept as

cool as possible, not to unduly expose them. Give more water to *Heaths* and *Epimediums* who have spent their flower buds, and thus promise an early display. I have lately sown similar plants in regard to *Campanulas*, which I might in a good supply at this period. Those who have ordinary bedding stuff, or semi-hardy plants of any other sort, stored away in unheated or other makeshift houses or frames, will do well to withhold water from them for the next three or four weeks. Such a course will assist to insure them from any injury through the want of water at the roots.

FRUITING HOUSES.

A plentiful supply of fresh air should be given to *Peaches* as soon as the buds have pushed, should the weather prove favourable. Upon bright sunny days (or at any time when the external thermometer rises up to about 50°), let it be admitted with judgment at the front, especially in instances where the air-holes are placed continuously to the heating media, and the air blows free upon and between them, so becoming warmed on its way into the structure, at the same time giving more atmospheric moisture with the increase of air. The bottom heat at the roots of fruiting *Peaches* should now be kept up to a mean of from 79° to 81°. Strong successions may be kept some 10° or 12° lower than this. Where symptoms of a decrease exist, steps should be taken to stir up the material, and if required to add more fresh tan or other substances which may be needed. Be cautious in the use of the water pot for some little time to come, unless where the plants are plunged in the vicinity of pipes or flues, and are the more likely to be affected thereby. If the *Peaches* or *Nectarines* in the earliest house are commencing to expand their blossoms, increase the temperature by some 2° at night, and 3° or 4° by day. Do not syringe them during the early stages of flowering, but rather keep the air as dry and buoyant as possible, the more to aid this delicate process. Permit the warmth caused by sunshine only to run up to from 72° to 75°, without at all times for a like purpose.

HARDY FLOWER GARDEN.

Where alterations and improvements are contemplated in this department, this will be found a good season to push forward such operations with vigour. *Crucifers* should now receive every attention at our hands, the season, being a wet dripping one, has not been very propitious to them. Carefully attend to all the younger stuff likely to have been influenced by the late wind-storms, and secure them by every possible means against any further bad weather. Composts, which are heaped up for the purposes of decomposition or protection, may be turned over with much benefit after the late frost. This will not only tend somewhat to destroy insect life, but also aid by its resuscitating influence to make the same more valuable. All trees intended to be transplanted should now be removed as quickly as possible, that the soil may become well settled about the roots, and fresh rootlets be formed, preliminary to their forming early spring buds.

HARDY FRUIT GARDEN.

Where delay has occurred in the planting of *Fruit Trees* (against which I protested some months since), I would again urge the desirability of planting at once. Do not cut away any of the branches for a little time to come, as so doing causes an undue and unnecessary expenditure of sap, which would be already taxed in the process of removal. The excessive rain of the past few months has caused the ground to become unusually moist, this will give to all a good idea concerning the sort of substrata their fruit-tree borders, and the soil conditions to them are possessed of, and may suggest the desirability of a more efficient system of drainage. A soil containing stagnant moisture is farthest removed from that which is likely to produce good fruit, and with moderate constancy of supply. Hence, by drawing attention to the question, I may induce greater scrutiny into such matters by possessors of soil of this description. The sooner all draining operations are concluded, the better. Any who, being in the possession of old walls, contemplate having them pointed over, or wired for fruit-tree training will do well to push such work forward during mild weather, as the early spring operations in connection with these will now quickly need attention.

KITCHEN GARDEN.

The earlier sowing of *Peas* and *Broad Beans* should again be earthed up a little upon a dry day. Some sort of protection should be afforded them from the attacks of sparrows and the feathered tribe generally. One or more rows of wadded, which has been previously dipped in naphtha, strung along the tops of their young growths, I believe to be an excellent remedy. Do not omit any opportunity to dig well, or to trench over, every vacant or spare place, that frosts and snow may have full play upon the ground. Many growers I observe remove for present use the crowns, or terminal growths, of *Beaufoils* sprouts, but excepting in instances where they are slow to button, or are wanted early off the ground, this practice is bad. It exposes the whole stalk to the bearing influence of frosts, and causes them to cease growing, however favourable the weather between now and spring may be for the production of more sprouts. A few *Potato Onions* may now be planted in a favourable situation in rich and well prepared ground. Press them firmly into the soil, and bury all excepting the tip of the crown in the operation. Onions are likely to be very scarce ere the season is far advanced, so that every opportunity should be embraced to increase the stock.
W. E.

TOWN GARDENING.

Should the weather continue open, now is a good time to attend to grass-plots. Take out all Daisy and other weeds that are visible, and give a good dressing of

mould, rake it well about and roll well in fine weather, this being of the utmost importance to town grass. Where it is intended to lay turf or Grass seeds the ground should now be turned, levelled, and all rough rubbish, packed out Hyacinths, Narcissus, Crocuses, and Tulips that yet remain on ground should be planted as soon as possible, so as to succeed those planted in autumn. If not previously taken up all *Crysanthemums* large flowered and single, and lay them in close together, so that they are protected, for, though they are tolerably hardy, it is known a lasting frost kill a great many, and by moving the plants the beds and borders can be manured and properly dug. Lilacs and other deciduous shrubs should now be looked over, and all dead or ill straggling branches and suckers from the back cut out, and the ground turned up with Parker's fork. As all British Ferns do well in towns, a new work should now be formed. A bank of any good earth should be thrown up, of an irregular outline on this an artificial rockwork can be formed of clinkers, burnt bricks, and old roots, and as there is no class of plants differing so much in their natural habits as Ferns—some thriving in swamps, some on rocks, some on rains, and some on trees—we endeavour, in forming the rockery, to supply the individual wants by imitating Nature as far as possible. The vacancies between the rockwork should be filled up with such soils as are likely to suit each individual variety—planting, for instance the Royal Fern, *Andropogon regalis*, in a mixture of bog and sand, in position where it can be kept moist, the *Blechnum boreale*, or *Hard Fern*, higher and drier, in a soil of loam and peat, the *Hart's tongue* in a mixture of leaf-mould and old brick rubbish, on the darkest of the rock, and the various other kinds in accordance with their natural habits. J. D.

STATE OF THE WEATHER AT CHISWICK, NEAR LONDON. During the week ending Jan. 2, 1880, as observed at the Horticultural Gardens.

Day	Wind	BAROMETER			THERMOMETER			Fog	Rain	Snow
		Max.	Min.	Mean	Max.	Min.	Mean			
Jan. 2	S.W.	29.52	29.67	29.69	43	31.9	37.4	0.0	0.0	0.0
Jan. 3	S.W.	29.52	29.75	29.63	42	31.4	36.8	0.0	0.0	0.0
Jan. 4	S.W.	29.52	29.64	29.57	42	31.4	36.8	0.0	0.0	0.0
Jan. 5	S.W.	29.52	29.64	29.57	42	31.4	36.8	0.0	0.0	0.0
Jan. 6	S.W.	29.52	29.64	29.57	42	31.4	36.8	0.0	0.0	0.0
Jan. 7	S.W.	29.52	29.64	29.57	42	31.4	36.8	0.0	0.0	0.0
Jan. 8	S.W.	29.52	29.64	29.57	42	31.4	36.8	0.0	0.0	0.0
Jan. 9	S.W.	29.52	29.64	29.57	42	31.4	36.8	0.0	0.0	0.0
Jan. 10	S.W.	29.52	29.64	29.57	42	31.4	36.8	0.0	0.0	0.0
Jan. 11	S.W.	29.52	29.64	29.57	42	31.4	36.8	0.0	0.0	0.0
Jan. 12	S.W.	29.52	29.64	29.57	42	31.4	36.8	0.0	0.0	0.0
Jan. 13	S.W.	29.52	29.64	29.57	42	31.4	36.8	0.0	0.0	0.0
Jan. 14	S.W.	29.52	29.64	29.57	42	31.4	36.8	0.0	0.0	0.0
Jan. 15	S.W.	29.52	29.64	29.57	42	31.4	36.8	0.0	0.0	0.0
Jan. 16	S.W.	29.52	29.64	29.57	42	31.4	36.8	0.0	0.0	0.0
Jan. 17	S.W.	29.52	29.64	29.57	42	31.4	36.8	0.0	0.0	0.0
Jan. 18	S.W.	29.52	29.64	29.57	42	31.4	36.8	0.0	0.0	0.0
Jan. 19	S.W.	29.52	29.64	29.57	42	31.4	36.8	0.0	0.0	0.0
Jan. 20	S.W.	29.52	29.64	29.57	42	31.4	36.8	0.0	0.0	0.0
Jan. 21	S.W.	29.52	29.64	29.57	42	31.4	36.8	0.0	0.0	0.0
Jan. 22	S.W.	29.52	29.64	29.57	42	31.4	36.8	0.0	0.0	0.0
Jan. 23	S.W.	29.52	29.64	29.57	42	31.4	36.8	0.0	0.0	0.0
Jan. 24	S.W.	29.52	29.64	29.57	42	31.4	36.8	0.0	0.0	0.0
Jan. 25	S.W.	29.52	29.64	29.57	42	31.4	36.8	0.0	0.0	0.0
Jan. 26	S.W.	29.52	29.64	29.57	42	31.4	36.8	0.0	0.0	0.0
Jan. 27	S.W.	29.52	29.64	29.57	42	31.4	36.8	0.0	0.0	0.0
Jan. 28	S.W.	29.52	29.64	29.57	42	31.4	36.8	0.0	0.0	0.0
Jan. 29	S.W.	29.52	29.64	29.57	42	31.4	36.8	0.0	0.0	0.0
Jan. 30	S.W.	29.52	29.64	29.57	42	31.4	36.8	0.0	0.0	0.0
Jan. 31	S.W.	29.52	29.64	29.57	42	31.4	36.8	0.0	0.0	0.0
Average		29.52	29.64	29.57	42	31.4	36.8	0.0	0.0	0.0

Jan. 3. Fine & dry. Very fine. Clear & bright. Jan. 4. Very fine. Clear & bright. Jan. 5. Very fine. Clear & bright. Jan. 6. Very fine. Clear & bright. Jan. 7. Very fine. Clear & bright. Jan. 8. Very fine. Clear & bright. Jan. 9. Very fine. Clear & bright. Jan. 10. Very fine. Clear & bright. Jan. 11. Very fine. Clear & bright. Jan. 12. Very fine. Clear & bright. Jan. 13. Very fine. Clear & bright. Jan. 14. Very fine. Clear & bright. Jan. 15. Very fine. Clear & bright. Jan. 16. Very fine. Clear & bright. Jan. 17. Very fine. Clear & bright. Jan. 18. Very fine. Clear & bright. Jan. 19. Very fine. Clear & bright. Jan. 20. Very fine. Clear & bright. Jan. 21. Very fine. Clear & bright. Jan. 22. Very fine. Clear & bright. Jan. 23. Very fine. Clear & bright. Jan. 24. Very fine. Clear & bright. Jan. 25. Very fine. Clear & bright. Jan. 26. Very fine. Clear & bright. Jan. 27. Very fine. Clear & bright. Jan. 28. Very fine. Clear & bright. Jan. 29. Very fine. Clear & bright. Jan. 30. Very fine. Clear & bright. Jan. 31. Very fine. Clear & bright. Mean temperature of the week 40.4 deg. above the average.

STATE OF THE WEATHER AT CHISWICK. During the last 41 years for the ensuing Week ending Jan. 2, 1880.

Day	Average Temp.	Max. Temp.	Min. Temp.	W. or S. or E. or N. or Calm.	W. or S. or E. or N. or Calm.	W. or S. or E. or N. or Calm.	W. or S. or E. or N. or Calm.	W. or S. or E. or N. or Calm.	W. or S. or E. or N. or Calm.
Jan. 2	42.0	50.3	36	W.	0.0	0.0	0.0	0.0	0.0
Jan. 3	41.5	50.1	35.4	W.	0.0	0.0	0.0	0.0	0.0
Jan. 4	42.1	50.5	35.4	W.	0.0	0.0	0.0	0.0	0.0
Jan. 5	41.9	50.3	35.2	W.	0.0	0.0	0.0	0.0	0.0
Jan. 6	42.1	50.5	35.4	W.	0.0	0.0	0.0	0.0	0.0
Jan. 7	41.8	50.2	35.3	W.	0.0	0.0	0.0	0.0	0.0
Jan. 8	42.0	50.3	35.4	W.	0.0	0.0	0.0	0.0	0.0
Jan. 9	41.9	50.2	35.3	W.	0.0	0.0	0.0	0.0	0.0
Jan. 10	42.0	50.3	35.4	W.	0.0	0.0	0.0	0.0	0.0
Jan. 11	41.9	50.2	35.3	W.	0.0	0.0	0.0	0.0	0.0
Jan. 12	42.0	50.3	35.4	W.	0.0	0.0	0.0	0.0	0.0
Jan. 13	41.9	50.2	35.3	W.	0.0	0.0	0.0	0.0	0.0
Jan. 14	42.0	50.3	35.4	W.	0.0	0.0	0.0	0.0	0.0
Jan. 15	41.9	50.2	35.3	W.	0.0	0.0	0.0	0.0	0.0
Jan. 16	42.0	50.3	35.4	W.	0.0	0.0	0.0	0.0	0.0
Jan. 17	41.9	50.2	35.3	W.	0.0	0.0	0.0	0.0	0.0
Jan. 18	42.0	50.3	35.4	W.	0.0	0.0	0.0	0.0	0.0
Jan. 19	41.9	50.2	35.3	W.	0.0	0.0	0.0	0.0	0.0
Jan. 20	42.0	50.3	35.4	W.	0.0	0.0	0.0	0.0	0.0
Jan. 21	41.9	50.2	35.3	W.	0.0	0.0	0.0	0.0	0.0
Jan. 22	42.0	50.3	35.4	W.	0.0	0.0	0.0	0.0	0.0
Jan. 23	41.9	50.2	35.3	W.	0.0	0.0	0.0	0.0	0.0
Jan. 24	42.0	50.3	35.4	W.	0.0	0.0	0.0	0.0	0.0
Jan. 25	41.9	50.2	35.3	W.	0.0	0.0	0.0	0.0	0.0
Jan. 26	42.0	50.3	35.4	W.	0.0	0.0	0.0	0.0	0.0
Jan. 27	41.9	50.2	35.3	W.	0.0	0.0	0.0	0.0	0.0
Jan. 28	42.0	50.3	35.4	W.	0.0	0.0	0.0	0.0	0.0
Jan. 29	41.9	50.2	35.3	W.	0.0	0.0	0.0	0.0	0.0
Jan. 30	42.0	50.3	35.4	W.	0.0	0.0	0.0	0.0	0.0
Jan. 31	41.9	50.2	35.3	W.	0.0	0.0	0.0	0.0	0.0
Average	42.0	50.3	35.4	W.	0.0	0.0	0.0	0.0	0.0

The highest temperature during the above period occurred on the 15th 1861—therm. 54 deg. and the lowest on the 11th 1860—2 deg.

Notices to Correspondents.

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ROYAL AGRICULTURAL SOCIETY OF ENGLAND

AGRICULTURAL EDUCATION

The EXAMINATION of CANDIDATES for the SOCIETY'S EDUCATIONAL PRIZES will take place in the week commencing MONDAY, April 12, 1869. Copies of the Form, required to be sent in by March 18, may be obtained on application to

H. M. JENKINS, Secretary
12, Hanover Square, London, W

The Agricultural Gazette.
SATURDAY, JANUARY 9, 1869.

THE cattle plague, obeying the law which seems to regulate the progress of contagious diseases generally, is advancing westward from its reputed home in the Steppes. Hungary has been suffering from its effects for some time past. It also prevails in Lower Austria in at least three districts. In Transylvania nearly 60 places are infected. Bukovina is not free from the pestilence, and Galicia is reported to have several infected districts. Altogether, in Hungary, Lower Austria, Bukovina, Transylvania, and Galicia there appear to exist between 60 and 70 centres of infection. Saxony, we learn, has prohibited the passage of Steppe cattle over the Sax-Bohemian frontier, but permits the entrance of Bohemian cattle with certificates of health.

The contemplation of these facts is not likely to produce a very cheerful state of mind among those who are especially interested in home-bred stock. We have felt ourselves tolerably secure from invasion up to this time, because we have been principally supplied with foreign cattle from healthy districts; but now the Grass season is over, and we are about to import cattle bred in the districts which are now being ravaged by the cattle plague, or in very decided proximity to them, Galician, Hungarian, and white Austrian cattle will now be sent to our markets; and, although all those cattle are presumed to have been feeding for many months in Austrian and Prussian distilleries, and growing fat upon the refuse products, there is at least a possibility of other animals of the same breed being smuggled over the Prussian frontier. Indeed the probability of such an occurrence was distinctly admitted by the Veterinary Congress, held in Vienna in 1865. Our own experience is strongly in favour of the presumption, that such violation of frontier rules is neither so difficult of execution nor so infrequent as many persons would lead us to believe.

In the spring of 1867 an outbreak of cattle plague in the East of London was, with good reason, charged upon white Austrian cattle, which, according to the system pursued on the Continent, ought not to have been capable of introducing the disease. Regulations, however, are not always carried out as they should be; and there is nothing to justify the assertion that foreigners have stronger scruples about "running the blockade" than Englishmen have. We found it here exceedingly easy to pass Orders of Council, and to issue directions from all sorts of authorities, but the task of enforcing the laws was by no means trifling, particularly when people quietly ignored their existence, and acted in accordance with their own ideas of right or convenience. Providing that all the regulations respecting the passage of animals through Prussia are carried out stringently, we may perhaps rest in tolerable security, but any evidence of the fallibility of the precautions which are adopted by that Power will necessarily disturb our repose, and such evidence we undoubtedly have had. Under ordinary circumstances the system of feeding Bohemian and other "white cattle" in the large distilleries works well, and no foreign beasts imported to this country "die better," in butchers' phrase,

than the cattle so treated; but this is small compensation for an occasional outbreak of cattle plague in the metropolis, or elsewhere. So long as all the conditions of security are maintained, no danger need be apprehended. Capitalists on the Continent may buy hundreds of cattle in Bohemia, Moravia, and Hungary, feed them upon the waste products of their distilleries, and having brought them to a condition fit for the English market send them to England; the time required to fatten them will in itself be a guarantee of their freedom from infection, and if there is no disease in the locality where they are fed, they may safely be treated as though they had been bred there. The travel of these cattle through Prussia to the coast is permitted only under restrictions; evidence of their having come from a healthy locality is required; and, in short, every care is taken by the Prussian authorities, as might be expected, to prevent the entrance of infected animals into their country—not always with success, as their records will show.

The transit of cattle through Prussia to this country occupies some days. Cattle coming from Bohemia are usually on the road about six or seven days before they reach the London market; and it may be said in reference to the "white cattle" of Austria, that their passage occupies something like a week. This fact is often quoted in support of the theory that infected animals—that is, cattle infected in any part of Austria (in Bohemia or Moravia, for instance)—cannot be sent to London, because by the time they arrive the disease will be sufficiently advanced to be at once detected by the inspectors. The argument rests entirely upon the assumed fact that the cattle which first became infected in their own country are as a matter of course brought on to London, altogether ignoring the probability of such animals falling sick before they are shipped, and being disposed of, while the remainder of the herd—a certain number of them having received the infection from those originally diseased—will be shipped for England, and thus arrive in our ports two days, instead of six or seven, after infection. In this way the Silesian cattle, which are said to have imported the disease in 1867, may not, and most likely did not, show any symptoms of ill-health on their arrival in this country, although some of them died here so shortly afterwards that there was no possibility of their having been infected after landing in London, where, indeed, cattle plague did not then exist.

It is to be hoped, in view of the steady progress of the plague in the Austrian provinces, that every care will be taken to prevent its introduction here, but it is quite impossible to doubt the extent of the risk which we must continue to incur, so long as the malady exists in countries adjacent to those from which we now obtain large supplies of foreign cattle.

TURNIPS and Swedes are not generally approved on heavy land as a preparation for corn. Their removal is costly; and though they are useful for stock feeding, the moderate crop yielded by heavy land does not always pay the cost of production. There is manure to put to the credit of the account; but this is all wanted, the heavy-land farmer declares, to restore the condition of his land. If the Turnips be folded off in the winter, the Barley crop suffers from the effect of treading the land, which even frost does not obliterate; and even if eaten off before winter, either Wheat or Barley will probably be a worse crop than after bare fallow. Good heavy land will yield a full crop of Barley after bare fallow, and it may fairly be asked—what more can it do under any circumstances? If injury be done by treading, a light crop is certain to follow, and if the folding takes place in early autumn, and the land is enriched, the succeeding crop may prove stout in straw and light in corn. It must be remembered that crops do not always behave as theory predicates, they obey their own habit of growth.

Even on poor heavy land that requires dressing we have seen a spirited and very successful attempt to introduce root cultivation attended by very doubtful results as regards the corn that followed. Next to the farm we refer to is a similar holding, under the old routine of fallow for corn. The bare, pale earth on one side of the hedge, was a sorry sight compared to the luxuriant green of a capital crop of early white Turnips on the other. Sheep fed with oilcake soon came on the scene, and it was delightful to

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Advertisement for Galvanized Iron tanks and other products.

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SUTTON & SONS,
SEED GROWERS AND MERCHANTS,
ROYAL BERKS SEED ESTABLISHMENT, READING,

IN CALLING ATTENTION TO THEIR

COMPLETE COLLECTIONS OF VEGETABLE AND FLOWER SEEDS FOR ONE YEAR'S SUPPLY,

Desire it to be understood that their "COMPLETE" COLLECTIONS consist only of those varieties which have been proved in their Experimental Grounds to be the most prolific, best flavoured, and most worthy of cultivation

The following are the prices, with Contents, of SUTTONS' COMPLETE COLLECTIONS OF VEGETABLE SEEDS ---

SUTTONS' COLLECTIONS OF HOME-GROWN SEEDS.

	No. 1 Complete Collection £3 3 0 Carriage Free.	No. 2 Complete Collection £2 2 0 Carriage Free.	No. 3 Complete Collection £1 11 6 Carriage Free.	No. 4 Complete Collection £1 1 0 Carriage Free.	No. 5 Complete Collection 15s. Carriage Free.	No. 6 Complete Collection 12s. 6d.
PEAS, the best sorts for succession, as proved in Messrs. Suttons' Trial Grounds	18 q. quarts	10 q. quarts	7 q. quarts	6 q. quarts	3 q. quarts	1 q. quart
BEANS, the best sorts for succession do. do. do. do. do. do. do.	7 ditto	4 ditto	3 ditto	2 ditto	1 ditto	1 ditto
FRENCH BEANS, Runners and Dwarfs do. do. do. do. do. do. do.	3 pints	2 pints	1 pint	1 pint	1 pint	1 pint
BEET, the finest in cultivation do. do. do. do. do. do. do.	3 ounces	2 ounces	2 packets	1 packet	1 packet	1 packet
BORDEAU, or King, of best sorts do. do. do. do. do. do. do.	6 packets	4 packets	3 ditto	3 ditto	2 ditto	2 ditto
BRUSSELS SPROUTS, fresh imported seed do. do. do. do. do. do. do.	1 large packet	1 large packet	1 ditto	1 ditto	1 ditto	1 ditto
BROCCOLI, the best sorts for succession, as tested in Messrs. Suttons' Trial Grounds	9 ditto	7 ditto	6 ditto	5 ditto	4 ditto	3 ditto
CABBAGE, best sorts for succession do. do. do. do. do. do. do.	9 packets	7 packets	6 ditto	5 ditto	4 ditto	3 ditto
SAVOY, best curled do. do. do. do. do. do. do.	5 ditto	3 ditto	3 ditto	2 ditto	1 ditto	1 ditto
CARROT, best sorts for summer and winter use do. do. do. do. do. do. do.	16 ounces	10 ounces	7 ounces	5 ounces	2 ounces	1 ounce
CUCUMBER do. do. do. do. do. do. do.	2 large packets	2 large packets	1 packet	1 packet	1 packet	1 packet
CELERY, white do. do. do. do. do. do. do.	2 ditto	2 ditto	1 ditto	1 ditto	1 ditto	1 ditto
CORNFLOUR, the best do. do. do. do. do. do. do.	1 packet	1 ditto	1 ditto	1 ditto	1 ditto	1 ditto
ENDIVE, best sorts do. do. do. do. do. do. do.	14 ounces	8 ounces	6 ounces	4 ounces	3 ounces	2 ounces
GREEN SALSIFY, do. do. do. do. do. do. do.	4 pint & 2 packets	8 ounces & 2 packets	6 ounces & 1 packet	4 ounces & 1 packet	3 ounces & 1 packet	2 ounces & 1 packet
C. C. M. BEET, the best sorts in cultivation do. do. do. do. do. do. do.	4 packets	3 packets	3 packets	2 packets	2 packets	1 packet
LEEK, large sort, very fine do. do. do. do. do. do. do.	1 ounce	1 ditto	1 ditto	1 ditto	1 ditto	1 ditto
LETTUCE, Suttons' Superior Cos, and others do. do. do. do. do. do. do.	6 packets	4 ditto	3 ditto	3 ditto	2 ditto	2 ditto
MUSTARD do. do. do. do. do. do. do.	1 quart	1 pint	1 pint	4 ounces	3 ounces	2 ounces
MELON, the best sorts known do. do. do. do. do. do. do.	3 packets	2 packets	2 packets	1 packet	1 packet	1 packet
ONION, true Reading and others do. do. do. do. do. do. do.	15 ounces	8 ounces	6 ounces	3 ounces	2 ounces	1 ounce
PARSLEY, spindled curled kinds do. do. do. do. do. do. do.	3 ditto	2 ditto	1 ditto	1 ditto	1 packet	1 packet
PARSNIP, standard do. do. do. do. do. do. do.	6 ditto	4 ditto	3 ditto	2 ditto	1 ounce	1 ditto
RADISH, finest sorts for succession do. do. do. do. do. do. do.	1 pint and 11 ounces	14 ditto	9 ditto	6 ditto	4 ditto	3 ounces
SPINACH, summer and winter kinds do. do. do. do. do. do. do.	3 pints	2 pints	6 ditto	4 ditto	3 ditto	2 ditto
SALSIFY do. do. do. do. do. do. do.	1 large packet	1 packet	1 packet	1 ditto	1 ditto	1 ditto
SCORZONILLA do. do. do. do. do. do. do.	1 ditto	1 ditto	1 ditto	1 ditto	1 ditto	1 ditto
TURNIP, fine sorts for succession do. do. do. do. do. do. do.	16 ounces	8 ounces	6 ounces	3 ditto	2 ditto	2 ditto
VEGETABLE MARROW, best sorts do. do. do. do. do. do. do.	1 large packet	1 large packet	1 packet	1 packet	1 packet	1 packet
SWEET and POT HERBS, of all the useful kinds do. do. do. do. do. do. do.	8 packets	6 packets	4 ditto	4 ditto	2 ditto	2 ditto
MIXED GOURD do. do. do. do. do. do. do.	1 ditto	1 ditto	1 ditto	1 ditto	1 ditto	1 ditto
RAMPION do. do. do. do. do. do. do.	1 ditto	1 ditto	1 ditto	1 ditto	1 ditto	1 ditto
TOMATO do. do. do. do. do. do. do.	1 ditto	1 ditto	1 ditto	1 ditto	1 ditto	1 ditto
CAPRICORN and CHILI do. do. do. do. do. do. do.	3 ditto	2 ditto	1 ditto	1 ditto	1 ditto	1 ditto
CORN SALAD do. do. do. do. do. do. do.	1 ditto	1 ditto	1 ditto	1 ditto	1 ditto	1 ditto
ORACH do. do. do. do. do. do. do.	1 ditto	1 ditto	1 ditto	1 ditto	1 ditto	1 ditto

5 per cent allowed for cash payments
Post-office Orders payable to SUTTON & SONS, Reading.

N.B. Any articles not required will be omitted, and others substituted according to the wish of the purchaser.

SUTTONS' COMPLETE COLLECTIONS OF FLOWER SEEDS,

Containing choice assortments of German and English varieties to produce a beautiful display during the entire Summer and Autumn

No. 1, £2 2s	No. 2, £1 11s 6d	No. 3, £1 1s	No. 4, 15s.	No. 5, 10s. 6d.	Smaller Collections, 2s. 6d. to 7s. 6d.
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To those who prefer making their own Selections, full particulars of the best varieties, including CHOICE NOVELTIES FOR THE FLOWER AND KITCHEN GARDEN, will be found in SUTTONS' PRICED CATALOGUE, Gratis and Post Free.

SUTTONS' RINGLEADER PEA, THE EARLIEST IN CULTIVATION.

The ROYAL HORTICULTURAL SOCIETY last year tested carefully the merits of the leading kinds of EARLY PEAS, and it is gratifying for us to observe the Report of their Trials, which appeared in the *Gardeners' Chronicle*, June 27, 1863, contains the following brief but emphatic statement.—
"The earliest form of all was Ringleader. Several of the Peas blossomed at the same time, but Ringleader was fit to gather first"

In thus referring to the result of this important Trial, we may mention that it strictly coincides with Trials made by our Customers, and also in our own Experimental Grounds. The first sowing last year of the Ringleader Pea at our Seed Farm was made on February 12, and harvested fully ripe for threshing on June 16, coming off in time for Turnips. Retail price, 2s per quart. SUTTONS' Ringleader Pea is included in all Messrs. Suttons' Collections of Vegetable Seeds.

SUTTONS' CHOICE POTATOS FOR PLANTING.

- SUTTONS' EARLY RACEHORSE, the forwardest known, 5s per peck.
- SUTTONS' BERKSHIRE KIDNEY, the best and most prolific in cultivation, 5s. per peck.
- SUTTONS' GOLDEN BLOSSOM KIDNEY, a very distinct second early variety, 5s per peck.
- SUTTONS' KING OF POTATOS, a splendid variety, took First Prize at Birmingham, 3s. per peck.

And numerous other sorts, moderate in price, true to name, and free from disease For prices see SUTTONS' SPECIAL POTATO LIST, Gratis on application

SUTTONS' SPRING CATALOGUE AND AMATEUR'S GUIDE,

Price 1s. Gratis to Customers.

SUTTONS' ABRIDGED LIST Gratis on application.

All Goods Carriage Free, (except very small parcels). Five per Cent. allowed for cash payments.

SUTTON AND SONS, SEEDSMEN TO THE QUEEN, READING, BERKS.



JANUARY 16, 1869.

British Fern Catalogue. ROBERT SIMS... post free for six postage...

HENRY GODFREY, NURSERYMAN, Stourbridge. Offers a selection of FERNS and SELAGINELLAS...

OLI SEEDINGS (Mixed).—Beautiful Flowers... Strong Flowering...

WEBBS NEW GIANT POLYANTHUS. Most Flower, and GIANT COSSILIP SEEDS...

SUTTONS' HOME-GROWN SEEDS. Carriage Free.

Means of procuring from the Growers the best means of preventing disappointment.

For the KITCHEN GARDEN, complete Collections... 45s. carriage free.

For the FLOWER GARDEN, complete Collections... 45s. carriage free.

For HOME-GROWN SEEDS, PRICED DESCRIPTIVE CATALOGUE...

VERBENAS, VERBENAS. Fifty varieties of 1868, including 12 of the New Italian Stripes...

Superb New Plant, Gesnera Exoniensis. NEW READY.

COMBE PINCE and CO beg to call attention to their new Water-corn Plant...

HENRY GODFREY, NURSERYMAN, Stourbridge. Offers a selection of HEPTACETIS CALCEOLARIAS...

NEW SEEDS—PELVIA, extra choice, double, extra choice, and a Large-flowered and Small-flowered variety...

W. M. URQUHART AND SONS, Dundee, respectfully announce that their PRICED LIST of Seedling and Transplanted FOREST TREES, SHRUBS, &c., may be had free on application.

NEW CATALOGUE. LEWIS S. WOODHOPE will be happy to forward post free on application his CATALOGUE...

Seeds Carriage Free. THE SOUTH OF ENGLAND SEED ESTABLISHMENT WILLIAM WOOD AND SON...

Choice Scarlet Rhododendrons. JOHN WATERER begs to announce that his CATALOGUE of HARDY, SCARLET, and other RHODODENDRONS...

Hardy Scarlet, White, Puce, Rose, and other CHOICE NAMED RHODODENDRONS. W. ROYERS, Large Nursery, Southampton...

Cheap Sale of Nursery Stock. J. JACKSON and CO beg to intimate that, having to dispose of upwards of Six Acres of their Large Nursery...

Seed Warehouse, 1, Waterloo Place, Edinburgh.

The advantages of procuring Seeds direct from the Growers cannot be overestimated.

Lancaster & Co Seed Growers

237, 238, and 261, HIGH HOLBORN, LONDON, W.C.

CARTER'S GENUINE GARDEN SEEDS.

In assorted Collections, including only the most approved varieties to produce a good supply of the best Vegetables all the year round.

- No 1. For Cottage Gardens .. 12s 6d
No 2. For Small Gardens .. 2ls.
No 3. For Medium Gardens .. 4s.
No 4. For Large Gardens .. 6s.

No charge for packing.

CARTER'S PRIZE MEDAL FLOWER SEEDS.

In assorted Collections, to produce the most effective and effect display in the Flower Garden.

- Collection A, 10s 6d, Free by Post, 11s
B, 15s, Free by Post, 16s 6d
C, 21s, Free by Post, 21s 6d
D, 42s, Free by Post, 42s 6d
E, 63s, Free by Post, 64s

PRIZE MEDALLISTS

LONDON.

PARIS.



1862.



1867.

JAMES CARTER & Co. are prepared to supply on the 15th of January next the following four handsome New Varieties of Coleus.

Raised at the Gardens of the Royal Horticultural Society, and purchased by them at the Public Auction on the 10th of December, 1868.

COLEUS HER MAJESTY.—This variety is of very free habit and the broad leaves are of a deep orange red with a narrow border of green which gives a beautiful contrast.

COLEUS PRINCE OF WALES.—A free-growing variety, with leaves of a deep purple red, marked with deeper coloured blotches, and having scarcely any green markings at the edge, so that it resembles Albert Victor, minus the golden margin. Price 3s 6d each.

COLEUS PRINCESS OF WALES.—This has still less yellow than either Queen Victoria or Princess Rosa, but has instead a much more acid and deeper glow of purple. Price 3s each.

COLEUS PRINCE ARTHUR.—The leaves of this variety have a yellowish ground color, while the base, the veins, and the principal veins are heavily marked with deep purple red, the margin also being red. These markings give the plant rather a grotesque appearance. It has the erect habit and general peculiarities of Coleus Godeolii. Price 3s 6d each.

The set of four for 14s.

New Double Zonal Geranium for 1869.

WILHELM FITZGER (Linnæus). A novelty without a rival, possessing all the desirable qualities to make it a valuable addition to every collection, dwarf, free-blooming habit, and brilliancy of colour.

Plants not higher than 5 inches had two and three trusses fully expanded, each measuring rather more than 5 inches across, the individual flowers are large, very double, of the most perfect shape, and dazzling orange-scarlet colour.

We have purchased the entire stock for distribution in England, of the raiser, M. Lemoine, of Nancy. Plants to be ready by February 15, 1869. Price 7s 6d each.

Lilium auratum (Golden-rayed Lily).

Fresh imported Bulbs, 2s 6d each, and upwards.

CARTER'S SEEDS FOR THE FARM.

See page 59, of this day's Gardeners' Chronicle

CARTER'S PRIZE MEDAL LAWN GRASS will produce a Permanent Turf of finest quality. 1s per lb., 20s per bushel.

CARTER'S FERTILIZER, the best Manure for the Garden. In Tins, 1s 9d, and 4s 6d each. In Bags, 15s. and 25s. each.

See CARTER'S Gardener's and Farmer's Vade Mecum for 1869 (Illustrated), 34th Year of publication. Post Free for 12 Stamps, gratis to Customers.

JAMES CARTER AND CO., SEED GROWERS, 237 and 238, and 261, High Holborn, London, W.C.

GARDENERS' ROYAL FAVORITE... CANDIDATES.

Table with columns: Name, A, Votings. Includes names like GEORGE ANABALL, THOMAS WILLMER, etc.

The Meeting on Monday, George Anaball, of North Craven, and Thomas Willmer, of South Craven, by the joint invitation of the Society of Gardeners, on the 11th inst.

By Order, EDWARD R. CUTLER, Secretary, 14, Tavistock Row, W.C., Jan 14.

THE ROYAL HORTICULTURAL SOCIETY'S GRAND EXHIBITION at MANCHESTER.

Show of the ROYAL AGRICULTURAL SOCIETY. Amongst various Special Prizes, A SILVER CUP...

will be offered by the Proprietors of the GARDENERS' CHRONICLE and AGRICULTURAL GAZETTE for the best COLLECTION of 6 FRUITS and 6 VEGETABLES, to be made up as follows:

Good, Medium, Inferior. Grapes, 0 marks, 3 marks, 1 mark.

Strawberries, 3 marks, 2 marks, 1 mark.

Gooseberries, 3 marks, 2 marks, 1 mark.

Cherries, 3 marks, 2 marks, 1 mark.

Raspberries, 3 marks, 2 marks, 1 mark.

Apples, 6 marks, 3 marks, 1 mark.

Plums, 3 marks, 2 marks, 1 mark.

Peaches, 3 marks, 2 marks, 1 mark.

Apricots, 3 marks, 2 marks, 1 mark.

Oranges, 3 marks, 2 marks, 1 mark.

Lemons, 3 marks, 2 marks, 1 mark.

Small Fruits, 3 marks, 2 marks, 1 mark.

Vegetables, 3 marks, 2 marks, 1 mark.

The Gardeners' Chronicle. SATURDAY, JANUARY 16, 1869.

MEETINGS FOR THE ENSUING WEEK. Tuesday, Jan. 19. Royal Horticultural Society...

Wednesday, Jan. 20. Royal Horticultural Society...

Thursday, Jan. 21. Royal Horticultural Society...

Friday, Jan. 22. Royal Horticultural Society...

Saturday, Jan. 23. Royal Horticultural Society...

Sunday, Jan. 24. Royal Horticultural Society...

Monday, Jan. 25. Royal Horticultural Society...

Tuesday, Jan. 26. Royal Horticultural Society...

Wednesday, Jan. 27. Royal Horticultural Society...

Thursday, Jan. 28. Royal Horticultural Society...

Friday, Jan. 29. Royal Horticultural Society...

Saturday, Jan. 30. Royal Horticultural Society...

Sunday, Jan. 31. Royal Horticultural Society...

Monday, Feb. 1. Royal Horticultural Society...

Tuesday, Feb. 2. Royal Horticultural Society...

Wednesday, Feb. 3. Royal Horticultural Society...

Thursday, Feb. 4. Royal Horticultural Society...

Friday, Feb. 5. Royal Horticultural Society...

Saturday, Feb. 6. Royal Horticultural Society...

Sunday, Feb. 7. Royal Horticultural Society...

Monday, Feb. 8. Royal Horticultural Society...

Tuesday, Feb. 9. Royal Horticultural Society...

Wednesday, Feb. 10. Royal Horticultural Society...

Thursday, Feb. 11. Royal Horticultural Society...

Friday, Feb. 12. Royal Horticultural Society...

quality, and constitution, so that those who would aid and assist her have a more difficult though more straightforward work before them than their fellow-labourers in the floral world.

In Grapes alone, the noblest and most prized of all our fruits, if there were nothing else, we have sufficient of note to write down the year 1865 in red letters. Mr. W. TOWNSON, whose efforts as a hybridiser of the Vine have in previous years been rewarded with success, is again entitled to our especial thanks for the production of the Col de Signora, the most magnificent grape I ever saw, and one of which I boast. This splendid acquisition is a hybrid between the Champion Hamburgh and the Bowood Muscat twice removed. The berries are of enormous size, somewhat resembling huge Canon Hall Muscats. It is every inch a champion, golden in colour as the Muscat itself, with a flavour equalling its rival for richness, and which partaking more of the Hamburgh character, and with a vigorous constitution. We have here a Grape which will take the highest rank, and worthily fill up the blank which has long been left—that of a white companion to the Black Hamburgh. Some curious crosses of Mr. PEARSON'S from the Strawberry Grape, and which have performed although in other respects worthless variety, are deserving of especial mention, combining as they do, in a powerful degree, the Strawberry scent with the Muscat flavour, the latter too rich too musky in fact to be pleasant, and the flesh being of the peculiar shiny texture belonging to all the American, or Fox Grapes as they are called. It is however an important break, a result which could scarcely have been anticipated, and one from which we may hope in future years to obtain scented Grapes of the finest quality—who knows? We would here suggest that some of our hybridisers should turn their attention to the raising of a race of hardy Grapes—Grapes of large size and good quality, that will ripen their fruit early and well, in the open air of England.

Amongst Peaches and Nectarines we are again indebted to Mr. RIVERS for some splendid acquisitions. The improvements which are being effected in this class of fruits are truly marvellous, so numerous are the seedlings raised and fruited every season. Many of those of the past season we have tasted, and have found them excellent, all being possessed of a peculiarly rich and tender flesh. The gem of the season is Margate, raised from Rivers' Orange Nectarine, a Peach of medium size, ripening in August, with very tender melting flesh, and a flavour quite original and exquisite. Another variety, a seedling from Cooledge's Favourite, is also one of very great promise. A new yellow-fleshed Peach of Mr. PEARSON'S may be mentioned as an acquisition to that class, although the yellow-fleshed sorts are not generally looked upon with much favour in this country—why, we cannot tell, for there is something peculiarly pleasing and warm-looking about them, though in flavour they are as a rule inferior.

Figs have come in for a more than usual share of attention during the past season. They have been strangely neglected in this country, yet there is no fruit so really delicious. The Negro Largo, introduced by Mr. FLEMING, of Chyeden, from Spain, is a great gain, a noble-looking fruit, of large size, prolific, and of excellent quality. The Bourjassetto Grise, figured at p. 1260 of our last volume, though not new, is but little known, and may be thus prominently noticed as being without exception the richest of all the Figs we have tasted. The Col de Signora Blanca panachée is also an extremely good, and a particularly beautiful sort, the fruits being handsomely striped with broad bands of green and yellow.

Amongst Apples we have the fall well worthy of notice—Anna Elizabeth, a large culinary winter variety, Beauty of Waltham, in autumn, dessert sort, and Golden Seckling, another dessert sort of really good quality. Amongst Pears we have one sterling acquisition, the Summer Beurre d'Arenberg, which ripens in August, and which was raised by Mr. RIVERS from the old Beurre d'Arenberg. Beurre d'Automne, a large October Pear, is an introduction from the Continent, and has flesh resembling that of the Marie Louise and Glou Morceau, and which may not only be pointed out as one of the most beautiful Pears in existence, but also as one of most excellent quality.

Though several Cherries and Plums have been brought forward, we have no decided acquisitions

to record amongst these fruits. Strawberries would doubtless have furnished us with abundant materials to chronicle had the weather been more favourable; but, being so hot and dry at their season of ripening, they were in a great measure spoiled. Some seedlings raised by Mr. STANDISH and Mr. WILLIAM PAUL, not yet named, are of wonderful promise; also the following of Dr. RODEN'S raising—Duke of Edinburgh, Lord Napier, and the Sultan. Mr. PAUL furnish us with two good varieties, the Golden Queen, a beautifully netted, bright golden-skinned and green-fleshed variety, and Queen Emma, a white-fleshed variety. New Melons are always plentiful enough, and the difficulty of their raising is principally a matter of good cultivation.

The progress made in the VEGETABLE department has not been so great as amongst fruits, the past season having, in consequence of the excessive drought, been perhaps the worst that has ever been experienced for the proper prosecution of this, the least attractive, but by far the most important of a gardener's pursuits. We do not here look so much for novelty as we do amongst flowers or fruits. The improvements amongst vegetables are effected by careful selection of particular forms, and by the husbanding of seed from these, rather than by the exertions of the hybridiser. Thus, when a new vegetable is announced, it will in most cases be found that it is only a particular form carefully selected from some variety already in cultivation. In Peas, however, we have one or two grand exceptions to this rule, and to Mr. LAXTON, of Stamford, our thanks are again especially due for his successful exertions in this field of labour. By his efforts in hybridising the Pea, we are gradually becoming possessed of a race of early green Marrows of wonderful excellence. We last season recorded the introduction of Laxton's Supreme, and Alpha, which have quite maintained their high character; now we have to record a still greater acquisition, which has been named William I., a wrinkled blue marrow, as early as Sangster's No. 1, and producing very large pods—a grand acquisition truly. Multum-in-Parvo, a larger form of Little Gem, is in some respects an improvement on that variety.

Amongst Kidney Beans, the Salmon-coloured Kidney, proves to be very good amongst dwarfs, while amongst Runners Premier is a decided acquisition—a true Kidney Bean with a running haulm, and consequently a continuous bearer. The new Purple-podded, has proved to be more curious than useful, the dark colour of the pods militating against it. Of Colonies we have Sandringham White, a selected and somewhat taller form of the Incomparable White, and Carter's Incomparable Red, an excellent dwarf kind. Of Endives we have Fraser's Broad-leaved Batavian; and of Lettuces, All the Year Round and many fine forms of Paris White Cos. Mr. MELVILLE has been working assiduously for some years past in hybridising the old perennial Woburn Kale with the variegated Borecole, the object being to secure a perennial variegated Kale for the decoration of our shrubberies in winter, and in this he seems now to have succeeded, the new form being an important acquisition, although not yet quite so perfectly coloured as we may expect to have it.

Amongst Cucumbers there are always numerous so-called novelties bearing at least new names, yet there is nothing particularly new amongst them, the Telegraph of Rollisson and Paul, Pearson's Long Gun, and Masters' Prolific, may be cited as perhaps the best forms of the year. Winter Favourite, a hybrid from the Lardy ridge sort, promises to be an excellent winter variety, as does the Early Winter Prolific. To these may be added the magnificent varieties raised and sent out by Mr. HAMILTON.

In Potatoes—one of the most important of all Mother Earth's productions—we have abundance of new material. The past season was, however, one of the strangest and most trying that has ever been experienced for this particular crop, and although disease was happily almost absent, the excessive drought affected them greatly. Almond's Yorkshire Hero of our great Potato King, Mr. FENN, is a fine sort. Carter's Main Crop, of the Red Regent class, will prove a most useful variety, being excellent in quality, like the Regent itself. There are also Giant King, Veitch's Improved Ash-leaf, and many others too numerous to mention. Thus throughout the entire vegetable kingdom, in almost all its various departments we have something new to write down, some improvement to be thankful

for, all tending to show that our gardeners are ever watchful, and ever ready to aid and assist Nature in her steady onward march. B.

— We have just had a very curious communication from one of our best producers of ZONAL PELLARGONIUMS. It is well known to most of plants from cuttings, especially in the case of the scented Roses, that a large callus is often formed at the base of the cutting, which keeps increasing in size without throwing out a single root, and eventually cutting the cutting off. The case before us is somewhat, though not entirely, similar. A quantity of cuttings of Zonal Pellargonium were observed to die off at the base, and when examined, with a view to ascertaining the cause, it was found that from the base of the internode a spongy mass was thrown out, which ultimately branched and assumed the appearance of some Clavaria. In the specimen before us not a root was thrown out, and this appears to have been generally the case, and indeed the fungoid mass, on close examination, to belong, not to any root, but to an unnatural development of the axillary where the lowest leaf was torn off. This appeared to be the case from an abnormal development of the foliaceous appendages being at length produced in many cases on the tuberiform body. The appearance, in fact, is similar, though in a modified degree, to which occurs occasionally on different parts of the Pteris, of which an illustration was given some time ago in this Journal. The body was too much decomposed, in consequence of transmission by the post, to admit of microscopic examination, but we have no doubt about its being a transformed bud, whether normal or adventitious. The cause of these curious freaks, no one is, we believe, in our present state of knowledge, able to explain. M. J. B.

— MR. H. C. BAILDON, of Edinburgh, has issued a specimen of his new patented process of NATURE-PRINTING, in the form of four sheets containing figures of 12 species and varieties of ferns and British Ferns. The plants are for the most part very nicely and truthfully represented, though in their being printed in colours, one can scarcely judge the perfect accuracy of first-class hand-colouring. The process adopted seems to be that of taking impressions direct from the specimen, after carefully drawing with prepared ink, on transfer paper, where the figure is conveyed to a lithographic stone, the colours being then obtained by successively printing compared with what is more usually called Nature-Printing, the Naturdruck of the Germans. The process presents both advantages and disadvantages. On the one hand it avoids all undue extension of the parts and joints, of more accurate printing, especially as regards the thicker parts, as the ink and rachs, on the other hand, the structure of the venation especially, are less distinctly brought out. To remedy this latter deficiency in the present enlarged woodcut figures, drawn by Mr. FITZ, have been given in the letterpress. The work is published by REEVE & Co.

Below we give the results of the Royal Horticultural Society's December EXAMINATION OF GARDENERS. We understand that the Examiners, stating that the papers worked on this occasion were below the average, specially point out that in respect to orthography, both in the case of ordinary language and of the names of plants, the result is not satisfactory, words and names being too often carelessly spelt, as may be illustrated by such as "Lordizabella" for Lardizabala, and "Amaroc" for Hemerocallis. The schoolmaster has some occupation still, amongst the rising generation of gardeners. Surely with the high-grove profession and high estimate of the value of their services, it is part of the young men of the period, we ought at least to look for a better display of the rudiments of learning. It may be necessary to indicate the total of marks for the questions set was, in Floriculture 1200, and in Fruit and Vegetable Culture 1000. The awards are as follow—

Name.	Floriculture		Fruit and Vegetable Culture	
	Cert.	Marks.	Cert.	Marks.
R. J. Lynch, Kew	1	104	2	100
J. M. Auld, (Liswick Student)	2	870	3	100
W. J. Stone, Eridge Castle Garden	3	860	3	100
R. Inglis, Kew	2	810	3	100
I. Wright, Kew	2	780	3	100
G. Payne, Acton	2	690	3	100
R. Barnes, Chiswick Student	2	630	3	100
J. French, Regent's Park	3	580	3	100
S. F. French, Chiswick	3	530	3	100
J. McGregor, Kew	3	480	3	100
W. D. Jackson, Kew	3	430	3	100
R. Meares, Kew	3	380	3	100
J. Morrison, Chiswick Student	3	330	3	100

New Plants.
— MORMODES SKINNEBI, sp. n.
Sepals pedicels linear-lanceolate with the reflexed lobes, the innermost lobes being the largest, the outermost being the smallest. The petals are linear-lanceolate, the innermost being the largest, the outermost being the smallest. The fruit is a globose capsule, the lobes being linear-lanceolate, the innermost being the largest, the outermost being the smallest. The column is whitish.

Messrs. Veitch obtained the plant through the late G. L. Skinner, Esq., from Central America. We have dedicated it to the memory of that gentleman, whose death was a severe loss for Orchidology. H. G. Rehb. 31

BOTANICAL DRAWING.—No. II.

For a flower drawing smooth paper is best suited, as it shows off finer touches and lines, and smoother washes of colour.

The best pencil to use is an H. for delicate subjects, such as white flowers, and an F. for leaves, and any part which is to receive dark colours, so that the lines may not be entirely obliterated.

In botanical subjects it is sometimes desirable to represent the roots, bulbs, &c., but they are so easily drawn that I think no special directions are necessary.

In the straight stem there is always some degree of curve, therefore the ruler should never be used; it is the last resort of those unable to make "straight strokes" and only worthy of schoolboys. It is more difficult to draw parallel lines, and the best practice is to sketch grasses or long-leaved plants.

Leafy stems or branches should be first faintly outlined their true length, of their proper thickness, so that the drawing may occupy a well-balanced position on the paper. Then mark whence the leaves spring. It is also desirable to note the shape of the stem, whether square, round, winged, &c.

The slight sketch below will show the advantage of proceeding thus cautiously, and will enable every leaf petiole to have its proper point of attachment, whether visible or not.

In serrated leaves it is safer to put in the serrated outline before doing the veins; and, in cases where the latter terminate in the points of the serratures, commence the veins at the points, and they are sure to terminate properly.



In lobed leaves, after faintly indicating the lobes, put in the ribs and veins first, and the outline of the lobes particularly if they be toothed, will be found much easier. In digitate leaves indicate the petiole and midrib first, the relative position of the leaflets can be kept with greater certainty. In pinnate leaves, when large, after faintly sketching the rachis and



the points whence the leaflets spring, put in the mid-ribs first, and define the leaflets last; if the pinnate leaf is small, this is unnecessary. W. H. Fitch.

APPLE STOCKS AND FRUIT GROWING.

It is impossible to exaggerate the importance of the question of Stocks, and of a correct knowledge of them. No single variety of a fruit, however good, is at all so important as a stock which exercises a good effect on all the varieties of a species grafted upon it, and therefore exact knowledge is of tenfold greater importance in the case of a stock than of any of the varieties grafted upon it. The pith and marrow of this discussion lies in the answer to the question: What is the true French Paradise stock, and what is its value?

The French Paradise Stock (Pommier du Paradis).—Mr. Rivers (and also the Rev. T. C. Bréhaud, the author of the Government Report on Fruit Trees at the Paris Exhibition) states that it "seems identical with the dwarf Apple of Armenia, referred to in the Journal of the Horticultural Society, Part 2, Vol. III, page 15." Any person with the slightest knowledge of the Paradise stock of Continental gardens, and who refers to this account, will rise from it with a feeling of surprise that any intelligent person could suppose the dwarf Apple, tacitly mentioned to be the French Paradise, for it is described as never exceeding in thickness of stem, even at 40 or 50 years of age, "that of your fore-finger." To test the fact that the diminutiveness was not owing to its being always kept in pots or boxes, the writer put out three plants, and, after keeping them three years in the open ground, found they had made no perceptible progress. Young plants of the Paradise, in which the buds have missed, may be seen larger than the tiny trees above described in many French nurseries. Apples worked on the Paradise are not delicate, tiny shoots, but strong, clean, handsome plants, 4, 5, and even 6 feet high, at little more than a year from the bud; and in numerous gardens in northern France the very fruiting branchlets of the trees on the Paradise are stouter than the dwarf Apple of Armenia at any period of its life. Any person who steps into the Imperial gardens at Versailles will find therein some 5 miles of cordons Apple trees, chiefly of the Blane and d'Armenie du Paradis, trained near the ground, worked on the Paradise. The soil is rich, deep, cold, and clayey, and the trees, instead of being too weak, grow stronger than is desired, the very smallest spray displaying more vigour than this Armenian Liliputian, of which not a word is said as to the fruit, flowers, or other characteristics, that would enable anyone to say what it is or what it is related to; and yet Mr. Rivers, without offering any evidence in support of his opinion, declares it to be identical with this unhappy little Eastern Apple, of which nobody knows anything or possesses any means of learning anything.

Having now seen what the Paradise is not, we will next learn what it is, according to the learned Professor Karl Koch, of Berlin, who is known to have devoted more attention to the origin of our cultivated fruit trees than anybody else.—"The name Malus paradisiaca appears to have been first used by Ruellius, in the year 1537, and does not refer to the Apple of which our first parents partook in Paradise, but to a fruit which is supposed to have been sent from heaven. It is a native of south-east Russia, the Caucasus, Tartary, and the Altai mountains. I have often seen this plant in the Caucasus, where it forms dwarf trees, often accompanied with suckers, near the Don

at the Volga. It gives forth strong branches near the root, rather from the under part of the trunk, and grows more quickly than the smooth-leaved Apple tree. On this account it is very much used by fruit-growers for stocks for trees; it keeps the trees dwarf, and it bears fruit earlier. It always remains dwarfier than the varieties of the smooth-leaved Apple, and is of shorter duration. It is sometimes met with in gardens as Malus tatarica." I have much more from Prof. Koch, but this is enough for my present purpose. There is nothing in what he says about it or its relatives, from a botanical point of view, that does not coincide with the practical experience of Continental fruit growers. In addition to the origin of the Paradise it is desirable that we should know something definite about its personal appearance. The following description of it is from the pen of M. Carrière, of the Jardin des Plantes, and Editor of the "Revue Horticole":—"Roots much ramified and tidy, short, remaining near the surface, and never tap-rooted. Shrub, bush-like, much branched, the branchlets rather long, and with a lateral tendency, the stems covered with a smooth bark of a reddish colour; lightly pubescent in the case of the young shoots. Leaves lanceolate, elliptical, of a light green above and velvety beneath, finely denticulated, acuminate at the ends, but principally at the base. Petiole broadish and channeled. Calyx, with divisions acuminate and recurved, often contorted, as long as the peduncle. Petals straightly elongated, the inner ones being a little longer than the outer. The fruit is a small apple, white, pubescent. Fruit ripens in the month of July." It flowers more abundantly and earlier than the Paradise.

Let us next approach the subject from a more practical and important point of view, clearly understanding that the Paradise stock is considered of the highest value in France, in Belgium, Switzerland, and the neighbouring countries. When I state that I have seen many gardens without a single Apple tree that was not growing upon it and trained as a low horizontal cordon to walk and borders and these gardens in possession of a number of the finest Apples, I shall have conveyed a fuller idea of its importance than by quoting any number of opinions from authors, cultivators, or nurserymen. We can breakfast in London in the morning, and dine in Paris conveniently the same evening. In the gardens of M. Bac at Ivery, M. Chardon at Fontenay aux Roses, M. Mallot at Brunoy, M. Cochet at Suisnes, Baron Rothschild at Ferrières, and in the Imperial Gardens, not to mention hundreds of other places, it is grown, and preferred above all other ways of Apple growing, so that ascertainable evidence of its value is abundant. Of this stock, so appreciated across the Channel, Mr. Rivers writes:—"1st, it is too tender for this climate; 2d, I decidedly assert that it is the most unfit of all for forming single horizontal cordons; 3d, the tree, when bent down to be fastened to the wire, puts forth such a cluster of blossom-buds at the bend, that there is not enough of vital force in the stock to throw out a leading shoot to be tied to the wire; 4th, trees on it, instead of cordons, become stumps; 5th, it is exactly the converse of the truth that the French Paradise stock flourishes better in stiff, cold, clayey soils, than in those that are light and fertile." I could fill a column with proofs from England as well as France that each and every one of these statements is exactly the reverse of the truth, but I shall simply quote a few opinions of weight. Professor Decaisne, who is probably the first pomologist in Europe, says "it is absolutely certain that the Paradise cannot be killed by frost." M. F. Jamin, the part-owner of the large nurseries at Bourg-la-Reine, says, "The Paradise does best on bad, clayey soils, and if thrown on the surface of the ground, with its roots exposed all the winter, cannot be killed by our hardest frosts." Prof. Morren, of Liège, says, "The Apple on the Paradise has been tried extensively in the Flemish part of the country, and has succeeded remarkably well." Any person who casts his eye on the map of Europe and sees that southern England and the Flemish part of Belgium are merely divided by a few miles of sea, will surely have to ask himself, is there magic in the air, that a plant which is pronounced a marvellous success on one side of the Channel should be such a worthless thing on the other? The reader will probably have made up his mind about the matter by this time, and said, "It is now a matter of simple experiment; let us try it, and, if convenient, in competition with the English Paradise." Knowing that eye-proof is better than any other, I have recently placed 400 Apples on the Paradise, on clay soil, to the north of London, and in a position where they can be seen by everybody, and by and by, if this plantation does not prove every one of Mr. Rivers' five propositions to be untrue, I shall be the first to proclaim it. I appeal to the gardeners of England to test the matter. Many of my friends have already taken it in hand, and in a year or two we shall know the result. One word to those about to test it: always allow the apex of the young cordon to grow a little upwards, which will prevent the tree from using all its vital force at the bend. This is indispensable to the quick and successful formation of a line of cordons. Repress the point, or tie it closely down on a level with the other parts of the tree, and assuredly the sap will make an effort to ascend somewhere nearer to the base, but keep the growing point a little higher than any other part of the tree, and the sap will course through the whole length of the stem, and escape most at the apex, which may be fastened to the wire from time to time.

Mr. Rivers states that the Paradise was common in England in Miller's time, and quotes his opinion against it, but does not say that at present we require the Paradise for quite a different purpose. Miller says that "the dwarf Apple, which is rather a shrub than a tree, commonly called Paradise Apple, is undoubtedly a distinct species from all the others," and that the difference is "permanent when raised from seed." He says the stocks are not of long duration, nor will the trees grafted on them ever grow to any size, in both of which statements he is perfectly right. The cordon was unknown in his time, and if the Paradise grew bigger than it does, it would be useless for this purpose, but the Paradise was known and spoken of long before then. In the "Complete Gardener" of the "famous M. De La Quintinie, made English by John Evelyn, Esq.," London, 1693, at p. 112, I find these words:—"Moreover, Apple wildings, whatever they be and however grafted, are fit to make high standards, but not in the least fit for dwarfs, and the quite contrary with Paradise stocks, inasmuch that Apple trees must never be planted to grow as dwarfs, and take up little room unless they be grafted upon Paradise stocks, these quickly bear fruit and shoot little wood, the others are a long while producing nothing but a vast quantity of wood, which make excessive large trees, and live long before they bear fruit." But we find allusions, and distinct ones, to the "Paradise" long before this date. I can trace interesting notices of the Paradise in books that appeared 112 years before 1768, the date of my edition of Miller, but space forbids giving them here. They are all much to the same effect as Miller's account, and indeed he appears to have adopted their statements. Since their day many generations of men and Apple stocks have been resolved into their original dust and water, and fruit culture has increased tenfold with us, and in a much greater degree in the adjacent.

Early in last June I visited Mr. J. Wood, an English nurseryman, many years settled at Bosen, and in discourse with him on the subject of the Paradise, he said, with much emphasis, "For every fruit tree planted in England there are one thousand planted in France." In France there are regular professors of fruit culture, who frequently lectured to numbers of gardeners, and the subject of the Paradise has been published books at Paris, and in



Leaves If the leaves are more or less erect in relation to the stem, sketch the lower ones first, as a guide for those above, as in the left-hand out in the following sketch.

If reflexed, commence with the upper leaves, for the same reason. If done thus systematically, there will be a great saving of time and india-rubber.

Opposite leaves are best shown slightly askew, but if the stem is branched, the leaves on some of the branches should be more or less foreshortened, for the sake of variety.



Outline large leaves faintly before sketching them decidedly, and that should be done with one stroke of the pencil, and not with repeated touches, unless the leaves are woolly, when an indefinite outline is admissible. It is better to put in the midrib first, and the secondary veins afterwards, and to leave the leaflets to be added afterwards. The leaves may be—leaves are very seldom so rigid as to have none—then mark whence the veins spring.

The subject of the... of them very able ones in the preparation of...

The English Paradise... the authority of Mr. Rivers... this English Paradise is not the same as the French Paradise...

In the present state of fruit culture on the continent... tells us, in his essay on the very important subject called 'the Doucin'...

They have been to see the French and English Paradise stocks which Mr. Rivers has sent to London for examination...

Mr. Rivers has sent to London for examination, and found them, not at 4, Great Russell Street, but at 16, Bridges Street, Covent Garden...

[We have received... from Mr. Scott, of... we hope to publish in our next issue. Eds.]

winds prevailed The barometer continued tolerably steady during the month

February - The thermometer stood a little more the month, the mean temperature being a little more than 1 above the average

March - There were no great extremes in this month. The mean temperature was 1.7 above the average

April - This was on the whole a warm month, the mean temperature was nearly 1 above the average

TABLE SHOWING THE HEIGHT OF THE BAROMETER AND THERMOMETER, AND DEPTH OF RAIN AT CHISWICK, IN THE MONTH OF 1868, COMPARED WITH THE AVERAGE OF THE PREVIOUS YEARS

The Mean Temperature was 1.7 above the average. The Mean Maximum Temperature was 3.7 above the average.

mean minimum was 2.37 above the average. The highest temperature was 89 on the 5th, and the lowest 39 on the 25th...

September - In the early part of this month the day temperature was again very high, the mean maximum being more than 3 above the average

October - The day temperature in this month was fully maintained, being rather more than half a degree above the average

November - The day and night temperatures in this

May - In this month the day temperature remarkably high, the highest was 87 on the 20th, the lowest at night was 27 on the 24th

June - This month was especially remarkable on account of the high temperature being remarkably high, that of the nights unusually low

July - This month was remarkable for its hot days and comparatively cool nights. The temperature was 43 on the 21st and 22nd

August - In this month the thermometer steady as regards the day and night temperature

TABLE SHOWING THE HEIGHT OF THE BAROMETER AND THERMOMETER, AND DEPTH OF RAIN AT CHISWICK, IN THE MONTH OF 1868, COMPARED WITH THE AVERAGE OF THE PREVIOUS YEARS

The Mean Temperature was 0.4 above the average. The Mean Maximum Temperature was 1.2 above the average.

month were 1.01 below the average, the highest temperature was 57 on the 1st and 5th, and the lowest 18 on the 19th...

December - This month was remarkable for its day and night temperature, the former being above the average, and the latter 1.37 above the average

THE DROPPING OF CAMELLIA BUDS.

FOR years past I have observed complaints in the Gardeners' Chronicle respecting Camellias casting their blossom buds, and much seemingly reasonable advice has been given thereupon

Indoors in a span-roofed house, 18 feet high and 125 feet long, with a middle bed up the centre from end to end, and of course all planted out, the trees have for many years reached the summit...

plants, while in front, in each space between the walks and roof, covered with buds and blossoms base to summit, and yielding thousands of flowers of all colours every day from September till the end of April or May...

It is a much greater pleasure to see such perfection. The whole mystery, as to this dropping of buds, I send a sample of foliage and buds, thick, fleshy, crisp, and of a luxuriant colour. They are exposed to wind and dash of storms of hail, sleet, and snow...

... picked up to-day, with a few outdoor buds and ...

CALCUTTA BOTANIC GARDEN.

... This is the Elephant or ...

... This is the Palm tree of ...

... This is a tree about 10 feet high ...

... This is a native of Ceylon, and is the ...

... This is a native of Ceylon, the Coromandel ...

... This is a kind of ...

... This is the ...

... From the foregoing notes a pretty good idea may be ...

PLANTING FRUIT TREES.

... I will leave again to call the attention of your readers ...

... In England this must be done by the proprietor ...

... In Switzerland and in France things are quite different ...

... To return to my subject. A cold foggy November ...

... The comb from ...

... Now, if this Savoyard farmer can pay his rent out of ...

... This is used ...

LETUCES

... Just now when seed catalogues are being compiled ...

... Of what are popularly denominated Brown Cos Lettuces ...

... Of White Cos Lettuces I have seen examples of the following ...

... Of Green Cos Lettuces that known as the Paris Green Cos ...

... Among Brown Cos Lettuces a strain termed the Giant Brown Cos ...

...ed by one firm at Rochester, I am reminded and grieved, I am reminded of the fact that the plants were not properly watered. I had had a class, but finding the plants were not doing well, I had to re-water them. I had a class, but finding the plants were not doing well, I had to re-water them. I had a class, but finding the plants were not doing well, I had to re-water them.

the pots are new, and seem to have absorbed as much moisture as if they had been steeped in water. I had a class, but finding the plants were not doing well, I had to re-water them. I had a class, but finding the plants were not doing well, I had to re-water them.

Horticultural Congress—I am in a way that has been said respecting a meeting of this kind, and as it is to be under the auspices of the Royal Horticultural Society, I beg of the craft generally to prepare papers to be read before that august meeting. The subject of heating Vine-borders could be discussed on its merits, as well as hosts of real or supposed grievances and such subjects as seeds and the seasons, cultivation and decoration, and other matters too numerous to mention. It would also be a desirable to establish sub-congresses in local districts, to consider subjects, and send delegates to report progress annually to the congress proper. A great error in the past has been to mix with the Royal Agr. Natural Society, as both societies will work cordially together for the benefit of the country. Particulars can be discussed of the various branches of horticulture, as well as of other matters of success or disappointment, as exhibitors or visitors. It is to be hoped that every one will take his best precautions, so that we shall not hear any more of the old tale of having left better at home. Much pleasure will also be experienced in witnessing the great collections of implements, and the large gathering of the animal as well as the vegetable kingdom. Finally, as these meetings are for the benefit of the employer as well as the employed, let there be a clear understanding between both parties that the expenses to such meetings be duly entered on the debit side of the garden cash-book. *J. Miller, Workshop Manor.*

Atmospheric Pressure—As it may be interesting to some of your readers to compare the remarkable depression of atmospheric pressure during the past month with that which occurred towards the close of December, 1821, I copy the movements of the barometer (reduced to sea level) on that occasion from the "Proceedings of the Meteorological Society," vol. i., p. 200.

9 A.M.			2 P.M.			6 P.M.		
Dec. 11	Dec. 12	Dec. 13	Dec. 11	Dec. 12	Dec. 13	Dec. 11	Dec. 12	Dec. 13
29.18	29.56	29.15	29.18	29.56	29.15	29.18	29.56	29.15
29.18	29.56	29.15	29.18	29.56	29.15	29.18	29.56	29.15
29.18	29.56	29.15	29.18	29.56	29.15	29.18	29.56	29.15

And on Jan. 19, 1822, the barometer rose to 30.58 inches. *R. C. Cann Lippincott, F.M.S., Overcourt, near Bristol.*

Rainfall, &c. The rainfall of last month was remarkable, and an account of it may be interesting. My instruments are placed on the side, and near the bottom of a hill, in a sheltered situation, free from walls and trees.

DECEMBER, 1865			
Day	Ins.	Days	Ins.
1	0.8	10	0.2
2	1.1	11	0.7
3	1.2	12	0.8
4	1.3	13	0.2
5	1.4	14	0.2
6	1.7	15	1.0
7	1.6	16	2.3
8	1.7	17	1.5
9	1.5	18	1.1
		Total	11.4

The highest observed (uncorrected) reading of the barometer at 9 A.M. was 30.126° on the 9th, the lowest, 29.642° on the 21st. The highest self-registered temperature occurred on the 7th, 59°, the lowest on the 30th, 33.5°. The highest observed temperature of the dew-point at 9 A.M. was 52° on the 11th; the lowest, 31.5, on the 12th. The highest humidity at 9 A.M. was 100 on the 1st and 29th, the lowest, 78°, on the 13th. The greatest horizontal movement of the air in 24 hours occurred on the 28th. The direction of the wind was south-westerly on 15 days, south-easterly on four days, southerly on three days, westerly on five days, and easterly on four days. Ozone was very abundant throughout the month, the only day showing deficiency being the 21. *R. C. Cann Lippincott, F.M.S., Overcourt near Bristol, Jan. 2.*

Butterflies at Pau on New Year's Day—One of your correspondents mentions the fact of his having seen a Peacock butterfly on the wing in the open fields on the 22d of December last. This is, I believe, "for this realm of England," quite an unparalleled case, but on New Year's Day I noticed three species with a few miles of Pau, France, viz, the common Atalanta, a species of Fritillary, and the sulphur-coloured. Whether there was anything unusual in their being seen in mid-winter in that locality I do not know. *J. B.*

Tubers of Oxalis crenata—At Paris, on my return from Pau, having a little time to spare between the trains, I strolled into the Palais Royal, where in a "depot" of "comestibles," I noticed, among other good things, the tubers of an Oxalis, which I have no doubt was my old friend *O. crenata*, that I had not seen for 30 years. The hour being early, and the shop only just opened, there was no one there but an ignorant woman, and all that she could tell me was, that the tubers were grown in the open air, and in the neighbourhood of Paris. I brought away a number of them, which I hope to exhibit and comment upon at the next meeting of the Royal Horticultural Society at South Kensington, and in the meantime I should be particularly obliged to any of your correspondents who might kindly send me information on the subject. *J. B., 9, Hyde Park Gate, South, W.*

Tanks—Can you or any of your readers tell me of a plan to get water out of a tank. It is of brick, cemented, and is 12 feet long, 6 feet wide, and 3 feet deep. It is 3 feet below the surface, 1 foot above it, and has no step down to it. We find a moderate-sized can feels heavy

when we have to dip low for it and bend down our backs to get up the sides of the tank, and this requires some one to make them look on. *A. W. D. C.*

Cricket—I have a very large quantity of crickets, and I have been thinking of getting rid of some of them. I have been thinking of getting rid of some of them. I have been thinking of getting rid of some of them. I have been thinking of getting rid of some of them.

Cucumbers—Doubtless there are many amateurs who are equally perfect as I am myself in regard to the choice of one or more good Cucumbers. Every seedman or grower recommends his own variety. I find nearly all of them improved or very old-fashioned names are to be had. I have a constant heat by hot water of not less than 75°. I shall be obliged if you can give me the names, and where seed is procurable, of a good trucky, or favoured handsome sort of about 18 to 20 inches in length well covered with bloom to be raised on a hotbed of dung, in a brick pit, with outer linings that stand hardy, and will not damage, should the heat occasionally fall to 60°, when it loses the sun's influence. Years gone by, such as I am anxious to procure used to be grown by the then unscientific and a fine specimen (not early) in March. Is there a Cucumber known as the Racehorse? and where obtainable? *Q.*

Rats—I have made a garden joining a meadow, with a brook running through, and am greatly troubled with rats. Your correspondents would greatly oblige by informing me of the best method of getting rid of them. *A. Heaton at Green Hill, Bury St. Edmunds.*

Phalaenopsis Schilleriana—A fine specimen of this magnificent Orchid will shortly be in bloom at Messrs. Carter & Co's nursery, Perry Hill, Sydenham. The plant is not over large, but in the condition having four very handsome marked leaves, and it has thrown up a flower-spike about 10 inches in length, and in addition to the terminal shoot of the spike there are eight lateral shoots, the aggregate of flower buds being 57. It promises to be an exhibition in itself, and it is to be hoped that when in bloom it will appear at one of the meetings of the Floral Committee at South Kensington. *R. Dean, Ealing.*

Sedum acre variegatum—I have some small circular beds carpeted with this showy little Sedum, that are each in the way a miniature field of the Cloth of Gold. Growing close to the ground it presents the appearance of masses of minute golden blossoms, most striking at this season of the year. It is one of the prettiest and most useful foliage plants for spring work that I have ever employed, and I marvel that our spring gardeners do not use it extensively. The mild, moist weather suits it uncommonly well, though amid the hardest frost it never loses its cheerful and bright appearance. *R. Dean, Ealing.*

Telegraph Cucumber—I forward you a brace of Rollison's Telegraph Cucumbers—they are not quite equal to what I have been cutting, in consequence of having cropped them rather heavily. My reason for sending them, is to show that my brother gardeners need not be under any fear in growing this variety in winter or early spring. Several spurious varieties have been sold for Rollison's Telegraph, and were complained of by some correspondents in the *Gardeners' Chronicle* last season. I have heard of two or three instances in which Cucumbers could not be produced of this variety in winter; they certainly cannot have been the true kind, for I find it an extraordinarily free setter and cropper. I do not think there is anything to equal it, especially for winter use. I sowed some seed on the 21st August, and began to cut on the 20th October, and have been cutting ever since (from eight plants) an average of 12 Cucumbers a week. From my previous knowledge of its cropping quantities, I feel certain the plants would continue bearing until next autumn, if required to do so. I had it a very shy seeder if kept true, but it fertilized with any other free seeding kind it will produce seeds freely, but it then becomes almost worthless in comparison with the pure stock. In one list of seeds I have seen this variety offered at a very low rate, lower than some popular and common kinds, the seedsman may perhaps, have had the true stock, but it is very doubtful if he has kept it true, as I am convinced that he could not grow the seed for the low price he asks. One of the principal things that is required of seedsmen is, to send out articles true to name. Suppose a gardener like myself is depending upon a crop of winter Cucumbers, either for his employer's table, or for market purposes, and after growing them several months he finds that he has not got the true kind, but an almost worthless variety, that will not bear fruit longer than a Gherkin, and will only now and then produce one of the miserable-looking fruit. Sending out articles true to name does not apply to Cucumbers alone, but to the general articles sold in the trade. I think this is of equal, if not more importance, than the mixing of seed, which is being discussed in the columns of the *Gardeners' Chronicle*. *J. D.* Considering the season, the samples sent were very good. *E. W.*

Pruning Forest Trees—Mr. W. P. Ayres objects to the principles I laid down in the paper on forest pruning, which I read at the last meeting of the Scientific Committee of the Horticultural Society. I need not trouble you with a reply to his criticisms, because having said my say, it is open to every one else to say theirs in their turn, and to confute my conclusions if they can. But I trouble you with a few lines to present Mr. Ayres' statement of my position being

Hyacinths—I potted my Hyacinths the second week in November some in old pots and others in new ones. The water had been near them before use. Now, the old pots are doing well, making some good roots, but those in the new ones are not doing well. They have rooted well into the compost, but as the roots reach the sides of the pots they turn brown and rot off. What can be the cause of this rotting? They were all potted the same day, in the same kind of compost, plunged to the rim of the pot in sand and watered, then covered to the depth of 3 inches in rough sand and ashes. I constantly examined them, and the pots seemed to have absorbed the moisture as though they had been steeped in water before the roots came in contact with them. *F. H.* Mr. William Paul kindly furnishes the following reply to the above query—"I can only account for the rotting of the roots of the Hyacinths immediately that they come in contact with the sides of the pots on the following supposition. 'F. H.' says

JANUARY 14, 1888

but they are very abundant. The great supply of grapes comes from the Crimea. In general they are large and well flavoured, and sell here (Moscow) at about 10 roubles a pound.

Societies.

ENGLISH BOTANICAL. Dec. 17, 1887.—Charles Jenner, President, in the chair. After the election of five new members for 1888-89, Dr. Cleghorn, the new elected President, gave the chair. Donations to the library and museum at the Royal Botanic Gardens were announced. The following communications were read:—I. Notes on the Dying and Ageing of Plants. Dr. Cleghorn. The author described the changes which take place in the tissues of plants during the last months of their life. The mode of cultivation of the various species, and the value of the Carob Bean as a food for the young of the insect, were dealt upon, and the value of the various vegetables as seen in the markets was discussed. II. Notes on the remarkable plant, Cynomorium, a parasitic plant, was given and the present position of the plant in the Antioch Gardens described. III. The largest trees in these gardens were mentioned, and the results of the recent introduction of a new species, The importance of extended arboriculture was discussed. The paper will appear in full in the Society's Transactions. IV. Reports on Botanical Specimens in the Herbarium, 1886, by Professor Dickson. The specimens of the various plants collected in the various parts of the world were exhibited. V. The importance of Fungi. By Mr. James English. Fungi, considered by Prof. Dickson. The author described the various forms of fungi, and the importance of their study in the history of the world. A series of Fungi were exhibited by Mr. English, and now in the Museum at the Royal Botanic Gardens, were exhibited to the meeting. VI. Report on the number and distribution of plants in the Government plantations at Durban, on September 1, 1887. The total number in the various plantations that date was 2,073—viz., 1,000 in the Government plantations, 900 in the official and 173 in the private. VII. The importance of the study of the life of a botanical tree, in which he had made a study through some parts of South-east and West Africa, and the results of his study were exhibited. VIII. Professor Dickson gave a description of the peculiar microscopic structure of the cells of the Brazil nut. Preparations were exhibited under the microscope. IX. Mr. Stark exhibited growing plants of Asparagus azoricus and Sodia Maximowiczii.

Florists' Flowers.

THAT in the face of such a trying season as the past summer has proved for bedding plants generally, and for the Verbena in particular, the Floral Committee should have awarded three First-class Certificates to Verbenas, as fine and useful bedding kinds, out of a somewhat limited number of plants bedded out for trial, is a fact enough to rouse to a high pitch of enthusiasm the loyalty of those advocates of the VERBENA as a BEDDING PLANT who, sustained by a faith no calamity that has happened to their favourite can darken, were still found prophesying that "the new-fangled bedding plants, in which dingy and uncertain aspects of self-coloured foliage, or leaf-variegation, supply but indifferently well the place of gay and varicoloured flowers, will last but for a season, and ere long be supplanted by the old and more reliable plants whose legitimate possession of the flower garden they have for a brief time usurped." True it is, that in the flower garden the neglected Verbena has just come to the foreground, and taken high honour at that kind of competitive examination a season's trial affords. With other bedding plants, Mr. Barron this season planted out a few Verbenas, and to the following varieties First-class Certificates were awarded, as recorded above.—James Burbeck (Perry), shaded pink, dashed with violet, a fine and many free blooming, bedding kind, trusses of good shape keeps its colour well under a burning sun, and of excellent habit and style of growth. John Wilson (Perry), scarlet, dashed with violet, with all the admirable qualities of the foregoing, but yet distinct in colour. Miss Wimsitt (Wills), deep purplish violet, with conspicuous white eye, which, however, becomes a little pale with age but without presenting a very appearance very free blooming, and excellent dwarf habit. For cultivation in pots this latter variety appears to be eminently adapted, and should be noted by cultivators who so grow the Verbena. Hercules (Perry) was also very good, yet having to a certain extent the fault that attaches to most rose-coloured Verbenas when used for bedding purposes—a tendency to become pale and washy, this variety has deep rose flowers with white eye, with a crimson ring surrounding it, it has also free-blooming properties, and an excellent habit for bedding purposes. While on the subject of rose-coloured Verbenas it may be stated that there has been seen growing in the neighbourhood of Halifax during the past summer a rose-coloured sport from the well-known Purple King, identical with it in every respect save in the colour of the flowers. In the somewhat monster atmosphere of the West Riding of Yorkshire (though it appears somewhat difficult of proof to assert that the atmosphere has been moist anywhere during such an almost unprecedented summer), this sport has done very well indeed; and if

getting pale as the flowers age, it is to some extent compensated for by the wondrous profusion of bloom it yields. It did not appear to have been named, but was simply known as a rose-coloured sport from Purple King. A variety known as Crimson King, sent out by Mr. Mathew, of Edinburgh, was seen remarkably fine at Mr. Kinghorn's nursery, Richmond, in August last. It has bright deep crimson flowers, with a pale lemon eye, and a good bedding habit. Mr. D. Thomson, lately of Archers' Road, strongly recommends this variety for bedding purposes—a pretty sure guarantee that it is well adapted for the purpose. The dry season has had a beneficial effect on a somewhat rampant grower like the old Lord Raglan, as it has tempered its growth and increased its tendency to bloom freely and continuously. It was largely used this past summer at the Promenade Gardens, Great Malvern, by Mr. R. H. Vertezans, and on some sloping banks, with a north-west aspect, it was gloriously fine. It is an excellent kind also to cut from, having a long stiff flower stalk, while in regard to constitution it is so hardy a way in habit that it blooms as usually late in the season. It is somewhat late in the career of this variety to write thus much in praise of it, but these are the very qualities that have kept it so long in cultivation. Blanc de Castille is another capital bedding kind, having pure white flowers with a slight lemon eye, and a good habit. This was also very attractive at Mr. Kinghorn's nursery.

At the Royal Nursery, Slough, Mr. Turner planted out this summer a number of kinds, to test their value for bedding purposes. It afforded a very good opportunity to get something like reliable impressions of their apparent usefulness in this respect. The best thus employed were—Apollo (Sarkey) pale flesh with bright crimson centre, and suffused with the same, a wonderfully free blooming kind, of excellent habit, and which kept its colour well. Madame Herman Steeger (Beucharat), very showy indeed, and useful as a bedder; something in the way of Apollo, but white, bright rose and cherry centre. Blue Queen (Perry), bluish purple, with white eye, keeping its colour better than flowers of this hue of colour generally do, nice dwarf compact habit. Modesty (Perry), another good light-coloured bedder, bluish, with bright crimson centre, and capital habit. King of Bedders (Henderson), bright crimson-flowering variety, in the way of Admiral Dundas, habit dwarf and compact. Spark, brightscarlet, a variety that does not burn, and has a fine glow of colour. L'Avenir de Balant, a very good bedder, opening bright rose, with small centre of bright rosy crimson, the flower pale a little with age, but without becoming washy. Black Prince (Sawth), red plum purple with white eye, a good bedder. James Burbeck (Perry), and John Wilson (Perry), both very fine and effective here as at Chiswick, the predominant hue of the former is scarlet, of the latter ruby. Miss Turner (Perry), habit very good, but comes much suffused with pink out-of-doors, yet a very pretty variety. Hercules (Perry), a good bedder, and of a deep rose hue, approaching to ruby, in its effect it has more of rose in the flower than is found in the case of John Wilson, and out-of-doors the two kinds approximate much more closely to the same hue of colour than when grown under glass, the colour of Hercules fades a little as the flowers age. Lilac King (Perry), pale lilac, free blooming, and good habit. Harry Law (Perry), shaded purple, with white eye, a good bedder, and free blooming. Starley Hibberd (Perry), a splendid bedding kind, of a close, compact habit, and most profuse in blooming, colour bright plum purple, with small white eye, a kind that retains its colour remarkably well, and also promises to be a good variety for pot culture; and J. C. Ward (Perry), bright purple, good bedding habit, and free blooming, but with a tendency to come pale round the small white eye soon after it opens.

Of pure white flowers, the old Snowflake has done most admirable duty as a white bedder during the past summer. In a few instances where it has been seen (and they represented somewhat diverse localities) it, too, had lost something of the strong growth it will frequently manifest, and had produced many more blossoms than usual. It would thus appear that the dry weather has beneficially affected strong and rampant growers, a fact that may be of use to cultivators in the future. No doubt the great bane of the Verbena, as affecting its attractiveness, is wet weather, as a heavy rain will soon impair the beauty of a bed, but it should be borne in mind that all flowering plants grown in the open air are more or less injured by the same cause, and a too sweeping condemnation of the Verbena should be modified by such a consideration. R. D.

The Aptary.

WINTERING BEES (continued from p. 31).—In my last communication on this subject I gave the ideas of some writers in the "American Bee Journal" who are in favour of wintering bees on their summer stands, providing for them proper protection and ventilation suitable to such a condition. I now, from the same number of the Journal, give the views of some advocates of the dark cellar or separate house system of wintering, leaving it to my readers in this country to judge for themselves whether the adoption of either method is desirable, and if so, which plan would best suit their purpose.

"Novice" says:—"We are going to put all our bees into the cellar. Does any one care to know why? Well, you remember the one weak swarm (or rather quart of bees) that we kept in the cellar last winter, which consumed less than one frame of honey, and of which so many were lost, after being set out a day or two? Though they did become very weak, yet, without any assistance in the spring, except the rye and oatmeal, they became a strong colony, and have yielded us more than 50 lb. of honey. Now, had they been left

out with the others, they would assuredly have died, as well three or four much stronger ones, and we should have had nothing but empty combs. By the way, Mr. Little, we will pay 25 cents each for frames of empty worker combs, so that a Langstroth hive from which the bees have died is worth 2 dollars 50 cents for combs alone. I extract this last paragraph, though not relating to the subject under consideration, for the purpose of showing our readers the value which, by some bee-keepers, is placed upon empty combs, which, in truth, should always be carefully preserved for your assistance to weak stocks, or for making artificial swarms. Now, if we can save 10 lb. of honey from each stock, by carrying them in the cellar (which we do not doubt), we shall have 350 lb. more ready for our honey machine next spring. We shall place a thermometer there, so as to keep the temperature as near 35 or 40° as we can. A great deal is said about keeping bees quiet, yet the weak swarm first mentioned was struck every day for three months with hardly an occasion, to see if they were alive, and we are going to 'look at 'ard punch' our bees this winter whenever we feel inclined to do so. We cannot help thinking Mr. Langstroth's new plan for wintering is an awful sight of trouble, and that it will not answer the same purpose as keeping them in a cellar at a temperature of about 40°. Will not the same objection come in that was made to double hives—that the sun cannot warm them through as quick as a thin hive? This writer is a warm advocate for the use of rye and oatmeal. He thinks that his large harvest of honey the last poor season was mainly owing to the large amount of rye and oatmeal fed last spring. "We think," he remarks to the Editor, "you should advise, at the proper season, in large letters, the use of rye and oatmeal, but then how few would take the trouble to provide it?"

Another correspondent, B. S. Hoxie, says—"I gave my method of wintering bees in the Journal some time since, and will now say that I have tried most of the plans recommended, and think any temporary arrangement too expensive with too much time too much after with hives, loose boards, &c. I say, make a suitable permanent house. It need not be expensive, and will last for years. I set my bees into their winter quarters as soon as severe cold sets in, remove the caps entirely, and put on the straw mats, which are made of soft oat-straw, and so constructed that they fit tightly on the top of the hive, with a space of 1/4 inch between the straw and the frames. This allows a free passage for the bees to all the combs, and a warm place for them to cluster. Perhaps ashes, woolen rags, or something of this kind may answer, but nothing is so cheap and clean to handle as the mat made in a frame with strips of lath.

A. Salisbury, says—"In November, 1887, I put 163 stocks of bees in the basement of my double-walled, brick, sweet potato house, the walls of which were 16 inches thick, with a 4-inch deal air space between, and the floors filled up 1 foot with dry sand, to prevent moisture arising from the earth. The larger proportion of the hives were well filled with honey, but some eight or ten that came off late in August (some swarms having issued as late as the 25th) were only half supplied. All these were inverted, and flat pieces of sugar-candy laid on the combs, to save the honey for spring consumption when first set out of the house, that being the most dangerous time to feed, from the interference of robbers. I removed them from the house about the middle of March—all being in very fine condition. On the 15th May they commenced sending out natural swarms (they were Italians, of course). I did not lose a swarm after setting them out in March. During the winter the mercury did not fall below 40° (F.) in my room, when it was 10° below zero out-of-doors. I do not admit a ray of light in the room. I shall put 130 stocks in the same room this winter."

This writer hails from Illinois. There seems to be a great deal to be said on both sides of the question as to which place is the best, but evidently the climate of his district has the most influence on the decision to which each bee-owner must arrive. S. Bevan Fox.

Obituary.

We regret to have to record the death of Mr EDWARD PARKE FRANCIS, on the 11th inst., at his residence, North Road Cottage, Hertford, in his 67th year. Mr. Francis had been in business for nearly 40 years.

Miscellaneous.

Planting Conifers.—The two great evils that Conifers suffer from are, an excess of moisture at the roots, and planting in low confined situations. Unfortunately Conifers do not always show the effects of these evils. In dry seasons and mild winters the plants do pretty well. It is only when there is a heavy rainfall in the autumn and this is followed by a severe winter, that Conifers planted in badly drained land and confined situations suffer to any extent, but the results then are often disastrous. Plants that are perfectly hardy are thus set down as tender. Hardy Conifers when planted in badly drained land, or in confined places, will suffer seriously from a few degrees of frost, while the very same kinds will, when planted in thoroughly well-drained land and open airy situations, stand many degrees of frost without sustaining the slightest injury. When Conifers are planted in badly drained land and in confined places, the wood very rarely gets properly matured, and in consequence it suffers from a few degrees of frost. Excess of moisture at the roots in winter causes the spongellets to perish, and the plant is in consequence weakened and less able to stand frost. From long practical observation I have very little

doubt that excess of moisture at the roots is one of the chief causes why so many hardy Conifers suffer so much injury in severe winters. Of the several thousands of Conifers planted here in the park, the pleasure ground, and woods, not one of those in exposed situations, and where the subsoil is of a dry porous nature, suffer in the slightest degree from frost. A few only, in low places, or where from the nature of the ground the surface water could not pass off freely, suffer slightly. I am perfectly convinced of more attention was paid to the drainage of the land, and to planting in open airy situations, where the wood would get ripened, we should not hear so often of wholesale destruction of Conifers in severe winters. In our moist climate the land for Conifers cannot be too dry in winter, if we wish to save the fine roots from perishing, nor can the situation be too open and airy provided it is sheltered from the fury of the destructive west winds. *M. Saul*, in "Florist and Pomologist"

Incombustible Wood.—According to M. Schattenmann's experiments, there is an easy and cheap way of rendering wood incombustible, it consists of coating it with chloride of lime. It is true, writes the "English Mechanic," this will only protect the surface, but it will prevent the flames from spreading. Chloride of lime, or more properly chloride of calcium, is obtained on a large scale by decomposing bones with hydrochloric acid, which dissolves the calcareous part without attacking the gelatine they contain. This neutral and liquid chloride marks 11° by Baume's aerometer, and contains 15 per cent. of anhydrous chloride. To this liquid an equal weight of slaked lime should be added, and it may then be applied to the woodwork to be preserved. The operation should be repeated twice with a common whitewashing brush. The cost is at the rate of about 5 francs per 100 square metres, the liquid costing 1 franc, and the rest being the men's wages. The Bouxwiller Mining Company, which extracts gelatine from bones, can afford to sell liquid chloride of lime at 2 francs per 100 kilogrammes, not including the price of the cask. Where chloride of lime cannot be had, it may be made by treating chalk with hydrochloric acid. To test the incombustibility of wood prepared in this way, take a few bricks and inclose a square with them, fill up the space with a kilogramme of straw, place three wooden laths across, coated as above, then put another row of bricks upon the first, and place the three uncoated laths across. Having well secured them, set fire to the straw, when the upper or uncoated laths will catch fire immediately and be consumed in five or six minutes, while the lower ones, protected by their coating, will only glimmer and be carbonized where the flames touch them, but will everywhere else be safe from combustion. Fir-wood should be selected for the experiment.

Garden Operations.

(For the ensuing week)

PLANT HOUSES.

THE past season having been favourable to *Heaths*, the stock in the Heath-house should in consequence be healthy and vigorous. A cold temperature approaching closely to frost will not injure this class of plants so much as a few degrees too much artificial heat. On the other hand, a close, damp atmosphere must always be guarded against, as this tends to cause a weakened and drawn growth. With an abundance of air upon all favourable occasions, and a temperature averaging at this season a mean of about 35°, a good sound growth may be insured without in any way injuring the constitution of any particular variety. *Conservatories* should now be looking neat and gay, and to insure a continuance of bloom it will be necessary to constantly look forward in regard to introducing a necessary quantity of plants into forcing pits, &c., to keep up the supply. Every semblance of decay, whether of leaves or flowers, should be removed daily, as nothing in this way should be permitted to remain to destroy the freshness of the plants. Afford, on all favourable occasions, a plentiful supply of air, taking care not to give any more artificial heat than may be necessary to keep out frosts, or occasionally, to prevent the ill effects of damp. The former has a tendency to hasten the decay of forced flowers, weakly as they are, by its harsh dryness, and the latter to cause decay, which may or may not be outwardly perceptible, before its natural time. Attend to and search all hard-wooded plants for mildew, as this destructive agent oftentimes causes considerable injury before it is detected. Take advantage of "bad weather" to wash all pots, pans, or tubs, requiring such attention, and by this means aid in forwarding all such small jobs, so as to have the same well under hand when the busy months, which are now fast approaching, arrive.

FORCING HOUSES.

Fines which are now in flower should have a temperature of about 70° by day, with a decrease of 10° by night, and with a dry atmosphere. It is well at this early period to aid the process of fertilisation artificially by slightly jerking the whole bunch with the hand, the better to distribute the pollen. In certain instances, one variety of Grape, or plants of separate identity, may have a larger supply of pollen than others, in all such instances it will be practicable to cross-fertilise them with any others which show a scarcity. The process of disbudding must be carried on gradually, removing all laterals in like manner as soon as a healthy leaf or two has been secured upon all where required. Other Vines which are now swelling their buds should have an increase of 3° or 4° more heat, and with rather more air, when the first symptom of actual leaf-formation exhibits itself. Tan-pits in *Piseries* should now have careful attention. Should the heat be on the decline, let the pots be taken out, and the tan be well stirred up from the bottom, as previously advised. This operation will be the more necessary to secure a good uniform

heat by the end of the month, at which time some of the most forward successional may be induced to show fruit, at which juncture great attention in this and other matters must be given if fine fruit are to be secured. *Early Kidney Beans* may now be grown with very little trouble, they should be sown five in a 60-sized pot, and be potted on into 16's, so soon as the rough leaves show. Afford to young *Seedling Cucumbers* as much heat and air as possible without risk of injury by the latter. Where convenience exists, sow *Meloa* seeds for an early crop, treating them in every respect similarly to the former. Introduce a successional stock of *Strawberries* into any cool structure, such as a Peach or Cherry house, to make a primary start preliminary to being removed into a higher temperature. Be very gentle in regard to forcing *Cherries*; these have a great dislike to excess of heat, artificial heat more especially. A mean of about 44° to 46° will be ample until the buds have pushed.

HARDY FRUIT GARDEN.

Hardy outdoor Vines should now be pruned without further delay. It is not advisable to prune them so closely as is often practised. I would always advise that one or more good firm buds be retained upon each properly ripened shoot of the last year's growth. Those should, however, be chosen which are properly placed for tacking neatly to the wall. Remove any very old wood, and replace it at once with younger, or wait until shoots of the current season's formation become sufficiently long to fill up the vacancy. I would advise every one who has any spare space on walls having a southern aspect to plant a Vine at once, they amply repay the necessary outlay in a season or two. Finish pruning espalier *Pears*, and remove all young wood, excepting where needed to refill a vacancy, or to extend the area of the tree's usefulness, &c., and take all care of the smaller compact fruit-buds at their base. In most instances it is advisable to leave a few buds at the base of each young shoot so cut back, for the purpose of forming fruit-spurs.

HARDY FLOWER GARDEN.

This has hitherto been, so far as damp is concerned, a rather trying period for rare sorts of *Auriculas*; they should be kept thoroughly clean, and in such a position that the fresh air may keep the atmosphere as dry as possible. Much good is done to all such plants, where it is necessary to keep them in a cold pit or frame, by shifting the whole round, and removing each it stood upon, by placing it a few inches further to one side or the other. *Paeonies*, whether of the herbaceous or tree section, should now be transplanted or otherwise, as may be contemplated, they delight in a good stiff yellow loam, with plenty of well-decomposed leaf-mould intermixed. A good deep soil should always be afforded them, as they often root perpendicularly to the depth of 3 or 4 feet. *Box edgings* may be planted at this season during mild weather. The sward upon lawns should now be well rolled, for the double purpose of removing worm-casts, and to keep up a neat and tidy appearance. Roll gravel walks as frequently as is convenient after rains, &c., the better this operation is performed at this time of the year, the firmer and superior will the walks be in the drier summer months. Plant where necessary deciduous or *Privet hedges*, and perfect any arrangement in contemplation for the removal or transplanting of evergreen shrubs of whatever sorts. This will be found a good time to purchase any further quantity of *Ranunculuses* which may be required, in readiness for planting at an early date, to which I hope again to refer at the proper season. Some choice evergreen and other shrubs I have noticed have become unusually forward. The buds upon such as *Kalmias*, *Syringas*, *Persian Lilacs*, and the like, having pushed already, it will be advisable to check them somewhat by a process of transplanting. Take them carefully up by the root and replant immediately in the same position if necessary, and the object in view will be attained. In some instances it will be advisable, should sharp frosts visit us, to afford all choicer varieties which have been forced to push thus prematurely the protection of a mat. *Roses* of all sorts are also making growth at the apex of the shoots of the past season's formation; it will be well, therefore, to defer all pruning operations in regard to them for a time. To prune them closely under such a state of things will be to induce those very buds to shoot which we are desirous of saving, and from which we anticipate a future display of flowers. I reiterate past advice transplant *Roses* at the earliest possible moment.

KITCHEN GARDEN.

It is an old practice to plant about this date a few early Ashleaf *Potatoes*, and one well worthy of following now. With weather at all favourable, these early sets often gain such a march on later planted ones, as to precede them by some two or three weeks in the production of early tubers. They should be planted deep, so that no injury may befall them by frost. Seven inches will generally be found a tolerably secure depth. I advise all with only limited means who desire to have a few as early as can be produced without the aid of frames, &c., to plant their sets in a drill row properly drawn out, and to cover them with two parts of moderately rotten dung, and one of the natural soil. Mix it well together in the operation, and do not trample it down more than is necessary. Thus, not only will they enjoy greater immunity from frost, but finer tubers will be formed than when contact with the cold soil alone is afforded. *W. E.*

TOWN GARDENING.

A CLEAN neat path is an important requisite in a garden at all seasons, both for its appearance and use, and as this is a good time to commence walk making, a few practical hints on the same will perhaps interest as well as instruct those who are about commencing this

operation. There are many different opinions as to the choice of gravel, but that which I prefer in the neighbourhood of Tooting or Kensington, is a fine, it requires a little binding loam to be mixed with it, which causes it to adhere well together when and in wet weather it is not liable to stick to the feet. It is of a good colour, which is a great desideratum. The depth of the gravel should be about 6 inches, not less than 3 inches of coarse rubble underneath. In making new walks great attention is necessary regard to the level of the ground on which they are intended to be made, so that when they are laid they will slope gradually towards the lowest part of the wet may be drained off easily, for if it is not done the water will remain upon the walks a considerable time after heavy rain, and leave a deposit of soot and dirt which will render them unfit for use. When the ground is level and there are no declivities to carry off the wet, it will be advisable to raise the walks about 2 inches in the centre, and by the sides at convenient distances, to let off the water into cesspools, from which it will soak away in a short time. The month of March is the best time for finally completing walks, but as that is a busy time in the garden, it is advisable, in order to forward much work as possible, to complete them now with exception of the final layer of 3 inches, over finishing touch in March, so that they may be neat and fresh for the summer. Old walks should be edged and swept, and well rolled two or three times a week. This operation should be particularly attended to, as a clean hard walk is the principal feature of an enjoyable garden at this dull period. *J. D.*

STATE OF THE WEATHER AT CHISWICK, NEAR LONDON.

For the Week ending Jan. 13, 1889, as observed at the Horticultural Gardens, Chiswick.

January	Mean Air	BAROMETER		Of the Air		Of the Earth	
		Max	Min	Max	Min	Mean	1 foot deep
Thurs. 7	24	30.273	30.225	50	41	45.5	46
Friday 8	25	30.409	30.316	54	48	52.0	47
Satur. 9	26	30.437	30.398	51	39	45.9	48
Sunday 10	27	30.270	30.165	44	39	41.0	47
Monday 11	29	30.126	30.106	41	37	38.0	46
Tuesd. 12	30	30.001	30.016	42	38	40.0	45
Wed. 13	31	29.957	29.879	41	34	37.5	45
Average		30.223	30.154	46.4	39.3	42.8	46.1

- Jan. 7—Dense fog overcast, cloudy and overcast, foggy.
- 8—Overcast, densely overcast, fine, but overcast.
- 9—Densely overcast and foggy, very dull, fine and warm.
- 10—Fine, overcast, fine, cold wind, overcast at night.
- 11—Densely overcast throughout, cold wind.
- 12—Overcast, densely overcast, cloudy and overcast.
- 13—Densely overcast, fine, very dull, overcast.

Mean temperature of the week, 8-10 deg. above the average.

STATE OF THE WEATHER AT CHISWICK

During the last 43 years, for the ensuing Week, ending Jan. 13, 1889.

January	Average	Highest	Lowest	Mean	No. of Years in which it has occurred	Greatest Quantity of Rain.	Prevailing Wind	
							W	S
Sunday 17	42.6	29.7	35.6	14	0.68 in.	4	3	
Mon. 18	42.6	31.3	36.9	18	0.36	2	2	
Tues. 19	43.1	31.6	36.9	20	0.68	4	2	
Wed. 20	42.4	31.6	34.3	19	0.25	1	5	
Thurs. 21	42.9	32.1	34.7	20	0.48	3	6	
Friday 22	43.1	32.3	37.7	8	0.8	3	6	
Satur. 23	42.8	32.4	37.3	14	0.57	2	4	

The highest temperature during the above period occurred on 19th 1928—therms. 58 deg., and the lowest on the 19th, 1880—44 deg. below zero.

Notices to Correspondents.

Books: C. D. We can only advise you to apply to one of the foreign booksellers, who may be able to procure it for you. **Coleus Biquifidus.** The plant which is popularly called "Nettle leaved Geranium," and is so commonly seen in the windows of living-rooms, is the *Coleus frutescens*, a native of South Africa. It has also borne the name of *Platanus frutescens*. It was introduced nearly a century ago. **Blumel** came from Java about 1850, *C. Verschaffeltii* from Java about 1860, *C. scaberrimus* from the Eastern Archipelago about 1863, and *C. Gibbertii* from the South Sea Islands about 1866. The name comes from *Koleos*, a sheath.

NAMES OF PLANTS: S. E. T. *Libonia floribunda*.—*Sesquipedalis* *arvensis*, var. *balearica*.—*A. B. 2*, *Veronica perfoliata*; 2, *Anglopteris hypoleuca*; 3, *Asplenium obtusatum*.

PINE-APPLES. P. A. It is not usual nor desirable that suckers on Pine-apple plants, sweating their fruit, should show fruit. Yours is probably the result of some accident, perhaps of too dry a regime, nor are three crowns to a pot at all desirable, as they spoil the beauty and symmetry of the fruit. The superfluous ones should have been removed, destroyed at a very early stage.

FRIMULAS W. C. & Son. The flowers were too much injured by pressure to enable us to judge if the strain is permanent. They are certainly very fine, averaging fully two inches in diameter.

REMOVAL OF PLANTS: Cheltenham. The answer to your question, we suppose, depends entirely on the agreement which was made when the plants were put in.

SILENTNESS: Constant Reader. This plant requires to be grown on freely in a strong, moist heat with plenty of water, and should have a good, porous, well drained soil of peat, lumpy peat and sand. The leaves of your plant are probably becoming yellow from want of sufficient heat. Old plants are seldom so effective as young ones, which require to be grown on as freely and vigorously as possible, and to be cut so well as when from 1 to 2 feet high, with all the leaves perfect. It would be best to strike the top in a cucumber frame, and grow on afresh.

TAN FOR HEATING: C. Cavale. There will be no danger in using the tan in your vinery for the purpose of raising a little heat to start the Vines. We have never used it before, as we much prefer good stable manure mixed with earth for that purpose. If you use tan try a depth of 6 inches at first, which can easily be increased if necessary. It must be turned over every other morning, so as to let the hot fumes penetrate among the leaves.

COMMUNICATIONS RECEIVED.—*W. C.*—*T. H.*—*W. J.*—*T. D.*—*J. F.*—*W. E.*—*W. T.*—*G. A. H.*—*A. S. H.*—*W. D.*—*P. M.*—*R. P. D.*—*A. M.*—*G. S.*—*Somerset.*—*T. F.*—*E. S.*—*W. H.*—*J. Walls.*

ERRATUM.—In our notice of Florists' Flowers last week, *Dahlia King of Prussia* was mentioned. It should have been *King of Primroses* (*Rawlings*).

First Crop or Ringleader Pea.
CHARLES SHARPE AND CO., having grown largely
 the **BEST EARLY PEA**, with great care, have much
 to offer to the Trade. Price on application.

Farm Seeds Direct from the Grower.
CHARLES SHARPE AND CO. will be glad to send
 the carefully selected **TURNIP**,
BEANS, and other **GARDEN SEEDS** can
 be had on application.

Garden Seeds
CHARLES SHARPE AND CO'S PRICED TRADE
SEEDS are sent to all parts of the Kingdom.

Seed Potatoes.
CHARLES SHARPE AND CO. are now prepared to
 make special offers of all the leading sorts of **POTATOS**.
 The following are the most desirable:
Early Peas for Market. The best variety is
IMPROVED EARLY CHAMPION
 a week earlier than Daniel O'Rourke and more prolific.
 A week earlier than Daniel O'Rourke and more prolific.
 A week earlier than Daniel O'Rourke and more prolific.
 A week earlier than Daniel O'Rourke and more prolific.
 A week earlier than Daniel O'Rourke and more prolific.

THE ALPHEIANER has a quantity of **SUTTONS'**
EARLY PEAS to offer, at 1s. per bushel; also seed
 of **BLACK COLLIS**, **Cattell's Eclipse**, **Horticultural**
Water Wate, and the early **Purpin Sprouting**. The Trade
 will be glad to hear of them. Seed Grower, **Toddington, Beds.**
Seedsmen to the Queen.

FRANCIS & ARTHUR DICKSON & SONS, the
 "old-established" Seed Warehouse, 106, Rastgate Street,
 London, E.C. The best **EARLY PEA** in Cultivation is **DICKSONS' "FIRST**
PEA". Price 1s. 6d. per quart.
 The best **NEW SEEDS** for the **GARDEN** and **FARM**, of the most
 distinct character, each Variety being saved from the best Stock
 of the kind. **DESCRIPTIVE Priced CATALOGUES** on
 application. A list of 22 var. delivered Carriage Free to any Station.

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Lansdowne
Seed Growers

237, 238, and 261, HIGH HOLBORN, LONDON, W.C.

SEED FARMS:

EAST HOUSE FARM, DEBHAM, ESSEX;
THE SEED FARM, ST. OBYTH, ESSEX;
JUPES HILL FARM, DEBHAM, ESSEX
GOD'S HOUSE FARM, ARDIEIGH, ESSEX

PRIZE MEDALLISTS



1862. 1867.

CARTER'S PRIZE MEDAL GRASS SEEDS
for PERMANENT PASTURES.

For **LIGHT SOILS**, } 28s. to 32s. per acre.
 For **MEDIUM SOILS**, }
 For **HEAVY SOILS**, }
 Second Quality, 24s. to 26s. per acre.

See Article on the best Mixtures of Grass Seeds as
 adapted to particular localities, commencing page 75 in
 Carter's "Gardener's and Farmer's Vade Mecum
 for 1869" Post Free, 1s.; Gratis to Purchasers.

Testimonial from **H. BLISSETT, Esq., Letton Court.**
 "Please send me 37 acres of Grass Seed as last year.
 I am glad to say that what you then sent has done well."

THE NEW FORAGE PLANT,
BROMUS SCHRÖEDERI.

See *Gardener's Chronicle*, page 1345, Dec. 26, 1868,
 from which the following is extracted—"The crop (of
 Bromus) was perfectly satisfactory as regards both the
 quantity and quality of its produce. The Horsekeepers
 buying it preferred it to Italian Rye-grass, and the
 Farmer selling it was very much inclined to agree with
 them."

E. DAWES, Esq., Pirbright, Guildford, writes—
 "I beg to offer my thanks to Messrs **CARTER & Co.** for
 calling attention to the valuable plant, **Bromus Schröderi**.
 I purchased some seed to test its value, and it
 occurred to me that a report of my experience might
 prove of interest.

"The seed was sown in July on ground as dry as dust,
 but it vegetated freely, the first shower causing it to
 grow with amazing rapidity. The first cutting was made
 October 20, the plant being 2 feet high, and I found my
 cattle preferred it to any food I could offer them, I now
 have (Nov. 20) a luxuriant second growth, in spite of the
 cold weather.

"I may mention that I was first induced to cut the
 Grass on account of my Pony refusing its ordinary food,
 and was gratified to find the **Bromus** greedily consumed."
 Sow 25 lb. per acre in drills.
 Price 1s. per lb.; cheaper per cwt.

CARTER'S PRIZE MEDAL LAWN
GRASS,

AS SUPPLIED TO
H.H.M. THE EMPEROR OF THE FRENCH,
H.R.H. THE CROWN PRINCESS OF PRUSSIA,
THE GOVERNMENT OF THE UNITED STATES,
THE IMPERIAL COMMISSIONERS, PARIS EXHIBITION,
 &c. &c.
 1s. per lb.; 20s. per bushel.

Testimonial from **M. BARILLET**, Chief Superintendent of
 the Gardens of **H.H.M. Napoleon III.**
 "The Grass which we have laid down with your Seed
 has come up well, and is magnificent." [Translation.]

CARTER'S
GARDENER'S AND FARMER'S
VADE MECUM FOR 1869
 (ILLUSTRATED).

Post Free for 12 Stamps; Gratis to Customers.
JAMES CARTER AND CO.,
SEED GROWERS AND NURSERYMEN,
 237 and 238, and 261, High Holborn, London, W.C.

Agricultural Improvements.
MR. BAILEY DENTON undertakes the **UNDER-**
DRAINAGE of **LAND** at a charge of 6s. an acre: and will
 supply **PLANS** and **SPECIFICATIONS** for Farm-houses, Farm-
 buildings, and Labourers' Cottages with or without Superintendence
 during Construction, on terms to be ascertained of him at
 22, Whitehall Place, London, S.W.

To Landowners, whether Tenants in Fee or for
 Life, Estate Agents, the Clergy, &c.
THE LANDS IMPROVEMENT COMPANY
 (Incorporated by Special Act of Parliament in 1853) advances
 Money, unlimited in amount, for all purposes of Agricultural
 Improvement—the whole outlay and expenses being repaid by a
 rent-charge over 25 years.
 For information and Forms of Application, apply to **GRANT AND**
R. ROSS, Esq., Managing Director, 2, Parliament Street,
 Westminster, S.W.

THE GENERAL LAND DRAINAGE and
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Thos. Chapman, Esq., F.R.S. The Rt. Hon. Viscount Combermere
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J. BAILEY DENTON, Principal Engineer
 Works of every kind of any extent, Irrigation, Enclosing Wood
 Grubbing, Road-making, Farm Houses, Farm Buildings, and
 Labourers' Cottages, are executed on all descriptions of property,
 whether Freehold, Leased, Mortgaged, Trust, Ecclesiastical,
 Corporate, or Collegiate, or Loans granted for the purpose to Land-
 owners who desire to execute the works by their own agents.
 Tenant farmers may also, by arrangement with their landlords,
 procure the execution of the above improvements on their farms at
 an annual cost to them of between 6 and 7 per cent on the
 outlay and official expenses.
 The whole of the outlay in the works, with an official estimate,
 may be charged on the Estate for a term of years, to be fixed by the
 landowners to meet the circumstances of tenants.
 No investigation of title being required, no legal expenses are
 incurred.
 Applications to be made to **MR. HORACE BROKE**, the Secretary,
 at the office of the Company, 22, Whitehall Place, S.W.

ROYAL AGRICULTURAL
SOCIETY OF ENGLAND.
 AGRICULTURAL EDUCATION
 The EXAMINATION of CANDI-
 DATES for the SOCIETY'S EDU-
 CATIONAL PRIZES will take place in
 the week commencing **MONDAY, April**
12, 1869. Copies of the Form, required to
 be sent in by **March 18**, may be obtained
 on application to
H. M. JENKINS, Secretary.
 12, Hanover Square, London, W.

The Agricultural Gazette.
 SATURDAY, JANUARY 16, 1869.

The agricultural statistics of the country for
 the past year have just been issued in detail.
 Any one desiring to know whether, and how
 many acres, more Wheat or Barley, Potatoes, &c.,
 were grown in 1868 than in 1867, in England,
 Scotland, Ireland, &c., can read the figures in
 the **Blue-Book**. There also he can see what
 stock, both in total numbers and per 100 acres,
 there was each year in every county in the
 kingdom. And there is an immense mass of
 useful information in its pages—for which we
 have to thank the statist of the Board of Trade
 —connected with population, stock, and crop of
 every county, and of every division of the
 country, and of every other civilised country in
 the world, which cannot but be interesting to the
 agriculturist. The substance of the introductory
 report, signed by **MR. A. W. FONBLANQUE**, is given
 in another page. Besides the extract there given, a
 preliminary statement must be adverted to here,
 in which the history and progress of the inquiry
 is described. The figures given are not yet in
 any case an exact statement of fact. Wherever
 such a statement has been refused, as it still is
 in some few instances, the best available means
 are employed to return a careful estimate. But
 this, though vitiating the totals as strictly
 accurate records, does not much spoil the
 trustworthiness of the inferences which may be
 drawn from a comparison of one year with
 another. The character and quantity of error on
 this account can hardly be supposed to differ very
 much from year to year; and while, therefore,
 we can hardly affirm that the total acreage or
 total numbers here alleged of every crop or kind
 of stock is absolutely true, we may nevertheless
 entirely believe the statement that so many more
 acres of any crop, so many more or fewer of
 a particular kind of stock, have been cultivated
 in 1868 than in 1867. It is as indicating the
 tendency and growth of agriculture in particular
 directions that these Tables are essentially valu-
 able, and we shall, therefore, during the next
 few weeks transfer them to our pages entire.

It is much to be hoped that the gradually
 dying jealousy on the part of the farmers of some
 districts, which leads them to refuse all informa-
 tion to Government officials, and thus to some
 extent to spoil or make imperfect the informa-
 tion readily given by others, will soon altogether
 cease. We believe it will. It will soon appear
 that the information asked for can have no per-
 sonal or immediate interest whatever. Every
 item is lost in the mass to which it is contri-

ding, the obvious conclusion is against allowing storm-water to be mixed with sewage. In the second place, where the sewage is thus diluted to an excess with storm-water, it prevents its being stored up in cisterns, as in the Flemish practice, at seasons when it cannot be applied to the land as when the ground is frozen and covered with snow. The objection is a valid one, but like the others preceding it, is only applicable to the mismanagement of sewage by towns, for were it obviated it would be greatly in favour of sewage farming.

The fourth plan of sewage farming is simply to do away with the objections to the third plan, and to add artificial manure of a specific character to the sewage, so as to make it more efficacious in producing certain crops, as roots, cereals, Flax, &c. It is therefore in principle similar to the practice now pursued by farmers, who thus improve the efficacy of their farmyard manures.

Such is the position of the sewage question at the commencement of the new year (1869). The liquid manure system, as illustrated by the practice of the Barking farm, with such differences of detail as differences of soil and climate may indicate, is that which meets with the approval of the agricultural public. But before the practice can be adopted generally, the objections raised against it must be obviated, and this requires to be done by towns. "Send the sewage to the land" is now a public mandate, endorsed by Parliament in a special statute, and its soundness meets with universal approbation in town and country. But when the practical question is raised—are towns sending their sewage to the land? the above four objections return a negative answer. Thus towns are wasting the fertilising elements of the sewage which the land so much needs, only sending what the land seldom requires, and yet during the whole of the year 1868, which has just expired, the general complaint has been that farmers will not receive their sewage on any terms!

Experience is a wise master-teacher, and no doubt towns will eventually get the practical tuition they now so much stand in need of at this school. Sewage *per se* will cover the expense of sending it to the land, and something over. And thus, to send it to the land without waste of fertilising matter is the grand problem of problems of the present day. That night-soil will stand a sufficient dilution with water for its conveyance to the country in close pipes has long ago been proved in Flanders, China, and other places where manure is used and even preferred by farmers in a liquid form, and before the close of 1869 we hope to see it tested by experiment how far sewage can be conveyed in pipes flowing full bore, without undergoing deterioration of its manurial value. And when this is done, there is not a town in the kingdom which will not have itself to blame if it does not get rid of its sewage *per se*, on remunerating terms. There may be many difficulties in the way of obviating the wasting of the sewage and the other three objections raised, but these only exemplify the magnitude and importance of the general question involved in the practice of sewage economy, for the objections, one after the other, will disappear the moment towns begin at the beginning of the great work, by sending their sewage in its normal state to the land, free from waste; for, this done, the several propositions involved in the second and third objections would be carried out by farmers. There only remains the fourth objection, and the chief difficulty in the way of separating the storm-water from the sewage is the disposal of horse droppings in the streets, and the manner they are got rid of in dry weather suggests the remedy. There are, however, many plans of purifying storm-water in towns, so as to render it fit for being turned into rivers. In deed, almost every town would have something special in the solution of this question. Into the details of a practice so widely diversified we cannot go. But the conclusion is manifest, that were towns to go this length in the economy of their sewage, storm-water would soon be got rid of satisfactorily, one way or another. W. B.

PARING AND BURNING.

I HAVE lived all the days of my life in the neighbourhood of extensive "paring and burning." Moreover, although I am now a Rosarian and Fragararian, I have been all my days a practical farmer. Mr. Mechi's system is, was, and always will be right—to

Make horn
Drive corn.

Horn is, of course, a generic term for cattle. It means feed high; and instead of sending out all corn from the farm, to send out fatted cattle and corn. That is Mr. Ford's plan at Rushton. The above is what doctors call a foreign substance, and I only mention it as it gives me an opportunity of expressing my great admiration of Mr. Mechi. I will now say a word on the above heading.

1. *Paring and Burning of Light Thin Land.*—I have seen lots of this, and my impression is, that though by this process you can without further expense (about 30s per acre, it used to be), by the stimulation of the ashes, get a most remunerative crop, either of Wheat or Oats, at once, yet is it objectionable. We do not in common life argue against the use of a thing from its abuse. How often have I seen persons who break up this thin down land give the land a greasing, which means a crop of Wheat followed by a crop of Oats! This of course is the abuse of paring and burning thin down land. It might still be done, and so great a mischief as I have seen might not occur if the land was highly farmed from the first. These lands are too light already—they won't "seal," and the ashes make them unsealable for ever. Moreover, these lands are generally at a great distance from the homestead; the consequence of which is, they get little or none of the best of manures—farmyard manure. When these thin

wards, and a layer of fresh stable manure put on, and then another layer of sods, till the pile assumes the appearance of a rick. Lord Rivers allowed me to break up a bit of this soil here. I have a rick of it now no stable manure at all in it, and I have carried out on a bit of the same land a clod-rick, thoroughly dissolved, made about a year ago. It was only turned once and Branning would not hurt this fine sandy loam land, but the other, in the end, I knew would be the best plan. However, I am now talking of paring and burning thin light land. It is a thing that should not be done. Were I a landlord, I would insist upon the top clod, which is the richest part of the land, being dissolved, and I would insist upon the first crop being Rape raised by bones or superphosphate. The latter acts more quickly, but half-inch bones are the most lasting. For cold lands I think Peruvian Guano (the cheapest of all manures) is best. Mr. Burgess, of Launceston Farm (my oldest agricultural friend), in the parish of Tarrant Moreton, tenant of Mr. Farquharson, passed by, some years ago, a piece of broken up land. I said—"Here is a pretty mess." "Ah," said he, "that land, if laid down to Grass, will not be as good in 40 years as it was when broken up." The land was too light before, now the ashes have made it lighter, to say nothing of the exhaustion occasioned by the stimulation of the ashes." He is a renter of 1500 acres—one of the finest farms in Dorset. His corn-fields are about 60 acres each, square, with nice thorn hedges round them. Each ridge ploughed would be about 4 acres. The house is in the centre, with nice water meadows, and at either end of the farm are capacious downs. The arable land is about 900 acres. The testimony of such an experienced and excellent farmer is worth a thought. If a person pares and burns his land he must begin, not with taking the grease out, but by putting it in, as Mr. Mechi would do.

2. *Paring and Burning the Sward of Staple Land.*—You may sum up this in one word—it is folly. Simply rick the swards, turning the green part downwards. Turn the rick once, and in a year or less it will be dissolved, and fit to cart out. But why break up good staple land at all—I mean grass-land that pays? When I read the queries of "J. B. S., Cirencester," in a later impression, I laughed, and came to the conclusion (he won't be offended) that to break up such land as he spoke of would be the act of a lunatic. On reading it a second time I came to the conclusion it was only playful sarcasm!

There is a class of deep, heavy, poor, foxy clay that would be benefited if it was stife-burnt an inch deep every time it came to Wheat. That is the sort of land to pare and burn, whether grassed or under tillage. Burn it as often as you like, the ashes will stimulate, sweeten, and keep the land open. If the land is wet it must be drained 3 feet 6 inches deep.

As regards Couch-grass, there ought to be none; but if there is any, mix it with stable manure in the field, and turn it; it will soon dissolve. If there is little Couch-grass the ashes will be *nil*; if there is much Couch the shame will be in the ratio of the ashes. W. F. Radclyffe

ESTATE MANAGEMENT IN IRELAND.

I do not think your correspondent "Fingal" is happy in his illustrations of modes of managing property in Ireland, given in your Paper of the 2d inst. Mr. Pollock's system is as much in excess on the one side as the other instances are deficient on the other.

Mr. Pollock spent money on his estate with a most lavish hand, and without any regard to economy. He bought out the occupiers, land, stock, crop and that they had, even the pig—at prices far above their value, often four times above it—a course which, anywhere but in Ireland, with its impractical sentimentalities, would be thought uncommonly satisfactory to the sellers. No doubt Mr. Pollock overdid the whole thing in a way no practical man of moderate means could have done, no one but himself, of course, knows his accounts; still, the best opinion is, that after all he makes a fair interest for his money.

I happen to have tried both the other two systems recommended, viz. —1. Making allowances to tenants for such permanent improvements as they effect, and 2. Employing an agriculturist to teach them better plans of farming. The vice of making allowances is, that the tenants very seldom do the improvements thoroughly. A cat watching a mouse is nothing at all to the vigilance needed to get an Irish tenant to do work well for which his landlord is to make him an allowance. It soon comes, too, that no one on the estate will do anything at all that he is not allowed for. Common-place repairs are neglected till a case can be made for a job to be allowed for. I soon found I was paying substantially as much in allowances for work badly done, as I could have it done well for myself. The employment of agriculturists answered very well at first, when men who had never grown a Turnip before had to be taught how to do so, but I found when this early, rough stage was past, little more good could be done by him. I think the reason was, that the influence of the landlord or agent could make the tenant grow some Turnips, but it is very hard to bring such influence to bear on the better or worse preparation of the land, better or worse manuring and thinning of the crop, earlier or later sowing, and so, in spite of the agriculturist, with most tenants an excuse did duty for good management in these respects.

I believe there is no substitute in Ireland, any more than in England, for the outlay of the landlord's capital on proper landlord's improvements. There is plenty of room and need for both landlord's and tenant's capital on nearly every farm in Ireland. Few farms are all wet, and the tenant's capital spent in manuring the dry part of his farm will pay him much better than in doing landlord's improvements. If a landlord's improvements pay him 5 per cent. permanently, he is well

paid, but a tenant's capital laid out at that rate to him. Money spent judiciously in manure, is always, on and in such condition repaid a few times over in one and with a large profit for a few years. The tenant continues to hold the farm. Ten or 20 per cent. of the landlord's rental is paid out in permanent improvements will in 20 years change the face of the land and add as much to the rental, with good profits to the tenants. And whereas in Ireland the money borrowed from the Government, under the Improvement Acts, repayable principal and interest at 6 per cent. in 22 years, or at 5 per cent. in 25 years, there is no excuse on earth for landlords not to make permanent improvements themselves in a judicious manner, employing the labourers on their estates, who are at least as deserving a class as the tenants, leaving the tenant's capital to its proper use on the land that grievously wants it.

It is, therefore, that I say that the system of "Fingal" errs as much in defect as Mr. Pollock's in excess. I do not wish, however, to imply that the estates he mentions are not much improved. The truth is, any orderly system carried out on a business-like way is sure to improve an Irish estate, more or less; if it is only a business-like enforcement of rent, even a high rent, the estate will improve. Neglect is a far greater evil than any other in Ireland. An easy-going, indulgent, careless landlord, will in 10 years ruin any estate, (the rent never so moderate. Once an Irish tenant gets into debt he is a lost man; no one gets in arrears without in debt besides. If good years come the arrears swallow up all the gains, and the man is rather less in debt, and with greater liberty to pay more, and with no more spirit to farm better than out arrears, though he may have hard work to do to pay his way, yet when good years come, the tenant's own, and better farming is the consequence.

I believe there is no point relating to Ireland, which so much ignorance prevails, as the management of estates on which the landlord's capital is being spent in permanent improvements. What a waste of capital is made of every abuse, great or small, accidental or arising from mere personal caprice, that tends the other way is little heard of by the Landlord.

AGRICULTURAL STATISTICS.

(The following is the report by Mr. F. P. F. Statistical Department of the Board of Trade, of the tabular results of this year's statistical inquiries published, are prepared.)

THE first two tables show abstracts of the agricultural returns for each division of the United Kingdom, the figures for Ireland being taken from the returns issued by the Registrar-General in Dublin. The number of acres returned as under all kinds of bare fallow, and Grass in the United Kingdom was 45,652,000, which is 265,000 in excess of the acreage in 1867, and 1,307,000 in excess of the total acreage returned in 1868 as compared with 1867, however, chiefly owing to the increased acreage of permanent pasture returned in Great Britain and Ireland under a more comprehensive heading than was used for collecting the returns. Of the number of 45,652,000 acres returned for the Kingdom in 1868, 11,659,000 were under crops, 4,865,000 under green crops, 981,000 were under fallow, 5,690,000 under Clover and other Grasses, and 23,161,000, or nearly one-half of the acreage returned, were under permanent pasture. The proportion of permanent pasture varies considerably in the different divisions of the Kingdom. The Tables show that the proportion of permanent pasture to the total acreage returned was 45 in every 100 in the United Kingdom, 42 in England, and 23 in Scotland, and 61 in Ireland. The average acreage in 1868 as under bare fallow or uncropped arable amounts to 958,000 acres for Great Britain and 24,000 acres for Ireland. In Great Britain the proportion of bare fallow to the total acreage returned is every 100 acres, but it is 53 to every 100 acres of corn, green, and rotation Grass crops, and 75 to every 100 acres of corn and green crops only. There is a large amount of land, capable of cultivation, but lying waste or under an erroneously returned under the heading of fallow or uncropped arable land.

The aggregate acreage under corn and grass in the United Kingdom in 1868, as compared with 1867, shows the following results—Corn, an increase of 227,000 acres, and green crops, an increase of 170,000 acres. The acreage under Potatoes, a decrease of 170,000 acres. The acreage under Potatoes is larger in 1868 than in 1867, in 31,000 acres, of which 50,000 acres were in Great Britain, and 3,000 in Ireland. The acreage under Wheat is larger in 1868 than in 1867, in 1,000,000 acres of the Kingdom, the total increase amounting to 310,000 acres. The acreage under Barley in 1868, compared with 1867, shows a falling off of 112,000 acres, but as there were an increase of 4000 acres under Barley in Wales and Scotland, of 16,000 acres in Ireland, the actual decrease in the United Kingdom in 1868, compared with 1867, is 92,000 acres. In the acreage under Oats, there was an increase in the United Kingdom of 45,000 acres, 1868 over 1867, the chief part of the increase being in Ireland, England showing an increase of 18,000, and Wales and Scotland an increase of 10,000 acres. The acreage under other crops (excepting Potatoes) is generally lower in 1868 than in 1867, the decrease in the Kingdom in 1868 is 24,000 acres. Turnips, 9000 acres under Mangels, 12,000 acres under Cabbages, Kohl-rabi, and Rape, and as much as 100,000 acres under Vetches, Lucern, &c. The acreage under Flax in Great Britain is distinguished for its increase in the returns for 1868. There were under

Grape Vines.

B. S. WILLIAMS' STOCK... and in good condition for sending out. Kinds and prices can be had on application.

Superb New Late Grapes.

"MRS PINCE'S BLACK MUSCAT" may now be seen in perfect perfection. This is a knowledge to be the most grape extant.

PINES and VINES... PINES, of the best sorts, fruiting and stocks, very strong and fine.

ARTHUR HENDERSON AND CO... fruiting canes, capable of carrying a crop of 100 lbs of fine grapes.

BLACK HAMBURG, 3s. WHITE FRONTONAC, BUCKLAND SWEETWATER, LADY DOWNES.

Also these fine sorts, GOLDEN CHAMPION, MRS. PINCE'S BLACK MUSCAT, and MAIR RESEFIELD COURT.

WANTED, BRAMBLION and PEAR-PLUM STOCKS... with 2 and 4 extra and upright canes.

Standard Roses, and Dwarf Maiden Peaches and Nectarines.

STANDARD ROSES, best cutting sorts, 70s per 100. DWARF MAIDEN PEACHES and NECTARINES, leading sorts.

WANTON APPLE TREES... on the true French Paradise Stock, as recommended by Mr. Jackson in his 'Gleanings in France.'

FINE ORANGE TREES for SALE... Ten very handsome trees, in robust health, loaded with fruit.

STRONG STANDARD DWARF TRAINED APPLES and PEARS... with 7 to 8 feet of lady laurel and laurel.

WOODLAND NURSERY, MARKET GARDENS, SURREY.

W. WOOD AND SON... to their enormous stock of FRUIT TREES in a fruit-bearing state.

FRUIT TREES, NURSERY STOCK, ROSES.

L. PAULIER, NURSERYMAN, CHATEAU DE SERRAUX... of Nursery Stock, and especially FRUIT TREES and ROSES.

Table listing various fruit trees and roses with prices. Includes items like PEARS, QUINCE, APPLES, DOG ROSE, PEARL, CHERRY, and ST. L.

ROSES... Our own best selection. Standards, 3 feet to 3 feet 7 inches, per 100 £3 15.

CATALPA... Discount of 5 per cent. will be given on prepaid orders.

STEPHEN BROWN... the following at the annexed low prices.

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KNAP HILL NURSERY, WOKING, SURREY.

ANTHONY WATERER

PLANTS TO BE SUBMITTED TO

FOLLOWING LIST to the NOTICE of INTENDING PLANTERS

EVERYTHING IS WELL-GROWN AND FINELY ROOTED.

In proof of which he gives the date of their last removal

- ABIES ORIENTALIS, 5, 6, 7, and 8 feet, 10s. 6d. to 21s. each.
ALBERTA, 5 to 6 feet 3/4 to 10/4 per doz., moved April, 1888.
ALBERTA, 5, 6, 7, and 8 feet, 10s. 6d. each, moved April, 1888.
CANADENSIS, 4, 5, 6, 7 feet high, 14s. to 21s. per dozen.
PIUMBA, 1000s of these dwarf variety of the common Spruce Fir, many are 6 years old.
GREGORII, 30 years old.
F. N. ELISA - The Common Spruce, 5, 6, and 7 feet high.
PICEA N. MILLS, 4, 5, 6, 7, 8, 9, 10, 11 feet high, 8 and 10 feet in circumference, 42s. to 147s. each.
NORMANNIANA, best of all seedling plants, 1 1/2 to 2 feet, 20s. and 42s. per dozen.
MAGNIFICA or NOBILIS ROBUSTA, 2 feet, 15s. each.
LASIOCARENA, 2 to 2 1/2 feet, 60s. per dozen.
JUNIPERUS SIBIRICA, 4 to 5 feet, 10s. 6d. each.
CEDRUS ATLANTICA, 5 to 6 feet, 42s. to 60s. per doz., moved in 1888.
DEODARA, 4 to 6 feet, 42s. and 60s. per dozen.
JUNIPERUS CHINENSIS, 4 to 5 feet, 10s. 6d. each.
JUNIPERUS SIBIRICA, 4 to 5 feet, 10s. 6d. each.
YEW, ENGLISH, 4, 5, 6, 7, 8, 9, 10, 11, 12 and 14 feet high.
IRIS - Handsome plants, 7 to 8 and 10 feet, 7s. 6d. to 10s. 6d. each.
GOLDEN and ELEGANTISSIMA - Hundreds of fine plants.
THUJA ALBERTA - The plant originates at this Nursery.
G. ANTHEA - Splendid plants, moved August, 1888.
LILIES, 8 to 7 feet, and as much rounder, 10 to 7s. 6d. each.

THE FOLLOWING ORNAMENTAL TREES, OF LARGE SIZE

Are well grown and well rooted, and stout.

- PLANES, ORIENTAL and OCCIDENTAL, 10 to 15 feet high.
SYCAMORE, 10 to 14 feet.
WEEPING BIRCH, 8 to 12 feet.
MOUNTAIN ASH, 8 to 10 feet.
HORSE CHESTNUTS, COMMON, 10 to 12 feet.
SCARLET HORSE-CHESTNUTS, very fine flowering trees, 8 years, worked.
HEMLOCK, WEEPING, 7 to 15 years, worked.
BEECH, PURPLE, 8 to 14 feet high.
DECIDUOUS CYPRESS, 8 to 12 feet.
NORWAY MAPLES, 8 to 12 feet.
LOMBARDY POPLARS, 10 to 12 feet.
LILIES, 8 to 7 feet, and as much rounder, 10 to 7s. 6d. each.

As well as the above-mentioned articles, at Knap Hill will be found one or perhaps the most Stock of all the better kinds of HARDY EVERGREENS, DECIDUOUS and FLOWERING ORNAMENTAL TREES and SHRUBS.

A PRICED AND DESCRIPTIVE CATALOGUE

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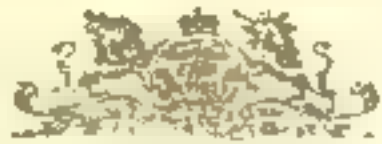
Purchasers are respectfully invited to inspect the Plants growing in the Nursery. No Catalogue can adequately represent such a Stock.

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The Railway now takes goods at the high rates to almost any Station, thus doing away with the expense of packing.

ANTHONY WATERER, KNAP HILL NURSERY, WOKING, SURREY

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OLD ESTABLISHED SEED & NURSERY BUSINESS,

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NEW TRIPLE CURLED VARIEGATED PERENNIAL BORECOLE.

Exhibited by Mr. MELVILLE at the Royal Horticultural Society's Meeting on the 15th December, 1868, see Gardeners' Chronicle, page 137 (1868).

INVALUABLE AS A WINTER DECORATIVE PLANT.

S & M. having received the whole Stock of the above from the Raiser, are now sending it out in Sealed packets, 2s. 6d. each.

STUART AND MEIN, SEEDSMEN, KELSO, N.B

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HAMMOND'S IMPERIAL HARDY WHITE BROCCOLI, 1s. per packet.

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SEED MERCHANTS, HUDDERSFIELD,

HAVING SECURED THE STOCK FROM MR. HAMMOND, HAVE IT NOW READY TO SEND OUT. It can be had through any of the London Trade.

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CHEMICAL MANURE MANUFACTURER AND SEED MERCHANT, MARKET STREET, SHREWSBURY, LONDON AND DUBLIN.

LAWES' MANURES were the first Chemical Artificial Manures manufactured and introduced, and have now been used for 28 years with great success. A large supply for the coming season is now ready for delivery at the Agents in all parts of the Kingdom. LAWES' PATENT TURNIP MANURE, DISSOLVED BONES, LAWES' SUPERPHOSPHATE OF LIME, WHEAT, BARLEY, GRASS, and MANGEL MANURES, PERUVIAN GUANO, NITRATE OF SODA, BREAD CAKE, and other FEEDING STUFFS.

JOHN THOMAS, MANAGER, Manure Department.

AGRICULTURAL SEEDS.

From the increasing demand, and with a view to its further extension, the Seed Department has been placed in a separate Manager, and will now be carried on by MR. GEORGE RUTHERFORD, who has been for many years in the Seed Trade, both in England and Ireland, and being thoroughly acquainted with the best Home and Foreign Markets, will be able to secure supplies from the most reliable sources.

A CATALOGUE will be issued in February, and forwarded on application. DELIVERY - All Orders for Seeds amounting to £2 value (Grain, Vetches, &c., excepted) will be delivered Free to any Railway Station or Canal Wharf.

GEORGE RUTHERFORD, MANAGER, Seed Department.

MARKET STREET, SHREWSBURY. - Dec. 30, 1868.

Native Scotch Fir, &c. HOWDEN BROTHERS, Inverness, N.B., offer to the Trade 1-yr. Seedling, 2-yr. Seedling, and 3-yr. 1-yr. Transplants of SCOTCH FIR. Also, HARDY RHODODENDRONS, &c.

GREEN ARS... WANTED (100 each), HORSE-CHESTNUTS and LIME TREES, clean, straight stems, 10 feet, well rooted, also 1000 to 1200 best KENTISH COB and FILBERT TREES. Price and particulars, and where delivered, to Messrs. J. & C. ...

Full-grown Evergreens. HENRY GOLFREY, NURSERYMAN, Stourbridge, has a large quantity of the following Evergreens to offer, in well grown plants: Green and Variegated HOLLY, Siberian and American ARBOR VITAE, Common and Portugal LAUREL, English and Irish YEW, &c. &c. ...

FOREST TREES... LARCH, 2 to 3, 3 to 4, and 4 to 5 feet; ASH, 2 to 3, and 3 to 4 feet; BIRCH, 2 to 3, and 3 to 4 feet; ELM, 3 to 4, and 4 to 5 feet; POPLAR, BLACK ITALIAN, 2 to 3, and 3 to 4 feet; SYCAMORE, 1 to 2, and 2 to 3 feet. These can be supplied in any quantity, and at any season.

COMMON LAURELS, 3 to 4 feet, 2 per 100, single stems, 5s. per 100, extra at 2 feet, bushy 8s. per 100. ROSES, Half standard 1s. per dozen, Dwarf, 1s. per dozen. SYCAMORES and LABURNUMS, 5 feet to 7 feet, 7s. 6d. per 100. SEEDLING OAK, 12 to 20 inches, 3s. per 1000; &c., &c.

CHIVAS AND WEAVER have much pleasure in drawing the attention of the public to the fact that they have selected the most valuable and the most useful plants to the very best of the above group with the greatest care, and that they have selected the most valuable and the most useful plants to the very best of the above group with the greatest care, and that they have selected the most valuable and the most useful plants to the very best of the above group with the greatest care.

Forest Trees, Evergreens, &c. JOHN KENNEDY AND CO. have as usual a very large and superior stock of FOLIAGE and ORNAMENTAL TREES and SHRUBS which they are selling at moderate prices. The Trees and Shrubs are of all kinds and sizes, and are particularly well suited for the purpose of planting in pleasure grounds, and for the purpose of planting in pleasure grounds, and for the purpose of planting in pleasure grounds.

The American Nursery, Bagshot, Surrey. JOHN WATERER has the pleasure of calling the attention of the public to the fact that he has much satisfaction in recommending to the public a very fine and useful plant, the first-rate excellence and from the fact that it remains in an excellent state for transplanting. Having a very large stock, he is determined to treat on most liberal terms. He would however, earnestly invite Purchasers to make a visit and choose for themselves, which is easily accomplished by South-Western Railway (Reading Branch) to Sunningdale Station, which is near the Nursery.

RHODODENDRONS (Standards) - Of all the leading choice, scarlet, and other varieties, 3 to 4 feet stems, consisting of such as Alexander Ayle, Michael Waterer, The Warrior, Princess Mary of Cambridge, Quadroona, Mrs. Ingleton, Joseph Whitworth, and a great number of others as have been exhibited annually at the Royal Botanic Gardens, Regent's Park.

RHODODENDRONS (Dwarf-growing kinds) - These are very close growing varieties, and are recommended for filling winter beds, Daphnoides, Myrsinoides, and Hybridum are the best suited for such purposes. Odoratum is delightfully scented, and much used for potting and forcing.

AZALEAS, HARDY - Of the most beautiful kinds, of all colours, and in fine plants covered with a profusion of coming buds. These are much used for forcing. 18s. to 20s. per dozen.

ANDROMEDA FLORIBUNDA - One of the most hardy plants used for decorating water-works. Of these we are large holders, and can supply beautiful specimens at 30s. per dozen, covered with blooming buds.

KALMIA LATIFOLIA and MYRTIFOLIA - Fine grown plants, of all sizes. HARDY HEATHS - A very fine collection, in 20 kinds, 30s. p. 100.

ABIES NORDMANIANA - Of this fine kind we are very large holders, all of which are seedlings, and of an average height from 2 to 5 to 6 to 8 and 10 feet.

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ARAUCARIA IMBRICATA - Fine specimens, 2 to 4 to 6 to 12 feet. THUJA SINENSIS - All sizes, 2 to 4 to 6 feet. THUJA AUSTRALIS - All sizes, 2 to 4 to 6 feet.

THUJA GJANTRA - In dense quantities, from 3 to 4 to 6 feet. WELINGTONIA GIBBERNA - All sizes, from 2 to 12 feet. IRISH YEW - Selected specimens, 1 to 12 feet. HOLLIES (various) - Fine, 2 to 3 to 4 to 6 feet.

HOLLIES (Gold and Silver) - In the most approved kinds, of all sizes. STANDARD GOLDEN HOLLY WATERER'S - The best for standards, fine plants. STANDARD WEEPING HOLLIES (Green and Variegated).

We have likewise immense quantities of the leading kinds of EVERGREENS, of all sizes, such as Yew, Box, Bays, Aucubas, Arbutus, Phillyreas, Common and Portugal Laurels, &c., as well as fine strong transplanted FOLIAGE TREES, 2 to 3 and 4 feet, consisting of Ash, Beech, Alder, Spanish Chestnut, Hazel, Withy, Larch, Spruce, Pinus austriaca, &c.

The Planting Season.

WOODLANDS NURSERY, MAREFIELD, NEAR UCKFIELD, SUSSEX. W.M. WOOD AND SON respectfully invite especial attention to the very large stock of STANDARD ORNAMENTAL TREES, of large size, suitable for planting as single specimens in Lawns or in Parks where immediate effect is desired.

Plants for Hedges TWO HUNDRED THOUSAND COMMON LAURELS, of all sizes, from 1 to 3 feet. Wm. Wood & Son

AMERICAN ARBOR-VITAE, especially recommended for Hedges:—2 to 3 feet, 6s. per dozen, 40s. per 100; 3 to 4 feet, 9s. per dozen, 60s. per 100; 4 to 6 feet, 12s. per dozen (extra fine), 100s. per 100.

SPECIAL OFFER to GENTLEMEN.—See CATALOGUE 53, p. 11, for quantities of 5,000, and above 20,000, carriage paid.

ORNAMENTAL TREES AND SHRUBS. PETER LAWSON AND SON have an immense stock (extending over many acres) of the leading varieties of HARDY ORNAMENTAL TREES and SHRUBS, of such sizes as are most suitable for immediate effect, which they offer at moderate prices; and purchasers of large quantities will be very liberally dealt with.

For Lawn and Cover Planting. BERBERIS DARWENI.—Too much cannot be said of this fine Evergreen species. It is hardy, and the profusion of its orange-red berries, in some clusters with the maturity of berries which a bear and wild pheasants are very fond of, render it one of the most attractive and desirable plants for Lawns as well as Cover Planting ever introduced.

COTONEASTER SIMMONSII.—This is a beautiful Hardy Evergreen Shrub, with glossy dark green leaves, and bearing a large quantity of scarlet berries, which ripen later than the Berberis Darweni, and will hang all winter.

Wandsworth Common Nursery. Ten minutes' walk from Clapham Junction.

MR ROBERT NEAL begs to invite the attention of the Nobility, Gentry, and the Trade in general to his very extensive and healthy stock of PLANTS, consisting of a large collection of Standard, Pyramidal, and Dwarf-trained FRUIT TREES, of all sizes, Standard and Dwarf ROSES, Coniferous and other Evergreens, Forest and Ornamental Trees and Shrubs; also a large collection of Rhododendrons, all the very best in cultivation, and are of the most various forms, sizes, and colors, and are shaded up to white, and in some instances, and in the leading kinds of scarlet, both standard and dwarf, set with buds, which he can supply in large quantities at a very low price.

1863.—Mangel Wurzel Seed. H. AND F. SHARPLEY, of Wandsworth, have the honor to announce that they have the above-named Seed, grown on their own Farm this season from picked Balbs. The quality is very fine, and prices are low. Samples may be obtained on application.

SURPLUS STOCK.—Special offer to the Trade. PEAS, SANDSTON'S NO. 1. EARLY EMPEROR. BISHOP'S LONG AND DWARF. PARADISE EARLY MARROW. WATERLAD or VICTORIA. SEEDLING for effect of a. THE GEM or TOM THUMB. VEGETABLE PERFECTION. MAIR'S DWARF MAMMOTH. BEANS, GREEN WINGS. GREEN LONGPOD. BROCCOLI, CHAPPEL'S CREAM. ELLETSON'S MAMMOTH. IMPERIAL WINTER WHITE. WILLOW LATE WHITE. KNIGHT'S PROTECTING. BRIMSTONE. ADAM'S EARLY WHITE. PURPLE SPOOTING. CABBAGE, EARLY YORK. LARGE YORK. NONPAREIL (green). CARROT, ALTRINGHAM (good). JAMES' INTERMEDIATE. WHITE BELGIAN. ONION, WHITE GLOBE. BROWN GLOBE. RADISH, WOODS' EARLY FRAME. AND TURNIP. SPINACH, EARLY KITE. TURNIP, EARLY GLOBE. POMERANIAN WHITE GLOBE. SWEET PEAS mixed colors.

East Lothian, White, and Purple Intermediate Stock. THOMSON'S SUPERB HERBACEOUS CALCROLARIA, saved from the Dalkeith Collection, in packets at 1s., 2s., 6d., and 5s.

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LAWES' MANURE for GRASS LANDS should be applied during the months of February and March. NITRATE of SODA supplied ex Ship or from Stocks at Docks at London, Liverpool, and other ports, at lowest market prices.

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A MANUFACTURER of a MANURE established 16 years, wishes to appoint a few respectable AGENTS. Good Commission.—Address by post, with occupation, &c., "Manure Agency," at No. 168, Babergate Street Without, London, E.C.

FOR DESTROYING RED SPIDER, MEALY-BUG, THRIP, GREEN and BLACK FLY, without the aid of a fumigator.—This article having been before the Public for the last three years, and being now used by many of the leading Horticulturists—from several of whom Testimonials have been received as to its efficacy,—the Manufacturers beg to recommend it as the most effective and most economical remedy for these pests when they are found on any of the above-named plants, as it is far superior to paper or rag, and will not injure the plants. Sold in 1 lb. packets and upwards; price 3s. 6d. per box, carriage free. A reduction in price for large quantities.

By Royal Appointment To Her Majesty, by Special Warrant dated 11th December, 1862. To the Prince of Wales, by Special Warrant, dated 10th February, 1863.

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THERE ARE MANY VARIETIES IN CULTIVATION. From the universal satisfaction that their Telegraph Cucumber has given, WILLIAM ROLLISSON & SONS are much encouraged in again offering good and well ripened Seed of this most extraordinary variety. Its wonderful cropping qualities have this year been witnessed at their Establishment by many experienced judges, all of whom have agreed that it is the best in cultivation for that purpose, in fact it has been acknowledged to be, by the best authorities of the day, the most productive yet introduced for Winter and Early Spring use, in proof of which See Gardeners' Chronicle, January 17, 1863. See Gardeners' Chronicle, August. See Gardeners' Chronicle, March. See Gardeners' Chronicle, Oct. See Gardeners' Chronicle, Jan. See Gardeners' Magazine, Jan. See Journal of Horticulture, &c.

NEW SEEDS FOR THE GARDEN AND FARM, 1869. RCHD. HENDERSON'S DESCRIPTIVE and PRICED CATALOGUE OF SEEDS, containing Cultural Remarks on all the most important SEEDS.



A select list of GLADIOLUS for Spring Planting. GRAPE VINES, in Pots, an unrivalled Collection. Also his DESCRIPTIVE CATALOGUE of GENERAL NURSERY STOCK is now ready, and may be had gratis and post free upon application. Sixon Nursery, Thornton Heath, Surrey; and at the East Surrey Seed Warehouse, College Grounds, North End, Croydon.

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Have now ready for delivery, in fine condition, CORN MANURE, for Spring Use DISSOLVED BONES, for Dressing Pasture Lands SUPERPHOSPHATE of LIME PREPARED GUANO MANGEL and POTATO MANURES.

LAWES' MANURE for GRASS LANDS should be applied during the months of February and March. NITRATE of SODA supplied ex Ship or from Stocks at Docks at London, Liverpool, and other ports, at lowest market prices.

LAWES' MANURES are now ready for delivery for present season, 1863. LAWES' PATENT TURNIP MANURE.

These Manures can be obtained of Mr. Lawes, or through the appointed Agents in all parts of the United Kingdom. GENUINE PERUVIAN GUANO direct from the importers. NITRATE of SODA, SULPHATE of AMMONIA, and other Chemical Manures. AMERICAN and other CAKES at market prices.

A MANUFACTURER of a MANURE established 16 years, wishes to appoint a few respectable AGENTS. Good Commission.—Address by post, with occupation, &c., "Manure Agency," at No. 168, Babergate Street Without, London, E.C.

FOR DESTROYING RED SPIDER, MEALY-BUG, THRIP, GREEN and BLACK FLY, without the aid of a fumigator.—This article having been before the Public for the last three years, and being now used by many of the leading Horticulturists—from several of whom Testimonials have been received as to its efficacy,—the Manufacturers beg to recommend it as the most effective and most economical remedy for these pests when they are found on any of the above-named plants, as it is far superior to paper or rag, and will not injure the plants. Sold in 1 lb. packets and upwards; price 3s. 6d. per box, carriage free. A reduction in price for large quantities.

To be had of MESSRS. ROBERTS AND SONS, Tobacco Manufacturers, 11, St. John Street, Clerkenwell, E.C., of whom Samples and Testimonials may be obtained, and of all Seedsmen and Nurserymen.

By Royal Appointment To Her Majesty, by Special Warrant dated 11th December, 1862. To the Prince of Wales, by Special Warrant, dated 10th February, 1863.

DAY, SON, AND HEWITT, Original and Sole Proprietors of the STOCK BREEDERS' MEDICINE CHEST for Horses, Cattle, Calves, Sheep, and Lambs. Adapted by a series of twenty thousand of the principal Stock breeders, Horse Proprietors, and Agriculturists in England, Ireland, Scotland, and Wales.

"The Gaseous Fluid" is sufficient for all the ills that Calves and Lambs are liable to, and is a Farmer's see a whole sheep.

Orders sent by Post will be promptly attended to if addressed—Mr. Day, Son, & Hewitt, 22, Duncannon Street, Baker Street, London, W.

THE LONDON MANURE COMPANY (Established 1840) Have now ready for delivery, in fine condition, CORN MANURE, for Spring Use DISSOLVED BONES, for Dressing Pasture Lands SUPERPHOSPHATE of LIME PREPARED GUANO MANGEL and POTATO MANURES.

LAWES' MANURE for GRASS LANDS should be applied during the months of February and March. NITRATE of SODA supplied ex Ship or from Stocks at Docks at London, Liverpool, and other ports, at lowest market prices.

LAWES' MANURES are now ready for delivery for present season, 1863. LAWES' PATENT TURNIP MANURE. DISSOLVED BONES. SUPERPHOSPHATE of LIME. WHEAT, BARLEY, GRASS, and MANGEL MANURE. CONCENTRATED CORN and GRASS MANURE.

A MANUFACTURER of a MANURE established 16 years, wishes to appoint a few respectable AGENTS. Good Commission.—Address by post, with occupation, &c., "Manure Agency," at No. 168, Babergate Street Without, London, E.C.

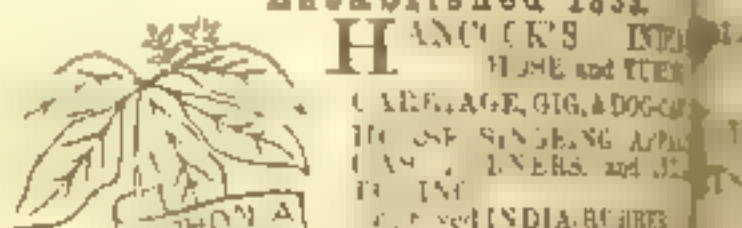
GENUINE TOBACCO PAPER, of the best quality, for all purposes, and sold by the Trade. ROLL TOBACCO PAPER, finest quality, strength to Tobacco, 1s. per lb., cheaper in quantities. SAM'L. MAY, Seed Merchant, 180, Wide Lane.



E. T. ARCHER'S "FRIGI DOME" PATENT NETTING, for the purpose of PROTECTION from the COLD WINDS and MOISTURE. Two yards wide. Four yards wide. An improved make, 2 yards wide. An improved make, 3 yards wide.

Established 1831. HANCOCK'S IMPROVED INDIA-RUBBER WATERPROOF CARPETING, for all purposes, and sold by the Trade. JAMES LYNE HANCOCK, Vulcanisation Works, 266, Goswell Road, LONDON, E.C.

COTIAM'S PATENT PORTABLE COW FITTINGS. Their advantages are—Portability, not requiring any Woodwork or Partitions to support them, they are adapted with an enormous variety of patterns, and depth of cover to prevent over-gorging, and being free of iron, they are perfectly safe for the animal, and are exhibited, together with American apparatus, in the Exhibition of 1862.



GARDEN BORDER EDGING. A variety of patterns and materials, especially suited for KITCHENS, and once put down, they will last for ever, and are the most economical and durable of all kinds of edging. A full list of patterns and prices, and a list of the names of the Agents, may be obtained on application to the Proprietors, Messrs. G. ROBERTS, 22, Duncannon Street, Baker Street, London, W.

SILVER SAND REDGATE, best quality, for all purposes, and sold by the Trade. Quantities of 1 Ton, 100 lbs., and 50 lbs. may be ordered. F. & G. ROBERTS, 22, Duncannon Street, Baker Street, London, W.

PAUL'S NURSERIES AND SEED WAREHOUSE, WALTHAM CROSS, LONDON, N.

GENUINE AND FIRST-CLASS SEEDS.

WILLIAM PAUL

BEGS TO ANNOUNCE THAT HIS

CATALOGUE OF SELECT VEGETABLE AND FLOWER SEEDS,

Including many Novelties, is now ready, and may be had Free by Post on application.

In proof of QUALITY he need only refer to the numerous Prizes awarded at various Horticultural Shows throughout the country, for both Vegetables and Flowers grown from his Seeds, and in regard to prices these are in all cases affixed on the lowest possible scale to be remunerative. The following Gardens in Hertfordshire, justly renowned for their Vegetables and Flowers, have long been supplied from his Seed Warehouse—Brockett Hall, Panshanger, Danesbury, Polos, Digswell, Wyduval Hall, Woodhall, Youngebury, Bedwell Park, Essendon Place, Campfield Place, Bayfordbury, Knebworth, Frogmore Hall, Childwickbury, Codicote Lodge, and many others of equal celebrity throughout the country.

To purchasers who are unacquainted with the best varieties of Vegetables and Flowers, or who wish to save the trouble of writing a List, the following Collections are made up on equally liberal terms with any other House in the Kingdom. All are of the best quality, and cannot fail to give the fullest satisfaction.

VEGETABLE SEEDS.

No. 1. The WALTHAM COLLECTION of VEGETABLE SEEDS, FOR A LARGE GARDEN, Price £3 3s.

No. 2. The WALTHAM COLLECTION of VEGETABLE SEEDS, FOR A MEDIUM-SIZED GARDEN, Price £2 2s.

No. 3. The WALTHAM COLLECTION of VEGETABLE SEEDS, FOR A SMALL GARDEN, Price £1 1s.

Smaller Collections for Small Gardens or Cottagers, 15s., 10s. 6d., or 5s. each

FLOWER SEEDS.

No. 1. The WALTHAM COLLECTION of FLOWER SEEDS, INCLUDING THE FINEST IMPORTED ASTERS, STOCKS, &c., Price £3 2s.

No. 2. The WALTHAM COLLECTION of FLOWER SEEDS, INCLUDING CHOICE IMPORTED ASTERS, STOCKS, &c., Price £1 1s.

No. 3. The WALTHAM COLLECTION of FLOWER SEEDS, INCLUDING THE MOST EFFECTIVE FOR A SMALL GARDEN, Price 10s. 6d.

No. 4. PAUL'S CHOICE COLLECTION of HOLLYHOCKS, IN TWELVE DISTINCT NAMED SORTS, Price 5s.

NOVELTIES, OR VARIETIES OF SUPERIOR MERIT.

- BEEF, Paul's Superb Crimson, 1s. per packet. BROCCOLI, Leuder's Superb Protecting Late White, 2s. 6d. per pkt. BROCCOLI, Snow's Winter White, very select stock, 1s. per packet. BRUSSELS SPROUTS, Paul's Waltham, 1s. per packet. CAULIFLOWER, Hill's Dwarf, 1s. 6d. per packet. CAULIFLOWER, Superb Dwarf Hertfordshire, 1s. per packet.

- CUCUMBER, Paul's Improved Telegraph (true), 2s. per packet. * This Variety was first sent out by me in 1861, and is distinct from many varieties of Telegraph, and acknowledged to be the most prolific and best flavoured of all Cucumbers. ENDIVE, Waltham Green Curled, 1s. per packet. LETTUCE, Brockett Hall Brown Curled, 1s. per packet. LETTUCE, Hill's Compact Brown Curled, 1s. 6d. per packet. PARSLEY, Paul's Selected Extra Curled, 6d. per packet.

FOR MORE PARTICULAR INFORMATION, SEE SEED CATALOGUE.

All Seeds, except very small parcels, Carriage or Post Free

LILIUM AURATUM—Flowering bulbs, 2s. to 7s. 6d. each, 18s. to 72s. per dozen

GLADIOLI.—A very fine assortment to name, 6s. to 24s. per dozen.

ROSES.—A fine stock stl. on hand, Standards, Dwarf-standards, Dwarfs, and in pots for forcing.

FRUIT TREES.—Standards, Pyramids, and Dwarf-trained, and a large general Nursery Stock in excellent condition.

PRICED CATALOGUES, FREE BY POST.

IMPORTANT.—To prevent confusion, all Letters should be addressed WILLIAM PAUL—the Christian name in full, as above.

SUTTONS' £3 3s. COLLECTION of VEGETABLE SEEDS, carriage free. For Contents, see page 46 of this issue. SUTTONS' £2 2s. COLLECTION of VEGETABLE SEEDS, carriage free. For Contents, see page 46 of this issue. SUTTONS' £1 1s. 6d. COLLECTION of VEGETABLE SEEDS, carriage free. For Contents, see page 46 of this issue. SUTTONS' 11s. COLLECTION of VEGETABLE SEEDS, carriage free. For Contents, see page 46 of this issue. SUTTONS' 15s. COLLECTION of VEGETABLE SEEDS, carriage free. For Contents, see page 46 of this issue. SUTTONS' 12s. 6d. COLLECTION of VEGETABLE SEEDS. For Contents, see page 48 of this issue.

LAMONT AND MITCHELL offer a variety of well-ripened, and selected VINES, of various varieties, true to Name. For particulars, apply to the Nursery, Deacons' Lane, Edinburgh.

LAMONT AND MITCHELL offer to the Trade of Dull's superb BLACK BERT, the finest in cultivation for Decorative and Culinary purposes. Prices on application. Seed Warehouse, 3, 11, & 13, New Street, Edinburgh.

NEW and GENUINE AGRICULTURAL and GARDEN SEEDS.—Special prices and advantageous offers on application to ALFRED LEGGERTON, Seed Merchant, 5, Aldgate, London.

ALFRED LEGGERTON begs to inform the Trade that his WHOLESALE SEED CATALOGUE for the season is now ready, and will be sent free by post on application. Stocks the best, and of the best quality, in London. Wholesale Seed Establishment, 5, Aldgate, London.

New Garden and Farm Seeds. BOLTON AND CO. SEED MERCHANTS, SALING, LONDON.

NEW SEEDS of every description—GARDEN, FLOWER, and AGRICULTURAL. RAINBIRD, CALDER, & LAWRENCE DUNN, AND COMPANY, Limited, COOK, SEED, MANURE, and CHEMICAL Merchants. Address, 25, Essex Street, Mark Lane, E.C., or Bank Street, London. Samples and prices sent on application. Price List for Wheat, 1882, for 'Excellent Seed' and 'Good'.

LONDON and CONTINENTAL SEED COMPANY, 25, WELBECK STREET, CAVENDISH SQUARE, LONDON, W.

THE LONDON and CONTINENTAL SEED COMPANY has purchased the old and important stock of Rendle & Co., of Plymouth, which has been established nearly 100 years.

THE LONDON and CONTINENTAL SEED COMPANY, Mr. RENDLE, the head of the stock, is counted to be the Managing Director of this Company.

DISCOUNT of TWOPENCE in the SHILLING to be taken off the published prices of any London or Foreign Seed Merchant.

DISCOUNT of TWOPENCE in the SHILLING to be taken off the published prices of Seeds for the Kitchen Garden, and the Flower Garden.

DISCOUNT of TWOPENCE in the SHILLING. This new system of supplying Seeds for cash payment, same plan so successful, introduced by Mr. Rendle, the Director of the Town and Country Book Society.

DISCOUNT of TWOPENCE in the SHILLING. The Bookkeeping system, of taking off a large discount to cash purchasers, is now introduced into the Seed Trade. LONDON and CONTINENTAL SEED COMPANY.

SEEDS, the newest and finest, and the best of the season—All her new stock, introduced by the London and Continental Seed Company, is of the best quality, and of each season, so that the new season is commenced with a stock of old or perfect seed.

SEEDS, all the growth of 1881, can be obtained from the LONDON and CONTINENTAL SEED COMPANY.

THE LONDON and CONTINENTAL SEED COMPANY have made arrangements with the Continental Growers for the quick delivery of all new seed parcels every week, during the season, from the leading Continental Seed Houses.

THE NEW GARDEN SEED LIST is now ready, and can be had on application, gratis. A Discount of 2s. in the Shilling off all Garden Seeds.

THE NEW FARM SEED LIST is now ready, and can be had on application, gratis. A Discount of 2s. in the Shilling off all Farm Seeds.

THE ILLUSTRATED NEW FLOWER SEED LIST is now ready, and can be had on application, gratis. It contains numerous illustrations of the seeds, and is a copy of the Two-pence to the Shilling off the price of all Flower Seeds.

LONDON and CONTINENTAL SEED COMPANY. Purchasers of a large quantity of seeds are strongly recommended to obtain the CATALOGUE now published by this Company.

Address. LONDON and CONTINENTAL SEED COMPANY, 25, WELBECK STREET, CAVENDISH SQUARE, LONDON, W.

NOTICE is HEREBY GIVEN, that the Partnership of JOHN SHIP and EDWARD HOBAY, carried on at the Nursery, 8, 10, 12, & 14, St. Andrew's Street, London, is dissolved. All debts due to the said Partnership, or by the said Partnership, are to be paid or received, as the case may be, by JOHN SHIP, or EDWARD HOBAY, or by their respective Attorneys, before the 1st day of January, 1882. Dated this 1st day of January, 1882.

HENRY BALBY, President, begs to inform the Trade, that he has been appointed to the Country Nursery of Waltham Cross, and has the honor to acknowledge the interest and trusts by street notices, and performances, and the assistance of past favours, afforded by the late customers, and to express his sincere appreciation of the same. It will be his endeavor to meet the requirements of a real good article at a reasonable price. Being a cultivator for several years, Flower Market, he has an opportunity of securing from some of the best growers in the country, and is enabled to carry on a first-class business. New Plants, &c., may be ordered at advertisement prices. Royal Nursery, Waltham Cross, January 1, 1882.

Editorial Communications should be addressed to the Editor, at the Office, 41, Wellington Street, London, E.C. The Editor's Office is open from 10 o'clock to 4 o'clock, on all days except Sundays and Public Holidays. Printed by JAMES MARRIOTT, at the Office of Messrs. W. & A. G. & Co., Limited, 41, Wellington Street, London, E.C. Office No. 4, Wellington Street, London, E.C. January 20, 1882.

New Seeds for the Garden and Farm, 1869.



ARCHD. HENDERSON'S DESCRIPTIVE and PRICED CATALOGUE of SEEDS, containing Cultural Remarks on all the most important SEEDS.

Seed Nursery, Thornton Heath, Surrey.

WILLIAM WOOD AND SON, NURSERYMEN, FRUITERS, and FLOWERS.



OF PRUSSIA

WILLIAM WOOD AND SON'S SELECTION OF VEGETABLE SEEDS for the Garden and Farm, 1869.

B. S. WILLIAMS, SEED MERCHANT AND NURSERYMAN, Victoria and Paradise Nursery, Upper Holloway, London, N.

KITCHEN GARDEN SEEDS, To suit Gardens of various sizes.

Table listing various vegetable seeds such as Williams' Improved Green Cured Broccoli, Earl's Selected Brussels Sprouts, etc., with prices per packet.

Table listing various flower seeds such as Williams' Superior Strain of Primula, Cyclamen, etc., with prices per packet.

VEGETABLE and FLOWER SEEDS, now ready post free on application.

STOCKS, STOCKS, STOCKS.

B. S. WILLIAMS

HAS MUCH PLEASURE IN OFFERING CAREFULLY SELECTED

SEED OF THE SUPERB EAST LOTHIAN INTERMEDIATE STOCK

Feeling sure, from personal observations of several years, that it is without question the finest strain of Intermediate Stock extant.

The colours are Purple, Scarlet and White. The two first are remarkably brilliant, and the latter very general bedding purposes, indeed, the effect which can be produced by these three varieties in both spring and autumn gardening is not surpassed by any of the now popular plants.

An assortment of three colours (Scarlet, Purple, and White), 2s. 6d.

B. S. WILLIAMS, VICTORIA and PARADISE NURSERY, UPPER HOLLOWAY, N.

B. S. WILLIAMS'

NEW GENERAL PRICED SEED CATALOGUE for 1869,

Is now ready, and will be forwarded Post Free to all customers and applicants.

It contains Lists of all New Flower Seeds of merit, Choice Strains of Florists' Flowers, imported Flower Seeds, the most useful Annuals, Biennials, and Perennials for Spring and Summer Flowering, etc.

All Orders of more than £1 in value sent Carriage Free.

VICTORIA and PARADISE NURSERY, UPPER HOLLOWAY, LONDON, N.

SELECTED

VEGETABLE & FLOWER SEEDS, POTATOS, &c.

Fully DESCRIPTIVE PRICED CATALOGUE of the above, containing all the desirable NOVELTIES of the Season, is now ready, and will be sent Gratis and Post Free on application.

James Dickson & Sons

OLD ESTABLISHED SEED & NURSERY BUSINESS, 102, EASTGATE STREET, AND "NEWTON" NURSERIES, CHESTER.

LONDON AND CONTINENTAL SEED COMPANY,

68, WELBECK STREET, CAVENDISH SQUARE, LONDON, W.

THE LONDON and CONTINENTAL SEED COMPANY has purchased the old and important business of Rendle & Co., of Plymouth, which has been established for nearly 100 years. THE LONDON and CONTINENTAL SEED COMPANY. — Mr. RENDLE, the head of the old Firm, consented to be the Managing Director of this Company. DISCOUNT of TWOPENCE in the SHILLING will be taken off the published prices of any London or Provincial Seed Merchant. DISCOUNT of TWOPENCE in the SHILLING will be taken off the published prices of Seeds for the Family Kitchen Garden, and the Flower Garden. DISCOUNT of TWOPENCE in the SHILLING — This new system of supplying Seeds for cash payment is the most plan so successfully introduced by Mr. Rendle, the Managing Director of the Town and Country Book Society. DISCOUNT of TWOPENCE in the SHILLING — The Bookselling system, of taking off a large Discount to the purchaser, is now introduced into the Seed Trade by the LONDON and CONTINENTAL SEED COMPANY. SEEDS, the NEWEST and FRESHEST, all the growth of 1868. — Another new system introduced by the London and Continental Seed Company, is to dispose of all surplus stock at the end of each season, so that the season is commenced without an ounce of old or imperfect seed. SEEDS, all the growth of 1868, can be obtained from the LONDON and CONTINENTAL SEED COMPANY. THE LONDON and CONTINENTAL SEED COMPANY have made arrangements with the most experienced Continental Growers for the quick delivery of all New Seed Express Parcels every week in the season to the leading Continental Cities. THE NEW GARDEN SEED LIST is now ready, and can be had on application, Gratis. A Discount of Twopence in the Shilling off all Garden Seeds. THE NEW FARM SEED LIST is now ready, and can be had on application, Gratis. A Discount of Twopence in the Shilling off all Farm Seeds. THE ILLUSTRATED NEW FLOWER SEED LIST is now ready, and can be had on application, Gratis. Copy A Discount of Twopence in the Shilling off the price of all Flower Seeds. LONDON and CONTINENTAL SEED COMPANY — Purchasers of all kinds of Seeds are strongly recommended to obtain the CATALOGUE now published by this Company.

LONDON AND CONTINENTAL SEED COMPANY, 68, WELBECK STREET, CAVENDISH SQUARE, LONDON, W.

GOLDEN COLETS, QUEEN VICTORIA—This is the brightest in colour of the whole series, having the centre of the ear of a rich bronzy bright crimson, delicate shot with pale violet, with a bright yellow edge, somewhat broken with crimson veining, so as to appear as if the borders were formed of a double row of golden beads. (See Catalogue.)
Messrs. JONES & CHARLES JONES were the fortunate purchasers of this, the most splendid of all Colets, at the recent sale by Mr. Stevens of the Royal Horticultural Society's new Collection. A pair of Queen Victoria will shortly appear in the "Florist" under a name being looked for de very early in Spring. Price 3s. 6d. Special offer to the Trade on application.
Royal Vineyard Nursery and Seed Establishment, Hammaramth, London, W.

HENRY GODFREY, NURSEMAN, Sloughbridge has to offer a large quantity of **HEAVY ESCALOPED EARLIAN**, raised from seed saved from a particularly fine strain, established in small pots, from 2s. 6d. to 3s. per dozen, basket and package included. When three or more baskets are taken, Post Office orders or postage stamps will be accepted.

Choice Seeds, Gladioli, &c.
W.M. CUTRUSH AND SON'S CATALOGUE of the above contains description and price of many very superior home-grown VEGETABLES, and FLOWER SEEDS, and choice varieties of GLADIOLI, &c., all of which are highly recommended. Post free on application.
Highgate Nurseries, London, N.

New Catalogue.
LEWIS S. WOODTHORPE will be happy to forward, post free, on application, his CATALOGUE (which will be found very reasonable) of NEW and CHOICE PLANTS, beautiful SPRING FLOWERS, and GENERAL NURSERY STOCK. A heavy account to the Trade.
Munro Nursery, Sible Hedingham, Essex.

Genuine and First-class Seeds, Carriage Free.
W.M. PAUL begs to announce that his NEW CATALOGUE of SELECT VEGETABLE and FLOWER SEEDS is just published, and will be forwarded free by post on application.
He has made enlarged arrangements, by which he believes he will be able to secure for his Customers, at usual, the best races of VEGETABLE and FLOWER SEEDS, of good germinating qualities, free from adulteration. For further particulars, see large Advertisement of last week.
Important!—All letters should be addressed Wm. Paul, Waltham Cross, London, N.

Vegetable, Agricultural, and Flower Seeds.
Miscellaneous Hardy Bedding Plants, Sweet Violets, &c.
ROBERT PARKER begs to announce that his CATALOGUE, containing DESCRIPTIVE LISTS of the best kinds in cultivation of the above-named, is now published, and will be forwarded to applicants. The stocks of Seeds have all been procured from the best possible sources, all are warranted genuine, and are offered at the lowest possible prices.
Interested purchasers are requested to compare the prices with those of other houses.
Parker's Nursery, Tooting, Surrey, S.W.

Cologyne cristata.
R. S. YATES possesses the largest stock in the world of the above most lovely of all ORCHIDS ever introduced. He is prepared to dispose of a limited number, at from Three to Twenty Guineas each, nett cash price. Some of the plants have 60 or 70 buds, and are well set with flower-spikes. They will bloom during at this and next month.
Sale, Cheshire, or 14, Corporation Street, Manchester Jan. 14.

Spring Flowers—Cheap and Good.
LEWIS S. WOODTHORPE, having a large Stock on hand, begs to offer the following VIOLETS, in 24 of the best varieties in cultivation, also, HEPTACAS, PRIMROSES, AGRICULAS, POLYANTHUSES, DAISIES, GUCKETS, HELIANTHEMUMS, CLOVES, LINKS, Hardy RAMULAS, with every other kind of Spring-blooming plant, from 2s. per dozen. A so, a fine selection on application of the newest and best TRICOLOR GERANIUMS.
CATALOGUES of NEW SOFT WOODEN PLANTS, with special Priced Lists forwarded free on application.
Munro Nursery, Sible Hedingham, Essex.

Seeds.
AVERSE as **MR. WILLIAM BULL** is to publishing Testimonials, and for the reason that all good Houses must constantly receive them in some shape or other, still, so much has recently been written and said about inferior Seeds, and Mr. W. B. knowing that Seeds of such excellence as are supplied from his Establishment can scarcely be procured elsewhere, quotes in corroboration the following extract from a letter just received from Lieut. Col. E. Bodian, Honorary Secretary of the Agricultural Society of Mysore, Bangalore.
"We have been sorely tried with Seeds, sent us as Novelties and best kinds. I have found the sealed packets sent us, bearing your name, are out and out the best we get."
CATALOGUE of SEEDS, just published, with everything priced, can be obtained by enclosing 12 stamps.
Establishment for New and Rare Plants, King's Road, Chelsea, London, S.W.

HOOPER AND CO'S GENERAL CATALOGUE is now published. It INCLUDES PROBABLY MORE BONA FIDE MATTER, and a larger variety of genuine subjects, than any other published in Great Britain.
It ENUMERATES NATIVE SEEDS from various parts of the world, several from hitherto unexplored districts, and therefore not yet described in Botanical Works.
The SEEDS OFFERED are UNADULTERATED, and as cheap as those of any House which sends out good articles.
The KITCHEN GARDEN SEEDS are of the very finest quality, and sent carriage free to any part of the Kingdom.
All FLOWER SEEDS are sent free.
Hooper & Co.'s GENERAL CATALOGUE for 1869 (referred to above) is published at 6d., and gratis to all Customers.
Hooper & Co. have no connection whatever with any other Seedsmen of the same name, and the only place where their genuine Seeds can be obtained, is at their Retail Seed Warehouse in Covent Garden Market, London, W.C.

Choice New Seeds.
CHARLES TURNER can recommend the following, having been saved by himself or under his inspection.
BALSAM, from a prize collection 1 0
CENTAUREA CANDIDISSIMA 1 0
" GYMNOCARPA 1 0
CARNATION, from exhibition kinds 2 6
HOLLYHOCK, from exhibition kinds 1 0
Collections of 24 named varieties 5 0
PINK (from the newest and best varieties) 3 6
PICOTE 2 6
PELARGONIUM, SHOW 2 6
" FANCY 2 6
" TRICOLOR 2 6
" VARIEGATED 2 6
" ZONAL 2 6
TROPICALEM GOLDEN KING OF TOM THUMB 1 0
GOLDEN FEATHER PYRETHRUM 3 6
VEGETABLE SEEDS.
BRUSSELS, SNOW'S WINTER WHITE 2 6
CABBAGE, BAILEY'S SUPERB 1 0
CUCUMBER, HERKESHIRE CHALLENGE 1 0
" REDBOR PROLIFIC 1 0
MELON, GOLDEN QUEEN 2 6
PEAS, LITTLE GEM, First Crop per quart 2 6
" ADVANCER, Second Crop per quart 2 6
" PREMIER, Third Crop per quart 2 6
SAVOY, NEW FRENCH 1 0
Charles Turner's NEW SEED LIST, containing all the newest and best varieties, can now be had post free on application.
The Royal Nurseries, Slough.

GENUINE SEEDS OF SUPERIOR STOCKS.



SEEDSMEN TO THE QUEEN.

FRANCIS & ARTHUR DICKSON & SONS,

THE "OLD" ESTABLISHED SEED WAREHOUSE, 106, EASTGATE STREET, CHESTER.

THE BEST EARLY PEA IN CULTIVATION,
DICKSON'S "FIRST AND BEST," price 1s. 6d. per quart.

CATALOGUE OF NEW AND SELECT VEGETABLE AND FLOWER SEEDS, POTATOS, &c., FOR 1869,

With practical Cultural Directions, will be sent Post Free on application.

Their Seeds are all of the most select character, each being saved from the best Stock known of its kind.
GARDEN SEEDS of £2 value delivered Carriage Free. FLOWER SEEDS Free by Post or Rail.

GENUINE SEEDS.



JAMES VEITCH & SONS

REG TO ANNOUNCE THAT THEIR

ILLUSTRATED PRICED CATALOGUE OF GARDEN AND FLOWER SEEDS for 1869,

WITH LIST OF IMPLEMENTS AND OTHER GARDEN REQUISITES,

Is now published, and will be forwarded Post Free on application.

ROYAL EXOTIC NURSERY, CHELSEA, LONDON, S.W.

NEW HYBRID PASSION FLOWERS.

PASSIFLORA MUNROI, and PASSIFLORA LAWSONIANA

(Fully noticed and described in the Gardeners' Chronicle of December 12, 1868, p. 1233).

PETER LAWSON & SON

Intend to send out the above-named charming Climbers, for the first time, early next May, and are prepared to book orders for

Plants at 21s. each, with the usual discount to the Trade.

EDINBURGH AND LONDON.—January, 1869.

TACSONIA ERIANTHA (WOOLLY-FLOWERED TACSONIA).

A noble plant, resembling in habit and colour of flower the well-known T. mollissima, from which, however, it differs conspicuously in the white under-surface of the foliage and long bracts. As a Greenhouse or Conservatory Climber, it rivals the T. mollissima, and is as free a flowerer. (Vide "Curtis's Botanical Magazine" for January, Tab. 5750.)

PETER LAWSON AND SON have been fortunate in acquiring the Stock of this splendid Climber from James Anderson Henry, Esq., F.L.H., and intend to send it out simultaneously with their new Passifloras

Orders for Plants will now be booked at 21s. each. Trade allowance as usual.

EDINBURGH AND LONDON —January, 1869.

CAREFULLY SAVED GARDEN SEEDS.

ARTHUR HENDERSON & CO.'S

CATALOGUE of choice VEGETABLE and FLOWER SEED NOVELTIES

Is now Published, and can be forwarded Post Free on application.

The VEGETABLE SEED SECTION contains—

Selected LISTS of the best varieties of each kind most worthy of cultivation, also some excellent new ones of both VEGETABLE and FLOWER SEEDS of sterling merit; attention is also directed to the Pine-apple Compact-top BEET (the finest and richest flavoured variety extant), carefully saved, true from the original stock. Also the new DWARF WATERLOO BEET top leaves rich metallic crimson; growth true, even, and regular. The beautiful foliaged variety may with advantage be cultivated in the flower garden as a border, ribbon, or edging plant, its root is a true larger than the Pine-apple Compact-top, flavour excellent, full of sweet saccharine juice, colour crimson, texture tender and uniform throughout.

The FLOWER SEED SECTION contains—

Imported GERMAN FLOWER SEEDS in Collections, Choice Strains of FLORISTS' FLOWER SEEDS, a careful LIST of FLOWER SEED NOVELTIES of the season; HORTICULTURAL REQUISITES of every kind, KNIVES, PROTECTING MATERIALS, HORTICULTURAL MANURES, &c., &c.

N.B. Everything in this CATALOGUE is Priced.

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All Seeds Carriage Free.

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DOWNIE, LAIRD, AND LAING beg to intimate that their GENERAL SEED, FLORIST FLOWER, and... CATALOGUES are now ready, and may be had...

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NOTICE.—LORD BURGHLEY APPLE was exhibited at the Royal Horticultural Society on December 15, 1868, and pronounced "excellent."

VINES.—Eyes of MRS. PINCE'S BLACK MUSCAT, 2s. per dozen, Sample Eye for three stamps. Planting Canes, 1s. each.

GERANIUM MRS. POLLOCK—Several thousand Autumn-struck plants to offer very strong, 40s. per 100.

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British Fern Catalogue.

ROBERT SIM will send, post free for six postage stamps, Part I (British Ferns and their varieties, 36 pages, including prices of Hardy Exotic Ferns) of his PICTURED DESCRIPTIVE CATALOGUE OF BRITISH and EXOTIC FERNS, No. 7.

HENRY GODFREY, NURSERYMAN, Stourbridge, having a large stock of FERNS and SELAGINELLAS, offers for sale a large variety, at from 3s., 12s., to 18s. per dozen.

DOWNIE, LAIRD, AND LAING have a few ounces of the above to spare, saved from their own collection of the best material in cultivation. Price on application.

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Choice Scarlet Rhododendrons.

JOHN WATERER begs to announce that his CATALOGUE of HARDY, SCARLET, and other RHODODENDRONS, as annually exhibited at the Royal Botanic Gardens, Regent's Park, is now published, and will be forwarded to all applicants.

NEW SEEDS.—PELONIA, extra choice, double, white, extra choice, single, Large-flowered and Small-flowered, separate or mixed, each 1s. per packet.

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The advantages of procuring Seeds direct from the Growers cannot be over-estimated.

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In assorted Collections, including only the most approved varieties, to produce a plentiful supply of the best Vegetables throughout the year.

Collection No. 1. For Cottage Gardens, 12s. 6d. Collection No. 2, 21s., contains—

- BEANS, Nonpareil, 1 qt. Broad Windsor, 1 qt. Best French, 1 pt. Scarlet Runners, 1 pt. HOP, St. Olyth, 1 qt. BORRUCOLE or KALE, Cottage's, 1 qt. KALE new Asparagus, 1 qt. Dwarf Scotch, 1 qt. BRUSSELS SPROUTS, best, 1 qt. BROCCOLI, Carter's Champion, 1 qt. Snow's Winter, 1 qt. Adam's Early White, 1 qt. Purple Sprouting, 1 qt. CABBAGE, Carter's Early, 1 qt. Enfield Market, 1 qt. Dwarf Nonpareil, 1 qt. Tom Thumb, 1 qt. Savoy, best curled, 1 qt. CARROT, Early Horn, 1 oz. James's Green-top, 1 oz. selected Scarlet, 1 oz. CAULIFLOWER, Carter's Dwarf Mammoth, 1 qt. CELERY, incomparable Dwarf White, 1 qt. Manchester Giant Red, 1 qt. CRESS, plain, 4 oz. Australian, 1 oz.

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- 12 choicest varieties of FRENCH ASTER, colours separate. 10 choicest varieties of GERMAN STOCK, colours separate. 10 choicest varieties of Dwarf Stock-flowered LARKSPUR, colours separate. 6 packets of choicest EVERLASTING FLOWERS and ORNAMENTAL GRASSES for Winter Bouquets. 6 packets of showy New ANNUALS for bedding. 12 packets of showy Hardy Dwarf ANNUALS, including Tom Thumb Nasturtium, Saponaria, Blue Nemophila, &c., &c. 16 packets of showy Tender ANNUALS (to be sown in frames, and then transplanted or sown in the open borders at the end of April, for summer and autumn blooming, including choice Phlox Drummondii, Balsam, Celosia, the new Amaranthus ruber, Perilla nankinensis, Zinnia, &c., &c. 6 packets of Hardy PERENNIALS for autumn and spring blooming, including Hollyhock, Wallflower, Gaillardia, Alyssum saxatile, &c.

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"I am well satisfied with the Flower Seeds I had from your house."

CARTER'S SEEDS FOR THE FARM.

See page 87, of this day's Gardeners' Chronicle.

CARTER'S PRIZE MEDAL LAWN GRASS will produce a Permanent Turf of finest quality.

1s. per lb.; 20s. per bushel.

CARTER'S FERTILIZER, the best Manure for the Garden.

In Tins, 1s. 9d. and 4s. 6d. each. In Bags, 15s. and 25s. each.

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July 19th to 24th, 1869.

THE ROYAL HORTICULTURAL SOCIETY'S GRAND EXHIBITION at MANCHESTER.

in connection with the SHOW of the ROYAL AGRICULTURAL SOCIETY Amongst various Special Prizes.

A SILVER CUP copy of the famous Colima Cup, VALUE £21 will be offered by the Proprietors of the

GARDENERS' CHRONICLE AND AGRICULTURAL GAZETTE for the best COLLECTION of 6 FRUITS and 8 VEGETABLES, to be made up as follows:

Table with 4 columns: Good, Medium, Inferior. Lists various fruits and vegetables like Grapes, Apples, Peas, etc., with corresponding marks.

This Prize is open for Competition amongst Amateurs and Gardeners of private gardens. The Fruit and Vegetables produced must be of the Exhibitor's own growing, and any article otherwise obtained will disqualify the Collection. It is expected that the several articles will be neatly and effectively displayed. In awarding the Prize, Marks will be adjudged according to the above scale, for the several subjects produced.

The Gardeners' Chronicle.

SATURDAY, JANUARY 23, 1869.

MEETING FOR THE ENSUING WEEK. Monday, Jan. 25—Entomological Anniversary.

THE second "interim Report" on the ADULTERATION OF SEEDS issued by the Sub-Committee of the Royal Horticultural Society, and published in our columns at p. 27, after dealing generally with the question of the vitality of seeds in its relation to their adulteration, goes on to exhibit in a more elaborated form the alleged evil practices its aim is to expose, it shows the injurious influences incident thereto, and closes with some practical suggestions in the way of doing away with these malpractices, and thus obviating their unjust consequences.

The Sub-Committee appear to be fully justified in asserting that in "so far as they have heard, no exception has been taken by any one to the statements in their former Report. They understand they are admitted to be a fair and moderate statement of facts, so far as they go." Anything approaching hostile criticism of the Report, has not been directed either to a denial, or to a justification of the practices alleged, and admitted to prevail in the seed trade, the tendency has rather been to evade the main question by eulogising the high character of the dealers in general. The seed trade has had ample time and opportunity to rebut (if possible) the charge made against it in the Report, but it has not done so, though at the same time its silence should not be arbitrarily construed into an admission of guilt. Certain it is, however, that those of its members who have taken a part in the discussion clearly admit the prevalence of culpable practices. Still it must not be forgotten that there are, according to the Report, a few houses who do not adulterate their seeds, "and which are struggling (almost) single-handed against the overwhelming preponderance of those who do."

Before proceeding to criticise the details of the second Report, it would seem to be necessary to caution the Sub-Committee not to hazard statements except they are fully convinced they are in the main correct. It is not too much to assert that from the very constitution of the Sub-Committee its members cannot have had any very great personal knowledge of the subject

before the frosts of spring, when the vessels are

possible to or

Beech and Oak... May frost... thousand in a common winter... was in position the worst possible to resist frost.

I also send... a few trees worked on the Pommier... and you will see, that although they were transplanted last April...

I shall conclude my defence of a very useful tree... saying that when I was asked whether I considered the said stock hardy, his answer was: "Certainly!"

burn; dry and light soils are late to its being... being, damp, strong soils are its... and, like the Pear upon the Quince...

It therefore is not often that Apples grafted upon the Pommier... I never find mine do so, neither do Pears grafted on Quinces...

GREEN'S PATENT HOT-WATER BOILER

Among the many new forms of boiler, that invented by Messrs. Green, of Leeds, seems to me to be one of the most promising.

The following are some of the advantages which this new boiler possesses... 1. It requires no brick-work...

during this short time little or no harm to the most tender plants, even during frosty weather

Mr. Green has thus, I believe, conferred a great boon on amateurs, and those whose means are limited, by affording a means of heating at a large or small pace with a very small quantity of fuel...

The boiler at Kensington is 4 ft. high, and 2 ft 4 in. in diameter, and has upwards of 1000 ft. of 4 in. pipe attached to it.

doors almost continual... it is quite fair to assume... more than double the work it has to do if required. Mr. Eyles reports that he cannot tell what its capabilities really are...

PINE-APPLE CULTURE. CUTTING DOWN

I HAVE latterly observed some correspondence in the Gardeners' Chronicle respecting the so-called "cutting down" or "cutting over" system of inducing the fruiting of Pine plants.

It would appear, from the explanation your correspondents give of this system, that their practice is not yet quite up to the mark as to fruiting Pines to a certainty with, according to the season of the year from 10 to 16 months' growth...

I will endeavour, for the information of your readers, and as an old Pine-apple cultivator of above 30 years' standing, to relate some facts in illustration of the subject, leaving them to draw their own conclusions. Fifty years ago Pine-cultivators were few and far between, and very different were the conditions we had to contend with, compared with what we have had for the last 30 or 40 years.

one of the numerous trees... Mr Day's nephew... and to science, by the gentleman

APPLE STOCKS.

COX, alias P. M. paradisica, or Paradis of the French, and the Paradise of the English cultivators, for our little hardy tree, I think it has had its origin in the mountains, on which it is found at elevations, and mostly in damp or wet spots, getting a continual supply of moisture melting above it.

Gerard, in his "History of Plants," mentions "a great kind of sweet Apple, called the Paradise Apple, which bears the Apples very early in the year. Can there be much doubt that this was the Pommier de Paradis to London, but before the Pommier de Paradis to London, but before the Pommier de Paradis to London...

When living in Paris I have seen thousands of trees worked upon it as a stock... I had never heard any one complain that the trees were tender or that the trees refused to grow when they were got up a year or two ago by two or three...

spontaneously, or rather by accident; nevertheless, from all appearances, there is a strong presumption that my spores must have germinated, and may possibly have been physiological or horticultural fruit. Would it not be possible, by the process I have described, to get some mushrooms freely in our fields and meadows in any soil? We can procure the spores, in any quantity, at any season, in the peculiar condition in which they take root and grow in the fields; and there, I think, they would be more likely to be preserved, than if they were artificially prepared, and sent through the Winter, should not have a chance of growing when sown in the garden. I have seen several of my mushrooms, which have been preserved for all the dangers of six months of unwholesome weather. With a handful of the prepared spores, one might inoculate a whole pasture with the same.

Waterford newly carried out on this system. I agree with my friend Mr. McDonald, that the plan in clumps through the woods is by far the best; besides, it tends greatly to curtail the expense, at the same time giving equal, if not better, results. I have seldom known hares or rabbits to do any material injury to the Rhododendron ponticum, but sheep, should they break through, will turn up their noses at them, and look for something more palatable to their taste. The simplest and cheapest plan is to have the ways and means of raising seedlings is to buy a quantity every year, say at from 1s. to 2s. per 1000; plant them in nursery ground for a year or two till they get strong, planting in the woods the same quantity of stronger plants that have been bought. I have been adopting for several years a very simple and cheap plan of getting up underwood with common Laurel, viz. when cutting down overgrown wood, which I do in quantities every year, in place of sending them to the fire or rot-heap, I have them planted in the woods, and in the same way I have planted the pruned branches of the laurel in the holes with the soil, tramp, and chip the tops to the ground. This process succeeds best when done before Christmas. I seldom have a failure. Your readers will no doubt have tried the same plan; it is not new, but is certainly worth adopting. *A. R. Castleboro, Enniscorthy.*

Garrya elliptica.—I am surprised at seeing so few of this beautiful and curious shrub in gardens. I have seen it in several soils or sites, or are too crowded in general, otherwise any one seeing it in this mild season, would assuredly have more. Here (40 feet above sea) the plant is like a fountain; its catkins are 5 to 6 inches long, appearing like falling water; it is not more tender than the Myrtle, and stands wind-storms that will not, but it cannot endure the drip of rain.

Grape-growing and Ivy on Trees. Will any of your readers have tested the "sentry-box" system of growing Grapes be kind enough to state what is the success of the system? Also, what varieties of Grapes are best suited to it? I should also be glad to hear any opinion as to the injurious effect (if any) of the growing closely round the trunks of trees. I have a very large Pine tree, with Ivy nearly up to the top 40 feet high. This autumn the foliage is turning brown and I fear the tree is dying. May it be attributed to the Ivy, and if so, is it too late to save it by cutting the Ivy off? *John Fryer, Manor House, Chertsey.*

Camellias Outdoors.—I have this day, January 11, counted 49 blooms on one plant of the Saccol nova Camellia. It is planted in a south-eastern aspect. There are also some Rhododendrons here in full bloom. *Hamilton, Cr., Tweed House, Symington.*

The Calville Blanc Apple (White Calville).—Mr. Rivers has written from France, and has had some of the Apples in the present time to send me. I have seen them, and they are very good, and without any redundancy. Various remarks have been made on the elegant degree, I saw a specimen, and find the following statement in the *Gardener's Chronicle*, p. 140. It occurs in an article, specially relating to the Calville Blanc, by Mr. Rivers. In it he relates how he used to hear its merits extolled by French cooks, and "but like most of us English I felt that a French Apple could not be compared to ours, and told them so. It is only within the past few years that I have been compelled to think as they do, that the Calville Blanc is the finest of all Apples for kitchen use." Then he tells us to grow and how to cook it, and declares that they "give out plenty of juice, are most delicious, and become a perfect pudding." These passages need no comment. I can assure you, that I particularly, finding that its fruit was so good, and that many people were under the impression that it came from some paradisaical climate, I showed how it may be grown to perfection in our gardens, not only in a flat, but in a really good (Calville Blanc) soil, and also of the American ones will be found high and improved by the same mode of culture. Indeed for none of the finer American Apples is the system worth adopting, if the splendid Calvilles and Renettes that

we may see in London are to be considered worth less. *R. R.*

Double Grafting.—I find that Mr. Rivers states, in his last edition, how that double grafting had been introduced into use long ago, and that it had been carried out by the Rev. T. C. Bréhaut states in his Report, printed separately "by special permission of her Majesty's Commissioners, that double grafting is a well-known practice abroad, though its advantages are obvious and great." Seeing that this was unjust to the nations who, however far behind us as horticulturists in some respects, are certainly expert in all matters of fruit-tree multiplication, training, and culture, I simply told the truth about it. When in the last of youthful enthusiasm about British horticulture, I told several experienced French fruit-growers and nurserymen about the double grafting of Pears, they were all surprised, and one was cruel enough to point to a wall of old Pears double grafted beside the spot where we were standing. From the *Gardener's Chronicle* (p. 7), I now learn that Mr. Rivers' knowledge of double grafting is now common in France with a few of the intelligent nurserymen, though the observation as to its not occurring there occurs in his book issued a few weeks ago. *W. R.*

Mealy-Bug on Pines. Mr. Barnes says in his book of mealy-bugs, and young brood of the mealy-bug, and that it is to be destroyed. Mr. Barnes says in his book, that he was once tricked with a mountebank's powder, which he says he used to be cured by applying in that shape a second time; and he is so zealous to run rough-shod over all such ideas as powder recipes, misquotes my paragraph by stating my remedy was to dredge the dust into the eyes and throats of the insects. It would appear that Mr. Barnes repudiates all idea of effluvia or gases being detrimental to animal life, although I have no doubt he frequently uses gases himself for the destruction of insects. I remember once reading in the *Gardener's Chronicle* an account of the destruction of insects by brushing Laurel leaves and scattering the dust about the house. This success was attributed to the dust, and not to the gas contained in the Laurel. Mr. Barnes says, how those bugs, snugly nestled in various fissures, and out of sight, are to be reached? I presume that every fissure, however small, is permeable to gases, consequently the atmosphere in the house is charged with vapours poisonous to the insect. Goldsmith, who was no mountebank, in his "Animated Nature" states that the seeds of Staphisagria Larkspur, and Tobacco, reduced to powder, will destroy certain disgusting insects, although no mention is made of dredging the eyes or throats of the vermin. But have we nothing to relate concerning the efficacy of the Walnut in the destruction and dispersion of insects? Goldsmith says, the bed-bug will not live in the Walnut tree. In America, where insects, such as the mosquitos, horse-flies, &c. are very numerous, and other insects are much annoyed and injured with flies, that some farmers, until a recent period, have suffered much for the want of a remedy, and this remedy has been discovered in the use of Walnut leaves boiled in water. It was first published in the *Rural New Yorker*, an agricultural paper, published in Rochester, New York. The water in which the leaves are boiled is sprinkled over the horses and the cattle, and all insects, I am told, are either destroyed or dispersed. My friend lost an excellent horse a short time before he heard of the recipe, from what is called the bed-fly. It is possible, as I have mentioned above, that frequently in the house the horse is troubled by having the affected parts, receive the dew on its legs, and this frequently produces the insect, which is sent down to the stomach, where it may cause some inconvenience. I have now stated all I know about Walnut leaves, and in conclusion, I do know that I was unfortunate as to have a numerous brood of the cotton bug on my Pine plants at Chertsey, and I can prove by the evidence of Mr. Bréhaut, son of the late Mr. Bréhaut, of the Park, who had the honour of recommending me as a gardener to my late employer, that no such insect as the cotton-bug was about the place when I left. If the Walnut leaves did not destroy or disperse the insect, then they must have left their own seed. I will leave this question for Mr. Barnes to solve. *Joseph Hamilton.*

Plants in Vinerias.—"Signa" is neither the Alpha nor the Omega that will have to labour under the difficulty of growing grapes and plants together. No great difficulty either. But, to bring them both up to a standard of excellence, when thousands of plants have to be sheltered during winter, and not a few grown along with the Vines in the same, is a good many heads' Signa. If Signa is a gardener whose employer wishes him to concentrate all his energies in producing sensational Grapes, he ought to allow him the privilege of giving the plants, to a great extent, their own space in the vinery. Otherwise he may expect to be disappointed in the results. Certainly exceptional cases may occur, and it will be chiefly found where the Vines are in the full glow of youthful vigour and able to hold their own for a year or two, but to continue to grow and to huddle together a lot of miscellaneous plants, year after year, in a vinery, however expedient is a course adapted for the full perfection of either. There are two vinerias here, each 50 feet long by 17, and for the last 25 years they have more or less been also occupied with plants. At the present moment they are both crammed as full as possible. I shall soon start the early house, and everything that is in it, with a few exceptions, must come out, and be stowed

away, goodness knows where. At the same time, the late one has a goodly number of bunches waiting, but from the crowded state of the house, and the water that is required, the scissors have often to be applied, so that the bunches are becoming scanty and every day I have to see some bunches that have been extended two months longer. As it is, I am sick of seeing the remnants hanging, and care not how soon the work of destruction is ended. The houses are heated with hot water. The Vines are planted in an outside border, which is covered with long litter and a few old lights on the top. The early house contains Black Hamburghs, Black Prince, and Muscat of Alexandria, and for the last three years they have done very well. I generally recommend a little about the latter end of May, with Azaleas, Camellias, from the 10th to the 15th, and a lot of other hardy plants have to be sown by the Vines under the Vines. From the foregoing it may be inferred that I have too many plants and too little room, not an objection that with which I am not prepared to contend, and from the great number of plants housed in the late vinery the season is very much shortened, and greater attention is required in keeping the Vines in healthful vigour, with so many insect-hot-beds are in the close proximity, and, as it would be next to an impossibility to produce sensational bunches from those Vines. But as a balance, my employer is quite as well pleased to see bunches from 1 lb. to 3 lb. in weight and plenty of them, as he is those of heavier calibre. Nevertheless, I look to go to a great show now and then, and feast my eyes on the productions of my more favoured neighbours. *Brassica, Read Hall, Whalley, Lancashire.*

Potatoes.—I commenced Potato-planting Jan 1, and I shall keep on till I have finished. I do not hold with "chumping" Potatoes, especially Kidney sorts, and therefore, as they are growing out fast, I plant. I am planting mostly with a stick, and I am induced to do so for two reasons—firstly, because they come up more regularly so planted; and secondly, because the stick leaves an artificial drainage under the roots, which, in case of heavy falls of rain this next season, may be serviceable. As regards the quality of last year's Potatoes I may say I never ate better. I am not yet "an old donkey." By letting the Potatoes stay in the ground till the super-tubers were ripe I gained quality, and lost in numbers. I would, however, rather have 12 good eating Potatoes than 24 bad ones—squashy, waxy, and tasteless. I have just finished the super-tubers of the Lapstone, the York, and the Kidney, which I have planted in the York, and the York, which I gave to Mr. Fenn, who won a special certificate with it in London as a cooked Potato, is a hybrid, by grafting, of the Lapstone and old Ashleaf. With such parentage, it is no wonder that it is so good. I have had it ever since it came out, and it has always acquitted itself nobly. I spoke of it in the *Chronicle* as I believed, never ever its raiser, Mr. Almond, blew a "tugue." I cannot get up a stock of it, because it is so great a favourite that all comers fill their jackets for seed, eat them up, and then write, "They are stunners; send me some more, there's a good fellow!" "D." of Deal, went off with Hero, Gryffe Castle seedling—the best of the Regents—and the Early Uprights, a most first-class Potato, apparently an early and superior Fluke, and then, having eaten them up, wrote for more, but I am not "an old donkey," he must wait till next planting time. I have sent one tuber each of the Early Uprights—a fine specimen—and of the Peach Potato—a first-class round (I think the American raised) to Mr. Fenn, and I am sure that he will be pleased with them. I have also sent to Mr. Farmer 24 Heroes, and 12 of Taylor's Yorkshire Hybrid, and unless he grows the Lapstones he may not get better. Next year he must have the Early Uprights, the York, and the Peach Potato, and then we will have my best, and good enough for anybody. I am sure that you will get from Mr. Fenn (King of Potatoes) that he has succeeded after 30 years' persevering labours, in winning a First-class Certificate for a collection—some of them his own seedlings—at Kensington. He says in his letter: "I selected Taylor's Yorkshire Hybrid, Yorkshire Hero, and Fenn's Orleans as the cooking test. Hero won by several nocks. The Committee awarded it a First-class Certificate, and right honourably so. It certainly is the Potato of Potatoes, and the country must thank you for bringing it out." Taylor's Hybrid is a saviour Potato, with longer stalks and more flowers. Hero has short bushy stalks and white flowers, but is quite equal to it as regards quality and flavour. I wish I hope Mr. Fenn and other Potato raisers will turn their attention to late-keeping Potatoes. There are several of good "second earlies," but with the exception of the deep-eyed Gramma and Salmon Kidney—formed like a Jerusalem Artichoke—I have none that keep good till the Royal Ashleaf comes in. Whether the Potato be round, or kidney, or lantern shaped, I want, be its colour white, purple, pink, red, or mixed, a late first-rate Potato with uniform shape, good surface, prominent eyes and a good cropper. Here is a nut for Mr. Fenn to crack. *W. F. R. R. R.*

The Camellias at Bicton. Having had the privilege of seeing the beauties of Bicton last autumn, my impressions of which, I trust you will soon be able to give to your readers, permit me to inform all that Mr. Barnes says (p. 62) about the marvellous health, luxuriance, and inflorescence of these splendid plants, indoors and out. Nothing could exceed the freshness of their dark glossy leaves, nor the abundance and beauty of their blossom-buds. I felt then as I do now, that it was worth the journey from Hardwicke to Bicton—and it is a long one—to see those splendid plants alone. And in the recent dark days I have often con-

He then referred to some... Mr. W. W. Saunders... Mr. J. J. Berkeley...

As to this stock... Mr. W. W. Saunders... Mr. J. J. Berkeley...

With reference to these... Mr. W. W. Saunders... Mr. J. J. Berkeley...

One very kind... Mr. W. W. Saunders... Mr. J. J. Berkeley...

Dr. Masters exhibited... Mr. W. W. Saunders... Mr. J. J. Berkeley...

been observed... Mr. W. W. Saunders... Mr. J. J. Berkeley...

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as the ubiquitous and excellent *Cupressus Lawsoniana*, Chinese and Siberian Arbor-vitæ, Hemlock Spruce in high health, and *Cryptomeria japonica* and Lobbii, which both do far better than *Taxodium sempervirens*, and there were plenty of them to take observations from. In fine, it was a pleasure to see the whole grounds under systematic management, the extent and variety of the articles under cultivation and the good order which was everywhere manifest. J. A.

Obituary.

WE regret to announce the death of Mr. JAMES BACKHOUSE on the 20th inst. at his residence, Hillside House, near York, in the 74th year of his age. Mr. Backhouse was the senior partner of the eminent firm of James Backhouse & Son, nurserymen and seedsmen, York.

Miscellaneous.

Covent Garden Notes.—During the past fortnight there has been a good supply of Broccoli sent to Covent Garden Market from the neighbourhood of Penzance, Cornwall. This comes packed in large open hampers, and when not delayed in transit, arrives in good condition. The principal flowers produced in quantity during the above period were Primulas and Hyacinths, which are chiefly obtained from the localities of Isleworth, Barnet, and other places near London.

To Make Paint Adhere to Zinc.—It is difficult to get a coat of paint to adhere well to zinc, which rapidly oxidizes when exposed to air and moisture, and as most engineers know galvanised iron goes very quickly when once the covering of zinc has decayed. Many means have been tried to obtain the firm and close adherence of paint to zinc. The last we have met with is due to Dr. Böttger, who professes to have completely succeeded. He makes a solution of one part of chloride of copper, one part of nitrate of copper, and one part of chloride of ammonium in 64 parts of water and one part of commercial hydrochloric acid. This solution acts as a sort of mordant. It is put with a wide brush over the zinc which is immediately beset with a deep black colour forming according to the Doctor a basic chloride of zinc, and what he calls an amorphous brass. The black colour changes in the course of 12 or 24 hours to a grey, and upon this grey surface any oil paint will dry, and give a firmly-adhering coat. Summer heat and winter rain will have no effect in disturbing this covering which affords complete protection to the zinc. *Boulder*

Garden Operations.

(For the ensuing week.)

PLANT HOUSES.

Gardenias are plants which will endure much hard forcing, and, by treating two or three batches differently may be had in bloom almost every month in the year, as almost every matured shoot will produce flower-buds. Those who wish to have flowers early may have them by placing the necessary quantity of plants into a warm moist temperature. Few plants even evergreens, will endure so much strong, unwholesome steam as these. A bottom-heat of from 50° to 90° may be freely afforded them, using for this purpose strong steaming horse or stable manure, with an upper temperature some 10° less produced by properly studied gradation than that in which they have previously been standing. *Cape Pelargonium* intended to make the finest specimens, should now have their final shift, within a week or two. Particular study should therefore, be given to the preparation of soils to form a compost for them. Like all other plants grown in pots, they do not succeed thoroughly unless the pots have become well crammed with roots, previous to the formation of flower-buds. Hence, as they are not very great rooters, small pots are essentially necessary. And the best possible compost should be obtained for filling them good hearted yellow, friable, fibrous loam, with one part of thoroughly decomposed manure, not too moist, and a good sprinkling of silver sand, well suit them well. The whole should be well incorporated, and after a good drainage has been insured, they should be potted firmly. It often happens, when giving such small shifts to plants, that the whole space between the ball and the inner sides of the pot are not uniformly and evenly filled. To obviate this evil, and to be certain that no vacuum exists, it will at all times be necessary to use a thin with about half the thickness of the fingers, and with which the soil should be forced well home. Besides the loss of valuable space, caused by carelessly performing this operation, at watering the ball is not uniformly moistened, as the water will flow more freely through the lightly pressed portions, leaving that which is properly finished off hard and dry. The temperature in such Pelargonium houses should now be raised about 5°. Insure a maximum of 55 by night. Place them constantly as near the glass as possible, and keep them perfectly free from green fly and all similar pests. The continued damp, unwholesome weather will have taxed the efforts of growers of specimen soft-wooded plants. Increasing attention is still needed in the removal of every particle of decay. My previous advice regarding the occasional use of slight fires has greater force the longer this sort of weather lasts. It should be thoroughly understood, however, that it will do more harm than good to make the pipes or flues so hot as to dry the house and plants that are contained therein by sheer force of heat alone, for, were it possible to do so, immediately the heat declined the dense moisture contained in the external air would find its way through every aperture and be condensed, thus making the matter worse instead of better, and unnecessarily putting the plants to undue excitement. When slight fires are necessary, let them

be such as will insure to the air a greater buoyancy only such, in fact, as will cause it to rush out at the apex by its own force carrying with it a fair proportion of the moisture from within.

FRUIT HOUSES.

Pines which may have fruit set, and which are beginning to swell, should now have a uniform temperature of 50° to 55° by night, with an increase of 10° to 12° by day which will bring it up to 70° or 75°. A more moist growing atmosphere should be insured and a moderate amount of air only be afforded for a time. Shut up these soon after noon and secure a little sun-heat if possible. Be very careful not to permit draughts in any form on to the delicate Pined berries. Though no injury may be perceived from such carelessness at the time, a certain amount of mischief is certain to follow. In regard to *Pines* little can be added to past advice, given in former Calendars. As the potting season of some successions will soon arrive, it may be well to remind the reader of the necessity of procuring the necessary soil, and placing it to dry in proper positions, chopping it up, &c. Continue disbudding the earliest *Peach* and *Nectarine Trees* as soon as the fruit begins to swell, and young wood shoots are forming, increase the temperature by some three or four degrees by day in light weather, but with due caution not to have recourse to any excess which is likely to cause undue excitement, or to make forced growths beyond the capability of each plant to mature at such a period.

HARDY FLOWER GARDEN.

The present season with its extreme mildness and much moisture, greatly favours the formation and growth of every variety of parasitical Moss or Fungus. I notice that *Gibberula Arborescens*, and many other deciduous shrubs owing to the evergreen *Rhododendrons*, are in some situations over-run with such growths. That these are very injurious I scarcely need add. It will be well to give all that are attacked therewith a good dressing with wood-ashes, properly prepared by sifting, &c. Scatter it well into and amongst the branches at a time when they are wet, and the ashes are likely to adhere. Where wood-ashes are not readily procurable, a slight dusting with dry lime, which has been slaked a few days previously, will also prove destructive, but must be used with greater caution, especially upon evergreens. In cold, moist, tenacious soils, it will be advisable to stop all digging operations until such time as the beds, borders, &c., become drier. This is excellent weather to re-lay and to level irregular lawns, and any work of this kind in contemplation should be pushed forward with vigour.

HARDY FRUIT GARDEN.

The present weather is all that can be desired for all newly planted trees, so thoroughly have the contused rains washed down and settled the earth around the roots. Should a moderately dry period ensue, it will be advisable to level the soil in instances where it may have settled down irregularly, thus causing water to stand after heavy showers, which would quickly be absorbed and carried off if the surface were level. Keep a sharp look-out at this particular time after winged pests. So tender have the buds become upon bush fruit, and in many instances so prominent, that the birds are already mutilating them. Besides the many ordinary ways of keeping them away, resort may be had to dipping worsted-thread in spirits of naphtha and tying it in short lengths equally distributed upon each bush.

KITCHEN GARDEN.

Relishes may, if the weather continues mild, be sown in very warm southern situations with a fair prospect of success. Sowings should also be repeated upon slight beds of fermenting material, and under lights placed upon a south border. Continue to turn over and to sweeten the necessary heap of material upon which *Cucumbers* and *Melons* are shortly to be planted. It must be perfectly sweet and free from any impurities, which are readily detected. Everything in the way of *Cauliflowers*, *Talluces*, and the like, under frames or hand glasses, whilst they may be protected from excessive superficial rains, must however be afforded plenty of fresh air by day and night, by tilting the lights, &c. Even with the slight protection thus afforded, and with plenty of air allowed, they begin to look very weakly. If any amount of confidence could be placed in the weather it would do them much good to remove all frames or glass quite away from them for a week or so, allowing the air to blow freely amongst them on all sides, and so harden them a little. *W. E.*

TOWN GARDENING.

FROM some cause, possibly from the want of a knowledge of what will grow successfully in confined places, no trees are to be seen in many of the squares and gardens of London, with very few exceptions, but the common *Lime* and *Poplar*, and these in a very starved and miserable condition. The managers of our public parks have of late set a good example by planting many beautiful and rare trees and shrubs, which thrive well, though they are not entirely out of the reach of smoke. Of course they are better situated than those in squares and gardens in the heart of the town. As fresh soil in sufficient quantity to plant in may be obtained, it is quite certain that, with due care and attention, many trees and shrubs may be grown in all the squares, and not a few in the most confined localities of large towns. In the first place, it is of the utmost importance that the trees to be planted in such places should be young, and if they have been previously transplanted once or twice in the nursery so much the better, as they will then remove with more fibrous roots. When they are removed from the nursery they should be lifted with as much mould around their roots as possible, at the same time, as much fresh soil should be obtained as will be sufficient to plant them in. In planting, the

soil should be carefully distributed amongst the fibrous roots, and be trodden firmly down. They should be firmly secured with stakes, to prevent the mud from disturbing their roots. A good water or shower should be given, repeating the same on a second day, as the plants have well started into growth. I consider the end of February the best time for planting, inasmuch as they start better than when planted early, for they get coated with soot. These precautions should be carefully attended to, for on them depends the success of most trees in towns. Rotten leaves and long weeds of great service to shrubs planted in towns, if desired, as shallow as possible, so as not to disturb their roots. In my next I will give a list of some of those trees which are best calculated to answer the purpose in view.

STATE OF THE WEATHER AT CHISWICK NEAR LONDON For the Week ending Jan 20 1891 as observed at the Hort. Station.

January	TEMPERATURE							
	Max	Min	Max	Min	Mean	Lowest	Highest	
There 14	3	29.90	29.57	49	34	41.5	44	51.1
Friday 15	3	29.07	29.32	35	23	31.0	44	46.0
Saturday 16	4	3	30.05	30	23	41.5	44	46.0
Sunday 17	3	3	30.99	30	20	4	44	45.0
Monday 18	4	3	30.1	33	24	36.5	44	46.0
Tuesday 19	7	3	30.99	43	21	31.5	44	46.0
Wednesday 20	3	3	31.1	31.7	34	25	31.5	44
Average	3	3	30.86	37.5	27	34.9	44	46.0

Jan 14. Dense fog overcast. Fine night. Frost at 13. Overcast all day. One heavy shower at 14. Fine morning. Rain at 5.25. Overcast at 7. It is a showery night and fine at 14. Foggy dense fog through it. 15. Fine very cold. Dense fog at 1. At and frost at 2. Sharp frost very fine and at 1. Frost.

Mean temperature of the week 36.4 deg. above the zero.

STATE OF THE WEATHER AT CHISWICK

During the last 41 years for the corresponding week ending Jan 20 1891

January	TEMPERATURE									
	Average	Temp	Max	Min	W. S. P.	W. S. P.	W. S. P.	W. S. P.	W. S. P.	W. S. P.
Number 31	43.1	31.1	57.4	17	17	45.8	3	3	3	3
Max 43.4	31.3	57.7	17	17	46.1	3	3	3	3	3
Min 43	31	57	17	17	46	3	3	3	3	3
W. S. P. 44.0	31.3	57.9	17	17	46.5	3	3	3	3	3
There 29	43.8	31.3	58.3	17	17	46.7	3	3	3	3
Friday 29	43.4	31.3	58.5	17	17	46.3	3	3	3	3
Satur 30	44	31.3	58.5	17	17	46.3	3	3	3	3

The highest temperature during the above period occurred on the 16th 58.5 deg. and the lowest on the 20th 17 deg.

Notices to Correspondents.

For all communications advertising in this paper, send them to the Editor through the same medium. We cannot accept notices from the Editor.

GREENHOUSE MANAGEMENT.—F. V. T. writes: "I have a greenhouse in which I grow a variety of plants. It is very warm in winter, and I have a fire in the house to keep it warm. The most fertile plants are those raised in cuttings. For outdoor culture these are best propagated in January grown in a genial temperature and having off for planting out as soon as the weather permits. I put a few against the back wall of an interim house, which probably keep up a continuous supply. You had better sow your seeds at once."

GLAZING PLANT STRUCTURES.—H. W. N. who sent us a paper on this subject in October last, will greatly oblige us by forwarding us his address.

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JANUARY 23, 1869.]

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Larriage Free
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PARIS, 1867

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Improvement of Grass Lands.

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Deficient of Herbage, should be Sown in the early Spring.

Cost, from 4s. 6d. to 6s. per acre. Sow 5 to 12 lb. per acre.

Price 9d. per lb., cheaper by the cwt. Carriage free.

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- ROSS EARLY RACEHORSE, the forwardest known 5 0
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- And numerous other sorts, moderate in price, true to name, and free from disease. For prices see SUTTONS' SPECIAL POTATO LIST gratis on application.
- Goods carriage free, except very small parcels. 6 per cent. cash payments.

The best Varieties of Seed Potatoes.

JAMES CARTER AND CO. strongly recommend the following as being the most desirable kinds for general

- CARTER'S CHAMPION KIDNEY (for forcing), 5s. per peck, 2s. 6d. per bushel
- ROSS EARLY OXFORD (choice quality), 3s. 6d. per bushel, 2s. 6d. per bushel
- CARTER'S ROYAL ASHLEAF KIDNEY, 4s. per peck, 1s. 6d. per bushel
- CARTER'S ASHLEAF FLUKE KIDNEY, the best second early variety 5s. per peck, 2s. 6d. per bushel
- CARTER'S IMPERIAL KIDNEY (very prolific), 3s. per peck, 1s. 6d. per bushel
- MILKY WHITE (well known), 4s. per peck, 1s. 6d. per bushel
- REFINED DALMANOT (Round), 2s. 6d. per peck, 8s. per bushel
- ROSS EARLY FL. K. P. (K. dner), 2s. 6d. per peck, 8s. per bushel
- CARTER'S IMPROVED REGENT, 2s. 6d. per peck, 8s. per bushel
- C. & Co. stocks of the above are very choice and true.
- THE EARLY ROSE POTATO (American variety)—1 lb. produced 100 tubers 1/6. Price 3s. per bushel

WHEELER'S MILKY-WHITE POTATO, 4s. per peck, 12s. per bushel.

WHEELER'S GLOUCESTERSHIRE KIDNEY, 3s. per peck; 12s. per bushel.

Wheeler's Tom Thumb Lettuce, 1s. per packet.

WHEELER'S COCOA-NUT CABBAGE, 1s. per packet.

Wheeler's Guinea Collection of Garden Seeds comprises the finest varieties in cultivation. For Details see

WHEELER'S LITTLE BOOK for 1869, price 6d., post free.

J. C. Wheeler & Son, Seed Growers, Gloucester, and 65, Mark Lane, London, E.C.

Wheeler's Milky-White Potato. This is the best of all Potatoes.

J. C. Wheeler & Son, beg to caution the Trade against inferior and spurious varieties.

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FOSTER'S "K.L." FINE LONG RIDGE CUCUMBER.—This new variety is a remarkably fine hardy and dark green cucumber, and one that can be recommended with the greatest confidence. It is very prolific, and keeps its colour to the end. All who have seen it growing are satisfied that it cannot be surpassed, and those who have tried its flavour are convinced of its excellent quality, inasmuch that the small quantity of seed per packet of 1/2 seeds, is

EXTRA FINE NEW HYBRIDIZED PETUNIA.—Saved from the best large crimson, blotched, striped, and pencilled varieties. Price 1s. and 2s. 6d. per packet.

DIXON'S MAMMOTH WHITE CELERY, per packet 1s. **DIXON'S YORKSHIRE HERO PEA,** per quart 2s. **FOSTER'S EMPEROR, fine frame CUCUMBER,** per packet 2s. **LONG'S FINE DIXON,** 67, Queen Street, Hull.

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SEED FARMS:

- EAST HOUSE FARM, DEDHAM, ESSEX;
- THE SEED FARM, ST. OBYTH, ESSEX;
- JUPES HILL FARM, DEDHAM, ESSEX;
- GOD'S HOUSE FARM, ARDLEIGH, ESSEX

THE NEW FORAGE PLANT, BROMUS SCHROEDERI.

See *Gardeners' Chronicle*, page 1345, Dec. 26, 1868, from which the following is extracted:—"The crop (of Bromus) was perfectly satisfactory as regards both the quantity and quality of its produce. *The Horsekeepers buying it preferred it to Italian Rye-grass, and the Farmer selling it was very much inclined to agree with them.*"

E. DAWES, Esq., *Parbright, Guildford*, writes:—

"I beg to offer my thanks to Messrs. CARTER & Co. for calling attention to the valuable plant, *Bromus Schroederi*. I purchased some seed to test its value, and it occurred to me that a report of my experience might prove of interest.

"The seed was sown in July on ground as dry as dust, but it vegetated freely, the first shower causing it to grow with amazing rapidity. *The first cutting was made October 20, the plant being 2 feet high, and I found my cattle preferred it to any food I could offer them, I now have (Nov 20) a luxuriant second growth, in spite of the cold weather.*"

"I may mention that I was first induced to cut the Grass on account of my Pony refusing its ordinary food, and was gratified to find the *Bromus* greedily consumed."

Sow 35 lb. per acre in drills.

Price 1s. per lb.; cheaper per cwt.

CARTER'S SEEDS FOR THE GARDEN.

See page 77 of this day's *Gardeners' Chronicle*.

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GRASS SEEDS for PERMANENT PASTURES.

See Article on the best Mixtures of Grass Seeds as adapted to particular localities, commencing page 75 in

Carter's "Gardener's and Farmer's Vade Mecum for 1869." Post Free, 1s.; Gratis to Purchasers.

Testimonial from the Rev. J. H. GROOM, *Earl Soham*, April, 1868.

"The Permanent Pasture Grass Seeds I had from you (and sown just before the rains), is now up a full plant, and in spite of frosts and hot sun is growing fast."

- GRASS SEEDS for LIGHT SOILS, } 25s to 32s.
- GRASS SEEDS for MEDIUM SOILS, } per acre.
- GRASS SEEDS for HEAVY SOILS, }

Special low estimates for quantities.

CARTER'S PRIZE MEDAL LAWN GRASS,

AS SUPPLIED TO

- H.M. THE EMPEROR OF THE FRENCH.
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- THE GOVERNMENT OF THE UNITED STATES.
- THE IMPERIAL COMMISSIONERS, PARIS EXHIBITION, &c. &c.

1s. per lb.; 20s. per bushel.

Testimonial from M. BAILLET, Chief Superintendent of the Gardens of H.M. Napoleon III.

"The Grass which we have laid down with your Seed has come up well, and is magnificent." [Translation]

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GARDENER'S AND FARMER'S VADE MECUM FOR 1869 (ILLUSTRATED).

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For information and Forms of Application, apply to GRANT LEE R. HYDER, Esq., Managing Director, 3, Parliament Street, Westminster, S.W.

THE GENERAL LAND DRAINAGE and IMPROVEMENT COMPANY.

Directors: The Rt. Hon. Viscount Combermere, Geo. Thomas Clark, Esq., Henry Currie, Esq., John C. Cobbold, Esq., M.P., Edward John Hutchins, Esq., William Tite, Esq., M.P.

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Works of Drainage of any extent, Irrigation, Enclosing, Wood Grabbing, Road-making, Farm Houses, Farm Buildings, and Labourers' Cottages, are executed on all descriptions of Property, whether Freehold, Entailed, Mortgaged, Trust, Ecclesiastical, Corporate, or Collegiate, or Leases granted for the purpose to Landowners who desire to execute the works by their own agents. Tenant-farmers may also, by arrangement with their landlords, procure the execution of the above improvements on their farms at an annual cost to themselves of between 6 and 7 per cent. on the outlay and official expenses. The whole of the outlay in the works, with all official expenses, may be charged on the Estate for a term of years, to be fixed by the landowners to meet the circumstances of tenants. No investigation of title being required, no legal expenses are incurred. Applications to be made to MR. HORACE BROKE, the Secretary, at the office of the Company, 22, Whitehall Place, S.W.

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MR. BAILEY DENTON undertakes the UNDER-DRAINAGE of LAND at a charge of 6s. an acre, and will supply PLANS and SPECIFICATIONS for Farm houses, Farm-buildings, and Labourers' Cottages with or without Superintendence during Construction, on terms to be ascertained of him at 22, Whitehall Place, London, S.W.

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NATURAL HISTORY—William T. Thiselton Dyer, B.A., late Junior Student, Christ Church, Oxon.

LECTURES ON ANATOMY, PHYSIOLOGY, AND HYGIENE—J. A. M'Brice, Ph.D., M.R.C.V.S.

MATHEMATICS AND SURVEYING—The Principal.

DRAWING—James Miller.

The NEXT SESSION commences FEBRUARY 8. For Forms of Admission apply to the Principal.

ROYAL AGRICULTURAL SOCIETY OF ENGLAND.

AGRICULTURAL EDUCATION.

The EXAMINATION of CANDIDATES for the SOCIETY'S EDUCATIONAL PRIZES will take place in the week commencing MONDAY, April 12, 1869. Copies of the Form, required to be sent in by March 18, may be obtained on application to

H. M. JENKINS, Secretary, 12, Hanover Square, London, W.

The Agricultural Gazette. SATURDAY, JANUARY 23, 1869.

SPECTATORS have a better idea of the contest, and can better see the field on which it is being waged, than those who are actually engaged in the fight. Whether that be the true explanation or not we cannot say, but there is a marvellous contrast between Lord GRANVILLE'S survey of the subject-matter with which agricultural progress is just now concerned, which is reported in another page, and that which one gathers from a report of the last general meeting of the Royal Agricultural Society of England. The fact that, let the skill of the agriculturist and the artificial fertility of the soil (which, after all, are the two great divisions of the subject with which agricultural societies have to deal)—let these be what they may, their produce from the land is being in some districts eaten up by rabbits and hares—the other almost equally important fact that the manure from at least one quarter of the live stock of this country is being absolutely wasted, and never reaches the land at all—those relations of the land to the great natural fertilizer which are involved in the words land drainage and deep tillage—the business and social relations sustained by the farmer with the landowner on the one side, and with the labourer on the other—his own appropriate education and that of the people he employs—these were properly displayed and urgently represented last Saturday at Shrewsbury as the topics on which Chambers of Agriculture ought to bring their influence to bear. At the last agricultural meeting in Hanover Square, on the other hand, one of the two annual meetings held there by the Royal Agricultural Society of England, after the discussion of a purely domestic subject had concluded, the topics to which the meeting directed their attention were, the proper shoeing of horses

been a good farmer's year, Barley, spring Beans, and Oats having been light crops. My profit as a tenant-farmer (after paying my improved rent of 40s per acre) will this year be only 17 12s per acre, or 43 per cent, while last year it was 37 0s per acre or 93 per cent. Let us hope for better times.

It will be seen by the annexed balance-sheet that the average profit of the four years is 12 1/2 per cent on tenant's capital, or 32s 11 per acre, this of course, after providing 10s per acre, the improved rent J. J. Mechi, Jan., 1869.

A DISCUSSION ON FAT CATTLE.

THE conditions under which breeding cattle should be fed for show is a subject which regularly crops up from time to time, the intervals being long or short according as the genius or humour of practical men is spurred into activity by glaring cases of deterioration from the abuse of fattening resources. After this question has, however, been taken up and discussed in earnest, there it ends. This is often the result of deliberations which can only end in putting definite conclusions on paper. There is here no line that can be drawn and defined as the certain limit beyond which no one shall go. It is a question which must be left open to the judgment of a minority who are accorded with responsibility at the time when stocks are brought before them to deliberate over in the judging ring or show shed. It is not a question that can be answered by rule, nor with mathematical or geometrical nicety, nor by any form of weights and measures, but it must be determined by that phase of human judgment which is established by established individual experience being disseminated by tedious repetition till the principle becomes general enough to be what is termed "fashionable." As fashions are ever changing, however, we take courage under this view. It is not long since that so many feet of crinoline were considered to be a heaving form of ladies' attire, both indoors and abroad. The exact reverse of distension is now considered to be the pink of perfection or fashion. Stalwart men are, in a mental sense, and in their business, scarcely less credulous or impressible than are the "softer sex," that is, when they are addressed in a manner and by means which they respect, or, as the case may be, in a way which they fear.

These reflections were induced by the revival of the subject of "cattle feeding" at the annual meeting last week of the Royal Northern Agricultural Society (Mr. McCombie in the chair), and the recollection we have of what kind or condition of animal was "fashionable" at our great stock shows 10, 15, and 20 years ago. Mr. Marr condemned the present system. He urged the propriety of drawing a line of demarcation in the feeding of cattle for shows. He thought no animal, above a year old should be allowed to compete that had received anything but common fodder—that is, had been fed on Grass in the summer, and straw and Turnips in the winter. Certain animals might even get too fat for breeding on this, but this would, more than anything else, show their quality. He thought a resolution carrying out this would have a good effect, inasmuch as many animals were destroyed by over-feeding. By the present system they must either give up showing the animals, or must feed them with artificial food, and he thought that such a resolution as he had hinted at would do much good. Of course he would allow any food to bullocks, as they were intended to be fed.

Mr. Leslie pointed out the difficulty of the question, and while he agreed with Mr. Marr's views in regard to the injury done to stock animals, he would not advise the meeting to enter on a resolution. Mr. Campbell fully supported Mr. Marr, adding that the line of demarcation was easily drawn, and he could see no difficulty in confining animals to be shown to the ordinary food of the farm—Turnips, straw and Grass. Mr. Copeman and the Chairman differed with Mr. Marr in regard to the expediency of drawing the line and the effect which would be produced if the line was drawn. Other members expressed their views for and against the line of demarcation, and, as usual, as we have intimated, "the subject then dropped," and in this case apparently without having so much even as any "moral" influence.

Here, then, is the great question raised once more, and brought by discussion to its true bearing and then dismissed as one with which practical men cannot effectively deal. Scotchmen generally take unto themselves the notion that they are essentially men of practice—that they are not only ready to learn but that they can carry out any subject or idea which they have mentally mastered. If this be so, how is it that the leading members of the Royal Northern Agricultural Society, after having agreed upon a question which in their opinion is a very important one, do not embody their sentiments in a resolution which would convey their judgment to the absent members of their own Society, and, "on the wings of the Press," to the members of all other societies? This is clearly an admission of the "moral" weakness of a society composed of practical men that ought to have been studiously avoided. The evil is pointed out, understood, and openly acknowledged, and the conclusion is subsequently declared and promulgated that it is irremediable.

All this we could have understood, if it had occurred in connection with the Royal Agricultural Society of England about the management of which there has of late been so many and just complaints. But let us take the views of this Society, and gather up our recollections in regard to the character of animals which were fashionable there only a few years ago, and compare them with those which are looked upon as the first style of fashion now. It is not long since that blubbery and hairless rumps and flabby backs were the only ones that stood any fair chance of being awarded honours by the Society's judges. Miking qualities were thought

nothing of whatever, but a wet nurse establishment was provided by the Society's stewards, as it was considered to be a necessary institution. We are not aware of any prevalence of this present fashion as set by the Royal Society, is based on the intelligent or reasonable grounds which are commonly supposed to be the basis of a society which takes for its motto "Science with Practice." But we should be doing both the Society itself and our subject an injustice if we did not freely and candidly admit that the improvement in the fashion which has guided judges of late years, has been great, and that its importance has been quite equal to its extent.

Let us not stop at the point. How has this improvement been effected? Simply by the outward pressure which has been brought to bear on the Council and their stewards and judges by practical men—a few fussy, but faithful breeders, and their amateur friends, merged into a current that became compact and nearly all-powerful, and they set the fashion which, even to this day, has inflicted considerable injury on many of our flocks and herds. Their fancies androtchets, however, might at any time have been likened to a house of cards, for no sooner were they blown upon by the breath of more intelligent men, than they were driven out of form never to be again raised to prominence. It is the remedy, however, which has to be applied to a course of evil that becomes expensive, and proves the losses inflicted. To this day this expensiveness and these losses are felt in some cases they have not in the slightest degree decreased. The issue of many animals, both as members of flocks and herds whose parents have a long pedigree, have to be fed on milk and sugar and every delicacy of the pasture field and granary to make them grow to less weight in a given time than more reasonably and naturally bred ones will grow on common and comparatively inexpensive food. This result of judging and awarding prizes at shows is so far the exact reverse of common wisdom. Both the farmer and the consumer wants an increase of lean meat, while nearly the whole tendency of awarding prizes at our principal shows has generally been simply an encouragement to produce a greater disproportion of fat to lean. Hence many flocks and herds have been going the way which the once fashionable Leicesters have gone—to a state of degeneracy which will only produce puny and weak frames that are predisposed to grow much grease and but little muscle. Pigs have gone the same way and many porcine herds which were once fashionable are now used as or seldom heard of.

These data are too well known to need further exposition at our hands, and if the Council of our national society had not been what was at the time aptly termed a "house of cards" they would have been acknowledged in Hanover Square, and practically asserted in the showyard.

Let the Royal Northern Agricultural Society, and similar practical societies, take courage, therefore, and when they have found the evil and dragged it to the surface, by all means let us have the said evil, and the best possible remedy for it that can be devised, embodied in a resolution. Had the Royal Northern Agricultural Society done justice to itself on the occasion in question, other societies would undoubtedly have followed its example, when an incalculable amount of good would speedily have been effected. If this British privilege the proposing, seconding, and "carrying" resolutions—was more frequently done by local agricultural societies, when commonly acknowledged errors are made practically conspicuous, glaring faults of judgment and management would soon disappear. Many of the best practical men in the country hold themselves aloof from Royal and country shows. If these men be right, agricultural prizes, as now awarded, must be wrong. These awards are too often a gratification of vanity, and too seldom an award of commercial merit. Let, therefore, real practical societies go on condemning the faults on which we have touched, and let these condemnations be put into a tangible form. If this be done we shall see as great a change for the better in the character of animals shown in the next 10 years as there has been in the last 10. Even the Royal Agricultural Society may by this time, if it be reformed within, begin to have some appreciation of profit and loss in breeding and feeding animals. Should this much to be desired result ensue, we may then be able to praise its examples as worthy of being followed by local societies, instead of urging local societies to bring their practical knowledge to bear on false and profitless fashions wherever these are to be found. H. W. G.

THE WARM, WET WEATHER.

THAT Christmas is the best time for frost and snow is an old song, the truth of which need not be questioned; but farmers could do well without either frost or snow if they could only make up their minds to thank it, for the too common belief that the former kills insects and permeates the land, and that the latter clothes and fertilises it, is based upon a very doubtful foundation. No doubt many insects perish when taken by surprise, but Nature is no less careful of these than she is of other families, and generally insects are gifted with an instinct, and the means of carrying it into effect, which leads them to penetrate the soil to a depth beyond the reach of frost, or to find some other retreat equally out of the way of harm. As to the drying and integration of the surface soil, the benefits thus produced are greatly magnified, and those which in reality do exist are more than counterbalanced by the injury done by frost to the manure in the land, and the crops which have to stand the winter, as Grass, Wheat &c., and to live stock. That snow covers the ground, and thus protects it, is manifest, but the truth of the argument is its own death

Table with columns: Price of Wheat, Capital, Profit on Tenant's Capital at Tiptree Farm. Rows include various agricultural items and their respective values.

Table with columns: 1865, 1866, 1867, 1868, 1869. Rows include various agricultural items and their respective values over the years.

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REMARKS ON THE BALANCE-SHEET OF 1868. I have received the following notes from Mr Mechi in relation of the above tables. Abundant and extensive Wheat crops, of fine quality and at remunerative prices, had led me to expect a very profitable year, but my expectations were disappointed when I made up my live stock account so that the net surplus of income over expenses is only 53s 12s 6d instead of the 100s 0s 0d of 1867. The failure of the root and green crops, the high prices of purchased food, and the loss of stock account to show a much greater loss than the value of purchased food was probably the cause of the failure of the live stock account. A very large amount of stock was lost, and the loss was not covered by the great increase in the value of the farm. No stock was sold except in prime fat condition, and the loss would have been much greater had not our stock been housed and fed on prepared mangel, and mangel and warm food. In any case it does not appear that the raising of lean stock are opposed to the carrying of fat stock on poor soils like mine. The ordinary season was very unfavourable to light crops, and I have reason to believe that flock and stock breeders on our 22 millions of acres of pasture have suffered severe losses by force of the weather, and by dearly-purchased food being much more expensive than usual, wages have been high and the hard, dry ground has brought down the value of farm implements and vehicles, and thus increased the amount of tradesmen's bills. Although the Wheat crop was good, this has not

tous of dead meat, the whole, with inconsiderable exceptions, going direct to the London market. The year the steamers carried 4553 fat cattle from Aberdeen to London. Let us take the live cattle at 13,000 net, and the value of the wool at 100,000, the benefit of the provincial towns by the way.

It is far of the greatest importance for the farmer to have a good market for his produce. The principal Aberdeen dealers frequently forward as many as 100 to 120 cars, all well packed, and the inferior beef to the London market. The value of the wool is also a great consideration. The average value of the wool is about 100,000, and the value of the live cattle is about 13,000 net. The value of the wool is also a great consideration. The average value of the wool is about 100,000, and the value of the live cattle is about 13,000 net.

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number of Agriculture," Earl GRANVILLE said—As far as he had been able to learn, there were only two objections urged against Chambers of Agriculture—it being said on the one hand that the landlords were not interested in the improvement of the soil, and on the other that the farmers were not interested in the improvement of the soil.

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Home Correspondence.

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Societies.

The Society... In proposing the toast of "Success to the Shropshire...

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Reviews.

First Report of the Commissioners of Children's Employment... The value of the wool is also a great consideration. The average value of the wool is about 100,000, and the value of the live cattle is about 13,000 net. The value of the wool is also a great consideration. The average value of the wool is about 100,000, and the value of the live cattle is about 13,000 net.

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bought than he bargained for. Unfortunately for himself he finds it too late; for, if purchased for a stock bird, he has in all probability begun to breed from it, and will find ugly proof in the development of his chickens. To guard against such frauds is the duty and interest of both committees and exhibitors.

The hatching season of 1869, as far as we yet hear, is a very favourable one, and we hear of better broods than usual.

Obituary.

The late Mr. Hall, of West Firaby Hall, Lincolnshire—The deceased was (the Doncaster Gazette records) for many years well known and universally respected as the land agent of the Wiseton estates, during the lifetime of the Earl Spencer, who was more generally known as Lord Althorp. Under Mr. Hall's able management the whole of those extensive estates were remarkable for their high state of cultivation. At the day of his death, Mr. Hall had some months entered on his 86th year, retaining his intellectual powers unclouded to the last hours of his prolonged existence. He was probably the oldest living life member of the Royal Agricultural Society of England, and there is a very striking portrait of him in the well-known picture (since engraved of the members of that Society. For many years Mr. Hall acted as one of the judges, and not only at the shows of the Royal Agricultural Society, but at all the principal agricultural exhibitions of the kingdom. Mr. Hall's extensive experience, great knowledge of stock, and strict impartiality, caused his services to be frequently sought by the committees of such associations. It was, however, in connection with the establishing and perfecting of the world-famed Wiseton herd of Shorthorns that Mr. Hall's name became more generally known to the agricultural world. Earl Spencer proved his high appreciation of the way which his agent had carried out his wishes and instructions by bequeathing that large and valuable herd to Mr. Hall at his death. After the death of Earl Spencer, Mr. Hall, leaving Wiseton, became the purchaser of the Hesley Hall estate, and resided at Hesley Hall for more than 20 years. Full of years—respected and esteemed by all who knew him, from the peer to the peasant—Mr. Hall has passed away at an age to which few men attain.

Notices to Correspondents.

Asphalt. *Miserable Lard*. Some of our readers may give you further information, meanwhile we beg to say, that asphalt is more slippery than stone or concrete, and while slippery when hard, it softens in hot weather, and wears into holes, which are very difficult to patch up.

Cow-rop. *Cor*. One bushel of distiller's grains, with 40 lb of pulped Mangel, mixed with chaff of hay and sweet straw, and 3 lb of good linseed cake a day, and access to clean water, is a good ration for a cow, as you can have. If you cannot have grains, add 10 lb of Mangel Wurzel, then you must have a bucket of water, and take well to it.

Food for Pigs. *Cor*. There is a saving in pulping roots, and mixing them with chaff of straw and hay. The hard dry food is softened and not wasted, cooked and rendered more digestible, and more voraciously taken in the least the power of picking and wasting its food. That is the only one of your questions that can be answered confidently. We reprint the others, hoping that they may raise discussion.—Is bran a good feeding stuff? and what is its worth per ton? What quantity of oats might a feeding horse get per day? and what are the best ingredients of a good horse ration? What is the best feed for a stallion at the present season?

Soot and Lime. *Mr. S.* asks about the application of soot or lime to the soil. Soot is a finely divided material, containing a small percentage of ammonia. It is a good fertilizer, according to the processes carried on by means of the fire which generated the soot. It is possible that the atmosphere of a kitchen wherein a large amount of cooking, in the shape of roasting or baking meats, is carried on may contain a greater percentage of ammonia, but this variation can be hardly worth consideration. For starting young turnips, sweeties, or Mangels, it is a useful fertilizer for wheat or spring corn, which has a weak blue and a yellow sickly tinge, it will act almost like a charm in giving the plants a start. But it cannot be depended on for supporting a large crop of roots, nor a heavy crop of corn. Superphosphate of lime (dissolved bones) is necessary in addition, if a heavy and sound crop of either roots or grain is the object. On land which produces too much "top," or blades, neither roots or cereals, soil would be superfluous, and might be injurious. This, however, is a practical question, which any farmer may, in connection with the above remarks, easily judge of for himself. Lime, as a rule, would be a correct application where soot is not required. If lime be applied to back land it will bring into use much of that vegetable matter which imparts to it this blackness—such substances as partially decomposed vegetation, which grew and fell, or decayed as roots, at some previous period of the history of the soil which contains them. These are in a crude form, and they become soluble slowly by the action of atmospheric solvents, helped probably by the roots of plants, whose exudations may have the power of producing a slow chemical action in their neighbourhood. This process is, however, too slow for farmers to rely upon. Hence the use of lime. These black substances require to be reduced to very much the same condition as soot, and thereafter to be made soluble. But to burn the surface containing them would be to drive off these deposited substances, and they would be driven away before the wind. Lime is the best application to produce solubility in crude vegetation. Its caustic qualities induce a process of slow burning, which does not result in being driven away like smoke. These, then, are the leading data relating to soot and lime. When it is correct to use one or the other, no one can decide without a knowledge of the soils which require to have their fertility increased. Lime, however, we may remark, is an application which has been very exhaustively used, and therefore it will not do to depend upon it for a permanency, although it may be used once in every three or five years, as a deep deposit as the Lincolnshire or other fen lands, as these deposits are practically inexhaustible.

Spraying. *W. W. C.* Frequent borings before the plant is in seed, during both corn and green crop cultivation, must ultimately destroy it. It is the plague of poor sandy soils.

KNAP HILL NURSERY, WOKING, SURREY.

ANTHONY WATERER

BEGS TO SUBMIT THE

FOLLOWING LIST to the NOTICE of INTENDING PLANTERS

EVERYTHING IS WELL GROWN AND FINELY ROOTED.

In proof of which he gives the date of their last removal

- APHIS ORIENTALIS, 4, 7, and 9 feet, 1 s 6d to 1s each.
ALBIFLORA, 5 to 9 feet, 20s to 60s per doz., moved April 1868.
DOUGLASS, 1, 2, 3, 4, 5, 6, 7, and 8 feet, 5s to 10s 6d each, moved August 1868.
CANADENSIS, 4, 5, 6, 7 feet high, 1s to 3s per dozen.
P. MILA, P. M. F. A., P. ANTI-FLAMMANTIA, P. GREGGII, P. EXCELSA, The Common Spruce, 5, 6, and 7 feet high.
PICEA NOBILIS, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.
NORDMANNIANA, beautiful snowing plants, 1 1/2 to 2 feet, 2s and 3s per dozen.
MAGNIFICA or NIBELIS ROBUSTA, 2 feet, 15s each.
LABIOPARPA, 2 to 2 1/2 feet, 6s per dozen.
CEDRUS ATLANTICA, 5 to 6 feet, 4s to 6s per doz., moved 1868.
DEODARA, 4 1/2 to 6 feet, 4s to 6s per dozen.
LIBANI, moved April 1867, 5, 6, 7, and 10 feet, 1s to 1 1/2 each.
CUPRESSUS LAWSONIANA, 4 to 5 feet, 3s per dozen.
JUNIPERUS CHINENSIS, 4 to 5 feet, 3s and 4s per dozen.
JUNIPERUS VIRGINIANA (Red Cedars), 4, 5, 6, and 7 feet, moved August, 1868, 12s to 42s per dozen.
YEW, ENGLISH—Many thousands, 4, 5, 6, 7, 8, 10, 12 and 15 feet high, nearly all of which have been raised within 12 months.
IRIS—Hannoverian plants, 7 to 8 and 10 feet, 7s 6d to 10s 6d each, and upwards.
GOLDEN and ELEGANTISSIMA Hundreds of fine plants, on their own bottoms and worked, from 3 to 6 and 8 feet high.
MANY of these plants are 30 years old, all have been recently removed.
THUJA AUSTRALIS—This plant originated at this Nursery. We have large numbers of fine specimens, 3, 4, 5, and 6 feet high, 8, 1, and 1 1/2 feet round.
GIGANTEA—Splendid plants, moved August, 1868, 10 to 15 feet high, 21s to 42s and upwards each.
LOBBII 6 to 7 feet, and as much round, 3s to 7s 6d each, 10 to 14 feet, do. do., 21s to 63s each.
Ad. moved in 1868.
THUJOPSIS BOREALIS, 5 to 6 feet, 60s per doz., moved August 1868.
WELLINGTONIA GIGANTEA, 10 to 12 feet, 21s to 63s each, moved August 1868.
HOLLIES, GREEN COMMON Stout, fine rooted plants, 18s per dozen, 5s per doz.
MANY thousands 4, 5, 6, and 7 feet high, 3s to 14s per doz.
A new lot of splendid plants, 1 1/2 to 1 3/4 feet high, 1s to 2s each. Ad. moved April, 1868.
SCOTTIA, Thousands of the finest plants, known. Thousands of trees, 7 to 10 feet high, 1s to 1 1/2 each.
MAY-LEAF, 7 to 10 feet high, 1s to 1 1/2 each.
HODGINS HOLLY, 4, 6, and 7 feet.
GOLDEN QUEEN, 11 months of growth, 3 to 4 feet high, 1s to 1 1/2 each.
WATERBURY'S This variety is raised by the late Mr. Waterbury, and is a fine specimen, 10 feet high, 20 inches circumference, straight, with a single stem, covered with the most beautiful foliage. There are many fine specimens, and constantly and recently raised.
SILVER QUEEN, 3 1/2 to 4 feet high.
STANDARD WATERBURY'S HOLLY, 5 to 6 feet high, with heads 6 to 8 inches in diameter.
STANDARD WEEPING HOLLY, Some of the finest specimens, 10 to 12 feet high, 20 inches circumference, straight, with a single stem, covered with the most beautiful foliage. There are many fine specimens, and constantly and recently raised.
VARIETIES of the ordinary kinds—A good assortment, from 4 to 10 feet high, 1s to 1 1/2 each. The price cannot be desired. The proceeds of the sale will be used for the benefit of the poor.
JOHN GREEN'S VAUGHANII 4, 5, 6, 7, and 10 feet, 1s to 1 1/2 each and upwards.
PYRAMIDAL, 1 1/2 to 2 feet, very fine.
BAY'S SPANISH (DUN) from 3 to 10 guineas a pair.
PYRAMIDS.
LAURUSTINUS STANDARDS, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.
LAURELS, PORTUGAL, 3 and 4 feet high, 7s and 10s per dozen.
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SALE THIS DAY AT HALF-PAST 12 O'CLOCK PRECISELY Fruit Trees, Shrubs, Gladioli, &c. MR. J. C. STEVENS will SELL by AUCTION, at his Great Rooms, 38, King Street, Covent Garden, W.C., on SATURDAY, January 23, at half-past 12 o'clock precisely...

Extra Sale of Poultry and Pigeons. MR. J. C. STEVENS will SELL by AUCTION, at his Great Rooms, 38, King Street, Covent Garden, W.C., on TUESDAY, January 26, at half-past 12 o'clock precisely...

Important Notice to the Trade. MR. J. C. STEVENS will SELL by AUCTION, at his Great Rooms, 38, King Street, Covent Garden, W.C., on WEDNESDAY, January 27, at half-past 12 o'clock precisely...

Stanhope Nursery, Westerham Hill, Kent. THE WHOLE OF THE VALUABLE NURSERY STOCK OF ABOUT 18 ACRES. MESSRS. G. B. AND T. BAXTER AND FAYNE have been instructed by Mr. A. Fayne to SELL by AUCTION...

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MR. SAMUEL ROBINSON'S ANNUAL QUICK SALE. To be held on WEDNESDAY, February 2, at 11 o'clock in the forenoon, at the premises of the late Mr. Samuel Robinson...

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THIS INVENTION EFFECTUALLY REMEDIES EVILS ARISING FROM COMMON CESSPOOL

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THE EARTH SYSTEM is economical, both in the first cost and its after working; there is no expensive cistern required from frost, and the product is a Manure of great value to Farmers and Gardeners. The supply of water, its removal, are attended with no more inconvenience than the supply of coal and the removal of ash. The value of the manure amply pays the cost. Added to which, the savings of the ashes, instead of being a nuisance, may be mixed with the earth, and thus lessen the quantity of earth required. Under certain conditions, ashes alone may be used—on board steamships, for instance, where they are not only a nuisance, but where the use of the Earth Closet would not only be a saving of cost but the removal of an annoyance.

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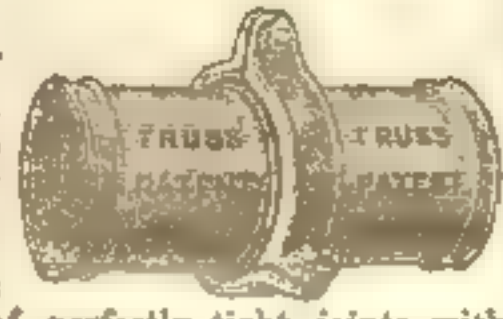


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SEED GROWERS AND MERCHANTS,
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FOR ONE YEAR'S SUPPLY.

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PEAS, the best sorts for succession, as proved in Messrs Suttons' Trial Grounds	18 quarts	10 quarts	7 quarts	7 quarts	4 quarts
BEANS, the best sorts for succession do. do.	7 ditto	4 ditto	3 ditto	2 ditto	1 1/2 ditto
FRENCH BEANS, Runners and Dwarfs do. do.	3 pints	3 1/2 pints	3 pints	1 1/2 pint	1 1/2 pint
BEST, the finest in cultivation	3 ounces	2 ounces	2 packets	1 packet	1 packet
BROCCOLI, or Kale, of best sorts	5 packets	4 packets	3 ditto	3 ditto	2 ditto
BRUSSELS SPROUTS, fresh imported seed	1 large packet	1 large packet	1 ditto	1 ditto	1 ditto
BROCCOLI, the best sorts for succession, as tested in Messrs Suttons' Trial Grounds	6 ditto	7 ditto	6 ditto	5 ditto	4 ditto
CABBAGE, best sorts for succession	9 packets	7 packets	8 ditto	6 ditto	4 ditto
SAVOY, finest curled	4 ditto	3 ditto	3 ditto	2 ditto	1 ditto
CARROT, best sorts for summer and winter use	10 inches	10 inches	7 inches	3 1/2 inch	2 inches
CAULIFLOWER	1 large packet	1 large packet	1 1/2 ditto	1 1/2 ditto	1 packet
CELERY, white and red	1 ditto	1 ditto	1 ditto	1 ditto	1 ditto
COUVE TRONCHUDA, a most delicious vegetable	1 packet	1 ditto	1 ditto	1 ditto	1 ditto
ENDIVE, best sorts	1 1/2 ditto	1 ditto	1 ditto	1 ditto	1 ditto
CRESS, plain, curled, &c.	1 1/2 pint & 2 packets	8 ounces & 2 packets	8 ounces & 1 packet	4 ounces & 1 packet	3 ounces & 1 packet
CUCUMBER, the best sorts in cultivation	4 packets	3 packets	3 packets	2 packets	2 packets
L.F.F.K. large sort, very fine	1 ounce	1 ditto	1 ditto	1 ditto	1 ditto
L.F.F.K. Suttons' Superb Cos, and others	6 packets	4 ditto	3 ditto	3 ditto	3 ounces
MUSTARD	1 quart	1 pint	1 pint	4 ounces	1 packet
MELON, choicest sorts known	3 packets	3 packets	2 packets	1 packet	2 inches
ONION, true Reading and others	13 ounces	8 ounces	6 ounces	3 ounces	1 packet
PARSLEY, spionoid curled kinds	3 ditto	2 ditto	1 ditto	1 ditto	1 ounce
PARSNIP, Student	6 ditto	4 ditto	3 ditto	2 ditto	4 ditto
RADISH, finest sorts for succession	1 pint and 10 ounces	14 ditto	8 ditto	6 ditto	3 ditto
SPINACH, summer and winter kinds	3 pints	3 pints	6 ditto	4 ditto	
BALSAM	1 large packet	1 packet	1 packet	1 ditto	
SCORZONERA	1 ditto	1 ditto	1 ditto	1 ditto	
TURNIP, fine sorts for succession	18 ounces	9 ounces	6 ounces	3 ditto	2 ditto
VEGETABLE MARROW, best sorts	1 large packet	1 large packet	1 packet	1 packet	1 packet
SWEET and POT HERBS, of all the useful kinds	8 packets	6 packets	4 ditto	4 ditto	2 ditto
MIXED GOURD	1 ditto	1 ditto	1 ditto	1 ditto	
RAMPION	1 ditto	1 ditto	1 ditto	1 ditto	
TOMATO	1 ditto	1 ditto	1 ditto	1 ditto	
CAPSICUM and CHILI	2 ditto	2 ditto	1 ditto	1 ditto	
CORN SALAD	1 ditto	1 ditto	1 ditto	1 ditto	1 ditto
ORACH	1 ditto	1 ditto	1 ditto	1 ditto	
	For a Large Garden £3 3 0 Carriage Free.	For a Medium-sized Garden £2 2 0 Carriage Free.	For a Medium-sized Garden £1 11 6 Carriage Free.	For an Ordinary Sized Garden £1 1 0 Carriage Free.	For a Small Garden 15s. Carriage Free.

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Containing choice assortments of German and English varieties, to produce a beautiful display during the entire Summer and Autumn.

No. 1, £2 2s. | No. 2, £1 11s. 6d. | No. 3, £1 1s. | No. 4, 15s. | No. 5, 10s. 6d. | Smaller Collections, 2s. 6d. to 7s. 6d.

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will be found in SUTTONS' PRICED CATALOGUE, Gratis and Post Free.

SUTTONS' RINGLEADER PEA, THE EARLIEST IN CULTIVATION.

The ROYAL HORTICULTURAL SOCIETY last year tested carefully the merits of the leading kinds of EARLY PEAS, and it is gratifying for us to observe the Report of their Trials, which appeared in the *Gardeners' Chronicle*, June 27, 1868, contains the following brief but emphatic statement.

"The earliest form of all was Ringleader Several of the Peas blossomed at the same time, but Ringleader was fit to gather first"

In thus referring to the result of this important Trial, we may mention that it strictly coincides with Trials made by our Customers, and also in our own Experimental Grounds. The first sowing last year of the Ringleader Pea at our Seed Farm was made on February 12, and harvested fully ripe for threshing on June 16, coming in time for Turnips. Retail price, 2s per quart. SUTTONS' Ringleader Pea is included in all Messrs. SUTTONS' Collections of Vegetable Seeds.

SUTTONS' CHOICE POTATOS FOR PLANTING.

- SUTTONS' EARLY RACEHORSE, the forwardest known, 5s per peck.
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- SUTTONS' GOLDEN BLOSSOM KIDNEY, a very distinct second early variety, 5s. per peck.
- SUTTONS' KING OF POTATOS, a splendid variety, took First Prize at Birmingham, 3s per peck.

And numerous other sorts, moderate in price, true to name, and free from disease. For prices see SUTTONS' SPECIAL POTATO LIST, Gratis on application.

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All Goods Carriage Free, except very small parcels Five per Cent. allowed for cash payments.

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SATURDAY, JANUARY 30.

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BOLOGNIA GARDENS, CLIFTON, BRISTOL.
BOTANICAL MEETINGS, 1869.
SPRING SHOW, THURSDAY, May 27.
ROSE SHOW, THURSDAY, July 1.
Copies of the above forwarded on application to the Secretary.

THE LONDON and CONTINENTAL SEED COMPANY,
25, MARK LANE, LONDON, E.C.

THE LONDON and CONTINENTAL SEED COMPANY has purchased the old and important Business of Messrs. G. & Co., of Plymouth, which has been established for 100 years.

THE LONDON and CONTINENTAL SEED COMPANY—Mr. RENDLE, the head of the old firm, has become the Managing Director of this Company.

DISCOUNT of TWOPENCE in the SHILLING will be allowed on the published prices of any London or Provincial Seed.

Lilium auratum.
SUTTON AND SONS can supply very fine BULBS of the above splendid Lily, at from 2s. 6d. to 10s. 6d. each. Royal Berks Nurseries, Reading.

Double Primroses (Hardy).
JAMES DICKSON & SONS, "Newton" Nurseries, Chester, offers the above, in various colours, at moderate prices, carriage free to Belfast.

To the Trade.
WEST WILKINSON, "The Valley" Nurseries, near Woking, Surrey, offers the following plants, at moderate prices, carriage free to London.

VERBENAS, HERACONS, of the choicest strains are now on hand, at 10s. per dozen, at the following rates—1 dozen 4s. 6d., 2 dozen 8s. 6d., 3 dozen 12s. 6d. JAMES DICKSON & SONS, "Newton" Nurseries, Chester.

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GENUINE AGRICULTURAL and GARDEN SEEDS.—Special prices and advantageous offers of above on application. JAMES DICKSON & SONS, Seed Merchant, 5, Aldgate, London, E.

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Roses—Gladiosi.
CHARLES VERDIER, FLS., NURSERYMAN, 12, Rue de Valenciennes, Paris, has a very large assortment of the above, at moderate prices.

WANTED.—From ROSE DEVONIENSIS, on own roots, at 10s. per 100. Address, stating particulars, to the Secretary, Gardeners' Chronicle, 25, Mark Lane, London, E.C.

ORDER.—Without delay, of CHARLES NOBLE, of the "Gardeners' Chronicle" Nurseries, 25, Mark Lane, London, E.C., of the following plants, at moderate prices, carriage free to London.

Standard and Dwarf Roses.
JAMES DICKSON & SONS, "Newton" Nurseries, Chester, have a large stock of the above, at moderate prices, carriage free to London.

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MAZETTI ROSE STOCKS.—The Subscribers have a large stock of the above, suitable either for Potting or for planting in the open ground.

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Pines.
B. S. WILLIAMS has all the best kinds, in splendid condition, warranted clean. Prices on application. B. S. WILLIAMS, Seed Merchant and Nurseryman, Upper Holloway, London, N.

Grape Vines.
B. S. WILLIAMS' STOCK this season is remarkably fine, and in good condition for sending out. Kinds and prices can be had on application. B. S. WILLIAMS, Seed Merchant and Nurseryman, Upper Holloway, London, N.

Strong Fruiting Vines.
J. C. PADMAN has still on hand a quantity of J. BLACK and MUSCAT HAMBURGHES, price 6s. to 7s. 6d. each. The usual discount to the Trade. Boston Spa, Yorkshire.

EXTRA STRONG FRUITING VINES.—With stout one-jointed Canes, thoroughly ripened without bottom-heat. Nearly 2000 to select from, or sent as forwarded on application. JAMES DICKSON & SONS, "Newton" Nurseries, Chester.

GOLDEN CHAMPION GRAPE.—Plants are now being sent out of this extraordinary Grape, price 21s. and 42s. each. OSBORN & SONS, Fulham Nursery, London, S.W.

Mrs. Pince's Black Muscat Grapes.
J. MEREDITH is now prepared to execute orders for this fine Grape. CANES, fit for immediate planting, from 10s. 6d. upwards. The Vineyard, Garston, near Liverpool.

Royal Ascot or Perpetual Vine.
MESSRS. JOHN STANDISH AND CO. are now selling fine strong plants of this extraordinarily productive VINE at 21s., 42s., and 63s. each. Royal Nurseries, Ascot, Berks.

TO THE TRADE, or LARGE BUYERS.—Fine well-grown Planting and Fruiting VINES, in 10 and 12-inch pots, of all the best varieties, at 21s. per 100, 30s. per dozen, or 3s. 6d. each. A few extra large, will carry 6 to 8 bunches, 5s. each. LEWIS & WOODHOUSE, Munro Nursery, Bible Heddingham, Essex.

Pines.
J. SMITH has to offer a large stock of strong healthy plants, in all stages, warranted clean. Market Gardeners, Back Common, Turnham Green, Middlesex, W.

Pyramidal Cherries, extra fine, for Gardens.
W. WOOD and SON have a magnificent stock of the above to offer. The Pyramidal Cherries are especially fine. Woodlands Nursery, Maresfield, near Uckfield, Sussex.

WEBB'S PRIZE COB FILBERTS, and other PRIZE COB NUTS and FILBERTS. LIST of these varieties from Mr. Webb, Calcut, Reading.

New Catalogue of Fruits.
THE ORCHARDIST, 256 pages, describing upwards of 2000 Fruits, with numerous Observations and Notes, free by post for 18 stamps, on application to J. Scott, Merriott, Somerset.

FRUIT TREES.—About half-a-million healthy, vigorous trees to select from, many of a bearing size. An inspection strongly invited, as the stock is unusually superior. Samples sent on application. JAMES DICKSON & SONS, "Newton" Nurseries, Chester.

FINE Transplanted SCOTCH FIRS, also BEECH, ASH, and HORNBEEAM.
Wm. Wood & Son have a splendid stock of the above to offer. Woodlands Nursery, Maresfield, Uckfield, Sussex.

FOREST TREES.—Many millions. Large Purchasers liberally supplied. For Prices see CATALOGUE. JAMES DICKSON & SONS, "Newton" Nurseries, Chester.

WANTED, good 1-yr. LARCH. Send lowest price, per 100,000, to GEORGE FROST, Nurseryman, Hampton, Devon.

FOR SALE, a large quantity of ENGLISH OAKS, from 12 inches to 5 feet. J. LANCASTER, Streetley, Reading.

LARGE ORNAMENTAL PLANTS or TREES WANTED for a Conservatory 30 feet high. State lowest price, size, and kind, to THOMAS CLAPHAM, Royal Park, Leeds.

FOREST TREES and SHRUBS.—CATALOGUES of the above for the present season may now be had, post free, upon application. PATER LAWSON & SON, Edinburgh and London.

STANDARD LAURUSTINUS, established in Pots, and well set for Bloom. Stems about 4 feet. JAMES DICKSON & SONS, "Newton" Nurseries, Chester.

WISTARIA SINENSIS.—Strong layers, in 48-pots. Price per dozen or 100 on application. Manor Farm, Deptford, S.E.

WANTED, 1000 THUJA GIANTEA, 1 foot high (seedlings or cuttings preferred), transplanted, healthy, well-furnished plants, with good fibrous roots. State when last removed, and price per 100, to GEORGE JACKMAN & SON, Woking Nursery, Surrey.

RHODODENDRONS, Chinese, Hybrid, and Ponticum—Several hundred thousand, from 1 1/2 to 3 feet high, fine bushy plants, well set with bud. Samples and price on application to R. WHITMAN, The Nurseries, Reddish, near Stockport.

ORDER, WITHOUT DELAY, of CHARLES NOBLE, of the "Gardeners' Chronicle" Nurseries, 25, Mark Lane, London, E.C., of the following plants, at moderate prices, carriage free to London.

To the Trade, at Low Prices.
FIRST IMPORTATION, HYACINTHS in Mixture, in distinct colours for holding named pots for Glasses and Pot Culture; POLYANTHUS NARCISSUS, TULIPS, Double & Single. BARR & SODER, 12, King Street, Covent Garden, W.C.

WEBB'S NEW GIANT POLYANTHUS. Florist Flower, and GIANT COWSLIP SEEDS, also Plants of all the varieties, with double PRIMROSES of different colours, AURICULAS, both Single and Double; with every sort of Early Spring Flowers. LIST on application.—Mr. Webb, Calcut, Reading.

SUTTONS' COLLECTIONS of VEGETABLE SEEDS.
See page 106 of this week's *Gardeners' Chronicle*.

SUTTONS' COLLECTIONS of FLOWER SEEDS.
See page 106 of this week's *Gardeners' Chronicle*.

SUTTONS' GRASS SEEDS for ALL SOILS.
See page 116 of this week's *Gardeners' Chronicle*.

SUTTONS' BERKS KIDNEY POTATO (Illustration).
See page 106 of this week's *Gardeners' Chronicle*.

FOR SALE, about four tons of MYATT'S PROLIFIC POTATOS, very true. For price and particulars apply to Mr. T. LEE, Spading Common, Lincolnshire.

Wheeler's Milky White.
MR. MYATT has more of this than he intends planting. Price to the Trade on application. Manor Farm, Deptford.

SEED POTATOS.—Rivers' Royal Ashleaf, per ton, £9. Myatt's Prolific Ashleaf, per ton, 28. Sacks true expressly for seed. Carriage paid for cash to London. New Sacks, 1s. 3d. HENRY H. NICHOLSON, Great Clacton, Colchester, Essex.

SEED POTATOS.—Rivers' Royal Ashleaf, 100 lb. Dalmahoy, Myatt's Early Prolific, and all the finest early and late varieties, free from disease, extra quality, and at moderate prices. For Special Priced Lists apply to H. & F. SHARPE, Seed Growers, Wisbech.

SEED POTATOS.—Early Ashleaf, 6s. 6d. per bushel, 7 lb. Rivers' Royal, 6s. per bushel, Milky White, 7s. 6d. per bushel. Cash prices. All sound and true to name. Bags and sacks charged cost price. Apply to ISAAC DAVIES, Brook Lane Nursery, Ormskirk, Lancashire.

Potatoes.
THOMAS IMRIE and SONS, NURSERYMEN and SEEDSMEN, Ayr, have a quantity of Dalmahoy, Red Bog, Regents, and Rocks, all raised for seed, the seed in growth commenced and carefully selected for seed. Prices on application.

APARAGUAY PLANTS, extra fine and strong, 2, 3, and 4-yr., at moderate prices. Wm. Wood & Son, Nurseries, Maresfield, near Uckfield, Sussex.

Cucumber Plants.
TELEGRAPH, from seed of own saving, selected stock, warranted true, in any quantity. Apply for prices to A. WATKINS, Hoekerville, Bishop Stortford.

Scrymger's Brussels Sprouts.
G. SCRYMGER begs to offer Seed of the above superior variety of Brussels Sprouts, in packets, at 1s. each, post free 14 stamps. Price to the Trade on application to G. SCRYMGER, Sonning, Reading, Berks.

To the Trade.
T. HANDASYDE and DAVIDSON have to intimate that they are now executing orders for MUSSELBURGH and AYTON CASTLE LEEK SEED. Prices on application. 24, Cockburn Street, Edinburgh.—January, 1869.

Scarlet Runner Beans.
CHARLES SHARPE and CO. have New SEED of the above to offer to the Trade. Price on application. Sleaford, January, 1869.

Mangel Wurzel Seed.
JOHN SHARPE can offer on good terms, from highly selected Stocks, and his own growing this year. Barmsey Manor, Lincoln.

PARIS, SUTTONS' GRASS SEEDS for ALL SOILS. A PREMIER PRIX SILVER MEDAL for GARDEN SEEDS, GRASSES, and GRASS SEEDS, was awarded to SUTTON AND SONS, SEEDSMEN to the QUEEN, Reading, Berks.

THE ONLY PRIZE MEDAL for GRASS in GROWTH, PARIS, 1867, was AWARDED to JAMES CARTER & CO., 27 and 28, High Holborn, London, W.C.

Genuine Garden and Agricultural Seeds.
CARTER AND CO., SEED FARMERS, MESS MARYS, and NURSERYMEN, 27 and 28, High Holborn, London, W.C.

EVERY GARDEN REQUISITE KEPT IN STOCK at CARTER'S New Seed Warehouse, 27 and 28, High Holborn, London.

CHARLES TURNER'S SEED LIST.—A DESCRIPTIVE CATALOGUE now ready, to be had free on application. The Royal Nurseries, Slough.

Priced Seed Catalogue for 1869, Post free on application to JOHN and CHARLES LEE, Royal Vineyard Nursery and Seed Establishment, Hammersmith, London, W.

STUART MACDONALD and CO.'S WHOLESALE LIST of CHOICE and RARE SEEDS, comprising the leading Novelties of the season. Seed Grounds, South of France. Seed Stores, 85, Southampton Row, Holborn, London.

JOHN STANDISH and CO.'S ILLUSTRATED CATALOGUE of NEW and RARE PLANTS, HARDY TREES, CONIFERS, SHRUBS, &c., for the Spring of 1869, is now ready, and will be sent post free on application. Royal Nurseries, Ascot, Berks.

Sixty-seven Pages of Nursery Stock. THOS CRIPPS and SON'S WHOLESALE CATALOGUE for the present season will be forwarded (to the Trade only) post free on application. The Nurseries, Tunbridge Wells.

To the Trade.—Continental Flower Seeds, &c. GEO MACINTOSH, Agent to F. W. WINDYBANK, Seed Grower, &c., Erfurt, Prussia, begs to announce that he has supply CATALOGUES of the above, free and post paid, on application. High Road, Hammersmith, London, W.

Genuine Garden and Farm Seeds to be had of THOMAS KENNEDY and CO., SEEDSMEN and NURSERYMEN, Dumfries, at extremely moderate prices, and delivered, free of carriage, at nearest Railway Station. CATALOGUES sent gratis on application. Agricultural and Garden Seeds. H. and F. SHARPE'S SPECIAL PRICED LIST of HOME-GROWN SEEDS is now ready, and may be had on application. Seed Growing Establishment, Wisbech.

SELECTED VEGETABLE & FLOWER SEEDS, POTATOS, &c.

Full Descriptive Priced Catalogue of the above, containing all the desirable NOVELTIES of the season, to be sent gratis and Post Free on application.

James Dickson & Sons

OLD ESTABLISHED SEED & NURSERY BUSINESS, 102, EASTGATE STREET, AND "NEWTON" NURSERIES, CHESTER.

NEW LARGE LATE FRANKFORT CAULIFLOWER.

This variety has been severely tested during the last two years, and from its great size and extreme hardiness...

Price per packet, containing about 1000 Seeds, 2s. 6d.

WILLIAM DRUMMOND AND SONS, SEEDSMEN, STIRLING, N.B.

Our GENERAL DESCRIPTIVE CATALOGUE of VEGETABLE and FLOWER SEEDS is now ready, and will be sent Free on application.

GENUINE SEEDS OF SUPERIOR STOCKS.



SEEDSMEN TO THE QUEEN

FRANCIS & ARTHUR DICKSON & SONS,

THE "OLD" ESTABLISHED SEED WAREHOUSE, 106, EASTGATE STREET, CHESTER

DICKSON'S "FIRST AND BEST," price 1s. 6d. per quart.

CATALOGUE OF NEW AND SELECT VEGETABLE AND FLOWER SEEDS, POTATOS, &c., FOR 1869,

With practical Cultural Directions, will be sent Post Free on application.

Their Seeds are all of the most select character, each being saved from the best Stock known of its kind.

BARR & SUGDEN'S

(12, KING STREET, COVENT GARDEN, LONDON, W.C.)

NEW SEEDS READY TO SEND OUT.

NEW DESCRIPTIVE SPRING CATALOGUE of CHOICE SEEDS ready, and may be had free by intending purchasers. The Catalogue embraces every Novelty and Speciality in Flower and Vegetable Seeds...

BARR & SUGDEN,

THE METROPOLITAN SEED, BULB, AND PLANT WAREHOUSE,

12, KING STREET, COVENT GARDEN, LONDON, W.C.

- COLLECTIONS of VEGETABLE SEEDS, 12s. 6d., 15s. 6d., 21s., 31s. 6d., 42s., 63s., 84s., and 105s.
COLLECTIONS of FLOWER SEEDS, 2s. 6d., 3s. 6d., 5s. 6d., 10s. 6d., 21s., 31s. 6d., and 42s.
COLLECTIONS of HERBACEOUS and ALPINE SEEDS, 3s. 6d., 5s. 6d., 7s. 6d., 15s., 21s., and 30s.
COLLECTIONS of GLADIOLI, 5s. 6d., 8s. 6d., 10s. 6d., 13s. 6d., 21s., 30s., 42s., and 63s.
COLLECTIONS of TABLE MAIZE, 2s. 6d., 3s. 6d., 5s. 6d., 7s. 6d., and 10s. 6d.
COLLECTIONS of ORNAMENTAL GOURDS, 2s. 6d., 3s. 6d., 5s. 6d., 7s. 6d., 10s. 6d., 15s., and 21s.
COLLECTIONS of ORNAMENTAL GRASSES for TABLE DECORATION, &c., 2s. 6d., 3s. 6d., 5s. 6d., 7s. 6d., and 10s. 6d.
COLLECTIONS of SEEDS for SUBTROPICAL GARDENS, 3s. 6d., 5s. 6d., 7s. 6d., and 10s. 6d.
COLLECTIONS of CLIMBERS, CARNATIONS, PELARGONIUMS, HOLLYHOCKS, STOCKS, ASTERS, BALSAMS, ZINNIAS, LANTANAS, EVERLASTINGS, AQUATICS, PALMS, &c. Full particulars will be found in the DESCRIPTIVE SPRING CATALOGUE, which will be sent Free to intending purchasers.

BARR AND SUGDEN, 12, KING STREET, COVENT GARDEN, W.C.

Vegetable, Agricultural, and Flower Seeds.

MISCELLANEOUS HARDY EXPOSURE PLANTS, Sweet Violets &c. ROBERT PARKER begs to announce that his CATALOGUE, containing DESCRIPTIVE LISTS of the finest kinds in cultivation of the above-named, is now published...

Intending purchasers are requested to compare the prices with those of other houses.

Hardy Scarlet, White, Puce, Rose, AND OTHER CHOICE NAMED RHODODENDRONS.

W. H. ROGERS, Red Lodge Nursery, Southampton, offers a large and magnificent Collection of the above. Nice bushy plants, well adapted for forcing...

RHODODENDRONS by the doz., 100, 1000, or 10,000.

Table listing various Rhododendron and other plant varieties with prices per dozen and per 100. Includes varieties like Rhododendron Ponticum, Hybridum, Maximilium Album, etc.

Genuine Seeds.—Carriage Paid. B. S. WILLIAMS, SEED MERCHANT AND NURSEYMAN, Victoria and Paradise Nurseries, Upper Holloway, London, N.

COMPLETE COLLECTIONS OF KITCHEN GARDEN SEEDS, To suit Gardens of various sizes, 10s. 6d., 21s., 42s., 63s., and 84s. each.

Table listing various kitchen garden seeds like Williams' Improved Green Curled Broccoli, Dell's Fine Dark Beet, etc., with prices per packet.

NEW and CHOICE FLOWER SEEDS. Per Pkt.

Table listing various flower seeds like Williams' Superb Strain of Primula, Cineraria, Calceolaria, etc., with prices per packet.

B. & W.'S DESCRIPTIVE CATALOGUE of FLOWER, VEGETABLE, and AGRICULTURAL SEEDS, is now ready, post free to all applicants.

Spring Flowers—Cheap and Good.

LEWIS S. WOODHORPE, having a large Stock on hand, best to offer the following—VIOLETS, in 24 of the best varieties, cut water, &c. HEPATICAS, PRIMROSES, AURICULAS, POLYANTHUS, DAISIES, BUCKETS, HELIANTHEMUM, CLOVES, PINKS, Hardy ANEMONES, with every other kind of Spring-blooming plant, from 2s. per dozen. Also, a fine and choice Collection of all the newest and best TRICOLOR GERANIUMS.

CATALOGUES of NEW SOFT WOODED PLANTS, with Special Priced Lists, forwarded free upon application.

Munro Nursery, Sible Hedingham, Essex

SUTTONS' HOME-GROWN SEEDS, Carriage Free.

Seeds sown first and flowers the best means of proving the disappointment.

NEW SEEDS for the KITCHEN Garden, complete Collections from 12s. 6d. to 2s. 6d., carriage free.

NEW SEEDS for the FLOWER GARDEN, complete Collections from 5s. to 2s. 2d., carriage free.

SUTTONS' HOME-GROWN SEEDS, PRICED DESCRIPTIVE CATALOGUES gratis and post free.

Sutton & Sons, Seedsmen to the Queen, Reading



DOBSON AND SONS' Prize and Celebrated Strain of HYBRIDISED CALCEOLARIAS may be had of the leading Seedsmen in Great Britain. Sealed packets, 1s. 6d., 2s. 6d., 3s. 6d., and 6s., each; and of JOHN DOBSON & SONS, Woodlands Nursery, Isleworth, W.



DOBSON AND SONS' Prize and Celebrated Strain of CINERARIAS, which took Fifty First Prizes in 24 years, may be had of the leading Seed Merchants in England, Ireland, and Scotland. Sealed packets, 1s., 2s. 6d., and 6s., and of JOHN DOBSON & SONS, Woodlands Nursery, Isleworth, W.



DOBSON AND SONS' Celebrated and Prize Strain of PRIMULAS may be had of the leading Seedsmen in Great Britain and Abroad. Sealed packets, 1s., 2s. 6d., and 6s. Took First Prize, Open Class, Kensington, 1858. Special Prize, 1860. JOHN DOBSON & SONS, Woodlands Nursery, Isleworth, W.



NOTICE.—LORD BURGHLEY APPLE was exhibited at the Royal Horticultural Society on December 15, 1868, and pronounced "excellent." Maiden Trees, 1s. 6d. each; Fine Fruiting Trees, 2s. 6d. and 3s. 6d. each.

VINES.—Eyes of MRS PINCE'S BLACK MUSCAT, 2s. per dozen. Sample Eye for three stamps. Planting Canes, 6s. each. 300 Extra Strong Fruiting and Planting Canes of the leading sorts; names and prices on application.

GERANIUM MRS. POLLOCK.—Several thousand Autumn-struck plants to offer, very strong, 40s. per 100.

NAMED HOLLYHOCKS.—Several hundred choice varieties, in pots, 6s., 9s., and 12s. per dozen. Seedlings, from first-class sorts, 4s. per dozen, 30s. per 100. J. HERR, Eastgate Nursery, Peterborough.

Seeds Carriage Free.

THE SOUTH OF ENGLAND SEED ESTABLISHMENT

WILLIAM WOOD AND SON, NURSERYMEN, SILDBURY, and FLOWERS, &c.



HIS ROYAL HIGHNESS THE CROWN PRINCE

OF PRUSSIA.

W. Wood & Son's No. 1 COLLECTION of VEGETABLE SEEDS for Gardens quarter of an acre in extent, sent, hamper and carriage free, to any Station on the South Coast and South-Eastern Rail for 12s. 6d.

No. 2 COLLECTION, for half an acre, hamper and carriage free, for 21s.

The following will be sent, hamper and carriage free, to any Station in Great Britain:—

No. 3 COLLECTION, for three quarters of an acre, for 23s.

No. 4 COLLECTION, for an acre, for 23s.

DESCRIPTIVE CATALOGUES may be had on application. Woodlands Nursery, Maresfield, near Uckfield, Sussex

Culinary and Floricultural Seeds.



WILLIAM ROLLISON AND SONS beg respectfully to announce that their GENERAL and PRICED SEED CATALOGUE for 1869 is now published, which comprises many novelties, in the way of VEGETABLE and FLOWER SEEDS, and so numerous valuable additions to their extensive List of SUB-TROPICAL PLANTS which can be raised from Seed, in which is also included the following choice Flower Seeds:—

CENTAUREA RAGUSINA COMPACTA.—The foliage of this new variety has the most silvery-white gloss, while its very dwarf and compact habit makes it much more useful and effective in Ribbon-borders than any of the oldest varieties. Price, per packet, 1s. and 2s. 6d.

KENNEDYA FREDWOODII.—This extremely ornamental Green-house Creeper blooms in great profusion during the months of December and January. The flowers, which are as large as those of a good-sized Sweet Pea, are of a gorgeous scarlet-crimson, delicately striped in places with white and marked with green. Very young plants in 3-inch pots will bloom abundantly. Seed, price 1s. per packet. Blooming plants from 2s. 6d. to 6s. each.

PRIMULA SINENSIS FIMBRIATA.—Seed saved from the finest prize strains in cultivation. Price per packet, 2s. 6d.

PRIMULA SINENSIS KERMESINA SPLENDENS.—Seed saved from the brightest coloured variety. Price per packet, 2s. 6d.

CINERARIA.—Seed saved from named varieties, the flowers of which combined endow shades of brilliant colours with perfection of form. Price per packet, 2s. 6d.

N.B.—W. K. & SONS' GENERAL CATALOGUE of SEEDS may be had gratis, and post free, on application to

The Nurseries, Tooting, London, S.W.

PAUL'S NURSERIES AND SEED WAREHOUSE, WALTHAM CROSS, LONDON, N.

GENUINE AND FIRST-CLASS SEEDS.

WILLIAM PAUL

DEGS TO ANNOUNCE THAT HIS

CATALOGUE OF SELECT VEGETABLE AND FLOWER SEEDS.

Including many Novelties, is now ready, and may be had Free by Post on application.

In proof of QUALITY he need only refer to the numerous Prizes awarded at various Horticultural Shows throughout the country, for both Vegetables and Flowers grown from his Seeds, and in regard to prices throughout all cases affixed on the lowest possible scale to be remunerative. The following Gardens in Hertfordshire, renowned for their Vegetables and Flowers, have long been supplied from his Seed Warehouse.—Brooklands, Panshanger, Danesbury, Poles, Digawell, Wyddial Hall, Woodhall, Youngsbury, Bedwell Park, Essex—Campfield Place, Bayfordbury, Knebworth, Frogmore Hall, Childwickbury, Codicote Lodge, and many of equal celebrity throughout the country.

To purchasers who are unacquainted with the best varieties of Vegetables and Flowers, or who wish to avoid trouble of writing a List, the following Collections are made up on equally liberal terms with any other House in the Kingdom. All are of the best quality, and cannot fail to give the fullest satisfaction.

VEGETABLE SEEDS.

No. 1. The WALTHAM COLLECTION of VEGETABLE SEEDS, FOR A LARGE GARDEN, Price £3 3s.

No. 2. The WALTHAM COLLECTION of VEGETABLE SEEDS, FOR A MEDIUM-SIZED GARDEN, Price £2 2s.

No. 3. The WALTHAM COLLECTION of VEGETABLE SEEDS, FOR A SMALL GARDEN, Price £1 1s.

Smaller Collections for Small Gardens or Cottagers, 15s., 10s. 6d., or 5s. each.

FLOWER SEEDS.

No. 1. The WALTHAM COLLECTION of FLOWER SEEDS, INCLUDING THE FINEST IMPORTED ASTERS, STOCKS, &c., Price £2 2s.

No. 2. The WALTHAM COLLECTION of FLOWER SEEDS, INCLUDING CHOICE IMPORTED ASTERS, STOCKS, &c., Price £1 1s.

No. 3. The WALTHAM COLLECTION of FLOWER SEEDS, INCLUDING THE MOST EFFECTIVE FOR A SMALL GARDEN, Price 10s. 6d.

No. 4. PAUL'S CHOICE COLLECTION of HOLLYHOCKS, IN TWELVE DISTINCT NAMED SORTS, Price 5s.

NOVELTIES, OR VARIETIES OF SUPERIOR MERIT.

BEST, Paul's Superb Crimson, 1s. per packet. BROCCOLI, Lander's Superb Protecting Late White, 2s. 6d. per pkt. BROCCOLI, Snow's Winter White, very select stock, 1s. per packet. BRUSSELS SPROUTS, Paul's Waltham, 1s. per packet. CAULIFLOWER, Hill's Dwarf, 1s. 6d. per packet. CAULIFLOWER, Superb Dwarf Hertfordshire, 1s. per packet.

CUCUMBER, Paul's Improved Telegraph (true), 2s. per packet. * This Variety was first sent out by me in 1841, and has since that time been the most prolific and best flavoured of all Cucumbers. ENDIVE, Waltham Green Curled, 1s. per packet. LETTUCE, Brockett Hall Brown Cos, 1s. per packet. LETTUCE, Hill's Compact Brown Cos, 1s. 6d. per packet. PARSLEY, Paul's Selected Extra Curled, 6d. per packet.

FOR MORE PARTICULAR INFORMATION, SEE SEED CATALOGUE.

All Seeds, except very small parcels, Carriage or Post Free.

LILJUM AURATUM.—Flowering bulbs, 2s. to 7s. 6d. each; 18s. to 72s. per dozen.

GLADIOLI.—A very fine assortment to name, 6s. to 24s. per dozen.

ROSES.—A fine stock still on hand, Standards, Dwarf-standards, Dwarfs, and in pots for forcing.

FRUIT TREES.—Standards, Pyramids, and Dwarf-trained, and a large general Nursery Stock in excellent condition.

PRICED CATALOGUES, FREE BY POST.

IMPORTANT.—To prevent confusion, all Letters should be addressed WILLIAM PAUL—the name in full, as above.

Superb New Late Grape. Mrs. Pince's Black Muscat... This is acknowledged to be the...

THOUSAND MRS. PINCE'S BLACK... Trade price on application...

MR. CHARLES NOBLE... WHITE FRONTIGNAC... RICKLAND SWEETWATER...

APPLE TREES, on the true French Paradise Stock... as recommended by Mr. Robinson...

STANDARD and DWARF TRAINED... TREES and PEARS, T. LIP TREES, 7 to 8 feet...

ORANGE TREES for SALE... Ten very handsome trees, in robust health...

New and Distinct Melon. TOM THUMB, beautifully marked with alternate stripes of orange and violet...

FRUIT CHARLES NOBLE... following New Fruit Tables, in strong Maiden, 1/6 each...

Fruit the First Season. WOOD and SON... respectfully solicit attention...

THREE HUNDRED THOUSAND 2-YR. THORN... 2 yr 1000, 50,000 2 yr ASH, 2s per 1000...



Seed Catalogue, now ready. HARRISON AND SON have pleasure in intimating that their SEED CATALOGUE...

THE NEW VEGETABLES and FLOWERS of the year are contained in HARRISON & SON'S SEED CATALOGUE...

New Seeds for the Garden and Farm, 1869. ARCHD. HENDERSON'S DESCRIPTIVE and PRICED CATALOGUE OF SEEDS...

FOREST TREES, &c - 500,000 LARCH, 1-yr... 500,000 SCOTCH FIR, native, 2-yr...

FOREST TREES, &c - Special offer of 150,000 2-yr. Seedling 2-yr transplanted SCOTCH FIRS...

Trees and Shrubs. THOMAS KENNEDY and CO have on hand a very large and superior stock of FOREST and ORNAMENTAL TREES...

LARGE EVERGREENS, for immediate planting - Holly common, 3 to 10 ft. Yew, Irish, 3 to 7 ft. Canadian, 3 to 5 ft...

MELONS. Queen Emma, green-flesh. Golden Perfection, green-flesh. Colchester, prize green-flesh. Heckfield Hybrid, green-flesh, large and good...

Full grown Evergreens. HENRY GODFREY, NURSERYMAN, has a large quantity of the following...

COMMON LAURELS, 5 to 6 feet, 7 1/2 ft, 10 ft, 12 ft, 15 ft, 20 ft, 25 ft, 30 ft, 40 ft, 50 ft, 60 ft, 70 ft, 80 ft, 90 ft, 100 ft...

AMERICAN ARBOR-VITAE, especially the improved for Hedges... 7 feet, 8 feet, 9 feet, 10 feet, 12 feet, 15 feet, 20 feet, 25 feet, 30 feet, 40 feet, 50 feet, 60 feet, 70 feet, 80 feet, 90 feet, 100 feet...

The Planting Season. WOODLANDS NURSERY, MAREFIELD, NEAR UCKFIELD, SUSSEX. WM WOOD and SON respectfully invite especial attention to their very large stock of STANDARD ORNAMENTAL TREES...

For Lawn and Cover Planting. BERBERIS DARWEN... cannot be said of this fine Evergreen species...

COTONEASTER SIMONSON... This is a beautiful Hardy Evergreen Shrub with glossy dark green leaves...

Large Evergreens and Forest Trees. MESSRS PAMPLIN and SON have a large quantity of the following, and at the most reasonable prices...

To the Trade. THOS CRIPPS and SON beg to announce they still hold a good stock of the following, in fine healthy stuff...

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SUTTONS' BERKSHIRE KIDNEY,
5s. per peck; cheaper by the bushel.



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This splendid Potato is a seedling from the Duke. Having several plants of that class, we have found it to be by far the best and quite a fortnight earlier. The tubers are of large size, smooth, and have a remarkably fine flavour. It is not affected by disease as other varieties. It is exceedingly prolific. It is by far the best variety for the main crop.

From Mr. A. WEAVER, Oxford.

"You may imagine how well the Berkshire Kidney Potato has done, when I tell you that the 1 peck you sent me has produced 16 pecks of good Potatoes. I had the pleasure of showing them to the Public at the Oxford Horticultural Society's Meeting, and they were highly praised."

SUTTONS' GOLDEN BLOSSOM KIDNEY POTATO, price 5s. per peck; cheaper by the bushel.

A distinct and very excellent variety. The skin is very smooth, eyes shallow, flesh white, and of very fine flavour. It is exceedingly prolific.

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SUTTONS' RINGLEADER PEA, THE EARLIEST IN CULTIVATION,

As per Royal Horticultural Society's Report in Gardeners Chronicle, June 27, 1868

Price 2s. per quart.

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forests and humid ravines of these mountain regions orchidaceous plants of surpassing beauty abound. They have for 20 or 35 years past been imported into Europe in very limited quantities, but, as a rule, they were at once subjected to a cold and stifling heat. Because they were from the tropics, whether in reality from the chilly slopes of a snowy sierra, or from a hot jungle, it was all the same—Nature rebelled, and the plants died.

They had been dragged down from their cool mountain homes, and cooped up in a box for six or eight weeks in the hot and humid climate of the tropics which they must pass to reach us, and therefore few, comparatively, survived—some of these being the very finest, and hence both rare and expensive. Others, scarcely less charming, travel well, and are now to be had at far lower prices than formerly. Some of the finest of the New Grenada *Odontoglossums* and *Oncidiums* occur in districts that are liable to extreme cold, and may yet be found hardy enough to stand the winter in some parts of England. We learn from the late Mr. H. M. Archer's work, that he met with an Orchid 800 feet above a village where the snow was lying 6 inches thick, and the thermometer indicated 8° of frost, and that *Cattleya labiata* and *Sophranitis grandiflora* have been found not unfrequently with the hoar-frost upon them, and the grand *Laela majalis*, in Mexico, is said to bear several degrees of frost. I myself have seen icicles hanging abundantly within a few inches of *Epidendrum vitellinum*, which was placed in a nook of rockwork during the frost of the winter before last. The plant was in no way injured, and grew finely the following summer.

There is every reason to believe that many, and perhaps most, of the Orchids from Brazil, Mexico, Peru, New Grenada, Nepal, Khasya, China, and Australia, will bear a temperature close upon the freezing point without injury, not that I recommend this to be tried any more than I should with a *Cineraria*, but I am satisfied that a greenhouse temperature, which is never allowed to fall much below 40°, is not only abundantly sufficient for them but likely to induce a far more vigorous growth and abundant bloom, than the usual warmth of Orchid-houses in winter. I have consequently placed a large portion of my collection in houses where the winter temperature falls to from 35° to 45° associating them, in fact, with greenhouse plants. That they will bear this, and in many instances even more, is certain. *Cattleya Mossiae* and *Laela purpurata* continued growing out-of-doors in a deep shady recess for six weeks after the frost had cut off many things in adjacent grounds, and they were only taken in after the thermometer had registered 29½°. This temperature severely injured one of the young growths of *Cattleya Mossiae*, but did not hurt three others which had been formed almost entirely out-of-doors. Seven degrees of frost the winter before last killed *Odontoglossum grande*; while 3½° of frost but very slightly spotted its leaves. It destroyed the leaves only of *Lycaste Skinneri*, and did not hurt in the slightest degree the glorious *Laela superbiens*, all of which were side by side out-of-doors, and I consider if *Cattleya Mossiae* will bear this, all *Cattleyas* will, except *Cattleya superba*, as with this exception they come from cooler districts than *Cattleya Mossiae*. It must however be borne in mind that an Orchid wintered in a warm house (60° to 70°) will scarcely stir, if placed out-of-doors or in a greenhouse the following summer, even if the temperature be 80° in the shade during the day, they will have a second rest—the coolness of the night temperature and free circulation of air more than neutralise the high day temperature. Plants so treated will rest for months with the thermometer at 60° to 80°, and begin to grow in autumn when their sleep is over, even with the thermometer at 40° to 50°. This, I think, clearly proves that to get a free and vigorous summer growth in a greenhouse, or out-of-doors, the plants must be wintered at a proportionately lower temperature—40° to 50°. It is not easy to accommodate recently imported ones to this wholesome discipline, because the great heat of the voyage, &c., often stimulates an untimely growth, which cannot be checked severely without endangering the plant. It must, however, be aimed at as far as possible; and not till this is done shall we see on many of our finest species the short stiff leathery leaves, and rich purple-tinted stems, &c., which we find in the imported specimens, healthily developed in their fine mountain climate. We have yet to learn that mere size is not the standard of excellence in an Orchid's stem or bulb, any more than in cattle.

There are many Orchids which will bear greenhouse treatment when the growths have been well matured during the summer in a cool and airy situation, which would rot directly if placed in a greenhouse when they have been grown in a moist and close house, with a temperature of 70° to 80°. We may be able to see no difference before the two are tried, but we shall soon find that they have very different constitutions. As a rule, while these plants are growing freely, they should have abundant supplies of water. *Odontoglossums* should never have the soil dry, but they like air in constant motion, and a bright sunny position in winter. In summer they should be carefully shaded from direct sunshine, and a very humid atmosphere should be maintained, combined with free ventilation day and night. At that season the night temperature should be 15° to 20° lower than the day temperature, so as to cover the plants with dew. In winter, and especially when the temperature is very low, little or no water should be given, and the atmosphere should be kept as dry as possible. The pseudobulbs are the natural reservoirs for moisture, so that, if plump and well-matured, the plants will require no water for weeks, or even months, while at rest during the winter, air will be dangerous with the thermometer outside at 40°, but will be advantageous, when the sun

shines and there is little wind, for an hour or so at mid-day, the thermometer being at 45° or more outside in the shade.

Where Orchids are grown on blocks of wood, the roots should be covered lightly with Sphagnum or any fresh green Moss free from insects, behind which a little fibrous peat should be sprinkled, the whole being firmly secured with zinc or copper wire. When grown in pots, the pots should be filled to two-thirds of their depth with broken crocks, above which a mixture of chopped Sphagnum and fibrous peat should be placed, with a little white sand. This compost should be firmly pressed, and raised in the form of a cone above the rim of the pot, placing the plant on the top, the roots only being buried in the Moss. *Isaac Archer, Holt, Worcester.*

BOTANICAL DRAWING.—No. III.

Leaves in Perspective—Leaves have been subjected to more bad treatment by the draughtsman than perhaps any other portion of the vegetable kingdom, they have been represented, or rather misrepresented,



in all kinds of impossible positions. Numerous are the tortures to which they have been subjected—dislocated or broken ribs, curious twists, painful to behold—even their wretched veins have not escaped; and all these errors in perspective arise from inattention to



the simple fact, that in a curved leaf, showing the under side, the midrib should be continuous, and the veins should spring from the midrib. The simple way to avoid perpetrating such vagaries, is to treat a leaf as if it were skeletonised, and I would recommend skeletonised leaves as admirable subjects to illustrate their own perspective. A little study of them in this state would be beneficial to those who are wont to take unwarrantable liberties with them when rejoicing in their summer garment of green, which veils their curious anatomy.

In representing leaves in perspective, then, the first faint outline will be found of the greatest service, and in making it, the leaves should be treated as if they were skeletonised, i.e., continue the outline through the curved portion of the leaf. Here I may impress

upon the reader the importance of being formed by the veins with the midrib, they are also useful in drawing for a scientific purpose, sent a leaf cut across, to show the thickness. The cuts in the preceding column will illustrate remarks.

Little more need be said about sketching them than there are no errors in perspective.

PINE-APPLE CULTURE CUTTING DOWN.

As the remarks of Mr Barnes, of Bickton, related to create wrong impressions, of Bickton, point out the fact that he himself is showing false impressions when he attempts to allow been in the habit of growing Pine plants became "old, long-shanked" objects, worse the days of yore; and then, and not till then, them down in order to make them fruit. It is presumption in me, or perhaps in any other, to presume to teach Mr Barnes how to manage, but I can state that the practice I have retained, guidance of others is not exactly the "cutting over" "old long-stemmed Pine plants" supposes. What I have sometimes done in has been in the case of Pines that had been potted suckers, say, for illustration in September, started into fruit in January, 1869, and in to even younger plants. In the case of these, sometimes found that a few plants moved into fruit along with the rest, and instead of and allowing these to grow on, I have cut at the surface of the soil and repotted them often as I have done so, have found them fruit almost immediately, and swell very in time to form a rear-guard to the general

I can heartily sympathise with Mr Barnes' tion of the difficulty of growing Pines in old, drippy pits, for those in which I grew the Archerfield for 10½ years, up to last November erected long before Mr Barnes was born, on flat in the roof, drippy, several of them heating power, and behind a wall which screened them from the sun for three months year. In the spring of 1867 one of them constructed with every modern appliance, and was that suckers potted in August, 1867 were ripe fruit last September. So that Mr Barnes' invidious supposition that "old, long-shanked" were the order of things in my case, may be wrong, and I am certain the same may be said of those Simpson, of Wortley Hall, who has recently on the matter in the pages of the *Gardener's*. I think every one who attempts to guide others duty bound to defend himself from misrepresentation, and I am sure that when Mr Barnes charges old-world growers he neither intended this, nor make it good. The cutting-down and destruction long-stemmed plants is of old enough date. Pine grower knows, but it may be said, cutting-down of young plants should not be should be reckoned as work fit only to fall to the incompetent. But those who have to grow spare plants for fruiting in dull pits, further from Land's End than Mr Barnes' lot is, will find that now and then plants that have stood in corner of the pit have a will of their own when time comes round, especially if that time be the prompt remedy of cutting-down these fellows, and brings them into fruit before they are "old or long-shanked," and hardened in the of the time of Mr Barnes' boyhood.

I am much obliged to Mr Barnes for the opportunity of representing the practice I have adopted its proper light, especially as few can lay claim to assume the place of a Gamaliel in *Pinegardens*, he has a right to do. *David Thomson, Pinegardens.*

Home Correspondence.

Apple Stocks.—After the platitudes that appeared under this title, the two words may give your readers a fit of brain sickness, mental nausea often brought on by reading a novel. The subject in dispute has been whether we in England possessed dwarfing Apple stocks to those used in France, and so overruled the Robuson. The Scientific Committee on the decided that the Apple trees on English stocks placed before them were robust, healthy, fertile. To those who looked over the trees, it was more apparent than the hardy robust one-year-old grafts on the Nonsuch English stocks. They were studded with fine plump buds ready to burst with exuberance of health, in contrast to these trees, Oak-like in their growth, were little fellows on the same stock, who had been removed once, and hence their sterility. I confess to a feeling of satisfaction in seeing a portion of the labour of a long life spent in your number for January 2, under "Apple Stocks." I have given my knowledge of the stocks of present day. From my close observation and experience I am aware that I have a greater number of fruit-tree stocks than any man in Europe (I am "Oh"), and can therefore afford to state at length of "A," "B," and "C," reminding one of a (itmouse) trying to make a small hole in a Beurre Diel pear. The Scientific Committee, however, settled the question. (Not quite.) The subject "was alive, and is dead." So there is to be said. I may, however, allude to some points

pare the French woodlands with any I have seen... I do not think any one would believe it necessary to go...

As for the French woodlands... I do not think any one would believe it necessary to go... he went to study the same subjects in France or Germany...

were in the position of the soil of the border, and when pulled out...

required a temperature of 48°, but it rose in six days after the first at starting it was only 48°, which the experience...

Mr. ...

Florists' Flowers.

LAST season was a very... black corolla ever sent out, it is entirely free from...

Societies.

MANCHESTER BOTANICAL AND HERBARIUM... The society was held at the... Mr. ...

Count Gavotti and Don Giovanni... full, double, finely-expanded, and petal...

Bouquet

Hearing a word of bouquet... I was... he gave me the following information, which may interest some of your readers...

Camellia Buds Dropping

Mr. Barnes of Bilton (p. 52), seems disposed to attribute this chief defect, that so often affects pot Camellias, to lack of water...

Bottom-heat for Vines

Mr. Sage admits the correctness of my statement as to the time it took to get the Vines at Woburn to break, he demurs as to the cause I assign for it, and states that "simultaneously with the starting of the Vines the border was covered with a mixture of dung and leaves to the depth of 2 or 3 feet..."

Entomological

Mr. H. W. Bates, President, in the chair. Mr. F. Bond exhibited some specimens of the common small Tortoiseshell Butterfly, of very small size and dark colour...

Table with 2 columns: Description, Amount. Total £112 17 0

Entomological

Mr. H. W. Bates, President, in the chair. Mr. F. Bond exhibited some specimens of the common small Tortoiseshell Butterfly...

White Perfect

White Perfect... and sepals of any white... broad and very long, pure in colour, with...

Master Longfield

Master Longfield (E. G. Henderson) Very of Clapham, sent out last year, white moderately reflexed, with a rose-purple on the petals come much too long, otherwise first-class variety for any purpose; a good abundant bloomer.

good substance, corolla pink

allowed permanently to remain, being supplied for a few days of the winter by the... reappear even after this severe treatment.

separates the cool from the tropical department, a... natural arrangements more satisfactory than these. Yet Mr. Mandel contemplates a much grander effect, and...

The Apiary.

Various opinions are... but that it does not need... I have seen... sealed and unsealed, left... placed inside a healthy colony were thoroughly... may... but that it does not need... I have seen... sealed and unsealed, left... placed inside a healthy colony were thoroughly... may... but that it does not need... I have seen... sealed and unsealed, left... placed inside a healthy colony were thoroughly... may...

Garden Memoranda.

MINIERY HALL THE SEAT OF SAM MANDER... Dipiazium, already mentioned, fine specimens of... Cyripedium insigne and ve... its spray up amongst the overhanging fronds of the noble... across, and had about 20 fine... its spray up amongst the overhanging fronds of the noble... across, and had about 20 fine... its spray up amongst the overhanging fronds of the noble... across, and had about 20 fine...

Miscellaneous. To the... known Mushroom... at other times... English Flora, &c. &c. p. 1. Last...

JANUARY 30, 1869

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GOOD MIXTURES for these Soils, 20s. to 26s. per acre.
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GOOD MIXTURES for these Soils, 20s. to 26s. per acre.
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COCKSFOOT	PERENNIAL RED CLOVER
HARD FESCUE	PERENNIAL WHITE CLOVER
VARIOUS-LEAVED FESCUE	ALSIEK CLOVER
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H. M. JENKINS, Secretary
 12, Hanover Square, London, W.

The Agricultural Gazette.
 SATURDAY, JANUARY 30, 1869.

MEETINGS FOR THE ENSUING WEEK

London (Pauperism and Vagrancy)	Mr. J. Trask, High
Leam, Yewl.	
North of England (Local Taxation)	
Swindon (Local Taxation)	
Central Chamber of Agriculture (National Poor Rate)	Mr. H. G. Andrews, of Somersetshire.
Royal Agricultural Society of England—Noon.	
Scottish Chamber.	
Morpeth (Marts for Home and Foreign Stock).	
Peterborough (Local Rating)	Mr. John Little.
Waldstone.	
Midland (Steam Cultivation)	Mr. James Howard, M.P.

OUR correspondents have once more brought THE SEWAGE QUESTION prominently before our readers. The season of growth is approaching, and the manure of the farm is again the leading agricultural subject. Is it not strange that one of the most abundant sources of fertilising matter should have been so long neglected—that the house-waste of London, which used to be imperfectly removed, with immense labour, by horse and cart a few miles outwards to the market gardens, should not, now that it is in a form to carry itself, be greedily appropriated?

Travellers by rail continually see long trains of stable-dung leaving London. It has been collected in yards, carted to the terminus, trans-loaded into trucks, it has yet to be steam-drawn to a distant station, transferred to the farmers' carts, horse-drawn to a distant field, thrown out in heaps, scattered with the fork and covered by the plough. Moreover, it cost a good deal to begin with. This is the waste derived from feeding merely upon hay, and straw, and Oats, and Beans, and Clover; and notwithstanding all its cost, the process pays. Look now at what becomes of the waste—more valuable, one cannot help supposing—of feeding upon beef and bread and vegetables. It is got for nothing, it carries itself, it distributes itself, it buries itself. From every house it drains through sewers, gradually collecting into one, and the labourer on the farm just lifts a shide or hutch and forthwith it spreads itself over the surface of the soil, where the hungry plants are waiting for it, and through the substance of the soil, where their roots are ready to absorb it. Of course there are costs between the outfall sewer of the town and the receiving gutter on the farm, but the tenant knows nothing of them. He merely pays a sum which in relation to the value of what he gets is pretty much the same as the two shillings or half-a-crown which he pays at the town stable for the load of dung which he collects at such expense; and the sum he is called upon to pay is quite enough to replace the costs of delivery to his land.

What does he get for his money? He gets the whole growth-waste of the best fed animals in the world. What is the principal advantage of the sheepfold as compared with ordinary farmyard dung?—simply this, that the liquid and solid excrement are put upon the land, whereas the manure of the ox or horse is wasted in yards and heaps, and drained of its liquid part before it leaves the building. Town sewage contains the whole of the liquid and the solid parts of what we call growth-waste—the growth-waste, too, of an animal that is better fed, and that is more wasteful of its food than any

THORNTON. The first-named cow is by Waterhouse's 'W.B.' and the other by Bickings' 'W.B.'... The sum given for these two cows is £100.

NEW FARMING PROSPECTS

W.B. has been a long time in the... The sewage farming prospects... The first-named cow is by Waterhouse's 'W.B.' and the other by Bickings' 'W.B.'... The sum given for these two cows is £100.

there is no doubt it will be greatly in favour of the sewage farmer... The sewage farmer... The sum given for these two cows is £100.

STEAM CULTIVATION

'WEST INDIAN'S' remarks and questions, as well as 'G. A. H.'s' communication shall be considered... Let the engine be a thorough locomotive... That is right, for if it is not so it can be of no use at all.

shall not trouble you about... West Indian will see that I have brought facts to bear... Here is one that I must talk upon... I can do water-carriage now... I shall not trouble you about... West Indian must know that either the corn at

By J. Chalmer Murray, Report presented to the Board of Directors of the Metropolitan Recreation Company by the Hon. Mr. St. John...

harvest or the dung to the land must go up hill, and that I am not making a needless case against the locomotive, indeed I am not, for if I could make use of it I would have it. I like to be busy in September. "West Indian" has never heard me grumble about that; on the other hand, he knows that I press on everybody the necessity of driving on as much as possible all that month and October. Ploughing can be done by steam, but I say that so long as we are obliged to keep some horses to cart the corn as well as drill it, and I do the job work on the farm, let them do the little that is needed, for they can do it better than steam can, but if we can do all this cheaper by a locomotive let us do without horses altogether, but a review of what I have written will show that I cannot, whatever other people may do, for, according to "West Indian's" suggestions, I must keep or hire two horses, besides keeping my pony; and I do not see my way clear enough to sell my windlass and buy another larger to do a less daily work, to pull

down my barn and shed for the sake of pulling my corn down hill when my dung must be pulled up hill, to say nothing about wasting my land by cutting a new road along the bottom, while I have got a public road along the top. Taking it all in all, I dare not have anything to do with it. Let others try if they like. There are plenty who have got their land better situated for the task than I have. On a flat farm it can be done, but whether it can be made to pay I know not; to my mind it is very doubtful.

Mr. Mechi does not understand land drainage at all, for as to when a drain shall run depends upon circumstances. On my flat land drains have been running four months, on my hill lands only two months, and Mr. Mechi tells us of drains that only commenced running on the 8th of January. On my flat land ad through last dry summer the water was within about four feet of the surface, on my hill land we had not a drop of water, and if I had dug a well 70 feet deep I should not have

found any at that depth, for the thing to be tried. How near the water was to the surface of the land to which Mr. Mechi refers, on what drains did not run until the 8th of January, I do not know, but there is a good reason why my drains on flat land should run before those did on the hill, although they are all put in at the same depth, and this. As soon as the land on the flat is well saturated with rain it is full to the depth of the water table, the drains begin to run, but on the hill the water will go down 70 or more feet, and that part of a bushel must be full before the drain can run, besides that, the top 4 feet must be saturated before 70 feet at bottom can fill at all. What the chances could be, that the under-soil could hold water until the 8th of January in Mr. Mechi's drains, or they would have run before the 1st of January. *William Smith, Woolston, Bleckley Bucks, Jan. 18.*

BRITISH AGRICULTURAL STATISTICS, 1867-1868.

[We continue the publication of the official tables.]

NO. 2. TOTAL ACREAGE AND PERCENTAGE PROPORTIONS OF EACH KIND OF CORN AND GREEN CROP IN EACH DIVISION OF THE UNITED KINGDOM.

Description of Crops.	Years	England.		Wales.		Scotland.		Total for Great Britain.		Ireland.		Isle of Man.		Channel Islands.		Total United Kingdom.	
		Acres	Percentage Proportions of Each Kind of Corn and Green Crop.	Acres	Percentage Proportions of Each Kind of Corn and Green Crop.	Acres.	Percentage Proportions of Each Kind of Corn and Green Crop.	Acres.	Percentage Proportions of Each Kind of Corn and Green Crop.	Acres.	Percentage Proportions of Each Kind of Corn and Green Crop.	Acres.	Percentage Proportions of Each Kind of Corn and Green Crop.	Acres.	Percentage Proportions of Each Kind of Corn and Green Crop.		
Corn Crops —																	
Wheat	1867	3,140,095	42.4	116,739	22.4	111,118	9.2	3,367,952	36.0	20,906	12.4	7,821	28.9	2,372	52.2	3,507,060	
Barley or Bere	1867	1,899,135	25.6	148,749	28.4	218,486	16.0	2,266,370	24.3	172,637	9.1	7,896	27.3	137	4.8	2,447,002	
Oats	1867	1,506,361	20.4	247,000	47.4	219,515	15.9	2,072,876	22.2	1,099,412	49.5	11,247	42.0	308	10.7	3,174,496	
Rye	1867	42,675	0.6	9,124	1.8	7,066	0.5	58,865	0.6	7,673	0.4	29	0.1	21	0.3	67,658	
Beans	1867	503,539	6.8	3,435	0.7	27,324	2.0	534,298	5.8	11,153	0.5	255	0.9	13	0.4	546,243	
Peas	1867	312,409	4.2	2,766	0.5	2,915	0.2	318,090	3.4	2,854	0.1	201	0.8	2	0.0	321,147	
1868	291,560	3.9	2,675	0.5	2,062	0.3	296,234	3.2	1,157	0.1	177	0.6	15	0.0	297,568		
Total of Corn Crops	1867	7,393,347	100.0	521,404	100.0	1,364,029	100.0	9,258,780	100.0	2,115,137	100.0	17,039	100.0	2,927	100.0	11,753,925	
1868	7,499,218	100.0	547,873	100.0	1,386,441	100.0	9,433,532	100.0	2,192,765	100.0	27,888	100.0	3,453	100.0	2,197	100.0	11,864,383
Green Crops —																	
Potatoes	1867	289,811	10.3	45,077	32.6	157,529	23.6	492,417	14.1	1,001,545	70.0	4,011	31.6	2,062	36.6	1,500,054	
Turnips and Swedes	1867	1,621,123	60.2	67,927	40.1	484,900	72.8	2,173,950	62.2	335,711	23.4	8,110	64.5	1,747	27.4	2,519,698	
Mangels	1867	253,937	9.4	3,345	2.4	844	0.1	258,126	7.4	19,505	1.3	47	0.4	730	13.0	277,978	
Carrots	1867	14,722	0.5	346	0.2	835	0.1	15,923	0.4	3,360	0.2	293	1.9	913	16.2	19,834	
Cabbages, Kohl Rabi, and Rape	1867	128,883	4.8	679	0.5	4,150	0.6	133,712	3.8	35,703	2.5	17	0.1	150	2.8	173,262	
Vetches, Lucerne, and any other green crop, except Clover or Grass	1867	383,478	14.3	21,013	15.2	19,864	3.0	424,355	12.1	87,128	2.6	192	1.5	225	4.0	511,583	
1868	284,388	11.0	5,419	4.2	11,935	1.8	301,732	8.9	36,304	2.5	99	0.8	916	13.9	338,037		
Total of Green Crops	1867	2,691,784	100.0	138,367	100.0	688,042	100.0	3,518,193	100.0	1,432,232	100.0	12,670	100.0	5,696	100.0	4,967,191	
1868	2,585,019	100.0	128,292	100.0	672,555	100.0	3,385,866	100.0	1,456,307	100.0	13,310	100.0	5,766	100.0	5,869	100.0	4,861,482

THE ROYAL AGRICULTURAL SOCIETY.

THE improvements in practical farming since 1837 have been unparalleled. No doubt during the war period, in the first 20 years of the century, the wealth of the country was greatly increased by the inclosures. We have not been able to emulate our predecessors in that respect, for the simple reason that they anticipated us, and left us only Bagshot Heath and some other very unpromising tracts that we certainly have not had the courage to attack as yet. But in all the details of husbandry we have made great progress; we have invested capital in many spirited undertakings, by means of which the revenue of the landed interest has been largely increased; and the agricultural production of the country, and the national wealth, have received a great addition. The Royal Agricultural Society, we are glad to say, has had an honourable share in these transactions. It has been closely identified with the history of farming progress. The literature that it has diffused by its Journal has, we hope, been as the seed sown upon the waters, that will bear fruit after many days. Fruition is very slow in some cases, and some seeds are wrapped in so hard a husk that germination only takes place after the lapse of several years! But the Society sagaciously adopted other means of disseminating knowledge. The meetings it has held in all parts of the country have done more in the way of practical instruction than the Journal could possibly have effected, even if its Editor for the last 30 years had been a second Arthur Young. Our conviction of the ultimate and permanent good accomplished by well-directed literary labours is not disturbed by the rapid effects of the Society's meetings, in spreading information and intelligence of a special kind. The ablest pen, though it can do much, and its influence may endure and may even increase, cannot rouse the spirit of emulation and excite the observation and interest, so vividly, as the practical instruction which is received in the visit to the showyard. Those high psies that every year surround the scene of competition enclose the muster-ground of the agricultural forces; most English farmers, and many foreign ones, have been repeatedly present at the grand tournament. It is needless to enlarge on the advantages they must

have derived from witnessing this competitive struggle, peculiar to our own times, in which the victor's prize is a reward for excellence in the results of agricultural industry. But we are writing of the past rather than of the present and future. These exhibitions will not cease to be popular, but while equally amusing they have already become less instructive. They have, to some extent, served their purpose; they have rewarded everything that ingenuity has devised, and that enterprise and skill have produced, both in the farmyard and in the factory, they have bestowed a prize, or commendation, on all sorts of improvements, and on many novelties that were not improvements, but were regarded as such by sanguine judges and purchasers, whose ruling idea seemed to be that what was most modern must be best. We do not deny that some fingers have been burnt at shows through incaution and being "greedy of new things," but on the whole their practical utility has been very great. Some people may have bought experience of new implements and improved stock at a dear rate, but many more have made their selections with profit to themselves, especially when they have used their own judgment, without being too much biassed by the award of those who have sometimes measured excellence by what may be called a paint-pot standard, selecting implements not adapted to the rough work of an English farm, though very suitable, perhaps, for Arcadia, or "for exportation." The field of invention is not exhausted, though it has been well cropped, but it is no longer a virgin soil; it will produce less in future, and the public requirements will be less. The farmer may be said to have "supped full" of agricultural shows; at any rate, his first hunger is appeased. The Royal Agricultural Society, therefore, must not rest its claims to favour on a sight, however attractive, and however useful, within certain rather narrow limits, it may be. Its teaching must not be confined to that of exhibiting and placarding good models. You may look at a pig, fixedly, and in a proper frame of mind, with great advantage, but after you have distinctly made out his

opposite extremities, and decided why his tail fell off—as it always does from a prize pig—you cannot learn much more by staring at him. There is soon an end of the knowledge which only goes in at the eye, and even that which is mentally acquired by discussion, when people are together from all parts of the kingdom, is not the end and aim of what an instructed mind would desire. The Royal Agricultural Society has no work to do but should devote itself more earnestly than to the supplying the higher wants of intelligent agriculturists, and, if possible, of attracting others, and excite in them the same desires. It has many opportunities of usefulness, but none half so important as the none in which it shows itself, at present, so much to excel or to succeed. We have shown that we owe much to the Society; it supplied a pressing, and might almost add, a passing need. Farmers compare notes and to try conclusions in many ways. The Society gave them the opportunity of doing so. The work of the past thirty years cannot be over-estimated. The engineer who now constructs the machinery of agriculture, aptly represents in his own person the progress we have made, he is an educated man, a Member of Parliament. His predecessor was a village forger. Such rapid transmutation is not to be expected. At that rate of development we might expect one day to see wise men ruling at Hansard's. But by that time other people will, perhaps, be doing so, and instruction in general will, perhaps, be more for. It is unfortunate that now, while it is so, cannot be forthcoming. The recent nomination of a post of Editor of the Journal, of a gentleman acknowledged to be ignorant of the art he was unable to teach, must, we fear, give members a very favourable impression. No doubt the members who have made this unhappy mistake, and the guarantee of their good intentions, but the power to do good are not always accompanied by unaccountable proceeding can only be attributed to want of true earnestness among those who

they are, no doubt, quite in accordance with his taste, and possibly they take an interest in chemistry, agricultural statistics, in general, in all sorts of directions each according to his own bent, but they have no real sympathy with the farmer, and they have no real sympathy with the farmer.

But without this real sympathy, true sympathy, which is the only sympathy that can be of any use, the work of others cannot be of any use. The work of others depends so greatly on what we do and think about them. Agriculture is a very old and venerable pursuit, and it is a very old and venerable pursuit, and it is a very old and venerable pursuit, and it is a very old and venerable pursuit.

The Royal Agricultural Society of England, as we observed, was established at a period when the wants of the agricultural body never dormant in our land were being raised. Its object was the improvement of husbandry, and as this is a permanent and a steady work, the institution would necessarily grow in stability and harmony as it grew older if it fulfilled its purpose with success. But if it fail to be useful, or if it ceases to be useful, from any cause, it ought to be dissolved. We use this term in a sense that cannot be contradicted, since the Society is less flourishing than it has been as regards its finances and the number of its members. We do not see in the present management of the Society either the elasticity or strength of a wise government that knows how to adapt itself to changing circumstances, or the firmness that ignores all changes. We have innovation with a vengeance, but what we want is steady and consistent progress, anything that any sensible and unprejudiced person would not condemn.

THE TIPTREE BALANCE-SHEET.

Our old friend, Alderman Mechi, has again favoured the public with his annual balance-sheet. As the worthy owner of Tiptree arrogates to himself the position of teacher of agriculture, and in addition to his household proceedings there furnishes us with an array of figures intended to back his assertions, he becomes a fair object for criticism. The effect of these figures on persons practically acquainted with the subject, or at least provoke a smile. Were it not for the substance which his speculations are calculated to have on the minds of others not well versed in agricultural lore, but who are interested in farming, being made to appear more profitable than they are in reality, I should allow the good man to blow his trumpet in peace.

As it is I will make an attempt to analyse his farmed balance sheet—

LIVE STOCK.	
Dec. 31—1885	
Dec. 31—1884	£1068 18 0
Dec. 31—1885	450 1 0
Dec. 31—1884	181 17 0
Dec. 31—1885	696 19 4
Dec. 31—1884	24 0 0
Dec. 31—1885	1 17 6
Dec. 31—1884	£2415 12 10
Dec. 31—1885	£1054 17 6
Dec. 31—1884	1284 10 11 1/2
Dec. 31—1885	29 10 0
Dec. 31—1884	68 14 4 1/2
Dec. 31—1885	£2415 12 10

It will be seen that there is a direct money loss on the stock account of 66l. 14s. 4d. If to this be added one-fourth of the labour and beer bills for attendance, the deficiency will be increased to 192l. 13s. 4d. This is exactly opposed to the advice farmers are constantly receiving from other quarters that they must not go to the barn door for all, but look to their stock as a help to their rents.

If we look a little closer at the balance-sheet we shall find that the Tiptree system combines with the business of farming proper those of milling and market gardening as well as a little haggling carting. Under the following heads we find—

Dec. 31—1885	£272 12 9
Dec. 31—1884	£272 12 9

Every farmer followed Mr. Mechi's advice and got a fixed engine, there would not be such a great demand for him to do for his neighbours. If we grew green Peas for the London market, I apprehend the thing would be overdone. Job-cart is not a very attainable, and most of us find enough to do without it. The sale of hay and straw is forbidden to the greater portion of the tenant-farmers of England, but it is the four items I have just enumerated that have the credit of the balance-sheet, and which are the only ones that show a profit. If he were to let his farm he would charge a rent for ditches, fences, roads, and the like. A common honesty he should charge the landlord's measure. Apart from his live stock which his own figures show, involves an absolute loss of something like 200l., his chief receipts are

Wheat, or the production of which his farmland is naturally well calculated.

The last two or three years on well drained land Wheat has yielded well, and the price has been remunerative. It is this, and this alone, which has enabled him to present the balance-sheet to the public. Wheat remained at 4s. 6d. or 5s. a bushel, which he has had no detailed account of the profits of Tiptree.

Mr. Mechi is by no means the only man who thinks that because he does something different to other people it must be more clever. It often happens that a thing which is done as an exception which would not answer at all as a rule. He tells that he raises great crops of Wheat through feeding bullocks at a loss. It has at all events the merit of being a showy system, and the wheat some persons grow a great way. He tells us moreover that he should have had a great increase.

If we all turned feeders, and there were no breeders, will Mr. Mechi inform us whence we are to obtain our stores. If the farmers of England were all competitors for the few bred on the Welsh mountains, or which reach us from Ireland, we should get but few apices, and what sort of margin would be left for profit when the beef was laid on?

It would be well for Mr. Mechi, to reflect, that common sense and business knowledge are not monopolised at Tiptree. There are farms in this country adapted to feeding others to breeding purposes. When a farmer takes possession of a new occupation it is for him to consider for which purpose his land is best calculated, and adopt a system most in consonance with its natural capabilities. That man is the best farmer who manages his business on the commercial principle of obtaining the largest return he can for himself with the least expenditure of capital consistent with keeping the land in good heart and condition; and not the man who, with an overflowing purse, adopts a showy system, involving a great outlay, and then swaggers about his gain of 10 per cent. eked out by millering, market gardening, &c.

Mr. Mechi tells us that many tradesmen would be well satisfied with 10 per cent. profit on their returns; he does not tell us, though, that the capital invested in trade, aided by the credit the trader receives, is in many cases turned over perhaps 10 times in a year; thus, 10 per cent. becomes cent. per cent. I have had some insight into both trading and farming, and I am not talking without book. For several years I was in the habit of passing, almost daily, Mr. Mechi's establishment in Leadenhall Street, and I would back that against Tiptree at ten to one.

Mr. Mechi is, doubtless, an amiable enthusiast. He has made farming his hobby-horse, and he rides him very hard. It amuses him to hear himself talk, and I dare say he believes all he says. Different people hold different opinions, and some, no doubt, put faith in his dogmatic teachings. I will frankly say that I do not. Had I a son whom I wished to apprentice to the business of a farmer, with a view to his getting a livelihood, Tiptree Hall would certainly not be his destination. F. W. Bignell.

Home Correspondence.

Will the Liberal Government Establish a Board of Agriculture, or an Agricultural Department in the Board of Trade?—I answer, yes, if it can be shown to be sufficiently necessary or advantageous. The Board of Trade now professedly undertakes the management and regulation of every department, both of trade and agriculture, and all public matters connected with either trade or agriculture go through the office of the Board of Trade. This may be all right as far as it goes, but the great bulk of agriculturists cannot rest satisfied with such a secondary order of things. They consider their interests paramount, and to be subordinate to a Board of Trade is humiliating, if not altogether wrong. It might put agriculturists in better humour, and would look more definite and trustworthy, if this Board of Trade adopted the additional words, "and Agriculture,"—i. e., "the Board of Trade and Agriculture,"—with the understanding that trade was represented in one office and agriculture in another. This would suffice so long as agriculture was fully recognised, and every effort put forth to promote its security and prosperity. This in fact is what we want, and what we certainly don't get. Now this being the case, what can a separate department in the Board of Trade, or a really new Board of Agriculture, do for it? Well, this board or office would have all matters connected exclusively with agriculture brought before it, and not being encumbered with the trade department, everything would be more promptly dealt with and action immediately taken wherever required. If well conducted it would prove a great safeguard, and be a trustworthy guide to all engaged in agricultural pursuits. It would be the very place for agriculturists, generally or individually, to apply for information, or to address their complaints upon any emergency, i. e., suppose an outbreak of cattle plague, small-pox in sheep, or any of the evils to which we are subject, occurs, the information is sent to the office, and without delay it is at once seen to. What a safeguard this. No awaiting the circumlocution of Privy Council meetings and Orders in Council. But what are to be the special duties, and the business to be attached to this office? The collection of agricultural statistics would be one of its most important duties. To this would be attached much business. The appointment of officers to collect the statistics, the times of collection, the mode of collection and frequency, the reception of the returns, the making them promptly up, so as to prove most beneficial to agriculturists as their future guide, and the regulation of the foreign cattle trade the importation of sheep and other foreign farm stock would be another very important department in this office. This of all

things would be the most onerous—the exercise of unwearying watchfulness against imported diseases. It would be the duty of the office to seek the earliest and most authentic information from all parts of the world relative to danger from these imported diseases, and to take energetic and decisive measures to prevent their introduction. If for no other purpose, as a most important safeguard it would be right to establish an office for this special service. Far better than to trust to the veterinary office the regulation of home supplies, of modes of transit by rail or otherwise, of stock markets to prevent local infections, of infringement of orders from abroad, of prevention from dangerous stock diseases by injurious contact, and the thousand and one minor matters over which this office has to exercise its jurisdiction by the exercise of a military veto. Then, without a stoppage or seeking class legislation, the office might, in fact ought, to take an oversight of all matters connected with or pressing exclusively upon agriculture, with a view to their alteration, improvement or removal—i. e., the pressure of the Mat tax, the pressure of local taxation, the hardships from game laws or game preserves, also the consideration of the laws between landlord and tenant, the law of hypothec, the land question of Ireland, the averages of grain as they affect the tithes, the importations of grain, of feeding stuffs, of manures, of wool, of vegetables, fruits, &c. in fact every production of the soil should be subject to inspection or oversight and regulations from this office. Besides these matters there are many others of which a board of agriculture (designed as I take it to be to promote the best interests and prosperity of agriculture) ought to take especial cognisance. I mean such as county expenditure (i. e., for drainage, for roads, for expenditure in highways, turnpike roads, river works, or arterial drainage, sewage of towns, collection, enclosures of commons and wastes, Government advances upon subsoil drainage of incumbered or life estates, and all other subjects and matters arising connected with the soil. Unquestionably there would be plenty of work found for a good and efficient office. O. F.

Farmer Mechi's Balance-Sheet fixes him thus:—

House, buildings, machinery, and 177 acres of land, gross profit thereon	£1054 17 6
Rent, exclusive of tithes	£1054 17 6
or an average of 34s. an acre	£1054 17 6
Interest on £5000 at 5 per cent.	250 0 0
The balance of the year's work	£1054 17 6

34s. an acre does not appear an over high rent when we see a fixed steam-engine, irrigation pumps, in-livestones, and threshing-machine included, and draining all done. The balance of 81l. 15s. 6d. for the farmer's year's work is by no means a great one for his care and trouble of looking after 177 acres of land, as well as his 2000 of tenant's capital. My carter gets better paid, and so does many an agricultural labourer, who has little or no care about anything. Here is the position of my carter. He has at home with him a wife, three sons, and a daughter. He has a house and garden free of rent. Here is his income—

Last year I paid to the father and two boys (one 17, and the other 14 years of age)	£15 16 0
The earnings of wife and daughter are put well under the mark at	£ 10 0
The younger son earns nothing.	£105 5 0

Now, compare a farmer's position, with a balance of 81l. 15s. 6d. for his year's work (with say a wife and four children) with this man. The farmer must be up and doing from day to day, from week to week, and from year's end to year's end. His children must be educated and clothed by the interest of his money, not by his earnings, for that will not do it, for his earnings will all be wanted for bread and cheese and one expense or another. Yet he must not turn his back upon charity, much as he needs it himself, for the parson will frown at him if he does, and look upon him as one of the rascally idle class. The labourer now-a-days gets vast advantages here over him, for he gets his children educated for nothing, and he comes in for gifts at Christmas and other seasons of coals, beef, tea, as well as clothing, and he will not only frown at the parson if he gets none, but will keep away from his church. All this I know to be true, but then Farmer Mechi may tell me that his average income is 12 1/2 per cent. which gives to him for his year's work on an average 160l. (or 6d.). That looks better, yet for all that it is nothing like so good pay as my carter's is for when the farmer's bread and cheese, the school bills and clothing, &c. are all in and paid for I cannot see much of a balance left, and besides that, it is not every farmer who has got a Mr. Mechi's head upon his shoulders to assist him in making cheap pork and beef; and besides that we cannot all go upon his plan of buying store cattle and feeding them, for there must be some breeders, even if their losses are much greater in a year like the last. Taking it all in all, assisted by Mr. Mechi's evidence, I take it that the farmers of England are paid the worst for their labour of any class of men in the country, and get frowned upon the most. Mr. Mechi's average price of Wheat in 1883 stands at 63s. 6d. per quarter. I should like to know how much of that Wheat grew in 1867, and how much in 1888.

A Farmer
Steam Cultivation.—A copy of the *Agricultural Gazette* has just reached me, in which "Agricola" refers to my letters in the *Messenger* of November 30, and December 21, upon steam cultivation, and expresses his regret that I have closed the correspondence, but at the same time pays me the compliment of asking me to "lend him a hand," as "he is thinking of purchasing a steam apparatus for the cultivation of his farm." "Agricola's" farm of 200 acres is too small to

employ any steam cultivating apparatus, and unless he can get some neighbour or neighbours to join him who have land to cultivate, he had better content himself with good horse-power, or take more land himself. He states that "his average root crop is 35 to 45 acres." I therefore presume that his is comparatively light land, if so, he will not find steam cultivation nearly so profitable as on heavy land. Besides, "Agricola's" fields of "from 6 to 14 acres" are, like his farm, much too small for profitable steam culture, and as he would seem to entertain a sort of religious veneration for the hedges and trees which were "planted by his grandfather," he appears disinclined to interfere with them, or the "nice country appearance about the farm," hence his present idea would seem to be to allow things to remain as they are. If so, he had better leave steam cultivation alone. It will not pay him, and if he has some surplus cash, for which his bankers probably only allow him a very small interest, let it remain there until a more profitable investment can be found than that of steam cultivating machinery on a small farm of light land. Some years ago, I gave a very intimate friend similar advice, but he, being of a sanguine temperament, backed his own opinion, bought a set of cultivating tackle, worked it for years, and I have no hesitation in saying, both from my own observation and the testimony of his neighbours, that if the money expended upon it had been invested in Three per Cent Consols, his family would now be many hundreds, and probably thousands, in pocket. Do not let me be understood as being opposed to steam cultivation; on the contrary, I am a decided advocate for it, and hope to see it extend year by year until that millennial period when, if possible, the soil of England may be made to support the population of England.

Ploughboy, Jan. 16, 1869.

Steam Cultivation.—[The above letter on this subject appeared in last Monday's *Bell's Messenger*; and the following is "Agricola's" reply.]—"Ploughboy," in *Bell's Weekly Messenger*, has certainly "begun with the beginning and ended with the ending" of my letter; but he has not answered it. The "hope" I expressed, that he would lend me a hand must, I see, be "deferred," as he passes over the real portion of my letter without even a note of encouragement to the Editor, that the space so kindly placed at the disposal of men of such wide-spread experience will shortly be filled up. "Ploughboy" may rest assured I am really a farmer, farming 200 acres, or thereabouts, and, I may add, working for my rent, or, other words, livelihood. The question at issue, as I read it, is, not the implement that can do most work per diem, but that exhibits most economy in its application and adaptability to the farm-work generally. If I piece out my work—ploughing and cultivating to one contractor, threshing to another—my next door neighbour, a sort of "Jack of all trades," will drill and harvest for me, "West Indian" will be sending circulars to say he will take me and my 10 qr. to market for a "song"—each of these industrious individuals informing me that farming is a gentlemanly employment. Certainly, with contractors—such "Over Twist" contractors as your correspondent Mr. Harry Rivington (p. 1349, 1868), mentions—it would be gentlemanly employment with a vengeance. Where the employment, except as paymaster? He refers to my grandfather's hedges, assuming I had a religious veneration for an inanimate thing! but the implement can be fashioned to the farm. Now, let us hear his reasons—"Light land," to begin with, detracts from profitability of cultivation,—my fields, like my farm, too small for steam cultivation. But the land is not too light, or fields too small, to pay at the rate of 10s. to 16s. per acre for ploughing, when it appears it can be done for six, or even less. If it can, as it does, bear the higher sum, it certainly can the latter or smaller. I attended Mr. Smith's field lecture, and he pointed out a five-acre field, on the right-hand side of the road going from the homestead, which was cultivated from the green lane, the size being not at all an inconvenience. I must not encroach on your kindness, but allow me once more to ask "Ploughboy" if the statement quoted by Mr. Smith, of Woolston, taken from the *Agricultural Gazette* of 20th January, 1866, is correct or not? Will he add me?—will he aid "Smithsonian" in finding the whereabouts of this cheaper working tackle?—and, on behalf of myself and seven more of my farming friends, will he fill up the gap in the *Messenger*? And will he also follow Mr. Mechi's example, and send a copy to each of the agricultural papers? *Agricola*.

Irish Land Management.—There is a great deal of truth in the letters of both your correspondents, "Fingal" and an "Irish Landlord." Irish land, like land in other countries, varies in different situations, and must be managed as the conditions under which it lies point out. In some cases an English arrangement is possible, in others it must be dealt with according to the peculiar habits of the people by which it is occupied. It is generally wise to give a tenant who has some capital, more industry, and a farm not under 50 statute acres, a lease. There are many judicious outlays a landlord may make, but in some counties, as Meath and Tipperary, it requires considerable tact to improve without incurring the hostility of the Ribbon society, which acts with perfect success and security. The question, however, of the Irish land has become rather political than economic. The demand for "improvements" was never perfectly honest. It meant a good deal more. Perpetuity of tenure, it does not matter how obtained, is what the Irish tenant wants, that which he demands as a right. He looks upon the connection between himself and his landlord as a copartnership. The one has a right to the head rent, the other to whatever his own industry, outlay, or the increase of value may bring. It is, therefore, useless to consider under what conditions the utmost produce can be taken from the soil, what terms are best, and what number of persons the agricultural area of Ireland can maintain,

until it is understood whether or not this claim to copartnership will be granted. A settlement of this question is essential to agriculture. The tenure of land, the principles on which land should be held, require to be fully discussed, but I deny their consideration should be confined to Ireland. If the tenant in one place ought to have a share in the soil, why should it be refused to him in another? If perpetuity of tenure ought to be granted to an Irishman, why is it to be denied to a Scotchman? Are great concessions to be yielded to one class because it is poor, ignorant, and discontented, and refused to the same class elsewhere because it is, in comparison, wealthy, energetic, and respects the law? A "political remedy" is never successful unless it is founded on some principle. To concede to agitation, to satisfy one set of men at the expense of another, may suit party purposes, but will eventually ruin what it was intended to promote. The objection which will be alleged is, that in England the landlord has invested a large capital in his property, while in Ireland it is the tenant who has so done. But in Ireland, also, a considerable capital has been invested in the soil by the landlord, though over a limited extent, believing in the security of his property. The tenant does more in Ireland than in England, but, as far as my experience goes, his improvements are seldom permanent, or of much money value. The capital laid out in Ireland on the land is not one-half of that laid out in England. The social habits, tastes, and wants of the greater part of Irish farmers require much less than do those of an English farmer. The farm buildings with which the Irishman is satisfied, the house in which he lives, the condition of the land, are generally very different from that with which an Englishman or Scotchman would be content. The anxiety to possess land is so great, that every disadvantage is overlooked, and a price above its value offered. There is yet another consideration which largely influences in Ireland the national feeling, not that that system of cultivation should be employed, nor that character of agriculture adopted, which is most profitable, but that which can maintain the largest population. If the farmers are less rich, they will be in larger numbers, and the produce of the soil more equally divided. These are some of the problems which agitate Ireland, and in whatever way they are answered in that country, there will be a corresponding echo in Great Britain. They are not easy of solution, they require careful thought. If they are discussed with calmness and impartiality, it is to be hoped that the relations of landlord and tenant may be improved at least, they will be understood. But no statement of the question fair to all will be attained if it is used by professional statesmen and political agitators for the purposes of party, and none will ensure the prosperity of the country in which the interests of agriculture, practical and scientific, are not fully considered. *Brinsley Marlay, Jan. 26.*

Over-fattened Breeding Stock.—With reference to an article in your last paper on the subject of breeding stock being shown in an over-fed state, I have to inform you that the Highland and Agricultural Society of Scotland adopted the following rule some time ago—"Breeding stock must not be shown in an improper state of fatness, and the judges will be prohibited from awarding premiums to overfed animals." *F. N. Menzies, 3, George IV. Bridge, Edinburgh, Jan. 25, 1869.*

Scab.—I bought in the autumn some sheep infected with the scab. They were put into a field of 60 acres, and their condition was not discovered for two months, during which time they had rubbed themselves against many trees and fences. Towards the end of November they were dressed effectually with mercurial ointment, and are apparently quite cured by the first dressing. I cannot disinfect all the surfaces against which the sheep might rub in so large a pasture, and I want to know at what period I may safely put other sheep into the same field. In common with my neighbours, I have very little experience of this pest, and I shall feel much obliged to any of your correspondents who can give through the *Agricultural Gazette* the information I require. *C. Paget, Ruddington Grange, Nottingham [An answer is given under Notices to Correspondents.]*

Moule's Earth Closets.—Nothing is now said about them. Can you obtain the experience of your correspondents who have tried them? It appears to me one of the most important questions, especially in a manufacturing district, where most of the night soil is worse than wasted. *J. Carter, Nursery, Keighley, Yorkshire*—I have read with great interest the article by "W. B." on Sewage, and the reply to it by Mr. Hope, Parsloes, Barking. With regard to Moule's dry-earth system, could you give an idea of the market value per cwt. of the mixture furnished (for agricultural purposes) by Moule's plan? Have gardeners ever bought it, and what have they given? I think his plan was tried at Wimbledon lately, were the deposits bought by farmers in the neighbourhood? *Amateur.* Will any reader state his experience?

Sewage Farming Prospects.—Thanks to Mr Hope for his reply. The sewage practice he so ably advocates evidently requires a more thorough investigation at the hands of practical farmers like myself than it has yet received, and it affords me much pleasure to find that his paper runs parallel to mine in the main. The objections in my paper are those which have been raised during the past year in the discussion of the sewage question. He answers them one way, I another, so that the two put together give double force to the argument in favour of the Barking practice. As to apparent differences, they belong chiefly to the march of improvement, I being in the vanguard of progress, while he comes up slowly in the rear. Many of my readers, if not the majority, are familiar with the fact that I am no amateur of the Mechi school, but a practical farmer of upwards of 20 years successful experience, during which I doctored farmyard manure and sewage, and grew heavier crops than have yet been

grown at Barking. But in doctoring I did not use guano and superphosphates, &c., either in the hill, liquid manure tank, or flowing sewage. At the same time I have always found farmyard manure sewage subject to improvement, both by preventing waste and adding fertilising matter. And instead of finding fault with my neighbours' doings in the field or dairy, my maxim has been to improve my own practice. In plain English, consider the Barking practice farther behind the march of improvement than it should be. With regard to "facts" and "deductions" it is very unfortunate in the disposal of them. It is only one party in the agreement at Barking, the other party, the sellers of the sewage, being equally interested, and if the sewage is worth three times the money the latter now receive, the time may come when they will be more than more deeply interested financially than the same holds good of other towns. As to the flowing sewage in sewers and open mans, I look at granted (see my paper) that my readers were with the oxidation, and consequent waste of matter in flowing water—the limited space of command preventing me from going into details on this head, so as to refute erroneous argument to the contrary. Thus, the comparison made between musk, a natural product, and a volatile and of sewage, the product of decomposition, is sound practical one, and on that account falls to ground. The argument of liberated ammonia in a room containing stagnant water is a basin devoid of practical force. The analysis of a gallon of sewage at one place and of a gallon at another down the sewer, as at Barking and at the Sands, does not furnish any exact or trustworthy evidence—i.e., facts—as to the waste of the sewers they are the manifest exponents of, and when once liberated they cannot be confined within cast-iron pipes, much less brick sewers. If facts are established, and therefore cannot be thrown by the theoretical deductions of chemists. The replies to the third and fourth objections have not a foot to stand upon, for profits increased and expenses reduced in the usual progressive chemical and mechanical appliances, storm-water can be removed without the expense of desiccation. Sewage tanks are only where farmers cannot get a direct supply from mains when they require it, or but half the quantity they need, and they differ from cesspools in many respects, and as to the application of sewage of any kind, to the land in the frosty weather, it is out of date, and when Essex farmers use sewage then it will be a fact. The question of fresh towns with country milk has just now received stimulus from the Society of Arts, and will afford us greater gratification than to see farmers doubling the number of their much coveted being the practical way of proving an increased for the milk. *W. B.*

Societies.

HIGHLAND AND AGRICULTURAL Jan. 20.—The general meeting of this Society, the Duke of Buccleugh, K.G., President of the Society, occupied the evening. The most noble the Marquis Tweeddale, E.L., elected President, and 73 new members were elected.

THE ABERDEEN SHOW—1868.

Mr KINLOCH, yr., of Gilmerton, said he had been for the information of the meeting, that the last show of the Society, held at Aberdeen in August, was a successful one, although it cost them some £1500. He could not say that the exhibition of classes was equally successful. For instance, the exhibition of thoroughbred horses was a complete wretched failure. The exhibition of the class of at Kelso was bad enough, but at Aberdeen it was worse. He hoped that hereafter the prizes for stock which they themselves did not of. The exhibition of Clydesdale horses and cattle was not such as they were accustomed to the shows of the Society, but there were reasons for that in the refusal of the railway companies to make certain concessions in their regulations for conveyance of stock. He then alluded to the exhibition held in Glasgow by those gentlemen who not send their stock, owing to the failure to suitable arrangement with the railway companies. These gentlemen would have met with the approval of the members of the Society, but what did they do? At the last moment, they organised an opposition in Glasgow, to be held on the same day as the show. He could only wish that these exhibitors heard the remarks that were made in the Aberdeen in regard to their conduct. When seen in the newspapers of the following day that "the Tuesday in Glasgow was the most successful kind that had been held," they knew that the exhibitors were the animals that should have standing in the empty stalls at Aberdeen. He thought, however, that bygones must be bygones. He stated that, owing to the kind services of Mr Hope of Kippendavie, he had good hopes that the companies would make some concessions in regard to the Edinburgh show. He trusted that they would to announce that horses and bulls would be free on their return journey in horse-boxes, and that all stock might be conveyed to and from the special cattle trains. That, he knew, did not meet the demands of the requisitionists in the western districts, but he hoped they would direct their credit for having gone carefully into the matter. He might say that it was the

land. He wished to bring the matter under the attention of the directors, so that they might take it into consideration, and also that possibly it might be connected with the Chair of Agriculture, so that the young farmers might be able to analyse these things for themselves. He made this proposal in sincerity for the use of his brother farmers well knowing the very large sum that was annually paid for special manures and feeding stuff.

Professor ANDERSON said he would be glad to join in any additional precautions so as to enable the Society better to detect adulteration. He did not say that the question of adulteration was in so satisfactory a state as they could wish it to be, but he thought there was less adulteration than there was some years ago. He was quite sure that the number of inferior manures in the market was smaller than formerly.

PREMIUMS FOR REPORTS ON THE SCIENCE AND PRACTICE OF AGRICULTURE.

Professor BALFOUR reported that the following premiums had been awarded for reports since the general meeting in June—

- 1. The Gold Medal of £50 to James Black, Esq., for a report on the Agriculture of Aberdeenshire and Banffshire.
2. The Gold Medal of £25 to George Armatage M.B.C.V.S. (late Professor of Anatomy and Physiology, Glasgow), Leighton Buzzard Beds, for a report on Planting in Scotland.
3. The Gold Medal of £25 to William Brown, junior, F.R.S.E., Stone, Peebles, for a report on the Best Methods for the Arrangement of Byres, Stacks, and Courts for Cattle, with a view to Sanitary Arrangements.
4. The Gold Medal of £25 to George Menzies, Trentham Stoke upon Trent, Staffordshire, for a report on the Commissions which should Regulate the Carriage of Stock by Railway or by Sea, as well as its Transit by Road.
5. The Gold Medal of £25 to Robert Hutchison of Carlisle, Kirkcubbin, for a report on the Profitable Extension of the Poultry Department in a Mixed Farm in Scotland.
6. The Silver Medal of £10 to the author of a report on Experiments and Improvements on Wire Fencing bearing the motto—'Good Fences are Good Neighbours.'

Dr. BALFOUR also stated that the following premiums would be offered in 1869—

Table with 2 columns: Subject and Premium Amount. Includes categories like Agriculture of East Lothian (£30), Farming customs and covenants of leases (£20), Improved varieties of agricultural plants (£10), and Rural economy abroad (£10).

The report was adopted by the meeting.

PREMIUMS FOR REPORTS ON WOODS AND PLANTATIONS.

Dr BALFOUR then stated that since last general meeting the following premiums have been awarded for reports lodged in competition under this department—

- 1. The Gold Medal, or £25, to C. Y. Mickle, forester, Cullen House, Galloway, Banffshire, for a report on the formation and management of young plantations.
2. The Medium Gold Medal, or £10, to John E. Brown, Warr, Oswaldkirk, Yorkshire, for a report on the American and Canadian forest trees adapted for cultivation in Great Britain.
3. The Silver Medal to Robert Hutchison, of Carlisle, Kirkcubbin, for a report on forest trees of recent introduction into Scotland.
4. The Silver Medal to the author of a report on planting on exposed or barren tracts, marked 'Onward.'

Professor BALFOUR further reported that the following subjects have been proposed for the current year—

- 1. Extensive planting by proprietors.
2. General management of plantations.
3. Planting on exposed or barren tracts.
4. Use of economic purposes of Corsican Fir.
5. Forest trees of recent introduction.
6. Advantages of using home-grown timber as compared with foreign.
7. Effects of the very dry season of 1868 on trees and shrubs.
8. Results of seedlings of conifers, the practice of trees grown in Britain, as compared with plants from foreign seed.

TRANSACTIONS FOR FEBRUARY, 1869.

Mr. IRVINE, of Drum, said the next number of the 'Transactions,' being No. 4 of the Fourth Series, would be published in February.

Farmers' Clubs.

EDINBURGH CHAMBER OF AGRICULTURE Jan. 14. —Transit of Cattle by Railway. Mr. REID, of Granton, read a paper on this subject. He said—Railway officials are alive to the fact that sheep and

cattle are taken to the markets from the railway grounds, and are packed in trucks, and are sent to London, but from London, particularly interest, have turned a great ear to the inconveniences and lamentations of their innocent passengers. No better experience could be got of their sufferings than the melancholy description of the recent wreck of the Hibernia. As most of you know, I have for many years been doing all in my power to draw public attention to the grievous and cruel wrong the country has been perpetrating ever since the transport of live stock has been principally accomplished by means of rail and steamboat. In providing the animals with neither water, food, nor shelter, during a period of, it may be, 20, 30, 40, or any other number of hours when on the journey they are made to perform and carried through the air at the rate of from 5 to 10 miles an hour, at other times crowded together for hours together, in a state of hunger, thirst, and general misery, and that, in a cramped space, the laws of both God and man. If the watering, feeding, and ventilating waggon, which I have invented were to be introduced as the only vehicle for the transit of stock, pleuro-pneumonia, and many other diseases which afflict our stock, would be rarely if ever heard of—the population and agricultural community would be saved from serious losses, and our butchers would be able to offer us more wholesome food, and at lower price.

It is a wonder that the present mode of conveying cattle should ever at first have been commenced, without means being provided whereby they could be watered and fed. Of course, it is well known to every one that the entire business of all animals intended for human food is to eat, drink, rest, and sleep, without intermission. The first thing they do when rising from their lair, even in the most weather when feeding on rich sweet grasses, is to go to a watering-place and drink before beginning to eat. And this, on the authority of ancient and modern agricultural writers, they do 12 times during 24 hours. No wonder such lamentable results follow, when these animals are suddenly deprived of all the comforts of their existence, and sent away on a journey of 60 or 70 hours' duration, confined in a close box, which, no doubt, under present circumstances, has this good property, that, when the cattle become mad through thirst, they cannot by any means leave their place of confinement. While the poor beasts are at home it is the constant study of the farmer to see not only that all their wants are supplied, but also the greatest care is practised that they should be kept in perfect health till they are fit for market. What follows then? They are taken out of the fields, or the warm, well-ventilated house, and driven to the first railway station, panting from unusual exertion, reeking with perspiration. They are in this state packed into open-sided trucks, shunted and knocked about. Whoever has travelled at all must have witnessed with horror such scenes, and every human being must feel for such needless sufferings. Eventually, they reach their journey's end in anything but a fit state for market. And apart from the question of cruelty, there is the question of the health not only of the animals themselves, but also of those for whose food they are intended. Cattle or sheep arriving from a long journey, when taken from the fetid hold or truck, will drink of the filthiest pool with relish. This is the sort of preparation for the blood of animals that will shortly after be conveyed as food to the stomachs of human beings. From my knowledge of the natural habits of animals in a healthy state, I am perfectly satisfied that a liberal supply of water should be given to them while confined in a steamboat or truck, once, at least, in every five hours. A draft Bill has been proposed by the Chamber of Agriculture, whereby they propose to give water to animals when on a journey by rail or sea every 10 hours. Now, no thought is required to tell our judgment that this would be a grave error. When I have already shown that cattle when pasturing on rich grass require to drink at least every two hours, how can they be satisfied or kept in health if they only receive a drink every 10 hours? If we would in this matter judge them more by ourselves, we would find that in our requirements on a journey to London, even while sitting at our ease in a first-class carriage, we are almost certain to partake of liquid refreshment two or three times during the journey.

But not only in a humane point of view has the subject of transit of stock great interest and importance to a commercial country such as ours. Leaving altogether out of sight the barbarous inhumanity practised in the present mode of conducting our extensive cattle traffic, and taking a purely economical view, we arrive very nearly at a true conclusion of its evils to our prosperity and trade, and also to the well-being of the entire population. This has been proved from facts which are clear and undeniable when the matter is investigated. The statistics of the Norfolk Insurance Company, as given by Mr. Finlay Dunn lately to the Scottish Chamber of Agriculture, show that the death-rate of cattle from pleuro-pneumonia alone ranged from 13 to 63 per cent. in 1863, and in 1864 to 35 per cent., under the restrictions of 1866 it fell down to 1 per cent., and never rose above that point until the unrestricted traffic was resumed about the end of 1867, when, during the first seven-and-a-half months of 1868, under the old system of cattle-transit, the death-rate reached 30 per cent. From this it is shown clearly where the loss to the country lies. Besides, we must take into consideration the large quantities of beef and mutton which are damaged from the knocking about the cattle receive while in trucks of the present construction, from the pressure of one animal upon another while being shunted, or going up and down inclines, when too many animals are packed together, so that really much meat is rendered unfit for human food from bruises received in this manner. And to meet this great loss which I have endeavoured to point

land. He wished to bring the matter under the attention of the directors, so that they might take it into consideration, and also that possibly it might be connected with the Chair of Agriculture, so that the young farmers might be able to analyse these things for themselves. He made this proposal in sincerity for the use of his brother farmers well knowing the very large sum that was annually paid for special manures and feeding stuff.

Professor ANDERSON said he would be glad to join in any additional precautions so as to enable the Society better to detect adulteration. He did not say that the question of adulteration was in so satisfactory a state as they could wish it to be, but he thought there was less adulteration than there was some years ago. He was quite sure that the number of inferior manures in the market was smaller than formerly.

THE DUMFRIES SHOW IN 1870

Mr. K. VLOCH reported, in reference to the show of Dumfries—consisting of Dumfriesshire, the counties of Kirkcubright, and Wigtonshire—asking the directors to hold the show at Dumfries. That the show had been favourably entertained, and he had been instructed to submit the following resolution to the directors:—That this meeting be requested to submit the following resolution to the directors of the Society being held at Dumfries in 1870 and authorise the directors to make the necessary arrangements. The resolution was adopted.

CHAIR OF AGRICULTURE

Mr. LAWSON, of Bortwick Hall, reported that the directors had agreed to by the general meeting in 1868, in regard to the endowment of the Chair of Agriculture in the Edinburgh University, had been agreed to. He stated that the agreement was that the sum of £100 per annum should be given by the Government for ten years, on condition that Government should pay an equal or a greater sum; and that it had been agreed that the directors should submit to the Treasury Commissioners of the Treasury the estimates. The vote was carried and the first half year's advance had been paid by the Government and by the Society. The report was approved of.

VETERINARY DEPARTMENT.

Mr. GILCHRIST, of Walsby, convener of the Veterinary Department, reported that up to the present time the directors had not yet got an independent Royal charter for a Veterinary College. It would be renewed on the 1st of January. They must have a Royal charter before the summer they could get it. He proceeded to report that the Society had a very great interest in all that concerned the Veterinary College. On the 1st of November last he attended the opening of the Veterinary College, with pleasure to a most excellent dinner given by Dr. Dalzell to the students. He reported that the very numerous attendance, and the very high standard of the College was now in a very promising condition, and he thought it would be well to be under the able direction of Principal Dalzell and those who laboured with him.

CHEMICAL DEPARTMENT.

Professor ANDERSON reported the proceedings connected with the Chemical Department. In the course of his remarks he said that he had arranged for the present season, which were likely to be of a very important kind. They were but on a small scale, but such as would go over the whole rotation. He had been afraid that, owing to the drought, the experiments would have been a failure, but he was glad to say that they had turned out well up to this time. In the course of the work of the laboratory, he believed that a number of analyses had exceeded that of any other year. He had been successful in detecting many cases of adulteration, so that farmers were enabled to recover from the sellers a considerable sum of money. He thought it was connected with the most important part of the Highland Society. It was particularly important in a year like this, when the weather had been so very meagre. He had been very much interested in the chemical department of the Highland Society, in which that gentleman had this year been very successful. An instance was given of a cake of soap, having been fed on cakes containing arsenic, and the result was that the arsenic was found in the press stamp. The cake had been analysed in the chemical department of the Highland Society, and it was found to be more useful by perhaps appointing a person to take steps to stop, as far as was in his power, that abominable system of adulteration. He thought that few of them knew what their food was, and what fertilizers to put into the

out, we require to fall back for a supply from abroad thereby causing large sums of money to be paid out of the country for a perishable article that could with careful management be obtained at home, as this country is perfectly capable of rearing and feeding as many animals as would supply the whole population, if all the departments of the business were carefully managed. Not that I object in the least to bring foreign stock into this country from any fear of infection, if the animals are healthy when put on board, and properly and carefully attended to during the journey. To meet any expense that railway or steamboat companies would necessarily incur in effecting a change so greatly required, more money would require to be paid by the feeder than is paid at present. And thus, by the slaying of an experienced London salesman, would be paid back to them a hundredfold. He says cattle worth from 30/ to 40/ are depreciated to the extent of 2/ per head during the journey from the north of Scotland to London. And there can now be no doubt that the stoppage of the cattle traffic was a very serious loss to all railway companies.

As I do not wish to exhaust your patience, I will now draw to a conclusion with a short extract from the "Story of the Truck." "For my own part, though I am no philosopher, yet I hold to this, that whatever our reason proves to be wrong or defective, it at the same time enforces the duty of change and reform; that no palpable evil is to be passively submitted to as incurable. In such spectacles as dumb beasts imprisoned for days at a stretch in steamboat holds or railway trucks, no matter whether the season be scorching from a strong sun overhead, glaring like a ball of fire, or the keen-outting frosty wind blowing strong, accompanied with hail, sleet, or rain, intensified in bitterness from the speed of the train, enough to freeze up the very marrow—all who dispassionately look at this matter must behold an enormous wrong, a terrific evil, and in their heart of hearts cry out for a remedy to get such a wrong redressed. If railway companies were to be held responsible by law for the proper delivery of live stock in the same condition and value that they received them, a change in transit would soon be adopted; but there is little prospect of such a boon till Government comes forward with its strong arm to settle the matter. Every one remembers the erection of drinking fountains in our streets, and what an immense benefit has resulted from them to men, horses, cattle, and dogs; and no doubt they have been the means of protecting great numbers of the canine race from hydrophobia."

Reviews.

Revue des Deux Mondes, November 15, 1868. An article by L. de Lavergne on "l'Enquête Agricole" in France.

In an article at p. 370 of the Agricultural Gazette, 1866, we gave a statistical account of the agriculture of France. Low prices for corn had been the rule for several years. In 1865 the average price of Wheat was 38s. 6d. per qr. English farmers were not then very flourishing, but the French were actually distressed. The general complaints gave rise to a discussion in the Chambers, followed by the appointment of a Government inquiry into the condition of agriculture. This investigation has now been completed, and we are able to lay the results before our readers. We ventured to predict that the cause of complaint was beyond the reach of an "inquiry," that it arose from the great abundance of corn, followed, in accordance with a well-known economic law, by such a disproportionate depression of price as left the farmer a loser by his increased crop. Forty shillings a quarter is not a satisfactory price for Wheat, but the English farmer can produce it at a lower price than his next neighbour, and has nothing to fear from his competition.

The central system in France gave the Government a very efficient machinery for undertaking the investigation referred to. The country was first divided into 28 districts, under presidents chosen from among the members of the Chambers, or from Government officers. These were each assisted by a Government official, and were placed in communication with the prefects. Thus about 200 Commissions, of 10 or 12 members each, were formed, and they held their sittings in all the chief towns. The numerous agricultural societies and farming clubs in France were catechised by means of printed lists of questions. This elaborate inquiry has been conducted in this way in the most systematic manner, and the result must necessarily be the collection of an immense amount of information on everything relating to farming and to rural economy generally.

The enormous mass of documents, containing all that could possibly be known on agricultural matters, or imagined by the lively French mind, had first to be condensed by official pens, as after a census or annual return of crops here. The solid and substantial matter contained in these rivers of information has been separated by a process which may perhaps afford a wrinkle to the Metropolitan Sewage Company, who have not yet succeeded in eliminating the good from the bad at Barking. There are 28 district reports in all, of which 12 have been "elaborated" and printed at the Imperial Printing Press, in a style worthy of Napoleon III. The final result is a quarto volume of 550 pages.

Of course it is the one of the Minister of Agriculture to show that everything prospers under the Empire, or to find a good excuse for any awkward fact, but in M. Lavergne we have a critic who cannot be deceived. Our readers will recognise him as the author of works on the rural economy of England and of France, and as a very eminent agricultural statistician.

The following facts relating to agricultural affairs have been culled from the minister's quarto volume.

The value of landed property has decreased in the past 20 years. The official and most plausible explanation is that the country being more prosperous, capital which formerly overlaid now finds new outlets, and is diverted from the land. Probably the true explanation is the diminution in the rural population and consequent decrease in the number of purchasers of land. The moderate-sized properties have suffered most.

There is no jealousy between the large and petty farmers. The little holders are famous for their laborious habits and their economy. They are considered a benefit and a necessity to the community, and a great stay to political security. It is the excess of division that is to be deplored, as when 2 acres are divided into ten or a dozen scattered plots. It is a state of things as found in the West especially, where in one commune 2080 acres are divided among 270 proprietors, whose little estates are split up into 388 plots. Lawsuits between neighbours are the consequence, and great loss of time and labour in cropping and cultivating. This evil, centuries old, and arising from the law of succession, is increasing.

The general opinion of the law of succession, as gathered by the "inquiry," is in favour of its distribution amongst the members of the family, but is opposed to the existing article in the civil code which allows any one of them to insist on his share being paid both in personal and landed property, when both are left behind. A division of the property is recommended, which will admit of as little splitting up of landed property as possible. A law is also alluded to enable neighbours to make exchanges on payment of a duty of one franc.

The insufficient amount of capital invested in farming is ascribed to the following causes:—The temptation of more remunerative investments, the scarcity of manual labour, the existing system of mortgages; the delays and formalities connected with d. straits and forced sales, and the general inclination of owners to buy land, instead of putting more capital in their present occupations. The investments which have drawn off capital have been, foreign securities, lotteries, which are a very attractive mode of gambling, and above all, the state loans. The sum required in the past 15 years to meet the expenses of the army and of enormous public works, has amounted to between 200,000,000 and 240,000,000.

The agricultural loan and credit companies have at present been of little use, in consequence of their charging a high rate of interest. It is proposed to abolish that article in the civil code which only allows an owner to give as security for a loan such property as can be actually placed in possession of the lender, or of a third person agreed upon.

The decrease in the rural population in the past 20 years, owing to the general movement of the work-people towards the towns, where they are better paid, has occasioned great alarm to farmers and an inconvenient rise in wages. The enormous standing army weighs most heavily on the resources of the country. It draws off the labourers, checks population, and increases mortality, even in time of peace, in consequence of the unhealthy conditions of barrack and garrison life. The increase of the population has always been in inverse ratio to the strength of the army. Here is the great drawback to agricultural prosperity. There is but one opinion on the subject of the annual levy of 100,000 men, it is more than the country can support. Three-fourths at least of the men are drawn from the country. The proprietor class is divided into large, moderate, and small owners, of these the last suffer most. A peasant farmer who loses his son is almost a ruined man. It shows the attractive force of towns, that in the department of the Seine their population has increased by 700,000, while the adjacent country districts are half deserted.

M. Lavergne is of opinion that the two most effective reforms for the restoration of rural prosperity and population are a reduction in the army and in the scale of public works. He recommends machinery to supply as far as possible the deficiency in labourers; and is in favour of savings banks and mutual aid societies, and of special instruction on subjects connected with horticulture and agriculture.

Farm Memoranda.

HAISBOROUGH, NORFOLK.—The following remarkable history has probably never been paralleled, and may, therefore, be recorded as a genuine agricultural maximum. It relates to a period of 15 years ago, but is authenticated by trustworthy eye-witnesses. Mr. William Cubitt, of Bacton Abbey, North Walsham, well known in Norfolk as an energetic practical agriculturist, writes as follows:—

"I now send you a short history of the extraordinary field of Wheat to which I previously alluded, as also a communication on the subject from the owner and occupier of the land, George Wilkinson, Esq., whose veracity may be relied on.

"This field, situated in the parish of Haisborough, about 1 furlongs from the sea, contains 5 a 1 r 38 p, and is of average fertility with the lands adjoining, being a good loamy soil resting upon a strong subsoil, but sufficiently porous not to require draining, and suitable to every kind of cropping.

"In 1813 it was sown with Peas, probably preceded by Wheat. In the autumn of that year it was again sown with 'Spalding' Wheat—about 3 bushels of seed per acre. It came up thickly, and in the following spring, and during the summer it presented an unusually luxuriant appearance, particularly when fully shot into ear, so much so as to attract the attention of all passers-by. Many bets were made by practical men as to its probable yield, some estimating the produce at 9 quarters per acre. The field was harvested separately, and on threshing yielded 11 quarters 2 bushels per acre. In the same season and upon land almost

adjoining, but occupied by another, 10 quarters were produced. In the parish from which I received the above information, the average yield of Wheat per acre, near the sea, is 7 1/2 to 9 quarters of Wheat per acre, and an equal quantity of Barley. There are the largest crops on this neighbourhood—5 quarters of Wheat per acre from 5 to 6 quarters of Barley, being a full crop. These heavy crops to which I have alluded, are not in any degree owing to high or extra-fertile soil, although 1844 is of a very recent date, yet it was not the custom upon the good land of this district, as now, to use artificial manure for the purpose to consume them with so great an advantage as cake and other artificial food as during the last 20 years; and yet, for all this, the produce does not perceptibly increase; on the contrary, with regard to inferior grain, especially Barley, it has been in general complaint through this part of the country, it has of late years deteriorated both in quantity and quality; therefore I cannot but arrive at the conclusion that extra prolific crops are not so necessary consequences of high farming as is generally supposed. Now, 1844 being the most prolific ever known in this neighbourhood, the question arises, What were the peculiarities of that season? I am only in a position to assert that the summer of that year was the most genial I ever remember. The drought was not equal to the two just past, from the month of March till the end of August, had an unusual number of sunny days, and was free from storms and atmospheric changes."

"Since writing the above I have been informed by Mr. Wilkinson that the field had not been treated differently from other fields on the farm. The usual four-course system was pursued to lessen the acreage of the root crop, and the custom on such lands to take a crop of Peas after Wheat, and then Wheat again, as was the case in the instance referred to. With regard to the crop of 10 quarters per acre, it was grown by a man (Mr. Howes) who had occupied land in the parish for a period of 50 years, and who had been heard to affirm that he never before grew a crop approaching to such a crop; 7 quarters per acre was the largest crop his land ever produced prior to 1844.

"It may also be interesting to state that Mr. Wilkinson again planted Wheat on the field in 1845, and the yield was something less than 4 quarters per acre. He farms 400 acres, and the land is of the finest quality. His statistics, given below, are of 4 imperial bushels.

"The land I occupy is very similar to that of Mr. Wilkinson, and I come to the conclusion that to farm it as he does, and stick to the usual four-course system, is attended with great loss and disappointment. A plan of late years has been to pursue a four-course, but to crop close and extend the rotation, for instance, thus:—1, Turnips or Mangold; 2, Wheat or Oats; 3, Barley; 4, Clover or Beans; 5, Wheat, which is a kind of five-course, care being taken not to lay down more manure than is required for the use of my horses. And therefore, I usually grow a field or two of Wheat, which always grow as large a shift of roots as possible, and are generally well paid by the water grazed upon by the cattle, and also by the means thus afforded of the straw made into good manure."

Mr. Wilkinson, the owner of the field, writes thus to Mr. Cubitt:—

Dear Sir, — I am unable to find the produce of the crop grown in 1844 in the stable case containing the produce exceeded 22 coombs an acre, and I think it amounted to 22 coombs 2 bushels and 1 pint. I attribute this extraordinary crop to Peas, and not to any particular course of husbandry, but to my average for seven years, including 1844, being 10 quarters and Barley; and am yours truly,

Table with 2 columns: Year, Harvest. Rows for 1841, 1842, 1846, 1847, 1848, 1849, 1850. Values range from 10 to 11 quarters and bushels.

Average produce per acre for the last 7 years 10 1 3 or 5 qrs. 1 bush. 3 pecks.

[We give this history from a collection of rural maxims, published eight years ago by Mr. Morton, in the Journal of the English Agricultural Society, hoping that some of our correspondents will be induced to report to us instances of agricultural maxima which the harvest of 1844 has doubt presented.]

The Poultry Yard.

THOSE who aspire to honours at the poultry show of 1869 should now be very busy with their chickens. We hope the exhibitors will be so lucky that at present the chickens are so plentiful that we need not count them. A proverb tells us not to count the chickens until they are hatched, but we offer a few remarks on the subject of the ones from which they are expected, so doing we may increase their number. The time of year, and for the next two or three months, for setting are now by the practical and dealers. Many a lady whose only pleasure is to see a man to whom she has great pleasure, in his half hour's reference to her or shop, make the pleasure profitable by the purchase of a pen of prize or common poultry.

by an advertisement that some of the...

of a setting of eggs. The Acclimatisation Society of New...

of eggs for travelling in baskets some-...

Scotland, and Russia, also a good...

tion Fowls," in last week's Number, as...

body during the spring.

body during the spring.

Miscellaneous.

Fatten their Poultry.—Any of our from rheumatic gout, or any other...

To keep out-door work close at the heels of spring is...

the only thing that may be done by operations of spring...

either topped or tailed, but with as little earth as...

make a close thick cover of green top. 4. A double...

Notice to Correspondents. The seed, and may possibly be enabled to observe it in a growing...

RICHARD SMITH'S FRUIT LIST



Cultivation, Soil, Drainage, Manure, Pruning, Lifting, Cropping, Treat...

At 12s. per dozen— Arbor-vita, American, 5 to 6 feet...

At 12s. per dozen— Norway Spruce, extra fine, 2 to 4 feet...

At 12s. per dozen— Juniperus chinensis, 1 1/2 to 2 feet...

At 12s. per dozen— Abies eleagns, 2 to 3 feet...

At 12s. per dozen— Thuja occidentalis, 4 to 6 feet...

At 12s. per dozen— Taxus canadensis, 1 to 2 feet...

At 12s. per dozen— Pinus strobus, 3 to 4 feet...

At 12s. per dozen— Picea canadensis, 4 to 6 feet...

At 12s. per dozen— Larch, 3 to 4 feet...

At 12s. per dozen— Cedrus deodora, 4 to 6 feet...

At 12s. per dozen— Cypressus sempervirens, 4 to 6 feet...

RICHARD SMITH, NURSERYMAN AND SEED MERCHANT, WORCESTER.

Calendar of Operations.

The peculiarities of seasons and the... of practice have at all times their claims upon...

The American Nursery, Bagshot, Surrey.

JOHN WATKINS... of Bagshot, Surrey... The American Nursery, Bagshot, Surrey... JOHN WATKINS... of Bagshot, Surrey... The American Nursery, Bagshot, Surrey...

The best Varieties of Seed Potatoes.

JAMES CARTER AND CO... The best Varieties of Seed Potatoes... JAMES CARTER AND CO... The best Varieties of Seed Potatoes...

PATERSON'S SEEDLING POTATOS.

PATERSON'S SEEDLING POTATOS... of Seedling Potatoes... PATERSON'S SEEDLING POTATOS... of Seedling Potatoes...

New Seeds, of choicest Quality.

J. SCOTT'S COLLECTIONS... New Seeds, of choicest Quality... J. SCOTT'S COLLECTIONS... New Seeds, of choicest Quality...

Seed Potatoes

PATERSON'S VICTORIA, the best of all Paterson's... GRIFF CASTLE, a superior sort, recently raised in Banffshire... WALKER'S REGENTS, a well-known sort in general use...

PATERSON'S VICTORIA POTATO.

A customer of ours (N. J. Eastbrook, Esq., of Hayle, Cornwall) says, concerning this splendid Potato: "It is the best Potato yet grown in the west of England..."

WHEELER'S MILKY-WHITE POTATO.

WHEELER'S MILKY-WHITE POTATO... 4s. per peck, 1s. per bushel.

WHEELER'S GLOUCESTERSHIRE KIDNEY.

WHEELER'S GLOUCESTERSHIRE KIDNEY... 3s. per peck; 12s. per bushel.

Wheeler's Tom Thumb Lettuce.

Wheeler's Tom Thumb Lettuce... 1s. per packet.

WHEELER'S COCOA-NUT CABBAGE.

WHEELER'S COCOA-NUT CABBAGE... 1s. per packet.

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Wheeler's Guinea Collection of Garden Seeds... Comprises the finest Varieties in Cultivation.

WHEELER'S LITTLE BOOK for 1869.

WHEELER'S LITTLE BOOK for 1869... price 6d., post free.

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Wheeler's Milky-White Potato... This is the best of all Potatoes.

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SPECIAL OFFER OF POTATOS, PEAS, &c

Table with columns: Per Peck of 14 lb., Per Cwt., Per Bush of 6 1/2 stone. Rows include: RIVERS ROYAL ASHLEAF, MYATT'S PROLIFIC, EARLY SHAW, EARLY IMPERORS, DALMAHOYS, PATERSON'S VICTORIA, PEAS, SUTTONS' RINGLEADER, CARTER'S FIRST CHOP, TABOR'S EARLY PERFECTION, DICKSON'S EARLY FAVOURITE, DILLISTON'S FIRST EARLY, M'LEAN'S PRINCESS ROYAL, BEDMAN'S IMPERIAL, KING OF THE MARROWS, NE PLUS ULTRA, WINDSOR, TALLOW'S LARGE do.

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WHITE SPANISH ONION SEED, 3s. per ounce, 3s. per lb. NUNEHAM PARK ONIONS, Do. SEED, 1s. per packet. CABBAGE PLANT, DRUMHEAD (Sheep) 1,000, 10,000, 100,000. Strong 4-year ASPARAGUS PLANTS, 3s. per 100, 2s. per 1000. Strong 3-year ASPARAGUS PLANTS, 3s. per 100, 17s. 6d. per 1,000. STRAWBERRY PLANTS of the President and Newton's Seedling, 2s. 6d. per 100, 20s. per 1,000. TANNED GARDEN NETTING, for Wall Trees, Seed Beds, &c., 2, 4, and 6 yds. wide, at 1d. per sq. yd. 100 yds., 2s. 6d., 500 yds., 5s. A further reduction on larger quantities. Now 4 lb. Four Bushel bags, 1s. 6d. each, Bushel Bags, 9d. each, Two Pecks, 1d., One Peck, 6d. Resistance to accompany orders. CHRISTMAS QUINCE, Seed Grower and Seedsman, Market Place, Peterborough.

First Crop or Ringleader

CHARLES SHARPE AND CO... this EXCELLENT EARLY PEA, with great confidence in offering it to the Trade.

Farm Seeds Direct from the Grower

CHARLES SHARPE AND CO... special offers of their carefully selected MANGEL, and other FARM SEEDS on application.

Garden Seeds

CHARLES SHARPE AND CO... LIST OF PEAS, BEANS, and other GARDEN SEEDS on application.

Seed Potatoes

CHARLES SHARPE AND CO... make special offers of all the leading sorts of Seedling Potatoes.

1868 - Mangel Wurzel Seed

H. AND F. SHARPE... offer the Trade... Farm this season from 1 peck to 100 lbs. The price is very low. Supplies may be ordered on application. Seed growing establishment, Woking.

CUCUMBER, DROVER'S TELEGRAPH

CUCUMBER, DROVER'S TELEGRAPH... celebrated cucumber has obtained with great success Prizes at various shows, viz. - Winchester, Southampton, Portsmouth, Gosport, Fareham, Havant, references apply to Secretary of each show. Price 2s. 6d. to be had of the Grower, W. DROVER, Fareham.

IVERY'S NONSUCH LETTUCE

IVERY'S NONSUCH LETTUCE... variety in cultivation will stand a month or other kind without running to seed. It is per packet, 6d. A GENERAL SEED CATALOGUE can be had on application. The Trade supplied with superior SEEDS. Hanover Nursery, Peckham, S.E.

The Best Onions for Exhibition

SUTTONS' IMPROVED RINGLED... THE NEW REFORMED CHAMPION... NUNEHAM PARK, 1s. per packet. Free by post. Sutton & Sons, Seed Growers, Reading.

Henry's Hybrid Prize Lettuce

DOWNIE, LAIRD, AND LAING... first seed of the above lettuce... is the largest and finest... in cultivation. 17, South Frederick Street, Edinburgh, and Messrs. H. D. LAIRD & CO., Glasgow.

R. THOMAS'S TELEGRAPH CUCUMBER

From the universal satisfaction... has given, WILLIAM BOLLING & CO. have made... offering good and well ripened... variety. Its wonderful cropping... been at the... who have agreed that it is the best in cultivation... in fact it has been acknowledged to be the best... day, the most productive yet introduced... Spring use, in proof of which... See Gardeners' Chronicle, January 2, 1869... See Gardeners' Chronicle, March 15, 1869... See Gardeners' Chronicle, July 10, 1869... See Gardeners' Chronicle, January 10, 1869... See Journal of Horticulture, August 2, 1869... The above may be had, in printed and sealed packets true, price 2s. of each, from The Nursery, Tooting, London S.W.

East Lothian, White, and Purple Intermediate

THOMAS METHVEN... by Mr. D. Thomson, late of Arbroath... name, and others, is happy to state that, on the whole season of 1869 for sowing seed of these varieties he is enabled to supply liberal quantities of them at 1s. 6d. EAST LOTHIAN SCARLET INTERMEDIATE... These Stocks ought to be grown by all who have... Price to the Trade on application. THOMSON'S SEEDS... from the Dalkeith Collection, a packets at 1s. 6d. each. Seed Warehouse, 15, Princes Street, and Nursery, Walk, Edinburgh.

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HALLIETT'S PEACHES... produced in 1868... which was awarded the First Prize at the... Took the First Prize also at the same Show of 1869... 1867 nearly 9 quarters per acre. PEDIGREE BLACK TARTARIAN... 15 quarters per acre. For particulars apply to Captain Halliett, F.R.S.

RAYNBIRD, CALDEWELL & CO.

RAYNBIRD, CALDEWELL & CO. Limited... Address: 89, Seed Market, Mark Lane, E.C. Samples and prices sent free on application for Wheat, 10s. 6d. per bushel, 100 bushels, 100s. 0d.

E. T. ARCHER'S 'FRIGI DOMO'

E. T. ARCHER'S 'FRIGI DOMO'... White or Brown, made of... conductor of heat or cold, keeping a fixed temperature... Applied. It is adapted for... purposes, for PROTECTING from the cold WINDS... 'FRIGI DOMO'... Two yards wide Four yards wide An improved make, 2 yards wide An improved make, 3 yards wide ELISHA THOMAS ARCHER, Wholesale and Sole Manufacturer, Trinity Lane, Cannon Street, City, E.C., and of all Seedsmen throughout the Kingdom.

EARLY CORNISH BROCCOLI

EARLY CORNISH BROCCOLI... During the past fortnight there has been a good supply of Broccoli sent to Covent Garden Market, from the neighbourhood of Penzance, Cornwall. Vide Gardeners' Chronicle, Jan. 23, 1869, p. 50. The Undersigned has the pleasure of offering seed of the above desirable variety, carefully saved last summer by one of the best reputed Gardeners at Penzance. Cash price 2s. per lb., or 2s. per ounce, carriage or postage free. JOHN MITCHELLSON, Seed Merchant, Truro, Cornwall.

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JOHNSON'S PROLIFIC WHITE KIDNEY POTATO... A few tons of this excellent sort, grown in Cornwall, are offered at 10s. per cwt., delivered at Truro or Plymouth, or at 11s. per cwt., delivered in London. JOHN MITCHELLSON, Seed Stores, Truro.

POTATO ONIONS and SHALLOTS.

POTATO ONIONS, at 21s. per cwt. SHALLOTS, at 32s. per cwt. On Sale at Mitchellson's Seed Stores, Truro.

BOX EDGING and COMMON LAURELS.

2000 yards of DWARF BOX EDGING, and 2000 LAURELS, of various sizes, in capital condition for removal, to be sold cheap. Apply to JOHN MITCHELLSON Nurseryman, Truro.

ELLETSON'S SURPRISE, new, large, late WHITE

ELLETSON'S SURPRISE, new, large, late WHITE PROTECTING BROCCOLI... The best late Cauliflower Broccoli, extant, price 6d. per packet. May be had of the following Agents: Messrs. Hurst & Son, 6, Lendenhall Street, London, E.C. Mr. Robert Cooper, 102, Fleet Street, E.C. Messrs. Barr & Sons, 1, King Street, Covent Garden, W.C. Mr. Wm. Paul, Waltham Cross, N. Messrs. Peter Lawson & Son, Edinburgh and London. Messrs. Ho ten & Co., Eding, Le. n. W. Messrs. Jas. Ruckhouse & Son, York. Messrs. Stuart & Me n, Le. n. Messrs. Sutton & Sons, Reading, Berks. Messrs. J. S. and Sons, Milton, York. Mr. Edward Taylor, Market Y. Messrs. Drexton & Atken, R. Messrs. W. P. La n & Sons, R. Additional names will be inserted as they are received. ENMETT PHILIP DIXON, The Yearash Seed Establishment, 57, Queen Street, Hull.

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MANURES are now ready for delivery for... TURF MANURE... PHATE OF LIME... MANGEL MANURE...

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TOBACCO PAPER, of the finest quality... 100 per lb., or 84s. per cwt. Seed Merchant, Leeds.

TOBACCO PAPER, finest quality, equal in strength to Tobacco, 1s. per lb.; cheaper in quantities. Seed Merchant, 180, Wade Lane, Leeds.

The Cheapest and Best Insecticide. DUTY FREE TOBACCO. PATENT, AND BY PERMISSION OF THE H.M. BOARD OF CUSTOMS.

TOBACCO POWDER, for the Prevention of... and other Diseases in Plants. Sold by Nurserymen, Seedsmen, and Florists...

Tobacco Tissue, for DESTROYING RED SPIDER, MEALY-BUG, GREEN and BLACK FLY, without the aid of a... This article having been before the Public for the...

Used by many of the leading Gardeners since 1830, against Red Spider, Mildew, Thrips, Green Fly, and other Blight, in solutions of from 1 to 2 ounces to the gallon of soft water...

Wholesale by PRICE'S PATENT CANDLE COMPANY (Limited), Battersea, London, S.W. Health of Horses, Stables, and Dog Kennels. MASTERS OF HOUNDS...

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TANNED LEATHER COMPANY, Arbiters, Greenfield, near Manchester. CURRIERS, and MANUFACTURERS OF IMPROVED LEATHER DRIVING STRAPS FOR MACHINERY...

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Glass for Garden Purposes. JAMES PHILLIPS AND CO. beg to submit their REDUCED PRICES as follows -

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Table with columns: HAND GLASSES, WITH OPEN TOPS. Lists sizes and prices.

Table with columns: ORCHARD-HOUSE SIZES. Lists dimensions and prices for various sizes.

Small Sheet Squares, 15 oz., per 100 feet. Large Sheet Squares, 15 oz., per 100 feet.

THOMAS MILLINGTON AND CO., Horticultural Glass Warehouse, 37, Bishopsgate Street Without, London, E.C.

Small Sheet Squares, 15 oz., per 100 feet. Large Sheet Squares, 15 oz., per 100 feet. The above Prices are only for the Sizes stated...

SHEET GLASS. Sheets for Cutting up, averaging from 6 to 9 feet super 15 oz. 4ths quality, per 300 feet case, 36s.

HARTLEY'S IMPROVED ROLLED ROUGH PLATE in 1-8th in., 3-16th in., 1-4th in., and 3-8th in. substances. BRITISH PLATE GLASS for Windows and Sillings for Locking Glasses...

GENUINE WHITE LEAD 30 0. SECONDS WHITE LEAD 28 0. GROUND PATENT DRYERS, 3d. to 4d. per lb. OXFORD OCHRE, 3d. to 4d. per lb.

SHAW'S TYPE AND PRINTING. For Samples and Prices apply to J. Shaw & Co., 29, Oxford Street, Manchester.

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These fittings are made of iron, and are available at pleasure, in any quantity, and are suitable for use on or breed Vornin, Hay Rick dispensed with as unnecessary, increased width and depth of Feeding Troughs, Water Cistern, and Patent Drop Cover to prevent over-gorging...

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GARDEN BORDER EDGING TILES, in great variety of patterns and materials, the plainest sorts being especially suited for KITCHEN GARDENS, as they harbour no Slugs and Insects...

ORNAMENTAL PAVING TILES for Conservatories, Halls, Corridors, Balconies, &c., as cheap and durable as Stone, in blue, red, and buff colours, and capable of forming a variety of designs.

THE GARDENERS' CHRONICLE AND AGRICULTURAL GAZETTE.

A Newspaper of Rural Economy and General News.

No. 6.—1869.]

SATURDAY, FEBRUARY 6.

[Price Fivepence.
[STAMPED EDITION, 6d.]

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New Roses for 1869.
JOHN FRASER, La Bodge Road, N. Kensington, London, E. begs to offer fine healthy plants of the best NEW ROSES for 1869. A DESCRIPTIVE LIST may be had on application.

"Mr. Paul's Roses" are things to see once and dream of for ever.—*Athenaeum*.
WM. PAUL begs to announce that his CATALOGUE of ROSES is now ready, and will be forwarded free on application.

WM. WOOD AND SON have to offer many thousands of fine plants of the above.
Woodlands Nursery, Maresfield, near Uckfield, Sussex.

HUSSEY AND SON beg to offer the above, all HYBRID PERPETUALS on Manetti, at 40s. per 100.
Mile End Nursery, Eton, North.

MANETTI ROSE STOCKS—The Subscribers have to offer a splendid lot of the above, suitable either for Potting or Planting.
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FIELD BROTHERS, 10, Abchurch Lane, London, E. beg to offer strong Bedded Dwarf Moss BUSHES, on their own roots, at 20s. per 100, also strong healthy autumn struck plants of CALCEOLARIA AUREA FLORIBUNDA, from Paris, at 2s. per 100, 50s. per 1000, packing included.

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RICHARD WATCHORN is now sending out the above, strong healthy plants, at 10s. per 100. Terms cash.
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Apply to KESSER WARR, The Roost, Ipswich.

STUART MACDONALD AND CO.'S WHOLESALE LIST of CHOICE and RARE SEEDS, comprising the leading Novelties of the season.
Seed Stores, 85, Southampton Row, Holborn, London.

W. THOMPSON, SEEDSMAN, Tavern Street, Ipswich, begs to offer freshly sown SEED of this handsome Shrub at 2s. per 100. Stock very limited.

CYCLAMENS, of the finest strain—Fine plants, 8/6 per 100, second size, 6/6 per 100—smaller size, 4/6 per 100; most of them in fine bloom and foliage, with plenty of buds, to bloom at least three months.—R. CLANK, Market Gardener, Twickenham.

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ALEX. GREEN & Co., 10, Bury Street, St. Mary Axe, City.

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Genuine Garden and Farm Seeds to be had of THOMAS KENNEDY AND CO., SEEDSMEN and Nurserymen, Dumfries, at extremely moderate prices, and delivered, free of carriage, at the best rates by sea or rail.

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The Best New Potato for 1869 is SUTTONS' BERKSHIRE KIDNEY, 5s. per bushel, 12s. per bushel, carriage free.
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JOHNSON'S PROLIFIC WHITE KIDNEY POTATO.—A few tons of this excellent sort, grown in Cornwall, are offered at 10s. per cwt., delivered at Truro, or 11s. with, or at 11s. per cwt., delivered at London.
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H. & F. SKAUR, Seed Growers, Wisbech.

SEED POTATOS.—Rivers' Royal, 6s. per bushel, 50 lb.; Milky White, 7s. per bushel, 50 lb. All seeds and true to name. Bags and sacks charged best price. Apply to
ISAAC DAVIES, Brook Lane Nursery, Ormakirk, Londonderry.

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ZOOLOGICAL GARDENS, CLIFTON, BRISTOL. BOTANICAL MEETINGS, 1869. MONDAY, MAY 27. FRIDAY, JUNE 11. SHOW THIS DAY, JUNE 1.

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SUTTONS' COLLECTIONS OF FLOWER SEEDS. See list of names and prices in the *Chronicle*.

SUTTONS' GRASS SEEDS FOR ALL SOILS. See list of names and prices in the *Chronicle*.

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 and contains probably more bona fide matter,
 genuine subjects, than any other published in
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 It contains NATIVE SEEDS from various parts of the
 world, and is illustrated with 1000 plates and figures not
 yet described in Botanical Works.
 The SEEDS OFFERED are UNADULTERATED, and as cheap
 as the market. The seeds are sent in glass bottles, and
 are guaranteed to be of the very finest quality.
 A full list of the contents of the Catalogue is
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 Henderson & Co. have a connection whatever with any other Seeds-
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 nurseryman or gardener.

Choice Scarlet Rhododendrons.
JOHN WATERER begs to announce that his
 CATALOGUE of HARDY, SCARLET, and other RHODO-
 DENDRONS, as annually exhibited at the Royal Botanic Gardens,
 Icknield Park, is now published, and will be forwarded to all applic-
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 The Address is Nursery, Bagshot, Surrey.

New Seeds for the Garden and Farm, 1869.
CROYDON.
ARCHD. HENDERSON'S
 DESCRIPTIVE and PRICED
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 A select list of GLADIOLUS for
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 Also his DESCRIPTIVE CATA-
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 STOCK is now ready, and may be had
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Genuine Seeds.—Carriage Paid.
B. S. WILLIAMS,
 SEED MERCHANT AND NURSERYMAN,
 Victoria and Paradise Nurseries, Upper Holloway, London, N.

COMPLETE COLLECTIONS
 OF
KITCHEN GARDEN SEEDS,
 To suit Gardens of various sizes,
 10s. 6d., 21s., 42s., 63s., and 84s. each.

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CALCEOLARIA (Sedgwick's extra choice strain), 2s. 6d., 3s. 6d., and 4 0 (James' strain)	2s. 6d. and 3 0
(Dalkoth Palace strain)	2 0
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POLYANTHUS (Wiggins' prize strain)	1s. 6d. and 2 0
BALSAM (Wiggins' superb strain)	1s. 6d. and 2 0
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WALLFLOWER (Sander's) fine dark variety	1 0
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OXALIS VALDIVIANA, quite hardy, the flowers are bright yellow and sweet scented, and produced in bunches of large size (new)	1 0
PALAVA FLEXUOSA, very pretty annual (new)	1 0
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ZINNIA ELEGANS TAGETIFLORA fl.-pl. (new)	1 0

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ROYAL EXOTIC NURSERY, CHELSEA, LONDON, S.W.

DESIRE TO DIRECT PARTICULAR ATTENTION TO

THE FOLLOWING SEEDS OF STERLING MERIT

NOVELTIES OF THEIR OWN INTRODUCTION,

Offered for the first time.

ASPERULA AZUREA SETOSA

A most profuse-blooming hardy annual, a native of the Caucasian mountains. It is of a dense habit, attaining an average growth of 1 foot, and covering itself with bunches of beautiful light blue flowers, which are very sweet scented, lasting a long while in perfection. We recommend this beautiful annual on account of its striking colour, delightful perfume, and the profusion with which it blooms, one plant having open at the same time hundreds of heads of flowers, which are produced as well from the axil of every leaf as from the ends of the shoots.

Per Packet, 1s. and 2s. 6d.

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A showy hardy Oxalis, for the introduction of which we are indebted to our collector, the late Mr. R. Pearce. It is quite hardy, the plants having already passed several winters in the open ground unharmed. Its habit is compact and good, and it throws its bloom spikes well above the foliage. The flowers are of a bright yellow colour, sweet scented, and produced in bunches of large size. For mixing with bedding plants of all kinds in flower gardens this

plant will be found valuable, as it will form an admirable contrast with other colours. Per Packet, 1s. and 2s. 6d.

PALAVA FLEXUOSA.

A most beautiful annual, received from Bolivia through our collector, the late Mr. R. Pearce. In growth it attains an average height of 15 to 25 inches, and produces in the greatest profusion its charming flowers, which measure an inch in diameter, and are thrown out in great profusion. Its leaves are very neat and graceful. In colour the greater portion of the flower is of a bright rose, fading slightly towards the centre, whilst the base of the petals is almost black, producing a dark eye, which contrasts beautifully with the other portions of the flower, rendering it once most striking and effect. It succeeds admirably either in the open air or as a greenhouse and greenhouse decorative plant. At the Great International Horticultural Exhibition in London were awarded the 1st Prize for the best three new plants, the Palava being one of the winning set.

Per Packet, 1s. and 2s. 6d.

OTHER NOVELTIES,

Highly recommended by the raisers, from whom supplies have been obtained.

Abronia arenaria.

Per packet, 1s.

Amaranthus elegantissimus.

Per packet, 1s. 6d.

Amaranthus speciosus aureus.

New Golden Prince's Feather. Per packet, 1s.

Aster, Giant Pæony-flowered Perfection.

Per packet, 1s. 6d.

Nasturtium Golden King of Tom Thumbs.

Per packet, 1s.

Primula sinensis fimbriata punctata elegantissima.

Per packet, 2s. 6d.

Zinnia elegans pumila fl.-pl.

Per packet, 1s.

Zinnia elegans tagetiflora fl.-pl.

Per packet, 1s.

Dianthus Heddewigii diademata fl.-pl.

Double Diadem Link. Per packet, 1s. and 2s. 6d.

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Per packet, 1s.

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Per packet, 1s.

Modiola geranioides.

Per packet, 1s., Tubers, per dozen, 1s.

Myosotis azorica alba.

Per packet, 1s.

Stock East Lothian.

Per Collection of 3 colours (scarlet, white, and purple) separate, 2s. 6d.

For full descriptions, see CATALOGUE, now ready.

IMPORTED COLLECTIONS OF FLOWER SEEDS,

Obtained direct from the most celebrated Continental Growers, sent out in the original papers, and strongly recommended as being of the very best quality.

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Dwarf Chrysanthemum-flowered, 12 distinct colours, separate	s. d. 2 6
Tall Chrysanthemum-flowered, 12 do. do., do.	2 6
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Globe Pæony-flowered, 10 do. do., do.	2 0
Pompones imbricated, 12 do. do., do.	2 6
Crown or Cocardeau, 6 do. do., do.	1 6
Raid's Improved Quilled, 10 do. do., do.	1 0
Victoria, very fine, 8 do. do., do.	2 6
Ranunculus-flowered, 6 do. do., do.	2 0
Empereur or Giant, 6 do. do., do.	1 0

For packets of the above, in finest mixed colours, see Catalogue, page 37. Messrs. V & S were awarded a Special Certificate for the excellence of their Asters, of which they exhibited a large collection at the Royal Horticultural Society's Meeting, Sept. 4, 1868.

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Dwarf German Ten Week in 12 distinct colours, separate	s. d. 2 6
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Earliest-flowering Autumn, in 6 do. do., do.	1 0
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Brompton, in 12 do. do., do.	2 0
Cocardeau or Giant Cape, in 8 do. do., do.	2 0

For packets of the above, in finest mixed colours, see Catalogue, page 47. From Mr. Cox's splendid collection, see *Gardener's Chronicle* of 1868, page 820.

Antirrhinums.

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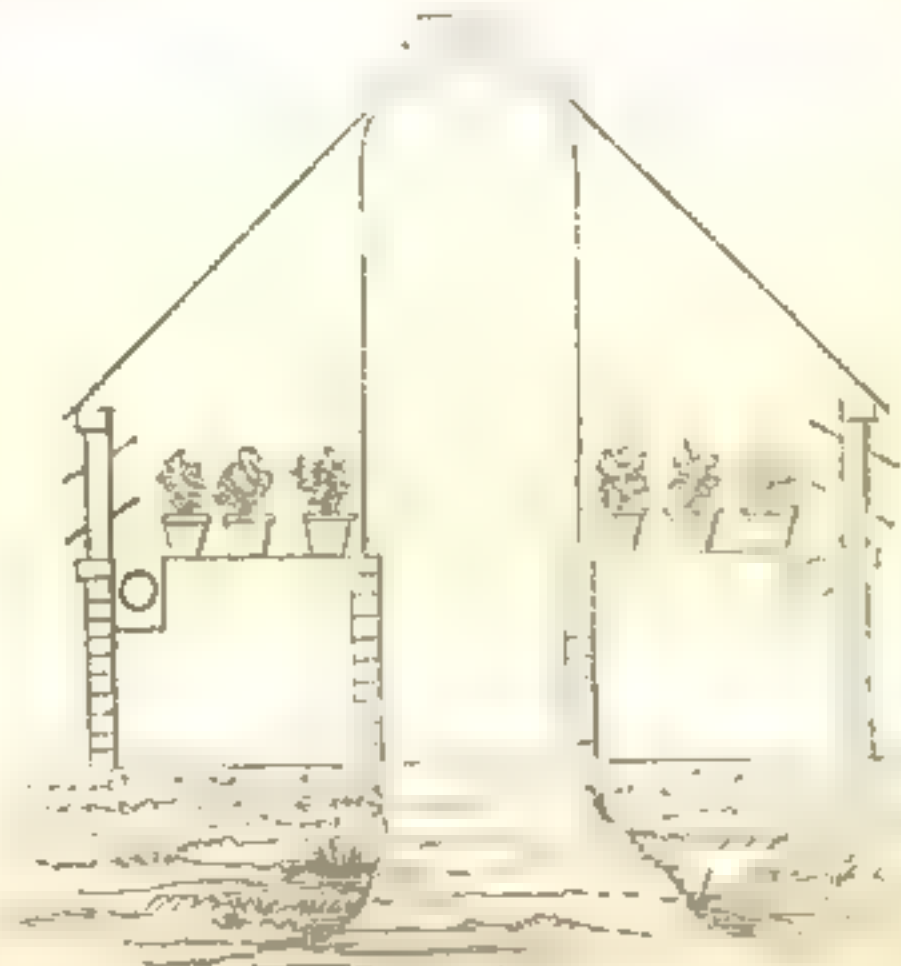
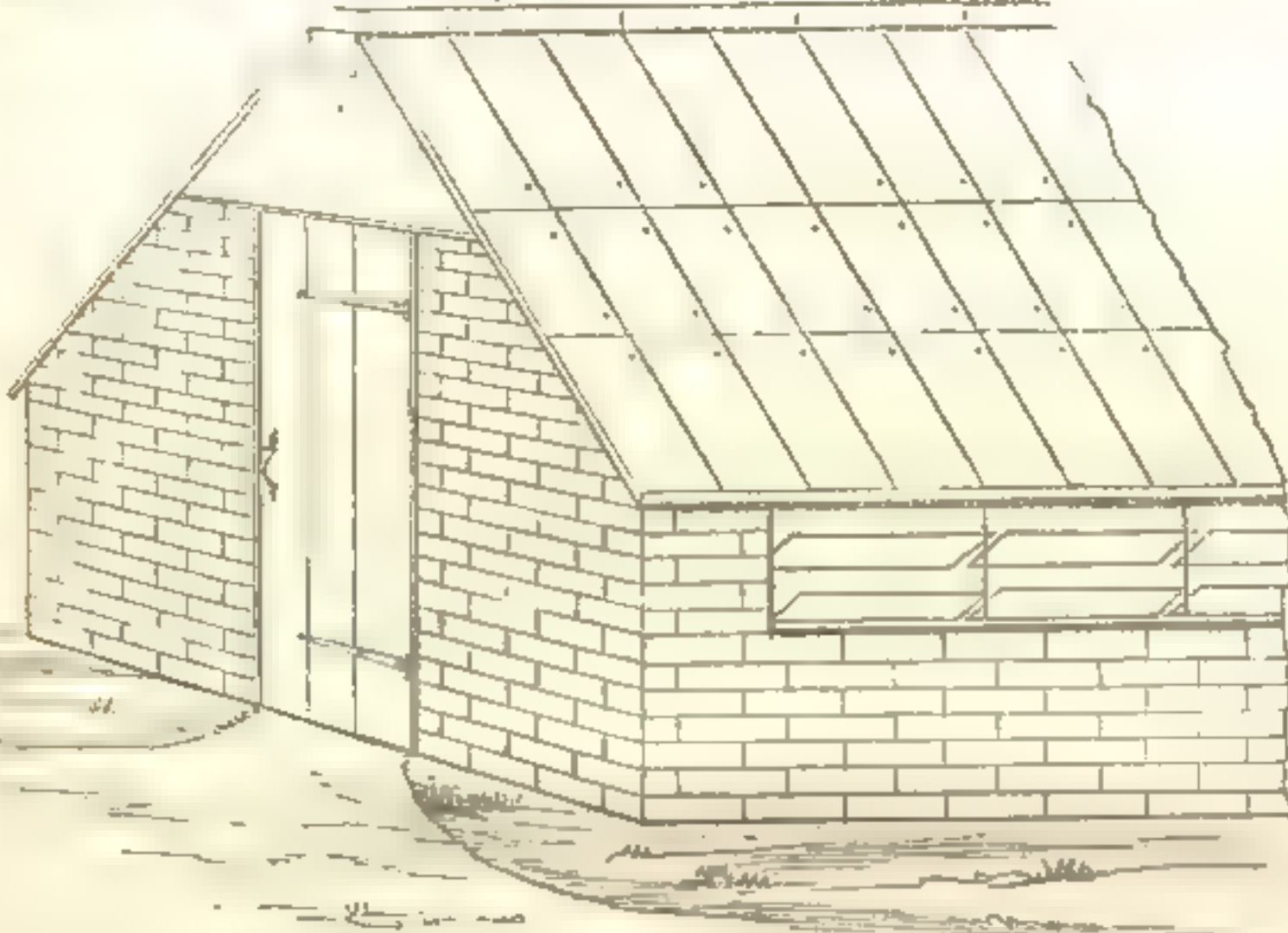
Among other seedlings of Mr. Donne's, some of which are not yet sufficiently tested, I may mention a fine cider Apple, equal to the best I have seen, which is our best fruit hereabouts for the Jersey. Mr. Donne's fruit, which I have named the *Champagne*, is rich in all those qualities that are requisite for producing the finest cider its liquor, when properly treated, will vie with the wine of which it bears the name, and Mr. Donne's cellar contains a quantity of this kind that would puzzle a connoisseur, for Mr. Donne is as much famed for his wine-making as he is for his ardent pursuit of fruit raising and fruit culture. *John Scott, Merritt, Taunton, Somerset*.
The Apple sent by Mr. Scott is of medium size, strongly Pearmain-shaped. It has a smooth even surface, skin pale yellow, considerably suffused with

russet, and slightly shaded with scarlet on the sunny side. Flesh firm, moderately juicy, with a sweetly acid flavour, tolerably pleasant, but not rich. In appearance, as well as in the texture of its flesh, this Apple, with the exception of its acidity, is very similar to Adams' Pearmain. White Cackle Pippin seems much too acid for that variety. We have our doubts as to the correctness of the name given by Mr. Scott, as it is generally exceeding sweet and pleasant. Eds.]

GLAZING AND GREENHOUSE BUILDING.

I SEND you a rough sketch of my new system of glazing and greenhouse building, by which putty is entirely dispensed with. Instead of putty, India-rubber rollers are fixed by the carpenter, with galvanised

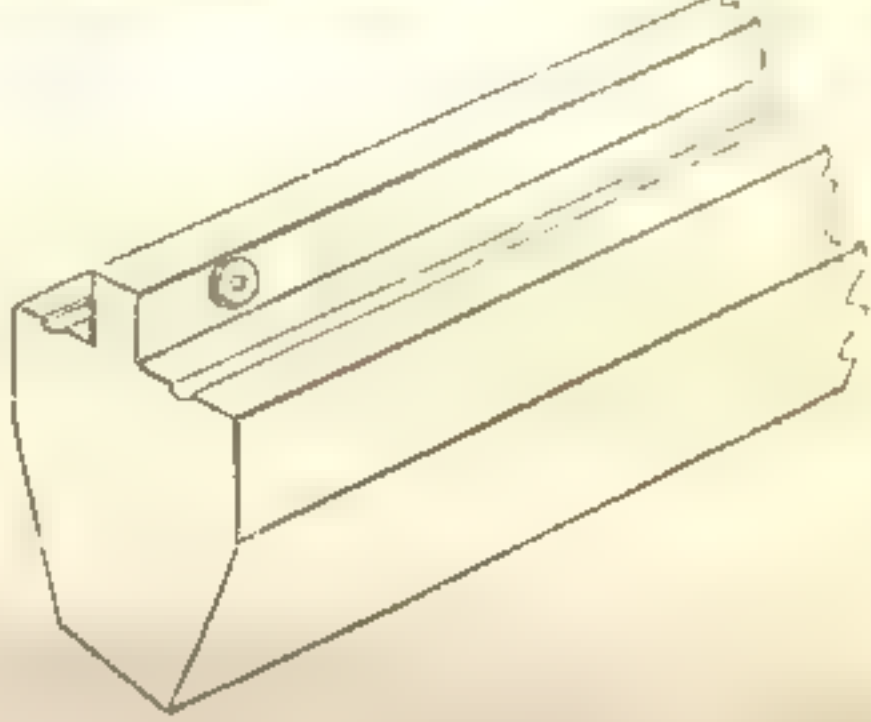
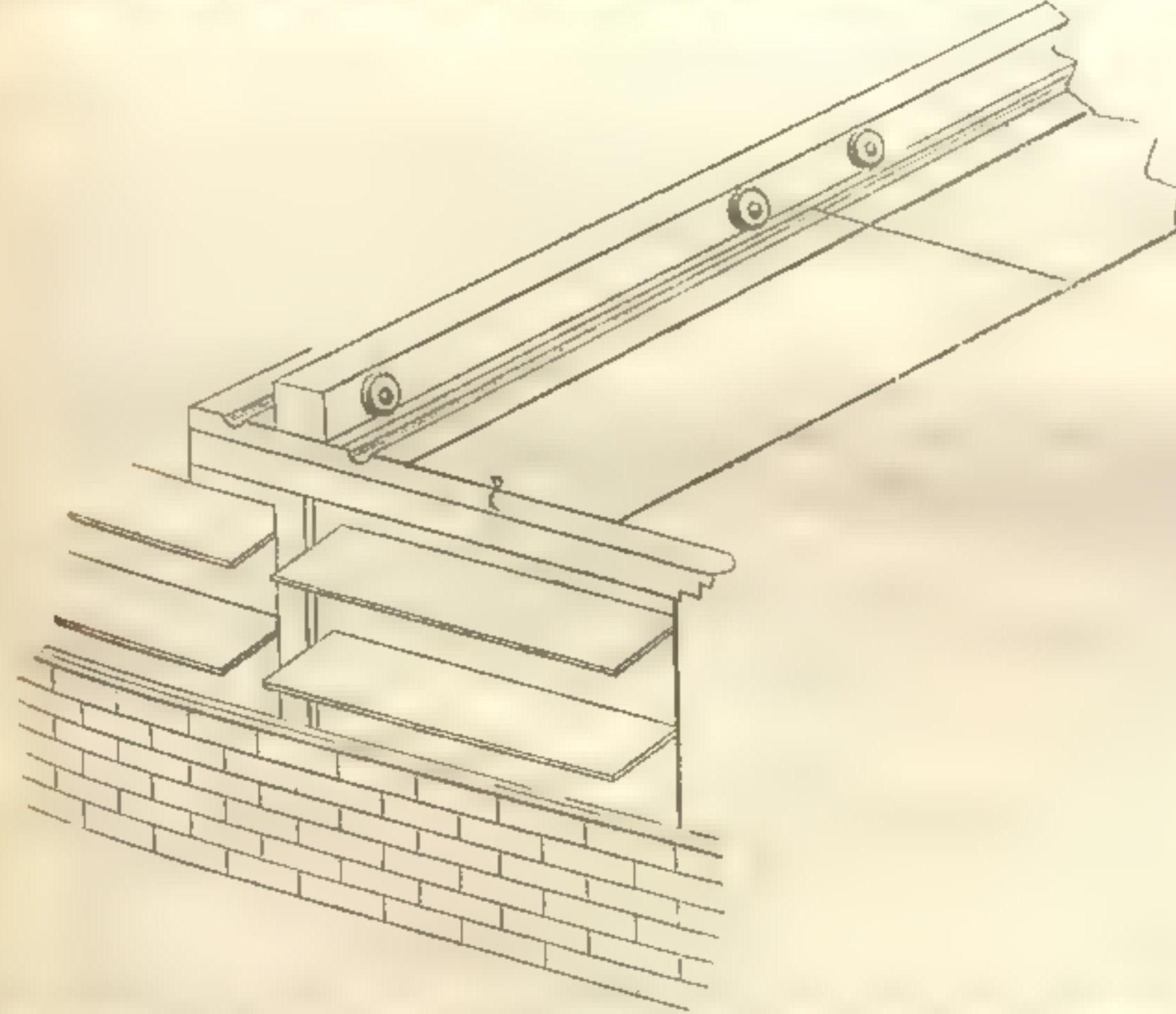
screws, to the side of the glass, and the work of the workmen is done easily and quickly. A groove is cut in the bar, just sufficient space being left to obtain a slight pressure from the roller. A groove in the ridge receives the upper end of the square, and the lower end is fixed with a galvanised screw at bottom, just leaving a small space wherein to insert a thin ash wedge between the glass and the screw. If the rollers are fixed by gauge, there will be no difficulty in glazing a house 100 feet long by 12 feet wide, in three days, by a man and a boy, and it requires no painting after it is done, the saving of labour is very obvious. And, when the house requires painting, the glass may be stripped off very quickly, and placed in position each space against the outer wall, when the painting can be



more readily, quickly, and efficiently performed, as there is no glass in the way. The squares butt against each other, consequently the glass must be cut true, and none inferior to 20 oz. should be used. There

should be a little play allowed between the bars and glass, for inequality in size and imperfection in cutting square. There is also by this mode of glazing less risk of breakage, and when a square is broken it

can be mended in one minute, by simply taking out the screw and pushing the new square into the hole of the broken one. This advantage is not to be obtained of any workman who glazes in the



and cost but a trifle; the screws may be had of most iron merchants.
We have now used this system for three years, and are so satisfied with it that we shall never more run in the old groove. I was looking at our glazier the other day chipping out the putty of a broken square, and getting in a new one, and am certain I could have put 20 squares on the new system in the same time which he took to put in one on the old. The bars being channelled, any wet that drives against them is carried down and discharged at the bottom. No drip occurs at the joints, and when from defective cutting the squares do not meet quite close, any water that enters runs down the inside and escapes over the plate, which slopes outwardly, and has two channels of slight depth run out in each space. I use glass 12 by 26 inches, and find no difficulty in securing panes of this size.
The plan of ventilation is very effective and simple, being composed of two folding shutters the whole length of each side, and as the ridge is double, a space of say 9 inches dividing it, there is an opening for a vertical lift of a board 11 inches wide the whole length of the house. This system affords an effective aeration of the structure even, to excess, and must be modified

according to the weather by the partial opening of the vents. The inner supports consist of iron arches, 2-inch bar, and the interior view is exceedingly light, airy, and graceful.
The cost of these structures, compared with those constructed on the old system, is very economical. If desirable, I will furnish you with statistics. *F. T. Smith, The Nurseries, Dulwich, Nov. 10. [Pray do. Eds.]*

THE ESPIRAN GRAPE.

THIS is a very popular out-of-door Grape, better known as the Esperione. Espiran is, however, the true name (see Hogg's "Fruit Manual"). I am often astonished at the very high character which this Grape receives in your columns. I can only fancy that somehow or other your correspondents must be cultivating some other variety in its stead. I know that the Black Hamburgh and Frankenthal have been by some confounded with it, indeed, we have here in these gardens received cuttings of the Esperione (so called) several times, and they have almost always proved to be the Black Hamburgh. Although I have been present at nearly all the fruit shows for some years

past, I can only remember one instance of the true Espiran having been exhibited, excepting those from the Society's Garden, Chiswick. I think we have the late Mr. D. Beaton to thank more especially for a great deal of the confusion existing in respect to this Grape. He it was who wrote and praised it up so much in his characteristically energetic style, and gave it a character for excellence to which it can lay no claim whatever. The Vine which poor Donald lavished all his high-sounding praises upon, proved to be nothing more nor less than the true Black Hamburgh. There is little doubt, from Mr. Beaton's position, and the respect in which his writings were held, that cuttings from the false Espiran Vine were distributed pretty freely throughout the country. I only, of course, advance this as an opinion; but as it coincides with what I have so often proved, I do so the more readily.
The Espiran, in my opinion, is quite a third-class Grape, judging of it by the standard of flavour. The only recommendable qualities to which, in my opinion, it can at all lay claim, are its fertility, and hardy constitution. It may also very probably be a good wine-making variety, but I cannot answer for that. I have cultivated the true Espiran Grape in heat and on the open wall, and I must say that I am disappointed with it. Grown in heat it produces good sized bunches, and the berries colour beautifully, but they are very leathery and frequently of an astringent flavour. Grown in the open air it also bears and colours well, but I have never tasted a berry much better than a Sloe—at all events it is decidedly unpleasant to eat; while on the same wall Royal Muscadines and Black Front gnaws have been of excellent flavour. I tasted some berries from a bunch that was exhibited (I think) by Mr. Dewdney, of Dorking, at the meeting of the Fruit Committee on October 23, grown in the open air. They were abominably bad, judging them in comparison with others from the same place.
The Espiran is a very distinct Grape, easily distinguished by its wood, leaves, and fruit. The wood is very hard, and growing in staves very highly coloured—a deep reddish-brown, when in a ripe state (i.e., the young shoots) it has a beautiful and very distinctly striped appearance, dark brown and

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of soft soap, sulphur, &c.; also dusting over with sulphur in summer, but without effect. It appears to be very similar to the Potato disease. An old gardener, who has done the nailing here for nearly 30 years, tells me the trees were similarly attacked some years ago, when, after a few years, the disease disappeared. It was then, after rather more than 12 years, the first time it has been here, and this year they are again attacked. It attacks Peaches and Nectarines, and I have sent specimens of all stages of its development, from the first spot to the killing of the wood. The specimens Mr. Berkeley had were forwarded from me through the kindness of the Rev. H. Dombrain, who has seen the trees, but to whom the disease is quite new. The Peach shoots above mentioned were submitted to the most experienced horticulturists in England, and they give it as their opinion that such an effect must be produced by the causes mentioned by Mr. Berkeley at the general meeting. It must be recollected that without an opportunity of examining a particular locality it is impossible always to speak with perfect certainty; all that can be done is to state the probable cause, and even should that fail to be borne out by facts, the cultivator will at least be able to eliminate one possible element in his judgment. As the disease is not confined to the late peculiar season, but has existed for years, we cannot help thinking that the fault is to be found in the roots. We believe that the Peach trees which had suffered so much at Chatsworth were restored by removal of the old sodden soil about the roots, replacing it with a congenial compost. On examination of the specimens just received it is quite clear that the constitutional condition of the plants was somewhat fresh stimulus. The disease often, though not always, commences at the bud, which dies and communicates the subjacent tissue, there not being strength enough below to throw off the young diseased wood. We have little doubt that if the roots are inspected, and proper compost supplied, that the health of the trees will rapidly improve. At any rate, it is worth the trial. Send the leaves when first attacked and in subsequent stages. Eps.]

Rose Budding.—I shall be very much obliged to any of your readers who will tell me the simplest and easiest way of fixing Rose buddings. I have been accustomed to use them with wax, but it is very troublesome to me in a crowd of Briars, from catching so frequently in the thorns. I have heard of some adhesive substance that is used, but I have never seen it, and anyone who has tried it will much oblige me, and probably others also, by a description of it and the mode of using it, with information of the success that has attended its use, and the place where it can be procured. To this inquiry "S. E. H." obligingly answers—"If 'F' will favour me with his address, I shall have pleasure in sending a specimen of the cotton which I have used for many years in budding to my entire satisfaction, which is much less liable to be entangled among the thorny branches of the Briar, and which he can procure at any 'small-ware' shop. I should prefer wax to worsted. It is easier for manipulation, and, soon succumbing to the influence of the weather, gives no trouble as to the removal of ligatures, but the cotton is, in my opinion, the most pleasant and safe material to use. I have made no experiments, except in grafting, with any 'adhesive substances.' S. E. H.]

Mistletoe.—Would you inform me in your Answers to Correspondents whether the Mistletoe growing on a Mountain Ash is an uncommon circumstance. [Yes.] There are quantities of it here on Thorn, Lime, and Apple trees, and one very fine specimen on the Oak, which have been recorded in your columns; but though there are plenty of Mountain Ash trees about here, I have failed to discover the Mistletoe on but one, and that a close to some large Lime trees, with some trees 3 to 4 feet in diameter growing on them, which are now covered with berries; owing to the late and weather the mistle thrushes have not taken them this winter, as they generally do ere this. E. J. C. Havts

Garrya elliptica.—This plant is worthy of all the praise bestowed upon it by "Somerset," and for the south and west of England it is admirably adapted. We have scarcely anything so beautiful among plants in its drooping catkins, while its leaves resemble the evergreen Oak, and its habit is compact and bushy. But intending planters must carefully note, that "Somerset" adds—"That it is not more tender than the Myrtle." It is not quite so tender in fact, for it lives and grows out-of-doors tolerably well in East Anglia, but in the course of 20 years I have only once seen its fountain-like catkins uninjured by frost. In sheltered nooks in the south and west it is, however, among the most graceful and distinct of all shrubs, and is eminently deserving of more general cultivation. D. T. P. January 28.

Ivy on Trees.—Mr Fryer, at p. 81, inquires whether Ivy injures the trunks of trees. Certainly it does, when they are growing fast, and the Ivy is allowed to wind round the stem. In such case it presents a strong mechanical barrier to the growth of the trunk, and seriously impedes the passage of the sap. But on large trees, and trained parallel along the trunks, I do not think the Ivy injurious. The Pine tree referred to is possibly suffering from the heat and drought of the past summer. It would be well to try the effect of several thorough soakings of water before destroying the Ivy, presuming that the latter is valued as an ornament. It is a good plan in the case of Pines to remove the Ivy wholly from the trunk; when it gets to run among the branches of Pines it often injures them, and fortunately it is not needed there as an ornament. D. T. P. January 28.

Camellia Buds Dropping.—I can fully endorse all that Mr Barnes has said respecting the casting of buds, although it is not in a general way so much complained

of amongst specimens planted out, as in those under pot-culture, the latter being more subjected to sudden changes, or conditions of heat and cold at the root, a greater or less degree of moisture, &c. These conditions being carefully guarded against, the great secret is to maintain, at the same time, a cool and comparatively moist and healthy condition of the atmosphere. I have for several years past made many and various experiments on the cultivation of the Camellia, such as potting at different seasons, in various kinds of soil, watering with various manures in a liquid state, in the various stages of growth and bud, and also by exposure to various temperatures, &c., but am not thoroughly satisfied respecting the requisite amount of light best suited to bring the flowers of this plant to the greatest perfection, but, as far as my experience has gone, I am inclined to believe that the light admitted by a modern span roof house, glazed with sheet glass, in the autumn season, has a tendency to diminish the size of the blossoms, if not positively to cause the casting of buds, especially with pot-plants. I should be glad to know if Mr. Barnes' house is glazed with sheet glass, and what shading is used, particularly in the autumn season. By far the best and finest flowers I ever saw expand under my own management were matured in a house glazed with sheet glass, in a northern aspect. I may here add that part of the same collection, for want of space, when housed (about the middle of September) was placed in a cool house with a southern aspect. This house contained at the time a number of miscellaneous New Holland plants, was paved with fancy tiles, and kept very clean. The greatest care and attention was bestowed on the Camellias, but they cast many of their buds, and the flowers that came to maturity were small compared with those in the house with the northern aspect. I have also seen many good collections of Camellias in various parts of Great Britain grown in houses with a southern aspect, but where such is the case, I have invariably found them in old-fashioned, dark structures, where drip and small glass, not over clean, is the order of day. In compliment to Mr. Barnes, I know such is not the case at Bicton. It is 14 years ago since I was there, and I shall never forget the cleanliness and order everything was in under his able management. Anonymous.

Pines: Cutting Down.—I am glad that Mr. Barnes has enlightened the rising generation of gardeners upon this subject, for many have already clutched at the operation as a novelty. I am not able to look through the vista of the past, for half so many years as Mr. Barnes, but I know that the cutting down was performed 20 years ago by a noted Pine grower, but this was accidental. The roots of his would-be fruiting plants were injured by excess of heat in the plunging material before he was aware of it, and the plants were taken and thrown on the rubbish heap, and remained there for some days. Such was his grievance that he went frequently, as it were, to weep over the objects of his admiration. He at last came to the conclusion to reinstate them in some form or other, finding that they would fruit sooner than the suckers, and some, after being "chopped," were placed amongst the fruiting ones, the others were arranged amongst the successions as their size demanded; and to his astonishment he found the most of them fruited, as he termed it, prematurely. Nothing short of necessity, I should say, would ever induce any one to overthrow, in such a way, the equilibrium of root and branch in such a plant as the Pine. I will relate another instance, which came under my own observation, of the effect of this cutting. At Wortley Hall, before Mr. Simpson went there, a quantity of Pines had been planted out, their age being about two years. They showed no symptoms of fruiting, and it was decided that they should be taken up and replanted, but such was the mechanical texture of the soil that scarcely a handful would adhere to the plant, and the roots were in anything but a good state. However, the best were replanted, and the others were cut down and set amongst them. One part of the old soil was used (it was only common garden soil with some lime rubbish), and this was mixed with about three parts peat. This may seem a strange compost to some, but necessity has no choice—not a sod was allowed to be cut for garden use. However, they rooted in it well, and they showed fruit in a short time, those cut-down as well as the others. Where Pines are planted out, the mere lifting of them and placing them back will induce them to fruit. I fear Mr. Barnes has misunderstood the object the gentlemen he names had in view when they wrote. I presume that they came forward to maintain the operation as being an expedient course to pursue in an emergency, such as requiring a few Pines at a certain time, and not under the assumption that they were introducing a new system of culture. If the latter was their aim, he is quite right, as a veteran, to take them in tow. W. P. R., Holwood.

Iron for Garden Walls.—The ideas which I now publish may have in them nothing that is really new or original, but they may be worth the attention of those who may be making new gardens or alterations in existing ones. The large outlay required if a kitchen garden is to be walled in, often deters the proprietor from having his garden so large as is desirable, or such a space for training tender fruits as he would wish. When brick is used the wall becomes in the course of time full of innumerable nail-holes, unless wire be used on which to train the trees), and the pointing also falling away, capital hiding places are formed for destructive insects, to the endless trouble and annoyance of the gardener. I would therefore substitute iron for brick. The first cost would be less and the ultimate saving large. The walls would be made of iron plate galvanised, $\frac{1}{2}$ inch in thickness for 3 feet from the base, above that height $\frac{3}{4}$ inch would be found sufficiently strong. The plates might be all made 3 feet in width and of any length into which they could

be rolled. The horizontal joints should be flanged, the flange being about an inch in width. This would admit of its being pierced at 7-inch intervals for the insertion of wire, running vertically as tree trunks. The width of the wall at the base should be 3 feet, for one 14 feet high, decreasing to 1 foot at the apex. The earth where the wall is to stand should be removed till a quite solid stratum was reached, or at any rate 3 feet in depth and 1 foot in width must be removed. This trench should then have 1 foot of concrete spread evenly over it, blocks of stone of a good size being buried in it, to which the bottom flange must be bolted. The top of the wall would be covered by a plate, sloping from its centre, and projecting but little, for the wall, having a sloping face, could not be protected by a coping, except of an extravagant width. I think that, as a rule, trees sheltered by wide copings are not so healthy or so generally free from red spider in summer as those that receive all the dew and rain that fall. Now, it will be seen that we have an air-tight structure, with a surface upturned to the sun, and which will therefore both receive and retain a great amount of heat. As I have no reliable data, I am not prepared to say that it will retain heat longer than a brick wall. If its retaining power be greater, so much the better for our trees on clear frosty nights during our treacherous springs, for the radiation may possibly be greater than from a perpendicular wall. In the case of walls intended to carry our tender fruits in the south of England and Ireland, and in the north and in Scotland our better kinds of Pines, Pears, and Apples, hot-water pipes could be used, then the temperature of the wall, whilst the trees run any risk from frost, would be under control, and after wet summers the hot-water apparatus would be of immense use in ripening the wood. A 3-inch flow-and-return should be ample for the heating of a high wall, and say 100 yards in length. These might be placed near the ground level. F. Moore.

Cheap Vineries.—Would a vinery 14 feet wide, span-roofed, with a slope of 7 inches to the foot, with Vine plants on the S.W. side, trained up that side and down the opposite one, be suitable, or could one of 16 feet be made without supporting columns under the rafters? Would 20 inches be too wide between the astragals, or would it be better to use narrower glass, say 15 inches in width, or what size of squares if none of the above are suitable? What quality of 16 ounce glass as advertised by dealers? May I ask if the Golden Champion Grape suits a cool vinery as well as the Black Hamburg? D. [Roofs are always the better for being steadied by supports of some kind 12 inches in width enough for the glass, which should be 20 oz. The Golden Champion Grape is stated, on Mr. Thomson's authority, to ripen perfectly with the Black Hamburg. Eps.]

Phalanopsis Schilleriana.—As comparing of notes in my opinion is next in value to open competition, a few words about a plant of this fine Orchid under my care here may be interesting to some of your readers. The plant has eight leaves, and now bears a panicle of 78 flower-buds, its length is 5 feet $\frac{1}{2}$ inches, and its greatest breadth is 4 feet, and a much more valuable stem still is bearing a fine young plant, about 15 inches from the pot, the largest leaf of which measures 13 inches long; and about a foot higher is another smaller plant, but which promises to become a very nice one in a few months. Another plant, taken from the same parent about 3 $\frac{1}{2}$ years ago, is now bearing 90 flowers, and is nearly as large as its mother William Cross, Gr. to the Right Hon. Louisa Lady Ashburton, Melchet Court, Romsey.

Dianthus hybridus striatiflorus.—I have just seen this very pretty double mule Pink blooming freely out-of-doors under the north wall of a greenhouse, at Mr. McDonald's nursery at Chichester, not any the worse for the frost of the three preceding nights. It deserves to be oftener seen in collections than it is. W. T., Jan. 23.

The Rainfall of 1868, and its Effects on Fruits, Vegetables and Plants.—The fall of rain during the year 1868 was about equal to the average amount for this district, but it was so irregularly distributed that the extremes of drought and humidity were experienced during the year. From February to July there was a constant deficiency of rain, and the whole amount registered for that period was 6.23 inches. So great a deficit in the supply of rain during the period of greatest activity in vegetable growth, proved injurious to some of our cereals, and generally and unfavourably affected hay and root crops. The same peculiarity of the season exhibited in a marked degree the imperfect character of our system of supplying that most essential element, pure water, to our towns and villages. The autumn months were wet. The rainfalls which occurred in August, September, and October assisted to make up the average. This was finally accomplished in December by a fall amounting to 6.07 inches, which about equalled the quantity that fell during six months in the spring and summer seasons. Owing to the drought, Potatoes ripened in July. The crop was too light to take up, and as the haulm in most cases remained green and vigorous, hopes were entertained that with rain an improvement in the crop would take place. After the copious showers which fell in August a rapid growth and development of young Potatoes from the first crop of tubers ensued, and a tolerably large second crop was the result. The declining heat, consequent on the season, and the increasing humidity, while it assisted the growth, tended little to give maturity to Potatoes, and the second crop was in consequence inferior in that respect. White Turnips sown on the 19th August grew rapidly, and afforded a crop of medium size, quite large enough for table purposes. The Onion crop ripened early, and the tops dried, so that rain could afford no benefit to this useful crop, which is in consequence scarce. Carrots are small and somewhat hard; failures were frequent in this

abstracted, in the way we have mentioned, by some faithful pupil who had forgotten that vegetable physiology had made some progress since the publication of the works before alluded to. The book is a worthy and the author's well-earned reput.

The Rev. H. T. Lowe has published the fourth and fifth parts (making the first volume) of his excellent *Manual Flora of Madeira and the Azores Islands* (Van Voorst). The descriptions are admirably drawn up, and the dry technicalities are enlivened by the insertion of interesting remarks. The author raises his voice loudly against certain "inexcusable, intolerable, anagrammatic transformations," such as of *Phagnalon* into *Phagnalon*. The list of *corrigenda* is long. Let us hope that in succeeding parts more careful revision will take place, or a separate part will be needed to contain the *corrigenda*.

who has already earned great repute for her *Science*, 2 vols. 8vo (Murray). After a well-managed summary of the present state of our knowledge on the elementary constitution of matter, including the revelations of spectrum analysis, the author passes in review the most representative groups of plants and animals, and describes their peculiarities. The book is beautifully illustrated, and though necessarily to a large extent a compilation of the best that has been undertaken by one thoroughly competent for the task she has undertaken.

CATALOGUES RECEIVED.—The following Seed Lists have been before us: Barr & Sugden's Catalogue.—J. Coe & Co.'s Vase Mecum.—Sutton & Son's Amalgamated Catalogue.—Wheeler & Son's Little Book.—W. Paul's Select List.—E. P. Dixon's Catalogue.—Charles & Cummins' List.—W. Bull's Retail List.—London and Continental Seed Co.'s Catalogue.—E. H. & A. Dickson & Son's Vegetable and Flower Seeds.—T. Kennedy & Co.'s Catalogue.—T. Sampson's Catalogue.—W. Drummond's Vegetable and Flower Seeds (accompanied by pamphlets entitled *Directions for Sowing Seeds*, and *Directions for the Culture of Various Seeds*).—S. Glendinning & Son's List.—E. J. & Co.'s General Catalogue.—W. Thompson's Descriptive Catalogue.—Ch. Huber et Cie's (Paris) Catalogue.—J. Veitch & Son's Catalogue.—W. & A. Carter's Catalogue.—J. & R. Thynes' Catalogue.—R. Parker's Catalogue.—T. Lang & Co.'s (Melbourne) List.—B. S. Williams' Catalogue.—E. Dean's Catalogue.—W. Wood & Son's Catalogue.—C. Turner's Catalogue.—F. G. Henderson & Son's Catalogue.—F. & Co.'s Catalogue.—Stuart & Main's Catalogue.—A. D. & Co.'s Select List.—Vilmorin-Andrieux's Catalogue Général de Graines, etc., and Supplementary Catalogues. Many of these contain very good lists of both of vegetables and flowers, and some are well illustrated.

Plant Lists we have:—J. Stanish & Co.'s Catalogue of New and Rare Plants (illustrated with several colored illustrations).—J. & C. Lee's Trade List (containing an extensive selection of hardy trees).—W. B. & Co.'s Catalogue of Ornamental Plants (with list of names).—T. Kennedy & Co.'s Forest and Ornamental Trees.—J. Veitch & Son's Descriptive Fruit Catalogue and Select Roses.—E. H. Krelage et Fils' Catalogue Systema et Descriptif des Prairies.—R. & S. Marks' Select List of Hardy Plants.—Société des Éleveurs de Brest (M. Robert, Rosiers Nouveaux).—Lang & Co.'s (Melbourne) Catalogue of Plants.—Ch. Huber et Cie's Catalogue de Végétaux.—A. Stolze's *Prä-Courant des Plantes Nouvelles*.—L. Van Hulle's (Gand) Catalogue of Hardy Plants (contains a very extensive and varied list of hardy trees and shrubs).—H. Gannell's *Floral Guide for 1900*.—J. Seemann's *Preis-Verzeichniss neuer und neuester Gärten*.—Dallas.

Florists' Flowers.

There are few flowers that can boast a greater variety and extent of admirers than the STOCK, it is everybody's flower, but it is none the less a "rich" if we wish to see this flower in its highest perfection, we must more often look for it amongst the poor than the rich. There are thousands of humble cottages where the Stock enjoys a fixity of habit, and its character, but which can only be appreciated by noting the care and attention bestowed upon it. The favourites of the humble housewife. The cottage garden has hitherto been limited to the common Stock and often being a plant it has been the case that the former has been less account for this. The probability is that it was to be found in cottages and not in the hands of outside observers but to the general public a matter of course. In selecting a Stock to save seed, it is the practice to choose those that have five or six petals, these produce the largest pods, and invariably the greatest proportion of double flowers. It is careful to select that variety that produces these desirable results.

The Hampton Stock is found in three distinct forms—scarlet (the most common), white, and purple; the latter is less often met with, the white is somewhat more frequently though by no means common whilst there are few cottage gardens in this neighbourhood that do not boast a few of the former. In the summer, certainly not so tall and robust as the scarlet but still very handsome and double. The proportion of doubles to singles in this colour was

small; the strain of scarlet grown about here is the Giant, reaching from 30 to 36 inches in height, branching in habit, and often producing spikes of bloom, open at once, from 9 to 10 inches in length. These are positively grand, and would excite the admiration of the greatest bedding-out epicure. The Queen Stock has special charms for many, because of its small branching habit and its adaptability for cut flowers, for which it is available. Scarlets are of the purple that is so common in the Hampton Stock, the common and most plentiful colour in the Queen. The white and scarlet are, however, frequently met with. Another characteristic of this Stock is its tendency to produce variegated flowers, thus plants bearing blooms that are white and scarlet and white and purple are very common, where the different colours have been grown adjacent to each other, but I have never met with one that has the purple and purple together. The purple Queen will make very effective beds for spring work, and also produce a colour that is by no means common for that purpose.

The summer varieties known as the Ten-weeks are great favourites with cottagers, but the variety that exists in this case of procuring imported seed fresh every year to produce good double kinds, renders the chance of their growth among the poor less possible, but they are none the less fitted to adorn the gardens of the poor. The improvement that has been made in these Stocks of late years, especially those that take the pyramidal form, would astonish many who have neglected their culture. Last spring I was supplied with seed of the following kinds: Violet Pyramidal, Azure Blue Pyramidal, Large-flowering Pyramidal, Giant Pyramidal, Giant Ten-week Purple and Scarlet, and German Ten-week of eight colours. These were raised in a class at Hampton, and planted into the open field as soon as the ground was fit. They commenced blooming about the middle of July, and continued without intermission up to the end of November, many of the pyramidal kinds holding on to Christmas, and seemingly the more so the more they were cut. Beyond the soil being fresh and moderately manured, they had no other assistance, never having had a drop of water from the first, in spite of the excessive drought; their vigour of growth astonished me.

I exhibited at two of our local exhibitions—on each occasion a large box filled with a collection of these flowers, and it is not too much to say that they produced quite a sensation there, especially as the flowers were the best I have ever seen. The most remarkable variety of colouring, all helped to make them especial objects of attraction. In the one case I obtained a 1st prize, and in the other a First-class Certificate. Early in August I took some notes of them, which I will now give for the benefit of your readers. First of the Pyramidal in this class the Azure-blue deserve first mention, although purplish white would more correctly convey the true nature of its colour. This has a very dwarf robust habit, averaging 10 inches in height, 60 per cent double, has a glossy dark green foliage and would make a good variety for a front row. Another fine stock is the Violet Pyramidal, this is of a rich dark colour, strong robust habit very free bloomer from 10 to 12 inches in height, 60 per cent double flowers. The Large-flowering Pyramidal, having a variety of colours, of very robust habit, about 12 inches in height, giving 60 per cent double, but the singles are also very fine and attractive. The Giant Scarlet Pyramidal Stocks resemble the previous ones in character and habit, and are very fine. Distinct from these are the Giant Ten-weeks, a somewhat taller strain, of branching habit, and which would be best in the centre of a bed; their height averaged 16 to 18 inches. These are first-rate for cutting from, and can be strongly recommended for that purpose. The two colours of these were scarlet and purple; but singularly enough, as the flowers reached the extremities of the branches, in either case they assumed a variegated form, thus adding considerably to their beauty. Last but not least in attractiveness were the German Ten-weeks, these possessed a variety of colours, among which pure white, salmon, and black brown were particularly prominent; these averaged about 12 inches in height, all of them having a robust branching habit. The proportion of doubles was very large; moreover these Stocks continued to bloom most wonderfully right into the winter. I believe the notes as given above to be truthful and not exaggerated. Horticultural Societies would do well to schedule collections of these flowers along with Dahlias, Asters, &c., at their autumn shows. Gardeners of all classes should grow them for decoration, and where possible cottagers should have them to help to maintain that suggestion of beauty which they so much prize. I have met with few annuals that I can recommend so highly as these. *Alexander Dean.*

The Apiary.

COMPARATIVE FERTILITY OF QUEENS.—It is the opinion of some practical aparians that artificially-raised queens are not generally so prolific as those reared in the normal manner by bees in preparation for sending out natural swarms. It is also thought to be tolerably well proved that artificial queens vary in this respect, according to the period of their larval state at which the change from the ordinary to the royal nurture commenced. It seems rational to suppose that a queen raised from a grub which had arrived at the fourth day of its existence in the larva condition before any change had been made in its nursery or in its food, could not be turned out so perfectly and fully developed, consequently so fertile or prolific, as she would be if the change in her nurture had commenced from the time of her emerging from the egg. It is

also asserted that queens which have been subjected to this late process of transformation are very short-lived—that at the end of the first, or at most the second season, they are utterly worthless as breeders, and are usually deposed and exchanged by the bees if the time of the year be suitable for that purpose; if not, and they are allowed to remain, the hive gradually dwindles away.

I confess that some of my artificially raised queens have after a brief and brilliant career, which was usually attended by a very high rate of increase, and some have disappeared altogether, after a very short existence. But I am not prepared to say that it was owing to their having been raised in the manner above alluded to, but I can remember instances of queens which were apparently raised under precisely similar circumstances, and which have lived for several seasons, with fertility and longevity.

I cannot for one moment believe that a queen artificially nurtured is necessarily less prolific or more fertile than her sister reared in a perfectly natural manner. The most prolific, and longest enduring queen in my apiary, that I have ever been able to trace the career of, was an artificial Ligurian queen raised by my friend Mr. Woodbury, from one of the two queens originally imported by him, and presented by him to me. I placed her at the head of a very small artificial swarm, gradually building up the stock until it was sufficiently strong to stand the winter. I do not know at what period of her larva state the change in her treatment may have commenced. I have had many other artificial queens, which have been almost equally remarkable for these good qualities of fertility and longevity, but as my attention had not then been drawn to the consideration of the arguments advanced by aparians on these subjects I had paid no attention to the exact conditions which attended their formation. It is an interesting subject, and one of being experimented upon, with a view to the discovery of the course of procedure most likely to ensure satisfactory results. *S. Bevan Fox.*

Miscellaneous.

Vegetable Products of N.W. America.—One of the *Vacciniums* (*ovalifolium*, Sm.) is well known to all north-western travellers (at least those who have been much among the northern Indians) as the *le-bean* plant, being used to make a dainty of that name. The berries are gathered in the autumn, before they are quite ripe and after being pressed into a firm cake it is lined and wrapped in bark and laid by. When it is to be used a quantity is put into a vessel among cold water and then stirred rapidly round with the hand, when it must be free from grease and it assumes a paste-like form. More water is then added, and more stirring applied, until it assumes a firm, not unlike soap-balls. In this frothy state it is supped with long wooden spoons, made of Pinus monticola. It is pleasant to the taste, with a slightly bitter flavour, and is often prepared in Hudson's Bay forts as an Indian dish, which no traveler ought to leave the North-west without tasting. At their high feasts the Indians will sup of this until they are ready to burst, and then wade in the water, drinking which seems to allay the thirst occasioned by the thirst. The Indians and grizzly bears of Southern Oregon and California eat the berries of the *Manzanilla* (*Arctostaphylos glauca*, Dougl.), but I have never seen the northern tribes make the same use of the berries of the allied species (*Arctostaphylos tomentosa*, Pursh). The tender shoots of various plants are eaten in the spring, such as the shoots of *Rubus nutkanus* (carrot loads of which can be seen, in the season, on the way to Indian villages), *Rosa fraxinifolia*, Bork., the green stem of *Ligusticum sibiricum*, L., and *Pseudoanemum leucocarpum*, Nutt.; which are peeled and eaten, as well as the stem of *Erodium cicutarium*, L'Her.—the alfalfa, or "pin-grass," of the Californians, and some other plants of that sort. They seem to make use of no species of Lichen for food, but make compressed cakes of a *Rhodymenia* for winter use. Captain Mayne, R.N. ("British Columbia," p. 272) however, says that they boil and compress into cakes *L. jubatus*, I never saw them do so though the statement is not at all improbable (see also *Lauder Lindsay, Journ. Linn. Soc. Botany*, vol. ix., p. 313-14). Grass and Clover the Digger Indian (the elevated in his history above the lower animals) looks upon as great blessings, and eagerly eats them, and grows fat on them. The Californian White Clover is however, very sweet and I dare say to these poor people forms, either raw or boiled, a very agreeable salad to their grasshoppers. Beyond the Potatoes they have no cultivated plant. Some of the Indians in Oregon used to grow a little wild Tobacco, but they now buy the ordinary *Nicotiana* from the whites. I have seen some of them, when Tobacco was scarce, in order, as they thought, to get the full benefit of it, inhale the smoke, gulping it down until it came out at the nostrils and ears. They would repeat this once or twice, then lay the pipe to another, and lie down, almost senseless, to sleep of the stupor. *B. Brown, in "Pharmaceutical Journal."*

Californian Pine Cones.—Some time since Mr. J. Q. A. Warren, of California, arrived in England with a magnificent collection of Pine cones. They were exhibited at his private rooms, where we had the pleasure of inspecting them. We are glad to learn that these Californian Conifers have been secured by Mr. Bennett, of the British Museum for the Botanical Department. The collection comprised fourteen species—viz., *Pinus Coulteri*, twin cones, with the young cone of the first year's growth, also a specimen of the same variety over a foot and a half long, and an open cone, very large and beautiful, showing this species in all its perfection, *Pinus Sabiniana*, *Pinus muricata*, this

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	Fertile Clays.	Poor Clays.	High Lying Clay Soils.
SWEET VERNAL ..	1	1	1
MEADOW FOXTAIL ..	2½	2	2
LARGE OAT GRASS ..	1	1	2
CRESTED DOGSTAIL ..	1	2	3
COCKSFOOT ..	4	3	3
HARD FESCUE ..	2	3	3
VARIOUS LEAVED FESCUE ..	2	2	3
TALL FESCUE ..	2	2	2
DARNEL-LEAVED FESCUE ..	1	2½	1
MEADOW FESCUE ..	3	3	2
Best imported Italian RYE-GRASS ..	4	4	4
Pacey's Perennial RYE-GRASS ..	4	4	8
TIMOTHY ..	2½	2½	2
WOOD MEADOW GRASS ..	3	3	4
Rough-stalked MEADOW GRASS ..	1	2	3
PERENNIAL RED CLOVER ..	4	5	3
PERENNIAL WHITE CLOVER ..	4	4	4
ALSIKE CLOVER ..	1	1	1
YELLOW TREFOIL CLOVER ..	2	3	4

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MEADOW FOXTAIL ..	2	2½	2
LARGE OAT GRASS ..	1	2	2
GOLDEN BRISTLE GRASS ..	1	2	2
COCKSFOOT ..	4	3	4
HARD FESCUE ..	2	3	3
SHEEP'S FESCUE ..	2	3	3
DARNEL-LEAVED FESCUE ..	1	1	1
MEADOW FESCUE ..	3	3	2
Best imported Italian RYE-GRASS ..	4	4	4
Pacey's Perennial RYE-GRASS ..	4	4	8
TIMOTHY ..	2½	2½	2
WOOD MEADOW GRASS ..	3	3	4
Rough-stalked MEADOW GRASS ..	1	2	3
PERENNIAL RED CLOVER ..	4	5	3
PERENNIAL WHITE CLOVER ..	4	4	4
ALSIKE CLOVER ..	1	1	1
TREFOIL CLOVER ..	2	3	3

Per Imperial Acre, best quality, 27s. to 32s.
Second Quality, 26s.

TESTIMONIAL from H. BERRY, Esq., Letton Court, Hereford.
"Please send me 37 Acres Grass Seeds as last year I am glad to say that what you then sent has done well."

CARTER'S GRASS SEEDS FOR LIGHT SOILS.	No. 7	No. 8	No. 9
	Light Chalk Soils.	Brashy Limestone Soils.	Sandy Soils.
SWEET VERNAL ..	1	1	1
MEADOW FOXTAIL ..	2	2	2
GOLDEN BRISTLE GRASS ..	2	2	2
COCKSFOOT ..	2	2	2
HARD FESCUE ..	1	1	1
VARIOUS LEAVED FESCUE ..	1	1	1
REDDISH FESCUE ..	1	1	1
SHEEP'S FESCUE ..	3	4	3
Best imported Italian RYE-GRASS ..	4	4	4
Pacey's Perennial RYE-GRASS ..	4	4	8
WOOD MEADOW GRASS ..	1	1	1
SANDY LYME GRASS ..	1	1	1
CRESTED DOGSTAIL ..	2	2	2
YARROW ..	3	4	1
YELLOW TREFOIL ..	3	4	4
PERENNIAL RED CLOVER ..	6	4	4
PERENNIAL WHITE CLOVER ..	2	3	2
ALSIKE CLOVER ..	1	1	1
BURNET ..	1	1	1
SALINFON ..	1	1	1

Per Imperial Acre, finest quality, 27s. to 32s.
Second Quality, 26s.

TESTIMONIAL from J. BROWNE, Esq., Rugby.
"The Grass Seeds I had from you were very good indeed. A more beautiful crop could not be found."

CARTER'S PRIZE MEDAL LAWN GRASS,

As supplied for the grounds of the late Paris Exhibition, will specially produce a carpet-like turf of the finest quality.
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To Landowners, whether Tenants in Fee or for Life, Estate Agents, the Clergy, &c.
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ROYAL AGRICULTURAL COLLEGE, GIRENCESTER.

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ROYAL AGRICULTURAL SOCIETY of ENGLAND.

AGRICULTURAL EDUCATION.
The EXAMINATION of CANDIDATES for the SOCIETY'S EDUCATIONAL PRIZES will take place in the week commencing MONDAY, April 12, 1869. Copies of the Form, required to be sent in by March 15, may be obtained on application to
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ROYAL AGRICULTURAL SOCIETY of ENGLAND.

MANCHESTER MEETING, 1869.
STOCK and IMPLEMENT PRIZE SHEETS are Now Ready, and will be forwarded on application to
H. M. JENKINS, Secretary,
12, Hanover Square, London, W.

The Agricultural Gazette.
SATURDAY, FEBRUARY 6, 1869.

MEETINGS FOR THE ENSUING WEEK.
Feb. 8—Gloucester at the Ram Hotel (County Financial Boards).
10—County of Devon at the Town Hall, Newton Abbot (the Chemistry of Agriculture).
Staffordshire at Swan Hotel, Stafford 11 o'clock (Employment of Young Persons and Women in Agriculture).
North Riding at Malton.

One word more upon THE SEWAGE QUESTION. The *Mark Lane Express* laughs at our last week's "transformation scene" and, to tell the truth, its satire is as clever as can be. The "characteristic aroma," in particular, is what it cannot stand. But the transformation here, though the most striking feature in the picture, is not at all a distinctive characteristic of "the sewage question." One is taken by the nose in the best farmyards, and never more offensively than in the market gardens around London, which have yet to learn their sewage lesson. Heaps of rotten grains and putrid distillery wash, of offal cabbage leaves, and filthy garbage of all sorts, give out the most awful stench that ever fouled the air; and you perpetually come across a whiff of something of this kind amid the Barking Cabbage gardens. But at length the stuff is spread about and covered by the plough; and the Onion seed or Kidney Beans are sown, and the Cabbages are pricked out; and the rains fall, preparing food for them, and distributing it throughout the soil, and the very same extraordinary transformation then takes place, which, when enacted in the case of sewage, tickles our contemporary. What, indeed, is agriculture throughout but a transformation scene, most wonderful and beautiful. That which, in sewage, especially justifies the epithet, is the rapidity, the immediateness of the process. The manure is poured on one week, next week the Grass is cut, and on the following day the milk is carried up to town. The changes which in ordinary farming take place during a rotation, or require at least a year, are in sewage farming crowded into a month or week; and we defy any one, even the writer in the *Mark Lane Express*, to look on without astonishment at the quickness

of the agricultural transformations on a well-managed sewage farm.

How did it use to be?—There is a district where, within living memory, agriculture owed almost as little to artificial aid as the manured moorland along which it did. The plough, indeed, turned up the soil once in a term of years, and a crop of Oats was taken, but thereafter it was left to unassisted Nature. "Natural Grasses, including Thrifts, Catfoot, Crowsfoot, Couch-grass, Docks, and every perennial weed the farmer knows, would what they would for years to the starvings grazed upon the stubble, drawing no doubt some what from the soil, and somewhat from the air, and thus at length replenishing the surface soil after a fashion, until there was stuff enough to make a decent coat of ash, and this with whatever rotten straw, road scrapings, &c., had been gathered into a heap, was ploughed under, and another crop of Oats achieved.—The step from this, through Clover for a year or two, and a Turnip crop after the second crop of corn, was a very great one, but even here the manuring came once only in the rotation. By-and-by the artificial-manure manufacture enabled the farmer to put his farmyard-dung almost wholly on the Clover, and to get his Turnips by the aid of superphosphate, so that the land received a dressing every other year. The dung-cart went and the harvest cart returned, but the interval was still so great that there was nothing startling in the contrast.—At length an Agricultural Commissioner, quoting Mr. HUBSON, of Castle Acre, published through the Times—"It is the custom on this farm to manure for every crop," and the practice spread, and thus of course was a great stride onward. But even so, it is nothing to the practice of the sewage farms, where 300 or 500 tons per acre are put on after every cutting of the Grass, and, ready made, and self applied, and spreading it out among the heavy roots, the food of plants, which sewage holds dissolved, is sucked up the very day and hour of its arrival, shows itself almost immediately in rapid growth, and in a week or two may be seen converted into the purest and completest human food. This, we repeat, is a true transformation scene—so much so, that we are certain a well-managed sewage farm, during the season of growth, will give its agricultural visitor as truly new a sensation as a child receives at its first pantomime.

The Lodge Farm, in the hands of the Sewage Company, is, we are told, fast becoming a bore in agricultural journals. It is, nevertheless, we confidently believe, at this moment, for the light it throws on a most important social and agricultural problem, the best worth seeing of all the farms within her Majesty's dominions. And our contemporary, instead of laughing at the statements which are made about it, would have done better to send some one down in whom its readers are not true. Moreover, in the interests of agriculture, which it professes to serve, we submit that it should have quoted our figures as well as laughed at our rhetoric. Why was the history of all those autumn crops, sold for 10L. to 20L. an acre, so carefully excluded from its record, when the very point to which its argument was directed lay in the question—Will it pay?

The fact no doubt is, that the temptation to make a thousand readers laugh was too great for it, and so an hour's enjoyment has been purchased by its witticisms, at the cost of confirming all those prejudices and that usury by which alone the solution of the sewage problem is now delayed, and a column of good writing has been wasted in a clever exposition of the old rule, "How not to do it."

But what is the alternative? Surely a leading organ of the agricultural world is not content to let the whole refuse of 5,000,000 well-fed animals run to utter waste. To whomsoever the statement should be properly addressed, we do not hesitate to say once more, that to do this is immense stupidity. The maxim, "Let well alone," however safe and often wise, does not apply. It may have been "well," agriculturally, in the old days of the privy and the cesspool, when immense quantities of fertilising matter now washed into the Thames were carted to the land. But "well," if so it could be called, was not let alone, and it is impossible for any agriculturist to defend the enormous loss which now takes place.

Meanwhile we would rather be of those who are seeking anxiously for the remedy, which one

day must be found or even bear the laugh which ever awaits the enthusiast who sometimes exacts the example of the winter in the "Wentworth" press, who sits giggling while both land and city suffer.

— AT Mark Lane, on Monday, another effort was made to lower the price of Wheat, and buyers were the more successful. Some of the trade has been without alteration.—The stock and wheat markets now begin to show the effect of the action taken in the form of the anxiety to which we have frequently alluded in the last six months. Open market prices are generally lower than in the last few months, and the wheat trade is generally more active than at previous high rates.

— Pauperism and Poor-rates was the subject discussed on Monday last before the London Farmers' Club. An abstract of the paper read by Mr. TRASK will be found on another page. It was not long, and the points which seemed to have had more particular attention given to them were effects rather than causes. The discussion which followed was taken part in by several members. The Rev. W. CONWAY took up the question of legislation against drunkenness, waste lands, &c., through all the "rot-holes," as he termed them, which are urged by individual members of society. Mr. FAY argued that a National Rate would be attended with no good. In London it might do but if it were extended to the whole country it would be attended with national waste. The system of giving relief cannot be better administered than by the guardians. Mr. SMITHIES said industrial teaching should be extended. In his opinion, tailoring and shoemaking are taught to boys, and cooking and sewing to girls. The result is that boys and girls over 14 years of age are in demand, and readily go off the hands of the guardians. Mr. CORBETT, a Poor-law Board Inspector for the metropolitan districts and home counties, said the schools ought to be separated from the workhouse, and the children kept from their parents, who as paupers are the worst class of the town. Mr. CROSSKILL said that the Government should take steps on this important subject, and must be backed by public opinion. Mr. RAY has expressed the same view from the chair many times. In proportion to the increase of population, there is a large increase of pauperism. To say that Trades Unions in reared pauperism is an overstatement, very little can be attributed to Trades Unions as regards pauperism. He advocated sick-rates, so that the men could support themselves in illness, and save themselves from pauperism. He condemned indiscriminate charity—in his own town there were many "gifts" the proceeds were doled out once a year and the recipients got drunk with the money. Mr. CHARLES HOWARD said Mr. CROSSKILL knew nothing about it, but he lived in hopes of catching a little more of the profits of such townsmen as he before long. Mr. THORNTON, of Oxfordshire, was of opinion that the Law of Settlement and the Removability question ought both to be altered. The vagrant ought to be admitted to the workhouse on condition that he stops not less than 14 days. He might then take his wages of labour in clothes or money and go. If he stopped another 14 days he would become a resident pauper, and might be dealt with by the board of guardians, as might be expedient. A man with a "ticket-of-way," that is, an honest man in search of work, would have his food given him, and be passed on. Mr. READ, Mr. CADDLE, Mr. SAM SIDNEY, the Chairman and other members having addressed the Club the process was terminated in the usual manner.

— It is proposed shortly to hold a public meeting, including landowners, labour paying authorities, and philanthropists, probably under the auspices of the Society of Arts, to consider the question of establishing a Society for the Improvement of the Condition of Agricultural Labourers by the promotion of the following objects:—(1.) The raising of the wages of farm labourers, where excessively low, by the removal of proper seasons of surplus labour from over-populated districts to places where it is in greater demand. (2.) To encourage the more extensive building and improvement of cottages in accordance with the demands of health, decency, and comfort. (3.) The elementary and technical education of the children of agricultural labourers. (4.) The more extensive adoption of the system of allotment of garden grounds, and the protection of the rights of agricultural labourers under the Inclosure Act. (5.) The prosecution of sanitary reforms in villages, small communities, and dwellings of agricultural labourers. (6.) The separation of labourers' provident societies from public houses, and their establishment on safe and economical principles, and under proper management, so as to secure to those able and willing to save some means of support in times of sickness and disablement from work. (7.) The discontinuance of state tax farming.—There are also the questions of co-operative farming, tried by Mr. GIBSON'S Association, and the co-operative Agricultural Society, labourer's co-operative stores and brewers adopted with success in some localities, the limitation of children's and women's labour, the truck system, &c., but about some of which questions there may be too much difference of opinion existing to render their adoption desirable by a society wishing to secure general support.

— The Central Chamber of Agriculture held its first Council meeting for the year 1902 on Tuesday last, when there were present ten M.P.'s, viz., Mr. C. S. Read, Lord George Hamilton, Sir Massey Lopes, the Hon. T. Cadogan, Mr. A. Pell, Mr. J. W. Knight, Mr. James Howard, Mr. W. W. Beach, Mr. Wheelhouse, and Mr. S. W. Clowes. Several members of pro-

vincial Chambers were also present. The meeting was held in the Library by the Council, and was presided over by Mr. H. GREGG ANDREWS. A proposal for a national poor-rates notice had been given apparently from an independent Chamber, and the other members of the Council were present. The meeting was held in the Library by the Council, and was presided over by Mr. H. GREGG ANDREWS. A proposal for a national poor-rates notice had been given apparently from an independent Chamber, and the other members of the Council were present.

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— This was proposed at the annual meeting of the Chamber, and was carried by Mr. ANDREWS. Mr. ANDREWS stated that they began to see the result of the charges upon real property, and that they were not satisfied that ever since the principle had been passed, and the result was that the principle involved in the charges carried out to the end. He proposed that the Board should be empowered to make the law, and that the law should be carried out to the end. He proposed that the Board should be empowered to make the law, and that the law should be carried out to the end.

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FEBRUARY 6, 1890

...ne third part of the k... these rates they all resist to the... in reply, stated the evidence of... that a statesman saw n... property should not be taxed at... the man then put his... and they were... the followi... of the

...that a committee... what views they intended... that they had to stand... possessed by Mr GREAT... view Mr FISHER, of... as an amendment. "That... until further consideration... which, on being seconded by... the meeting by the Chairman... a large majority. The subject of a... Department for Agriculture," was then... Mr. JASPER MOSE, and he moved, "That a... wait on the President of the Board... the desirability of a separate Govern... for Agriculture." The consideration... was, however, ultimately postponed.

...papers are complaining of the... man who introduced the... almost equalled by that of the... pains to introduce the... in this locality," says a... Melbourne, "are... rabbits, and, indeed, it is a... a great portion of the... a far greater boon... to place a ban on... that

...the Editor that the Acclimatisation... are not responsible for the rabbit nuisance;... the Society have been actively engaged in spreading... over the colony, and that will be a nuisance... only in importance to the rabbit.

...was found in the volcanic... quantities of sulphate of... of great commercial... value. In a communication to the... he devotes... of Volterra, in Tuscany, worked for 40 years... for the extraction of boracic acid. He tested on... ammonia contained in the water of the... mother-water which remains after... the boracic acid, and in the water... of the vapours which... of the natural crevices of the soil... of the artesian borings. He... and was present in abundance... in small proportion.

...the sulphate of ammonia and the... but in proportion... of the... referring to a particular lake, for... too poor in boracic acid, he... of this lagoon was resumed a few... now, at the opening, it supplied, we... phosphate of ammonia. Count LARDEBEL... for the Great Exhibition of 1887, ... of ammonia and magnesia. This... is of great agricultural value.

In justification of the strong remarks we made... on the hue-and-cry that was being raised... shepherd's dogs being included... system, we give the following... A serious case of sheep worrying... on the farm of Stragath, Crief... The sheep belonged to Mr PETER... of Monzeval, and were wintering... Thirteen were killed, and four... If the injury to the... be taken into account, along... killed and the four severely... Mr M... has sustained... at least will not object to... which should diminish the number... to which such cases as the above

OUR LIVE STOCK.

...will dispose of his entire herd of... of 40 head, on April 14, Mr... as auctioneer. A catalogue of... yet published, but we may state... that it comprises some excellently bred... descended from the herds of Messrs. Hale, Tracy, and Betts.

...has purchased, through... of Mr JOHN THURNTON, Norwich 5th a... property of Mr Firmstone, ... at the Winterfold sale... originally bred by Mr... for the last five... of *Imberis*, *Oxford*, and... which is now very scarce, ... are concerned, entirely in the possession... After the M... sale Mr Adkins... the nearest approach to what he required in... bred by, and the property of, Mr. Hul... of Middleton St. George, Darlington. This heifer, ... and Booth blood, is by EAST OR... and from *Princess Alice* 2d by... We speak of her on the present

...because she has just produced a red and white... of promising appearance... to be served by Mr Hayward's Duke of CLARE.

We hear from Farnham that Miss Evans has produced a very good red and white bull calf, by 13TH DUKE OF CLARE. The mother is of King'sley descent and was bred by Mr Sturton of Levesley Abbey. She was afterwards sold to Mr Roberts who parted with her to some private Mr Alcock. At that time it was not thought likely that she would add to breed. Miss Roberts's by DUKE OF BATHON 1273rd dam *Rosebud* by GARRICK 11, 7, and is 13 years old.

We are sorry to announce that on the 25th ult. *Winterbon* 324 produced a dead heifer calf to 2D DUKE OF COLLINGHAM. This is a great loss to Mr Rich. It is, however, satisfactory to learn that the mother will not be injuriously affected.

The Duke of Buccleuch's *Princess Flower* the dam of Royal Errant, dropped a heifer calf to Mr Barclay's *HANON BOOTH* on the 9th ult., at Dalkeith Park.

THIRD LORD OXFORD (22,300), the property of Mr C. W. Harvey, of Wotton on the Hill, has been slaughtered within the last few days. He had just completed his sixth year, and for some time previous to his death was useless for breeding purposes. This bull was bred by Mr Thorne, of T. riddle U.S., and was imported into this country by Mr Harvey. He was by Mr. S. E. Bolden's 2D GRAND DUKE (12,961), a sire whose portrait figures in the 11th volume of the "Herd Book." He was sold to Mr Thorne for 1000g. His dam was *Oxford* 1304 by 3D DUKE OF YORK 10,163, bred by the executors of Mr Bates of K. Alvington, and the property of Mr Thorne. The possessed bull was an brother to Mr McIntosh's IMPERIAL OXFORD, and his half brother to the Duke of Devonshire's LORD OXFORD and Mr Levey's LORD OXFORD 2d.

The subject of "breeding in-and-in" has often been discussed, and instances both of good and evil effects resulting from it have been adduced as reasons for and against the practice. Doubtless the existing variety of opinion springs in a great measure from viewing the subject from too general a point of view. That in-and-in breeding may be carried in all cases to too great a length few will deny, but we should remember that the effects of such close alliances vary according to the kind of animal experimented upon, and the stage of refinement or high breeding which the artificial race may have attained under the care of the breeder. If we confine in-and-in breeding generally, whether in the case of sheep, cattle, pigs, or fowls, we shall most probably find a strong and well-supported opposition to our views. To come to a truthful conclusion each must be considered separately, for while we would not deny that a general law is obeyed by all, we believe that each of the above-named animals is affected in a different degree, and that while in one case close breeding will soon prove injurious, in another it may be carried much further with benefit. In the case of cattle and sheep we see illustrations of the latter effects, and in Shorthorns and Lancasters there is no doubt that this plan of breeding has been rather beneficial than otherwise. Size and constitution may suffer if the system is too rigorously pursued, but with moderation both are preserved, while quality, fertility of type, and aptitude to fatten, are promoted. In-and-in breeding has produced some of the best of Shorthorns, as, for instance, COMER and many splendid animals boasting descent from FAVORITE. A well-known writer has recently calculated the amount of FAVORITE blood in some of his immediate descendants, and has shown that after he had been matched with his own produce to the third generation, the calf thus bred contained 15 10ths, or 93.75 per cent. of the blood of FAVORITE in his veins. This cow was matched with the bull WELLSINGTON having 67.5 per cent. of FAVORITE blood in his veins, and produced *Clarina*. *Clarina* was matched with the bull LANCASTER, having 67.5 per cent. of the same blood, and she yielded valuable offspring. Such facts show the extent to which in-and-in breeding may be carried with Shorthorns without apparently injuring the progeny. There is, however, reason to suppose that sterility is in a measure produced, and may not the inferior making properties observable in many high-bred Shorthorns be a direct effect of the same cause, intimately connected as the secretion of milk must be with the breeding condition of the mother? In the case of sheep, the system of breeding continuously from the same flock without the introduction of blood from extraneous sources, has often been persevered in for many years by eminent breeders. In the case of pigs we believe the same defective close breeding shows themselves in partial sterility, manifested in and-in breeding much sooner than in the case of cattle and sheep.

THE AREA OF LAND REQUIRED TO UTILISE SEWAGE.

THE area of land required to utilise the sewage of a town containing so many inhabitants is a question which can only be solved by considering the quality of the sewage, and the nature of the land, climate, and crops grown. No specific rule can be laid down for guidance. Were it farmyard manure, Peruvian guano, or any of the artificial manures now in use, experience could return a ready answer to the question. But so many cartloads of farmyard dung, or so many hundredweights of artificial manure, are facts which leave many things understood by practical farmers, as the quality of the manure, the nature of the soil, &c., such being taken for granted, consequently, were an uninitiated person to adopt such a rule in the manuring of his

land the chances are that disappointment would attend his practice.

It is a town sewage of a much worse quality than even farmyard manure, which experience is yet waiting from which to deduce the dose to start approximately to a general rule. No doubt the quantity of sewage applied to the acre at Edinburgh, Barking and other places might be gauged, but not as a rule of guidance to any other place, for many improvements have to be made by the sewerage of the collection and conveyance of sewage, before the question as to the area of land can be satisfactorily solved, so as to supply the necessary data for a standard rule. In addition, the rule, like the question itself, must be considered one of progress, for if towns were to devalue their sewage of twice and thrice the fertilising powers, more and more land would be required to utilise it economically.

Practically considered as a work of progress, the improvement of the quality of the sewage as now supplied by towns is the first step required to be taken, in order that the area of land necessary to utilise it. At present, therefore, the solution of the question lies between two extremes, wide application of the waste and storm-diluted sewage now applied to the land, on the one hand, and the application of sewage in its normal state, or as nearly in its normal state as practicable, on the other. It may never be within the reach of the highest advance made to collect and apply all the fertilising properties of normal sewage to the land, for in Flanders, where the nightsoil is carefully collected and removed every day, farmers are familiar with the fact that a very great loss of fertilising matter is sustained, but infinitely little as compared with the sewage systems of this country.

If we assume for the sake of argument, that town sewage can be collected and applied to the land, as now proposed in this country, with a little loss of fertilising matter as in the more common practice of the Flemish farmer, then if we divide the inhabitants of a town by 10, the quotient may be taken as a distant approximation of the area of land required to utilise the sewage of that town, the land being under arable husbandry, as at the Working Farm, Essex. Thus, if the inhabitants of a town number 50,000, then 5,000 acres will be required to utilise its sewage. And if we further assume that a five-course shift of cropping is pursued, the sewage being applied two years in succession to Grass, there will be 50,000 acres in each shift, and hence a total of 250,000 acres under sewage farming. If, however, we assume that with greatly improved sewage, one year in Grass is found sufficient to enrich the soil for a four-course shift of cropping, then 125,000 acres would be under sewage farming, and so on for any other hypothesis that may be assumed. Thus, according to the Flemish practice, sewage may be successfully applied to Potatoes when about eight or ten inches aboveground, or just before they are "canted up." It may also be applied to the land before the Potatoes are planted. Mangel may be manured in a similar way, the sewage being applied to the land before the seed is sown, and to the drills after the leaves of the plants rise off the ground, so as to get it to the roots. Any crop, in short, requiring manure may be sewage, if the sewage can be applied to the roots without touching the leaves, provided always that the sewage is of a quality to suit the peculiar requirements of the crop.

An American authority recommends sewage Mangel as soon as the young plants appear above-ground. "A sprinkling of liquid manure along the rows, about the time that the plants first appear above-ground, will in general secure an abundance of them; and this may be done with much less trouble than would be imagined by those who have never practised it. It requires only a water-cart, with a large cask, and two leathern hose, kept at a proper distance from each other by a stick between them, so that they may pour the liquid manure over two rows at once. If the field be not above a mile from the tank, a man and horse will water 2 acres in a day; and if the distance is half a mile, 4 acres. The expense will be amply repaid by the crop." (Dr. Gardner's "Farmer's Dictionary," New York, 1846.)

In the dry climate of the United States, it is generally more difficult to secure a sufficiency of young plants than with us, and if the manure in the tank has been properly fermented and diluted, so as to deprive it of the caustic character it possesses when in a fresh state, it can be then applied to young plants in the above way. And with regard to the construction of the water-cart for watering two drills at a time, Mr James, of Cheltenham, exhibited one at the summer meeting of the Royal Agricultural Society of England, held at Leicester last year. Carts can be made to water two, four, or six drills at a time as required.

With sewage laid on to the land by means of iron pipes and hydrants, a man with a water-cart and boy could the horse, along two drills at a time, would go over a greater area of land than stated in the American practice. As the cart could be filled by means of a hose in passing the hydrants, the same hydrant and hose could supply two or more carts, the one being in advance of the other—the water-cart never having to leave the drills, save in shifting at the headlands, and when halfway across to a second hydrant, the hose would be screwed on to it. In this manner field after field could be sewage, as fast as the plants required. If we assume that the seed was sown by a machine doing two drills at a time, and that in seeding the horse walked twice as fast as in manuring, or three times as fast when giving a heavy dose of sewage—then the young plants under ordinary circumstances would require in the former case two liquid manure carts, and in the latter three carts. In a wet season the young plants would require the sewage to be less diluted with water than in ordinary ones. And to meet such demands the water-cart would require to

water four or six drills at a time. In extreme years of drought the plants may require a watering of river or pond water, or, if such cannot be supplied, the soluble salts in the sewage may be precipitated, and the comparatively pure water filtered off to supply the wants of the growing crops, the solid matter thus obtained by precipitation being mixed with fresh sewage and applied to stubble land or crops which could receive it. All this can be done as the crops and land require by one and the same arrangement of sewage machinery and apparatus, and therefore at no great expense.

With regard to the proper time for applying the sewage to the land and to growing crops—the four quarters of the compass, viz., south, north, east, and west, would, no doubt, each return a different answer to the question. Few farmers require to be told when their land requires manure. The crops answer that question, and the rule will be found no exception in sewage farming. In spring the sewage may be applied, in any degree of dilution required, to Grass and Wheat, crops by means of the hydrant and hose, the liquid being evenly distributed over the surface by means of a slanting board nearly close to the ground, as in Flanders, the liquid thus falling softly upon the young plants, and about their roots, without earthing up the opening expanding leaf, or closing the pores of the soil so necessary to be kept open at this season. The sewage should flow freely from the hose, and not be discharged in the form of a jet upwards, so as to fall in a heavy shower, as by such means it is wasted, the young plants are injured, the soil is consolidated, much harm being done in these various ways. It may be applied to land before seeding if sufficiently dry to receive it. And the rule may be laid down as a general one, that when the seed is sown there should be a sufficiency of sewage sap in the ground to force up the young plants with vigour, such as Turnips into rough leaf, so as to be out of danger from fly. The small coleopterous insects that play such havoc belowground do not like sewage—ammonia kills them. In exceptionally dry seasons it may not be easy to retain sewage sap in the soil, so that the American practice of watering the young brail may be advisable. After plants are up and beginning to cover the ground they will stand a good dressing of sewage, and if mildew is not wholly averted in Swedes, &c., and aphides in Peas and Beans, the extent of harm in both cases may be greatly reduced. To stubble lands after harvest, including Grass crops, sewage may be applied by the hose in any quantity, so as to place the land in the highest state of fertility required by subsequent crops, and to such ploughed land it may be applied during open weather in winter. But when the sewage is sent to the country as the land requires it, the probability is that much of it will be stored up in tanks during winter, as in Flanders and other places, for spring and summer use, the sewage being turned off from the mains into this farmer's tank to-day, his neighbour's to-morrow, and so on, according to the demand.

The reader must bear in mind that were the sewage sent to the country in its normal state, or as the

country requires it, the supply would be short of the demand, so that unless farmers got their tanks filled during winter there would be short allowance, or perhaps none at all, when the spring and summer came with their demands upon the mains. To lose sight of this is to shut the eyes to one of the most important and promising manurial resources of the country. No doubt the supply of towns is increasing with the increase of population, but placed in the balance with the manurial requirements of the soil under improved systems of culture and cropping, it amounts to nothing, comparatively speaking. For, judging from the present state of progress, the increase of population is not keeping pace with the increased demands of the land, due to improved cultivation, manuring, and cropping—hence the practical conclusion.

It will thus be seen that the area of land required to utilise the sewage of towns is influenced by so many causes, that the preceding hypothesis can only be received as a very distant approximation. Had the question been put to the agricultural public in A. D. 1800, How many acres of land will be manured with guano and other artificial fertilisers in the year 1869? there was not at that date one farmer in a hundred who would have ventured to open his mouth in reply. But at the present day the general answer to the question would be, "Tell us the price and quality of the manure with the supply," and everybody's area would be forthcoming. And if the supply is both cheap and good it will be found short of the demand. Will it be otherwise with town sewage? If town sewage proves its value, as guano and bone-manure have proved their value, and if it is brought within reach of farmers, whose lands require it, will they not use it? So long as it is sent to the country so wasted as not to be worth the expense of application, it will be viewed as quack imitation guanos are viewed, and treated accordingly. Good guanos find a ready market, but the bad, if known, are unsaleable. Indeed, such is the difference intrinsically, that intelligent successful farmers would not use the latter were they to receive it gratis, with a premium for its application.

That towns are now beginning to see the force of the old maxim, "A penny saved is two pence gained" in the case of the sewage, is manifesting itself in every province of the kingdom. The Barking farm practice in Essex has thrown a flood of new light upon economy of sewage, and also upon the means of obviating two objections to the old practice—the one relative to the health of towns, and the other to the health of the country. Thus, in the first place, they see if the fertilising properties of the sewage are economised it will find a ready market sooner or later. In the second place they see that the pestilential gases now issuing from sewers—more especially in large towns where the sewage has to flow through miles of sewers in densely populated districts, as in the metropolis—will be preserved in the sewage during its course. And, in the third place, they see that the noxious malaria arising from grass-land to which sewage is continuously applied at all seasons of the year will also be got rid of, the health of the country being thus secured.

These are great advances, and although not necessary to realise them to their full extent, they may be advantageously engrafted upon that practice upon all the other sewage practices now in vogue. Compared with the grass-meadow system of Edinburgh and other places, the arable system requires a larger area of land to produce a greater amount of produce than the former, a greater difference between these two systems manurial economy of sewage than is generally supposed. It is now a well authenticated fact, in agriculture, that sewage is not a specific manure, or grown by it—the food which it supplies bears no kind, proportion, nor quantity, suitable to the consequence, there must either be an emanation going on in the soil or else it must undergo a gaseous form, or partly both. The latter is what takes place, but the emanation of manure arising from the process of decomposition is than as generally credited. Hence the practice of applied sewage under this system, and why, against this system, the more the sewage is lying matter the greater the waste and the malaria given off into the atmosphere. On the other hand, when the land is broken up for arable crops by different plants, each plant has a specific difference in its requirements and utilization of food, the manurial elements are better utilised. In this respect the greater manure is similar to what takes place under the dung. With the economy of this latter farmers are familiar, and the principles apply with even greater force to sewage farming. It is not all, for when the land is under arable is admitted, so that the greater proportion of oxygen used up in the process of decomposition obtained from the atmosphere and not from the sewage. In the latter process, hydrogen with sulphur or carbon (i. e., sulphuretted gas or carburetted hydrogen gas) is given off, the former process nitrogen is given off, there is strong reasons for believing that of the nitrogen of the atmosphere that unites with the hydrogen of the water, in the present, so as to form ammonia. From experiments made in this country, and on the continent, ammonia has been thus made by art, and practical farmers have long looked to the decomposition of organic matter in the soil properly aerated, as a natural source of ammonia, the liberated hydrogen and nitrogen present being the case, the ammonia thus formed in the land to utilise a greater proportion of the elements of the sewage than would otherwise be the case. Adding these differences together, in favour of the arable system of sewage, compared with the Grass system, is generally imagined. W. B.

AGRICULTURAL STATISTICS.

[We continue the publication of the official tables.]

STATEMENT OF THE POPULATION, AREA, AND ACREAGE UNDER CROPS AND GRASS, IN THE UNITED KINGDOM AND IN VARIOUS FOREIGN COUNTRIES, ACCORDING TO RETURNS BY THE STATISTICAL DEPARTMENTS OF THE RESPECTIVE COUNTRIES.—The Area and Acreage are stated in English Statute Acres.

Description of Crops, &c.	United Kingdom, 1868.			Sweden* (in 1866).	Norway (in 1865).	Denmark Proper (in 1866).	Prussia* (in 1867).	Wurtemberg (in 1867).	Bavaria (in 1863).	Holland (in 1860).	Belgium† (in 1856).	France (in 1867).	Spain‡ (in 1867).
	Great Britain.	Ireland.	Total**										
Population, according to latest return	24,637,502	5,532,343	30,617,656	4,195,691	1,701,756	1,608,362	23,071,337	1,748,328	4,774,615	3,692,416	4,859,094	37,847,000	16,073,500
Total Area	56,964,000	20,323,000	77,513,000	99,625,000	78,248,000	8,582,265	85,603,000	4,814,000	18,770,343	8,111,475	7,241,155	132,787,000	150,730,000
Total Acreage under Crops and Grass, &c.	39,955,694	15,575,370	45,632,545	10,724,872	613,600	5,637,770	59,516,951	2,831,673	11,049,392	5,795,291	4,521,366		
Corn Crops:													
Wheat and Spelt	3,652,125	286,790	3,951,019	117,242	12,980	110,845	3,677,253	696,176	1,041,075	208,653	804,758	17,850,258	1,311,390
Barley or Bere	2,151,324	188,252	2,348,068	476,044	120,124	683,245	2,859,603	230,351	835,456	108,690	110,130	2,765,808	1,181,000
Oats	2,757,053	1,699,919	4,469,387	1,312,720	152,048	826,140	5,717,205	317,880	1,115,015	272,506	541,347	8,140,843	2,307,920
Rye	46,896	7,854	54,827	856,440	24,308	518,320	8,575,808	104,355	1,449,929	501,049	791,492	4,888,263	8,215,245
Beans and Peas	826,134	9,870	836,555	132,248	6,496	83,627	1,071,976	56,729	121,189	113,395	143,964	8,215,245	1,857,884
Buckwheat	..	..	..	1,230	..	44,964	..	102	4,449	168,758	60,517	1,857,884	1,857,884
Maize	..	..	..	..	..	..	..	4,415	..	..	..	1,857,884	1,857,884
Rice	..	..	..	..	..	..	714,651	..	..	..	..	..	..
Mixed Grain	..	..	..	183,000	46,492	104,355	..	77,652	..	..	102,286	1,332,024	569,174
Other kinds	..	..	..	..	..	..	..	780	9,615	2,599	..	..	..
Total under Corn Crops	9,433,532	2,102,785	11,659,835	3,078,914	463,448	2,380,490	22,511,496	1,327,040	4,376,688	1,330,612	2,484,493	39,804,650	14,977,320
Green and Other Crops.—Potatoes	541,643	1,084,833	1,584,213	329,400	63,730	84,800	4,287,904	168,054	644,197	270,102	309,650	3,053,819	56,300
Turnips, Carrots, Mangels, &c.	2,427,448	342,922	2,762,121	24,400	Not ascertained	6,915	1,241,696	17,407	159,957	45,732	81,947	(including green bean and winter fodder)	No return
Hops	64,489	..	64,488	..	..	..	..	11,515	..	293	..	5,394,500*	..
Vineyards	..	..	..	..	..	..	..	43,197	..	..	..	..	..
Tobacco	..	..	..	..	..	..	..	385	..	4,679	..	..	..
Flax	17,543	206,446	223,997	38,180	..	..	..	17,634	..	53,907	..	..	..
Hemp	..	..	..	..	..	..	..	18,910	..	3,564	..	..	..
Sugar Beet	..	..	..	..	..	..	..	188,205	..	12,547	..	271,700*	..
Rape and other Oil Seeds	..	..	..	..	..	..	1,403,158	27,832	..	69,942	..	..	..
Bare Fallow	958,221	24,017	984,248	884,300	..	440,452	7,648,727	245,279	1,165,050	55,298	159,112	12,869,653	..
Grass, &c., under Rotation	3,060,008	1,591,797	5,690,319	1,476,322	Not ascertained	329,836	5,100,670	230,277	718,806	350,420	306,787	6,931,650	..
Permanent Pasture	12,136,036	10,003,918	22,164,584	4,880,000	..	3,337,859	15,952,313	658,728	3,578,847	2,098,353	71,670	16,265,482	50,889,600

* Estimate Returns. † The results of the Return taken in 1866 have not yet been published. ‡ In the year 1862. § Chiefly Spain. †† Including lakes and rivers. ‡‡ Including 500,000 of forest. **** Including Isle of Man and Channel Islands.

NOTE.—For Russia, Switzerland, and Italy — For Russia there are no Returns of Acreage under Crops, &c. For Switzerland there are no Returns of the Acreage under each kind of Crop. In 1855, the aggregate Acreage under Corn and Green Crops was 1,435,565 acres, and 3,627,431 acres under grass, meadows, and pasture.

For Italy there are no Returns of the Acreage under each description of total area under cultivation is thus divided:—Arable Land (including Pastures), 13,493,626 acres; Rice fields, 362,257 acres; Olive Gardens and Chestnut Plantations, 1,462,830 acres.

THE HEREFORD BREED OF CATTLE

by Mr Duckham, of Baysham Court, near Ross... The Hereford breed of cattle... The Hereford breed of cattle... The Hereford breed of cattle...

THE HEREFORD BREED.

The Herefords have been severely tried in competition with all other breeds of this kingdom... The Hereford breed of cattle... The Hereford breed of cattle...

Having made the selection of both male and female, the next thing to be considered is their management... the next point for consideration is, at what period of the year should they be brought into existence?

The next point for consideration is, at what period of the year should they be brought into existence? And here I think we must look to Nature's laws to guide us in our decision... I will now endeavour to demonstrate the evils of the first two systems, and the advantages attending the latter.

1. First, then, as regards summer or early autumn calving which has been practically forced upon breeders who aspire to Royal and other distinguished showyard honours... I will now endeavour to demonstrate the evils of the first two systems, and the advantages attending the latter.

2. This brings me to the second system, and upon the principal of getting a little time annually I will suppose the heifer intended to calve in autumn... I will now endeavour to demonstrate the evils of the first two systems, and the advantages attending the latter.

laws are... I believe abortion in high bred stock to be the result of many errors, all of which, however, are summed up in the words, 'too much stimulating food—too little exercise—too much warmth, and too great a disregard to the natural functions and all it entails.'

3. I will now proceed to consider the advantages attending the period which is more in accordance with Nature's laws... I will now endeavour to demonstrate the evils of the first two systems, and the advantages attending the latter.

(To be Continued.)

Home Correspondence.

Sewage Farming Prospects.—Your correspondent, "W. B.," in your paper of the 16th inst., having made frequent reference to this farm, I am induced to notice some of the points where his statement is calculated to mislead the inexperienced... "W. B." seems to think that there is a special difficulty in selling at a profit the milk produced at this farm, in some way connected with the expense of the sewage system of cultivation.

farmers, the experience of this farm before and after the introduction of the use of sewage provides a very decided instance of the contrary. There are many more points of a general nature in 'W. B.'s' letter, that I should have wished to notice, but I am unwilling to trespass on your space beyond an endeavour to draw attention to the valuable results obtained at this farm, a better acquaintance with which would I am sure, induce 'W. B.' to notice them more favourably than he has done. *Henry W. Pease, Little Farm, Barking, Jan. 28.* This letter was unfortunately detained in the post, or else would reach you with it was too late for our issue of the 20th.

Tiptree Hall Live-stock Account for 1866. I ask myself the question, Does it pay to feed 300 acres of cake, corn, &c., besides and with the produce of 30 acres of green and root crops? I have long since said "Yes" and proved it by the fact. But how do I prove it? By taking Mr. Lawes' estimate of the manurial value of each ton of food consumed, after it has been consumed, and by finding all my crops of a maximum instead of an ordinary yield.

	Food consumed.	Tons	Manurial value per ton.	Total value of Manure.
172	Best American linseed cake	14	4 12 0	64 8 0
55	Mixed cotton cake	4	5 0 0	31 0 0
86	Best rapeseed	1	4 18 0	24 18 0
24	Beans (20 stones per sack)	2	3 13 6	9 1 0
35	Maize cobs	3	4 5 0	21 5 0
69	Straw	14	3 0 0	39 0 0
47	on. timonial food	1	0 0 0	0 0 0
44	Wheat and Barley	1	1 14 0	6 6 0
9	Unseed	1	0 13 0	5 13 0
66	Wheat and Grass hay	17	1 17 6	21 12 6
67		26		42 13 0

Manure compared with guano when it was 10/ per ton, equal to 31 tons of guano, which at 13/ per ton, its present price, would amount to 412/. Deduct 100/ for extra attendance, grinding, &c., of this extra quantity of food, and there appears a gain of 312/ as compared with the purchase of guano. As a general estimate, I consider this a fair and just comparison. No accounts taken of the manure resulting from the 30 acres of root and green crops consumed. It appears from the foregoing that I get 412/ of guano for about 100/. Is not that a saving and a gain? Take away that amount of manure, and see how much my general crops would be diminished. I am no believer in the over-manuring of crops, especially Mangel, Beans, Clover, Grasses, and particularly Italian Rye grass. Besides, with every extra inch of subsoil moved there are 100 tons of poor soil to be enriched. The great curse of English agriculture is, after want of drainage, deficiency of manure. My experience has taught me that land can never be too rich, even for Wheat or other cereals, provided the manure has been applied for a previous crop. It is the sowing of too much seed that causes crops to be prematurely laid in well fertilised soils. *J. J. Mechi, Feb. 2.* [It is difficult to understand the above valuation, but we suppose it is assumed that Mr. Lawes' valuations were based upon the price of guano at the time when it was sold at 10/ a ton.]

Carbolic Acid for Scab in Sheep.—I see in your Notices to Correspondents it is mentioned that sheep dipped in, or washed with, soap and water, containing one part of carbolic acid to 100 of water, will resist the infection of scab. In your next impression will you kindly inform me if thus washing or dipping sheep already infected, will cure them of scab, and whether there would be any risk in allowing ewes which have been washed, to return at once to their lambs? By complying with this request you will greatly oblige. *A Tenant-Farmer.* [Respecting the employment of carbolic acid as a remedy for scab in sheep it is necessary for a "Tenant-Farmer" to be informed that, although the agent, if properly used, is certain to cure the disease (at least in our experiments upon several thousand scabby sheep it has never failed), there are several practical difficulties in the way of its successful application. First, the stuff which is commonly sold as carbolic acid is merely tar oil containing a small percentage of the acid, and utterly useless for any purpose to which carbolic acid is applied. Secondly, the solution for dipping the diseased sheep must contain at least one part of acid in 50 of water, and the mixture must be perfectly uniform, or it will do mischief. A quantity of the acid rises to the surface of badly made compounds, in the form of a brown film, and the first few sheep which are dipped really get the principal part of the active ingredient on their skins, and sometimes die in a few minutes. The weak solution, which we recommended last week as a disinfectant, is quite free from this source of danger, but it is not strong enough to cure scab. Thirdly, the cure of scab, by means of carbolic acid dressings, requires that the animals be dipped twice, the second time ten days after the first, in order to destroy any young scabs which may have been hatched since the first dipping; and which, if not exterminated, would soon increase and multiply. We could give directions for making a carbolic acid dip, but we doubt if a "Tenant-Farmer" would care to take the necessary trouble to make it, and there is a great probability of his failing if he did. The preparation which is advertised as "McDougall's Cure for Scab," and also the "Glycerine Dip," owe what efficacy they possess to the presence of a certain proportion of carbolic acid, and it would be better to use one of these in the way we have suggested, than to attempt the manufacture of a mixture, the preparation of which requires considerable pharmaceutical tact. There would be no danger in allowing ewes to return to their lambs after "dipping," as soon as the superfluous fluid has drained off them.]

Earth for Closets. From the time that, in order to

the development of the dry earth system the manufacture of earth closets and first a firm and then a company for that manufacture became a matter of necessity I ceased to write to you on the subject, lest my desire to publish the benefits of the system should be misinterpreted as that of pushing a business. Now, however, that the discovery in its varied applications has been recognized from a mere manufacture into a system and as such is not only widely acknowledged but has spread at home, and is spreading throughout the Canada and other countries I may perhaps be permitted occasionally, and without suspicion of selfish activity, to say a few words about the successful results that have been obtained with earth and water. In this connection I would reply as freely as I can to your correspondence. *Amateur.* Two or three years ago Mr. H. Taylor, a farmer and manure dealer in Dorchester who has for longer than that period supplied and removed the earth from the Dorset County School of 75 or 80 boys, pronounced the manure to be worth when dry, from 2/ to 3/ per ton. Shortly after this two tenants of Baron Rothschild's at Hutton, whose names you will find in the Earth Closet Company's circular, gave their testimony of the experiment—that the minimum value of earth once used in a closet is 3/ per ton. Previous to this testimony, I had disposed of the manure from my parish school, of about 30 boys, in this way: a farmer supplied the earth and removed it, giving me 10s a month for the produce. This I gave to the schoolmaster, to induce him more readily to keep the place in proper order. But on receiving the testimony as above mentioned I proposed to two of the farmers of the parish to take a ton each give me 3s a ton for it, which should go to the schoolmaster, and carefully try an experiment. One was quite satisfied with the power of the manure, but he used it extravagantly, applying the entire ton to a single acre of Sweden. The other, R. Hayne Esq., of Fordington, wrote thus to the manager of the Earth Closet Company—"I used some earth that had passed twice through the earth closets in the day-school of this parish on a piece of Rape of about three acres and a half. The land had the previous season borne a crop of Mangel the whole of which was drawn and consumed by the cattle. The Rape was sown on the 15th of April and one ton of the earth (entirely) was drilled with the seed. In June 2 cwt of Bell's guano was sown broadcast over the whole piece which was harvested in the drills. The reason for my applying the guano was because the land had not been dugged. The crop was a good one although the season was so dry and hot and therefore unfavourable for Rape. If I had not used the earth I should have drilled six sacks of bones in the piece, costing 72s." *Henry Moule, Fordington Vicarage, Feb. 2.*

Mr. Mechi.—I decidedly disclaim to be an agricultural teacher. On the contrary, I am always a learner, seeking for the most profitable and therefore the best, modes of agricultural practice. It is true that I make public my facts and practice, and sometimes venture an opinion but I hold that it is good for agricultural progress that we should make known and compare and thus derive profitable information from each other. Of course such a system is unpalatable to those who wish to make farming a hole-and-corner business and shade it from the light of observation but the time for that is gone by, now that we have good roads, railways, penny post, and a rapidly growing agricultural Press, in which we may all meet, discuss, and compare. As I have already said, I am always a learner, and I respect those agriculturalists who profess to be dispassionate when they practice that if they will point out how I can improve the gains on my farm I shall not only feel much obliged to them but will at once adopt the practice they recommend, and so increase the money in my pockets. Finding fault without suggesting a remedy is both unkind and childish, and savours strongly of a conviction that our present mode of agriculture is perfect and incapable of improvement. So long as the average yield of each acre in the United Kingdom is only a trifle over 3/ annually I shall be no participator in such a conviction. I am a good deal amused by the various styles of admonition or censure bestowed upon me and my balance sheets. May I ask these parties to produce their own balance sheets, and thus improve and enlighten me. One calls me a market gardener because the railway enables me to send my Peas green in the pod to the London market instead of harvesting them and sending them dry. Another grumbles because at a leisure time I aid my neighbour with horse work and he in return aids me when I am over busy each party charging the other according to the work done. A third censures me for grinding my own and my neighbour's corn, and innocently asks what is to be done if we all become millers? He might as well suggest our all becoming cotton spinners, or tanners or butchers and bakers. Another infers that because I don't sell lean animals I do not breed any. I do breed 100 lambs annually, and sell them as fat mutton at a year old. I always used to rear 30 calves annually until the cattle plague made it dangerous. I stand fast to my axiom that selling lean stock off the farm impoverishes it, and is inconsistent with large produce of corn and roots. It is only very rich land or dairy districts that will stand such treatment. Plenty of fat stock and plenty of corn must be our future motto. *J. J. Mechi, Tiptree Hall, Feb. 1.*

Malt for Beer.—In the *Standard*, a day or two ago I saw an extract from the *Chamber of Agriculture Gazette* containing mention of a brewing of three parts of barley meal to one of malt. This proportion of meal is I fancy, unusual, but surely the use of meal in brewing could never have been spoken of in that Gazette as being of itself a novelty. In Johnston's "Chemistry of Common Life" this use of meal is described and the reason of its success given. But this is a "modern instance." In a much older book of

we saw you have not the London book of 1751, gives "The quantity of wheat required to make 100 quarters of beer," the "wheat" and "oats" must be reduced to meal, and the rest of the plan is the same in principle as in the *Standard*. It may be worth your notice that of "hoppys" and "hops" I think I had then the me when...

H. J. M. Gatchell, Suffolk, Jan. 29.
 Lume as a Fertilising Agent.—The reason in reply to R. Smith relative to the application to crops in which there exists much matter I can fully endorse from my own experience. I took a piece of land five year since exhausted, and badly farmed when I received it, having a poor crop of Oats. I had used lime and the vegetation it produced was utterly worthless. In the first place I thoroughly drained and summer fallowed, and then I was bound to the Irish acre; then I had it sown in February sowed it with Red-cliffed Wheat which proved a splendid crop both as regards quantity and quality yielding more than Wheat. I should remark that a small part of the land which had been earlier mazed. The following year I sowed down with Grass seeds and Clover of which crops were remarkably good but the lay was extraordinary for such a dry summer—nothing less than eight tons of grass and it was mowed a second time to feed the stock during the heat of summer. The Potatoes on part of the ground which had not been although otherwise well manured, yet they were worthless but it was quite otherwise. I had had been a mill for they were both for the table. As previous to my occupying the land it never had been either deep or ploughed since it had been a wood, I attribute the improvement in fertility to the action of the manure mulch for ages of vegetable matter lying as it were and literal use as in the soil has been at once utilised by the lime and suitable for the purposes of domesticated vegetation. Change in its surface where it has been in Grass is almost inured to. *J. M. E.*

Tiptree Hall Farming.—It was not my intention to have written again on Tiptree Hall, but for two reasons I am induced to write a few lines. In the first place I thank the gentleman who wrote the article which was inserted last week in the *W. B. Z.* This article I take to be an analysis of the hollowness of Mr. Mechi's managing his cattle and cultivating his soil. Other reason for again writing is the consideration of it I call the attention of myself as well as that of other readers. I have been in Suffolk and on the borders of Norfolk had thought Mr. Mechi was well known, farming doings appreciated as I had often his having been there at agricultural meetings. I saw several farmers and a class of them but to my surprise did not had read Mr. Mechi's balance sheet and why they had not read it since Mr. Mechi much pains to enable them to do so, the was that they did not think it worth indeed they all spoke of it with confidence. On finding such to be the case I made to take my fare on my return home to Tiptree of which I knew Tiptree Hall was within my object being to ascertain from some of the most with there, what was the opinion of neighbours farmers of Essex had or had not here has farming and balance sheet were spoken against if possible than I had had been in Suffolk and Norfolk and of the the respectable looking farmer whom I thought the man what he thought of Mr. Mechi's sheet he spoke of it with cheer confidence he did not believe a word of it as Mr. Mechi could write down what figures he pleased out what profits he pleased but even if he crops of Wheat he said he kept fat cows at expense on purpose to make manure for the of these crops, and that such a system followed by a tenant farmer who had been for making money, would soon have him in a house, and as three or four times in the same room, he appealed to the if such were not the case and the terms as possible contained in Mr. Mechi's the opinion of thoughtful farmers in the neighbourhood as well as that of other counties in which he resides. I was thought by them of the balance sheet of others in other parts of the country and these in the neighbourhood from whom whom I have had the opportunity of the subject. The balance sheet is for January 1—Valuation, and 1866 shows crops at that date of each of those years then goes down to December 31 of each year, showing the stock and crops exhibiting a profit for each of those years for the first 52s 11s 6d for the second for the third, and 25/ 13s 6d for the last year. Now I thank Mr. Mechi for spirit to him, who made these valuations the valuer or valuers came to the

year, and their exact value to a penny... all, or only a part of his crops—that is, passed them through the bushel, or could have known at what price they... These are but simple questions, and as Mr Mechi has and taken extraordinary... year on the 31st of December of the... a single penny for each year, before parts of those crops, could have been before the market price of them, by any could have been known? The same might be put, and with still greater force, as... but I forbear putting them for the... to do with the task I have above set

Societies.

AGRICULTURAL OF ENGLAND.

COUNCIL. Wednesday, February 3, 1869. Mr. H. S. Thompson, trustee, in the chair, Lord Chesham, Lord Tredegar, Messrs Lopes, Bart., M.P.; Sir T. Bart.; Mr Baldwin, Mr Bramston, Mr. Colonel Challoner, Mr. Clive, M.P.; Mr. Mr. Mr. Brandreth Gibbs, Mr. Hornaby, Colonel Kingscote, M.P.; Mr Milward, Mr. Randell, Mr. Bigden, Mr. Shuttleworth, Mr. Webb, Major Wilson, Mr. Jacob Wilson, and Mr. Voelker.

Dunmore, Stirling, N.B., was... of the Society. ... were greeted... H.P. ... Arts... Fairfield... Showsbury.

- W. Scarbank, Longtown, Cumberland
John Tatton Dale, Knutsford, Cheshire.
W. Whitehall Place, London, S.W.
Willy Hall, Attleborough, Norfolk.
I. Writtle, Chelmsford
Wespo Hodgson, Barton Hall, Penrith.
A. Pils Dulas, Aberfeldy, Donbighshire.
J. Eastmach, Lechlade.
E. Yelvertoft, Rugby
Windsor Crescent, Newcastle-on-Tyne
Hay Close, Penrith.
Barfoot, Longtown, Cumberland.
Robert Brynderwen, Llanrwst.
Ullen Wood, Lockhampton, Cheltenham.
Bilton House, Shrewsbury.
Anthony, Penrith.
W. Plumpton Hall, Penrith.
W. M.P., 122, Park Street, London W.

Mr. T. ... reported that, ... had (during the ... the motto papers of the ... which were adjudged ... respectively, in ... of the Journal ... by public advertise- ... for the Journal, and also ... Committee be empowered ... to inspect and report ... publishing the reports in the ... to be inspected to be at ... all occupied by tenant- ... from the Council for ... 100L, as the Committee ... the remainder of the cost ... for essays, communicated ... It was announced ... awarded the prize of 20L, in ... of Grass-land," to the ... "Give liberally, so that you ... which was written by Mr.

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Clement Cadle, of Gloucester; and the prize of 25L. in Class IX., "On the Rise and Progress of the Devon Breed of Cattle," to the essay bearing the motto "Spero," which was written by Mr. John Tanner Davy, of Rose Ash, South Molton, Devon. It was recommended that the publication of the essays should be accompanied by that of the award of the prize of 30L. in Class I., "On the Farming of Middlesex," by the Rev. J. C. Clutterbuck, for his essay bearing the motto "Rus in urbe," of which decision no report has yet been published.—This report was adopted.

HOUSE.—Viscount Bridport, Chairman, reported that the Committee recommended the consideration of the question of obtaining additional committee-rooms on the north side of the house, as they can be provided at a moderate cost; and that the Committee empowered to lay before the Council a plan and estimate to be furnished by Mr. Fowler.—This report was adopted.

GENERAL MANAGER COMMITTEE.—Mr. D. R. Davies reported that the Secretary of the Manchester Local Committee having called the attention of the Committee to the subject, it had been agreed to recommend the Council to appoint a Special Committee to consider whether any and what privileges at the Society's shows shall be placed at the disposal of Local Committees. A discussion then ensued, in which Mr. Torr, Major Wilson, Colonel Challoner, Mr. Randell, Lord Chesham, Colonel Kingscote, Mr. Thompson, Mr. Brandreth Gibbs, Mr. Cantrell, Mr. Milward, Mr. Jacob Wilson, and Mr. Davies took part. Ultimately the recommendation was withdrawn, Mr. Davies adopting the suggestion of several members of Council, and giving notice of his intention to bring forward a resolution on the subject at the next Council meeting.

SHOWYARD CONTRACT COMMITTEE.—Mr. Randell, chairman, presented the following report—

In your meeting with reference to the Showyard meeting, your Committee have to lay before the Council a statement of the cost of showyard works at Leicester. This is all that is asked for, but as your Committee believe that the object of the proposition was to enable the Council to compare the cost of the showyard works now with the amount formerly paid, we give also the amount for the Worcester show—Worcester, from its situation, appearing more fitly to bear comparison with Leicester than any other meeting. The cost of the Leicester showyard was £4378 18 11

The cost of the Worcester showyard was £4378 18 11
Add to this the works at Leicester which were in excess of those at Worcester, after deducting those which at Worcester were in excess of Leicester.. .. 118

Cost of Leicester as above £4496 18 11

That is, the Leicester showyard cost £1088 15 5 less than it would have been under the arrangement in other words, if the showyard works at Worcester had been of the same extent as Leicester, the cost of the former would have been 1088L 15s. 5d. more than was expended upon the latter, and this without crediting anything to Leicester for the improved character of the buildings and works there, the additional measurements only being charged. Of the amount thus saved 321L 18s. 1d. is upon the permanent buildings, and we think it right that the Council should be informed as to the effect of purchasing, instead of hiring, as formerly, these buildings.

The amount paid at Worcester for the hire of these buildings was £4378 18 11
And that, on the same scale of charge, the additional buildings would have cost .. 116 0 0

Whereas at Leicester the whole cost was £4496 18 11
Showing a difference in favour of the present arrangement of .. 321 18 1

after paying the cost of railway transit, repairs, erecting, and insurance, and charging 10 per cent. upon capital employed.

The surveyors' report had been considered, and certain suggestions were recommended to the Council.—This report was adopted.

COMMITTEE OF SELECTION.—Mr. Thompson, chairman, reported the following recommendations of the Committee—1. That Sir T. Hesketh, Bart., M.P., of Rufford Hall, Lancashire, be proposed to the Council, in accordance with the resolution of the last meeting of the Committee, to fill the vacancy caused by the election of the Duke of Richmond, K.G., as Vice-President, and (2). That Thomas Statter, Esq., of Stand Hall, Whitefield, Manchester, be elected to fill the vacancy caused by the resignation of Mr. Caro Sewell Read, M.P. Sir T. Hesketh having been proposed by Mr. Thompson, and seconded by Lord Bridport, was then unanimously elected a member of Council; and Mr. T. Statter having been proposed by Mr. Torr and seconded by Mr. Milward, was also unanimously elected a member of Council.

It was resolved, on the motion of Mr. Torr, to repeat the advertisement announcing the intention of the Council to hold the country meeting of 1870 at some place in the counties of Berks, Bucks, Hants, Kent, Oxfordshire, Surrey, or Sussex.

A letter from Mr. Walter Parthing, of Stowey Court, Bridgwater, was read; and it was resolved that his heifer, born July 1, 1866, is eligible to compete for the Society's prizes in Class G1 of Devon heifers not exceeding three years old.

Farmers' Clubs. LONDON

Pauperism and Vagrancy.—On Monday last Mr. Trask's promised paper on this subject was read before the members of this Club in their assembly room at the Salisbury Hotel. After the customary introductory remarks had been made, Mr. TRASK came to the main ground of his paper—

Number and Increase of Paupers.—I find that the total number of paupers of all classes in England and

Wales on the 1st of January, 1868, was 1,040,103; and at Michaelmas, 1868, was 67 per cent. more than at Michaelmas, 1867, and 10 per cent. more than at Michaelmas, 1866, and the increase has been general throughout the kingdom. It is difficult to fully comprehend the state of things which these figures indicate, for instance, the borough of Tamworth, which sends two members to the House of Commons, and has a population of 10,100, and in the last census— it will take 102 such boroughs to furnish men, women, and children enough to equal the number of our paupers south of the Tweed, or if we take another parliamentary borough—that of Richmond—we shall require the total number of its inhabitants to be multiplied just 203 times before we arrive at a number equal to the paupers of England and Wales! I think, then, that no one need be surprised, when we are told by an eminent Cabinet Minister that "This is the great problem which is now before us. It is not for statesmen only, it is not one for preachers of the Gospel, only—it is one for every man in the nation to attempt to solve.

Remedies Considered and Suggested.—What I understand by solving this problem, is to apply such remedies as will, as far as possible, lead to a permanent mitigation of the evil; for no one supposes that pauperism can be entirely eradicated—it will always exist, more or less, in a great community. In proceeding then to consider the best means of permanently mitigating this great evil, it should be borne in mind that we have to deal with different classes of paupers, that require totally different treatment, and in order to discuss the question with any practical advantage, it is absolutely necessary to treat of each class separately. I shall therefore take that course, and point out where I consider the existing system has failed, and what steps should be taken to remedy it. I shall also show in what way I think the general interests of the working-classes might be improved. The class of paupers that I shall first refer to are those within the workhouse. Dr. Sturges has recently stated that "Almost the only persons found in workhouses are the aged and infirm." This, however, is not the case, for by far the largest class of inmates are children under the age of 16, and I have long since felt, after several years close observation, that no part of our poor-law system has failed nearly as much as in the case of these children. As a rule they are taught to read, write, and cipher very fairly; but as for a knowledge of any industrial occupations to enable them to get a living to make themselves useful members of society, they are woefully deficient. When we consider that we have nearly 60,000 children in the workhouses, and of these probably more than two-thirds are orphans or deserted by their parents, it will at once be seen how important it is that these children should be brought up in such a manner as will enable them to get an honest living in the world, and not to look upon a state of pauperism and a home in the workhouse to be naturally theirs, as I fear many of them do now. At the Sherborne agricultural meeting, a short time since, Professor Buckman is reported to have spoken on this subject as follows. "As a member of a board of guardians, he had been very much struck lately with a very important question. He found that the children in our workhouses were being brought up for nothing else but paupers. He hoped that something would be done to take them out of that category. He was not prepared to suggest any scheme. But they had been told lately that foreigners were supplying their navy, and that they were enlisting foreigners for the army. He did not see why their pauper children should not be sent to some central school, to be supported by all the unions in the country, where they might be educated so as to enable them to follow some useful occupation. He had been thinking of the matter for a considerable time. To bring up children merely as paupers was highly creditable to the nation. That was an agricultural question, and one which they would do well to consider." The first step that I think it is necessary to take, in order to bring up these children satisfactorily, is to remove them from all workhouse contamination; no doubt an improvement might be made where they are, but the expense of bringing them up in a proper manner in workhouses would be enormous, and the result almost certain to be unsatisfactory. Even in salaries alone, in small workhouse schools the cost is now from 2L to 3L for each child, while at Birmingham, where there are nearly 600 children taught, the total salaries of the teachers and industrial instructors amount to about 7s per head. But the greater saving, in having the children brought up in institutions expressly adapted for them, apart from the workhouse, would be felt through their being taught the means of permanently keeping themselves after leaving the institution, and not to become a source of further increasing the pauperism of the country. After arguing that the cost of educating children should be borne by the national exchequer, and their maintenance only thrown upon the poor-rates, Mr. Trask described the—

Present Inefficient System of Industrial Training.—I have noticed that one of her Majesty's Inspectors of Union Schools, in his last report to the Poor-law Board, states that, "As the result of 20 years' experience the great difficulty in the education of pauper children it is the imperfect education of many of those above them, and on whom they must depend. The consequence is, that although education is seldom openly opposed it is often thwarted and impeded indirectly, and great inefficiency is constantly manifested to the whole subject." I am bound to say that my own experience entirely bears out this statement; as a rule, the guardians have utterly failed in the management of workhouse children. I have received a large number of letters from different workhouses in reference to this subject, but I shall only give the substance of two or three of them. From one union the master states, "That the boys of this

encouraged. Those who have traveled between Hamburg and Berlin must have noticed the immense flights of pigeons circling round those large red brick homesteads that are dotted about the country.

The pigeons of which we have been speaking are generally of mixed plumage of all shades, from dark slaty blue to white. They are reared, as a rule, mixed together with the ordinary French pouter.

In answering a correspondent, "Colchicus," in a recent Number, we said that tame pheasants might be made to pay by the sale of their eggs. We have a great many letters, inquiring all sorts of particulars as to the birds and mode of keeping them.

We have to chronicle the close of the game season, of which it may be said that white pheasants and partridges have been unusually plentiful.

Calendar of Operations.

Spring Wheat not sown last month is now got in without needless delay. The propriety of increasing the breadth of the crop will no doubt give rise to some diversity of opinion.

Now Beans and Peas as soon as the weather and land will permit, is also a current rule. Of late years we have become more and more impressed with the propriety of increased attention being paid to the growth of both these crops.

The Oat, although the hardest of our cereals, requires a dry seed-bed, with properly cultivated land, to secure a favourable return. The latest varieties are sown as early in February as the weather will permit.

Notices to Correspondents.

Mr. Hope. Mr. Hope is informed that fertilizing material by using it as litter in the stable and after wards rolling in a dung heap.

KNAP HILL NURSERY, WOKING, SURREY.

ANTHONY WATERER

DEGS TO SUBMIT THE

FOLLOWING LIST to the NOTICE of INTENDING PLANTERS

EVERYTHING IS WELL GROWN AND FINELY ROOTED

In proof of which he gives the date of their last removal

- APIES ORIENTALIS, 5, 6, 7 and 8 feet, 10s. 6d. to 1s. each.
ALBIFRONS, 5 to 6 feet, 3s. to 4s. per doz., moved April, 1863.
CANADENSIS, 4, 5, 6, 7 feet high, 1s. to 2s. per dozen.
PINEA NORTONII, 4 to 5 feet, 1s. to 1s. 6d. each.
MAGNIFICA, 5 to 6 feet, 1s. to 1s. 6d. each.
LAV. AFRICA, 2 to 3 feet, 1s. to 1s. 6d. each.
CEDRUS ATLANTICA, 5 to 6 feet, 4s. to 5s. per doz., moved 1863.
CUPRESSUS LAWSONIANA, 4 to 5 feet, 30s. per dozen.
JUNIPER SYRIACA, 4 to 5 feet, 1s. to 1s. 6d. each.
YEW, ENGLISH, Many thousands, 5 to 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

THE FOLLOWING ORNAMENTAL TREES, OF LARGE SIZE

Are well grown and well rooted, and suitable for

- PLANE, ORIENTAL and OCCIDENTAL, 10 to 15 feet high
SYCAMORE, 10 to 11 feet.
WEeping BIRCH, 8 to 12 feet.
MOUNTAIN ASH, 5 to 10 feet.
HORSE-CHESTNUTS, COMMON, 10 to 12 feet.
SCARLET HORSE-CHESTNUTS, very fine flowering Trees, 10 years, worked.
BEECH, WEeping, 7 to 15 years, worked.
BEECH, PURPLE, 8 to 10 feet high.
DECIDUOUS CYPRESS, 8 to 12 feet.
NORWAY MAPLES, 8 to 12 feet.
LONGLEAFED PLAINS, 10 to 12 feet.
THORN, fine Standards, of the most ornamental.
ASH, Gold-barked, Flowering, and other varieties, 8 to 10 feet.
LIMES, 10 to 12 feet.

As well as the above-mentioned articles, at Knap Hill will be found one or perhaps two of the better kinds of HARDY EVERGREENS, DECIDUOUS and FLOWERING TREES and SHRUBS.

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The Nursery is readily reached by Train from Waterloo to Woking Station, where conveyances are sent at times to be depended on.

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SURPLUS STOCK—VERY CHEAP. SPECIMEN CONIFERS and EVERGREENS.

Arbor vitae, American, 5 to 6 feet... Picea canadensis, 2 to 3 feet... Thuja occidentalis, 2 to 3 feet...

Abies balsamea, 3 to 4 feet... Juniperus communis, 2 to 3 feet... Taxus canadensis, 2 to 3 feet...

At 10s per dozen... At 5s per dozen... At 2s per dozen... At 1s per dozen...

At 10s per dozen... At 5s per dozen... At 2s per dozen... At 1s per dozen...

At 10s per dozen... At 5s per dozen... At 2s per dozen... At 1s per dozen...

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FRUIT TREES... WAIN... THE FOLLOWING SEEDS...

Hookfield Hybrid, green-flesh, large and good... Broomfield, green-flesh, excellent... Marquis of Ailes, green-flesh, fine...

Full-grown Evergreens... HENRY GOLDFAY, NURSERYMAN, STEARBRIDGE, has a large quantity of the following Evergreens to offer...

Planting Season... DICKSONS AND CO., NURSERYMEN, SEEDSMEN, and FRUITERS, WATERLOO PLACE, EDINBURGH...

The Newry Nurseries... GEORGE DAVISON, NURSERYMAN, NEWRY...

Trees and Shrubs... THOMAS KENNEDY AND CO. have as usual a very large and choice stock of FRUIT and ORNAMENTAL TREES...

FOREST TREES... FOREST TREES, 1000 to 1500 feet high, for sale by the Nursery, Stratford, Essex, E.

Large Evergreens and Forest Trees... MESSRS PAMPALAN AND SON have a large quantity of the following trees for sale...

To the Trade... THOS CRISP AND SON, NURSERYMEN, have a large quantity of the following trees for sale...

At 10s per dozen... At 5s per dozen... At 2s per dozen... At 1s per dozen...

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Vertical text on the left margin containing various notices and advertisements.

Vertical text on the right margin containing various notices and advertisements.

Plants for Hedges

TWO HUNDRED OF THE COMMON LAURELS,

... and other plants for hedges, including Laurel, Yew, and Boxwood.

The Planting Season

WOOD AND SON respectfully invite special attention to the very large stock of STANDARD ORNAMENTAL TREES...

- List of trees for sale: Catalpa bignonioides, Elm, Silver Birch, Horse Chestnut, etc.

Surplus Stock

THOMAS IMRIE AND SONS, Nurseries, offer a quantity of the under-rooted at very low prices...

1868 - Mangel Wurzel Seed

H. AND F. SHARPE can offer the Trade a magnificent stock of the above-named Seed...

EVERY'S NONSUCK LETTUCE - The best of the kind, early and late...

Henry's Hybrid Prize Leek

DOWNIE, LAIRD, and LAING are now sending out seed of the above celebrated LEEK...

HARRIS' MAMMOTH LEEK, the largest and finest variety yet produced...

East Lothian, White, and Purple Intermediate Stock. THOMAS METHVEN having secured the Seed...

EARLY CORNISH BROCCOLI - During the past fortnight there has been a good supply of Broccoli sent to Covent Garden Market...

LEITON'S SURPRISE, new, large, late WHITE PROTECTING BROCCOLI - The best late Cauliflower Broccoli...

New Seeds, of choicest Quality. J. SCOTT'S COLLECTIONS of NEW VEGETABLE SEEDS...

CHOICE CONIFERS A large assortment of fine healthy Plants of all the principal varieties...

The Best Onions for Exhibition. SECTIONS IMPROVED BEADING, 1s. per ounce. NEW BEDFORDSHIRE CHAMPION, 1s. per packet.

To Market Gardeners and Other. SUTTON AND SONS can offer the following excellent quantities of seeds...

First Crop or Singleleader Pea. CHARLES SHARPE AND CO., having grown largely this EXCELLENT EARLY PEA...

Garden Seeds. CHARLES SHARPE AND CO.'S PRICED TRADE LIST OF PEAS, BEANS, and other GARDEN SEEDS...

Seed Potatoes. CHARLES SHARPE AND CO. are now prepared to supply the Trade with all the leading sorts of POTATOS...

PATERSON'S SEEDLING POTATOS - The absence of Second Growth in the Victorias, Blues, and Economists...

SUTTONS CHOICE and EARLY POTATOS for PLANTING, carriage free. KIDNEY VARIETIES. ROUND VARIETIES.

Seed Potatoes. GEORGE SIBBALD, Drumgeath, by Dundee, N.B., has for Sale a large Stock of his own growing...

Seed Potatoes. PATERSON'S VICTORIA, the best of all Paterson's varieties, 2s per ton...

Special Offer to the Trade. PEAS, BANGSTER'S NO. 1. PARADISE EARLY MARROW. WATSON'S EARLY YIELDING.

Special Offer to the Trade. CARROT, ALTRINGHAM. RADISH, WOODS' EARLY FRANK. TURNIP, POMERANIAN WHITE CLOVE.

GISHURST COMPOUND. Used by many of the leading Gardeners since 1850, against Red Spider, Mildew, Thrips, etc.

An Invaluable Discovery. CHARLES' INSECT-DESTROYING COMPOUND - A discovery made safe for private use...

LAWES' MANURE for GRASS applied during the months of February...

LAWES' MANURE. LIME, BONE, and other fertilizers for agricultural use.

LONDON MANURE. Have now ready for delivery, in large quantities, CORN MANURE, for Spring Use...

ROLL TOBACCO PAPER. To Nurserymen and Retailers. H. PERKINS, 16, Cambridge Street...

POOLEY'S TOBACCO POWDER, for the Destruction of Blight and other diseases...

DAY, SON, AND HAWKINS. Medical and Surgical Preparations. The 'Stock-breeders' Medicine Chest'...

TESTIMONIALS. 'Day, Son, & Hawkins's Six-shilling Medicine Chest' is the handiest and most complete...

GARDEN BORDER EDGING. A variety of patterns and materials for garden edging.

ORNAMENTAL TAVING MILES. White Glazed Tiles, Kitchen Ranges, and other decorative items.

B. S. WILLIAMS'

NEW GENERAL PRICED SEED CATALOGUE for 1869,

Is now ready, and will be forwarded Post Free to all customers and applicants.

It contains Lists of all New Flower Seeds of merit, Choice Strains of Florists' Flowers, imported Flower Seeds in collections, the most useful Annuals, Biennials, and Perennials for Spring and Summer Flowering, carefully selected Descriptive List of approved Varieties of each kind of Vegetable Seed, with a few Practical Hints as to Culture, a so-called Appendix containing a List of other Summer and Autumn-flowering Bulbs, Knives, Horticultural Implements, Horticultural Manures, Insect-destroying Compositions, and every article likely to be required in the Garden. A personal and respectfully solicited every article is priced, and purchasers may depend on the Seeds being true to name, and everything of the best quality. Exaggerated descriptions are carefully avoided.

All Orders of more than £1 in value sent Carriage Free.

VICTORIA and PARADISE NURSERY, UPPER HOLLOWAY, LONDON, N.

STOCKS, STOCKS, STOCKS.

B. S. WILLIAMS

HAS MUCH PLEASURE IN OFFERING CAREFULLY SELECTED

SEED OF THE SUPERB EAST LOTHIAN INTERMEDIATE STOCK,

Feeling sure, from personal observations of several years, that it is without question the finest strain of Intermediate Stock extant.

The colours are Purple, Scarlet, and White. The two first are remarkably brilliant, and the latter very pure. They produce immense branched spikes of large double flowers, and are admirably adapted for ribbon borders and general bedding purposes. Indeed, the effect which can be produced by these three varieties in both spring and autumn gardening is not surpassed by any of the now popular plants. If sown early in March, and transplanted in May to their blooming places, the amount of double flowers produced, and the grand display they make, is truly surprising. For either flower gardening or pot culture they are unapproachable, and cannot be too strongly recommended.

An assortment of three colours (Scarlet, Purple, and White), 2s. 6d.

B. S. WILLIAMS, VICTORIA and PARADISE NURSERY, UPPER HOLLOWAY, N.

NEW HYBRID PASSION FLOWERS.

PASSIFLORA MUNROI, and PASSIFLORA LAWSONIANA

(Fully noticed and described in the Gardeners' Chronicle of December 12, 1868, p. 1288).

PETER LAWSON & SON

Intend to send out the above-named charming Climbers, for the first time, early next May; and are now prepared to book orders for

Plants at 21s. each, with the usual discount to the Trade.

EDINBURGH and LONDON.—January, 1869.

TACSONIA ERIANTHA

(WOOLLY-FLOWERED TACSONIA).

A noble plant, resembling in habit and colour of flower the well-known T. mollissima, from which, however, it differs conspicuously in the white under-surface of the foliage and long bracts. As a Greenhouse or Conservatory Climber, it rivals the T. mollissima, and is as free a flowerer. (Vide "Curtis's Botanical Magazine" for January, Tab. 5760.)

PETER LAWSON AND SON have been fortunate in acquiring the Stock of this splendid Climber from Isaac Anderson Henry, Esq., F.L.H., and intend to send it out simultaneously with their new Passifloras.

Orders for Plants will now be booked at 21s. each. Trade allowance as usual.

EDINBURGH and LONDON.—January, 1869.

CAREFULLY SAVED GARDEN SEEDS.

ARTHUR HENDERSON & CO.'S

CATALOGUE of choice VEGETABLE and FLOWER SEED NOVELTIES

Is now Published, and can be forwarded Post Free on application.

The VEGETABLE SEED SECTION contains—

Selected LISTS of the best varieties of each kind most worthy of cultivation, also some excellent new sorts of both VEGETABLE and FLOWER SEEDS of sterling merit. Attention is also directed to the Pine-apple Compact-top BEET (the finest and richest flavoured variety extant), carefully saved, true from the original stock. Also the new DWARF WATERLOO BEET—top leaves rich metallic crimson—growth true, even, and regular. This beautiful foliaged variety may with advantage be cultivated in the flower garden as a border, ribbon, or edging plant, its root is a trifle larger than the Pine-apple Compact-top, flavour excellent, full of sweet saccharine juice, colour crimson, texture tender and uniform throughout.

The FLOWER SEED SECTION contains—

Imported GERMAN FLOWER SEEDS in Collections, Choice Strains of FLORISTS' FLOWER SEEDS; a careful LIST of FLOWER SEED NOVELTIES of the season, HORTICULTURAL REQUISITES of every kind, KNIVES, PROTECTING MATERIALS, HORTICULTURAL MANURES, &c., &c.

N.B. Everything in this CATALOGUE is Priced.

PINE APPLE PLACE, MAIDA VALE, LONDON, W.

All Seeds Carriage Free.

Dwarf Roses for Bedding. PAUL AND SON have a large quantity of varieties, on own roots, &c. &c. The present is a new list of the Spring &c. LIST in ROSE CATALOGUE. "The Old" Nurseries, Chesham, Bucks. The New Roses for 1869. WILLIAM ROLLISSON AND SONS to introduce to the Nobility, Gentry, and their DESCRIPTIVE and PRICED LIST of 1869 is now published, and may be had gratis on application. The Nurseries, Chesham, Bucks.

JOHN CRANSTON has been appointed to the Manetti Roses especially are acknowledged as the best grown plants in the Trade. Nurseries, King's Acre, near Harpenden.

New Roses of 1869. WILLIAM KNIGHT begs to announce that he has commenced sending out after April 1st the best of the NEW ROSES, as well as the best varieties of standards, Half-standards, or dwarf, &c. &c. for immediate delivery. Also Standards, Tree, &c. &c. TARKINS, and CHERRY TREES, &c. &c. CATALOGUES now ready. Free on application. Floral Nurseries, Harpenden, Bucks.

Standard Roses, and Dwarf Maiden and Nectarines. STANDARD ROSES, best leading sorts, &c. DWARF MAIDEN PEACHES and NECTARINES, &c. &c. STANDARD PORTUGAL LAURELS, &c. &c. Edward Price's Nursery, Harpenden.

GLOIRE DE NANCY, Double PELLEGRINI. MRS. POLLOCK, 4s. per dozen, or 2s. per dozen, or 15s. per 100, packages included. H. & R. STRAZER, Barton Nurseries, Leamington.

TRICOLOR PELARGONIUM. LADY CULLUM, 21s. per doz. ITALIA UNITA, 13s. per doz. SOPHIA DUMARESQUE, 13s. per doz. SUNSET, 6s. per doz. In strong plants, at the above prices. For cash, package included. ALFRED FAYER, Nurseries, Chatteris, Cambs.

VARIETALS. Lady Grieve, Lady Cullum, Queen of Tricolors, Sophia Dumaresque, Duke of Edinburgh, &c. &c. The above for 21s. If any of the above are not required, equal value can be substituted. Remittances to unknown Correspondents. Address, ALFRED FAYER, Nurseries, Chatteris, Cambs.

TRICOLOR and other PELARGONIUM. LADY CULLUM. SOPHIA DUMARESQUE. ITALIA UNITA. CRYSTAL PALACE OF M. LEONIDAS. MRS. POLLOCK. In strong plants, for cash, package included. JOHN BARKER, St. John Nursery, Bury St. Edmunds.

SUTTONS' COLLECTIONS of GLADIOLI. 100 in 40 choice varieties £1 0 0. 12 choice varieties 50 in 60 " 2 2 0. 12 good varieties 25 in 25 " 1 2 6. Finest mixed, per 100. Fine mixed, 25s. per 100. SUTTON & SONS, Seedsmen to the Queen, London.

FREDERICK PERKINS has strong parcels undermentioned to offer, at the following prices: VIOLETS—The Star, 10s. per 100. The white, 25s. per 100. CHEVALIER METALLIC, &c. ROSES—Doronicus, 10s. per doz. Mar. &c. roots, 15s. per doz. JASMINE GRANDIFLORA, &c. GERANIUMS—Gloire de Nancy, 10s. per doz. 19s. per doz.; Madame Lamotte, 6s. each. A. Henderson, 3s. 6d. each. Stephanos, 4s. 6d. each. Glendendron Balfourii, 12s. per doz. per doz. Price to the Trade on application. Seed Warehouse, 5, Regent Street, London.

Vegetable, Agricultural, and Flower Seeds. MISCELLANEOUS HARDY BEDDING PLANTS, &c. &c. ROBERT PARKER begs to announce that his CATALOGUE, containing DESCRIPTIVE LIST of the finest kinds in cultivation of the above-named, &c. &c. will be forwarded to applicants. The stocks of seeds are prepared from the best possible sources, &c. &c. and are offered at the lowest possible prices. Intending purchasers are requested to compare these of other houses. Exotic Nursery, Totting, Surrey, S.W.

HALLETT'S PEDIGREE CHEVALIER produced in 1865 a crop of 62 bushels per acre, which was awarded the First Prize at the Brighton Show. Took the First Prize also at the same Show of 1867. 1867 nearly 9 quarters per acre. PEDIGREE BLACK TARTARIAN OATS 12 quarters per acre. For particulars apply to Captain Hallett, &c. &c.

Choice New Seeds. CHARLES TURNER can recommend the following having been saved by him self or under his supervision: BALSAM, from a prize collection. CENTAUREA CANDIDISSIMA. GYMNOCARPA. CARNATION, from exhibition kinds. HOLLYHOCK, from exhibition kinds. Collections of a named varieties (from the newest and best).

PINK. PICOTEE. PELARGONIUM, SHOW. FANCY. TRICOLOR. VARIEGATED. ZONAL.

TROPÆOLIUM GOLDEN KING OF TOM. GOLDEN LEATHER. PINEAPPLE. BROCCOLI, SNOWS. WINTER. CABBAGE, HALL'S. CUCUMBER, BERRY. HEDSOR PROLIF. MELON, GOLDEN QUEEN. PEAN, LITTLE GEM, First Crop. ADVANCE, Second Crop. PREMIER, Third Crop.

SAVOY, NEW FRENCH. CHARLES TURNER'S NEW SEED LIST contains the best and best varieties, can now be had post free on application. The Royal Nurseries, Slough.

Editorial Communications should be addressed to the Editor, The Gardeners' Chronicle, Office 41, Wellington Street, London, W. Printed by James Matthews at the City of London Press, & Co. Lombard Street, London, E.C. Office, No. 41, Wellington Street, London, W. In the mid County—SATURDAY, February 6, 1869.

PAUL'S NURSERIES AND SEED WAREHOUSE, WALTHAM CROSS, LONDON, N

GENUINE AND FIRST-CLASS SEEDS.

WILLIAM PAUL

DEGS TO ANNOUNCE THAT HIS

CATALOGUE OF SELECT VEGETABLE AND FLOWER SEEDS,

Including many Novelties, is now ready, and may be had Free by Post on application.

In proof of QUALITY he need only refer to the numerous Prizes awarded at various Horticultural Shows throughout the country, for both Vegetables and Flowers grown from his Seeds, and in regard to prices these are in every way fixed on the lowest possible scale to be remunerative. The following Gardens in Hertfordshire, justly celebrated for their Vegetables and Flowers, have long been supplied from his Seed Warehouse—Brockett Hall, Dancsbury, Poles, Digswell, Wyddial Hall, Woodhall, Youngsbury, Bedwell Park, Essendon Place, Bayfordbury, Knebworth, Frogmore Hill, Childwickbury, Codicote Lodge, and many others of similar celebrity throughout the country.

To purchasers who are unacquainted with the best varieties of Vegetables and Flowers, or who wish to save the trouble of writing a List, the following Collections are made up on equally liberal terms with any other House in the Kingdom. All are of the best quality, and cannot fail to give the fullest satisfaction.

VEGETABLE SEEDS.

No. 1. The WALTHAM COLLECTION of VEGETABLE SEEDS, FOR A LARGE GARDEN, Price £3 3s.

No. 2. The WALTHAM COLLECTION of VEGETABLE SEEDS, FOR A MEDIUM-SIZED GARDEN, Price £2 2s.

No. 3. The WALTHAM COLLECTION of VEGETABLE SEEDS, FOR A SMALL GARDEN, Price £1 1s.

Smaller Collections for Small Gardens or Cottagers, 15s., 10s. 6d., or 5s. each.

FLOWER SEEDS.

No. 1. The WALTHAM COLLECTION of FLOWER SEEDS, INCLUDING THE FINEST IMPORTED ASTERS, STOCKS, &c., Price £2 2s.

No. 2. The WALTHAM COLLECTION of FLOWER SEEDS, INCLUDING CHOICE IMPORTED ASTERS, STOCKS, &c., Price £1 1s.

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No. 4. PAUL'S CHOICE COLLECTION of HOLLYHOCKS, IN TWELVE DISTINCT NAMED SORTS, Price 5s.

NOVELTIES, OR VARIETIES OF SUPERIOR MERIT.

- PAUL'S Superb Crimson, 1s. per packet.
BECK'S Leader's Superb Protecting Late White, 3s. 6d. per pkt.
BECK'S, Snow's Winter White, very select stock, 1s. per packet.
BECK'S SPROUTS, Paul's Waltham, 1s. per packet.
BECK'S FLOWER, Hill's Dwarf, 1s. 6d. per packet.
BECK'S FLOWER, Superb Dwarf Hertfordshire, 1s. per packet.

- CUCUMBER, Paul's Improved Telegraph (true), 2s. per packet.
* * * This Variety was first sent out by me in 1861, and is distinct from many varieties of Telegraph, and acknowledged to be the most prolific and best flavoured of all Cucumbers.
ENDIVE, Waltham Green Curled, 1s. per packet.
LETTUCE, Brockett Hall Brown Cos, 1s. per packet.
LETTUCE, Hill's Compact Brown Cos, 1s. 6d. per packet.
PARSLEY, Paul's Selected Extra Curled, 6d. per packet.

FOR MORE PARTICULAR INFORMATION, SEE SEED CATALOGUE.

All Seeds, except very small parcels, Carriage or Post Free.

- ARM ARBATUM.—Flowering bulbs, 2s. to 7s. 6d. each; 18s. to 72s. per dozen.
MOLL.—A very fine assortment to name, 6s. to 24s. per dozen.
SIS.—A fine stock still on hand, Standards, Dwarf-standards, Dwarfs, and in pots for forcing.
TREES.—Standards, Pyramids, and Dwarf-trained, and a large general Nursery Stock in excellent condition.

PRICED CATALOGUES, FREE BY POST.

TO PREVENT CONFUSION, all Letters should be addressed WILLIAM PAUL—the Christian name in full, as above.

No Foxes, no Foxes—the Covers are too Open and Cold. PLANT NORWAY SPRUCE FIR, 2 to 4 feet, the best and cheapest for thickening Game and Fox Covers. For samples and prices of 50,000 apply to W. JACKSON & Co., Nursery, Deale, Yorkshire.

STRONG TRANSPLANTED QUICK, 10s., 20s., and 30s. per 1000; £10, £20, and £120 per 100,000. Samples containing 100 may be had on receipt of a remittance for the same. JOHN CATELL, Nursery and Seed Establishment, Westerham, Kent.

LARCH FIR TREES for SALE.—Several thousands, from 4 to 7 feet, finely rooted and in excellent condition for planting, suitable to any one forming new plantations where immediate effect is required. Apply to D. S. THOMSON, Nurseries, Wimbledon, Surrey, S.W.

CHOICE CONIFERS.—A large assortment of fine healthy Plants, of all the principal varieties, from 10 feet downwards, with good roots, and well prepared for moving, are offered on advantageous terms by the Executor of the late GEORGE HARTLEY, Nursery, Rugby. A List will be sent on application.

TO THE TRADE and PLANTERS and OTHERS.—A large quantity of LAURELS, fine bushy plants, from 2 to 6 ft.; FOREST and FRUIT TREES, &c. Apply to Messrs. A. FRASER & G. DALTON, Stashope Nursery, Westerham Hill, Kent.

WANTED to PURCHASE, about Five Dozen EVERGREENS, consisting of Laurels, Bay Trees, &c., including a few young Forest Trees. Send particulars of sorts, height, and price, including carriage and package to the Horseley Station, Great Northern Railway Company, Hornsey, to Mr. FLEMING, Grove House Road, Hornsey, N.

Full-grown Evergreens. HENRY GODFREY, NURSERYMAN, Stourbridge, has a large quantity of the following Evergreens to offer, in well grown plants: Green and Variegated HOLLY, Siberian and American ARBOVITAE, Common and Portugal LAUREL, English and Irish YEW, RHODODENDRON'S PONTICUM and PONTICUM VARIEGATUM, Green and Variegated BOX, AUCUBA JAPONICA, ARAUCARIA IMBRICATA, &c.

Trees and Shrubs. THOMAS KENNEDY AND CO have as usual a very large and superior stock of FOREST and ORNAMENTAL TREES and SHRUBS, which they are selling at moderate prices. The Trees and Shrubs, being of all ages and sizes, are particularly well suited for extensive planting or giving immediate effect to the formation and improving of Ornamental Parks, Pleasure Grounds, &c. CATALOGUES sent free by post on application. The Nurseries, Dumfries, N.B.

FREDERICK PERKINS has strong plants of the under-mentioned to offer, at the following prices:—VIOLETS—The Czar, for beds, 15s. per 100. The Queen, double white, 25s. per 100. ECHEVERIA METALLICA, 12s. per doz. ROSES—Doroniensis, Tea, 12s. per doz.; Marshal Niel, on own roots, 15s. per doz. JASMINUM GRANDIFLORA, 15s. per doz. GERANIUMS—Gloire de Nancy, 12s. per doz.; Capt. Le Hermitte, 12s. per doz.; Madame Lemonie, 12s. each. Allamanda Schottii Hendersoni, 3s. 6d. each; Stephanotis floribunda, 18s. per doz.; Clerodendron Balfourii, 12s. per doz.; Francisca Lindleyana, 12s. per doz. Price to the Trade on application. Seed Warehouse, 61, Regent Street, Leamington.

To the Trade. THOS CRIPPS AND SON beg to announce they still hold a good stock of the following, in fine healthy stuff:—ABIES ALBERTIANA (Williamson), 2-yr seedlings, to 10 feet; A MENZIESII, 2 to 12 ft.; ARAUCARIA IMBRICATA, 6 ins. to 20 ft.; Cupressus Lawsoniana (an unequalled stock), 2-yr seedlings, to 15 feet; Picea b. sibirica 2 inches to 4 feet; P. canadensis, 2 inches to 7 feet; P. mariana, 6 inches to 10 feet; P. sibirica, 1 to 4 feet; P. austriaca, 2 to 7 feet; P. Lambertiana, 1 to 5 feet; P. maricata, 1 to 2 feet; P. benthiana, 2-yr seedlings, to 7 feet; Retinospora ericoides, 8 inches to 3 1/2 feet; R. obtusa, 8 inches to 8 feet; R. pinifera, 1 to 6 feet; Taxus ericoides, 8 inches to 2 feet; Thujaopsis dolabrata, fine stuff, 3 to 15 inches; Wellingtonia, 3 ins. to 4 ft.; Horse-Chestnuts, all varieties, Aucuba, a complete collection; Berberis Bealii, spontea, intermedia, Darwinii, dulcis, stenophylla, vulgaris; Laurels, common, 3 to 6 feet; Laurels, Portugal and Myrtle-leaved do.; Daphne pontica Stocks; Doulas crenata fl. pl.; D. scabra, Leycesteria, Manetti and Rhododendron Stocks; Malus fl. rubra (a handsome set of the flowering Crab); Prunus tinoba, Hardy Azaleas, Ficus, Gleditsia, Menziesia, and Persea, Standard Roses, Bush and Crispus China do.; Standard Apples, Cherry Plum Stocks, Strawberries; Ficus excelsa and Picea Webbiana, 1-yr seedlings; Aler, 1 to 6 feet; Spruce Fir, Larix laricina and penicillata. For particulars and prices of which, see our TRADE CATALOGUE, to be had free on application. The Nurseries, Tunbridge Wells, Kent.

BOX EDGING and COMMON LAURELS.—2000 yards of DWARF BOX EDGING, and 2000 LAURELS, of various sizes, in capital condition for removal, to be sold cheap. Apply to JOHN MERRISON, Nurseryman, Truro.

POTATO ONIONS. POTATO ONIONS, at 21s. per cwt. On Sale at Merrison's Seed Stores, Truro.

JOHNSON'S PROLIFIC WHITE KIDNEY POTATO.—A few tons of this excellent sort, grown in Cornwall, are offered at 10s. per cwt., as stored at Truro or Plymouth, or at 11s. per cwt., delivered in London. JOHN MERRISON, Seed Stores, Truro.

EARLY CORNISH BROCCOLI.—"During the past fortnight there has been a good supply of Broccoli sent to Covent Garden Market, from the neighbourhood of Penzance, Cornwall."—Vide Gardeners' Chronicle Jan. 23, 1899, p. 86. The Underigned has the pleasure of offering seed of the above desirable variety, carefully saved last summer by one of the best reputed Gardeners at Penzance. Cash price 24s. per lb., or 2s. per ounce, carriage or postage free. JOHN MERRISON, Seed Merchant, Truro, Cornwall.

RICHARD WALKER has to offer the finest sort of ROUND POTATO, the AMERICAN RED.—It boils as white as snow, and is the heaviest cropper in the country. It was imported direct in 1855. As the stock is limited, apply early. Price per cwt., 30s. SWEET PEA, for planting, 3s. 6d. per 100. LACED PINKS, 20s. per 100. Biggleswade Market Gardens.

NEW TRIPLE CURLED VARIETED PERENNIAL BROCCOLI, as exhibited by Mr. Melville at the Royal Horticultural Society's Meeting on December 15, 1899. See Gardeners' Chronicle, page 31 (1899), and page 50 (1900). Invaluable as a Hardy Winter Decorative Plant. Sealed packets, 2s. 6d. each.

- The following Firms, having received supplies direct from STRARY & MEYER (to whom Mr. Melville, the raiser, has handed over his entire stock of Seed for distribution), can supply the above, true:—Messrs. Barr & Sugden, Covent Garden, London; Bunyard & Son, Maidstone; Mr. Bull, King's Road, Chelsea; Messrs. Chivers & Weaver, Chester; Mr. Cooper, Fleet Street, London; E. Cooling, Derby; Messrs. A. Dickson & Son, New London, Ireland; Dregburn & Aitken, R. Marnock; Mr. Fraser, Lee Bridge Road, London; Messrs. Gairthorn, Sons & Co., Falkirk; Dickson & Brown, Manchester; Hooper & Co., Covent Garden, London; Messrs. A. Henderson & Co., Pineapple Place, London; Gurray & Co., Bristol; Hogg & Robertson, Dublin; Harst & Son, London; Kretzsch & Son, Haarlem, Holland; J. & C. Lee, Hammer Smith London (Thames); Mr. McMillan, Kingston-on-Thames; J. W. Macker, Dublin; Messrs. Osborn & Sons, Farnham, London; Robinson & Sons, Tooting; Sutton & Sons, Reading; Sang & Sons, Kirkcaldy; Mr. Edward Taylor, Milton; J. W. Watson, Newcastle-on-Tyne; STRARY & MEYER, Seedsmen, Kelso, N.B.

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DWARF ROSES... The present...

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VERBENAS, VERBENAS.—Six new varieties of...

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SUTTONS' HOME-GROWN SEEDS CARRIAGE FREE.

SEEDS DIRECT FROM THE GROWERS THE BEST...

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Was raised and selected from an among forty seedlings of the...

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(As supplied to the leading Gardens in the Kingdom) For MAKING NEW or IMPROVING OLD LAWNS or CROQUET GROUNDS.

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For Making New Grounds, 5 bushels or 20 cwt. to be sown per acre.

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For detailed Table of Contents, see page 4, Gardeners' Chronicle, January 2, 1869

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Y. 2 For Small Gardens .. 2s.
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1862.



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Selected Collections, to produce the most effective results. For Table of Contents, see page 4, Gardeners' Chronicle, January 2, 1869.

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B, 15s.; Free by Post, 17s. 6d.
C, 21s.; Free by Post, 21s. 6d.
D, 42s.; Free by Post, 42s. 6d.
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NEW VARIETIES of COLEUS,

NOW BEING DISTRIBUTED.

At the Gardens of the Royal Horticultural Society, and purchased by JAMES CARTER & Co. at the Auction on December 10

HER MAJESTY - This variety is of very free habit, and its broad leaves are of a deep bronzy red, with the narrow veins somewhat less golden tinted than Princess of Wales. It is however very effective. Price 5s. each.

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The Set of Four for 14s.

LILIUM AURATUM (Golden-rayed Lily).

Imported Bulbs, 2s. 6d. each, and upwards

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Co. a stocks of the above are very choice and true.

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HOOPER AND CO.'S GENERAL CATALOGUE, which contains 250 distinct Species and Varieties of Flower Seeds, and every valuable sort in Kitchen Garden seeds. Liberal profit allowed.

HENRY GODFREY, NURSERYMAN, Stonebridge has to offer a large quantity of HERBACEOUS CALICOLARIAS, raised from seed saved from a particularly fine strain, established in sun, pots, from 2s. 6d. to 3s. per dozen, basket and package included. When three or more dozens are taken, Post office orders or postage stamps will accompany orders.

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WERB'S NEW GIANT POLYANTHUS Florist Flower, and GIANT COWSLIP SEEDS; also plants of all the varieties, with double PRIMROSES of different colours, AURICULAS, both Single and Double with every sort of early Spring Flowers. List on application - Mr Wm. Clibbet, Reading.

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Table with columns for variety names and prices. Includes GLADIOLI, 100 in 50 choice varieties, 24 0 0, 12 choice varieties, 20 12 0, etc.

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Wm. CUPRUSH AND SON'S CATALOGUE of the above contains description and prices of many very superior home grown VEGETABLE and FLOWER SEEDS, and choice varieties of GLADIOLI, &c., all of which are highly recommended. Post free on application. Highgate Nurseries, London, N.

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BARR AND SUGDEN, 12, King Street, Covent Garden, W.C. have the best and largest collection of GLADIOLI ever offered, prices varying from 2s. to 5s. per root. For particulars see pp. 68, 69, 70, and 71 of B. & S.'S SIKING SEED CATALOGUE. BARR & SUGDEN, 12, King Street, Covent Garden, W.C.

The Gardeners' Chronicle.

SATURDAY, FEBRUARY 13, 1869.

Table of meetings for the ensuing week. Monday, Feb. 15 - Entomological 7 1/2 x; Tuesday, 16 - Royal Horticultural Fruit and Floral Committee at South Kensington 2 1/2 x; Wednesday, 17 - Ditto Scientific Committee 1 3/4 x; Thursday, 18 - Ditto General Meeting 3 1/2 x.

THE report of the ROYAL HORTICULTURAL SOCIETY, an abstract of which we publish in another place, contains little that has not been at various times commented on in these columns during the past year. The establishment of the Scientific Committee we have ever held to be a judicious step, serving to give increased weight and authority to the Society, and bringing it, as the acknowledged centre of horticultural skill and horticultural knowledge, into closer connection with those collateral branches of science which have so important a bearing on gardening pursuits. As this Committee and its deeds have often formed the subject of comment, we need not dwell on them now further than to hail with pleasure the announcement vaguely made in the report, and afterwards more fully explained by Mr. WILSON SAUNDERS, that arrangements are being made to amend and accelerate the issue of the publications of the Society. At present these documents are a laughing-stock and a reproach to the Society. Even the Journal, the contents of which are satisfactory so far as they go, loses all its value from the excessively long intervals between its appearances, a circumstance which must be even more annoying to the learned and deservedly respected Editor than to the other Fellows of the Society. For our own part, we think that the beneficial operations of all the Committees, and especially of the Scientific Committee, are very materially impaired by the irregular and imperfect way in which their proceedings are recorded. In the case of the Scientific Committee, or of the Journal which should serve as the "Transactions" of that Committee, what hope is there of inducing either practical horticulturists who have information to communicate, or scientific men who have experiments to record, explanations to offer or suggestions to make, to come forward and contribute of their abundance? How different would it be were it once known that the Society afforded means for the diffusion of rigidly selected horticultural lore of a high-class character, not mere reports of exhibitions which

have little to say... certificates and... the duty might well be exacted for... greater honour to pertain to those not mentioned in the Society's records, but information of a character not of ephemeral interest only, but likely to be useful to coming generations of horticulturists. The objection hitherto raised on the score of deficient funds strikes us as of no great weight, because the money spent on the present numerous but most unsatisfactory and fragmentary publications must be almost as large as would be necessary to cover the expenses of a quarterly or monthly digest, so prepared as to be of value to the Fellows, and a credit to the Society. Such a publication, for which the Society has already a most efficient editorial staff, would, in our opinion, find, if not directly, at least indirectly, replenish its coffers. It is a fair question to put in reference to the not very favourable balance-sheet laid before the general meeting, whether the comparatively small sum required for putting the publications of the Society on an improved footing would not be much more profitably spent, both as regards the advancement of horticulture and the prosperity of the Society, by so doing, than is the relatively large sum now disbursed in prizes and medals. It is admitted that Exhibitions do not pay—and when we look at the medals expended in prizes this statement is not at all a marvel. Of course a good deal may be said in favour of giving prizes of substantial value, either money or otherwise to gardeners, but to well-to-do amateurs the "crown of wild flowers" would be ample recognition, while in the case of nurserymen it certainly seems entirely unnecessary to subsidise them, and at the same time give them the best possible means of advertising and displaying their productions. Surely with this class of exhibitors a less costly form of prize would answer all the purpose, or they might extend the system already carried out on a small scale with reference to certain specialities, and subscribe for prizes among themselves, and so liberate funds, to our thinking, now urgently needed in other departments of the Society's work.

How well laid out are the sums disbursed at Chiswick, the report of the board of directors shows. To horticulturists this document will be the most satisfactory portion of the Society's annual report, and now that facilities of access by railway to Chiswick from most parts of the metropolis are afforded, we may hope that the Society's most useful work carried on in the now time-honoured garden, will be appreciated by a larger number of visitors than heretofore.

At the recent Annual Meeting of the ROYAL HORTICULTURAL SOCIETY, in the discussion which ensued as to the PUBLICATIONS issued by the Society, Mr. BATEMAN took occasion to compliment the Gardeners' Chronicle, and he might have added, the Horticultural Press in general, on the manner in which matters of interest to the horticultural public were reported, and he urged that this circumstance rendered it of the less importance to amend the official publications of the Society. While we appreciate the compliment, we cannot assent to Mr. BATEMAN'S reasoning, because the official publications alluded to would necessarily be of a different character and the subjects treated of would be differently handled than they are in the columns of a newspaper. Besides, we are not sure after Mr. BATEMAN'S statement, that it would not be to the advantage of the Society if its proceedings were less efficiently reported.

We have just received specimens of two LICHENS which are said to be spreading with extraordinary rapidity in some parts of IRELAND. They are the common Evera Prunastri and Rabaulna farinacea, which abound in woods and orchards where the ground is badly drained. On a small scale it is easy to get rid of them by scraping, but they will soon grow again, and the most effectual remedy is to drain the land thoroughly. We have seen the most extraordinary effects produced in Apple trees by removing the Lichens, new vigorous adventitious shoots being developed, the growth of which was before once arrested by the choking of the Lichens, which prevented the access both of air and light, and the same evil effect was produced on the fruitful spurs. Our correspondent remarks that he cannot conceive why this plague should occur now and not in former years. It is of course impossible for us to answer this without inspecting the locality. Drains may have been stopped, particular local circumstances may have made a change in the distribution of moisture, or the matter after all may not have been before called into especial notice. Nothing can be more common than the profusion of these Lichens, especially on Larch and Hawthorn, in damp situations, and when they are once established they do not very readily disappear. M. J. B.

The following statement respecting the BERRYING OF AUCUBAS, which may be thoroughly acted on,

and character, and for whom he retained to the upper school, and "Gymnasium" at...

Latin 1-10, when barely 16 years old, he devoted the study of medicine, cherishing, however, the natural sciences, more particularly botany...

It was precisely this fellowship which then encroached even on the philosophy. True, he did not enter so deeply into it as the elder Nees, and at a later period liberated himself...

It was in 1812 that he first conceived the idea of opening up med. for botany, when, in consequence of the death of Schreber, the academicians...

For that purpose Martius underwent the requisite examinations, and was admitted a pupil on the 14th of April, 1812, and was inducted by Schrank and Moll...

and was inducted by Schrank and Moll, the general conservators, into the business of the garden and draw the first part of his annual salary of 300 roubles on the 17th of April, 1814, his 20th birthday...

short time previously, while yet in Erlangen, he obtained the academical degree of doctor, for his dissertation "Plantarum Horti Academici Erlangenensis Enumeratio." This very important dissertation, consisting of 20 pages 8vo, was arranged strictly according to the Linnean method...

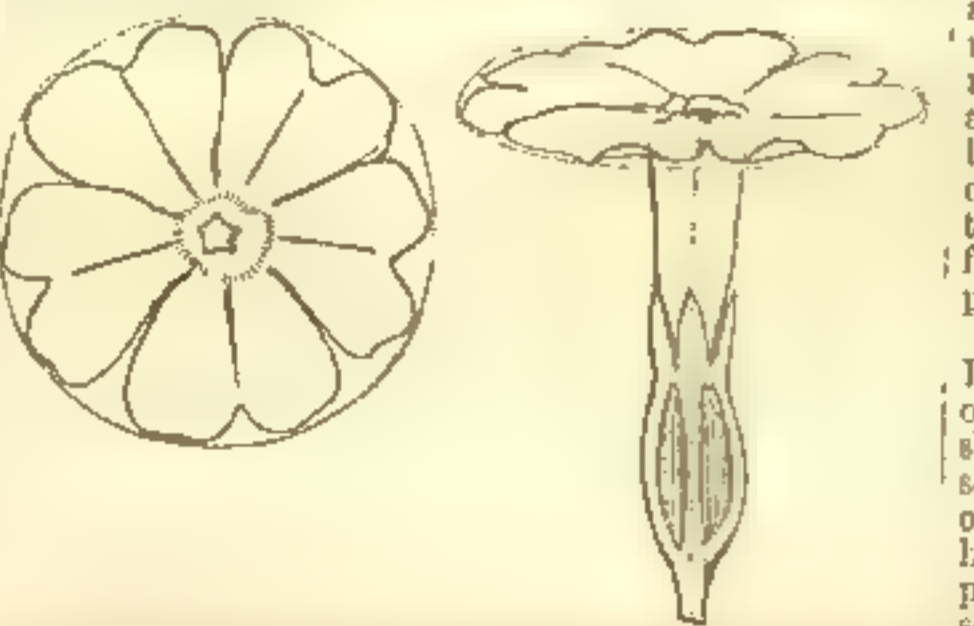
the men besides Schrank, who at this time exercised an important influence on the development of Martius' faculties, was General Conservator Schlichtegroll, who, although no botanical scholar, possessed an extensive knowledge of the kingdom and then there were the Academies Schlichtegroll and Sommering. And it was in these early years that Martius first attracted the attention of King Maximilian Joseph I, who was an ardent lover of plants and in his frequent visits to the garden was usually escorted round by Von Esenbeck. In the sequel, we shall see what important influences in Martius' career are traceable to this...

the traveller Baron Von Kurwinski, the Emperor of Bavaria favoured, as early as 1815, the idea of a scientific expedition to America. True, the plan discussed by the Academy of Sciences was never carried out. When, however, at the Congress of Vienna in 1816, a matrimonial alliance was effected between the Austrian Archduchess Leopoldina and the Crown Prince, subsequently Don Pedro I of Brazil, and Austria set about equipping a scientific expedition in the retinue of the bride, it was resolved in King Maximilian Joseph's Imperial Court, to depute two Bavarian naturalists to accompany the Austrians. The choice fell upon the geologist, as zoologist, and Martius, as naturalist, the latter having been selected by the king...

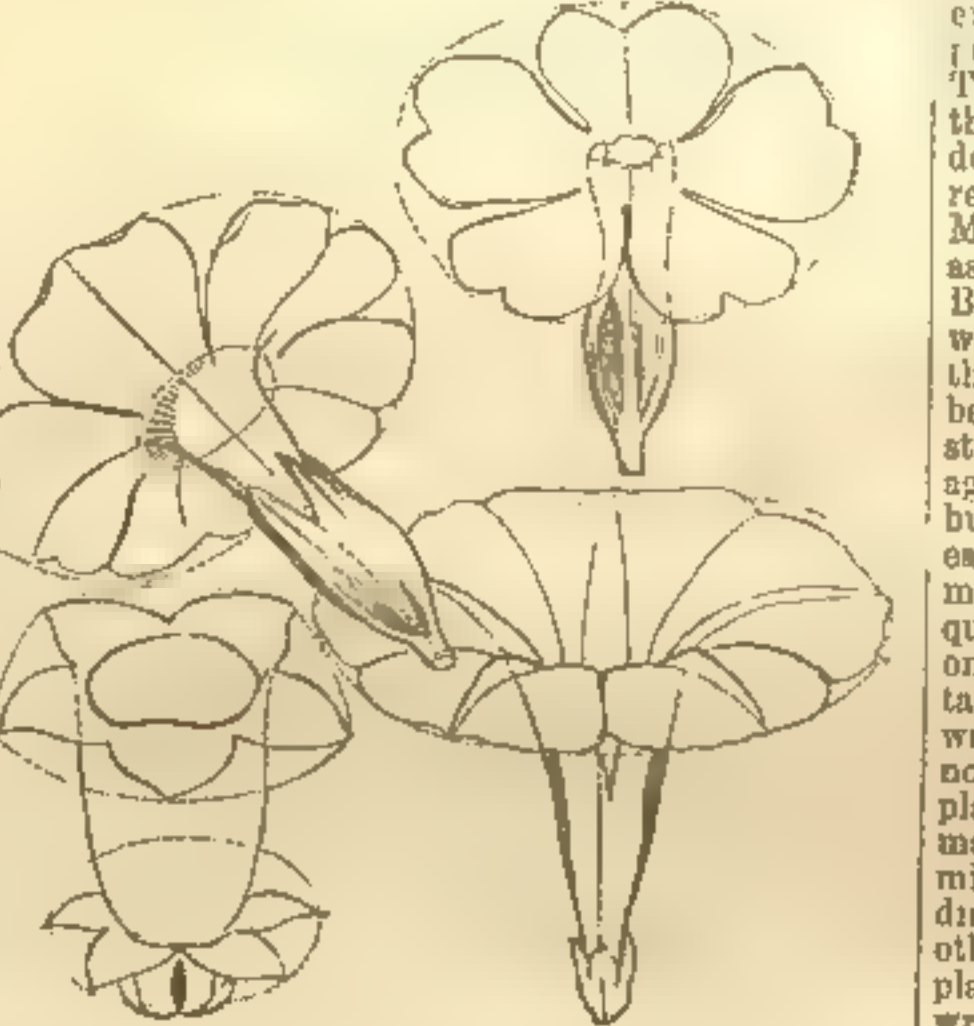
the petals or divisions may be made to radiate correctly beyond a doubt. Another common fault is to represent them all pointing in one direction sometimes this may occur in Nature, but it is not artistic to copy it in every case.

For scientific purposes it is desirable that positions should be as varied as possible, so that at least a front side and back of a flower be exhibited. A third error I may also allude to, and it is one very common in drawings made from dried specimens for scientific purposes—I have often seen otherwise correct and beautiful plates marred by it—viz, the representing all or most of the flowers in a particle or mass, with one particular division of the corolla directed towards the spectator, such uniformity is too mechanical to be natural. As good a flower as any to commence with is a Primrose, and for a mass of flowers the Polyanthus or Oxlip, as in these cases they are presented to the eye in various positions.

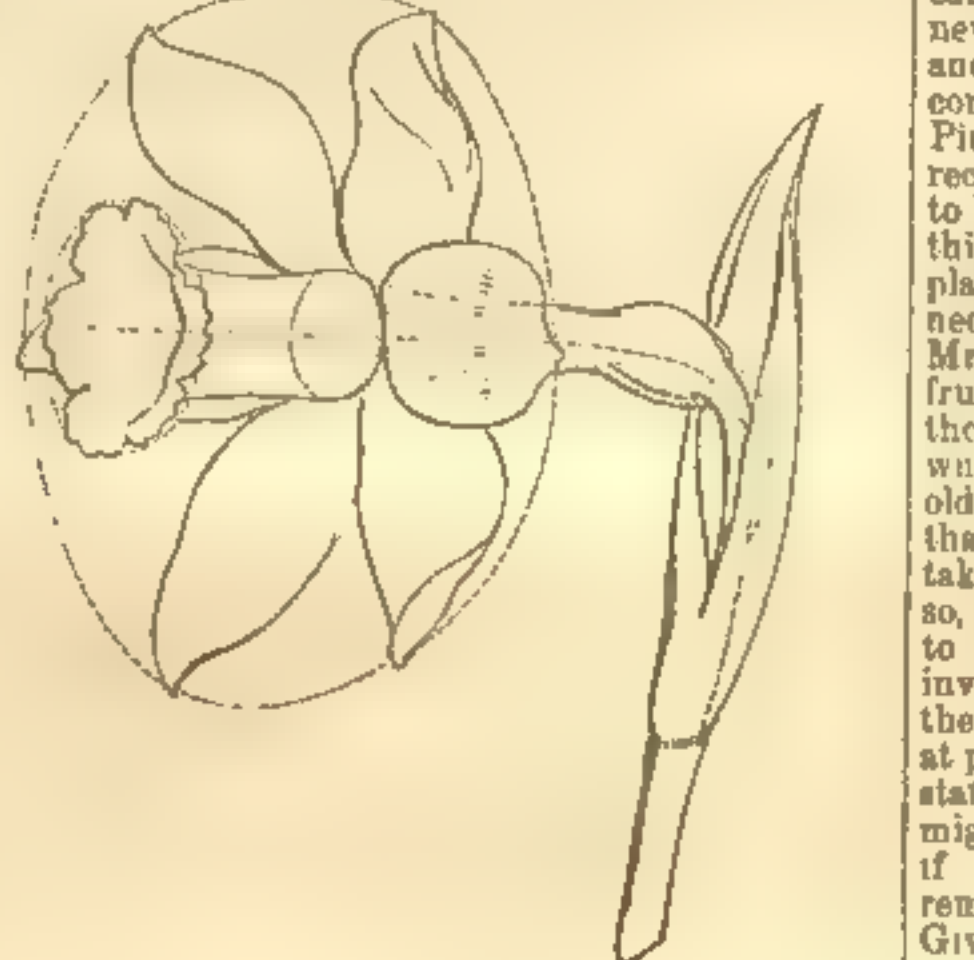
For the front view a faint pencil should be pencilled, the centre and the divisions of the corolla indicated, and then sketched in as firmly as is desirable. If the drawing is to be coloured, the outline and veins, if any, should be strong enough not to be quite obliterated by dark colour.



In a side view the tube should be properly adjusted to correspond with the throat or eye; the simplest way to do so is to carry the outline of the tube faintly through to the centre of the flower, as in the foregoing cut. In a position showing the tube foreshortened, or in a back view, the same method should be adopted as shown in the following illustrations. Tubular flowers



are often sadly treated by draughtsmen; take, for instance, the common Daffodil, in which, if lines were drawn round each centre, they ought to be in the same plane. The next sketch will better explain my meaning.



It is one of the most difficult flowers to sketch correctly in its natural position, and the best way to test correctness is to turn the paper, so that the flower be erect, when the bad drawing, if any, will be obvious. W. H. Fitch.

Home Correspondence.

Vine Roots Diseased.—Can you inform me what is the cause of the roots of my young Vines being destroyed? They were planted at the beginning of April, 1867 in an rustic border, composed of three-fourths of soil as per samples, in equal quantities, the other one part being composed of lime rubble, stable manure, and bones. Last season they made a tolerable growth. Vines of my own growing, although much the weakest when planted, made by far the best cases, but on examining them I found the roots in a very unsatisfactory condition. I top-dressed the border with turfy loam and lime, and they have made a quantity of young roots in it, but the old ones are quite destroyed. The strongest of the two Vines sent is of my own growing, the other is one of a quantity I purchased from one of our best cultivators, and I am afraid the mischief came with them. I have three vinerias that are doing well; one of these has been planted 50 years, and the other two seven years. The house in which these diseased Vines are planted is 60 feet long, and is intended for a late house. I shall be glad to know what remedy there is, if any, or if I must clear all out, and make a fresh border. J. S. R. [From the specimens of roots and soil sent we are of opinion that the mischief is due to Fungi at the roots. This is very apparent on those of the stronger Vines; apparently it has been introduced in planting the Vines—leaf-mould, or some such material, having been used in growing the young plants in the pots. There is no remedy for the evil, but a complete removal of the soil and plants. B.]

Pine-apple Culture: Cutting Down.—Had Mr. Barnes confined himself simply to an account of his own early experience of the cutting-down system, I should not have felt called upon to notice his remarks, seeing that I never either claimed to be the originator of the system, or said that anybody else was. But since he has brought my name forward, with remarks on my practice, I cannot pass over his statements in silence, so far as they refer to me. Whatever half a century of experience may have done for Mr. Barnes, it has evidently not taught him charity towards his unoffending, though younger brethren. Although he is at great pains to make it appear that the cutting-down process is not creditable to the cultivator, it is evident from the way he brings up recollections of 50 years back, that he is terribly concerned lest he should lose repute in the matter. When I first recorded my experience on the subject, I was careful not to claim priority in that respect, but accorded that to Mr. Thomson, who at least was the first to recommend the plan under certain circumstances, and but for his doing so, and the discussion which has taken place recently, it seems we should never have heard of Mr. Barnes' claims to the honour of carrying the bell—as he puts it—as the originator of the system. Mr. Barnes magnifies the difficulties he had to contend with in his youth to the utmost, taking care always that his own success does not suffer by the contrast. I beg to inform him, however, that some of the Pine stoves here remain nearly as they were about 50 years ago. Some of them have been heated with hot water, but they are by no means modern structures, and our early fruiting house still retains the flues. Yet we manage to supply fruit in quantity, and of good quality, without having to cut-over the plants, unless on an exceptional occasion—though I would not hesitate to adopt the plan if necessary, nor think there was aught discreditable about it, knowing well that not even the best cultivators can reckon upon every plant showing when wanted. On occasions when I have made the experiment with a few plants which had missed fruiting at the proper time, they showed fruit directly, and swelled off in close succession to the others, and were out of the way before the young plants required the room. Mr. Barnes is quite wrong in supposing that plants so treated have to be kept till the following year, thereby losing a season, nor could he draw such an inference from any former statements of mine, though he says as much. I do not make these remarks in order to justify my own practice. I am only a beginner, and cannot claim a quarter of the experience of Mr. Barnes, nevertheless I am willing to be judged by my success, and I think I may say that the Pines here will bear comparison with anything at Bioton. Cutting-over Pines with the object of making them fruit as has been recommended, and chopping off their stumps, as used to be done in Mr Barnes' young days, are two different things. In the former case it is done with good healthy plants, to hurry maturity; in the latter it was a necessity entailed by bad cultivation, according to Mr. Barnes' own showing, and was done, not to induce fruitfulness, but to encourage fresh roots in place of those which had been destroyed, as any one may find who will take the trouble to look into some of the old authors on gardening. It is a well-known fact that the gardener is not always successful in his undertakings, it is not in the nature of things for him to be so, and it would be well if we were a little more willing to acknowledge this. You have at different times invited your readers to relate their failures as well as their successes, but the remarks of your correspondent at p. 79 is an example of how they may expect their statements to be taken, by those whose experience might be supposed to have taught them toleration—if they state anything which savours in the most remote degree of failure or mistake. J. Simpson.—Give honour to whom honour is due. I am very much pleased with Mr Barnes' entertaining article on the Pine-apple, made up from the "scraps of the system." As a 50-year-old cultivator, and a jubilant Pine grower, he appears to have had his full share of difficulties to contend with in order to bring that noble fruit to early maturation. As I am set down for one

(To be continued)

BOTANICAL DRAWING—No. IV.

Flowers are often considered the most difficult part of a plant to sketch, but such, I think, is not the case, the reverse being more evident than that of leaves whose positions are more definite. The most common error perpetrated is that of not showing the flower correctly on its stalk or peduncle, but to sketch it detached as it were, thus imparting to the drawing an air of conscious comicality. To avoid this error, in making the first faint sketch prolong the stalk through the flower to the centre, whence

quality during the latter half of the period. The results given below will show this so far as...

Table with 4 columns: Year, Corn, Straw, Manure, etc. Data for 1898, 1899, 1900, 1901, 1902.

at although the total corn and land each year, the use of a lime and ammoniac salts, but a produce whi...

We were heartily glad to read the favourable review of Mr JEMMETT'S Farm...

Mr LAWRENCE might be permanently useful as he thus saw...

Mr MARRIAGES to state that as he will be...

OUR LIVE STOCK

ing season will be general shortly, and weather continues we may anticipate for the ewes. Yearling will not fairly...

and it may be rendered more perfect by placing a third stake horizontally under the ewe, which will help to raise the ends of the stake on a firm surface...

Mr C. H. DAVIS, a Great Duchess Bull, purchased from Mr. Bates for 700 gu., was given to a red tail bull, the colour being broken with a little white...

Mr W. Loughby Wood has lately disposed of two young bulls. The first, EARL OF BARRINGTON, has become the property of Mr J. Hardy, M.P. He was bred by Mr Sheldon, of Brailes, and was of Colonel Pennant's Duke of Darlington tribe...

Captain Ower's bull, FESTIVAL, being two years old, has become the property of Mr T. Harris, of Stony Lane. FESTIVAL is by GRAND DUKE 7TH (1857) and from Festival by HERRINGTON 1TH (1871), the descendant of a family long bred by Mr. Adkins, of Milcote, and originally in the possession of Sir C. R. Tempest, of Broughton Hall.

We have to report a rapid increase of the West Dereham Abbey herd during the last two months. In that period no less than three (and, including a somewhat longer time, four) pairs of twins have been dropped to PRINCE CHRISTIAN, the pure Booth bull, which has for a considerable time been in use in Mr Aylmer's herd...

SEWAGE FARMING PROSPECTS

I was, I confess, somewhat surprised to learn from "W. B.'s" remarks lately that I was coming up "slowly in the rear in the search of improvement," but still I am always open to correction on every subject, and if "W. B." can satisfy me that he has any experience whatever in the use of town sewage, I shall be quite willing to be taught by him, as although not perhaps so old a hand as "W. B." I have nevertheless enough to appreciate the goodness of even the most learned men, and the constant errors which that green-eyed devil from the West, the confident assertions of "W. B." in regard to the sewage-farming prospects of the country whose sewage he has used for upwards of 20 years, successful experiments. This I do not wish to dispute, and all his assertions show an intimate acquaintance with the practice and results of ordinary farming, but when he asks us to believe that during those 20 years he has "doctored" farmyard manure and sewage, and has grown "heavier crops than have yet been grown at Barking, I confess that with all possible respect for his own belief and honesty of intention in making the statement, I cannot and do not believe it. The sewage of no town has been used in the careful and scientific way which he talks of for upwards of 20 years. I challenge him, not only to name the town whose sewage he has thus used, but to name any town in the country whose liquid sewage has been carefully and economically utilized for "upwards of 20 years." I fear he has tumbled into the same mistake as another gentleman, with whom I had a controversy some four or five years ago, but for whom, nevertheless, I entertain a very great and...

sincere respect, namely, Mr. Alderman Mechi. This gentleman hazarded a great number of positive statements with regard to town sewage, and he honestly admitted that he had had a "four-mile" experience of sewage, whereas it turned out on examination before a committee of the House of Commons that "four miles" was the distance of the sewage of his town from the sewage of his own town, which was mixed with, and put to the liquid sewage, or as he improperly called it, "sewage" of his farmyard, mixed with an occasional dead horse. What the precise manurial or pecuniary value of this brew was, of course no human being can pretend to say, for it was probably never the same on any two occasions. Sometimes it may have been stronger, sometimes weaker than town sewage, but in no case probably was it at all as multi-farious and therefore complex, as the sewage of a large town.

I fear it is pretty evident that "W. B." has fallen out of his own error notwithstanding the fact that he is not an "amateur" as the "M.S." says. I do so fear that like the vast majority of writers, and the still greater majority of human beings in general, "W. B." is not always strictly logical for he says "instead of taking fault with my neighbours' doings either in the field or farm, my main has been to improve my own practice." And then he goes on to translate this excellent maxim into similar language for the benefit of his more obtuse readers, and he states "in plain English, I consider the Barking practice further benighted in the march of improvement that it should be." How this latter sentence can be a translation into plain English of the former, I confess I beg and my capacity to understand, but then as I said before, I have lived long enough to appreciate my own ignorance.

But "W. B." says that the sewage of Barking, not only of my own town, which is a sewage of London, but also of the sewage of Barking, is not only its theoretical value, for instance, "but he Mr Hope is only one party in the agreement at Barking, the other party, the sellers of the sewage, being at least equally interested, and if the sewage is worth say three times the money the latter now receive for it, the time may come when they will tell him that they are more deeply interested financially than he."

I do not know what this means. I buy the sewage that I consume myself from the Metropolitan Sewage Company, but the Metropolitan Sewage Company is a creature of my own creation. It was incorporated by a special Act of Parliament for which I applied to the Legislature for the purpose of the sewage of London for the next 15 years, to supply and purify the Metropolitan Board of Works. Therefore I am not only deeply interested in the sale as it is a purchase of the sewage, but infinitely more so. The standard price of the Company for the sewage is 1d. per ton, the theoretical price fixed by careful analysis is 22d. per ton, that is to say, fractionally more than twice the price asked by the Company, and not three times as "W. B." imagines. But if its value were 30 times as much as it is now sold for, the total quantity that I am ever likely to purchase would be a nothing in comparison with my interest in that which is sold.

With regard to "W. B.'s" chemical remarks, I will simply state that I have not pretended to base any arguments in favour of the utilization of the London sewage by surface irrigation in the county of Essex upon any superficial chemical knowledge of my own, but have preferred to rely on the opinions of the best professional men of the day, and perhaps when I enumerate them, not only my readers, but even "W. B." himself, may think that I am as likely to be right in my views on the question of a possible waste of manure by the system I advocate as he is. Among the gentlemen who supported my Bill before Parliament were Professors Way, Voelker and Miller, and Dr. Gilbert Olling O'Brien and Abel, and for direct very good reasons, which perhaps "W. B." does not see, I am of opinion that Prof. Way's comparison between the grains of manure and sewage was a "sound practical one" and does not "fall to the ground." And with all possible deference to the opinion of "W. B." I should imagine that the "empty" of a gallon of sewage at one pace and of a gallon of another farther down the sewer at Barking or at the Maplin Sands, would furnish very "exact and trustworthy evidence," although the sewer is not yet flushed, as "W. B." supposes, down to the Maplin Sands.

Why "W. B." should state that my replies to his third and fourth objections to the utilization of town sewage by surface irrigation, "have not a foot to stand upon," because "profits can be increased and expenses reduced in the usual way by progressive chemistry and modern appliances," I confess I do not understand. He seems to argue against his own objections and not against my replies. However, as I began so I will end. If "W. B." will quote the name of the town whose sewage he has successfully doctored for "upwards of 20 years," I shall be most happy to learn my business as a sewage-farmer from him, and if, as I believe, it turns out that he never used a drop of genuine town sewage in all his life, I will venture a few further remarks on a future occasion as to the use of town sewage in connection with market gardening. W. Hope, Parsloes, Barking, February 3.

P.S. Since writing the above, which was perhaps fortunately delayed in transmission, "W. B." has practically answered the question that I have put for it, a gentleman has written me headed "The Area of Land required to Utilise Sewage," that his personal experience relates wholly and exclusively to liquid manure carried about in carts. Now, I think any practical farmer will support me when I say that it is impossible to put anything, whether liquid or not, into a cart, and take it any distance, and empty its contents...

passing and returning... I think it is a very... I think it is a very... I think it is a very...

It is a very... I think it is a very... I think it is a very... I think it is a very...

THE HERFORD BREED OF CATTLE

The... Mr. James... I think it is a very... I think it is a very... I think it is a very...

I think it is a very... I think it is a very... I think it is a very... I think it is a very...

I think it is a very... I think it is a very... I think it is a very... I think it is a very...

I think it is a very... I think it is a very... I think it is a very... I think it is a very...

It is a very... I think it is a very... I think it is a very... I think it is a very... I think it is a very...

I think it is a very... I think it is a very... I think it is a very... I think it is a very...

These plantings in the autumn... the soil... the weather... the plants...

und, at an elevation of 800... holds good as to light... the soil... the weather...

RICHARD SMITH'S FRUIT LIST... Pruning, Lifting, Cropping, Treating... RICHARD SMITH'S LIST OF THE EVERGREEN...

RICHARD SMITH'S LIST OF THE EVERGREEN... Dwarf-trained trees... Richard Smith, Nurseryman and Seed Merchant, Worcester.

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SURPLUS STOCK—VERY CHEAP... SPECIMEN COFFERS AND EVERGREENS... Richard Smith, Nurseryman and Seed Merchant, Worcester.

- Arbutus... Menziesii, 4 to 5 feet... Arbor-vitae, American, 6 to 7 feet... Yews, 5 to 6 feet... Juniperus chinensis, 3 to 3 1/2 feet...

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- Arbutus... Menziesii, 4 to 5 feet... Arbor-vitae, American, 6 to 7 feet... Yews, 5 to 6 feet... Juniperus chinensis, 3 to 3 1/2 feet...

RICHARD SMITH, NURSERYMAN AND SEED MERCHANT, WORCESTER

The Poultry Yard.

It is no secret... the poultry... the weather... the food... the health...

Notice to Correspondents.

Mr. M. asks if any of our readers can... for feeding sheep? [Cake from properly decorticated cotton-seed is a capital and well-known sheep and cattle food.]

Horse-Power versus TRACTION ENGINE.

We are requested to make the following correction (see p. 83). "February: Coal carting, shifting itself and tackle. It can do water-carting..."

Calendar of Operations.

en... the weather... the soil... the plants... the operations...

Calendar of Operations.

en... the weather... the soil... the plants... the operations... heavy sacrifice... the middle of the north... ground covered 2 feet deep by snow...

The Longstander Lettuce.
DAVID GOLD MCKAY begs to offer SEED of this first-class sort. It is beautifully white, crisp, compact in growth, and distinct from any other Lettuce. A very desirable variety. For packet, 1s.
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 - Messrs. Peter Lawson & Son, Edinburgh and London.
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 - Sutton & Sons, Reading, Berks.
 - J. Slater & Sons, Malton, Yorksh. co.
 - Mr. Edward Taylor, Malton, Yorksh. co.
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- Additional names will be inserted as they are received.
ESSAYE PHILIP DIXON, The Yorkshire Seed Establishment, St. Queen Street, Hull.

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THESE ARE MANY SPECIMENS VARIETIES IN CULTIVATION

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- See *Gardener's Chronicle*, January 12, 1887
- See *Gardener's Chronicle*, August 31, 1887
- See *Gardener's Chronicle*, March 13, 1887
- See *Gardener's Chronicle*, October 12, 1887
- See *Gardener's Chronicle*, January 11, 1888
- See *Gardener's Chronicle*, January 3, 1889
- See *Gardener's Magazine*, January 18, 1888
- See *Gardener's Magazine*, January 30, 1889
- See *Journal of Horticulture*, August 20, 1888
- See *Journal of Horticulture*, January 28, 1890

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 The Nurseries, Tooting, London, S.W.

FIBROUS PEAT, of first-class quality, for Orchids, Heaths, American Plants, and all Potting purposes, may be obtained on application to **Mr. Thomas Jenour**, Farningham Wood, near Sevenoaks Station, Kent. It is dispatched by the London, Chatham, and Dover Railway, in trucks of 16 yards, at 5s. per cubic yard, to most stations in the Kingdom, or fetched in carts from the Wood at 4s. per cubic yard. It is extensively used and appreciated in the principal Nurseries, and in the Royal Parks and Gardens.

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CORN MANURE, for Spring Use
DISSOLVED BONES, for Dressing Pasture Lands
SUPERPHOSPHATES OF LIME
PREPARED GUANO
MANGEL and POTATO MANURES.
 Also Genuine **PERUVIAN GUANO**, and **NITRATE of SODA** ex Dock Warehouse, **SULPHATE of AMMONIA**, **FISHERY SALT**, &c.
R. FUSHER, Secretary.
 Offices, 114, Fenchurch Street, E.C.

LAWES' MANURE for GRASS LANDS should be applied during the months of February and March. **NITRATE of SODA** supplied ex Ship or from Stocks at Docks at London, Liverpool and other ports, at lowest market prices.

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 - DISSOLVED BONES.
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 - WHEAT, BARLEY, GRASS, and MANGEL MANURE.
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AMERICAN and other **CAKES** at market prices.
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THE TENANT FARMER'S MANURE COMPANY
 Its Members are Cultivators of upwards of 400 Acres of Land, which has been for years under Management with Manures of their own Manufacture, consequently the consumer has the best guarantee for the genuineness and efficacy of the Manures manufactured by this Company.
 Particulars will be forwarded on application to the Secretary; or may be had of the Local Agents.
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SHELL GRAVEL for London Gardens, Conservatories, and Terraces, clean, dry, and neat in appearance, used in the Parks and the Horticultural and Botanic Gardens.
 Sold by **Favers & Co.**, Burrey foot of Vauxhall Bridge, London.

ROLL TOBACCO PAPER, finest quality, equal in strength to Tobacco, 1s. per lb.; cheaper in quantities.
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H. PERKINS, 16, Cambridge Circus, Hackney Road, has on hand a large quantity of superior **ROLL TOBACCO PAPER** and **CLOTHS**. Paper, 1s. per lb.; Cloth, 10d. per lb. Post Office orders to be made payable at Cambridge Heath, London.

The Cheapest and Best Insecticide.
DUTY-FREE TOBACCO.
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POOLEY'S TOBACCO POWDER, for the Prevention and Destruction of Blight and other Diseases in Plants. Sold by Nurserymen, Seedsmen, and Florists, in Tins at 1s., 2s. 6d., and 5s.
 Powder Distributors, 2s. 6d. and 3s. 6d. each.
 "I find it exceedingly useful for killing the Aphides on Roses and other Plants."—Geo. Evans, Superintendent, Royal Horticultural Gardens, South Kensington. May 7, 1888.
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GISHURST COMPOUND.
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 By Royal Appointment

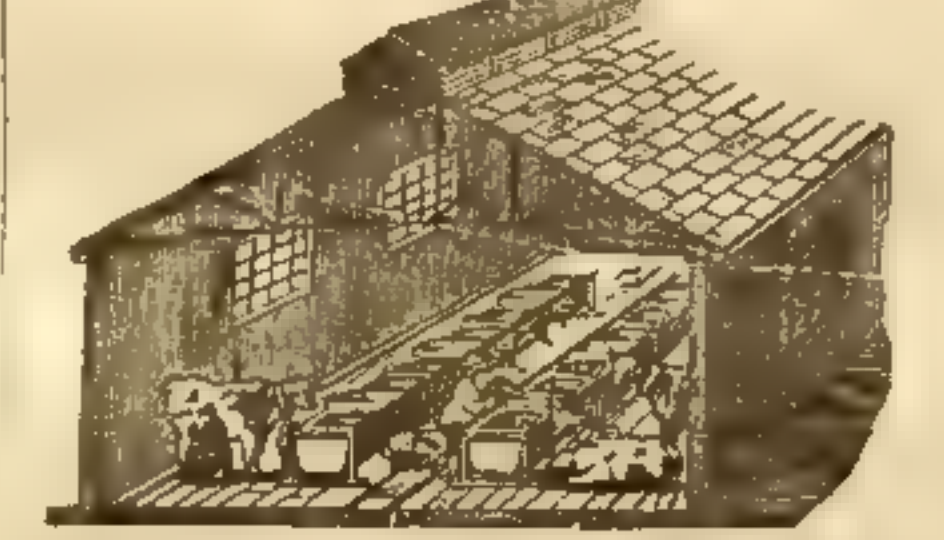
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TANNERS, CURRIERS, and MANUFACTURERS of IMPROVED TANNED LEATHER DRIVING STRAPS for MACHINERY PRIME STRAP and SOLE BUTTS.
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Their advantages are—Portability, not fixtured, removable at pleasure, no Woodwork or Part to rust, made of Ventilation or broad Vermin, Hay Rich dispensed with as unnecessary, increased width and depth of Feeding Troughs, Water Cistern, and Patent Drop Cover to prevent over-gorging. Cleanly, durable, and impervious to infection, being all of Iron. Prices of Fittings per Cow, 5s.
 Prospectuses free of **COTTAM & Co.**, Iron Works, 2, Winsley Street (opposite the Free School), Oxford Street, London, W., where the above are exhibited, together with several important improvements in Stable Fittings as secured by Patent.



GARDEN BORDER EDGING TILES, in great variety of patterns and materials, the plainest sorts being especially suited for KITCHEN GARDENS, as they harbour no Slugs and Insects, take up little room, and ones put down incur no further labour and expense, as do "grown" Edgings, consequently being much cheaper.
GARDEN VASES, FOUNTAINS, &c. in Artistic Stone, of great durability, and in great variety of design.
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 Also **TESSELATED PAVEMENTS** of more enriched designs than the above.
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Glass for Garden Purposes.
JAMES PHILLIPS AND SONS beg to submit their REDUCED PRICES on

PROPAGATING GLASSES

Each—	d.	12 inches in diameter	18 inches in diameter
3 inches in diameter	0 3/4	12 inches in diameter	1 1/2
4 "	0 4 1/2	15 "	1 7/8
5 "	0 5 1/2	18 "	2 1/4
6 "	0 6 1/2	21 "	2 7/8
7 "	0 7 1/2	24 "	3 1/4
8 "	0 8 1/2	27 "	3 7/8
9 "	0 9 1/2	30 "	4 1/4
10 "	1 0 1/2	33 "	4 7/8
11 "	1 1 1/2	36 "	5 1/4
12 "	1 2 1/2		5 7/8

BEE GLASSES, with ventilating hole through top.

Each—	d.	6 inches in diameter	8 inches in diameter
4 inches in diameter	0 6	6 inches in diameter	0 8
5 "	0 7	7 "	0 9
6 "	0 8	8 "	1 0
7 "	0 9	9 "	1 1
8 "	1 0	10 "	1 2
9 "	1 1		1 3
10 "	1 2		1 4
11 "	1 3		1 5
12 "	1 4		1 6

Either flat or conical tops.

CUCUMBER GLASSES

Each—	d.	12 inches long	18 inches long
24 inches long	2s. 6d.	12 inches long	1 10
30 "	3s. 0d.	15 "	1 14
36 "	3s. 6d.	18 "	1 8
42 "	4s. 0d.	24 "	1 8

HAND GLASSES, WITH OPEN TOP

Each—	d.	18 inches	24 inches
12 inches	6 6	18 inches	6 20
14 "	7 6	21 "	7 23
16 "	8 6	24 "	8 24

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LINSEED OIL, Genuine WHITE LEAD, CARBON BLACK, PAINTS of various colours ground ready for use.
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NEW LIST for ORCHARD-HOUSE GLASS as supplied to Her Majesty, the Nobility, Gentry, Mr. Rivers, and the leading Horticulturists of the United Kingdom.

ORCHARD-HOUSE GLASS

in.	in.	14th.	16th.	18th.	20th.
10 by 12	12 by 14	14 by 16	16 by 18	18 by 20	20 by 24
12 by 14	14 by 16	16 by 18	18 by 20	20 by 24	24 by 28
14 by 16	16 by 18	18 by 20	20 by 24	24 by 28	28 by 32
16 by 18	18 by 20	20 by 24	24 by 28	28 by 32	32 by 36
18 by 20	20 by 24	24 by 28	28 by 32	32 by 36	36 by 40
20 by 24	24 by 28	28 by 32	32 by 36	36 by 40	40 by 44
24 by 28	28 by 32	32 by 36	36 by 40	40 by 44	44 by 48
28 by 32	32 by 36	36 by 40	40 by 44	44 by 48	48 by 52
32 by 36	36 by 40	40 by 44	44 by 48	48 by 52	52 by 56
36 by 40	40 by 44	44 by 48	48 by 52	52 by 56	56 by 60
40 by 44	44 by 48	48 by 52	52 by 56	56 by 60	60 by 64
44 by 48	48 by 52	52 by 56	56 by 60	60 by 64	64 by 68
48 by 52	52 by 56	56 by 60	60 by 64	64 by 68	68 by 72
52 by 56	56 by 60	60 by 64	64 by 68	68 by 72	72 by 76
56 by 60	60 by 64	64 by 68	68 by 72	72 by 76	76 by 80
60 by 64	64 by 68	68 by 72	72 by 76	76 by 80	80 by 84
64 by 68	68 by 72	72 by 76	76 by 80	80 by 84	84 by 88
68 by 72	72 by 76	76 by 80	80 by 84	84 by 88	88 by 92
72 by 76	76 by 80	80 by 84	84 by 88	88 by 92	92 by 96
76 by 80	80 by 84	84 by 88	88 by 92	92 by 96	96 by 100
80 by 84	84 by 88	88 by 92	92 by 96	96 by 100	100 by 104
84 by 88	88 by 92	92 by 96	96 by 100	100 by 104	104 by 108
88 by 92	92 by 96	96 by 100	100 by 104	104 by 108	108 by 112
92 by 96	96 by 100	100 by 104	104 by 108	108 by 112	112 by 116
96 by 100	100 by 104	104 by 108	108 by 112	112 by 116	116 by 120
100 by 104	104 by 108	108 by 112	112 by 116	116 by 120	120 by 124
104 by 108	108 by 112	112 by 116	116 by 120	120 by 124	124 by 128
108 by 112	112 by 116	116 by 120	120 by 124	124 by 128	128 by 132
112 by 116	116 by 120	120 by 124	124 by 128	128 by 132	132 by 136
116 by 120	120 by 124	124 by 128	128 by 132	132 by 136	136 by 140
120 by 124	124 by 128	128 by 132	132 by 136	136 by 140	140 by 144
124 by 128	128 by 132	132 by 136	136 by 140	140 by 144	144 by 148
128 by 132	132 by 136	136 by 140	140 by 144	144 by 148	148 by 152
132 by 136	136 by 140	140 by 144	144 by 148	148 by 152	152 by 156
136 by 140	140 by 144	144 by 148	148 by 152	152 by 156	156 by 160
140 by 144	144 by 148	148 by 152	152 by 156	156 by 160	160 by 164
144 by 148	148 by 152	152 by 156	156 by 160	160 by 164	164 by 168
148 by 152	152 by 156	156 by 160	160 by 164	164 by 168	168 by 172
152 by 156	156 by 160	160 by 164	164 by 168	168 by 172	172 by 176
156 by 160	160 by 164	164 by 168	168 by 172	172 by 176	176 by 180
160 by 164	164 by 168	168 by 172	172 by 176	176 by 180	180 by 184
164 by 168	168 by 172	172 by 176	176 by 180	180 by 184	184 by 188
168 by 172	172 by 176	176 by 180	180 by 184	184 by 188	188 by 192
172 by 176	176 by 180	180 by 184	184 by 188	188 by 192	192 by 196
176 by 180	180 by 184	184 by 188	188 by 192	192 by 196	196 by 200
180 by 184	184 by 188	188 by 192	192 by 196	196 by 200	200 by 204
184 by 188	188 by 192	192 by 196	196 by 200	200 by 204	204 by 208
188 by 192	192 by 196	196 by 200	200 by 204	204 by 208	208 by 212
192 by 196	196 by 200	200 by 204	204 by 208	208 by 212	212 by 216
196 by 200	200 by 204	204 by 208	208 by 212	212 by 216	216 by 220
200 by 204	204 by 208	208 by 212	212 by 216	216 by 220	220 by 224
204 by 208	208 by 212	212 by 216	216 by 220	220 by 224	224 by 228
208 by 212	212 by 216	216 by 220	220 by 224	224 by 228	228 by 232
212 by 216	216 by 220				

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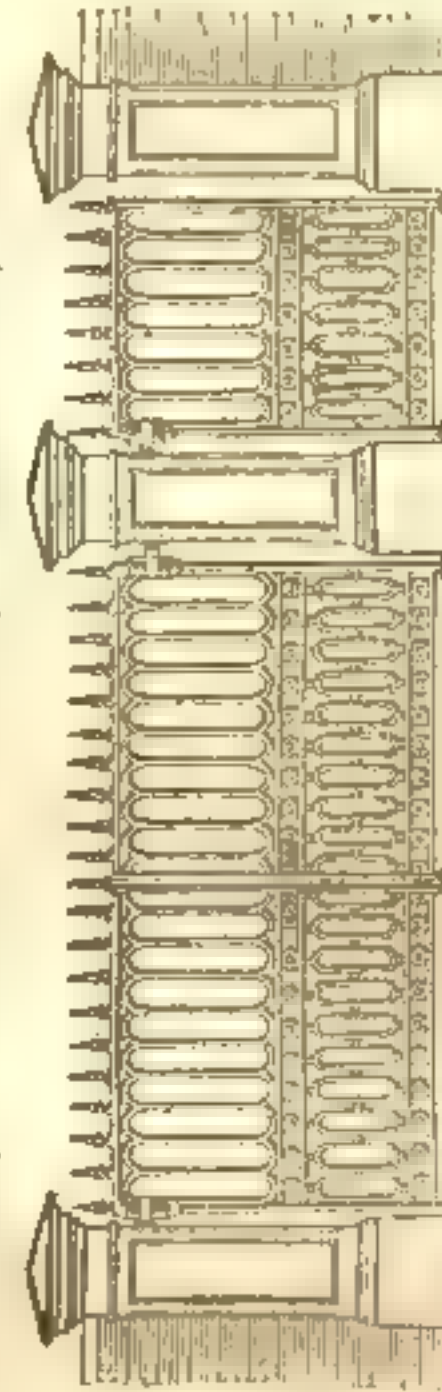
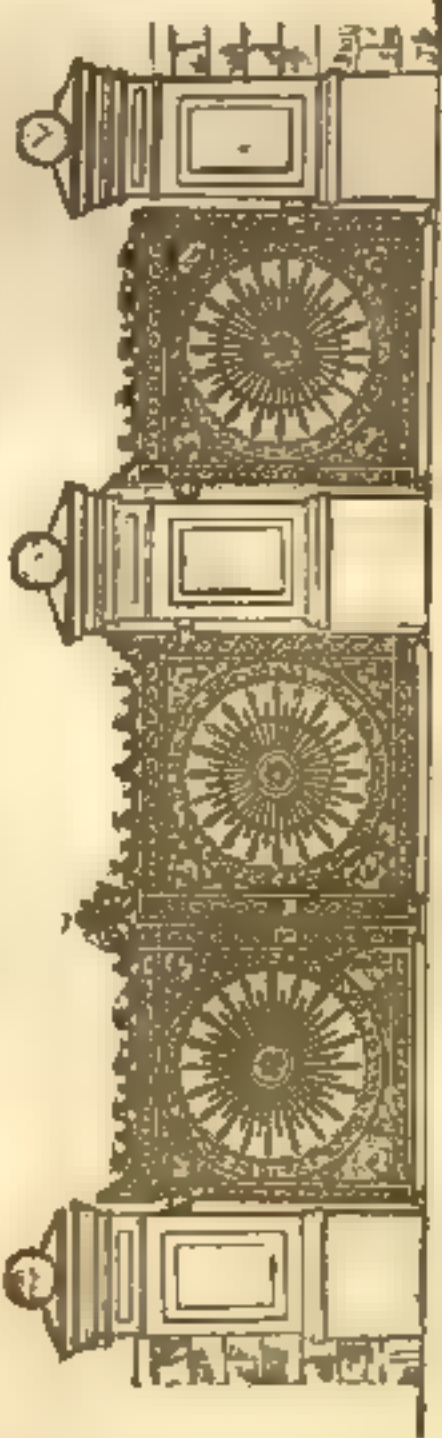
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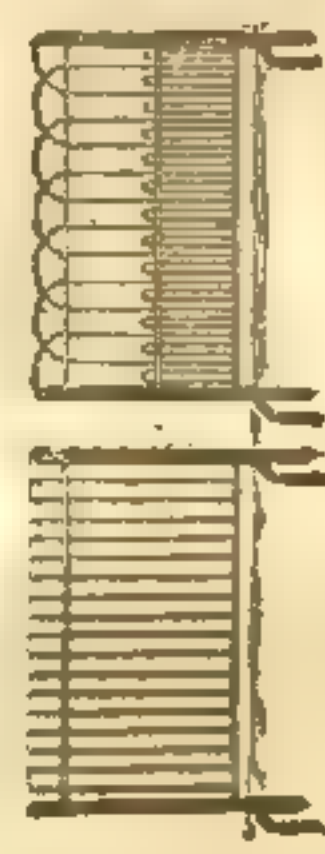
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THE superiority of this material to all others for damp situations and its durability under the most intense frost being now indisputable, and attested by its extensive use in Scotland and Ireland, as well as the principal country seats of England, attention is invited to the following summary of the work manufactured with it, a variety unprecedented in any other establishment of past or present times —

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MOULE'S PATENT EARTH SYSTEM.

VALUE OF THE MANURE.

Mr. James, of Hutton, has furnished the following particulars. He says — "Mr J Gadson, who holds upwards of 600 acres of land in this and an adjoining parish, has applied earth passed once through the closet to a Turnip crop, and has produced some of the finest roots I ever saw, although it was sown broadcast, and not, as it should have been, by drill. He has no hesitation at all in estimating its minimum value at £3 per ton. Mr Gamble, who holds land here to the same extent, has arrived, by an independent trial and calculation, at the same conclusion.

Mr HAYNE, of Fordington, Dorchester, writes — "I used one ton of earth that had passed twice through the earth closets in the day school of this parish on a piece of about 3 1/2 acres. The land had, the previous season, borne a crop of Mangolds, the whole of which was drawn and consumed at home. The Rape was sown on the 30th April, and 1 ton of the earth, costing 6s., was drilled with the seed. In June, 2 cwt. of Bad's guano was sown

broadcast over the whole piece, which was horse-hoed in the drills. The reason for my applying the guano was because the land had not been dunged. The crop was a good one, although the season was so dry and hot, and therefore unfavourable for Rape. If I had not used the earth I should have ordered six sacks of bones in the piece, costing 72s."

"Mr. HENRY TAYLOR, Manufacturer of Agricultural Implements, at Dorchester, who is also a manure dealer, and holds a small farm, supplies the earth for the closets and urinals of the Dorset County School. The contents of the vault are removed by him once in three months. He has tried the manure so manufactured on various crops, and he has informed us that he considers the deposit of three months, after one use of the earth, to be worth, when dry, from £2 to £3 per ton. He has tried the repeated use of the same earth, and he considers the value of the manure to increase in proportion to the number of uses."

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AS A PROOF OF THE SUPERIORITY OF THE THRESHING MACHINERY

MANUFACTURED BY

CLAYTON, SHUTTLEWORTH & CO.,

They beg to call attention to the following statement.

	ENGINES.	MACHINES.
Engines and Machines sent out in the year 1868	812	644
Total Number sent out up to December 31, 1868	8,921	7,982

The Gold Medal was awarded them at the Paris Exhibition, 1867, for Portable Engines and Threshing Machines, and at the last trial of the Royal Agricultural Society they gained every First Prize offered for Steam Engines, also the Prize of £15 for Finishing Threshing Machines, and Silver Medal for special improvements on which occasion the following Firms, amongst others, competed — Messrs. Ransomes & Sims, Tuxford & Sons, Reading Ironworks Company (Limited); Brown & May, Alchin & Son, Barrows & Carmichael, Humphries, Marshall, Sons & Co (Limited), Burrell, Ruston, Proctor & Co; Roby & Co. (Limited), Holmes & Sons, E. R. & P. Turner, P & H Gibbons, Tasker & Sons, Nalder & Nalder, Riches & Watts, Wallace & Haslem, Catchpole & Thompson, &c, &c

NOTE.—The Royal Agricultural Society will not hold another trial of Portable Steam Engines and Threshing Machines until the year 1872

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FEBRUARY 11, 1900

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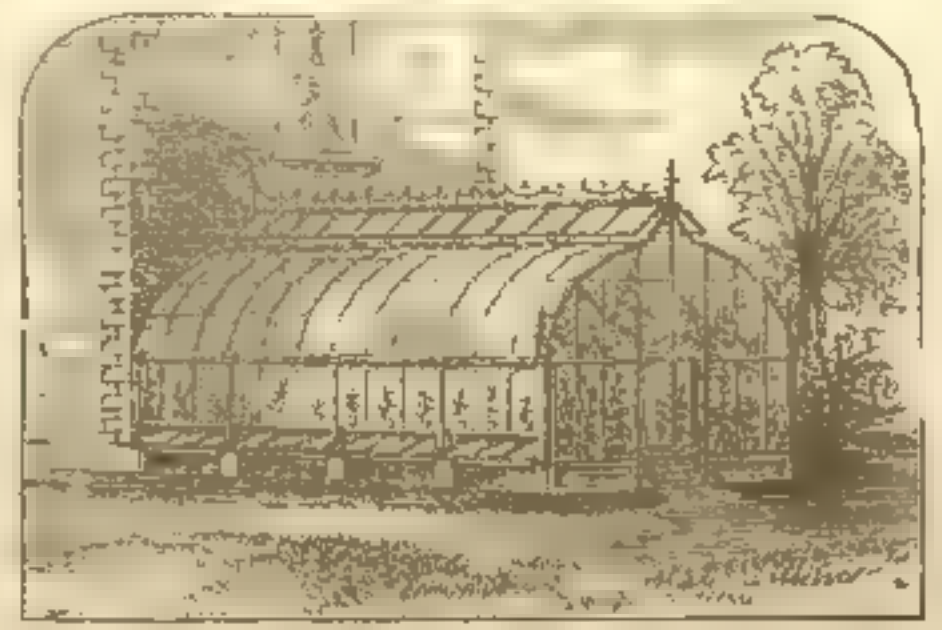


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SEEDS DIRECT FROM THE GROWERS THE BEST MEANS OF PREVENTING DISAPPOINTMENT.

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Table with columns for CLOVER SEEDS and POTATOS FOR FIELD CULTURE, listing various types and prices per cwt or sack.

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Table with columns for RYE-GRASSES and MIXTURES OF CLOVER AND RYE-GRASS, listing various types and prices per acre.

Table with columns for MIXTURES OF CLOVER AND RYE-GRASS, listing various types and prices per acre.



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PERMANENT PASTURE GRASSES AND CLOVERS.

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This was necessary for a separate work, which appeared contemporaneously in a magnificent series of volumes. In the first place, Martius undertook only the botanical section, and Spix the zoological; but, on account of the death of the latter in 1820, when he had only worked up the mammals, the birds, and a part of the amphibia, the continuation of the work fell upon Martius. He acquitted himself of the obligation in the most satisfactory manner, having secured the assistance of Agassiz, Andreas Wagner, and Pertz for the actual work, whilst he conducted the editing of it. It is true, however, was no small labour, involving, as it did, the superintendence of the publication of four large folio volumes. The collaboration of the botanical treasures was effected similarly to the collections of Humboldt and Bonpland by Kunth, in the form of a selection of the most interesting novelties. The *Platantheras*, or flowering plants, were illustrated in the "Nova Genera et Species Plantarum Brasiliensium" 3 vols. fol. Martii, 1823-32 and Cryptogamia in the "Icones Selectae Plantarum Cryptogamicarum Brasiliensium" 1 vol. fol. 1827.

The first volume of the former work was prepared by Martius's colleague, Agassiz, the remainder entirely by Martius, except the chapter in the "Icones Selectae" on the internal structure of Tree Fern stems, from the pen of Hugo von Mohl, a chapter that served to enhance the value of the work in the highest degree. In both works not only were many new and highly remarkable plants made known, more than 400 species and 100 genera, but they were also very and very carefully described, and they received an essential character. For every new plant is a new fact, which is not without importance, and at all events it is a fact as important that each plant should be published and referred to its proper place in the system, as that any new observation in the province of histology should be recorded. And the art of correctly describing a plant and ascertaining its affinities so that nothing shall have to be changed in future researches, is a much more difficult task than those will admit who affect to despise it. A practised and quick sight for natural affinities, a happy gut of combination—in short, an essentially "systematic tact"—which is by no means a "skill in guessing," but the result of an exact and extensive knowledge of the vegetable kingdom; this, and a comprehensive acquaintance with forms, placed Martius in the rank of the first botanists of his time.

Indeed, so great was the esteem in which his works were held that he received the highest scientific distinction that can be conferred upon a botanist, namely, election as a member of the Institute of France.

It may be mentioned here, in passing, that the above-named works were subsidised so long as Maximilian Joseph I. lived, after whose death they were left and remained entirely dependent on their own resources.

(To be Continued)

FRUIT PROTECTION

FRUITS, I believe, are the gardeners who do not think some protection necessary for the blossoms of Peaches, Apricots, Peaches and Nectarines. The protection usually afforded, if not altogether vain, is often defective. The dew falls perpendicularly, unless, therefore, the protection is over the blossoms, and sufficient to keep off the dew, which give the frost power, the protection is more or less useless. You may wrap a Pear tree, whether pyramid or bush, with covering like a "mummy," but if you do not put the covering over the head of the tree, you will probably lose all your fruit. I will now say about the mode of the protection of winter fruit, and explain how it is done here. The S.W. wind here blows furiously into the trees, hence a great and expensive covering than the one used would be of no use. In protected situations lighter materials would do very well. To give an idea of the fury of the wind, I must inform the reader that the S.W. wind tumbled one branch of a tree before the birds were set, into the next garden, and moved another 2 inches out of the perpendicular, so that I was obliged to take it down and put it up again. Add to this 11 miles or more of N. wind at the back of the wall with nothing to stop it, the reader will see with what liberties I have to contend. Yet a thing which is difficult is not necessarily "impossible"—a word that ought to be rubbed out of our dictionaries. The following is the way the trees are protected, and I may observe that they have been thus protected since November. In my opinion it is as necessary to shield these Persians (Peaches and Nectarines) from the vibrations of winter as from the attacks of spring frosts on the blossoms and expanding leaves, which are more tender than the blossoms. For lack of this you see the leaves withered all over, and looking as if a mole had been heaving between the outer and inner outside—a disgrace to science. Unless the foliage can be kept heavy and free from frost and red spider and other pests, the gardener's curses will be the order of the day. I used the following, and the skin of the second lung; if the first suffers the second must suffer. But to proceed with the description of the protection. Battens, 3½ inches every way, are let into the ground at 1½ feet apart. One foot is tarred and planted, and the upper part is painted white. Iron rods ½ inch of an inch diameter, reach from batten to batten, and run into iron staples. Under the coping a rod of similar length is fixed with iron loops, with a supporting iron lip in the centre, which is necessary here on account of the violence of the winds, which else would tear the rods down and also draw the loops. The curtains are No. 2 muslin at 12½d per yard bought of Mr. Brown, of Ipswich, they are 22 inches wide, and run top and bottom, with rings affixed to the sheets, at present with tar twine, but after the season is

over they will be affixed to the rings and sheets with strong copper wire. In ordinary situations the tar twine would suffice, but here the rings saw them off in a gale of wind. These curtains have not been undrawn all the winter but when the blossoms are in bud they will be undrawn after bud-fall. This then is the way it is done here, and it has been approved by many of my friends and acquaintances, and as several of them have already promised me the pleasure of their visit in the Rose season, I doubt not I shall be able to show them as fine—perhaps a finer—display of Peaches and Nectarines grown out-of-doors without glass as could be seen at Frogmore or Llanthomas. It is ridiculous to think of covering the above fruits with a glass protection, and you will not get a fair crop in seven years, and your foliage will be miserably withered. The excuses generally made are worthless, they are mainly "It is impossible," and "The soil don't suit 'em." N.B.—Tart. hum away. Insist upon having them, and you will have them, but then you must allow materials and a free access to water than is generally to be found even in our great gardens. After the fruit is secured the next thing to be done—two or three times a week—is to syringe the foliage the under side, or red-spider, scale, thrip, and green fly will spoil your wood and foliage. Scale destroys the tender skin of the next year's bearing wood. In order to stop them I am about to dissolve some aloe in water, and sponge my trees. No creature likes aloe. A gentleman had a monkey that gnawed his tail. Every remedy was tried in vain. At last he rubbed his tail with aloe after the first taste punged him more. It is worth a trial. When red spiders have made your leaves look yellow spotted on the outer side and wiry on the under side, the mischief is done, and the leaves will not recover. Defective foliage produces defective flavour and unhealthy wood for the next year. Peaches in strong soil do best on the Plum stock but in very light soil they flourish best on the almond stock. I want some fruits, as the Peach and Nectarine blossoms are beginning to expand. W. F. Radclyffe.

VEGETABLE GROWING: NORTH & SOUTH.

THIS discussion, which owes its origin to some remarks on a few late Peas at Bothwell (see 10th 1886), like a snowball, increases in dimensions as it is rolled along. I had intended, after my remarks at p. 1234, 1886, to have withdrawn from the contest, and to have left an open field to other and abler hands for the discussion of this important question, but fate and Mr. Fish have decreed otherwise. For here am I repeating my assertion, which has formed the backbone of the discussion, that "as a rule Scotch gardeners pay more attention to, and take a greater pride in cultivating vegetables than their English brethren." While making this statement, I wish all those whom it may concern, distinctly to understand, that I have no feeling in the matter—I mean, in the way of holding up the gardeners of one country, at the expense of the other. Such is far, very far from my intention. My feelings are entirely with the vegetables. My desires are for their improvement, and having found the vegetables in Scotland not only last year, but in many other years, more plentiful, and of better quality, and having seen that a deeper interest is taken in their cultivation by the professional gardeners, than I have found in the same class of gardens (gentlemen's gardens) in the South of England, I have fearlessly stated the case, and again call the attention of our Southern cultivator to the fact, hoping that discussion may cause a little more attention to be bestowed on this, the most important branch of a gardener's duties.

It is no answer to my argument for one or two writers to blow the trumpet of their own success, which is not the least called in question, or to lavish any amount of praise on the general excellence of English gardeners. No one is more ready to acknowledge their merits as a body than myself. Neither will it do to vilify the climate by way of justification for our own shortcomings. The simple facts remain the same, and cannot be slurred over in that manner. The subject is worthy of a deeper consideration.

I am certainly obliged to Mr. Fish for his generous contribution on p. 1236, 1886, although he ranges himself on the opposition, he has, *volens volens*, advanced a good deal in support of my argument, and much besides which I can by no means endorse, to wit, in giving it as his opinion that English gardeners display greater skill in the management of their kitchen gardens than do those of Scotland, in as far as they produce early salads and forced vegetables, while those of Scotland do not. Mr. Fish proceeds on the assumption that horticulture in Scotland has made no advance since he was an apprentice in the neighbourhood of Perth 30 years ago, than which there can be no greater fallacy. Ample evidence of this may be seen by anyone paying a visit to either the Edinburgh or Glasgow March and April spring shows where as good if not better vegetables may be seen as have ever been exhibited at any show of the same season in England. There collections of vegetables are exhibited by the dozen, containing Sea-kale, Asparagus, Mushrooms, French Beans, Potatoes, Carrots, Cucumbers, Rhubarb of gigantic size, besides the ordinary hardy vegetables of the season, including fine Celery, Leeks 3 inches in diameter and 9 inches blanched, and always an ample display of small saladings. This does not imply want of skill, or show a scarcity of vegetables in spring. The same may be said of their June shows; and the autumnal displays are simply grand. I think it would be a good thing for me here to invite Mr. Fish and those who think with him that vegetable culture is not what I have represented it to be in the North, to take note of the collections of vegetables they will see at the great International Exhibition in Edinburgh next September, or perhaps

some of them, including Mr. Fish, may come with them in a friendly way on that point. I am forgetting however, for how long, any good vegetables, and I am forgetting about the "scorching summers" and "the dry heating air" which "bleed" of every green thing in the garden. The past summer I merit such a description, but to the whole country North at least, nears the general character of an English Mr. Fish tries to make out about the quality of the land with that of Scotland, and to such exaggeration from a purpose in writing as an apology in East Anglia, but what are the 1868 an exceptional, let us take Symonds' British Review, subject I find that the average of the Chiswick, Kent, and the last nearly as possible equal to that of Bury St. Edmunds, B. to which Perth, the fall was equal to about 25 more rain in 1867 than the three first-named places, but as at Bothwell, and Soons, Perth, a little further North at Aberdeen, 24 inches but this is a way as Mr. Fish states, and it must further as exist there, require more in state. Further, the South-west of England than any part of Scotland, the Hebrides. Last year, Aberdeen, and Banff, as any part, and much more so than in Lancashire, Derbyshire, and Cumberland, not to speak of south-western counties. I might have said enough to convince Mr. Fish, and that climate (moisture) has but very with it.

I have already stated that the atmosphere may exert a little influence on things as the autumn Peas, but what little difference there may be, advantage of the South of the North, somebody must be whipped for it, something must be made to excite the gardeners, and so forth, and guilty, and pictured so very that we were in Arabia, or some other land. Who that believes in Mr. Fish will be of the soft, balmy breezes of our Fog about which our poets have so much to say, our poor climate has a deal to answer for the charge of our Southern friends in the culture of many kinds. The Frenchman shrugs his shoulders, and recommends instead of taking at the vegetables in Covent Garden, growing in the market gardens, if he will thus find any evidences of defects. I think not. There are finer cultivated by the London market gardeners of the year, than by any other part of the country. The climate suits them, and study it, and study it as well as they can, why should professional men like Mr. Fish, much fault with it? Good crops can be one class, why not by the other, who, as more & B.

(To be)

NOTES ON FRUIT

Pear, Doyenne du Commerce—This is the greatest excellence. It has, further, the advantage of being always good, which is a great recommendation. The old Pomological Society was the first to put Pear into prominent notice, and the Committee has in three successive years the 1st prize as the finest flavoured Pear at the November meetings. It is of a somewhat resembling that of the *Glen Moreau*. It is of a somewhat round shape, and somewhat flattened at the top, in which it succeeds best the fruit is beautiful, russet, and when ripe, the fruits are nearly as large as the *streaked and shaded with red* rate-bearer, *Saint Nectaire*. *Pear, Winter Pear*—A very fine variety and one that is always good, and for it is very rare, indeed that it can be found of indifferent quality. It is of a somewhat round shape, and of a yellow colour, sometimes entirely covered by a frequently easily distinguished by its naturally small, being entirely wanting in *Beurre d'Arenberg*. The flesh is of a melting. The tree forms a handsome fruit most abundantly and frequently a very shy bearer. By planting in different aspects and situations, a success

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Grafting. Whistfully notes that an English Grafter... I prefer the Barthelemy graft as being the best and strongest.

The Weather.—As the present year is another illustration of the remarkable law pointed out by Mr. Brumham (Proc. Met. Soc., vol. iv., p. 38) it may be worth while to direct the attention of your readers to it.

Table with 5 columns: Year, Mean temperature of November, Mean temperature of December, Year of Winter, Difference of Mean of 1st to March, from the Mean of 10 years previous.

Mistletoe.—I am in the habit of smearing a few berries every season, and find they take most readily to the Thorn and Mountain Ash.

Heating Vine-borders.—Mr. Thompson is wrong in thinking the Vines at Waltham had no surface roots and that no special means were taken to entice them there.

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of which I was once opposed... Mr. Wilson, Esq., and stated that the awards of the Floral Committee and that the exhibition before them was a very interesting one.

Mr. Berkeley then alluded to the meeting and stated that the branches of Prunus Myrabalanus and Pyrus baccata, which he held in his hand, were taken from plants in bloom in the Chiswick garden.

Mr. Berkeley then referred to the specimen of wild Cabbage brought by Major Clarke from Ireland, and Mr. Berkeley stated that he had grown it from seed and found it to be a very hardy and vigorous plant.

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Societies.

ROYAL HORTICULTURAL: Feb. 16.—W. W. Saunders, Esq., F.R.S., in the chair. The routine business having been transacted, the Rev J. D. J. after reading the awards of the Floral Committee, called the attention of those present to a new form of garden label, that was made of the same material as that of which the face

of which I was once opposed... Mr. Wilson, Esq., and stated that the awards of the Floral Committee and that the exhibition before them was a very interesting one.

SUTTONS' GRASS SEEDS

FOR ALL SOILS,

NEAT CROPS OF HAY AND SUPERIOR PASTURE. CARRIAGE FREE.

THE MEDAL FOR EXCELLENCE OF QUALITY,



PARIS, 1867

MESSRS. SUTTONS'

MIXTURES FOR PERMANENT PASTURE

CONTAINS THE FOLLOWING

FINEST CLEANED GRASSES AND CLOVERS.

Table listing various grass and clover species such as Meadow Foxtail, Sweet Vernal, Creeping Bent, etc.

SUTTONS' BEST MIXTURES

FOR THE FOLLOWING SOILS -

- STIFF CLAY SOILS, to be met with in the London, Kimmeridge, Oxford, and Lias Clays.
HEAVY LOAMS, of the same Formations, when they have been subjected to surface admixtures and...
GOOD MEDIUM LOAMS, on the Marls of the Old Red Sandstone, the Gault, and the Greensands...

SUTTONS' CHEAPER MIXTURES,

20s to 26s. per acre. Carriage Free.

SUTTONS' "CRYSTAL PALACE" MIXTURE, for Park Grounds, as supplied to the Crystal Palace Company, to produce a beautiful evergreen sward, 18s. per bushel. Sow 2 1/2 bushels per acre.

SUTTONS MIXTURES OF GRASS AND CLOVER SEEDS for

Table showing prices for different types of grass and clover seeds, e.g., 1-year Lay, best quality, 13s. 6d. per acre.

SUTTONS RENOVATING MIXTURE for the above Seeds should be sown early in the spring to produce a great increase in the quantity and quality of Grass. Sow 6 to 12 lb. per acre. Price 9d. per lb.

Five per cent. allowed for cash payments.

SUTTON AND SONS, CHICKEN TO THE QUEEN, READING, BERKS.

The advantages of procuring Seeds direct from the Growers cannot be over-estimated.

Lainsparter & Co Seed Growers

237, 238, AND 261, HIGH HOLBORN, LONDON, W.C.

A SPECIAL PRIZE MEDAL AWARDED PARIS 1867



FOR SUPERIOR EXCELLENCE OF GRASS SEEDS.

CARTER'S GRASS SEEDS,

SPECIALLY PREPARED FOR ANY DESCRIPTION OF SOIL.

- No. 1. For FERTILE CLAY SOILS.
No. 2. For POOR CLAY SOILS.
No. 3. For HIGH-LYING CLAY SOILS
No. 4. For ALLUVIAL SOILS.
No. 5. For LIMESTONE SOILS.
No. 6. For NEW or OLD SANDSTONE SOILS
No. 7. For LIGHT CHALK SOILS.
No. 8. For BRASHY LIMESTONE SOILS.
No. 9. For SANDY SOILS.

J. C. & Co. hold one of the largest and best stocks of Grasses and Clovers in the country, and are now prepared to supply their Mixtures as above, for the formation of first-rate Permanent Pastures.

Finest Quality, per acre, 28s. to 32s. Second Quality, per acre, 20s. to 26s.

THE ONLY PRIZE MEDAL AWARDED LONDON 1862



FOR SUPERIOR EXCELLENCE OF FARM & GARDEN SEEDS.

LOOK TO YOUR GRASS LANDS.

CARTER'S RENOVATING MIXTURE should be sown on Meadows that have suffered from the past dry summer. The Mixture includes the most desirable Grasses and Clovers for hay crop, and succeeding green feeding, and will soon restore a first-rate permanent pasture.

Sow 8 to 12 lb. per acre.

Price 9d. per lb., 80s. per cwt.

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As supplied for the grounds of the late Paris Exhibition, will speedily produce a carpet-like turf of the finest quality.

1s. per lb. 20s. per bushel (sow 3 bushels per acre).

For full information on the Laying Down and after-treatment of Grass Lands, see

CARTER'S FARMER'S CALENDAR FOR 1869

(ILLUSTRATED),

Post Free 6d.; Gratis to Customers.

JAMES CARTER AND CO., 237 and 238, and 261, High Holborn, London, W.C.

First Crop or Ringleader Pea. CHARLES SHARPE AND CO., having grown largely this EXCELLENT EARLY PEA, with great care, have much confidence in offering it to the Trade. Price on application.

Farm Seeds Direct from the Grower. CHARLES SHARPE AND CO. will be glad to send special offers of their carefully selected TURNIP, MANGEL, and other FARM SEEDS on application.

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Seed Potatoes. CHARLES SHARPE AND CO are now prepared to make special offers of all the leading sorts of POTATOS at Stamford.

RAYNBIRD, CALDECOTT, BAWTREE, DOWLING, AND COMPANY (Limited), COAL, SEED, MANURE, and OILCARE MERCHANTS. A Address: 59, Seed Market, Mark Lane, E.C.; or Basingstoke. Sample and prices post free on application. Prices Monthly, 1851, for Wheat 18s., for Barley 12s., and for Oats 10s.

1868.-Mangel Wurzel Seed. H. AND F. SHARPE can offer the Trade some splendid H. STOCKS of the above-named Seed, grown on their own Farm this season from picked Bulbs. The quality is very fine, and prices low. Samples may be obtained on application. Seed Growing Establishment, Wisbech.

SUTTONS' PRIZE MANGEL SEED, 1869. SUTTONS' BERKS PRIZE YELLOW GLOBE, SUTTONS' NEW YELLOW INTERMEDIATE, SUTTONS' MAMMOTH LONG RED. SUTTONS & SONS are now prepared to quote the lowest price per cwt. for the above superior varieties of Mangel Wurzel, which have given such great satisfaction during the past year. SUTTONS & SONS, Seed Growers, Reading, Berks.

Early Feed for Sheep and Cattle. SUTTONS' IMPROVED ITALIAN RYE-GRASS, the earliest and most productive in cultivation. Should be sown in February and March to produce a succession of valuable cuttings during the year. If sown alone, 3 bushels are required per acre. Price 7s. per bushel, cheaper by the quarter. Carriage free. SUTTONS & SONS, See Notice to the Queen, London, B. 1868.

HALLETT'S PEDIGREE CHEVALIER BARLEY produced in 1868 a Crop of 42 bushels per acre, a Sample of which was awarded the First Prize at the Birmingham Show of 1868. Took the First Prize also at the same Show of 1867. Produced to 18 1/2 tons of 9 quarters per acre. 16 HORSE BLACK TARTARIAN OATS produced, 1868, 12 quarters per acre. For particulars apply to Captain HALLETT, F. L. S., Brighton.

ROYAL AGRICULTURAL SOCIETY OF ENGLAND

AGRICULTURAL EDUCATION.



The EXAMINATION of CANDIDATES for the SOCIETY'S EDUCATIONAL PRIZES will take place in the week commencing MONDAY, April 13, 1869. Copies of the Form, required to be sent in by March 18, may be obtained on application to

H. M. JENKINS, Secretary, 12, Hanover Square, London, W.

ROYAL AGRICULTURAL SOCIETY OF ENGLAND.

MANCHESTER MEETING, 1869.



STOCK and IMPLEMENT PRIZE SHEETS are Now Ready, and will be forwarded on application to HENRY WHITWORTH, Esq., Local Secretary, 46, King Street, Manchester, or

H. M. JENKINS, Secretary, 12, Hanover Square, London, W.

The Agricultural Gazette.

SATURDAY, FEBRUARY 20, 1869.

MEETINGS FOR THE ENSUING WEEK.

- Feb. 23 - Farnith (Local Taxation).
24 - Highland Society (Mr Melvin on New Zealand).
27 - Canterbury (The Present System of Licensing Beer Houses).

A SYSTEM of traffic which allows of the free movement of sound animals all over the kingdom does not necessarily exclude foreign stock from the privileged classes, but it admits them only on the guarantee being given of their sanitary condition; and this can only be asserted after the animals have undergone a period of detention, or quarantine, equivalent in duration to the longest time of incubation of any infectious disease to which they are liable. With the remembrance of cattle plague and sheep pox, not to speak of other infectious maladies of foreign stock fresh in our minds, we cannot conceive that this condition will be deemed harsh or unnecessary; and yet it is evident that under its operation foreign stock would be virtually excluded, from the circumstances of their position. Quarantine, except in the case of a few valuable animals, does not, to accept the importers' estimate of the system, answer in a pecuniary point of view. Equally, from our point of view, it would not be judicious, using the mildest term, to allow imported animals, the previous history of which is quite unknown, to come in contact with home stock, we being, at the same time, per-

fectly aware of the fact, that in their apparently healthy bodies there may lurk the germs of a disease which will become manifest only when it is too late to prevent disastrous consequences. Hence, failing to give the necessary evidence of freedom from infectious maladies, imported animals which may possibly introduce disease which we already have, more often, perhaps, than we are aware of, proved to demonstrate, some have forecast among our herds and flocks must not be admitted into a class composed only of those which are essentially free from a suspicion of infection.

The first point of all this is what shall be done with animals which fail to furnish the required evidence of perfect health. And the answer involves the consideration of the whole system of regulations applicable to the cattle trade. According to the view which the breeders of home stock adopt, the most ready and simple way out of the difficulty is to slaughter all imported animals by the water side, in fact, to irrevocably establish the system which now obtains at all the ports except the port of London. It is quite worth careful consideration whether those cattle only which come from infected countries, or countries of transit like Austria and Prussia, should all be slaughtered at one depot, or at several, and also whether the exemptions in favour of cattle from France and Spain should be extended to animals from other countries which are not countries of transit, and where cattle plague is not naturally existent. We are met here, however, by the awkward possibility of other infectious diseases than cattle plague being introduced. Foot-and-mouth complaint, lung disease, and some of the contagiousness which farmers wish to avoid; and hence it can hardly be expected that they will abandon the idea of slaughter of all imported fat stock at the landing places, or the plan of quarantine, which practically means exclusion of store stock. There are many objections to the system of slaughter on the wharves. Temporarily at least it would lessen importation and drainage trade, it would not absolutely prevent communication of infection by indirect means, and if cattle plague should break out in so limited and populous an area as a crowded foreign cattle market, with daily arrivals of fresh stock taking place, a very pretty mess the business would amount to.

The plan, however, has the merit of being free from complexity, and it is besides the only one which will satisfy the demands of the home breeder. Any other arrangement, presumably, must involve complicated machinery, which is always liable to get out of order.

In some way which shall be decided upon, as open to the least objection, contact between imported and home-bred stock is, we will assume, to be effectually prevented. This consideration, then, presents itself viz., the unrestricted movement of all stock which can be certified to be free from infectious disease. At this point the essential difference in the position of home-bred stock, as compared with that of imported animals, becomes apparent. Foreign cattle reach our shores tainted with a suspicion which can only be removed by their residence here for a time, while cattle bred and fed in the country are constantly under observation. In respect of every homestead in the country it is, or can be, easily known whether or no the animals on the farm are free from infectious disease, and this being the case, no danger can possibly arise from the unrestricted movement of all healthy stock being permitted. No distinction beyond what is absolutely demanded by difference of circumstances need therefore be established between foreign and English animals. In both cases let those which are infected or even suspected be safely restrained. While we take means to prevent contact between home-bred cattle and newly imported foreign stock on the legitimate plea of danger let us consistently put a veto upon the admixture of cattle infected or infected with pleuro-pneumonia or foot-and-mouth disease with healthy animals in fairs, markets, or on the public roads. And to do this effectually the removal of live cattle from farms and premises where these diseases exist must be unconditionally prohibited, so long as there remains a risk of propagating the infection.

Such an arrangement would do what is demanded—place imported and home-bred animals on precisely the same level, by according to each the privilege of freedom when they are ascer-

tained to be capable of exercising it without injury to the sanitary condition of their fellows, and by shutting up either or both within some limits, when they are known to be dangerous or when their condition prevents the owner from giving the necessary guarantee of their exemption from infection. A vast number of circumstances will have to be considered in arranging the details of a measure which shall embody the principle for which we contend, but the difficulties, so far as we can understand them are not insuperable, and the object might be of sufficient importance to justify the expenditure of time and trouble in view even of its possible attainment.

THE great and increasing dependence of this country on foreign supplies of corn makes the equality of other countries more than a mere matter of curiosity. The narrative of foreign travel is interesting to most people. It may gain additional zest from the fact that we are constantly going farther and farther abroad for our "daily food." And we must look to new countries, since the old ones, sooner or later cease to contribute to our wants, and indeed become our competitors in the markets of the world.

Nearer to us than New York is a country of great average capability, of almost unparalleled fertility in some parts, and with a splendid climate. Turkey in Asia is four times as large as Great Britain and Ireland, is very thickly peopled, and produces a more abundant crop than what its soil would produce, if it were well cultivated. It is, therefore, a new country in the sense of being undeveloped and of being capable of producing an immense quantity of corn for foreign consumption. It was once the seat of ancient empires; a great population was supported on its soil. Josephus tells us that many of the villages of Syria contained 15,000 inhabitants. The account is probably exaggerated, or it is a difference of designation. We should call them towns. The present population, however, of 12,000,000 or 13,000,000, does not approach what it once was in the famous countries now under Turkish rule, in Asia. This dominion, unhappily, is fatal to industry of every kind. The agricultural productions of the country are, or would be, too varied and rich ever to include corn for exportation, but at present the land lies absolutely waste. All around the modern town of Hillah, which stands on the site of ancient Babylon, the marks of the ancient channels and canals of irrigation may still be seen. The waters of the Euphrates and Tigris were led over the rich alluvial plains, and they were thus made to produce the grain that fed a population that is unknown, and which has been variously estimated at from one to five millions for the capital alone. The waters of the Jordan and Orontes, and other rivers of Syria, were utilized by similar means, and much of the country that is now called "desert," because it is uninhabited, was, by irrigation and by industry, made productive.

All these countries are within the region of summer droughts, and water is there the "soul of agriculture," as manure is here. Much, however, may be grown without it over a wide extent—just as much corn is grown in the old corn countries of Europe, though the yield is small, but with it the production is enormous. All the grains of our temperate region are produced in perfection, besides a rich variety of subtropical fruits and produce. Sugar, not now sent to the English market on account of careless management, has been a Syrian product from remote antiquity. Cotton fields in many parts of the empire, the climate and soil that suit it best, yet much of the homespun worn by the country people comes from Persia. The Vine grows abundantly everywhere; it yields wines for local consumption, and the Sultanas of Smyrna and other mountain districts in the sheltered valleys that are fertile and so productive. Other plants, used in medicine and the arts, grow in various parts of Turkey; opium is produced, the Palm is indigenous; and Dates are exported in considerable quantities, because they grow wild and need no care or labour. Peaches and Nectarines, Persian fruits, find a home in the adjoining countries of Kurdistan and Armenia. Here, too, and throughout the dry uplands of the north and east, the sheep finds his native habitat, and at Erzeroum, the emporium for the trade of that part of Turkey, great numbers are assembled every year for exportation to Egypt, Persia, and

the Russian territories. The price of the animal is 11 such. This is further worth the attention of those who are the masters of flocks, and where the flocks are and herds of oxen, and the country is snow-covered, and the sheep are shorn, and the wool is sent to the great markets of Turkey. The sheep of Asia are not so numerous as those of the possession compared with the water of Mesopotamia and the hill country.

This splendid country, which our eyes not allow us to describe more fully, is becoming decrepit. The Government which shears the sheep and half-subsidized, wagers the whole country with their flocks, and prevents its cultivation. They levy taxes on the inhabitants, and off-take restriction to the neighbourhood of the villages, where the security is to be had. But the eastern of land there would progress even without these "desert." Much of the land belongs to the State, it is every year let in large blocks for only, including the farming of the land, the title, the farmer subjects to the State or cultivators. It is the order of the day to practice the farming by the State on the latter by the Government of the district.

In some respects the Eastern question is a farmer's question. When foreigners and their way into these rich and fertile countries, Spain is in the same category with their increased production affect the soil and its corn, or intercept our supply. What will be the future balance of the world, and what the character of our culture? The answers to our questions comprise the future history of the world, the Mediterranean. Possibly these rich countries may supply the world with the valuable products of agriculture—wheat, fruits, silk, &c.—and may themselves be buyers rather than sellers of corn.

At Mark Lane on Monday the corn was in a state of stagnation, and a few sales were in progress had to be suspended. Throughout the week little or no rain has taken place, and demand, but Monday's prices have been raised. At the cattle market there has been a change of state of things, for the supply of business has been small, the number of the foreign orders having been 140 as of the latter, and on Monday a reduction of prices are still made. 3s 6d to 3s 8d for sheep and from 1s 6d to 1s 8d for sheep. These high rates are stimulating dealers, and a declaration is apparent, for the want of the President of the Board of Trade, that the present high price of mutton is a result of the Privy Council restrictions. Meadows being coming from the country, and buying the sheep at the wharves in Essex and taking the sheep to the manufacturing districts. On Thursday a shire but her interest 12s as many as the which he took direct to Walsall. Boxes of Prussian sheep have gone to Paris for the past but as prices in London now exceed the values, the stream of sheep is diverted across the Channel and the North Sea. Cakes of fine quality can be had at 1s 6d and 1s 8d. The seed trade has had a return of interest, and that the superior quality of wheat is coming, and any attempt at sowing. Tares are scarce and Rye grass and Clovers are held for the anticipation of the demand next month.

In the House of Commons on Wednesday ROBERT MONTAGU introduced his Bill, to amend the Acts relating to the prevention of infectious diseases in cattle. On the previous day Sir Robert Peel gave notice of his intention to move on a Bill for a Committee on the subject of local taxation in Scotland. Mr. Cairnes introduced a Bill to amend the Acts relating to the prevention of infectious diseases in Scotland.

The following letter from Messrs. Reading, needs no introduction. In numerous gardens, banks, and other situations through your paper we were called your attention to the enclosed. The result under the assumption of being known to us as leading houses, requires persons want to place him stamps on the introduction to a place in Windsor. We know a man of the name, but the many in your way have had, that it is successful in taking money from many a person, but if we may mention the name, it is to be a 'magisterial' agent, as he dates from a address in almost every letter, probably a detection.

The delusion that agricultural labourers everywhere the worst paid class of Her Majesty's

further object of considering the whole matter, and making a recommendation to Parliament. I am correctly in possession of your views. Yes. I can only assure you that the matter shall have the most careful consideration. A portion of the subject, relating to the poor, especially interesting to my right hon friend Mr. Crossin, who is with me as well as to my friend Mr. Keble, Mr. H. G. G. And when the matter is particularly interesting to all other members of that Government, whether they have special interests in the matter or not. They have a great interest in it, and as it is of their general duties to the public, and a question of so much national importance. I can only say that at all times in the progress of this matter I shall be very happy to confer with you. I shall be glad to be put in possession of the information you have. I fully agree with Mr. Read that it is a question which is entitled to the gravest consideration, apart from political parties.

Mr. Read, M.P., thanked the right hon gentleman for his courtesy in granting the interview.

FARMING AT TIPTRIE HALL.

Look to your Drains and Watercourses.—This ought to form a prominent cause in every lease. After a 24 hours rain, such as we have just had, it is interesting to examine every outlet and, reflecting on the pump-like stream from every drain, wonder what is to be the fate of those numerous but unfortunate individuals who farm heavy or wet undrained lands, where the water is retained as in a plugged flower pot, and from which the only escape for it is upwards by evaporation, robbing the earth and plants of the sun's invigorating rays, and employing them to convert the unescaped water into steam, which, full of latent heat, rises into and is wasted on the air. As a rule, water-courses and outlets of drains require frequent watching, bunches of rushes and water plants increase so rapidly during the growing season that they soon choke the channel and hinder or stop the flow of water, and conceal the outlets of the drains—bushes, broken sticks, and other matters get blown or thrown into the ditches, and cause injurious obstruction. I make a point of having a periodical examination of the watercourses and outlets, and the removal of all obstructions in preparation for the winter floods. This is a task too often neglected, and requires the best resolve of the principal. I am sorry to see it stated in the *Standard* and elsewhere, that on some large estates it has become necessary to appoint a regular examiner of drains, owing to the suicidal neglect of some of the tenants. Roads, drains, and fences are, to my certain knowledge, very much too often neglected. This is decidedly a most unprofitable omission, to say nothing of neatness.

I fear that these frequent over-supplies of rain, combined with the rapid growth of weeds as well as of Wheat, owing to the unusual mildness of the winter, will, on the undrained soil, act most injuriously, especially when we get our usual supply of cold spring nights and cutting easterly winds. The night on at Christmas may after a while be so richly and so wrong as some of our friends suppose, although I wish it may be. A great many people believe in the moon's influence, and even Shakespeare himself was not free from this weakness. If weakness it be, a farmer with drained lands will be able to hoe his Wheat and drill his spring corn 10 days earlier than his undrained neighbour.

My Preparation for a Crop of Mangel Wurzel.—The previous crops were—1866, Red Clover, 1867, White Wheat, 1868, Rye and Wheat. Soon after harvest the land is broadsowed, and the rubbish and stubble burned. In November manure is put in at the rate of 20 or more loads per acre, and ploughed in by two ploughs, the first drawn by three horses, the second plough following in the same track, drawn by four horses. The second plough is with a mould-board, or breast, we thus get very deep cultivation, the upper and under soil, and the manure being all intermixed. The lands are 7 feet 2 inches wide, so as to allow of three rows of Mangel on each land or stretch. The land remains in this condition until April, when 3 cwt of Peruvian guano and 2 cwt of common salt are mixed together, and sown broadcast. The land is then broadsowed once or twice according to circumstances, the seed drilled, having been first kept in wet sand some days, and the land harrowed. It is important never to plough this heavy land in spring, for by so doing it loses its moisture and the plant fails. I never miss a plant or crop of Mangel. With friable soil a different treatment may be necessary, but I only speak of our stiff clays suited for Mangel. To give some idea of the quality of our manure, which is all made under cover, on paved floors, or on spars, free from any rain—there is this year on each of the acres the consumption of 25 lb worth of cake, corn bran, malt combs, hay, and other feeding stuffs, a plentiful crop of roots and straw. We only give a small portion of roots to each bullock, especially in a dry season, but the rest is stored up for use from 10 fattening weeks for a year. Three months is ploughed on 9 acres, we had 120 tons of manure in the spring 3 cwt of Peruvian guano per acre and 2 cwt of salt. This we have proved by cutting the guano on one acre, and could see the answer, not only in the Mangel crop, but in the Oat or Wheat crop that followed. In fact, the land can never be too richly manured or too deeply autumn cultivated for Mangel. It is more profitable to grow 40 tons per acre on one acre than on two, for there is thus only half the rent, rates, tithes, seed, labour, &c. Three years ago, in a good season, we averaged 10 tons per acre on 18 acres, and we have grown 7 quarters of Wheat per acre after Mangel. We always put on 2 cwt of Peruvian guano with common salt for the summer crop following Mangel or other crops drawn off the land. Our

Mangel crop of 1868 is scarcely less than 30 tons per acre. I need hardly say that the Mangel are kept free from weeds by two or three horse hoes, by Garrett's horse hoe and several hand hoes, bringing the soil up to the surface. Of course in order to farm this system for Mangel, plenty of fattening stock must be kept. By this system the Mangel costs the farmer much less per ton than by spreading the crop over a larger area of half-manured soil. A long experience has confirmed my original opinion that high farming, producing maximum crops, is the true way of obtaining a good profit. Maximum crops depend mainly on plenty of good manure, and the latter can be much more cheaply obtained by judicious stock fattening than by artificial manures. There may be exceptions, but I speak particularly of my own farm, which consists of both light and heavy land.

MAXIMUM CROP FOR 1868—96 A CRES.

2 broad-harrows, 20 ft. & harrowings, 17 ft. 10 in.	£2 11
2 broad-harrows, 20 ft. & harrowings, 17 ft. 10 in. at 50.	45 0 0
Manure	1 8 0
Spreading do.	0 18 0
Carting do.	4 0 0
Labour or trench ploughing with two ploughs & 1 horse	14 0 0
	£67 18 0

FEEDING SPRING AND SUMMER CHARGES.

2 cwt. of Peruvian guano	17 11 0
1 ton of common salt	1 10 0
Mixing and sowing guano and salt	0 6 0
2 broad-harrows, 20 ft. & harrowings, 23 ft. 6 in.	2 7 0
47 lb seed	0 15 0
Rolling and treading	2 2 0
3 horse-hoesings with Garrett's horse hoe	4 12 0
3 hand-hoesings	2 17 0
Pulling and filling into carts	0 11 0
Carting Mangel from field	0 7 0
Carting, carting and thatching	1 1 0
Tithes, rates, and taxes	4 0 0
	£138 2 4

These are the regular charges that would be allowed in a transfer valuation. To these must be added the cost of carting to the homestead, cleaning, cutting up or pulping, 2s. per ton.

ON THE CROP—the usual average crop—177. 11s. } £166 12 4

My Best Crop for 1868.—I have just threshed the remaining portion of my last field of Wheat, and find that the whole field has produced a fraction over 64 bushels (8 quarters) per acre, of fine marketable (120-headed) Rough Chaff White Wheat, weighing 64 lb. per bushel. Thirty quarters of it were sold on the 12th inst. at Chelmsford market, at 50s per quarter. The other portions, sold much earlier, brought 61s. and 62s., making the average of the field 67s. 6d. per quarter—thus producing a money return of 237 per acre, besides the straw, which, at present price here, is worth about 31 1/2 per acre, in fact we are selling our surplus straw at that rate. The field was of 1/2 acres, actual measure, and the quantity of seed drilled a fraction over 4 pecks per acre put in on the 20th November, 1867, after cover, cut for hay, and then fed. I mention actual acres because what are called "farmer's" acres are sometimes 1/2 rods, and many labourers are well aware that what the field "goes for" is often a good percentage more than its actual measure. By piecework the labourer would in such cases, be a loser, unless he took that matter into his account.

My men had always an opinion that my Oak field, which produced 7 or 2 bush. per acre (sold at 60s.), would yield more than this Willow field near the pond, but I, Mr. Hallett, and others thought differently. It turns out that I was right. My 23 acres of Wheat have thus yielded an average of over 64 per acre. 20 acres, which were of Rye and Wheat after White Wheat, did not yield so well as the White Wheat, nor did the Red Wheat. The fine, warm, dry season was evidently more suited to the fine White Wheat than to those of coarser quality. Most of our Wheat was of fine white quality. The Rye sold at 4s and 6s per quarter when the White was sold at 5s to 6s. Beans and Barley were a very light crop. When I purchased this farm in 1841 I gave 23/ per acre for it—now some of my Wheat crops realize that amount per acre, and exceed it by the value of the straw 3/ per acre. This is an encouraging to agricultural improvers. A good deal has been said about my land being good Wheat land. I know of two large farms not far from mine, of very much better natural quality than mine that let for about 10s per acre one of them having superior buildings and a good house. There would be plenty more good Wheat lands if landlords drained them and if the tenants consumed plenty of purchased food, and made, as I do, 6/ worth of meat per acre. I do not expect everybody to believe my statement of growth, especially those who farm unimproved land, make little manure put in too much seed, and trust too much to Nature. J. J. Mechi, February, 1869.

THE PURE SHORTHORN BREED

This was the subject of the following Paper read by Mr. Bates at a recent meeting of the Kingsgate Association, held at Kingsgate, U. M. P., the President of the Association in the hall.

In introducing this subject, I think it will simplify the matter and facilitate discussion if we consider the advantages derived from pure-bred herds under the following heads, viz.—1st, the advantages to the breeder, 2d, the advantages to the grazier, 3d, the advantages to the dairy farm 4th, the advantages to the country at large.

1. **The Advantages of a pure bred Herd of Short-horns to the Breeder.**—Before we can properly discuss this question, it seems to me to be necessary that we should arrive at some intelligible guide as to what con-

stitutes a pure bred herd. The great want of attention paid in former times to the breeding and rearing of stock by many of our farmers, was one of the principal causes of our inferiority in these respects to the farmers from our own country and from other countries. Whether the Short-horns were imported from Scotland, as some were, or whether they were bred from some of our native stock, I do not know. We have however Short-horns then, and others too. The water breed in the country of York principally consisted of those which were considered superior cattle at that time, as regards size, appearance, general symmetry, the cows being considered suckers in the highest degree, but as regards the breed called Durham, or improved Short-horn, cannot go back with any degree of certainty to a sire and dam of HUBBARD, the famous bull, 1777, which first brought Mr. C. Colling's name to the public as a breeder of improved Short-horns. It is meeting with the bull was an arrangement which authorities agree. As to his pedigree, HUBBARD is very interesting. Mr. J. H. Hunter, a breeder, seems to have been the first to do business, having a number of males of the bull and his dam, were frequently noticed by Waistell, who, seeing the good possessed in his kindly feeding character of the dam, fed in him; but the price being 8l., which he thought high for a calf not a year old, he consulted Colling about it, and thought he detected a feeling of approval in Mr. Colling's language expressed. On the next morning he made the bargain, and had scarcely done so before he arrived for the same purpose; and as the two rode home together they agreed that it should be speculation. This arrangement, however, was to have lasted long for we find that the property of Mr. C. Colling, only a few months after, are different opinions, some maintaining that a true specimen of the Teeswater breed, alleging that she was a cross (not the first events not far removed between the Teeswater and the West Highland Kybe breed. The testimony we have against the latter assumption, statement made by Mr. J. H. Hunter, a well known breeder of Short-horns, who says, "I never saw the cow with my father's breed, and I saw a lot of HUBBARD, there was no bull for me to have any stake in her blood, and I have lately said that she resembled my own cow, I have no reason to believe that I believe in having a mixture of blood in her." This statement having been written 10 years after the HUBBARD, we must not rely too implicitly on the retentiveness of Mr. Hunter's memory as evidence against the Kybe element and the doubt may exist at that point there is no doubt about the cross which Mr. Charles Colling made some years afterwards, with the Pure bred.

Having been fortunate, whether by accident or in profane and unskillful, very superior quality of character, he had the good sense to make the good thing what he had, for we find that he exclusively from the same tribe and breed, with any of the females for breeding purposes, at the time of his sale in 1840. It seems quite remarkable that the same man who bought the calf which was the nucleus of the Teeswater breed, should have purchased a herd of animals which resembled the Teeswater breed in 1840, at a price of 1000 guineas for 7117 1/2 lb, being an average of 1000 lb. Mr. Colling had many very good specimens, yet there is no doubt it was a cross, and the grand advertisement of the bull, Teeswater, had the effect of calling the attention of the gentlemen in all parts of the country to the breed, and its adoption for we find that Colling's sale and other sales afterwards the Teeswater was not only sold extensively, as at his sale, to the counties of Durham and York, but purchasers from many other parts of the country. A great deal might be said of several other breeders, who were not only competitors with Mr. Colling, but I have thought it better to refer to their names from their own remarks, in so exclusive a form, and more so, as it is not the present day to be able to trace the pedigree of animals back to Messrs. Colling's blood, he is a fortunate man who can do so.

broken link in the descent.

Having thus briefly reviewed the progress of the Teeswater pure Short-horns, we now have an important era in their history—the establishment of Messrs. H. B. Back, who, on the basis of the Teeswater, and some other pure bred animals, first appeared in the country, which showed how much the improved breed at that date spread over the country, having entered the Teeswater during the 11 years only two more years ago, and in a proper standard of quality, and for entry in a true register of the pure Short-horns, only three or four crosses of the blood were admitted, whilst, on the other hand, it was understood that a fixed number of crosses should be so that the breed, if it is to be pure, should be diffused more rapidly throughout the country, manifest that had the descent been

Still, there was no more important member of the family than the wife of the happy husband, and his home comfortable and cheerful. Such a witness of a happy home is a rare sight in the world.

Some would have had more of the very wheat flour, which cost more than a dollar, and was not so nutritious. Others thought too much nourishing thing was better than which there was no greater mistake for beer or stout. They gave a trial to the system. They started a small brewery for the strength for a time, and it was a success. They had a good deal of business, and they were well off. They had a good deal of business, and they were well off.

tenant-fair and when money was wanted... He was glad to observe the... entered into details, and brought to... upon the qualities... He was glad to observe the... entered into details, and brought to... upon the qualities... He was glad to observe the...

the money to pay the law... when money was wanted... he had...

Reviews.

From the extract the following passages... usually grown in this country. How... being out for forage and to house or stable, or mown for... better after a Clover crop cut and...

Mr. Hunt... the money to pay the law... when money was wanted... he had... the Rothamsted farm, the average produce of...

As the... Mr. Hunt responded to the "Health of the Judges,"... the Rothamsted farm, the average produce of...

the Rothamsted farm, the average produce of... the Rothamsted farm, the average produce of...

KNAP HILL NURSERY, WOKING, SURREY.

ANTHONY WATERER

DESS TO SUBMIT THE

FOLLOWING LIST to the NOTICE of INTENDING PLANTERS EVERYTHING IS WELL GROWN AND FINELY ROOTED.

In proof of which he gives the date of their last removal

- ABIES ORIENTALIS, 5, 6, 7, and 8 feet, 10s. 6d. to 21s. each.
ALBERTUS, 5 to 9 feet, 30s. to 60s. per dozen, moved April, 1868.
DOUGLASSII, 5, 6, 7, and 8 feet, 5s. to 10s. 6d. each, moved August, 1868.
CANADENSIS, 4, 5, 6, 7 feet high, 1s. to 31s. per dozen.
PUMILA } Hundreds of these dwarf varieties of the
PYGMAEA } common Spruce Fir, many are 30 and
CLANBRASSILIANA } 30 years old
GREGORII }
EXCELSA.—The Common Spruce, 5, 6, and 7 feet high
7 to 10 feet round, moved April, 1868, 21s. to 30s. per dozen.
PICEA NOBILIS, 4, 5, 7, 8, and 10 feet high, 8 and 15 feet in circumference, 4s. to 11s. each. Hundreds of magnificent plants of the best quality variety. None are grafted, and all moved since March, 1868.
NORDMANNIANA, beautiful seedling plants, 1 1/2 to 2 feet, 3s. and 4s. per dozen.
3, 4, 5, 6, and 8 feet, 10s. 6d. to 105s. each.
Splendid trees, moved August, 1868, 10 and 15 feet high, 15 to 20 feet in circumference, 7 guineas each and upwards.
MAGNIFICA or NOBILIS ROBUSTA, 2 feet, 15s. each.
3 1/2 to 3 feet, 6 feet in circumference, 21s. to 31s. 6d. each.
3, 4, and 6 feet, 3 s 6d to 10s. each and upwards. Mr. Waterer has hundreds of this handsome Fir, all seedlings.
LASIOCARPA, 3 to 2 1/2 feet, 9s. per dozen.
3 to 4 feet high, 8 and 9 feet in circumference, 9s. and 11s. 6d. each.
5, 6, 7, and 8 feet high, 10 and 12 feet in circumference, 4s. and 5s. each.
PANSY, 3, 4, and 5 feet high, 10 to 11 feet, 7s. to 10s. each.
7, 8, and 10 feet high, 10 to 12 feet, 10s. to 12s. each.
FINSA NITIDA, moved April, 1868, 1 1/2 to 2 feet, 3s. per dozen.
ARIZONICA, moved April, 1868, 2 1/2 to 3 feet, 3s. per dozen.
CEMBRA, 8 to 10 feet, 10 and 12 feet round, moved 1865, 10s. 6d. to 21s. each.
CEDRUS ATLANTICA, 6 to 6 feet, 4s. to 6s. per dozen, moved 1868.
2 to 6 feet, 4s. per dozen, moved 1868.
5 to 10 feet, 7s. 6d. to 11s. 6d. each, moved 1868.
DEODARA, 4 to 6 feet, 4s. to 6s. per dozen.
7 to 8 feet, 8s. per dozen.
9 to 12 feet, 12s. per dozen and upwards. Some thousands of these large Cedars, the majority moved since Jan., 1865.
LIBANI, moved April, 1868, 5, 6, 7, and 10 feet, 5s. to 21s. each.
CUPRESSUS LAWSONIANA, 4 to 6 feet, 3s. per dozen.
6 to 6 feet, 4s. to 7 to 8 feet, 6s.
9 to 10 feet, 7s. 6d. to 10s. 6d. each.
12 to 15 feet high, and as much round, 11s. to 61s. each.
We have thousands of these large Lawsoniana, from 5 to 15 feet high, the majority moved in 1865.
JUNIPERUS CHINENSIS, 4 to 5 feet, 3s. and 4s. per dozen, 6 to 7 feet, 6s. to 8s. per dozen, 8 and 9 feet, and as much round, 2 s each, 10 to 12 feet, 3s. to 10s. 15 to 20 feet in circumference, 4s. to 10s. each and upwards. We have several thousands of this fine Juniper, 4 feet and upwards, the majority moved in 1865.
JUNIPERUS VIRGINIANA (Red Cedar), 4, 5, 6, and 7 feet, moved August, 1868, 1s.4 to 4s. per dozen.
YEW, ENGLISH.—Many thousands, 4, 5, 6, 7, 8, 10, 12 and 15 feet high, nearly all of which have been moved within 12 months.
IRISH.—Handsome plants, 7 to 8 and 10 feet, 7s. 6d. to 10s. 6d. each, and upwards.
GOLDEN and ELEGANTISSIMA. Hundreds of fine plants, on their own bottoms and worked, from 3 to 6 and 8 feet high. Many of these plants are 30 years old; all have been recently removed.
TILIA AUREA.—This plant originated at this Nursery. We have large numbers of fine specimens, 3, 4, 5, and 6 feet high, 8, 10, and 15 feet round.
G. ANTEA.—Splendid plants, moved August, 1868, 10 to 11 feet high, 4s. to 6s. and upwards each.
LOBBII, 6 to 7 feet, and as much round, 5s. to 7s. 6d. each. 10 to 14 feet, do. do., 21s. to 52s. each. All moved in 1868.

- THUJOPSIS BOREALIS, 6 to 8 feet, 81s. per dozen. Do. do., 7 to 9 feet, 10 and 12 feet in circumference, 10s. 6d. and upwards. Moved in 1868.
WELLINGTONIA GIGANTEA, 4 to 5 feet, 7s. 6d. to 10s. 6d. Do. do., 6, 7, 8, and 9 feet, 11s. to 61s. each. All moved August, 1868.
HOLLIES, GREEN, COMMON.—Stout, finely rooted plants, 18s. per dozen, 4s. per 1. Many thousands, 4, 5, 6, and 7 feet high, 30s. to 51s. per dozen and upwards. A number of splendid plants, 10 to 15 feet high, 1 and 2 feet round. All moved April, 1868.
SCOTTICA, } Trees of the finest hardy English
LAURIFOLIA, } known. Thousands of beautiful plants,
MYRTIFOLIA, } 3, 4, and 5 feet high, 7s. 6d. to 10s. 6d. each.
HODGINS HOLLY, 4, 5, and 6 feet.
GOLDEN QUEEN.—Thousands of large plants, 10 to 15 feet high, and as much round.
WATERER'S.—This variety originated here as a result of them by hundreds, 3, 4, and 5 feet high, 8 to 15 feet in circumference—the admiration of everybody who has seen them. There are many of them 20 and 30 years old, and are constantly and recently renewed.
SILVER QUEEN, 3, 4, and 5 feet high.
STANDARD, WATERER'S.—A large number of fine plants, 10 to 15 feet high, 1 and 2 feet round.
HOLLIES, 6 to 8 feet stems, with heads 8 to 12 feet high, very handsome.
STANDARD WEEPING HOLLIES.—Some of the best plants in the Kingdom, with a fine, and on their own roots. One, probably the finest of the kind in any Nursery, is 15 feet high, 20 inches in circumference, perfectly straight, with a magnificent head covered with berries. The plant was moved August, 1868.
VARIEGATED, of the ordinary kinds. A stock of one thousand, from 3 to 5 feet high, 1 and 2 feet round, in condition to be desired. The prices are 1s. 6d. and 2s. 6d.
BOX (GREEN and VARIEGATED), 4 to 7, and 8 feet high, 1 to 6s. each, and upwards.
PYRAMIDS, 1 to 5 feet, 1s. to 5s. each.
BAYS, STANDARDS, } from 3 to 15 feet high, and
PYRAMIDS, }
LAURUSTICUM STANDARDS, 4 to 6 feet, 1s. to 5s. each.
LAURELS, PORTUGAL, 4 and 5 feet high, 1s. to 5s. each.
RHODODENDRONS.—A large number of the finest kinds, 10 to 15 feet high, 1 and 2 feet round, in condition to be desired. The prices are 1s. 6d. and 2s. 6d.
STANDARDS.—A large number of the finest kinds, 10 to 15 feet high, 1 and 2 feet round, in condition to be desired. The prices are 1s. 6d. and 2s. 6d.
SEEDLING varieties, varying in height from 1 to 15 feet, and in diameter from 1 to 2 inches.
DWARF varieties, several kinds, 2 to 2 1/2 feet high.
ODORATUM, } Nice bloom.
GOVERNANCE, } 12s. and 15s. per dozen.
PONTICUM, for cover, good plants, 27 s per dozen.
The Exhibitions of Rhododendrons in the last year, and that they are supplied from Knapp Hill.
AZALEAS.—A large number of the finest kinds, 10 to 15 feet high, 1 and 2 feet round, in condition to be desired. The prices are 1s. 6d. and 2s. 6d.
KALMIA LATIFOLIA.—Nice blooming plants, 12 and 15 feet high, 1 and 2 feet round, in condition to be desired. The prices are 1s. 6d. and 2s. 6d.
ERICA HERBACEA CARNEA.—The prettiest of the flowering Heaths; fine plants, 12 to 15 feet high, 1 and 2 feet round, in condition to be desired. The prices are 1s. 6d. and 2s. 6d.
DAPHNE CNEORUM MAJUS.—A grand specimen of the variety; fine plants, 12s. per dozen.
AUCUBA JAPONICA, up to 3 feet; thousands.

THE FOLLOWING ORNAMENTAL TREES, OF LARGE SIZE,

Are well grown and well rooted, and stout.

- PLANES, ORIENTAL and OCCIDENTAL, 10 to 15 feet high.
SYCAMORE, 10 to 14 feet.
WEEPING BIRCH, 6 to 12 feet.
MOUNTAIN ASH, 8 to 10 feet.
HORSE-CHESTNUTS, COMMON, 10 to 12 feet.
SCARLET HORSE-CHESTNUTS, very fine flowering Trees, 10 years, worked.
BEECH, WEEPING, 7 to 15 years, worked.

- BEECH, PURPLE, 8 to 15 feet high.
DECIDUOUS CYPRESS, 8 to 12 feet.
NORWAY MAPLES, 8 to 12 feet.
LOMBARDY POPLARS, 10 to 12 feet.
THORNS, fine Standards, of the most ornamental kind.
ASH, Gold-barked, Flowering and other varieties, fine Standards, 8 to 10 feet.
LINES, 10 to 12 feet.

As well as the above-mentioned articles, at Knapp Hill will be found one or perhaps the most extensive Stock of all the better kinds of HARDY EVERGREENS, DECIDUOUS and FLOWERING ORNAMENTAL TREES and SHRUBS.

A PRICED AND DESCRIPTIVE CATALOGUE

Will be forwarded on application.

Purchasers are respectfully invited to inspect the Plants growing in the Nursery.

No Catalogue can adequately represent such a Stock.

The Nursery is readily reached by Train from Waterloo to Woking Station, where conveyances may at all times be depended on.

The Railways now take Goods at through rates to almost any Station, thus doing away with the expense of packages.

ANTHONY WATERER, KNAP HILL NURSERY, WOKING, SURREY.

put thus—How much higher would this or that embankment (as the case may be) require to be made to prevent flooding? And as rivers have generally an embankment on each side, the raising of one involves the raising of the other, and so on. Again, there are narrow places where both embankments may require to be set back; so that every individual case needs to be seen in its own light in order to determine what should be done. Now, we repeat, the present time is highly favourable for landowners, tenants, and all interested investigating this important branch of drainage.

Vegetation continues to be more than usually interesting. Thus the land and the weather are in favour of filling up blanks in Wheat, either by transplanting or dibbling in seed, and where such works have not been concluded, as will be the case in late districts, they should now be prosecuted. Extremely mild as the season has been, the work of checking vegetation, and the problem how best to do it, is not engrossing more than an average attention, generally speaking. As to young Grasses, water meadows, sewage meadows, and early forage crops of every kind, it may not inaptly be said the season is a month ahead of the average. At all events the progress of vegetation merits special notice, for in several places the scythe is in active operation, and in early seasons like this it is better to begin in time, as the Grass and forced forage plants of every kind are liable to etiolate and suffer injury at the root. "Mow early and often" is the safe rule to avoid harm, and at the same time to secure the greatest amount of produce. W. B.

Notices to Correspondents.

ASSIZE OF BREAD, 1739: Mr J Richards, of Exeter, in a second part or Supplement to his "Gentleman's Steward," instructed, published in London, 1739, in a note speaking of 200 years before that time, says "A penny loaf formerly bread for a week, is now scarce sufficient for a day." In London, in 1739, by the assize of bread, the price of a quarter peck loaf of 4 lb 5 oz, was fixed at 6d; vide "Middleton's Survey of Middlesex." But will some of our West country correspondents kindly tell us what were, at Exeter, in 1739, the price of the quarter peck loaf, and the weight of bread off as fixed by the magistrates there?

W. B. GARDNER, Amateur. We do not know of any book of the kind in the British Museum. Extracts from the "Gentleman's Steward" might be used for your purpose. Apply to Mr. Abbott, Agricultural Library, 20, Fleet Street.

Soot 1/5 Year analysis is certainly a mistake. The line, "salts of ammonia, 425," should probably be read, "organic matter containing salts of ammonia." Dr. Voelcker's analysis gives 471 of organic matter in 1000, containing, however, only 13 of ammonia.

TORNADO FOR BECK POULTRY: J. N. Colchester. Next week.

TURNIP FIELD. Querist says—"We have a Turnip field which we expect would have been cleared of roots before the end of the present month, so as to admit of seeding the land with spring Wheat. The ground will not, however, be entirely cleared of its present crop before the end of March. Will it then be too late to sow Wheat?" [Not too late for "April" Wheat.] He adds—"We have a field ploughed from Grass in the beginning of January from which we had intended to take a crop of Oats. Should the Turnip field be cleared for Wheat, would you advise to crop the latter with Wheat instead of Oats, taking Oats after the Turnip crop?" [It is a very good plan, and in low condition. We intend to advise you for sowing for both Oats and Wheat. You will find a note of it in our issue of 10th inst. We would rather advise Potatoes, which will probably answer very well under the circumstances you describe.]

WATFORD SEWAGE FARM. Amateur. Thanks; we believe that the statement truly represents the fact, but it ignores the other fact, that it is only by the application of large quantities of sewage quantities too large to be squirted through pipe and hose by steam power, as at Watford—that the great results of sewage in soil can be obtained.

YARD AND BARN MANURE. F. T. says, "We have a large quantity of yard manure made in boxes, should you advise throwing it out into a heap to be trodden down, or carting it as it is into a heap in the field, leaving the sides with a bank in order to keep the winds out, and turning it about a fortnight before using? It seems to me that this last would be the wiser plan, as in the former case the rains in the uncovered yards would wash away a great many of the good properties of the manure." [When questions of this kind are asked, the crop for which the manure is intended, and the time when it will be used, should be mentioned, also the quality of the soil to which it will be applied. As regards the manure itself, it would decidedly be better to heap the manure than to spread it in a yard. As it was made in boxes, we conclude it contains a large portion of droppings to the quantity of straw used in heaping it, therefore, the more it is trodden down by horses and wheels, by its being drawn up load upon load, the better. For manure so charged with ammoniacal salts will ferment quite rapidly enough for rotting when so compressed, and there will be very little loss by the dissipation of gases from over-heating. It may happen, however, that a stirring will be desirable, as the crop to which it may be applied may require nursing when young and the manure therefore ought to be as short, or as nearly in a soluble condition, as possible. More direct loss would necessarily accrue from this plan, but then if the crop to which it is applied be Turnips, Mangel, Beet, or other green crop, it might be far more benefited by having its young leaves forced for collecting food, than would be the value of the additional loss of quantity and weight by the greater fermentation and the longer or more rapid process of decomposition. The plan in Norfolk and other Turnip counties, where much of their manure is now applied for Beans, Peas, or Wheat or to Clover, is to empty their yards and sheds in April, May, and June, heap and tread the manure down, as above advised, cover top and sides with soil or ashes, and turn it merely for the purpose of mixing a few days before its application. But then it is used some months before the crop which will have it to feed on begins to grow fast enough to require much food. It will also have to lie in the soil through the winter, therefore does not need to be at once in a soluble condition. It may be right to apply manures to clay or loamy soils four or six months before the next crop requires its influence, but it is not right to do this on light soils. The Norfolk men find that Turnips fed off light land before Christmas are less fertilizing to the soil for the next crop of Barley by quite two cwt. of Peruvian guano. Our correspondent will probably be able to apply these data to his own case.]

COMMUNICATIONS RECEIVED.—T. B. S.—E. West.—An Irish Landlord.

February 20, 1869

Full-grown Evergreens. HENRY GONFREY, Nurseryman, Stourbridge, has the following Evergreens to offer...

- Large Evergreens and Forest Trees. JAMES AND SON have a large quantity of the following trees...

Fruit Trees, Nursery Stock, Roses. JAMES AND SON, Nurseryman, Clenny lez Seca, x. offers for the present season a very large quantity...

The American Nursery, Bagshot, Surrey. WALTER WATERER respectfully invites the attention of gardeners and others engaged in planting...

FIFTY THOUSAND ASH to be SOLD, 2 to 3 feet, transplanted, and well rooted. Apply to Mr G. C. WHEELER, M. D.hurst, Sussex.

WANTED to PURCHASE, one or two PLANTS, from 4 to 8 feet high. Address with particulars and price, to J. C. WHEELER & SON, Old Broad Street, E.C.

THEOS CRIPPS AND SON beg to announce they still hold a good stock of the following plants...

J. C. WHEELER AND SON.

WHEELER'S GUINEA COLLECTION OF GARDEN SEEDS comprises the finest varieties in cultivation... WHEELER'S TOM THUMB LETTUCE is a wonderful favourite with my family and friends...

New and Choice Vegetable and Flower Seeds.

STUART AND MEIN, NURSERYMEN AND SEEDSMEN, Kelso, N.B. beg to offer the following selected from their GENERAL SEED CATALOGUE for 1869...

BOX EDGING and COMMON LAURELS. 2000 yards of DWARF BOX EDGING, and 6000 LAURELS, of various sizes, in capital condition for removal...

JOHNSON'S PROLIFIC WHITE KIDNEY POTATO. A few tons of this excellent sort grown in Cornwall are offered at 10s per cwt...

EARLY CORNISH BROCCOLI. During the past fortnight there has been a good supply of Broccoli sent to Covent Garden Market...

CHOICE NEW SEEDS

Trade Price on application. PURE WHITE, No. 1 (No. 2 & 3). Heads very large, Conical, pure white, self-protection, extremely hardy...

EVERY'S NONSUCH LETTUCE. The best Summer variety in cultivation; will stand a month longer than any other kind without running to seed...

RICHARD WALKER has to offer the finest sort of ROUND POTATO (AMERICAN RED) - It boils as white as snow, and is the best of the country...

Seed Potatoes. PATTERSON'S VICTORIA, the best of all Patterson's varieties, 2s per ton, bags included.

GEORGE SIBBALD, Drumgeath, by Dundee, N.B. has for sale a large stock of his own growing, of the following kinds of POTATOES...

ELLETSON'S SURPRISE, new, large, late WHITE PROTECTING BROCCOLI - The best late Cauliflower Broccoli extant, price 2s. 6d. per packet.

HOOLEY'S CONQUEROR PRIZE CELERY. Gained Five First Prizes in 1863, competing against 129 Exhibitors, and Four First Prizes in 1867...

LEE'S GIANT ORACH or SUMMER SPINACH. Has, during the late parching summer, fully maintained our description of its productiveness...

SUTTONS' CLEAN CLOVER SEEDS. RED WHITE, ALFAKE, FREPOH, COW GRASS, WHITE SICKLING. Samples and lowest prices on application.

SHELL GRAVEL for London Gardens, Conservatories, and Terraces, clean, dry, and neat in appearance...

LAWES' MANURE for GRASS LANDS should be applied during the months of February and March...

LAWES' MANURES are now ready for delivery for the present season, 1900.

These Manures can be obtained of Mr. Lawes & Co. through the appropriate Agents at various parts of the United Kingdom...

THE LONDON MANURE COMPANY

Have now ready for delivery, in fine condition, CORN MANURE for Spring Use, DISSOLVED BONES for Dressing Pasture Lands...

ODAM'S NITROPHOSPHATE for COGNAC, OAM'S NITROPHOSPHATE for ROOTS, OAM'S DISSOLVED BONES, OAM'S SUPERPHOSPHATE of LIME...

THE PATENT NITROPHOSPHATE or BLOOD MANURE COMPANY LIMITED

Chief Office—100, Fenchurch Street, London. Western Office—1, Fenchurch Street, Fenchurch Street, London. Irish Branch—10, Westmoreland Street, Dublin.

THE TENANT FARMER'S MANURE COMPANY. Its Members are Cultivators of upwards of 50,000 Acres of Land...

Particulars will be forwarded on application to the Secretary; or may be had of the Local Agents.

Chief Office—100, Fenchurch Street, London, E.C.

ROLL TOBACCO PAPER, finest quality, equal in strength to Yocco, 1s. per lb; cheaper in quantities.

To Nurserymen and Florists. H. PERKINS, 1, City Road, Hackney Road, London.

The Cheapest and Best Insecticide. DUTY FREE TOBACCO. By HER Majesty's ROYAL LETTERS PATENT, AND BY PERMISSION OF THE HON. BOARD OF CUSTOMS.

POOLEY'S TOBACCO POWDER for the Prevention and Destruction of Blight and other Diseases in Plants.

Used by many of the leading Gardeners since 1859, against Red Spider, Mildew, Thrips, Green Fly, and other Blights...

Clarke's Insect-Destroying Compound. A Discovery made solely for private use, now offered to the Public...

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Tobacco Tissue. FOR DESTROYING RED SPIDER, MEALY-BUG, GREEN and BLACK FLY, without the aid of a... Tobacco Tissue has been before the Public for the last three years...

To be had of MESSRS. ROBERTS AND SONS, Tobacco Manufacturers, 112, St. John Street, Clerkenwell, E.C., of whom Samples and Testimonials may be obtained; and of all Seedsmen and Nurseries.

By Royal Appointment. To HER Majesty, by Special Warrant, dated December, 1898. To the PRINCE OF WALES, by Special Warrant, dated February 10, 1899.

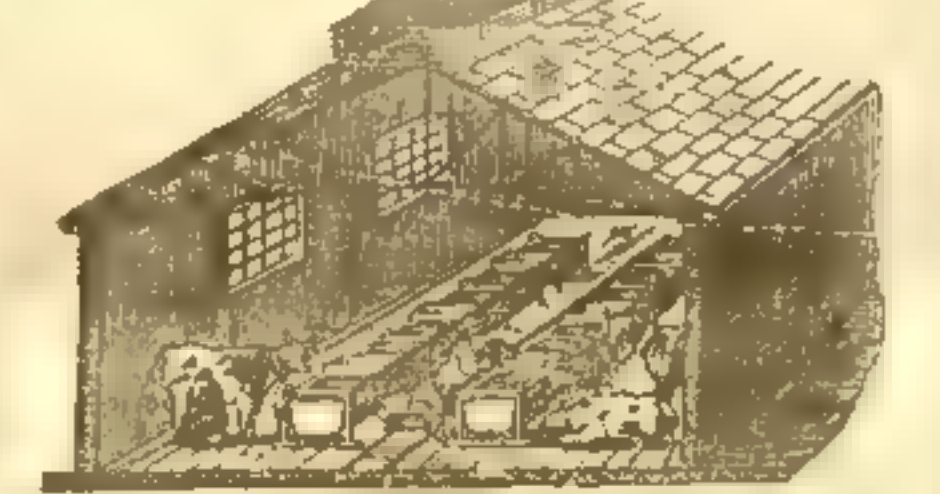
DAY, SON, AND HEWITT. Original and Sole Proprietors of the STOCKFEDDERS' MEDICINE for HORSES, CATTLE, CALVES, SHEEP and LAMBS.

No. 1 MEDICINE CHEST. Contains sixteen different kinds of Compounds, admirably arranged, with Complete Guide to Veterinary Practice.

Every Stockowner should be supplied with a set of this medicine, for the treatment of all diseases of the horse, cow, sheep, and pig.

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COTTAM'S PATENT PORTABLE UNITED COW FITTING.



For Prospectuses and Testimonials apply at the Office, 20, BEDFORD STREET, COVENT GARDEN, where the Cows are on view and in operation. T. M. EVANS, Manager Engineering Works, MESSRS. J. W. GIRDLESTONE, 37, Norfolk Street, Strand, W.C., where they may be consulted with reference to the MOULE'S PATENT SYSTEM for WARMING CHURCHES, SCHOOLS, &c.

Dublin Depot, 9, UPPER ABBEY STREET, DUBLIN.

MOULE'S PATENT EARTH SYSTEM.

VALUE OF THE MANURE.

Mr. James, of Hatton, has furnished the following particulars. He says: "Mr. J. had a garden, who had 3 1/2 acres of land to which an adjoining path, has a good earth passed once through the soil to a Turnip crop, and has produced some of the finest roots I ever saw, although it was very dry, and not as it should have been, by drill. He has no hesitation in stating its value at 23 per ton. Mr. Gampel, who holds land to the same extent, has arrived, by an independent trial, and in conclusion, at the same conclusion."

Mr. HAYES, of Fordington, Dorchester, writes:—"I used some earth that had passed twice through the earth-closets in the day school of this parish on a piece of Rape of about 3 1/2 acres. The land had, the previous season, borne a crop of Mangolds, the whole of which was drawn and consumed at home. The Rape was sown on the 8th April, and 1 ton of the earth, costing 80s., was drilled with the seed. In June, 2 owt. of Bell's guano was sown broadcast over the whole piece, which was harvested in the autumn. The reason for my applying the guano was, because the soil had been changed. The Rape was a good one, and the soil was dry and hot. In the autumn, the Rape was cut and the soil used, the earth should have drilled with the guano, and cost 12s."

Mr. HENRY TAYLOR, Manufacturer of Agricultural Implements at Lechlade, who is a manure dealer, writes:—"I have supplied the earth for the closets and for use of the Lechlade School. The contents of the tanks are removed by 120 gallons monthly. He has tried the manure so manufactured on his crops, and he has informed us that he considers the best crops, after one use of the earth, to be worth 20s. to 22s. to 23s. per ton. He has tried the repeated use of the earth, and he considers the value of the manure to be 20s. to 22s. to 23s. per ton."

For Prospectuses and Testimonials apply at the Office, 20, BEDFORD STREET, COVENT GARDEN, where the Cows are on view and in operation. T. M. EVANS, Manager Engineering Works, MESSRS. J. W. GIRDLESTONE, 37, Norfolk Street, Strand, W.C., where they may be consulted with reference to the MOULE'S PATENT SYSTEM for WARMING CHURCHES, SCHOOLS, &c.

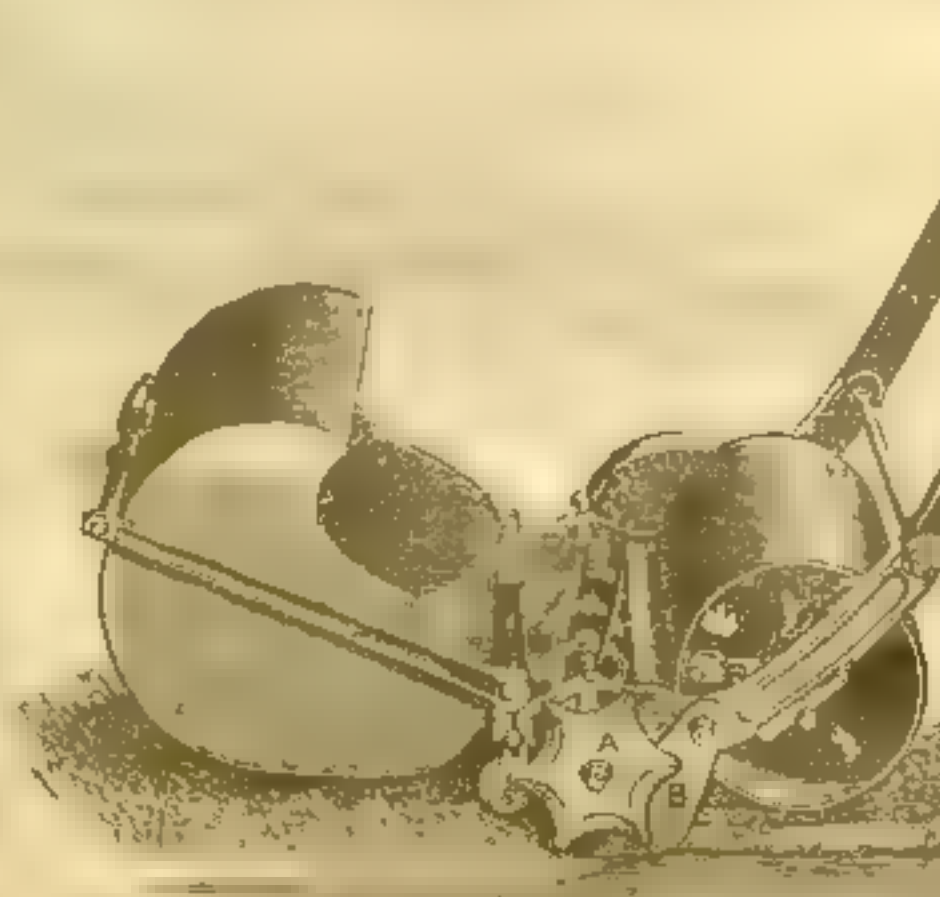
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NEWLY PATENTED EDGE-CLIPPING SILENT LAWN MOWER

THE MOST IMPORTANT IMPROVEMENT EVER INTRODUCED.



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IMPORTANT - A FABRIC for the Sewing of... application. - Address, JAMES HAYES & SONS, Hatfield, Herts.

Iron Cisterns. FRABY AND CO. having... GALVANISED or PAINTED, of superior quality, and at very short notice.



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ORNAMENTAL PAVING TILES for Conservatories, Corridors, Balconies, &c., as also... FRABY & CO., 1, Fenchurch Street, London, E.C.

WHITE GLAZED TILES, for Lining Walls of Dairies, Kitchens, Ranges, &c., &c., and other... FRABY & CO., 1, Fenchurch Street, London, E.C.

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The Hurdle... conveys water for watering... Jet, and Rose, 12s. 6d., No 2, 16s. 6d., No 3, 21s., No 4, 27s. 6d.

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Carries off the heat... Cooks Smoky Chimneys... Has a large Chimney... Is made of cast-iron... Is the best for... Is the best for...

MUSGRAVE'S PATENT SLOW COMBUSTION STOVE

This Stove is the nearest approach to heat by hot-water... It will burn day and night for weeks with little care...

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John Throston, 15, Langham Place, London. FOR SALE, by Private Contract, DUKE of SUTHERLAND...

To Market Gardeners and Others

WANTED, to hire, a TONNE of good GARDEN LAND, to be used as a Trial Ground... NURSERY to let, near London...

To be let, a KITCHEN GARDEN

To be let, a KITCHEN GARDEN, to be let, in extent... To be let, a KITCHEN GARDEN, to be let, in extent...

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205, King Street, and Albion Road, Hammersmith... MR JAMES H. GREEN is instructed by Mr. James Smith to sell by AUCTION...

Seedling Gladioli, Carnations Picotees, and Pinks

MR J. C. STEVENS, W. SELL by AUCTION, at 11, Great Marlborough Street, Covent Garden, W.C.

Roses from France, and Hardy Plants from Holland... MR J. C. STEVENS, W. SELL by AUCTION...

Important Sale of Orchids... MR J. C. STEVENS, W. SELL by AUCTION...

Annual Sale of Handsome English-grown Camellias... MESSRS PROTHERO & WORKS, W. SELL...

Claremont Gardens, Esher... MR NIGBING and MESSRS PROTHERO & WORKS...

Bury St. Edmund's... IMPORTANT TO GENTLEMEN, NURSERYMEN, GARDENERS, &c. TWO DAYS SALE OF NURSERY STOCK...

Edmorton, near Chippenham... IMPORTANT SALE OF SHORTHORNED CATTLE... MR SHARFORD begs to announce that he has received instructions...

Extensive Sale of Conifers and other Rare Trees and Shrubs... MR GEORGE KOWNLEE, AUCTIONEER...

At Beistane in the Parish of Birknew... MR GEORGE KOWNLEE, AUCTIONEER... Catalogues containing full particulars are now ready...

ALL the Machinery to the late Snyors'... HAYNES & SONS, 227, 229, and 231, EDGWARE ROAD, LONDON, W.

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APPLIANCE MANUFACTURERS, for HAYNES & SONS... HAYNES & SONS, 227, 229, and 231, EDGWARE ROAD, LONDON, W.

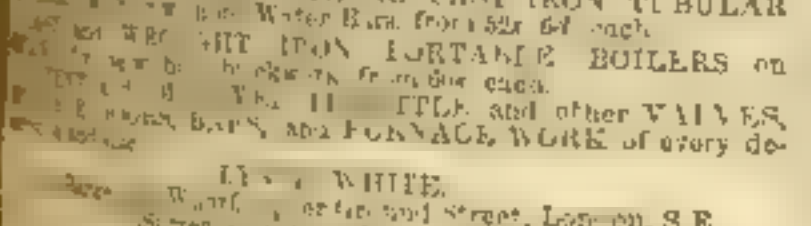
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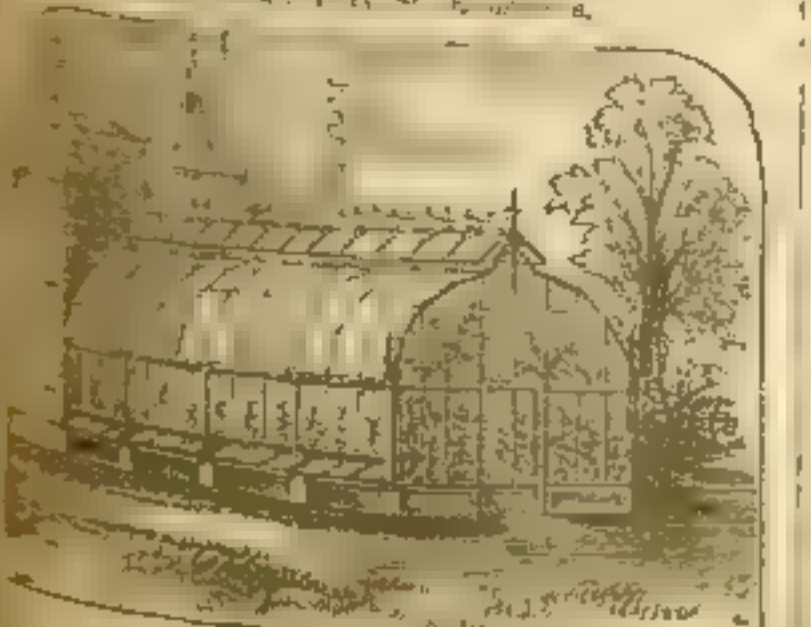
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Complete of the Material is supplied for Heating GREENHOUSES, HOTHOUSES, CONSERVATORIES, &c.



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ROYAL WINTER GARDEN, Dublin.
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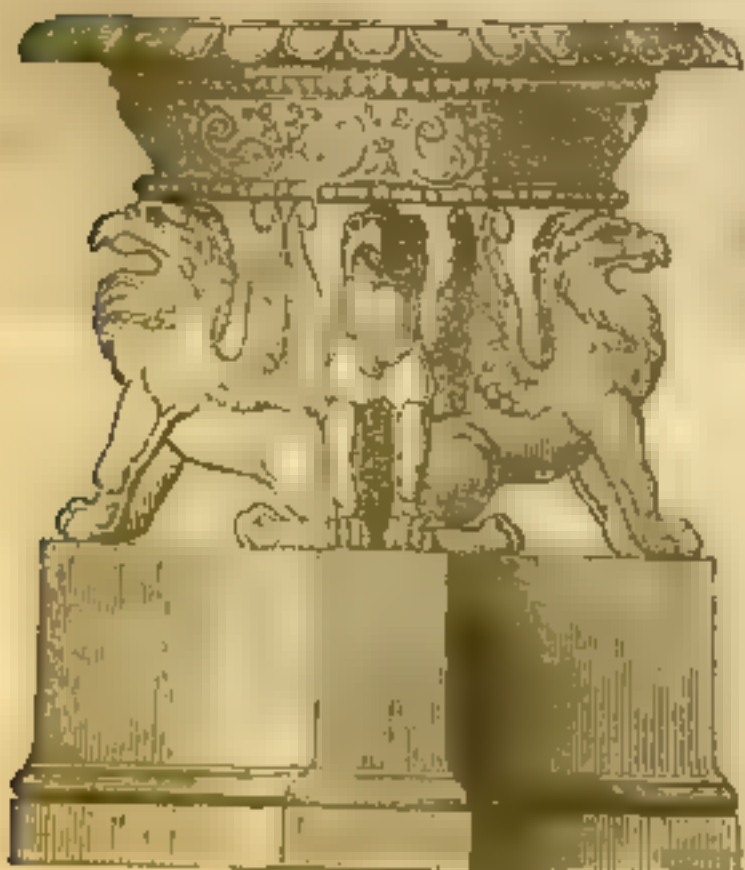
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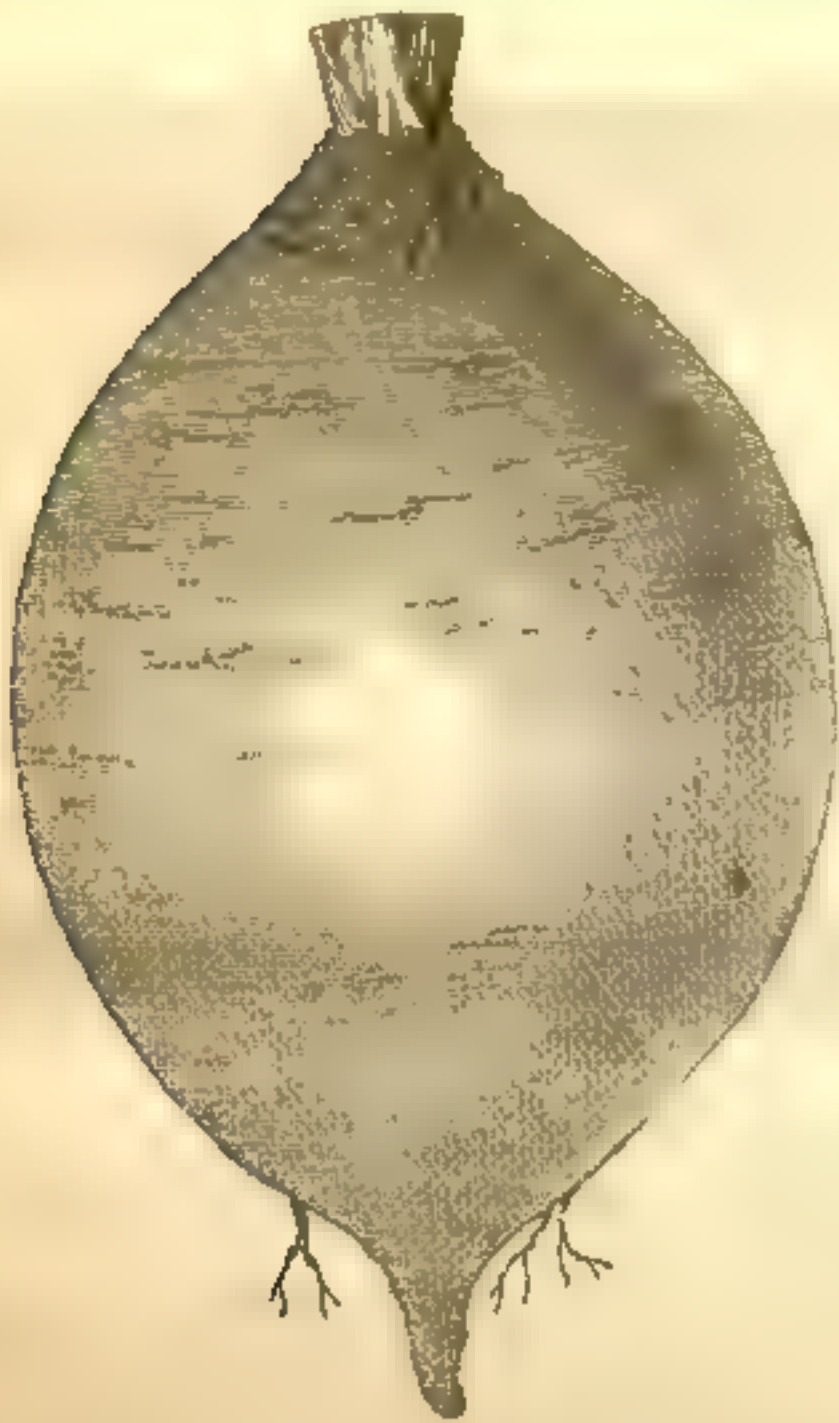
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The Gardeners' Chronicle.

SATURDAY, FEBRUARY 27, 1869.

MEETINGS FOR THE ENSUING WEEK: Monday, Feb. 22, 7 PM; Tuesday, Feb. 23, 11 AM; Wednesday, Feb. 24, 8 PM.

WE, of course, hold that all gardeners should be reading men, reading being one of the great HELPS TO PROGRESS which the present age has brought very near to us all. With the advantages now enjoyed in this respect by almost every one who cares to avail himself thereof, we ought to see an immense improvement in the intellectual condition of the various classes of society, improvement of a far more solid and decided character than is very generally apparent.

To the gardening fraternity the Horticultural Press affords one of the readiest and most useful means of obtaining instruction and improvement, but whilst the mind is often craving, the pocket is as often stubborn.

RICHARD SMITH, SEEDS AND SEED MERCHANT, WORCESTER.

with Martius as co-editor. At first the work progressed slowly, on account of the novelty and costliness of the undertaking, but since the year 1850, in consequence of the increased interest taken in it by the Prussian Government, it has proceeded much faster, and has now reached the 10th part. The completion, which Martius so longed to see, has been entrusted to other hands (those of Dr Eichler). It was one of Martius' last cares to take the necessary steps to ensure its continuance, in pursuance of which we may reasonably hope to see this noble monument of German industry brought to a close. Even now the parts that have appeared form the most comprehensive work in botanical literature yet published. Nearly 10,000 species are described, and these are illustrated by more than 1100 plates. It is evident that the editing and publication alone of so enormous a mass of matter is a performance worthy of the highest acknowledgment, but Martius' share in the work was by no means limited to that portion. True, out of all the monographs published, two only were by Martius, but then he supplemented nearly all the others by valuable explanations on the geographical distribution, the medicinal, technical and economical importance of the several plants. He also contributed a series of characteristic plates representing the vegetation ("Tabula Physiognomica"), accompanied by masterly definitions, and in the most elegant Latin. He also contributed maps of the floral districts, and routes of travel, &c. Several of the monographs in the "Flora Brasiliensis" are esteemed as masterpieces, for in many cases the men who wrote them had previously devoted years of study to the respective groups. The mere enumeration of Martius' other writings would fill several columns, for there are more than 150 separate works, but it is unnecessary to dilate on them, because Martius' scientific eminence does not depend on them.

There are, however, many valuable treatises amongst them. What botanist is not familiar with his researches in the Ericaceae, Amarantaceae, Nyctagynaceae, Erythroxyleae, &c. They afford evidence at once of the extraordinary versatility and observation of the writer, to whom no branch of botany was unknown. Nevertheless many of them have already accomplished their service to science, and are now out of date. But the larger works will endure, and centuries hence will be consulted and esteemed, just as we now keep and use the works of a Sowerby, a Jacquin, or a Rheede, &c.

Martius was not only a botanist in the widest acceptation of the word, he was also a general naturalist. He worked with the industry of the bee, collecting and utilising every fact and scrap of information possible, and remained to the end an ardent lover of classic literature, delivering Latin lectures to the last.

Reverting to the main facts of Martius' life, we left him in 1820, just after his return from Brazil, when he was nominated ordinary member of the Academy, and second conservator of the Botanic Garden. For some years his position remained unchanged. When, however, in 1826, King Ludwig I. ascended the throne, and the University of Landshut was removed to Munich, he was appointed professor of botany in that institution, and six years later, upon the retirement of the aged Schrank, he received the post of first conservator. With the exception of occasional journeys to England, France, Holland, &c., he discharged almost uninterruptedly the duties of both until 1851. When it is considered that interchange of thoughts and ideas formed a prominent feature of Martius' temperament, it will be readily understood that he was eminently qualified for a teacher, especially of science. He, who had seen and investigated the tropical flora, and assiduously cultivated the study of native plants, and had excellent examples from the British garden before his pupils, was equally at home, whether in a purely scientific and systematic botany, or in the diffusion of general principles, by means of illustrative examples.

A ready perception of the beautiful rendered his lectures no less instructive than graceful. Hosts of youths flocked to his lecture room, and as eagerly accompanied the affable and wonder-loving guide through a field and glade.

A real student's feat was the long-observed annual excursion to Linnæus' Oak, at Ebenhausen, on the Isar, about two miles and a half (German) distant from Munich, where are the steep and rapid mountain-falls of the Halden. Undeniably botany was there pursued with enthusiasm and exhilaration of spirit, and certainly without any detriment to science. More than one of Martius' pupils have become ornaments of their profession. Al. Braun, Mohr, K. Schumper, Sendtner, Spring, and others sat under him.

With a budget of only 1500 gulden (not a third of the present sum) Martius succeeded, with the assistance of the highly meritorious gardener Weinkauff, in making the botanic garden a model establishment. The garden had just been remodelled with great care, and partially replanted, when in 1854, through the erection of a glass palace for an industrial exhibition, the beautiful plan was marred. Martius, who had vainly remonstrated against this intrusion, ceased to interest himself in the garden, and his principal occupation thereafter was the publication of the "Flora Brasiliensis."

(To be Continued.)

PEAR PROTECTION

I DID not like to mix this article with the one on the protection of Peach and Nectarine trees. I see that "Pari Passu" has taken up the subject, and I can endorse every word he says. To grow first-class Pears away from walls would be labour in vain, unless they were protected from spring frosts (hoar frosts) from February till the 14th of May. Doyenné d'Alençon, a bush Pear on the Quince stock, and first-class, is now (February 23) coming into full bloom. What would become of it if not protected? I grew great crops of

culinary Pears last year on the Pear stock, on espaliers, in the open, without any protection. Some of the trees had 100, some 150 Pears, but you cannot secure first-class dessert Pears, such as Beurré Superfin, Josephine de Malines, Marie Louise, Doyenné du Commerce, and Dana's Hovey, without strong protection for many weeks. So satisfied am I of its absolute necessity, that I have just bought 80 yards of "forfar," at 1½d per yard, for the purpose. Even when Pears are set, and large as a hazel nut, they are liable to be destroyed by sharp hoar-frosts, though the frosts may not affect the Pear, they will destroy the stems, which turn yellow and then the Pear drops off! I do not doubt the truth of Mr Saul's (Stourton, York-shire) statement, namely, that he can grow Pears, Peaches, Nectarines, and such-like fruits without protection. It can be accounted for by the blooms being kept back by the climate till the danger is over. At Rushton I had a Marie Louise on a north wall, it never needed protection. The espalier towards the south wall never filled my hands till I shected it, and then I grew from 100 to 140 Pears on the tree. The warmer the climate and the warmer the position in the garden are, the greater is the danger by reason of radiation. I lost no Roses under my north wall in 1890, but I lost several under my south wall from the above reason. Some writers on this subject must be either lucky fellows or lunatics! They are not, I imagine, practical and experienced men, but theorists, metaphysicians, or mathematicians (signally deficient in Kepler's three laws, upon which astronomy is founded), who are always mistaking figures for facts!

Shakspeare uses the word metaphysical for supernatural. Well, they are supernatural "chaps," who think it beneath their lofty flights of imagination to study Nature. The French fight for "an idea," but the English go crazy on "an idea," often a French idea. "Corden Pears 1 foot from the ground. Why, the spring frosts will destroy them, and if any are left they will be demolished by the blackbirds, if the season is torrid. The birds nearly demolished my low Quince bush Pears, Beurré Bachelier and Doyenné Gris. Then we are told by these happy theorists that Pears can be grown remuneratively for the million— for the masses. Poo! the masses will expect from three to six a penny. We must not judge by the London market, where Pears sell at a high price— often fabulous, and worthy of a dessert described in the "Arabian Nights"—the dessert, shall I say, of Aladdin, or Sinbad the Sailor? So difficult are first-class Pears to be secured against spring demolitions, that, though I have had Madame Millet six years, I have never yet seen the shape of the fruit, although she blooms annually like Mr. Turner's Medestum.

The Pyramids on the Quince stock, about 5 feet 5 inches high on an average, beat the bush Pears thoroughly. They were as exposed to the south-west wind as the Eddystone Lighthouse, and had only a 14-inch board about 5 inches over their heads as a fixed protection. They cropped nobly, and drew all eyes. They were Doyenné du Commerce the best Pear of the year, and equal to Beurré Superfin, and Josephine de Malines, and Dana's Hovey, the sweetest of all Pears. It is of the Seckel, linc, and honey itself. The others were good, viz., Summer Beurré d'Armenberg, Gratio, La Sœur Gregoire, Bergamotte Hestrick, and Beurre Clairgeau. The last is very handsome. It has, however, though good in flesh and musky, three faults,—it is comma-formed (carvo-pyriform); it lacks juice and sprightliness of flavour, still you must have it. I expect from horticultural writers of the theoretical school a witty or crazy reproof—there is not much difference, for

I set wit to man's nose is so near allied,
That two partitions do their houses divide.
W. F. Rudcliffe.

SURFACE CROPPING VINE-BORDERS AT ARCHERFIELD.

AS Mr. D. T. Fish assumes that I have taught the surface cropping of Vine-borders as a correct theory, I beg to state that I am not aware that I have ever done so. But, setting this aside, Mr F writes very incorrectly of the position, material, and extent of the Vine-borders at Archerfield, and will not be surprised when I presume that, on these points at least, I am more learned than he. I will state the facts of the case, and if they do not prove instructive to any reader who may be placed, at any time, as I was when dealing with the borders in question, they may furnish Mr Fish with another topic for his fertile pen.

As is usual, a walk runs parallel with the main range of glass in which the vineries are situated at Archerfield, but in this instance the walk is much closer to the houses than is consistent with good planning; so close, as in some instances not to afford more room for outside borders than about 8 feet, and in others about 5 feet, while in some cases the Vine roots are entirely excluded from the inside border, and in others the inside borders are not more than 10 feet wide. Between the winter of 1859-60 and that of 1866-7, I made borders to about 200 feet of vineries, and as soon as I found the Vine roots crowding into the walk it was torn up, a border made under it and laid down hard and fast in the same position. When the roots arrived at the extremity of this fresh soil, the border on the south side of the walk was turned upside down, the subsoil removed, the border being made up to the old level, not with "fresh mairlen matter," as Mr Fish states, but with common old kitchen garden soil. This border on the south side of the walk was bounded by an espalier for Pears and Apples, not more in some instances than 24 feet from the front of the vineries, and the greatest width to which I carried any of the borders from the front of the houses did not exceed 22 feet instead of 50 feet as Mr. Fish states. It is quite correct that the borders on each

side of the walk were draped with the common herd of bedding plants." The plan adopted was to probe deeply into the Vine borders, for they were full of Vine roots, but to lay over them from 1 to 1½ inches of well decayed manure, and over this a 1½ inch of light rich soil, and in cases to plant the bedding things. And if ever Mr Fish tried this method, he will find that the roots of bedding plants are wonderfully, though not singularly, fond of being near the commissariat.

The theory of this practice I will leave Mr Fish to deal with, and will be content to set a his feet as a theorist. The results of the practice Mr Fish is already versed in, and I think if he had inspected some season, after a most unparalleled drought, and with no artificial watering, he would have concluded that it would have been a pity to have meddled with either the flower-borders, or the Vines. Vines from which Grapes were cut in June, carried their foliage without a spider-fault in November, while the wood was as green as ever I saw Vine wood before.

I have no idea of establishing either a theory or a precedent by the relation of these facts. Mr Fish and all gardeners who can carry out their ideals may be considered fortunate. In this matter I did the best I could for a display of flowers and a supply of Grapes under the circumstances. What I would have done had I carried out my ideal of Vine-borders is a very different question. As it was, I left a set of Vines at Archerfield of which, I think, even Mr Fish need not to have been ashamed. Vines which were too heavily cropped in their early days, but which, under more favourable circumstances, had improved every year for the last three or four years. D. Thomson, Drummond Gardens.

Home Correspondence.

Indian Forest Appointments. Having become some further consideration on this subject, I beg now again to trouble you, in the hope of pointing out what may be taken as the best course to be followed in the selection and training of young men for these appointments. In these days of free trade and open competition, I think it would be far preferable if the India Board were to allow the candidates to acquire their knowledge where and how they please, and not pursue any special line of education, resting contented with the result of examinations of the candidates in various stages of education. The plan which I would therefore suggest is, that candidates, who are desirous to compete for one of the forest appointments, should, as a preliminary measure, pass the examinations proposed by the India Board to test their general education; after which, for the next two years, they should be placed on a sort of probation, somewhat similar to young men qualifying for staff appointments in the army, and should receive, during that time, the same amount as the India Board at first proposed towards the expense of their maintenance, on the stipulation that the candidates pass another special examination at the end of two years in all the particular branches of knowledge which they will eventually require, with a further stipulation that they must pass a minimum standard before being finally appointed. They should then rank according to the results of their examinations. It might further be suggested that members of the Institute of Surveyors or of the Horticultural Society should, in virtue of their part of the examining Board. In order to facilitate the education of the candidates, and also for the benefit of young men intending to practice in the country as agents on estates, or in woodland districts, and for the benefit of country gentlemen who may wish to attend, the Council of Surveyors and the Council of the Horticultural Society might arrange a course of lectures to be given in some central place, such as the rooms of the Horticultural Society in London, on the special subjects necessary, such as the following:—Trees, the Classification of Plants and Fossils, Botany, Habits of Indian Trees compared with British Trees, Forestry, Land Surveying, Rangeland Levelling, Arterial and Land Drainage, &c. These lectures should be open to all donors on payment of certain moderate fees, which would go to pay those who gave the lectures, and the lecturers might be selected by the Council of the two Societies. I have named the lectures should also be given in some central place in April or May of each year, for the accommodation of those who wished to attend them. The Institute of Surveyors should then ask different surveyors in England, Scotland or Ireland to send in their names to those willing to take young men and especially those who are under their charge for a certain time, specifying their terms, and stating whether as in or outside of their own country, and that they would remain at least six months in each place. After the candidates are finally appointed, arrangements might be made by which the candidates might go for a tour of inspection in order to acquire additional information. I believe that by these means a very superior young men would be trained, not only in England and also for England itself, and they would acquire all the technicalities of their education which were pursued in England (than in this country) facilities would be given to many in this country to study systematically many matters relating to the business of a land agent, and especially the survey of forest management. You will observe that I have made no stipulation about it being compulsory on the young men to go to France or Germany. They may do so if they think proper. All that would be wished is that the competition at all times be fair, and open to all Woodlands.

Arboricultural Education.—I have read the article on the Indian forest question with much interest, and

of, or ignoring the fact, that the stock is entirely different. I have seen a good many espaliers in my time, but never one that bore a crop like those little cordons that I saw at Ferrières, Versailles, and amongst the French fruit growers. The espalier on the Crab stock, no matter how big and ugly was the trellis you put it upon, was always with difficulty kept within bounds, always pushing its vigour to the top branch, whereas the little trees I saw in France growing on very stiff moist loams, were in the sturdiest and neatest condition that could be desired; and everywhere I was told that they were scarcely any trouble, a little pinching now and then, and some attention to see that the spurs were equally distributed along the line, being all that was required. Why, the trouble is worth incurring for the sake of having such a pretty garniture to our walks in spring and autumn, even if the great Apples were of wood, and not of the finest flavour. The pinching and training would be pleasant employment for ladies and young folks, in their few hours garden rambles, affording both profitable and amusing exercise. So many tortured forms of trees have been presented to the public that I do not wonder at those rejecting them who cannot see the undeniable merits which have been claimed for these cordons, but when once they are seen well done, and in working order (we cannot expect they will be in England for a year or two), everybody interested in a garden will be charmed, and the plan will, I venture to say, be adopted in the largest as well as the smallest gardens in the land. Every operation connected with the culture of these trees will be agreeable in consequence of its simplicity; and it will be pleasure to have the little trees under the eye, from the unfolding of the rosy buds in spring, to the gathering of the fine fruit in autumn. It is to me very surprising that none of our great fruit growers, pomologists, and others, who are, I believe, in the habit of travelling in France every year, and some of them for the past 30 years, did not spy out and introduce this system long ago, and more surprising still, that it is but recently that we have learned from Mr. Robinson the real value and nature of the stock (others who have mentioned it have always recommended the Doucin or English Paradise), and no doubt but for his exposition of the matter, we might have gone on for many years without knowing anything of value about it, as we have already lived without such knowledge for many years, notwithstanding the proximity of the fruit gardens of northern France and southern England, and the abundant intercourse between the two countries. We have brick and tile edgings in all sorts of fancy forms, pebble, stone, slate, and wooden edgings, also Grass, Box, Thrift, and many other living edgings, but when once fairly understood, the little edging of choice Apple trees will prove the most popular, profitable, and useful of them all for the fruit or kitchen garden. Apart from edgings, the plan of planting the cordon on the ends, fronts, and low walls of plant pits, and other houses, low walls and fences, small vacancies or spaces between fruit trees on walls of any aspect—indeed, on any kind of blank space on walls is another distinct improvement, and, when we have it in full operation, the specimens of the finer and tenderer fruits grown on this method will be such as we have not yet had the pleasure of producing in this country. I looked in vain in Mr. Rivers' letter in the *Gardeners' Chronicle* of January 30th for any reply to a single statement in Mr. Robinson's article of the 16th. That article conveyed to me the first distinct account of these most interesting stocks that I have ever met with in our language, and I am astonished that Mr. Rivers, who talks of having studied the subject for so many years before Mr. Robinson was born, has not even made an attempt to account for the extraordinary contradiction and confusion so clearly pointed out. If I mistake not, something more than personalities are required to make us take any one's *ipse dixit* for gospel, after this revelation. *James Barnes, Bickon Gardens.*

The *Quercus Ilex*, as an ornamental tree, certainly stands unrivalled, and I have often felt surprised at its not being more extensively planted at places where it is found to thrive well. Here it has been planted largely, and I think I may say my worthy employer has some of the handsomest, if not the largest specimens in this country. A large belt planted here on the north side of the kitchen garden affords excellent shelter, and also forms a grand feature in the place when viewed from almost any point. For blocking out buildings and other objects from view, for giving shelter, and as an ornament withal, the *Ilex Oak*, in my opinion, is unsurpassed. When planted out in groups or singly in the park, it gives the locality during the dull months of winter a clothed and warm appearance. Notwithstanding, it does not receive that amount of attention from arboriculturists to which it is justly entitled. The handsomest specimen growing in the park here stands 49 feet in height, its branches extend over an area of 190 feet. Its stock girths, close to the ground, 14 feet 9 inches, and at 6 feet from the ground, 12 feet. There are many other noble specimens growing here, and of a larger size, but the above is by far the handsomest specimen. One, for instance, girths, close to the ground, 20 feet, another, 12 feet, has attained the height of 70 feet. *Thomas Foote, Gr., Haldon House, near Exeter, February 16.*

Green's Patent Hot-water Boilers.—Mr. Walls having spoken so highly (p. 79) of Green's boilers, I should like to know whether in his opinion, if this boiler were bricked in it would not be even more powerful than he represents. It surely must lose a great amount of heat exposed to the action of atmospheric air. Again, was the boiler at work the whole of the three months, or only a few nights? as the amount of coke used is so trifling compared to the consumption of other boilers. I have one at work, which certainly has four times as much work to do as the one

spoken of at Kensington; but it burns about 7 chaldrons in the fortnight. I hope he will state if the boiler was at work the whole of the 12 weeks, or was only used at nights. We have had such mild weather that it may not have been required much. *E. J. W.*

[I do not consider any very great advantage would be gained by enclosing the boiler in brickwork; if placed in a covered shed or stoke-hole, this is all that is necessary. In this boiler the circulation of the water is very rapid and is easily maintained, for, so long as a moderate amount of fuel is kept in a state of combustion in the fire-box, this quick circulation continues. The great object I consider is to keep the water constantly circulating through the area to be heated. This being accomplished, the quantity of heat lost from the outer surface of the boiler being exposed to the action of the air becomes of little consequence, the object being to cause a quick circulation and not to heat a mass of brickwork. The boiler I referred to was at work the greater part, if not the whole of the period, as stated at p. 79. Since my remarks appeared I have seen two more of the boilers at work. One, about 3 feet 6 inches high and 15 inches diameter, at Harrogate, was heating about 300 feet of 4-inch piping. When I saw it, the fire had been lighted but a little over an hour, yet the whole of the pipes were so hot that it was impossible to keep one's hand on them, thus showing that the boiler was capable of heating three or four times the quantity of pipes attached to it, for no practical man would allow any heating medium to remain for any length of time so hot as these pipes were, if he expected to keep up healthy vegetation near them. In this case I found there was very little fire inside the firebox, and on asking how long the fire would last when made up I was told that it had been banked up at 5 P.M., and found all right at 8 o'clock the following morning. The other boiler I have seen is of the same size as that at the Royal Horticultural Gardens (4 feet 6 inches by 2 feet 8 inches). This is heating 1312 feet of 4-inch piping at the Royal Park, Leeds. I found the pipes in each house at 10 A.M. as hot as any one could wish for horticultural purposes, and Mr. Murray told me that the fire was made up at 6 o'clock the evening before, and that it was simply stirred up the first thing in the morning, a little fuel added, and the damper put in at 8 o'clock. The desired amount of heat can now be obtained at less than one-half of the former cost in fuel. I had, as stated at p. 79, ordered one of Green's boilers, intending it to heat about 3000 feet of 4-inch pipe, but it was sent back to have a slight alteration made, by which I have no doubt it will heat upwards of 7000 feet, and enable us to dispense with two fires, which will be a very considerable saving. The boiler will be fixed in a few days, and I will hereafter give a faithful report of what it really can do, and if I find any faults I will name them. I trust the explanation given above will be deemed sufficient by your correspondent "Z" (see p. 166). Further, I trust that all who are wishful of imparting any information, or asking for particulars respecting this important matter, will give their names in order that the subject may be dealt with in a straightforward and proper manner, and without fear or favour. *J. Walls, FRHS.*—With less commendable patience than your correspondent "Z" (p. 166), and instead of asking as he has for further particulars respecting the operations of this boiler, whose untried capabilities have been pointed in such glowing colours, I, perhaps more anxious than wise, resolved to visit the establishments referred to, in order if possible to witness a genuine economy of heating by hot water adaptable to my own hothouses, but I regret to say I was sorely disappointed, not to mention the loss of time and expense. It is just probable that had not the name of our esteemed friend, Mr. Eyles, figured so prominently, I might have hesitated and been more content to wait, but finding his name so freely handled, and knowing the entire disinterestedness and impartiality he uniformly evinces, I ventured to undertake a tour of inspection, which has enabled me to give a reply to "Z" by stating the facts *seriatim*. Arriving at Kensington I made for the boiler, which, in itself, as stated, measures 4 feet 8 inches high, but I may add that when fixed, including the ashpit and flowpipe connection, it exceeds 6 feet. Now I cannot quite reconcile the idea of a boiler requiring a depth exceeding 6 feet claiming for itself the possibility of being fixed in places "inaccessible to other boilers." Again, it is stated that this said boiler is heating "upwards of 1000 feet of 4-inch piping." Allow me to correct this assertion by stating that the quantity of piping is only 750 feet, a good portion of which is only 2-inch, and the furnace is so reduced that it holds (so I was informed) only sufficient fuel to last three hours or four at the longest. Notwithstanding having here met with the reverse of what I had been led to expect, I wended my way to the Asburnham Park Nurseries, where these boilers were to be seen, but, to my utter astonishment, there was no patent boiler "at work or otherwise;" certainly I was informed that one of the boilers had been upon the premises for the purpose of a trial, but had to be removed, and on examination it was found necessary to return it to the maker. Under the circumstances, therefore, I may be excused from giving any opinion respecting the merits of this said boiler, preferring as I do to remain silent, until every opportunity has been given for a fair trial. I cannot, however, conclude without again referring to the disappointment I experienced at having seen so little after having read so much, it would be well if newspaper correspondents, instead of jumping at pre-nature conclusions, would simply state facts. *Y.*

Air in Vineries.—I have several young Vines in a house with other plants which can be treated well with the Vines, but I am repeatedly told by my employer that although the plants do not require air, yet the Vines, having broken weakly, need it to

whenever you go along with you in holding, that whenever the information required to qualify a candidate for a first appointment can be obtained in this manner, it is absurd to send him abroad to obtain it, while on the other hand, if it can be obtained on the Continent, and is worth anything, it is equally clear that he must then go there to get it. These are generalities which no one will dispute but which at the same time, like all generalities, leave us very much in the dark. Until we have been to those quarters, and learn the actual details, which it is thought cannot be had here, and which we must send our aids to the Continent to learn, we can do no progress in discussing the question. Can you tell us who they are, or if the recommendations by which they must have been guided have also been general? If the latter, the whole question is a matter of obscurity, which nothing will clarify but a personal inquiry and examination into the facts. If, on the other hand, details have been condescended on, we shall be able to know what they are, take them to ourselves, and come to some opinion as to their value. There are undoubtedly some things which cannot be learned here, but so far as we are concerned on the spur of the moment, none of them are of sufficient value to call for special education elsewhere. There are others which cannot be learned on account of our political constitution—such as military restrictions, extreme severity to trespassers, a system of administration, &c., but these again seem to us not to be likely to be of much use to Englishmen anywhere, at any rate not to be of those which it is imperatively necessary for them to acquire. There are other peculiarities in the Continental forest management, which are only not to be learned here because we have no need of them, but which could be taught here as in France, were it considered desirable to teach them—for example, the loppings of trees when they are felled are often left to rot on the ground. The expense of carriage to market would be greater than the price they would bring. Not so in France, for the scarcity of wood makes them valuable, and they have attained at great perfection in the neatness and order with which every scrap is preserved for use. As to our practice will teach the rudest labourer to make a garden, so I incline to think that unless there are other matters to be taught on the Continent than such details, the reason for sending our arboriculturists abroad to learn is somewhat of the weakest. There may be other things which it is desirable that they should learn. I do not say no, but until we know what they are, no one can give an opinion upon them. Perhaps we shall be told it is their organisation which we are anxious to learn. Has it, then, been settled that the French or other organisation is to be adopted in India? or, what is the use of sending men to learn an organisation which they are not to use? Can we get the desiderated information as to the details of the Continental system which it is desirable for our foresters to acquire, the first point to be considered is, whether they cannot be equally well learned at home now? Whether, supposing them not to be equally well in England now, they might not, by some arrangements, be specially taught here in the future? And 3, Whether they are worth acquiring at all? There remains another question which does not seem to have occurred to our Executive or their advisers. What are our students to do with regard to the laws and blunders of the Continental system? The idea seems to have been, that because the Continental system is elaborate, and the machinery carefully regulated and supervised, it must necessarily be perfect. I can only say, that notwithstanding all their boasted, notwithstanding their admirable horticultural attainments, especially in their carrying out to a still more important extent—in fact, in everything that Government do in all which I am willing to admit that they do do well, notwithstanding all this, their system, using the word in its literal sense, of the management and growth of trees, I ask any man in the world who has a particle of arboricultural knowledge, and who would think of a forester who should plant young plants by allowing the young trees, which are about to be felled, to shed their seed, and then let the young plants to grow up together into a thicket, not to be touched by knife or hatchet for 20 years. Is that the forestry that our young men are to learn? I have not the information nor the opportunity to know how far this system prevails all over the Continent, but I can vouch for it being that way in some parts of Germany, and I may add, that it is characteristic of early thimbling dwellers in my opinion, as characteristic of the Crown forests in some parts of France. But there ought to be some attention on this and all other points connected with the young Indian foresters, before their studies abroad, without first ascertaining what was the system followed in the schools they were to attend, and if it turns out that what I have just described is a part of the system, it would be desirable to know whether it is considered an improvement upon that followed in Britain or not, and whether it is intended to be adopted in our own country. As for me, I shall stick by the old plan, because it is old for in that respect I give every preference to that I have described, but because on the whole I think it is better.

The Horizontal Cordon.—As Mr. Robinson's writings lead me to see for myself the horizontal cordons on the Paradise stock, my opinion may be as useful as that of some who have never seen them, or have not got beyond the erroneous idea that they are espaliers with one branch, being ignorant

Blue Gentian, Viola odorata and tricolor, Primula, ...

Mr H. W. Bates. The Institute returned thanks for ...

Notices of Books.

Beech, Strancker, and Halbstreicher, ...

The above mentioned defects were blemishes at the time the book was published, and it is unnecessary to say that the lapse of 30 years has not softened or rendered them less conspicuous...

It is a remarkable tribute to the sterling excellence and value of his work that notwithstanding this and notwithstanding the blemishes we have touched on, it still remains the standard work on the subject...

The Aptary.

THINNESS AND WATERINESS IN HONEY - Can you tell me the cause of this? That which I obtained from my bees last summer is singularly thin and watery. J. P. M. [It is not easy to account for variation in the quantity and consistency of honey...]

ARTIFICIAL QUEENS - Do you consider queens "raised artificially" which are raised by the bees in hives emptied by driving swarms? A. B. [We consider queens which are raised in a hive subsequently to the bees being driven out, to be artificial queens...]

Miscellaneous.

Covent Garden Notes - The market is now particularly gay with spring flowers, and these are increasing in quantity daily. A boom of Orchids have been particularly plentiful during the past week or two...

Garden Operations.

(For the coming week)

PLANT HOUSES.

ANY duplicate plants of Stephanotis, Clerodendrons (the variety Thomson's especially), Combretum, Dipladenias, Ipomoea Leoni, Rondeletia, Russelia, rancea - an old and much neglected plant, though a very beautiful one - Torenia and evergreen varieties of Thunbergia not already in flower, with many other similar subjects, may, by the aid of a little extra heat and other favourable circumstances, be induced to flower earlier than the general stock and so, by extending the length of their flowering period, materially enhance their value. Gloxinias should not be repotted, whether they are required to flower early or late, to prevent the separation of the roots, which have made some growth will be at the risk of bringing the delicate roots which emanate from the bulbs when once they commence growing. In process of re-potting, the greater part of the old soil composing the ball should be carefully removed, and they should afterwards be potted with moderate firmness into small pots, of such a size as will admit the ball freely without undue pressure. The compost in which they ought to be potted should be a good fibrous peat open loam, and moderately decayed leaf-mould in about equal parts, to which may be added a good sprinkling of silver sand. They require a good brass heat to start them well, which, with proper humidity in the atmosphere, may average from 75° to 80°. Increase the artificial temperature by some few degrees in stages, so that the sun gains more power. It should not range below a minimum of 65° now. Use the syringe more freely, and induce a further activity of all the inmates by a moderate supply of atmospheric moisture at all times during the early part of the day and forenoon. Fuchsias should also be started into growth, where a display of fine plants is required at the blooming time. Continue to "propagate all plants used for bedding out," and where abundance of room exists commence potting off those that require such help most. Remove the lights entirely from off all pits or frames containing these and similar subjects which are not being pushed on in heat, or have been repotted, and are still in want of shelter and assistance. By doing this at all times on warm sunny days they will be greatly benefited.

FORCING HOUSES.

Now that the sun's warmth has gained such an amount of power as to make itself felt, let a gentle but decided advance of temperature be given in all forcing houses, excepting such as are only now in the first stages, or have but recently been started. It cannot be too frequently urged, in regard to forcing houses, that a steady advance is a sure and safe road to success, in all the early phases of forcing operations. To unduly excite the branches of any plants and so push them on at a quicker rate than it is likely the roots can afford a sufficient supply to keep up, or the roots being active, to force a growth more quickly or more constantly than can be matured by the delicate organisation of the leaves at this season, is certain to result in all-success. A mean of 58° is at all times safe, and this should seldom be exceeded at the earlier stages of forcing by artificial heat alone. Of course, with an advance of natural heat an abundance of air is always desirable. Continue the disbanding of all superfluous and unnecessary shoots, bearing in mind, however, that a good leaf surface is of the first importance, tying the branches as they extend should not be unduly neglected, as they quickly become firm and stiff, and are apt to snap off, if any great gales are permitted in this respect. In thinning the earlier berries, it should be remembered that a good crop does not always mean a heavy one. Thin out the bunches pretty liberally, and before the berries have attained to any great size, and it will be found that the plants will assert their powers by the production of size and weight, with no risk of their not colouring well or shanking, &c., disasters which too frequently arise from over-cropping and like circumstances. Plants will now want active attention, and the necessary spring potting, top-dressing of the pots, &c., should be hurried on during fine and favourable intervals. Successionals which are in their fruiting pots should receive a nice top-dressing with good decaying pieces of rich loamy turf, afterwards giving them a good soaking with strong clear liquid manure. Pot any further batch of successional which have moderately filled the pots with roots in which they are now growing, into their fruiting pots. Shut up the house early at all times, and on bright sunny afternoons especially. At such times the thermometer may with great advantage be forced up to

from 88° to 90° by sun-heat alone. Give at such a time a pretty copious syringing with tepid water, not below the actual temperature of the house itself.

HARDY FLOWER GARDEN.

The lovely varieties of Scilla will now have done flowering. It will be of great advantage to the bulbs if all the old seed-vessels attached to them are picked off.

HARDY FRUIT GARDEN

Of the protecting materials to which I draw especial attention last week, the best form is the Frigi Domo. It is composed of such a thick substantial material, however, that it is absolutely necessary that it should be removed from off the trees daily, otherwise a sickly and overdrawn growth is certain to be the result of fixing it thereto for even a limited period.

KITCHEN GARDEN

Little can be added in this department to what was advised last week. Whilst I write (the 22d inst.) snow is falling freely here in Herts, and all symptoms prognosticate that the operations then alluded to will have to be deferred.

TOWN GARDENING.

If the ground has been prepared as previously directed, this is the proper time to divide and plant out any of the following herbaceous, perennial, and biennial plants, which I have found to do well.

this is a species of perennial Convolvulus, of easy culture, and does well when planted in boxes for training around windows. Evening Primroses are useful plants for town gardens; from 3 to 4 feet high.

STATE OF THE WEATHER AT CHISWICK NEAR LONDON.

Table with columns for Date, Max, Min, Mean, Wind, Rain, and other weather metrics for February.

Feb 18—Rain, showery, clear and fine, frosty. 19—Dense fog, frosty, very fine, cloudy, but fine.

STATE OF THE WEATHER AT CHISWICK

Table with columns for Date, Average High, Average Low, Mean Temp, No. of Years in which it has occurred, and Prevailing Winds.

The highest temperature during the above period occurred on the 4th, 1860—therm 70 deg and the lowest on the 2d 1863—therm 14 deg

Notices to Correspondents.

Messrs. Adams & Adams, 25, Piccadilly, Manchester, wish it to be distinctly understood that they can pay, not only twenty shillings in the pound, but five hundred thousand shillings on all they owe, and are further prepared (sic) to advance any amount up to £1000 on goods consigned for bonded (sic) sale.

fact that the Grapes in question had disappeared before the advent of our reporter. Perhaps our reporter was not in the field at any rate, it was no use asking him to go and learn from "Justitia" that "the bunch had only 25 berries on it, and there were 31 members to divide upon their merits."

CLEMATIS C. P. C. montana may be readily grafted on layers, so may C. Jackmanni. The latter being more if desired, be increased by grafting.

DARI SEED Manchester. Seeds of some Malva species cannot tell which, without a specimen of the plant.

DEFICIENT CROP OF GRAPES W.R.G. We can assure you the reason for the want of Grapes on the north side of the house than that of their being so much shaded by the sun's influence by the others that the wood was not thoroughly ripened, and is in consequence unable to produce the fruits.

DROPPING OF APRICOT BUDS: D. We attribute the cause of the dropping of the flower-buds of your Apricot trees to their expanding to over-excitement—to excitement which the wood was sufficiently ripened or sufficiently rested to bear it.

FORCED STRAWBERRIES: J.C. We can scarcely account for the failure. It may possibly be owing to the runners having been obtained late, and not getting well established in the pots—not sufficiently firm, in fact—so that they have been unable to stand the excitement which you have given them to.

FUNGUS: The Rev. H.D. The specimen you have sent is curious. We presume it came from an oak tree, and it is a state of Desdalea quercina, very like a fungus in "Ray's Synopsis." If not on Oak, be a g. g. on a fine to say on what kind of wood it grows.

HIBISCUS ESCULENTUS: Kilmartin. We are not sure the seeds of this plant can be obtained.

NAMES OF FRUITS: F. Bass Pool.

NAMES OF PLANTS: J.W.F. Abies excelsa, Norway Spruce. C.I.F.S. The seedling appears to be Piptis in an early stage is a common stove plant.—H.M. 1, tree in flower.

OUT-DOOR GRAPES: Ovidor. We give you the names of which we have tasted tolerably good in the garden of London. We are not going to express our doubts as to whether they have all been properly ripened in the house in which we generally speak of.

PRESERVATION OF PEACHES: W.H. Take it in your hand that is on the point of opening and keep it in a box in a little box.

SOIL FOR POTATOES: J.C. Superphosphate of lime is the very best manure that you can use. It is general to guano, although it may not be so stimulant. It is difficult, however, to recommend artificial manures without knowing the condition of the soil.

VERBENA DISEASE: F.Z. A few years ago a disease in Verbenas was new at similar to yours, though not identified. We had then an opportunity of examining stock, and though everything as regarded culture seemed admirable, almost every plant (with the exception of those which were evidently attacked by Thrips, but that has to do with the white spots with which the leaves are sprinkled) these white spots occur in plants in a well as cultivated state and doubtless depend upon peculiar climatic condition which we are unable to state; and if this is the case in the nature of the disease there is little chance of remedying it in the present difference of climatic condition may be the cause.

VERBENAS FOR EXHIBITION: The Rev. H.D. The varieties are good exhibition plants, and are well adapted for being deposited in a house during the winter. Harry Law (Perry), J.C. War Perry, James Perry (Perry), John Wilson (Perry), King of the South (Perry), L'Avenir de Kilmartin, Le Grande B. (Perry), Dubree), Lord Leigh Malva (Perry), Mrs. Perry (Perry), Mrs. H. de Perry, Miss Perry, Starling Perry, The man harris (Perry), and the latter are seen now-a-days. So we will suppose the dependent contemplates exhibiting cuttings of the grown in the open ground cannot be expected to be under control. Use a rich soil, and put the plants from 6 to 8 inches in diameter. Always water in fine weather, so as to prevent the plants from being drawn, as it should be the object of the exhibitor to have a limited number of shoots as strong and stout as possible. Allow but one truss to a shoot, and half-a-dozen to a plant will be enough. When coming into flower the plants in hot weather allowing the sun to act on the plants will become drawn, and the blossoms will be small. Careful not to allow a single drop of water to touch the bloom.

WATER CRESS: H.D. There is a French book, by M. Chabot, "Le Cresson," noticed in our columns in 1866 and also in p. 416.

COMMUNICATIONS RECEIVED.—The Vicar of Wokingham (pated).—Adulteration of Seeds (next week).—J. H. D. O. R.—J. D.—J. H.—J. B.—D. T. F.—H. R.—D. T. L. E.—Somerset.—J. B.—A. R.—B. D.—Shropshire.

green weighed 94 lb., the white Silesian 98 lb. and the red top 80 lb. The number of his roots was green 49 white 52 and red top 47. There were several blanches in all the rows, but the seed of each sort came up about equally, and the general appearance of the rows was alike. They were sown on the 21st May, and had not germinated nearly firm till the 1st June. In fact they were only sown and then sown twice, the object being not to start the crop, but simply to see what they would yield with ordinary care and labour of the soil in a trying season. The tops of the green and white weighed alike, 33 lb., the tops of the red 31 lb. The return from about 10 hills of a plot was 18½ stone, or at the rate of 21 tons an acre without the tops, adding these, it would make about 28 tons per acre. But, from the results of this experiment of the three sorts, he recommends the white Silesian. Its top is equal in bulk to the green; the root weighs as well or better, and it seems a finer quality than the green-top. Both the green and white seemed stronger and more robust than the red. We need not refer at any greater length to the details of cultivation. The Sugar-Beet resembles in this respect the Mangel Wurzel, differing from it mainly in the closer rows—and the closer plants in the rows—and the advantage of growing the crop on the flat, so as to enable an earthing-up in midsummer.

Since last August foreign sheep landed in this country have been slaughtered at the place of landing in consequence of the extensive prevalence of small-pox, or rather sheep-pox, on the Continent, particularly in those countries from which our supplies are obtained.

The Order of Council imposing restrictions upon the importation of foreign sheep is now, however, no longer in operation, and farmers are asking why it was so suddenly suspended while the disease still exists, according to published reports, in Holland, Friesland, and other parts of the Continent. Mr. WALTER, the Secretary of the Home Cattle Defence Association, in a letter to the *Times* on Monday last, remarks upon the prevalence of the sheep-pox in countries whence sheep are imported to England, and suggests that the revocation of the protection order, under such circumstances, could only be excused on the plea of "the falling off in the amount of cattle brought into the metropolis, and in refutation of this imagined justification of the course which has been adopted, he states that for the fortnight ended the 14th inst., the number of sheep imported into London was 7000, as compared with 2500 in the corresponding fortnight of last year. Taking these figures as correct, they prove nothing, as the question of average importation is not to be decided by reference to a particular week or fortnight in one year as compared with the same period in another. There is no doubt that in general the importation of foreign sheep has recently fallen off considerably, as reasonably might be expected under a system of restricted movement. Mr. W. E. FOSTER, in answer to a question in the House on Monday night, referred to a deficiency of between 70,000 and 80,000.

Importers and salesmen have made the most of this deficiency in their representations to the Government, and their perseverance has been rewarded by the obtainment of the concession which they have so persistently demanded. Meanwhile another argument is added to the already long list in favour of permanent legislation upon the whole subject of cattle traffic, and the final abandonment of the elastic system of law making, which, however convenient in some respects, has the essentially serious drawback of perpetual uncertainty attached to it. Respecting the risk of introduction of sheep-pox into this country, we entertain no very grave apprehension. Farmers may take courage, as their safety depends very much upon themselves, it is only necessary to refrain from buying foreign sheep for stores, and the danger is at once reduced to a minimum. The only fear is that some enterprising speculators may buy odd lots of foreign sheep at a low price, and perchance, in their zeal to dispose of them to the best advantage, do a vast amount of mischief unwittingly. This thing has happened in our experience more than once, and it therefore behoves flock-owners to keep a sharp look-out for the present.

At Mark Lane on Monday and throughout the week the corn trade has been a hand-to-mouth business, but prices have not been lowered. The only

gran which has received any particular attention has been fine quality of foreign wheat, which is required for making the "strength" of the loaf, crops grown in the most fertile soil, and the yield is a very high one, and the crops are having an average of 40 per stone for both the red and white, and at the 5d being the present top quotations. As, however, many beasts are still at 10d per stone, the amount of bread made through want of food, are consequently. The Department of the President of the Board of Trade, to whom we referred last week was answered by an order appearing in the *London Gazette* at the time we went to press full particulars of which will be found in another column. The average of the wheat trade is in a state of depression in consequence of the weather. (Continued, however, in short stocks keeps prices firm.

Lord ROBERT MANSFIELD relating to the importation of foreign cattle provides that such animals shall be landed only at ports and according to regulations prescribed by the Privy Council, that they shall be taken to "places" near the point of disembarkation, and not removed thence alive, and in the meantime they shall be kept separate from all other animals. The Privy Council is to have power to suspend this enactment as to separation during the next three years—not longer, also to exempt from the Act certain classes of foreign animals, or animals from specified countries. Moreover, nothing in the Act is to interfere with the powers of the Privy Council to make regulations for subjecting foreign animals to quarantine, and for allowing animals subject to quarantine to be removed alive beyond the limit of the port of landing. The "local authority" may be required to provide the "places" for receiving, selling, slaughtering, and fattening, the Board of Trade shall have all the powers for that purpose vested in the local authority by the Contagious Diseases (Animals) Act.

The desire of the Chambers of Agriculture for the appointment of a Royal Commission to inquire into the incidence of local taxation and suggest remedies for the existing inequality and injustice to be thus discovered, which was laid before the Premier by a petition some days ago, found expression on Thursday evening in the House of Commons. Sir M. LOPES, in moving for such a Commission, declared that local taxation now exceeded £20,000,000 a-year, one-half the whole national expenditure, putting as to the payment of the debt, and this he showed was levied exclusively on 93,000,000, or one-seventh only of the income of the country. He urged the injustice of placing all the charges amounting to this enormous sum on the land, and recommended that a contribution to local expenses should be made from Imperial funds. The effect of a Commission, he expected, would be to prove the grievance and provide a remedy. Mr. C. S. REAP, in seconding the motion, declared that it was by no means a merely agricultural question, but one affecting town and country alike. Although the motion was ultimately withdrawn and no Royal Commission is to be issued yet we have every reason to be satisfied with the result of the efforts of our Chambers of Agriculture to bring their influence to bear on the Government, for Mr. GLADSTONE, while refusing the issue of a Commission, did so expressly because that would have the effect of shelving the question for half-a-dozen years, whereas they felt that the question stood early on the list for settlement, and as soon as the Irish Church question was settled it would be one of the first duties of the Government to deal with it.

In Cheshire, which, during the ravages of the cattle plague, suffered more grievously than any other county in England, the people will pay a heavy rate for 30 years, to balance the losses which were then caused by the "stamping out" process, sanctioned by Parliament. The population of Cheshire, through their representatives in Parliament and their local authorities, on Wednesday brought the matter before the CHANCELLOR of the EXCHEQUER, with the view of obtaining some relief. Mr. LOWE admitted the hardship of the case, and it was intimated that the PRIME MINISTER should be consulted.

The Home Cattle Defence Association unanimously passed the following resolutions at a special meeting held on Monday last:—

1. That this Association has observed with surprise and alarm that the regulations enforced by the Privy Council in order to prevent the introduction of sheep-pox into this country have been rescinded. 2. That this Association is of opinion the experience of the last six months has abundantly proved the necessity for the retention of such precautions, this country, under those regulations, having continued exempt from that disease, notwithstanding its prevalence in those countries upon the Continent of Europe from whence our main supplies are drawn, and the increasing number of sheep which are being imported thence as compared with the quantity brought over in the corresponding period of last year when the trade was free. 3. That this Association, representing as it does the various parties in Great Britain affected by this question, feels imperatively called upon in the interest of consumers as well as producers, to urge upon members of Parliament the necessity either of immediate legislation by the Government upon the subject or of carrying out the Bill now in progress through the House of Commons.

On Monday evening, before the Social Science Association, Mr. P. HOLLAND read a paper conveying an indignant protest against the statement of Dr. RUMSEY at the Birmingham meeting of the Association, condemning on sanitary and utilitarian grounds the invention of the water-closet and the modern system of town sewerage. Mr. CHADWICK and Mr. RAWLINSON protested that any loss was better than that organic filth, the origin of all kinds of disease, should be retained in the neighbourhood of habitations, as in the old days of the cesspool it used to be. To wash the house and town completely out

was better, even though it involved the loss of fertilising matter. This loss was however, as a matter of fact, of little consequence, for the loss of matter was not lost, it was only changed, and would, if permitted, find its way back to the growing plant, which would be the experience of Croydon as to the results of sewer drainage-water, was by the late Mr. BIRMINGHAM, and constituted a Birmingham misrepresentation.

The *Mark Lane Express* has published its annual report of the harvest of 1888, and the results so far as the great crops are concerned, of its elaborate Tables, containing returns from 500 correspondents:—

THE HARVEST OF 1888

Classification	Wheat	Barley	Oats	Beans	Peas
Failure	—	—	—	—	—
24 parts under average	—	—	11	—	—
1 half 14th	—	4	—	—	—
1 1/4	—	29	—	—	—
1 1/2	—	32	—	—	—
1 3/4	—	11	—	—	—
1 5/8	—	4	—	—	—
Under average	—	22	—	—	—
Average	44	—	—	—	—
Over average	—	—	—	—	—
1 1/4 over average	—	4	—	—	—
1 1/2	—	3	—	—	—
1 3/4	—	—	—	—	—
1 5/8	—	3	—	—	—
2 1/8	—	—	—	—	—
Failure	—	—	—	—	—
Total	24	50	42	—	—

Classifying them, as we did our own returns in August last, under the heads "average," "under average," and "over average," we obtain the following figures:—

	Wheat	Barley	Oats	Beans	Peas
Average	44	—	—	—	—
Under average	—	—	—	—	—
Over average	—	—	—	—	—

And now, if we reduce these to their percentage results, and compare them with those of the *Agricultural Gazette*, we find the following very near concurrence:—

PERCENTAGE OF RETURNS HARVEST 1888

	Agricultural Gazette Aug., 1888		Mark Lane Express Feb., 1889	
	Average	Under average	Average	Under average
Wheat	32	61	24	—
Barley	27	77	—	66
Oats	19	80	—	73
Beans	17	83	10	83
Peas	55	80	37	87

The returns given to our contemporary, after the threshing of a large portion of the crop, may be taken to represent the fact; and it must be admitted that our own returns, published during the harvest time, are thus proved to have been wonderfully accurate. Only in the case of the Pea crop is there any considerable difference between the two sets of replies, the threshing of the crop having proved it to have been worse than was anticipated.

OUR LIVE STOCK

We have just received a copy of Mr Chaloner's sale catalogue. The auction, according to Mr Thornton's advertisement, will take place on March 1st (Easter Tuesday). We have before spoken of the excellent origin of this herd, which has been bred chiefly from Aylesby, Farnley, and Babraham stock for the last eight years. Most of the animals are by BARNET FLAG (19,351), RAVENSPUR (20,628), and ROYAL SOVEREIGN (22,802), half-brother to the first named bull. All these animals were bred by Mr R. Booth. The catalogue contains a list of 34 females and 12 males. These may be divided into groups according to the tribes which they represent. Thus, *Lady Pigeon* of CHELTENHAM (12,588) is the eldest member of the well-known family descended from the Hon. Mr C. Arbuthnot's *Sylph*, by SIR WALTER 203. This is somewhat plain cow, but a good breeder. She is now in calf to SOVEREIGN, a very perfect, level, and sized bull by ROYAL SOVEREIGN. Mr Chaloner also offers four heifers, the offspring of *Lady Pigeon* and the bulls above-mentioned. Two of these animals are very good and deep in carcass, a third, *Lady 4*, by RAVENSPUR, is somewhat flat-sided. *Lady 2* (lot 2) is the ancestress of a numerous progeny comprising five heifers and four bulls. This cow was bred by Mr Torr, of Aylesby. She is by BARNET ROYAL (11,180), and from *Lillage Maid* by COLONY PRINCE (10,087). On further tracing we find that *Lillage Rose* is a representative of the "Wharfedale" family, which has recently been successful in the showyard. She has produced three calves, four of whom—*British Maid* and three others—are at present at Kingsford. *Bessie M* is a good-looking animal, now seven years old, the mother of three excellent heifers. Perhaps the best cow in the catalogue is *Bagatelle*, by SULTAN (17,653). She is truly grand in appearance, rich in colour, and splendidly haired. This cow was bred by Mr F. H. Fawkes, of Farnley Hall, and is descended from an only sister to *Isabella*, the ancestress of Mr Booth's well-known family of that name. Her daughter, *Boppe*, is

touch, and only on the spit or in the boiler. Some other matters they knew from practical observation and instruction from father to son. We have a more scientific knowledge of these matters now-a-days. We divide and classify our feeding stuff into nitrogenous, starch and gluten-yielding, and other qualities, which I need not here specify. We are also constantly receiving instruction from the chemist to this or that society on the way in which these particular kinds of foods will form bone, muscle, or fat, or all three, either in due proportion or in a predominating degree. Practical men know too that, however correct this data may be in the laboratory, or when applied to particular animals, general results will not be the same. That which would make a good, hardy, and otherwise serviceable Berkshire or Yorkshire pig, for example, hard and "crumby" in the mouth, would only be suitable for preventing an unwholesome bred Suffolk, Essex, or Dorsetshire hog from running to lard when it was being roasted, boiled, or fried. The same views apply to Leicester or Hants sheep, and to animals of an intermediate quality also to "pure" bred cattle, and the ordinary cattle which farmers keep for profit.

All this, however, proves that the real philosophers in animal and vegetable physiology, or agricultural chemists as they are commonly termed, are quite right in their data. But it must be admitted that more is, at the same time, proved, viz., that however trustworthy the philosophy of the laboratory may be, much must necessarily be left to the skill and judgment of practical men when they have mastered this simple elementary knowledge. More than this even is proved. It is shown in theory, as it is known by many practical men, that the fine touch which first-class butchers think indispensable, may be developed in animals which are unkindly "handlers" when they are taking their chance as growers, and that the finest or "purest" bred animals may be surpassed by a more common or "coarser" tribe, if the former be in the hand of a skilled feeder, and the others be not. These views answer, we think, "S. G.'s" question—"May it, therefore, be hoped that the rule of the Highland Society shall not in every case become imperative?" If I may be permitted to give a direct reply, I should say, in the future pay more attention to the practical knowledge of judges, than to enforcing this or any other similar rule.

A word or two more on fashionable or "pure" breeds. We know where the Leicester sheep have fallen to in the estimation of men who have to look largely or partly to their flock for their rent or balance at their banker's. If we refer, too, to the prize takers of 20 years ago, we can learn how few there are of their

flocks or herds which have not degenerated, or as regards their owner's interest, come even to a worse termination. Where are A's, or B's, or C's bulls, rams, or boars? But we need not ask any more of these common questions.

Looking to the above data, however, for our general answer, I may say these fashionable animals could not be made to prove any one of the conditions embodied in the rules laid down by modern scientific men and animal physiologists. The young of the animals in question had become so degenerated that when born they were only half the size and weight of other animals of the same kind, which had been subjected to more natural treatment. And, although no expense whatever was spared in nourishing their debilitated frames and constitutions, they would not grow to the same size, weight, and specific value that others of the same genus would do when only fairly nursed and fed. The difference in the cost of which would vary from 5 to 10 to 1. While the "pure," or "fashionable," or in-and-in bred animals had a mixture of various cereals, linseed and steamed chaff, dusted too perhaps with a "condiment," in addition to the choicest roots and green crops of the farm, they would seldom exceed the common stature and frame of their genus and tribe, but the animals which have not had their nature weakened, but possessed the vigour of their ancestors in their constitution, would "shoot out and grow," in response to a little extra attention as regards shelter and food, and produce double the weight of meat in half the time at the above less rate of cost. In the one case, too, the nitrogenous, or lean or muscle-forming substance, would have been both digested and assimilated, and the result would have been a full development of eatable and nutritive meat. But in the other, the nitrogenous elements would either not have been taken at all, or cracked heels, scaly legs, and hairless backs would have been the effect of a degenerated nature making an effort to utilise that which should have been to it the most "feeding" of foods. We need not say which kind of animal would have been growing and thriving under this treatment, and which would have been out of sorts and unprofitable.

These data and the arguments I have based on them, will, I trust, further interest "S. G." and the numerous intelligent farmers in this country who are rapidly coming up to the speaking and writing point in regard to this most important subject. Although we have not the freedom of discussion to rely upon, let us not sit idly by and see our flocks and herds degenerate in the next few years, from errors of selection and pampering, in the same way as the noble and once "sound and stout" blood-horse has done within the memory of the present generation. W. W. G.

There is as much danger in keeping we I, as in permitting them to shrink from ing, nor ought they to have any change immediately prior to the lambing season. It is unnecessary, it ought to be made several times the season arrives. The writer of the tolerably successful in the management of ing flock. They are winter grazed in pastures, and as they become heavy with is required by their condition, they are Mangels, at first very sparingly upon and this is increased gradually; fescue Mangel being Oat chaff, and even cake is resorted to out to keep them healthy and fat. When their "tunes are up" they are rather large, contiguous, well sheltered corner of one field are two lambing which they are brought at night for safety. We, however, avoid as much as possible fining them in these paddocks, and avoid foul contact. Mangels and chaff are not food, but as they lamb they are drawn pastures, being still supplied with In the paddocks and the two fields are taken when desirable. In the way of good lambing seasons. I list a word or two Always be provided with a crook, a bottle at hand, a pan of lard, a tin of nitre, a small hook, a short cord, a little lard to catch the ewe, the milk for a haudanum, a tablespoonful for the ewe after labour, the gin to moisten the tongue of lamb, the sweet nitre for a feverish ewe, hook and lard for rare use at year trouble the ewe till requisite to let Nature take its course. O. P.

Malt and Barley for Beer. The from Barley was originally proposed by of near Yeovil, who published a treatise about 16 pages, price 7s., on that subject 1821. The writer was then near Yeovil, and at his request one of them received of the plan, which was made a few days 3 bushels of bruised Barley and 1 bushel malt. By Mr Ham's advice the water was at about 3° lower temperature of water than commonly applied all malt to, but a the brewing was conducted on their usual writer well remembers that the usual sweetness which there is in that and it was about the flavour and as pale as water (possibly 3 or 4 lb. per bushel of have supplied that deficiency), and he was informed that the trial had not been so was expected of it. E. West.

Small Farms.—I observe in the Notices dents, in your Paper of the 20th inst "Small Farms." You do not mention an "Essence of Farms;" by William Blackie, Esq. Dublin, Curry, Jun & Co., Sackville Street. I recommend this as better than any I have very good pamphlet. You advise "April" is not too late. This no doubt but "on very heavy and low conditioned not Oats be safer? and on the broken-up advise Potatos. I would, with all advise Oats, as Potatos on my heavy poor not suit, nor could the cultivator get a proper state for a food crop without a good and pulverising, either by means of the mechanical means. The safest crop is Oats; but why does your correspondent whole of his Turnip crop is cleared off plough and sow as soon as each port of

I see also a paragraph about "Earth by "W. R." Whether he has one of earth closets, or only since the Rev. M. made such a work about h.s. the "W. B." plain, simple, practical view of the case adopted by any cottager, viz., that any for disinfecting quite as well as it saves time, and remunerates as well. That closets are no new thing you will see from I give from a paper of mine, written in two closets on the premises, having boxes out and in beneath the seat. A box of dry has been used a scoopful of the earth box, which prevents any scent from discomfited several people who were in Moulie's closets by telling them that I for 20 years Geo W Hau Derby Feb 22

Mr Meehi's Reply to 'T. B. S.'—Mr Meehi most politely avoids answering put to him, but goes at once to his denouncing all as antiquated do in his dangerous craft has marked Meehi charges me with having written blacken his agricultural character and that in no hostile spirit I demand from and immediate answers to these made h.s. valuations?—and who ascertain of the unthreshed corn? &c. I here farmer's mind and every kind of agricultural profession, to ascertain the however, a sardonic guess, from the balance-sheet, by whose agency the various written down, and the figures placed to give an example or two, viz., "horse from farm" for last year (1868). W. M. chased elsewhere, 13th. 11s. 10d. state that these entries are anything more to say the very best for them? Could Mr Meehi

AGRICULTURAL STATISTICS, 1868.

[We continue the publication of the official returns.]

STATEMENT OF THE NUMBER OF LIVE STOCK IN THE UNITED KINGDOM AND IN VARIOUS FOREIGN COUNTRIES, ACCORDING TO RETURNS FURNISHED BY THE STATISTICAL DEPARTMENTS OF THE RESPECTIVE COUNTRIES.

Countries.	Date of Returns.	Cattle.			Sheep and Lambs.	Pigs.
		Cows.	Other kinds.	Total.		
Great Britain	1868	2,143,805	3,280,086	5,423,891	No.	No.
Ireland	1868	1,463,058	2,157,094	3,620,152	30,711,396	2,308,539
Total United Kingdom (including Isle of Man and Channel Islands)	1868	3,606,863	5,437,180	9,044,043	4,822,444	882,443
Russia in Europe (exclusive of Poland and Finland)	Average of 1850 to 1863			22,816,000	39,213,000	2,717,000
Russia in Asia	1863			2,628,000	5,815,000	590,000
Sweden*	1866	1,237,000	150,000	1,387,000	1,650,000	390,000
Norway	1867			913,936	1,705,394	95,168
Denmark Proper	1866	811,831	38,000	1,193,861	1,874,082	881,612
Prussia	1867	4,865,838	3,130,920	7,996,758	22,202,087	4,875,114
Wurtemberg	1867	463,943	445,070	911,013	65,838	254,888
Bavaria	1863	1,521,113	1,641,274	3,162,387	2,039,983	921,456
Saxony	1867	413,733	211,505	625,238	304,087	325,584
Holland	1866			1,271,563	1,076,374	321,634
Belgium	1866			675,260	563,485	458,418
France	1862	5,781,465	8,415,807	14,197,272	33,281,692	5,216,403
Spain	1867			2,903,599	22,054,467	4,264,817
Italy*	1865			3,708,635	1,044,330	3,856,731
Austria	1864			13,600,322	16,577,450	7,914,855
Switzerland	1866	627,115	765,437	1,392,552	445,400	364,191
United States*	1867			12,649,693	32,705,797	13,616,976

* Estimate returns.

† Results of Census of 1866 not yet known.

Home Correspondence.

Steam Cultivation.—Like the general public, I have long ceased to pay any attention to what Mr Smith, of Woolston, thinks proper to write, but as he has gone even beyond himself in asserting that a deliberate statement of mine, made before the Midland Farmers' Club at Birmingham, is not founded in fact, I feel compelled to break silence. If this silly, egotistical, conceited man will refer to page 11 of our catalogue, he will there find an illustration and description of the implement I stated that I had used for ridging and subsoiling, and moreover, he will find that to this implement was awarded a 1st prize at the Newcastle meeting of the Royal Agricultural Society. Again, if he will take the trouble to ask his neighbour, Mr Pike, he will find that Mr Pike does not forget, and perhaps never will forget, walking over some fallows when coursing with me, broken up with this very implement. I know advice would be thrown away upon Mr. Smith, but I submit that the respectability of your Journal ought not to be lowered by admitting into its columns such a libel as Mr Smith penned last week. James Howard, Britannia Ironworks, Bedford, Feb. 24. [Mr. Smith, like many other energetic, useful men, must, no doubt, plead guilty to the possession of a quick, impulsive temper; and if, in this instance, as we suppose, from Mr. Howard's explanation, his temper

has been excited under a mistaken impression of personal injustice, he will probably, like other warm-tempered men, be ready enough to apologise for hasty words. The complimentary adjectives which Mr Howard has clustered around his name are not, however, very likely to mollify an opponent. We could have selected others quite as true, and much less likely to aggravate a dispute. Let us add, that if Mr. Smith is egotistical, it is a great mistake; for we shall always be happy to take up the cudgels for him. We are ready at any time to defend the opinion that there is not now among us any man who has done so much as he for the promotion of the leading agricultural improvements of the present century. Add up all upon the list—manufacturers, inventors, farmers—who have had any hand in the promotion of steam cultivation in this country, he stands clearly at the head of it. No one has done more work with less encouragement and pay. Ed.]

The Lambing Season.—Success now depends upon the prior management of the ewe flock—for which if it has been properly grazed through the winter, no great danger need be apprehended, from abortion, fevers, colds, &c. They cannot be kept too quietly, and they must be regularly fed; not profusely, but just so much as will keep them in fair, ordinary con-

Foreign Correspondence.

PARIS. Agricultural Improvements in France. From the report of the Commission on the subject of the improvement of the rural population...

A Commission was appointed some time since to examine and fix the conditions of the rural population, and a report was made on the subject...

The Agricultural Improvements in France. Referring to the report of the Minister of Agriculture which contains the results of the special commission...

Attention has also been given of late to the increase of professional agriculture in the primary colleges and in the agricultural instruction in order to place the country...

A fresh addition was made the other day to the means of education in the rural population by the Minister of Agriculture and Commerce...

In the year 1857 a grand agricultural prize was established, and has since been awarded annually...

list of prizes will be open to competition - 1st class. Prizes for the best of the year... any competitor show that he has introduced improvements of a peculiarly useful and valuable kind...

The annual metropolitan show of fat animals is arranged to take place at the new cattle market at Vauxcelles, from the 15th to the 20th of March...

The poultry show has before been held at Christmas time, but it is now held in the month of May...

The show of seeds, roots, &c., to include cereals, Broad Beans, Peas, Vetches, Beetroot, Carrots, Turneps, Cabbage for feeding animals, Potatoes, and green crops...

The Society of the Agriculturists of France has been engaged upon holding a congress this year in each of the towns where a regional exhibition takes place...

Societies.

BATH AND WEST-OF-ENGLAND.

Feb 23 - At a meeting of the Council of this Society, at Yeovil, it was reported that the Journal is in type but delayed for a short time...

Southampton Meeting. - Local Prizes - A list of prizes offered by the Southampton local committee was provisionally accepted by the Council...

WEST-CUMBERLAND.

Deep Cultivation - Mr. CLARKE of Barn Coteal, opened a discussion on deep-land culture. He said he had been long convinced that deep cultivation was one of the main elements of successful farming...

Mr. R. JEFFERSON (Preston House) said that he had been an advocate for it since... He had been an advocate for it since... He had been an advocate for it since...

DISCUSSION.

Mr. R. JEFFERSON (Preston House) said that he had been an advocate for it since... He had been an advocate for it since... He had been an advocate for it since...

Mr. J. H. M. (Preston Castle) said it was... He had been an advocate for it since... He had been an advocate for it since...

Mr. J. H. M. (Preston Castle) said it was... He had been an advocate for it since... He had been an advocate for it since...

Mr. J. H. M. (Preston Castle) said it was... He had been an advocate for it since... He had been an advocate for it since...

young Wheat is very forward, almost too so in fact, but on the whole, on the increased basis of appearance, it is very well, and the weather is much needed.

Notwithstanding the open winter, the work is by no means forward, and the crops are not so far advanced as they should be, owing to the late sowing and the late start of the season.

Our great loss was the loss of the wheat crop, which was almost entirely destroyed by the late sowing and the late start of the season.

WEST SUSSEX. Feb. 27. We have now to think, passed through one of the mildest winters that any one remembers. Hardly any frost, but growing weather since the last autumn rains. This has been very fortunate for the stock, as they are not so much affected as in a severe winter.

There is still more than the usual quantity of work to do, as the weather has been so good, and the crops are so far advanced. It is a pity that the weather is not so good as it is, as it would be very profitable for the farmer.

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The lambing season is nearly over among the farmers, and has been a good one. The lambs are well, and the ewes are in good health.

Mangels that we have, and the other crops, are very good, with Vetches, and the young Clovers without a doubt.

A CORNWALL FARM.—The farm I occupy is, as you are aware, like this district, chiefly the light land, or out-land, which characterise the tablelands of the Cornish hills, partly arable and pasture, but some of the best land is in part reserved for the use of the farmer.

As regards the crops, the winter has been a dry one, and the crops are not so far advanced as they should be, owing to the late sowing and the late start of the season.

Steam cultivation has scarcely been adopted at all in this district, the soil being thin, but I think, with care, it could be done, particularly for lightly sowing the stubbles in the autumn as a preparation for next year's crop.

The yield of Wheat per acre was last year above the average, the quality, too, was extremely good, and most of it was harvested in fine condition and fit to thresh.

Barley was generally well harvested, but the yield has been deficient, and partly rather hard and steeley, yet very bright and dry.

Oats very deficient in corn and straw, weight light, Pans fair, Beans middling, not much grown here. On the whole, Wheat was by far the best crop of last season.

Every farmer, more or less, did something to supplement the bad early root crop, sowing turnips, Taro, and Rape, Mustard, Trefoil, Clover, Vetches, &c., and of which to some extent, are now useful for spring food. As many of the early crops failed they were ploughed up, and some were sown in the spring for food, and some were sown in the autumn, with Grass seeds again this year. The early crops of crops has therefore been very good, and the old crops will be very good.

The roots having failed, some of the best has been found to winter the live stock, but as an article of food is dear, many cattle and sheep which should have been so fat in spring have been only treated as stores. The straw being sweet, and the hay good, although a great deal has been cut into hay, that straw, if cut green at harvest, being particularly valuable, and where roots could not be spared, a little cake or ground corn or linseed has been mixed and given, the food in some instances being cooked or steamed, and with such provender and good water, cattle will do fairly. In the case of store sheep, chaff mixed with malt-combs, bran, oats, cake, or maize has been used, the

sheep having water and perhaps the roots of some of the crops. By such means, the live stock has been wintered at least as well as in a severe winter.

The Poultry Yard.

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Obituary.

Mr. Sethy Lowndes' hounds on Saturday last.

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Miscellaneous.

Where are we?—Man himself. I have heard that the world is a very good one, and that the weather is very good.

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	Barley	Beach
1840-1850	1.00	1.00
1850-1860	1.46	1.54
1860-1870	1.25	1.25
1870-1880	1.72	1.72

The price of wheat appears by these figures to be about that of wool to have risen on the average 1,100 per cent. in the 200 years, and is all the more remarkable named the greatest rise was from 1700 to 1800. E. T. Clegg's Letter, in the "Economist."

Calendar of Operations.

In looms continue to feel the weather, and so do those on the Turnips... The season, however, is favourable... Indoors, for example, clean-... requires to be as closely attended... of the food. The old maxim, "be seen before he is fed," we need... means that a farmer should be the first to... the morning, and see his orders... attended to during the day, and... night, so as to ascertain two very... the first, whether his orders... into effect and the second,... were what his Lulack required... comprehend the importance of both... make it a point to see their bullocks... Early Grass is, in the language of... and liable to purge, so that when... should be well mixed with chaff or... otherwise, if given to milch cows, it will... and their calves. The same remarks... and their followers on the young... and even hill and down pastures... eaten bare. In a few meadows... plenty of old withered, aftermath... mixed with the young Grasses... the absence of frost this year there is... than usual, while the proportion... of dry food required to keep the... There is perhaps no ailment so... at this season as purging, for it not... the best of the horses, but lays the founda-... that eventually up to the const-... the Turnips in the field it is not enough... hay, or even corn, in a season like this, the Turnips are not pulled, for we have... and the scythe on the fresh plots a day... cutting the green tops clean off, so... to dry before shifting the roots, and to... roots of young shoots. In one or two... Turnips tops were carted home and...

and Lambing now engross a large amount of the cattleman and shepherd in per- of counties. The management of depends much upon breed and the the herd so that no general rule can... The common one is, "Avoid the two... (power and fatness)" and at the golden... it appears to a breed, but it is no easy... in the case of our improved... and Devons, and thus applies... to approved breeds of sheep and... remember the fat extreme is per-... more to be... the opposite. In other words, the best... and shepherd is to keep on... of the golden mean. Calves... require a dry bed, with plenty of scope...

This is a favourable season for... of this motey brood, with the view... of them if possible. How best to get rid... at the homestead and moles in the... and upon cattle is a sure... are not in so thriving and cleanly a state... could be. But there are other pests... to get rid of than these, and not a few... that of late years they have been on... others say the microscope is making us... them. But whichever of these... right, all are agreed that to get rid of... grand desideratum. We allude to... that attack the roots of Turnips, Cabbages, ... and fluke-worms, that prey upon the... and saep, and even spoil our beef, ... also the pramy race of vegetables, ... our cultivated crops and domesticated... Now if we mistake not, this and the next... to lay the axe to the root of the... to the mis-ness of the season just now, ... every week a fortnight gained or lost in... as the case may be and the means of... and effective if properly applied. ... our correspondent describe them?

Notices to Correspondents. B.S. says - A customer of ours is... he can be best evicted. He says... which has been meadow land for... is very much a fester. In these grasses, ... the best way to get into very bad a... through it and would be glad to... put on it, and the best... of the grub. He... it was spread over... Any remedy involving... its growth by... a new farm... crop... Next week... J.M.E. says - "As... of my statement (see... produced on my... I find we took... 8 perches on the aver-... 8 cwt., whatever... of my... We... Hordens is feared, and... Green, Isen ion, ... is impossible that our cow suffering... caught it from the fact of... a dressing of...

PAUL'S NURSERIES AND SEED WAREHOUSE, WALTHAM CROSS, LONDON, N. GENUINE AND FIRST-CLASS SEEDS. WILLIAM PAUL

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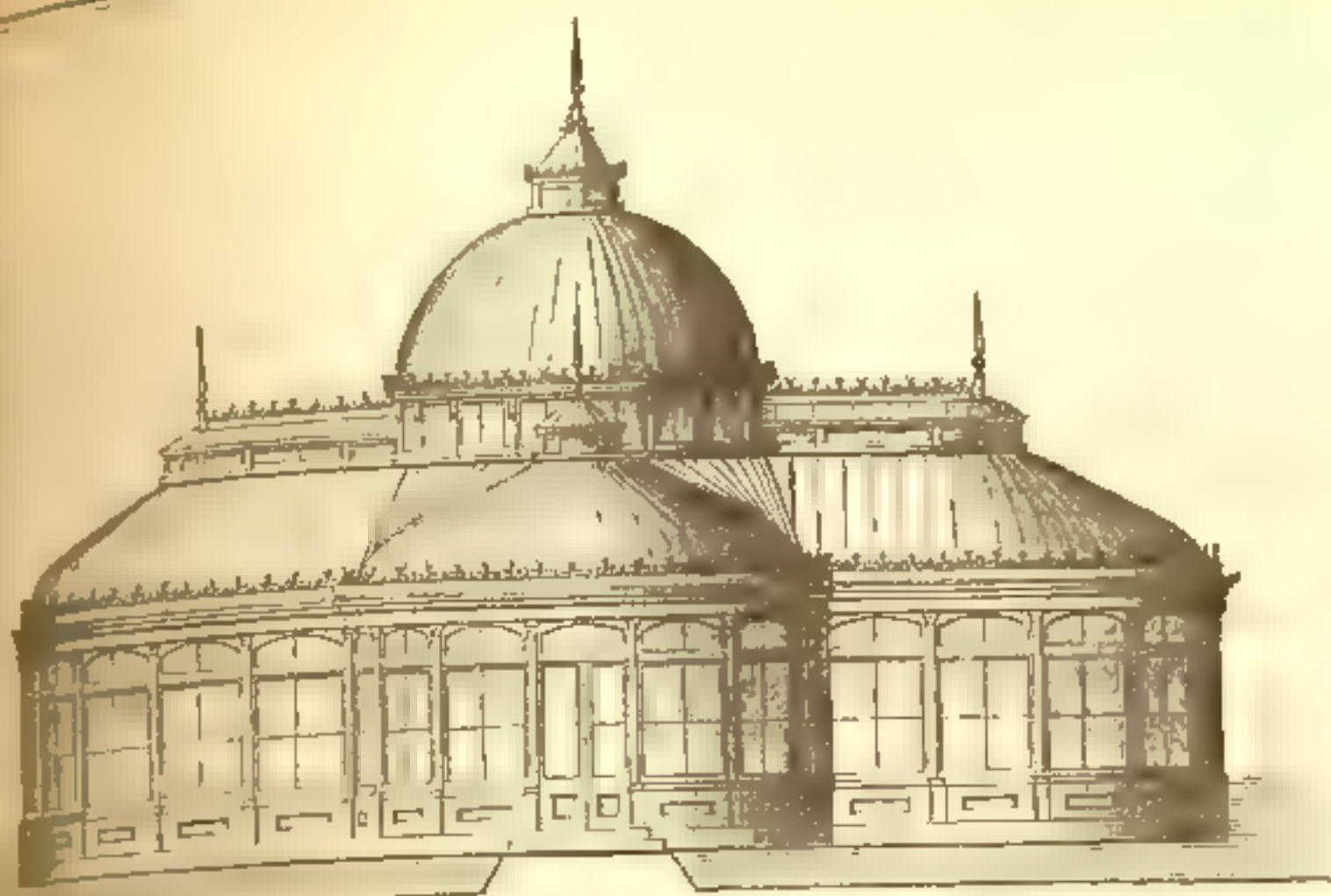
- BEET, Paul's Superb Crimson, 1s. per packet.
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ERECT NEW PLANT HOUSES IN THE ROYAL GARDENS, KEW,
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TINTED GREEN GLASS is highly approved of by the Director and Curator of the Royal Gardens,
 as a result of its excellence in subduing the scorching rays of the sun, and thereby producing a luxuriant and
 growth of the plants.

He has made arrangements with an eminent Manufacturer for a supply of this particular description of Glass,
 who may entrust their Orders for New Structures to him, may fully rely on getting the same description
 of Glass as used by him at Kew.

H O. is desirous of cautioning Horticulturists against spurious imitations of this Glass.

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 USED IN CARRYING OUT THE IMPROVEMENTS IN THE HEATING APPARATUS
 AT THE ROYAL GARDENS, KEW,

are extensively used in preference to Cast-Iron ones, on account of their great security against cracking.

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SPECIALLY DESIGNED TO SUIT ANY STYLE OF ARCHITECTURE.

COMPLETE ARRANGEMENTS OF

FIRST-CLASS HORTICULTURAL STRUCTURES

TO SUIT ANY GARDEN, LARGE OR SMALL.

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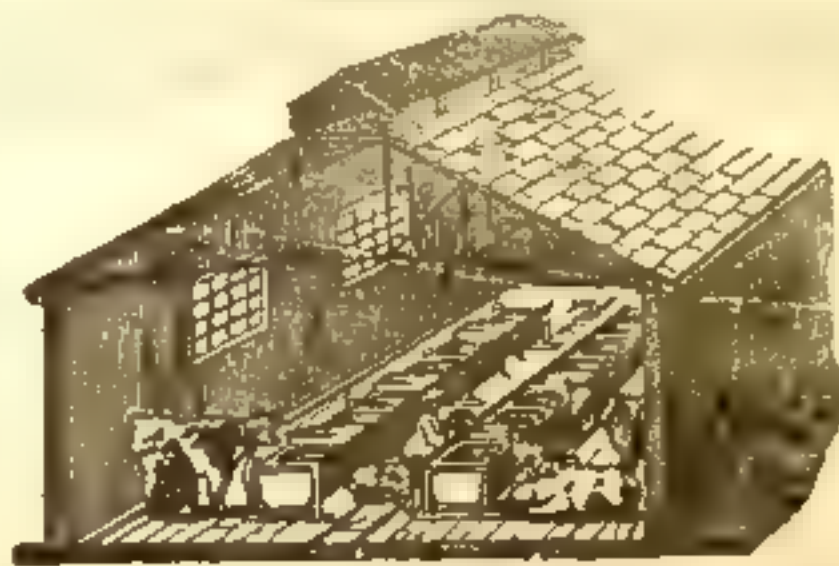
HEATING APPARATUS MANUFACTURER TO THE COMMISSIONERS OF HER MAJESTY'S ROYAL PALACES
 AND PUBLIC BUILDINGS, AND TO THE ROYAL HORTICULTURAL SOCIETY,

STANLEY BRIDGE, KING'S ROAD, CHELSEA, LONDON, S.W.

MASTIC L'HOMME-LEFORT, or COLD GRAFTING
 WAX, an invaluable preparation, for use in the operation of
 Grafting. It requires no melting, is always ready for use, and
 becomes perfectly hard when exposed to the air. Mastic L'Homme-
 Lefort is the BEST STYPTIC to PREVENT the BLEEDING of
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 Vermin, Hay Rack and space with an unnecessary, increased width
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SMALL SHEET SQUARES, 15 oz., per 100 feet.

6 by 4	7 by 4	8 by 4	9 by 4	10 by 4	11 by 4
12 by 6	13 by 6	14 by 6	15 by 6	16 by 6	17 by 6

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4ths quality, per 300 feet case, 36s.	4ths quality, per 200 feet case, 36s.
3ds " " " " 42s.	3ds " " " " 42s.
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ERS, 3d. to 4d. per lb.	LINSEED OIL PUTTY,
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RED PAINT .. 2s. to 3s. 0	KNOTTING 10 0
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Glass for Garden Purposes.
JAMES PHILLIPS AND CO.
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PROPAGATING GLASSES.

3 inches in diameter	Each—s. d.	12 inches in diameter	Each—s. d.
4 " " "	0 4 1/2	14 " " "	2 0 0
6 " " "	0 6 1/2	16 " " "	2 6 0
8 " " "	0 8 1/2	18 " " "	3 6 0
10 " " "	1 0 1/2	20 " " "	4 6 0
12 " " "	1 2 1/2	22 " " "	5 6 0
14 " " "	1 4 1/2	24 " " "	6 6 0
16 " " "	1 6 1/2	26 " " "	7 6 0

BEE GLASSES, with ventilating hole through knob.

4 inches in diameter	0s. 6d.	8 inches in diameter	1s. 3d.
6 " " "	0 9	10 " " "	2 0
8 " " "	0 10	11 " " "	2 6
10 " " "	1 1	12 " " "	3 0

CUCUMBER GLASSES.

24 inches long	2s. 6d.	10 inches long	1s. 4d.
22 " " "	1 10	11 " " "	1 2
20 " " "	1 8	12 " " "	1 6
18 " " "	1 0		

HAND GLASSES WITH OPEN TOPS.

12 inches	6s. 6d.	18 inches	9s. 6d.
14 " " "	7 0	20 " " "	10 0
16 " " "	8 0	22 " " "	11 0
18 " " "	9 0	24 " " "	12 0

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LINSEED OIL, GENUINE WHITE LEAD, CARBON'S PAINTS.
PAINTS of various colours ground ready for use.
SHEET and ROUGH PLATE GLASS, SLATES of all sizes, **BRITISH PLATE, PATENT PLATE, BOLLED PLATE, CROWN, SHEET, HORTICULTURAL, ORNAMENTAL, COLOURED,** and every description of **GLASS**, of the best Manufacture, at the lowest terms. Lists of Prices and Estimates forwarded on application to **JAMES PHILLIPS & CO., 130, Bishopsgate Street Without, E.C.**

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UNIVERSAL FLEXIBLE AND LEAKLESS PIPE-JOINTS.

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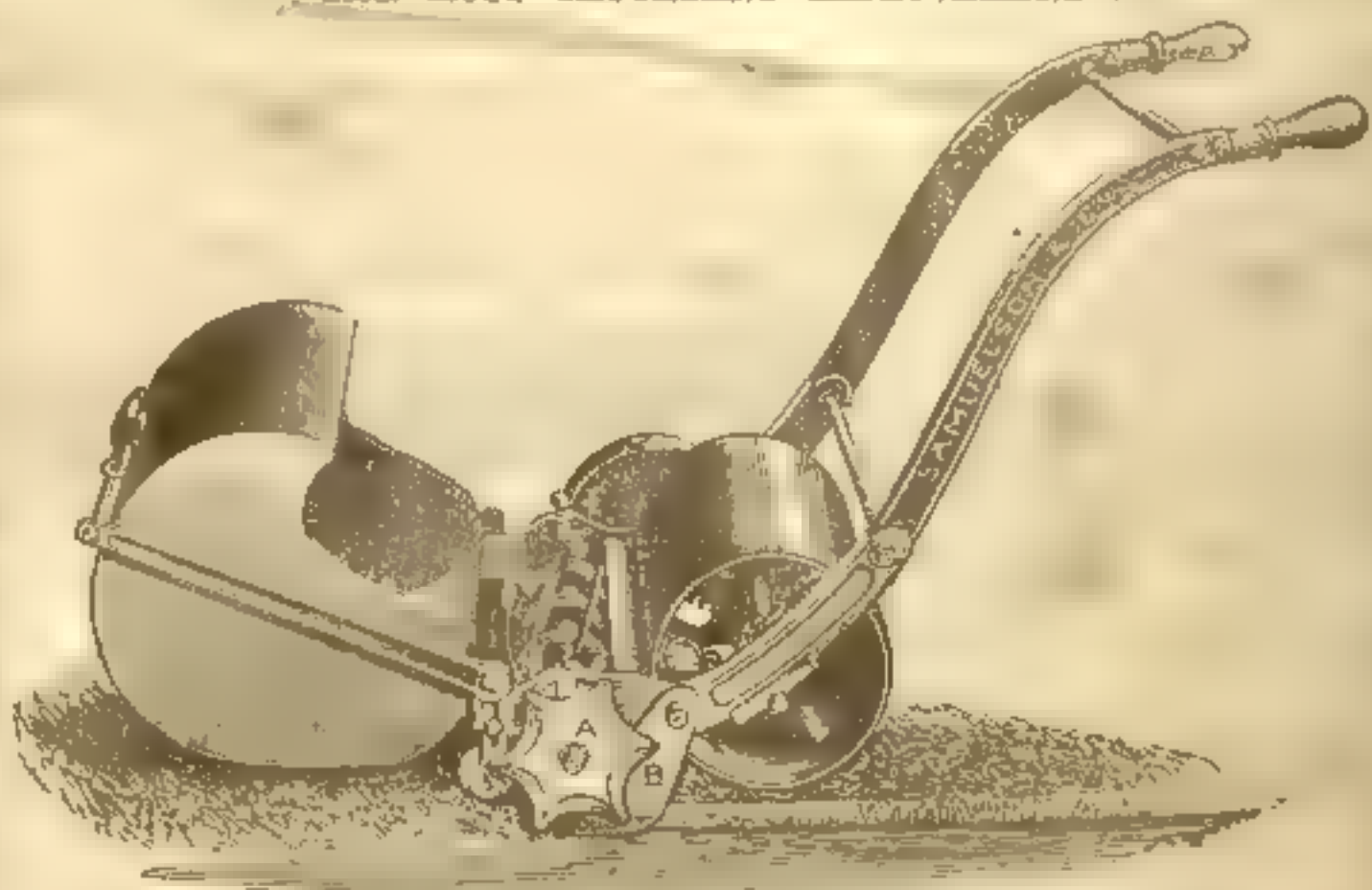
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about 300 different kinds, at from 10s. to 25s.

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PORTEFLEURS, or low **FLOWER BASINS** antique and modern; **SMALL FIGURES** &c.; **FIGURES OF ANIMALS and BIRDS**; **DIAL PEDESTALS,** about 20 designs; **BASKETS** of various sizes; **GARDEN SEATS,** of various designs for the ends of terraces, **SHELTERS** for 1 to 14 feet wide, **FLOWER BOXES** for 1 to 14 feet wide, **BAPTISMAL FONTS,** from 2 to 12 feet high, **TERMINALS,** for gate-piers, **BALUSTRADES** of architecture, a great variety of **ORNAMENTAL** flower-beds, **GOthic CROSSES, PINNACLES, and NICHES.**

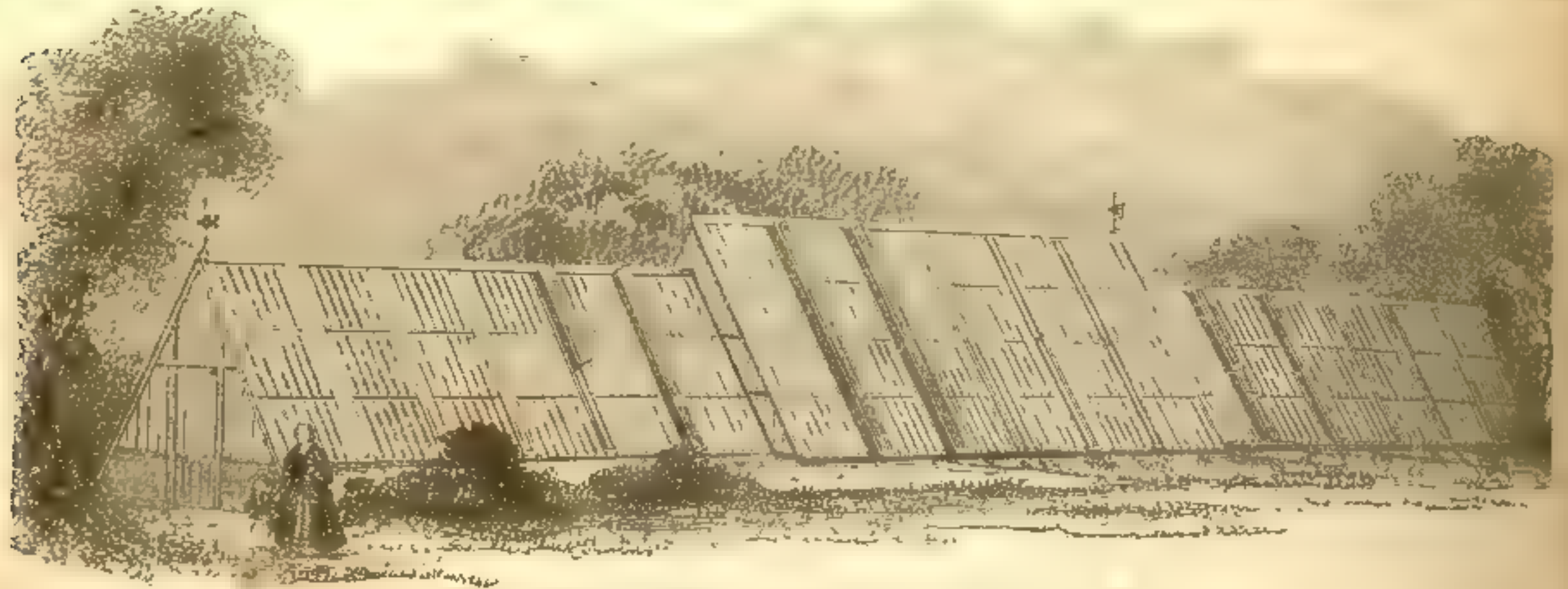


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NEW CATALOGUE (34 pp.) IS NOW READY, AND WILL BE SENT FOR SIX STAMPS, AND FREE TO PURCHASERS.

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REGS TO CALL SPECIAL ATTENTION TO HIS SUPERB STRAIN OF THIS

UNIVERSALLY ADMIRER WINTER AND SPRING FLOWERING PLANT.

He can with confidence offer it as being unequalled in cultivation.

Plants from this Seed have always been awarded First Prizes wherever exhibited. B. S. W.'s strain of Primula well known to all the principal gardeners in the three kingdoms that testimonials are unnecessary.

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DIPLADENIA AMENA.

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THE WHOLE STOCK OF THE ABOVE BEAUTIFUL PLANT,

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MYOSOTIS SYLVATICA SEED, the finest Forget-me-Not for spring gardening.
ORNAMENTAL GRASSES
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MELONS.—Choice hybrid, our own raising; unequalled for their exquisite luscious flavour, fine shape, and beautiful lacing.
NETTLES.—All the usual sorts in cultivation, seed saved from selected fruits on 7
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New Golden Coleus.

DOWNIE, LAIRD, AND LAING can supply the whole series raised at the Royal Horticultural Society's Gardens, Chiswick, at advertised prices, after March 15. CATALOGUES free on application. Stanstead Park, Forest Hill, S.E.; and at Edinburgh.

Beautiful New Coleus.

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New Golden Coleus.

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W. H. ROGERS, Red Lodge Nursery, Southampton, offers a large and magnificent collection of the above, nice bushy plants, full of booming buds, £10 per 100, 30s per dozen, or selected extra fine 3s. 6d. each. A detailed CATALOGUE may be had on application, and also of one of the finest and most extensive General Nursery Stocks in the Kingdom.

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To the Trade and Others. WANTED a large number of the following: HEPATICAS (Double), A good seed and red. Single, blue, intense, red and white. VIOLETS (Double), Raudyana, red and white. ST. PETER'S (Double), L'Esperance, Mauve Queen. PRIMA DONNA (Double), and also a few POLYANTHUS (Double), for the purpose of sowing for seed, scarlet flower, and double dark DAMISSE, crimson red, white, rose, and pink. ALBERTINA GRANDIFLORA, ALYSSUM SAXATILE, ISBERG SEMPERVIRENS. Apply, stating lowest price per 100 for each, to T. L. MAYO, Seedsmen and Florist, Lugwardine, near Hereford.

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Add S. W. I. L. L. I. A. M. S. the seeds are of a very early sowing, to be sown in the autumn, and produced in long succession, 1 0
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- Per dozen s. d. Per dozen s. d.
Violets, Queen of Violets, double white, 4 0 Auriculas, finest mixed, 2 6
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" double red, large and attractive, 4 0 " five named varieties, 12 0
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" tree, tree, 4 0 Helianthemum, or dwarf Rock Daisy, 3 0
" single, the Star, very large and fine, 4 0 Picotees, crimson Clove, blue Bouquet Glove, and new early improved Anna Boiey Pink, 4 0
" Devonianus, fine, 3 0 Phlox, Pentstemon, Chrysanthemum, all the best kinds of 1867, 4 0
Hepaticas, double red, single pink, single red and blue, 2 6 Nierembergia rivalaris, 6 0
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Daisies, Bacchus, Magpie, Pink Beauty, Queen of Whites, Red Rover, Rosy Gem, and others, 3 0 Rockets, double white and purple, 3 0
" gold blotched, acumbifolia, 3 0 Hot shocks, five new named varieties, 6 0
" Knothera missouriensis, 3 0

Scott's New Garden and Farm Seeds. VEGETABLE SEEDS.—J. Scott's stock of Vegetable Seeds is of the purest and best quality. Customers and friends who in years past have been benefited by the appearance of the seeds, are invited to give attention to the appearance of the seeds. The seeds are raised by growers of the highest respectability, who have a world wide reputation, and are received by J. Scott direct from Germany, France, and England, &c., &c. The seeds which took nearly every Prize at the last season at all the neighbouring and many other shows were supplied by J. Scott and large quantities of various kinds of seeds are sent to all parts of the British Isles to correspondents who speak in the most flattering terms of their choice quality. For a full price, and description, see J. Scott's VEGETABLE and FLOWER SEED CATALOGUE.

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FLOWER SEED NOVELTIES FOR 1869.

Abronia arenaria.

This very pretty novelty agrees in its general habit of growth with the well-known A. umbellata, having, like that species, trailing stems, etc., entire, and somewhat fleshy foliage, and flowers in stalked umbels from the axils, but differs in the colour of its blossoms, which are of a pure waxy yellow, delicately scented, and produced in long succession. It blooms easily first year from seed, and may therefore be treated as a half-hardy annual, but is perennial in dry soils. Per packet, 1s.

Agrostemma coeli rosea, dwarf-fringed Lilac.

A very beautiful novelty; it produces large, compact bushes 8 to 9 inches high, exceedingly floriferous, bright, violet lilac, very fresh, and so numerous as to resemble a large bouquet. Per packet, 1s.

Agrostemma, dwarf-fringed Rose.

Very pretty hardy annual, showy, and keeping in flower a long time. Per packet, 1s.

Amaranthus bicolor ruber.

Fine vigorous variegated-leaved plant, with abundant foliage, green, striped, and shaded with purplish red at the foot of the stems and branches, bright carmine scarlet, sometimes pointed yellow, and thickly set at the top. We consider this variety as one of the best variegated-leaved plants, very different from, and far more showy than an old Amaranthus bicolor. Per packet, 1s.

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(NEW GOLDEN PRINCE'S FEATHER).

This is a seedling from the well-known purple Prince's Feather; it agrees in almost every point with the variety hitherto cultivated, but differs in a striking degree in its tint, which is of a rich golden yellow; from its distinct colour, for massing in beds or as a line in a ribbon border, it will be found invaluable. Per packet, 1s.

Arabis arenosa.

This is one of the finest spring flowers; the reason of its being so rarely cultivated is through improper treatment, sown in June, July, and August, and transplanted in September and October, about 18 inches high, it will produce in spring a very dwarf bush, about 18 inches wide, covered with a large number of flower spikes, varying from rosy white to bright rose. Per packet, 6d.

Aster Bouquet Perfection (Schilla Aster).

Exceedingly beautiful, excels all other varieties by the regularity of its habit, a very plant, with its numerous full double deep flowers, forms a perfect bouquet in the shape of a pyramid. Foliage very distinct, height about 15 inches. White variety. Dark carmine with white. Per packet, 1s.

Asperula azurea setosa.

Hardy annual, most profuse blooming. It is of a dense habit, attaining an average growth of 1 foot, and covering itself with bunches of beautiful light blue flowers, which are very sweet scented, lasting a long while in perfection. Per packet, 1s.

Cheiranthus Cheiri albus plenus.

White flowered double Wall flower, very striking and beautiful, in two varieties. I White double branching, 1s. 6d. per packet. II White double branching Rocket, 1s. 6d. per packet.

Datura fastuosa Huberiana.

New varieties, mixed.

These charming novelties comprise the most beautiful variations in colour, such as white and yellow, violet and sulphur. They are most distinct and highly desirable additions. Per packet, 6d.

Delphinium formosum celestinum.

A soft, light sky-blue of this fine hardy variety, very beautiful. Per packet, 6d.

Dianthus barbatus nigricans

(SWEET WILLIAM).

An elegant novelty, which by its very dark character differs widely from all the other varieties yet offered. It has deep violet leaves and dark blood-red velvety flowers. Per packet, 6d.

Heartsease or Pansy.

- KING of the BLUES, per pkt. 1s. 6d.
GOLDEN BELT, " " 1 6
PURE WHITE, " " 1 0
VIOLET, with white edge, " " 1 0
COPPER COLOURED, " " 1 0
SKY-BLUE, " " 1 0

The above splendid varieties are now completely fixed, and reproduced from seed almost without sporting.

Heracleum eminens.

Hardy perennial herbaceous plant. A most beautiful ornamental foliage plant, attaining a large size, of exquisite beauty as a single plant on lawns or in groups in parks. The beautifully delineated foliage is of great substance, densely covered with a greenish white tomentose down, very ornamental throughout the season. The flower-stems bear very umbrellaceous nobly-formed umbels of flowers. A rare and altogether magnificent species. 1s. per packet.

Ipomoea hederacea atrocarmina grandiflora alba marginata.

Handsome variety, with brilliant carmine flowers, edged pure white. Six Seeds, 1s. 6d.

Ipomoea hederacea grandiflora alba picta carminea.

With silver marbled leaves, heart-shaped, largely marbled with silver grey, flowers white, dotted with brilliant carmine. Six Seeds, 1s. 6d.

Ipomoea hederacea alba grandiflora.

Ipomoea hederacea grandiflora alba picta lilacea.

With silver marbled leaves, heart-shaped, largely marbled with silvery grey, white flowers, spotted with clear lilac. Six Seeds, 1s. 6d.

Ipomoea hederacea atrocarmina intus alba.

With silvery marbled leaves, tri-lobed leaves, largely marbled silver grey, flowers dark carmine, with large white throat. Six Seeds, 1s. 6d.

Marigold, Dwarf French New Golden.

A pure golden dwarf French Marigold, very double and compact. Per packet, 6d.

Mimulus repens.

This very distinct species presents a marked contrast in its habit and foliage, as well as in the colour of its flowers, to most of the other members of this popular genus. It produces slender trailing stems, clothed with very small ovate entire foliage, and bears pale lilac-purple colour, the lower lip being prettily spotted with orange on a yellow ground. It is best suited to pot culture, being a cool greenhouse plant, and produces its flowers during the summer months. Per packet, 1s.

Modiola geranioides.

An elegant little tuberous-rooted Malvaceous plant, of a habit, with pretty incised foliage, and light crimson flowers, rather more than an inch in diameter, produced from the base. Though an abundant bloomer, it is unfortunately a shy winter England. It has proved quite hardy in well-drained light soil, as of the easiest culture. Per packet, 1s.

Nierembergia frutescens.

Soft-wooded shrub, from Chili, 2 1/2 feet high, branching habit, with white lilac flowers, abundant bloomer. Per packet, 6d.

Oxalis valdiviana.

It is quite hardy, its habit is compact and good, and it blooms well above the foliage. The flowers are of a bright yellow, sweet scented, and produced in bunches of large size. The plant thus continuing a considerable time in bloom. Per packet, 1s.

Palava flexuosa.

This most beautiful annual is one of the finest introductions of late years, average height 15 to 18 inches, branching freely, producing in the greatest profusion its charming flowers, which are borne above the foliage. Its leaves are very neat and graceful, colour rosy pink, fading towards the centre, while the base of the petals is almost black, producing a fine contrast. Per packet, 1s.

Perilla nankinensis folis variegata.

The dark leaves are beautifully variegated with silver and reproduced well from seed. Per packet, 1s. 6d.

Polafoxia Hookeriana.

A beautiful rose flowering everlasting. Per packet, 6d.

Portulaca grandiflora flore-pleno (DOUBLE PORTULACA)

Mixed seed, consisting of the finest double varieties, of the most brilliant colours, in scarlet, crimson, yellow striped, &c., &c. Double two-thirds double flowers. Per packet, 1s.

Potentilla.

Fine double varieties, mixed, containing rich crimson, red, yellow, and finely mottled varieties of the finest persons. Per packet, 1s.

Pyrethrum (Golden Feather).

This new and beautiful bedding, edging and rockwork plant, true from seed. One of the most effective and beautiful plants of the season. Per packet, 6d.

Solanum capsicastrum Henderson.

A fine seedling between Capsicastrum and Phlox, of a neat and beautiful plant, covered with berries of scarlet, in culture and winter decoration, height 1 1/2 to 2 feet. Per packet, 1s.

Stock, Anderson's Rose Intermediate.

A very dwarf free flowering variety, well adapted for pots, beds, masses, or ribbons, the habit is fine and compact. Per packet, 1s. 6d.

Tacsonia Van Volxemi.

This splendid and beautiful climber we can offer seed of, one of the finest of this tribe, free to flower of many months, since in bloom, colour very brilliant. Per packet, 6d.

Trachelium canescens, flesh-coloured flowers, lilac-coloured flowers.

Two pretty new varieties of this very useful ornamental flowering plant. Per packet, 1s.

Viola lutea.

A neat new bedding and edging plant, quite hardy, of a compact habit, and produces its beautiful canopy of flowers throughout the season (rain or sunshine) in the greatest profusion. This plant has qualities adapted for bedding purposes, which are known will render it as popular and as much sought after as a lovely companion the Viola cornuta. Per packet, 6d.

Viscaria oculata, Dwarf Perfectus.

This is a remarkable fine novelty, very dwarf, 4 to 6 inches high, very bushy and compact, exceedingly floriferous, flowers are of a slightly shaded lilac, with a purplish stain in the centre. Per packet, 1s.

Viscaria elegans picta.

The centre of the flower is dark crimson, gradually passing to bright scarlet, belted with a pure white margin, producing a fine and brilliant appearance. Per packet, 6d.

Waitzia Steetziana.

A very pretty miniature species, suitable for pots, but growing well in the open ground, not apt to die off as some of the other species; about 6 inches high, with comparatively large compact yellow flowers. Per packet, 1s.

Wigandia vigieri.

This is one of our best large ornamental, care being not superior, in size to Wigandia, from which it is distinguished by the silvery tinge of its immense mass. Per packet, 1s.

Zamesia americana.

This is a neat dwarf, deciduous shrub, belonging to the Saxifrage section of the Saxifrage tribe, and attaining a height of about 1 foot. It produces opposite-ovate, serrated foliage, white beneath, and terminal cymes of neat white Saxifrage-like flowers. A very fine plant, being found apparently in only one locality in New Jersey, the vicinity of the Rocky Mountains. It is perfectly hardy, and easy culture in light soil. The seeds are small, like those of some species of Saxifrage. Per packet, 1s.

THE ADVANTAGES OF PROCURING NEW AND UNADULTERATED SEEDS DIRECT FROM THE GROWERS CANNOT BE OVERESTIMATED.



JAMES CARTER & CO.

ARE NOW PREPARED TO

SUPPLY THEIR PRIZE STOCKS

OF

FARM SEEDS

HARVESTED ON THEIR OWN SEED FARMS.



237 and 238, HIGH HOLBORN, W.C.

CARTER'S GRASS SEEDS.

237 and 238, HIGH HOLBORN, W.

FOR LAWNS and CROQUET GROUNDS. MIXTURES of the FINEST PERMANENT GRASSES, to produce an even and carpet-like turf. As supplied to H. I. M. The Emperor of the French, H. R. H. The Crown Princess of Prussia, The Paris Exhibition, 1867. Finest Quality, 1s. per lb., 20s. per bushel. Second Quality, 18s. per bushel. Sow 3 bushels per acre for a new lawn, or 1 bushel per acre (more or less) to renovate.

FOR PERMANENT PASTURES. Consisting of the most desirable Natural Hay-producing GRASSES and CLOVERS, to produce a permanent turf of the best quality. As supplied to The United States Government, H. B. M. Defences, Hulsea Lines, &c. For HEAVY SOILS, For MEDIUM SOILS, For LIGHT SOILS. Finest Quality, 28s. to 32s. per acre. Second Quality, 20s. to 26s. per acre.

FOR ALTERNATE HUSBANDRY. Including the greatest Food and Hay producing GRASSES and CLOVERS, in such proportions as the particular rotation may require. As supplied for H. B. Majesty's Coast Defences, &c. &c. For ONE YEAR'S LAY, best quality, 13s. 6d. per acre. For ONE YEAR'S LAY, 2d quality, 12s. 6d. per acre. For TWO YEARS' LAY, 17s. 6d. per acre. For THREE or FOUR YEARS' LAY, 22s. per acre.

FOR THE MOST GENERAL AND PRACTICAL HINTS ON CULTIVATION, SEE

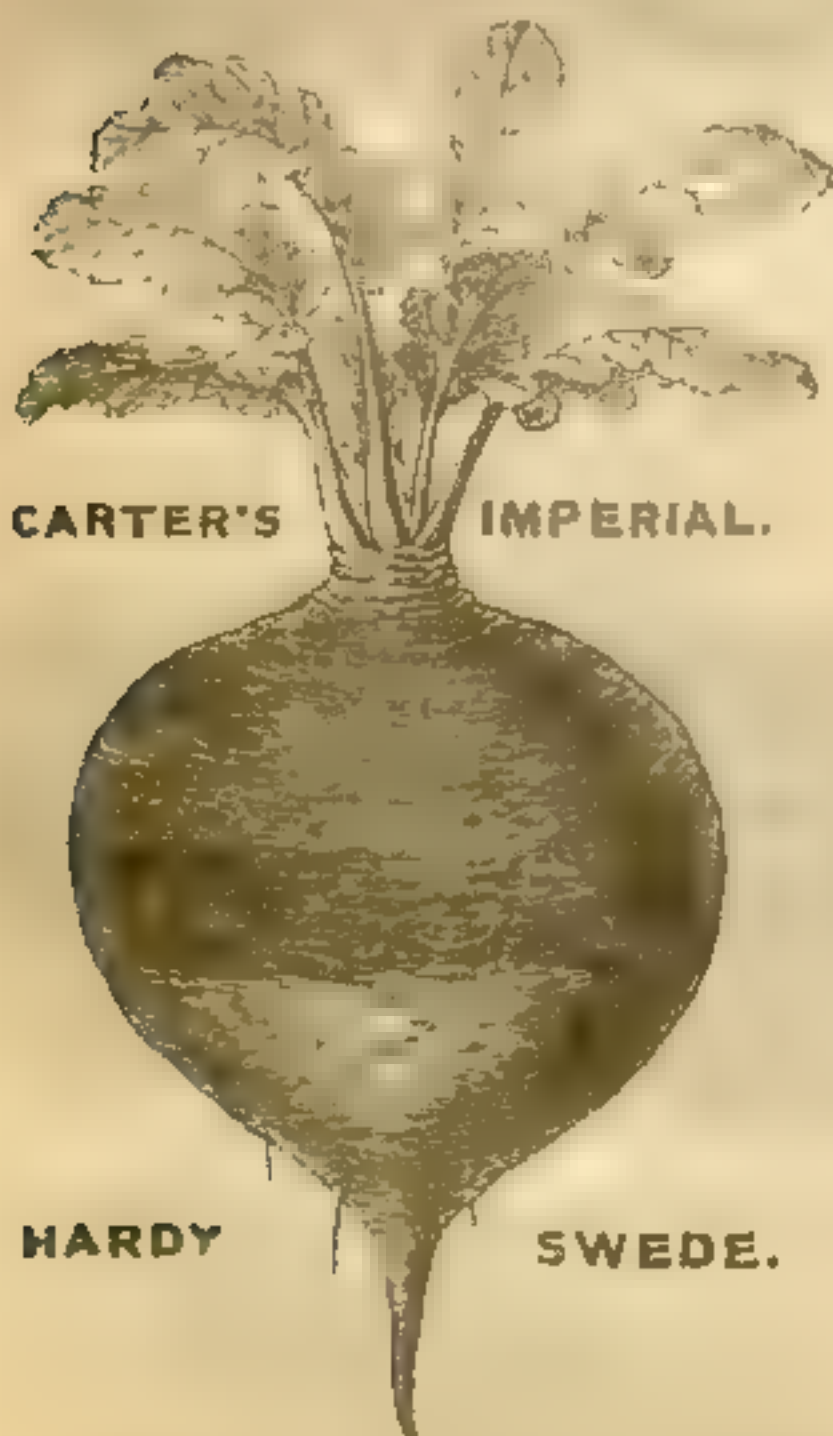
CARTER'S ILLUSTRATED FARMER'S CALENDAR FOR 1869,

Price 6d., Post Free. Gratis to Customers.

RYE GRASSES. "CARTER'S SUPERFINE," AS SUPPLIED TO Her Majesty's Royal Savers Commission, The Metropolitan and Birmingham Sewage Company, &c. 7s. 6d. per bushel. Cheaper samples from 1s. to 4s. per bushel. PACEY'S PERENNIAL, 7s. per bushel. Cheaper samples, 5s. to 6s. 6d. per bushel.

CARTER'S GRASS SEEDS FOR CRICKET GROUNDS, AS SUPPLIED TO The Marylebone Cricket Club, 1869, The Crystal Palace Cricket Club, 1869. 18s. per bushel. Sow 3 bushels per acre for a new ground, or 1 bushel per acre to renovate.

CARTER'S FINE CLOVERS. Free from weeds and dirt. BROAD-LEAVED RED, PERENNIAL RED or COW GRASS, WHITE DUTCH, ALSIKE HYBRID, YELLOW TREFOIL or HOP. Lowest price on application.



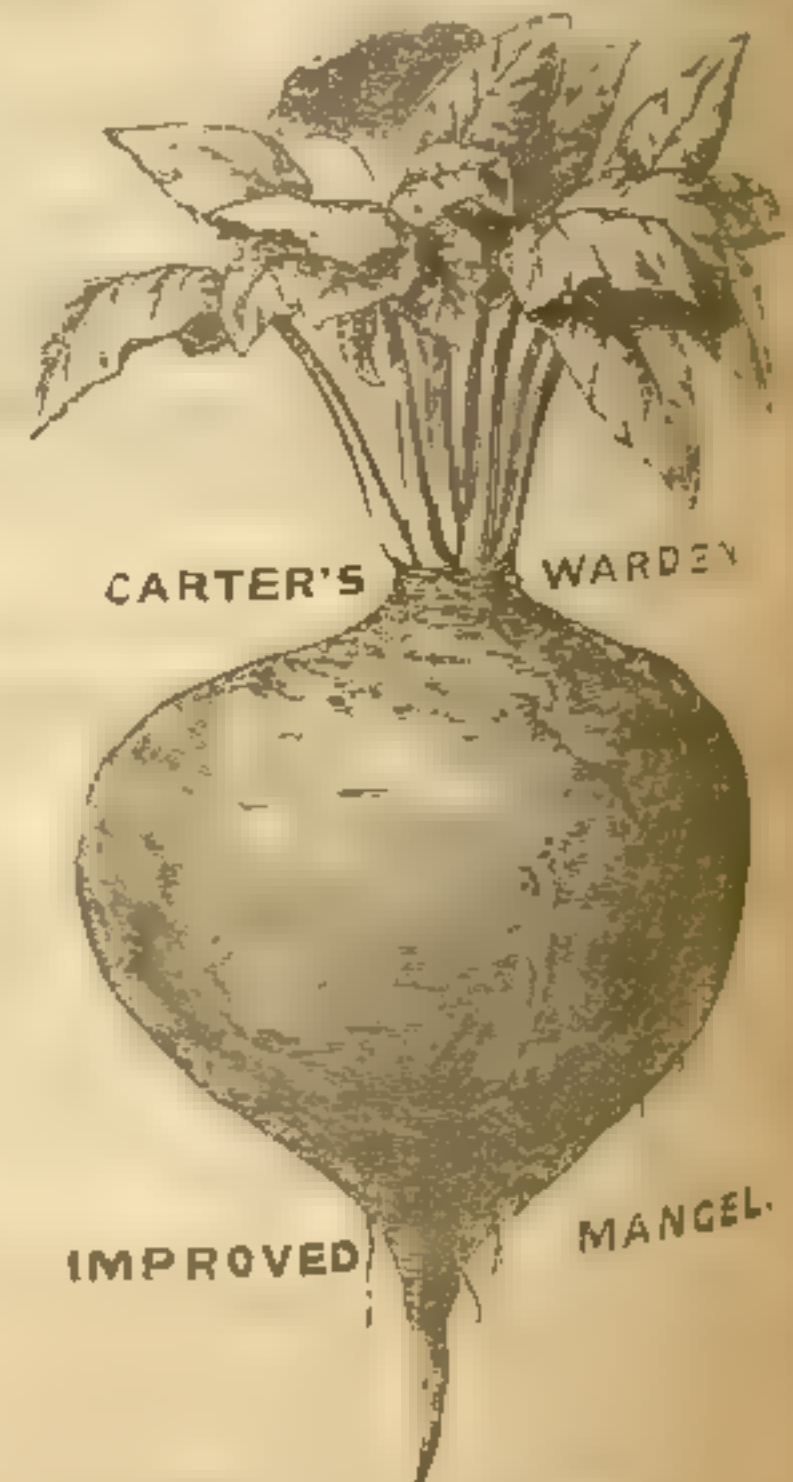
The best and hardiest in cultivation, 1s. per lb. Price per Bushel or Cwt. on application.

PRIZE SWEDE SEED. For List of the best varieties grown on Carter's Seed Farms, see "CARTER'S FARMER'S CALENDAR for 1869"

PRIZE TURNIP SEED. For List of the best varieties grown on Carter's Seed Farms, see "CARTER'S FARMER'S CALENDAR for 1869"

PRIZE MANGEL SEED. For List of the best varieties grown on Carter's Seed Farms, see "CARTER'S FARMER'S CALENDAR for 1869"

Five per cent. discount for cash. Special low estimates for large quantities.



Not to be surpassed, 1s. 6d. per lb. Price per Cwt. on application.

JAMES CARTER AND CO., GROWERS AND DISTRIBUTORS OF GENUINE SEEDS, 237 AND 238, HIGH HOLBORN, LONDON, W.C.

SEED FARMS: - "THE SEED FARM," ST. OSYTH, ESSEX. "JUPES HILL FARM," DEDHAM, ESSEX. "EAST HOUSE FARM," DEDHAM, ESSEX. "GOD'S HOUSE FARM," ARDLEIGH, ESSEX.

March, the most Extensive Collection.

Ball and SUGDEN, 12, King Street, Coventry... have the finest and largest collection of seeds...

CHOICE COLLECTIONS of CHOICE... Choice Flower Seeds for 1869... CHOICE CINERARIA, CHOICE CALCEOLARIA, CHOICE PRIMULA PIMBRIATA...

IN PYRETHRUM (GOLDEN FEATHER)... ANEMONE ELEGANTISSIMUS... SUPERA HOLLYHOCKS... SILVER FERNS...

British Fern Catalogue... BEST SIX... GLADIOLI... Choice Gladioli...

ARIAN... Choice Flower Seeds... Choice Gladioli... Choice Primulas...

THE FINE MARGUERITE, FRENCH... Choice Flower Seeds... Choice Gladioli...

Now Ready... DESCRIPTIVE... Choice Flower Seeds... Choice Gladioli...

Genuine Seeds... SMITH'S CATALOGUE of FLOWER and FRUIT SEEDS...

New Catalogue... WOODHURST... Choice Flower Seeds... Choice Gladioli...

Vegetable, Agricultural, and Flower Seeds... Choice Flower Seeds... Choice Gladioli...

NEW ROSES for 1869

JOHN CRANSTON will be happy to forward on application his DESCRIPTIVE CATALOGUE of ROSES for 1869 and 1870...

H. LANE AND SON have still 17,000 Standard and Dwarf ROSES to dispose of... Choice Gladioli, &c.

W.M. KNOTH... Choice Gladioli, &c. W.M. CUTBUSH AND SON'S CATALOGUE of the home-grown VEGETABLE and FLOWER SEEDS...

T. HANDSIDE AND DAVIDSON have a large stock of all the leading sorts of ROSES... SUTTONS' HOME-GROWN SEEDS...

THE GREAT EXHIBITION of PLANTS, FLOWERS, FRUITS, and VEGETABLES... The Gardeners' Chronicle...

The Gardeners' Chronicle. SATURDAY, MARCH 6, 1869.

MEETING FOR THE ENSUING WEEK... SATURDAY, MARCH 13...

IN the discussion which has taken place in our columns on the ADULTERATION of SEEDS, we have endeavoured, as far as we have been concerned, to hold the balance as evenly as possible...

rotation of seeds has at various times been under the consideration of the Association, and that proposals have been made to check the evils complained of, and they have all fallen through...

It will be gleaned from what we have said that various members of the trade, in London and in the provinces, have from time to time endeavoured to discontinue the practice...

Now, once more, there is a chance of erasing this plague-spot. Parliament is to be invoked to enforce virtuous conduct on the practitioners of easy virtue. We rejoice to hear it...

It has been a matter of great astonishment to us that so little movement has been taken by the foresters, surveyors, and land agents of this country on the subject of the Government plans for the education of youths to serve the higher offices in the INDIAN FORESTS...

MAR 6, 1869.]

SUTTONS' GRASS SEEDS
FOR ALL SOILS,

ABUNDANT CROPS OF HAY AND SUPERIOR PASTURAGE CARRIAGE FREE.

SEE ME AT for EXCELLENCE of QUALITY,



PARIS, 1867

MESSRS. SUTTONS'

MIXTURES for PERMANENT PASTURE

CONTAINS THE FOLLOWING
FINEST CLEANED GRASSES AND CLOVERS.

<i>Agrostis pratensis</i>	Meadow Foxtail
<i>Lolium odoratum</i>	Sweet Vernal
<i>Agrostis canadensis</i>	Creeping Bent
<i>Avena sativa</i>	Yellow Oat Grass
<i>Festuca ovina</i>	Crested Dogstail
<i>Festuca rubra</i>	Round Cocksfoot
<i>Festuca ovina</i>	Hard Fescue
<i>Festuca ovina</i>	Tall Fescue
<i>Festuca ovina</i>	Various leaved Fescue
<i>Festuca ovina</i>	Meadow Fescue
<i>Festuca ovina</i>	Sheep's Fescue
<i>Festuca ovina</i>	Reddish Fescue
<i>Festuca ovina</i>	Wine-leaved Fescue
<i>Festuca ovina</i>	Darnleaved Fescue
<i>Festuca ovina</i>	Suttons' Perennial Rye-grass
<i>Festuca ovina</i>	Fancy's Perennial Rye-grass
<i>Festuca ovina</i>	Evergreen Rye-grass
<i>Festuca ovina</i>	Timothy
<i>Festuca ovina</i>	Smooth-stalked Meadow Grass
<i>Festuca ovina</i>	Rough-stalked Meadow Grass
<i>Festuca ovina</i>	Woodside Meadow Grass
<i>Festuca ovina</i>	Kyovgreen Meadow Grass
<i>Festuca ovina</i>	Perennial White Clover
<i>Festuca ovina</i>	Perennial Red Clover
<i>Festuca ovina</i>	Alske Clover
<i>Festuca ovina</i>	Yellow Trefoil

SUTTONS' BEST MIXTURES

FOR THE FOLLOWING SOILS —

- STIFF CLAY SOILS**, to be met with in the London, Kimmeridge, Oxford, and Lias Clays.
- HEAVY LOAMS**, of the same Formations, when they have been subjected to surface admixtures and drainage.
- GOOD MEDIUM LOAMS**, on the Marls of the Old and New Red Sandstone, the Gault, and the Greensands.
- LIGHT SANDY SOILS**, on New Red Sandstone, Sands of the Inferior Oolite, Soils visited by Sand Drifts, as in Devon and Gloucester, and those covering up the Staff and the Tertiary sands of the Dorset Heaths.
- SHARP GRAVELLY SOILS**, such as the Flint Gravel drift which overspreads so much of the Southern and Western part of England.
- CHALKY SOILS**, as the Mountain Limestone, the Gault, and the Chalks Proper, where not too elevated.
- SHEEP DOWNS**.—The Elevated and more Exposed parts of the Gault, such as the Wolds of Gloucestershire, the Cotswolds, and the Plains of Wiltshire.
- WATER MEADOWS**, and all Land under Irrigation.

Contain 2 bushels of Grass Seeds, and 12lb. Clovers and Water Small Seed per acre.
20s. to 23s. per acre. Carriage Free.

SUTTONS' CHEAPER MIXTURES,
20s. to 25s. per acre. Carriage Free.

SUTTONS' "CRYSTAL PALACE" MIXTURE, for Pasture Grounds, as supplied to the Crystal Palace Company to produce a beautiful evergreen sward, 18s. per bushel. Sow 2 1/2 bushels per acre.

SUTTONS' MIXTURES of GRASS and CLOVER SEEDS for
 1st. Lay best quality, 13s. 6d. per acre.
 2nd. Lay " " 17s. 6d. per acre.
 3rd. Lay " " 22s. to 24s. per acre.
 Second qualities cheaper.

SUTTONS' RENOVATING MIXTURE for the above seeds should be sown early in the spring to produce a great increase in the quantity and quality of Grass. Sow 6 to 12 lb. per acre. Price 9d. per lb.

Special Contracts made for large quantities.

The advantages of procuring Seeds direct from the Growers cannot be over-estimated.

Linnæus Carter & Co.
Seed Growers

237, 238, and 261, HIGH HOLBORN, LONDON, W.C.

SEED FARMS:

JUPES HILL FARM, DEDHAM, ESSEX;
GOD'S HOUSE FARM ST OSYTH, ESSEX.
EAST HOUSE FARM, DEDHAM, ESSEX.
THE SEED FARM, ST OSYTH, ESSEX

CARTER'S GENUINE SEEDS,

HARVESTED ON THEIR OWN SEED FARMS,
AND
SUPPLIED DIRECT TO THE CONSUMER.

CARTER'S GRASS SEEDS,

Specially prepared for any description of Soil.

- No. 1. For FERTILE CLAY SOILS.
- No. 2. For POOR CLAY SOILS.
- No. 3. For HIGH-LYING CLAY SOILS
- No. 4. For ALLUVIAL SOILS
- No. 5. For LIMESTONE SOILS.
- No. 6. For NEW or OLD SANDSTONE SOILS.
- No. 7. For LIGHT CHALK SOILS.
- No. 8. For BRASHY LIMESTONE SOILS.
- No. 9. For SANDY SOILS.

J. C. & Co. hold one of the largest and best stocks of Grasses and Clovers in the country, and are now prepared to supply their Mixtures as above, for the formation of first-rate Permanent Pastures.

Finest Quality, per acre, 28s. to 32s.
Second Quality, per acre, 20s. to 26s.

DESPATCH OF ORDERS.

J. C. AND CO. having now completed their arrangements for the season, are prepared to execute orders the day after being received.

CARTER'S IMPERIAL SWEDE.

(See Illustration, page 246 of this day's *Gardeners' Chronicle*.)

THE HARDEST AND BEST IN CULTIVATION.

1s. per lb.; cheaper per bushel.

CARTER'S "PRIZE" TURNIPS and SWEDES.

CARTER'S "PRIZE" MANGEL WURZEL.

CARTER'S FINE CLOVER SEEDS.

CARTER'S IMPERIAL GREEN KOHL RABI.

For particulars of the above choice stocks, see CARTER'S "Illustrated Farmer's Calendar for 1869."

LOOK TO YOUR GRASS LANDS.

CARTER'S RENOVATING MIXTURE should be sown on Meadows that have suffered from the past dry summer. The Mixture includes the most desirable Grasses and Clovers for hay crop, and succeeding green feeding, and will soon restore a first-rate permanent pasture.

Sow 8 to 12 lb. per acre.

Price 9d. per lb.; 80s. per cwt.

CARTER'S PRIZE MEDAL LAWN GRASS,

As SUPPLIED to the PRINCIPAL EUROPEAN COURTS, and for the GROUNDS of the late PARIS EXHIBITION,

Will speedily produce a carpet-like Turf of the finest quality

1s. per lb.; 20s. per bushel.

Sow 3 bushels per acre.

For full information on the Laying Down and after-treatment of Grass Lands, see

CARTER'S

FARMER'S CALENDAR FOR 1869

(ILLUSTRATED),

Post Free 6d., Gratis to Customers.

JAMES CARTER AND CO.,

237 and 238, and 261, High Holborn, London, W.C.

HALLETT'S PEDIGREE CHEVALIER BARLEY produced in 1858 a Crop of 62 bushels per acre, a Sample of which was awarded the First Prize at the Birmingham Show of 1858. Took the First Prize also at the same Show of 1867. Produced in 1867 nearly 8 quarters per acre.

PEDIGREE BLACK TARTARIAN OATS produced, 1868, 12 quarters per acre.
For particulars apply to Captain HALLETT, F.L.S., Brighton.

RAYNBIRD, CALVERT, BAWTREE, DOWLING, AND COMPANY, Limited.
CORN, SEED, MANURE, and OILCARE MERCHANTS
Address, 39, Seed Market, Mark Lane, E.C., or Bankergate
Samples and prices sent free on application. Prize Medals, 1851, for Wheat; 1862, for "Excellent Seed Corn and Seeds."

GRASS SEEDS WHEN and WHAT to SOW — For the fullest information on this subject, see CARTER'S ILLUSTRATED FARMER'S CALENDAR for 1869, post free 6d. JAMES CARTER & Co., Seed Growers, 237 and 238, High Holborn, London, W.C.

SUTTONS' FARMER'S YEAR BOOK for 1869 is NOW READY.
For Original Articles on the Cultivation of Root Crops, see "Suttons' Farmer's Year Book for 1868."
For present prices of Home-grown Seeds, see "Suttons' Farmer's Year Book for 1867." Samples, post free, gratis to Customers.
Suttons & Sons, Seeders to the Queen, Reading, Berks.

Early Feed for Sheep and Cattle.
SUTTONS' IMPROVED ITALIAN RYE-GRASS, the earliest and most productive in cultivation. Should be sown in February and March to produce a succession of valuable cuttings during the year. If sown alone, 3 bushels are required per acre. Price 7s. per bushel, cheaper by the quarter. Carriage free.
Suttons & Sons, Seeders to the Queen, Reading, Berks.

SEEDSMEN TO THE QUEEN
FRANCIS & ARTHUR DICKSON & SONS,
The "Old Established" Seed Warehouse, 105, Eastgate Street, and The "Upton" Nurseries, Chester.

PRICED DESCRIPTIVE CATALOGUE of FARM SEEDS post free, on application.
MIXTURES of GRASS SEEDS for Permanent Turf and Rotation Crops, to suit every description of Soil and Climate, of very superior quality.
Finest clean Samples of CLOVERS, RYE GRASSES, and NATURAL GRASSES, at Market rates. Samples and prices on application.

Their **TURNIPS, MANGELS, and other ROOT-CROP SEEDS** are sown with great care, and are of very superior and high class character.
Special Estimates for large quantities. Orders amounting to £2 value (Grain, Potatoes, &c., excepted) will be delivered carriage free, at the principal Railway Stations in the Kingdom.

BINGLEY HALL, BIRMINGHAM. — The FIRST EXHIBITION of YOUNG BULLS and other SHORTHORN STOCK will be HELD on THURSDAY, April 1, 1869. Liberal Prizes are offered for Yearling Bulls and Bull Calves. ENTRIES CLOSE on MARCH 13.
For Prize Lists and Forms of Entry, apply at the Cattle Show Office, 39, New Street, Birmingham.
By order of the Council: JOHN B. LYTHALL, Secretary

ROYAL AGRICULTURAL SOCIETY of ENGLAND.

MANCHESTER MEETING, 1869.

STOCK and IMPLEMENT PRIZE SHEETS are Now Ready, and will be forwarded on application to HENRY WHITWORTH, Esq., Local Secretary, 95, King Street, Manchester, or

H. M. JENKINS, Secretary, 12, Hanover Square, London, W

The Agricultural Gazette.
SATURDAY, MARCH 6, 1869.

MEETING FOR THE ENSUING WEEK
MARCH 10—County of Devon Chamber of Agriculture, at Newton

A CALENDAR of Farm Operations in March begins thus — "It is of importance that we sow (a) only those seeds which we want to grow, and that (b) they be alive when we sow them." To the other conditions of success in plant growing, viz, the preparation of the bed for these seeds, and their proper position on and under its surface, we do not now refer. It is with their purity and vitality that we have now to do.

No one has done more than Professor RUCKMAN to awaken the attention of farmer to the importance of this subject. He has shown them how they suffer from both carelessness and roguery in the seed trade. How often has he not reported from 10,000 to 50,000 weed seeds in a single pint of Clover—in a pint of Rye-grass seed several thousand seeds of Crowfoot and of Holcus, and in a pint of Luiseed 10,000 to 15,000 seeds of Charlock, Mustard, Cress, &c. He has taught us also, by careful analyses, not only of seeds, but of pasture lands, how this mass of weeds is not only sown, but grown. Ten years ago, in a field of "seeds" at Cirencester, he dug up a square yard of Clover ground, and found 46 plants on it neither Rye-grass nor Clovers, which alone the farmer believed he had sown. There were 7 plants of Plantain, 8 of Crowfoot, 2 Hardheads, 2 Dandelions, 1 Hawkbit, 6 of Ground Ivy, 4 of Selfheal, 1 small Bindweed, 1 Fool's Parsley, 2 Mouse-ear, 6 Field Madder, 2 of Couch, 4 of Creeping Bent. Several of these are flat-growing weeds, occupying the surface—such are Bindweed, Plantains, Crowfoot, Dandelion, &c. Many of them are

Five per cent allowed for cash payments.
SUTTON AND SONS,
SEEDSMEN TO THE QUEEN, READING, BERKS.

1874 1880

or to turn them on a common, and also to prevent an ass being moved, when the power is not used. The power is to be placed solely in the Privy Council, and is to be vested in the Queen in Council. This proposal is intended to prevent delay in cases of sudden danger. In regard to the power which would be reserved to the Privy Council to, in the event of certain defined circumstances, to bring out certain defined arms into which they could not be taken into the ordinary countries will be prohibited. The Government are anxious to have a report of details. The question to be regarded in any way a party to this we may express a hope that the question and would vexed question will soon be settled. Lord ROBERT MONTAGU, the second part of the Bill, which he said the first part. His lordship ultimately proposed that the two Bills should be referred together to the committee of the whole House, and the best of both. This suggestion was not adopted, and leave was subsequently given to the Bill, which was read a first time.

Dr VOELCKER read on Monday last, before the Farmers' Club a dignified paper on the subject of Food and Manures, of which a copy must be postponed till another week. We are glad to mention, however, that Dr VOELCKER's opinion that less than 10 per cent. of the ordinary English are pure art. and that many manures sold at 4s and 7s per ton contain fertilising materials to the value of 2s 6d per ton, and some of these mixtures are so adulterated that they are positively and largely injurious to the crops to which they are applied. Of the adulterations which we give the following summary:—
1. Dr VOELCKER's statement was shown to be true by instances where a quantity was recently sent from the south coast and sold by auction in the southern counties and sold on the ground that there was so much in the soil as to render soluble superphosphates at so high a price. Chemists, however, ascertained, therefore, that in this case it would be a good thing if a test were fixed on a test whereby a uniform estimate guaranteed. Mr COLEMAN said if a man in any way if business made a profit of adulterated article, he could always find one to buy it. It was not an adulterated manure, but the compositions made up by the adulterator, and they were good for nothing. It was stated that where artificial manures were used a large amount was allowed to sell his straw, the straw would be bargained as the best of them only acted as a manure, and left nothing behind. The year was not when there was much diseased cereals, his manure was the cause. This he attributed to the fact that the manure was not pure. Mr HARPER, Loughborough, asked Dr VOELCKER the value of linseed as compared with pure cake. Mr WILLIAMS, Loughborough, asked Dr VOELCKER if a manure was highly successful, and whether the difference arose from the season or from the moulding of cakes was not more owing to the use of bran with the linseed-meal than to the position of the place in which they were stored. Mr HARPER also asked Dr VOELCKER a number of questions on feeding materials and manures, to which Dr VOELCKER explained that he was a large consumer of food for stock and of manures. The speaker regretted that Dr VOELCKER was not to say that only 10 per cent. of cake-makers made pure linseed-cakes. He also spoke of leather being used in his neighbourhood (Woodstock), and the best results, by cottagers and cultivators of the country, who found it better than anything else. He himself had also used it, and found it to be a very good manure. Mr ROBERT LEAMON, of Woodstock, a farmer, said that he had had a quantity of testing the value of leather and that while the tanned parts were perfectly good, the fresh trimmings and the alkaline dust adhered to them were of considerable value as a manure. There was a wide difference, however, between the character of the two substances, and he had no doubt the Chairman had intended Dr VOELCKER's meaning. Dr HARPER said, as to the value of Linseed, the value of cake was too great to admit of its being used as food for stock. As to the difference between the results of applied manures it might be that the manure applied during the season when the soil was not so good as when it met with so much rain. It was very easy for a manufacturer of manure to adulterate the cake, and it was not at all common for the quality to be lowered. The manure cakes kept better, because, after pressing, they were stored in a room or warehouse, the temperature of which was kept tolerably high. This was necessary for the safety of cakes which had to be exported to this country, for the long voyage across the Atlantic would otherwise render them, not only in a large extent, but positively injurious as a manure from the poisonous Fungus which would be generated and appear as a blue mould. Guano with a little ammonia would still be the cheapest auxiliary manure that could be bought, even if the price were the same as it now is. In reply to Mr HARPER, Dr VOELCKER said linseed-oil was generally of more value for commercial purposes than it

was for making meat; therefore it would be futile to enter into elaborate calculations and experiments to determine the value between Linseed, with its natural amount of oil, and the residual meal, as it is sold for agricultural purposes in the form of cake.

At the usual monthly meeting of the Central Chamber of Agriculture on Tuesday last, it was moved by Mr. R. JASPER MOSE and seconded by Sir HERBERT CROFT, M.P., that this Chamber considers it desirable that there should be a separate Government Department for Agriculture, presided over by a permanent officer. Mr NEVILLE-GREVILLE, M.P., Major WILSON, and Mr WHITTAKER spoke in opposition to the appointment of such an officer. Agriculture did not require to be nursed or fostered, all it required was fair play and the opportunity of expanding and developing such agencies as the Chambers of Agriculture opened up to it. It was urged, on the other hand, by Mr AGLAND, M.P., that if agriculture was a subject for the interference and the interest of Parliament, it was a subject of interest to the Administration of the country. The question was whether agricultural interests should be rescued from the accidental and secondary position which they occupied in so many different offices, and be made subordinate to a staff of persons who would bring the advantage of technical skill and experience to their consideration. The Chairman, Mr S. READ, M.P., believed that by a revision of departments the incidence of additional expense might be avoided. The true object of the agriculturists was to have a permanent secretary, and not a party man, who would probably have to go out of office as soon as he had learnt his duties, and who might never again in his whole life return to undertake them. The motion was at length adopted. The proposal (advised from the last meeting) for a deputation to the President of the Board of Trade on the subject of a separate Government Department for Agriculture was postponed for a month. Mr DICKINSON moved, and Mr RIGBY seconded a series of four resolutions, which, after considerable discussion and verbal alterations, assumed form as follows:—

1. This Chamber considers that a complete Act applicable to the United Kingdom for the regulation of the importation and sale of foreign seeds and plants, and of safeguards against the introduction of foreign diseases, is to be responsible for the preventing of enormous losses of live stock by contagious and infectious disorders.
2. This Chamber considers that strict regulations should be imposed as to the accommodation, feeding, watering and security from disease of animals imported by ship, public highway, or any other mode, and that it should be made penal to receive by road railway or water, or to exhibit in any fair market or public sale animals suffering from cattle plague, pleuro-pneumonia, sheep pox, foot and mouth complaint, and other diseases, and that a strict quarantine and public sales, should be subject to strict inspection.
3. This Chamber considers that the introduction of foreign diseases can be prevented only by slaughter, or by quarantine of imported animals at the place of disembarkation, and that, for the accommodation of importers and the interest of the public, licensed markets or lairs and slaughter attached thereto should be provided at the seaports where arrivals from foreign countries are landed.

These resolutions were passed unanimously.

It was stated at the Chamber of Agriculture on Tuesday last, reported in the House of Commons during the discussion on Mr AGLAND'S motion for an agricultural department among the various Government offices, that the agricultural returns, instead of being published soon after harvest, were deferred till they had become useless. Mr CAIRD accordingly wrote to the Times to defend the existing conduct of the agricultural statistical inquiry. He says:—

In justice to the Inland Revenue and the statistical department of the Board of Trade, by which the returns are collected and classified, I think this statement should not remain uncorrected. A summary of the facts was published on the 20th of September and appeared in all the newspapers. Every one interested in agriculture, producers, and consumers, alike, were apprised of the results, and of the causes of the present depression, and of the necessity of the Government to take steps to remedy it. The farmers, warned by the large increase in the price of wheat, and the fall in the price of other crops, if they could not afford themselves of it, of being the first in the market, the consumers soon participated in the consequent general depression in price, and the result was a mutual depression of prices which might otherwise have proved disastrous to themselves and their dependents. The full returns in detail were not ready for publication till the close of the year. But the summary contained all that was necessary for the guidance of those interested in the national supply of bread, and its publication so early as the 20th of September was, in my judgment, most creditable to the department concerned.

A memorial is in course of signature among the breeders of sheep requesting the Council of the Royal Agricultural Society of England to abolish the inspectors of wool and shearing, in consequence of the dissatisfaction which they are alleged to have given at Leicester. Mr HOBSON, on behalf of the breeders of 'Shrops,' Mr ROBERT GARNE, for the Cotswold breeders, Mr BROWN, for the Norfolk, and Mr JOHN TREDWELL, for the Oxford Downs, are taking a leading part in the movement. The memorial begs the Council to invest the judges with full power to decide upon the eligibility of the animals for competition, and asserts that "the practice of inspecting the wool and disqualifying sheep by private parties, whose names are not published as inspectors, is most objectionable, as being at variance with the rules of the Society, subversive of the privileges and power that should alone be exercised by the judges, and a system which fails fairly to prevent the evil it is intended to remedy by its having been known to permit the competition of animals which could not have been fairly shorn, and having disqualified others which could have

been proved to have been shorn in conformity with the rules of the Society."

The Corporation of the City of Lincoln, in response to a deputation, agreed last week to give 1000 towards the expenses of the North Lincolnshire Agricultural Society's Show, to be held in Lincoln on the last three days of July next.

OUR LIVE STOCK.

WE have received a communication from Mr. Thomas Bell, of Brockton House in which he complains of some remarks made by us in reviewing his Catalogue on the 23d of January. It was certainly not our intent on to speak otherwise than handsomely of the Brockton House herd, and reference to the impression above alluded to will show that we mentioned the Catalogue in a friendly spirit. The offending passage comes last, and is as follows:—"Too frequently the pedigree crosses are short, thus, in six cases there are only three crosses, and in 11 on four crosses of pure blood. The period of time thus indicated is too short to ensure true bred stock that may be relied upon to transmit their good qualities to their progeny." We plead guilty at once to the inaccuracy of the statement, and are glad that Mr Bell, by calling our attention to it, has enabled us to correct the error. The six cases above mentioned boast four, and the 11 cases five, crosses of pure blood. Mr Bell proceeds as follows:—"As to the period of time being too short to ensure true-bred stock that may be relied upon to transmit their good qualities to their progeny, that is a question neither you nor I can solve. Speaking from experience, I would rather commence breeding from a cow with only two good crosses, and be sure of success, than upon half-a-dozen miscellaneous ones of which I knew nothing. I can give several instances of this. When I bought the Matchem cow, which I afterwards sold to Mr Bates, she had only two crosses. As to the 'good quantities of her progeny' there can be no dispute, as the tribe is increasing in popularity every day, neither is the period of time too short here. She bred the 'Oxford Premium Cow,' one of the best cows in her day; CLEVELAND LAD, one of the best bulls in his day, and the sire of *Duchess* 2d, which was the dam of the *Grand Duchesses*; CLEVELAND LAD 2d, another first-class bull, and sire of the 1000 gs. *GRAND DUKE*; and last, *Oxford 2d*. From the 'Oxford Premium Cow' came *LOCOMOTIVE*, which was sold to America for 250 gs., and his brothers, *DUKE OF WELINGTON* and *LOCOMOTIVE 2d*, were also sold to America for large prices. The descendants of *OXFORD 2d*, both males and females, were all of a superior cast, and remain so to this moment. I will next allude to the *Kirklevington*. When my father bought the *Northampton white cow*, she had no pedigree, but he was told that she was descended from Mr. Maynard's stock. The prices her progeny are selling for proves more than I can say for them. Then there is the *Waterloo cow*. When she came to *Kirklevington* she had only two crosses by *WATERBLOOD* to begin upon. When my brothers and I bought *Armo* of Mr Bates she had only one cross, by *BEVEDESS*, and one of her descendants, *Annette 2d*, bred by me, was sold last month for 200 gs., while several of the tribe, both male and female, have been sold for 50 and up to 100 gs. *Flower*, the great-grand-dam of *Fuchsia*, when she became ours, had only one cross, by son of *YOUNG WYVARD*, and descended from Mr James Brown's *Old Red Bull*. The last tribe I will name is that which originated in *Price*. She had no pedigree when I got her, yet many a good animal has been descended from her. Among the number was the celebrated cow *Playful*, bought by Mr. Douglas, of Athelstane. Her produce sold as high as 300 gs. each, and *Princess*, another descendant, by *4TH DUKE OF OXFORD*, and other two of the same family, were also all sold last month for 200 gs. each. These instances are sufficient to prove that it is not the length of pedigree that should be our guide when making a purchase, but the goodness of it."

We have given Mr Bell's vindication of the high character of his herd at length, and so far as his remarks apply to the Brockton House stock, we entirely concur with him. The precise time or number of crosses required to give fixity of type to a breed cannot of course be specified, and in some cases it may take much longer than in others. Mr Bell says he had "rather commence breeding from a cow with only two good crosses, than upon half-a-dozen miscellaneous ones," of which he knew nothing. This is a mere truism. The question is, whether he had rather begin breeding from a cow with two good crosses or half-a-dozen good crosses. We confess to a leaning towards the last case.

We should also like to ask whether Mr. Bell would put his cow with two good crosses to a bull with the same number of crosses? Why should such a proposition seem unpractical? It is because we are all convinced of the importance of long and pure lineage. We know that if we do begin with an ordinary cow we must work the ordinary blood out by repeated alliances, and that our best plan is to begin with good blood on both sides. We also believe that the effects of one bad cross—and every animal of unknown pedigree is liable to have sprung from such a cross—may reappear after many generations.

The following record of Shorthorn births has been received from Holy Bank—*Grenadine* by ROY ROY (23,694), produced on the 21st of January a roan cow (*Geneva* by GENEVA'S DUKE (21,630) *Grenadine 2d*, by LORD WILD EYES 2D (22,234), d. *Grenadine* above mentioned, calved a red with little white letter, by EARL OF BARRINGTON, on January 30. *Fidelity 5th* by 10TH DUKE OF OXFORD (17,739), and descended from Mr Bell of Kirklevington's *Fidelity* family, calved a white bull (*FIDELITY 7TH*) to *PRINCE*

plan by which any one coming from the... have to ask for only one office instead of... of losing his way as he passed down... But trade and agriculture are in this... on the same footing. It is not, there-... for the farmers to take an especial... on for the farmers to take an especial... My own advice to them would be to come... to any Government office. My hon... what was very gratifying for... the gentlemen with whom he has... a small Parliament this morning... a matter of great... and hinted... my present position as a very satis-... We, I take hon gentlemen to witness, ... that, as far as I was able, to the... I tried to do that which was highly... A late county member, ... House I am sorry to say, told me he... the best friend to agriculture that... although during the time... those labours he was one of my... I think that agriculture never... that landlords never had... that those rents were never more... and that the prospects of agriculture... the farmers were never more satisfactory... my hon. friend putting this notice on... and saw also a notice put down the other... on the subject of... I could not help thinking of a story... eminent physician once told me. He said... had been lastly summoned that morning to... who wished instantly to consult... her at her home she said she... she had never been so well in her life... and she had sent for... that something was going... Now, that is just the condition which... at present. She was never so well in... he is therefore about to call in the House... and the Board of Trade, and I know not... the apprehension that something is going... My advice to hon. gentlemen who... friends of farming and farmers is to... those concerned in agriculture to consider that... and industry are far better for... that the House of Commons... department can do. But with... of this notice, I think... my hon. friend that the House Secret-... whether it is not... I will not say very considerable, ... which are not unimportant, in the... which his notice refers—that it will be... things that are in some degree alike... in order that there may... about to two or three offices that... spoke of—I think no will... not necessary to press this motion for... There is no dis-... on the part of... an inquiry which would be... with useful results, and least of all... to resist such an inquiry in the... which is so powerfully represented... For myself and for my... Secretary for the Home Depart-... the question, so far as I have... and if it appears that... things that may be dis-... of my right non-... be carried out, and... of his notice and of his speech... without the appointment of the... which he was asked.

ACCORD felt much obliged to the right hon. ... for the clear view with which he had ... the House, and after the statement just made ... unnecessary to press his motion. ... was then withdrawn

STEAM CULTIVATION. COMBINED RIDGE AND SUBSOILER.

A letter to you last week, informing you that ... had referred at Birmingham to my ... and subsoiling plough, and now I ... another letter giving some results from ... of this implement, and I do so to-day ... I finish my Bean seeding for the ... and you know that I always give ... so that all the world may come and ... they like. In October last, in a letter ... I wrote this— ... started on No. 4 heavy land 10 acres, ... It was finished on the ... the tacks half a mile to ... and we finished that fall at 2.15 p.m. ... on the 14th we shifted the tacks ... where a number of people saw it at work, ... on the 14th." ... as the implement left it ... of February, on which day I began ... heavy land, after ... heavy land, and ... These two fields were ... in seven working days the ... The most important ... that we could do this planting ... of a horse on this dirty, sticky land, ... which it has been ever since the ... of that December. Yet the Beans kicked ... from the ridges like ashes, so ... on this dirty land, as I stated in my ... cost me only 7s. 0d. an acre, and ... are gone in well.

Now, let us go to the light land. On October 10, I found this land in a nice dry mellow state, so I set the men to dib in the Beans, and I set my three horses and pony to pull my subsoiler along every ridge, splitting the ridges 15 inches deep, and covering in the Beans at the same time, and it made excellent work—the best I ever saw done. On the 10th and 11th we did 8 acres, the 12th was a regular wet day, which brought a flood down upon us quickly. To-day is the first day that we could get on well again, so we set to and finished the 12 acres.

Now, I will give some other facts upon this point, for I have threshed all my Beans that were planted and grown on land similarly worked a year ago, they were grown upon my heavy land fields, Nos. 2 and 3, and No. 1 light land, and I will talk about the heavy and fields first.

The produce on Nos. 2 and 3, heavy land, was 28 bushels per acre. These fields since harvest (as I have before shown) have been smashed and planted with Wheat, at a cost for seed-bed of 6s 9d per acre, and the plant is a most excellent one, although drilled with but a trifle over 1 bushel of seed per acre. It has thickened vastly, and it looks very strong.

The produce on these poor heavy clay fields under horse culture used to be—a dead fallow, with Wheat after it, from 25 to 30 bushels used to be the average. 30 bushels was always considered a capital crop. The Beans, the third year, would be about the same as to quantity as the Wheat; but the Wheat crop for the fourth crop must not be fixed at over 25 bushels. Taking the dead fallow and the three crops, the average of the four could not be fixed at over 80 bushels.

You see that even in this bad Bean year I have got an average crop of Beans on this poor land when compared with horse culture; and my Wheat was an excellent crop, and although not threshed, I am quite certain that it will give quite 40 bushels per acre. The summing up of all this is—

Table with 2 columns: Crop/Field, Yield. Wheat on No. 1: 40 bushels. Beans on No. 2: 28. Beans on No. 3: 28. Wheat on No. 4: 40. Total: 136.

56 bushels over an average under horse culture, or 14 bushels per acre.

Now to field No. 1, light land. It was by far the best field of Beans in this neighbourhood. A neighbour of mine told me that it was the best field of Beans in England. I did not see one so good anywhere, neither did I read of one so good. I had 37 bushels per acre. The Beans were plump and good, no hollowside ones, and I have sold nearly all of them to my neighbours for seed at a good price. Can Mr Howard produce such facts as these in support of his statement at Birmingham? If he can, let us have them.

You know that I offered to do all my work last autumn before a Commission of the Royal Agricultural Society, if they would send one. Now, as soon as I had completed my autumn work I informed the Council of that Society, by giving all the particulars, and asking them to send a Commission down to inspect and report upon the work. The Secretary wrote to me that my communication would be laid before the Council at its meeting in February. The meeting is over, and neither you nor I have heard a word about the communication. They are quite welcome, as far as I am concerned, to do what they please with my communication, it cannot hurt me, for I have given all my inventions away, and the testimony that I give is given with a good will but Mr Howard, of Bedford, tells them, "I have used a combined ridging and subsoiling plough... that makes capital work,"—and this is the implement that the judges would not look at at Chelmsford, that they would not see at work by the aid of a Commission last autumn, or even its work since offered. "In Autumn," says Mr. Howard, "if we have some farmyard manure made early in the year, it would be put on the stubble before it was broken up. The ridging would be done in favourable weather." But Mr Browick, the manager of the Britannia Farm, said on the 13th of last August, "The plan Mr. Smith recommends of putting on the manure for roots before breaking up the stubble with the ridger and subsoiler is hardly desirable... Take Messrs. Howards' own case. When they entered on the Clapham Park property there was nearly one year's straw in hand, and hardly a load of dung could be scraped up... Mr. Smith's system would not meet a case of this kind... Messrs. Howards' plan I regard as the more generally useful one... the stubbles are up as soon as the crop is removed. In December the land is ridged with the common double-mould plough, each pair of horses managing from 2 1/2 to 3 acres a day. The ridges lie till after Christmas, when the dung is carted from the yard and spread in the furrows, the ridges being split at convenience." Let Mr Howard read this, I can bring other evidence of the inconsistency of his own writing.

One word more, and I have done. The Agricultural Society may try to smother me as long as they like, and Mr Howard may try to swallow me up if he can, but so long as I continue to work out my own plans and give facts to the public, which I mean to do, the former will never get on with their task, and the latter will find me a regular hedgehog to get down. William Smith, Woolston, Bletchley Station, Bucks, Feb 16, 1869

[The above was written and in type before we received Mr. Howard's letter published in last week's Agricultural Gazette. A long communication has been since received from Woolston discussing Mr Howard's letter clause by clause. But we do not publish it, for the public are not interested in a personal discussion of this kind. We may, however, say that it proves, by reference to Mr. Smith's private correspondence, that the public are interested in the Woolston writings on

steam cultivation; and it argues, as indeed is done above, by a reference to Mr. Browick's writings, that the practice of stirring the stubbles deeply, having first spread the manure on them in the autumn, is a practice new to Mr Howard, to which he may have been led by the Woolston practice and the Woolston writings. As to the implement figured on p. 11 of the Bedford catalogue, not having a copy of the catalogue, Mr Smith is unable to refer to it, but a copy has been sent for, and further criticism, we presume, may be expected. Meanwhile we extract one passage from his letter, relating to the power of tillage and manure combined to maintain the constant cropping of the land with Barley.—"I will give you a bit of fact—Mr. James Howard may call it 'silly egotism' if he likes. It is a fact that I had a heavy crop of Wheat on my No. 6 light land field (11 acres, in 1867, instead of a crop of roots, that I had upon this same field a crop of Barley in 1868 that gave me a produce of 54 bushels per acre, and that it is now nearly ready to be planted with Barley for 1869. For the Barley crop in 1869 it was smashed once by steam and horse-cultivator, twice, at a cost of 10s 8d. an acre, and it had a dressing of superphosphate of 8 cwt. per acre. For the Barley to be grown in 1869 it was ridged and subsoiled by steam-power 11 inches deep, last autumn, at a cost of 7s 0 1/2d per acre, and the operation to bring it upon the flat is a subsoiling, splitting the ridges 15 inches deep, at a cost of 3s. per acre, making a total of 10s. 0 1/2d. per acre for the seed-bed; 6 cwt. per acre of superphosphate was thrown upon it last autumn and ridged in. The field is fen land in character, rich in vegetable mould, and very poor in lime. It can stand having all the straw taken from it every year if it is well limed; therefore I have made up my mind to grow Barley upon it, and nothing else, with the aid of superphosphates. Mr. Lawes gave us the fact the other day, that he had grown Barley on the same land for 16 years with the aid of artificial manures, taking all the corn and straw off during the whole period; and I thank him heartily for it, for it cheers me on in the road that I had cut out for myself. He has proved that the thing can be done—and I mean to prove that it can be done—practically, to any extent. 10s. an acre will work my land a foot deep, and keep it clean for ever without the aid of any Twitch burning. I state this openly and fairly, so that people may all come and see what I am at, at any time."

Home Correspondence.

"T. B. S." v Mechi. —Your correspondent "T. B. S." is disposed to despise small things, and taunts Mr. Mechi with having added such insignificant figures to his balance sheet as farthings and halfpence. When asking—"Will Mr. Mechi state that these entries are anything more than guessed, to say the very best for them?" he adduces instances, which he does not seem to observe, that tell very ludicrously against himself. The sum of 1312. 11s. 10 1/2d., amount of horse-food purchased by Mr. Mechi in 1868, is unaccountably minute to "T. B. S." In fact, he says—"The very minuteness—the halfpennies and pennies—show that the balance-sheet is an impossibility." Is it really beyond his comprehension to understand how Mr. Mechi can tell to a "couple of farthings" what he has paid out for a certain item? and, again, as minutely, how much he received for certain items sold? It is very evident that the good old rule, "Take care of the pence, and the pounds will take care of themselves," is not one of "T. B. S.'s" maxims, and that has, doubtless, something to do with his sceptical allusions to Mr Mechi's balance-sheet. The theory which "T. B. S." seeks to propound is really a new feature in business, and it would no doubt be interesting to the general public if he would kindly inform them as to how his theory works in practice. Let us suppose that "T. B. S." is a laud-agent, and that he is conducting transactions on some gentleman's account, in which fractions figure more or less prominently. Were he to produce a voucher for a single item of 1312. 11s. 10 1/2d., would that gentleman tell him that his voucher was necessarily false, since it went to the minuteness of halfpenny? I think not. But then this is the theory of "T. B. S.," and according to it, in order to prevent the gentleman preferring such a charge against him, he must do something to obviate the possibility of such a result. If it is not his practice to observe detailed accuracy in accounts, will he tell us what efficient method he adopts in order to satisfy himself as to the profit or loss per annum on his own farm, since he does not go to the minuteness of pence and halfpence? I can hardly believe that a man like "T. B. S." will be altogether without accuracy on some points. I humbly submit that Mr Mechi and his bailiff are quite as lively, apart from local reasons, to be able to form a correct estimate of farming substances and stock-in-trade as "T. B. S." or, perhaps, any land agent in the kingdom is. Moreover, if 99 out of every 100 farmers here to employ dealers to purchase their stock for them, as "T. B. S." says they "very wisely do," the farming interest and intelligence must be fast losing ground, for it does not require the unfounded assertion of "T. B. S." to prove that. Where a farmer does not possess sufficient judgment to enable him to select his own stock, he cannot by any means be able to turn that stock to the best advantage after it has been purchased for him. We dare say it would appease the wrath of "T. B. S." were Mr Mechi to get that gentleman to make his future valuations for him. We should not then be troubled with the carping of this spiteful individual. Most likely, indeed, that he would be calling upon the farmers of England to follow Mr. Mechi's example in every respect, even to employing "T. B. S." not only

to make their annual valuations, but also to select for them whatever stock they might happen to require. This "post" the superior talents and great experience of "T. B. S." admirably qualify him to fill, and it is to be hoped that the British farmers will not be so slow to avail themselves of the hints, which he has graciously condescended to throw out, as they are to act upon some of Mr. Mechi's theories. I trust that Mr Mechi will be long spared to show to the agricultural world his useful balance-sheets, notwithstanding the conviction of "T. B. S." that "his papers and figures are much impeding agricultural progress, and greatly misleading the public." Let me ask wherein Mr Mechi's papers and figures are likely to impede agricultural progress? I have always entertained the opinion, and ever shall, that both Mr Mechi's writings and speechings are worthy the careful consideration of every practical farmer, and it will doubtless require more substantial arguments than those advanced by "T. B. S." to prove to the world and posterity that Mr. Mechi has not been a true benefactor of his country, and a distinguished agricultural pioneer. I do not say that I agree with all the theories supported by Mr. Mechi, nor yet with the manner in which all these theories are carried out, but this I do say, that the opinions of Mr. Mechi are very far from being untenable, although they seem to have been far, very far, in advance of his own generation. Will not such a fact tend rather to add than detract from his future renown? It may not suit "T. B. S." and a few others, to have Mr. Mechi's farming profit displayed before all and sundry, but that will not conceal the fact that the agricultural resources of this country are but very imperfectly developed, and that one of the best incentives to further exertions are the frequent papers and the annual balance-sheet of Alderman Mechi. *J. Scott, March 1.*

Co-operative Manure Association.—In answer to queries contained in your Paper of February 27, I beg to forward you a copy of the rules of the Lincoln Tillage Association. We supply nothing but 26 per cent. soluble phosphates, made from coprolites and acid. The same article is generally sold in the retail trade from 6*l* to 8*l* per ton, and often more. There is no doubt that on fair land from 3 to 4 cwt. per acre of this manure is quite sufficient for any crop of Turnips where the land is very light some sulphate of potash would do good—say, 2 cwt. per acre, with 3 cwt. of superphosphate. *E. Toyndee, Lincoln, March 1*

The Tiptree Balance-Sheet.—Mr Mechi does vouchsafe to notice me, but at present has not accepted my challenge, and proved that the average yield of each acre in the United Kingdom (calculated on the Tiptree system) is only a trifle over 3*l* annually. Neither does he answer my question as to how he makes the tillages over the whole of his farm worth 3*l* 15*s* 6*d* per acre. Instead of enlightening us on these points, he occupies a couple of columns of your valuable space chiefly in telling us that after a flood we ought to look to our drains, how to grow Mangel &c. We all knew these things before. Knowledge of this kind is possessed by every one at all practically acquainted with agriculture, and is by no means restricted to Tiptree. I again hope that he will be so obliging as to answer the questions I have put, as my poor understanding is incapable of solving the difficulty. It would be far better that he should clear up the old instead of every week breaking fresh ground. Furthermore, in your impression of Feb. 6, Mr Mechi says, "I make public my facts and practice, and sometimes venture an opinion; but I hold that it is good for agricultural progress that we should make known and compare, and thus derive profitable information from each other. Of course such a system is unpalatable to those who wish to make farming a hole-and-corner business, and shade it from the light of observation, but the time for that has gone by now that we have good roads, railways, penny post, and a rapidly growing agricultural Press." After expressing such sentiments, surely he cannot refuse to enlighten me on the points to which I have adverted. By a parity of reasoning I may also say that now when we happily possess all the advantages he enumerates why should trading more than farming be a hole-and-corner business? As he has been so ready to benefit the farming interest by throwing the light of day upon it, how can he refuse a similar advantage to his neighbours, the West-end traders? Will he kindly inform us through your columns what is the profit on a six-guinea bagatelle table, or a ten-guinea dressing case, or will he publish a balance-sheet of his Regent Street concern. I have no doubt but that the trading community generally would applaud such public-spirited conduct, and it might be of service to many of his agricultural friends as affording a clue to an opening for some of their big boys when they are too thick on the ground. *F. W. Bignell.*

As farmers we are glad to hear the thoughts of anyone on subjects in which we are deeply interested; and although we do not all agree with Mr Mechi, at the same time he may rest assured that there are very many who will be sorry to think that he should relay his useful communications on account of such allusions as those of F. W. Bignell in his last letter. I believe that many who not only possess knowledge and experience which would be of great value to the farming community, but are capable of imparting such knowledge, are deterred from doing so, not caring to "cross pens" with angry and unscrupulous assailants. I think of F. W. Bignell as "G. A. H." (p. 174) does of "J. B. S."—that he owes Mr. Mechi an apology. To that portion of the letter, however, which is not merely personal I regret equally with myself that from want of local knowledge he cannot satisfy me as to the value of Tiptree lands, &c., having never seen them, but I concluded he had, for at p. 119 he says,

"his chief crops are for Wheat, for the production of which his farm is well calculated." He says, "I have kindly given him a point, for 'if Mr Mechi has not placed the value high enough, &c.;" but this is the question he cannot, nor can I, answer. I wish to know the general run of land for agricultural purposes in that neighbourhood. Is it "29*s* 10*d*. or 40*s*?" I will now add a word or two to "A Farmer." Let him consider the first portion of this communication as intended for him also, but I must say in a minor degree. Three-fourths of his letter will not require any observation—it speaks for itself. I will only notice his correction as to rent. He says—"Now I will put the case plain—"

Tiptree Hall, buildings, machinery and 177 acres of land, rent	£301 0 0
Gross profit thereon, according to Mr Mechi's balance-sheet	£525 13 6
Correction, "45 acres of chapel land"	45 0 0
	£570 13 6

Here we must part company, each following the bent of his own mind. I now take

Tiptree Hall, and 132 acres of land at 40 <i>s</i>	£264 0 0
Rent of chapel land	45 0 0
	£309 0 0
Interest of tenant's capital of 2638 <i>l</i> . at 5 per cent	142 18 0
Balance for Farmer Mechi for his work	218 15 6
	£570 13 6

I will not take up your space by repeating the latter portion of my last letter, but anyone can add 38*l*. to "Farmer Jones" for his year's work, and sum up interest of capital; or, in other words, he has allowed me 37*l*. for my carter, and I will not even now call him a working bailiff. *Another Farmer, P.S.*—Imperial averages are useless in this matter. I sold Red Wheat, Golden Drop, on September 25, for 60*s*, the third week following for 55*s*. *The Mark Lane Express* of the 15th inst. quotes "Devises" market: Red Wheat from 45*s*. to 57*s*.

Societies.

ROYAL AGRICULTURAL OF ENGLAND.

MONTHLY COUNCIL *Wednesday, March 3, 1863*—Present Mr. H. S. Thompson, *Trustee*, in the chair; Viscount Bridport, Lord Chesham, Lord Kesteven, Lord Walsingham, Hon H. G. Liddell, M.P., Mr. Acland, Mr. Baldwin, Mr. Barnett, Mr. Barthropp, Mr. Booth, Mr. Bowley, Mr. Bramston, Mr. Cantrell, Colonel Challoner, Mr. Clive, M.P., Mr. Davies, Mr. Druce, Mr. Edmonds, Mr. Brandreth Gibbs, Mr. Holland, Mr. Hornsby, Mr. Hoskyns, Mr. Milward, Mr. Pain, Mr. Ransome, Mr. Statter, Mr. Torr, Mr. Turner, Mr. Wells, M.P., Major Wilson, Mr. Jacob Wilson, Professor S.monds, and Dr. Voelcker.

The following new members were elected.—

- Allan, George, Knightley Hall, Eccleshall, Staffordshire.
- Avelard, Lord, Norwinton Park, Oakham.
- Bartoun, William, Harrogate, Yorkshire.
- Bland, Henry Wainwright, Barlow, Chesterfield.
- Brady, W. Hallinshed, Chestergate, Stockport.
- Brierley, C. William, Rhodes House, Middleton.
- Brown, Pereira, Olantworth Hall, Lincoln.
- Cannon, Joseph C., Oxford.
- Dalsell, John, Stainburn Hall, Wokington.
- Dobbs, Samuel P., Huntly, Gloucester.
- Gadsby, Alfred, 10, Crane Court, London, E.C.
- Graham, James, Parcelstown, Westlinton, Carlisle.
- Greenfield, George, Belle Eau Park, Ollerton.
- Groucock, Charles, Stanfield Hall, Wymondham.
- Haig, George E., Goodworth Clatford, Andover.
- Hart, John, Strangeways, Manchester.
- Hill, John, Crookes House, Newent.
- Hunt, George, Evesham.
- Ingledeu, John, Sewborwens, Penrith.
- Jenkinson, Francis Marston, Stafford.
- J. Anson, Daniel J., Kensall Green, Harrow Road, Middlesex.
- Knight, Edward, Smallrise, Sandon, Stone, Staffordshire.
- Laurie, Reginald N., Pax Hill Park, Cuckfield.
- Leech, George, Hunden Great Lodge, Haverhill.
- Loveridge, Charles, Ivstsey Bank, Penkridge.
- Lucas, Rev. Charles H., The Rectory, Edith Weston, Stamford.
- M'Gregor, John, Acton Weaverham, Northwich.
- Mitchell, J. Jackson, Wigton.
- Moulton, Frederick, Hallow Tombridge.
- Nelson, Thomas, Catgill Hall, Egrement, Cumberland.
- Nicks, William, Gravelle House, Gloucester.
- O'Neil, William, Athy, Kildare.
- Purdon, Edward, Bachelor's Walk, Dublin.
- Rogers, Henry, Wolgarstone, Penkridge.
- Rogers, Thomas, Coxall, Brampton Bryan, Staffordshire.
- Rothwell, W. Talbot, Foxholes, Eikel, Lancaster.
- Simpkin, Joseph, Narborough, Leicester.
- Simpson, Samuel, 33 South King Street, Manchester.
- Smith, Henry, Eaton Constantine, Wellington, Salep.
- Spedding, John J., Greta Bank, Keswick.
- Strickland, George, Low Abbey, Kirkby Thora, Penrith.
- Thornton, John, 15, Langham Place, London, W.
- Tomlinson, Bruce, Asgarby, Stamford.
- Valpy Richard, Heathlands, Wimbledon, Surrey.
- Wall, Thomas, The Ford, Droitwich.
- Wartnaby, Mrs., Market Harborough.
- Welchman, Thomas, Malshanger Farm, Basingstoke.
- Wigram, John, Harlow, Essex.
- Wilson, S. W. Apsley Cottage, Stockport.
- Wool, James, Hagga, Wigan.

FINANCES.—Lord Bridport (Chairman) presented the report from which it appeared that the Secretary's receipts during the past month had been examined by the Committee, and by Messrs. Quilter, Ball & Co., the Society's accountants, and were found correct. The balance in the hands of the bankers on Feb. 28 was 1998*l*. 18*s*. 5*d*. The deed of security given by the Secretary and his sureties had been received, duly signed, and ordered to be placed in the custody of the London and Westminster Bank.—This report was adopted.

JOURNAL.—Mr. Thompson (Chairman) reported that Messrs. Clowes & Son having agreed to accept a reduction in the price of printing, paper and other expenses connected with the publication of the Journal, whereby

a saving will be effected, fully as great as the amount anticipated from advertising for public lectures, the Committee recommend the Council to accept the offer. In pursuance of the authority given to the Council, the Committee had ordered the Secretary to pursue in inspecting the selected farms, and to make the requisite arrangements with Mr. H. H. D. for visiting the farms and preparing the report for publication in the Journal. In accordance with the suggestion of Mr. Wilson, of Knappstoft Hall, the Committee recommend that in the first issue of the Journal of every year those members of the Council who retire by rotation in the following year shall be indicated by an asterisk being placed after their names. With regard to Essay papers, as reported that in Class IV, "On the Domestic Economy of the Agricultural Labourer," the judges recommended that the prize be withheld.—This report was adopted.

HOUSE.—Viscount Bridport (Chairman) reported that the Committee had consulted Mr. P. on the architect, with reference to alterations in order to obtain additional rooms for the use of the Council, and that as the cost will not exceed 75*l*, and as the plan submitted, the expenditure of that amount for the purpose was now recommended.—This report was adopted.

CHEMICAL.—Mr. Wells (Chairman) reported that the following papers had been contributed by Dr. Voelcker to Part 2 of the Journal for 1863—

1. On the Composition and Nutritive Value of *Trifolium striatum*—a new kind of Clover.
2. On the Causes of the Benefits of Chemicals in a paratory crop for Wheat.
3. The Annual Chemical Report.

It was also stated that the forthcoming issue of the Journal will contain Dr. Voelcker's report (a type) on field-experiments on cover sowing permanent pasture; and that Dr. Voelcker had reported that experiments on drainage-waters from various states of cultivation as regards manure were in progress.

The Committee recommended that Dr. Voelcker be requested to investigate the subject of the value of night-soil and dried earth, with a view to ascertaining its value to agriculturists. It was also recommended that the usual annual grant for investigation be awarded to Dr. Voelcker. In conclusion the Committee expressed their regret that the lectures in former years had been discontinued.—The report was unanimously adopted after a discussion of the value of which Colonel Challoner regretted that the day had been fixed for the lectures. Mr. Wells said that it had been found that farmers were not attending Mr. Thompson remarked that although the scheme had been tried, the result was a bad attendance. It was then proposed that

Bridport, seconded by Colonel Challoner, moved unanimously, "That Dr. Voelcker be invited to give on the general results of his investigations during the past year, on some day hereafter to be named by the Chemical Committee."

MANCHESTER MEETING.—Lord Bridport presented the report, and stated that the Committee recommended the formation of a sub-committee to take into consideration the question of refreshments, forms of tender and of advertisements, and that the Secretary to issue those advertisements to the tenders—the committee to consist of Mr. Brandreth Gibbs, Mr. Cantrell, Colonel Challoner, Mr. Torr, Mr. Statter, Mr. Torr, and Mr. Whitworth. It was also recommended that the contractor be provided a floored and waterproof market in the showyard for the accommodation of the Highness the Prince of Wales (President) and additional prizes, proposed to be given by the farmers for additional descriptions of produce, which had been laid before this Committee by the Local Committee, it was recommended that the proposal be declined, as being inconsistent with the rules and objects of the Society. It was recommended that the name of Sir Thomas Hesketh Bart. M.P. be added to the list of this Committee. With regard to the question of placing the Local Committee in position to offer some privilege or compensation to its local fund to its subscribers, otherwise, it was recommended that the Local Committee be at the disposal of the Local Committee (1) transferable weekly tickets, and (2) 250 non-transferable tickets for distribution on the second day of the show.—This report was adopted.

SHOWYARD CONTRACT.—Mr. M. reported that the Committee recommended that the contract erected for the general meetings in the showyard be put up at the commencement of the show, and be available for the use of the members of the Society during the week and that it be furnished with chairs, and writing materials. The Committee considered a series of suggestions, made by Mr. Knappstoft Hall, Rugby, recommended that the regulations of the Society be enforced at the entrance, and that wire-netting be provided for the cheese and butter exhibited from 10.30 to 12.30.—This report was adopted.

The question of the supply of chairs for the Council and officers of the Society was discussed, and it was recommended that the chairs be let for hire to the public, having been reported by the Committee, the facts were reported to the Council, and on the motion of Mr. M. it was resolved by Mr. Thompson, it was unanimously agreed that the contractor be the only person allowed to put up chairs in the showyard, on his undertaking to supply more than 1000 chairs, at a charge of 1*d* each time a chair is used, or 6*d* for a day-ticket.

AGRICULTURAL EDUCATION.—Mr. Holland reported that the arrangements for the examinations were proceeding satisfactorily, and the Committee recommended the commencement of

It is a good deal better to have a few... rather cold for... and being... I prefer... will the... there can be no doubt...

Calendar of Operations.

January... February... March... April... May... June... July... August... September... October... November... December...

It is a good deal better to have a few... rather cold for... and being... I prefer... will the... there can be no doubt...

the seed furrow... when seeding was fol... whole again plow... at the land is com... careful cultivation... table for this cro... n. "A fine seed-bed...

month." A... rule must be... "Never... In diff... refractory... will be found invalu... Mangals and other root crops... and more atten... of the present... in five hund... in a season... prosecuted, let the... ore, is a m... now in use... will this sea... true esti... d for Mal... and Turnips... upon these farms where...

It is a good deal better to have a few... rather cold for... and being... I prefer... will the... there can be no doubt... the heavy rain... the dry... is no doubt simple to those who have such means at their command; but those who only have horse-power, it may be another and another week's postponement waiting for a suitable season...

Notices to Correspondents.

The County Cattle Insurance Com... The following is taken from a useful paper by Mr. A. S. Maxwell, in the "Journal of the Royal Agricultural Society of England..."

out a space large enough for a pit 10 ft. long... wooden vats or tubs will suit equally...

the common cockentary, and those of the... (Tipula sp.), both of which feed on the roots of Grass, &c. SHEEP FARMING IN SPAIN: North Briton inquires if the...

If any large extent of land in one... parts, but he believes they are kept more inland. He... Large quantities of... wishes to know about the country further east...

the heat generated in the mass, and although losing in weight according to the time it remains in the heap (under cover), there will be an increase in the percentage of soluble phosphates. If wanted for application short...

the common cockentary, and those of the... (Tipula sp.), both of which feed on the roots of Grass, &c. SHEEP FARMING IN SPAIN: North Briton inquires if the...

If any large extent of land in one... parts, but he believes they are kept more inland. He... Large quantities of... wishes to know about the country further east...

RICHARD SMITH'S FRUIT LIST. Includes a sketch of the various kinds of Trees, with directions for planting, pruning, manure, &c. Includes a coat of arms.

EVERGREEN... DWAVE TRAINED TREES... RICHARD SMITH'S FRUIT LIST...

ORCHARD HOUSE TREES... EVERGREEN HEDGES... RICHARD SMITH'S FRUIT LIST...

EVERGREEN HEDGES... RICHARD SMITH'S FRUIT LIST...

SURPLUS STOCK - VERY CHEAP. SPECIMEN CONDERS and EVERGREENS...

- Arbor vite, American... Norway Spruce, extra... Juniper... Pines...

- Abies invaria... Cedrus argentea... Hemlock Spruce... Juniper...

- Abies elegant... Juniperus chinensis... Pines... Cedrus...

- Abies... Juniperus... Pines... Cedrus...

- Abies... Juniperus... Pines... Cedrus...

- Abies... Juniperus... Pines... Cedrus...

- Abies... Juniperus... Pines... Cedrus...

RICHARD SMITH, NURSERYMAN AND SEED MERCHANT, WORCESTER.

The Planting Season.

WOODLANDS NURSERY, MARKET LANE, BIRMINGHAM. W.M. WOOD AND SON... SPECIAL ATTENTION TO THE VERY BEST STOCK OF STANDARD ORNAMENTAL TREES...

Island of Jersey.

CHARLES B. SAUNDERS, NURSERYMAN and Florist, can supply the following growth and at moderate prices: Transplanted PINES, MISTLETHU and SILVER FIRS...

Ground Wanted for Building.

FOR LARGE EVERGREEN and FOREST TREES try PAMPLIN and SON. For Height see Advertisements in former Gardeners' Chronicle of this year.

To the Trade.

THOS. CRIPPS and SON beg to announce they still hold a good stock of the following, in fine healthy stuff: ABIES ALBERTIANA (W. Idmon), 3 yr seedling, to 10 feet...

GIANT ASPARAGUS PLANTS, the best that can be procured, 2s 6d per 100. The delicious vegetable does not require any special soil...

RICHARD WALKER... SEEDS OF THE MOST FAMOUS VARIETIES OF THE TOMATO, PEPPER, AND CUCUMBER...

J. C. WHEELER AND SON

WHEELER'S GUINEA COLLECTION OF GARDEN SEEDS comprises the finest varieties in cultivation, for details see "WHEELER'S LITTLE BOOK FOR 1890," price 6d, post free.

WHEELER'S TOM THUMB LETTUCE... A new and valuable variety with a fine, crisp, and succulent leaf...

WHEELER'S MILKY WHITE is the best of all Potatoes, and those who do not grow it may consider themselves rather behind the age...

ONE PECK OF WHEELER'S MILKY WHITE and ONE GUINEA COLLECTION OF GARDEN SEEDS sent carriage free by rail on receipt of cheque or Post-office order for 25s.

WHEELER'S GRASS SEEDS for CROQUET... GRASSES should now be sown at the rate of 10 lb per acre, a good dressing of root applied and the ground well rolled.

EDWARDS' ECLIPSE CUCUMBER, pronounced by all who have seen it to be the best in cultivation. It is a most prolific bearer...

LEE'S GIANT ORNAMENTAL SUMMER SPINACH... has been the most popular variety for many years, and is now being raised in large quantities...

From Mr. Thomas Wood, an authority to the Earl of Winchilsea, Faversham Park, Ashford, Kent, September, 1860...

From Mr. John Perry, Gardener to the Earl of Hertford, Aspendale Rectory, Spalding, Lincolnshire, October, 1860...

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First Crop or Ringleader Pea. CHARLES SHARPE and CO., having grown largely this EXCELLENT EARLY PEA, with great care, have much confidence in offering it to the Trade...

Farm Seeds Direct from the Grower. CHARLES SHARPE and CO. will be glad to send special offers of their carefully selected TURNIP, MANGEL, and other FARM SEEDS on application.

Garden Seeds. CHARLES SHARPE and CO'S PRICED TRADE LIST OF PEAS, BEANS, and other GARDEN SEEDS can be had on application.

Seed Potatoes. CHARLES SHARPE and CO. are now prepared to make special offers of a large assortment of POTATOS.

Plants, to be Sold, Cheap. G. GAINES begs to offer to Nurserymen and Seedsmen, fine GREEN GLOBE ARTICHOKE plants...

Squire's Wiltshire Cos Lettuce. GEO. WHEELER, NURSERYMAN and SEEDSMAN, Warminster, Wilt, having secured the stock of the outstanding BROWN COS LETTUCE, now offers it in its seeded packets...

CARROT and CABBAGE SEEDS. CARR T. WHITE BELGIAN - Per cwt - 6 d. JAMES SHARPE INTERMEDIATE - 65 0

SPECIALITIES, DISTINCT and GOOD. GIBBS MATCHLESS BORCOLE - Per packet - 6 d. MARSHALL'S PRIZE PARSLEY - 1 0

HOOEY'S CONQUEROR PRIZE CELERY gained Five First Prizes in 1888, and one against 125 Exhibitors and First Prizes in 1887...

Memrs. J. Dickson & Sons, Chester. Fisher & Holmes, Sheffield. Brough & Son, York.

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Mangel, Turnip, and other Agricultural Seeds. ALFRED LEGERTON, Wholesale Seed Merchant, 5, Aldgate, London, E. begs to inform the Trade...

CHOICE NEW SEEDS. BROCCOLI, No. 1. Trade Price, 10s per cwt. CABBAGE, Cook's Dwarf in form. The best of the kind...

ROLLISSONS TELEGRAPH CUCUMBER. From the universal satisfaction that has been given, WILLIAM ROLLISSON & SONS...

WILLIAM ROLLISSON and SONS also beg to announce that their GENERAL and CATALOGUE for 1890 is now published...

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from the Growers the best means of preventing Disappointment. **PLANTERS OF LARGE QUANTITIES** of **GARDEN SEEDS** will be supplied liberally by **W. & A. GARDNER** at 10, Abchurch Lane, London, E.C. 4. For prices apply to the above or to the Seed Catalogue sent on Request.

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LAWES' MANURE for GRASS LANDS should be applied during the months of February and March. **NITRATE of SODA** supplied ex Ship or from Stocks at Docks at London, Liverpool, and other ports, at lowest market prices.

LAWES' MANURES are now ready for delivery for present season, 1867.

LAWES' PATENT SUPERPHOSPHATE MANURE
 " DISSOLVED BONES
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 " PREPARED GUANO
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These Manures can be had of all the principal Chemists and Druggists throughout the Kingdom, or of the undersigned at the following prices:
AMERICAN and other MANURES at market prices.
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 Hitherto known as the **MANURE COMPANY**, and **DISSOLVED BONES**, for Dressing Pasture Lands **SUPERPHOSPHATES of LIME** **PREPARED GUANO** **MANGEL and POTATO MANURES.**

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This Company was originally formed by and under the direction of Agriculturists, circumstances that have justly earned for it another title, viz.

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 Its Members are Cultivators of upwards of 200,000 Acres of Land, which has been for years under Management with Manures of their own Manufacture, and the quality of the produce has the best guarantee for the genuineness and efficacy of the Manures manufactured by this Company.

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SCOVENS' ABYSSINIAN MIXTURE, the most effective remedy for preventing and destroying Plant Lice, etc., yet produced, especially Mealy Bug, Brown and White Scale, etc., on all kinds of Fruit and Plants, without injury to the plants.

FOR DESTROYING RED SPIDER, MEALY-BUG, THIRP GREEN and BLACK FLY, without the aid of a Fumigator—This article having been before the Public for the last three years, and being now used by many of the leading Horticulturists—from several of whom Testimonials have been received as to its efficacy—the Manufacturers beg to recommend those who have not used it to give it a trial, feeling confident when they have done so they will use nothing else, as it is far superior to paper or rag, and will not injure the plants. Sold in 1lb packets and upwards, price 3s. 6d. per lb., carriage free. A reduction in price for large quantities.

To be had of **Messrs. ROBERTS and SONS**, Tobacco Manufacturers, 112, St. John Street, Clerkenwell, E.C. 2, of whom Samples and Testimonials may be obtained, and of all Seedsmen and Nurserymen.

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By Royal Appointment
 To Her Majesty, by Special Warrant, dated December, 1865.
 To the Prince of Wales, by Special Warrant dated February 10, 1866.

DAY, SON, AND HEWITT,
 Original and Sole Proprietors of the **STOCKBREEDERS' MEDICINE CHESTS, for DISORDERS in HORSES, CATTLE, CALVES, SHEEP, and LAMBS.**

No. 1 MEDICINE CHEST. Contains sixteen different kinds of compounds, admirably adapted for the treatment of all the diseases of the above animals. Price 2s. 6d., carriage paid.

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Every Stockowner should send for Day, Son & Hewitt's Work on Horses, Large Edition, 2s. 6d., or free by post for 2s stamps. Small Edition, 1s., or free by post for 1s stamps.
Day, Son & Hewitt, 23, Dorset Street, Baker Street, London, W.

F. T. ARCHER'S "FRIGI DOMO"
 Patented by Her Majesty the Queen, the Duke of Northumberland for Spion House, His Grace the Duke of Devonshire for Chiswick Gardens, Professor Lindley for the Horticultural Society, and Sir Joseph Paxton for the Crystal Palace, Royal Zoological Society, Royal Gardens, Kew &c.

The best shading is "Frige Domo" Netting.
 White or Brown, made of prepared Hair and Wool, a perfect non-conductor of heat or cold, keeping a fixed temperature where it is applied. It is adapted for all Horticultural and Horticultural purposes, for

PROTECTION from the COLD WINDS and MORNING FROSTS
 "FRIGI DOMO" NETTING, 2 yards wide, 1s. 6d. per yard run.
 "FRIGI DOMO" CANVAS
 Two yards wide 1s. 6d. per yard run.
 Four yards wide 2s. 6d. per yard run.
 As prepared make, 2 yards wide 1s. 6d. per yard run.
 As prepared make, 4 yards wide 2s. 6d. per yard run.

See Heligbald's Register, Feb. 13, 1867.
 "See Please send me at once, by Mail and R.R. way, 50 yards of Frige Domo 3 yards wide, same as you sent me about this time last year, at 1/6 which answered its purpose admirably. Yours respectfully,
 "G. H. S. R. R."

"We had 20 dozen Apples last year on walls protected easily by Frige Domo."
 Messrs. Thomas Archer, who are Sole Manufacturer, 7, Great Trinity Lane, Cannon Street, E.C. 2, and of all Nurserymen and Seedsmen throughout the Kingdom.

Caution to Gardeners. When you ask for **PRIZE MEDAL, 1867. PRIZE MEDAL for BEST** **SAYNOR AND CO'S WARRANTED PRIZE** **SPRUNG and BUDDING KNIVES**, see that you get them. Observe the mark SAYNOR, and the Corporate Mark, Ostrich Warranted, without which they are not genuine.

S & Co. regret having to state to Gardeners and others, but are compelled to do so, in consequence of an imitation, of common quality, having been sent to the printing office, and which has caused many complaints to be made to them of knives which were not of the making of which they are warranted. **SAYNOR and MAKERS** **S & CO'S PATENT and BUDDING KNIVES** are the best and the cheapest in the market.

Printed by the Staffs. Established upwards of 120 years.

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LIQUOR MAN REFRIGERATORS,
COLD CRUSHERS,
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 and other **REFRIGERATORS.**

Established 1833

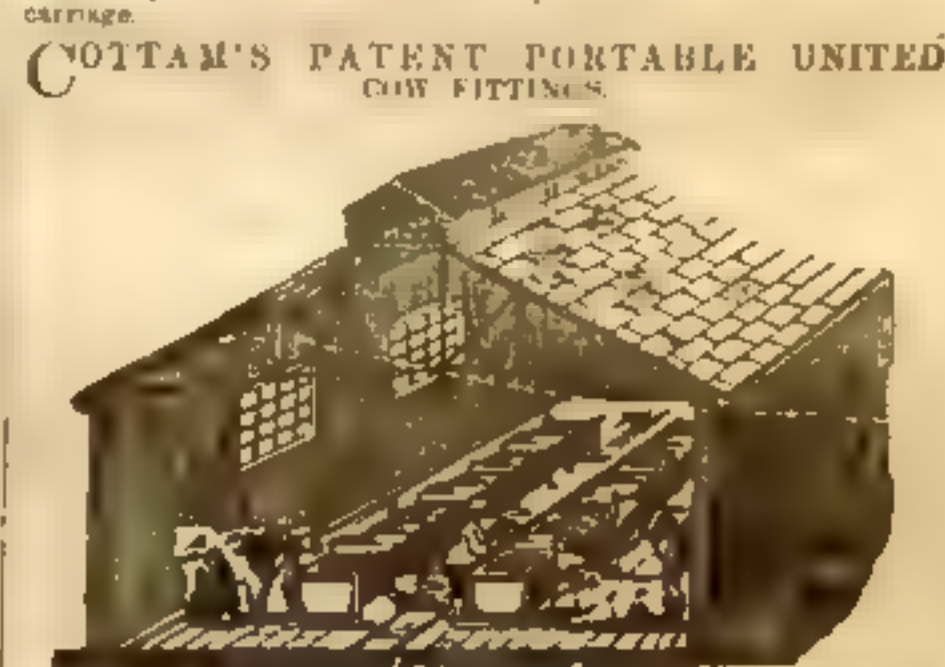
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 LATELY INVENTED
CARE AND PREVENTION OF
HORSE SINGING APPARATUS, with **GAS BURNERS** and **INDIA-RUBBER TUBING**
Improved INDIA-RUBBER DOORSTOPS, **WATERPROOF CART and WAGON COVERS** made any size
HORSE LOIN COVERS (Waterproof), with Straps complete.
HELVING for SAW MILLS, THRESHING MACHINES, and FLOUR MILLS.
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F. BRAY AND CO. having laid down more extensive and improved Machinery on their Bedford premises (near WARRING) are prepared to supply **WROUGHT-IRON TANKS, GALVANISED or PAINTED,** of superior quality, at reduced prices, and at very short notice.

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N.B. Open Tanks of different sizes packed one in another to save carriage.

COTTAM'S PATENT PORTABLE UNITED COW FITTINGS.



Four sets of Cow Fittings are shown, with a cow attached to one of them. The machine is used for fitting cow collars and other equipment.

GARDEN BORDER EDGING TILES, in great variety of patterns and materials, the patterns being especially suited for **KITCHEN GARDENS**, as they harbour no Slugs and Beetles, take up little room, and once put down require no further labour and expense, as the "green" edgings, consequently being much cheaper.

GARDEN VASES, FOUNTAINS, &c., in great variety of patterns, and in green variety finish.

FOXLEY'S PATENT GARDEN WALL BRICKS. Illustrated Price List free by post. The Trade supplied.

ORNAMENTAL PAVING TILES for Conservatories, Halls, Corridors, Balconies, &c., as cheap and durable as Stone, in blue, red, and buff colours, and capable of forming a variety of designs.

WHITE GLAZED TILES, for Lining Walls of Dairies, Larders, Kitchens, Ranges, Baths, &c. (covered and other Stable Paving Bricks of great durability, and also Anamorphic Tiles, Wall Copings, and Stoneware of all kinds, &c., &c., &c.)
 To be obtained of **F. & G. ROSSER**, at their premises as above.

SILVER SAND (REIGATE, best quality), at the above address—14s per Ton, or 1s 3d per Bushel, 2s per Ton extra for delivery with three inches, and to any London Railway or Wharf.

PLANTS, BRICK BURNERS, or CLINKERS for Rockeries or Grotto Work.
F. & G. ROSSER.—Addresses see above.
N.B. Orders promptly executed by Rail way.

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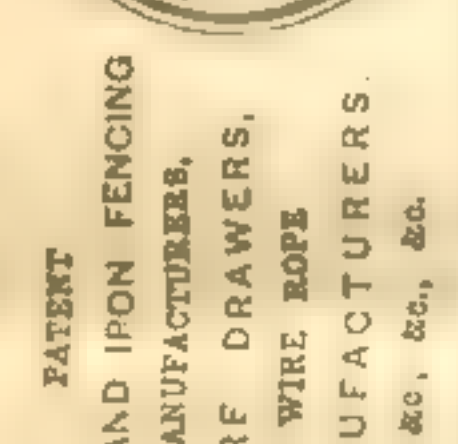
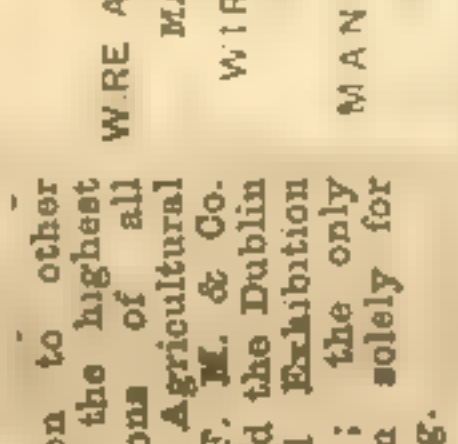
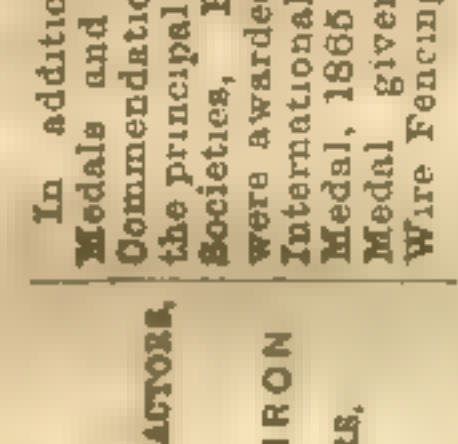
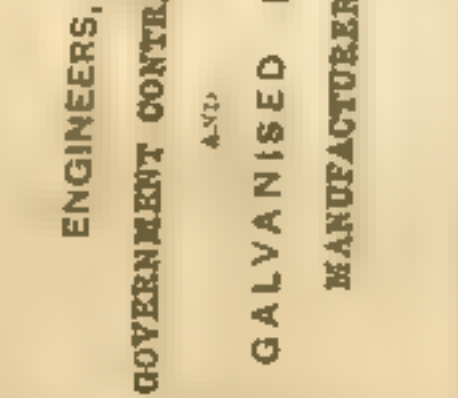
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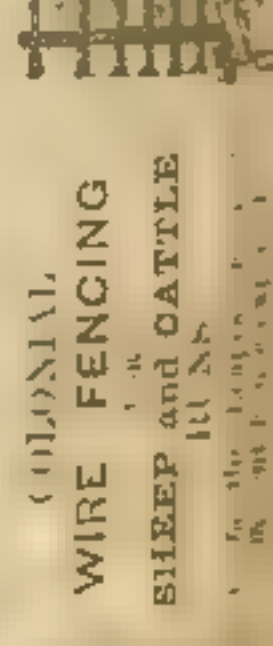
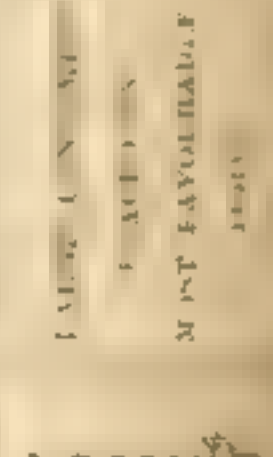
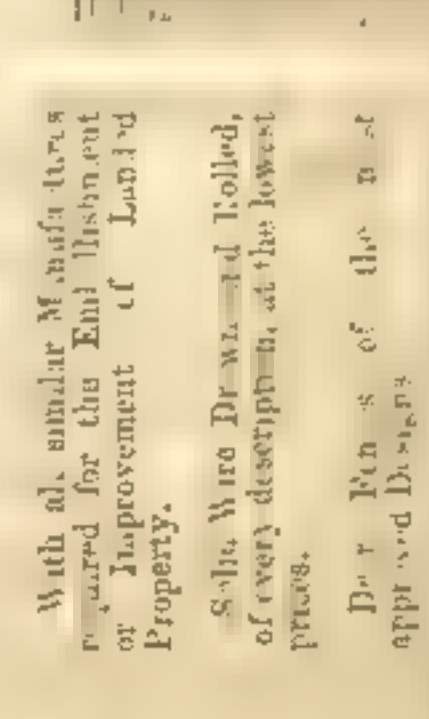
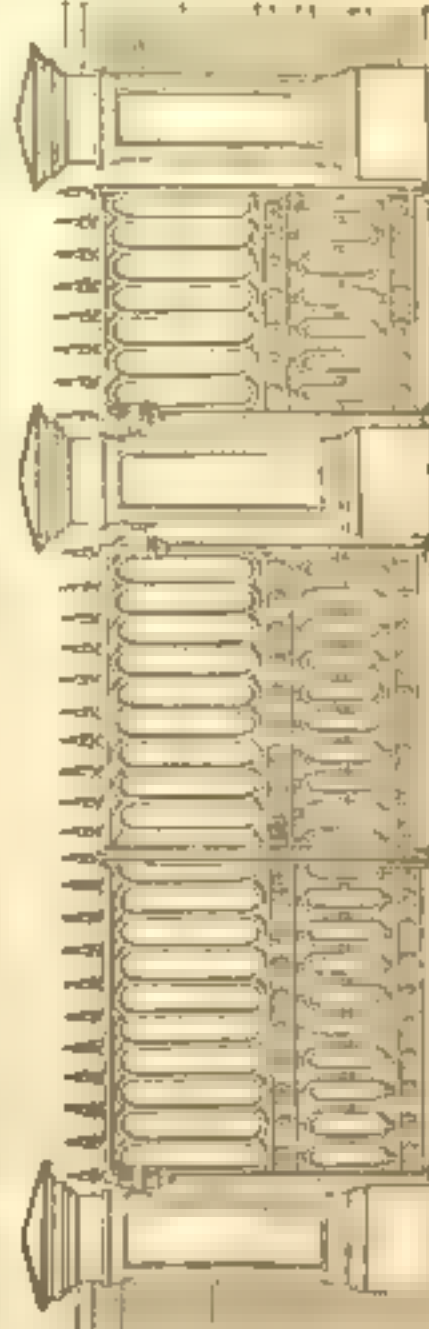
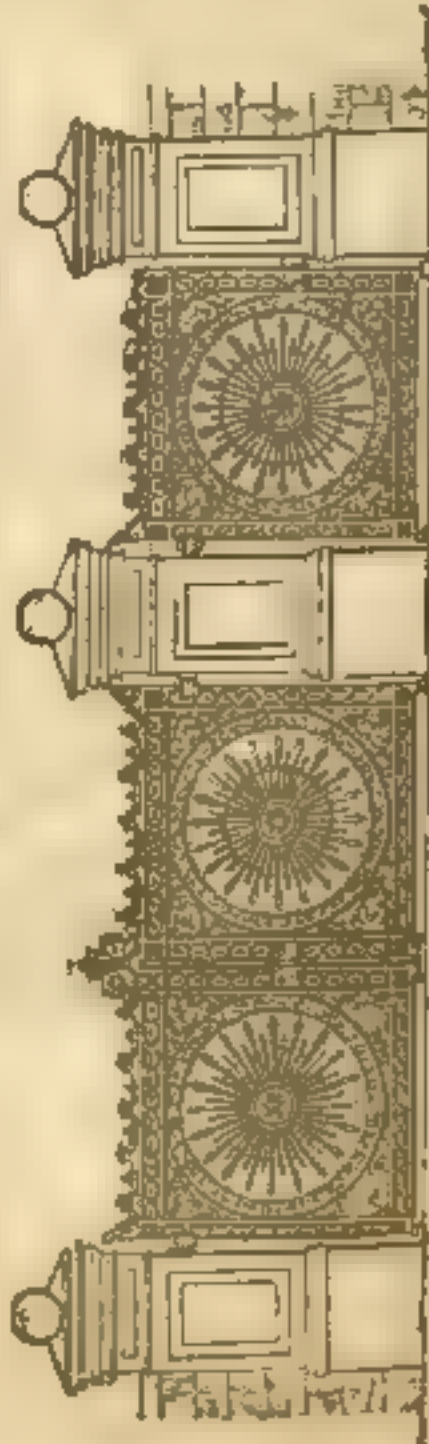
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OUR PATENT WIRE FENCING IS CHEAPER, STRONGER, MORE DURABLE, MORE EFFICIENT AND BETTER IN APPEARANCE THAN BAR IRON FENCING, HURDLES, &c., AT TWICE THE COST. Thoroughly efficient Workmen sent to erect in any part of the Kingdom. Special estimate prepared for consid table quantities.

CAST AND WROUGHT-IRON PARK, ENTRANCE, AND FIELD GATES, PLAIN OR ORNAMENTAL,

CONTINUOUS BAR IRON FENCES, HURDLES, TREE GUARDS, RABBIT NETTING, WICKETS, POULTRY FENCING, PALISADING, &c



COLONIAL
WIRE FENCING
FOR SHEEP AND CATTLE

FOR THE FURNISHING OF THE HOUSES OF PARLIAMENT. A NEW ADVANCED SYSTEM IN GREAT BRITAIN EMULATED.

ESTABLISHED OVER QUARTER OF A CENTURY.

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General Wirework - Garden Rosary.



ROSAIRES, continue... made and erected... wirework for... buildings, &c.

HYDRONETTE... for watering... conservatories, &c.



HYDRONETTE... for watering... conservatories, &c.

WATERWORKS... for conservatories, &c.



Seeley, N... 361-375, Euston Road, Regent's Park.

Hothouses for the Million. S. J. LONDON'S PATENT - NOTICE. MESSRS HEREMAN AND MORTON having taken New Patents for the Construction of Horticultural Buildings...

Heating Apparatus. J. FREDRICH... to supply and fix HOT WATER APPARATUS in VINEYARDS, and every description of HOUSING, &c.

HOT WATER APPARATUS of every description, fixed complete in any part of the country, for Warming Greenhouses, Conservatories, Lorging Pits, &c.

JAMES WELLS AND CO., IRONWORKERS and HOT WATER APPARATUS MANUFACTURERS.



200 CUMMER and MELON BOXES and LIGHTS, a sizes sized and Painted complete, ready for immediate use, sent to all parts of the Kingdom.

Table listing various hothouse and lighting equipment with prices. Includes items like 'MELON LIGHTS', 'GREENHOUSES', and 'WOODWORK ONLY'.

J. C. AND J. S. ELLIS, HORTICULTURAL BUILDERS and HOT-WATER APPARATUS MANUFACTURERS, for Heating Greenhouses, Conservatories, Hothouses, Churches, &c.

Advertisement for 'HOT-WATER APPARATUS' featuring illustrations of various boiler and piping components. Text describes the completeness of the materials supplied for heating.

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To Gardeners and Others. WANTED to HIRE, about ONE ACRE of good GARDEN LAND, to be used as a "Trial Ground."

COTTAGE to LET, with an Acre of good Meadow Land, and Three-quarters of an Acre of Garden Ground.

To be Let, or to LEASE to be SOLD, an Old-established Nursery and Seed Business.

To Market Gardeners. TO BE LET, near a Town and Two Railway Stations, a small piece of Land, FIFTEEN ACRES of very productive LAND.

To be Let, and to be entered upon at Lady Day next, a very useful NURSERY and GARDEN GROUND, of about 30 Acres.

Reydon's Farm, Barking, and Dagenham, Essex. TO BE LET, in small lots or otherwise, for the convenience of Occupants, with Possession at Michaelmas next.

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Consignment of Plants and Bulbs from Holland and Ghent.

MR J. C. STEVENS will SELL by AUCTION, at his Great Rooms, 38, King Street, Covent Garden, W.C., on WEDNESDAY, March 13, at half-past 1 o'clock precisely.

A very Important Sale of Imported Indian Orchids, in fine health.

MR J. C. STEVENS will SELL by AUCTION, at his Great Rooms, 38, King Street, Covent Garden, W.C., on MONDAY, March 15, at half-past 12 o'clock precisely.

Importation of Valuable Orchids.

MR. J. C. STEVENS will SELL by AUCTION, at his Great Rooms, 38, King Street, Covent Garden, W.C., on THURSDAY, March 18, at half-past 12 o'clock precisely.

Sale of First-class Carnations and Picotees.

MESSRS PROTHEROE AND MORRIS will SELL by AUCTION, at the City Auction Rooms, 39 and 40, Gracechurch Street, City, E.C., on THURSDAY, March 11, at half-past 12 o'clock precisely.

Didmarton, near Chippenham. IMPORTANT SALE of SHORTHORNED CATTLE.

MR STRAFFORD begs to announce that he has received instructions to SELL by AUCTION, without reserve, on TUESDAY, March 23, next, at Didmarton, the remaining portion of the extensive and valuable HERD of first-class SHORTHORNS.

Orpines, Wateringbury, Kent. IMPORTANT SALE of FIRST-CLASS SHORTHORNS.

MR STRAFFORD begs to announce that the SALE by AUCTION of the FIRST-CLASS SHORTHORNS belonging to Messrs. F. Loney & Son, Wateringbury, Kent, is fixed for THURSDAY, the 6th of May next.



WILLIAM S. BURTON, GENERAL FURNISHING IRONMONGER

BY APPOINTMENT TO H.R.H. THE PRINCE OF WALES,
SENDS A CATALOGUE GRATIS AND POST PAID.

It contains upwards of 700 Illustrations of his unrivalled Stock of

STERLING SILVER AND ELECTRO PLATE,
NICKEL SILVER AND
BRITANNIA METAL GOODS,
DISH-COVERS, HOT-WATER DISHES,
STOVES AND FENDERS,
MARBLE CHIMNEY-PIECES,

KITCHEN RANGES,
LAMP GASOLIERS,
TEA TRAYS,
URNS AND KETTLES,
TABLE CUTLERY,
CLOCKS AND CANDELABRA,

BATHS AND TOILET WARE,
IRON AND BRASS BEDSTEADS,
BEDDING AND BED HANGINGS,
BEDROOM CABINET FURNITURE,
TURNERY GOODS, &c.

With Lists of Prices, and Plans of the

TWENTY LARGE SHOW-ROOMS,

AT 39, OXFORD STREET; 1, 1A, 2, 3, AND 4, NEWMAN STREET; 4, 5, AND 6, PERRY'S PLACE
AND 1, NEWMAN YARD, LONDON, W.

THE PERFECT SUBSTITUTE

for SILVER—The real NICKEL SILVER, introduced more than 30 years ago by WILLIAM S. BURTON, when Plated by the Patent Process of Messrs. Elkington & Co., is beyond all comparison the very best article next to sterling silver that can be employed as such, either usefully or ornamentally, as by no possible test can it be distinguished from real silver.

A small, useful Set, guaranteed of First Quality for finish and durability, as follows

	Fiddle or Old Silver Pattern	Bead Pattern	Thread Pattern	King's or Shell and Thread
12 Table Forks	1 10 0	2 1 0	2 2 0	2 5 0
12 Table Spoons	1 17 0	2 1 0	2 2 0	2 5 0
12 Dessert Forks	1 2 0	1 7 0	1 10 0	1 11 0
12 Dessert Spoons	1 2 0	1 7 0	1 10 0	1 11 0
12 Tea Spoons	0 15 0	0 10 0	0 11 0	0 12 0
6 Egg Spoons, pt. bowls	0 8 0	0 12 0	0 12 0	0 13 0
2 Sauce Ladles	0 8 0	0 8 0	0 8 0	0 8 0
1 Gravy Spoon	0 4 0	0 4 0	0 4 0	0 4 0
2 Sugar Spoons	0 4 0	0 4 0	0 4 0	0 4 0
1 Mustard Spoon	0 4 0	0 4 0	0 4 0	0 4 0
1 Butter Knife	0 4 0	0 4 0	0 4 0	0 4 0
1 Soup Ladle	0 10 0	0 12 0	0 14 0	0 15 0
1 Sugar Nipper	0 3 0	0 4 0	0 4 0	0 4 0
Total	9 15 0	11 18 0	12 8 0	13 2 0

Any article to be had singly at the same prices. An Oak Chest, to contain the above, and a relative number of Knives, &c., £2 15s.

A Second Quality of Fiddle Pattern
Table Spoons and Forks .. £1 2 0 per doz.
Dessert Spoons and Forks .. 0 16 0
Tea Spoons 0 10 0
Tea and Coffee Sets, Dish Covers and Corner Dishes, Cruet and Liqueur Frames, &c., at proportionate prices.
All kinds of Re-plating done by the Patent Process.

FENDERS, STOVES, FIRE-IRONS, and CHIMNEY-PIECES

—Buyers of the above are requested, before finally deciding, to visit WILLIAM S. BURTON'S SHOW-ROOMS. They contain such an assortment of Fenders, Stoves, Ranges, Chimney-pieces, Fire-irons, and General Ironmongery, as cannot be approached elsewhere, either for variety, novelty, beauty of design, or exquisiteness of workmanship. Bright Stoves, with ormolu ornaments, £3 8s. to £33 10s.; Bronze Fenders, with standards, 7s. to £5 12s.; Steel Fenders, £3 3s. to £11, ditto, with rich ormolu ornaments, from £3 3s. to £18; Chimney-pieces, from £1 8s. to £100; Fire-irons, from 3s. 6d. the set to £1 4s. The Burton and all other Patent Stoves with radiating hearth-plates.

LAMPS of ALL SORTS and PATTERNS

—WILLIAM S. BURTON invites inspection of this Season's SHOW of LAMPS. The collection of French Moderateur Lamps, carefully selected at Paris, defies competition. The prices vary from 7s. to £7 7s. Each Lamp is guaranteed perfect, but to ensure their proper action, WILLIAM S. BURTON supplies Pure Colza Oil at the Wholesale Price, 3s. 4d. per gallon. Lamps of all other descriptions are on Show in great variety.

BEDDING MANUFACTURED on the Premises, and guaranteed by WILLIAM S. BURTON

For Bedsteads, Wide	7 Feet 6 inches	4 Feet 6 inches	6 Feet
Best Straw Palliasses	0 15 0	0 15 0	0 18 0
Best Cotton Frock Mattresses	0 15 0	1 7 6	1 13 0
Coloured Wool Mattresses	1 1 0	1 1 0	1 1 0
Best Brown Wool Mattresses	1 5 0	1 11 6	1 13 0
Best Brown Do., extra thick	1 8 6	1 18 0	1 19 0
Good White Wool Mattresses	1 11 0	2 3 0	2 7 0
Extra Super Do. Do.	0 0 0	0 3 0	1 1 0
Good Horse Hair Do.	2 5 0	2 14 0	3 6 6
Extra Super Do.	3 1 0	3 14 0	4 19 0
German Spring Hair Stuffing	3 12 0	4 7 6	4 15 0
Extra Super Do.	4 10 0	5 10 0	6 0 0
French Wool and Hair Mattress for use over spring	2 17 0	3 15 0	4 5 0
Extra Super Do. Do.	3 1 0	4 0 0	5 11 0
Feather Beds, Fointry, in Good Tick	1 10 0	2 7 0	
Do. Do. Grey Goose, in Bordered Linen Ticks	3 10 0	5 0 0	5 17 6
Do. Do. Best White Do. in best Laces	4 17 0	6 17 6	7 12 0

Feather Pillows, 3s. 6d. to 14s.; Bolsters from 6s. to 29s. 6d.
Down Pillows from 10s. 6d. to 17s. 6d.
Blankets, Counterpanes, and Sheets in every variety.

FURNITURE, in complete suites

for Bedroom, of Mahogany, Birch, Fancy Woods, Polished and Japanned Deal, always on show. These are made by WILLIAM S. BURTON, at his Manufactory, 84, Newman Street, and every article is guaranteed. China Toilet Ware in great variety, from 4s. Set of Five Pieces.

THE BEST SHOW of IRON BEDSTEADS in the KINGDOM is WILLIAM S. BURTON'S

He has FOUR LARGE ROOMS devoted to the exclusive show of Iron and Brass Bedsteads and Children's Cots, with appropriate Bedding and Bed-hangings. Portable Folding Bedsteads, from 11s.; Patent Iron Bedsteads, fitted with dovetail joints and patent sacking, from 14s. 6d., and cots, from 15s. 6d., handsome Ornamental Iron and Brass Bedsteads, in great variety, from £2 13s. 6d. to £20.

GASOLIERS in GLASS or METAL.

—The increased and increasing use of Gas in private houses has induced WILLIAM S. BURTON to collect from the various Manufacturers in Metal and Glass all that is new and choice in Brackets, Pendants, and Chandeliers, adapted to Offices, Passages, and Dwelling Rooms, as well as to have some designed expressly for him, these are ON SHOW over his TWENTY LARGE ROOMS, and present, for novelty, variety, and purity of taste, an unequalled assortment. They are marked in plain figures, at prices proportionate with those which have tended to make his Establishment the largest and most remarkable in the Kingdom, viz., from 1s. 6d. (two light) to £23.

DISH COVERS and HOT-WATER DISHES, in every variety, and of the newest and most recherche patterns, are ON SHOW at WILLIAM S. BURTON'S.

Black Tin, 19s. the Set of Six, elegant Modern Patterns, 36s. 6d. to 49s. 6d. the Set; Britannia Metal, with or without Silver-plated Handles, £3 2s. to £3 8s. the Set of Five, Electro-plated, £9 to £26 the Set of Four, Black Tin Hot-water Dishes, with Wells for Gravy, 12s. to 30s., Britannia Metal, 22s. to 30s., Electro-plated, on Nickel, full size, £9.

CUTLERY WARRANTED.

—The most varied assortment of TABLE CUTLERY in the world, all warranted, is on Sale at WILLIAM S. BURTON'S, at prices that are remarkable because of the largeness of the Sale.

Ivory Handle	Table Knives per Dozen	Dessert Knives per Dozen
3 1/2 inch Ivory handles	13 0 0	10 0 0
3 1/2 inch fine Ivory balance handles	15 0 0	11 0 0
4 inch Ivory balance handles	18 0 0	13 0 0
4 inch fine Ivory handles	20 0 0	15 0 0
4 inch finest African very handles	24 0 0	17 0 0
Ditto, with silver ferrules	40 0 0	27 0 0
Ditto, carved handles, silver ferrules	55 0 0	40 0 0
Nickel electroplated ver handles	25 0 0	19 0 0
Silver handles, of any pattern	41 0 0	29 0 0

Bone and Horn Handles—Knives and Forks per dozen
Wh to bone handles 11 0 0
Ditto, balance handles 13 0 0
Black horn rimmed show sets 15 0 0
Ditto, very strong rimmed by files 20 0 0

The largest Stock in existence of Table Knives and Forks, and Fish-eating Knives and Carvers.

PAPIER MACHE and IRON TEA TRAYS

—An assortment of TEA-TRAYS and WAITERS, wholly unprecedented, whether as to variety, or novelty.
New Oval Papier Mache Trays, per Set of Three from 29s. to 49s.
Ditto Iron ditto from 30s. to 49s.
Convex-shape ditto from 7s. 6d.
Round and Gothic Waiters and Bread Baskets on show.

BATHS and TOILET WARE

—WILLIAM S. BURTON has ONE LARGE SHOW ROOM devoted exclusively to the display of BATHS and TOILET WARE. The Stock of each is at the largest, newest, and most varied ever submitted to the Public, and marked at prices proportionate with that have tended to make his Establishment distinguished in this country. Portable Showers, Palm Showers, £3 to £5 12s., Nervous, £3 to £5 Sponging, 14s. to 32s., Hip, 14s. to 35s. and a large assortment of Gas Furnace, Hot and Cold Plunge, and Camp Shower Baths. Toilet Ware in great variety from 10s. 6d. to 40s. the Set of Three

CLOCKS, CANDELABRA, BRONZES, and LAMPS

—WILLIAM S. BURTON invites inspection of his Stock of these, and a large variety of LAMPS, BRONZES, and LAMPS. Each article is of quality, and some are objects of pure vertu. Some of the first Manufacturers of Paris, from whom WILLIAM S. BURTON imports them direct.
Clocks from 7s. 6d. to 25s.
Candelabra from 13s. 6d. to 130s. per set
Bronzes from 18s. to £16 10s.
Lamps, Moderateur from 6s. to 29s.
Pure Colza Oil, 3s. 4d. per Gallon

Editorial Communications should be addressed to "The Editor," at the Office of Messrs. HARRISON, FRANCIS & CO., Limited, 41, Wellington Street, Covent Garden, London, W.C. Printed by James Matthews, at the Office of Messrs. HARRISON, FRANCIS & CO., Limited, 41, Wellington Street, Covent Garden, London, W.C. Office No. 11, Wellington Street, parish of St. Paul's, Covent Garden in the said County—SATURDAY, March 6, 1863



WILLIAM ROLLISSON & SONS'

BRILLIANT NEW TRICOLOR GERANIUM, THE MOONSTONE,
 WILL BE SENT OUT ON AND AFTER THE 30TH OF APRIL NEXT.

Of the above most beautiful Tricolor is compact and exceedingly free; the leaves, which are of good moderately large, are almost round, and from the slight convexity of their shape they exhibit to great and varied colourings with which they are adorned, the centre of the leaf is of a bright and lively green, towards the edge of the leaf, to a soft crimson-lake, which entirely encircles the whole zone, edged with a dark chocolate zone, which is much intercepted by the most intense blood-red. This bright crimson-red belt. It is some what in the way of *Lucea Grisea* in its colourings, but is rather brighter, and the habit and slow growth of that variety, "The Moonstone" is almost as free in habit as a *Tem* and it remains constant in character. This, without exception, is the finest Tricolor hitherto offered to

FOLLOWING NINE SPLENDID NEW DOUBLE GERANIUMS FOR 1869,

ADAME BONNET	MIDDLE LOUISE DELESALLE	M FROEBEL
ADAME DEBRAY	M. DE ST JEAN	MARIE LEMOINE
ADAME CROUSSE	M. DE ST PAUL	WILHELM PFITZER

with many other Novelties of sterling merit, will be distributed on and after the 30th of April next

Descriptions and Prices of the above, see **SPRING CATALOGUE of NEW and CHOICE SOFT-WOODED SEEDS** for 1869, which will be sent Gratis and Post Free on application to
THE NURSERIES, TOOTING, LONDON, S.W.

SEED POTATOS.

WATER ROYAL ASHLEAF KIDNEY	EARLY OXFORD
WYATT'S EARLY PROLIFIC KIDNEY	" ROUND FRAME
WINTER'S EARLIEST ROUND	" GOLDEN GLOBE
MARY DALMAHOY	WEBB'S IMPERIAL KIDNEY
FOX'S SEEDLING	PATERSON'S VICTORIA
FORTY-FOLD	WALKER'S EARLY REGENT
	FLAKE KIDNEY.

All fine stocks, free from disease, and low in price.

APPLY TO

R AND F SHARPE, SEED GROWING ESTABLISHMENT, WISBECH

SELECT AND GENUINE FARM SEEDS,
 CARRIAGE FREE.

PRICED DESCRIPTIVE LIST on application, Post Free.

DICKSON AND SONS can confidently recommend their **DICKSONS' PRIZE PURPLE-TOP SWEDE**, superior to any other also their **ROOT-CROP SEEDS** of every description; their **CLOVERS, GRASS** &c. are all extra clean, much more so than those generally offered.

James Dickson & Sons

OLD ESTABLISHED NURSERY AND SEED BUSINESS,
 EASTGATE STREET, AND "NEWTON" NURSERIES, CHESTER.

TO THE TRADE ONLY.

STUART & CO., SEED GROWERS, NICE.

Warehouse and Offices, where Stock is kept for the supply of the English Trade,
 5, TAVISTOCK ROW, COVENT GARDEN, W.C.
 (Late of 85, Southampton Row)

WHOLESALE CATALOGUE ON APPLICATION.

FOLLOWING SPECIALITIES SUPPLIED AT THE CATALOGUE PRICE,
 OR SPECIAL OFFER FOR LARGE QUANTITIES.

- METALLICA**—Fresh Seed now ready to send out, in pods containing from 20 to 50 seeds, with full description and Pictorial Seeds have long been famous for their fine Conservatory; its large massive leaves, shaded with a purplish glaucous hue are unique.
- GOLDEN FEATHER**—A valuable plant for ribbons, beds, edgings, &c. Raised from seed, it has a beautiful golden hue longer than if propagated by cuttings or divisions.
- PETUNIA SEED**, of exquisite quality
- CINERARIA SEED**, saved from the choicest Florists' Flowers.
- ZINNIA SEED**, from magnificent double varieties.
- CENTAUREA CANDISSIMA (RAGUSINA)**, warranted true, plump, well-ripened seeds.
- CENTAUREA GYMNOCARPA SEED**, true.
- HALSAM SEED**, finest double varieties.
- V. D. A. CORNUTA SEED, PURPLE QUEEN**—The earliest, the darkest coloured, and most profuse blooming variety.
- MYOSOTIS SYLVATICA SEED**, the finest Forget-me-Not for spring gardening.
- ORNAMENTAL GRASSES**
- SUBTROPICAL PLANT SEEDS.**
- MELONS**—Choice hybrid, our own raising, unequalled for their exquisite flavour, fine shape, and beautiful setting.
- MELONS**—All the usual sorts in cultivation; seed saved from selected fruits only.
- CUCUMBERS**—All the finest varieties in cultivation.

STUART AND CO., 5, TAVISTOCK ROW, COVENT GARDEN, W.C.

Now Ready.
GEO. SMITH'S PRICED and DESCRIPTIVE CATALOGUE, containing Select Lists of all the leading kinds of choice Show, Spotted, French, Fancy Variegated, Zonal, Gold and Bronze, Ivyleaf, and Double-flowered **PERLARGONIUMS, VERVENAS, FUCHSIAS, PETUNIAS, CHRYSANTHEMUMS, DAHLIAS, BEDDING PLANTS, &c.**, in exchange for one postage stamp.
 Tootington Nursery, Horsey Road, Islington, London, N.

EDWARD SANG AND SONS,
 NURSERY and SEED MERCHANTS, Kitching
CALCEOLARIA AMBASSADOR—A new Autumn-struck plant of this now well-known beautiful *Calceolaria*, 1s. per dozen.
SANG'S DEEP CRIMSON BEET—Most beautiful in colour, and finely flavoured. Per packet, 3d., or 6d. per oz.
TRUE SCOTCH LEEK—A very superior large hardy Leek, capable of withstanding the severest winters. Per pkt., 3d., or 1s. per oz.
PRINCE OF WALES GAEFENS Dwarf, and most beautifully coloured, 1s. 6d.
PRICED CATALOGUE—Free. From a 1 ornamental Trees and Shrubs, Vegetables and Flower Seeds, 1 cactus, &c., may be had free of charge.
 E. S. & S. deal liberally with respect to the carriage of their packets.

New Seeds for the Garden and Farm, 1869.



HENDERSON'S
 DESCRIPTIVE and PRICED
 CATALOGUE of SEEDS, containing
 full particulars on all the most
 important SEEDS.

A select list of **GLADIOLUS** for
 Spring Planting,
GRAPE VINES, in Pots, an
 unrivalled Collection.

Also his **DESCRIPTIVE CATALOGUE of GENERAL NURSERY STOCK** is now ready, and may be had gratis and post free upon application.

Son Nursery, Thornton Heath, Surrey, and at the East Surrey Seed Warehouse, College Grounds, North End, Croydon.

Suttons' Home-grown Seeds.

SEEDS DIRECT FROM THE GROWERS THE BEST MEANS OF PREVENTING DISAPPOINTMENT

SUTTONS' COMPLETE COLLECTIONS for the FLOWER and KITCHEN GARDEN, carriage free.

FOR THE KITCHEN GARDEN

No. 1 Collection, for a large garden, carriage free	£2 3 0
No. 2 Collection, for medium size do., carriage free	2 2 0
No. 3 Collection, for medium size do., carriage free	1 11 0
No. 4 Collection, for an odd size do., carriage free	1 1 0
No. 5 Collection, for a small do.	0 15 0
No. 6 Collection, for a very small do.	0 12 0

FOR THE FLOWER GARDEN

No. 1 Collection, free by post or rail	£. 2 0
No. 2 Collection, free by post or rail	1 11 0
No. 3 Collection, free by post or rail	1 1 0
No. 4 Collection, free by post or rail	0 1 0
No. 5 Collection, free by post or rail	0 10 0

Particulars of the above Collections may be had on application, and any articles not required will be excluded, and others included according to the wish of the customer.
IF DESIRED of GARDEN SEEDS, GRASS SEEDS, and FARM SEEDS post free on application.
 Seeley & Sons, Seedmen to the Queen, Reading, Berks.

DOBSONS' PRIZE and CELEBRATED FLOWER SEEDS, second to none in quality, in packets.

- DOBSONS' PRIZE CALCEOLARIA**, unequalled for beauty, variety, and brilliancy of colour, 1s. 6d., 2s. 6d., 3s. 6d., 4s., with directions for sowing and growing.
- DOBSONS' PRIZE CINERARIA**, 1s., 2s. 6d., Received 60 First Prizes in 8 years.
- DOBSONS' PRIZE PRIMULA SINENSIS PIMPHIATA**—The *alba* variety, a very brilliant in colour, with double fringe. The *alba* is pure white and fine fringe. Awarded First Prize and a Special Prize at Newington in 1868. Each colour separate, 2s. 6d., 3s. 6d., 4s., 5s., 6s., 7s., 8s., 9s., 10s., 11s., 12s.
- DOBSONS' PRIZE BALSAM** are a splendid strain of this fine autumn flower, 1s., 2s.
- DOBSONS' CHOICE HOLLYHOCK**, 1s., 2s., 3s.
- DOBSONS' PRIZE POLYANTHUS**, 1s., 2s., 3s.
- DOBSONS' CHOICE CYLLAMEN**, 1s., 2s., 3s.
- DOBSONS' DOUBLE SCARLET INTERMEDIATE STOCK**, 6d. and 1s. The above seeds may be had post free of Dobson & Sons, Seedmen, Isleworth, London, W.

GOLDEN FEATHER PYRETHRUM.

(*Pyrethrum parthenifolium aurea*), new Golden-leaved Bedding Plant.—A dwarf hairy perennial, 6 to 9 inches in height, with beautiful golden leaves, of densely compact growth, unequalled for ribbons or beds for the Flower Garden. It is perfectly hardy, and simply requires its flower-buds pinching off during the summer months, and stands through winter as a permanent gold edging plant. Produces its golden foliage true from seed. No. 4 in packets free by post, 1000 seeds, 1s. per packet. Any number of packets free by post. Seed our own saving of 1869. Trade supplied.
 London Agents: Messrs. H. Cox & Son, 6, Leadenhall Street, E.C.
 J. Stark & Sons, The Nurseries, Malton, Yorkshs.

NEW IMPORTED FLOWER SEEDS.

- TRUFFAUTS' PEONY ASTER**—1s. do. Dwarf
- CHRYSANTHEMUM** 1s. do. **ROSE** do.; 5s. do. **GROWN** do., 2s. do. **DEAR OF MAYTEN-WEEK STOCKS** 2s. do. **Large Flowering** do., 6s. do. **BROMPTON** or **WINTER** do., 10s. do. **Double WALLFLOWER**—The above, or any less number of varieties, at 3d. each, or in mixed packets 3d. and 6d. each. The seeds are of the very best quality, as testified by numbers of growers in all parts of Great Britain during many past seasons. All flower seeds in packets post free. CATALOGUE free on application.
 James T. Cox, Importer of Horticultural Seeds, 68, Great George Street, Liverpool.

Just Arrived from Australia.

- BEAUTIFUL NEW SEEDS from NEW ZEALAND**
P. AN. THORMUM TENAX
 Seeds of the following are offered, in fine and distinct packets:
PHOENIX TENAX—Seed of the very best quality, distinct, soft, &c. the blue and red, &c. edged, rounded, &c. variegated edged, and the high new varieties, &c. &c., so justly praised in a recent Number of the *Gardener's Chronicle* Packets, 3s. 6d. and 5s.
- PHOENIX TENAX**, Black-edged only, per packet, 3s. 6d.
- " Variegated-leaved (most lovely), p. packet, 2s. 6d.
- Also fine samples of
CORDYLINA (DIVISA) (true), per packet, 1s.
- CANTHUS (novel and fine)**, per packet, 2s. 6d.
- Prices to the Trade on application.
 Hooper & Co., Covent Garden, London, W.C.

Vegetable, Agricultural, and Flower Seeds.

ROBERT PARKER begs to announce that his **CATALOGUE**, containing **DESCRIPTIVE LISTS** of the finest kinds in cultivation of the above-named, is now published, and will be forwarded to applicants. The stocks of Seeds have all been procured from the best possible sources, all are warranted genuine, and are offered at the lowest possible prices.
 Intending purchasers are requested to compare the prices with those of other houses.
 Exotic Nursery, Tooting, Surrey, S.W.

PAUL'S NURSERIES AND SEED WAREHOUSE, WALTHAM CROSS, LONDON, N.

GENUINE AND FIRST-CLASS SEEDS.

WILLIAM PAUL

DEGS TO ANNOUNCE THAT HIS

CATALOGUE OF SELECT VEGETABLE AND FLOWER SEEDS,

Including many Novelties, is now ready, and may be had Free by Post on application.

In proof of QUALITY he need only refer to the numerous Prizes awarded at various Horticultural Shows throughout the country, for both Vegetables and Flowers grown from his Seeds, and in regard to prices these are in all cases affixed on the lowest possible scale to be remunerative...

To purchasers who are unacquainted with the best varieties of Vegetables and Flowers, or who wish to save the trouble of writing a List, the following Collections are made up on equally liberal terms with any other House in the Kingdom.

VEGETABLE SEEDS.

- No. 1 The WALTHAM COLLECTION of VEGETABLE SEEDS, FOR A LARGE GARDEN, Price £3 3s.
No. 2 The WALTHAM COLLECTION of VEGETABLE SEEDS, FOR A MEDIUM-SIZED GARDEN, Price £2 2s.
No. 3. The WALTHAM COLLECTION of VEGETABLE SEEDS, FOR A SMALL GARDEN, Price £1 1s.

Smaller Collections for Small Gardens or Cottagers, 16s., 10s. 6d., or 5s. each.

FLOWER SEEDS.

- No. 1. The WALTHAM COLLECTION of FLOWER SEEDS, INCLUDING THE FINEST IMPORTED ASTERS, STOCKS, &c., Price £3 2s.
No. 2 The WALTHAM COLLECTION of FLOWER SEEDS, INCLUDING CHOICE IMPORTED ASTERS, STOCKS, &c., Price £1 1s.
No. 3. The WALTHAM COLLECTION of FLOWER SEEDS, INCLUDING THE MOST EFFECTIVE FOR A SMALL GARDEN, Price 10s. 6d.
No. 4. PAUL'S CHOICE COLLECTION of HOLLYHOCKS, IN TWELVE DISTINCT NAMED SORTS, Price 5s.

NOVELTIES, OR VARIETIES OF SUPERIOR MERIT.

- BENT, Paul's Superb Cucumber, 1s. per packet.
BROCCOLI, Lander's Superb Protecting Late White, 2s. 6d. per pkt.
BROCCOLI, Snow's Winter White, very select stock, 1s. per packet.
BRUSSELS SPROUTS, Paul's Waltham, 1s. per packet.
CAULIFLOWER, Hill's Dwarf, 1s. 6d. per packet.
CAULIFLOWER, Superb Dwarf Hertfordshire, 1s. per packet.
CUCUMBER, Paul's Improved Telegraph (true), 2s. per packet.
ENDIVE, Waltham Green Curled, 1s. per packet.
LETTUCE, Brockett's Hall Brown Cos, 1s. per packet.
LETTUCE, Hill's Compact Brown Cos, 1s. 6d. per packet.
PARSLEY, Paul's Selected Extra Curled, 6d. per packet.

FOR MORE PARTICULAR INFORMATION, SEE SEED CATALOGUE.

All Seeds, except very small parcels, Carriage or Post Free

- LILIUM AURATUM.—Flowering bulbs, 2s. to 7s. 6d. each; 18s. to 72s. per dozen.
GLADIOLI.—A very fine assortment to name, 6s. to 24s. per dozen.
ROSES.—A fine stock still on hand, Standards, Dwarf-standards, Dwarfs, and in pots for forcing.
FRUIT TREES.—Standards, Pyramids, and Dwarf-trained, and a large general Nursery Stock in excellent condition.

PRICED CATALOGUES, FREE BY POST.

IMPORTANT.—To prevent confusion, all Letters should be addressed WILLIAM PAUL—the Christian name in full, as above.

Golden Coleus, Queen Victoria. MESSRS. JOHN AND CHARLES LEE... sending out the most beautiful and most improved Coleuses. The centres of the leaves are superbly edged, with a double row of golden beads...

New Golden Coleus. DOWNIE, LAIRD, AND LAING... series raised at the Royal Hort. Soc. Garden, Chiswick, at advertised prices, after March 1st.

ALBERT VICTOR, a very neat but true variety... of the leaves being bronzy red, shaded with green, deep purplish-crimson, and the golden margin...

BARONESS ROTHSCCHILD, an extraordinary variety... centre of the leaves being of a bright bronze, with stains or blotches, margin bright green, and the leaf fully marked with light carmine.

PRINCESS BEATRICE, a charming variety... golden hue, the main veins being a bright yellow, the margin entirely defined by dark crimson lines.

PRINCESS ROYAL.—The centre of the leaves are a deep crimson, with a narrow bright yellow margin, and the leaf being very bright, and nearly an entire...

New List of Biennials. THOMAS S. WARE has much pleasure in announcing that his new CATALOGUE of BIENNIALS...

Spring Flowers. LEWIS B. WOODTHORPE offers the following, cheap...

Table listing various flower seeds and their prices, including Violets, Hepaticas, and Daisies.

Must be Sold, to make room. L. WOODTHORPE offers the following, clearance—Strong Fruiting VINES, 10 to 12 feet...

Strong Vines from Eyes. MESSRS JOHN AND CHARLES LEE... strong well-ripened CANES of all the best...

Madresfield Court Black Muscat Vine. MESSRS. JOHN AND CHARLES LEE... executing orders for the superb new...

New Roses for 1869. MESSRS. JOHN AND CHARLES LEE... Twenty of the most beautiful and distinct...

CORDON APPLE TREES, on the true Paradise Stock, as recommended by Mr. E. Rivers...

ORANGE TREES for SALE—Two trees of fine clear stems, 5 feet, six others about 4 feet...

FINE ORANGE TREES for SALE—Two handsome Trees, in robust health, each with 7 straight stems, about 4 feet, symmetrical heads...

SPECIAL OFFER... STANDARD TRAINED APRICOTS, PEACHES, NECTARINES, PYRAMIDAL and FRUITING APPLES...

SILVER FERNS - Gymnogramma... Wm. Wood and Son... Fruit the First Season.

Table with columns for plant names (e.g., PONTICUM, YALEM) and prices per dozen.

Walton Nursery, Liverpool... To Clear the Ground... The finest varieties of DWARF ROSES are offered at HALF PRICE.

To Clear the Ground... Some very fine 2 and 3-yr Dwarf-trained PEACHES and NECTARINES will be Sold at HALF PRICE.

To Clear the Ground... Some magnificent TEA ROSES, in Pots, will be Sold at HALF PRICE.

Gratis and Post Free on application. DICK RADCLYFFE AND CO'S SEED CATALOGUE.

DICK RADCLYFFE & Co's AGRICULTURAL SEEDS, VEGETABLE SEEDS, FLOWER SEEDS, GARDENING REQUISITES, &c &c.

The American Nursery, Bagshot, Surrey. JOHN WATERER respectfully invites the attention of Gentlemen and others engaged in planting to the under named selections from his general stock.

RHODODENDRONS (Standards) - Of all the leading choices, scarlet, and other varieties, 2 to 4 feet stems, consisting of such as Alexander Adie, Michael Waterer, The Warrior, Princess Mary of Cambridge, Quisdronea, Mrs. Ino Penn, Joseph Whitworth, and all such others as have been exhibited annually at the Royal Botanic Gardens, Vincent Park.

Green Hollies. CHIVAS AND WEAVER have a large stock of the choicest species of plants, up to 8 feet high, also SILVER FIRS, from 1 to 3 feet and 3 to 3 1/2 feet, which they are offering at very low prices, which may be had on application (Chester - March, 1890).

ABIES DOUGLASHI - 1 1/2 to 2 feet, 80s per 100, 2 to 2 1/2 feet 1 1/2s per 100, 3 to 4 feet 2s per dozen, 4 to 5 feet, 3s per dozen, 5 to 6 feet 4s per dozen. They are all fine plants, and have been transplanted three and four times, and having been trained and trained, and will give excellent results. Trade price on application. J. C. Wheeler & Son, Nurseriesmen, Perth.

ONE MILLION FOREST TREES, transplanted, well rooted stuff, &c at very moderate prices, of Ash, Elm, Birch, Sycamore, Poplar (A. sel), Ontario &c, Willow, Babylonian, Weeping and Huntingdon, in sizes, from 2 to 7 1/2 to 4, 4 to 6, and 6 to 8 feet, Privet, Alder, Spruce, and Scotch Fir 1 1/2 to 2, and 2 to 3 feet, Silver Fir 1 to 2, and 2 to 3 feet, English, extra strong, and well rooted and bushy, 4 to 6 ft., Laure, Common, 1 1/2 to 2 and 2 to 3 ft., Laurel, and well rooted. GOLDEN BERRIES - American Seedling and others, fine, can be supplied by the 100. J. C. Wheeler & Son, Nurseriesmen, Perth.

The Planting Season. WOODLANDS NURSERY, MARSH FLD, NEAR UCKFIELD, SUSSEX. W.M. WOOD AND SON respectfully invite special attention to their very large stock of STANDARD ORNAMENTAL TREES, of large size, suitable for planting as single specimens on Lawns or in Parks where immediate effect is desired, WEeping ASH, 7 to 9 feet stems, AMERICAN WILLOWS, 6 to 7 feet stems, CATALPA SYRINGA FOLIA, 6 to 8 feet, ELMS, CHICHIESTER and ENGLISH, 8 to 10, and 10 to 12 feet, SILVER and SPRUCE FIRS, 8 to 7 feet, HORSE-CHESTNUTS, 6 to 8, and 8 to 10 feet, SCARLET HORSE-CHESTNUTS, extra fine plants, 6 to 8, and 8 to 10 feet, LABURNUMS, Yellow and Purple, 6 to 8 feet, POPLARS, BLACK ITALIAN and LOMBARDY, extra fine, 8 to 10, and 10 to 12 feet, and various other HARDY TREES. See PRICED CATALOGUES, which may be had free on application.

Plants for Hedges. TWO HUNDRED THOUSAND COMMON LAURELS, from 1 1/2 to 3 feet. Wm. Wood & Son.

AMERICAN ARBOR-VITAE especially recommended for Hedges - 2 to 3 feet, 8s per dozen, 40s per 100, 3 to 4 feet, 9s per dozen, 60s per 100, 4 to 5 feet, 13s per dozen (extra fine), 100s per 100. Extra fine Transplanted BEECH and HORNBEAM, 2 to 3 ft. and 3 to 4 feet, also fine EVERGREEN PRIVET, in large quantities. Wm. Wood & Son, Woodlands Nursery, Marshfield, near Uckfield, Sussex.

CHOICE SEEDS. FLESH-COLOURED MEXICAN KIDNEY BEAN. We consider this variety as the earliest in cultivation. It is likewise very prolific, and of excellent quality. 2s per quart. LACED'S SUPERB LATE WHITE BROCCOLI. - Recommended by Mr. Thomson, Dalkeith, as a splendid variety, very large, beautifully white, and heading till the middle of June "Like enormous Cauliflowers." 2s. 6d. per packet. SMITH'S SUPERB PROTECTIVE BRASSICOLI - An excellent early Spring Broccoli, of dwarf growth with very compact head, abundantly protected. Well adapted for cold soils and a good crop. 1s per packet. MICHIEL'S GREEN CURLED KIDNEY BEAN - A very beautiful variety, we consider it as being the best of the early crop, and well adapted for forcing. 1s per packet. LEE'S GIANT BEAN, 2s. 6d. per packet.

SELECT FLOWER SEEDS. AMARANTHUS FLEURANT, 2s. 6d. per packet. ASPERULA AZUREA SETOSA. A profuse blooming hardy Annual, of dense habit, growing about one foot, and covering itself with bunches of light blue flowers. Very sweet-scented, and lasting a long while in perfection. 1s per packet. PEPT. VARIETAT D. High ornamental for border decorations, the stem and main being bright red and scarlet yellow, or white. Each variety per packet 6d. the three colours mixed, 1s. LINA LYALINA. A very early and border plant, blooming in the first week of the month of May, with an abundance of bright yellow orange-centred flowers. 6d per packet. MALVONIA LASSATA. A very early and border plant, blooming in the first week of the month of May, with an abundance of bright yellow orange-centred flowers. 6d per packet. MATTHIOLA BICORNIS. - This night-scented stock has proved itself a worthy addition to the number of our hardy Annuals. 6d per packet. MATTHIOLA TRICOLORATA. - This choice new species is quite distinct from the preceding. It forms branching masses, covered with a profusion of mixed blue flowers. These continue long in bloom, remain expanded during the day as well as in the evening, and constantly exhale a delicate and delicious fragrance. Growth free and easy, producing a fine effect in a bed or mass. 1s. 6d. per packet. ONALIS VALDIVIANA. - Flowers bright yellow, sweet-scented, and produced in bunches of large size, which continue long in bloom. Reported as pure habit and of good habit. 1s per packet. PALAVA FLAVO-GA. - Described as a beautiful new Annual, growing to an average height of 15 or 18 inches, and producing in the greatest profusion flowers of a bright rosy pink, fading slightly towards the centre, with a dark eye. 1s per packet. VILIA CROKOTA, MALVONIA LASSATA. - 6d per packet. A collection of 24 ORNAMENTAL VARIETIES OF FLOWER SEEDS suitable for ROCKERS, &c. DESCRIPTIVE CATALOGUE OF FLOWER SEEDS sent free on application. JAS. BLACKMORE & SON, York.

J. C. WHEELER AND SON. WHEELERS' GUINEA COLLECTION of GARDEN SEEDS - comprises the finest varieties in cultivation. For details see "WHEELERS' LITTLE BOOK" for 1890, price 6d., post free. J. C. Wheeler & Son, Seed Growers, Gloucester, and 59, Mark Lane, London, E.C.

"WHEELERS' TOM THUMB LETTUCE is a wonderful favourite with my family and friends; for a summer Lettuce I have never seen its equal." - G. F. A. Flower, Stanwell Farm. 1s per packet, post free. J. C. Wheeler & Son, Gloucester.

"WHEELERS' MILKY WHITE is the best of all Potatoes, and those who do not grow it may consider themselves rather behind the age." - SMITHY HISSON, F.R.S. 4s. per bush, 15s. per bush. MILKY WHITE. - This I received from the well known firm of Messrs. Wheeler & Son, Gloucester. It is one of the handsomest Potatoes grown, and well deserves its name, for it is most beautifully white, very floury, and one that I do not hesitate to regard as first-rate. It is also a very free bearer. D. Deal. 4s per bush, 15s. p. bush. ONE PECK of WHEELERS' MILKY WHITE and ONE GUINEA COLLECTION of GARDEN SEEDS sent carriage free by rail on receipt of cheque or Post-office order for 25s. J. C. Wheeler & Son, Seed Growers, Gloucester, and 59, Mark Lane, London, E.C. WHEELERS' GRASS SEEDS for CROQUET GROUNDS should now be sown at the rate of 10 lb. per acre, a good dressing of soot applied, and the ground well rolled. Price 1s per lb., 20s per bushel, carriage free. J. C. Wheeler & Son, Seed Growers, Gloucester, and 59, Mark Lane, London, E.C.

THE MOST EXTENSIVE COLLECTION.
BUDDEN, 12, King Street, Covent Garden, W.C.
 The finest and largest collection of
 seeds, plants, and cuttings, from 2d. to 15s. per foot.
 The following are some of the most valuable and highly recommended.
 All of which are highly recommended.
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Choice Seeds, Gladioli, &c.
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 All of which are highly recommended.
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The advantages of procuring NEW and UNADULTERATED SEEDS direct from the GROWERS cannot be over-estimated.

James Carter & Co.
 Seed Growers
 237 and 238, HIGH HOLBORN, LONDON, W.C.

SEED FARMS:
 EAST HOUSE FARM, DEDHAM, ESSEX
 THE SEED FARM, ST OSYTH, ESSEX
 JUPES HILL FARM, DELHAM, ESSEX
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A CROP OF THE BEST VEGETABLES
 SECURED
ALL THE YEAR ROUND,
 BY SOWING

JAMES CARTER & CO'S
 ASSORTMENTS OF
GENUINE GARDEN SEEDS

- No. 1 COLLECTION, price 12s. 6d. (suitable for a Cottage Garden).
- No. 2 COLLECTION, price 21s. (suitable for a Small Garden).
- No. 3 COLLECTION, price 42s. (suitable for Medium-sized Gardens).
- No. 4 COLLECTION, price 63s. (suitable for a Large Garden).

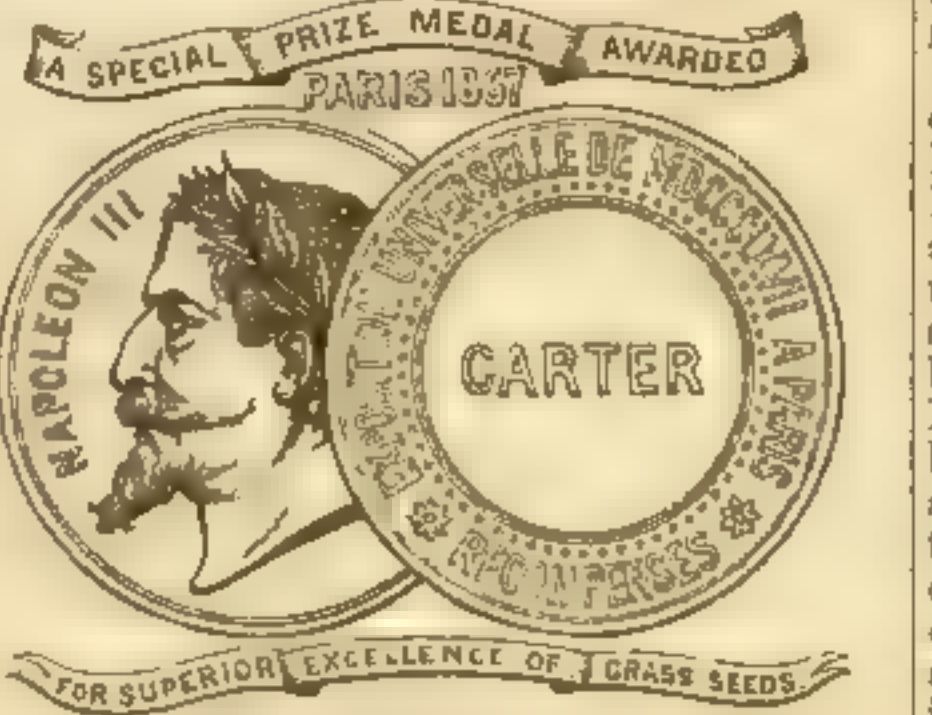
No Charge for Packing any of the above Collections.
 Any article not required will be omitted, and the value made up with other kinds.



CARTER'S
SEEDS FOR THE FLOWER GARDEN,
 In assorted Collections, to produce the most effective and permanent display in Greenhouse and Garden throughout the year.

A. Collection, including 50 varieties,	10s. 6d. (by post 11s. 0d.)
B. Collection	15s. 0d. (by post 16s. 6d.)
C. Collection	21s. 0d. (by post 22s. 6d.)
D. Collection	42s. 0d. (by post 43s. 6d.)
E. Collection	63s. 0d. (by post 64s. 6d.)

For full particulars of Contents, see CARTER'S "Gardener's and Farmer's Vade Mecum for 1869." Post Free 1s.; Gratis to Customers.



CARTER'S
PRIZE MEDAL, LAWN GRASS,
 AS SUPPLIED TO
 H.M. THE EMPEROR OF THE FRENCH,
 H.R.H. THE CROWN PRINCESS OF PRUSSIA,
 THE LATE PARIS EXHIBITION, &c.

J. C. & Co.'s Mixture of Fine Grasses will speedily restore a beautiful Turf and good appearance on Lawns, Terraces, &c., injured by the drought of last summer.
 How Three Bushels per Acre to form New Lawns, or One Bushel to renovate (sandy or loam, as required).

Price 1s. per lb.; 20s. per bushel.

JAMES CARTER AND CO.,
GROWERS AND DISTRIBUTORS OF GENUINE SEEDS,
237 AND 238, HIGH HOLBORN, LONDON, W.C.

Seeds Direct from the Growers the best means of Preventing Disappointment.
NOTICE TO PLANTERS OF LARGE QUANTITIES
 of FARM or GARDEN SEEDS will be supplied liberally by
 Scroes & Sons. For prices apply to the Growers, or to
 Scroes & Sons, Royal Exchange, London, E.C. 4.

Chrysanthemums.
NOTICE.—In answer to numerous applications, ADAM J. FORSTER begs to inform the Trade and the Public that his New CHRYSANTHEMUMS will be ready for the first week in April. For description, see CATALOGUE, now ready. All orders executed in rotation.
 Brunswick Nursery, Stoke Newington, N.

New Chrysanthemums.
JOHN SALTER AND SON beg to announce that their CATALOGUE of NEW JAPANESE and other CHRYSANTHEMUMS is now ready, and may be had on receipt of two stamps.
 Versatiles Nursery, William Street, Vale Place, Hammermith, near Kensington Railway.

British Fern Catalogue.
ROBERT SIM will send, post free for six postage stamps, Part I. (British Ferns and their varieties, 30 pages, including prices of Hardy Exotic Ferns) of his PRICED DESCRIPTIVE CATALOGUE of BRITISH and EXOTIC FERNS, No. 7. Foot of Gray's Alley, Strand, W.C.

LEEDS HORTICULTURAL SOCIETY
 The GREAT EXHIBITION OF PLANTS, FLOWERS, FRUITS, and VEGETABLES, will be held in the LEEDS ROYAL PARK, on WEDNESDAY, THURSDAY, and FRIDAY, June 8, 9, and 11. PRIZES, upwards of £300, will be given, and may be had on application to
JAMES R. BBECK, Secretary.
 Crossgate, near Leeds.
 Note: The North-Eastern, Great Northern, Midland, Lancashire and Yorkshire, and London and North Western Railway Companies will convey Plants, Flowers, Fruits, &c., at ordinary rates to the Show, and return them free if they remain the property of the Exhibitor. The Committee provide Assistants and Horses for exhibition vans coming by rail, and Covered Spring Vans to convey Plants, &c., between the Railway Station and the Exhibition Grounds, at 50 cents per hour.

GRAND NATIONAL HORTICULTURAL EXHIBITION, 1869, to be held in the BOTANIC GARDEN, MANCHESTER, MAY 14 to 22. NEARLY ONE THOUSAND POUNDS IN PRIZES. The following are among the number of First Prizes offered:—

SPECIAL PRIZES, PRESENTED.

The best Group of 50 Plants	£50	Collection of Bedding Plants	£5
10 Cape Heaths	£20	5 Fine-apples	£5
12 Roses	£20	12 Hardy Shrubs	£5
4 Double-flowered Pines	£20	24 Hardy Grasses	£5

THE MANCHESTER BOTANICAL SOCIETY'S PRIZES.

10 Exotic Orchids	£10	10 Fine-foiled Plants	£10
12 Stone and Greenhouse Plants	£10	12 Miscellaneous Plants	£10
10 Agaveas	£10	12 New and Rare Plants	£10
10 Roses	£10	20 Hardy Conifers	£10
10 Show Pelargoniums	£10	12 Hardy Rhododendrons	£10
10 Fancy Pelargoniums	£10	Miscellaneous Collection of Fruit	£5

ENTRIES CLOSE on MAY 1. Schedules, &c., may be obtained on application to the undersigned,
 Botanic Garden, Manchester.
BRUCE FINDLAY

The Gardeners' Chronicle.
 SATURDAY, MARCH 13, 1869.

MEETINGS FOR THE ENSUING WEEK

MONDAY, March 15—Entomological	11 A.M.
(Royal Horticultural (Fruit and Floral Committees), at South Kensington)	11 A.M.
TUESDAY, — 16—(Ditto (Scientific Committee))	11 A.M.
(Ditto (General Meeting))	11 A.M.
THURSDAY, — 19—Linnæan	8 P.M.

The Anglo-Saxon race has been slow to apprehend the value of the forests with which Nature has so liberally clothed the earth; and wherever British rule has been established the existing forests have disappeared, and no care has been bestowed on planting others. In all our colonies there has been the same improvidence, and it is only of late years that attention has been drawn to the importance of CONSERVING THE FORESTS OF INDIA. Advancing civilisation, the progress of agriculture, and the rapid extension of railways, have, however, rendered it imperative that means should be taken to organise a system of forest administration to control the clearing of indigenous forests, and to economise public property for the public good.

About 12 years ago the first attempts at organisation were made. Drs. BRANDIS in Burma, CLEGHORN in Madras, and GIBSON in Bombay, endeavoured to lay the foundation of a system. They started, as it were, single-handed in the different Presidencies, without skilled assistance, and depending on such help as could be found in the local services. The events of the Mutiny quickly followed, and the small establishments which had been formed, were crippled, and in some cases broken up. On the restoration of tranquillity steady progress ensued; a staff of five or six assistants was sanctioned in each of the larger provinces of the empire, and the more valuable forests were mapped out into separate ranges, and exact information was obtained regarding their resources.

In 1862 the Government of India resolved to introduce a general system into all the provinces under their control, and the office of Inspector-General was created. A Forest Act was passed by the Legislative Council in 1864, giving power to local administrations to demarcate the limits of State forests, to reserve certain trees for State purposes, and notifying the mode of procedure in cases of trespass, conflagration, &c.

With these greatly extended operations the want of trained assistants was much felt by the principal forest officers, and during a furlough to

Genuine Seeds.
WITHS CALADOLE of FLOWER and VEGETABLE SEEDS, of first quality, is now ready, including their fine strains of BAESAM, GIBBERIA, PRIMULA, TRICOLOR and PANTUMS, with every novelty of repute.
 The Nurseries, Dulwich, London.

New Catalogue.
WOODTHORPE will be happy to forward, on application, his CATALOGUE (which will be a complete list of NEW and CHOICE PLANTS, FLOWERS, and GENERAL NURSERY STOCK, at a heavy discount to the Trade.
 Nurseries, Hedingham, Essex.

Roses.
WALTON can supply for cash CLOVE and SHALLOT KING DAISIES, 5s. per 100; also the best sorts of Cabbage Plants, 2s. 6d. per 100, extra strong 3s. per 100.
NEW WHITE SPANISH, 2s. 3d. per lb.
 37, Abchurch Lane, London.

Roses.
WALTON will be happy to forward on application his DESCRIPTIVE CATALOGUE of ROSES for 1869, for quality or quantity the stock is unsurpassed, and has been especially acknowledged to be the finest in the Trade.
 Somerset, King's Acre, near Hereford.

New Roses, &c., 1869.
WALTON has to offer the following Plants:
 NEW ROSES, Strong Plants 36s.
 NEW VERBENAS, Strong Plants 12s.
 NEW PRIMULAS, Strong Plants 12s.
 NEW ST. PAUL'S, Strong Plants 12s.
 NEW ST. PAUL'S, Strong Plants 12s.
 NEW ST. PAUL'S, Strong Plants 12s.
 CATALOGUE free.
 Nurseries, Haslemere, Surrey.

Choice Flower Seeds for 1869.
CHOICE CINERARIA,
 and from named flowers, 2s. 6d. per packet.
CHOICE CALCEOLARIA,
 from a choice strain 2s. 6d. per packet.
CHOICE PRIMULA FIMBRIATA,
 beautifully fringed, 2s. 6d. per packet.
CAMELLIA FLOWERED BALSAMS,
 with double flowers in fine choice varieties, 2s. 6d. per packet.
PTERIDUM (GOLDEN FEATHER),
 a bedding plant comes perfectly true from seed. Per packet, 1s. and 2s. 6d.
ANTHUS ELEGANTISSIMUS,
 the best of the Garden per packet, 1s. 6d.
SUPERB HOLLYHOCKS,
 choice varieties, per packet, 2s. 6d.
 Nurseries, Haslemere, Surrey and Seed Establish-
 ment, London, W.

Choice Plant—Echeveria metallica.
WILLIAMS is now enabled to offer for the first time the very Ornamental Bedding Plant, which has been produced such a splendid effect in the Botanic Garden, &c. For sowing, and various other purposes, it is a most valuable and very striking and distinct from any other plant yet used for bedding. It is sold in packets, 2s. 6d. each.
 Nurseries, Haslemere, Surrey, Upper Holloway, N.

by alternation of painting may be made attractive at each of the four seasons. It is only a question of forethought and of means. Eds.

Red Currants—I have this day forwarded you two small portions of Red Currants, both have been taken from one branch. The forward part of the branch has been in flower 10 days with shoots 6 inches long the rest of the branch and tree is only just expanding its buds. There is no outward visible cause why this should be the case, the bush is growing in the open garden, the most exposed to the most forward branch being on the north side of the bush. Several gentlemen and gardeners have seen this, and all say they have never seen anything like it before. *William Cowan, Hill, March 7.* The facts are as stated, but without a knowledge of all the circumstances we cannot explain the anomaly. Eds.

Mildness of the Season. The following plants were found in bloom in the neighbourhood of Taunton, Somersetshire, on the dates given—Feb 15 Ranunculus Ficaria, Capsella bursa-pastoris, Carlina hirsuta, Draba verna, Viola odorata, Viola odorata alba, V. hirta, Stellaria media, S. Holostea, Primula spinosa, Genm urbanum, Potentilla Fraxea, Vesum album, Taraxacum officinale, Senecio vulgaris, Helianthus perennis, Tussilago Farfara, Vinca minor, V. major, Lonicera purpureum, Veronica arvensis, V. agrestis, Primula vulgaris, P. veris, P. elatior, Mercurialis perennis, Ulmus montana, Alnus glutinosa, Saxifraga, Narcissus Pseudo-Narcissus, Scilla maritima, Feb 18 Fumaria officinalis, Lychnis viscaria, Ulex europaeus, Prunella vesca, Chrysanthemum inodorum, Angelica sylvestris, Daphne Laureola, Feb 21 Tussilago Farfara, Adonis vernalis, Feb 22 Scilla maritima, The ranthus (Cherry Bryannum) Hort. cum Sphoryllium, March 4 Taxus baccata, March 5 Primula verna, Anthriscus sylvestris, Veronica pinnatifida. G. W. R.

Paint for Labels—Some time ago I wrote to a leading periodical connected with gardening about the impenetrable and consequently soluble nature of white-lead, and of almost any kind of lead oil-paint. I adduced the instance of an old notice board bearing still perfect black letters on what had once been a white-lead ground. Not only had the white ground entirely departed but the wood itself was so weathered as to leave the black letters in very distinct relief. I was yesterday examining the stove plants of a friend who called my attention to the fact of the white-lead or paint on his plant labels being dissolved by the watering. No amount of material possessing the saponifying property of lead should ever be used on plant labels or on anything where this chemical power of lead compounds is so greatly augmented by the combined aid of heat and moisture as in a plant stove. Indeed, on all surfaces exposed to atmospheric influences, zinc or barytes white will be found far more protective and durable than white-lead. But for durability there is nothing like lamp-black on external work. One coat of it on wood or iron will outlast many coats of white-lead. I do not think water-lead has any material saponifying or solvent power over equal Potash then a weak caustic alkali and a small quantity of white-lead or other white pigment in powder. For use mix the two together on a bit of glass or on an oyster-shell, and apply to the labels, then write at once with a hard black-lead pencil. J. H. M.

Fruit-tree Protection. Diseased Peaches, Apricots, and Nectarines.—The Rev W P Radclyffe, in again calling the attention of fruit-growers to his excellent mode of protecting Peaches and Nectarines, ought to have included Apricots. So far as curtains are concerned I beg to join with him in recommending them for the purpose, having had something like a 15 years' experience in the use of them. I do not seem to have secured the top where the branch was of a satisfactorily healthy character. My object is not to say so much of curtains, as where they are tried they will speak for themselves. I would direct attention to the protection of a more important part of the tree than the young wood, viz, the old wood, not only from the effects of winter but from the burning sun in summer, together with the muzzling of the cedar roots in spring. In 1859 and 1860 it devolved on me to rearrange, and in many respects to plant afresh, the whole of the wall-trees of a large garden, and amongst the number a score of Peach and Nectarine trees in a bearing state, this as a rule was done in the months of September and October, and immediately each tree was insulched with a large barrowful of half rotted hotbed manure, and as the object was fruit the year after removal, the stems of many were covered as far up as the union of scion and stock. Out of the number treated so in 1860, only one refused to grow in 1861, that year succeeding the ever-to-be-remembered Christmas-eve that made such havoc amongst fruit trees on walls in all parts. The failure of that one was easily accounted for, as it had a very long stem, and had moreover been much mutilated by the pruning-knife, and had no protection at the union, which had swelled by repeated being cut back, so that it was as large as a turnip. The tree had carried a fine crop of fruit in the season, and many of the fru it were worn and bent, so that was the situation. The thermometer against the wall, and in the sun, was frequently as high as 120° in the wood. Well, the result was death in 1861, and on making a cross section of a piece of the wood it was found similar to the pieces enclosed. No. 1, Plum tree, dead from pith to bark, side next the sun. No. 2, branch of Nectarine, the same. No. 3, Peach, partially so. In nine cases out of ten this is seen on all kinds of stone fruit, but particularly Apricots, and doubtless it will be seen in 1860, in many places where the thermometer registered as high as 120° in the sun. This will be a great year for observations, and particularly on trees that have been much cut about while in a young state. The shortening in of the shoots of young trees so frequently, is where the mischief lays. There is not a bud

at, even if the most latent character, as have been freed into action hence the bare centres in a most all kinds of stone fruits so often to be seen. These, together with the cedar roots, are the parts that require protection the most, as the young wood on bearing trees, is well ripened, even on such naked stems, will endure a great amount of exposure up to the blooming season. It has been my uniform practice for a number of years to cut away a 1/2 inch from the walls every winter and I rarely find them injured by frost. If Peaches, Nectarines, or Apricots, are planted in light soil resting on a gravelly or sandy surface, and the cedar roots are partially exposed, I would suggest to be considered as imperative, not only as protection from frost, but from the opposite extremes—the parching sun against a south wall, and the cutting east winds of the months of March, April, and May, lapping up at noon-day the very life's blood of the tender leaves, which in less than 10 hours may be still with frost. So in a season like the present, with an early vegetation, in addition to curtains, I would recommend a thin spray of Holly twigs (the leaves wither and hang on), which admit plenty of light and air when the curtains are drawn off. I give the results of an observation made here to-day. March 10 with two trees side by side, the one partially covered with Holly twigs, the other quite exposed—the thermometers hung to the wall 3 feet from the ground, and facing the sun—

1st tree	partially covered tree	60°
	exposed tree	75°
	north aspect	45°
2nd tree	covered tree	35°
	exposed tree	72°
	north aspect	27°

Thus it will be seen, the exposed tree had to endure a declension in temperature of 43°, the partially protected one only 22°. Is it consistent, then, under such circumstances, nay, it is impossible to expect that reciprocity of action between root and branch in the exposed tree that would otherwise take place under the more uniform state of keeping? The action of frost and other extremes of temperature on the old wood, together with that of an inordinate use of the pruning-knife, do not always manifest themselves until after many years, but gradually at last bring about a derangement of the cellular tissue. Then gum, canker, blister, insects, and all manner of diseases are engendered, and premature decay succeeds. W. H. M.

The Cedar of Lebanon. Permit me to direct the attention of all those who are interested in arboriculture to the splendid cones which these trees are now bearing. All Cedars do not bear fruit, but many contain excellent and numerous seeds. The cone of the Cedar is remarkably tough, and will not discharge its seeds by exposure to heat like those of other Firs. I have tried various methods of extracting the seeds, and find the following the most effectual. Fix the cone in a vice and saw off about 1/2 inch top and bottom, then with a mallet and cold chisel divide the cone into quarters, which must be separated into smaller portions. Place these in the kitchen screen for say 24 hours, and they can then be separated with a little industry. If very tough, use a pair of wire-nippers to open them. A good cone contains from 10 to 20 seeds. It is remarkable that though the Cedar is so prolific this year, the Pinus austriaca has no cones, but it bore so heavily the two previous years that I have not only young trees of this species growing from trees of my own planting, but have sent considerable quantities of seed to friends and some nurserymen. Higford Barr, Aldermaston, Feb 25.

Hardy Broccoli.—Permit me to ask your practical readers and correspondents which of the winter white Broccoli has proved the best this fine open winter. My own experience in the growth of this vegetable has hitherto been very limited, and as I intend to grow it in future on a more extensive scale, I am anxious to know which of the recently-introduced sorts—early winter white Broccoli I mean—is most worthy of cultivation. Colo.

Mistletoe.—Your correspondent T J Hope (p 125) says "I am in the habit of smearing a few berries," meaning Mistletoe, "every season, and find they take most readily on the Thorn and Mountain Ash." Would he, or any other of your correspondents, be kind enough to tell me how and when to "smear" them, as my employer is desirous to make a present of a few young trees with Mistletoe growing upon them? Rub the berry against the underside of a young branch, at the present time, they will adhere by their natural viscosity. Afterwards keep the birds off. Eds.

Colour of the Backs of Rose Petals.—The colour of the reverse side of Rose petals is a subject, I think, of some importance, and one to which more attention should be directed, especially in the selection of new Roses from description. How is it that many of our finest shaped Roses are dull and unattractive? Simply because certain forms of the flower exhibit the backs of the petals much more than others of a flat or rosette character, and the finer the shape—that is, the more globular and deeper the cup of the petal—the more is reverse shown. In nearly all red Roses this is of a dull purplish tint, which tones down very sensibly whatever brilliancy of colour the face of the petals may possess. This is evident when we consider that fully one-third of the back is exposed in our finest modes of shape, cupped, bush centred, and globular flowers, such as La Reine, Alfred Colomb, Chabrisland, Pierre Notting, Prince Henri de Pays Bas, &c. Neither the beautiful Jules Margottin with its shell-like petals, nor the brilliant Senateur Vaise, would have held our hearts so long had they not shown us bright backs as well as faces. May I venture to give our Continental neighbours a hint, not to send us any new red Roses less bright in the reverse of their petals than our old favourites, Senateur Vaise, Henry Curtis, Torquay, Pyrethrum Tchihatchewil.—This is very likely to prove a useful turf-plant on dry soils, sloping banks,

and other positions where it is difficult to make it grow. It is one of M Bossier's plants and was first planted in the Botanic Garden at Geneva. It was first introduced into England by M Verlot, of the Jardin des Plantes, Paris, in 1811, and recommended it strongly in the 'Gardeners' Chronicle'. The position in which it was first planted in the Jardin des Plantes was a very exposed one, and it had not withstanding these circumstances, the carpet of this Pyrethrum with the leaves of the species, the leaves are much more green at all seasons. It is perfectly hardy about the surface of the ground in a very hard winter. The flowers are white, rise a little higher than those of the daisy, and may be run over by those of that plant. If left on to decay, they do so with a very little eyesore. It is not like the Sparganium, a really fine turf in flakes, and becomes a very good turf in firm soil of the ground. As in these cases, or turf is generally the most valuable of all for the earth, this plant is more likely to be useful on a large scale in countries where it cannot be kept in good condition without a great deal of trouble. Nevertheless, from the inquiries made from time to time for materials to cover hot and sloping and other surfaces, which people find a difficulty in keeping green, there can be little doubt that it will meet the wants of some, even should it never be honoured with a position on the lawn or the only banks, &c., in the southern counties it may be useful. Till recently it has not been obtainable in the trade, or in botanic gardens, in this country, but see plants of it now offered at a cheap rate. Our correspondent kindly suggest an English name for this plant. Eds.

Fixing Rose Buds.—Your correspondent 'J' in the 'Gardeners' Chronicle' of Feb 6 inquires why the best adhesive material for fixing rose buds is Mastic bladder, not made too soft, the surface wet with oil and passed round like a surgical bandage, which will straighten it, and a little practice make it a very easy process. It will remain fixed long enough to be taken down the end with a thread. I use bladder to prevent my Carnations from bursting. G.

Oranges.—Having seen a notice in the 'Gardeners' Chronicle' of Feb 6, inquiring why the best adhesive material for fixing rose buds is Mastic bladder, not made too soft, the surface wet with oil and passed round like a surgical bandage, which will straighten it, and a little practice make it a very easy process. It will remain fixed long enough to be taken down the end with a thread. I use bladder to prevent my Carnations from bursting. G.

Maltese Blood Oranges exhibited by Mr. Gooding to Sir John Neell Bart., of Grittleton. I took advantage of calling on Mr Gooding, being in the neighbourhood, to see the trees from which they were gathered, and I was highly gratified to observe the successful manner in which not only the Oranges, but Shaddock, Lemons and Limes were raised. The growers of these handsome and delicious fruits are under the disadvantage of having to grow them in tubs, and in many establishments, such as Grittleton Park, Wycombe Abbey, Wilton Abbey, &c., the specimens are planted out in a large arborvitae conservatory, in the centre being a Shaddock and a Lemon with quantities of fruit of very large size, and the time quite ripe or approaching maturity. The trees named (the Shaddock and Lemon) must be 12 to 20 feet in height, and the healthy vigorous growth combined with plentiful foliage, of the largest growth, show that they enjoy the place allotted to them. Where there is sufficient space at command, the appearance of such specimens as these at once induces cultivators, that keeping them in tubs will give any of the genus Citrus the chance of being well to advantage. The trees were all perfectly free from the insects usually found upon them, and must have considerable labour bestowed upon them. This same attention was throughout the establishment, and, as the residence lies on a plain, it is in the summer months a very beautiful country seat. Another conservatory of the same size as the one in which the Oranges, &c., were planted was filled with Azaleas, Roses, Hyacinths and other forced bulbs, &c., usual at this season, presenting a very gay appearance. H. W. H.

Lonicera fragrantissima.—For a many years of a low wall this is a most desirable evergreen shrub, worthy a position in all gardens, whether large or small. A plant here on a south-west wall (perhaps an exceptional one, has been in flower since November, several who have seen it have been led to ask why such a glorious shrub should not meet. Being evergreen this character is one of its cheerfulness, independent of its most fragrant blossoms. Like all the Lonicerae I preserve it readily from cuttings. The plant here was cut pretty freely, finding by such treatment it would profusely. John Edington, Wrotham Park, Bucks.

Root Pruning.—I should be greatly obliged if you would tell us how he avoids the evil of tapping or cutting the roots, from the others just being cut, and the tree by "going half round each tree, and cutting the roots within about 6 or 8 inches of where they were cut at the previous operation." Pear trees in the stock make all their strongest roots perfect, and the Apples will even do so to a large extent, and be cut Crab stock, and it is only when this can be done against that efficient root-pruning is performed. J. B.

Garden Fountains.—English gardens are not cultivated, but rarely show the best taste in laying out. One thing is generally neglected which should be more considered—I allude to water, especially water in motion. All this means that we have not a complete All architectural or formal gardens are made up without them. Any small place may have a fountain very little cost if the proper plan is adopted. It is to have a plain draught pump, with about 10 feet of pipe, on a trellised tower of four larch poles, or other

March 13, 1869.



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- 1 lb. Cock-foot, *Dactylis glomerata*
- 1 lb. Timothy Grass, *Phleum pratense*
- 2 lb. Red Clover, *Trifolium pratense*
- 1 lb. Cow Grass, *Trifolium pratense perenne*
- 1 lb. White Dutch, *Trifolium repens*
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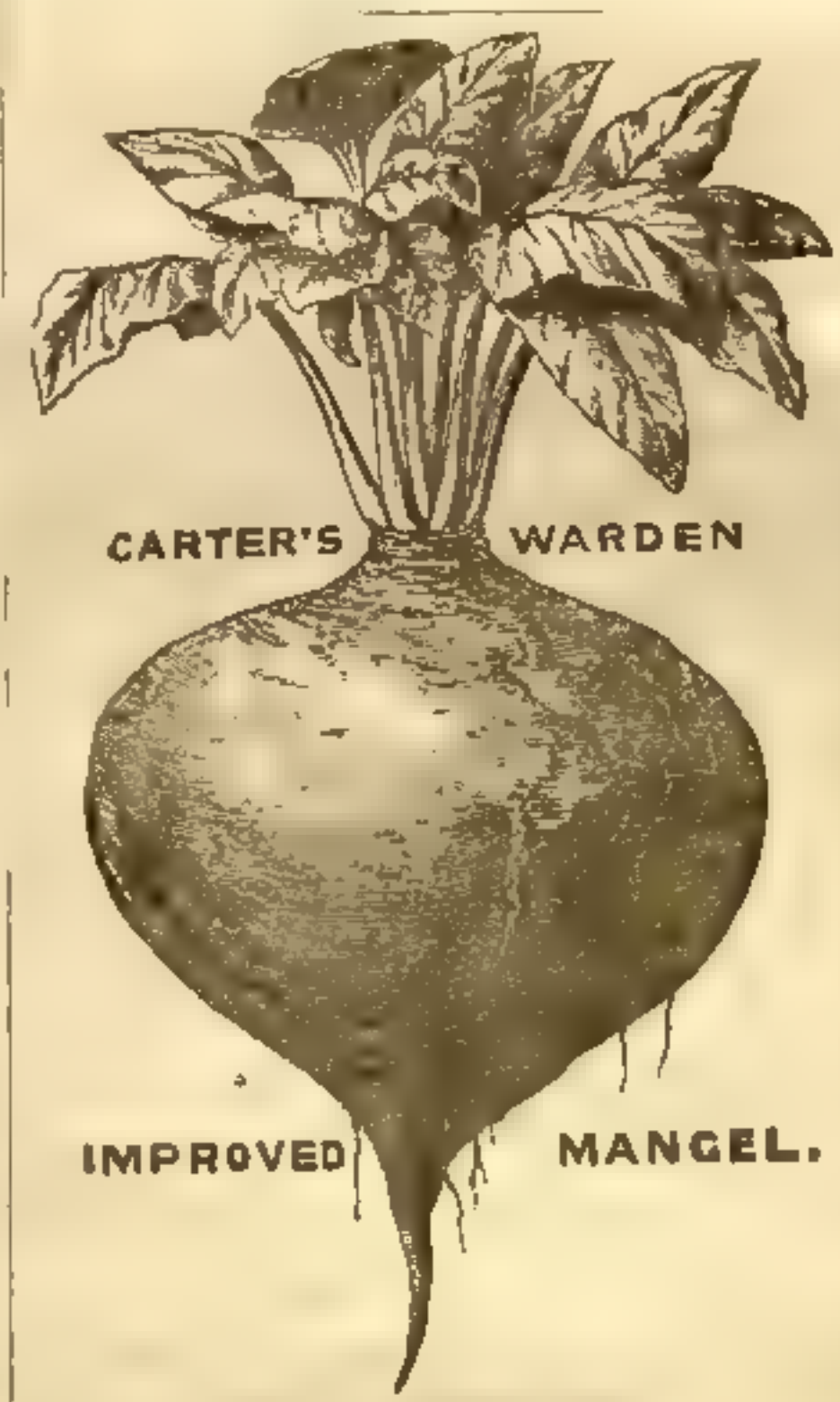
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H. R. H. The PRINCE of WALES, K.G. SOUTHAMPTON MEETING, 1869.
President—

The Right Hon. The EARL of CARWATON
The ANNUAL MEETING will be HELD at SOUTHAMPTON on MAY 31, and JUNE 1, 2, 3, and 4.
Prize Sheets and Regulation Papers for Stock, Poultry, Implements, and Horticulture, may now be obtained from the Secretary, Bath.

For Oil Paintings, Water Colour Drawings, and Art Manufacture, from R. R. M. Daw, Exeter.
All Entries must be made and Fees paid on or before April 12.
By order of the Council,
4, Terrace Walk, Bath. Jos. AN GOODWIN, Secretary.

ROYAL AGRICULTURAL SOCIETY of ENGLAND.



AGRICULTURAL EDUCATION

The EXAMINATION of CANDIDATES for the SOCIETY'S EDUCATIONAL PRIZES will COMMENCE on TUESDAY, April 13.

Copies of the Form, required to be sent in by March 15, may be obtained on application to

H. M. JENKINS, Secretary,
12, Hanover Square, London, W.

N.B.—There is no stipulation this year as to the age of Candidates.

ROYAL AGRICULTURAL SOCIETY of ENGLAND.



MANCHESTER MEETING, 1869.

STOCK and IMPLEMENT PRIZE SHEETS are Now Ready, and will be forwarded on application to HENRY WHITWORTH, Esq., Local Secretary,

28, King Street, Manchester; or

H. M. JENKINS, Secretary,
12, Hanover Square, London, W.

The Agricultural Gazette.
SATURDAY, MARCH 13, 1869.

If from 20 to 30 tons of Sugar-Beet can be grown per acre, and disposed of on the spot at 1l. per ton, there is no question but that sugar farming will prove profitable. Doubtless during the past season as much or more could be got for common Mangel, but then the season was wholly exceptional. The sugar-maker allows a maximum weight of 4 lb. per root. Last season Mr. HAWKINS, of Lavenham, grew 21 tons per acre, with roots averaging 1 1/2 lb. a-piece. Had they reached 3 lb. he would have had 42 tons per acre; at 4 lb. they would have brought his crop up to 56 tons per acre. His roots numbered 32,000 to the acre, or 152 1/2 roots to the ton.

The mode of culture must steer clear of two extremes—gross feeding and starvation. The former is apt to produce water rather than sugar, and yet the root must have weight enough to pay. Apart from the question of sugar growing it is worthy of inquiry, how far farmers are wise in growing those Mangels that are almost wholly aboveground, and whether, even for feeding purposes alone, the Sugar-Beet would not prove the more profitable? The chief feeding value of Mangel is derived from its sugar. The question may be asked with great pertinence—whether more food might not be grown by choosing a low-growing Sugar-Beet than a high-growing Mangel? For it seems that the part aboveground yields scouring salts rather than nourishing and fattening sugar. In looking through the analyses of the Lavenham crop we were much struck with the wide range of the sugar percentage, the lowest being 3 and the highest 12 per cent, while the sewage-fed root from Barking reached over 13 per cent. Mr. FISH pointed out at the meeting of the West Suffolk Chamber the other day that heat

in any great quantity was not needed to develop sugar. He found a strong confirmation of this on looking over a number of analyses by Professor VOKLKER. Two samples from Devonshire yielded 3.46 and 1.02 per cent respectively, while the average yield of the Lavenham roots was 9 1/2 per cent, and roots from the colder climes of Germany and Russia produced from 10 to 12 per cent of pure white sugar.

But how will the new industry affect the feeding of stock and the agricultural interest generally? The stock will suffer much less than is generally supposed. It is difficult to convince many farmers that as much as 10 per cent of their large Mangels is sheer water. This item can at least be readily supplemented from the nearest pump or pond. We lose nothing by allowing the hydraulic presses to disperse the water of our Beet. In addition to this the sugar-maker takes the sugar, that is as much as he can get of it, for it is still a disputed point whether Beetroot pulp or the common Mangel (whole root) contains the largest percentage of sugar. But admitting that we lose a certain amount of saccharine matter, we must remember we get 20s a ton for this loss alone. And there is no other, unless it be the water. The sugar-maker destroys nothing, every particle of the Beet is returned to the farmer, except a certain amount of its sugar and water. A brief outline of the modes employed of production will render this apparent to every intelligent reader. The sugar-maker is intent upon extracting the sugar, not wasting or destroying the roots, hence every part of the root not convertible into sugar is used for cattle food or manure.

The first process consists of the trimming of the Beet. Along the side of an open shed a row of women sit, armed with knives, between two long rows of Sugar-Beet, those on the outside are trimmed, those on the inside being dressed. The dressing consists of scraping the rough soil off, removing the fibres and the part of the top that has been above-ground. These chippings are then sold for stock fuel, at 1d. per bushel. The cleaned roots are then caught up by boys, and emptied into a long cylindrical iron cradle or washer; they are delivered at the further end of the washer clean, seized by active hands lying in wait for them, and delivered to the rasper. These convert the roots into a soft homogeneous mass resembling Potato soup or rotten turnips and deposit it in a small vat. Into this well a scoop or basket constantly dips, hung with a stick neatly that the least touch tips it over and empties its contents. On each side of this spot women are stationed with flannel bags that just hold the contents of this measure, and their business is to empty the measure of Beet soup into these bags, and place each bag flat between two plates of iron; these are piled one above the other until they reach a sufficient height when they are placed under powerful hydraulic presses. The pressure is not completed at once, but they go through a series of six or eight presses in succession, arranged in a semicircular line, around an open gutter that conveys the juice into a large tank. After every separate squeeze the plates and bags are rearranged, made up to the requisite height, and re-pressed. And thus a great many are employed, and a number of presses are at work together.

From the last press the bags are carried back to one end of the cleaning shed, whence the pulp is emptied into the pulp store, and the bags are passed into the washing-house. Here a number of women are engaged constantly cleaning the bags and passing them on again to the fillers. Thus far, then, nothing has been added to the Beet; it has simply been separated, by enormous pressure, into liquid and solid. The liquid has been passed forward one step nearer to sugar, the solid has been sent back ready for conversion into beef. The pulp, as it is called, might with great propriety be called Beet bread. It is the flesh-forming matter of the Beet, not baked, but pressed almost dry. It is greedily eaten by all kinds of stocks, and is doubtless a most wholesome and nutritious food.

From the well near the hydraulic presses the beet-juice is speedily lifted up to the top of the factory. Following it as quickly as possible, we find three large copper vessels full of beet-juice. Here, also, we are confronted with the Excise officers, and are reminded for the first time of a duty of 8s per cwt. on British-grown sugar. Singularly enough the duty is levied on the beet-juice, not before one step farther can be

taken towards converting the raw juice into sugar its temperature and specific gravity must be duly and carefully noted. As soon as this is done the process of conversion into sugar is resumed. This mode of levying the duty is important to agriculturists, as it has been suggested to Mr. DUNN that it might form the basis of the fairest mode of payment for the roots. The samples analysed range from 3 to 13 per cent. in their sugar. The former samples of roots are not worth more than 15s per ton, while the latter would be worth 30s per ton. Now it would be easy to keep the roots of each grower by themselves and test the specific gravity of the respective juices separately. This would afford a powerful stimulus to the discovery of the best means of increasing the percentage of sugar, and it is just possible that the amount will be still further increased.

But beet-juice is readily decomposed. No sooner does it leave the presses than it begins to change colour. From a bright pinkish it at once assumes a dark hue. This chiefly affects the quality of the sugar, and must be prevented as much as possible by hurrying forward the process of manufacture. The instant, therefore, that the Excise is satisfied, a quantity of lime is cast into the juice, which destroys certain impurities, and casts them up to the surface as a dirty froth or scum. After boiling by steam, the clear liquor is drained off in one direction and the scum in another. The juice is then saturated with carbonic acid gas (which throws down the lime, filtered through animal charcoal, and otherwise purified), and another residuum is thrown off. The scum is sent through a filter-press, all that is useful for sugar-making preserved, and the refuse converted into cakes for manure, and offered at the works for 1/ per ton. As nothing more of the Beet comes back to the farmer, it is unnecessary to follow the process of sugar-making farther here. Suffice it to say, that from this stage most of the processes aim at getting rid of the water, and changing the sweet liquid into solid sugar, hence it is evaporated while in vacuum, and after being reduced as much as considered desirable, it is run into barrels and dispatched to London, to be finally converted into sugar. It is hardly needful to observe that the whole of the machinery is driven by steam-power. The entire works are of Belgian manufacture and are under the superintendence of M. VICTOR ORTMAN, civil engineer, from Belgium. Three steam-engines of about 50-horse power (collective) are on the premises, and the works are capable of working up from 1000 to 5000 tons of Sugar-Beet in about three months.

It is one of the necessities of the manufacture that the work should be continuous. Fresh relays of workmen and women therefore succeed each other night and day. Over 100 hands are employed, and the result upon an agricultural community of so much money earned wages spent, and such an active industry excited just at the dead season of the year, can hardly be over-estimated. All around the factory there is an air of bustle and of business. Visitors are flocking to see the sugar-making from far and near, and the Lavenham experiment will doubtless become the birthplace of many others throughout England and other countries. From different countries of Europe, from Canada, and from all parts of Great Britain and Ireland, gentlemen have been to see and judge for themselves, and there seems no reason, in the nature of our climate, circumstances, or laws, why sugar growing should not speedily become almost as important a branch of British agriculture as the production of beef, beer, and corn.

M. GEORGE VILLE, of Paris, has recently directed attention to the enormous quantities of sulphate of ammonia existing in certain of the Tuscan regions. This salt is of such agricultural importance, and the demand for it is so rapidly increasing, that the discovery of any new source whence it may easily and cheaply be derived would be most welcome. But the fact is, that M. VILLE has made no new discovery at all. What credit there is attaching to the detection of sulphate and other salts of ammonia under the circumstances named above, is due, not to M. VILLE, but to a distinguished Italian chemist and mineralogist, Professor BECHI. One of M. BECHI's first discoveries of a native ammonia compound in Tuscany was made, not in 1868, but in 1863. He then found and described a mineral known as *Lavelleite* (named after the proprietor of the

estate), and containing several per cent of ammonia. A large block of this mineral was shown, with sulphate of ammonia, in the International Exhibition of 1862. In this latter year M. BECHI continued his researches, and obtained by one evaporation of the residual salts left in the water from a lagoon at Travale, a sample of sulphate of ammonia, less than 80 per cent of the pure substance. At the same time M. BECHI, both privately and publicly, drew attention to the agricultural importance of his discovery, speaking on the 10th of June, 1862 to the following effect:— "I have come to us, in these lagoons of Travale, to a most abundant source of ammonia and to a from which agriculture ought to derive great benefit. . . . In the working of the lagoon waters we have met with great difficulties in attempting to separate the ammonia acid from the sulphate of ammonia, but these difficulties have at last been overcome and we now obtain both borax acid and sulphate of ammonia in a state of great purity and by means of an economical process." M. BECHI also alluded to the vast stores of ammonia which could be extracted from these lagoons, and made available for the arts. In April of the year 1863, M. BECHI published the results of his researches, giving an account of the various peculiar salts of the lagoons and their probable modes of production. Meanwhile, at his invitation, many distinguished agriculturists were experimenting with the sulphate of ammonia on their farms, and with the most favourable results.

We may add that in the Paris Exhibition of 1867, M. CORPI, the director of the works at the lagoons of Travale, showed several samples of agricultural and pure sulphate of ammonia, the sources pointed out by M. BECHI. The importance of this manufacture is consequently may be gathered from an experiment made by M. BECHI in 1862. He found that four *soffoni* (or jets) in the neighbourhood of Travale yielded in 24 hours more than 5000 lb of sulphate of ammonia. He also observed that the very earth, in some places about the lagoons, is saturated with sulphate of ammonia and that this occurs in combination with sulphate of magnesia in the same neighbourhood.

The above narrative will, we trust, have shown that we are indebted to M. BECHI, not only for the detection, some years ago, of important sources of native ammonia, but for pointing to agricultural bearings and importance of the discovery, and likewise for experimental views towards its practical realisation. A //

— AT Mark Lane the corn trade has had a downward tendency throughout the week, in consequence of intelligence that large shipments of grain from the Baltic, Black Sea, Australia, California, and other parts, were near at hand. — At the Metropolitan live stock market on Monday there was a short and former high prices were fully maintained, a large arrival of foreign animals on Thursday, however, caused the trade in inferior qualities to be active. Fine calves are making 10s to 12s per stone, and choice porkers 3s 4d per stone. — The seed trade is undergoing some novel changes. Messrs. for a return of American Clover seed to New York have been received, and as these orders refer to quantities it is expected that even higher prices than have been anticipated will be asked for our small stocks.

— On Wednesday evening Lord RUSSELL's Motion for a second reading in the House of Commons, and is therefore lost. In moving the second reading, Lord RUSSELL referred to the amount of capital invested in English agriculture, and the small return which it deserved at the hands of legislators. He observed, which that large portion of this capital which is invested in the live stock of the farm can be saved is kept fast in stock from a contact with it. If the necessary steps were taken to prevent the spread of meat throughout the country, he thought it could be done. He stated that the result would not follow. It had not followed at Liverpool, and it would not follow generally, because the business of the country is so restricted, and the number of cattle are so numerous, that it would be impossible to introduce. At present about 200,000 tons of dead meat are sent out of the country, and only 4,000 tons are sent abroad. If the foreign trade were stopped, it would be gained by the absence of contagious diseases more than compensate for any loss. In the years during which the cattle plague existed, the country lost about one-eighth of its cattle, and the number of cattle imported during 25 years was 1,000,000. Mr. HEATON objected to the Bill, and all the existing Acts of Parliament on the subject, and dating from the middle of the reign of George I. — and so that it was antagonistic to the Government.

of the timber at least enough to fence the
 high fences, and to have a few trees, and
 for harrowing, or rather dragging, in a
 only in the most barren soils, and
 or about 3/4 low, stirring up a re-
 below, or about 3/4 low, stirring up a re-
 change of a crop on such newly-formed land
 such kind of soil has been chosen) is better
 as on the most elaborately prepared
 sowed fallow, and every one knows that
 fallow and manure it well
 (5s. sterling per acre. The
 in ordinary seasons, has
 bushels of the finest white
 get that kind of land now,
 the settler must go far back into the forest.
 always be sown thickly with
 and Clover and then allowed to lie in pas-
 the stumps are rotten, and can be removed.
 the hardwood stumps, however, that rot,
 never decay but are allowed to remain
 by the crew, or other stump
 machine.
 who have the skill to work
 in the best possible manner, should never
 the life is so different to
 to, and the privations so
 the well doing of an
 will recommend him to

there is no reason for his doing so; there is no
 cleared land with reasonable good
 who emigrate with means sufficient
 on good terms, and
 will enable them to purchase the
 or another. There is always
 which can be purchased, pro-
 has the means.
 on account of the supposed
 Canadian winters, the cold of ordinary
 is not felt by the inhabitants. Fuel
 every one is prepared for the
 comes, and all look forward to it with
 expectation. Cold brings snow, and snow
 and sleighing, and sleighing every
 easy travel for both man and beast,
 of set employments it makes
 of payment.
 winter influence the attending
 in Britain must
 scale
 to Canada, and you

Societies.

SMITHFIELD
 Council meeting, which we partially
 were duly elected
 for the ensuing three years, in
 by rotation, viz., Mr. Joseph
 Brampton, Northampton;
 Hill, Devizes.
 and Mr. Robert Leeds were
 implements for the present
 prize sheet for the present
 alterations viz.
 Hampshire or W. I. sheep,
 Oxfordshire, new classes for
 established, with the following prizes,
 for the best single sheep in
 not Southdowns, two
 one for the best
 the disqualification
 Rule 21 shall in
 the last clause of
 the stewards shall call
 the certificate
 the fee to be paid by non-
 exhibiting be two guineas
 that the date of the show
 as heretofore. It will
 the Judge's Selection Com-

Committee shall consist of the President and the stewards
 of the stock

It was resolved to recommend to the general meet-
 ing that the date of the Council meeting which has been
 fixed by the bye-laws to be held in March shall be
 altered to February.

The Improvement Committee were re-appointed,
 with the same power as heretofore.

It was ordered that the Club's advertisements be
 inserted in the *Field* and the *Agricultural Magazine*
Journal, as well as the other agricultural papers, as
 before.

The honorary secretary was requested to commu-
 nicate with the Agricultural Hall Company in refer-
 ence to the accommodation in the new pig hall, and
 also as to the sheep and pig pens,—the subject to be
 then referred to the committee appointed at the last
 Council to confer with the Agricultural Company
 thereon.

The thanks of the meeting were voted to his
 Grace the Duke of Marlborough, President, and also
 to the Right Hon. Lord Bridport (who took the chair
 on his Grace having to leave), for their able conduct in
 the chair.

STURLING

Substitutes for Turnips in Wintering Cattle

At a recent meeting to discuss the question, "What are
 the most economical substitutes for Turnips (consequent
 on the scanty crops of that root for 1868), to take out
 provender for cattle during winter?" Mr. ALEXANDER,
 of Taylorton, said—I am old enough to remember
 when Turnips were not cultivated at all on Carse land
 —at least in the neighbourhood of Stirling. I think
 I was amongst the first to try a few rapes. This
 was immediately followed by growing a few from
 that to have the whole fallow-break in green crop,
 and I have not had any raked fallow for upwards of
 20 years. With regard to the deterioration of the Turnip
 crop this year, my practice is to grow what I
 have. This can best be done by grating the whole
 Turnip into a pulp, and then mixing it with cut straw
 or chaff, and when the cattle fattening are intended
 for the butcher, to add a portion of the best quality of
 cake along with a small portion of hashed grain—the
 mixture to be made up at feeding time. I consider it
 a great waste of Turnips to give an animal as many as
 it can eat upon this belief, I have adopted the
 pulping system, which is not only economical for
 feeding and feeding stock, but also very beneficial for
 dairy stock, the milk and butter having a much better
 taste and flavour than when the Turnips are used
 whole. The best substitute for Turnips for win-
 tering cattle is rape-cake, the best of the
 or a mixture of rape-cakes. There is, how-
 ever, some difficulty in getting cattle to eat
 rape-cake: this can be obviated by mixing it
 with chaff, and steaming it with hot water. Last
 year I wintered half a score of cows, and they
 very well by giving them a supply of fresh straw and
 water with an addition of about six or seven
 of cakes. A plentiful supply of fresh water should
 always be in the cattle-yard. One great drawback in
 the purchase of cake is the adulteration which is prac-
 tised when cake rises to its present price. The only
 safeguard is to purchase from respectable traders. In
 my opinion, these farmers, at least with a little
 supply of Turnips, should not fret themselves for the
 butcher. I consider it more profitable to winter cattle
 now. One very important feature in the saving of
 food for cattle is proper shelter. This, in many winter-
 ing yards, is still a very great drawback. I have myself
 experienced for some years very great loss from that
 cause. One of my cattleyards I have covered over
 altogether. This, when properly done, is of very great
 benefit for the saving of food and the comfort of the
 cattle, as well as the rich quality of the manure. The
 other yards I have roofed on all sides of the square,
 thereby securing a comfortable dry bed. This may be
 considered by many as an indirect way of saving food
 for cattle, but my experience has taught me the above
 statement to be the fact. Proper housing and comfort-
 able cattleyards have hitherto in many farms been far
 too little attended to in this locality. Another
 very important feature in the saving of farm
 provender is the proper storing of straw when
 threshed. No farmstead should want a large straw
 barn or shed—this I have found to be of great
 advantage—besides, using straw out of a stack causes
 great loss and waste, and it is often in a very
 injured condition. The cultivation of the Turnip
 crop is one of the most important features of modern
 husbandry. To grow Turnips successfully in clay
 land, the soil must be thoroughly drained, well
 wrought, and well manured. The substance of the
 above few remarks is—first, to economise what Turnip
 is on the farm by pulping and mixing with chaff or cut
 straw, with the addition of a mixture of rape-cake or in
 the want of Turnips altogether to use rape-cake as a
 mixture for wintering purposes; second, housing and
 comfortable cattleyards, and the straw shed, all care
 using not to be exposed to the weather; good attention
 being at all times necessary for the proper cultivation
 of the Turnip crop.

Mr. M'LACHLAN said he could never get his cows to
 take kindly to pulped Turnips. He was in the habit of
 steaming or slightly cooking them first. And by this
 way he found them to be more nutritious, a less quan-
 tity of Turnips when other stuffs were mixed with
 them, were required, and the quality of the milk was
 much better. For dairy cows he advised the use of
 lentil meal and bean meal, along with pulped Turnips;
 for wintering cattle, an extra allowance of oilcake,
 and, for feeding cattle, pulped Turnips and a little
 rape-cake. He also advised the use of spent distillery
 grain.

Mr. BUCHANAN, of Whitehouse—Fortunately, this
 season, those farmers who are worst off for Turnips are

in a great measure better off than their high-land
 farming neighbours for straw. I have no doubt
 that the first impulse will be the consumption of
 cake to supply the deficiency, which is one of
 our best substitutes for Turnips, but the recent
 advance in the price of cake brings me to the
 point whether we have not a cheaper and more
 economical substitute in our circum-
 stances. Before going farther, allow me to compare
 the price of cake with the price of our own good home-
 grown grain, and in particular Beans and Oats.
 Taking linseed-cake as the standard and leading sort of
 its kind, we find the price at 13s. per ton, while we
 have Beans at 11s. 10s. per ton, and Oats at about
 9s. 10s.; and the two mixed in equal quantities will
 cost about 10s. 10s. per ton, being about 2s. 10s. per ton
 cheaper than linseed-cake. Some may consider that
 even at these quotations cake is the best bargain, but
 it must be remembered that we have the grain pure,
 and in the hands of our own agriculturists. With-
 out saying that adulteration takes place we cannot
 say that a large quantity of it is to be
 at the present price of cake. As he observed,
 however, that I do not by any means undervalue the
 use of cake, and for particular and special purposes
 genuine cake is very important, but it allows me to
 read from the report of the Council of the English
 Society. With respect to feeding substances, I would
 observe that the great scarcity of green food and the
 failure of the root crops have compelled farmers to
 purchase substitutes of cakes and corn to a much
 greater extent than in ordinary years. In consequence
 of the increased demand for purchased food, the sophis-
 tication of oilcakes, I regret to say, has received a great
 impetus. I hardly remember any season in which I had
 to examine so many inferior and adulterated linseed-
 cakes than in the past. The subject deserves the
 most serious consideration of the agriculturist, for
 the danger of adulterated cakes is not only
 decreased by using small quantities for feeding
 purposes, but also by mixing with a small quantity of
 genuine cake. The adulteration of my stock by giving them adul-
 terated cakes is a great loss, as those who have seen
 oxen, from want of knowledge and cupidity, occasionally
 incorporate with feeding cakes substances which
 are positively poisonous to animals. Under our
 present circumstances, however, I would prefer using
 for our cattle, in addition to straw, a supply at least
 once or twice a day of mixed chaff, or broken or cut
 straw (which is so generally abundant on Carse farms)
 with a certain proportion of the meal of the grain
 alluded to above spread on any mixed with it, and
 which they consume greedily and without loss as I
 would give a supply of water to the stock with three
 or four times a day. For feeding dairy stock I have
 found that a mixture of rape-cake, steam-steeped or
 boiled in water, with chaff, a few seeds of Rape,
 adding a portion of bean-meal, and finally washing
 the mixture with water, the being taken away the
 cream, and the residue being used with these cakes
 is their best fare. These farmers who are
 fortunate enough to be near a distillery or brewery
 will find the refuse of these added to the above mixture
 to be of great service to this class of stock. In regard
 to the other department of the wintering—viz., fodder
 —I think we need not be at any loss with the present
 price of hay at about five guineas or so, two tons of
 which is I am sure, better than a ton of any oilcake.
 As to the adulteration of Turnip-cake and straw combined
 in a mixture, Mr. CARRICK, of Baad, and I carried
 remarks, I leave the discussion in abler hands than
 mine.

Mr. CARRICK, of Baad, had tried rape-cake, oilcake,
 Indian Corn-meal, and other things, but amongst the
 whole of these things he had found nothing so bene-
 ficial and so economical for feeding cattle as bean-
 meal. He admitted that bean-meal was dangerous
 when too much was given to the cattle, but when it
 was properly and carefully used, there was nothing
 better for them. When mixed with a little chaff it far
 outstripped anything else that had been mentioned.
 For instance, what is cake? It is only refuse; it is
 only the shew of good feeding stuffs, the substance
 gone. Where there was no Turnip, he would advise
 farmers to make a mixture of bean-meal, crushed oats,
 and a little cake and they would find it would
 be an excellent feed. The sum and substance of his
 argument was, that nothing could beat bean-meal when
 judiciously applied.

Mr. LUCAS, of Cornton, referred from several of the
 speakers which had preceded him with regard to the
 pulping of Turnips. He was of opinion there was not
 much profit by it, especially on a moderate-sized farm.
 He had wintered cattle on the rape-cake and straw.
 He thought it was the most profitable for wintering
 purposes to use cattle rape-cake and straw, and,
 for feeding purposes, cake and straw produced a
 nice bloom on cattle, and to raise their value in the
 market. If the country were in good housing for
 cattle, there was a great deal more in good housing
 than people imagine, and it was certainly a
 great advantage to those tenant-farmers whose lands
 had provided them with efficient housing for their
 cattle.

Sir ALEXANDER GIBSON MARRIOTT understood
 from the discussion, one reason in favour of pulping,
 and that was, that the animals feed kindly, so that they
 and that largely. With regard to the scanty Turnip crop
 of last year, he thought the way whereby they might
 augment their stock was by taking more care in fitting
 and housing the stock. If they looked around the neigh-
 bourhood of Stirling they would find that the Turnip
 crop was removed from the field in the most careless
 manner possible. He had seen Turnips lifted, and left
 in the field exposed to all the rains of heaven and all
 the frosts, and then removed after the rain. Now, it
 was well known that Turnips were never so good after
 rain and frost—that they were best fresh

SUTTONS' GRASS SEEDS

FOR ALL SOILS,

ABRIAGE FREE,

PRODUCING ABUNDANT CROPS OF HAY AND SUPERIOR PASTURE

A SHARER MEDAL FOR EXCELLENCE OF QUALITY,



PARIS, 1867

MESSRS. SUTTONS'

MIXTURES FOR PERMANENT PASTURE

CONTAIN THE FOLLOWING

FINEST CLEANED GRASSES AND CLOVERS.

Table listing various grass and clover species such as A. speciosus pratensis, Meadow Foxtail, Sweet Vernal, etc.

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FOR THE FOLLOWING SOILS. —

- 1 STIFF CLAY SOILS, to be met with in the London, & an eridge, Oxford, and Lias Clays.
2 HEAVY LOAMS, of the same Formations, when they have been subjected to surface admixtures and cultivation.
3 GOOD MEDIUM LOAMS, on the Marls of the Old and New Red Sandstone, the Gault, and the Greensands.
4 LIGHT SANDY SOILS, on New Red Sandstone, sands of the Lias, or the Gault, and the Sand by its, as at Chesham and Gouseton, and the soil being up to 500 Lins and the Tertiary sands of the Dorset Heaths.
5 SHARP GRAVELLY SOILS, such as the Flint and Gravel Drift which overspreads so much of the Southern and Western part of England.
6 CHALKY SOILS, as the Mountain Limestone, the Gault, and the Chalks Proper, where not too elevated.
7 SHEEP DOWNS — The Elevated and more Exposed parts of the Cotswolds, such as the Wolds of Gloucestershire, the Cotswolds, and the Downs of Wiltshire.
8 WATER MEADOWS, and all Land under Irrigation.

Containing 2 bushels of Grass Seeds, and 12lb. Clovers and other Small Seed per acre. 28s. to 32s. per acre. Carriage Free.

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20s. to 26s. per acre. Carriage Free.

SUTTONS "CRYSTAL PALACE" MIXTURE, for Park grounds, as supplied to the Crystal Palace Company, to produce a beautiful evergreen sward, 18s. per bushel. See 2 1/2 bushels per acre.

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- 1-year's Lay, best quality, 13s. 6d. per acre.
2-year's Lay " 17s. 6d. per acre
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Seed quantities cheaper.

SUTTONS' RENOVATING MIXTURE for the above Soils should be sown early in the spring to produce a great increase in the quantity and quality of Grass. Sow 6 to 12lb. per acre. Price 9d. per lb.

Special Contracts made for large quantities.

Five per cent. allowed for cash payments.

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First Crop or Ringleader Pea

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Plants, to be Sold, Cheap.

G. GAINES begs to offer to Nurserymen and Seedsmen the GREEN GLOBE ARTICHOKE plants, which are the best in the country. Also the STRONG TARRAGON plants. For particulars apply to G. GAINES, Herbalist and Seedsmen, 10, Abchurch Lane, London, W.C.

GIANT ASPARAGUS PLANTS, the best that money can procure. 2s. 6d. per 100. These are a Vegetables which do not require a lot of expense in growing. For particulars apply to RICHARD WALKER, Seed and Plant Dealer, 10, Abchurch Lane, London, W.C.

Choice Potatoes for Planting.

SUTTON & SONS can supply the following excellent POTATOS at very moderate prices:
Mylor's Early Aspinall, Sherry Bona, Daubay, Duke of Albany, Flour Blaw, Walker's Regent.
Lowest prices per Sack or Ton on application. Berries & Sons, Seed Growers, Reading.

RICHARD WALKER has to offer the finest sort of ROUNDED POTATO (AMERICAN RED) — 1 lb. tubs as white as snow, and is the best crop in the country. It was imported in 1855. As too block of ground, apply early. Price per cwt. 30s. Special quantities at the same rate. SEAKALE, for planting, 3s. 6d. per 100. FACED PEAS, 2s. per 100. In the case of Market Gardeners.

New and Superior Farm Seeds.



FRANCIS & ARTHUR DICKSON & SONS, The "Old Established" Seed Warehouse, 100, Eastgate Street, and The "Upton" Nurseries, Chester. PRICED DESCRIPTIVE CATALOGUE OF FARM SEEDS post free, on application.

MIXTURES OF GRASS SEEDS for Permanent Turf and Rotation Crops, to suit every description of Soil and Climate, of very superior quality. Finest clean seeds of CLOVERS, RYE GRASSES, and NATURAL GRASSES, at Market rates. See prices and prices on application.

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EDWARDS' FINEST CUCUMBER, recommended by all who have seen it to be the best in cultivation. It is a most prolific bearer, possessing every quality of a first-rate Cucumber, and produces fruit 24 to 30 inches in length at every joint. Orders have been given by all who have seen it growing. A brace of the above was sent to the Editor of the Gardeners' Chronicle. The following was his opinion, on the 19th December — "A handsome white-skin variety, of crisp flavour, and having the recommendation you mention it is a desirable variety." Can be had in packets of 2s. each, or 2s. 6d. each of George Edwards, King Street, Castle Gate, York, and of Messrs. Huxley & Sons, Seedsmen, 6, Leadenhall Street, London, E.C.

ROLLISSONS' TELEGRAPH CUCUMBER (True).

From the general satisfaction with the Telegraph Cucumber has given, Messrs. Rollisson & Sons are much encouraged to again offer good and well ripened seed of this most extraordinary variety. Its wonderful cropping qualities have this year been witnessed at the Establishment by many experienced judges, all of whom have agreed that it is the best in cultivation for that purpose; in fact, it has been acknowledged to be, by the best authorities of the day, the most productive yet introduced for Winter and Early Spring use, in proof of which —

- See Gardeners' Chronicle, January 12, 1867
See Gardeners' Chronicle, August 31, 1867
See Gardeners' Chronicle, March 16, 1867
See Gardeners' Chronicle, October 12, 1867
See Gardeners' Chronicle, January 12, 1868
See Gardeners' Chronicle, January 6, 1869
See Gardeners' Chronicle, January 12, 1868
See Gardeners' Magazine, January 2, 1868
See Gardeners' Magazine, August 2, 1868
See "Journal of Horticulture," January 5, 1869

The above may be had in printed and sealed packets, guaranteed true, price 2s. 6d. each from The Nurseries, Tooting, London, S.W.

WILLIAM ROLLISSON AND SONS also beg respectfully to announce that their GENERAL and PRICED SEED CATALOGUE for 1869 is now published, which contains many notes on the way of VEGETABLE and FLOWER SEEDS, also numerous valuable hints as to the best quality of SEEDS. TROPICAL PLANTS which can be raised from Seed, in which it is also included the following choice Flower Seeds:

CENTAUREA LAGASINA COMITATA. The foliage of this new variety has the most striking appearance, which is very dwarf and compact habit, and is much to be desired as a large and brilliant border that will give the most varied varieties. Price per packet 2s. 6d.

KENNEDY'S FINEST WHITE. This extremely ornamental Green-leafed variety forms a great improvement on the months of December and January. The flowers, which are as large as those of a good-sized Red Petal, are of a deep scarlet-crimson, to which a stripe of white runs through the middle. Very young plants of 3 inches will bear an abundance of seed. Price 1s. per packet. See particulars from 1s. 6d. to 1s. each.

PRIMULA SINENSIS FEMINATA. — Seed saved from the finest prize strains in cultivation. Price per packet 2s. 6d.

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W. R. & SONS' GENERAL CATALOGUE OF SEEDS may be had gratis, and post free, on application to The Nurseries, Tooting, London, S.W.

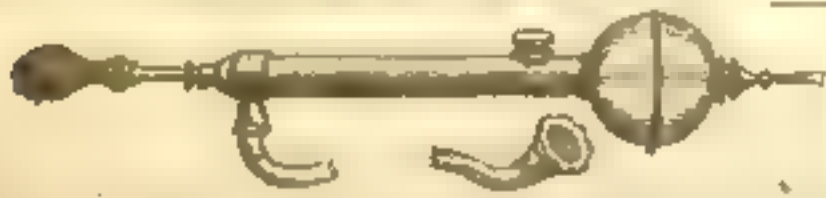
weeks after planting. This is done to "let the soil settle down flat, more especially in the case of the potato crop, as manure is not so much broken up as in the case of the other crops. In some cases the manure is not broken up until the autumn, when the manure is not so much broken up as in the case of the other crops. But in the case of the potato crop, the manure is not so much broken up as in the case of the other crops. Some of the most common mistakes in the case of the potato crop, is that the manure is not so much broken up as in the case of the other crops. The general practice is to apply the manure to the potato crop, and to apply the manure to the potato crop, and to apply the manure to the potato crop. The general practice is to apply the manure to the potato crop, and to apply the manure to the potato crop, and to apply the manure to the potato crop.

Notices to Correspondents. Put a bit of sulphur, about two parts of cream, as soon as it is taken from the lay before you churn, put the cream in boiling water for half an hour, and then while it is in the hot water, and afterwards steam it to get rid of the sulphur. The sulphur is not so much broken up as in the case of the other crops. The general practice is to apply the manure to the potato crop, and to apply the manure to the potato crop, and to apply the manure to the potato crop.

THE TANNED LEATHER COMPANY,
 Arncliffe Works, Greenfield, near Manchester
TANNERS, CURRIERS, and MANUFACTURERS of IMPROVED
TANNED LEATHER DRIVING STRAPS for MACHINERY
PRIME STRAP and SOLE BUTTS.
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CHILTERNHAM GARDEN ENGINE, which weighs only
 3 lb. 1 oz., throws water in a conical stream over 30 feet. To be
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 Buildings, Holborn, London, W.C.
 GARDEN HOSES and LANCES in great variety.

THE HYDRONETTE,
 for taking water from fountains, Greenhouses, Conservatories,
 Hotbeds, &c. It consists of a Light, portable, and
 reliable.



The HYDRONETTE is a more simple, easy working, reliable, and
 convenient water thrower than any other. It is made
 in five sizes, viz. No. 1 with 4 feet of hose, No. 2, 5 feet
 of hose, No. 3, 6 feet of hose, No. 4, 8 feet of hose,
 No. 5, 11 feet of hose. Extra Hose and Union Joints furnished to order.

Directions for Use. Take the Hydronette in the left hand, lay
 hold of the handle with the right, drop the strainer end of the hose
 into the well, then work the plunger quickly a few strokes, until water
 is drawn up to the brass tube, then work it slowly, or quickly, at will.
 To be obtained through any Ironmonger or Florist in the United
 Kingdom, or of the Proprietors.

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DESCRIPTION.

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Are guaranteed to perform their
 work perfectly, and if not ap-
 proved may be returned within a
 month. They are easy to work,
 light to draught, almost noiseless
 and being driven by machine-
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2400 Sold since 1867.

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12 inch	£1 10 0
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16 inch	£2 10 0
18 inch	£3 0 0
20 inch	£3 10 0
22 inch	£4 0 0
24 inch	£4 10 0

GARDEN ROLLERS

16 inch	£1 10 0
18 inch	£2 0 0
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Delivered Free to
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RANSOMES, SIMS, AND HEAD, ORWELL WORKS, IPSWICH

SAMUELSON & CO.'S

NEWLY PATENTED EDGE-CLIPPING SILENT LAWN MOWER

THE MOST IMPORTANT IMPROVEMENT EVER INTRODUCED.



SAMUELSON AND CO., BRITANNIA WORKS, BANBURY.

MESSRS
 SAMUELSON AND CO.
 DRAWING ATTENTION TO THE
 NEW

LAWN MOWER
 for 1869.

Which are fitted with a
 quiet, with a new
EDGE-CLIPPING
 arrangement
 superseding the old
 tedious operation of
 Clipping by hand.

All Machines fitted
 with new silent bearing
 and perfect frame
 to house them at will.

Catalogues, with
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 Edge-Clipping Silent
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SHANKS'S PATENT LAWN MOWERS FOR 1869.

UNDER THE PATRONAGE

OF
HER MOST GRACIOUS MAJESTY
THE QUEEN,



AND MOST OF THE
PRINCIPAL NOBILITY
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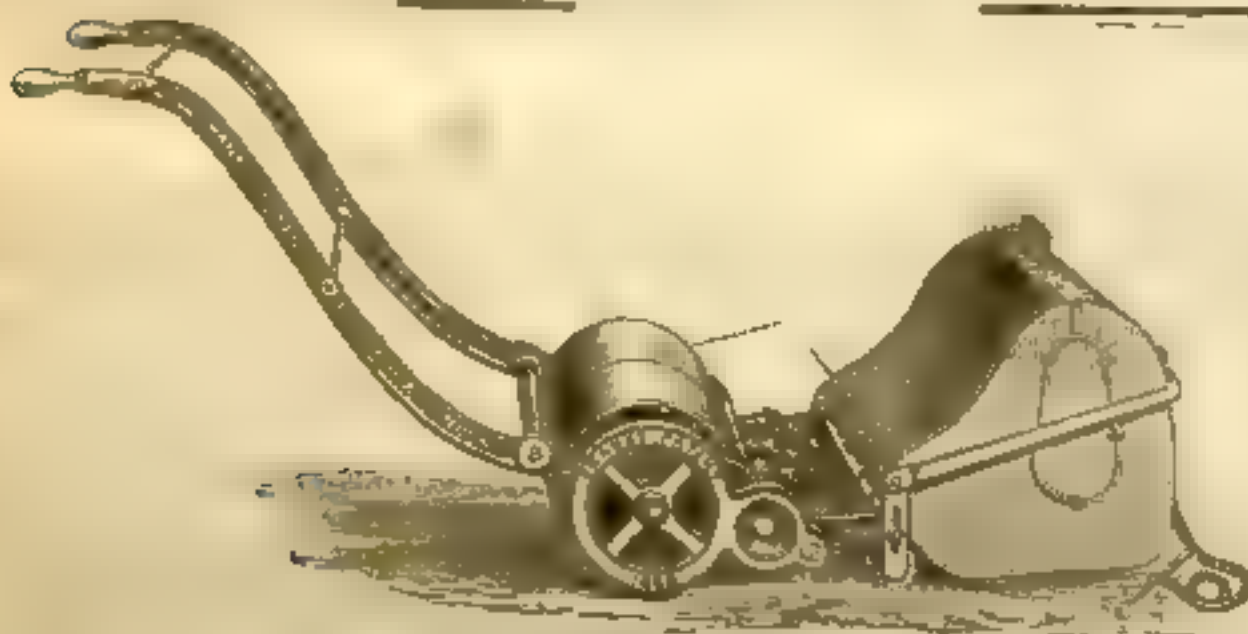
SHANKS'S PATENT LAWN MOWERS

ARE ALL FITTED WITH

**PATENT DOUBLE-EDGED SOLE PLATES, WIND GUARDS, AND
 SELF-SHARPENING REVOLVING CUTTERS.**

Advantages possessed by no other Lawn Mowers.

The unprecedented Sale of SHANKS'S LAWN MOWERS for 1869 is
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HAND MACHINE.

PRICES—INCLUDING CARRIAGE TO ANY RAILWAY STATION OR SHIPPING PORT IN THE KINGDOM

SHANKS'S NEW PATENT HAND MACHINE.

Machine Size	Price	By	Machine Size	Price	By
10-inch Machine	£3 10 0	By a Lady	16-inch Machine	£6 10 0	By a Man
12-inch Machine	£4 10 0	By a Boy	18-inch Machine	£7 15 0	By a Man and a Boy
14-inch Machine	£5 10 0		22-inch Machine	£8 10 0	By Two Men
			24-inch Machine	£9 0 0	

The Hand Machines are all with Silent Movement.

SHANKS'S NEW PATENT PONY and DONKEY MACHINE.

Width of Cutter	Price	Notes
25-inch Machine	£12 10 0	If with Patent Delivering Apparatus
28-inch Machine	£14 10 0	25s extra.
30-inch Machine	£16 15 0	30s "

Silent Movement, 12s. 6s. extra.

Boots for Pony, 22s. per set; Ditto for Donkey, 18s. per set.

Every Machine warranted to give ample satisfaction, and, if not approved of, can be at once returned without any expense to the buyer.

SHANKS'S NEW PATENT HORSE MACHINE.

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30-inch Machine	£19 0 0	If with Patent Delivering Apparatus
38-inch Machine	£22 0 0	30s extra.
42-inch Machine	£28 0 0	40s "
48-inch Machine	£28 0 0	40s "

Silent Movement, 20s. extra.

Boots for Horse, 26s. per set.

**ALEXANDER SHANKS AND SON, DENS IRON WORKS, ARBROATH; and
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27, Leadenhall Street is the only place in London where intending purchasers of Lawn Mowers can choose from a Stock of from 150 to 200 Machines.
 All sizes kept there, whether for Horse, Pony, or Hand Power.

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Shading Plants... 1/6, for Shading Plants... Wholesale prices.

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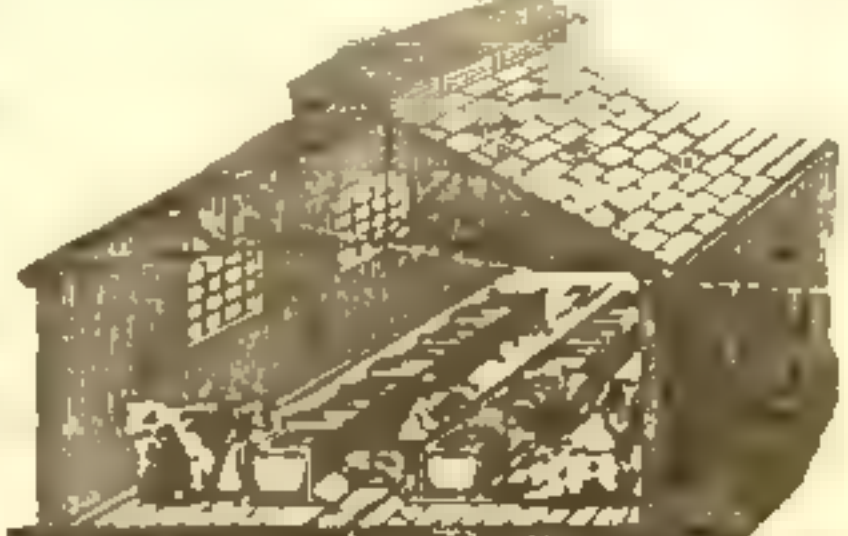
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F. A. HAGE'S WOOD GARDEN STICKS and TALLIES, commended by the Royal Horticultural Society...

FOWLER'S PATENT STEAM PLOUGH and CULTIVATOR may be SEEN at WORK in every Agricultural County in England.

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Their advantages are—Portability, at Fixtures, no Woodwork or Partitions to impede Ventilation or breed Vermin...

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To Florists and Nurserymen. FOR TRANSFER, in one of the best positions in London, W., an EXCELLENT BUSINESS, Rent £200 per year.

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MISSISSIPPI... by AUCTION, at the City Auction... church Street, City, E.C., on WEDNESDAY...

Cheltenham... HIGHLY IMPORTANT SALE... GREENHOUSE AND STOVE PLANTS and AZALEAS.

Cambridge... IMPORTANT TO GENTLEMEN, GARDENERS, &c. MR. W. J. STEVENS will SELL by AUCTION...

Cambridge... To be viewed on the Morning of the... full particulars are described in Catalogues...

Cambridge... THURSDAY and FRIDAY, the 25th and 26th inst. Parties proposing to attend the Sale are referred to the previous advertisements...

Surplus Stock of Agricultural Machinery... March 30, at 11 o'clock, about Forty High-class New and Second hand PORTABLE STEAM ENGINES...

Sale of the King's Fort Herd of Shorthorns... MR. JOHN THORNTON will SELL by AUCTION, on TUESDAY, March 30, at King's Fort, Kells, Co. Meath...

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MR. JOHN THORNTON will SELL by AUCTION, on TUESDAY, March 30, at King's Fort, Kells, Co. Meath...

A very Important Sale of Imported Indian Orchids, IN FINE HEALTH.

MR J. C. STEVENS will SELL by AUCTION, at his Great Rooms, 38, King Street, Covent Garden, W.C., on MONDAY, March 16, at half-past 12 o'clock precisely...

Periodical Sale of Poultry and Pigeons. MR J. C. STEVENS will SELL by AUCTION, at his Great Rooms, 38, King Street, Covent Garden, W.C., on TUESDAY, March 16, at half-past 12 o'clock precisely...

Importation of Valuable Orchids. MR J. C. STEVENS will SELL by AUCTION, at his Great Rooms, 38, King Street, Covent Garden, W.C., on THURSDAY, March 16, at half-past 12 o'clock precisely...

Plants and Bulbs. MR J. C. STEVENS will SELL by AUCTION, at his Great Rooms, 38, King Street, Covent Garden, W.C., on SATURDAY, March 18, at half-past 12 o'clock precisely...

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Consignment of Plants from Belgium. MR J. C. STEVENS will SELL by AUCTION, at his Great Rooms, 38, King Street, Covent Garden, W.C., on WEDNESDAY, March 24, at half-past 12 o'clock precisely...

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MR J. C. STEVENS will SELL by AUCTION, at his Great Rooms, 38, King Street, Covent Garden, W.C., on SATURDAY, March 27, at half-past 12 o'clock precisely...

MR J. C. STEVENS will SELL by AUCTION, at his Great Rooms, 38, King Street, Covent Garden, W.C., on SUNDAY, March 28, at half-past 12 o'clock precisely...

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MR J. C. STEVENS will SELL by AUCTION, at his Great Rooms, 38, King Street, Covent Garden, W.C., on TUESDAY, March 30, at half-past 12 o'clock precisely...

MR J. C. STEVENS will SELL by AUCTION, at his Great Rooms, 38, King Street, Covent Garden, W.C., on WEDNESDAY, March 31, at half-past 12 o'clock precisely...

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MR J. C. STEVENS will SELL by AUCTION, at his Great Rooms, 38, King Street, Covent Garden, W.C., on FRIDAY, April 2, at half-past 12 o'clock precisely...

MR J. C. STEVENS will SELL by AUCTION, at his Great Rooms, 38, King Street, Covent Garden, W.C., on SATURDAY, April 3, at half-past 12 o'clock precisely...

MR J. C. STEVENS will SELL by AUCTION, at his Great Rooms, 38, King Street, Covent Garden, W.C., on SUNDAY, April 4, at half-past 12 o'clock precisely...

MR J. C. STEVENS will SELL by AUCTION, at his Great Rooms, 38, King Street, Covent Garden, W.C., on MONDAY, April 5, at half-past 12 o'clock precisely...

MR J. C. STEVENS will SELL by AUCTION, at his Great Rooms, 38, King Street, Covent Garden, W.C., on TUESDAY, April 6, at half-past 12 o'clock precisely...

MR J. C. STEVENS will SELL by AUCTION, at his Great Rooms, 38, King Street, Covent Garden, W.C., on WEDNESDAY, April 7, at half-past 12 o'clock precisely...

MR J. C. STEVENS will SELL by AUCTION, at his Great Rooms, 38, King Street, Covent Garden, W.C., on THURSDAY, April 8, at half-past 12 o'clock precisely...

MR J. C. STEVENS will SELL by AUCTION, at his Great Rooms, 38, King Street, Covent Garden, W.C., on FRIDAY, April 9, at half-past 12 o'clock precisely...

MR J. C. STEVENS will SELL by AUCTION, at his Great Rooms, 38, King Street, Covent Garden, W.C., on SATURDAY, April 10, at half-past 12 o'clock precisely...

MR J. C. STEVENS will SELL by AUCTION, at his Great Rooms, 38, King Street, Covent Garden, W.C., on SUNDAY, April 11, at half-past 12 o'clock precisely...

MR J. C. STEVENS will SELL by AUCTION, at his Great Rooms, 38, King Street, Covent Garden, W.C., on MONDAY, April 12, at half-past 12 o'clock precisely...

MR J. C. STEVENS will SELL by AUCTION, at his Great Rooms, 38, King Street, Covent Garden, W.C., on TUESDAY, April 13, at half-past 12 o'clock precisely...

MR J. C. STEVENS will SELL by AUCTION, at his Great Rooms, 38, King Street, Covent Garden, W.C., on WEDNESDAY, April 14, at half-past 12 o'clock precisely...

MR J. C. STEVENS will SELL by AUCTION, at his Great Rooms, 38, King Street, Covent Garden, W.C., on THURSDAY, April 15, at half-past 12 o'clock precisely...

MR J. C. STEVENS will SELL by AUCTION, at his Great Rooms, 38, King Street, Covent Garden, W.C., on FRIDAY, April 16, at half-past 12 o'clock precisely...

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NO IMPROVEMENTS OR ALTERATIONS FOR THE PRESENT SEASON, 1869,

GREEN'S PATENT SILENS MESSOR,

OR

NOISELESS LAWN MOWING, ROLLING, and COLLECTING MACHINES.

The Extraordinary Success of GREEN'S PATENT LAWN MOWERS is an established fact. During the last five years the demand has been unprecedented, and alone is a proof of their superiority over all others. The following are their characteristic features —

- 1st. Simplicity of Construction, every part being free of access.
- 2d. They are worked with far greater ease than any other Lawn Mower.
- 3d. They are the least liable to get out of order.

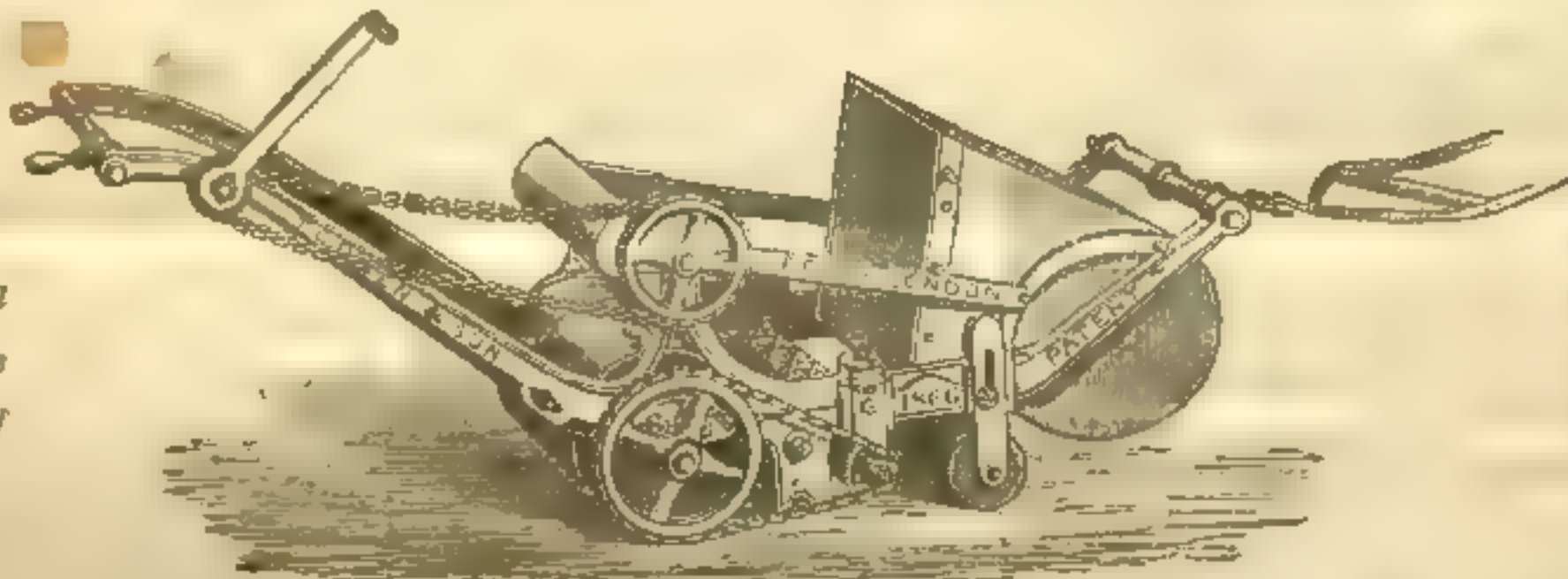
From the fact that these MACHINES are so well known in Great Britain and Ireland, also on the Continent of Europe, T GREEN AND SON do not deem it necessary to trouble the Public with a List of the numerous Testimonials that they have received from time to time, but would simply add,

THEY ARE THE ONLY MACHINES IN CONSTANT USE AT

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| THE ROYAL HORTICULTURAL SOCIETY'S GARDENS, SOUTH KENSINGTON | THE HYDE PARK GARDENS | THE RUEL BOTANIC GARDENS |
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| MARLBOROUGH HOUSE | THE LEEDS ROYAL PARK | |

AND IN MOST OF THE PRINCIPAL PARKS, SQUARES, ETC., IN THE UNITED KINGDOM.

HORSE, PONY, AND DONKEY MACHINE.



GREEN'S PATENT LAWN MOWERS

have proved to be the best, and carried off every Prize that has been given in all cases of competition.

T. GREEN & SON

warrant every Machine to give entire satisfaction, and if not approved of can be returned unconditionally.

PRICES of HORSE, PONY, and DONKEY MACHINES, including Patent Self-delivery Box; Cross Stay complete; suitable for attaching to ordinary Chain Traces or Gig Harness.

PONY AND DONKEY MACHINES.

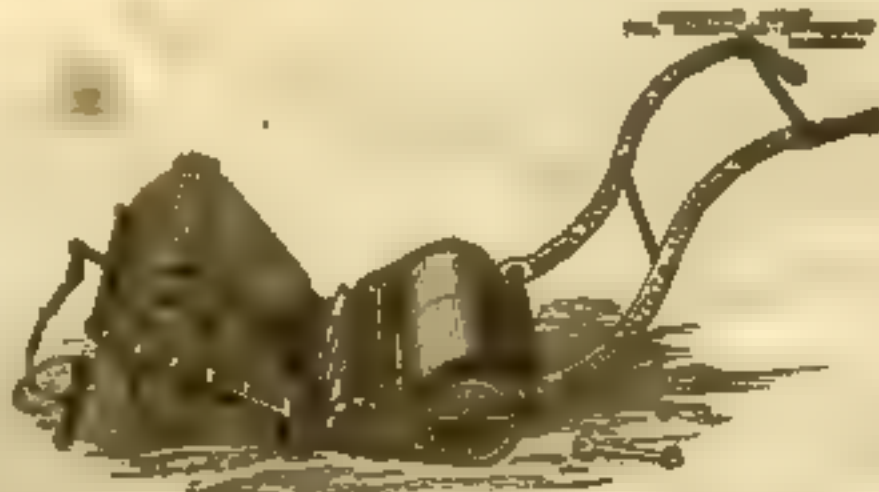
To Cut 28 inches	£13 0 0	Leather Boots for Donkey, 18s. Leather Boots for Pony, 22s.
" 28 " " " " " "	16 0 0	
" 30 " " " " " "	17 0 0	

HORSE MACHINES.

To Cut 30 inches	£21 0 0	Leather Boots for Horse, 25s.
" 36 " " " " " "	24 0 0	
" 42 " " " " " "	27 0 0	
" 48 " " " " " "	30 0 0	

Both the Horse, Pony, Donkey, and Hand Machines possess (over all other Makers) the advantage of Self-sharpening. The cutters being steel on each side, when they become dull or blunt by running one way round, the cylinder can be reversed again and again, bringing the opposite edge of the cutter against the bottom blade, when the Machine will cut equal to new. Arrangements are made that the cylinder can be reversed, by any inexperienced person, in two or three minutes.

HAND MACHINES.



To Cut 10 inches ..	£3 10 0	Suitable for a Lady
" 12 " " " " "	4 10 0	" " "
" 14 " " " " "	5 10 0	Suitable for One Person
" 16 " " " " "	6 10 0	" " "

To Cut 18 inches ..	£7 10 0	Suitable for One Person
" 20 " " " " "	8 0 0	Suitable for Two Persons
" 22 " " " " "	8 10 0	" " "
" 24 " " " " "	9 0 0	" " "

Packing Cases are charged at the following low rates, viz. — for the 10 and 12-inch Machine, 3s.; 14 and 16-inch, 4s.; 18 and 20-inch, 5s.; 22 and 24-inch, 6s. Persons providing themselves with Lawn Mowers are recommended to purchase the cases in which to stow them away, when not in use, to prevent them from getting damaged. If returned, two-thirds will be allowed for them.

The above MACHINES are made from the best materials, and of superior workmanship; are delivered Carriage Free to all the principal Railway Stations and Shipping Ports in England.

Every Machine is warranted to give entire satisfaction, and if not approved of, can be returned unconditionally.

T GREEN AND SON have a large quantity of LAWN MOWERS in stock at their Leeds and London Establishments; also various other kinds of HORTICULTURAL and AGRICULTURAL IMPLEMENTS, GARDEN SEATS and CHAIRS, FOUNTAINS, VASES, PLAIN and GALVANISED WIRE NETTING, and ORNAMENTAL WORK of every description.

Having very extensive Premises in London, we are in a position to do all kinds of Repairs there, as well as at our Leeds Establishment.

Having a large quantity of MACHINES in stock at our Leeds and London Establishments, we are in a position to execute Orders on the day they are received.

THOMAS GREEN AND SON, SMITHFIELD IRON WORKS, LEEDS;
and 54 & 55, BLACKFRIARS ROAD, LONDON, S.

Editorial Communications should be addressed to "The Editor" Advertisements and Business Letters to "The Publisher," at the Office, 41, Wellington Street, Covent Garden, London, W.C.
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THE GARDENERS' CHRONICLE AND AGRICULTURAL GAZETTE.

A Newspaper of Rural Economy and General News.

SATURDAY, MARCH 20.

{Price Fivepence.
{STAMPED EDITION, 6d.

12-1869.]

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Princess Royal is the Brightest of the New Coleus.
CHARLES TURNER purchased this beautiful variety, and is now executing orders with strong plants, 7s. 6d. each. The Royal Nurseries, Slough.

NEW COLEUS.—The 12 new Coleus of the Royal Horticultural Society, sent out in 1868, with other fine varieties, sent post free—12 fine varieties for 2s. 6d.; 12 cuttings, in 12 fine varieties, for 1s. 2d., from
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HUSSEY AND SON beg to offer the above, all Hybrid Perpetuals on Manetti, at 40s. per 100. Mile End Nursery, Eaton, Norwich.

"My Fall's Rose" * * * are things to see once and dream of for ever."
WM PAUL begs to announce that his CATALOGUE of ROSES is now ready, and will be forwarded free on application.
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NEW and GENUINE AGRICULTURAL and GARDEN SEEDS.—Special prices and advantageous offers on application to
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HUSSEY AND SON beg to offer extra strong plants of the above beautiful hardy Fern at 6s. per dozen. Mile End Nursery, Eaton, Norwich.

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To the Trade and Others.
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IRON COVER—Our Patrons requiring strong NORWAY SPRUCE FIR, can be supplied at a very nominal price. Estimate Nursery Stock for planting.
JOHN TARRANT & SONS, Penrith.

ASH, 2-yr. Seedling, 1-yr. bedded 3s. 6d. per 1000, or 45s. per 100,000; 1-yr. Seedling 1-yr. bedded, 2s. 6d. per 1000, or 25s. per 100,000.
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STRONG TRANSPLANTED QUICK, 10s., 20s., and 30s. per 1000; 140, 220, and 280 per 100,000. Samples containing 100 may be had on receipt of a remittance.
JOHN CARRUTHER, Nursery and Seed Establishment, Westerham, Kent.

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DAVID MITCHELL (late Lamont & Mitchell) has to offer to the Trade fine 2-yr. seedling NATIVE SCOTCH FIR. Price 25s. per 100,000.
Seed Warehouse, 2, Hanover Street, Edinburgh.

SUTTONS' GRASS SEEDS for ALL SOILS. See page 315 of this day's *Gardener's Chronicle*.

SUTTONS' GRASS SEEDS for VARIOUS PURPOSES. See page 315 of this day's *Gardener's Chronicle*.

SUTTONS' HOME-GROWN FARM SEEDS. See page 311 of this day's *Gardener's Chronicle*.

SUTTONS' FARMER'S YEAR BOOK for 1869 is now ready, price 6d., gratis to customers.
Royal Herbs Seed Establishment, Reading.

PARIS, 1867. **SUTTONS' GRASS SEEDS** for ALL SOILS. A PREMIER PRIX SILVER MEDAL for GRASS SEEDS, GRASSES, and GRASS SEEDS, was awarded to **SUTTON AND SONS**, Seedsmen to the Queen, Reading, Berks.

A SPECIAL PRIZE MEDAL, PARIS, 1867, was AWARDED to **JAMES CARTER & Co.** 27 & 28, High Holborn, London, W.C., for GRASS SEEDS, supplied for the Exhibition Grounds.

CARTER'S FARM SEEDS See large Advertisement, March 6, page 246, *Gardener's Chronicle*. Seed Growers, MIMMINS, 27 & 28, High Holborn, London, W.C.

EVERY GARDEN REQUISITE KEPT IN STOCK at **CARTER'S New Seed Warehouse, 27 and 28, High Holborn, London.**

Agricultural and Garden Seeds. **H. AND F. SHARPE'S SPECIAL PRICED LIST** of HOME-GROWN SEEDS is now ready, and may be had on application.
Seed Growing Establishment, Wisbech.

New Seed Establishment, 4, RED LION STREET, ST. STEPHEN'S, NORWICH.

D. McEWEN, 22 years Managing Assistant to the late Mr J. W. King.

The Engar-Beet Question. For INSTRUCTIONS in CULTIVATION, see **SUTTONS' FARMER'S YEAR-BOOK** for 1869. 6d. post free gratis to customers. Write to us, see letter to the Queen, Reading.

SPARAGUS PLANTS, extra fine and strong, 2, 3, and 4 yr. old, at 1s. each, per doz. 10s. 6d. per 100. Apply to **Wm. Wood & Son, Marsfield, near Uckfield, Sussex.**

ARTICHOKEs, JERUSALEM, of the quality, for planting, 1/2 yr. old, 1s. 6d. per bush. H & K St. Asaph, Skerton Nurseries, Lancaster.

POTATOS.—Handsworth Early Round—Price on application to
Jas. Farquhar & Son, Seed Merchants, 7, Borough Market, London.

PATERSON'S VICTORIA POTATOS, the best maters, the best keepers, and very prolific, raised before the rains. Price on application to
Mr. Paterson, Measham, Althorpe.

POTATOS—Early Danahoy and Fluke, nice selected seed about 2 1/2 tons to offer on reasonable terms.
H & K St. Asaph, Skerton Nurseries, Lancaster.

The Best New Potato for 1869 is **SUTTONS' BERKSHIRE KIDNEY**, 5s. per peck, 18s. per bushel, carriage free.
Sutton & Sons, Royal Herbs Seed Establishment, Reading.

SEED POTATOS.—Rivers' Royal Ashleaf, Early Dalmainey, Myatt's Early Prolific, and all the finest early and late varieties, free from disease, excellent in quality, and at moderate prices. For Special Priced Lists apply to
H & F SHARPE, Seed Growers, Wisbech.

LARGE WHITE THICK WINDSOR, and **GREEN and WHITE LONG-POD BEANS** to be sold.
W. W. JENNISON & Son, Seedsmen, Boston, Lincolnshire.

Mangel Wurzel Seed.
JOHN SHARPE can offer on good terms, from highly selected stocks, and his own grow up this year
Harbottle Manor, Lincoln.

Mangel and Kohl Rabi Seed.
MR. S. A. HAINTREE, of Fendrayton, St. Ives, Hunts, has a quantity of **LONG RED and LONG YELLOW MANGEL and GREEN KOHL RABI** for sale, to the Trade, at very moderate rates, of his own growth and selection.

Carnations, Picotees, and Pinks.
WOOD AND INGRAM will supply 20 pairs fine named CARNATIONS and PICOTEES for 41s., and 1 pair fine named PINKS for 7s. 6d. carriage included. Selection left to W & I.
Nurseries, Reading.

GOLD and SILVER FERNS.—*Asplenium chrysophyllum Martensii*, and *Pteris cretica albo-lineata*, good plants, 12 for 1s., 25 for 18s. Package free. Trade prices per 100 on application.
H & K St. Asaph, Skerton Nurseries, Lancaster.

To the Trade.—Golden Chain Geraniums.
HUSSEY AND SON beg to offer the above, turned out of stone pots, at 14s. per 100; also BIGNON, at 9s. per 100.
Mile End Nursery, Eaton, Norwich.

PELAGONIUMS, Show, Spotted, and Fairy, in 50 named sorts, our selection, choice new established plants, in 3 1/2-inch pots, for 15s.; extra fine 2-yr. old, fine heads, 20 for 25s.
H & K St. Asaph, Skerton Nurseries, Lancaster.

Pelargoniums for the Million.
JAMES HOLDER can supply strong plants of the above. Forty plants, distinct sorts, for 2s. 6d. or 3s. for 30s. of 30 sorts for 15s., hamper and package included, consisting of French, Fancy, and show varieties. Crown Nursery, Reading.

NEW DOUBLE GERANIUMS—12 fine varieties. Double Zonal Geraniums, including *Marianne Lemona*, for 20s.; 12 best New Zonal Geraniums for 10s.; 12 fine varieties Gold and Golden Coloured Geraniums for 6s. Package included.
THE R. W. K. ST. ASAPH, Skerton Nurseries, Lancaster.

THE MOST BEAUTIFUL FRENCH ASTER grown in France, *LA FINE MAURELITE*, *ROYAL FLEUR DE FRANCE*. 500 seeds for 1s. 6d. in fine double colours, mixed quality guaranteed. Free by post.
ALFRED HARRISON, Bedford Street, Salisbury.

F AND A. SMITH invite the attention of intending purchasers of TRICOLOR and BICOLOR GERANIUMS to their very extensive collections in each class. The plants are now in fine colour and will well repay a personal visit. They would especially mention the following attractive varieties—
GOLDEN TRICOLORS—Earl of Derby, Jolly Lucy, King Mar- valous, Pre-eminent, Roflogna, Sunray, &c.
SILVER TRICOLORS—Andromeda, Duchess of Sutherland, Mrs. Dombard, Peri, Queen Mab, &c.
BICOLORS—Bellona, Compagna, Combatant, Gladiator, Golden Rule, Pictus, Standard, &c.
ZONALS—Beauty of Dulwich, Circle, Crimson Perfection, Favourite, Hebe, Little Excellent, Sunnyside, &c.
CATALOGUES, containing full descriptions of these and other beautiful novelties, may be had on application.
 The Nurseries are within a few minutes' walk of the Lower Nor- wood Station (Crystal Palace Road) and the Dulwich Station (London, Chatham, and Dover Road).
 The Nurseries, West Dulwich, S.E.

PELARGONIUMS—Globe de Nancy, double, nice established plants, 12 for 5s., 25 for 10s., Geraniums of Scarlet, Nosegay, and Zonal, out of cutting pots, well rooted plants, in 50 sorts, including Little Parid, Tom Thumb, Adonia, Helen Lindsay, Junon, Napoleon, Loss Queen, Scarlet Globe, Ratazi, Rival Nosegay, Indian Yellow, Donald Beaton, Lord Palmerston, &c., our selection, from 6s. to 5s. per 100, package included.
 H. & R. STRICKER, Skerton Nurseries, Lancaster.

S END for ABBOTT'S NEW CATALOGUES of CHOICE SEEDS, ZONAL GERANIUMS, FERNS, FUCHSIAS, BEDDING PLANTS, FRUIT TREES, ROSES, post free on application.
 Also, Cheap, for cash, GLADIOLUS BRECHLEYENSIS, 500 roots, 1s. 6d. per dozen, or 10s. 6d. per 100. Also, CALCEOLARIA AUREA FLORIBUNDA, 5s. per 100.
 Fifty packets choice FLOWER SEEDS, post free, for 6s.
 Also, Anson's splendid CUCUMBER, the Early Prolific, post free for 13 stamps.
 E. Anson, jun., Railway Nursery, Ardleigh, near Colchester, Essex.

W ANTED, a quantity of Autumn-struck Plants State price per 1000, &c.
 CALCEOLARIA, Gardeners' Chronicle Office, W.C.

W EBBS' NEW GIANT POLYANTHUS, Florist Flower, and GIANT COWSLIP SEEDS, also Plants of all the varieties, with double PEONIES of different colours, AURICULAS, both Single and Double, with every sort of Early Spring Flowers. LIST on application. Mr Webb, Ca cot, Reading.

H ENRY MAY begs to offer 5s. 6d. from his renowned Collection of HOLLYHOCKS, which has for years been awarded all the First Prizes at all the great Exhibitions in the North of England. The Seed is saved from the newest and finest varieties only, and he will supply 500 Seeds for 5s.; 1000 for 9s.; 2000 for 15s. Post-office Orders payable at Hedsale.
 HENRY MAY, The Hope Nurseries, Hedsale.

Superb Double Hollyhocks.
 NOW S THE 7 ALL FOR PLANTING TO EXHIBIT GOOD SIZES AND FLOWERS THIS SEASON.

W ILLIAM CHATER'S CATALOGUE of his unrivalled Collection may be had upon forwarding one postage stamp. Choice Bloomed Seedlings, with colours attached, 40s. per 100. Unbloomed Seedlings, from finest named varieties, 25s. per 100. SEEDS, saved only from first-class flowers, in packets and collections, from 1s. to 10s. 6d.
 Special prices for quantities to the Trade on application.
 WILLIAM CHATER, The Nurseries, Sadron Walden.

L EWIS S. WOODTHORPE will be happy to forward, post free, on application, his CATALOGUE (which will be found very reasonably priced) of NEW and CHOICE PLANTS, beautiful SPRING FLOWERS, and GENERAL NURSERY STOCK. A heavy discount to the Trade.
 Munro Nursery, Bible Hedingham, Essex.

SUTTONS' HOME-GROWN SEEDS, Carriage Free.
 Seeds direct from the Growers the best means of preventing disappointment.

SUTTONS' COMPLETE COLLECTIONS for the FLOWER GARDEN, to produce a beautiful display during the year

No. 1 Collection, free by post or rail	.. .. .	22 2 0
No. 2 Collection, free by post or rail	.. .. .	1 12 6
No. 3 Collection, free by post or rail	.. .. .	1 1 0
No. 4 Collection, free by post or rail	.. .. .	0 15 0
No. 5 Collection, free by post or rail	.. .. .	0 10 6

Burton & Sons, Seedmen to the Queen, Reading.


F AND A. SMITH beg to announce that their splendid Collection of CINERARIAS is now in full bloom, and will well repay a visit. They would call the attention of purchasers to the following varieties, which are now being sent out, each of which has obtained Certificates at the Royal Horticultural Society, and pronounced far in advance of anything hitherto offered—

INO. Large white flowers, with tip of light crimson, extra fine.
PANDORA White, with heavy tip of carlet crimson; very large head, and good habit.
ROYAL PURPLE Shaded purple and puce, with ring of rich crimson, and inner circle of pure white, undoubtedly one of the finest habited and the most richly coloured variety yet sent out.
 Lists of other varieties on application.
 The Nurseries, West Dulwich, S.E.

New Seeds for the Garden and Farm, 1869.

A RCHD. HENDERSON'S DESCRIPTIVE and PRICED CATALOGUE of SEEDS, containing Cultural Remarks on all the most important SEEDS, A select list of GLADIOLUS for Spring Planting, GRAPE VINES, in Pots, an unrivalled Collection.
 Also his DESCRIPTIVE CATALOGUE of GENERAL NURSERY STOCK is now ready, and may be had gratis and post free upon application.

Ston Nursery, Thornton Heath, Surrey, and at the East Surrey Seed Warehouse, College Grounds, North End, Croydon.



Vegetable, Agricultural, and Flower Seeds.
 MICKLETHORPE HARDY HERBAGE PLANTS, Sweet Violets, &c.
ROBERT PARKER begs to announce that his CATALOGUE, containing DESCRIPTIVE LISTS of the finest kinds in cultivation of the above-named, is now published, and will be forwarded to applicants. The stocks of Seeds have all been procured from the best possible sources, and are warranted genuine, and are offered at the lowest possible prices.
 Intending purchasers are requested to compare the prices with those of other houses.
 Exotic Nursery, Tooting, Surrey, S.W.

Genuine and First-class Seeds, Carriage Free.
W M. PAUL begs to announce that his NEW CATALOGUE of SELECT VEGETABLE and FLOWER SEEDS is just published, and will be forwarded free by post on application.
 He has made enlarged arrangements, by which he believes he will be able to secure for his Customers, as usual, the best means of VEGETABLE and FLOWER SEEDS, of good germinating quality, free from adulteration. For further particulars, see large Advertisement of last week.
 Important.—All letters should be addressed Wm. Paul, Waltham Cross, London, N.

CHOICE PRIMULA SEEDS.
B. S. WILLIAMS
 SEEDS TO CALL SPECIAL ATTENTION TO HIS SUPERB STRAIN OF THIS
UNIVERSALLY ADMIRER WINTER AND SPRING FLOWERING PLANT.
 He can with confidence offer it as being unequalled in cultivation.
 Plants from this Seed have always been awarded First Prizes wherever exhibited. B. S. W.'s strain of Primula is so well known to all the principal gardeners in the three kingdoms that testimonials are unnecessary.
 In sealed packets, Red, White, or Mixed, 2s. 6d., 3s. 6d., and 5s. each.
VICTORIA and PARADISE NURSERIES, UPPER HOLLOWAY, LONDON, N.

CYCLAMEN PERSICUM (HYBRIDS).
B. S. WILLIAMS
 HAS GREAT PLEASURE IN OFFERING
SEEDS OF HIS SUPERB VARIETIES OF CYCLAMENS,
 Which are much superior to those sent out by him last season, being saved from the plants exhibited by Mr. Wiggins, at the Meeting of the Royal Horticultural Society, at Kensington, on Tuesday last (Feb. 26) when they were pronounced far in advance of any ever before raised, both in point of size of flower and richness of colour, which varies from pure white to mauve and deep red; many of them in addition being beautifully striped and spotted, and deliciously fragrant. Seeds sown in heat from the present time until the end of March, can be proved to produce flowers within 12 months.
 B. S. W. having made arrangements for the supply of all Mr. Wiggins' Seed, it can only be had from sealed packets bearing his name and address.
 In Sealed Packets, 1s. 6d., 2s. 6d., and 3s. 6d. each.
B. S. WILLIAMS, VICTORIA and PARADISE NURSERIES, UPPER HOLLOWAY, N.

WILLIAM ROLLISSON & SONS'
BRILLIANT NEW TRICOLOR GERANIUM, THE MOONSTONE
 WILL BE SENT OUT ON AND AFTER THE 30TH OF APRIL NEXT.

The habit of the above most beautiful Tricolor is compact and exceedingly free; the leaves, which are of substance and moderately large, are almost round, and from the slight convexity of their shape they exhibit to great advantage the rich and varied colourings with which they are adorned; the centre of the leaf is of a bright and green surrounded by a dark chocolate zone, which is much intercepted by the most intense blood-red. This colour shades off, towards the edge of the leaf, to a soft crimson-lake, which entirely encircles the whole zone, with a bright lemon-yellow belt. It is somewhat in the way of *Lucia Grove* in its colourings, but is rather brighter and, unlike the shy habit and slow growth of that variety, "The Moonstone" is almost as free in habit as *Tom Thumb*, while it remains constant in character. Thus, without exception, is the finest Tricolor hitherto offered to the public.

THE FOLLOWING NINE SPLENDID NEW DOUBLE GERANIUMS FOR 1869.

MADAME BONDET	MDLLE. LOUISE DELESALLE	M. PROEBEL
MADAME DEBRAY	M. DE ST. JEAN	MARIE LEMOINE
MARIE CROUSSE	M. DE ST. PAUL	WILHELM PFITZER

Together with many other Novelties of sterling merit, will be distributed on and after the 30th of April next.

For Descriptions and Prices of the above, see SPRING CATALOGUE of NEW and CHOICE SOFT-WOOD PLANTS for 1869, which will be sent Gratis and Post Free on application to
THE NURSERIES, TOOTING, LONDON, S.W.

TO THE TRADE ONLY.
STUART & CO., SEED GROWERS, NICE.
 Warehouse and Offices, where Stock is kept for the supply of the English Trade,
 5, TAVISTOCK ROW, COVENT GARDEN, W.C.
 (Late of 85, Southampton Row.)
WHOLESALE CATALOGUE ON APPLICATION.

THE FOLLOWING SPECIALITIES SUPPLIED AT THE CATALOGUE PRICE OR SPECIAL OFFER FOR LARGE QUANTITIES.

ECHEVERIA METALLICA.—Fresh Seed now ready to send out, in pods containing from 20 to 50 seeds, with full directions as to culture. Few plants equal this grand House-Leek for subtropical or alpine succulent gardening, for the decoration of the Conservatory; its large massive leaves, shaded with a purplish glaucous hue, are unique.

PYRETHRUM GOLDEN FEATHER.—A valuable plant for ribands, beds, edgings, &c. Raised from seed, retains its beautiful golden hue longer than if propagated by cuttings or divisions.

CARNATION SEED, from Florist's Flowers, in Mixture or in Collections.

PICOTESE SEED, from Florist's Flowers, in Mixture or in Collections. Stuart & Co.'s Carnation and Picotee Seeds have long been noted for their large yield of fine double flowers.

PELARGONIUM SEED.—Large-flowered, Spotted, Fancy, and Dissectatum, in Mixture or in Collections. The Seed we offer produces flowers of great beauty.

PELARGONIUM (ZONAL) SEED.—Saved from the newest Variegated Tricolor and Bicolor Varieties, and from those crossed with the finest Zonals.

PRIMULA SEED.—Saved from the largest and brightest-coloured floriated flowers, from Fern-leaved and Double Varieties.

PINK SEED.—Saved from the choicest English varieties.

HOLLYHOCK.—Saved from English Exhibition varieties.

LOBELIA LITTLE GEM.—The prettiest of last year's novelties, flowers pure white, with clear well-defined blue margin, compact, and blooming throughout the season.

PETUNIA SEED, of exquisite quality.

CINERARIA SEED.—Saved from the choicest Florist's Flowers.

ZINNIA SEED, from magnificent double varieties.

CENTAUREA CANDIDISSIMA (RAGUSINA) variegated plump, well-ripened seeds.

CENTAUREA GYMNOCARPA SEED, true.

BALSAM SEED, finest double varieties.

VIOLA CORNUTA SEED, PURPLE QUEEN.—The most darkest coloured, and most profuse blooming variety.

MYOSOTIS SYLVATICA SEED, the finest Forget-me-not for spring gardening.

ORNAMENTAL GRASSES.

SUBTROPICAL PLANT SEEDS.

MELONS.—Choice hybrid, our own raising, unequalled in exquisite luscious flavour, fine shape, and beautiful markings.

MELONS.—All the usual sorts in cultivation, selected fruits only.

CUCUMBERS.—All the finest varieties in cultivation.

STUART AND CO., 5, TAVISTOCK ROW, COVENT GARDEN, W.C.

NEW ROSES OF 1869.

BARR & SUGDEN, THE "OLD" NURSERIES, CHESHUNT, N.,

HAVE NOW FIT AND READY FOR DELIVERY

STRONG PLANTS of the NEW ROSES of the YEAR 42s. per doz.
 BY DUKE OF EDINBURGH ROSE.—Their Seedling of last season. First-class
 Certificate, Royal Horticultural Society 2s. 6d. to 3s. 6d. each.

THEY ALSO OFFER, FOR EFFECT THIS SEASON,

STRONG BLOOMING DWARF-STANDARD and DWARF PLANTS of the leading
 kinds 9s. to 12s. per doz
 STRONG PLANTS on OWN ROOTS, their selection, in 48's £5 per 100
 " " " in 60's £3 15s. per 100

PRICED LISTS ON APPLICATION.

BARR & SUGDEN have now a charming Show at the "Old" Nurseries, of FORCED ROSES and other
 Flowers. One mile from Cheshunt Station, Great Eastern Railway.

BARR & SUGDEN,

12, KING STREET, COVENT GARDEN, LONDON, W.C.

ADULTERATION OF SEEDS.

"The law is a terror to evil doers, and a praise to them that do well."

Mr. Webb's proposed Bill imposes a penalty not exceeding £50 for killing Seeds or destroying the germinating power
 of other artificial means, or for giving Seeds a false or deceptive appearance by colouring, dyeing, or other
 means, or for knowingly selling or having for sale any killed or dyed Seed.—*Vide "Times," March 18, 1869*

UNSOLICITED TESTIMONIALS, SUCH AS B. & S. ARE CONSTANTLY RECEIVING.

Mr. J. W. Brown informs Messrs. Barr and Sugden that he cut
 expressed the same. Mr. Brown himself has always found the
 seeds, bulbs, &c., from their establishment to be of first-rate
 quality.—*Much Hadham, Nov. 26, 1868.*

The above will suffice to show that while B. & S. had with satisfaction
 Mr. Webb's proposed measure for the public protection,
 their customers must have always felt satisfied that the Seeds
 received from their house had not been tampered with.

HUNDRED sorts of ALPINE and HERBACEOUS PERENNIAL SEEDS, from one of the most choice
 Collections in Europe, GLADIOLI, embracing the new kinds and all the older varieties worthy of
 Offered for the first time in this country, a SPECIAL LIST of NEW TABLE MAIZE, from the
 Rebut, of Guernsey (Her Majesty's Commissioner at the Paris Exhibition of 1867 to report on the
 state of Fruit Culture on the Continent, and author of "Cordon Training," "The Modern Peach Pruner,"
 &c.) The varieties embrace those most esteemed by our American Cousins, who use the green cobs as one of
 the best Vegetables in this country, they will come into use when the supply of Green Peas is becoming short,
 as we find an agreeable substitute for Green Peas. (See Leading Article on Maize, "Journal of Horticulture,"
 page 155.) For further particulars, see B. & S.'s SPRING SEED CATALOGUE, page 58.

BARR & SUGDEN'S COLLECTIONS of SEEDS and GLADIOLI,
 and Genuine, Home-grown when advisable, and direct from the Growers, &c., &c.

VEGETABLE SEEDS, 12s. 6d., 15s. 6d., 21s., 31s. 6d., 42s., 63s., 84s., and 105s.
 FLOWER SEEDS, 2s. 6d., 3s. 6d., 5s. 6d., 10s. 6d., 21s., 31s. 6d., and 42s.
 HERBACEOUS and ALPINE SEEDS, 3s. 6d., 5s. 6d., 7s. 6d., 15s., 21s., and 30s.
 TABLE MAIZE, 2s. 6d., 3s. 6d., 5s. 6d., 7s. 6d., and 10s. 6d.
 ORNAMENTAL GOURDS, 2s. 6d., 3s. 6d., 5s. 6d., 7s. 6d., 10s. 6d., 15s., and 21s.
 ORNAMENTAL GRASSES for TABLE DECORATION, &c., 2s. 6d., 3s. 6d., 5s. 6d., 7s. 6d., and 10s. 6d.
 SEEDS for SUBTROPICAL GARDENS, 3s. 6d., 5s. 6d., 7s. 6d., and 10s. 6d.
 GLADIOLI, 5s. 6d., 8s. 6d., 10s. 6d., 13s. 6d., 21s., 30s., 42s., and 63s.
 GLADIOLI, by the Hundred, 10s. 6d., 15s., 21s., 25s., and 30s.
 ROSES, CARNATIONS, PELARGONIUMS, HOLLYHOCKS, STOKES, ASTERS, BALSAMS, ZINNIAS,
 ANEMONES, EVERLASTINGS, AQUATICS, PALMS, &c. Full particulars will be found in B. & S.'s
 DESCRIPTIVE SPRING CATALOGUE, which will be sent Free to intending purchasers.

BARR AND SUGDEN, 12, KING STREET, COVENT GARDEN, W.C.

B. S. WILLIAMS,

NURSERYMAN AND SEEDSMAN,

VICTORIA and PARADISE NURSERIES, UPPER HOLLOWAY, LONDON, N.,

essentially writes the Nobility and Gentry about to furnish their Conservatories, Greenhouses, Stoves, or
 Orchid-houses, to an inspection of his

STOCK OF MAGNIFICENT SPECIMEN PLANTS,

MANY OF WHICH ARE UNEQUALLED IN THIS COUNTRY.

THEY CONSIST OF—

The choicest and rarest Exotics, such as TREE-FERNS, PALMS, BEAUCARNEAS, AGAVES, YUCCAS,
 ARALIAS, CAMELIAS, AZALEAS, and all other kinds of STOVE and GREENHOUSE FLOWER-
 PLANTS, and ORNAMENTAL FOLIAGE PLANTS, proved to be worthy of cultivation.
 A Large CONSERVATORY, at all times of the year well worth a visit, is now unusually gay with flowers of
 Azaleas, Ericas, Epacris, the magnificent varieties of Cyclamen persicum, obtained from Wiggins' strain
 of Williams' superb Chinese Primulas, the beautiful improved Hybrid Solanums, now laden with their large
 ornamental berries, Hyacinths, and many other Spring Flowering Plants, also helping to make a grand
 display.
 STOVES and ORCHID-HOUSES are also very attractive and interesting just now, with blooms of
 Cypripediums, Cologynes, Lycaste Skinneri, Phalaenopsis, and many other kinds.
 The COLLECTION of MEXICAN PLANTS is surpassed only by that of Kew Gardens.
 A SEW PLANTS of sterling merit are added to the Collection as soon as procurable, and may be seen here,
 a selection of which would alone repay a visit.

In May will be published,

A CATALOGUE OF NEW AND RARE PLANTS FOR 1869,

POST FREE TO ALL APPLICANTS.

The "Parasite" Omnibuses leave Victoria Nursery every seven minutes for the City and London Bridge, the
 Victoria Station, and for Regent Street, the West End, and Brompton.

VICTORIA and PARADISE NURSERIES, UPPER HOLLOWAY, LONDON, N.

New Bedding Plant—*Echeveria metallica*.
B. S. WILLIAMS is now enabled to offer for the
 first time SEEDS of this very Ornamental Bedding Plant,
 which during the past season produced such a splendid effect in
 the Grounds at Battersea Park. For edging, and various other
 purposes, the broad bronzy leaves afford a very striking and
 beautiful contrast, quite distinct from any other plant yet used for
 Bedding purposes. In sealed Packets, 2s. 6d. each.
 B. S. WILLIAMS' Victoria and Paradise Nurseries, Upper Holloway N
 Gladioli, the most Extensive Collection.
BARR AND SUGDEN, 12, King Street, Covent
 Garden, W.C. have the finest and largest collection of
 GLADIOLI ever offered, prices varying from 2d. to 15s. per root.
 For particulars see pp. 68, 69, 70, and 71 of B. & S.'s SPRING SEED
 CATALOGUE.
 BARR & SUGDEN, 12, King Street, Covent Garden, W.C.

Choice Seeds, Gladioli, &c.
WM. CUTBUSH AND SON'S CATALOGUE of the
 above contains description and price of many very superior
 home-grown VEGETABLE and FLOWER SEEDS, and choice
 varieties of GLADIOLI, &c., all of which are highly recommended.
 Post free on application.
 Highgate Nurseries, London, N.

Verbenas, 5s. per 100, 40s. per 1000.
WILLIAM BADMAN offers Purple, White, Scarlet,
 Crimson, Rose, &c., strong plants, from store pots, 5s. per
 100, 40s. per 1000. *LOBELIA SPECIOSA* (true), strong, from
 cuttings, 5s. per 100, 40s. per 1000. Terms cash, package included.
 Cemetery Nursery, Grosvenor.

NEW IMPORTED FLOWER SEEDS—
 50 varieties TRUFFAUTS' PEONY ASTER, 1s. do. Dwarf
 CHRYSANTHEMUM do. do. ROSE do. do. CROWN do. do. 2d.
 do. Dwarf GERMAN TEN WEEK STOCKS, 20 do. Large Flowering
 do. do. 5 do. BROMPTON or WINTER do. do. 10 do. Double
 WALLFLOWER. The above, or any less number of varieties, at 2d.
 each, or in mixed packets, 3d. and 6d. each. The seeds are of the
 very highest quality, as testified by numbers of growers in all parts
 of Great Britain, during many past seasons. All flower seeds in
 packets post free. CATALOGUES free on application.
 JAMES TYRRELL, Importer of Continental Seeds, 68, Great George
 Street, Liverpool.

Established 1806.
T. HANDASYDE AND DAVIDSON have a large
 stock of all the leading sorts of ROSES, in pots. Prices to
 the Trade on application.
 Seed Warehouse, 21, Cockburn Street, Edinburgh.
 Nurseries, Brunstons Green, Musselburgh.

Roses.
JOHN CRANSTON will be happy to forward on
 application his DESCRIPTIVE CATALOGUE of ROSES for
 1868 and 1869. For quality or quantity the stock is unsurpassed,
 the Manetti Roses especially are acknowledged to be the finest
 grown plants in the Trade.
 Nurseries, King's Acre, near Hereford.

Roses.
H. LANE AND SON have still 17,000 Standard and
 Dwarf ROSES to dispose of, also, a large stock of very
 fine Plants in pots, Hybrid Perpetuals, in 6, 8, and 10-inch pots,
 24s. to 60s. per dozen. Tea, in 60 and 48-pots, 15s. to 24s. per dozen;
 8 and 10-inch pots, 5s. to 7s. 6d. each. The above are well worthy of
 inspection. Nurseries, Great Berkhamstead, Herts.

NEW ROSES for 1869.
 NEW DAHLIAS for 1869
 NEW VERBENAS for 1869
 NEW BEDDING GERANIUM for 1869.
 CATALOGUES now ready
 JOHN KNIGHT, Salisbury.

New Roses, &c. 1869.
WM. KNIGHT begs to offer the following Plants—
 12 NEW ROSES, Strong Plants 35s.
 1. Finest NEW FUCHSIAS, Strong Plants 6s.
 12 Finest NEW VERBENAS, Strong Plants 3s.
 12 Finest C. LEUCS, Strong Plants 5s.
 6 NEW PETUNIAS, Strong Plants 4s.
 Or the above Collection, package included, for 2l. 10s.
 CATALOGUE free.
 Floral Nursery, Baitsham, Sussex.

Carnations and Picotees.
GEORGE EDWARDS' COLLECTION of the above
 flowers contains all the best varieties in cultivation, and he is
 now sending out, in good plants,
 Selections of 12 Pairs, 6 of each, for 20s.
 " " " " " " " " 15s.
 " " " " " " " " 12s.
 Reference or remittance from unknown correspondents.
 Clarence Nurseries, Rixby Road, York.

GOLDEN FEATHER PYRETHRUM,
(Pyrethrum parthenifolium aureum), new Golden-leaved
 Bedding Plant—A dwarf, bushy perennial, 6 to 8 inches in height,
 with beautiful golden leaves, of densely compact growth, un-
 equalled for riband-row or belts for the Flower Garden. It is
 perfectly hardy, and simply requires its flower-buds pinching off
 during the summer months, and stands through winter as a
 permanent gold edging plant. Produces its golden foliage true
 from seed. Sold in packets free by post, 1000 seeds, 1s. per packet.
 Any number of packets free by post. Seed our own saving of 1868.
 Trade supplied.
 London Agents Messrs. HEARY & SON, 6, Lendenhall Street, E.C.
 J. SLAYER & SONS, The Nurseries, Malton, Yorkshire.

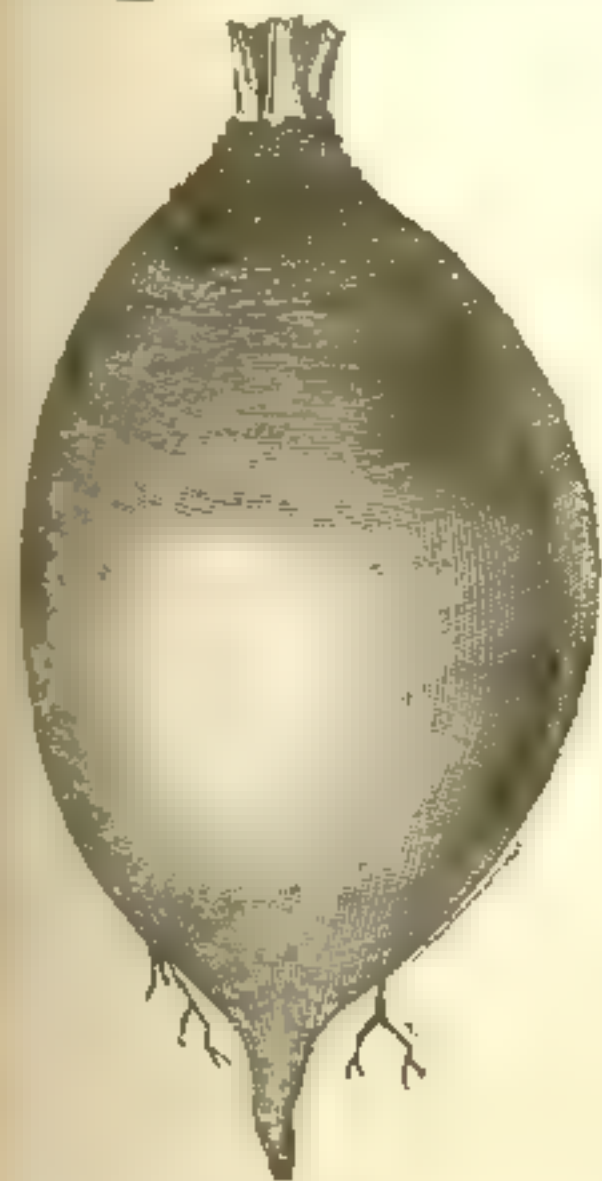
Golden Coleus, Queen Victoria.
MESSRS. JOHN AND CHARLES LEE are now
 sending out this most beautiful and most brilliant of all
 Coleuses. The centre of the leaves are superb bronzy, light crimson
 edged, with a double row of golden beads richly broken with crimson
 veins. *QUEEN VICTORIA* is of free growth and good habit, and
 has a truly regal appearance. First-class Certificate. Price 7s. 6d.
 Messrs. LEE & CO. for *COLLEGI PRINCESS ROYAL*. Colour and
 habit the same as Queen Victoria, except that the golden margin is
 much narrower. A superb variety. First-class Certificate. Price 7s. 6d.
COLEUS ALBERT VICTOR. Centre of leaves bronzy-red,
 shaded with purplish margin, golden margin very broad. Very
 distinct and effective. A strong grower. First-class Certificate.
 Price 7s. 6d.
 The Set of Three for 20s. Usual allowance to the Trade.
 Royal Vineyard Nursery and Seed Establishment, Hammersmith.

New Golden Coleus.
DOWNIE, LAIRD, AND LAING can supply the whole
 series raised at the Royal Horticultural Society's Gardens,
 Chiswick, at adverted prices, a ter March 16.
 CATALOGUES free on application.
 Stanstead Park, Forest Hill, N. E. and at Edinburgh.

New Golden Coleus.
DOWNIE, LAIRD, AND LAING have much pleasure
 in offering the following beautiful and distinct novelties,
 which they feel assured will give every satisfaction. Each has
 received First-class Certificates, and will be sent out on March 16
 next, at 7s. 6d. each:—
ALBERT VICTOR, a very distinct tricolor variety, the centre
 of the leaves being bronzy red, stained with large blotches of
 deep purplish-crimson, and the golden margin is very broad,
 much more so than in any other of the new golden sorts, the
 marginal teeth are also marked out by rich carmine lines. It
 has a very free habit of growth.
BARONESS ROTHSCHILD, an exquisitely beautiful variety, the
 centre of the leaves being of a bright bronzy-crimson, without
 stains or blotches, margin bright golden, and the teeth beauti-
 fully marked with light carmine. In habit of growth it resembles
 Albert Victor.
PRINCESS BEATRICE, a charming variety, of a beautiful light
 golden hue, the main veins being a richly marked, and the
 margin entirely defined by dark crimson lines, dwarf, an
PRINCESS ROYAL—The centre of the leaves are of a bronzy-
 crimson, with a narrow bright yellow margin, a handsome and
 most effective pot plant, and a most desirable variety for bed-
 ding, being very bright, and nearly an entire colour, a free
 grower.
 Stanstead Park, Forest Hill, London, and Edinburgh.

March 20, 1869.]

SUTTONS' FINE-GROWN FARM SEEDS,
NEW AND UNADULTERATED,
CARRIAGE FREE.
BUY DIRECT FROM THE GROWERS THE BEST MEANS
OF PREVENTING DISAPPOINTMENT.
Special Contracts made for large quantities
Farm Seeds are saved from large and carefully
forward them Carriage Free, but have no Agents.
SUTTONS' PRIZE MANGEL WURZEL,
A NEW AND DISTINCT VARIETY



THE BEST MANGEL IN CULTIVATION.

SUTTONS' NEW YELLOW INTERMEDIATE.
By its peculiar shape of the roots, and the leaves being small,
it may be allowed to stand closer in the rows than other
kinds, and it produces a greater weight per acre. It may be
cut or crated with half the labour of other kinds.
1s. 6d. per lb.; much cheaper by cwt.

The following excellent sorts can also be supplied —
SUTTONS' PRIZE YELLOW GLOBE, 1s. 6d. per lb.
SUTTONS' MAMMOTH LONG RED, 1s. 6d. per lb.
SUTTONS' SELECTED YELLOW GLOBE, 1s. per lb.
SUTTONS' SELECTED ORANGE GLOBE, 1s. per lb.
SUTTONS' GOOD YELLOW GLOBE, 10d. per lb.
SUTTONS' GLOBE, 10d. per lb. (GOOD LONG RED, 10d. per lb.)
SUTTONS' FLATTED LONG YELLOW, 1s. per lb.
SUTTONS' SELECTED MEL GLOBE, 1s. per lb.
Cheaper by the cwt. Lowest price on application.

SUGAR BEET (Sow 8 lb. per acre).
Directions on cultivation, see Suttons' "Farmer's Year Book"
THE SILESIA GREEN TOP, 10d. per lb.
RED-TOP, 10d. per lb.
IMPERIAL RED-TOP, 1s. per lb.
Cheaper by the cwt.

SUTTONS' PRIZE SWEDE SEED.
THE BEST SWEDE IN CULTIVATION.



THE BEST SWEDE IN CULTIVATION.

SUTTONS' CHAMPION.
A new purple-top yellow variety, perfectly hardy, stores exceed-
ingly well, remarkable for its small neck and freedom from coarse
leaves. Some of this variety, notwithstanding the severe drought
of the season, reaching upwards of 16 lb. each, attracted marked atten-
tion at the Smithfield Club Cattle Show.
1s. per lb.; much cheaper by bushel.
For further particulars of Agricultural Seeds, see Suttons'
"Farmer's Year Book for 1869." Sent Post Free, Gratis to Customers.
Five per cent. allowed for cash payments.
SUTTONS AND SEEDSMEN TO THE QUEEN, READING.

The advantages of procuring NEW and UNADUL-
TERATED SEEDS direct from the GROWERS
cannot be over-estimated.

Lainesparter & Co
Seed Growers

237, 238, and 261, HIGH HOLBORN, LONDON, W.C.

SEED FARMS:

JUPES HILL FARM, DEDHAM, ESSEX
GOD'S HOUSE FARM, ST. ONYTH, ESSEX
EAST HOUSE FARM, DEHAM, ESSEX,
THE SEED FARM, ST. ONYTH, ESSEX.

CARTER'S GRASS SEEDS.

SPECIALLY PREPARED FOR EVERY DESCRIPTION
OF SOIL, AS SUPPLIED TO

H. M. G. MAJESTY THE QUEEN
H. I. M. THE EMPEROR OF THE FRENCH
H. R. H. THE CROWN PRINCESS OF PRUSSIA
THE PARIS EXHIBITION, 1867
THE UNITED STATES GOVERNMENT
H. B. MAJESTY'S RIVERS COMMISSION
H. R. MAJESTY'S MILITARY ENCAMPMENTS.
H. B. MAJESTY'S NAVAL DEPOTS.
THE MARYLEBONE CRICKET CLUB.
THE CRYSTAL PALACE COMPANY
THE CRYSTAL PALACE CRICKET CLUB
THE METROPOLIS SEWAGE FARM
THE BIRMINGHAM SEWAGE FARM
THE TUNBRIDGE WELLS IMPROVEMENTS.
THE WORTHING IMPROVEMENTS, &c. &c.

Finest Quality, per acre, 28s. to 32s.
Second Quality, per acre, 20s. to 26s.
Large purchasers liberally treated.

CARTER'S IMPERIAL SWEDE.

(See Illustration, page 246, of *Gardeners' Chronicle*,
March 6, 1869.)

THE HARDEST AND BEST IN CULTIVATION.

1s. per lb.; cheaper per bushel.
CARTER'S "PRIZE" TURNIPS and SWEDES.
CARTER'S "PRIZE" MANGEL WURZEL.
CARTER'S FINE CLOVER SEEDS.
CARTER'S IMPERIAL GREEN KOHL RABI.
For particulars of the above choice stocks, see CARTER'S
"Illustrated Farmer's Calendar for 1869."



CARTER'S WARDEN
IMPROVED MANGEL.

Not to be Surpassed. 1s. 6d. per lb.
Price per Cwt. on application.
TESTIMONIAL from F. DEACON, Esq., *Addiscott House,*
South Tawton.
"I have a splendid crop of Warden Mangel. I consider
it the best I have ever grown."

For full information on the Laying Down and
after-treatment of Grass Lands, see

CARTER'S FARMER'S CALENDAR FOR 1869
(ILLUSTRATED),
Post Free 6d.; Gratis to Customers.

JAMES CARTER AND CO.,
237 and 238, and 261, High Holborn, London, W.C.

1868.—Mangel Wurzel Seed.
H. AND F. SHARPE can offer the trade some splendid
STOCKS of the above-named Seed, grown on their own
Farm this season from picked 60 lbs. The quality is very fine, and
prices low. Samples may be obtained on application.
Seed Growing Establishment, Wisbech.

Seeds Direct from the Growers the best means of
Preventing Disappointment.
NOTICE—FURNASERS of LARGE QUANTITIES
of FARM or GARDEN SEEDS will be supplied liberally by
Sutton & Sons. For prices apply (stating quantity required) to
Sutton & Sons, Royal Berkshire Seed Establishment, Reading.

RAYNBIRD, CALDECOTT, BAWTREE, DOWLING,
AND COMPANY (Limited),
COAL, SEED, MANURE, and OILSEED MERCHANTS.
Address, 53, Seed Market, Mark Lane, E.C., or Basingstoke
Samples and prices sent free on application. Prize Medals, 1851,
for Wheat, 1862, for "Excellent Seed Corn and Seeds."

HALLETT'S PEDIGREE CHEVALIER BARLEY
produced in 1865 a Crop of 62 bushels per acre, a Sample of
which was awarded the First Prize at the Birmingham Show of 1863.
Took the First Prize also at the same show of 1867. Produced in
1867 nearly 2 quarters per acre.
PEDIGREE BONA TARTARIAN OATS produced, 1868,
12 quarters per acre.
For particulars apply to Captain Hallett, F.L.S., Brighton.



BATH AND WEST OF ENGLAND SOCIETY Established 1777, and
SOUTHERN COUNTIES ASSOCIATION for the ENCOURAGEMENT of
AGRICULTURE, ARTS, MANUFACTURES, and COMMERCE.
Patron—
H. R. H. THE PRINCE OF WALES, K.G.
SOUTHAMPTON MEETING, 1869.
President—
The Right Hon. The EARL OF CARBONAR.
The ANNUAL MEETING will be
HELD at SOUTHAMPTON on MAY 31,
and JUNE 1, 2, 3, and 4.
Prize Sheets and Regulation Papers
for Stock, Poultry, Implements, and
Horticulture, may now be obtained from
the Secretary, Bath.

For Oil Paints, Water Colour Drawings, and Art Manufactures,
from R. R. M. Daw, Exeter.
All Entries must be made and Fees paid on or before April 15.
By order of the Council,
4, Terrace Walk, Bath. *Jonas Goodwin, Secretary.*

ROYAL AGRICULTURAL SOCIETY OF ENGLAND.



MANCHESTER MEETING, 1869.
STOCK and IMPLEMENT PRIZE
SHEETS are Now Ready, and will be
forwarded on application to HENRY
WHITWORTH, Esq., Local Secretary,
74, King Street, Manchester; or
H. M. JENKINS, Secretary
12, Hanover Square, London, W.

The Agricultural Gazette.
SATURDAY, MARCH 20, 1869.

MEETINGS FOR THE ENSUING WEEK.
March 14 { Cheshire Chamber of Agriculture, at Crew.
Highland Society—The Comparative Advantage and Cost
of Steam and Horse power to Hand Labour.
— 21 { Newbury Farmers' Club—Artificial Manures, and The
Malt-tax Question.

A PAPER on the FOOD STATISTICS of the
COUNTRY in 1868 was read on Tuesday evening
before the Statistical Society, by Mr. CAIRD.
The subject in all its bearings includes, of course,
the whole field open to the writers and readers of
the *Agricultural Gazette*, and we have therefore
given the whole of Mr. CAIRD's discussion of it
in the following pages. The tabular statements
issued by the Board of Trade on this and other
departments of British industry need some
annual exposition of the kind which Mr. CAIRD
has given us during the past two years, in order
to the full appreciation of their lessons.

Figures, like pictures, are of course the
terrest of all writings; and nouns substantive
being their only part of speech, the verbs and
adjectives by which their lessons can alone be
told have to be supplied by their expounder. The
story as listened to is thus much longer than the
story seen, and it was therefore to only a few of
the points illustrated by Mr. FONBLANQUE's Blue
Book that Mr. CAIRD could direct our attention.
His paper first referred to the justification which
his previous estimates, founded on the Agricul-
tural Statistics of 1867, have received during
1868. The foreign supply which we needed
that year for the provision of sufficient bread
during the harvest year, had been calculated at
9,600,000 qrs.—the actual receipts were 9,609,000
qrs., if the year were taken from August to
August; 9,293,000 if it were taken from Sep-
tember to September—thus justifying the esti-
mate, not only of the crop, but of another very
important element in all such calculations—the
possible saving in the consumption of the bread
of a country during a period of high prices.
This is much less than has been generally
imagined. Bread is the last item of consump-
tion that yields to the pinch of poverty; and
Mr. CAIRD's opinion, that it can be calculated at
only 1 per cent. for every 10 per cent. in its
increased cost, has been well borne out.

The contrast between the harvests of 1867
and 1868, was another of the facts well

illustrated by these returns. Taking the quality as well as quantity of the Wheat into account, the difference was as 9 to 16. Seven millions of quarters of Wheat, or one-third of our whole bread consumption, was grown in 1868 more than in 1897, and the contrast in price between May of 1868, when the food of the former year was all our stay, and that of December, when the full abundance of the previous harvest had been realised was as great. It was 73s. 6d. in the former month, 50s. 1d. in the latter—a difference here also, of about one-third. Any forecast of prices and of imports during the remainder of the present harvest year must depend on accuracy in estimating, not only home produce but foreign abundance. In France alone a difference of only one bushel per acre in the crop amounts to 2,000,000 qrs. per annum. Her neighbourhood thus affects our markets enormously. And a scarcity in France immensely aggravates any difficulty of our own. The quantity already imported is, however, after a higher rate than that of the average of the past 10 years, and the probability would be that prices will yet fall, were it not that the exceptional character of the past year, as regards the other productions of the farm, complicates the problem.

Mr. CAIRD then proceeded to discuss our food consumption, and it appears that this is gradually increasing and has now risen from 111 lb. to 145 lb. of Wheat per annum individually, while the proportion of it which is imported from abroad has risen from 79 lb. to 134 lb. per head. The naturally falling price of Wheat during the last 20 years in this country has diminished home production. The price was 6s. a quarter less during the past eight years than during the eight years immediately preceding. And Mr. CAIRD'S explanation of the singular fact, that Wheat alone, of all our grain crops, is thus affected by free trade throws a great deal of light upon the subject. The peculiarity is explained by him on the ground that Wheat, of all our cereals, has the largest area of production within our reach.

Passing from the bread part of our food, we come to the meat question, and the relations of home and foreign supply were elaborately discussed in the paper last Tuesday. Of course this, as affecting impending legislation on live stock importation, received full discussion.

The light thrown by the returns on the differences in the agriculture of the three kingdoms, and on certain differences among our own counties, was well exhibited. As regards the former it appears that there is more stock, and a larger proportion of "restorative" cropping, in Ireland, than in any other part of the United Kingdom, and barring the extremely small farms, which really do not constitute so large a part of that island as supposed, it seems to be Mr. CAIRD'S opinion that Irish farmers contribute per acre as largely to the food supply of the country as any others in the United Kingdom.

The question of large or small farms generally received also some illustrative treatment, less, however, with the view of exhibiting any special result attributable to this difference alone, than in order to present a general picture of the differences in the industry of coal and chalk counties, as Mr. CAIRD termed them, respectively—in the former of which small farms, and in the latter larger farms, are found to prevail. The effect is that higher wages and higher rents do as a matter of fact prevail in the districts where the average size of the farms is smallest. Mr. CAIRD concluded with a hopeful reference to the prospects of the new beet-sugar industry.

Of the discussion our report must be brief.

Mr. C. S. READ, M.P., defended the value of agricultural statistics on general grounds, and expressed a desire that their collection and publication should be continued though, as farmers are not speculators they may have no special agricultural serviceableness. He referred to the estimate which Mr. CAIRD had given of our proportional dependence on the foreigner for meat, and expressed his belief that our imported supply did not exceed one-twentieth of our consumption. He defended agriculturists from the charge of indifference to the condition of the agricultural labourer, this having been a subject which had been oftener than any other discussed in Farmers' Clubs and Chambers of Agriculture.—Dr. GILBERT, in a speech which we must give fuller next week, referred to the methods by which his estimate of the annual consumption of Wheat had been arrived at, and

to the conclusions at which he had arrived. The poorer the people, the larger the consumption of Wheat by them. Mr. GLOVER spoke of the very partial degree to which any such estimates as had been discussed could with any safety be used to regulate the proceedings of either importers or commercial men.—The Rev. Canon GARLESTONE spoke at length on the condition of the agricultural labourer, contrasting his plight in the northern counties with what he took to be the state of things in the South.—Mr. CUNNINGHAM supported the rev. gentleman by facts within his own knowledge from observations he had made in the midland counties.—Mr. DUDLEY BAXTER supported Mr. READ in his estimate of the quantity of imported meat as compared with that of home-grown produce.—The Chairman, Mr. NEWMARCH addressed the meeting at considerable length. "It is not our business," he said, "to speculate in corn. Nor are we responsible for inferences that may be drawn from our facts. But what we are responsible for, is the accuracy of our statements." He was sorry to find there was so much difference of opinion on the consumption of Wheat. There ought to be Governmental inquiry into the truth on this subject, and this he hoped, with the advice and assistance of Mr. CAIRD, would yet be undertaken. There were differences, too, on the influence of large and small farms as regards labour and rent and he thought it highly desirable that some one should go through different counties to gather information on the relations of rent, wages, and produce. As regards the condition of the labourer, he thought when the Rev. Canon GARLESTONE entered into generalities, and found fault with classes, he travelled out of the province of this Society. The remedy for the present evils would be found in giving children and youths more of a technical education, and less of a theological and literary one.

Mr. CAIRD, in reply, expressed regret that the discussion had wandered from his subject. He was prepared to maintain the correctness of his last year's figures regarding the proportions of foreign and home meat supplies, and believed that he had rather erred on the side of under statement as to the former. His table of large and small farms was made out without any other consideration than to exhibit the results which followed the respective systems, and to give a full statement of the circumstances which influenced those results. He had endeavoured to open up, and to throw what light he could on, large questions affecting the progress of agriculture and the future supply of food, and he trusted that the labour he had bestowed on the subject might bear useful fruit.

We hope to give a fuller report of the discussion next week.

—The corn trade is in a heavy state at the decline of Monday. A short home supply was counteracted by large foreign stocks, in granaries and afloat.—The meat trade has been over-done this week, from previous high prices having induced excessive consignments.—The seed trade has, generally, become very active.

—It is announced that Mr. WERN HOSKINS is a candidate for one of the Parliamentary seats for the City of Hereford, which have just been declared vacant by the Court. We do not know if there be any farmers or farm-ers among the citizens of Hereford, or any readers of the *Agricultural Gazette* who hold the franchise there, but in case there be, we venture to express to them the hope that they will send up Mr. HOSKINS as their representative. They could hardly do a greater agricultural service. What his politics on party questions may be, we do not know. But on whichever side of the Speaker he may sit, it is certainly desirable that one so intimately acquainted with the influence of the Land Laws of the country throughout the whole structure of society, whether in town or country, should have a seat in Parliament. No one could speak with more authority than Mr. HOSKINS on these and kindred subjects, and it will certainly be a circumstance as fit as it is fortunate if the City of Hereford should return a country gentleman so well qualified to do justice to the interests of both town and country.

—Mr. ALLNATT reports to the *Times* regarding the present cold weather, that during the first 14 days of March the mean temperature has been exceeded thrice only, and that by a very small amount. On the remaining days the deficiency ranged from 1° to 4° below the average. On the 14th the ground was covered deep with snow, and mean temperature sank 4° below the average value. On the 3d, 4th, 7th, 8th, 12th, 13th, 14th, and 15th the range of night temperature was from 33° to 29°, but, notwithstanding this unwonted frigidity, the frost had comparatively little influence upon the earth, and penetrated but superficially. The preceding high rate of temperature, combined with the sun's power during the day, had so heated the ground as to enable it to react to a considerable extent the penetration of cold. Candlemas Day (February 2) fails us this season. The forecast has not been fulfilled.

An equatorial hurricane brought up a succession of heavy mountain masses of cumulus and the result was to 43°. There was nothing to indicate the coming of the present wintry weather.

OUR LIVE STOCK

OUR readers will not be in much danger of tiring the old maxim, "the more you know, the more you want to know." We expect to see a large number of sheep and lambs at the forthcoming sale, and to hear some of the best breeders and quality of the flock, as well as known to a breeder of the breed, and necessary for us therefore, to call attention to the fact that the sheep will witness the dispersion of the race. Rich's Short-horns.

—On the 1st of April an important sale of Short-horn stock will be held at Birmingham, under the auspices of the Birmingham and Midland Counties Society. A silver prize list has been issued, and is offered for the best Short-horn bull under 21 months old. Second and third prizes and 5/ will also be awarded in this class. Handsome prizes for Short-horn bull calves 6 and 12 months old. Pure-bred Short-horn all descriptions may be sent to the stock and cup has been offered by a few owners. A ram as a prize for the best animal of the cattle duly entered must be shown at 9 o'clock on the morning of the sale, and the same day by Mr. Lythall, who is secretary to the Council. The cattle will be shown at the amounts, less the commission, to be given to the owners of stock as soon as possible. The idea is an excellent one, suggested which has been given to the Spring Meeting of the Dublin Society. We trust that the sale will be a mart in England and may be evidence of that there is sufficient promise of the future of Short-horns in Birmingham. A full report with the following results, which we think will be successful, in point of numbers, and the most sanguine expectations of the future.

1st Prize	£100
2nd Prize	£50
3rd Prize	£25
4th Prize	£12 5/
5th Prize	£6 2 1/2
6th Prize	£3 1 1/4
7th Prize	£1 10/
8th Prize	£1 5/
9th Prize	£1 2 1/2
10th Prize	£1 1 1/4
11th Prize	£1 0/
12th Prize	£1 0/
13th Prize	£1 0/
14th Prize	£1 0/
15th Prize	£1 0/
16th Prize	£1 0/
17th Prize	£1 0/
18th Prize	£1 0/
19th Prize	£1 0/
20th Prize	£1 0/

—We hear from Stanton House that a good sheep stock than usual has been kept over the winter on account of the failure of the Turnip crop. Mr. Dunning is a well-known breeder of Improved Leicesters, and annually disposes of 100 rams. The average was nearly 160 each. The present flock comprises a total of 1200 of which 150 breeding ewes have a record. Mr. Dunning's 3-year ram PROGRESSOR, which took the prize in his class at the Peterborough and Northampton shows last season, was so injured on the 1st of Wetherby that it was considered advisable to put him down. His dead weight was 110 lb. per quarter.

—Mr. Wroughtby Wood of Hereford has kindly favoured us with the following account of the present state of his experiment flock of sheep.—"Swedes having been an entire failure, and Mangel barely half a crop, I deemed it better to have my lambing later than usual. Instead of having about the middle of February my arrivals were this year not until the first of March. An auspicious start has been made at the present time (March 15) 50 ewes have produced lambs which are more likely to have arrived while the ground is still wet. Hitherto the produce has averaged over an average. My flock consists of 20 years, and during that time has steadily increased in size, weight, and quality. My last year was so unfavourable for sheep that I first entered upon it I was led to the madness to attempt a breeding flock with the purest ewes that could be obtained. The present flock is almost entirely new. With the exception of some 100 ewes I purchased for 6/ each at the time of Mr. Clarke was broken up, and sold to Forster's last year, no fresh blood has been introduced into the flock. The flock was speedily increased with the arrival of 1000 more of the same breed, which took the 1st prize for quality at the present time. The pedigree of many of my ewes is from the 1st generation. My ram is the NINETEEN, a very compact heavy ram, which won the 1st prize at the present time, and promise to equal in size, weight, and weight of wool, the shearings brought forward my last year's sale. When they were weaned in summer, at an earlier period than usual, they were small that I was afraid they would never attain the usual size. Being put, however, into the usual allowance of Swedes, they grew in a most surprising, nor do they appear to have the usual allowance of Swedes. Fortunately 2

MARCH 20, 1890.]

through his church, which brings the most of the people to bear upon their representatives. By means of their votes they have heard in Parliament. But so the English agricultural labourer, and his condition is set forth in the...

the best French grown... I find... departments of France now... the sugar consumed in France... its consumption is always increasing... rapidly extend I may be over sanguine...

tion. The returns of live stock do not include horses, the most interesting and, dually, the most valuable of all. As every man knows the number of his horses, the return can be given without occasioning any of trouble, and I hope therefore that the statistics for the present year will include a column for horses.

Home Correspondence.

Smithfield Club.—I beg to inform you that in consequence of the storm to which the 1st prize was awarded in the case of the last Smithfield Club Show, having been a quality, the prizes will be paid as follows:—1st, 20*l.*, to Richard Shirley, of Bawtrey, Murslow, Church Streeton Salop; Silver Medal to the breeder, Mr Shirley, 21, 10*l.*, to her Majesty the Queen, R. F. Brandreth, Gibbs, Hon. Secretary.

Farming Profits.—Your last number contained a communication from Wester Ross in which the writer states that he had realised a profit of 12*l.* 10*s.* 6*d.* per acre from the produce of 62 acres of land—more than double the profit shown by Mr. Mechi. He states that he obtains 1*l.* 10*s.* from the farm on which he resides and charges it with the cost of labour. There is no mention made in his balance sheet of manual labour, but simply the labour of horses at 1*s.* per hour per pair working 1000. Admitting that all the crops have been sold off standing I cannot for a moment suppose that no expense had been incurred for manual labour, although no item appears under that head in the accounts. The sowing, hoeing and weeding of the crops and the distribution of the manure, although a man sowed in his own path does 1*s.* the value of 77*l.* 10*s.* 6*d.* over 62 acres, and must have been expensed without some expense for manual labour. On the credit side of the account there appears 8*l.* for Potato ground, was this amount the profit of the crop of Potatoes or was the Potato land sabbet? This balance sheet, which shows such large profits, is to me the most puzzling and perplexing, as well as the most unsatisfactory one which I have ever perused, and I should feel much obliged if the writer would give a full and clear statement of the mode by which he arrives at these figures, so that his profits have been 12*l.* 10*s.* 6*d.* per acre for the past year? I, March 15. What was the value of the crop under the heading of Farm, Mr. Shirley, in your issue of March 13, and how do you account for the profit of 12*l.* 10*s.* 6*d.* per acre over the whole year? When by his own account of the 1000 of Grass, corn and straw are sold off the farm, or was the year a bad one in this respect? Is the manual labour included in the sum of 6*l.* for labour of horses, at 1*s.* per hour per pair? As far as my experience extends, I find that 1*s.* per acre is a very moderate charge for horse labour, even on a light-land farm. With regard to the item "Potato ground" does he let this land for Potato growing, and if so what price per acre does he obtain, and who pays for the manuring, or, if he grows the Potatoes himself, why is there no charge for seed Potatoes? Does he mean that he sells the crops as they stand when he ments in selling them in a "raw state"? I also presume that no Turnips are grown, and no stock kept, as none are mentioned. Am I right in this, and, such is the case, does he find that the Potato farm will keep the land open? A. H.

Co-operative Farming and Technical Education.—Allow me to call the attention of your readers to the following extract from an account in the *Daily News*, describing the ways in which Parisians spend their leisure time, and to find an excellent example in every department of France. The principle is that of co-operation. A landlord takes a farm of his own and gets it farmed by 20 or 30 tenants, between the ages of 20 and 25, under the direction of an able agriculturist—the farm is found to prosper in an extraordinary degree, and in four years to have paid all its expenses, and be worth per acre more than twice its value, before the trial was made. The project is a mere one, and is founded on the quality as well as quantity of the labour furnished. At the end of the year the profits being divided equally, each tenant must possess at least 100*l.* of his own means. But, to carry the project into effect, he must be a good farmer, and must be able to read, write, and count. The experiment has been tried in various parts of France, and it is what I am stating in this paper, and I have even read the account of a farm in the district of Brest, and found that at the end of four years' work of 19 cultivators, not one but had less than 100*l.* of his own means, and had earned 280*l.*, and has been taken as one of the best in the group. The landlord, five years ago, was unable to let his farm at all, because it yielded nothing. He cut it down if he chooses for 50*l.* a year. This institution exists among its patrons the highest names in France, and M. Drouyn de Lhuys is its president, but again it needs funds. It seems to me that this plan might be advantageously followed in England. It would be a means of making good farm servants and improving the condition of our agricultural labourers, by giving them a practical education, and the evenness of respect in learning to read, write, and count. I hope you will kindly insert the above. *Mary, March 15.*

Local Taxation.—Farmers as a class do not give themselves much trouble to inquire into the facts and bearings of public questions: hence their groundless, not to say unreasonable, fears relative to the present agitation upon the subject of local taxation. They say these things only because they are told to make a worse case for farmers, and to give a more favourable position. We shall have to pay in rent what we have to pay in rates, and if farmers will only say longer with us, we shall never know how to farm our land, and we shall be shaken, and we have not a great many more years to spare to stand at our ease. Such remarks are entirely untrue, and there is nothing to be gained by any such prompt them. I do not wish to discuss the local question. Any one who is not satisfied with the present system, and who is not content with the present rates, are entitled to say what they please upon the subject. They are rated upon "real property," i.e., land, or buildings standing thereon, and they pay in rates about 10*l.* 10*s.* 6*d.* annually. The Income-tax is not charged upon the property, and it is valued at a much lower amount than the local tax. Now the local tax is paid by the tenant, and amounts to 10*l.* 10*s.* 6*d.* a year, and the Income-tax is paid by the landlord, and amounts to 10*l.* 10*s.* 6*d.* a year, and the total amount is 20*l.* 10*s.* 6*d.* a year. You are truly a great deal better off than you are if you still submit to bear your load without much murmuring. "Well, but we shall pay in rent, if not in rates," say you. This is in some measure true, probably, and in one sense right. Your farms have been long unjustly rated, to save other's pockets. Should an equitable distribution of local burthens take place throughout the whole community, your farms would be worth more rent, and as your landlord will have more to pay on account of the charge upon his income, and you so much less, he is entitled to an increase, but by no means equal to the whole saving, inasmuch as he divides his payment which now comes chiefly out of the 110,000,000*l.*, with the remaining payers of Income-tax, amounting to 2,000,000, so that in strict justice a tenant cannot be charged a third of what he now pays in rates as rent. Now take the 2,000,000*l.* charged to Income-tax, and capitalise it at an interest of 5 per cent, it makes 40,000,000*l.*, the capital of the country, exclusive of all below and above. Now what is your share of this monstrous sum? You pay on Schedule B, i.e., hat rental, some 5,000,000*l.*, say 10,000,000*l.* capitalise this in the same way, and it only amounts to 200,000,000*l.* or less than one-tenth of the whole. In the equitable distribution, then, of the local taxation the tenant-farmers would be rated upon property represented by 20,000,000*l.* capital, the public and property represented by 40,000,000*l.* capital, and the whole sum into 60,000,000*l.* Now if you have a house worth 1000*l.* and you pay 10*l.* a year for it, you are assessed the rate of 1 per cent, and if you have a house worth 100,000*l.* and you pay 1000*l.* a year, you are assessed the rate of 1 per cent, and if you have a house worth 10,000,000*l.* and you pay 1,000,000*l.* a year, you are assessed the rate of 1 per cent. I think that I have shown enough to set aside these absurd fears, and I trust every farmer will be led to take his best measures for the future till an equitable adjustment is attained. O. J.

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Foreign Correspondence.

CANADA. Toronto, Jan. 24.—Butter.—The object of the present communication is to give you the earliest possible notice of a most dangerous agricultural fraud, which has just made its appearance here. It has come from the United States, where it has been making a great stir; it may be known in England, but I have seen no notice of it in any agricultural journal. It is an imitation of butter, and is sold as either a one, or a half a one, as to be taken to seriously affect the trade in exported butter if it cannot be stopped. It is called the "Butter secret," and has been patented. They will patent anything in Canada for the sake of the fees—a most disgraceful state of things—leaving the patentee to make good his patent if he can before the courts of law, and the public quite unprotected against the fraud of sales of such patent "rights," and by this means the merchant at his own suffer. In the present case the parties introducing the so-called "patent" into Canada will shortly realize to the amount of thousands of pounds before the matter was exposed. The plan is to take a pound of good fresh butter, a part of milk new and sweet and the sugar powder several things will have the same effect. These are mixed or kneaded together, the butter takes up the whole of the milk, and the result is a mass weighing over 2*l.* weight of a substance which resembles fresh butter as to pass for it with those who are unacquainted with a fraud. The hotels and boarding-houses in New York where fresh butter is sold cents a pound are using the machinery extensively. The mass of cases requires immediate notice, although in winter it has been kept for three weeks without change, yet American winters are so cold that any butter that is kept for very long periods. The thing is now thoroughly exposed in the papers, and I trust the public may be guarded against it. Whilst on the subject of butter I may mention a few facts with respect to that product, which may be generally known in the dairy districts in England, but which certainly are not generally made known in agricultural journals, and as what I say is the result of actual experience, I may prove useful, at an event may be mentioned. The best is with respect to water-milk butter. We all know what a trouble this is, and how irksome as to labour besides the extra labour of churning when the butter would come. As this may be avoided by properly skimming the milk, and then churning the skimed cream. The way we discovered it was this. We had an English servant, a Devonshire woman, who often asked us why we did not deacid the milk. She had heard of it, but did not know how to do it; but she

said the rule she had heard was that the milk should be set on the stove until the size of the bottom of the pan was seen as a ring on the surface. As we had been greatly troubled with the usual results of winter churning we tried it, but failed a number of times. We finally succeeded, however, and the following is the result after some 50 trials.

Set the milk when fresh milked in a place where the thermometer will stand at from 60° to 62°, let it stand 24 hours, don't have the milk more than 2½ inches deep, the cream will rise well, then move the pans carefully to the stove (we all use stoves in our kitchens in Canada), and let it rest until the thermometer shows 180°, or until the first smell of boiled milk appears. If you can keep it at this heat from half an hour to an hour so much the better, though less time will do, then move the pans back to the place they came from, and let them stand at least 12 hours until the cream is cold and solid, it will then come off in a single cake (so to speak) and leave the milk without adhering to it at all, the result is cream ready to make butter, and it may be made in large or small quantities. If in large quantities no doubt some kind of churn would be necessary, but as we made butter every second day, we used a large wooden bowl; in this bowl the cream is stirred with the hand all one way for a few minutes, generally under 10 minutes, and the butter comes at once. If it is a poor colour, the true Grass tint may be given by grating a Carrot, putting the grated pulp into a muslin, and squeezing it with and amongst the scalded cream, until the right colour is obtained. The colour adheres to the butter, leaving the butter-milk pure and white, this is a most extraordinary fact, and we never could account for it.

The great point to be attained is the right heat. If the milk is not heated hot enough, the butter will be bitter and will have a sort of sting on the palate. If it is too hot it will be very good, but will be full of white flakes, and will be less in quantity than it ought to be, but if the milk is of the right heat, so as just to develop the smell of boiled milk (or at 180°), the result will be a pure hard butter, not of the fine summer flavour, but never bad, or such as can be found fault with by the most fastidious, it keeps well as fresh butter, but it was always too scarce to make salt butter of. Of course a proper quantity of salt was used in the usual way.

We were always very careful that the milk should be good, and that if any of the cows were out of order, their milk was not mixed with the rest. When we sold this butter we always got the very highest price that was going, and customers who once took it always wanted it again. We used tin pans, and would recommend those that are stamped and not soldered.

The resulting butter-milk was very sweet and good, and was used by those who liked that article. The skimmed milk was nearly as pleasant to use as new fresh milk, but of course was poor from the absence of cream, it was in great demand by the poor families in the neighbourhood, and is infinitely superior to ordinary skimmed-milk.

In feeding our cows in winter we give them a proportion of ground peas, also bran, and distillery slop, besides hay; and we always found that the quantity of butter was in proportion to the quantity of grain used—the more grain the more butter.

(To be Continued)

Farmers' Clubs.

LAVENHAM.

Feb. 26: Comparative Profits of Different Crops.—In response to a call from the Chairman, Mr. BIDDELL read the following highly interesting paper—

The subject which I have undertaken to bring forward this evening is one that had I given much thought to beforehand I should not have selected, as I have found it much more difficult to deal with than I anticipated. Both the outgoings and receipts will, to a very great degree, rest on estimate rather than fact, hence not unhelpfully my calculations may contain many errors, and, if so, I hope the practical gentlemen of this Club will correct them. The chief reason I had in selecting it for discussion was the remark made at this Club to the effect that if we obtained from 15% to 20% per acre for Sugar-Beet, still the growing of them would be unprofitable. My ideas being somewhat different, I shall conclude this paper by instituting a comparison between the profits of this crop and others. I am quite aware that in discussing profits I am going into a somewhat delicate question, but being fully impressed that farmers' profits are nearly always much over-rated, the endeavouring to throw light upon the subject can do no harm. As the most simple way of placing the subject before you I shall take the case of a 400-acre farm of good heavy land, farmed on the somewhat old-fashioned and now generally condemned plan, but which, in its balance-sheet, is frequently as successful as the modern and more showy farming, under which there is no doubt a valuable pride in producing large crops of corn and meat, very often at an expense which is not followed by a proportionate return. Large crops in our large outlays. For receipts are large, but the heavy bills for oilcake and other feeding stuffs, with those for the more direct manures, must seriously diminish them. With the present object it will probably matter but little whether our calculations are founded upon high or low farming. As they are most easily made under the latter, I shall adhere to it, assuming that the farm dresses itself, that is, that neither manure nor feeding stuffs are purchased and consumed upon it, and that no extra crops are indulged in.

Of the 400 acres we may assume 80 are pasture, the remaining 320 acres being arable, deducting 20 acres for waste, we have 300 acres net arable land; that is, 75 acres in each shift. The Wheat crop being generally assumed to be the most profitable, I will take that first.

Table titled 'WHEAT CROP.' showing expenses for 75 acres at 8 coombs per acre, including items like Annual charges, Seed, Ploughing, and Threshing, with a total expense of £817 10 0.

Total expense per acre .. £8 17 0
75 acres at 8 17s 6d 668 11 3

Apparent profit .. £150 19 8
We have now one of the most difficult elements to deal with, and that is the depreciation of the land in consequence of the growth of this Wheat. The allowance must be made, not on the basis of its effects the immediate year following, but how far it is depreciated to the farmer who may have the land for the next four or five years, deducting it as equal to 31s. per acre, we have 150l. 18s. 9d., less 116l. 5s., leaving the clear profit of this crop at 34l. 13s. 9d.

Table titled 'BARLEY CROP.' showing expenses for 75 acres nett at 10 coombs per acre, including items like Annual charges, Barley Seed, and Threshing, with a total expense of £750 0 0.

Annual charges as for Wheat .. £5 2 6
Barley Seed—9 pecks .. 0 10 0
1½ ploughing on an average at 9s .. 0 11 3

Apparent profit .. £279 18 3
There can be no doubt that land after being cropped with a white straw crop like Barley, and unmanured for is left in a very depreciated state, and 5s. per acre will not probably be found too much to deduct for this 187 10 0

Leaving a clear profit of .. £85 6 3

Table titled 'LAYER.' showing expenses for 30 acres, including items like Annual charges, 10 acres fad, and 12 acres Red Clover, with a total expense of £222 10 0.

Annual charges as before, 62s., seeding, 14s. (including failures) .. £114 0 0
Manuring 12 acres with 10 loads at 5s. .. 30 0 0
Making 12 acres into stover, thatching, &c., at 1s. .. 6 6 0

Apparent gain .. £4 2 0
Add for improved condition of land 30 acres at 35s. .. 52 10 0

Leaving a profit of .. £56 12 0

Table showing expenses for 45 acres Beans and Peas, 8 coombs per acre, including items like Annual charge, 14s., and Straw, with a total expense of £315 0 0.

Annual charge as before .. £3 2 0
Seed—3 bushels .. 0 13 0
Ploughing 1½ time at 9s. .. 0 11 3

Apparent profit .. £39 19 9
Add for improved condition of land at 25s. .. 76 5 0

Leaving a profit of .. £45 15 9

Table titled 'FALLOW SHIFT.' showing expenses for 20 acres Beet at 7l., 10 acres Swedes at 5l., 15 acres White Turnips, 10 acres Coltsed or Mustard, and 20 acres Tares and green food, with a total expense of £140 0 0.

Annual charge as before at 62s. .. £114 0 0
45 acres ploughed for roots equal to 4 times .. 16 0 0
10 l. tillage .. 0 1 0

Apparent loss .. £292 15 0
Deduct for improved state of land 52s. 6d. per acre, 156l. 1s. 6d. from 292l. 15s., leaves, loss .. £295 17 6

In instituting a comparison between the profits of growing common Mangel and Sugar-Beet I do not mean to assume that we can grow two-thirds the weight of those that we do of the common Beet. Taking the average weight per acre of our Mangel when cropped to be 24 tons, we then should calculate the same to be 16 tons, which at 17 per ton, we give 272 per acre. The consuming value of our Beet I take to be 15 per acre. I do not at all think that in an average year we make more than this—to it must be added something for the benefit in manure-making we derive from consuming them on the farm, this would be met by adding 35s. per acre, and 7s. for value of manure alike in both cases. We have then 97 2s. as their value per acre, their cost as shown being 20s. 10d. leaving a loss of 17 11s. 6d.

The point then we now arrive at is, how much more expensive are the Sugar-Beet to grow and convert into money than the common Beet.

What I have termed the annual charges, and the seeding and manuring, will be the same for both. Additional cost of hoeing and singling, the plants having to be left thicker say 1s. per acre. The additional trouble and cost in taking up and cleaning a crop balanced by the additional labour and cartage of the 8 tons more grown of the common sort than of Beet. Add for additional length of cartage, say two miles at 2s. 9d. per ton on the 16 tons, 27 1s. making a total cost of 187 1s. 6d. Value of the crop, including top, 7s., 16l. 7s., leaving a net profit, 31 1s. 6d. against a cost of 31s. 6d. in growing other Beet, making a total balance of 11 17s. 6d. in favour of growing Sugar-Beet in neither case do I take into consideration the improved state that the land may be left in. If compared the return with that of the Bean crop, the balance would be still more in favour of the Sugar-Beet.

I trust that I may not have been altogether unsuccessful in showing two things, viz. that our corn crops are not so profitable as they appear to be, and that Sugar-Beet growing may not be so bad a speculation. My remarks on them are of course founded upon a very limited experience, but I am very strongly persuaded that if on 100-acre farms, situate within three miles or so of a factory, the farmers were to grow some 10 acres (so in proportion on larger farms) the crop would be found profitable.

Mr Biddell, in concluding his remarks, said in his opinion the percentage which a farmer generally realised upon his crops was 10 per cent. If any of his figures were wrong, he should be happy to be corrected, and as it would be difficult for them to remember all the figures he had quoted, if any gentleman wished he should be happy to refer again to his paper with reference to any particular item.

DISCUSSION

Mr. HAWKINS said he thought, in the whole Mr Biddell had made a very fair and just estimate of the value of the crops; no one could have gone through these figures without very great trouble, and he must say that with the great majority of the remarks he (Mr. Hawkins) entirely agreed. The white straw crop he thought were estimated very correctly, and then they came to Clover. The members were aware that on a great many farms Clover was grown now for hay, but in his opinion it very rarely answered at any rate on heavy lands. They were so influenced by seasons, that his own observation he knew that his Clover crop had not paid him a penny piece. Last year he had a piece of Clover which failed him, and on that he grew Beans and Sugar-Beet. He got four coombs of Beans, and 2½ of Sugar-Beet. Now, if he had grown all Sugar-Beet he should have done right. In a heavy land district like Lavenham all knew the uncertainty of Bean and Pea crops, taking them as a rule. They were the most uncertain crop ever grown on a first-rate soil, and it must not matter whether the crop is on first-rate soil, and it must not matter whether the crop is a crop or not. He grew a field of Peas a few years ago, which was the finest he ever set eyes on. A friend of his, Mr. Nunn, after looking at it, said to him it would stand him in coombs an acre. He went out for a week to the Northamptonshire, and when he came back he happened to look at the field, it was perfectly covered with lice. He to a five-acre straw and 6 bushels of Peas off that field. But now they are able to produce a crop which was almost a certainty. Last year was one of the worst they had ever had for roots, and if they could grow anything like 15 to 20 tons per acre, that would beat four or even ten coombs of Beans or Peas, and that the Beet crop is not taken so well as Beans or Peas. He had seen Beans with a stalk this half a foot above them, and quite upright, and the ground could not be seen for the weeds, while after Beet the land was left in much better condition than after Beans or Peas. As to 1 per cent he was afraid it was a visionary idea. They might make it one year, but another they would tank none at all. At stall Mr. Biddell put things fairly before them, and there was something persistent in the way he had done it. He considered Beet a very paying crop, for every gentleman had the opportunity of growing it. He (Mr. Hawkins) was certain every one could grow 20 tons per acre. Mr. Duncan was ready to them 12 a ton for all they could grow, and where were they getting cheaper and sugar dearer; therefore, let them grow Wheat and grow Sugar-Beet. Mr Biddell had stated that one could grow or half more of the common Mangel than Sugar-Beet, and with reference to that he was sure he had near them a quality famed for growing Beet, but he could tell them that the heavy st was not at Haddenham Farmers' Club this year was not 2 tons. They know what good farmers they were out there. The exhibitors who were different from that, as in the case of Rand and Mr. Kersey, who grew Mangels upon their farm they grew more 11c, as they grew Beet, but he only grew about 19 tons per acre. When he saw that their county court judge had 14 per acre and several first class farmers only 14 per acre, his impression was that he could grow a heavy weight of Beet as he could of any other sort. If Mr. Biddell failed to take them, or had to shut up his works in consequence of their not answering, he should not have the slightest reluctance to consume them on his own farm, as the Beet thrived remarkably well upon them. It was a most profitable Beet for feeding purposes.

Dr WHITE said that when a season came with an amount of moisture, they would find that their

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large a percentage of sugar as they did... had been an exceptional season. The... was on 8 per cent, and they had... at 10 per cent. If they got a wet... per cent of 30 tons per acre but they... more. As the price has been near... less than 10 per cent.

Mr. Hawkins had put the... Bean or Pea crop, and... thought they would get the... themselves, and at any rate it... heavy rain, farm. Besides... it? It knew perfectly... a couple an acre of... an exceptional season, and he... had been all in favour of... was to finish he did not... out the sanguinities of

Mr. Biddell must not suppose that when... off the farm, he was going... his Best to the factory... quantity of pulp, and there was also... a great quantity of cake and bran... a most liberal man, and said "An... and keep the farm in the condition... satisfied." But he did not take advantage... although he had the opportunity of sell-... profit, he did not see why he should... assure Mr. Byford that he was not... returning something to the farm... that evening had a row with from... of that crop, to the comparative... other best. Mr. Biddell said they only... of the ordinary crop of Best with the... he would ask them which was the more... White Turnips, or... Swedes?

Mr. Biddell said they only... of the ordinary crop of Best with the... he would ask them which was the more... White Turnips, or... Swedes?... he was sure that... the more valuable. Even if they did... the farm, they got it back in another shape, for... spent in buying cake and other feeding stuffs... a... one landlord in 20 would allow the... in this way, but had not one in 20... and if the best of experience was right, ... were wrong come round to the one who... Sugar Beet was no new thing although it... in their district before. A gentleman from... that the... was quite as expensive... of the farmers in an average of years... his purpose to grow it and extend its... it and answer that also. Dr. White... get so large a percentage of sugar... he... said they grow as... as in other countries, so that was no... In his opinion the Sugar Beet... Mangel, or Turnip in... Beans.

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districts. Here we find 13,020 acres sown in Wheat in 1899 increasing up to 15,565 acres in 1902, the average of the five years being 16,424 acres.

The yield commenced with 19.7 bushels in 1899 and gradually dropped to 12.3 bushels in 1902—the average being a little over 1 bushel per acre that is 1.2124 in excess of the average of the old settled countries in the same period.

The second important period covers years with 11.9-9.2 acres under Wheat increased to 47,144 acres in 1901 and drops again to 45,822 acres in 1902, the average being 46,565 acres, an increase of 11 per cent on the average of the previous five years.

The yield ranged from 11.1 bushels per acre in 1893 up to 17.2 in 1895, and fell again to 11.7 in 1902—the average of the five years being rather under 14 bushels that is, about 2 1/2 bushels below the average of the earlier important period, and about 3 1/2 bushels over the average of the old settled countries in the corresponding period.

Looking to the results of the 15 years over the whole colony, we find that in the first five years there was an average annual breadth of land laid down in Wheat for grain of 114,284 acres with an average yield of 11,487,998 bushels, being at the rate of 15 bushels per acre, whilst in the second five years the average annual breadth of land sown in Wheat for grain was 132,564 acres, with an average yield of 1,345,514 bushels, being at the rate of 10 bushels to the acre.

Such are the results of an investigation into the statistics of Wheat growing in New South Wales since the year 1887. They are not encouraging to the prosecution of this branch of agriculture and yet the farmers of South Australia set us an example of industry and perseverance in this very branch of husbandry under circumstances but little, if at all, more encouraging, for I find that in a corresponding period to that which we have been reviewing their average yield has very slightly exceeded 10 bushels per acre. It has been as low as 4 bushels per acre, and as high as 14, and they are glad to sell their Wheat on the ground at 3s. 6d. per bushel.

Elaborate tables of the returns of the above divisions and districts are then given. These are given separately, and divided into quinquennial periods. The following is a summary table. We do not give the details.

Table with columns: Grand Totals, 1888, 1889, 1890, 1891, 1892, Average. Rows: Acres, Bushels, Yield per Acre. Another table below with columns: Grand Totals, 1893, 1894, 1895, 1896, 1897, Average. Rows: Acres, Bushels, Yield per Acre.

Upon the above returns the Sydney Morning Herald makes the following remarks and calculations. "Looking at the average yield and price that has reigned during this period, the following appears to be the money result per acre to the Wheat grower:—

Table with columns: Bushels per acre, Price per acre, Money result per acre. Rows: Southern District, Western, Northern, Midland, Pastoral (5 years).

To these figures the Herald adds.— "Such are the results of an investigation of the statistics of Wheat growing in New South Wales since 1887. And in South Australia the farmers can show little or nothing better. The question is, whether so unprofitable a crop should be continued. This would appear to be the conclusive question on reading these facts, but do not let us run away with the impression that this is the result of good husbandry—these are the bad returns of shiftless, unscientific, reckless husbandry. It may be that good husbandry applied to Wheat growing may prove a bad investment in New South Wales as compared with its application to other crops, but until our Wheat growers have manured freely and ploughed deep, let us not rush to the conclusion that, of necessity, Wheat growing has proved a failure here."

Farm Memoranda.

WEST GLOUCESTER March 6.—As the spring advances one can form something like an accurate opinion as to the prospect of the seed crop. It is anything but satisfactory in this neighbourhood, notwithstanding all the efforts used early in the autumn to patch it up by sowing Rye-grass seed and Trefoil over the land immediately after the corn crops were cleared. Many acres are already ploughed up, and will be sown with Peas, consequently a short cut of seed hay is now but too manifest. Owing to the extreme mildness of the winter, a vast quantity of green food has been produced in the shape of Turnips, Rape, Mustard, &c., sown in the autumn, and this has been pretty well enough for store sheep without much hay, so as regards hay a great saving has thus been effected. There is a quantity of shed corn growing amongst the young seed, which (if we do not get frost to cut it down) will help to make the ricks larger. Our practice for the last few years has been to sow the Giant Sanfoin (milled) with our mixture of seeds instead of broad Clover, and of this we have a useful plant amongst the Rye-grass. Our reason for doing so is that the broad Clover used to die out between November and March—the leaves became covered with black spots, and the plant gradually withered away, but we shall again try the Clover seed after the land has had a rest of eight years, and had time to recover its Clover sickness.

Very little has been done at present to spring sowing, neither can it be proceeded with till the weather becomes more settled. The heavy land in the vale is so soddened with the tremendous rainfall that it has become almost mud under the surface, especially where it only received an ordinary ploughing (where it received deeper ploughing it is more manageable), and as we cannot now expect frost enough to pulverise it, the furrows must be turned back when dry enough to

bear the horses, and dried by the March winds and pulverised by its showers before it can be brought into a state fit for cultivation. Many acres of good Bean land will in consequence have either to be fallow or to be sown with roots, though the latter plan is not very advisable upon very heavy land.

The lambing season has now become general in this neighbourhood, and the ewes appear to be very healthy and to have plenty of milk, a good average of lambs may justly be expected. We have up to the present time 135 ewes which have yealed, and out of these we have had 61 doubles and two trebles, and from other quarters the results are equally satisfactory. Sheep, both fat and store, have greatly advanced in price during the last six weeks. Some fat fags were recently sold at the Kingscote sale at 60s per head out of the wool, not a bad price for February sales in a season when roots have been more plentiful than they have been this year. J. H.

VERSE OF BERWICKSHIRE March 13.—It happens rather awkwardly that winter comes to us at the close of February, and continues to maintain its sway well into the seed month. At no time has the snow exceeded an inch or two in depth, nor has the frost been sufficient to prevent its melting after noon, and if we get out of this without heavy rains, the seed-bed will be the better for what it has got. So wet a "winter" we have not seen since 1851, at least the rain was so frequent as to make the land most unsuitable for any work but lea-ploughing. Even the muck (in very little bulk, no doubt) had to be carted out over wet roads, in despair of frost, and now that it has come, there is little or nothing to do. One advantage there was in having a small root crop—that it took little storing. Cake and corn are easier to carry, but worse to pay for, after losing the manures applied towards growing Turnips, and but little of the high price of meat will find its final resting place in the farmer's pocket. The quality of Swedes is inferior, neither Potatoes nor cake can quite make it up. Yet feeding stock have done pretty well on an allowance of from two-thirds to three-fourths of Swedes, with the addition of rike and meal for cattle, and Peas and Oats for hogs. Winter Grass does little good. Between that and artificial food, we never saw our flock do worse. Lambs are coming now, neither numerous nor strong. Spring corn is well sold out, at capital prices. Waiting for proper weather for threshing Wheat, we have lost the price on part of the crop. It makes good meal for cattle at 1s 4d a stone, used along with an equal weight of cake at 1s 8d.

They say Wheat was extensively sown in autumn on clay lands, where Turnips were an absolute failure. Many of us, however, had a sprinkling of plants over our fields, and were unwilling to destroy them early; and so it came about that we never had less Wheat sown. Turnips sown or braided after the August rains came to naught; Rape and Mustard invisible to the naked eye. J. T.

The Poultry Yard.

"WEST CHESHIRE," who deserves ample apology for delay in reply to queries, relates as follows:—"I shall be very much obliged if your correspondent on poultry management would inform me, through the medium of your columns, which is the best kind of poultry to keep for own use and general profit in a small farm-yard, capable of taking, say, about 30 hens. The range for these is not as good as it might be, as there is a village close by I have thought of Dorking hens and game cocks, or Dorking hens and Brahma cocks."

We think that by answering *in extenso* the letter of "West Cheshire," we may be of some use to others who are similarly situated, and to such we offer our best help. There are many situated as is our correspondent, who, with ample run at their command, fear, as he does, the proximity of a village. We think it a groundless fear, and hope there are few villages in England where a bird, the known property of a resident, straying into the road, would not be driven back home. At all events we like to think so, but to a man who differs from us we would recall the anecdote of the timid sub in a marching regiment years ago, who, dreading an assault from a brother officer, took counsel of the regimental Galen before the fray, rather than after. "Doctor," said he, "Captain S threatens to pull my nose—what would you do?" "Why," said the doctor, looking hard at him, "do" why, grease it." If our correspondent's run for 30 hens be a good one, he may easily wear them from the village road by feeding them home, or by enlisting one of the powers belligerent, in the shape of a small boy, to watch them when they come on to the road, and agreeing with him to drive them back. The present week has been divided in an amicable hostility as to the relative merits of a dark or light blue riband. We think men get more particular and selfish as questions touch themselves individually, for instance, in running their horses for the Derby, they run for what they call the "Blue Riband of the Turf," but when they row their own boat, the difference is so fine, that it is drawn out to Light Blue and Dark Blue. One must admire the pluck and endurance of the crews, and wish that both could win. Some of them have been, are, or may be, poultry fanciers, and may have read in the archives of the poultry world the battles of the Brahmas—how that, on their arrival here, they were looked on as intruders, bastards, interlopers, bringing no credentials whatever, and giving dreadful offence to the holders of the vested interests in Cornish China stock, abused as half-breeds, Yankee notions, and many other *soubriquets*, all of them more or less expressive. The Brahma Poultras have gone steadily on improving in public estimation, until the cry must now be—"Save us from our friends."

Reviews.

Wheat Culture in Australia during the last Ten Years. A comprehensive and otherwise valuable paper on wheat was read in the first week in December at the Royal Agricultural Society of Australia, at Christchurch. After going over the wheat of the southern, western, northern and midland districts, and making some suggestive remarks in regard to the "virgin" soils of "new" wheat lands, Mr. Bollenston, to an examination of the comparatively virgin soils of the pastoral

Market Gardens, Biggleswade, Beds.

RICHARD WALKER can supply for cash CLOVE CARNATIONS, SCARLET KING DAISIES, ss. per 100; EAST HAM, and all the leading sorts of Cabbage Plants, 2s. 6d. per 1000; RED DUTCH, extra fine, 4s. per 1000. Seeds, home-grown ONION, WHITE SPANISH, 2s. 3d. per lb. GIANT ASPARAGUS, 3-yr old, 3s. per 100.

Camellias, Azalea indica, and Rhododendrons

JOSEPH BAUMANN, Nurseryman, Ghent, Belgium, begs to offer the following Plants, without Flower-buds - 100 CAMELLIAS, best sorts, £3, £4, £5, £6, and £8. 100 AZALEA INDICA, best sorts, good plants, £3 10s. 100 RHODODENDRONS, best hardy sorts, 2-yr. grafted, £6. 100 AZALEA INDICA, Stocks, 12s. 100 FORTICA, small Stocks, 5s. 100 THUJA ELLWANGERIANA (or Tom Thumb Arbor-vitae), new, £2. 1 PEONIA MOUTAN GLORIA BELGARUM, £1. 1 " SOUVENIR DE GAND, £1. 3 New AZALEA INDICA, 1st prize at Ghent ALFRED DELMON, COMTE BISMARCK, TRIOMPHE D EVERGEM; the three, with or without flower-buds, 15s.

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New Fuchsias-Primulas.

FELTON AND SONS (late Felton & Holiday) will send out their four unrivalled NEW DOUBLE FUCHSIAS in the last week of April, 1869. They have been selected from many thousands, are quite distinct, and cannot fail to give satisfaction.

LORD CALTHORPE - Bright scarlet tube and sepals, very thick and waxy, of great length, and most beautifully reflexed, corolla large and full, deep purple, slightly veined at the base. This is a noble Fuchsia, free grower and profuse bloomer, and makes very fine specimens.

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CONQUEROR - Light crimson tube and sepals, tube short, sepals very long and broad, elegantly recurved; corolla dark purple, flamed crimson - a very pretty variety.

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Price 7s. 6d. each, the set for 25s. If more than one set ordered, 21s., with usual discount to the Trade.

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LADY SALE FELTON & SONS - White tube and sepals, the latter nicely reflexed, and of good substance, corolla pink-purple, stout, an abundant bloomer, of good habit. I think it will make a good Fuchsia for any purpose.

JOLLY (FELTON & SONS) - This is a welcome and long wished-for improvement on a good old variety called Fair Oriana, pure white tube and sepals, the latter well reflexed, bright pink-scarlet corolla, a good grower and very free.

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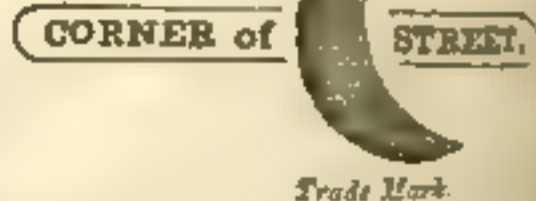
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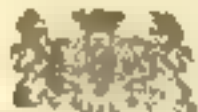
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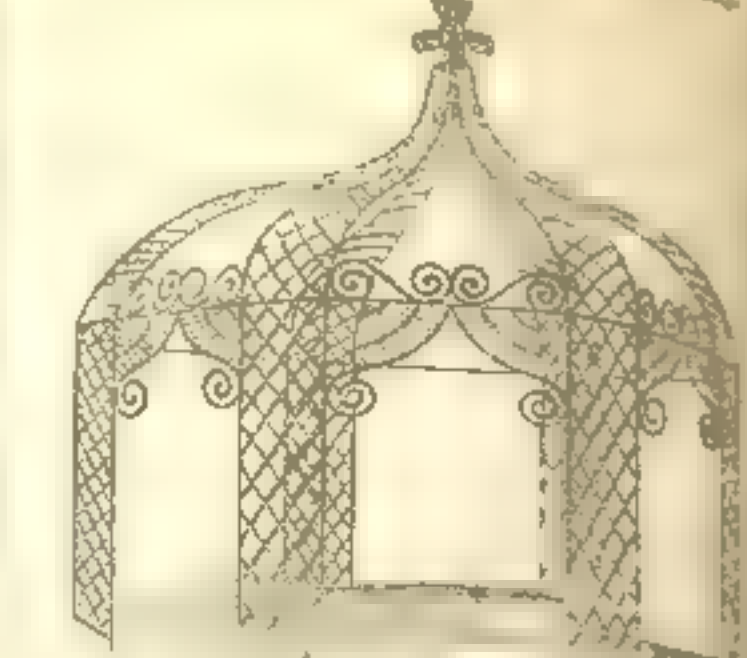
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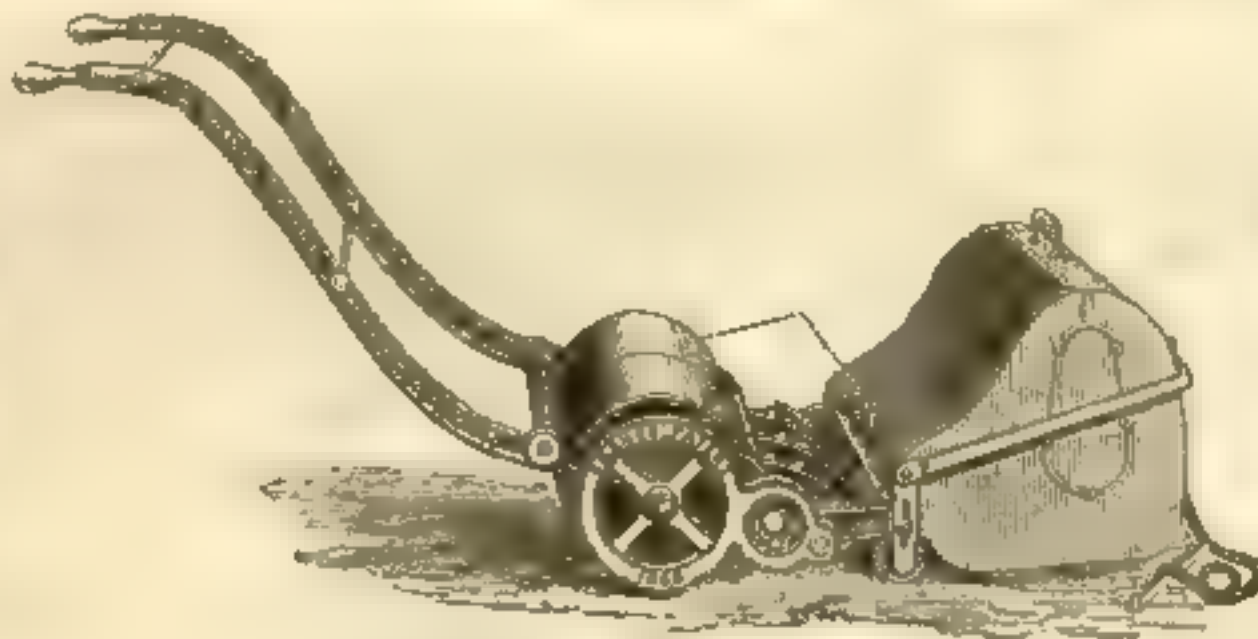
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OF THE
INTERNATIONAL EXHIBITION,
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A. S. AND SON have, in addition to the PATENT DOUBLE-EDGED SOLE PLATE and WIND GUARD, made very great Alterations and Improvements in the Machine. These alterations, which were introduced last Season, have now undergone an effectual trial, and the result has been so successful as to enable A. S. AND SON to offer a Machine which far excels any other that has ever yet been offered, *whether for ease in working, certainty of action, or durability.* It has only to be compared with other Machines, when its superiority will be at once seen and understood.

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Machine Size	Price	Operated By
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12-inch Machine	4 10 0	By a Boy
14-inch Machine	5 10 0	By a Boy
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19-inch Machine	7 15 0	By a Man and a Boy
22-inch Machine	8 10 0	By Two Men
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The Hand Machines are all with Silent Movement.

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Width of Cutter	Price	Extras
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28-inch Machine	14 10 0	30s. "
30-inch Machine	15 15 0	30s. "

Silent Movement, 12s. 6d. extra.
Boots for Pony, 22s. per set.; Ditto for Donkey, 18s. per set.

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Width of Cutter	Price	Extras
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42-inch Machine	26 0 0	40s. "
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ROYAL GARDENS AT KEW, WINDSOR, BUCKINGHAM PALACE, HAMPTON COURT, OSBORNE, AND BALMORAL,
IN THE GARDENS OF THE ROYAL HORTICULTURAL SOCIETY, IN THE GROUNDS OF THE CRYSTAL PALACE COMPANY, AT
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And in many hundreds of the principal Gardens in the Kingdom, as well as abroad, where their merits have been fully proved and their success firmly established.

Every Machine warranted to give ample satisfaction, and, if not approved of, can be at once returned.

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All sizes kept there, whether for Horse, Pony, or Hand Power.

Editorial Communications should be addressed to "The Editor." Advertisements and Business Letters to "The Publisher" at the Office, 41, Wellington Street, Covent Garden, London, W.C.
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THE GARDENERS' CHRONICLE AND AGRICULTURAL GAZETTE.

A Newspaper of Rural Economy and General News.

SATURDAY, MARCH 27.

(Price Fivepence.)
(STAMPED EDITION, 1d)

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Pines.
B. S. WILLIAMS has all the best kinds, in splendid condition, warranted clean. Prices on application.
B. S. WILLIAMS, Seed Merchant and Nurseryman, Upper Holloway, London, N.

Grape Vines.
B. S. WILLIAMS' STOCK this season is remarkably fine, and in good condition for sending out. Kinds and prices can be had on application.
B. S. WILLIAMS, Seed Merchant and Nurseryman, Upper Holloway, London, N.

Pines.
TWO HUNDRED PINE PLANTS for SALE, chiefly Queens. Warranted clean. In all stages.
FRANCIS R. KIRKMAN, Shrub Nursery, Richmond, S.W.

Mrs. Pince's Black Muscat Grape.
J. MEREDITH is now prepared to execute orders for this fine Grape. CANES, &c. for immediate planting, from 10s. 6d. upwards.
The Vineyard, Garston, near Liverpool

Royal Ascot or Perpetual Vine.
MESSES JOHN STANDISH AND CO are now selling fine strong plants of this extraordinarily productive VINE at 2s. 6d. and 4s. each.
Royal Nurseries, Ascot, Berks.

Must be Sold, to make room.
L. WOODTHORPE offers the following, to effect a clearance—Strong Fruiting VINES, 10 to 12 feet in length, and thick in proportion, 3s. 6d. each. Extra strong, will carry 8 to 10 bunches, 5s. each.
Munro Nursery, Sible Hedingham, Essex.

Pyramidal Cherries, extra fine, for Gardens.
W. WOOD AND SON have a magnificent stock of the above to offer. The Pyramidal Cherries are especially fine. Woodlands Nursery, Marsfield, near Uckfield, Sussex.

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Gratis and Post Free.
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B. S. WILLIAMS' DESCRIPTIVE CATALOGUE of FLOWER, VEGETABLE, and AGRICULTURAL SEEDS, &c., is now ready, post free to all applicants.
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DAHLIAS, DAHLIAS, DAHLIAS: strong plants now ready.—Selection left to **JOHN J. HANSON, Chesham, Bucks.** For cash, in 12 good kinds, 4s., 2s. 6d., or per 100, 2s. Fancy PROOFES (Glossiness of Bloomers), strong plants, 70s. per 100 pairs.

Princess Royal is the Brightest of the New Colors.
CHARLES TURNER purchased this beautiful variety, and is now executing orders with strong plants, 7s. 6d. each.
The Royal Nurseries, Hough.

NEW COLEUS—The 12 new Colors of the Royal Horticultural Society sent out in 1869, with other fine varieties, sent post free.—12 fine varieties for 2s. 6d., 12 cuttings in 12 fine varieties, for 1s. 6d., from
H. W. KILNER, Florist, Hatfield, Sussex.

To Persons Building Large Conservatories.
A NUMBER OF LARGE CAMELLIAS, some 20 feet high, ORANGE TREES, and other Plants, to be SOLD. Apply by letter to **F. Mr. David Waiter, Ball Yard, E.C.**

THE MOST BEAUTIFUL FRENCH ASTER grown in France, the **REINE MARGUERITE PÆONY FLOWERING** 500 seeds for 1s., in 12 fine double colours, mixed. Quality guaranteed. Free by post.
ALFRED HANCOCK, Hedwin Street, Salisbury.

HOLLYHOCK SEED, from finest named sorts in cultivation (post free).—12 packets in 12 distinct kinds, 5s. 24 packets in 12 distinct kinds 8s. 6d.
W. D. LITTLE, Sible Hedingham, Essex.

WANTED, a quantity of PLANTS in BLOOM, various sorts, for next month. Address with prices for cash to **W. DILLISTON, Sible Hedingham, Essex.**

WANTED, MEZERIONS, 1 to 2 feet Send price and particulars to **THOS. BRYAN & SON, The Old Established Nurseries, Maidstone.**

TO THE TRADE A few lbs. of **ARBUTUS SEED,** fresh and well saved, at 6s. per lb. cash. Apply, **F. Edwards, Newtown Park, Black Rock, Dublin.**

ACURIA POLLEN—One dozen flowers for 1s., Four dozen for 2s. Sent post free on receipt of stamps by **JOHN BRADSHAW & CO., Royal Nurseries, Ascot.**

THE GOLDEN ARBOR-VITÆ, THUJA AUREA—Fine specimen plants, 2 1/2 feet high, and 2 feet through, will be offered at very reduced prices. Apply to **W. WOOD & SON, Marsfield, near Uckfield, Sussex.**

OSTERS—A quantity for SALE. A Sample of Five Bolls may be seen, and the price obtained, at **Messrs. Warr's, Kennett Wharf, Thames Street, London, E.C.**

FOREST TREES and SHRUBS—CATALOGUES of the above for the present season may now be had, post free, upon application.
James Lawson & Son, Edinburgh and London.

NATIVE SCOTCH FIR, Transplanted and Seeding For trade prices, apply to **HOWARD ROBERTSON, Inverness, N.B.**

WANTED, BEECH, SYCAMORE, and SERVICE, 1 to 3 feet, or 3 to 4 feet, also WEEPING BIRCH, 3 to 4 ft. State price per 1000.
GEORGE J. WOOLLEY, Nurseries, Caterham, Surrey.

STRONG TRANSPLANTED QUICK, 10s., 20s., and 30s. per 1000, £40, £60, and £100 per 100,000. Samples containing 100 may be had on receipt of a remittance.
JOHN CAYSELL, Nursery and Seed Establishment, Westerham, Kent.

CAYSELL'S FINEST BROCCOLI, the hardest and latest White Head in cultivation, obtained the First Prize at the International Horticultural Exhibition, South Kensington, May, 1862. Price per half-ounce packet, 1s. 6d., free by post.
JOHN CAYSELL, Nursery and Seed Establishment, Westerham, Kent.

CARTER'S FARM SEEDS. See large Advertisement at page 132 of this day's *Gardeners' Chronicle*. Seed Growers, Manchester, and Newcastle, 227 and 136, High Holborn, London, W.C.

A SPECIAL PRIZE MEDAL, PARIS 1867, was AWARDED to **JAMES CARTER & CO.** 23, A & 23A, High Holborn, London, W.C., for **GRASS SEEDS,** supplied for the Exhibition Grounds.

NATURAL GRASSES their Names and Derivations, Quality, Produce, Elevation, Situation, Soil, Use, Fecundity, Season, Growth, Increase, Time of Flowering, Price, &c. Free for the postage stamp.
Richard Smith, Seed Merchant, Worcester.

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SUTTONS' GRASS SEEDS for ALL SOILS. See page 34 of this day's *Gardeners' Chronicle*.

SUTTONS' GRASS SEEDS for VARIOUS PURPOSES. See page 347 of this day's *Gardeners' Chronicle*.

SUTTONS' HOME-GROWN FARM SEEDS. See page 350 of this day's *Gardeners' Chronicle*.

SUTTONS' FARMER'S YEAR-BOOK for 1869 is now Ready, price 6d., gratis to customers.
Royal Berkshire Seed Establishment, Reading.

NEW and GENUINE AGRICULTURAL and GARDEN SEEDS. Special prices and advantageous offers on application to **Jas. Fairhead & Son, Seed Merchants, 7, Borough Market, London.**

NEW and GENUINE AGRICULTURAL and GARDEN SEEDS. Special prices and advantageous offers of above on application to **ALFRED L. KILGON, Seed Merchant, 6, Aldgate, London, E.**

Agricultural and Garden Seeds.
H. AND F. SHARPE'S SPECIAL PRICED LIST of HOME-GROWN SEEDS is now ready, and may be had on application.
Seed Growing Establishment, Wisbech.

Mangel Wurzel Seed.
JOHN SHARPE can offer on good terms, from highly selected stocks, and his own growing this year.
Bardeley Manor, Lincoln.

To the Trade.
HALL'S WESTBURY SWIDE TURNIP SEED, true, well. Grows best upon from transplanted roots. For samples and prices, apply to **WILLIAM COLE, Seed Grower, Downton, near Salisbury.**

Swede Turnip Seed.
HARTLEY'S SHORT-TOP, grown last year by the Seller. Warranted from carefully-selected, transplanted Turnips. For cash only, 3s. 6d. per cwt., for not less than four, put upon the rails at early near York.
Mr. S. Worsfold, Cawood Castle.

White Belgian Carrot Seed.
ALFRED LEGGERTON, SEED MERCHANT, 5, Aldgate, London, E., offers the above at 5s. per cwt., warranted all new and best seed.
Special quotations for all other Agricultural seeds on application.

The Sugar Beet Question. For INSTRUCTIONS on CULTIVATION, see **SUTTONS' FARMER'S YEAR-BOOK** for 1869. 6d. post free, gratis to customers.
Sutton & Sons, Seedsmen to the Queen, Reading.

SPARAGUS PLANTS, extra fine and strong, 2, 3, and 4 yr., at moderate prices.
Wm. Wood & Son, Nurseries, Marsfield, near Uckfield, Sussex.

EDWARD TAYLER, NURSERYMAN, Malton, Yorkshire, offers, as under, **GIANT ASPARAGUS ROOTS, 2-yr., 1s. 3d. per 100, 10s. per 1000, do., 3-yr., 2s. per 100, 15s. per 1000, do., 4-yr. transplanted, extra fine, 3s. per 100, 25s. per 1000. TRITOMA USARIA, fine strong roots, 2s. per 100.**

GIANT ASPARAGUS PLANTS, the best that money can procure, 2s. 6d. per 100. This delicious Vegetable does not require half the expense usually incurred in planting it. See **EDWARD TAYLER'S SEED LIST** for 1869. Extra strong **BEAKALE, 2s. per dozen.**
Richard Smith, Nurseryman, Worcester.

SCARLET RUNNER SEED for SALE—Apply to **Mr. ALFRED MILLS, Holbeach, Lincolnshire.—March 23.**

ARTICHOKES, JERUSALEM, of fine quality, for planting or for present use, 5s. per bush.
H. & R. STRICKLAND, Skerton Nurseries, Lancaster.

FOR SALE, extra fine GLOBE ARTICHOSES Price per dozen or 100 on application to **JOHN COOPER, Balfour Cottage, Fulham Fields, S.W. Also 2, 3, and 4-yr. old ASPARAGUS.**

A Great Advantage to Narrow Growers.
A DWARF MALLOW, good bearer and will not require the space of one of the common 2-seeded Malloes.
J. Lucas, Balfour Cottage, Fulham Fields, S.W.

The Best New Potato for 1869 is
SUTTONS' BERKSHIRE KIDNEY, 5s. per peck, 1s. 4d. per bushel, carriage free.
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POTATOS.—Hansworth Fairy Round—Price on application to **Jas. Fairhead & Son, Seed Merchants, 7, Borough Market, London.**

POTATOS—Early Dalmatian and Fluke, new selected seed about 6 tons, to offer on reasonable terms.
H. & F. SHARPE, Skerton Nurseries, Lancaster.

Seed Potatoes.
GEO. SIBBALD, Drumgath, by Dundee, begs to state that he has on hand a few Tons best **ROCKS, FLUKES, REGENTS, and PATERSON'S VIRGILIA POTATO,** which he will sell cheap. Prices on application.

SEED POTATOS.—Rivers' Royal Ashleaf, Early Dalmatian, Myatt's Early Prodigy, and all the finest early and late varieties, free from disease, excellent in quality, and at moderate prices. For Special Prices apply to **H. & F. SHARPE, Seed Growers, Wisbech.**

MANTH SOCIETY'S GARDENS. Regent's Park. THE EXHIBITION OF PLANTS, FLOWERS, and FRUIT, will be held in the BOTANIC GARDEN, MANTH SOCIETY'S GARDENS, on the 27th and 28th of JULY. Tickets to be had of the Secretary, 10, Pall Mall. SPRING EXHIBITION, APRIL 27 and 28. Tickets to be had of the Secretary, 10, Pall Mall.

NATIONAL HORTICULTURAL SOCIETY'S GARDENS. Regent's Park. THE EXHIBITION OF PLANTS, FLOWERS, and FRUIT, will be held in the BOTANIC GARDEN, NATIONAL HORTICULTURAL SOCIETY'S GARDENS, on the 27th and 28th of JULY. Tickets to be had of the Secretary, 10, Pall Mall. SPRING EXHIBITION, APRIL 27 and 28. Tickets to be had of the Secretary, 10, Pall Mall.

STON DEANE HORTICULTURAL and BOTANICAL SOCIETY EXHIBITION and FETE. The annual MONEY PLANT and FLOWER EXHIBITION, and Four Valuable SILVER CUPS, will be held on the 27th and 28th of JULY. Tickets to be had of the Secretary, 10, Pall Mall.

THE VERY BEST NEW ROSES of 1869 for THIRTY SIX SHILLINGS.
Wm. Wood & Son, Nurseries, Marsfield, near Uckfield, Sussex.

PAUL begs to announce that his **CATALOGUE** of the VERY BEST NEW ROSES of 1869 is now ready, and will be forwarded free on application to **PAUL & SON, Nurseries, Waltham Cross, London, N.**

ESTABLISHED 1808.
DAVIDSON have a large stock of the VERY BEST NEW ROSES, in pots. Prices to be had on application to **DAVIDSON & SON, Nurseries, Waltham Cross, London, N.**

THE MOST BEAUTIFUL FRENCH ASTER grown in France, the **REINE MARGUERITE PÆONY FLOWERING** 500 seeds for 1s., in 12 fine double colours, mixed. Quality guaranteed. Free by post.
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JOHN CAYSELL, Nursery and Seed Establishment, Westerham, Kent.

Verbenas, Verbenas.

ALL THE LEADING VARIETIES of 1868, also Purple, White, Scarlet, and Pink, with plenty of Cuttings, at 2s. per doz., Small Plants, 6s. per 100, or £3.10 per 1000. Twenty new varieties of ZONAL GERANIUMS of 1868 for 10s. Price of Lanes, Nursery, Boxley Heath, Kent.

F AND A. SMITH beg to announce that their splendid Collection of CINERARIAS is now in full bloom, and will repay a visit. They would call the attention of purchasers to the following varieties, which are now being sent out, each of which has obtained Certificates at the Royal Horticultural Society, and pronounced far in advance of anything hitherto offered.

- 150 Large white flowers, with tip of light crimson extra fine.
150 White, with heavy tip of clear crimson, very large head, a good habit.
ROYAL PURPLE Shaded purple and puce, with ring of rich crimson, and inner circle of pure white, undoubtedly one of the finest that I and the most richly coloured variety yet sent out.
Lots of other varieties on application.
The Nurseries, West Dulwich, S.E.

Cineraria Seed.

NOW IS THE TIME TO SOW FOR AN EARLY CROP.

F AND A. SMITH beg to offer Seed of the above, from their splendid collection. As a proof of its general excellence, they append the following Testimonials, samples of which they are ready to send.

A. A. BARR would here mention that they received last year the only Certificate awarded for Cineraria, and they have already received two during the present season.

March 20, 1869.
I enclose 2s. 6d. in stamps for a packet of your Cineraria Seed. I hope it will be as good as last year, the packet I had then turned out first-rate, and so did the Balsam Seed you applied me with. I obtained 1st Prize with a Collection of eight Waverhampton.
JAMES B. CRAWFORD, Finchfield, Waverhampton.

The Nurseries, Lickenhead, March 20, 1869.
GENTLEMEN,—Please send me per return, 2 dozen packets (or about the same quantity in bulk) of your choicest Cineraria. That you sent me last year gave the greatest satisfaction. Yours truly,
W. HERRINGHAM

The Nurseries, Lickenhead, March 20, 1869.
I enclose 2s. 6d. in stamps for a packet of your best mixed Balsam, and a 2s. 6d. packet of Cineraria for two growth. Last year's were excellent. Yours truly,
J. SAVORIS.

The Nurseries, West Dulwich, S.E.

Genuine Seeds. Carriage Paid.

B. S. WILLIAMS, NURSERYMAN AND SEEDSMAN, Victoria and Paradise Nursery, Upper Holloway, London, N.

COMPLETE COLLECTIONS

KITCHEN GARDEN SEEDS

To suit gardens of various sizes, 10s. 6d., 2s., 4s., 6s., and 8s. each.

NEW and CHOICE VEGETABLE SEEDS. Per Pkt.

- WILLIAMS' IMPROVED GREEN CURLED BROCCOLI . 0 6
WILLIAMS' ALEXANDRA BROCCOLI . 1 0
BELL'S FINE DARK BEET . 1 0
WILLIAMS' MATCHLESS RED CELERY . 1 0
SHARMAN'S UNIVERSAL CUCUMBER (new) . 1 6
TELEGRAPH IMPROVED (Woolley's variety) . 1 6
WILLIAMS' PARADISE GEM MELON, scarlet flesh, of excellent flavour, and 15 days earlier than any other in cultivation (new) . 3 6
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DUBWELL PRIZE ENDIVE . 1 0
WILLIAMS' VICTORIA COS LETTUCE (new) . 1 0
MAYERN HALL MELON . 1 6
GOLDEN QUEEN (New Hybrid Prize) MELON . 3 0
BEDFORDSHIRE CHAMPION ONION (new) . 1 0
NENEHAM PARK ONION . 1 0
CULLINGFORD'S CHAMPION MARROW PEA, an excellent cropper, and fine flavour (new) . per qrt. 3 0
MAYEYAN'S LITTLE GEM PEA (very early) . 2 6
LEE'S GRANT CRAB . per pk. 0 6
ORANGEFIELD DWARF PROLIFIC TOMATO . 1 0

NEW and CHOICE FLOWER SEEDS. Per Pkt.

- WILLIAMS' SUPERB STRAIN OF PRIMULA—B. S. W. can with confidence offer his superb strain of Primula as being the finest in cultivation.
Red, White, or Mixed . 2s. 6d., 3s. 6d., and 5 0
CINERARIA Wenzler's extra choice strain) . 2s. 6d. and 3 0
CALIFORNIA (New) extra choice strain) . 2s. 6d., 3s. 6d., and 5 0
(James' strain) . 2s. 6d. and 3 6
(Drake's Palace strain) . 2 0
CYCLAMEN Wigg's prize strain) . 1s. 6d., 2s. 6d., and 3 0
POLYANTHUS (Wigg's) prize strain) . 1s. 6d. and 2 6
BALSAM (W. Hams' superb strain) . 1s. 6d. and 2 6
CANTHUS DAMPieri (fresh imported seed) . 1 0
GERANIUM LE GRAND . 1s. 6d. and 2 6
SOIANUM (Weather's hybrids) . 2s. 6d., 3s. 6d., and 5 0
VIOLA LUTEA (very low flowered variety) . 1s. 6d. and 2 6
WALLFLOWER Saunders' fine dark variety) . 1 0
SALVIA ARGENTEA, a beautiful silvery-fouaged ornamental plant . 1 0
DIANTHUS HEDDEWIGHI DADEMATUS fl. pl., flowers very large, and colour most beautiful (new) . 2 6
ECHEVERIA METALLICA (new Bedding plant) . 1 0
OXALIS VALDIVIANA, quite hardy, the flowers are bright yellow and sweet scented, and produced in bunches of large size (new) . 1 0
PALAVA FLEXUOSA, very pretty annual (new) . 1 0
MYOSOTIS AZORICA ALBA, the flowers are pure white, contrasting beautifully with the blue variety Caelestina (new) . 2 6
STOCK, EAST LOTHIAN—This is a splendid variety, of dwarf and compact habit, producing immense spikes of bloom, and very double. They make a grand display in beds, and for ribbon borders. For collection of three colours (Scarlet, Purple, and White) . 2 0
TACSONIA VAN VOLXEMI (a beautiful Climber) . 2 0
AMARANTHUS SPICATUS AFFEUS (New Golden) . 1 0
ANTIRRHINIUM ASYRINA very beautiful for rockwork (new) . 1 0
MELICHRYSUM ALBUM (new) . 1 0
MIMULUS REIENS, this is a very distinct species, the flowers are of a pale lilac or violet colour, the lower up being pretty spotted with orange—a few low ground new) . 1 0
ARISTIDA ARENARIA, the flowers are of a pure waxy yellow, of cloudy scented, and produced in long succession (new) . 1 0
ZINNIA ELEGANS TAGETIFLORA fl. pl. (new) . 1 0
Imported GERMAN ANEMONS, STOCKS, WALLFLOWERS, ZINNIAS, &c., in Collections, as imported.

GLADIOLUS ROOTS, several kinds, per doz., 4s., 5s., 7s., 10s., and 12s. BRESCHELEY'S S. fine large roots, 3s. per doz., 20s. per 100.

ENGLISH OR OWN SEEDING GLADIOLI

B. S. Williams can strongly recommend these SEEDLING GLADIOLI being sown in Seedling Beds, they can be warranted to flower in the autumn of the year following, and possess colour and quality of the best. For more particulars, and for the names of the various kinds, and their prices, these were published in the Gardeners' Chronicle, and may be seen in the office, per 100, 5s.

Victoria and Paradise Nursery, Upper Holloway, London, N.

THE BEST NEW ROSES OF 1869.

THE LARGEST, BEST, AND FINEST PLANTS THAT CAN BE PROCURED IN THE TRADE

WM. WOOD & SON

HAVE NO HESITATION IN STATING THAT

THEIR STOCK OF NEW ROSES CANNOT BE SURPASSED.

THE PLANTS ARE NOW READY FOR IMMEDIATE DELIVERY

CATALOGUES ON APPLICATION.

WOODLANDS NURSERY, MARESFIELD, NEAR UCKFIELD, SUSSEX

NEW ROSES OF 1869.

PAUL & SON, THE "OLD" NURSERIES, CHESHUNT, N.

HAVE NOW FIT AND READY FOR DELIVERY

- STRONG PLANTS of the NEW ROSES of the YEAR 42s per doz.
H P DUKE of EDINBURGH ROSE.—Their Seedling of last season First class Certificate, Royal Horticultural Society 2s 6d to 3s 6d each

THEY ALSO OFFER, FOR EFFECT THIS SEASON,

- STRONG BLOOMING DWARF STANDARD and DWARF PLANTS of the leading kinds 9s to 12s per doz.
STRONG PLANTS on OWN ROOTS, their selection, in 48's 25 per 100
" " " " in 60's £3 10s. per 100

PRICED LISTS ON APPLICATION.

PAUL AND SON have now a charming Show, at the "Old" Nurseries, of FORCED ROSES and Spring Flowers. One mile from Cheshunt Station, Great Eastern Railway



WILLIAM ROLLISSON & SONS'

BRILLIANT NEW TRICOLOR GERANIUM, THE MOONSTONE

WILL BE SENT OUT ON AND AFTER THE 30TH OF APRIL NEXT.

The habit of the above most beautiful Tricolor is compact and exceedingly free, the leaves, which are of green substance and moderately large, are almost round, and from the slight convexity of their shape they exhibit to great advantage the rich and varied colourings with which they are adorned, the centre of the leaf is of a bright and green surrounded by a dark chocolate zone, which is much intercepted by the most intense blood-red. This bright colour shades off, towards the edge of the leaf, to a soft crimson-lake, which entirely encircles the whole zone, and with a bright lemon-yellow belt. It is somewhat in the way of L'Amo Grieve in its colouring, but is rather brighter and, unlike the shy habit and slow growth of that variety, "The Moonstone" is almost as free in habit as a Thumb, while it remains constant in character. This, without exception, is the finest Tricolor hitherto offered to the public.

THE FOLLOWING NINE SPLENDID NEW DOUBLE GERANIUMS FOR 1869.

- MADAME BONDET | MDLLE. LOUISE DELESALLE | M FROEBEL
MADAME DEBRAY | M DE ST. JEAN | MARIE LEMOINE
MARIE CROUSSE | M. DE ST. PAUL | WILHELM PFITZER

Together with many other Novelties of sterling merit, will be distributed on and after the 30th of April next.

For Descriptions and Prices of the above, see SPRING CATALOGUE of NEW and CHOICE SOFT-WOOD PLANTS for 1869, which will be sent Gratis and Post Free on application to

THE NURSERIES, TOOTING, LONDON, S.W.

B. S. WILLIAMS,

NURSERYMAN AND SEEDSMAN,

VICTORIA and PARADISE NURSERIES, UPPER HOLLOWAY, LONDON, N.

Respectfully invites the Nobility and Gentry about to furnish their Conservatories, Greenhouses, Stoves, and Orchid-houses, to an inspection of his

STOCK OF MAGNIFICENT SPECIMEN PLANTS,

MANY OF WHICH ARE UNEQUALLED IN THIS COUNTRY.

THEY CONSIST OF—

The Choicest and rarest Exotics, such as TREE-FERNS, PALMS, BEAUCARNEAS, AGAVES, TUCKER CYCADS, ARALIAS, CAMELLIAS, AZALEAS, and all other kinds of STOVE and GREENHOUSE FLOWERING and ORNAMENTAL FOLIAGE PLANTS, proved to be worthy of cultivation.
The Large CONSERVATORY, at all times of the year well worth a visit, is now unusually gay with flowers of Camellias, Azaleas, Ericas, Epacris, the magnificent varieties of Cyclamen persicum, obtained from W. Williams' seed, Williams' superb Chinese Primulas, the beautiful improved Hybrid Solanums, now laden with large and highly ornamental berries, Hyacinths, and many other Spring Flowering Plants, also helping to make a floral display.
The STOVES and ORCHID-HOUSES are also very attractive and interesting just now, with a variety of Odontoglossums, Cypripediums, Colognyras, Lycastris Skinneri, Phalenopsis, and many other kinds.
The COLLECTION of MEXICAN PLANTS is surpassed only by that of Kew Gardens.
All NEW PLANTS of sterling merit are added to the Collection as soon as procurable, and may be seen on the inspection of which would alone repay a visit.

In May will be published,

A CATALOGUE OF NEW AND RARE PLANTS FOR 1869,

POST FREE TO ALL APPLICANTS.

The "Favourite" Omnibuses leave Victoria Nursery every seven minutes for the City and London Bridge, Strand and Victoria Station, and for Regent Street, the West End, and Brompton.

VICTORIA and PARADISE NURSERIES, UPPER HOLLOWAY, LONDON, N.

CYCLAMEN PERSICUM (HYBRIDS).

B. S. WILLIAMS

HAS GREAT PLEASURE IN OFFERING

SEEDS OF HIS SUPERB VARIETIES OF CYCLAMENS,

These are much superior to those sent out by him last season, being saved from the plants exhibited by...

In Sealed Packets, 1s. 6d., 2s. 6d., and 3s. 6d. each.

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TO THE TRADE ONLY.

STUART & CO., SEED GROWERS, NICE.

Warehouse and Offices, where Stock is kept for the supply of the English Trade, 5, TAVISTOCK ROW, COVENT GARDEN, W.C.

WHOLESALE CATALOGUE ON APPLICATION

THE FOLLOWING SPECIALITIES SUPPLIED AT THE CATALOGUE PRICE, OR SPECIAL OFFER FOR LARGE QUANTITIES.

- PRIMA METALLICA - Fresh Seed now ready to send out, in pods containing from 20 to 50 seeds, with full...
PETUNIA SEED, of exquisite quality
ZINNIA SEED, from the choicest Florida Flowers
CENTAUREA CANDIDISSIMA (RAGUSINA), warranted true...

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ADULTERATION OF SEEDS.

The law is a terror to evil doers, and a praise to them that do well."

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ASSOCIATED TESTIMONIALS, SUCH AS B. & S. ARE CONSTANTLY RECEIVING.

London Messrs. Barr and Sugden that he had expressed the same Mr. Brown has always found the seeds, bulbs, &c. from their establishment to be of first rate quality...

HUNDRED sorts of ALPINE and HERBACEOUS PERENNIAL SEEDS, from one of the most choice...
QUESTIONS in Europe, GLADIOLI, embracing the new kinds and all the other varieties worthy of...

BARR & SUGDEN'S COLLECTIONS OF SEEDS and GLADIOLI,

- Table Seeds, 12s 6d, 15s 6d, 21s, 31s 6d, 42s, 63s, 84s, and 105s
Herbaceous and Alpine Seeds, 3s 6d, 5s 6d, 7s 6d, 10s 6d, 15s, and 21s
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Seeds for Subtropical Gardens, 3s 6d, 5s 6d, 7s 6d, 10s 6d, 15s, and 21s
Gladioli, by the Hundred, 10s 6d, 15s, 21s, 25s, and 30s

STAS EVERLASTINGS, AQUATICS, PALMS, &c. Full particulars will be found in B. & S.'s...

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F AND A SMITH invite the attention of intending purchasers to their very extensive collection of GERANIUMS...

Cheap Tricolor Geraniums. ALFRED FRYER offers 50,000 fine Plants, at the following low prices for cash. Package free.

GERANIUMS, Gold, Bronze, and Tricolor d, &c - Beauty, Beauty of Calderdale, Beauty of Rivedale, Compactum, Glowworm, Mode, &c.

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12 NEW PUCHS AS of 1888, superb plants. 10s. to 12s. per dozen. 12 New PETUNIAS of 1888. 1s. to 12s. per dozen.

CATALOGUES of the above and all the New Tricolor and Golden Bronze Geraniums, New and Rare Plants, &c. can be had on application to...

Gold and Silver Tricolor and Bicolor Geraniums. WOOD AND INGRAM offer the following...

Table with 2 columns: Variety Name and Price. Includes Mrs. Pollock, Lady Cullum, Sophia Dumaresque, &c.

EXTRA CHOICE VARIETIES. Countess of Craven, Miss Watson, Bear of India, &c.

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CHOICE FERNS - Lomaria gibba, Cyrtomium, Adiantum, &c.

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LOMARIA GIBBA, fine established plants, in 4-inch pots per doz 6s.

New Zonal Geraniums of 1888, and Double Varieties.

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DOUBLE FLOWERED VARIETIES. Madame Ledoine, Rose Charnaux, &c.

Or the six varieties for 9s. package included. Nurseries, Huntingdon.

CARTER'S PRIZE MEDAL FARM SEEDS.

HARVESTED ON THEIR OWN SEED FARMS, AND SUPPLIED DIRECT TO THE CONSUMER.



JAMES CARTER & CO.,
THE ROYAL SEEDSMEN,
237 AND 238, HIGH HOLBORN,
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CARTER'S GRASS SEEDS,

SPECIALLY PREPARED TO SUIT EVERY DESCRIPTION OF SOIL,

CARTER'S GRASS SEEDS FOR PERMANENT PASTURES.

FINEST QUALITY, 28s to 1s per acre
SECOND QUALITY 2s to 1s per acre.

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Included in the greatest seed and hay producing Grasses and Clovers, in such proportions as the particular rotation may require.
For ONE YEAR'S LAY, best quality 19s 6d per acre
For ONE YEAR'S LAY, 21s 6d per acre
For TWO YEARS' LAY, 17s 6d per acre
For THREE or FOUR YEARS' LAY, 15s 6d per acre

CARTER'S SUPERFINE ITALIAN RYE-GRASS.

7s. 6d. per bushel, cheaper samples from 4s. 6d. to 7s. per bushel

PACEY'S PERENNIAL RYE-GRASS.

7s per bushel, cheaper samples from 4s 6d per bushel

AS SUPPLIED TO

HER MOST GRACIOUS MAJESTY
THE QUEEN.

HIS IMPERIAL MAJESTY THE EMPEROR OF
THE FRENCH

HER ROYAL HIGHNESS THE CROWN PRINCESS
OF PRUSSIA

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EXHIBITION, 1857

HER MAJESTY'S MILITARY ENCAMPMENTS

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CARTER'S "ROYAL MIXTURE" OF FINE GRASS SEEDS FOR LAWNS, &c.

20s per bushel, 4s 6d per cwt, 15s

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BROAD-LEAVED RED, WEAVER'S BLUE
PERENNIAL RED or ALPINE
COW GRASS, YELLOW

Lowest price on application

CARTER'S "LORD'S MIXTURE" OF FINE GRASS SEEDS FOR CRICKET GROUNDS

18s per bushel. (3 bushels per acre).

LOOK TO YOUR GRASS LANDS

CARTER'S RENOVATING MIXTURE

Should be sown on meadows in late summer or early autumn. The mixture is adapted to most soils and produces a first-rate permanent pasture. Sow 8 to 12 lb per acre. Price 1 per cwt.

UNSOLICITED EVIDENCE OF QUALITY. GRASS SEEDS.

From The Right Hon. Lady CARBERY, Castle Freke.

"Lady Carbery wishes to tell Messrs. CARTER nothing can be better than the Meadow Land laid down with their Grass and Clover Seeds last season."

From J. EDWARDS, Esq., Her Majesty's Defences.

"The whole of the Grass and other Seeds gave great satisfaction"

From M. BABILLET, Chief Superintendent of the Gardens of H. I. M. Napoleon III

"The Grass which we have laid down with your Seeds has come up well, and is magnificent."

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PRIZE MANGEL WURZEL.

The following are five of the finest varieties in cultivation

CARTER'S CHAMPION ORANGE GLOBE, an immense cropper, 1s. per lb.

CARTER'S YELLOW INTERMEDIATE, fine top, large oval root, 1s. 6d. per lb.

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CARTER'S ELVETHAM LONG YELLOW, very superior, 1s. 6d. per lb.

CARTER'S IMPROVED RED GLOBE, 1s per lb



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From F. DPACON, Esq., South Toot

"I have a splendid crop of CARTER'S Warden Mangel from your seed. I consider it the best I have ever grown"

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"I took the First Prize Silver Cup at the Dudley Show with CARTER'S Mammuth Long Red Mangel. My crop averages 50 tons per acre"

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"The Swede Turnips (from your Seed) were the best in the neighbourhood."

CARTER'S

PRIZE SWEDE AND TURNIP.

CARTER'S IMPERIAL HARDY SWEDE - the hardest and best variety in cultivation 1s. per lb., cheaper per cwt

CARTER'S DEVONSHIRE GREY-STONE TURNIP - very hardy. 1s. 6d per lb.

[See Testimonial.] Not to be Surpassed. 1s. 6d. per-lb.; cheaper per cwt.

5 per cent. discount for cash Special estimates for quantities

For full descriptions of CARTER'S PRIZE STOCKS of MANGEL, TURNIPS, GRASSES, and other FARM SEEDS, harvested on their own Seed Farms.

CARTER'S ILLUSTRATED FARMER'S CALENDAR FOR 1869.

Post Free 6d. (gratis to purchasers)

JAMES CARTER AND CO., GROWERS AND DISTRIBUTORS OF GENUINE SEEDS,
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Price of Five Pounds.
BY AND CHARLES LEE will give a
FREE LECTURE on the
CULTURE OF FRUIT TREES
on Friday, the 12th inst. at 7 o'clock
at the Horticultural Hall, Covent Garden.

the most Extensive Collection.
J. H. JACKMAN, 12, King Street, Covent
Garden, has the largest and best
collection of FRUIT TREES, and choice
varieties of FRUIT, varying from 2s. to 15s. per root.
Also, a large stock of B. & S.'S. SPRING SEEDS.

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varieties of FRUIT TREES, and choice
varieties of FRUIT, varying from 2s. to 15s. per root.

British Fern Catalogue
J. H. JACKMAN, 12, King Street, Covent
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SEEDS of GLADIOLI, and other
varieties of FRUIT TREES, and choice
varieties of FRUIT, varying from 2s. to 15s. per root.

Chrysanthemums.
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SEEDS of GLADIOLI, and other
varieties of FRUIT TREES, and choice
varieties of FRUIT, varying from 2s. to 15s. per root.

New Chrysanthemums.
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SEEDS of GLADIOLI, and other
varieties of FRUIT TREES, and choice
varieties of FRUIT, varying from 2s. to 15s. per root.

Efficient New Plan.
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SEEDS of GLADIOLI, and other
varieties of FRUIT TREES, and choice
varieties of FRUIT, varying from 2s. to 15s. per root.

Golden Coleus Queen Victoria.
J. H. JACKMAN, 12, King Street, Covent
Garden, has a large stock of choice
SEEDS of GLADIOLI, and other
varieties of FRUIT TREES, and choice
varieties of FRUIT, varying from 2s. to 15s. per root.

Rhododendrons by the doz., 100, 1000, or 10,000.
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Garden, has a large stock of choice
SEEDS of GLADIOLI, and other
varieties of FRUIT TREES, and choice
varieties of FRUIT, varying from 2s. to 15s. per root.

Arbovitae, American, fine bushy well
rooted plants, fine for hedges or
ornaments.
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Garden, has a large stock of choice
SEEDS of GLADIOLI, and other
varieties of FRUIT TREES, and choice
varieties of FRUIT, varying from 2s. to 15s. per root.

Whin, Purple or Green, good
plants, fine for hedges or
ornaments.
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Garden, has a large stock of choice
SEEDS of GLADIOLI, and other
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Cotoneaster, Michauxii, fine
bushy plants, fine for hedges or
ornaments.
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Prickly Catagolles and any
varieties may be had on
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New Fuchsias—Primulas.
J. H. JACKMAN, 12, King Street, Covent
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Prize Hollyhock Seed
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varieties of FRUIT TREES, and choice
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Double Hollyhocks
J. H. JACKMAN, 12, King Street, Covent
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Choice Catalogue of
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New Catalogue.
LEWIS & WOODHORN, 12, King Street, Covent
Garden, has a large stock of choice
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varieties of FRUIT TREES, and choice
varieties of FRUIT, varying from 2s. to 15s. per root.

Now Ready.
GEO. SMITH'S, 12, King Street, Covent
Garden, has a large stock of choice
SEEDS of GLADIOLI, and other
varieties of FRUIT TREES, and choice
varieties of FRUIT, varying from 2s. to 15s. per root.

New List of Perennials.
THOMAS WARE, 12, King Street, Covent
Garden, has a large stock of choice
SEEDS of GLADIOLI, and other
varieties of FRUIT TREES, and choice
varieties of FRUIT, varying from 2s. to 15s. per root.

Verbenas, 5s. per 100, 40s. per 1000.
WILLIAM BUDMAN, 12, King Street, Covent
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SEEDS of GLADIOLI, and other
varieties of FRUIT TREES, and choice
varieties of FRUIT, varying from 2s. to 15s. per root.

Roses.
JOHN CRANSTON, 12, King Street, Covent
Garden, has a large stock of choice
SEEDS of GLADIOLI, and other
varieties of FRUIT TREES, and choice
varieties of FRUIT, varying from 2s. to 15s. per root.

New Roses, &c., 1869.
W.M. KNIGHT, 12, King Street, Covent
Garden, has a large stock of choice
SEEDS of GLADIOLI, and other
varieties of FRUIT TREES, and choice
varieties of FRUIT, varying from 2s. to 15s. per root.

New Bedding Plant Echeveria metallica.
B.S. WILLIAMS, 12, King Street, Covent
Garden, has a large stock of choice
SEEDS of GLADIOLI, and other
varieties of FRUIT TREES, and choice
varieties of FRUIT, varying from 2s. to 15s. per root.

Golden Coleus Queen Victoria.
MENSING, 12, King Street, Covent
Garden, has a large stock of choice
SEEDS of GLADIOLI, and other
varieties of FRUIT TREES, and choice
varieties of FRUIT, varying from 2s. to 15s. per root.

Rhododendrons by the doz., 100, 1000, or 10,000.
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Arbovitae, American, fine bushy well
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Choice Catalogue of
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July 18th to 24th, 1869.
THE ROYAL SOCIETY'S
GRAND EXHIBITION at MANGHE ER.
In connection with the
SHOW of the ROYAL AGRICULTURAL
Amongst various Special Prizes,
A SILVER CUP (copy of the famous Cellini Cup) VALUE £21
for the best COLLECTION of 5 FRUITS and 5 VEGETABLES.

Table with 4 columns: Good, Medium, Inferior. Lists various fruits and vegetables with their respective grades and prices.

The Gardeners' Chronicle. SATURDAY, MARCH 27, 1869.

MEETING FOR THE ENSUING WEEK
THURSDAY April 1st—London

THE future of FLOWER SHOWS is one of the
difficult questions of our time. As a rule they
do not pay, and the probability is that they
will not. They were for many days a source
of profit to who ever they occurred. What
can make this? Certainly not that
horticulture and floriculture have retrograded,
or even that the skill of cultivators has stood
still. Certainly not, we think, that fewer persons
than formerly take an interest in matters con-

cerned with gardening.
The reasons for this state of things may prob-
ably have had their origin in the very successes
of former days. Thus, one step in advance has led
to another until the shows have actually out-
grown themselves, for by little and little the size
of the objects produced has been increased, till
now everything is carried out on so gigantic a
scale that the prizes have necessarily become
overwhelming. In the next place, the very beauty
of the objects shown may have led the managers
to rest satisfied with the routine arrangements
adopted from the beginning, until they have
become so formal and stereotyped, that the
shows fail to attract outside paying visitors in
numbers sufficient to be remunerative. New
classes of objects of a minor character, have indeed
been, from time to time, introduced here and
there, but, in a general sense, there has been little
change in our shows except as to the gradual
increase of the size of individual plants, and as to
the necessary limitation of numbers which have
led to a most appreciable curtailment of variety.
The large collections of mixed plants, which once
numbered 40 or 50 specimens, have dwindled
down to tens or twelves, many of them easily
grown, and serving for two or three successive
shows. Then the collections of different growers
are mostly more repetitions of each other, seldom
showing any material change, seldom containing
any new and original plants. As to the overgrown plants
themselves, these in many instances might well be replaced
by smaller plants in 12-inch or 15-inch pots. For
16 or 20 plants, such as these, the growers were
formerly proud to get Knightian and Bank-
sian Medals. Now, as much as 20 is given for 12
plants, certainly larger, but not more meritorious
as objects of cultivation. A prize of 20l for 30
or 40 plants, in pots not to exceed 15 inches in
diameter, has been suggested as likely to open up
an entirely new field for competition, and cer-
tainly since we have gone as far as is practicable
with large pots, it might now be wise to try
how far success might be attained in smaller
ones. Besides the more varied character of the
plants exhibited in years gone by, we miss
another feature of interest, namely, the collec-
tions of fruits which, while they excited much
interest at the May meetings, became grand
features in the months of June and July.
The extension of the duration of the shows,
which was the saving feature in the great Inter-

the North—"The finest vegetables in the... around London" This is as much... of us have said "Oh! but these... What of that? Is not this true... The only difference is, that one... is sold for a price in the open... the other is sold for wages at home. But... is not how or where they are sold, but... are produced—North or South? Around... Then we claim them, and debit... that produces them. Possibly... perhaps by English... by the growers of the finest... All honour to the growers of the finest... the kingdom, about the credit in this case... to the South.

essential in every branch of our profession. Without skill we can neither build nor heat nor furnish... the earth grown with plenty nor smile beneath its robe of beauty. The surest way to command wisdom is to use it constantly, and use it worthily. To have and to use skill is the only royal road to get more than... generally lies through the valley of self-employment; and skill is most commonly found and most charmingly illustrated, both in the North and in the South, in many of those quiet nooks and corners of which we seldom hear, and in those characters that shrink from observation. D. T. F. S., F.R.H.S.

THE CHILD'S MENAGERIE.

That economic botany has a wide range of application the varied contents of the museum at Kew clearly illustrates. One of the most peculiar, and at the same time amusing of recent additions to that collection, is a series showing the mode of manufacture of children's toys as carried on in Saxony, and presented by Dr. Reichenbach. Every one knows what a child's Noah's Ark is, and every one is more or less acquainted with the orthodox forms of the representation of the beasts which it contains, and farther than this we believe most of us have at some time asked ourselves the question, "How is it possible for these toys to be made, brought into this

perpetuate themselves, and are in no degree injured, but rather improved by the careful and systematic feeding of such trees as are fit for timber. Planting out seedlings in many places almost impossible, and were possible extremely difficult, to say nothing of the difficulty of establishing nurseries in accessible situations. Again, two trees, if planted out, would never have the same chance of growth as those self-sown in the very spot most suitable to them.

In illustration I would beg to adduce (1) the Sal (Vateria robusta), one of the most valuable timber trees of India. This tree sheds abundance of seed, which germinates freely, the strongest plants of course rising above the others. The trees are most abundant, and when one is cut down hundreds spring up in its place. No planting could be half as effectual, and thinning is not needed for some years. Its habit is on the spurs, running at right angles into the Terai, as also in Terai itself, under the shadow of the hills.

(2) The Fir, Pinus roxburghii, is another instance. If the ground remains unmolested these trees will always spring up abundantly, provided the whole hillside on which they grow be not entirely denuded of the parent trees, and thus rendered dry and barren.

(3) Again, the Sissoo (Dalbergia Sissoo) springs up in amazing profusion in the beds and around many of the torrents which descend from the hills, and run between the ravines. No sowing or planting could do this; although unfortunately the trees are often injured and altogether washed away, by the incessant changing of these beds.

(4) The remarks on the Pines apply also to the stately Deodar, and other trees having affinity to it, but I think that sowing seed might be usefully adopted, due regard being had to the exact spots where such seed was sown. I might expand these illustrations, but I have said enough to show that self-sowing is not to be deprecated in vast tracts of forest land in India.

The great enemies of the Himalayan forests are (1) cattle, and (2) fire.

(1) The pasturing of cattle utterly destroys millions of trees; and, excepting when a forest is well grown, should be utterly prohibited.

(2) Fire is still worse, for when the Grass is at its driest it is fired, and it is needless to point out the destruction which ensues. The most effectual means known and adopted against firing is the clearing of broad roads, over which the fire finds it difficult to pass. This is now generally done, I believe, in the North-west of India.

The reckless cutting of sapling trees—the choicest Sal trees, for instance—was formerly productive of much injury to the forests. The natives used to wattle their sheds with these saplings, but this practice has been in a great measure stopped. I have perused all the reports I could lay hands on for some years, and I have been perfectly astounded at the number of acquisitions pointed out as requisite by Dr. Brand's as necessary for a forester.

Doubtless a little time spent amongst the forests of Britain, and a run about to all the seats of general European management will not be undesirable; whilst, of course, a generally sound education, including surveying, leveling, and ordinary drawing, is indispensable. A fondness for natural history would add an interesting recreation whilst at work; but the requisites are—a sound constitution, good common sense, and indomitable courage. The

forester should be ready to face a wild beast if he met him, as is often the case in the Terai. He should be temperate in his habits, and be a good walker and rider. If he be a good shot so much the better for his fare, whilst a little angling will enable him at times to vary his diet, fish abounding in many forest streams, as yet innocent of the fly.

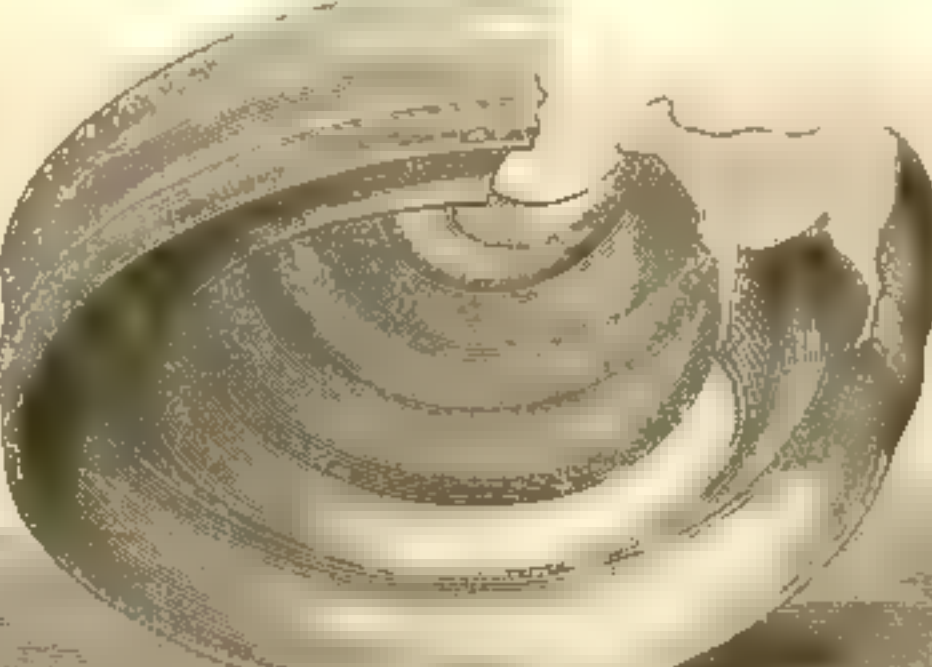
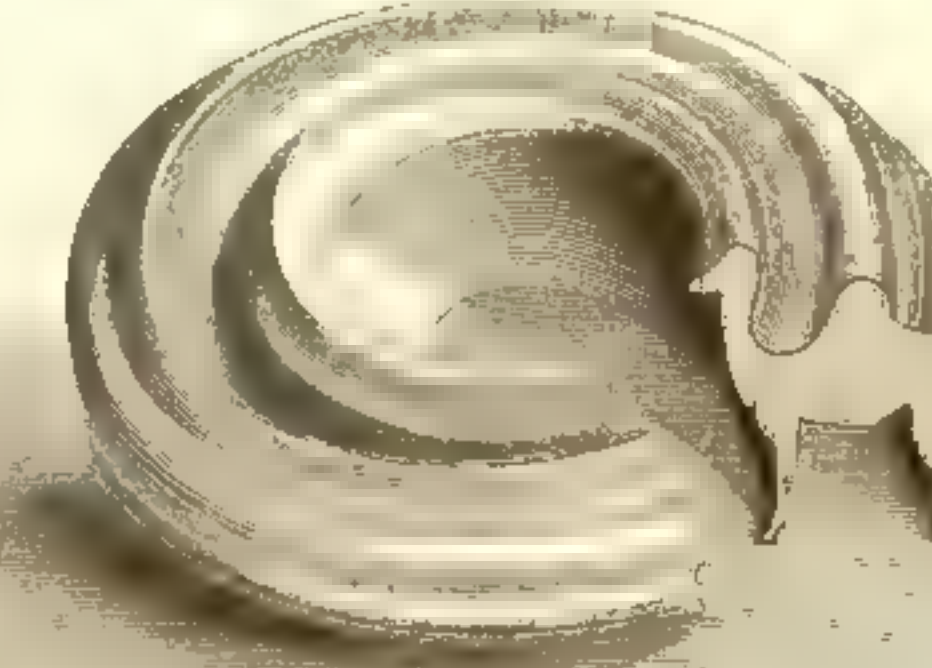
The rest will come fast enough, for of course the general system of forestry to be adopted in any particular locality, will be clearly laid down at headquarters. In these days of difficulty of providing for the honest, willing sons of middle-class men in England, we do not need one single foreigner in this department, whether for higher or lower appointments, nor do I see that any necessity exists for any lengthened period of study out of the United Kingdom. An Old Rohilla.

PEACHES AND NECTARINES - DISEASED SHOOTS.

I do not know any two things in physiology that have puzzled me more than the Potato disease, and the diseased shoots of Peaches and Nectarines kindly sent at my request (accompanied by an intelligent letter), by Mr Woodford, gr. to the Earl of Winchelsea, Eastwell Park, Ashford, Kent. I cry with Milton, who was blind—

"O dark, dark, dark!"

Before "guessing," I may observe that, in answer to my questions, Mr. Woodford says, "that he disbuds moderately, that the trees are not starved, on the contrary they are most luxuriant [The shoots sent showed this. W. F. R.], that if there is any difference the most luxuriant shoots suffer most; that there is no difference between trees 20 years old and new trees; that some of each will escape, and some of each will suffer, both being treated alike; that the land is the same."



country, and sold at so low a price as they usually are?" but this question is partly solved by a glance at the collection at Kew. The wood used is the common white deal of carpenters, and the mode of manufacture is so ingenious that a description of it cannot fail to be of interest. The wood is first turned in a lathe in circular pieces, which look when entire very like circular picture frames. Cross sections of the proper width required are then cut out of these "frames" in the direction of the grain of the wood, where a horse, a cow, a lamb, or a dog, or whatever animal has been designed in the lathe, presents itself. This will be more clearly understood from the accompanying figures. The section now has to be finished by hand, all it requires, however, is to have the angles rounded and smoothed, and the tail, horns, &c., which are turned in separate pieces, attached, after which the whole is painted, and the animal is complete. In the case of an elephant the ears, tusks, and trunk are all turned in distinct circular pieces, and sections are cut out in a similar manner to those intended for the body. This mode of manufacture is very ingenious, and in some degree explains the possibility of the production and importation of such large quantities of these toys for sale at such cheap rates. Since these specimens have been exhibited at Kew, they have attracted a large share of the attention of the numerous visitors who flock there. John B. Jackson, Kew.

HIMALAYAN FORESTRY.

In the Himalayan forests, and those at the base and on the spurs of the hills, those trees thrive best for which the soil and situation are suitable. This appears a truism, yet it results from it that if not wantonly destroyed the said forests, whether of Sal (Vateria robusta), Sissoo (Dalbergia), Deodar, Fir, or other trees

the most important... Fortunately, arrested by no river, destroyed by no mountain range; it is free as the air, and it is equally

Black Potato a milder flavour, and to render them more prolific, by crossing them with the first week of May, when they were well taken up several sets of each of the above, and disturbing as little as possible the clay in the roots, I joined them by cutting a clean part of the shoots without roots or leaves, placing the cut surfaces made to fit each other as nearly as possible, tying them with strips of linen, and the parts with tenacious clay, in which state each doubled plant having two sets of roots, down again, and carefully about the clay with white; No. 2 Red and white; I put down about half-a-dozen of these double sets, all of which appeared to be as well as the single sets in the rows from they were taken. In the month of August, on the clay from some of the plants, I found I was hybridising, so far as colour was concerned taken up in October the following results—No. 1. All the produce were most coloured, one side being thoroughly black, the other perfectly white, the dividing line ran from the roots to the tops of the tubers, nearly showing them imagined at first sight that I had black and white tubers, the red showing black and crescent-shaped patches, except a few were coloured in nearly equal proportions the being opposite sides. The smaller tubers had been most intermixed. No. 3. Produce irregular and striated, the red colour predominating, the changes produced on the Potato by the described, I determined to attempt to hybridise the Beizao and the Red A.tringham Carrot, and the varieties of the Turnip. The way I proceeded was to plant the bulbs to be operated together, and conjoin the seed stems in the manner as the Potatoes when suddenly high to be together, and before the blossoms would be shown. The depressed state of agriculture at home (now several years since) obliged me to turn attention to other matters, and I had not the time to make further experiments. *Edward Deputy County Surveyor, Tipperary Town.*

It will be seen that our correspondent's method is different from that of Mr Taylor, who is a proponent to herbaceous grafting. The reader will remember the curious case of the adhesion of a white Carrot figured in this Journal, p. 53, &c.

Broccoli.—In reply to "Colo" (see p. 278), I would inform as to the best hardy Broccoli, I would say that I consider Snow's Superb Winter Broccoli to be the earliest and best. It comes in the beginning of January, but was rather late this season than usual. I also cultivate the various varieties, which succeed the above in rotation. Snow's Winter White Protecting, an excellent hardy variety, for use a few days after Snow's; Snow's Early White, a very useful sort about the middle of February. Veitch's fine Spring White is an excellent variety, its beautiful white heads being ready in the beginning of March; Dilcock's is a large and fine sort, fit for use in the middle of April. I have grown Osborn's Early White, but with a tender, and will not stand frost or too much rain, and will grow many of the new varieties, but have not any to surpass in me named, which in my opinion are the best winter Broccoli in cultivation. *London, Bloxholm Hall Gardens, Slieford.*

Broom for Forcing.—Being strongly recommended to our limited stock of hardy shrubs for forcing purposes for conservatory decoration, I selected an ordinary sized plant carefully, and in a suitable sized pot, and at once, without preparation, introduced it into a moderate heat. In a few weeks time I was rewarded with a show of blossoms of this, the commonest of all leguminous plants. Within the reach of all, the colour of its value, yellow flowers being scarce in the winter months. *J. Edlington.*

Cropping Vine-borders.—Were it not that I had seen Mr Fish's remarks on this subject apparently set forth in "A," from which he quotes, and the facts stated, at direct variance, I certainly would not have croached on your columns again to treat of it. I would wish the borders in question could have been attended must have been what "A." referred to, and that such had then taken place. I have not recollection of having stated to him exactly how the borders had then in any case been made up, nor possibly have stated it at 50 feet except by the height of the soil from the rag referred to in the composition of the borders from the soil. I would wish the borders in front—not the borders under or beyond Mr Fish's in error in supposing that the borders were deepened or raised annually to the depth of 6 inches. The old mulching was removed, and the borders in the course of 10 years were raised 12 inches altogether. The natural decay of the soil, and the removal of the mulching, would increase to the depth or height of the borders. I think we are often too apt to lay a great stress on a mere crotchet in cultivation, than on the way with the idea that if the surface of the soil is attended to rigidly by any given rule—Mr Fish's instance, "Sacred to the Vine roots"—they are the most important point right, as they are to be well with their roots under a drapery of bedding, and therefore it is right to "bed-out" on the Vine

borders all this may be imbibed by inexperienced minds. For my own part, I would apprehend a thousand times more danger from one season's severe attack of red spider on the foliage than from 10 years' surface-cropping after the manner I have practised it, and if Mr. Fish would write "Sacred to the roots" on the border, I would write "No quarter to red spider" on the inside of the vinery, as a vastly more important inscription. Mendelssohn once said to his critics, "Stick your claws into me! Don't tell me what you like, but what you don't like;" and so it would be well if gardening writers would tell what they don't like, as well as what they like. Mr Fish has told us that he dislikes cropping Vine-borders with anything; and now I beg to state that there are things in Vine management I like much worse than surface cropping, and worst of all do I like red spider. *D. Thomson, Drumlanrig Gardens.*

Oranges of Home Growth.—Having cultivated the Orange and Citron family to some extent for upwards of 12 years at Hardiston, in Worcestershire, I beg to offer the following remarks for the encouragement of those who may be contemplating the culture of these delicious fruits either for ornament or utility. The collection at Hardiston consisted of Shaddock, Lemons, Limes, Citrons, Maltese, Blood, and other Oranges. These being of easy cultivation, were grown principally for ornament, but in some instances the fruit ripened exceedingly well, more especially the Lemons, which were particularly fine. In 1856 I exhibited a collection of them at one of the meetings of the Horticultural Society, then held at 21, Regent Street, for which I received a Certificate of Merit, the fruit having been found, in point of cultivation, to be of superior excellence. Some little time after the meeting in question, I received a letter from the late Dr. Lindley, asking if I would oblige him with the details of my method of cultivation; which I did at the time, and which he did me the honour of publishing at p. 4, 1857. The following winter I sent another collection to one of the Society's meetings, but unfortunately, through some delay in transit, they arrived too late for exhibition. Dr Lindley immediately informed me of the circumstance, and stated that he had placed them on his side-table, and had shown them to his friends, who greatly admired them. The trees from which the above-mentioned fruit was derived were grown on the planting out system, in the borders of a large conservatory, where they grew with great vigour, and bore an abundance of fruit, which made them very ornamental in summer and winter. In regard to pruning they were merely kept thin, and allowed to grow as naturally as possible. During their growing season the borders were well soaked with liquid manure. *J. Miller, Worksop Manor.*

The Horticultural Congress.—Now that the Royal Horticultural Society has announced the plan for the Congress, some estimate of its value may be formed. The Society has acted wisely in making the proceedings as simple as possible, and so that they can be carried out at little cost. The circumstances attending the experiment may serve as a guide to the Society in giving the Congress a broader basis in future years. Papers and discussions on them should be solicited, and all horticulturists should be invited to send specimens of diseased growths of plants, of soils suitable for the cultivation of different plants, and, in fact, should communicate anything connected with the profession which may be of interest, or which requires general elucidation. [Hear, hear!] All objects should be sent some time previous to the Congress, so that they could be arranged, and descriptive labels affixed, and, when the meeting assembled, discussion upon the most prominent should ensue. More good would result from this than from the mere reading and discussion of papers. Whatever is done, let no spirit of "sturdy independence" hold the profession aloof from acting in concert with the Society in making the experiment successful. I fully endorse your sentiments regarding employers facilitating the attendance of their gardeners at the meeting. I would also add that there are many head gardeners throughout the land, a word from whom to their respective employers would be a great boon, and be required in order to let their subs have a peep at the exhibition. *Brassica, Read Hall, Whalley.*

Flies in Pine Stoves.—I beg to inform your correspondent "Inquirer" (see p. 307), who is troubled with goat-like flies in his Pine pits, that he can get rid of his tormentors by fumigating with tobacco tissue, or by mixing the tissue with ordinary tobacco paper, and using the syringe thoroughly the next morning. We had the pests in our Pine pits last January, and could not get rid of them by smoking in the usual way with tobacco paper, and the syringe seemed to have no effect on them; I therefore tried the tobacco tissue, and have now got quite rid of them for the last three weeks not the slightest vestige of the living insect has been seen, but it required much syringing to free the dead flies from the plants. *D. Cunningham, The Gardens, Moor Park, Rickmansworth, Herts.*

Pear Buds Killed by Frost.—In describing the conditions of the bloom-buds on the Pears after the severe frost of Dec. 25, 1860, I perhaps was not sufficiently clear in stating that the buds when cut open were quite black—I ought to have added, in the centre, still, I cannot see how any one acquainted with the subject under discussion could mistake my meaning, as the fact of their having been cut open implied it was not the outside of the bud that was meant, the colour of which in the depth of winter is sufficiently well known. The greater part of the incipient blossoms in each bud appeared never to have moved afterwards, as was evident at blooming time, each bunch of bloom being composed of a portion only of its original number, the others being visible like dry dust. In the greater part of the blossoms which did expand the pistil was dead, and in some others the anthers also. I cannot agree with "Pari Passu," that

where buds are killed by the action of frost, we may expect to find them burst, inasmuch as the external portion of a bud is composed of a number of parts, that in all probability would admit of a degree of expansion, not possible in the bark or wood of a tree, and in that way bursting would be prevented. The pistil and anthers, from the great difference in their structure, would in all probability burst if frozen, to their certain destruction. But we are now veering on a most abstruse subject—the manner in which frost destroys vegetable life. *T. Barnes, Suamersfield, Boulen, Cheshire.*

Vitality of Bulbs.—Having had occasion to-day (March 15) to consult my herbarium concerning the genus *Narcissus*, I was surprised on finding two bulbs of *Corbularia monophylla* with living leaves about an inch long. One of these bulbs I gathered at Oran (Algeria) in January, 1848, and the other at Tlemcen, on the frontiers of Morocco, on the 23d March, 1857! I immediately planted the bulbs, and put them in my greenhouse, where I have no doubt they will flourish, and in all probability flower next spring, after (for one of them) a rest of 23 years! *Giles Munby, Alice Holt, Farnham.*

Cedar of Lebanon Seeds.—I have read with much pleasure the remarks of your correspondent (p. 278), who kindly explains the manner in which he extracts the seeds from the cones of the Cedar. However good this method may be, it is not quick enough to adopt, where a large quantity of cones have to be opened; and it has the disadvantage of causing a great many of the seeds to be crushed by the operation described. The following is the method which we adopt to remove the scales from the thousands of cones we require annually in raising our nursery seedlings—About the month of February a hole is made in the ground, about 2 feet deep, in which we bury all the cones in sand. In one or two months' time—having taken care that the sand does not become too dry—the cones scale easily without force, the seeds are then picked out and are sown immediately. It might be thought that this plan would injure the quality of the seeds, through moisture, &c., but it does not, as the seeds are taken from the cones, in a fresh condition, and are swelled ready to germinate at once. Formerly the nurserymen in this country (France) used to bore through the apex of the cones with a gimlet, but it was a long and tedious operation. During the last 20 years the above plan has been followed by all our *confreres* with great success. It was found out by one of the nurserymen finding in the ground some cones, which had been buried by rats, and which scaled easily of themselves, and by ascertaining that the seeds of these would grow freely. *Delépine Ainc, Horticulteur-pépiniériste, Angers.*

The Court-pendu Flat Apple.—In reading a notice of this Apple on p. 309 as the Garnons Apple, and Mr. Watson's mention of it at p. 53, I am reminded of years gone by, for in 1834 I happened to be dining at the *table d'hôte* of the *Hôtel de Vienne*—I think that was the name of the hotel—at Ghent. It was in the month of June, when Strawberries and Cherries were ripe. At the dessert I was surprised to see numerous dishes of Apples, plump, bright, and beautiful, as if just gathered; and finding them preferred by the diners, I inquired of my table neighbour how it was that such an early kind of Apple existed in Belgium, unknown in England. He soon enlightened me by telling me that the Apples in question were those of the preceding year, and that they were of the kind called Court-pendu. I had some faint recollection of having seen the same kind of Apple in the gardens of the Horticultural Society at Chiswick, but the fruit under my eye was different in all respects. I therefore thought I had made a grand discovery, and, like all credulous young travellers, was proud enough of having done so, for I anticipated the pleasure of making the English people acquainted with plump, bright, and fairly good Apples in May and June, for those on the table at Ghent were large, flat, with fine bright crimson coats, and sweet, juicy, and nice in flavour. Acting on my impressions I at once set about importing some trees of my newly discovered Apple. When they came into bearing I found the sort well known by my old friend Mr. Pearson, as the Wollaton Pippin, and also at Chiswick, and so my dream ended. The Court-pendu Apple is now largely cultivated in our gardens, and in warm seasons, like the last, its fruit are fair, and they keep well till March, but they are so inferior to those grown under the brighter skies of the Continent as scarcely to be recognised as of the same kind. *T. R.*

Green's Hot water Boiler.—May I take the liberty of asking "Y." (see p. 233) if he is simply in search of truth?—for, if so, it is reasonable to suppose he would have come here openly, and have told some one the nature of the business he had come upon. I should not now care to reply to him, not wishing to waste your valuable space, but that I am anxious the truth should be known respecting this boiler, which I fearlessly assert is all that I have described it to be. I will go further, and say it is the best, most effective, and most economical boiler for horticultural purposes in present use. If "Y." or any one else, doubts this, let him come and judge for himself. Beyond this I do not intend to reply to any one who takes shelter under a *nom de plume*. I will shortly give a description of the boiler now at work here, for the present, suffice it to say that it is doing much more efficiently the work previously performed by two boilers (one of them a very large one), with less than half the fuel and labour. *J. Willis, F.R.H.S., Ashburnham Park Nursery, Chelsea.*

Hardy Spring Flowers.—I saw a few days ago at Mr. R. Parker's Exotic Nursery, Tooting, a very rich deep-coloured herbaceous Anemone, named *dichotoma fulgens*. The hue of colour was of a brilliant deep crimson, and it was nearly as showy as the well-known Vermillion Brilliant early single Tulip. Mr. Parker said it was quite hardy, though occupying a warm and

Mr Morris may be said to hold this in abhorrence, and there is no doubt much truth in his remark, that a little wholesome neglect on the part of some amateur growers would no doubt result in these plants doing better, and being much more satisfactorily cultivated. "Coddling" is no doubt the bane of many amateur growers—hot, ill-ventilated, close houses will not, and cannot be made to grow healthy specimens of these Variegated Pelargoniums. When requisite and during the winter and early spring months, it will be found necessary almost daily,—some artificial heat is given to the house, and a free circulation of the air allowed by plentiful ventilation. There was no evidence of damp, all was healthy, vigorous, and, if the season for being in true character, well coloured.

In regard to soil, Mr Morris uses a fine yellow loam, known as the Dartford loam—sweet, and full of fibry lumps, and of a sandy nature. It is in this alone that Mr Morris grows the plants, and then it is not sifted, but simply broken up into small lumps, and so used for potting purposes. Aeration of the roots is a special feature of Mr Morris's method of cultivation, and accordingly chips of turf, large enough to astonish some growers, are incorporated with the soil, so that it may be thoroughly open and porous, and in addition narrow earthenware pipes are placed in the soil, with the openings just above the surface, and this is done to obtain a free circulation of air through the body of the soil. This process was being applied to a certain number of pots, and it was noticeable that the plants, the roots of which were so aerated, were in a very healthy condition.

There is no doubt much both of truth and force in the remark often made, that of all plants the Variegated Zonal Pelargonium is most likely to suffer from over-propagation. In the general race to get new things distributed, especially at a time when so many new varieties of the tribe are being produced, over-propagation is almost an inevitable result, and debilitated plants succumb to a rigorous mode of treatment, or pine away to a state in which life and death are held, as it were, in a balance. Amateur growers, without proper appliances for growing the plants, have to fight against the effects of debilitation, in addition to other accidents common to plant life. It is the evils incident to the misfortune of over-propagation that Mr. Morris essays to lessen by his somewhat novel mode of cultivation, certainly it is, that as far as the results could be ascertained on this occasion, it appeared to be conclusive in favour of the method of aeration of the roots adopted by that gentleman R. D.

Miscellaneous.

Covent Garden Notes.—The supply of Broccoli (Cornish heads) is now on the decline, as the season for these is nearly over. In consequence of the late mild autumn and mid-winter, the supply sent from Cornwall to the market was very large, the enormous quantity of 10,000 crates (1,000 tons) having arrived between December 20 and February 28. As will be seen from the Market Reports, the Potato trade is somewhat dull, as it has been so for some weeks past, notwithstanding this, we learn that the average weekly quantity brought to King's Cross by the Great Northern Railway alone since December, has been at the rate of 1,000 tons per week, and that a short time back 7,000 tons were delivered at the same place in one week. New Ashleaf Potatoes, grown in frames, have appeared during the last few days, but in very limited quantities. Cucumbers, which are principally of the Syn House breed, are now getting more plentiful, and are sold at from 1s each and upwards. There is a small supply of the highly coloured Lady Apple (the Apt of Hogg's Fruit Manual), in excellent condition, and which are sold at 1s 6d. per dozen.

Lichen-Lessons from Gravestones.—Few botanists have paid any attention to our rock-loving Lichens, consequently the literature of the subject in this country is at a very low ebb. This is greatly to be regretted, for the beautiful part-coloured films and patches of vegetation so common on architectural remains and exposed rocks are well worthy of close study. Lichens are known to be amongst the first objects which disintegrate rocks and stones, but the time required for their germination and growth has long been a vexed point. Recently an English botanist has hit upon the idea of noting the growth of lichens upon the dated monuments and gravestones of country cemeteries, and has found that it requires a period of twenty years for a lichen to acquire a moderate or adult size on a squared stone; the growth of these pretty rosettes of grey and yellow colour, so ornamental to our architectural remains, is, as might have been expected, excessively slow. Builder.

Garden Operations.

(For the ensuing week)

PLANT HOUSES

THE shifting of plants into larger-sized pots, or, as we of the craft term it, fresh potting, should now be proceeded with in the case of stove or other plants requiring such aid, as suggested last week. Space will not allow me to give in detail every particular in regard to the exact consistence, the richness or otherwise, of soils which the several species require, or to state how firmly or otherwise individual plants should be potted, &c. I may, however, point out in general terms a few particulars, which are absolutely necessary to be attended to by those who wish to be successful in the treatment of plants grown in pots. Hard-wooded species of plants invariably require to be solidly and firmly potted. The composts used in potting them should be so composed as to admit of this being done without in any degree diminishing or impairing the needful amount of drainage,

which is so necessary to cause the water given to them to percolate freely throughout the pot and to flow as free away without scouring the soil, or causing the many other evils attendant upon imperfect drainage and an injudiciously prepared and too tenacious substance. Hard-wooded plants, moreover, do not require to be potted so often as those of a more succulent nature, but require a larger amount of really good material of the proper sort, as they receive but little benefit from liquid manures, which are so serviceable in the case of grass feeders. Thus, whilst the best maiden loam is as essentially necessary to the soft-wooded plant as it is to the hard-wooded one, yet a different mode of mixing the materials is requisite in preparing a suitable compost for each. The hard-wooded plant should have as much partly decomposed fibrous matter as possible soft succulent plants, on the contrary, thrive better in thoroughly decomposed substances. Their growth is rapid, hence what is afforded them within the small compass of a pot should be at once fit for their use, for if this is not so, their principal growth will be made before the compost is in a fit state for them to feed upon. Actual manure may be mixed freely with this loam in the case of all plants of quick growth. The grosser the feeding capabilities of a plant, so much the stronger also should the stimulant given be; but others less strong though of rapid development—such, for instance, as Chinese Primulas, will do better with the milder regimen of decomposed leaf-mould. The plants of slower growth should only have a very small portion of manure at any one potting. The manure should be applied with judgment, and only such as is thoroughly decomposed and is certain not to injure the component parts of the compost in admixture. It only remains for me to add, that the longer the intervals which exist between each potting, so much the more permanent and efficient should the drainage be made. Large crocks should be placed over the large outlets at the base of the pot, and over them a layer of potsherds broken so small as to prevent the soil finding its way down into and amongst the crocks, so as to choke up the proper channel. The more succulent in general a plant's roots are, so much the more loosely should it be potted. Give the final shift to any late *Cinerarias* which are needed for a successional display. They should, however, if dwarf and healthy, only receive a small potting at this time. Pinch back the young shoots upon *Fuchsias* started into growth, as previously advised, and continue to propagate any varieties of which a more extensive collection is required. Gradually advance the temperature both in stoves and in Orchid-houses, and with it afford a proportionately larger supply of moisture. Be cautious, however, at this early period, not to cause or permit too much water to lodge in the hearts or crowns of any plants, or it may cause the actual growing parts to become decayed. Above all things, attend to the fumigation of all structures likely to harbour or to produce insect pests. Always endeavour to act upon the preventive system, by smoking all such places periodically.

FORCING HOUSES.

The temperature in all *Piseries* containing forward successional should now, as the season advances, be increased to a mean of about 73° by night, and, with the assistance of sun-heat, an increase of from 12° to 14° by day. Give them tolerably good syringings overhead with tepid water both mornings and afternoons when the days are bright and sunny, but only very early upon afternoons while dull weather prevails. The freshly potted suckers or crowns should have a nice soaking of water a few degrees warmer than the temperature of the house in the morning of fine days, though much of what is necessary may be afforded in process of syringing by experienced hands and those who closely study their wants. *Figs* that are swelling their fruit must be pushed on their way very evenly, as the least check they receive so deranges their organs as to cause them to shed the fruit at this stage. Such *Peach* and *Nectarine* houses as have fruit within swelling freely, should be attended to in the matter of thinning or pinching back the young shoots. The only safe way is to go over them carefully at intervals, and by taking out a few of the thickest and strongest shoots to somewhat ease the parent trees of their burden. Where any are in such an advanced state as to be about to commence stoning a more decided action, as regards pinching the shoots, will of course be needful. I would here throw out a hint regarding red spider, the only preventive of which is to keep the trees in health and cleanliness, for they are sure to follow in the wake of a neglect of one, or ill-success in the other. The next few weeks will be favourable to their formation upon many indoor subjects. If there is one preventive better than another it consists in a tolerably free use of flowers of sulphur, and an abundance of atmospheric humidity.

HARDY FLOWER GARDEN

Those who have delayed to make the necessary sowing of *Sweet Peas* should do so at once. These are far more beautiful when sown thus early, and bloom before the excessive summer heat sets in. It is not necessary to sow them in pots; and with the customary protective measures, *Sweet Peas* are far more hardy than many suppose them to be. Many semi-hardy perennials, such as *Pentstemons*, *Phloxes*, *Pyrethrums*, &c., which, from their rarity, have been kept within the protection of a cold frame, should now be planted out into the open border; press the soil firmly around them after planting, and by any other means secure them against sudden storms and strong winds. Even in places where only limited means exist it will now be full time to bring the stock of *Dabbies* to light, and to start them into growth. Where it is not requisite to increase the stock by cuttings, it will not be necessary,

to force them on by placing them in an even or heat. The more gently they are brought into growth the greater will be their robustness. Propagate by means of cuttings any further stock of *Dabbies* may be required.

KITCHEN GARDEN

Sow a few *Cardoons* for early use. Make the sowing of *Beet* upon good trenched soil, with plenty of manure placed at the bottom of the trench. Finish planting all early *Potatoes* immediately. *Artichokes* Make a successional sowing of *Peas* and *Broad Beans* as soon as those previously sown are aboveground, earthing up all that need it. Make plantations of *Rhubarb* this is generally done by dividing the old stocks and replanting them in manured fresh soil. Sow *Capsicums* and *Cucumbers* as also the herb *Sweet Basil*, for winter purposes. W. E.

TOWN GARDEN

GRASS PLOTS and lawns should now be frequently, as this operation not only makes the grass firm, smooth, and clean, but renders the grass easier to mow. It will be necessary to recommence mowing at once early in the morning while the dew is on the ground, is the best time to do this with the scythe, if with a mowing machine, later in the day when the grass is dry. Grass plots in town gardens should not be cut quite so close as is usually done in the country. The *Virginia Creeper* and other plants covering walls, trellis-work, &c. should now be cut in or otherwise secured. Have all the young shoots of off, and the leading branches secured. *Cyperus* are now growing fast, if dwarf plants are required, they should be pegged down as previously directed. The annuals that were sown in gentle heat will be coming up, and will require a little attention. A flow of air should be afforded them in fine weather and they should receive occasionally slight waterings. *Herbaceous* plants may still be planted, if there is plenty of earth round their roots. *Antirrhyns* and the most useful plants for town gardens, such as *Violas*, be sown, and also the common *Tropaeolum* sown in borders, and makes a pretty display. *Hyacinths* have done flowering in glasses and pots. *Chrysanthemums* turned out into the borders and covered with a little rotten dung in the autumn and allowed to rot, they will flower well next season. *Tulips* are now getting forward, and if slightly protected on cold nights and during stormy weather, they will bloom freely, and give great satisfaction. J. D.

STATE OF THE WEATHER AT CHISWICK, NEAR LONDON. For the Week ending Mar 24 1903 as observed at the METEOROLOGICAL OBSERVATORY.

March	Moon's Age	BAROMETER		TEMPERATURE			W. S. P.		
		Max	Min	Max	Min	Mean			
Thurs. 18	5	29.828	29.710	51	30	40.6	41	60	6
Friday 19	6	29.780	29.480	50	33	41.5	42	60	6
Satur. 20	7	29.500	29.470	41	31	37.3	43	60	6
Sunday 21	8	29.874	29.673	47	32	40.5	41	60	6
Monday 22	9	30.096	30.001	47	34	38.5	41	60	6
Tuesday 23	10	30.138	30.167	41	29	35.0	41	60	6
Wed. 24	11	30.113	30.051	46	33	40.0	41	60	6
Average		29.921	29.790	45.5	32	37.1	41	60	6

March 18—Fine, overcast, overcast, showery & high.
19—Overcast, heavy showers, fine & high.
20—Very boisterous storm with rain & snow.
21—Stormy and overcast, showery & high.
22—Fine overcast & cloudy and high.
23—Overcast and cold, cloudy & low.
24—Fine and frosty, overcast, but fine & high.
Mean temperature of the week 36.0 deg. below zero.

STATE OF THE WEATHER AT CHISWICK. During the last 43 years, for the ensuing Week ending Mar 24 1903.

March and April	Average Highest Temp.	Average Lowest Temp.	Mean Temp.	No. of Years in which it Occurred	Quantity of Rain
Sunday 24	53.9	34.0	43.5	17	0.64
Mon. 25	53.7	34.4	43.8	17	0.5
Tue. 26	53.7	34.3	44	19	0.5
Wed. 27	53.3	33.9	44.4	19	0.7
Thurs. 28	53.0	34.4	44.7	21	0.6
Friday 29	52.8	34	44.2	21	1.9
Satur. 30	52.1	33.7	42.9	20	0.5

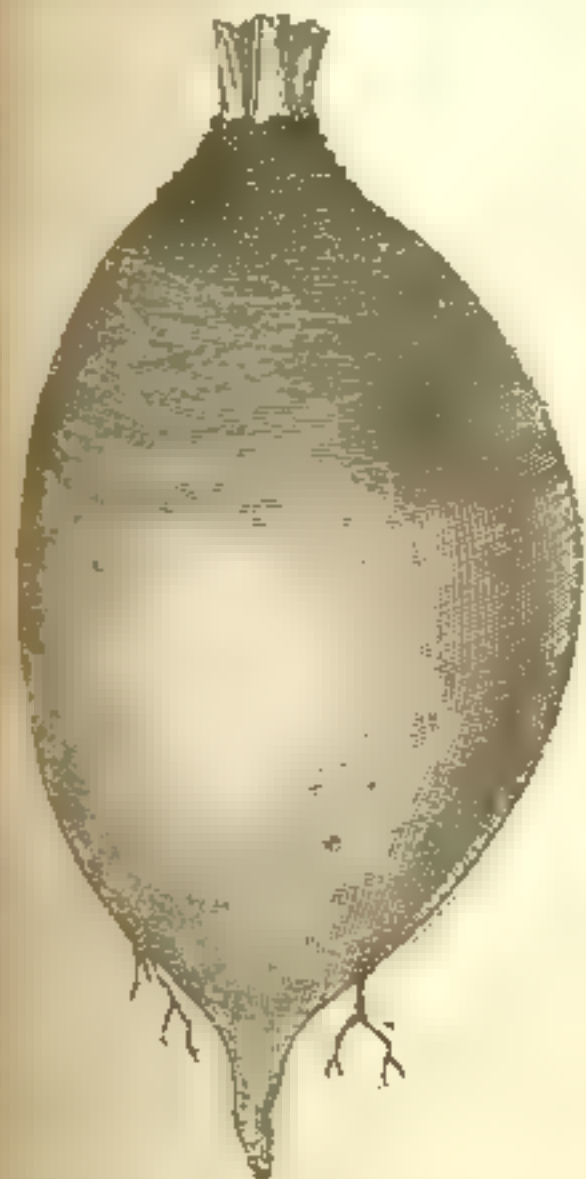
The highest temperature during the above period was 78 deg. on the 2d 1879—then 78 deg., and the lowest on the 18th 1889.

NOTICES TO CORRESPONDENTS

Books: S. T. "Ayes on the Cucumber," & M. "The Cucumber," if either is still in print. We have a new edition of the former to be expected, but perhaps not in time for your objection. Refer to our weekly Calendar, and refer to the "Notes on the Cucumber." DISEASED FIR TREES: P. B. You have noted a fungus on a parasitic fungus, *Peridermium*, which I have not known of any remedy. The fungus is a parasite on the wood, as the branches are not affected. I have seen these of the Silver Fir from almost all parts of the world, where the nature of the fungus is the same. I identify the introduction of the parasite, and the means of spreading the parasite. G. S. H. IN A GARDEN: I have seen a very good specimen of the fungus, and I have seen a very good specimen of the fungus. BOARD GENTLY TWO OR THREE LINES at the end of the next issue, and use the syringe from the next issue. Information on this subject, see p. 333. NAME OF INSECT: A. I. responds.—The sketch of the "dove" insect represents one of the *Homoptera*, *Neides tipularis*. It is reputed to be a pest of the *Homoptera*. NAMES OF PLANTS: F. W. J. I have seen a very good specimen of the fungus, and I have seen a very good specimen of the fungus. SCOTT'S WASP DESTROYER MIXTURE.—Those who have used it to dispose of should advertise them, and not lose their money under a bushel. FRESH MINT: I have seen a very good specimen of the fungus, and I have seen a very good specimen of the fungus. COMMENTARY: H. E. V. I have seen a very good specimen of the fungus, and I have seen a very good specimen of the fungus. C. F.—M. I have seen a very good specimen of the fungus, and I have seen a very good specimen of the fungus. —A Constant Reader—J. A.—A. P. I have seen a very good specimen of the fungus, and I have seen a very good specimen of the fungus.

MAR 27, 1869.]

SUTTONS' HOME-GROWN FARM SEEDS,
NEW AND UNADULTERATED,
CARRIAGE FREE.
DIRECT FROM THE GROWERS THE BEST MEANS
OF PREVENTING DISAPPOINTMENT
Special Contracts made for large quantities
Farm Seeds are saved from large and carefully
selected crops from the Carriage Free, but have no Agents.
SUTTONS' PRIZE MANGEL WURZEL,
A NEW AND DISTINCT VARIETY.



SUTTONS' NEW YELLOW INTERMEDIATE.
The peculiar shape of the roots, and the leaves being small,
may be sown to stand closer in the rows than other
varieties, and it produces a greater weight per acre. It may be
sown with half the labour of other kinds.
1s. 6d. per lb., much cheaper by cwt.
THE LARGEST GLOBE VARIETY IN CULTIVATION.



BERKSHIRE PRIZE YELLOW GLOBE.
A new variety of Globe Mangel, yet introduced. It is of
a very neat top. It is mostly of pale yellow
colour, and produces only one tap-root. It grows to a large size, and
produces the enormous weight of 85 tons per acre.
1s. 6d. per lb., much cheaper by cwt.
The following excellent sorts can also be supplied:—
SUTTONS' HAMMOTH LONG RED, 1s. 6d. per lb.
SUTTONS' YELLOW GLOBE, 1s. per lb.
SUTTONS' RED ORANGE GLOBE, 1s. per lb.
SUTTONS' YELLOW GLOBE, 1s. per lb.
SUTTONS' GLOBE, 1s. 6d. per lb.
SUTTONS' LONG RED, 10d. lb.
SUTTONS' RED GLOBE, 1s. per lb.
SUTTONS' RED GLOBE, 1s. per lb.
Lowest price on application
SUGAR BEET (Sow 8 lb. per acre).
SUTTONS' FINE GREEN TOP, 1s. per lb.
Suttons' Agricultural Seeds, see Suttons'
"The Royal Seedsmen" Catalogue. Gt. Post Free. Gratis to Customers.
Suttons' seeds are sold for cash payments. A goods carriage free.
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The advantages of procuring NEW and UNADULTERATED SEEDS direct from the GROWERS cannot be over-estimated.

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SEED FARMS:

JUPES HILL FARM, DEDHAM, ESSEX.
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SPECIALLY PREPARED FOR EVERY DESCRIPTION
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- THE WORTHING IMPROVEMENTS, &c. &c.

Finest Quality, per acre, 28s. to 32s.
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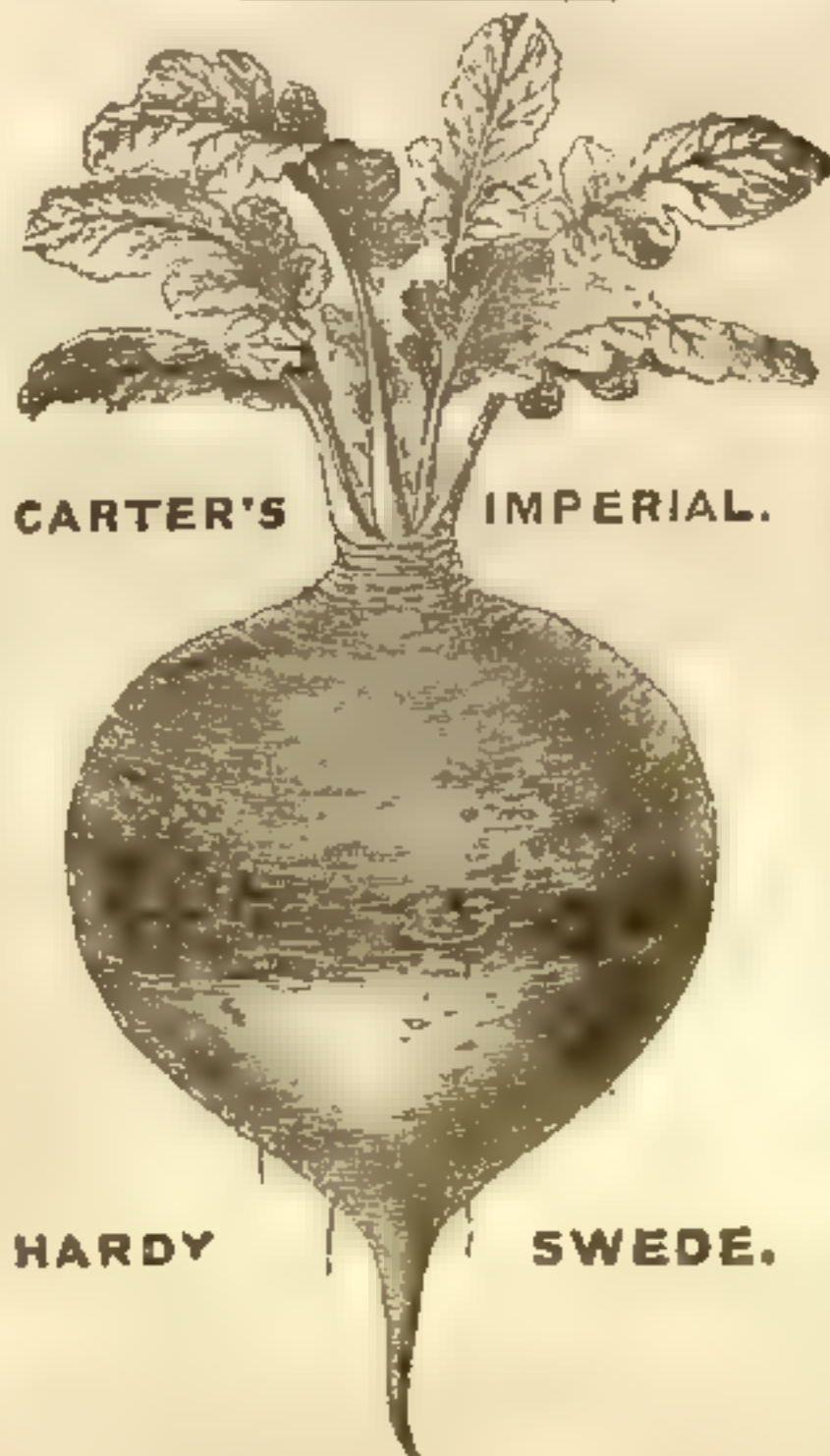
See evidence of quality at page 330 of this day's
Gardeners' Chronicle. Large purchasers liberally treated.

CARTER'S WARDEN MANGEL.

See illustration and evidence of quality at page 330 of
this day's *Gardeners' Chronicle*.

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Cheaper per cwt.

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CARTER'S "PRIZE" MANGEL WURZEL.
CARTER'S FINE CLOVER SEEDS
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For particulars of the above choice stocks, see CARTER'S
"Illustrated Farmer's Calendar for 1869"



CARTER'S IMPERIAL.

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THE HARDEST AND BEST IN CULTIVATION.

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1s. per lb.; cheaper per cwt.

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Post Free 6d.; Gratis to Customers.

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HALLETT'S PEDIGREE CHEVALIER BARLEY
produced in 1865 a Crop of 63 bushels per acre, a Sample of
which was awarded the First Prize at the Birmingham Show of 1863.
Took the First Prize also at the same Show of 1867. Produced in
1867 nearly 9 quarters per acre.
PEDIGREE BLACK TARTARIAN OATS produced, 1868,
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PRICED DESCRIPTIVE CATALOGUE OF FARM SEEDS
sent free, on application.
MIXTURES of GRASS SEEDS for Permanent Turf and
Rotation Crops, to suit every description of Soil and Climate, of
very superior quality.
Finest clean Samples of CLOVERS, RYE GRASSES, and
NATURAL GRASSES, at Market rates. Samples and prices
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Their TURNIPS, MANGELS, and other ROOT-CROP SEEDS
are sown with great care, and are of very superior and high-class
character.
Special Estimates for large quantities. Orders amounting to £1
value (Grain, Potatoes, &c., excepted) will be delivered carriage
free, at the principal Railway Stations in the Kingdom.

ROYAL AGRICULTURAL SOCIETY OF ENGLAND.

MANCHESTER MEETING, 1869.



STOCK and IMPLEMENT PRIZE
SHEETS are now ready, and will be
forwarded on application to HENRY
WHITWORTH, Esq., Local Secretary,
64, King Street, Manchester; or

H. M. JENKINS, Secretary.

12, Hanover Square, London, W

The Agricultural Gazette.

SATURDAY, MARCH 27, 1869.

MEETINGS FOR THE ENSUING WEEK.

- April 1 Yearling Short-horn Bull Show and Sale, at Bingley Hall, Birmingham
- 2 Norfolk Chamber of Agriculture, at Norwich—1 The Contagious Diseases Act, 1869, Lill No. 2 2 The Best Substitute for the Malt-tax

We some weeks ago called attention to the fact that the farmers of England are but scantily represented in the Commons House of Parliament. It was a phenomenon, not to say a scandal, that constituencies consisting almost wholly of those who cultivate the soil should send up soldiers, lawyers, noblemen, and squires, but no one really representing them—so few of these being agriculturists. Thanks partly to the fashion set by the Royal Agricultural Society of England, partly to the real interest, for all educated men, of the problems which agricultural improvement offers, the agriculturist is met with now in many other classes as well as among the actual tenants of the land, but that the latter, who may be said almost exclusively to hold the county franchise, should disregard the special agricultural fitness of any candidate for the county membership, and consider only the nomination of the leading county men, was not only an absurdity—it was a disgrace. This was one of the points enumerated as indicative of the present status of the tenant-farmer in this country. No doubt the necessity for a special or professional representation of his class in Parliament will pass away along with, almost in advance of, that undue subserviency which at present hinders it; for it only needs a general advance in intelligence and resolution among agriculturists to attain, without the aid of legislation, many of those aims which the most advanced among us propose to achieve by direct enactment. Nevertheless, the progress sought will be materially hastened by the presence among our legislators of men who have the confidence of farmers; and if more of the counties cannot send them up, let us hope that some of the borough constituencies may act for them.

The City of Hereford is to elect its representatives next Tuesday, and one of the candidates is Mr. C. WREN HOSKYNs, well known to the readers of the *Agricultural Gazette*—well known, indeed, to agricultural readers everywhere. No one has done more than Mr. HOSKYNs to illustrate the influence of English history, and especially of English legislation, on the condition of English agriculture, no other English writer has done so much to illustrate the charm and extend the interest now generally felt in even the commonest details of land-owning and of farming—no one, we may add, did more than he to revive the steam cultivation problem, whose achievement has been at length such a great and pregnant agricultural success; and as having already often been the exponent of

RICHARD WALKER... ROUNDED POTATO... AN... white...

1868 - Mangel Wurzel Seed. H. AND F. SHARPE... Farm...

Seeds Direct from the Growers the best means of Preventing Disappointment. NOTICE - PURCHASERS OF LARGE QUANTITIES...

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FIBROUS PEAT, of first-class quality, for Orchids. Healths, American Plants, and all Potting purposes...

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LAWES' MANURES are now ready for delivery for present season, 1899.

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THE LONDON MANURE COMPANY (ESTABLISHED 1840) Have now ready for delivery in fine condition, CORN MANURE for Shiring & Co. FERTILIZING BONES for Dressing Pasture Lands SUPERPHOSPHATE OF LIME PREPARED GUANO MANGEL and POTATO MANURES.

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POOLEY'S TOBACCO POWDER, for the Prevention and Destruction of Blight and other Diseases in Plants.

POOLEY'S TOBACCO POWDER, for the Prevention and Destruction of Blight and other Diseases in Plants. Sold by Nurseries, Seedsmen, and Florists. In Tins at 2s. 6d. and 1s. 6d. Powder in 10 lb. tins at 12s. 6d. and 6s. 6d.

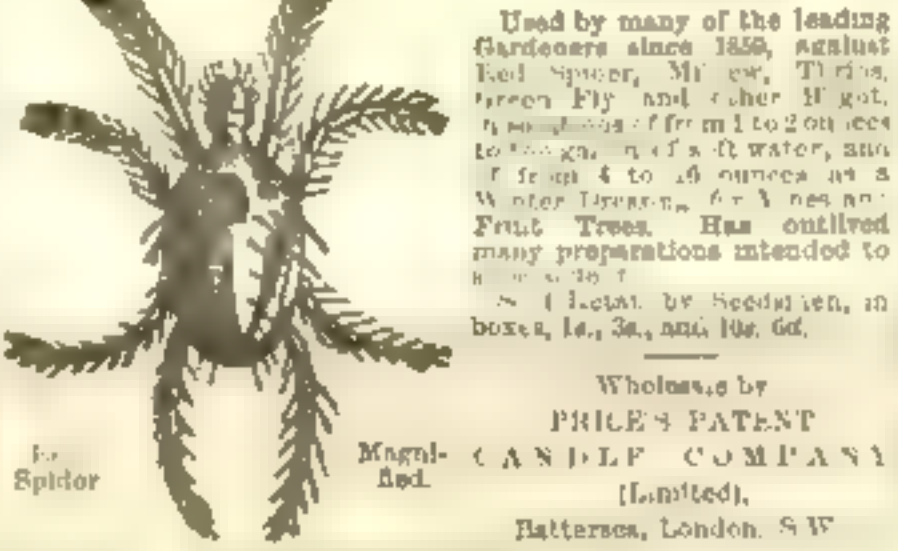
Tobacco Tissue. FOR DESTROYING RED SPIDER, MEALY-BUG, THRIP, GREEN and BLACK FLY, without the aid of a Fumigator - This tissue having been before the Public for the last three years, and being now used by many of the leading Horticulturists - from several of whom Testimonials have been received as to its efficacy, the Manufacturers beg to recommend those who have not used it to give it a trial, leaving no doubt when they have done so they will use nothing else, as it is far superior to paper bags, and will not injure the plants. Sold in 10 lb. tins at 12s. 6d. and 6s. 6d. per tin. A large quantity of paper bags, and will not injure the plants. Sold in 10 lb. tins at 12s. 6d. and 6s. 6d. per tin.

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GENUINE TOBACCO PAPER, of the best quality, 100 per lb. or 50 per cwt. WALTER BAKER & CO., Stationery and Seed Merchants, London.

THE TURAC O CLOTH - The easiest and best for the strength, as 17 per lb. or 19 per lb. at Joseph Baker, 1, Broad Street, Fleet Street, E.C. Post Office Orders payable to Fleet Street.

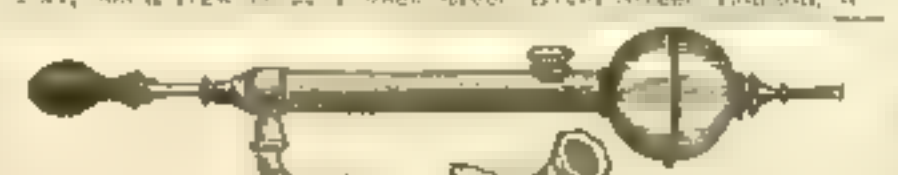
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Table with columns: LARGE SHEET SQUARES, 15 oz., per 100 feet, inches, inches, inches. Rows 1-3.

Table with columns: SHEET GLASS, 15 oz., per 100 feet, inches, inches, inches. Rows 1-3.

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is scarcely a Vine-border throughout the country which is not more or less warmed in some way or other. Every gardener in this country, while constructing his Vine-borders, takes care, while supplying enough feeding material, to have his border laid warm and dry. All admit the necessity of warming so far, and it is absolutely necessary in some situations to pay extreme attention to this point. Some situations are naturally more cold and damp, and require more warming, &c., than others. This, therefore, should not be lost sight of in speaking generally of heated borders. As to the methods and extent of warming, we have, in the first place, the simple draining of the ground, the concreting of the bottom of the border, and paving it with brickbats, &c., which are almost universally practised; then others may be, as it is termed, aerated, which is simply well drained, and a very excellent method it is, others, more elaborate, may have the addition of hot-water pipes, or hot manure, &c., in various positions, and to a varying extent—amongst the brickbats immediately underneath the roots, or in capacious chambers below them, as in the Kingston Hall example, the allusion to which, and its apparent justification, by Mr. WESTLAND, have been the principle cause of this discussion. There are, besides, many other methods of increasing the natural warmth of a Vine-border, such as elevating it above the surrounding level, protecting it from cold and wet, husbanding the heats of summer, applying heating materials to the surface, or forming it inside the house, &c., all of which may be more or less recommended.

A certain degree of heat for the roots of Vines being thus considered, by all parties, to be beneficial, it seems a simple problem to determine what should be its exact amount, yet it is on this very point that opinions are divided. We know exactly how much to apply to the tops at all seasons, but how much we ought to apply to the roots is not clearly ascertained. For the production of early Grapes—Grapes to ripen in April, Mr. WESTLAND gives it as his opinion, that the temperature of the border "should correspond with the mean temperature of the house," say 60°. Mr. THOMSON, whose experience is great, puts it at the same figure. Now, assuming this to be correct, we have here some data to go by. To attain and maintain that degree of temperature it is absolutely necessary to have recourse to fire-heat in some shape or form the border must, in fact, be warmed by hot-water pipes. We therefore give our vote unhesitatingly in favour of Mr. THOMSON'S practice (see p. 27), as being the simplest and most effectual. Although in unskilled hands heated borders may be said to be "dangerous things," it is shown, in Mr. THOMSON'S letter, that in skilled hands they are exceedingly obedient. The chambered borders at Kingston Hall have been condemned by those most conversant with them, on account of the expense of construction. We are well aware of the many fine crops of Grapes produced by Mr. WESTLAND, but, when we take into consideration the enormous expense attendant on the formation of these borders, and the condition of the Vines during the past season, we must join in their condemnation. It may be said, that a good thing is not dear at any price; yet if the same result can be produced at a less cost, we prefer the cheaper plan. Mr. WESTLAND'S proposed border, as propounded by Mr. AYRES, seems good in principle; nevertheless, it seems to us, that unless considerable heat is continuously kept up—which is objectionable—the border will only become heated to a very slight degree.

We come now to consider the necessity for so high a degree of earth-temperature to start Vines in November, or at any other season. Mr. SAGE, a good practical gardener, says 50° is much preferable. Mr. MILLER, Combe Abbey, and others, say something to the same effect. We have heard the argument used, that if 60° is necessary in November, it is equally so in December, January, February, and March, yet the advocates of the heated borders do not deem it necessary for the three latter months, and why? It may appear rather paradoxical that those Vines which bear the best fruit, the main supply in fact, should require no assistance in the way of bottom-heat, though that is found so beneficial in the case of the others started earlier,—that the Vines which produce the main crop, should, in fact, start into action without bottom-heat at the season when the earth's temperature is at its very lowest, and greatly below that of November, when such heat is

deemed necessary. The average temperature of the earth, as noted at Chiswick, at a depth of 2 feet, is in November 47°, in January 40°, in March 44°, and it is the very end of June before 60° is arrived at. It then rises to 68°, and in September sinks to 61°, October 56°, and at 1 foot the temperature is in summer a little higher, in winter a little lower. Our well-formed Vine-borders are, probably, considerably warmer than this, yet here we have the fluctuations shown, and some idea of the actual temperature realised, and from that and our own practical experience combined, we draw the conclusion that 60° is an extreme temperature, and higher than necessary to start with, even in November. The earlier Vines are forced, the more difficult it is to get them to break. It is unnatural for them to do so in November, and they have to be forced to do it. This is the reason why a higher degree of temperature in the border is necessary to set the roots in action in the one case than in the other; it is sound doctrine, as they will naturally move in spring at a much lower temperature. Roots grow to some extent, in favourable situations, during the winter, while the tops are yet dormant; in their action they are always naturally in advance of the tops, but when forcing is commenced in November their action is anticipated hence the necessity of a stimulant, and the farther out of the natural course, the greater must the stimulant be.

Vines forced early one season require less forcing the following one. They seem to get used to an earlier season, yet, by continued forcing, Vines become exhausted, and require renewal much sooner than those which are allowed a more natural life. We have seen many excellent crops of Grapes produced and ripened in the end of April and May, by the husbanding of the heats of summer in early autumn, and by protection from cold and wet in winter, with the addition of a little fermenting material to the outside borders, as well as by the use of inside borders, of which we much approve for early work. And, again, for very early Grapes, we are greatly in favour of the use of pot Vines. They can be forced at a much less expense. This, in fact, is the only purpose for which pot Grapes can be recommended, viz., to bridge over the gap that may exist between the late and early crops on the permanent Vines. Thus, although we approve of Mr. THOMSON'S method of applying bottom-heat, as being the best brought forward—and look upon it and similar methods as great feats of horticultural skill—yet, seeing that it is apt to be mismanaged, and that equally good Grapes, and a continuous supply, can be procured without incurring that expense, we are inclined to say—Let well alone.

After all comes the final question, is it necessary to force Grapes so early? For those who prefer newly ripened fruits it may be, for those who are content with well-kept Muscats, Lady Downe's, Alicante, Mrs. Pince's, &c., it is not. Mr. MILLER, of Combe Abbey, one of the most successful Grape cultivators in this country, who objects to early forcing, states that by the aid of the fine late Grapes now in existence, he is enabled to belt the year round without it. Remembering what we do of Mr. MILLER'S freshly kept Grapes in March, as well as those of Mr. TILLYARD, at Stanmore Priory, and the examples of Mr. MEREDITH, Mr. STEVENS, and others, as well as the late kept Grapes still to be seen in Covent Garden, we decidedly give them the preference. They are not only not coarse, but rich and luscious in comparison, in our opinion, with the newly ripened fruit, excepting Royal Ascot, in the end of March and beginning of April. As they can be kept so well now, at so much less expense than by forcing, we fail to see the utility of forcing early, and this conclusion does away, to a great extent, with the necessity of having hot-water pipes and heated chambers underneath our Vine-borders.

—A UNIVERSAL AGRICULTURAL CONGRESS is to take place at Copenhagen from the 6th to the 10th of July next, under the presidency of the Comte HOLSTEIN. The scheme is an extensive one, and combines the following features—1. Reports and discussions on agricultural matters, 2. Exhibitions of domestic animals of the bovine, equine, ovine, porcine, and feathered classes; 3. Exhibition of implements, machines, &c., connected with agriculture, forestry, dairy management, the chase, fishing, bee-culture, and gardening, 4. Exhibition of the products of agriculture, forestry, &c., 5. Horticultural exhibition. This latter, which more immediately concerns us, is in charge of a special committee, consisting of the Baron

ZYPHEN ADELER (president and M. ROYER, director of the Public Parks, members of the General Commission; and M. TYGE ROTHE, director of the Garden of Rosenberg, M. C. L. HANSEN, secretary and M. J. O. HOLM, secretary of the Horticultural Society of Copenhagen. It is to embrace vegetables and table fruits, in season, as well as forced, retarded, fruit trees and garden seeds, ornamental plants and cut flowers, ornamental plants, agricultural products, as preserved fruits, &c. Designs for gardens, hothouses, &c. erecting, heating apparatus, and garden notices. Notice of intention to exhibit, to be sent before the 15th of June to the Secretary, M. D. DESSAULT, plads No. 13, Copenhagen.

—What is a SPECIES of NARCISSUS? We find question in reference to the proposed exhibition of species of Narcissus next year (see p. 30). We may ask, Who are to be the judges? What rules of law are to be laid down for their conduct? Are we to go back to the origin of species, and your to discover the handsome but somewhat unprofitable youth who is said to have been the inventor of his race? No, surely, and yet we should trace at the root of the matter (mark), though naturally process would be narcotic in its effects. Suppose we don't suppose any three botanists would be of the same opinion as to what constitutes a species of more than usually variable genus. HERBERT, in his own opinions on the matter so did HAWKINS, BOISSIER, so also M. JORDAN, but assuredly the botanists we have mentioned, and we enumerate many others, has carried entire control to the minds of others. In this dilemma, what judges at the forthcoming exhibition to do? Time enough to consider this matter, and we are to be able to announce that Mr. J. C. BAKER of Royal Herbarium, Kew, has kindly undertaken, on request, to prepare a few notes on this point, which may facilitate their labours. Few persons can be so well suited as Mr. BAKER, both by personal knowledge and favourable circumstances for summarising the state of science as regards the cultivated species of Narcissus. We hope to publish the first portion of Mr. BAKER'S remarks in an early number, and meantime, as it is desirable to know what actually are in cultivation, any of our correspondents who may have specimens in a fit state for description, will be aiding in the good work by sending specimens either to Mr. BAKER, or to ourselves.

—The following extract from the official Gazette, received from her Majesty's Ambassador, Berlin, has been forwarded to us for publication. *Staats Anzeiger* gives us some particulars of the METHOD OF CULTIVATING the POTATO, by GÜLLICH, of Pinnberg, in Holstein, and which, as said, has given surprising results where it is employed. The leading features of this new culture are—1. Turning up the soil to a considerable depth; 2. Choosing as seed large, sound, and uneyed Potatoes; 3. Leaving each seed Potato a space of one square foot; 4. Laying the seed Potato with the side down. By a report laid before the last meeting of the Frankfurt Agricultural Society, we learn the result of experiments in Potato-growing made last year on one morgen (two-thirds of an acre) which was planted with 8 metzen of seed, 1 metze is somewhat less than one-tenth of an English bushel, and where the seed Potato was left 12 square feet the produce was 108 scheffels (German bushels, = 15 English bushels). Another morgen of land, planted with 12 metzen, where each seed Potato had a space of 9 square feet, yielded 88 scheffels. A third morgen was planted with 1 scheffel of seed, each Potato being left a space of 12 square feet, and the produce was 78 scheffels. The average yield of the 3rd morgen was 78 scheffels on the same land, and was obtained from 7-8 scheffels on the same land, and was 108 scheffels. The advantages of GÜLLICH'S system consist of—1. A saving of 6-7 scheffels per morgen of seed, and, 2. An increase of from 25 to 100 per cent of the produce.

—A correspondent expresses his surprise at two portions of a LAYER of a Black Hamburgh Vine either side of the peg which fastened it to the ground producing shoots, as the SAP must move upwards nearest to the parent Vine in a direction contrary to which it took originally, inasmuch as he is aware that this is contrary to "recent discoveries," and it is declared to ascend by ducts and vessels. The fact, however, is, that no such theory prevails. On the contrary, it is now well ascertained, that the change of the fluid or gaseous contents of any contiguous cells through the whole plant, may take place in any direction, though the main current be in one direction rather than in another. As valves, like those of a pump, no such current is though permeable dissepiments are sufficient to prevent it. The old experiment of planting a Gooseberry head downwards is a case exactly analogous to that of a correspondent's Vines, as, indeed, are most cases in which the tips of the shoots take root. A Gooseberry tree will readily take root in any position, the same may be said of many other plants. The course could not be the case if the sap moved in one direction only. M. J. B.

A CHAPTER ON SWEET PEAS.

THE author of your admirably written and exhaustive Calendar adverted last week to the necessity of early sowing of Sweet Peas, and the necessity of early sowing would have them exhibit their full richness of colour, purity of tint, and sweetness. Permit me to endorse this excellent advice, and to add, that the time to sow Sweet Peas for the first grand crop, which is the richest, is in the open ground in the month of March, as hardy as any other Pea, and probably more so, and for some years past I have

with the first crop of Racehorses, &c., and from bloom among the first of them all, and the weather as well or better than the hardest

exceptionally mild winter, this March has been a month for Peas, and none of them have withstood the biting frosts, pelting hailstorms, and withering blasts they have had to contend with: but our Sweet Peas have withstood any of the others. They are short, healthy, and all that the cold has been able to do is to arrest growth,—to keep them close to the ground,—to keep them from being able to injure the growth already begun, and to keep the plants from being able to mount up their stakes

rather peculiar feature of the Peas is that they do not come through the soil in a straight line, but they draw up two ridges of earth about 2 inches on each side of the Peas, leaving a space from 1 to 2 inches wide between. The Peas of course occupy the valley, and these ridges act the part of a rampart to the cold air, while the early breaking up their powers of resistance and by the time they reach the top of the stems they are perfectly formed, having put on their full complement of leaf clothing, and are able to do brave and victorious battle with the cold.

But just at this stage we meet them under shelter and a d to growth—sticks. I saw lately a most interesting illustration of their power in the garden of one of the top quarters of his kitchen. The whole row was in the same condition—

staying at one spot, where it was in full bloom. Now what hastened it there, and caused it to be a fortnight before the other portion? It would be a long while before my readers could find it. Just at that spot two or three young

Carrot bushes sprayed over the Aubrietia, and they either keep the cold off, or they had down upon it, as to advance its flowering a fortnight. Without seeing it one could credit that such a result could have sprung from such a cause. But the fact has confirmed me in my opinion that I have adopted with all early Peas for as soon as they are fairly up, I invite them to afford them the protection and support of

For the first crops the stakes should be placed lower than for later ones. We generally choose small twigs at the bottom, and allow the stems to interlace over the top. Doubtless thus the stakes afford a most efficient shelter, and they stimulate earliness of growth. But I must not mix with the stakes, or your readers will accuse me of mixing with the assertion of the perfect hardiness of Peas, and then proceeding to advocate a distinction for their infantile days. Nevertheless a wide distinction between the shelter of a glass and pot, box, or glass nursing, with

of unnatural tenderness. Peas sown in November, and treated thus, will blossom early in June, and few flowers can be so useful for cutting at that period. For they are most effective, with one stem left on a stem. By this method every stem can be arranged to a nicety of position and an equal height, and they impart a dressiness and grace to a row, reposing on a fringe of green, and many flowers can equal and hardly any excel the standard for the display of Sweet Peas in a wide mouthed vase from 9 to 12 inches high. For this purpose choose those of the most compact form, abundant bloom, and perfect number length, and choose of tender also a branch of the most distinct blossoms. Then, with a correct eye and artistic fingers, arrange and fill in the margin, showing the tendril and the stem depend over the edges of the vase, and spring up slightly beyond the rim in all directions, and you have an offering fit for the Queen of Beauty.

Such a perfect vase once placed in the drawing-room, is not only a pleasure to the eye, but it is welcomed with a pleasure that means must be devised to make permanent institution there. The simplest method is to sow Sweet Peas three or four inches apart, as we do all other Peas. It is just as easy, and it keeps up a succession of Sweet Peas for a long time, and by the same means. Sow in November, for the first crop; in the second, in May, for the third; and if you have a few more in June for the last. The March crop should be in partially shaded places, and the last crop, like the first, on a warm spot. This is an essential for the first crop on account of the want of flowers. I could name ladies who prize Sweet Peas as much or more than the epicure

are used for boundaries of flower beds, forming screens, &c., they are able to flower throughout the season, by preventing the maturation of a single seed, and by the use of liquid manure. The branch method also favours the breaking

back of the haulm, and this tends to continuity of blossoming. The Scarlet Invincible Pea, which, by the way, is not a scarlet, shows what may be done by careful selection, and points the way to greater distinctness and vividness of colouring. A spotless white, a perfect blue, a vivid scarlet are within reach, and would form valuable backgrounds to many ribbon or flower-garden arrangements, where an indiscriminate mixture cannot be used.

With these new varieties, and early and successive sowings, or judicious pickings, no flower garden or drawing-room need be without the sweet adornment of these lovely flowers from May to November. *D. T. Fish, F.R.H.S.*

CYCLAMENS.

C. hederifolium, Aiton. -The tuber of this species is not unfrequently a foot in diameter when full grown; its shape is somewhat spheroidal, depressed on the

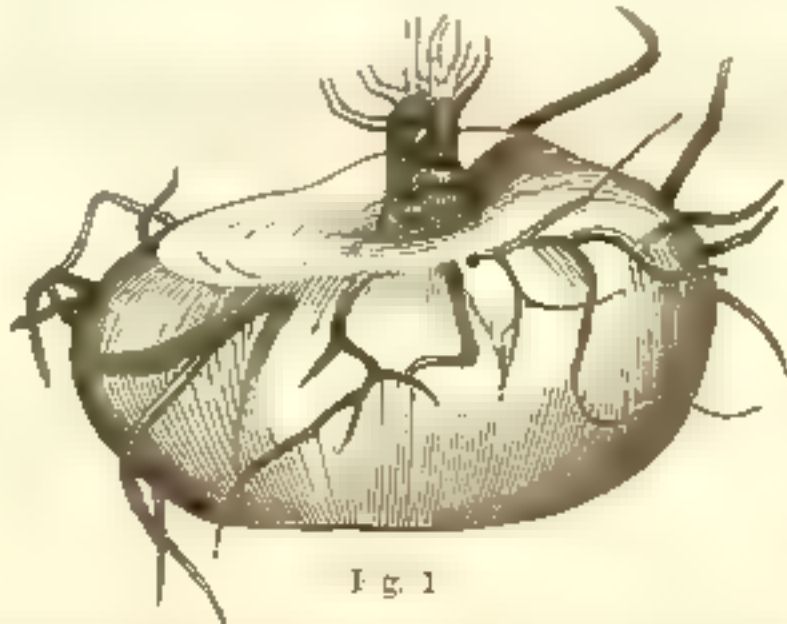


Fig 1

upper surface, rounded beneath. It is covered with a brownish rough rind, which cracks irregularly, so as to

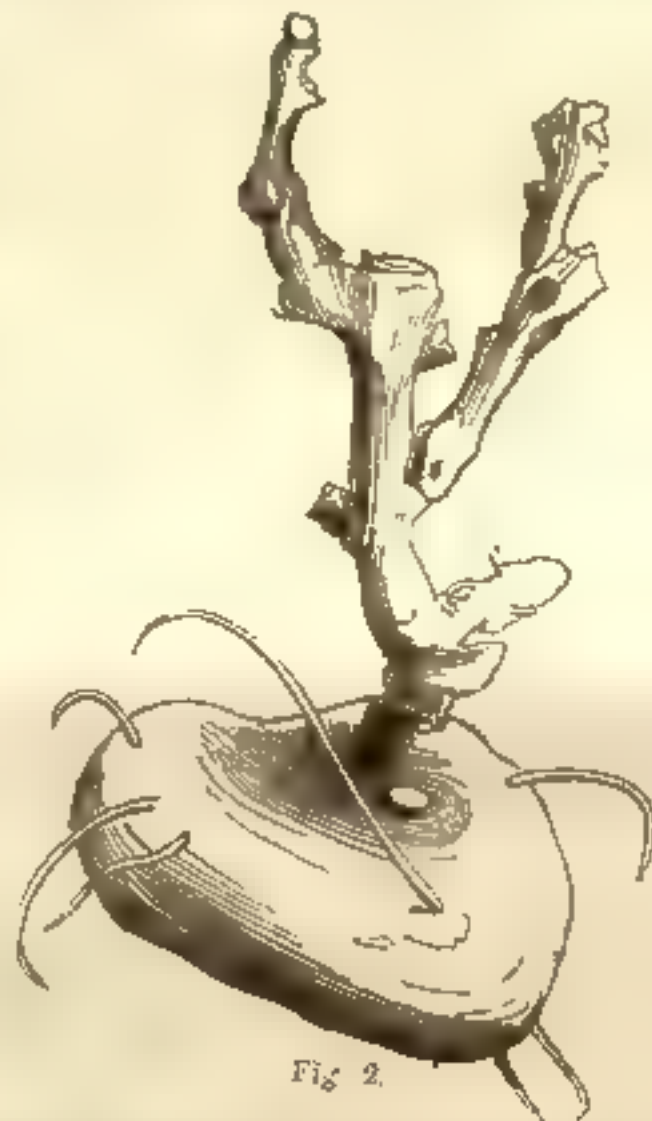


Fig 2

form little scales. The root fibres emerge from the whole of the upper surface of the tuber, but princi-

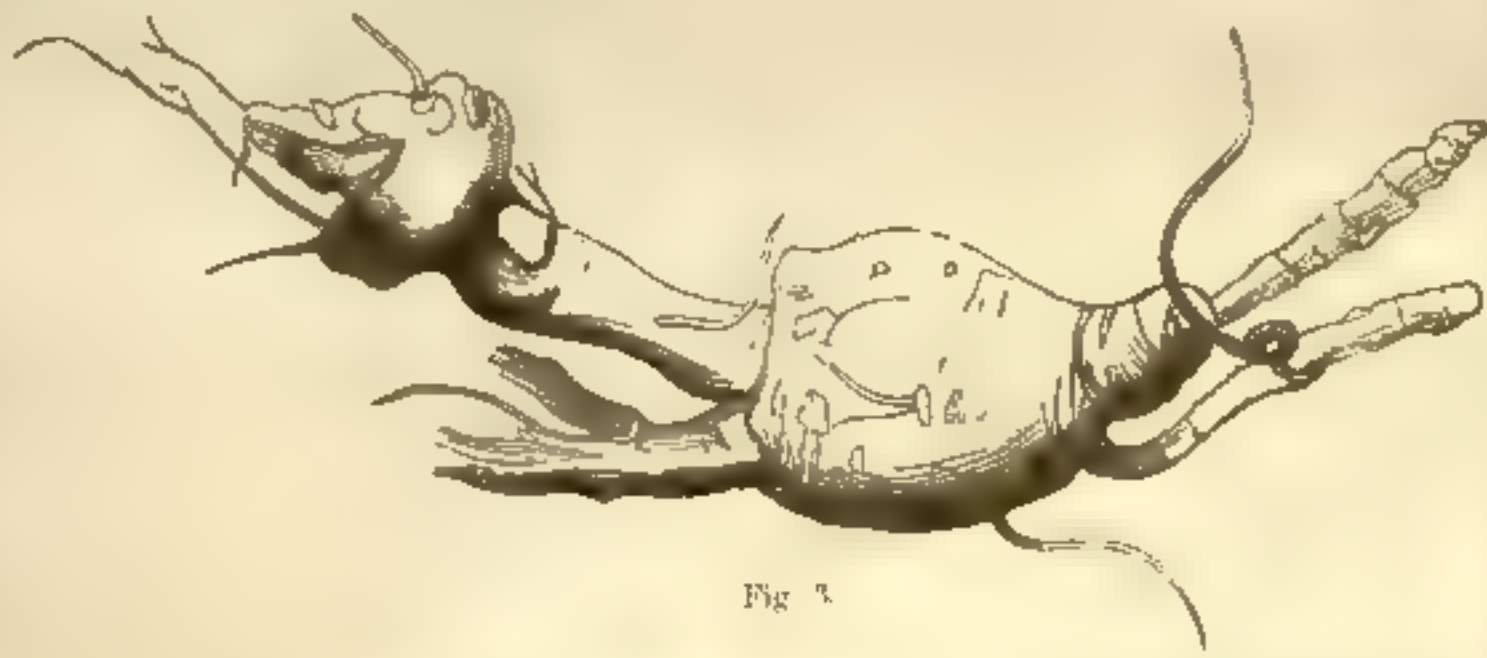


Fig 3

pally, and in greatest numbers, from the rim of the tuber; few or none issue from the lower surface. The leaves and flowers spring direct from the tuber without the intervention of any stem. At first they spread horizontally, but ultimately become erect. The accompanying figure 1 is taken from a small and not very characteristic example. There are not sufficient fibrils shown emerging from the upper surface and margin, the lower side of the tuber is moreover more rounded than is shown in the figure, while it is quite exceptional for the leaves to proceed from a little stem as shown in the cut. They issue in general directly from the tuber. The plant is well figured in Baxter's "British Botany," t. 505.

C. europæum, Linn.—In this species the tuber is of medium size and very irregular form, sometimes roundish or depressed and knotted, at other times elongated. The rind is thin, smooth, yellowish, sometimes "scabby." The tuber is sometimes of considerable length and size, as remarked by Sweet, who says "caudex non raro elongatus." Another author speaks of having seen it a foot and a half in length. The leaves and flowers originate from stalks or branches, which emerge from all parts of the tuber. The root

fibrils spring from the lower surface of the tuber as freely as from the upper, but are never so numerous as in *C. hederifolium*. The drawing 2 shows the tuber too much depressed above. The stem emerging from it is rarely so much branched as is shown in the sketch, and there are usually two or three springing from different parts of the tuber and growing in different directions.

Figure 3 shows a piece broken off from one of the long underground stems just alluded to. Its direction is horizontal or creeping, not erect. It produces stalks or branches at both ends, and from which the leaves and flowers arise. This form is the "radice anemona" or "anemonoides" of some botanists and of the Dutch florists. *J. Atkins, Painwick.*

INDIAN MAIZE.

THE interesting paper on this valuable and too much neglected esculent, by Mr. Clarke (see p. 251), has induced me to add some experiences of my own. The plan recommended by Mr. Clarke is not unknown to me, though I have never actually tried it, it is, however, suggestive. The "Six-weeks' Maize" is a novelty to me. Can the size and weight of the cobs be sufficient to make it a remunerative crop? The common yellow variety known in commerce can be obtained cheaper from America than we can grow it, unless, as at Barking Creek, sewage be used, and this is reported to be a great success. But what I should like to see grown largely as a delicious and nutritive table esculent, and capable of supplying blanks in the rotation of other delicate vegetables, is Indian Maize, used in a green state, as is commonly done in the United States. To do this, however, it is necessary to obtain seed of the right kinds, as the common yellow is only fit for cattle or poultry, at least in a green state.

While reporting for Government, in Paris, my attention was directed to an unequalled collection of varieties of Indian Maize, which was exhibited in the American section. Through the kindness of the Commissioner, a selection of the best of these was sent me, and in the summer of last year they were all planted out in the open ground, as early as April, in my garden, which is exposed to the wind, and the soil of which is unfavourable for Maize.

The plants grew rapidly, and reached to 10 feet in height, and were then secured to short stakes, by which means they weathered, without injury, a gale of 30 lb. pressure to the square foot in August. They presented a magnificent appearance, having cobs of a size which many intelligent visitors pronounced to be finer than any in China or Japan. This might easily be the case, for it is not probable that seed is so carefully selected in those countries as in a selection from the best in the whole of the United States, which embraces such a range of climate. Some idea of the size and consequent value of these new and splendid varieties which have never before been exhibited in such a complete form in Europe may be arrived at when it is stated that the cobs were nearly three times as heavy as some cobs of the best Algerian corn, grown in this island, in a garden, from selected seed, and ripening nearly at the same time. The varieties I grew ranged in height from the 3-foot "pop corn" so well known, and which ripened early in September, to the 10-foot heavy blue corn, which ripened in October. In all there were about 20 varieties, of many sizes and shades of colour, ranging from the large pure white corn of Georgia (which is extremely delicate), through shades of yellow, to tawny; others were of a Mulberry colour, and some dark red; a few were of a fine blue. Of these 20 varieties some will in time be found useless, no doubt, but the larger proportion will supply a succession of

autumnal table esculents, having a flavour much resembling Peas, and very nutritious. In New York it is customary to boil the "sweet corn" for an hour or an hour and a-half (according to the ripeness of the cob) in one thickness of the husks, tying the ends together. Butter and salt is then spread over them. The number of cobs I did not find to exceed two on a plant as an average, and this is considered to be a fair result, considering the size of these cobs. On some of the dwarf varieties (one of which is remarkably beautiful) there were occasionally four cobs.

Having no previous experience, the plants remained unwatered during the dry summer; they were twice earthed up, but the ground was very inadequately prepared from the first. Thus the trial was a fair one, and I look forward with great interest to amateurs and others taking up this matter of selected white Indian Maize, to be eaten green. There is no doubt that such a collection would never have reached Europe but for the occasion of the Paris Exhibition; and the plants having been tried in this island during last season, and having matured their seeds perfectly, this is a good opportunity to test their value once for all. I had at first decided on distributing the spare seed to friends, but being discouraged from so doing as an inadequate method of arriving at any large result, I transferred them to Messrs. Barr & Sugden, who have had a good previous experience in this matter, and are themselves prepared to experiment largely in them this year. For myself, I have prepared a number of seeds in small pots, so as to forward them under glass, as April might prove a treacherous month for open air planting.

I should also suggest to amateurs the Australian plan of sowing three seeds in a triangle, at say a foot of interval, for the sake of putting a stake 3 feet high between each group of three. As subtropical plants

some were extremely showy, and would ornament a garden. In conclusion, I only hope these plants will interest others as much as they have me, and that they will record their experiences for the general benefit. Surely out of 20 varieties we may select one-half being permanently adopted. T. C. Brabant, Richmond House, Guernsey.

MASTIC L'HOMME LEFORT.

THIS is a long unmeaning name for a minor but exceedingly useful art of grafting wax. "pauv' greffer a fruit," as stated in the superscription on the little tin boxes in which it is received. This composition comes from France, where grafting wax is much more generally used than in this country. In grafting, as is well known, after the parts have been properly joined and fixed, it is necessary to apply some substance to exclude the outer air from the wounds, in order to prevent them from drying up; otherwise the parts would not unite. In this country, for the ordinary grafting of fruit trees, &c., a mixture of wax is most generally used, and it answers well, but its utility beyond the labour of mixing and application, is, however, when only one or two grafts are made, is pretty considerable. In France, grafting wax of various composition is generally used, and it is frequently employed in this country, especially for the finer operations. The great objections to its use are, the necessity of having fire near the place of work to melt the stuff, for it must be applied while warm, and if allowed to cool becomes set, and that it is somewhat hard, and apt to injure delicate bark. It thus takes up a good deal of time, even when a very small quantity is required.

The importance and usefulness, then, of the Mastic L'Homme Lefort, which is always in a condition at for use, will be at once seen. It is a substance of about the consistency of common white lead, somewhat resembling half-melted gutta serena, and having a very pleasant and agreeable perfume. It is quite easy of application, being readily spread over the parts with the blade of a knife or a flat piece of wood, like butter on bread. Although in the box, away from the air, it will keep pliable and moist for many years, it very soon hardens on the outside after being exposed to the air, and, as it were, hermetically seals up the point of junction, and thus prevents all access of air to the cuts. It is at the same time quite elastic, and easily removed when required.

This substance was introduced by Mons. Lefort to this country some six or eight years ago, and is now in the hands of Hooper & Co., Covent Garden. It was at the time largely tried in various ways in the Royal Horticultural Gardens, Chiswick, by Mr. Thompson, who reported favourably on its merits. I have myself used it in grafting all sorts of hardy fruit trees, and approve of it very much indeed. In grafting tall standards it is better than clay, which it is difficult to fix at all times. This, on the contrary, can be applied with the greatest ease in any position, and a very little of it suffices to spread fairly round about the junction of the scion with the stock. I was particularly to recommend its use in grafting Vines. For this purpose it is far superior to clay, or any other article that I have used—and I have grafted some hundreds. The objection to the use of clay or moss is that in general when the Vines are growing a moist atmosphere is maintained in the house, in fact, to induce the scion to break strongly it is regularly syringed. The clay, &c. is thus kept continually moist, and roots are emitted into it from the stock, and frequently from the scion also. When this takes place, and I have seen it many times, there is but little chance of the graft succeeding. With the Mastic, on the contrary, no roots are possible, however much the moisture and heat applied externally to the graft and stock, and, as a consequence, success in Vine grafting becomes almost a certainty.

I have also found the Mastic useful in placing over wounds or bruises on plants generally, thereby enabling them to heal quickly. For this purpose, for Vine grafting, and for all the more delicate operations of grafting, I strongly recommend it further, it is very handy, always ready for use, and so easily applied. With a sharp knife, a bit of matting, and a little sixpenny box of Mastic L'Homme Lefort (at which price sufficient for 100 grafts can be purchased), any gentleman or even lady can go grafting trees, at any moment, with the greatest facility, and finish the operation without soiling the fingers. B.

Home Correspondence.

Diseased Pines.—Since January last I have cut ten Pines, three of which were black inside, and quite unfit for table. When the stalk is amputated all seem solid and good, and it is not before they reach my employer's table that the evil is detected, which is the more vexatious to me. As it never occurs in the warmer months I am inclined to think that the extraordinary wet and dull season has something to do with it. The pots in which they grow are well drained, the soil consists of two parts turfy loam, to one part well decomposed horse-dung and sifted charcoal, the plants are potted in a pot 4 leaves (in a store), the depth of which is from 5 1/2 to 7 feet; this is full of good leaves. I rearrange my plants every spring and autumn, trenching the whole depth of leaves first backwards, then forwards, working in fresh leaves each time. When done last week a beautiful pure steam arose from the old leaves. I have stove plants on the front stage, Vines are on the rafters till the fruit is cut (about November), then they are drawn through the front lights to ripen their wood. I plunge the pots over their rims about an inch, but as the leaves are pure and good I do not think that harm arises from this cause, as oftentimes the plants have some strong feeders groping in the leaves. I am

very particular in watering, sometimes the syringe only is used for some six weeks, and then not on dull days. When the fruit is swelling and the plants are dry, I give them a little clear tepid manure water. The lowest bottom-heat has been about 72°, and the temperature of the atmosphere from 67° to 70°. I fear that latterly the bottom-heat has been rather insufficient, is that, in your opinion, the real cause? As my case is somewhat different to that of another correspondent (see p. 195), who is in the same trouble, I may be allowed to say that if some of your able correspondents will point out either the cause, or my errors, I shall feel very grateful. C. L. We submitted this question, as also that given at p. 195, to Mr. David Thomson, who kindly answers:—"There are two causes which are especially calculated to produce decomposition in Pine-apples. The one is excess of moisture at the root after the fruit begins the ripening process, the other is that of leaving the fruit too long before it is cut or used after being quite ripe. There are some varieties more subject to rot than others, such as the Spanish variety of the Smooth-leaved Pine, and the generally (I say not the varieties) in use are not referred to. The plunging of the fruiting Pines over the rims of the pots among leaves, and allowing them to root into them in the dull winter months, must be regarded as unfavourable in this particular case, because the absorption of moisture by the roots can neither be so effectually checked or regulated as when the roots are confined to the pots, or even a bed of soil, allowed to become dry as the Pines ripen. Pines to swell and ripen in the lead of winter should always be carefully drained, and have a bottom-heat of say 80° to 85°. And as it is requisite to maintain a moderately moist atmosphere while the fruit are swelling, comparatively little water at the root is required, in such sunless weather, and immediately the fruit begins to colour no more water should be given to the roots. Managed thus, Pines may be cut or removed to a cooler and drier place, and kept perfectly well for a month after being ripe. More Pines in all stages are ruined by over-watering than from any other cause. We should say that cold and damp at the roots have caused decay in this case. We know of a case on a wholesale scale where, last winter, from no other cause than over-watering, every Pine proved black at the centre when cut."

Marschal Niel Rose.—Will you kindly advise me in the matter of a Marschal Niel Rose? It was planted three years ago. Last year in the early summer it produced an abundance of small buds, only three of which really opened, and these produced very poor flowers. In the autumn of last year three flowers were produced, one of which was magnificent. The plant kept its leaves well through the winter and looked healthy. It is now almost leafless, and is covered with multitudes of small buds just the same as last year, and which will evidently come to nothing. The Rose is against a south wall; my garden is suburban, with a grassy subsoil, but the border has been well made, and manured with rotten stable dung. Last year, for a short time in the spring, on the advice of a nurseryman, I bent the shoots downwards on the wall in an umbrella shape, but doubting the advantage of so doing, I soon trained them horizontally again. The Rose has been very sparingly pruned, only the tips of the shoots having been taken off. Can you suggest anything to make the plant do better for the future, or is it hopeless to grow Marschal Niel out of doors with a severe miles of London Bridge? C. F. We submitted the above to the Rev. S. Reynolds Hole, who obligingly sends us the following reply:—"It is difficult to prescribe without seeing the patient. The symptoms of debility are serious, and the proximity to London and the gravelly subsoil are adverse to recovery, and yet this "one magnificent bloom" encourages both hope and care. The premature development of buds, weakly, and doomed to sure destruction, is common with this beautiful Rose, especially when it is worked on the Manetti stock, and is grown against a wall with a southern aspect. The most successful plan of rearing Marschal Niel in his integrity has been, in my case, to grow it upon the Briar, either upon a wall with an eastern aspect, upon standards, or on arcades. If "C. F." has not tried the Briar, I advise him to do so, renovating, at the same time, and manuring his soil. S. R. H."

Surface Cropping Vine-borders.—There exists a diversity of opinion on this point. In a theoretical point of view the non-croppers have seemingly a plausible case, but what says practice on the point? I well remember that, 20 years ago, in a large garden with an extensive range of vineries, the then gardener annually planted the Vine-borders with bedding plants, the Vines bearing enormous crops of first-class fruit every season without the least indication of distress. The borders were subjected at least once a year to the barbarous practice of digging or forking in a good top-dressing of turfy soil, rotted dung. I have seen the same practice carried out repeatedly both in Ireland and in Scotland, and I must say with no injurious consequences. So soon as it is proved that cropping is injurious to Vine or fruit tree borders, then will arise the undeniable necessity of asking our employers for more ground to grow vegetables, and flowers for eating purposes. Were all our Vine-borders divested of their summer garb, and our fruit tree borders of the useful in the shape of vegetables, I apprehend our employers would not often enter into a garden which would look like a fallow field at midsummer. At this place there is a good range of forcing-houses of large dimensions. In one of them there is a Black Hamburgh Vine, which has been planted between 80 and 90 years. It covers 75 feet of rafter, and is now as healthy and fruitful as in the first few years of its existence. This Vine has 24 feet of border to revel in ere it reaches a 6 foot gravel-walk, which the roots pass under into a

vegetable garden. I have traced the roots a considerable distance in the vegetable break, where I dug heavily at, through the season, and have found them in the most healthy condition. The portion of the border allotted to this fine old Vine, before it reached the path, is always cropped during the summer months. Another house, in the same range is planted with Muscats, we have a 15-foot border ere it reaches the path. The quarter opposite this house is devoted to the growth of Asparagus, and within this plant is a great feeder and a deep feeder. Not far from the front of this house amongst the Asparagus roots, in our kitchen garden borders are heavily cropped every season, and I suppose have been for the last 20 years, yet the wall trees are in a most healthy condition, bearing heavy crops of good fruit every season, as would our visitors can testify. I would rather crop the borders in this manner, than plant them with dwarf fruit trees. A Middlesex Gardener.

Arundo conspicua.—Allow me to call attention to the New Zealand Toe-Toe Grass, or Arundo conspicua. I believe this will prove a valuable material for rope and strong fabrics. The fibre is nearly as tough as that of the New Zealand Flax (Phormium tenax), while the plant is much more prolific, and seems as if it would grow anywhere in this country and yield a heavy crop. The fibre is of a darker green colour, rather broader and more so erect, and from 2 to 4 feet in length. I enclose a blade for you to test its strength. Henry Curtis, Rosary, Torquay.

Soil for Rhododendrons.—We have no hard green the Carnie has alone excepted—that can be compared for beauty with the Rhododendrons, and on account it certainly deserves to be much more extensively cultivated. The idea that this shrub will be unproductive, except when planted in peat soil, is erroneous. Where the ground is naturally composed of peat, they thrive well, but they may be well grown in almost any kind of loamy soil, not too tenacious enough to knead. The soil is a mellow, sandy, hazel loam, but do not succeed when planted in sharp gravel, or in soil of a calcareous nature. The use of peat soil, by those unacquainted with its nature, should be avoided as being as injurious as any other. Rhododendrum is considered by many to be a rather delicate plant, but unfortunately I find it not quite so. F. F. F.

"Caractacus" Pea.—A row 5 feet in length in glass was sown here on the 6th of January from which 3 quarts were gathered to-day, March 23rd, and the picking has been purposely delayed a few days so that the Peas were fit. As this Pea seems to possess capabilities for moderate forcing, and may prove an acquisition on this account, I may state that it is growing in the valley of the Thames from seed sown June last, when it was 2 feet in height and had with medium sized pods. It is less productive than type, perfectly pure and of uniform growth. It was supplied under the name of Caractacus. John E. Hoag, Hall Gardens.

Primula sinensis.—Accompanying this paper are few Primula blooms, sent not for an opinion on their merits, but to show that in addition to the better kinds in the hands of Messrs. Wilebank and Leach (p. 281), there are others of similar form, but that may ultimately produce distinct types. The white bloom is from a plant producing red flowers as deeply coloured as are those of the purple kind. The semi-double flowers come true from seed, and are reproduced from year to year. Unlike the single double ones, these produce flowers having the most productive organs, they are of a less robust growth than the single kinds, but are as easily cultivated, and are very useful for winter work, the bloom remains longer upon the stalk, and consequently better adapted for bouquets. This type of flower is almost exclusively confined to white. Two others, having a white ground suffused with a white red, quite distinct and margined with a white red, very similar in appearance from any I have seen elsewhere. The habit of foliage in this type is strong and the leafstalks light in colour and very erect. The other two blooms have a pure ground colour suffused with white, thus reversing the previous order, and in flaked flowers, which both have been seen on grounds flaked with purple. These four last are small, as the plants have passed their best, and expect to reproduce them as distinct varieties in winter. I have no doubt but that we may produce new shades of colour in the Primula, and certainly there are few flowers that more amply repay the careful hybridiser's labour than the one now the subject of comment. While they are eminently easy of cultivation, they afford the best display of colouring that can be got from any part in the lead of winter. One of our private hybridisers of the Primula race, who I believe was trying to produce a yellow one, has now produced a decided novelty, and it seems not unlikely that the desired colour may ultimately result. I am to do the same, and hope for success. The prospect of getting a blue shade is a so worthy of attention, if obtained, it would indeed be an achievement. I have seen nothing that I think would prove a better work for this purpose than the layer of blue shade sent. As far as I can gather we have had the following colours: Whites, from pale to slightly shaded with pink, purple, from pale to dark mauve; rose, or kermesina type which varies a shade, but the deeper ones are very showy and they are moreover, ultimately develop a scarlet with a green tincture of colour than now exists, flaked flowers, but white grounds and purple or rose flakes are a very distinct flower, having a white ground with a rich salmon tint round the eye, gradually shading

To these ultimately may be... sweet type... the progenitor... of this neighbourhood... Primula... Messrs. Wiggins & Co... the individual flowers equally... to see that they had almost... themselves to the old purple and... when such men as these take the newer... they will some day produce... at South Kensington. A. Dean, Old

The discussion in the Gardeners'... the alleged changes produced in... of the offspring of grafted Potatoes, will, I... means of clearing away some of the incer-... still exists as to the general influence of... seasons. That a stock has always some... a action of a different kind, is usually... but whether that influence extends... transient effect on the graft so long as... on the stock, or whether a permanent... merely effected in the variety grafted, is... which the Potato discussion may possibly... The other repeated instance of the Cytisus... not to my mind, sufficiently authenti-... in which that worked seed and labour... known to produce bunches bearing... To these however, of Mr D T Fish's... which a fresh bearing orange-... was exhibited by Dr Masters at a... of the Linnean Society, seems in some... of the respectable testimony evoked... in favour of the change in the Potato, ... evidence has tended to resolve into doubt... as to graft hybrids. Following, there-... a course set by the Royal Horticultural... of Mr Meek, with the Oak-Barley... previously adhered to in the Fens), I have... to try the experiment. That it is pos-... sible to graft the eye of one Potato and... of another is easily capable of proof as I... only ascertained by placing the grafted sets in... the soil and examining them from time to time... when I am informed, also be gathered... which has been thus successfully... many years. I cannot, however, ascertain... whether either permanent or transitory, has...

The cases of both plants are easy of... well worthy of trial by your readers... enclosed partially swollen sprouts from... which have been allowed to elub in the light... as there is but little (if any) real distinc-... tion in the eye of a Potato and the bud of a... other plant, and I am led to inquire why... some takes place so perceptibly with one plant, ... some we not observe more apparently in a... other degree? and why has not the matter... been long ago? And, as the offspring... appears to be merely a listended pro-... cess, can it be from the set, I ask. When... change takes place, if at all, I argue it... comes so soon as unions effected. A... arises as to the extent to which the... offspring can be controlled by regulating... the set to the size of the eye and... the number of tubers, and premising any... amount of tubers, it would seem that the... offspring ought to be antipated to... (an eye can be spliced to two or... three, and the impossibility, what limit is to be... placed on the number of varieties by a skilful and... I would suggest that the... Society should include in its... the number of... the result may perhaps, by... and other the doctrine of... the thoroughly practical... I am a writer which forms the... seeds of the day to the... first will not be long... its results to the... Royal Horticultural Society. I... Horticultural Society has ately... sorts of Apples. Now, Apples... to be a way but if one has an average... to have good Apples in... great feat of horticultural skill. It... important to Grape growers, ... Society would offer prizes... water and back, the best... statement of the... of them whether they... and if they had now applied... the best basket of forced vege-... who dwell in the country... what goes on at... Horticultural science, often... are done, and certain others... the Notts Guardian states... Grape, Black Alicante, and... utterly worthless and that Mrs... is the Grape that is to... Now, what we country... neither Mr Pince nor Mr... to have grown it to great... Both have plants of it by the... and one is afraid that it is a failure,

also they would for their own interests have allowed it to... see the light. There is yet plenty of time to illustrate... the keeping qualities of any Grape. If the power that... rule at Kensington would take the matter up, and offer... prizes for the best late Grapes in March, it would then... be patent which these were, and I for one should not... be surprised to see Lady Down's in the first position... of the... The answer to this would probably... be that different objects must wait their turn. Prizes... for Grapes have been offered in former years also for... Sausages, &c., and in some cases but little responded to, ... whereas the prizes for Apples and Pears offered in... February last brought together one of the most inter-... esting displays of the kind that has for a long time... been seen. "Q's" hints may possibly fit in with the... arrangements another season, and for this reason we... put them on record. Eds.]

Growth of Conifers.—In your volume for 1856, at... p. 39, a tabular statement is given of the growth of... Conifers at Bocomnoc, in Cornwall, as measured in... December 1855. The following is an account of their... growth since that time —

	When introduced	Height, Dec. 1855.	Height, March, 1862.
		ft. in.	ft. in.
Pinus			
Austriaca	1842	3	7
Cembra	1842	1	1
excelsa	1842	2	2
Hartwegii	1842	15	10
insignis	1847	23	4
inops	184	7	7
Laricina	1842	7	7
parviflora	1842	17	6
Picea	1842	18	6
Sarda	1842	8	4
Scolyma	1842	15	6
Syratica	1842	7	4
Tortuosa	1842	7	4
Abies			
Brassicata	1847	8	0
Douglasii	1841	30	7
Eucalyptus	184	13	3
Moriata	184	12	2
Menziesii	184	32	6
Sinthiana	184	7	6
Spiralifera	184	14	6
Picea	184	12	6
Spectabilis	1847	5	8
Webbiana	1842	2	4
Araucaria			
Cultrata	1841	9	4
Cedrus			
Decidua	1841	22	3
Cupressus			
torulosa	1841	13	6
marocarpa			
Goveana			
Cryptomeria			
japonica	1851	14	4
Taxodium			
sempervirens	1851		6
Woolfingtonia			
gigantea	1856		22

The following is the measurement of the girth of... stems and length of branches of a few of the best speci-... mens.—Abies Menziesii, girth of stem 2 feet from the... ground, 8 feet 4 inches, length of branch 16 feet... 6 inches. Abies Douglasii, girth of stem 7 feet 2 inches, ... length of branch 32 feet 11 inches. Cryptomeria japo-... nica, girth of stem 4 feet 10 inches, length of branch... 14 feet 4 inches; Taxodium sempervirens, girth of... stem 7 feet 2 inches, length of branch 18 feet; Woolf-... ingtonia gigantea, girth of stem 4 feet, length of branch... 7 feet. Charles Lee, Gr to Hon. G. M. Fortescue, Bocomnoc.

Surface Cropping Vine-borders.—The present dis-... cussion in your columns forcibly reminds me of the... common proverb, that of two evils we should choose... the least. But it should be borne in mind that this... proverb is thoroughly vicious in principle, and ever... gives rise to questionable practices. No man is com-... pelled to choose an evil course. He is never com-... pletely hemmed in by an unbroken barrier of evils—... some outlet for good is constantly provided. To square... the proverb with truth or sound ethics, it should run... —Of two evils choose neither, or spurn both. A similar... principle should guide us in plant-growing. Here, as... in our own conduct, we are not shut up to a choice of... evils, but are free to elect or choose the good. The culti-... vator, for instance, who inscribes "Sacred to the roots" ... on his Vine-border, is not compelled to invite or allow... the attacks of red spider on the leaves or branches of his... Vines. The fact of having done justice to the roots... can never be accepted as a reason for treating the top... with indifference. Instead of there being any antago-... nism between the cases of both, anxiety for the well-... being of the one is almost sure to beget a like zeal for... the well-doing of the other. Hence the illegitimacy... of those who when one good practice is commended, ... extol another in preference, or to its depreciation. The... cropping of Vine-borders is either right or wrong; ... and it is one or the other wholly independent of the... evils wrought by red spider on the leaves of Vines. ... Surface-cropping and red spider are both evils of... sufficient importance to be discussed singly and... alone, and neither are likely to be cured by any... cultivator, however famous, informing us that he... prefers the one to the other. The important ques-... tion is, not which is the worst evil of the two, but why... should we have either. I contend that no cultivator... should surface-crop his border. Mr. Thomson says... no Vine grower should admit red spider, and yet some-... how he sees fit to offer his good advice in apparent... antagonism to my inscription. But the two are in... perfect accord, and both are alike good. It cannot be... intended to convey the idea that there is the most... distant connection between an uncropped border with-... out, and red spider within the house, for it is well... known that there can be no such connection. ... Neither do I yield to any one in attributing the... utmost importance to cleanliness within the house. ... Thrips or spider largely impair or totally destroy the... functions of the leaves, and disorganise the entire... economy of life. It is only needful to look at infected... leaves through a common microscope to be convinced... of this. Freedom from such pests is essential to... success, and ought to be one of the primary objects of

all Vine growers. Upon every Vine should be written... "No spider, thrips, or bug allowed here." Outside and... inside the borders should bear the inscription, "Sacred... to the roots. When we think for a moment of the... expense of building, planting, and heating Vineries, ... it is astounding that anything should be per-... mitted to share the borders with the Vine roots. ... There is risk of impairing or exhausting the... soil, and of preventing or exhausting the... surface cropping. Only think of what these would have to produce in the... course of years, and the difficulty, expense, and risk of... its renewal is enough to make us pause ere we take... a surface crop off it of either beauty or utility, and thus... dissipate its stamina and impair its powers of pro-... duction. The border, from its position and its under-... ground treasures, has become precious as gold, and its... surface crop treats it like so much copper. A Vine-... border is prostituted and degraded when it is used for... growing what any other soil or place would grow... just as well or better. Even if it does not much... injure the Vines—which it does—surface cropping... is a piece of the most reckless extravagance that... can be indulged in. It scatters, as it were, broad-... cast, among common flowers or vegetables, the food... that was prepared for conversion into meat or drink... fit for the gods. It would almost seem an act of... sacrilege to grow Cabbages on a Vine-border, but as... far as the waste of Vine food is concerned, bedding... plants are about as greedy robbers. Even beauty may... be purchased too dear, and it is so bought when it... weaves its robe of glory out of the blood of Grapes—a... compensation, indeed, may be given, but it is difficult... to measure the loss, and impossible in many instances... fully to restore it. Restoratives are needed for the... Vines alone, and they are entitled to the whole benefit...—and need it, too, to keep up their productive stamina... to the highest pitch for many years together. But it... it is not only that these competitive roots exhaust... they likewise injuriously affect the texture of the soil. ... Their multitudinous bearings break and fine down the... earth, and so unduly compact it into a solid dense mass, ... well nigh impervious to air and water. This is a great... evil on many soils, and one means of avoiding it is to... devote the ground solely to the use of the Vines. I... have no more faith in mere panaceas than your corre-... spondent. Attention to no one point, however impor-... tant, can command success. Still I believe a rich, ... sweet, unclothed border for the roots, and spotlessly... clean tops, are the twin sisters of successful Vine grow-... ing, and that where they are present with ordinary skill... as an auxiliary in the application of water, light, heat, ... an air, good Grapes are almost sure to follow as a... matter of course. D T Fish F R S

Potato Improvement.—Having made experiments on... the Hemp plant by a process of pruning or mutilation... as it may be termed, and produced seeds with tricoyle-... donous embryos, and having three leaves in a whorl, ... instead of two opposite, and female plants bearing male... flowers—I would suggest that the following mode of... treatment may very probably give rise to new and per-... haps unusually productive varieties of the Potato, if the... increased number of leaves in the Hemp may be regarded... as from having buds in their axils, as an indication of an... increased number of branches. And as real vigour of... growth is, it appears to me, the best preventive of... diseases connected with the growth of Fungi, it may... be hoped that varieties of the Potato may be raised by... such a process which will stand against the Potato... disease better than any of those hitherto grown. The... Potato selected should be the largest sized one of the... variety that can be procured. All the eyes but two... should be cut out, or, if that is inconvenient, it should... be allowed to sprout before planting, and all the young... stems but two broken off. When it comes up, more than... two stems will, in the first place, appear, and of them all... but the two largest should be pulled up, care being taken... not to injure the plant, to avoid which the knife may... sometimes be necessary. Many small stems will con-... tinue to come up for weeks, which should be removed... soon after their appearance, so that only two stems are... allowed to grow. Some time before the flowers open, ... those parts of the stems which are above the... peduncles should be cut off, and also the branches... from the axils of all the leaves. The places... of these branches will be quickly supplied by... others for weeks, but these should be removed... about once a week, also, before the flowers open, and... as soon as it can well be done, all but the two or three... largest should be removed. It may be expected when... the fruit has ripened that some of the seeds will be... found to be of larger size than usual. Of these the... larger only should be planted, and the most productive... seedling raised from them selected to proceed with the... experiment which I should expect might be advan-... tageously carried on to the third or fourth generation... at least. What would be the consequences I cannot... conjecture, but I believe that varieties of more... vigorous growth would be raised, which might perhaps... prove to be much less liable to disease, and more pro-... ductive. Having made the experiment but once, I am... unable to give complete directions, but the principle... will be sufficiently obvious, it is an extension of that... which Mr. Hallett has so successfully applied to cereals, ... although originating from different data. The Rev. F. ... D. Horner, of Ripon, Yorkshire, who has cultivated... Indian Corn for so many years that he regards his... varieties as acclimated, and who ripened last year 80... plants, one of his varieties being 3 feet high, never... allows a plant to ripen more than two cobs, and to this... I attribute, in some measure at least, his success. Had... he commenced with the six weeks variety, and always... reduced the cobs to one, it may be a question whether... the plant might not by this time have become available... for farm cultivation in the south of England. Not... being able at present to carry out the above experiment

* One plant bore two male flowers, and another one, the... anthers being of the usual size.

... way of pursuing me I deserted and being very tired...

Tree Ferns in the Open Air I have reason to believe that...

Foreign Correspondence.

GARDENING NOTES FROM RUSSIA. In the "Meadow Horticulture Journal"...

difficult to say who were the best of these magnificent plants...

Coming to the Roses, he says "I was as much astonished at the perfection of cultivation of these plants as I was struck with the splendour of the flowers..."

(To be Continued.)

Societies.

At the meeting of the Society of Gardeners at the Horticultural Society...

with a good deal of success... The following are the names of the exhibitors...

Notices of Books.

How to Grow Mushrooms of the Best Method... London Brad & Evans & Co.

Notes on the Art of the Garden... By the Rev. O. J. Lee M.A. London Brad & Evans & Co.

As these notes were originally prepared for the use of the members of the Society...

Les Pensées: Histoire, Culture, Multiplication... Par J. Barillet, Jardinier en Chef de la Ville de Paris.

This is an ouvrage de luxe, in which the author has given us a full and complete history of the Pansy...

M. Barillet classifies Pansies as follows: 1. English Pansies...

* An archine is the general measure used in Russia; it is 27 inches long, and is divided into 16 vershoks.

* Bricks in the south of Russia cost from 6 to 7 roubles a thousand (about 90s.), but they cannot be burned very hard...

Garden Operations.

(For the ensuing week.)

PLANT HOUSES.

THE several varieties of the much neglected though beautiful genus *Læva*, will now require attention, such as potting, &c. All these varieties do best in a free open compost of peat, and a good yellow fibry loam, with a plentiful supply of silver sand, small lumps of charcoal, and pot herbs broken very small, in admixture. The application of hot water to the bottom of these and many other similar plants is of great importance, and it will amply repay the cultivator, if he has not a regular supply of bottom-heat at command, to make a suitable temporary place with the aid of fermenting materials, in which to afford them such beneficial assistance. They may be plunged into this as soon as they have been potted. Other kindred subjects, such as *Gardenias*, especially such as *Stantegana*, *atriolata* and *Poronæ* would luxuriate in such a place, even if the flowers are only now about to expand, and these latter will attain double the size in such a situation, to what they would do upon an ordinary level stage or bed. There are also *Franciscana*, *Indica*, *C. rodolensis*, *Immaculata*, *Stephanotis*, *Alamandus*, *Combrétums*, *Rondeletias*, &c., all of which would be "at home" under such favourable circumstances. Even a pot or two of *Eucharis amazonica* may be plunged into the material, which will induce the plants to bloom again, and that somewhat earlier than others which may not receive this kindly aid. In no instance should this artificial bottom-heat exceed a maximum of 60° to 87°, and what is of equal importance, the moisture that may settle upon the foliage of the plants should, if possible, by a judicious admission of air, become moderately dry at least once in 24 hours. *Boronia*, and especially the beautiful and fragrant *B. serrulata* which one seldom sees in perfection now, like a little additional heat in the spring months during their period of growth. When growing they also like a tolerably free supply of moisture, both top and bottom, and more especially if noticed frosty, as they always should be in fibrous soil, with plenty of sand. Undeviating care and attention will now, and for some time to come, be necessary in watering the plants which have only recently been shifted, and until the roots commence to grow vigorously. According as the progress of potting is being pushed forward, so in proportion should the heat be kept up. Plants which have undergone this operation will require the most, because a greater mass of inert soil surrounds the roots, and a slight additional incentive is needful to induce a strong and wholesome activity among them. Be particular in regard to giving the necessary supply of air to plant houses at this season, and to close the lights or ventilators on the approach of a storm or dull period, both which may be expected at this season, the fluctuations of temperature being great, and likely to give the inmates a chill if due care be not taken to prevent the ill effects arising from this cause.

PIVOT HOUSES.

There will now require almost hourly attention in the matter of the wind and shading the vines, fanning out the berries, &c., in addition to constantly keeping up a wholesome amount of moisture and furnishing the many other requisite attentions. *Pines* which have been turned out of the pots into a bed formed within the pit, should now receive a nice fresh surfacing of rich open loam and well rotted manure, if this has not been previously done. Remove carefully any decayed or ripened leaves from around the base of any plant. In surfacing them be particular not to place such a thickness of fresh material thereon as to unduly bury the main stalks. The department which is set apart for those *Pines* which are swelling their fruit, should now be kept up to a good high temperature, and have an abundant supply of atmospheric moisture. To insure this, especially during the prevalence of dull, cold, or boisterous weather, much less air should be given than is essential for younger successions, which are required to be kept dwarf sturdy, and stiff. Even this, however, may be overdone. An unreasonable amount of heat and moisture, without a moderate supply of fresh air at frequent intervals is, I feel convinced, the cause, in the main, of most of the disproportionately large crowns which are to be seen overtopping fruits of moderate size. It will now be safe for amateurs and others having only limited means at command, and who are not thoroughly initiated into the art of forcing very early, to commence *Cucumber* growing. The advice regarding the sweetening of the necessary fermenting materials by successive heatings, caused by turning the materials over two or three times, must be closely followed. As the period has now become moderately advanced, only a tithe of the heat required earlier will now be needed, hence only a smaller quantity of material than was previously required need be brought into play. So soon as the bed is made up and water should be so laid as that the frame can just stand safely upon it, the soil, in the form of a conical shaped mound, may be placed under the centre of each light, after the materials have been well trodden down. A lining some two feet wide should then be placed around the outer sides of the bed, formed of the same heating material as that with which the bed itself is formed, the sides of the box or frame being well landed up, as this causes a dryer warmth than that arising from below. When the heat averages from 60° to 75°, and with a little air to give egress to excessive steam at the back, the plants may be turned out into the mounds; cover them up well at night, leaving a little air on these also. In regard to other forcing houses, such as *Peach*, *Nectarine*, *Fig*, and *Cherry Houses*, I distinctively advise that a moderate temperature only should be maintained by night. I have so frequently urged

the benefit accruing to all forced subjects by a moderate and a judicious supply of fresh night air, that it seems superfluous to repeat such advice. So soon, however as a change from the present ungenial and very bad forcing weather takes place, and more moderate nights, with even a moderate supply of sun-heat by day occur, then let the night air be admitted with moderate freedom. Above all, do not attempt to force against time under such unfavourable circumstances, as at the best an ill-developed and tasteless crop will assuredly be the consequence. Take every possible advantage of natural warmth and sunshine, and the present slowness will prove a greater incentive to quick vegetation and fruit formation in the future than is supposed.

HARDY FRUIT GARDEN.

The present is a very trying period for all tender *Wall Fruits*. Those only who are in possession of a good protective covering can hope to secure a perfect crop this in-coming summer. I have kept my "Frig. Dome" curtains to the walls night and day, during the prevalence of the late chilling winds, and with great advantage. I caution all who may have saved a crop, against allowing the sun to have full power upon it until such time as it has become sufficiently strong to withstand its influences, by the use of partial shadings, &c. The rays of the sun, as we shall find, have gained much power during the past period of cloudy weather, hence the need of such caution.

HARDY FLOWER GARDEN.

Continued by the aid of frames, &c., to propagate any further supply of *Dahlia*s which may be required. Finish planting *Ranunculus* in all instances where any are still above ground. It will be necessary now to seriously think about mowing lawns, &c., for, early as it is, the sward assuming a very forward and an exceedingly coarse appearance, and this is likely to become worse if not soon headed down. Try to select a mild, or at least non-frosty period, for the operation of mowing. As soon as the weather becomes a little more settled sow *Hardy Annuals* in the open quarters where it is intended they should flower. The old way of sowing them in a circle or ring has many advantages not possessed by an indiscriminate scattering of the seed upon any given space. Sow seeds of *Polyanthus* and *Auriculas* of the Alpine sections in pans, and place them on a sunny shelf in a moderate temperature only. Prick off into pans, boxes, or pots, such things as *Seedling Lobelias*, *Pyrethrum* (especially the Golden Everfew), *Chamæpeuce*, *Echeverias*, and other ornamental foliage plants of the more hard-wooded sections, and which require pushing forward. My advice is, never to sow seeds of any kind until you can fully calculate upon giving them all the attention they require. A greater mistake cannot be made than sowing indiscriminately, and with no regard to such circumstances. The result is that 8-10ths of the produce dwindles away, and others which are left have lost their main vigour ere a chance of growing is afforded. Make further sowings of any half-hardy annuals intended to be grown, so soon as the necessary attentions suggested above can be relied on. The ensuing week will be a good one in which to sow a Grass mixture for renovating such lawns as may be wanting in vigour or verdancy.

KITCHEN GARDEN.

Autumn-sown *Cauliflowers* and *Cabbages* may all be finally transplanted on to their summer quarters upon the first favourable opportunity. When either of these are pricked out or transplanted into freshly dug soils, be careful to tread the ground all over first, and to tread the roots of each plant firmly into the soil. If cold winds prevail, drill rows may be drawn, along which they should be planted, as part protection from chilling winds, &c. Sow successional crops of *Spinach*, *Lettuces*, *Celery*, and some of the *New Zealand Perennial Spinach* upon a slight hot-bed, it will come in well, and in good time for transplanting into the open borders in May, W. E.

TOWN GARDENING.

In February last (p. 170) I gave a list of *Chrysanthemums*, and a few hints for their cultivation in open borders. I now propose to furnish the following list of varieties which come to great perfection if grown as flowering specimens under canvas against a wall. — *Amea Ferrère*, silver white, tipped with pink. *Avigena*, amaranth, Antonella, salmon-orange; *Beverley*, white, *Beverley*, golden, *Cherub*, golden amber. *Daught*, rich canary. *Dupont de l'Eure*, salmon-rose. *Lady Stude*, lilac and peach. *Lady Hardinge*, delicate rose. *Jardin des Plantes*, bright golden orange. *Mrs. George Rundle*, white. *Prince of Wales*, purple-violet; *Prince Alfred*, rosy-carmine; *Princess of Wales*, white, tipped rose; *Rev. J. Dix*, orange-red. Splendid blooms can be obtained in the very heart of towns by the following means. In the first place the borders should be well drained, and then be prepared, by using a compost of two-thirds of loam and one part of rotten dung and leaf mould, to the depth of 18 inches. These borders should be not less than two feet in width. Plants should now be obtained that were struck last autumn, and which have been wintered in cold frames. Though I have had fine flowers from spring-struck cuttings, they are not, as a rule, so good as those obtained from plants struck in the autumn. The plants should now be planted, about 6 inches apart and 4 inches from the wall, and lateral shoots should be removed as fast as they grow, until the plant divides into two or more leading shoots, and as many of these latter may be retained as the strength of the plant will admit of. The watering of the plants must be attended to during the summer, both by applying it to the roots, and by syringing the tops every fine evening. Liquid manure should not be given to them until about the second week in August. The mixture which

I use is prepared in the following manner. — In a large tub which holds about 50 gallons, I put 1 peck of soot, 1 bushel of horse-droppings, and 2 bushels of soap-suds, filling the tub up with water, the whole is well stirred up and allowed to settle for 24 hours previously to its being used. If one quart of this mixture, with three-fourths of soft water, be applied, it will be sufficient. About the second week in August the buds will commence to show on the tips of the leading shoots, surrounded by smaller ones, and if the leading buds are plump one, the smaller buds should be removed. The season advances some means should be provided for protecting the flowers, which can be done by placing upright posts four feet from the wall, and these posts fixing others that will lean to the wall. This skeleton framework should be covered with canvas as soon as the buds begin to show. Should the plants grow above the height of the canvas the shoots may be trained down right and set.

STATE OF THE WEATHER AT CHISWICK, NEAR LONDON, For the Week ending Mar. 31 1863, as observed at the Horticultural Garden.

Month	Day	BAROMETER.		TEMPERATURE.					
		Max.	Min.	Of the Air.	Of the Earth.	Wet.			
March	25	30.013	29.909	49	39	34.5	41	4	1
	26	29.913	29.814	49	24	24.5	42	4	1
	27	29.727	29.423	42	23	23.5	42	6	1
	28	29.672	29.468	47	33	36	42	6	1
	29	29.844	29.638	43	27	25.0	42	6	1
	30	29.854	29.7	45	36	40.5	42	4	1
	31	29.97	29.757	51	28	28.5	41	4	1
Average		29.832	29.642	45.5	29.1	37.3	41.9		

March 25—Overcast, cloudy and fine, drizzly showers in evening.
 26—Overcast, densely overcast, drizzle, drizzle, drizzle.
 27—Fine, cloudy, and with a drizzle in the evening.
 28—Overcast, very drizzly, drizzle, very drizzle, drizzle.
 29—Clear and cool, hoar-frost in the morning, drizzle in evening.
 30—Densely overcast, cloudy, by a wind, drizzle.
 31—Drizzle and cool, cloudy, drizzle, drizzle, drizzle.
 Mean temperature of the week 61.0 deg. below zero.

STATE OF THE WEATHER AT CHISWICK, During the last 43 years, for the ensuing Week ending Mar. 31 1863.

April	Average Highest Temp.	Average Lowest Temp.	Mean Temp.	No. of Years in which it has Occurred.	Greatest Quantity of Rain.	Least Quantity of Rain.
Monday	45.6	35.7	40.7	17	0.3 in.	2.1 in.
Tuesday	45.0	35.0	40.0	2	0.30	2.61
Wednesday	45.0	36.9	41.0	11	0.5	3.14
Thursday	45.7	36.8	41.3	21	0.50	3.14
Friday	45.1	35.8	40.0	25	0.45	1.67
Saturday	45.0	35.3	40.2	23	0.73	1.67

The highest temperature during the above period occurred on the 7th, 1859—therm. 59 deg., and the lowest on the 19th, 1850—20 deg.

Notices to Correspondents.

CUCUMBERS. T. L. F. As explained last week, the spines will not be admissible to compete as they are fixed wire netting. F. P. We await further information on this subject.

HORTICULTURAL "C. NORTH." If T. There is no need for even the small matters of grubbing, to refer to. The meeting as an experimental one is planned on a moderate scale. The arena for the same provided, without trouble or expense to gardeners, to have the use of it, with full liberty of action, bounds of order, and as to the destiny of our arrangement adopted in that society, however, the societies and associations, where the papers of the hands of the authorities by whom the meeting is held. We hope it may be found practicable to publish a separate report of the whole proceedings.

INSECTS. W. B. M. The insect sent with the Nectarine blooms from an orchard house is a fly, has no power of gnawing the cortex of the mischief has probably been done by a *Worm* (sp.), which is nocturnal in its habits, and for with a lantern after dark, when it was found on the stems and twigs, causing the complaint of W.

MANAGEMENT OF VINES. J. A. I have inspected our vines regularly two or three times a day, in a moist, warm atmosphere, down them into a river when the syringing of the vines discontinued, and while they are in a moist atmosphere is maintained. When in a moist atmosphere, with a corresponding temperature congenial to them. This is the best way for growers. A dry atmosphere is a very bad one, growing rapidly is exceedingly injurious. It prevents bunches running to tenderness, has no connection with the other. A very dry atmosphere will have this effect, the prevention of the growth of every part of the vines, and from this the bunches being smaller, that they have straggled so much.

NAMES OF FRUITS. T. H. H. Strainer Pippin, Blenheim Orange, not Beauty of Kent.

NAMES OF PLANTS. S. R. *Doodia* means the book you refer to. Messrs. Maule & Co. a carte de visite of Sir W. Hooker. — J. R. Douglas. — *Cape Bononia*. *Antonia* eximia, handsome greenhouse shrub, rather with a little. It should be obtainable at any of the great nurseries.

J. J. We cannot have your treble overcast, as a formator as to the habit and as to the appearance, attempt to do so. — H. P. *pastoris*. — *Drak*, *verna*, *3*, in autumn, *2*, in summer.

REMOVAL OF GREENHOUSES. C. G. G. R. I have seen the expiration of his life, and the houses erected by him for the purpose of such erections are considered trade fixtures, for 1-02, p. 177. An ordinary tenant would be bound to have them erected.

VARIETIES OF PELARGONIUM. K. D. Mr. Morris' statement in his paper on Mr. Morris' *Pelargonium* at p. 33. "Prince of Wales" was by Mr. Morris, but by Messrs. Carter & Co. at Perry Hill.

YANG MAE. *Cine Everlasting*. The Yang mae was some years since by Mr. Fortune to the nursery of Standish & Noble, and doubtless one or other of the gentlemen, whose addresses may be found in the columns, could tell you, where the plant is obtainable.

COMMUNICATIONS RECEIVED. — H. C. — J. B. T. — M. — C. F. — E. A. O. — Hants. — A. — H. Cancell. — J. T.

SUTTONS' HOME-GROWN FARM SEEDS,
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 President—
 The Right Hon. The Earl of CARFARVA
 The ANNUAL MEETING will be
 HELD at SOUTHAMPTON on MAY 21,
 and JUNE 1, 2, 3, and 4.
 Prize Sheets and Regulation Papers
 for Stock, Poultry, Implements, and
 Horticulture, may now be obtained from
 the Secretary, Bath.
 For Oil Paintings, Water Colour Drawings, and Art Manufacture,
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 All Entries must be made and Fees paid on or before April 12.
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The Agricultural Gazette.
 SATURDAY, APRIL 3, 1869.

MEETINGS FOR THE ENSUING WEEK.
 April 3. London Farmers' Club (Captain Dashwood on the Systems of
 Local Rating in England, Scotland, and Ireland) - 6 p.m.
 - 7 - Royal Agricultural Society of England.

As our readers already know, it is proposed that the ADULTERATION OF SEEDS be declared a crime by Act of Parliament, and that a code of fines be enacted for various forms of the offence. And that the offence is common enough, and injurious enough to demand special legislation of this kind, no agriculturist is likely to deny. Seeing, however, how various the modes of adulteration may be, and how difficult they are of detection, and also taking into consideration the extreme ignorance of too many farmers on this subject, we confess that our hopes of remedying the evil hinge at least as much on the advance of education. Indeed, it is not only the farmer who would want to be educated in the matter—the juries who would have to try such cases would also require to be taught. We speak with some degree of personal experience on this question, having once been engaged upon a trial where it was sought to recover damages for the injury done by a large mixture of Burnet with Sainfoin. Because the two seeds were somewhat alike in colour, neither the judge, the counsel, nor the jury could be made to understand the difference, and the jury sapiently concluded that the seedsman was not to blame in the matter, and accordingly the plaintiff was non-suited.

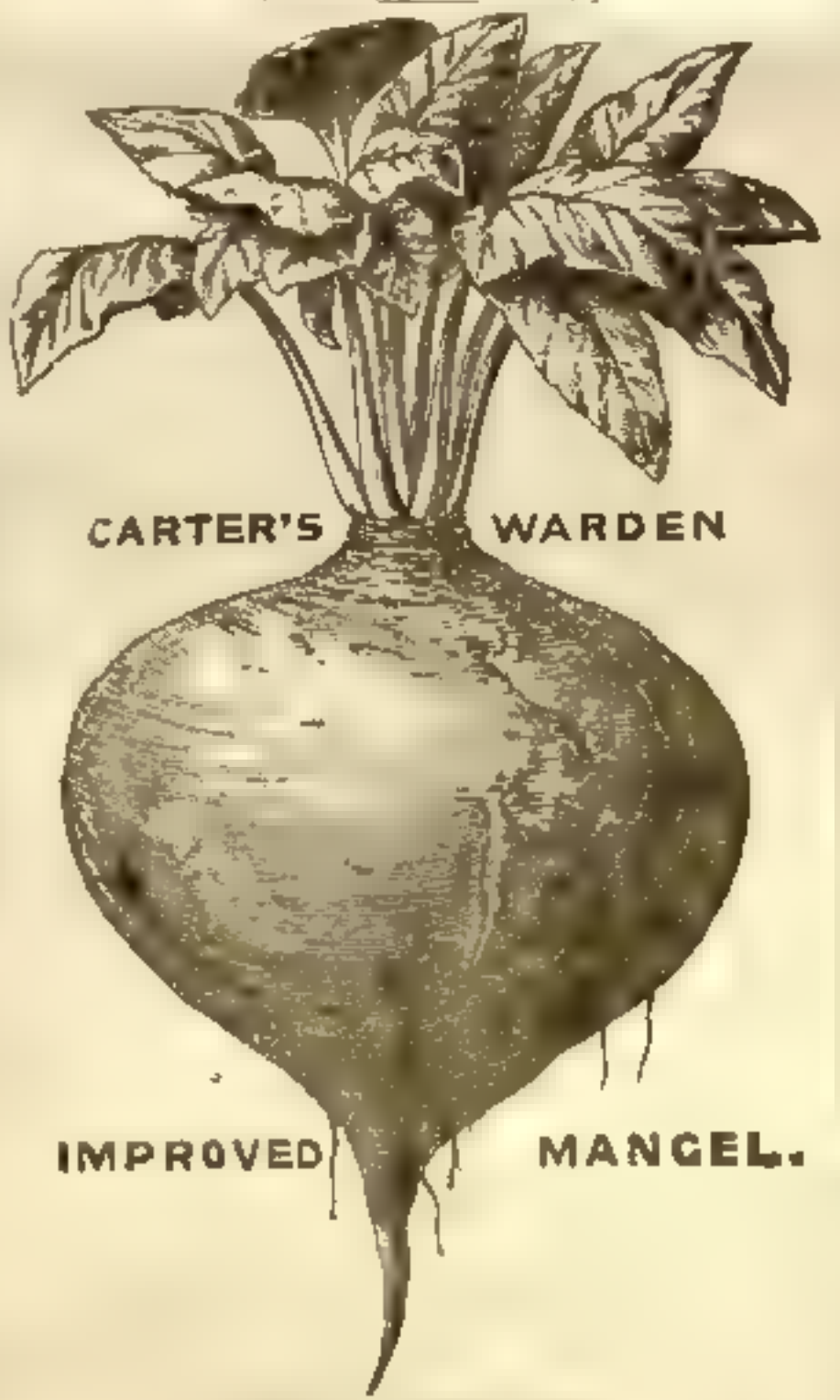
In another case, where a seedsman was called to account for sending common Turnip seed, instead of Swede seed, the judge ruled that there was not much difference between them, and that the sutor was not entitled to damages. Moreover, as seeds are necessarily very variable in their germinating percentage, it will be exceedingly difficult to bring home cases of mixture of old seeds or killed seeds to the dishonest seedsman, and unless some expert constantly attends the markets, or examines samples before they are sent out, it will be utterly impossible in this way to save the consumer from being often cheated. He may sow a sample of seed, and be disappointed in the crop,



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 The peculiar shape of the roots, and the leaves being small,
 which may be sowed to stand close in the rows than other
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BEST GLOBE VARIETY IN CULTIVATION.



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 in the generally only one tap-root. It grows to a large size, and
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fail utterly, but he would fail, though in a less degree, even with ordinary high farming. As for any necessity of pouring sewage over more than one surface of and in order to purify it, such a necessity is entirely visionary, unless in cases where very large quantities are given, by which I mean not only a large total quantity in the 12 months, but also cases where each individual dressing is beyond the capacity of the crop and soil together to purify. But if land is properly laid out there is no necessity whatever for either of these excesses, and I myself produced some very astonishing results on a small scale, not only on a practical working scale last season, but also on a field where not only the sewage never was applied twice to any land at all, but from which there was no outfall of any sort or kind.

And now I will end as "H" began, and say that I trust this little discussion may be of some practical use, not in solving the question, but in convincing "H" and others that the question is already solved. *W. Hipe, Parsloes, Barking, March 31*

A CHAPTER ON POTATOS.

(Concluded from p. 341)

THE Miscellaneous Class at the late show for other named sorts was an interesting collection, 23 lots being entered. The judges had two 1st and two 2d prizes at their disposal in this division. One of the 1st prizes went to Messrs. Sutton & Sons' Berkshire Hero, a Kidney Potato which will, we have no doubt, become a general favourite. It appears to be of vigorous habit (for we have not grown it, being, like many others, too late in applying for seed last year). Its quality and productiveness are highly spoken of, and the two samples sent were remarkably true to the engraving in Suttons' "Amateur's Guide." The other 1st prize was given for a round white seedling, shown by Mr. J. K. Fowler, of the Prebendal Farms, Aylesbury, about which we should be glad to have further information. We should judge it to be a second ear, of good quality, with an appearance it is all that could be desired. One of the 2d prizes went to Mr. George Burckley, Kingsthorpe, Northampton, for Johnson's seedling Kidney, which was also very promising. The other 2d prize was given to a lot named Snackel's Conqueror, very good, but improperly named, they were like the Wellington, but rounder in shape than we ever saw any specimens of that sort.

Increased attention has been given during the last few years to improved modes of cultivating Potatoes, and greater care has been exercised in the selection of seed and of sorts for planting. This is shown in some degree by the many letters from correspondents in all parts of the country which are to be found in the catalogues of our leading seedsmen, and it is a gratifying fact that at most of the cottagers' shows which are now established in so many of the rural districts really good collections of Potatoes are brought together. Still in some quarters more care might be used in planting than is generally observed. As regards garden cultivation, and the nearer the plants are sowed in the fields the better will be the results, we have found that in order to obtain good crops of good quality the land intended for Potatoes in the following year should be ridged up early in the autumn, and some well-made manure thrown on when the soil is dry, say in November, if during a frost it will be all the better. There is a marked difference in the appearance and quality of Potatoes planted on land thus treated as compared with those put in the ground upon comparatively fresh manure. A slight dressing of guano, or of some one of the established special manures prepared for this crop, applied in damp weather before the final hoeing, is of great advantage, especially on light soils. It is also a good plan to pull off some of the outside and weaker shoots; the crop by this means will come much more regular in size, and there is not one of our vegetables which will so well repay a little extra trouble as the Potato.

We have in former numbers of the *Herald* referred to the very interesting experiments so carefully carried out by Mr. G. Maw, of Benthal Hall, Salop, in order to ascertain the size of sets which are most productive. Mr. Maw's report on the results of his last and most complete series of trials was published in the volume of the *Journal of the Royal Agricultural Society of England* for 1857; the general conclusions established by him being that "every increase in the size of the set from 1 oz. up to 8 oz. in weight produces an increase in the crop much greater than the additional weight of the set planted. The net profits over and above the extra weight of the sets in planting 1 oz. sets in heq. of 1 oz. sets, amounted in the whole series of experiments to between 3 and 4 tons per acre, and the further profit on the increase of the size of the set from 4 oz. to 8 oz. averaged about 5 tons an acre, all the intermediate steps partaking proportionately of the increase." Those who desire to profit by the results of Mr. Maw's labours will find whole Potatoes, and, so far as the garden is concerned, it is necessary to cut out from each tuber, with a sharp-pointed knife, some of the eyes which are too thickly placed, thus being another mode of obtaining the largest number of Potatoes of a size fit for cooking. When Potatoes are planted whole, a small piece of the skin at one end should also be cut off; this, we are assured, causes the eyes to start more rapidly and to grow more vigorously.

We should be glad to hear of some careful trials being made where Potatoes are extensively grown, in order to ascertain the comparative productiveness and value of different sorts, as we have seen done with regard to Wheat and other farm produce. The results would be valuable for future guidance; and such, we have no doubt, as would surprise many who stick to a few old and coarse sorts.

The question—Can we have Potatoes in fine condition

all the year round—has often been asked, and we think it may be answered in the affirmative, if proper care is used in the selection of varieties and in cultivation. To ensure this result some one or more of the Kidney Potatoes we have named should be chosen for the first crop; and we have always thought that more kidneys might be grown with advantage than is generally the case, such as Rivers and Gloucestershire, which are large croppers, and keep well for some considerable time. We say nothing about which sorts are the earliest, as the race for very early Potatoes is simply a race for an indigestion, most of the earliest are much more wholesome and much better in quality if gathered when perfectly ripe and kept for a couple of months before cooking. Daintrees' First Early would follow the kidneys, and, as we have said, in the Milky White we have all that could be desired for a second crop. With regard to late Potatoes, there is now no difficulty whatever in making a satisfactory selection, Paterson's Victoria, Dalmanoy, the Fluke Skerry Blue, and some of the other blue varieties affording ample means of doing so. The Victoria and the Fluke are, perhaps, the most

reliable, the latter, if of a good quality, in fine condition the longer it is kept. We believe in the opinion of the medical profession that some exercise should be exercised in the home of Potatoes of different seasons of the year, and that the late crop by no means nutritive or digestible, as they are first gathered as they are after having been some time. A little observation would satisfy us as to the soundness of these opinions.

We may add, in conclusion, that the results of trials of Potatoes in different parts of the country are prepared for publication in our best journals, would be even more useful than they are at present if information were added as to the nature of the soils on which the trials are made, and the mode of cultivation adopted. Is it the character of the soil which, speaking generally, makes the difference in the produce of different varieties, or can this be made to influence, in most cases, by care in cultivation? With regard to the Fluke, we believe it is the almost universal opinion of growers of Potatoes that this sort does not grow on strong soils only, but this we have reason to believe is not an invariable rule. *M. Hand Counties Herald.*

AGRICULTURAL STATISTICS, 1868.

[We continue the publication of the official returns.]

STATEMENT OF THE ESTIMATED QUANTITIES OF THE PRINCIPAL KINDS OF CORN AND OF POTATOS, IN IMPERIAL BUSHELS, AND OF BEETROOT, PRODUCED IN VARIOUS FOREIGN COUNTRIES, ACCORDING TO THE LATEST RETURNS.

Description of Crops.	Russia (average of 1859 to 1863).		Sweden (in 1866).	Norway (in 1865).	Prussia (in 1866).
	In Europe.	In Asia.			
Wheat and Spelt	18,767,650	4,293,000	247,825,805	24,000,000	1,000,000
Barley	5,621,870	5,600,000	53,053,140	20,534,000	1,000,000
Oats	3,250,000	9,269,000	12,844,710	600,000	1,000,000
Rye	1,542,000	10,171,000	68,179,354	600,000	1,000,000
Beans and Peas	949,451	2,828,000	12,180,247		1,000,000
Malzo	113,474	Buckwheat.	30,989,100	4,008,000	1,000,000
Potatoes	22,444,813	36,078,000	307,801,343	26,169,868	1,000,000
Beetroot	tons.	135,700			

STATEMENT OF THE ESTIMATED AVERAGE YIELD PER STATUTE ACRE OF THE PRINCIPAL CEREALS IN IMPERIAL BUSHELS, AND OF BEETROOT IN VARIOUS COUNTRIES.

Countries.	Date of Return.	Wheat and Spelt.	Barley.	Oats.	Rye.	Beans and Peas.	Beetroot.
Sweden	1866	19.5	21.13	21.17	18.17		
Norway	1865	7.72	13.4	14.76	23.36	1.2	
Prussia	1867	1.13	25.4	17.00	16.78	17.78	1.0
Wurttemberg	1867	4.80	24.4	26.5	17.0	17.41	
Holland	1866	20.62	33.30	40.06	20.30	4.9	1.0
Belgium	1868	20.10	35.12	43.37	24.57	27.1	1.0
France	1867	13.89	13.15	21.0	12.54	1.00	1.0

* Austria and Hungary in 1868 produced 143,000,000 bushels of Wheat and Spelt, of which quantity it is estimated that 9,000,000 bushels were produced in Hungary. † Chiefly Spelt. ‡ Winter. § Spring.

Home Correspondence.

Cider Orchards.—A peevish Fellow of a College, being asked to subscribe to an institution for the good of posterity, exclaimed "We are always asked to do something for the good of posterity, but I would fain see posterity do something for us." Perhaps some of those to whom I am about to propose the planting of cider orchards may be of the same mind, still it is to be hoped there may be a good many who do not hold such selfish views. Were I a landholder, one of my improvements would be the planting of an orchard of one or two acres or more, according to the size of the farm, in a grassed paddock close to the homestead. Such would be found to be of great benefit to the farmer. Such an enclosure is also useful for stock purposes during a great part of the year. Strong land well drained makes the strongest and best keeping cider, where the land is chalky or gravelly the cider is milder, and, I think, pleasanter, but it will not keep good longer than a year. If a few Pears are ground up with the Apples they greatly improve the cider. If the orchard is grassed, the Grass should not be allowed, during the minority of the plantation, to approach nearer the stem of the tree than 4 feet. If the soil is thin, it is best to plant the tree on the surface (the clod sod being turned down) and to put earth over the roots, like a semi-molehill. The proper distance for permanence is 24 feet apart every way. This plan will take 33 trees per acre, but for 20 years another plant between each tree in the rows may be planted, and when the branches touch, two intermediate trees may be grubbed up, planted elsewhere, or destroyed. An acre thus planted will take 112 trees. Orchards, even in thin land, would succeed were the trees occasionally manured over the radius of the roots, or were cattle, depastured in the orchard, suffered to lie there. The best cider Apples (according to Mr. John Scott), are Best Bache, Coccagee, Fox Whelp, Kingston Black, Red Must, Red Streak, the Late Jersey the above are described as first-rate. The next are described as fine, esteemed, or excellent, viz., Bringewood, Cowrane, Forest Styre, Foxley, Early Jersey, and Tom Potter, vulgarly called Tom Put. Scott names two Crabs thus.—Haglo, specific gravity,

10.91, and Siberian Bitter Sweet, 10.91. One word about Coccagee. Some 50 years ago my father bought a hoghead of Coccagee cider, made somewhere in the vicinity of Taunton. He gave six guineas for the hoghead, and it was worth it. He valued it more than any wine he possessed. He had it bottled, and took it from our country residence to the more general cellars of Weymouth, where it blew up and destroyed a quantity of the finest old port. Coccagee cider is the finest cider in the world, but beware of very warm cellars. Finally, as it would be very just and wise if landlords were to give their tenants a co-proprietorship in rabbits and hares, so it would be no less kind and beneficial to themselves and their tenants, if they would establish near their farmsteads a nice cider orchard.

W. F. Radcliffe, Okeford Fitzpauc.
Shropshire Sheep. Why do we find that it is easier to sell a fat "black foot" than a pale and long-wool? Simply because the meat of the one is of higher market value than that of the other. We cannot sell fat to be eaten now, say our butchers; and those of us who have to provide meat for large families can speak feelingly of the contrariety of demonstration which is bestowed upon the advent of a fat joint of mutton. Materfamilias asks deprecatingly, "where we could not have had the fat cut off?" and the hero of the trade has pleasant visions of "perquisites" which ever heard of complaints of too much fat from the regions below? But how does all this affect the farmer? what has he got to do with the different ways in which meat is received into Lonses? Well, perhaps, very little, but he might learn a lesson from the fact. Materfamilias or her lord has to pay for the meat, and having to pay for it, she or he expects that a choice might be permitted, and if a choice may be made in, we find that the mutton possesses more meat in proportion to fat, as that usually selected by the good old economic laws of supply and demand, of course raise the price of mutton of good flesh, and in the course of some time—but not until mutton butchers can't prevent it—farmers get to know that mutton with much lean is preferred, and that the

The cows were irregular in character. *Flora*, sent by Mr. Foljambe, was awarded the cup, and she was bought by Mr. Radley, of Furbeck, the buyer of the 1st prize yearling, at 150 gu., Mr. Pawlett's *Young Jewel* was commended, and sold for 12 gu., Mr. Garne's *Beatrice* made 17 gu. to Mr. Harding, of Swansea, and Mr. Butler's highly commended *Badmington Gem* was bought by Mr. F. Lytall of Banbury, at 48 gu.

The older bulls made from 70 gu. to 41 gu., according to their youth and promise, or their form and estimated capacity for work.

The various inferior and the few bad animals sent here, indicate that this trade is being over-done, or that their breeders have not the capacity for judiciously selecting males and females for breeding purposes. These breeders would, therefore, clearly benefit themselves and better judges, if they would turn their attention to feeding instead of breeding. The defective appearance of some of the animals must however be set down to the late trying seasons.

The sum made by the sale was 717 12s.

Farmers' Clubs.
CIRENCESTER.

March 8. — *The Game Laws*—We regret we are unable to give more than an abridged report of the valuable paper on this subject lately read by Mr. W. J. Edwards, of Lechlade, before this Club.

The country is a vast garden, every acre made to produce its quota towards the maintenance of our teeming population, yet not producing enough to meet our wants, for I find that in the year 1867 there were imported 346 million cwt. of Wheat, 3 million cwt. of Wheat flour, 5½ million cwt. of Barley, about 9½ million cwt. of Oats, and 3 million cwt. of Beans and Peas. Now, I wish this fact to be borne in mind whenever the subject now being brought forward is discussed, namely, the subject of the undue preservation of game in this country, and I would speak more particularly of ground game. My proposition is that game is unduly preserved, that is, that it is preserved to so great an extent that such injury is done to the growing crops, whether of corn or of Grass, as materially to interfere with the yield of those crops, thus shortening the supply of home food for the people, both of corn and meat, destroying the profits which ought to accrue to the farmer for his trouble and outlay in cultivation, and also preventing the employment of the number of hands which would otherwise be profitably employed in the cultivation of the soil, which deprives of support, and that to a material extent, many of those who should be supported by agriculture, whilst at the same time it is a bar to the application of the skill and capital which would otherwise be applied, and is now to a great extent applied where game is not over-preserved. Now, what do we mean by game? The definition given is that it is "All wild birds and wild quadrupeds of Britain when the law allows to be captured or killed only at certain seasons and by licensed persons." There game means certain wild birds and animals specially protected, in order that the amusement of sporting may be enjoyed by those who possess the necessary qualifications, and its undue preservation is owing to the fondness of the comparative few for a sport which may, under certain conditions, be enjoyed by them with insignificant loss to any one, but which, carried to excess, becomes an intolerable nuisance to the many. Bearing in our mind, then, what game is, and why alone it is preserved, I will proceed to show that

The Damage which it Causes renders its undue preservation unjustifiable. The Rev J. Fraser, in his report relating to the employment of women and children in agriculture, touches incidentally on the effects of the preservation of game. He says—

"The extent to which the system of game preserving is carried on in many parts of England, and particularly in the county of Norfolk, is assuming a serious significance, both in a moral and an economical point of view. The farmer cannot cultivate his land with the proper measure of profit, and there is a tangible loss thereby sustained in the resources of the country, while the way in which, and the extent to which preserves are stocked to meet the present taste of battle shooting, and to satisfy the notion that you have had no sport unless you have slain leaps upon leaps, act as frezes the incentives with the peasant, who lives his bit of sport as he does the gentleman, and whose best earnings are not sufficient to enable him to overcome the temptation thus thrown in his way to poach and to steal.

In the *Times* of December 14, 1868, under the head of a "Midland Battue," we read "that certain preserves were shot through by nine noblemen and gentlemen, and the quantity of game bagged was 2330 head, of these 1030 were pheasants and 800 hares." In the *Times* of November 30, 1868, we read, "At a Suffolk battue 721 head of game was killed in four days, of which 237 were brought down the second day." In the *Field* of December 1, 1868, we read, in the head of Suffolk "Game killed by seven guns in three days, a total of 2720 head, of which more than 700 were rabbits. In the same paper we find that 11 noblemen and gentlemen killed in five days 834 head, of which 1077 were hares and rabbits. In a neighbouring county more than 2000 head of game were shot in one week in December on one estate, by no means a large one, and more than 1000 being rabbits. But we need not waste time by multiplying instances of this kind, any sporting paper will furnish them week by week through the season (though in fairness I should say that I have noticed the largest numbers I saw), and the publicity given to this kind of sport encourages it, because it stimulates every landowner who has a passion for it to vie with his neighbour in the number of head of game which his preserves may contain, and those householders in such rivalry may be said to have a ganey ambition. I confess that to me and to many others such sport seems very tame. Pleasants numerous as barn-door

fowls in a farmyard, and as easily shot down; rabbits, as thick as in a warren, and hares without end; each sport-man supplied by his servant with ready-loaded guns, to be discharged as soon as loaded, all plain, matter-of-fact work—a continuous bang, bang, for an hour or two together. If otherwise, how could nine gentlemen bag in one day 2330 head, or 250 as the average of each gun or set of guns on a December day? These facts show that game is preserved to a great extent in many parts of the country—I may say more or less in all, and I say so with more confidence, because from observations and inquiries I have made within the last month or two, I have been astonished to find

The Amount of Injury sustained—On this I will bring to your notice the written testimony of a landlord, whose memory is much respected, who was a staunch friend to agriculture, and who was a most able and far-seeing man—I mean the late Mr. Pusey. In the fourth volume of the *Royal Agricultural Journal*, published 25 or 26 years ago, he writes, on speaking of agricultural improvements in Lincolnshire—

"Some years ago a large posse of the best land enclosed with a high fence, and you hope that the owner is about to begin tilling his fresh soil. On the contrary, the object of this improvement is to keep out the only sign of farming, the sheep, and to preserve the best of the land (because where the land is best the covert is highest) an undisturbed realm for the blackcock. Every blackcock killed by the owners of these moors has cost more, I was convinced, than a full ox, though indeed it is nothing new that sporting should impede farming. The New Forest was made for the deer and Henry I. enclosed 70,000 acres of land 'doing as Douglas says 'for the pleasure of having in a farm to the common wealth.' In later times, when it was proposed to lay the forest dry the tenants opposed the scheme obstinately and their objection was I found most curious (I paid a visit) was the objection that would put on the wild ducks and other waterfowl. In the last generation we have seen how rabbits reduced the long woolled sheep, and now blackcock and grouse, I believe, are the main impediments to the extension of cultivation. On the Somersetshire moors the sheep are indeed generally admitted, but the rent of the land is 1s. or 2s. an acre, quite sufficient for such feed as the animals find. Yet there is land so let for which I know that in Berkshire 30s. an acre would be a fair price; and if the landlords in Somersetshire sold some of their moors at a rate sale stated on the present rental, that land I find, on a village over it, we could be as cheap as any that can be obtained in the blackwoods of Canada—not only as cheap, but more easily cultivated, near a much better market, and, above all, at home.

On an estate where the house and shooting were let together, the right of sporting being reserved to the landlord or others, in the tenants' agreements, the damage done to a piece of Barley was estimated by a valuer (a professional man) at 61s. per acre, and to the whole farm at no less than 7s. 6d. per acre. This was corroborated by a very respectable witness, and a fully competent judge in such matters. On two-thirds of the farm Vetches can never be planted with any chance of a fair return, and through the fact of small crops being harvested, and of little farmyard manure being made the labour bill is much lower than it should be, and the loss to the country is not merely the 7s. 6d. per acre, but also the larger portion of the value of the extra corn and meat which would be produced upon the farm if the tenant could cultivate in such a manner as to have a fair chance of securing large crops. In the *Field* of January 9, 1869, we read of an experiment made on a game-preserved farm. One acre of Wheat was fenced in with close hurdles of some kind, and yielded 9 sacks on that acre, the rest of the field yielded 6 bushels to an acre, being a loss of 7 sacks 2 bushels per acre from game. Now the Wheat average of England and Wales, taking the average of the past 16 years, is estimated at 3,300,000 acres, so that the loss to the country on its whole Wheat acreage, besides the interference with labour, the loss of straw, &c., and, as a consequence, of home-made manure, reckoned at the rate of the loss actually sustained on that piece of land, would be 31,500,843s., taking Wheat to be worth 25s. a sack. Surely such a fact should startle the greatest game preserver! Again, another case has been mentioned to me of a similar description, although not so great a loss. A piece of Wheat was enclosed in the middle of a field, and at harvest competent judges—valuers—estimated the difference at 2 sacks to an acre, the larger quantity being grown on the enclosed piece, the quality of which was superior by about 17 per load, and fit to harvest before the other. The fact was that all the field of Wheat, excepting the protected piece, after having been eaten down by hares and rabbits, which were afterwards considerably thinned, again grew, and so luxuriantly as to cause the blight, hence the difference. I venture to assert, without fear of contradiction, that one-fourth of the cultivated land in England and Wales—and I include grass-land, for that sustains great injury—suffers from game to the extent of 2s. per acre under its present management, we must add a further sum of 2s. 6d. per acre for the value of the extra produce which would also be grown on this land if good farming could be pursued. Now taking 314 million acres as the cultivated portion of England and Wales, we get eight million acres nearly as one-fourth of the whole, which at 2s. an acre plus 2s. 6d. an acre, making 4s. 6d. an acre, gives a money value of three millions. But we have still between five and six millions of acres, returned as uncultivable to deal with. When we find that only 25 years ago Mr. Pusey found land in Lincolnshire being enclosed for game, and in Somersetshire let at 1s. or 2s. per acre, the fee simple of which would have been worth 37 an acre in Berkshire, when Mr. Evershed tells us that the best farms in Surrey are surrounded by land growing nothing but Gorse, &c., we cannot but conclude that some portions of the five and a half millions of waste land is kept back from cultivation by the love of sport—not fewer, I estimate, than one million acres—which would produce, after paying all expenses, a net value of 37 an acre at the least, or a total of 3,000,0007, which, added to the former amount gives us the enormous sum of 6,000,0007, being nearly the value of one-

third of our Wheat and flour imports, and may be to the public by the undue preservation of game.

The Gamekeepers—I approach the part of the subject we are now to consider with reluctance, because I fear I shall not be able to do justice to the justness game-preservers with the full of the loss which are occasioned by their preservation of sport. I believe there are very many gentlemen who are ignorant of the extent to which they are causing the unhappiness which they cause in many instances a family. Often is it a fact that a gamekeeper who naturally loves and wants game, has considerable influence with his master, he raises on him and his word without thinking for himself, and is perhaps the more naturally induced to do so when that master coincides with his own wishes. He is told there is much game. He is told that such and such farms are grumblers. He is told that the wren is eating the sheep broke through the hedges and did the damage, or that it was the rook that did the damage, crop, not the pheasant or the hare, so he rests satisfied. There is an excellent letter in the *Field* of November 1868, signed "Land Agent," which is worthy perusal of every landlord, it is fairly and truthfully written, and I cannot do better than extract parts of two or three paragraphs from it. He says—

"I state in a positive way that the game law is causing more feeling between landlords and tenants than all other questions put together. I have seen many landlords as just, kindly, and considerate men as the subjects who were as unjust to the tenants, especially gamekeepers as most men can be, as an instance I know a gamekeeper a landlord desired me to give him compensation for an acre of Wheat utterly destroyed because he was told the game was worth 57 an acre, and he had to say that it had been more than a fair compensation, that the compensation cost the tenant 57, the other 4 being the tenant's profit and interest on his capital. "On another estate, when a shooting was let to a gentleman for a year, and when the tenants were suffering to the amount of at least 6000, I got the landlord to let the shooting to the tenant for a year, reserving the right of shooting to the landlord at a bargain, and you should hear the tenants' joy at the proposal at the rent dinner, although formerly I could scarcely effect a cheer of any sort.

This gentleman then gives an instance where a tenant had been ruined in spite of payment of an acre of damages, and where he himself had 84 wren rabbits killed on an area of 100 acres, and now the tenant being ruined, &c., as Mr. Large, of "Secrets of Farming," where the question of rabbits is well dealt with, every one of them does 10s. worth of damage a year. Then, as an instance of a gamekeeper's view "Land Agent" adds "A keeper assured me that the tenant's complaints were groundless, there was only a breed of stock of rabbits left. I put trappers on and knew, upon 2000." Well, now this keeper did not do "Land Agent," but how many landlords are deceived? And how absurd is the remark, "view to prove no injustice, Game farms are let at game rents." I think the very worst feature connected with this part of the subject is where a landlord rents at a distance and lets his shooting, with or without a house, to any one but the tenants. Such a practice is a wrong one in principle, say more, it is a crime, an unjust one. Talk not of the tenant being free to let a farm or leave it, talk not of his having voluntarily acquiesced in the preservation of game. The tenants of England are too numerous, and broader, to be able to quickly turn their hands to other occupations, to be able as a body to reject farms unless they can control the quantity of game, and so long as this continues so long will the game injustice remain.

Letting Separately the Game—I say that gamekeepers, knowing as they must, even from newspaper reports, how often farmers are injured by game tenants, should never let their shooting until they have first offered it to the tenants themselves. In the case of a landlord keeping the shooting in his own hands, consider that any person owning land who should more convenient to let a portion, or all of it, to a tenant should renounce his right to keep any brambles or ruperds upon it at all except as a means of a tenant understand a lessee spending large sums on a farm cultivating it, and paying rent for its use every year, and I yet be hampered by a stipulation that the tenant is empowered to partially stock it, whether he chooses a so-called compensation or not. Why should I be annoyed, so continually worried, why every day walk or ride round my farm should I be reminded of the gnawed Swedes, the fallow-like appearance of my Wheat and Barley, my short crops of seeds, my destroyed Vetches, my poisoned Grass, my starved heifer and stopped-up watercourse, and my tenant, at either I had made a very foolish bargain, or my landlord was behaving most injurious. I would not risk one's life as a slow poison, and I would not, for the sake of no more, as a rule, than half-a-crown a year's pastime for the lessor. But there is one more thing I should never mind doing—I should never mind having, and indeed I like to have, gamekeepers for pleasant sporting, and if the landlord is willing to parting with his land, would say, "I will give you sport, most willingly, most gladly would I do so myself, but I must come when I like and I will give you sport, most willingly, most gladly would I do so myself. In passing on from this part of the subject I would suggest, and it is this. That it shall be considered unjust and unhandsome conduct on the part of a landlord to let his shooting without first offering it to his tenants at a fair and reasonable price, so that where the landlord retains the shooting for his own use, rabbits and in no case be reserved, tenants have a joint right to kill hares, winged game, &c., reserved to the landlord.

Poaching and Poachers—I will now give two

the effect of game preserving on the... From Mr. Corbet's paper, I find that... there were in 1843, 4270 convictions... in 1859 there were only 2608 the... through. The kindness of friends... the number of game laws... in 1868, excepting those in the... of Newcut, and the total number... is 180. How many Newcut... to increase that amount I cannot say... of the 40 English counties is... let the acreage of Gloucestershire is... a little below the average... tions for poaching in... the total number is... since 1859, for we... convictions for England... is fully borne out by a state-... the *Bell's Weekly Messenger*... convictions in 1868... most game there... statement we may... has increased so... and that to an extraordinary... that since the Act of 1862... through the power... I answer that such... in 1863, but that five years... to have checked the... for anything we... fewer

I have endeavoured throughout this... expressing opinions upon any points with-... support of the opinions, and... saying that I have proved... my proposition. If game-preserving... explain away all the evils that I have... prove the existence of so much good... for them, it is for them to do so. If... they give employment to watchers... as was much insisted on (so I... when the Game Law Com-... in 1844 or 1845, I would... whether for the country, the farmer, or... about as profit-... employed, if they were engaged... I have not spoken of many points... against preserving—such, for... having to support poachers in... and families in the union, but I... speaking as I have, at the risk of... thinking differently to me, may... that all I have said was necessary... conviction of the absolute necessity for... would not lightly lose, and I cannot... good opinion of any one. But at the... know the injury to the country by... of game, the depressing influence... the continual worry, the lost... hurried school-days of children, the... occasioned by it to the farmer... bad effect it has upon the... it my duty, and I have... to read a paper upon it; and I... that I trust the subject will be agitated in... and that are long game-preserving to an... and vigorous discussion, the... was unanimously adopted:—

is of opinion that the over-preserva-... of great injustice to the occupier... serious injury to the commonwealth, and the... subject be brought prominently before... to the promotion of... remedies as may... removal of the evils com-... remedies should comprise... where a landlord lets the right... in the first instance, be offered to the... where the landlord reserves the right... extend to rabbits, and as... tenant should have a joint... winged game only being exclusively

Reviews.
of the Royal Agricultural Society of... Vol. V., Part 1. John Murray, Albemarle... Part of the Agricultural Journal contains... than usual, chiefly owing to Mr... report on the corn markets of the... Variations in the Price and Supply of... which occupies more than one third of its... The paper is however, a very valuable dis-... on which along with the character... corn prices in the English market... that Mr. Eversted's practical... which has... natural Journal.
is Mr. Clutterbuck's... on the agriculture of... the whole area... other English counties.—Mr J C... importance, by deep... having in the soil and... storehouse of food... like contingency) of... Cabbage and Kohl... if other crops

shall fall to the rapid growth of White Mustard, Stubble Turnips, Rape, Italian Rye-grass, Rye, and other useful leaf crops. In the autumn when the matted cultivated stubble has been mowed to receive the seed; 5, the independence (thanks to manufactured fertilisers) alike of the soil and of the weather, as regards the rotation of crops, and the agriculture used formerly to be supposed to hinge; and 6, the use of the various machines which enable us to divide and mix—the chaff-machine, the pulper, and the grinding-mill; and these by a small amount of mechanical power, to render nutritious and palatable a very large quantity of comparatively innutritious but yet useful fodder.

It is unfortunate that among the papers to which Mr. Merdoun in the attempt of his correspondence he omitted to name the value of the roller as a tillage implement for the rough ground. We have lately been over one of the finest pieces of young Clover that were ever seen—a most excellent thing this year, which has been sown singly to extraordinary and excessive forcing in the spring of 1868. The Wheat was put in after a drill presser of a homely, but unusually efficient kind. The field was a light soil on the lower colts, and every plough was followed by a loaded cart, one wheel running in the newly turned up furrow, the other on the top of the soil. As in the spring the soil was again drawn over for ever, it was a very ordinary thing. The Wheat was, after the excessive trampling with a pair of horses and two heavy wheels for every satchel, sown with two harrows and the Clover sown and rolled in. The young plant came at once and survived the drought and now covers the land with magnificent promise of a heavy crop both for fodder and for seed.

Among the other papers of the Part are Dr Voelcker's extensive treatment of the subject of manuring for Clover and pasture lands—Professor Tanner's paper on the influence of climate and hereditary character on sheep—Mr. Davy's history of the Devon breed of cattle—Dr. Voelcker's chemical report, to which we shall refer hereafter—Mr. Hutchinson's reference to the cultivation of new Counties and Mr. Everett's very useful practical essay on the best method of obtaining a continuous succession of green crops, including roots, throughout the year.

Farm Memoranda.

HAMPSHIRE.—The month of February, although very wet and stormy, cannot be said to have been unreasonable, as this month is usually wet, but this year has proved also exceedingly mild, the grass on the lawns being as forward as it often grows in the April month. Very little was done in February in the planting of Beans or Peas, but since the middle of March began the weather has proved dry enough at intervals for planting Beans and sowing Oats, Barley, &c., and on the driest soils, the gravel and chalk lands, a considerable breadth has been sowed in fair average condition. In some cases the Clover and Grass seeds have been sown at the same time as the corn, but until the end of the month it is considered best to defer the seeding until the corn is up, more particularly as the long roller now so generally in use answers admirably in breaking down the surface and covering the small seeds. The different sorts of Clover seeds are rather dear this year, but the Alsike variety is much cheaper and more generally grown than formerly, it being a very capable substitute for other varieties. The seeds of the various grasses and clovers are many of them very scarce this year, owing to the fact that the previous year in other cases they cannot be depended upon for their own or with. They seldom produce a full crop, either in the first or second cutting. All kinds of fodder crops are very forward. Velvet, Trifolium, Rye, Italian Rye-grass, &c. are quite a month earlier than they often are. This is fortunate for on many of the chalked farms Turnips and Swedes the ordinary sowing time for March and April, are nearly gone, and are being supplanted by Mangel, where parties succeed in growing them, and it ought to be considered, to great a risk to run on stock farms, unless a fair proportion of Mangel is provided, as well as other roots. The prejudice at one time existing against the growth and use of Mangel is fast dying out, and no doubt an unusually large acreage will be sown this year. The Sugar-Beet, too, is beginning to attract attention, and in case there was a free sale for them they would be largely grown upon strong and heavy lands which are too cold and flat for feeding sheep upon in the winter months. The Wheat plant looks well, more particularly upon dry soils, but on clay soils strong rains the weather has not been dry enough. There is, however, less loss of plant this year than is often the case. The prices of grain seem to be gradually receding, no doubt arising from the appearance of the crops, the season, and the probability of large importations. All kinds of meat are now very dear to the consumer, and must very soon diminish consumption, which is the only thing likely to keep the price in check, as the number of fat animals are very short in this country compared with the ordinary supplies at this time of year, either of cattle, sheep, or pigs.

In our last report a good fall of lambs on the vale farms was stated, the lambing season also on the hill farms is now far advanced, and this is the third year in succession when the fall of lambs has been over the average, but the present has proved the best of any year reported with our respect on, the ewes producing more twin lambs, for the most part in sound healthy condition. In looking back, however, to years past it has been often remarked that the flocks of Hampshire Down sheep have been subject to very serious losses, both of ewes, lambs, and sheep of

different ages, at certain times of the year, and it cannot be said to be the result of the soil and climate of Hampshire entirely for it is noticed both in Wiltshire and Berkshire likewise but is complained of as applicable to the Hampshire Down breed, and that they are by no means a sheep possessing a good constitution, in consequence of which an experiment has been going on for some years by crossing them with the Shropshire breed, and this cross has been found very good in various ways. We have an excellent record as to the Hants Downs only yielding 89 per cent. of lambs, whereas the Shropshires yield 29 per cent. The latter are said to be more hardy, will bear closer feeding, have more aptitude to fatten, produce more wool, are quieter feeders, being hardly ever known to maven on succulent food like Rape, &c. These advantages are great, and calculated to improve the Hampshire breed immensely if the cross is carried out with judgment and the blood carefully commingled. Lambs of this cross taking the prize at Lloy on the 15th inst. were remarkably fine specimens of early maturity. Joseph Blundell, Southampton, March 20.

The Poultry Yard.

To "A. K." who writes to complain that her fowls eat each others plumage.—In all probability you have read Virgil's *Georgics*, and remember the dreary north therein described as exciting the man who waked his rooms the livelong night, laughing at and enjoying the choros of a Greek play. The case of your birds lies in this untoward season afford to other amateurs that negatve satisfaction that even the best among us feel, on finding others in as bad a plight as ourselves. For what reason we are unable to say, but your letter might be that of many amateurs this year. Many a promising sale, many a Silver Cup reckoned on with certainty has been postponed *sine die*, because, indulging in an untidy and unauthorised appetite, the birds, especially the Spanish and Houdans, have eaten each other, or at least each other's plumage. Before prescribing a remedy we must try and find the cause. Are your fowls kept on a brick or boarded floor, or do you keep them in confinement? If the floor be boarded or bricked we advise its removal, and the substitution of a gravel and chalk mixture. If the birds be kept in confinement, they, at this season, require a very liberal and varied diet, plenty of vegetable; and in all their soft food, such as barley-meal, &c., a quantity of flour-of-sulphur should be mixed. It sometimes happens that one particular bird is the culprit, if such be the case it should be at once withdrawn, and, unless very valuable, it should be at once killed. A bird that is naked or bare in any part, should always at once be removed from the company of the others, and its feathers should be carefully drawn, and the bare place washed with warm water and treated with spermaceti ointment. All fowls and pigeons will peck at bare flesh, and when the skin is broken they will peck it and eat it to the bone. A correspondent, writing to the "Journal of Horticulture," recommends the application of a solution of bitter aloes to the feathers of the birds, and says he has never known it to fail as deterrent. Whatever may be the cause, it is certain that this year the complaints of this feather-stripping are double the average, and the difficulty of the cure is manifest. The ingenuity and experience of all poultry fanciers will be brought to bear on it, and we hope with satisfactory results.

The very rough weather, and the biting east winds to which we have been subject for the last few weeks, render additional care and attention absolutely necessary for the well-doing of the little chickens already hatched. If the coops can be placed under the shelter of a shed so much the better, if not, then an old sack thrown over, and the back of the coop carefully kept to the wind. Every little extra attention, in the way of diet, will be amply repaid by the growth and strength of the chickens.

The Loss of Weight in Cooking, comparing poultry and other meats would, according to Professor Donovan, be as follows. He took a piece of tender ribs of beef weighing 11 lb., this when roasted, lost 2 lb. 6 oz., of which 28 oz. were water, and 10 oz. fat, &c. The meat was then dissected from the bones, and these were found to weigh 10 oz. Consequently, of the original cut when weighed more than 11 lb. there was less than 8 lb. of meat, so that if it was bought at 4 1/2 per pound the roasted beef that could be actually consumed would cost more than 12 a pound. Part of a sirloin of beef that weighed 22 lb. lost by roasting 14 oz., of which 27 were water and 17 fat, &c. The bones weighed 2 lb., and the beef that was actually suitable for eating weighed 7 1/2 lb. Hence, if the cost of the joint were at the rate of 8 1/2 d. per pound, the value of the roasted meat would be 1s. 2 1/2 per pound. A leg of mutton that weighed when bought 9 1/2 lb., lost when roasting 1 lb. of fat, &c. and 13 oz. of water. The bone weighed 16 oz. Only 5 lb. 6 oz. were left, and if the butcher had charged 8d. per pound, the cooked meat would cost more than 11 d. A goose, not stuffed, prepared for roasting, weighed 7 1/2 lb., when roasted it was found to have lost 18 oz., and the bones weighed 12 oz. The edible part that remained, therefore, if the goose sold at 1s a pound, would be worth 1s. 8 1/2 d. per pound. A turkey, properly trussed, weighed, including its liver and gizzard, 6 lb. 11 oz. It lost 20 oz. in roasting, and its skeleton weighed nearly 12 oz., the weight of its edible part being 4 lb. 10 oz. Had the original price of the turkey been 5s., the value of the roasted meat would be 1s. 1d. per pound. According to the same authority, a duck when prepared for roasting weighed 11 lb. 10 oz. In roasting it lost 6 1/2 oz., and the bones weighed 4 oz. The edible portion therefore was only about 1 lb., and if the duck cost 2s. or 1s. 8d., the food it yielded

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 WILLIAMS AND SONS CATALOGUE of the most beautiful and rarest verbenas, with their botanical descriptions, and a list of the names of the persons who have discovered them.

Twenty Thousand Bedding Plants.
 WILLIAMS AND SONS CATALOGUE of the most beautiful and rarest bedding plants, with their botanical descriptions, and a list of the names of the persons who have discovered them.

Market Gardens, Biggleswade, Beds.
 WILLIAMS AND SONS CATALOGUE of the most beautiful and rarest market garden plants, with their botanical descriptions, and a list of the names of the persons who have discovered them.

Finest Prize Hollyhock Seed.
 WILLIAMS AND SONS CATALOGUE of the most beautiful and rarest hollyhock seeds, with their botanical descriptions, and a list of the names of the persons who have discovered them.

Superb Double Hollyhocks.
 WILLIAMS AND SONS CATALOGUE of the most beautiful and rarest double hollyhocks, with their botanical descriptions, and a list of the names of the persons who have discovered them.

Now Ready.
 WILLIAMS AND SONS CATALOGUE of the most beautiful and rarest plants, with their botanical descriptions, and a list of the names of the persons who have discovered them.

Magnificent New Plant.
 WILLIAMS AND SONS CATALOGUE of the most beautiful and rarest new plants, with their botanical descriptions, and a list of the names of the persons who have discovered them.

WARD SANG AND SONS.
 CATALOGUE of the most beautiful and rarest plants, with their botanical descriptions, and a list of the names of the persons who have discovered them.

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LONDON and CONTINENTAL SEED COMPANY.
 CHIEF OFFICE—25, WHITEHALL STREET, LONDON, W. BRANCH OFFICE—1, KING'S CROSS, LONDON, E. BRANCH OFFICE—1, HIGH STREET, LONDON, E. BRANCH OFFICE—1, DEVLIN STREET, LONDON, E.

THE LONDON and CONTINENTAL SEED COMPANY.
 Mr. HENRY J. HARRIS, of 25, Whitehall Street, London, W., has consented to be the Managing Director of this Company.

DISCOUNT OF TWOPENCE IN THE SHILLING will be taken off the price of all seeds for the Farm, the Kitchen Garden, and the Flower Garden.

THE NEW FARM SEED LIST is now ready, and can be had on application, gratis. A Discount of Twopence in the Shilling will be taken off the price of all seeds for the Farm, the Kitchen Garden, and the Flower Garden.

SEEDS CARRIAGE FREE—All Orders Carriage Free. A Discount of Twopence in the Shilling will be taken off the price of all seeds for the Farm, the Kitchen Garden, and the Flower Garden.

A FULL DISCOUNT WILL BE ALLOWED on all orders for seeds for the Farm, the Kitchen Garden, and the Flower Garden.

THE USUAL PROFITS are divided between the Customer and the Manufacturer, on the principle of the London and Continental Seed Company, 25, Whitehall Street, London, W.

Dahlia Imperialis.
 H. DAVIES has just received a Stock of this beautiful Dahlia, which is the most beautiful of the Dahlia family, and is the most beautiful of the Dahlia family.

Hardy Bedding Plants.
 ROBERT PARKER has just received a Stock of these beautiful Hardy Bedding Plants, which are the most beautiful of the Hardy Bedding Plants.

Camellias, Azaleas indica, and Rhododendrons.
 JOSEPH BAUMANN, NURSEBYMAN, Ghent, Belgium, has just received a Stock of these beautiful Camellias, Azaleas indica, and Rhododendrons.

Beautiful Spring Flowers.
 W. M. DILLSTONE has just received a Stock of these beautiful Spring Flowers, which are the most beautiful of the Spring Flowers.

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Beautiful Spring Flowers.
 W. M. DILLSTONE has just received a Stock of these beautiful Spring Flowers, which are the most beautiful of the Spring Flowers.

Carnations, Picotees, and Pinks.
 W. M. DILLSTONE has just received a Stock of these beautiful Carnations, Picotees, and Pinks, which are the most beautiful of the Carnations, Picotees, and Pinks.

Viola cornuta alba.
 JAMES DICKSON has just received a Stock of this beautiful Viola cornuta alba, which is the most beautiful of the Viola cornuta alba.

WEBB'S NEW GIANT POLYANTHUS.
 WEBB'S NEW GIANT POLYANTHUS, which is the most beautiful of the Polyanthus, and is the most beautiful of the Polyanthus.

Arundo conspicua, Calamagrostis conspicua.
 WEBB'S NEW GIANT POLYANTHUS, which is the most beautiful of the Polyanthus, and is the most beautiful of the Polyanthus.

MESSES VEITCH AND SONS beg to call attention to the requirements of the above in the "Gardener's Chronicle," April 3, 1869, page 302, and "Journal of Horticulture," April 3, page 127, and to announce that they can supply the same at the lowest price.

THE GARDENERS' CHRONICLE AND AGRICULTURAL GAZETTE for the best COLLECTION of FRUIT TREES, and other plants, and for the best COLLECTION of FRUIT TREES, and other plants.

A SILVER CUP of the value of £21, which is the most beautiful of the Silver Cup, and is the most beautiful of the Silver Cup.

THE GARDENERS' CHRONICLE AND AGRICULTURAL GAZETTE for the best COLLECTION of FRUIT TREES, and other plants, and for the best COLLECTION of FRUIT TREES, and other plants.

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The Gardeners' Chronicle.

SATURDAY, APRIL 10, 1869.

MEETINGS FOR THE ENSUING WEEK.

It will be remembered that FIRES OF ORIGINATING FROM RAILWAY LOCOMOTIVES, were rather numerous during the past dry summer, and those who visited Leicester during the great exhibitions of the Royal Agricultural and Horticultural Societies had ample opportunities of perceiving that the Midland Company's route formed no exception to the general rule. The fires were not only numerous but some of them of a very serious character, extending to large areas of corn and grass crops, and in some cases to woods and plantations. Generally the claims for compensation have been settled privately by the railway companies, but there have been some exceptions to this rule, and one occurred on the Midland Great at Nottingham at the recent Assizes, where Mr. HARRIS, the Official Assignee in Bankruptcy, brought an action against the Midland Railway Company for injury done by fire to his property situated at Kegworth, on the Nottingham and Leicester line. The principal fire—for there were many of them—occurred on the 16th of last July, destroying 4 acres of Grass keep, several hundred trees and shrubs of eight to ten years' growth, and some established picket fences. Acting under the direction of one of the subordinate inspectors of the Railway Company, Mr. HARRIS caused the damage to be estimated by a competent horticultural valuer who assessed the loss of crop, and the cost of restoring the plantation and fences with plants of the same size at 118/ 11s., and the damage to the freestone, it being for sale at the time, at 350/. For these amounts a claim was made upon the Railway Company, who, so far from honoring it, at once denied their liability and would not even entertain the question of compensation at all. Feeling that neither in law nor equity could damage so manifest and serious be pushed.

FRUIT TREES, and other plants, and for the best COLLECTION of FRUIT TREES, and other plants.

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Notices of Books.

Recent Architecture, by James Rennie, Esq., with much enlarged by the Rev. J. G. Wood, M.A., with 18 plates of drawings. London: R. S. D. P. 1859.

The work is a very good one, and contains a great deal of information on the subject of architecture, and is well adapted for the use of the student and the practical architect. The plates are very fine, and the text is well written and easy to read.

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The Apiary.

NON-SWARMING HIVES.—In the reply to "P. G.," p. 100, it is stated that "we have worked 1,000 for three or four seasons without their leaving one swarm, excepting a few stragglers from them every year. I have frequently extended this time with the swarming bees, and have kept them in perfect strength up to the sixth and seventh years. I have swarms into the straw hives with the same type for swarming. One of these years, however, at 1 1/2 years, they swarmed, and I was obliged to destroy them. The next year they were nearly all wintered in the straw hives, and I have not had any more swarms since."

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stocks—chiefly Ligurian. Where only a limited supply of bees can be kept, I believe that to be the best.

DEATH FROM THE STING OF A BEE. Mr. Samuel... The deceased had been stung by a bee on the face, and the sting was not removed. He died in a few days.

Garden Memoranda.

BICTON GARDENS THE SEAT OF THE RIGHT HON. LADY KILMER, BISHOP OF SALISBURY, DEVON-SHIRE. Bilton gardens and their able manager, Mr. James Barnes are so well and so honourably known...

These Araucarias range from 28 to 30 feet in height, from 1 to 2 feet in diameter, and from 1 to 2 feet in height. They are planted in rows, and are very healthy and vigorous.

The book is a very good one, and contains a great deal of information on the subject of architecture, and is well adapted for the use of the student and the practical architect. The plates are very fine, and the text is well written and easy to read.

Just inside the side gates a group of Wellingtonia gigantea is planted in a very exposed position, where the trees encounter the full force of the east and north-east winds. Notwithstanding this exposure, they are in robust health, and range in height from 22 to 24 feet.

The book is a very good one, and contains a great deal of information on the subject of architecture, and is well adapted for the use of the student and the practical architect. The plates are very fine, and the text is well written and easy to read.

of the 10000, nigra composita bronitis grandiflora, a

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APRIL 10, 1869

SUTTONS' HOME-GROWN FARM SEEDS,
 NEW AND UNADULTERATED,
 CARRIAGE FREE
 SEEDS DIRECT FROM THE GROWERS THE BEST MEANS
 OF PREVENTING DISEASE
 Special Contracts made for large quantities
 Best Farm Seeds are sown from the most carefully
 selected seed, and are guaranteed to be pure, but have no Agents.
SUTTONS' PRIZE MANGEL WURZEL,
 THE LARGEST GLOBE VARIETY IN CULTIVATION.



SUTTONS' BERKSHIRE PRIZE YELLOW GLOBE.
 The most variety of Globe Mangel yet introduced. It is of
 heart shape, with very neat top. It is mostly of pale yellow
 color, and generally only one tap root. It grows to a large size, and
 when sown produces the most weight of roots per acre.
 Following are the sorts also available —
 SUTTONS' SELECTED YELLOW GLOBE, 1s. per lb.
 SUTTONS' SELECTED ORANGE GLOBE, 1s. per lb.
 SUTTONS' SELECTED RED GLOBE, 1s. per lb.
 SUTTONS' SELECTED LONG YELLOW, 1s. per lb.
 SUTTONS' SELECTED LONG RED, 1s. per lb.
 SUTTONS' SELECTED COMMON INTERMEDIATE, 1s. per lb.
 Lowest price per cwt. on application

SUGAR BEET (Sow 8 lb. per acre).
 SUTTONS' SELECTED SUGAR BEET, 10s. per lb.
 SUTTONS' SELECTED SUGAR BEET, 10s. per lb.
 THE BEST SWEDE IN CULTIVATION IS
SUTTONS' CHAMPION.



Very heavy cropper, perfectly hardy; stores well, free from mildew
 SUTTONS' PR. M. ATALONIA OF SUTTONS' HOME-GROWN
 MANGEL WURZEL AND TURNIP SEEDS may be had
 carriage and Post Free.
 All Goods Carriage Free, except very small parcels.
 Five per cent. allowed for cash payment.
SUTTONS AND SONS, SEED GROWERS, READING.

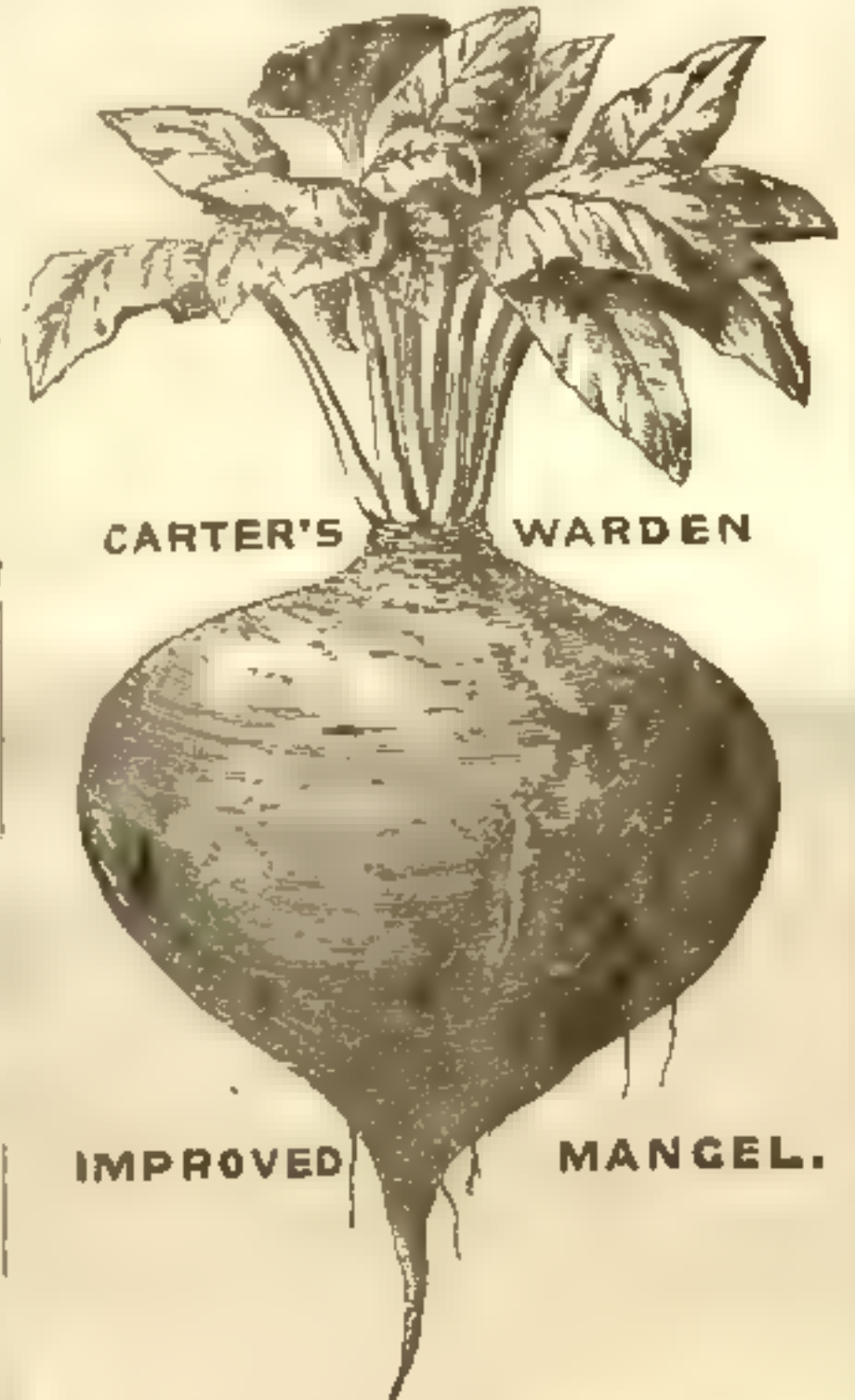
THE ROYAL SEEDSMEN
 "SUCCESSFUL FARMING IS DEPENDENT
 ON GOOD SEEDS."

Lansdown & Co.
Seed Growers
 287, 238, and 261, HIGH HOLBORN, LONDON, W.C.

SEED FARMS:
 JUPES HILL FARM, DEDHAM, ESSEX
 GOD'S HOUSE FARM ST OSYTH ESSEX.
 EAST HOUSE FARM, DEDHAM, ESSEX,
 THE SEED FARM, ST. OSYTH, ESSEX

CARTER'S IMPERIAL HARDY SWEDE.

See Illustration at page 386 of this day's *Gardeners' Chronicle*
 The best variety, 1s. per lb.
 Cheaper per bushel.
 CARTER'S "PRIZE" TURNIPS and SWEDES.
 CARTER'S "PRIZE" MANGEL WURZEL.
 CARTER'S FINE CLOVER SEEDS
 CARTER'S IMPERIAL GREEN KOHL RABI.
 For particulars of the above choice stocks, see CARTER'S
 "Illustrated Farmer's Calendar for 1869"



NOT TO BE SURPASSED.
 1s. 6d. per lb.; cheaper per cwt.

CARTER'S GRASS SEEDS.
 SPECIALLY PREPARED FOR EVERY DESCRIPTION
 OF SOIL, AS SUPPLIED TO
H. M. G. MAJESTY THE QUEEN.
 H. I. M. THE EMPEROR OF THE FRENCH
 H. R. H. THE CROWN PRINCESS OF PRUSSIA
 THE PARIS EXHIBITION, 1867
 THE UNITED STATES GOVERNMENT
 H. M. MAJESTY'S RIVERS COMMISSION
 H. M. MAJESTY'S MILITARY ENCAMPMENTS
 H. M. MAJESTY'S NAVAL DEFENCES
 THE MALDEN CRICKET CLUB
 THE CRYSTAL PALACE COMPANY
 THE CRYSTAL PALACE CRICKET CLUB
 THE METR. POLICE SEWAGE FARM
 THE BIRMINGHAM SEWAGE FARM
 THE TUSKLEY WEALS IMPROVEMENTS
 THE WORTHING IMPROVEMENTS, &c. &c.
 Finest Quality, per acre, 28s. to 35s.
 Second Quality, per acre, 20s. to 26s.
 See page 386 of this day's *Gardeners' Chronicle*. Large
 purchasers liberally treated.

For FULL INFORMATION on the LAYING DOWN
 and AFTER-TREATMENT of GRASS LANDS, see
CARTER'S FARMER'S CALENDAR FOR 1869
 (ILLUSTRATED).
 Post Free 6s. Gratis to Customers
JAMES CARTER AND CO.,
 287 and 238, and 261, High Holborn, London, W.C.

HALLETT'S PEDIGREE CHEVALIER BARLEY
 produced in 1868 a Crop of 62 bushels per acre, a Sample of
 which was awarded the First Prize at the Birmingham Show of 1868.
 Took the First Prize also at the same Show of 1867. Produced in
 1867 a crop of 94 quarters per acre.
 PEDIGREE BAY & TANTARIAN OATS produced, 1868,
 12 1/2 quarters per acre.
 For particulars apply to Capt. Hallett, F.L.S. Brighton.



SOUTHAMPTON MEETING
 of the BATH and WEST of
 ENGLAND AGRICULTURAL
 SOCIETY and SOUTHERN
 COUNTIES ASSOCIATION
 The PRIZES of 1000s, 500s, 200s
 100s, 50s, 25s, 10s, 5s, and
 HANDEL ISLANDS CATTLE,
 together with those for SHEEP,
 HORSES, and PIGS, CLOSE on the
 12th inst. but the time for the ENTRY
 of CATTLE has been extended to the
 5th of MAY
 Applications for Prize Sheets and
 Certificates of Entry to be made to the
 Secretary, Bath.

ROYAL AGRICULTURAL SOCIETY OF ENGLAND.



MANCHESTER MEETING, 1869.
 STOCK and IMPLEMENT PRIZE
 SHEETS are Now Ready, and will be
 forwarded on application to HENRY
 WHITWORTH, Esq., Local Secretary,
 92, King Street, Manchester, or
 H. M. JENKINS, Secretary
 12, Hanover Square, London, W

ROYAL AGRICULTURAL SOCIETY OF ENGLAND.



MANCHESTER MEETING, 1869.
 ENTRIES for IMPLEMENTS, &c.,
 CLOSE on the 1st of MAY, and all
 Certificates received after that date will
 be returned to the senders.
 H. M. JENKINS, Secretary
 12, Hanover Square, London, W

The Agricultural Gazette.
 SATURDAY, APRIL 10, 1869.

MEETINGS FOR THE ENSUING WEEK
 April 12 Cirencester Farm Meetings
 13 Royal Dublin Agricultural Society's Show
 17 Norfolk Chamber of Agriculture, at Norwich Valuation
 of Property Bill.

AGRICULTURAL labourers are, we believe, at
 present exciting more compassionate interest in
 the minds of well-meaning men than any other
 class in the country. They are declared to be
 half-fed, ill-housed, helpless. It is no answer
 to such an assertion that other large classes
 living in towns are in an even worse plight, and
 that unskilled labourers in the country are better
 off than the corresponding class elsewhere. The
 honest inquirer has generally to allow for this
 fact, however—that the superiority of country
 lodging, bad as it may often be, and of country
 food, has to be admitted. But it is the compara-
 tive helplessness of the village labourer that
 touches you; the townsman strikes and congregates,
 even riots, and will be heard occasionally
 —the farm labourer is never heard. That is
 probably the reason why clergymen and philan-
 thropists are so urgent on the subject, and why
 Farmers' Clubs and Chambers of Agriculture are
 constantly discussing it. And it is well that this
 interest should exist, notwithstanding that it is
 from the class themselves that help must really
 come. They are not helpless. Over great part
 of England the agricultural labourer of a certain
 age has abundance of pocket-money. From 18
 to 25, when a single man, he is lodged and
 boarded, and receives from 10% to 16% a-year. If
 he could only be induced to abstain from public-
 house resort, he might before he married be a
 man of property—have a houseful of furniture,
 or even both house and furniture of his own.
 There is no one from whom he has anything like
 the chance of help that exists within his own
 unaided reach. And it is on education during
 boyhood, and on considerate and firm manage-
 ment during youth—on personal character, in
 short—that his condition as a man depends.

We are glad, nevertheless, that public-spirited
 men keep the facts regarding the class generally
 prominently before the public, good service is
 done, not only by those who urge self-restraint
 and personal influence as their two great helps,
 but also by those who criticise the more public
 agencies which are at work both against and
 for the class. In particular, all true pictures of

disease to an out... That sheep-pox should be dealt... That for carrying

of imported animals... made compulsory, and not left to the... of the Privy Council.—That

animals... brace the wh

foreign cattle until these markets were made, what would be the consequence? London could not do... Bill of law... for buildi

place on Tues... related to traffic in live... Mr. Forster was from

real a resolution to the effect that the compensation... ought to be raised by a post-tax. To this Mr... Forster replied, that "the resolution would

Mr. WATSON, "late surgeon to the Government... Hospital, Chelsea Islands," writes to the Times to say

that they will prove of equal mo... from Mr Watson referring to a meeting... the interest of the Privy Council

the greatest agricultural help at their command.

owner parties. He would gladly see the dead meat... not see

Bill of law... for buildi... that loc... be exempt... and the... should be... after a short... was exempt from tax, and wished it to be understood

— Another deputation to Mr. FORSTER was from... the most far... Mr. Forster was from

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Mr. WATSON, "late surgeon to the Government... Hospital, Chelsea Islands," writes to the Times to say

that they will prove of equal mo... from Mr Watson referring to a meeting... the interest of the Privy Council

the greatest agricultural help at their command.

— We learn from the Oxford Times that HENRY GILES, toll-gate keeper, Sandford, was lately charged... Mr. Forster was from... the most far... Mr. Forster was from

OUR LIVE STOCK

We have before us Mr. F. Lane's sale catalogue, which records the names of dozens and heifers, and the same number of... Mr. Forster was from... the most far... Mr. Forster was from

— We hope next week to give our readers a short description of the Siddington herd, with special reference to the Musical and Siddington families, which will be offered for sale on Thursday, the 22nd inst.

Mr. Howard... has issued a new... of eight bulls, of which no fewer than 19 belong to the famous Princess, by FAVOURITE, or Gwynne... Mr. Forster was from... the most far... Mr. Forster was from

— Within the last month the Hilly Bank herd has been purchased by the Earl of two... both by Earl... Mr. Forster was from... the most far... Mr. Forster was from

— The... animal is allied to the... In general form... the ox. His neck is short, his limbs light, terminating in small hoofs, and he is covered with a long and thick coat, which conceals an undergrowth of fine wool, and

in Tibet in the manufacture of some of the best
 fabrics. This woolly covering is said to disappear with
 advancing age, or when he is struck from the mountain
 climate for which he appears so well adapted. Some
 was certainly the case in the case of the late
 Duke of Argyll, who died at the age of 70, and was
 General at Chinghai in the year 1848. He was
 used for purposes of the wool, and was found to be
 of good quality. It is said to be of a
 place where the wool is of a
 it is superior to any other. It is said to be a
 substitute for the wool of the mountain, and
 his extreme hard work and care in the mountains
 give him an interest even in the eyes of English
 agriculturists.

Sheep—Messrs Robert and John Russell, long ex-
 tensive and successful farmers in the neighbourhood of
 Hartford, have within the last two years appeared
 before the public as successful breeders of Hampshire
 Down sheep. We have not room to enter into details
 of the present state of their flock, and are content to
 state that they have succeeded in raising a flock of
 never ones have been seen in the neighbourhood.
 The history of the flock is worthy of
 attention, as it was commenced in opposition to the
 farming opinion of the district, where it was generally
 thought that raising lambs would not be a successful
 enterprise. Still, in spite of this discouraging opinion,
 the Russells persevered and succeeded. Mr W.
 roughly Wood informs us of a similar flock with
 regard to breeding lambs, his names are not
 known. My land is so unfavourable for sheep that
 when first I entered upon it I was told that it would
 be madness to keep a fine flock. And yet the
 Honey Bank Shropshire have passed upon our
 Mr Wood's able management. We have then two
 instances, showing that local opinion should be
 subjected to the test of experiment, and not blindly
 accepted as the *dicta* by which a future practice
 must be controlled. Mr Russell, thus speaks of the
 commencement of his flock. "The reason we tried
 to breed our flock was that the stock we purchased
 were not only fit to fatten, but the ewes were
 were numerous progeny from goodness. Our
 flock commenced with Southdown ewes, which
 were crossed with Hampshire rams every season.
 The stock increased in size and earliness of matu-
 rity, enabling us to sell them at one year old.
 Fresh males were purchased every year until at length
 after bringing home some of the best which money
 could procure, Mr Russell found that his own young
 rams were superior to those he had bought. This
 determined him to exhibit at the "Royal, which he
 did at Leicester, and so successfully as to carry off the
 1st prize, and subsequently similar success attended
 his sheep at Islington. Distance from other similar
 flocks is a difficulty at Farningham, especially in the
 important item of finding a market for rams. As the
 Messrs Russell have 100 ram lambs they propose
 either to send them to some western fair or give
 an auction in the west of England."

STEAM CULTIVATION

I HAVE looked upon the "West Indian" steadily
 written article on Steam Cultivation and as he has
 touched upon "E. Peppin Lechallour's" article in the
 "Journal d'Agriculture Pratique," I will give a sum-
 mary of it, with some remarks of my own, in support
 of my own mode of application. Here is the sum-total
 of the article above referred to. The Agricultural
 Societies, both in France and England, are thanked
 for giving trials and reports by which we are told
 that the superiority of steam power over horse power
 is completely settled, although as yet there is a differ-
 ence of opinion as to what is the best application—
 the contest being between a two-engine set, cost-
 ing 1400*l.* and a one-engine set working on the
 roundabout plan said to cost 720*l.* Some statements
 are then made as to where "bare fallows must com-
 pletely cease to exist," fixing the time for working
 from February 15 to May 15, and from August 15
 to November 15, all 180 days, but from these
 we are to deduct 50 days for Sundays, &c., leaving
 130 days as the working days in a year for a set of
 tackle, be it what it may, thus condemning our
 own Royal Agricultural Society's practice of basing
 their estimates on 200 days work. Then come some
 estimates on a 500-acre farm, fixing the days thereon
 at 225 acres on an average of years, leaving 275 acres
 for corn and roots. Then these 275 acres are to be
 reduced by small fields to be done with horses that
 must be kept for carting corn, &c., to 225 acres. Then
 we are told how to operate—"A breaking up of
 the stubbles directly after the corn, crops have
 been carted at the latter end of the summer
 by a light portable engine,
 then a portable engine set on a
 partly for carting, and partly for
 action of frost. In the spring the
 scurrying and one harrow will
 the best condition for sowing, &c., &c., Mar-
 April, and May." &c. &c. are set apart for the winter-
 sown white crop, leaving 175 acres for oats and spring
 corn, and here is the sum total of work to be applied
 on the 225 acres—400 acres of grubbing and sowing
 225 acres of ploughing with a harrowing, showing that
 it would not do to employ a double-engine set on such
 a holding, and that such a set has no chance except in
 the hands of the contractor. We are then shown
 what a roundabout set can do upon such a holding.
 "The work required by 225 acres will occupy Howards
 tackle during 104 days, and a day's working expenses
 are fixed at 2*l.* 3*s.* 6*d.* or 27*l.* an acre for grubbing
 is 4*l.* an acre for sowing, and 1*l.* 3*s.* 6*d.* an acre for
 and. After comparing these figures with horse work
 the Leicester award is approved by justifying the use

of a roundabout set on such a holding, leaving the
 104 days required entirely to the contractor.
 Please to make a few remarks upon these state-
 ments. I don't remember the cost of a set of Howards
 tackle, but I believe the cost of Howards
 does not represent a set of mine. Here is the cost of a
 set of mine.

That all that is needed to work land in England
 What I wanted in France I know nothing about.
 Now let us look at the time fixed for working. In
 England February 15 is too early for we do not need
 it for the planting of our Bees, I have tried the
 matter and have done the work well and have had good
 results from it. I don't know whether it will
 be a day or so later for that purpose than with
 March 15 would be a more seasonable time for
 the work, and these were fixed for
 work on to May 15, but for the life of me I cannot
 see what use it can be all that time on such a
 holding. I can quite agree about the land all being in
 crop during the summer months but I cannot under-
 stand how we can be usefully out upon our stubbles
 after "great crops" are harvested by August 15 for it
 is the stubbles after my pasture crops that I want to be
 at the disposal of the farmer they are not cleared until the end
 of August, September and October are the two months
 to work the land when we are told to work on to
 November 15, we are told to work on to the end of
 the year, one time to a day including meal times
 and stoppages for working without a day's rest. Then I
 must knock off 15 days in November, 15 days in
 August and 8 days from February 15 to March 15—in
 all 38 days from the 130 days already shown as the
 working days for a year less 10 days for Sundays.
 This will reduce the working days of a year to 82,
 therefore Howards' tackle would not be able according
 to my showing to do its 104 days' work a year on such
 a holding.
 Now let us look at the cost of this 104 days' work
 on 225 acres of land, 104 by 27*l.* 6*s.* 6*d.* a day equals
 2877*l.* 10*s.* 6*d.* or 110*l.* 2*s.* 6*d.* an acre for a seed-bed.
 Again compare the cost of these seed-beds with
 mine worked upon my plan, with a like costing 720*l.*
 Here is my mode of calculating. Had the engine to be
 charged to thrashing and grinding, &c., in the same
 way that "E. Peppin Lechallour" did, this reduces the
 cost to cultivation to 372*l.* To do the 225 acres, the
 tackle would be required 11 days at smashing and 27 days
 at ridging and subsoiling. The cost of the men for a
 day's smashing is 16*s.* 6*d.* of coal, 8*s.* of oil, 8*d.* for
 11 days, total, 13*l.* 16*s.* 10*d.* The cost of the men for a
 day's ridging and subsoiling is 14*s.* 6*d.* of coal, 8*s.* of
 oil, for 27 days, equals 37*l.* 6*s.* 6*d.* The cost for
 the 225 acres would then be 170*l.* 2*s.* 6*d.*

Cost of engine and tackle	720
Cost of fuel and oil	100
Cost of labour	100
Cost of seed	100
Total	1020

On an average 6*s.* 1*d.* per acre
 This is a most wonderful support to my own figures,
 worked out last autumn, when I showed that my
 average cost of seed-beds was 10*l.* an acre, yet it
 proves plainly that "E. Peppin Lechallour's" mode of
 application (the Howards) is by no means the best,
 inasmuch as the cost is shown to be 110*l.* 2*s.* 6*d.* an acre,
 against my 6*s.* 1*d.* He may plough and he may
 harrow, and he may also scratch, but these figures speak
 for themselves, and prove him to be a long way behind,
 for there are my lands and seed-beds to look at, yet, and
 there is more than that, for there are now my three
 fields of Wheat to look at, planted with but a mere
 trifle over a bushel of seed per acre 12 inches from row
 to row, seeds at a total cost of 1*l.* 1*s.* 6*d.* per acre, and
 they look much stronger in colour than
 anything of the same culture in the neighbourhood
 or any that I have seen within the last month, so
 where I may, although seeded as thick again. People
 who have visited me within the last 14 days from
 several parts of England tell me that they have seen
 none like them for strength. Then there are my
 Beans up and strong on my ridged and subsoiled land,
 costing only 7*s.* an acre for working up 10 inches deep.
 My crop last bad Bean year, grown upon land similarly
 treated, gave me a produce on my heavy clay land of
 28 bushels per acre, an average of what it used to be
 under horse culture, and on my best land I had
 47 bushels per acre, which I sold to my neighbours for
 seed at 1*l.* 10*s.* per bushel. Then there are my Mangos
 a really perfect crop, and that too, in a year
 when the ground was so dry, and the weather so hot,
 never was seen anything so good, and I had a witness
 to it. And there is my Beans already planted, the
 first white crop in success, and as good as a
 certain that was raised and subsoiled last autumn.
 I was too deep, that had nothing this spring to bring
 it upon the surface but a scratching of the ridge with
 my subsoiler worked with horses. His evidence goes
 against the contract plan with a 1400*l.* set, for he
 shortens up the time for working, yet not enough, as I
 have shown, to say nothing about the April and May
 work, which to my mind is very questionable, for
 September and October are the only months in which
 steam power can be applied with advantage, excepting
 a very little spring work. We all know that the con-
 tractor must give good beds for us, 104 an acre
 from the difference of price may be set at rest for
 there is no doubt but in no that can do it at so low a
 cost per acre, therefore it must be the "best applica-

tion" and the Frenchmen have a
 apply it.
 The Royal Agricultural Society of France
 grand mistake at starting by a contract
 and M. Lechallour's article is a
 sticking to the plan, the contractor
 the fact is that I have seen a
 application in the power of steam and
 to the Frenchman's terms.
 By the way, I have seen a
 P.S. I have seen a
 thus.

Can we not find a 'curing' water
 trive a deal for steam? I have
 works well, yet I find as I have
 practice it is not needed. Look at my
 growing, drilled in with horses, and
 planted by hand above named, I
 tell the world what is good, and I
 for a thing.
 "A want rope made of the best materials
 We have got that.
 Can we not make a traction engine
 harvest? I fancy it can be done—
 it will not pay.
 Now let me ask a question. How many
 we need to assist our railways in carrying
 of the country? When that is done
 hunting into the bargain, we will
 steam.

ADULTERATION OF SEEDS

Mr. CHARLES SHARPESE I will
 grievances which have long been
 columns of the leading agricultural and
 journals. They are these: Large quantities
 or German Rape seed, and inferior samples of
 Rape are killed by a process of steaming
 drying, for the purpose of mixing with
 Turnip seed. Seeds of the former
 are prepared in a like manner for
 of these varieties which have a
 a cheap and inferior kind of Clover
 for mixing with Red Clover and
 old samples of Clover seeds are
 for the adulteration of seeds of a
 value,—this process of steaming
 destroying to a great extent the
 of the seed so treated. There are
 which might be ment and it is
 the principal evils complained of. These
 have frequently been publicly made
 any contradiction, and in the absence
 have a right to assume that in the
 correct. Now to carry out this
 there exist in London and other
 factories for the preparation of
 to a case business being to kill
 Bill proposes to inflict a penalty
 engaged in the business of preparing
 turn, and the promoters of the Bill
 this clause alone will to much
 complained of. Penalties are also
 one knowingly or purposely
 killed or dyed seeds. The Bill
 short, being confined to leaving
 practice in the trade. It has
 does not go far enough, and
 seed, and I will take this opportunity
 such remarks. There would be
 applying the Bill so as to prevent
 for it is impossible to say at what
 considered unfit for use for sowing,
 the season in which they are
 years with a fine harvest the
 when kept over one or two years
 even super or to, the new use of
 seasons. In our harvest, the
 of seed must always be
 therefore it often occurs that
 harvested in fine condition and
 the demand of following years
 or quantity. It was this
 framing the Bill to leave out
 as interfering too much with
 must the seed business. I
 remedy for any injury
 sale of old seed of bad growth
 also in coming to this
 committee of the Council of
 report upon the adulteration
 They say
 If this Bill should become law
 seed be done away with the
 will not be interfered with,
 large stocks in consequence
 accumulating. Old seeds
 or coloured seeds do not, except
 to the trade. It is satisfactory
 offered to the Bill in fact it
 any opposition or any
 any persons who can
 into these
 of seed. As to the former, I do not know

has to be next but the latter who... competition, and... One objection which might be...

should have on our railways; if lawyers and barristers were to go without their fees, how delightful a lawsuit would become; and yet none of these cases would be...

Cropping Steam Cultivated Clays - The question on my mind as to the value of steam cultivation... should have on our railways; if lawyers and barristers were to go without their fees, how delightful a lawsuit would become; and yet none of these cases would be...

Home Correspondence. Administration of Manures - Dr. Vauquelin's... to the continued practice of adulteration... existed with regard to manures and...

Foreign Correspondence.

Paris. - The exhibition... one of the most important... other Sugar-Beets, which are reported as producing...

the prices were very much higher... have run us pretty hard of late in some kinds of work...

Our... have received much a... We noticed one novelty...

The... One-half of the room covered Cattle Market was devoted to the live animals, all of which had ample...

In front of the Cattle Market is a large open space, the centre of which stands an ornate fountain, the centre of Paris - that with the eight fountains, which stood...

Societies.

FINANCES. - Mr. Braumston presented the report, from which it appeared that the Secretary's receipts... Lincoln. Hills, Alfred, Penkridge. Howard, Samuel, Dairy House Farm, Dunham Massey, Altrincham, Cheshire.

tions and arrears were laid on the table, the amount of arrears due being 900*l*.

JOURNAL—Mr. Thompson reported (1) That the new number of the Journal was on the table. The delay in its publication on this and several previous occasions, had caused much annoyance to the Committee, and they therefore reported that Mr. Jenkins was prepared to undertake that the Journal shall in future be published at the right time, namely, by the end of the months of February and August, &c. (2) A letter having been received from the Duke of Devonshire, K.G., in relation to the proposed new number for publication at the end of August. (3) A letter having been received from the Duke of Devonshire, K.G., in relation to the proposed new number for publication at the end of August. (4) The Committee recommended that his Grace's offer be accepted with thanks. (5) M. Fleury, French Consul-General in England, having written to request that the "Société des Agriculteurs de France," recently established in Paris, may be admitted to this Society, and exchange publications with it the Committee recommended, without giving at present any opinion on the request for a liaison that an interchange of publications between the two Societies be established. (6) The Committee recommended that a proposal be adopted for the next issue on any article relating to the Society's affairs, to be published in the Journal, to be dated after the conversation Mr. Wells, M.P., asking on this subject whether the Committee were interested in cases that a report is received from Mr. Wells, testifying to the irregularity in the appearance of the Society's publications was a subject to be discussed at a meeting of the Society. Mr. Thompson then stated that the probability of the Society's educational grant being discontinued and in order to encourage young and rising agriculturists and to publish useful and interesting matter for the Journal, he wished to suggest the establishment of two travelling scholarships of £100 each, one for British and the other for foreign agriculture, so that the subject of the grant might be referred to a special committee. Mr. Dent, M.P., who was the only member of the Society who was present, was unwilling to obtain matter for the Journal without having recourse to Prize Essays, more especially reports on the agriculture of different districts, would prefer experienced persons instead of young men. The Hon. Mr. Lubbock, M.P., asked how the qualifications of the candidates would be ascertained, and also whether it would not be possible to combine Mr. Thompson's idea with the award of the prize of 25*l*. already sanctioned, increasing the amount if necessary? Mr. Wells, M.P., objected to the time at which this proposal had been

lecture on his chemical investigations during the past year.—This report was adopted.

MEMORIAL—Mr. Wells, M.P., reported that 21 gentlemen had entered their names as candidates for the Society's educational prizes. He announced that the examination would commence on Tuesday, April 13, and gave a general description of the scheme proposed to be followed. **SELECTION**—Mr. Dent, M.P., presented the report in which the Committee recommended that his Grace of Devonshire, K.G., should be elected a honorary member of the Society. A copy of the Society's Journal up to the present time be forwarded to his Grace. It was proposed by Mr. Dent, M.P., seconded by Mr. Wells, M.P., that his Grace should be elected in the place of the late Sir J. V. J. Stone, Bart., M.P. On the motion of Mr. Dent, M.P., it was unanimously resolved that his Grace the Duke of Devonshire be elected an honorary member of the Society, and that a bound copy of the Society's Journal up to the present time be forwarded to his Grace in recognition of his services and his courtesy to the Society. On the motion of Mr. Thompson, his Excellency M. Drouyn de Lhuys and M. Lecouteux were unanimously elected honorary members of the Society, the mover of the resolution observing that the former gentleman was already very well known to members of the Society, and that the latter was a distinguished agriculturist and a member of the Society.

A memorial was received from the Corporation of Oxford, inviting the Society to hold its country meeting at Oxford. On the motion of Mr. Torr, the Corporation was invited to an inspection committee to be appointed to inspect the Duke of Devonshire's sheep. Mr. Dent, M.P., was appointed to the committee.

A memorial was received on the subject of the shearing of sheep in England.—We, the undersigned, being exhibitors and breeders, and interested in the welfare of Shropshire sheep, beg respectfully to represent to the Council of the Society of Agricultural Sciences, under the means of inspecting the wool of the sheep, by private parties whose names are not to be placed as inspectors, are most objectionable, as being at variance with the rules of the Society, subversive of the privileges and powers which should be exercised by the judges, and a system which falls far short of preventing the evil it is intended to remedy. It is, therefore, respectfully requested that the Council of the Society will be pleased to take the necessary steps to have been

in conformity with the rules of the Society, and to have the names of the inspectors placed on the list of exhibitors, so that they may be known to the breeders of Long-woolled sheep, and that the regulations for the shearing of sheep for exhibition be strictly enforced, and that the Council will be strongly in favour of the proposal.

fully urge that the Council should be pleased to consider the subject of the shearing of sheep in England, and to have the names of the inspectors placed on the list of exhibitors, so that they may be known to the breeders of Long-woolled sheep, and that the regulations for the shearing of sheep for exhibition be strictly enforced, and that the Council will be strongly in favour of the proposal.

A letter on the same subject from Mr. Denis Brown was then read, urging the Council to consider the subject of the shearing of sheep in England, and to have the names of the inspectors placed on the list of exhibitors, so that they may be known to the breeders of Long-woolled sheep, and that the regulations for the shearing of sheep for exhibition be strictly enforced, and that the Council will be strongly in favour of the proposal.

by no means general, and quoted from several communications to that effect which had been received from the Council.

The Council cannot believe that it would be agreeable to the judges to have the additional duty imposed upon them which the memorialists ask for, or that it would be efficiently performed by them as appointed for the purpose. In requiring that all sheep exhibited should have been fairly

deception, and they know that this statement in the memorials, not absolute time is not distant when all exhibitors will be glad to receive and consider any suggestions for their object the making such inspectors disqualifications by inspectors of shearing wool.

Mr. Rigden, as a large breeder and for many years expressed his opinion that sheep being disqualified by the inspectors will do away with unfair shearing, and that the memorialists should share the same fate. Mr. Rigden, as a large breeder and for many years expressed his opinion that sheep being disqualified by the inspectors will do away with unfair shearing, and that the memorialists should share the same fate.

On the motion of Mr. Ranson, the principal county agricultural societies, the Institution of Mechanical Engineers, requested to nominate judges of machinery, and prizes offered by that Society.

BATH AND WEST OF ENGLAND
At the late Council meeting of this Society, a copy of vol. XVI, containing the series commencing with the extension of the operations in 1862; and it was ordered that part of the Journal containing the first united annual meeting of the Bath and West of England Society and Southern Association, at their meeting to-morrow.

purpose of promoting a new or third series of the Journal, and that the committee have no contributions; also that the committee be informed of the latest time at which the local committee should be notified.

Mr. Robert Badcock be requested to be the local committee of the Bath and West of England Society and Southern Association, at their meeting to-morrow.

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Farmers' Clubs.
LONDON.
April 5.—Mr. F. L. DASHWOOD said that a few persons are aware of the exists in the modes of rating in the three our country. I do not enter into the detail of the subject, but what we in England can do with our whole system of rating may be more harmoniously, and to the benefit of the country, as follows:—
In England, now, a church rate and no education rate.
The county rate (which included of the police) is paid by occupiers to the expenditure, which is quarter sessions, but directed to the poor rate (under which he paid by the

have for years watched the system of education... violent and well-attended assistance... clothing coal and...
 Many can well remember the evils of the old system, altered in 1831, and in many cases we can trace its evil effects in families at the present time.

Are we not entitled to demand... superior advantages... present outdoor rating system...
 The current number may be taken as a fair or favourable example of the form which this long-established periodical has at length assumed. It is no longer a strictly agricultural journal or a collection of original articles. On the other hand it is no longer a heavy, and except for professional use, an unreadable book. It is, for the most part, a light, various, amply illustrated re-edition of well-written, cleverly written, smartly written articles which have a ready appearance in the columns of our excellent contemporary, the Farmer, and which, we cordially admit, almost always well deserve the more permanent form they here receive. The present number contains leading articles on the adulteration of seeds, the improvement of pastures, the management of irrigated lands, the making and the use of farmyard manure, the supply of nitrate of soda, the increase of home food production, pictures of foreign cattle, reports on the feeding of cattle, on the plough, and details of farm building construction, reviews of books, gardening papers, poultry papers, travels by tourists, contributions by arboriculturists, by naturalists, by the veterinary surgeon, and by the poultry keeper and the housewife. There

Reviews.

The Country Gentleman's Magazine for April, 1860. Simpkin, Marshall & Co.

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information for anybody from almost everybody; and we hope that everybody is satisfied. We think everybody—the proprietor included—ought to be for he has certainly provided something for every taste, and the useful is well mingled with the ornamental. We take an extract from the article on "American Dairy Factories":—

The Rockville factory stands near or adjoining a wet and springy piece of ground, covered with fragments of rock from the Saawangank mountains. The buildings were erected a year ago, and have some improvement in construction over the older factories. The main structure is 25 feet by 50 feet—two storeys—which are used for manufacturing and curing cheese. Adjuncting this on one end is the spring-room, and on the side running back in the shape of L is the churn-room, 20 by 30 feet, on the end of the churn-room is the ice-house, which is arranged so as to lead out of the churn-room with a broad hall or alley, which serves as a collar for storing butter.

This building has double sides, packed in with tan-bark, and the ice-house being on one side, with communication by door makes it a cool place for keeping butter of great summer. In this room there are two vats—measuring 14 feet by 14 feet, and the other 12 feet by 12 feet, sunk even with the floor, and arranged so as to be filled from one spring. The temperature of the water is 19°. It is soft water, but less so than those at the other factories to which we have referred. The delivery of the milk is at a window, and on a platform the height of a wagon. As the teams drive up, the cans are slid upon the platform, and emptied into a large square receiving-butt or can. On the side of the window, standing upon platform scales, where it is weighed, and the cream lifted out by two funnels into two long tin pans or coppers. The cost of structure and fixtures was 10000. The number of cows from which milk is levered is 425, and on November 1 the receipts were 1900 quarts—estimating a quart wine measure, to weigh 2 lb. Milk varies in weight, and a wine quart weighs at some seasons of the year, a trifle over 2 lb. During the month of May, when cows are in pasture, Mr. Slaughter finds that 100 quarts, wine measure, will weigh 21 lb. The milk here is kept in the spring from 24 to 36 hours, when the cream is taken off and allowed to sour in a churn. Mr. Ipleague, the superintendent of the factory, informed us that what is called a more butter is obtained from the cream when churned sour than when sweet. At this season of the year November 2, the cream is taken off and deposited in the long tin pans, and immediately carried to the churn-room, which is kept, by means of a coal stove at a temperature of 60 to 65°. Cream two days old when taken off will require from two to three days before it will thicken in the churn-room at the above temperature.

Butter making—The churns are the barrel and half-dash churn, and are filled about half full of cream, which is diluted by putting in cold water in summer, and warm water in cold weather, at the rate of 10 to 30 parts for each mass of creaming. The churns are set about 10, but in cold weather they are started at about 4°. When a mass of cream is to be churned, the churns are first about half full, and a pan of spring water added to dilute the cream, in warm weather cold water is used, and in cold weather warm water, so as to make the mass at a temperature of 60° to 62°. The temperature of the cream while churning should be kept below 65°, for if at the close of the churning the buttermilk should be at a temperature above 61°, the flavour and colour of the butter are injured. When the butter begins to come, the churn is rinsed down with cold water. After the butter is taken from the churn, care is taken not to touch it more than is necessary with the hands. The butter trays are elliptical in shape, and the ladle is used for turning over the butter white it is being washed. In salting and working over, the whole is done by the butter worker heretofore described, and great care is taken not to work it too much, as over-working spoils the grain and makes the butter slabby. A 22 lb batch is laid upon the inclined slab or butter worker, and the lever applied, first beginning at one side until the whole is gone over. Only a few manipulations of this kind are required, and we were surprised at the expedition by which this part of the process was effected. The salting and working of the butter is by the same rule adopted by the other factories, 18 oz of salt being used for 22 lb of butter.

The butter worker is similar to the one alluded to, except that the lever is diamond-shaped, which it is claimed is an improvement. The inclined triangular slab on which the butter is worked stands upon legs, and has beveled sides about 3 inches high. It is 4 feet long and 25 inches wide at the upper end, tapering down to 5 inches at the lower end. At this point there is an opening for the escape of the buttermilk into a pan below. In salting, the butter is washed and then spread out with the ladle upon the worker in pure fine Ashton salt sprinkled over the mass. It is then turned over a little with the ladle, and afterwards worked with the lever.

At this factory there was a little contrivance, consisting of a wheel and lever and weight, for regulating the stroke of the dashers when churning. The trays are elliptical, being 2½ feet long and 1½ foot across, and will hold 25 lb of butter. The butter is packed in Orange county pails or tubs holding 60 lb, or in oak tubs of 40 lb, as at the other factories, and shipped twice a week to New York, bringing 70 cents per tub. The association is composed of 28 farmers, who have dairies ranging from five to ten, and up to 30 cows. Four farmers not belonging to the association deliver milk here, and are charged 1½ dollars per cow extra. The cheese is manufactured out of skimmed milk, by the same process as at the other factories. They are pressed in 16-inch hoops, 8 inches high, and weigh

about 35 lb each. The 1800... per day at this season of... cream has been taken of... with cheese.

Ld are employed... Boston... woman. The latter maker... month, and themselves... hands get 30 d per m... factories... max, and gives...

Farm Memoranda.

BANFESHIRE, BOWNE DISTRICT, 7th Nov. an almost unprecedented... have a backward spring, and... with March dust. "The best... men gang aft a-gley." About... ploughing was done up to... the seed prepared, thinking... everything would go on a... February kept true to the... date very little has been... weeks frost and snow has... giving everything a... ing to settle, sowing will... the ploughing shortly... and is at hand ready to...

Stackyards are in... will be mu... barns, Turnips are a... the rails for art... it has been tried... cake, cotton... but mostly all prefer...

Lavo stock have... of quartered... fatal. Fat stock... excellent prices, an... thing like value, she... and we hear they are... condition with the... however, have a... thought, to the pecuniary...

Grain has been very stationary for a... weeks, but now that seed has... it is on the decline in price and we... many a labouring man will... provisions of every... the water, but which has been... a time. H. J.

SOUTH STAFFORDSHIRE, 11th Nov. cons'or the spirit of our freedom. Ap... to January, and 'a l that d d the eye... has faded quite." Wise people... "the check will do good,"... Well, I don't think I am very... a good banker, checks to... their way, but checks to... ve opment of vegetation, to... mation, I don't much like... best," but I don't object to... am sure that a south way... and mid showers to show... meter, as Mr. Glasher tells us... We, we must grow and bear... hay, straw, and roots are of... fortment of store or purchas... a lot of money and strength.

Wheat on cold strong land looks... market claims no attention. The... very wisely keep their noses... tending will be a considerable... Most of our Barton brewers are... Barley, and only very fine samples... was thought that seed Barley... but everyone put by a bit of... mak'a mistake. Lightland Farm... worked but strong land is too... if the weather does not soon... be ate.

Meat continues dear and of course... sheep follow close in value. The... not encouraging, if meat goes... be on the wrong side. I... I can't understand how we have... 2,000,000 sheep, but our masters...

ROXBURGHSHIRE, TWIFFSIDE, 4th Nov. has been a large quantity of... 10 days, in most excellent condition... weather continues fine for the remainder... there will be no ground... neighbourhood left upso... labour than usual to reduce it to... work is too far advanced,...

Turkeys are nearly all consumed... remain to be sent out those that... carried on with Potatoes, cake, and... been selling lately at... Sheep have also been going... large quantities the numbers left on... smaller than usual.

The lambing season in the... over, there are a goodly number of... of milk for them. Very few... allowance of Turnips, but have been... principally on rape-cake, bran and... thriven well on their extra food... letting at rents much the same... then the takers in many instances... into them, the drought, and the subsequent... value of cattle and sheep.

now pretty well threshed out, and the remainder are Wheat, or a stack or two may be required for fodder during the

On Poultry Yard.

seeds as the following — "In consequence of last week's Number, you show, as held in conjunction of cattle, &c., at La Villette. I justly appreciate the native there exhibited. Of turkeys the one breed that attain any great size is the Normandy Black of English Norfolk turkeys, taken the result of the attention given to the hands of East Anglians sent over to the English market. Speaking of the comparative French and French poultry respectively, points to which he must descend complete. An organist, on completion of a *morceau* of great merit, blew the bellows, "J'd not I pay, said the lad, say rather me." and we have heard the result. Poultry, as enter in France, always result disastrously to the we cannot get a competent jury. breakfast with Champagne, Place de la of his *pot du jour*, may regard the hour with comparative indifference who takes his *café au lait* out of to business and whose income to make two heavy meals at the picture for his own entertainment, does fowl in some shape or other. The man moving in the same country would not dream of as dinner, unless on the occasion of some such family festival. as the one department would not have sufficient reason for the extra appreciation of poultry in France generally, is the mode of cooking it. middle-class housewife in England without an *à la mode* present. may be overdone or underdone? a member household in Paris takes the pains about it, beyond telling the two fowls at the *table d'hôte* former be the man, the *bonne* generally in one of the little streets of St. Honore or the Rue Mont- makes her bargain a ways as it may judge by the true employed on it. It is, how to know that, in one respect, it satisfactory bargain, for the fowls are and that is a great deal. The them over and over the bright at hand ready to apply the where most required, ensures that our two fowls in an Eng. get, where the charwoman gives or can steal from her vegetable and to "them chickens." Another thing which the favour of the roast fowl in of an Englishman, is the *con-* The consumer is the guest of who goes out of his way to give him a man on a hot day, and who for the *being the expense*." His dinner per diem nearly the amount to himself per week, were he at or commercial life, for a similar pur- quoted, &c. and it's eat, is frequently Market at this time of year, by for their best fowls, but these and the demand generally exceeds any one who has seen the two breeds, French, brought to perfection in a *concede the superiority of the* or rather meat producing. earlier than the other, and its *eat, while the other is largely com-* I must be readily allowed that the of table poultry is better in France and every criticism of the breeds, modes or, may help us to a better knowledge of the, increased attention to a portion much neglected in our country."

Standard of Operations.

some sown broadcast, but 1500. 20 to 24 inches apart, from end of the month in the southern white and yellow, yield the heaviest in a deep sandy loam, but peaty soils. The and is generally in autumn, the manure being in, and when practicable the subsoil ploughing, being common. it is common to apply wood and gypsum, at the time of sowing. of guano is sown into the for the seed when sown broad- drilled in, as in the case of with ashes or in a liquid form. of last year's growth, and fresh, it in sawdust, and allowed to lie

for a day or two before sowing, and a peck of Barley or Rape may be added, to show the line of the braird in horse-hoeing the first time. About 7 lb of seed are sown broadcast, and 6 lb drilled in per acre. It should be lightly covered with not more than half-an-inch of soil, and ro. ed.

Mangel Wurzel is generally sown about the latter end of the month or beginning of May. If the land has been previously manured, and is ready for sowing, the latter period is often as promising as the former. The general practice, however, is to manure at the time of sowing, and for such the former period is to be preferred. About 20 cubic yards of farmyard manure, a month or six weeks turned on the dunghill, is spread evenly in the newly-opened drills, from 27 to 30 inches apart. About 2½ cwt. of superphosphate, and an equal quantity of common salt, are sown broadcast on the dung, and the covering of the dung keeps pace with the opening of the drills, so as to have as little exposure to the atmosphere as possible. The sowing follows close after, "yoking after yoking," so as to get in the seed with the moisture; some damp the seed before sowing to make it braird more rapidly. It should be lightly covered with not more than half-an-inch of mould, and about 7 lb. of seed are required per acre. The more the soil is compressed by heavy rolling the better will the seed vegetate and the plants grow. When more or less farmyard manure than the above is applied, less or more artificial manure is used. Some apply the artificial manure in a liquid form, by means of a combined liquid manure and seed drill, either with a continuous or drop motion, as Gillyatt's. The latter, the drop motion, sows both the seed and manure in each row alternately, and at equal distances apart. Not a few prefer the old plan of d.bbling in the seed, but continuous sowing, for many reasons, is becoming more and more general.

Sugar-Beet (the white Silesian) is sown about the same time as Mangel Wurzel and Carrot. Its cultivation, perhaps, more resembles the latter than the former, the deep working of the land being essential both in autumn and spring. Opinion is somewhat divided as to the soil and manure best adapted for it, but there is little question that it resembles very closely Mangel Wurzel in both these respects, rich and rather heavy land being the best. The distance between the rows is very various, but as horse-hoeing is favourable to the growth of sugar, 20 inches apart, growing the roots the closer the other way, will probably become general, more especially as roots over 1 lb decrease in saccharine value. The seed is sown as that of Mangel, not deeper than half an-inch, from 6 to 8 lb. per acre. And it is essential that the seed be fresh, of the last year's growth, and of the proper sort, so as to insure an equal braird, with plenty of plants, equality in the size of the roots being the sure key to success.

Cabbage seed may be sown about the middle of the month for thinning out in the drill, so as to avoid transplanting. The operation is similar to sowing Turnip seed. The land is in some cases manured in autumn, in others at the time of sowing, in drills 50 inches apart. If the former, a stroke of the harrows will generally make the ridglets ready for the Turnip seed-drill, and if the land is clean, and well pulverised with the weather, the harrows may not be required. If manured at the time of sowing, with from 20 to 30 cubic yards of farmyard dung per acre, the practice is similar to that of Mangel and Sugar-Beet. From 3 to 1 lb. of seed are sown per acre, the latter if the weather is dry, the former if moist.

Cabbage plants from the autumn sowing are planted from the middle to the close of the middle. About 5000 Drumhead plants will plant an acre. The land is either manured in autumn or in the spring, about a month before planting. Watering newly-planted Cabbages is generally objected to by farmers, but the practice is successfully carried out in gardens, and may be so in the field but in very dry weather each plant should get a good soaking so as to supply moisture to the roots, for a small drizzle on the surface does harm. If water is near, two water-carts will keep half-a-dozen watering-pans going, doing about 6 acres a-day.

Hop Gardens should be ready for pointing in the early part of the month, as the bines or runners now begin to rise rapidly. The poles are either set vertically, one or more in each hole, or standards are raised, and between these wooden bars or galvanized wires are stretched for training the bines. Throughout the plantations weeds are kept under by means of the hoe and nutget, i. e., hop scurrier. Nursery beds require also to be weeded and kept clean.

Teasel is sown this month, either broadcast or in drills 27 inches apart, from two to three pecks of seed per acre; or it may be sown in seed-beds for transplanting in autumn, the crop being harvested the second year. This latter is the more common practice. The plant requires a clean clayey soil, in a thorough state of cultivation.

Chicory is sown this month, both as a forage plant on poor sandy soils, and also as a root crop on richer land for roasting as a part substitute for coffee. For either purpose about 12 to 15 lb. of seed will drill an acre. For sowing, the drills should not be more than 9 inches apart, or no more than will permit of the crop being hand-hoed, for roots for roasting the drills should permit of horse-hoeing, the plants being set out as Carrots. Chicory may also be sown broadcast in the place of Clover, on many light Clover-sick soils, in laying down land to permanent pasture, with a light crop of Barley or Oats.

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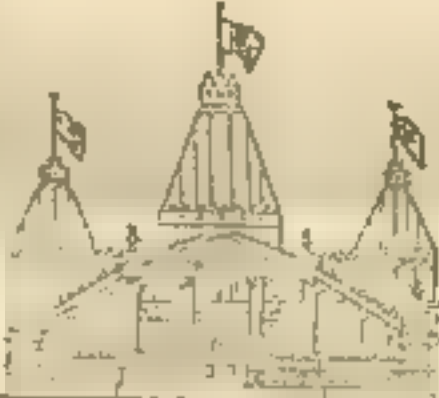
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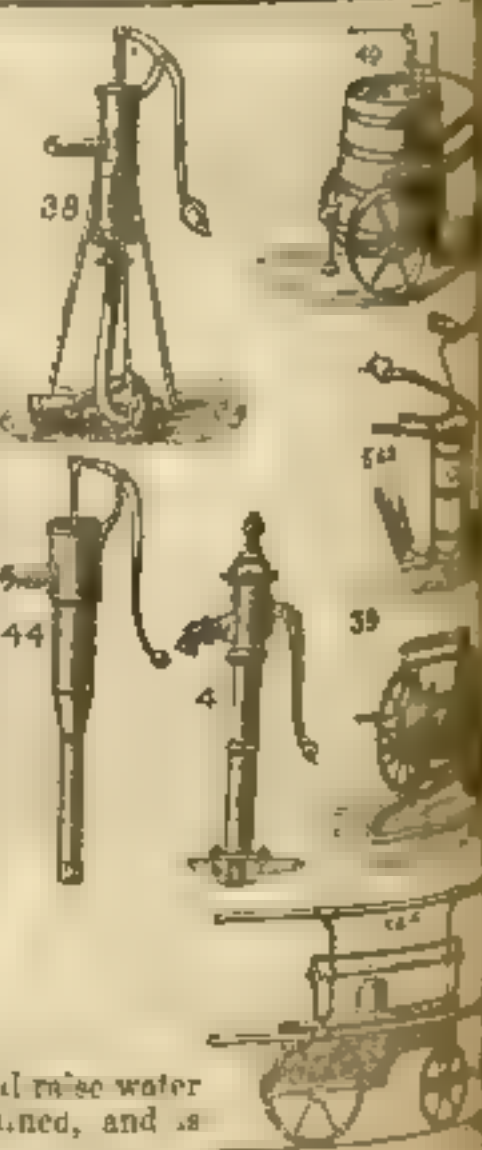
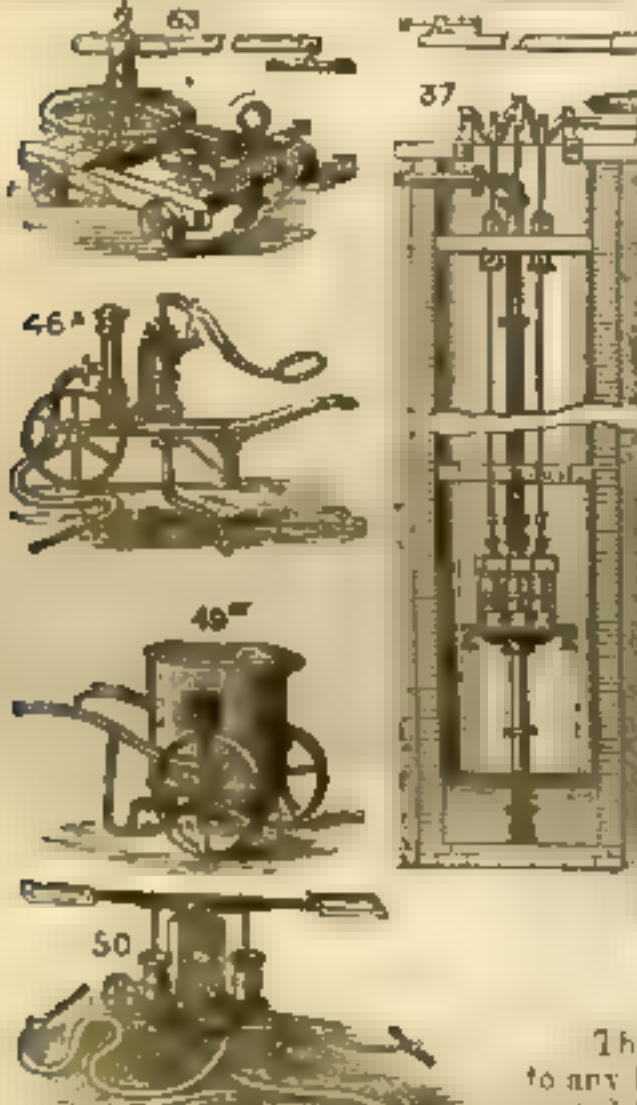
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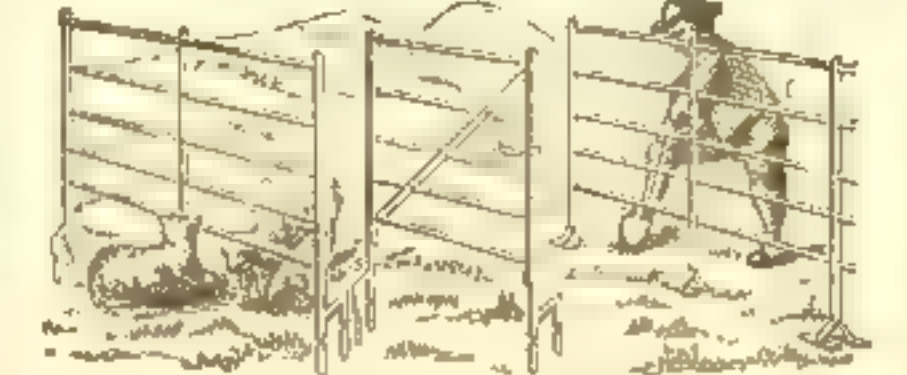
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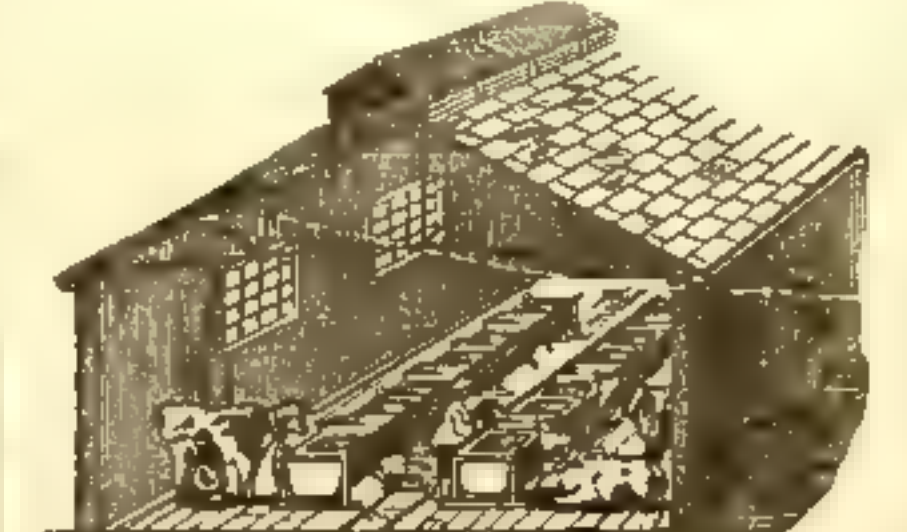
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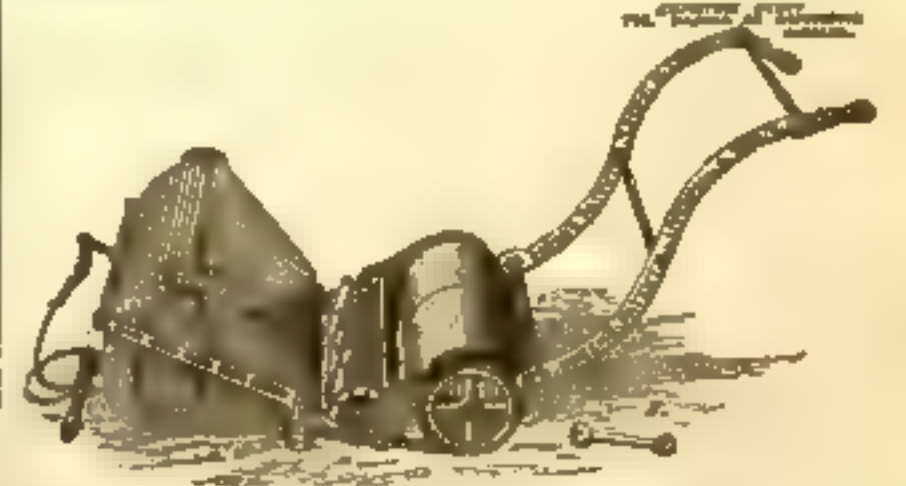
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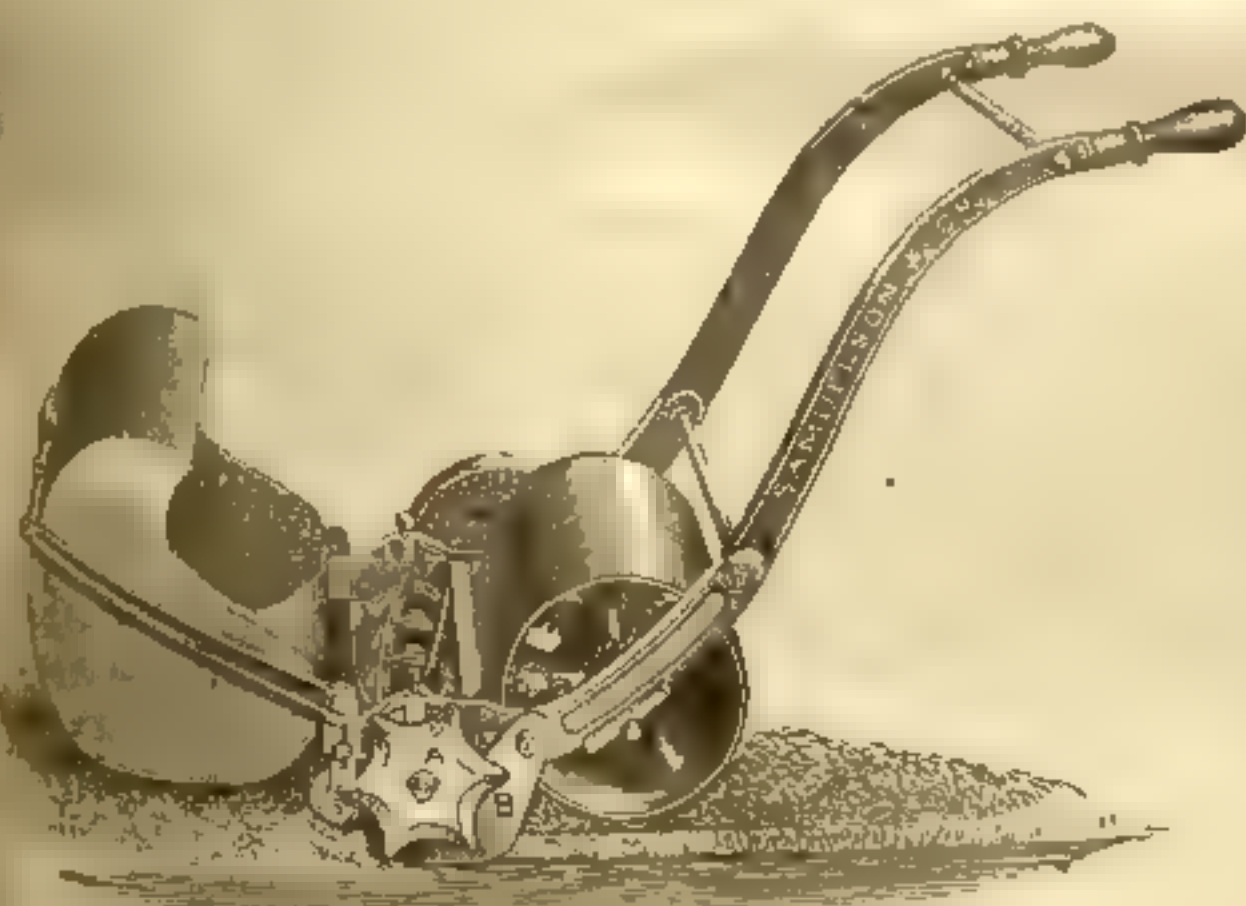


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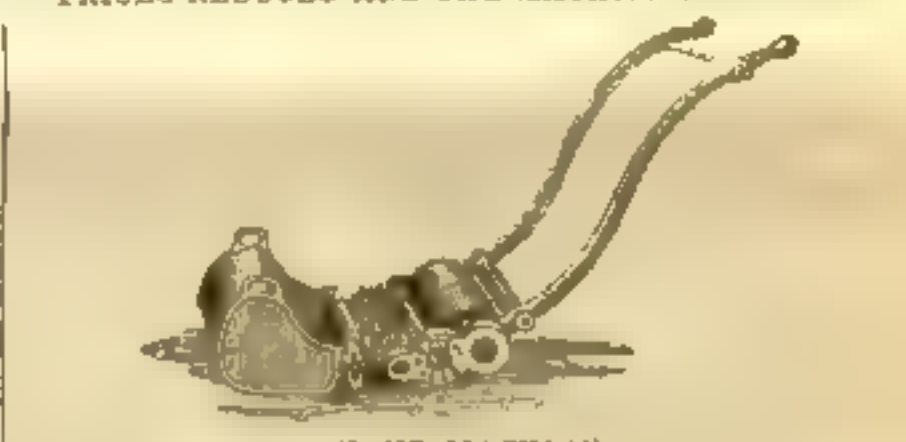
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TESTIMONIAL

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ALEX. MACRAE.
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The **B B LAWN MOWER** was selected at the Paris Exhibition, in
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 "Monsieur,—J'ai fait faire l'essai de votre Machine à tondre les
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 (Signed) "H. SCHNEIDER."
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FEMALE AUCUBAS, of various sorts. Price 5s., 7s. 6d., and 10s. 6d. each.
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NEW ITALIAN CAMELLIAS. Vide New Catalogue, page 70.

Nearly 50,000 superficial feet of glass filled with New and Rare Plants.

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"At all seasons it is one of the sights of London to see Mr W. Bull's Collection of New and Rare Plants"
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ESTABLISHMENT FOR NEW AND RARE PLANTS, KING'S ROAD, CHELSEA, LONDON, S.W.

SEEDSMEN.
 The advantage of procuring NEW and UNADULTERATED SEEDS direct from the GROWERS cannot be over-estimated.

James Carter & Co.
 Seed Growers
 21 and 25, HIGH HOLBORN, LONDON, W.C.

CARTER'S
FLORAL NOVELTIES for 1869.

Per packet.—s. d.	Per packet.—s. d.
Eschscholzia crocea rosea . . . 1 0	Convolvulus minor polyanthus 1 0
Zinnia elegans a. m. semi-plena . . . 1 0	Nemophila atomaria folio variegata . . . 0 6
Linaria bipartita striata . . . 1 0	Asperula aurea setosa . . . 1 0
Asperula aurea setosa . . . 1 0	Palava hexyora . . . 1 0
Amaranthus Gordoni . . . 2 6	

Post Free, 17s. 6d.
 DESCRIPTIVE LIST of the above, see
CARTER'S
ROBBER'S AND FARMER'S
FADE MECUM FOR 1869.
 Free One Shilling Gratis to Customers.



CARTER'S
COLLECTIONS OF FLOWER SEEDS,

including the showy varieties of easy growth, which present a gay appearance to the Flower Garden at a moderate cost.

COLLECTION A.,
 10s. 6d. (post free for 11s.), contains
 assortment of 12 choicest var FRENCH ASTER.
 GERMAN STOCK
 HARDY DWARF ANNUALS, including Tom Nasturtium, Saponaria, Blue Nemophila,
 &c.
 TENDER ANNUALS (to be sown in frames, or transplanted, or sown in the open borders at the end of April) for Summer and Autumn blooming, including choice Phlox Drummondii, Balsam, &c.
 new Amaranthus ruber, Perilla nankinensis, &c. &c.

COLLECTION C.,
 21s. (post free for 21s. 6d.), contains
 assortment of 12 choicest var FRENCH ASTER
 GERMAN STOCK
 Dwarf Stock-flowered LARKSPUR
 EVERLASTING FLOWERS and ORNAMENTAL GRASSES for Winter Bouquets
 NEW ANNUALS for Bedding
 HARDY DWARF ANNUALS, including Tom Nasturtium, Saponaria, Blue Nemophila, &c.
 TENDER ANNUALS (to be sown in frames, or transplanted, or sown in the open borders at the end of April, for Summer and Autumn blooming, including choice Phlox Drummondii, Balsam, Celosia, &c.
 new Amaranthus ruber, Perilla nankinensis, &c. &c.

PERENNIALS for Autumn and Spring blooming, including Holylock, Wallflower, Gaulthery, Alyssum saxatile, &c.
 any of the above forwarded without delay on receipt of Post-office Order
PRICE LISTS Gratis and Post Free.

JAMES CARTER AND CO.,
 SEED MERCHANTS AND NURSERYMEN,
 21 and 25, HIGH HOLBORN, LONDON, W.C.

GRAND NATIONAL HORTICULTURAL EXHIBITION, 1869, MAY 11 to 21.—NOTICE to EXHIBITORS.—All persons who intend to take part in this Exhibition must signify their acceptance of a book by letter addressed to the undersigned on or before MAY 1, on which day ENTRIES CLOSE. Gardeners will be admitted by tickets as follows: First day 2s. 6d. each, remaining days, 1s. each. Applications for these tickets must be made on or before MAY 10.
 BUCKLE FENDLAY
 Lottery Garden, Manchester.

TUNBRIDGE WELLS HORTICULTURAL SOCIETY The ANNUAL GRAND EXHIBITION of FLOWERS and FRUIT will be held on FRIDAY JULY 2, in the Grounds adjoining the Caterley Hotel, by permission of Edward Churchill Esq.
 Prizes open to all England, also Prizes for Hand Bouquets and Groups, or a single piece for Table Decoration, Prizes for Cottagers best-kept Gardens, and for Cottage Garden Productions.
 Schedules may be obtained of Mr. E. F. LOOZ, Secretary, 8, Parade, Tunbridge Wells.

July 19th to 24th, 1869.
THE ROYAL HORTICULTURAL SOCIETY'S
GRAND EXHIBITION at MANCHESTER,
 in connection with the
SHOW of the ROYAL AGRICULTURAL SOCIETY
 Amongst various Special Prizes,
A SILVER CUP (copy of the famous Collini Cup), VALUE £21 will be offered by the Proprietors of the

GARDENERS' CHRONICLE AND AGRICULTURAL GAZETTE
 for the best COLLECTION of 5 FRUITS and 5 VEGETABLES, to be made up as follows:

	Good	Medium	Superior
Grapes	3 marks	3 marks	1 mark
Melons (2 fruits)	3 "	3 "	1 "
Strawberries	3 "	3 "	1 "
Gooseberries	3 "	3 "	1 "
Currants	3 "	3 "	1 "
Cherries	3 "	3 "	1 "
Raspberries	3 "	3 "	1 "
Apples of 1868	3 "	3 "	1 "
(Any 5 of the above 8 subjects).			
Pears	3 "	3 "	1 "
French Beans	3 "	3 "	1 "
Broad Beans	3 "	3 "	1 "
Cauliflowers	3 "	3 "	1 "
Cheeseborders (frances)	3 "	3 "	1 "
Summer Cabbages	3 "	3 "	1 "
Early Carrots	3 "	3 "	1 "
Turnips	3 "	3 "	1 "
Globe Artichokes	3 "	3 "	1 "
Onions	3 "	3 "	1 "
Spinach	3 "	3 "	1 "
Rhubarb	3 "	3 "	1 "
Potatoes	3 "	3 "	1 "
Marbled Squidging	3 "	3 "	1 "
(Any 5 of the above 14 subjects).			

This Prize is open for Competition amongst Amateurs and Gardeners of private families. The Fruit and Vegetables produced must be of the Exhibitor's own growing and any article otherwise obtained will disqualify the Contestant. It is expected that the several articles will be neatly and effectively displayed.

The Gardeners' Chronicle.
 SATURDAY, APRIL 17, 1869.

MEETING FOR THE ENSUING WEEK.
 TOMORROW, APRIL 20.
 Royal Horticultural Fruit and Flora Comm. trees at South Kensington . . . 11 A.M.
 Ditto (Scientific Committee) 1 P.M.
 Ditto (General Meeting) 3 P.M.

THE chapters in Mr. DARWIN'S "ORIGIN OF SPECIES" relating to the systems of classification adopted among naturalists, have always appeared to us to be among the most remarkable among the many noteworthy features in that now well-known work. Mr. DARWIN'S remarks are not only of very great interest in a purely scientific point of view, but their practical importance is fully as great, and will in the future be even more so. It would be out of place here to enter at length into the consideration of the so-called natural system of classification. Suffice it to say, that according to Mr. DARWIN'S views, such systems must have a genealogical basis. The several forms and groups of plants or animals that we see around us are related one to the other in various degrees, just as human beings are. The hypothesis of a common origin, and a consequent more or less direct relationship, thus affords a rational explanation of the existence and of the affinities of those groups which naturalists term species, genera, &c. To test the correctness or fallacy of such views two courses are open to us. We may proceed deductively, and from a full consideration of the facts already known to us we may arrive at conclusions which will be nearer or farther from the truth in direct proportion to the extent of our knowledge, and the correctness of our reasoning. Or we may proceed inductively, and, without bias one way or the other, laboriously and conscientiously accumulate facts. Each fact throws light upon its fellow, each one, while in itself again, continually unfolds the prospect of further gain, and opens up an illimitable prospect—an ever-shifting horizon which prevents us from ever attaining to a full knowledge of what is probably quite beyond our mental range. Nevertheless we are tempted or compelled to progress from the unceasing stimulus afforded by the continual discovery of hitherto concealed truths, no less than by their intrinsic material importance. Mr. DARWIN has himself followed both modes of investigating the hidden secrets of Nature, and while his deductions are among the most startling of any in the whole history of science, his patience and sagacity as an experimenter have brought to light facts of

which the physiologist already recognises the importance and of which horticulturists and agriculturists will in future years reap the material result. With reference to the Darwinian theory it has always been felt that its soundness must be tested by students of special groups, either of animals or plants, and so we find Mr. MILLER testing the validity of the theory by an investigation of the Crustacea. Then we have Mr. BENTHAM treating the extensive genus Cassia on the same principle, and so with other naturalists—and this brings us to speak more particularly of M. CARRIÈRE'S labours. M. CARRIÈRE is a practical man, and is therefore entitled to a hearing from practical men. M. CARRIÈRE is a theorist, who reasons logically, and takes care that his premises are as sound as they can be made; he is therefore sure to be listened to with attention by others. M. CARRIÈRE, too, has pursued both methods of investigating the truth. Our own columns have from time to time furnished many illustrations of this statement, but we would allude now particularly to his genealogical arrangement of the varieties of Peaches and Nectarines, which is a practical carrying out of Mr. DARWIN'S ideas as to the relationship and filiation of natural groups. The genealogical trees of Mr. DARWIN and M. CARRIÈRE are constructed on the same principle as the "Greek trees" in the Greek grammars, and which, we must confess, have acquired in these Darwinian days an interest for us which we are compelled to admit was wholly unappreciated in our schoolboy days. But, not content with this, M. CARRIÈRE has followed the plan adopted by MM. VILMORIN, BUCKMAN, and others, of ascertaining by direct experiment the probable origin of some of our cultivated plants. Thus, from seeds of the wild Radish, carefully selected through four generations, M. CARRIÈRE states that he has produced a great variety of forms, which he summarises as follows:

Raphanus Raphanistrum, wild form.
 Flowers pale yellow, with purplish veins.
 Leaves relatively small, nodding, not very fleshy.
 Roots filiform, dry, fibrous, always white, hard, somewhat woody, not edible.

Varieties induced by selection, &c.
 Flowers white, violet-rose, or yellow, self-coloured, or usually streaked.
 Pods variable in size, form pendent or erect, sometimes very large, as much so as those of the Madras Radish, and thus succulent and edible.
 Roots large, sometimes excessively so, variable in form and colour, fleshy, flesh white, yellowish, or rosy, sometimes violet, succulent and edible.

Some of the forms thus produced are valuable additions to our culinary vegetables, and may be treated as Turnips. M. CARRIÈRE draws attention to the different results of his experiments as carried out in the light, dry soil of Paris, and the stiffer, more retentive soil of the country. In the latter case, on good Wheat soil, the tendency was to form short thick roots, while in the light calcareous soil of Paris the varieties produced had long white roots, more like a Carrot in shape. M. CARRIÈRE further remarks on the difference in the result as manifested by autumn and spring-sown seeds respectively, and on the necessity for different treatment according as the plants are cultivated for the sake of their pods or their roots, whence as well as from other experiments of a like nature, he concludes that the forms of organised beings are always in harmony with the conditions or circumstances in which they are developed. To us this seems rather too sweeping an assertion. It appears to us to exclude adaptation to function, and to limit the changes too exclusively to the action of external conditions. Perhaps we may have misunderstood M. CARRIÈRE. Our own notion is, that in all adult organised beings there are two sets of characteristics or attributes—the one congenital and common to all the members of large communities, at least in their earliest stages, the other manifesting themselves at a later period, and special to certain individuals or species. These latter characteristics are developed or acquired in conformity either with external conditions, or are manifested for the proper fulfilment of some function or office which has to be fulfilled. Thus the congenital features characterize large sections or groups, while the acquired characters serve to distinguish species or individuals one from the other. The experiments in progress at Chiswick on this important subject will, we hope, not only be of direct practical benefit, but will serve to throw light on the variations of plants as affected by different conditions of soil, &c.

We may remark, in conclusion, that the practical result of M. CARRIÈRE'S experiments has been the production of a new variety

amount of the time occupied in ploughing the... cost me within a small fraction of 9s. per working day...

My horses work on an average 277 days in a year and the average length of day is nine hours the pair therefore...

I have endeavored to bring under your notice the causes which induced me to undertake the different operations which I have described on farms which have been cultivated under my own direction...

My own opinion is that the best way of applying their power is by the system of deep ploughing on Newhall...

As an example of this the following is a field of 11-acre of Grass during the last year...

Other animals were put in the field and in season was over, owing to the scarcity of food...

It is to be noted that the value of the crop of Turnips and last year was a very good crop of Turnips...

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My horses work on an average 277 days in a year and the average length of day is nine hours the pair therefore, cost me within a small fraction of 9s. per working day, or 1s. per hour. I have been told that this deep ploughing would soon deteriorate my horses, from over exertion and predispose them to disease. This I have not found to be the case or that they were injured by the work in any way. If the horses are properly yoked and driven by a ploughman who understands his work and if the number in the plough is regulated by the nature of the soil to be ploughed, the work is little, if at all more severe than ordinary ploughing.

I have endeavored to bring under your notice the causes which induced me to undertake the different operations which I have described on farms which have been cultivated under my own direction. The means employed in carrying them out have been given in detail, as well as the success which has attended the system I have followed. I trust that they may prove worthy of imitation by my neighbours on such soil and climate as they may think adapted for the undertaking and that the fruit arising from their industry may tend to improve the produce of the land and equally benefit the cultivator and the consumer.

Home Correspondence.

Summer Grazing - The modern system of summer grazing is much on the increase and will ultimately be very general. This is quite right in a country so rich in its resources as Great Britain for the fattening of animals destined for the food of its inhabitants. This island home of ours in comparison with the outer world is a mere speck, but it is wonderful in its enterprise, its influence, and its importance. It is manifestly at the head of the nations of the earth, its hold upon the destinies and advancing civilization of the whole world. Its commerce extends to every country, and every port and harbour known in these countries is made to contribute to the support or comfort of its inhabitants. It is the great mart of the nations. The products of all countries find their way to its shores, and are most beneficially distributed by its people. Thus it becomes in this respect the greatest of nations, and it is by the enterprise, the freedom of trade, and the noble perseverance of its inhabitants that its prestige is upheld and its innumerable blessings secured. The most important is the provision for the sustenance of its population. This mainly depends upon the industry, energy, and persevering efforts of its agriculturists. This class has wonderfully added to the resources of the nation during the past half century, and at the present time is probably doing more to advance its prosperity than any other class is doing or can do. It is the department in the national economy to provide food, &c. for the nation. I am about to show that they eminently do their duty in one especial part of their business, viz. in the summer grazing of their farm stock. I can't, I regret to say, include every grazer, but I speak now of the modern grazer and his doings. He can't extend the area of his fields, but he does the next best thing he makes the fields support the greatest number of stock it is possible to put upon them with a satisfactory prospect of fattening them. The grass pasturage is a most secondary thing with the modern grazer. Take the fattening of cattle upon lands of the highest value. He selects cattle of considerable value and nearly fat to graze as his first run. These are supplied with the most approved artificial food in judicious rations, and are speedily well fattened. By this course he can fat off two, and three or four 'runs' or heads of cattle before the old-fashioned solely grass feeding grazer can prepare one for sale - hence the value of feeding stuffs brought from some quarters of the globe. Take, again, second-run grass and these would probably long ago have been well fattened three sheep per acre. The modern grazer will put on from seven to 12 sheep per acre, give them liberal rations of cake, corn, &c. and thus fatten them speedily. The difference is simply this: every good modern grazer adopts the use of artificial food in his summer grazing. The ordinary grazer depends upon his pasturage alone. The former will rest upon the average fatten three animals on the other an fatten one. The first has land with more than double the quantity of stock and by his advanced and judicious use of the specially prepared food upon his secondary land. The ordinary grazer, depending upon grass alone, can fatten but one animal at all, and is thus beaten to the extent I venture to assert. At the commencement of the present century it was customary to graze our best lands with inferior bred oxen of from four to five years old, and the average of oxen grazed would not exceed three years, their weight nearly equaling that of their clumsy progenitors. The sheep feeding and his were grazed with three shear sheep, and of superior type, now these lands are chiefly grazed by sheep not exceeding 12 months at 'stocking time,' and at 18 months arrive at satisfactory weights, fattened. This is a great advance in a nation's progress, and, as knowledge increases and prejudices die out, modern grazing will be universal.

Prolific Sheep - A farmer in the locality Mr. Benjamin Thomas, Penber, in the parish of Llangan, Carmarthenshire, possesses a ewe of a mongrel breed which in January last brought fourth five lambs at a birth, and again in December produced three, thus making eight lambs within the year. One of the first mentioned lambs died shortly after it came into the world, but the seven others, together with the mother, are at this time in good health and condition. This description of sheep appears to be exceedingly prolific, for another party on the adjoining farm obtained 11 lambs from two ewes of

the same sort within the year, in 1867, and in the majority of cases twins made their appearance. These sheep also produce their progeny much earlier than the higher class race, which makes them very valuable on that account. They are small, but the meat is excellent and strikes me that offering prizes for them at the Smithfield Club shows would not be a bad plan. Another advantage attending them is, they seldom are attacked with disease of any kind, and their yield of wool is considerable. Being hybrid they differ from the native mountain sheep of the country in sundry respects. The butchers about here purchase them readily; indeed, I may say, in preference to the aristocratic breeds which prizes that they are in great demand among their customers. J. A. Lewis, H. H. H. H., Carmarthenshire, April 7.

Foreign Correspondence.

Paris - Agricultural subjects continue to occupy considerable attention, even more than is usual at this period of the year, and there are several reasons why this should be the case, one being the approach of the general election, when agriculturists and agriculturists often have an agricultural topic. The long debate in the Corps Legislatif on the subject of the transformation of Paris and the proposition of the fact that the city is now indebted in that respect according to official reports, in a sum exceeding 1,000,000 sterling, has also had its effect. On the latter discussion, said a writer the other day "there is but one thing that agriculturists need remember, namely, that during the last 17 years about 90 millions sterling have been absorbed by the great public works executed in Paris, this is 20 millions more than would have completed the provincial road work (spanned of the entire empire)." "Nothing," says the same writer (M. J. A. Barral), "can better exemplify how little is done for agriculture than its special budget, out of the 1,650,000,000 f. devoted to the ordinary expenditure, only 8,271,000 f. are devoted to agricultural purposes. The subventions to the theatres amount to 1,887,000 f. and the total of those granted for agricultural societies, shows, exhibitions, prizes, and experiments connected with the diseases of the potato, the vine, and silk worms, is only 1,750,000 f. the portion allotted to the agricultural societies and committees is 1,000,000 f., while the allowance to the Opera amounts to 20,000,000 f."

Of the various articles included in the agricultural budget there is a sum of 600,000 f. only a part defrayed by the State, for the three veterinary schools each pupil, except those belonging to the army pays 15 fr. per annum for his board. There were last year 200 pupils in the Veterinary school of Lyons and 100 at the Veterinary school of Montpellier.

The same is the case for the three agricultural schools of agriculture in Lyons, Montpellier, and the pupils pay each 20 fr. a year. These schools are apparently in a very poor way, last year there were but 131 pupils in all, namely, 48 at Grignon, 46 at Grand Jouan, and 37 at Montpellier; the total cost to the Government was but 12,154 f. In the 18 farm-schools there were 1204 pupils, the Government grant in 1867 was only 25,000 f., but it stands at 27,000 f. for 1870. The three sheep farms belonging to the State, at Chambon and Haut Tugry and Corbon, cost the Government little more than 1000 a year, these establishments are regarded as being most serviceable to agriculture in improving the breed of animals.

The Inspectors-General of Agriculture, even in number with their four assistant inspectors, cost 2,700 f. the traveling lectures on agriculture and arboriculture, 1500 f. and the 13 professors of agriculture in great towns, only 732 in all. There is no increase in the budget this year as compared with 1869, and it is stated by M. Barral that the produce of the schools, sheep and cow farms being deducted from the grants, the cost per annum to the State is only in fact 100,000 a year.

The Superior Commission of Agricultural Inquiry has recommended the necessity of more being done by Government and the following is the purport of its recommendations. The establishment of a superior school of agriculture in Paris with an experimental farm in the environs, the establishment of one or two regional schools in the south of France, formation of free scholarships in favour of the pupils of the latter for the Paris schools, extension and improved organization of farm schools, encouragement of agricultural orphan schools, formation of both sexes, encouragement of agriculture by the development of stations for experiments with the aid of the authorities of the departments and of the agricultural societies.

An amendment signed by 144 deputies, has been presented to the Corps Legislatif, in favour of an addition of 12,000,000 to the budget for the purposes stated above.

The proposed plan of the new superior school of agriculture will shortly be published, and may be regarded as official and decided upon. It will be somewhat on the model of the old Agronomic Institute of Versailles.

In the meantime the local committees are adopting means towards the same end. The central committee of Bourges has opened courses of primary agricultural instruction, and last year distributed 10 gold medals to the successful candidates who had made the greatest efforts to improve their farms, the fundamental notions of gardening and agriculture. Deputies from this committee have visited farms, and made references on various subjects in the spot.

M. G. de la Motte, of Orleans, has earned great popularity by his practical references and received the Cross of the Legion of Honour from the hand of the Emperor last year. Not long since he had a conference at Lamotte-Beuvron, which was well attended, and created considerable interest. Amongst the other proposals now before the Corps

Table with columns for 'Cost of Farm Horses for one year' and various sub-items like 'Horse and cart', 'Horse and plough', etc. with numerical values.

and sent in 14" ... when the were ...

Mr. ... said the ...

grow them thicker than 18 by ...

Reviews.

The Quarterly Journal of Science, No. XXII, April, 1889, Longmans, Green & Co.

We have again to recommend our readers of this capital Quarterly Journal. Written, in its ...

The following is the agricultural chronicle of the past quarter ...

The past quarter has been ...

Turning now to the ... of agricultural exper- ...

It has always ...

The dry weather was a great aid to those who are interested in the promotion of sewage farming.

Sewage Utilization Company Mr. R. Nelson the chairman gave some information as to the satisfactory progress of the company's works. The principal intention of having the sewage ...

On the 1st ... started ...

As another feature of the season, we have to mention the successful commencement of the Sugar-Beet cultivation in this country. Analyses have proved that our Sugar-beets of 1888 have contained 19 per cent of sugar, which is rather more than those of ...

The ... of ash is desired; and as it is the ash alone which the plant takes from the soil, that ...

The ... of sulphate of ammonia M. Ville, of Paris, has lately made known the fact that salts of ammonia are found in large quantities in some of the ...

Among the more important points in Dr. Voelker's report is the scarcity of sulphate of ammonia M. Ville, of Paris, has lately made known the fact that salts of ammonia are found in large quantities in some of the ...

Coming home again, we have to report the activity of our local farmers' clubs, on whose operations, as well as on imported fertilizers, English fertility very materially hinges.

behalf the best way of dealing with ...

From the annual returns of the Board ...

Farm Memoranda.

NORTH RIDEING, YORKSHIRE. month of March ...

The Wheat plant ...

Farm work is well forward, in some ...

The ... of sheep are ...

Potatoes have wintered well in many instances ...

CHESHIRE, GLEANING. consists of 800 acres ...

Steam cultivation we have scale the last two years. Wheat ...

We have ploughed up ...

I fear our greatest ...

Stocks, Stocks, Stocks. W. WILLIAMS has much pleasure in offering...

Choice Primula Seeds. W. WILLIAMS begs to call special attention to his...

Cyclamen Persicum (Hybrids). W. WILLIAMS has great pleasure in offering...

Cineraria Seed. W. WILLIAMS begs to call attention to his...

Dahlia imperialis. W. WILLIAMS has great pleasure in offering...

Verbenas, Verbenas. W. WILLIAMS has great pleasure in offering...

Verbenas, Verbenas. W. WILLIAMS has great pleasure in offering...

Verbenas, Verbenas. W. WILLIAMS has great pleasure in offering...

Chrysanthemums. W. WILLIAMS has great pleasure in offering...

Verbenas, Verbenas. W. WILLIAMS has great pleasure in offering...

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Verbenas, Verbenas. W. WILLIAMS has great pleasure in offering...

Verbenas, Verbenas. W. WILLIAMS has great pleasure in offering...

New Plant. M. R. WILLIAM BULL is now sending out the beautiful Lasiandra macrantha...

Genuine Seeds. F. AND A SMITH'S CATALOGUE of FLOWER and VEGETABLE SEEDS...

CHARLES TURNER, The Royal Nurseries, Slough begs to offer the following, in strong Plants...

Now Ready. HENRY WALTON begs to inform his Friends and the Public that his NEW SPRING CATALOGUE...

General Catalogue. WILLIAM ROLLISSON AND SONS beg to inform the Nobility, Gentry, and Trade...

NEW LOBELIA, TRUE BLUE. This desirable Novelty will be sent out for the first time...

VERY STRONG VINES (with fruit this summer) of the following 12 varieties...

Bedding Plants. J. SCOTT, The Nurseries, Merritt, Somerset, has, as usual, to offer the finest collection...

One Hundred Thousand Bedding Plants. THOMAS PERKINS has great pleasure in offering...

CHEAP BEDDING PLANTS. VERBENAS—Scarlet, Purple and White 2s per dozen...

West of England Bedding Plant Establishment. THOMAS SAMPSON, The Preston Road and Houndstone Nurseries...

ROSES. W. WILLIAMS will be happy to forward on a DESCRIPTIVE CATALOGUE of ROSES...

New Roses, &c., 1869. W. WILLIAMS begs to offer the following Plants...

NEW FILLS, NURSERYMEN. The Filles de l'Hopital, Paris, have now ready...

NEW FILLS, NURSERYMEN. The Filles de l'Hopital, Paris, have now ready...

NEW FILLS, NURSERYMEN. The Filles de l'Hopital, Paris, have now ready...

NEW FILLS, NURSERYMEN. The Filles de l'Hopital, Paris, have now ready...

ROYAL HORTICULTURAL SOCIETY—SHOW of AZALEAS and SPRING FLOWERS, April 17, 1869.

AWARDS of the JUDGES. Class 2.—AZALEAS, distinct (Amateurs) 1st Pr 2s...

Class 3.—AZALEAS, distinct (Nurserymen) 1st, Mr C Turner, Royal Nurseries, Slough...

Class 4.—AZALEA, single specimen (Open) 1st, Mr A Wake 15s...

Class 5.—CINERARIAS, distinct (Open) 1st, Messrs J Dobson & Co, 21 1/2...

Class 6.—CAMELIAS, Cut Blooms, 6 kinds (Open) 1st, Mr A White, 21 1/2...

Class 7.—CAMELIAS in Flower, distinct (Open) 1st, Mr A White, 21 1/2...

Class 8.—AURICULAS, edged, distinct (Open) 1st, Mr C Turner, 21 1/2...

Class 9.—AURICULAS, Self and Fancy, distinct (Open) 1st, Mr C Turner, 21 1/2...

Class 10.—CYCLAMENS in Flower (Amateurs) 1st, Mr J W B... 21 1/2...

Class 11.—MISCELLANEOUS COLLECTION of PLANTS a Flower (Open) 1st, Mr W Bull, Nurseryman, King's Road, Chelsea...

FLORAL and HORTICULTURAL FETE. To be held on the RACE COURSE, NORTHAMPTON...

GRAND NATIONAL HORTICULTURAL EXHIBITION, 1869, MAY 14 to 21—NOTICE to EXHIBITORS...

The Gardeners' Chronicle. SATURDAY, APRIL 24, 1869.

MEETING for the ENSUING WEEK. Tuesday, April 27, Royal Botanic Exhibition of Spring...

PARCHED as vegetation was everywhere last year, it is naturally to be expected that many plants will not bloom so well this season...

With these facts of our own garden experience in our mind, we went to Belvoir with the full expectation that some allowance must be made...

A most important fact connected with these latter gay but somewhat expensive plants has been demonstrated by Mr. INGRAM...

A most important fact connected with these latter gay but somewhat expensive plants has been demonstrated by Mr. INGRAM...

additional... a young... blishments in the neighbourhood... be difficult to obtain such a... you inquire about, and here

English (as at the Marquis of Hert-Boulogne) the men receive only... even though the men are

but these... head... e 1000... and... gar... that

I believe there are only... rdeners in France, so that... under an... us of

and... water let in... We were advised to use... of lumps, but without... advice on this subject

Prof. Ag. Soc. south wall... The Gardens, Heck-

sown a row of this vari... the row, mentioned... cking after the lapse... than the former row

In this case the crop is more... earlier growth, and the straw is... s out-of-doors. If any of your... spondents can inform me of any Pea... ight forward for use with greater... e thankful. I grow Maclean's Little... e Pea), but I do not find it so tractable... Characterous. John Reid, Haigh H

fruit or haws. Some... names... the... place... of the tree... dead or stone... of our living... have been

for... names... Sweet... law... s a hedge or... by fences. Again,

without the other—far less the one to the disparagement of... the other, but both together working in harmony under the

consequently give it a double weight to carry... have taught the horticulturists a good deal

have you not kept us constantly informed about... latest discoveries in the chemistry of soil making?... the means that have been directed... by science... tests of... small, and... us whose... formulæ... es than th

without the other—far less the one to the disparagement of... the other, but both together working in harmony under the

ferred to as distinguished from Blackthorn, fencea... Still the berries of the Whitethorn are called haws, primitive name of the Hawthorn might have been

Becht about, and so with trees set... Was all the place, and Hawthorn hedges k... north of Ireland, is in very many cases a space sur-

from their own point of view. In the meantime we... ments of Mr. Darwin, published in the "Journal of... the Linnean Society," and alluded to in our column... 1861, p. 1048. The general results of Mr Darwin's... experiments are that the greatest number of good seeds... are pr... is placed on the stigma (or pin-head) of t... flower or vice versa. When pollen fr

results are not so satisfactory, and still less so when a... flower's own pollen is used to set its own stigma. Eds.]

Signs of Spring.—The following no... of the... arrival of those of our migratory feathered visitors... period, to some of your... large... wns. Here... h inst., and... on Sunday morning... clearly through the... rest of the previous... Upon the

The Surface Cropping of Vine-borders. — Having... have been thrown up as and these borders. I proceed now to... remark upon the general... and bringing the matter to... the twin... of experience and common sense. But upon... the very threshold of the subject I am confronted with some... general charges levelled against th... re army of horticult

ity, and ego... excessive forms, for at p. 390, col. 6, only proclaimed that—"In... th, horticultural... not yet advanced enough... proclaim advice... point (that of border makin... to her many dev... teachers being in such a state, is it any... our practice "involves not the sligh

for I... e that he could have seen it among modern... an imbecility so encraving that it robs... all power of improvement, there is seen the most despic... exhibition of egotism, and heard the loudest boastings. Our dull, apathetic, hazy visioned eyes cannot see ourselves... nor our doings as others, that is as... sees us; so we take... nt when chance or the

wise friends, our "agricultural composers"—we are so foolish, they so wise, that we have only to sit at their feet and learn all... those "figures or formulæ and chemical compoundings of... which we are so blindly ignorant. "A." in the next column... the ground for another." But their... ve forgotten to tell our friends how... to grow two good crops together on the same land, at the same... time, without injury to either—nay, with positive ben... both. And t

wings of the press at our devo... ed heads. Assume... true one—which I most emphatically deny—how... he propose to remedy it? We are ignorant, what

consequently give it a double weight to carry... have taught the horticulturists a good deal

have you not kept us constantly informed about... latest discoveries in the chemistry of soil making?... the means that have been directed... by science... tests of... small, and... us whose... formulæ... es than th

without the other—far less the one to the disparagement of... the other, but both together working in harmony under the

without the other—far less the one to the disparagement of... the other, but both together working in harmony under the

astonish him possibly to learn that most of us... of infinitely greater importance than... son of the building, the latter only a temporary... is here to-day, and at the ends of the earth to... suffers

chemical compoundings of fruit-tree bo... to the science of manuring, or feeding, than to... r, in the formation of root grounds. Such... course is no proof of their ignorance, but rather an illu-... tration of the profound knowledge of the relative importance... of mechanical construction in the great art of border

surface cropping succinctly before... transmuted into stones by any man's word, nor... such Grapes as are grown by Messrs. Fowler, Meredith, Thomson, Flozning, and a noble host besides them, on... borders, be converted into chaffy nothings by the... any writer's pen. Neither have I the slightest wish

and for six more with similar successes from uncropped... borders, and yet the case be left very much as it is—that is, with a preponderance of proofs and talents in favour of the... tier practice. The truth is, the Vine is so yielding in its

good harvest of fruit under the most diverse and even anta-... gonistic circumstances that can be imagined. In some places... t seems impossible to injure it; neglect cannot weaken nor... cruelty destroy it. In other situations it is comparatively shy... and cov... the utmost skill cannot master some of its frutties, such as shanking, and no amount of coaxing or stimulating... will render the plant or its luscious offering of fruit perfect.

fathomed to the bottom, and the richest stores of practical... knowledge exhausted, to form a perfect feeding gro... its roots, and a perfect living house for the top, an... the ungrateful Vine droops or languishes, and... the ground beneath, or to finish perfect... dwelling. At others a hole... garden, and a Vine roughly shoved in,

astonish all by the lux... nce of its growth and the... quality of its produce. Again, the Vine will refuse to thrive... upon the choicest food, and anon it will be found... lapping up the strongest sewage with apparent roush, and... ng decomposing bones with evident gusto, and... ing a hasty meal out of carrion. In fine, there... are... conditions so perfect but that may some... fail to produce first-class Grapes. What, then, is... les... to be learned from all this? That we are to be

Certainly not. Let us secure the very best of the one, and put... forth the utmost amount of the other. But when success... rewards or failure overtakes us, let the versatility of the Vine, I may so express it, teach us wisdom in the assessment... of the value of experience. For there is no practice so bad... that it might be buttressed by cases of success in its favour;... no so perfect but they might not be weakened by recorded... cases of failure. We must therefore take heed how we record... (and not expect... to say) the way that... or skill in the use of them?

endoubtedly destroy... to impoverish its root... gh man, by placing the... one situation and the... another has rendered... cropping possible. But surely the possibility of a pnet... never be accepted as any proof of its propriety or its w... The invisibility of the roots has often caused them... ignored and forgotten, and thus... has... originated in a blunder and a... has... treated as if it were empty, when... been full to repletion of our best and most... Is the Grape Vine to have its roots worse treated... age? Assuredly not. Then let us hasten

of ground... will be ins... will float the banner, higher and wider than ever, ... the Vine roots alone. D. T. Fish, F.R.H.S., April 19.

Foreign Correspondence. GARDENING NOTES FROM RUSSIA.—With respect to the catalogues, called here "Price-Currents," they are almost all printed in the form of a book and but little from our... arrangement. That of the central department of the Horticultural Society is double the size of the ones I have obtained. Like the others, it begins with the kitchen garden seeds, and... well as Russian, a few... as variety of Bath Cucum... come the farm... in Russian, Latin, and... are almost all English. The... give the flowering plants... and grow... plants in general), in the Lat... give the pronunciation, that is, the... of Latin in the Russian character, for the benefit of those who read Russian only. These and ornamental trees and shrubs, also in the Latin character, usually

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been found by the late Mr. P... of Peru, near to the snow line and to grow well in a cool and shady place. It was then made to several other places, and to the very beautiful Rhododendron, Haddington, one of the parents of which is a regular and beautiful Orchid, the larger, more aristocratic than alluded to. At present, it is the plant was to be sent for

called the attention of the meeting to an elegant Anthropolium cirratum, a new plant, forming a great contrast to the Amaryllis (immaculata) variety. The Chairman then alluded to the various Orchids in his collection, and in allusion to the medal, expressed his regret that the committee had not been able to award it easily by Messrs. Veitch, and almost without a struggle. He had great pleasure in presenting the consideration of the eminently successful in which Mr. Anderson had grown Orchids, and he had baffled the skill of cultivators, and he claimed that Mr. Anderson had on the great Orchid lovers, consisted in the fact that he kept his knowledge to himself, but was always ready to impart it to others less skillful than himself. Mr. Anderson trusted that Mr. Anderson would continue to grow such specimens of and he only could grow. He then said that he experienced very much pleasure in receiving the medal from the hands of Mr. Anderson, who had for so long a period been devoted to Orchid culture, and who had done so much for the Horticultural Society.

that those who had a love for the Horticultural Society could at any time be gratified at the prizes which are annually treasured by himself and his success. His countrymen north of the Tweed would be glad to have such prizes. Such prizes were valuable, and recipient, but stimulated the zeal of the Horticultural Society in the nation of gardeners. Mr. Anderson then acknowledged the compliment paid him, and the chairman for the kind manner in which he had spoken of the Horticultural Society.

W. W. Saunders, Esq., President, Messrs. A. Murray, Esq., and Messrs. F. W. ... Mr. ... Dr. Masters, Esq., ... Mr. ... The disease in this case is not a new one, but it affects the Peach trees at the present time. The disease often attacks the upper end of the young trees, and it has been observed under glass as well as outdoors. It is stated that the swellings observed on the young trees are due to the disease.

sent a communication to the same Apple, but stating that he had detected any insect-agency in the Apple. The communication from M. De ... the cultivated Apple and the nature of the disease, was then read. The disease affecting the Sugar Apples, were then read.

that remained healthy to the sugar plantations in the island had been nearly destroyed by the same or a similar disease. Mr. Horns stated that he had seen the canes similarly affected in India, where the mischief was usually attributed to the effects of excessive drought, deficient and imperfect nutrition. Ultimately it was

ould be sent to Mr. ... at the next ... detailing the appearances ... Committee (see p. 196). When first shown, all the flowers ...

had seen similar ... It was then ...

Floral Committee

distinct and desirable form of the fine Japanese Pricaula ... its flatly expanded neatly fringed segments, of a pretty ... handsome group of securing Amaryllis of the suppeastrum ... curmine veins towards the edge; Olga was a pale rosy red, wavy. They were all of good shape and handsome light ... did also the two before-mentioned plants. A second-class Certificate was given

very promising ... elegant, old-fashioned, of New Zealand, a prof ... linear fronds, and diluviate lobed pinna, had already received ... white flowers marked with rosy stripes, and said to be of ... origin, was considered too near C. capense. Besides ... vallis Veitchiana, Oncidium leucochilum, sessile, and

noticed, Oncidium concolor, a large clear yellow species, fine flowers of Cypripedium Lowei and Stonei, and good examples of ... of Dulwich, came Asalea Magnum Bonum, a salmon-red, of good shape, but wanting in smoothness. Asalea hastulata, several Asaleas and ... Special Certificate was given. Mr. Willia ... Cross, again ... Mr. E. Stevens, Trentham; one, named orange-red with spotted upper segment, outline, but wanting in smoothness, which

flower, was of a pale washy salmon-pink. Mr. Furber ... bright rosy carmel ... Fruit Committee

the Marquis of Exeter, also ... BOTANICAL' March 11 — Dr. Cleghorn ... in two cases. ... at the Royal Botanic Garden, were announced. The following communications were read — 1. Notes of a 12 days ... to of the botanical ... and Palermo, and enumerated the principal ... in flower at the time of his visit. The Agricultural Institute at Castellano, with its medal

farm, under the able management mentioned, as furnishing a good climate, the seeds ripened at Palermo have been very suitable for the agricultural societies of North Italy. ... in charge of Cinchona cultivation in Bengal. The ... of plan

had seen similar ... to clear the land entirely of all vegetation, not a tree of eve ... should not be felled before the middle or the end of ... thoroughly dried up the heavy dew, at the bottom of ... trees, leaving only the large branches and trunks to ... ka. Where

vegetation, to cut up the trunks of the trees and the Bamboos ... burning, or to roll them into the steep ravines, which are ... distance of 8 feet between the plants is maintained

After the ground has been staked out, the next preparation for planting consists in digging the soil to the depth of a foot, ... the roots at the same time in a circle about 1 foot in diameter ... the stakes is the centre. The planting of ... performed in dull, cloudy weather, when showers are ... at, but when the ground is not saturated by long-continued heavy rain. The thoroughly ... are brought from the adjoining nursery-beds in ... which the men carry on their heads. The ... to the cooler engaged in planting, who, with ... a hole in the loam soil sufficiently large to ... of the plant and ... down by ... the plants ... the nursery bed ... not exceed a foot ... height are ... been planted for ... the ... more the ... angle 5 or 8 ... a month ... laid in ... raised ... a heavy rain ... of the re-

tations is thoroughly hoed, and by this receive a great check by being exposed to of the cold season after having been up-

plants are tall and ... cultivation ... consists of ... ground is abandoned for ... piece abandoned soon be ... of shrubs, gigantic Grasses, and young trees

... Wood... better fitted for articles of furniture and musical instruments. *Builder.*

Garden Operations.

For the ensuing week

PLANT HOUSES

Aquariums whether of large size, such as is required for the... in fact such as are kept in pots and other forms for the purpose of... will now require something more than a casual... second tuff, which has wintered through from the... This is a matter of great... a limited quantity... form of tanks, the... employed on a more extensive scale. Previous to placing the soil into the tank whether as a surface-dressing or otherwise, care should be taken to withdraw the water so as not to allow the two to mix together in the form of mud and by pressing the soil down firmly...

... healthy tree should be concentrated in bringing the... healthy state, the tree will be very much benefited by having a good soaking with liquid manure. Be particular, however, not to cause the border to become so wet as to remain overcast at the exact time when the ripening process takes place. The soil at that particular time... strawberries may now be treated more liberally than heretofore at starting, having... without much forcing, manure-water can be applied... below the ordinary standard last year, owing, no doubt, to the past hot season. I need not add much... which may occur.

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Proceed with preparation... and with the preparation... more fermenting material... some growers who object to the... the ground prefer making a trench, into which the material is placed and then covered over with the necessary soil... Proceed with preparation... and with the preparation... more fermenting material... some growers who object to the... the ground prefer making a trench, into which the material is placed and then covered over with the necessary soil...

Proceed with preparation... and with the preparation... more fermenting material... some growers who object to the... the ground prefer making a trench, into which the material is placed and then covered over with the necessary soil... Proceed with preparation... and with the preparation... more fermenting material... some growers who object to the... the ground prefer making a trench, into which the material is placed and then covered over with the necessary soil...

TOWN GARDENING

GRASS... taken off, the... a charming bank of green will be obtained in a few days. Rockwork... Ferns, Alpine plants... at p. 32. Window plants should be allowed as much air as possible during fine weather and should be supplied with water when they become dry on the surface, in doing this the pot should never be allowed to stand in water but should be raised or elevated... health of the plant. All other plants that are not in flower should now be well syringed and have the surface of the soil stirred occasionally. J. D.

STATE OF THE WEATHER AT MARBLE HILL... TABLE with columns for Month, Year, etc.

Notices to Correspondents

BRETTLE RINGING THE BARK OF STAGNANT... The culprit is a well-known offender... Books Rural Dean. Probably... LUCUMBERS AND MUSHROOMS R.P.H. Cucumbers can very well without any other artificial heat than the... W. J.—W. P.—O. M. D.—T. H. L.

SUTTONS' HOME-GROWN FARM SEEDS,
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The most productive, and best shaped Purple-topped Swede in cultivation.

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Lowest price for large quantities quoted on application.

It maintains its character as the best Swede in cultivation. It is a very large purple-topped yellow variety, perfectly hardy, and grows very well. It is of fine globe or shape, and remarkable for its quick growth, and freedom from coarse roots. It has taken for the Champion Swede at the Royal Horticultural Society's Show of the value of 20 guineas each. These same cups were also awarded to the Champion Swede of the Royal East Berks and South Bucks Agricultural Societies to crops of our Champion Swede, and other approved varieties of Agricultural Roots. Numerous other prizes have been awarded to crops of this Swede, while it has certainly obtained the first prize for pulled roots. Some very fine specimens in Ireland, and exhibited on our stand at the Smith's Club Show in December last, attracted marked attention.

From **W. BAKER, Esq., Poplar House, Sproyngton**
"I had this year 16 acres of your Champion Swede-
the crop was very good, and I am only now
beginning to pull."

From **J. ANKERT, Esq., Manor House, Tingewick**
"I took several prizes last year with crops grown
from your Champion Swede, and I am only now
beginning to pull. There is no better Swede than the Champion
Swede."

From **L. M. WARREN, Esq., Gathorpe Lodge**
"I believe you are aware this is a great seed
for the Turnips, &c., but your unrivalled Champion
Swede is a real gem."

From **J. C. MOORE STEVENS, Esq., Hincott**
"I won a Ten-shilling Silver Cup last year for
your Champion Swede."

From **Messrs. DICK & SON**
"We grow some splendid Champion Swedes from
your Champion Swede."

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- H. R. H. THE CROWN PRINCESS OF PRUSSIA
- THE PARIS EXHIBITION, 1867.
- THE UNITED STATES GOVERNMENT
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have still on hand such variety of the various cleaned PERMANENT PASTURE GRASSES and CLOVERS, as table for various descriptions of soil. For PERMANENT PASTURES, 20s. to 32s. per acre. Carriage free. For LAWNS, 18s. per bushel. For LAWNS, 20s. per bushel. Special estimates given for large quantities. For further particulars apply to Suttons & Sons, Reading, Berks.
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ROYAL AGRICULTURAL SOCIETY OF ENGLAND.

MANCHESTER MEETING, 1869.



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H. M. JENKINS, Secretary

12, Hanover Square, London, W.

ROYAL AGRICULTURAL SOCIETY OF ENGLAND.

MANCHESTER MEETING, 1869.



ENTRIES for IMPLEMENTS, &c., CLOSE on the 1st of MAY; and all Certificates received after that date will be returned to the senders.

H. M. JENKINS, Secretary

12, Hanover Square, London, W.

The Agricultural Gazette.

SATURDAY, APRIL 24, 1869.

MEETING FOR THE ENSUING WEEK
Wednesday, April 29—At Agricultural Spring Show

SOME remarks which were incidentally made at the last monthly meeting of the Council of the Royal Agricultural Society deserve more attention than they are likely to attract. The Society has recently established examinations for testing the knowledge of those who mean to follow agriculture as a profession. As yet only two have been held. The results of the first were unsatisfactory, but this was mainly due to the defective arrangements of the examination itself. The second has only just terminated, and the report of the examiners has not been made. The examinations cannot possibly yet be said to have had a fair trial. It is astonishing, therefore, to read proposals for the appropriation to other purposes of the education grant, as if the whole scheme were

too radically had to deserve even the little forbearance which would have been needed till the result of the second examination had been announced.

Nothing can be more disheartening than the way in which important questions of the greatest interest to the community are often settled without the community having any voice in the matter, or even knowing that they are under consideration. This is especially characteristic of English institutions. We are scandalous not to have enterprise cramped by central authority that we run into the other extreme, and often allow it to be stifled by the meretricious of private associations.

Now, the Royal Agricultural Society of England is such an association, but one of national magnitude. Though independent of Government control it performs work which, in any other country, would be done by a branch of the Government itself. It represents also the great body of farmers, and its leaders should be anxious not only to advance farming as a business, but to elevate it as a profession. To discontinue these examinations would be to fail in both.

Farming in England requires, more than any other subject of equal national importance, to be stimulated and aided by every kind of assistance that human intelligence can provide. Still more obvious is it that the new generation of farmers ought to be men whose training not only fits them to thoroughly understand the present position of their work, but also to extend and improve its methods. Beyond a certain point mere business-like habits do little to increase production, and to increase production is to increase national resources. To decline to test the knowledge of those who are to help hereafter to feed the country is to repudiate agricultural education altogether, in fact to withdraw it from the category of intelligent pursuits, as if it were only a little more complex than the unsophisticated practice of the West Indian negro, who scratches the ground and contentedly sows a few Pumpkin seeds. To give up these examinations, is, in an age like the present, to be guilty of an anachronism.

Still more inconsistent is it with the other proceedings of the Society itself. So anxious was this body when it recently elected a Secretary and Editor to get a man of scientific attainments that it entirely overlooked the desirability of his knowing something about farming as well. Will any arrangement be more perverse—the Editor of the Society's Journal is to know nothing about the practical needs of farming, while the readers of the Journal are not to be encouraged to take advantage of scientific teaching. If the members of the Council really succeed in carrying out their apparently foregone conclusions, they may be congratulated on having done not a little to degrade farming as a profession, and something to impede national progress.

It is now the best season for sowing the Sugar-Beet. No green crop can be easier grown. It will thrive anywhere, and with any regimen under which common Mangel Wurzel will flourish. Those who know how to grow common Mangel need no instruction in the growth of Sugar-Beet. The two may be treated exactly alike unless in the following particulars. The Beet should be sown on the flat surface instead of in ridges, and about as close again together as common Mangel. The roots should not exceed an average weight of 4 lb. each. The amount of sugar produced within the root is largely dependent upon its being wholly excluded from the light: and of course the plants are easier earthed up to the leaves when placed on the flat than when perched upon the crown of ridges. The seed should be drilled in rows about 18 inches apart, and the plants thinned out to an average distance in the rows of from 8 to 10 inches. Sugar Beet will grow upon any soil, but it prefers a mixed soil, of a tilth 12 inches in depth. It succeeds admirably after a crop of Wheat or Barley. The stubble should have been deeply broken up as early as possible in the autumn, and farmyard manure applied at the rate of from 10 to 15 tons per acre; if rank or fresh it is better ploughed in at that time; if well rotted, it may be applied in the spring. Supplementary to this, or to supply any lack of it when it is scarce, from 2 to 3 cwt. of guano or nitrate of soda per acre may be deeply harrowed in previous to sowing the seed.

A fine tilth must be obtained. To ensure the greatest success, perfect pulverisation is needed. It is a dead loss of growing force as well as an act of cruelty to plants to make them perform the drudgery of smoothing down a bed for themselves,

when plough, scarifier, and harrow would do the work better. With a fine seed-bed, and good seed of the white Silesian Beet, drilled in at the rate of 6 or 8 lb. per acre, a good plant is well nigh certain. Regularity of plant is the first step towards a good yield. Sugar-Beet will bear transplanting as well as, or better than, any other green crop. But it is always safer to have to destroy a dozen plants, because they are too thick, than to be obliged to transplant one from the crop being too thin. The Beet requires the usual attention in hand thinning, cleaning, &c. About the middle of August it should be earthed up right to the leaves, unless indeed the roots elect—which they do upon some soils—to bury themselves. By the middle or end of October the Beet crop should be harvested. The best implement for taking up the roots is a three-pronged fork, and care must be exercised not to break them, otherwise a considerable amount of sugar will ooze out with the sap. The yield per acre may be safely reckoned at 20 tons. There is no reason in the nature of the Sugar-Beet why the crop should not be nearly as heavy as that of the common Mangel. Though smaller, its substance seems more firmly compacted together, and, bulk for bulk, it is certainly the heavier of the two. Forty tons of the common Mangel have been grown per acre, and there seems no reason why the same high maximum should not be reached with Sugar Beet.

The sugar maker prefers the roots to average 4 lb. a-piece. Last season's crop only averaged from a pound to a pound and a-half. The heaviest crop, 21 tons per acre, was obtained with roots of the latter weight. They stood apart 22 inches by 9, and there was abundant head room and plenty of root space to have doubled their weight and size as they grew. This would have made the crop 42 tons to the acre. It thus appears that an average of 30 tons per acre in an ordinary season seems reasonable and moderate. The cost of production slightly exceeds that of common Mangel. A few more pounds of seed per acre, an extra allowance for hoeing, the plants being more numerous—and a shilling or two extra for harvesting, the roots being deeper in the ground—exhausts the list of extras. The entire cost of growing Sugar-Beet, including rent of land, cultivation, manure, and harvesting, and allowing no drawback for the unexhausted manure, nor its benefit to the succeeding grain crop, has been carefully calculated by the largest grower at 97. per acre. Another grower makes it amount to 111. Allowing, say 27 more for carting to the factory, we reach a total outlay of 138. per acre.

The price given for the roots is 11. per ton. It follows that very large profits are within reach of the growers of Sugar-Beet. If the crop averages 30 tons per acre, 171. is netted by it; if 25 tons, 127; and so on.

Comment upon these figures would only weaken their force. If farmers can better such returns from other crops of course they will do so: if not, they will doubtless turn their attention to sugar farming. And we may add facts to show that if they do so, we need fear no doubt of roast beef. One Lavenham farmer delivered 100 tons of Sugar-Beet to the factory, and he took back to his farm no less than 70 tons—67 of these were cattle food, the other 3 being Beet manure. The trimmings and pulp are greedily devoured by all kinds of stock except calves. When kept covered up from the air the pulp keeps sweet and good for months, probably years. If left exposed, the upper layer decomposes, or forms a crust that preserves the mass underneath. So little water remains in the pulp that a ton of it measures about 60 bushels. This consists of the entire flesh-forming matter of the Beet, minus the water and a portion of the sugar. It is a sort of Beet bread. A bushel of pulp, with a pound or two of oilcake and a few handfuls of meal per day, have been found to fatten bullocks rapidly and well. There was some fear that the pulp might prove a drug on the hands of the sugar maker. At first the cattle sniffed at it, and turned up their nose, but no sooner did it enter their heads that they were expected to eat it than they did so with a will, and asked for more. Now there is but one regret throughout the district—that the supply was so limited.

The corn trade has been pursued at a further decline in prices. Wheat is 1s. to 2s. per quarter cheaper, and other grain has similarly fallen in value. The live stock and meat trade has on the contrary been in a highly animated condition. A moderate supply on Monday, when all good and fair qualities were rapidly bought up, was followed on Thursday by

only 680 beasts in the market. Quotations are accordingly high, 6s. 10d. being the top price for Irish pork, and veal are also dearer. The season is nearly over for agricultural seeds.

A serious case of importation of sheep on Thursday evening, by a vessel named ROBERT MONTAGU, from Antwerp, had arrived from Mr W. L. F. Government were informed that one or two infected with small pox. According to Professor SYMONDS, the latter cargo of which three were found to be suffering from small pox. This fact was discovered, not on sheep had left the wharf, but before they had left the wharf. Orders were given that the sheep and orders were given that the sheep be used until it was thoroughly diseased. The course was pursued with regard to the sheep, 22 being suspected of infection, and unmistakably diseased. After a full and the prompt and secure measures were adopted for preventing the spread of the disease. FORSTER made the following remarks: "There was reason to believe that both came from the same party at Antwerp, and signed to the same person in this country they had been separated with the sheep could be more easily landed and evaded."

The 1st prize at the Highland Society's Show at Aberdeen was not gone to the owner of the animal, but then awarded. The disqualified heifer was not proved to be in calf. Mr Drummond, who exhibited her, subsequently gave the Earl of Sutherland's heifer, and placed 2d, and has 'qualified' according to the rule of the Highland Society.

The entry of implements for exhibition at the Manchester meeting of the Royal Agricultural Society will close, we may remind our readers, on next, May 1.

An important seed case, of which we have an abstract, was recently tried in the County Court at Haddington. Mr JOHN RYAN, of Hillon, of A. Le. Kinross-shire, sold Messrs. EAD & PARK, seed merchants, Haddington, damages, on the ground that a quantity of rye-grass purchased by him in 1865 as perennials, failed to produce a second year's crop, and must have been infected with a second year's crop, and must have been infected with a second year's crop. A great deal of evidence was led on both sides, witnesses being seedsmen, practical farmers, and growers, and practical botanists. For the pursuer it was contended that there were two distinct kinds of the Rye-grass plant, an annual, and perennial, and that the seed was in poor condition, and well prepared, and that a portion of the seed with different seed produced a second year's crop. On the other hand, the defenders pleaded that the seed was in poor condition, that according to the evidence there was no such thing as an annual rye-grass, that being merely a trade term for two kinds of seed, and that the seed supplied was from a bin from which they had supplied their customers that year to numerous customers, without any case except that of the pursuer. The Substituted has decided in favor of the pursuer, and is awarding the pursuer in expenses.

A metropolitan salesman was accused on Friday last of having "cruelly tortured" a cow, exposing them for sale in a new-york market at the Metropolitan Cattle Market, on the 24th of March. These proceedings were taken by the Society for the Prevention of Cruelty to Animals, against Mr JOHN CONDON, and the police crowded with his brother meat and cattle dealers who were anxious to hear the proceedings. Mr ELLISON, in giving judgment, said that it had been committed, it had been done, and sending of the sheep from the country in the market were, but in the exposing. He should be commuted his decision was to be appealed from, but he now fine the defendant 5s., and 2s. costs, and five days' imprisonment in the House of Correction.

OUR LIVE STOCK.

THE SIDDINGTON HERD—Mr Bowley's herd on Thursday, was eminently successful. A large assembly to witness the proceedings, and among many well-known breeders. Lord Dunmore bidding for the "Siddington" raised the price of the female section of the herd to a figure rarely even in Shorthorn sales. Mr Bowley's herd suffered from the low prices obtained for the year. Thus while the heifers and cows made an average of only 35s. 5s. 9d. The three heifers all became the property of Lord Dunmore, the best fetching 240 gs., Siddington 6th 360 gs., Muswell 2th and 3th respectively 190 gs. and 105 gs., the first being Lord Dunmore, and the second by Lord Dunmore. We hope to give a complete price list next week, average over the entire 39 an average of 39s. 10d. plus, the highest that has been reached since the sale last year, when 18 animals realised 3s. 6d.

On Friday May 7, an important sale of Shorthorns will take place at Wicken Park, Stratford. Thirty-three females and 10 males, including a well-known Penrhyn Cattle and Wicken Park.

looking at this I inquired what was paid for the larger kinds of chickens, and I found that the price was 7s for the larger chickens and half-a-crown for ordinary ones. I think, therefore, that the trade in poultry should be certain and regulated as a means of great wealth to this country. We can afford too much importance to the encouragement of implements in this country. When I have been amusing myself every now and then in different parts of the country I have had opportunities of seeing the manner in which the agriculturists of Meath and Kildare carry out their tillage, and I have been very much struck everywhere I have been by seeing the ploughing conducted on the highest principles of English agriculture. I have seen grass-lands being brought up, and I have seen other lands that have been ploughed up, and I have always noticed that the ploughs which ploughed these lands were of the latest patterns that I always see at the agricultural meetings in England. Now I perhaps, may be allowed to attribute this excellence to the fact that it is a great excellence, if you use the best plough there is no doubt it is a great economy of labour and skill. I may attribute some of that excellence to the work of the Society, and showing in this town the latest improvements among the implements, and encouraging the farmers to get the best "tools for their work." I noticed to-day what I conceive to be an important machine for dealing with Flax, which I see is a very important branch of the agriculture of this country. I noticed the great increase that has been made within the last few years. I think within the last six years the numbers of those employed in dealing with Flax in this country have risen from 20,000 to 60,000, and it is a remarkable thing with regard to that that out of the number of persons employed in manufactures in this country, 60,000 are employed in trades connected with Flax. Anything that encourages a manufacture so important as this, and encourages the labour required in it, must be of very great importance, and it was, therefore, with great interest that I noticed the machine which I refer to in the yard to-day.

ARTIFICIAL WARPING.

The use of water as the carrier of fertilising matter is not confined to sewage farming; every case of warping land common on our tidal river banks, is an example of it.

The artificial practice of warping land, although similar in principle, differs indeed from the natural in many respects. The former has a very general application, whereas the latter is confined to a few localities. According to the artificial method, clay may be mixed in the water and applied to sandy, chalky, or peaty soils. Chalk, or any calcareous earth may be pounded and mixed with the clay, or mixed alone in the water. In a similar way peat, earth, mud, and the various alluvial deposits may be applied by means of water to soils of a different character. There is not, perhaps, a province in the kingdom, and perhaps there are not many farms, where the practice might not be carried out with advantage.

The practice is similar in many of its details to the tempering of clay in brick-kilns in the manufacture of coloured bricks. The clay and chalk are broken down in the water, and by means of a small current are carried into the enclosure, where the mixture is deposited, and whence the clean water is decanted off. This is general, and hence the practice, and in very many places large fields of land might be similarly warped, also by gravitation.

The expense at which the work can be done both ways, or by a combination of them, is less than would perhaps generally be imagined. In the West Riding of Yorkshire, and North Lincolnshire adjoining, although the outlay was greater than would generally be the case, yet the peaty soils artificially warped, we were told, when on the ground, are paying remunerating interest and leaving fair profits to the farmer. This, however, is an exceptional example, the earth dug up for warping being somewhat similar to the salt of the natural system, consequently, on the question of outlay and returns, it is no safe rule. But the practice of claying fenland, and of warping poor moorland and sandy soils, by mixing the earth in the water used in irrigation, affords trustworthy data for determining whether the practice is likely to pay, and the profits in such cases are amply sufficient to warrant a conclusion in favour of artificial warping as proposed, for in a vast number of cases which have come under our own observation the work could be more effectually done at less money by the latter practice than by the former now in use. An immense area of the bogs of Ireland might also be warped with clay. We have gone over large areas of sandy, gravelly, and chalky soils where there was a command of clay and water in the winter time soils in which the water would have sunk, thus leaving the clay mixed in the strata.

The pumping apparatus required would be of the common kind now in use in pumping water out of the fens, &c. The best method of breaking down the clay, and calcareous earth, peat, &c., and the mixing of them with the water, would depend upon the nature of the material. Moist earths soon dissolve in water, and if full of small stones these could readily be screened out and separated from the fluid mass before it entered the pipes to the land. The size of the pipe would depend upon the steam-power, the height the water has to be raised, and the like. In ordinary cases a 6 or 8-inch pipe would suffice, but where large works, as for warping the immense bogs of Ireland, are concerned, and great quantities of water and clay might have to be carried a considerable distance, twice the above size might be used.

Four hypothetical examples might be imagined for practical illustration—(1) warping by gravitation, (2)

warping by steam or water power, to be followed by subsequent use of the same machinery for liquid manuring; (3) warping by steam or water-power, to be followed by liquid manuring by means of a separate machine; (4) warping apparatus to be movable, and warping peat bogs by water or steam-power, the warping apparatus to be movable.

(1) There are thousands of acres of poor moorland steep pasture capable of being warped on the first plan the mountain stream furnishing water and the mountain side the clay or other warping material, so situated that it could be wheeled into the watercourses situated lower than the peat. The only difference, therefore, between this plan and that now in use for irrigating by water only, would be an increase of fall, for breaking and mixing the clay at the clay pit, and for conveying it to the land for application a sufficient length of water-runs for distribution similar in construction to what were and are still used in irrigating meadows, and even warping (for warp has been applied in this way already) would be required for spreading the clay evenly over the Leath or pasture. The length would be determined by the number of lands employed. One active warper would apply a great many tons of clay in a day of 10 hours. At the other end the clay or warping material would be broken down and mixed in the water by the force of the flowing current, and any stones could be screened out by this process. The question of expense therefore, may be put thus: What would it cost to dig and wheel a cubic yard of clay into the stream? And in general the answer would represent a mere fraction of the expense of applying clay by carting, spreading and incorporating with the soil by the weather.

(2) By far the greatest area of land that would be permanently improved by artificial warping would require either water or steam-power. A large extent is naturally rich, but the greater breadth is known as "thirsty and hungry land"—soils that drink up all the rain that falls upon them, and eat all the manure given them, without yielding any adequate return in harvest. They are either natural or artificially drained, and as the grand object in view requires the warp, whatever may be its nature, to be thoroughly incorporated with the staple, it follows that, in the process of warping, the warp should not be applied faster than the water can be filtered through the soil by drainage. In other words, it would not be necessary to raise embankments, so as to retain the water in a stagnant state, for allowing the clay to subside and form a layer of deposit in the surface, as in warping peat-bog. In order, therefore, the better to incorporate the clay with the staple, the latter should be ploughed deep, and smashed up across, so as to leave it as open as possible, and capable of holding a sufficient application effectually to improve its quality. It does not require logic to show that in this way, with a command of water, clay can be applied at a fraction of the expense it is now being done by carting and manual labour, and at the same time more effectually. So that, according to the old proverb, "Lay clay on sand, and you buy land," large estates would thus be bought and added to the superficies of the country for little money.

The chief question is that of expense, and as almost the whole of the plant would afterwards be required for liquid manuring, the practical solution of the double problem resolves itself into the old story of "hitting two ways with one bone." There are in point of fact few projects of the present day that possess half the promise, or which have equal claim upon the attention of the agricultural public.

(3) The third proposition is somewhat similar to the second, the chief difference being that it assumes the work of warping to be of greater magnitude. There are large tracts of land that would pay for claying; but the clay best adapted for warping, and the water required are at too great a distance to pay for application on a small scale. Before the work will pay, landowners and their tenants must join so as to include in one contract what will pay for the laying down and use of pipes of suitable dimensions for finishing the work within a given time at so much per acre, and when one contract is concluded, the plant including engine and pumping apparatus, would be removed to another. But upon each farm there would remain the pipes and hydrants required for liquid manure irrigation. Upon each farm the work of warping or claying would be similar to that of the second example already described, so that the tenant would have no more to do but screw on his hose to the hydrant, as soon as the land was in a fit state to receive liquid manure from the homestead. At the homestead the liquid manure would generally have to be raised from the tank by pumping apparatus, but to lands lying at a lower level it may be taken from the tank by a syphon, and thus save the expense of steam.

The greater extent of our fenland may be included under the second and third propositions, but the immense bogs of Ireland, together with other large tracts of peat in the United Kingdom, cannot be thus reclaimed. In this case a new soil has to be formed over the old, so that the process of artificial warping is similar to the natural one, with the exception of the conveyance and quality of the warp. As a rule, it may be laid down that in examples where the warp can be thoroughly drained, either at the bottom or to a depth of 4 feet, then the practice of warping would fall under either the second or third proposition. But when the drainage cannot be thus effected, so as to remove the water and permit the incorporation of the warp with the staple, then the ground to be warped must be surrounded with a low embankment, over the top of which the warp would be discharged from the conveyance pipes, and when the area thus enclosed is full, the water would be drawn off as soon as the warp had subsided.

The small spots of green sward which here and there

envelop the moor, and the patches of sweet herbage which are scattered about the heath, a joining proves the value which art has in giving work effect. In hill roads when the stones are over the Leath, carrying with it fresh earth, the herbage springs up, which is greedily eaten. In like manner the immense bogs of Ireland, by artificial warping, have their bleak and barren appearance changed into emerald green, and thriving flocks and herds, at no great outlay of money.

ON DEEP CULTIVATION BY STEAM OR HORSE-POWER.

The following is the second paper on this subject read at the meeting of the High and Low Agricultural Society to which the Minutes of Two years' address were reported last week.

MR. GEORGE HOFFE, of Fenton Barns, read a paper on the comparative advantages and cost of steam and horse power with reference to the work of the soil, and still less of comparing the merits of the two systems of steam cultivation now in use. I wish to state to you, as clearly and briefly as I can, my own practical experience in steam cultivation. In 1863, I obtained from the Messrs. Howard of Bedford a set of their steam cultivating apparatus, consisting of a harrow and a 10-horse power engine, and Clayton and Shuttleworth of Lincoln. I can say I have had no reason to regret my purchase, though I have lately changed my horse power for Fowler's grubber, and have sold to my stock a Fowler's 4-square balance-plough. Messrs. Howard's cultivator stirred even the most obdurate soils, and suffered little or no contact of breakages, while the quantity of stones that I have had to remove is immense. I mention that from one single field the stones broken for the road, have measured about 1000 yards. However, Fowler's grubber works more ground, and consequently does more work, being heavier in draught, than Howard's, though only suited for land that has been ploughed or stirred. Again, from the Fowler's being much larger and broader than Howard's, and as they only run on the soil, the depth is more easily regulated, and what marks are left on the stirred earth, which has been ploughed to the depth of Fowler's grubber can easily be made to run two to three inches deeper, without any extra on the engine or rope, while Howard's, at the best, had, on some soils, a strong tendency to run altogether in the land. After some years of cultivation, during which I ploughed nothing but an 11 that was done with horses, and having got out of stones, or nearly so, I began to doubt if I was right in having the soil so often stirred over. I therefore got one of Fowler's balance-ploughs, which, besides ploughing, enables me to plough deep, and break up the Tarnip crop, when I prefer having the soil stirred up the soil and throws it on edge, which is a digging. This plan has certainly several advantages over ordinary ploughing. It does not run over effects of the weather, which stiff and hard when ploughed early. It also exposes the possible surface to the atmosphere and to the frost, but it does not destroy grasses or weeds in an effectual manner as close and compact does. Unless the steam harrow is used on land that has been dug it is found very tiresome horses walking over, but when it has been dug the soil is very popular with my next. This digging is very popular with my next. I have steam-power, but I have found it better when practised early in autumn or before the usual furrow we make on stubble land. The usual furrow we make on stubble land is 10 inches in depth, and on level land the crop 8 inches is the rule. I may state that of land ploughed and grubbed annually, above 500 imperial acres. From accurate measurements since last harvest I find that from that land I ploughed 204 imperial acres in 5 days, and included 53 days for 11 changes from fields. Though it commonly takes only 10 hours for change, fixing the apparatus, cutting ropes and the steam up again, I have done 20 days for change. By dividing the 20 days by 53 days required for ploughing then I get 37 imperial acres as the work done in a day. I felt rather disappointed when I saw the result as on a square field of upwards of 100 acres ploughed immediately after harvest, the work taken was only five days, which gives 200 acres daily. When we came to small fields and to the short winter days of from seven to ten days reduced, the extent of ground done was also reduced. In the general average there is a 26-acre field of very stiff clay, where we have only three ploughshares instead of four, and only required depth of 10 inches. The time taken six and a-half days, which gives only 104 imperial acres. I have also grubbed since harvest a 4-acre field, time taken, including two and a-half days for changes, being altogether 15 days, or at the rate of 7 imperial acres daily. Here a 1-acre field diminished the average amount of work done in a half days were taken for it. We have also

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Turnips are sown over 10 acres twice in three days... I am confident it will be done in shorter time.

As regards the cost it is naturally divided into, first—The interest on capital invested, and the tear and wear of machinery and implements, and, secondly, the amount of daily expenditure. In regard to the interest on capital, I must to some extent be satisfied with the results of the amount of interest was satisfied.

Table with 2 columns: Item and Amount. Items include 'Two men and two boys daily wages', 'Fuel for engine and horse labour, for water, &c.', 'Cost of carrying carriage, & fuel', 'Making the engine expenditure', 'Tear and wear and tear daily'.

Thus the cost of each day's work comes to... I have already shown the average daily work in ploughing... It will be observed that the work done is not much more than could be accomplished by two pairs of horses constantly employed throughout the year.

THE FATTENING OF STOCK.

We slaughter annually in Ireland about half a million of beasts and export to Great Britain about a third of a million. A large number of them are sent to market in very good condition by the graziers, large farmers, and landed gentry of Ireland.

difficult to fatten them profitably but it may be safely assumed that the intelligent farmers of England and Scotland, who fatten a great many of our Irish cattle, do not lose by the system. We have seen Irish cattle in the stalls of English farmers who pay a higher rent than is paid for the same class of land in Ireland. Before a farmer embarks in stall-feeding, he should calculate the cost of raising a ton of roots on his farm, and the quantity of meat which that quantity of roots will produce. On land fairly adapted for root crop cultivation, roots can be raised at about 7s 6d a ton. Now, the results of several experiments conducted with great care, show that when cattle are carefully selected and skilfully stall-fed, they pay not less than 6d a cwt for the Swedish Turnips consumed. The fattening of cattle divides itself into two great divisions—grazing and stall-feeding. The former of these is practiced principally upon what, by way of distinction, is called fattening land, and we think that this is a profitable way of managing this class of land. The land is usually stocked at the rate of one beast per acre. About one-third of the number, or one beast to every 3 acres, is put on in October, and the remainder in May, when the Grass is pretty strong. The animals are sent to market as they become ripe. By stocking first-class land less closely, it often fattens two sets in the year. Some graziers give cake in troughs on the Grass, at the rate of 2 lb and upwards per head daily. Cracked Oats are also used for the same purpose, and, considering the present low price of grain and the high price of beef, and the improvement which is effected in the land by the dung of the animals so fed, it pays very well. The average increase in weight of grazed cattle varies very much. Good 2-year-olds and 3-year-olds increase at the rate of 2 lb (live weight) daily from May to October. This is above the average, but we believe it is attainable by skill in breeding and feeding. The grazier shifts his cattle from field to field, so that they may always have a good fresh bite. For this purpose his land may be divided into three or four sections. One is kept free from stock until the most forward beasts need it. The cattle are grazing on section two until section one is ready for them. Section three receives the less forward beasts or dairy stock, and stores cattle and sheep may occupy a fourth section. The animals are regularly shifted from one division to another. Thus, when the stock in No. 1 is transferred to No. 3, the former is cleared and closed up till it is ready for the most forward beasts, and so on of the other divisions. It is worthy of remark that as fattening animals approach ripeness, they require better keep, which in the case of grazing cattle, means more succulent pasture. Grazing cattle also require a plentiful supply of water. It is found beneficial to place rock-salt within their reach, so that they may lick it. The passages leading from field to field should be kept clean, to prevent disease of the feet, which keeps up irritation and wastes food.

Most farmers whose holdings are large and who grow roots, fatten a number of beasts in houses during winter and spring. The system is usually called stall-feeding. The animals to be fattened are withdrawn from Grass and placed under shelter at the approach of winter. Irish tenant-farmers generally do this in stalls, which answer exceedingly well for the purpose. The house should be warm, but not close, there should be good ventilation, but no drafts of air. The animals should be kept as quiet as possible in the stalls, because every movement of the limbs, as well as every excitement and irritation, causes a waste of the animal tissue, which is equivalent to a waste of food. Too much light causes stall-fed animals to be restless, and retards the fattening process. The stalls should, therefore, be dark rather than light. For about 10 days after cattle are put up to fatten they should get soft Turnips, which prepare them for the more nutritive sorts. From the very commencement the strictest regularity should be observed in the hours of feeding, and the beasts should be kept clean and comfortable all through. Some farmers curvy once a day, and we have no doubt this extra trouble pays remarkably well, as it promotes the healthy action of the skin. The house, as already observed, should be warm, but not so close as to cause sweating, which is injurious. The greatest attention should also be paid to the dung, which should be neither too watery nor too hard. At first the soft Turnips generally scour them, but if not allowed to go too far, this brings about a healthier action of the entire system, and by providing dry fodder the excrements are soon restored to their proper consistence. The animals may now receive more fattening food, the kinds and quantities of which vary with the size of the beasts and the views of the farmer. The kind of food most commonly given to stall-fed cattle are roots, straw, and hay, with oilcake or corn. The state in which it is best to give these substances to cattle is a subject on which opinions differ widely. Some (but we believe they are few in number) cook the roots. It is the general opinion, however, that this does not pay. The advocates of the system say the animals can digest their food with less exertion (which means less waste of tissue) when it is cooked for them. Roots are, however, easily digested, and besides the large quantity of saliva secreted during the mastication of the raw roots is required for the proper action of the stomach. To prevent choking, the roots should be cut into slices not exceeding an inch in thickness. Some, again, reduce the roots to shreds by what is called a pulping machine. The pulped food is often allowed to undergo a slight fermentation before it is used. The pulping machine appears to be serviceable when the farmer wants his cattle to consume and assimilate a large quantity of straw. By mixing the pulped roots with straw cut into what is called chaff by a chaff-cutting machine, and allowing the mixture to stand for a short time, cattle eat a great deal of straw. We have found the system exceedingly useful for milch cows, but not equally valuable for fattening beasts. The

secretion of milk appears to be increased by a slight degree of fermentation. The use of the chaff-cutting for cutting up straw and hay has been warmly advocated. Animals can assimilate cut straw with less effect than long straw. It is also said, and with truth, that we can thoroughly mix bad and good straw and bad and good hay after they are cut into chaff, and so induce our farm animals to eat the bad along with the good. But the farmer should have neither bad straw nor bad hay. The chaff-cutter has special advantages, such as enabling to mix roots and straw together in the way just explained, but it remains to be proved whether the feeding value of the straw is really increased by cutting it. When oaten straw is given to fattening beasts it should be broken very fine, and given by itself or strewed upon the Turnips. We have found the latter plan to answer very well. Some people wash the straw or hay into chaff, make the oolake into a mess, and pour it upon the former. For feeding purposes corn should be either ground at the mill or crushed by a machine specially constructed for the purpose. The farmer who feeds horses and cattle on Oats should have an oat-crusher, to be worked by hand or steam power on large holdings. Every cwt. of Oats given to thriving animals (along with roots and good Oat-straw) produces at least 12 lb. of beef and tallow. If given to ill-shaped and badly-reared cattle it would not produce this. Stall-fed cattle should receive three feeds of roots or of roots and cake or corn, in the day—once in the morning, once at noon, and once in the evening. They should also receive some good Oat-straw or hay at night, and after each feed. If fed often they are disturbed more than is desirable. The question, what are the proper quantities of the various kinds of food which ought to be given to stall-fed cattle? has never been fully answered. The usual practice is to give them as much roots and fodder as they can eat. This system often causes waste and loss. From 8 to 10 stones of roots in the day, according to the size and condition of the beasts, may be given, together with good straw or hay, and some ground corn or cake. For the first 10 days or a fortnight—that is, while the animals are on soft Turnips—no artificial food is needed, but when put on Swedish Turnips, 1 lb or 2 lb of corn or cake may be given daily to each, and the allowance may be increased to 4 lb as the period advances. Practical Agriculture, for the Use of Agricultural Classes in Primary Schools.

THE BEET SUGAR MANUFACTURE IN GERMANY.

A VERY elaborate and interesting report on the introduction and present condition of the manufacture of Beetroot sugar in the States of the Zollverein, has been furnished to the Foreign Office by Her Majesty's Secretary of Legation at Munich. The report opens with a history of the introduction of the Beet as a sugar producer, a brief sketch of which we have already given in these columns. So full, however, is the report of interesting details relating to this branch of industry in the Zollverein States, that we again open the question to present to our readers some of the principal points of interest culled from the mass. Until about the year 1835, colonial or cane sugar alone was consumed in the Zollverein, 86 sugar refineries then existed throughout the various States of the Union. When Beetroot sugar was introduced, the use of colonial sugar gradually decreased. While at the present time little else but the former is used, confectioners and distillers of liqueurs being almost the only classes for whom it is imported, Beetroot from the time of its introduction has been subject to various legislative enactments, and such heavy taxes imposed, that at one time threatened to crush the trade—the total number of 218 manufactories, which were in operation in 1843, having been reduced in the course of the two following years to 216, but in the year 1856 the number had again risen to 233, and from that time forward there has been a progressive increase year by year. Simultaneously with this increase further improvements were introduced in the mode of manufacture, and to such a perfection has it now been brought that, while at the period when the duty was first imposed the average yield was only calculated to be at the rate of one Zollverein cwt of raw sugar to every 3 Zollverein cwt of Beetroot, the most successful establishments produce, at the present day that quantity of raw sugar from about 1 or 1 1/2 cwt of the root. The proportionate production of sugar varies, however, considerably in different manufactories, partly in consequence of a difference in the process adopted or the description of the machinery made use of, and partly in consequence of the greater or lesser quantity of superfluous matter contained in the beet grown in different soils and under different conditions as regards climate generally, or the weather which may have prevailed during particular seasons. In some manufactories, especially in Wurtemberg and Baden, the system has been introduced of subjecting the Beetroot to a process of artificial drying, previous to using it in the sugar manufactory. In Bavaria between the years 1842 and 1865, the Beetroot sugar manufacture remained almost stationary and the report says—"From one cause or another it has never fairly taken root in this country, the chief obstacle thereto being, as I am assured, an indisposition on the part of the peasant proprietors (a very numerous class) to depart from the routine system of crops, as generally adopted in Bavaria, and to enter upon the cultivation of Beetroot on an extensive scale, without, perhaps, any very secure guarantee of the success of the sugar manufactories, and, consequently, of the permanency of the change to be made in their system of husbandry." The report goes on to say "In several provinces of

almost unnecessary. With hand labour, things could be moved about from one part to the other with great ease.

Reviews.

Transactions of the Highland and Agricultural Society of Scotland. W. B. Mackenzie & W. Paterson, Glasgow, London.

This annual volume contains, as is proper on this for a country where plantations are not only a most important branch of agriculture proper but a great agent in the reclamation of uncultivated lands a very large number of agricultural articles. These, with descriptions of works of reclamation amounts of Turnip and Grass cultivation, a description of agricultural implements, a description of Manure, and some references to stock, make up the practical part of the volume. In addition to these we have the proceedings of the chemical department, and the official appendices. The number is full of substantial and useful information. We quote from one of the county reports a fact relative to the extension of Ayrshire dairying in the county of Dumfries.

The agricultural statistics have never been collected in such a form as to determine how many Ayrshires were in the county at any particular period. Their number, in comparison with the other breeds, is therefore a matter of conjecture. Five and twenty years ago, Galloways were the universal breed, with the exception of the Ayrshire cows in a few dairies, and a few Shorthorns close upon the Border. Now every arable farmer, almost without exception, in at least one or five of the parishes of upper Nithsdale, has a dairy, and the Ayrshire prevails more or less in the whole of that district. Ayrshire cows are kept on many of the farms in every part of the upper Annandale. The increase of Ayrshires in point of numbers, and how the fact has arisen, in their favour, may be inferred from the fact that, whereas, at the time we specify it was never treated of to offer a prize for the best Ayrshire cow in the number of prizes arranged for them at a contest then shows us for any other breed of cattle. The attention of the public is divided between the prize-takers belonging to the two breeds. A further idea of the extent of that increase may be gathered from the fact, that whereas there were only 11000 Ayrshire cows in the county in 1855, there were, as we have seen, 15800 in 1880, showing an increase in 25 years of 1800, or fully one-eighth. Even more than the above number of Ayrshires would be added in that time, for the Galloways are diminishing almost as much as the Ayrshires are increasing.

Were the writer disposed to give way to sentiment, he might give expression to a sad lament, that the substantial beef-producing Galloways should be supplanted to so large an extent by the less familiar and less imposing Ayrshires; but as his present duty is to act as a reporter, he rests contented with simply recording the fact.

Commercial Reports received at the Legation Office from Her Majesty's Consular Residency in Turkey in April 1880.

The various Consular Reports from Turkey give an interesting account of the agriculture of Turkey, such as it is, and show us the decayed condition of a country that has seen better days. The nomenclature of the localities and places in this country is greatly confused. The province of Bagdad includes ancient Mesopotamia and a good deal besides. North Syria includes the country south of the Taurus chain of mountains, as far as is drawn from the seaport of Beyrout through Palmyra to the Euphrates. South of that line to the confines of Arabia all is burning sand, or nearly so, and requires no agricultural description. Anatolia and Asia Minor, Kurdistan, Armenia, and Trebizond occupy the whole of the northern portion of Turkey, north of Syria, and between the Aegean sea on the west and the Persian dominions on the east.

The mineral wealth of the country is very great, wages are low—6d to 1s a day—and this alone shows the want of employment. Even the common roads are neglected and those famous caravan routes which connected the great towns of the East with the coast are falling to decay. Locusts are often allowed to increase to such an extent as to destroy the crops. They can be kept down by diligently destroying the eggs for a few seasons, but if even an English farmer can seldom be found who will eradicate the last root and joint of "Couch," what can be expected of a lazy Turk? Concerted action and Government help are required, but the measures taken are seldom sufficient. One year the Government piously ordered holy water to be sprinkled, from the mosques, towards the infested districts. Perhaps this was typical of irrigation—the only means by which the maximum can be obtained from Turkish soil in general. In what may be called the highland districts, including the lofty plateaux of Kurdistan, as a centre, and thence southwards to the plains of Mesopotamia, and northwards to the Black Sea, irrigation ceases to be a source of production. The climate is moderate, and agriculture is carried on in the valleys through which run the numerous rivers that afterwards water the southern plains. A spot of unexampled richness in this division of Turkey is the Pal-hak of Kharput, midway between Erzeroum and Aleppo. Four rivers flow through it, two of which unite and form the Euphrates.

The general average of farms in Kharput employ 12 oxen and 20 souls, among whom are eight able-bodied labourers, the rest being boys, women, and young children. All however, excepting infants contribute to the general labour required to till, collect the harvest, and other incidental work. The system of farming pursued is to divide the farm into four equal

parts, of which one is sown every year with Wheat, another with Barley, and the third with various other seeds and Cotton, the fourth portion remaining fallow. The landlord provides the seeds and constructs the rude mud cottages for the farmers at his own expense. The latter finds labour, implements, oxen, and everything else. The proceeds, after deducting the seed and the Government tax, is shared equally between the two. A farm such as we have described is shown in the following balance-sheet of a Kurdistan farm worked with

Table with columns for Receipts and Expenditure. Receipts include Wheat, Barley, Cotton, Castor Oil, Beans, Vetches, Millet, and Mustard. Expenditure includes Seed, Tithe, and other farm expenses. Total Receipts: £159 0 4. Total Expenditure: £15 4 1.

The savings seem small enough, but they are increased by the diligence of the men and women during the long winter months, the former occupying themselves in weaving the cotton and woolthread, spun by the women during the leisure hours in summer, into the coarse cloths in use throughout Kurdistan for shirts and jackets, and the latter in knitting shawls worn by townspeople and Kurds, from the wool they spin and dye at home. In this manner 9/1s 9d are added to the year's savings, making a total of 24/5s 10d. With this they purchase a few trinkets for the women, copper utensils, and sheep, whose produce furnishes them with thread, butter, butter-milk and cheese. They rarely touch fresh meat, contenting themselves with burgous (hulled corn), made into pilau with butter, milk, bread, eggs, fruit, and vegetables. In autumn a couple or three sheep are killed, and their flesh made into "bastorms," which gives a relish to their winter fare. Altogether they are well off, more comfortable than in any other Turkish provinces I have seen, or than the same classes in Europe.

The productions of the Kharput province are very various. We are told that, besides all kinds of grain, cotton and silk are both cultivated; opium is grown at Mahlia, Gall-nuts, gum-tragacanth, and shoemaker's glue (cot) at Paos near Kharput, madder roots and yellow berries at other spots, vineyards abound everywhere, yielding syrup and raisins as usual, as well as a tolerable wine, which is sent in large quantities to Erzeroum, Swass, and Diarbekir. The Mulberry grows luxuriantly in every district, its fruit is either dried in the sun for winter use or distilled into rakki. It furnishes the materials for a paste called pesteeck, a favourite delicacy in the northern provinces.

The neighbourhood of Mosul and between Mosul and Bagdad appears to be an equally fertile tract, a little more tropical in its character. On low levels, near the rivers, Rice is grown. The finest Date groves are south of Bagdad, near the Persian Gulf. The vast and fertile plains through which the Euphrates and Tigris flow, find a natural outlet by the navigation of the former river, which, after uniting in one stream with the Euphrates, falls into the gulf, below the port of Bussorah.

To return to Kharput it is to some extent an exceptional district; the fertility of the soil, and the demand for produce in Diarbekir and other populous towns, has enabled an industrious community to establish itself in security, free from the attacks of the wandering tribes that are the curse of other parts of the country. A considerable Christian colony has sprung up; the labouring classes are nearly all Christian, they have acquired property in the land, in fact they monopolise all employment and occupations requiring talent. The old Turkish landowners, who keep open house with the ostentatious extravagance common to old Moslem families, and live in great apathy and idleness, would in time be all "bought up" by these active competitors if the latter had equal rights and privileges. The bad system of farming the tithe has been abandoned here.

To open up this and the best parts of eastern Turkey, a railway is needed from Alexandretta (the port on the Mediterranean), through Aleppo to Erzeroum; but there is no security for the introduction of foreign capital, and as for native energy, the port just named is exposed to the malaria from a pestilential marsh, which keeps half the people in bed with ague every summer, and yet the sum of 20000/ to drain the marsh is not forthcoming. A Turk leaves all to fate, and dies rather than exert himself or take the least trouble. A characteristic story is told of his apathy. Trebizond, an ancient port on the Black Sea, is the emporium for rhubarb, which grows in that part of Turkey. Hundred of bales are always in store ready for export,

but not a trace of this valuable article in the town, even a case appears to be on the banks of the rich soil has not been turned. The total number of sheep in the north of the province is free from disease, and the mark where an extensive system of sheeping is going on is a practice of Grass and Vetches, which is flooded at will by its waters, streams that flow from the mountains. But this important resource of the wilderness is not being used by the government, and the peasantry have been driven away from it.

Our sketches are done by men of business who are engaged in commerce. Space forbids us to say before us, even in relation to the wealth of Turkey, but the country, once the gates of the East are opened, will lead us into the depths of barbarism. Like a large some pretext for the three Russian century. The nation seems irrevocably the soil may yet be reclaimed, for the races who dwell on it.

Farm Memoranda.

WEST SUSSEX. April 20. We are one of the best winter crops of the year, but the spring has been very dry. Grass, Turnips, and Vetches, as well as winter wheat, have all done well. The weather, and the pastures are all very bleak appearance. For the first time, the sheep have been hard pushed to keep their wool. Sowing is over in most cases, and the whole has been favourable for the opening. The weather has worked freely and Oats and barley have come up well, but at present they are long in the ground. Wheat has never promised better than it does at present, but the blade is broad and the tillers well. There has been a good future, and some have been very good. Other crops, and stock will have to be cautiously next autumn, and it is not more than usual good. The weather is over, and has been a successful one, coming into market plentifully, but the at all active, trade, however may be weather gets warmer. The best maintains its price; of second rate and lower prices have to be taken rather behind yet, as little has been done to overcome it soon. G. S.

CHADBURY, NEAR FIVESHILL. The report by Mr. Hinde in the current Journal of the Royal Agricultural Society, request that I will describe my farm, the questions of your interest as to the drought of the past season and the consequent thereon, seems to require some detail as to the changes which have made up the farm since I entered in 1830, the increase of stock, and how those changes have influenced the consequent extent to which the year has affected me.

The farm consists of 100 acres, about in pasture and meadow, the remainder is thus—100 acres of mixed crops, 150 acres of heavy soil, 120 acres of very poor soil. At the time I entered upon it, the condition. All my endeavours, as to the disastrous consequences of my attempts to improve it, and the old labourers alike assured me that the 120-acre portion, "in seven days growth" would "in fact, nearly all the soil had been entirely unprofitable for some years. Obviously, the first thing to be done of the clay-land, next, the removal of fences and all hedge-row timber from the My excellent landlord Mr. Hall and the former, and give his assistance in the latter. Finding the tone and soil proceeded to drain, and apply it to the second year I came to the conclusion of a deeper and more beneficial system. I commenced the process of draining, and may in large heaps from the old hedge-row described in a letter which appeared in the Journal of the Royal Agricultural Society. The effect of this treatment was that the flock of ewes had increased from 1000 the farm when I entered, to 2000. Wheat from about 120 quarters a year, to 1000 quarters. But, not without the influence of drainage and burning, it is not very easy to produce roots upon the clay, it still remained, and those roots consumed where grown, without any corn crop. I therefore resorted to feeding of sheep, and my practice has been to growing Rape and early Turnips.

October Turnips and Swedes... to serve till Christmas, and then till the end of April. In this soil in the sheds, 18 inches to be sown over by degrees as it becomes worn and dung. This serves a double purpose and dung. This serves a double purpose and dung.

in addition to this farm, all 30 acres, and mainly used for dairy cattle; folding over during the winter, the portion of land which has been grazed by dairy cows during the previous year occupying this additional land my sheep increased to 400, but the food-supply except during the months of January when they are employed as mowers and dairymen on this farm. To show how this usual cropping in detail

half of which is broken up... will be in this way — day-land will be part Vetch, a part to be eaten off by the end of July and prepared for Wheat by steam, either green crop, sown after harvest; steam-ploughed, and sown in the autumn of different kinds, to be ready in May, June, and July, and Swedes, Turnips, and Rape. Vetch and Vetches, eaten off early by ewes and lambs, and planted with Swedes

the fallow quarter provides a succession with the mixed seeds and an occasional frequent change to a grass field (for the little more than provide hay and young cattle), carries the ewe lambs through the summer, and provides roots to winter the lambs. The wether at the end of April or early in May, rams are kept, after finishing the season till September. This process has been followed except 1864—for several years. From the order in which your sheep are put out the subject of cropping, the result of this year has affected me for carrying my sheep through

and for the first time since I have had my Mangels, except about 2 acres, the field intended for them is naturally, subject to an incoming crabby soil. My land farmers know anything of a manuring of 30 loads per acre of 1867, coupled with a rather deep and a very mild winter, brought up the soil that scarifying only, previous to the Mangels, was out of the question. It was moved with Smith's steam cultivator, and ploughed, in order to get the land was thus left rough: it was not rid of that crop of Mangels vegetated. It was subsequently sown with Turnips, but to no purpose, as the Rape which lay in the field early in August. In the same year, Turnips, and Rape also failed; I found myself with upwards of 100 ewes, and nothing for them but 5 acres of Mangels stunted by the dry weather.

The Poultry Yard. Napoleon called us a nation of shopkeepers and the name has stuck to us ever since. He called us a nation of shopkeepers and the name has stuck to us ever since. He called us a nation of shopkeepers and the name has stuck to us ever since.

leader has been devoted to them, jubilant may be our fowls and ducks. The calculation as to the cost of a fowl on its native cabin floor in Ireland, its progress in value until it reaches the consumer's kitchen, cannot fail to recal to mind the prospectus of Mr John Jones Tibbits in "The Cartons," when he proposed to make everybody's fortune with his fruit gardens and orchards. The present Lord Lieutenant deserves every one's thanks for drawing attention to a subject more or less important to us all, and hitherto almost universally neglected. But there are fowls and ducks, and in all probability as much difference between that which his lordship ate at 7s. and the one which was to cost 6d., as between the English horse to be forthcoming at the next show and the Irish pony. The climate of Ireland is very favourable for all kinds of stock, even lions bred in the Zoological Gardens at Dublin, until it becomes a serious question how to dispose of the cubs. Irish chickens may undoubtedly be bought on the ground at certain times of the year at 6d. each, but then they are not in condition of flesh for growth for table use. They have to pass through several hands before they reach the consumer. When killed and sent to market they are subject to freight both by rail and steamer, neither of whom work for nothing. The present must be admitted to be the dullest season ever known in London, and the demand for poultry is not nearly up to its average. The principal consumption of the Irish poultry imported into London is in the metropolis, next comes Liverpool, then Manchester. The Irish fowls, as imported, are thus classed, according to their quality, and we give the average prices they have realised during the last ten days in the London market.

Table with 2 columns: Location and Price. West of Ireland, from 3s. 6d. to 3s. 8d. each. Waterford, do. do. do. to 2s. 6d. Arrivals, do. do. do. do. do.

From the above has to be deducted salesman's commission, market toll, freight, and the higgler's, or dealer's expenses and profit in collecting the birds. Thanks to the enterprise of some of the railway carriers, there is now no difficulty in the transit. Some of the large firms even provide baskets for bringing the fowls over. The prices above quoted show that if the start is good, a good profit to be made in fattening for the London market, not that there is any probability of the Irish fowl reaching the price of 7s. until the breed is very much improved and the feeding very much attended to. At present the birds, especially those from Arrivals, are badly fed, killed, and prepared, those from Waterford are better, while the West of Ireland fowls take more pains than either in fattening, killing, and picking, and consequently reach the top price. That the quality will go on improving we may reasonably expect, but that the price will enable us to buy the Irish fowls of good edible quality at the price mentioned, viz. 1s. or 1s. 6d. each, is doubtful. We cannot say whether or no the retail price of fowls in Dublin reaches 7s. per head, but we know that the wholesale, indeed the feeder's price of the best English fowls does, and even exceeds it at this time of year.

The first dotterel of the season was in Leadenhall Market on Thursday the 23d. A common blue heron was seen flying over Covent Garden Market in a westerly direction on Wednesday morning.

In our last Number we admitted an article on this subject from a foreign correspondent, which we have little doubt will cause some discussion, and many doubts, among poultry fanciers, it was on the hatching of chickens—that is, taking them out of the shell by human hands, instead of leaving that work to the hen. People have an idea that the hen sits on the egg for a certain time, and that when the time comes for hatching the chick bursts the egg and comes forth, there never was a greater mistake—the chick until liberated from the shell "by outside aid," is as incapable of motion as if it formed a solid with the egg, which is nearly done. You might as well enclose a man in an iron boiler, and tell him to get out without tools, as expect a chick to get out of the shell without help. The chick grows and swells in the inside of the shell until at last the exercise on the point of the beak of the bird presses against the inside of the shell, and bursts up a small scale, of course when it does this, it at the same time breaks "in that spot" the inside skin of the egg—this admits the air, in a short time it breathes and gets strength to cry loudly, the hen then sets to work to liberate it, she brings it forward under the feathers of the crop, and supporting it between the breast-bone and the nest, begins the work of setting her progeny free. She hitches the point of her beak into the hole formed by the raising of the scale by the chick's beak, and breaks away the egg skin or shell all round the greatest diameter of the egg, the point efforts of the hen without and the chick within then liberates the prisoner, and he struggles into existence, and gets dry under the feathers, and with the natural heat of the hen.

All female birds who set on their eggs to hatch them have the hook in the beak strongly developed, even the broad-billed duck and the goose have these hooks specially developed, and with them they liberate their young. In Australia where everything seems to be by contraries, it is the cock of the Irish turkey that hatches the eggs, and not the hen. It would be interesting to know whether the hook of the beak is better adapted for this service in the male of that bird than in the female, the hook on the beak of the ordinary cock of the common fowl is quite different from that of the hen—it is adapted for wounding in fight, but not for the hatching of eggs.

Our informant on this subject has all his life paid great attention to the facts as here stated, and has watched the hatching of every kind of domestic bird. They are all very jealous of being seen, and will at

once stop in their operations if disturbed by personal intrusion, but the facts are as stated, and any poultry-keeper can prove it if he is observant enough.

Calendar of Operations.

APRIL. Paring and Burning, if the land is level and free from stones, is generally done by a horse-paring plough, but if it is full of stones, uneven, or covered with ant-hills, the paring must be done by the breast-spade or breast-plough. The depth or thickness of the turf cut depends upon two things—the thickness of the sward, and the quantity of manure required. From an inch to an inch and a half is perhaps an average, but in some peaty soils it is twice this depth, while in some cases a shallow plough (arrow-slice) is barred for the sake of the ashes. This latter, however, is generally termed "staple burning." The horse-plough and breast-plough will both cut the sods into short lengths and reverse them. In dry weather they are soon ready for burning, but otherwise they require to be set up to dry. Sometimes a team with a heavy harrow keeps toiling about the sods until sufficiently dry. They are, when ready, burned in heaps with a smouldering charring fire, so as to produce black ash. A small quantity of straw is generally given for kindling the fire. The work may be done for about 10s. including the carting and the cost of the manure when the breast-plough is required, if done by contract.

Turnip Fallow. After paring and burning, as soon as the ashes are spread the land is ploughed about 3 or 4 inches deep. It is then harrowed, smashed across, hollowed and clod-crushed, so as to break down the sods and incorporate the ashes. It is then ploughed about 3 inches deeper than before that, bringing up a fresh sod from the bottom to the surface. This fresh sod is broken and mixed with the sod below by means of the harrows, cultivator, and clod-crusher. Rape or Colseed may be sown on the flat by the liquid manure and seed drill, or the land lie until next month for Swedes, or Jute for Turnips. If the land is naturally poor, 3 cwt. of soluble manure may be drilled in with 5 lb. of Rape seed.

Turnip Fallow after Stiff Burning and Clay Burning. As soon as the ashes are spread upon peaty soils, they are mixed with fresh staple, similar to the staple produced by paring and burning. Had the work been done in autumn, a shallow staple of fresh soil would have been brought up to the surface by the winter frost, but at this season the soil may be mixed with only 2 or 3 inches of fresh staple, as it is no more than heavy harrows will bring up, or a light scratcher will do. Many farmers, however, on the surface of the peat or staple, will mix the surface of clay lands are staid burned, the land has been previously under the plough, the ashes may be mixed with the shallow staple by means of the cultivator, harrows, and clod-crusher. The old plan was to plough, harrow, and roll, but under this practice it is more difficult to get the ashes thoroughly incorporated with the staple, and the proper mixture of the ashes is the practical rule. The same rule applies to clay ashes burned in large heaps when carted and spread upon the surface of arable land. But if the land has not been previously under the plough, or if it is in a poached and worse state, the ashes require to be cautiously mixed with fresh soil as in the case of peaty soils. It is better to stir the soil in the summer time or autumn.

Drainage and Trenching—Some landowners and farmers prefer breaking up waste lands, and pastures, and exhausted fields from mismanagement by trenching, in preference to paring and burning. The work is best done early in winter, but in some moist climates, and also in dry ones, if there is a command of liquid manure, it may be profitably done after a Lady-day manure, or as late as April, provided the subsoil, brought to the surface is sound and friable. If the land has not been previously drained, the work of draining should precede that of trenching. Examples might be quoted in which the stones dug out in trenching when broken, filled the drains, with the exception of the first four drains opened; when the land between them was trenched, the stones from it were carried across by boys and women to the next four drains, and so on. In the absence of stones, tiles are used in draining. The trenching is generally from 20 to 21 inches deep, the top spit or sod being turned into the bottom of the trench, the bottom spit being thrown over it. When the work can be done without picking, it may cost 17 per acre but if the bottom spit is full of stones and requires picking, 5d. to 6d. The trenching in some cases may be done by horse or steam-power, a trench-plough following a common one. If the subsoil is a stony clay, poaching in, carting or carting off the stones in showery weather should be avoided, but the tramping of gravelly soils in carting off stones will do little harm as the sods below keep the ground sufficiently open. On no account should the sods below be disturbed until they are thoroughly rotten. A sufficient depth of manure for over 12 artificial manure can be raised by the harrows and clod-crusher. If necessary, the harrows may be used to keep them down. If there is a command of liquid manure in a garden, the land should be well soaked with it as soon as it is trenched and then allowed to lie until the effect of the manure and excrementations is rotten, when it will be a time for Turnip sowing. Lime may be applied if the land requires it. In most climates the sods will rot in a month's time sufficiently to grow Turnips with superphosphate—1 cwt. more or less, according to the nature of the land. If the subsoil is calcareous the need of liming should be well harrowed in before the seed is sown. Lime is applied in very varied quantities to Turnip

falls during April and May, the dose running from 50 up to 500 bushels of newly calcined lime from the kiln. Applied to newly trenched land, it powerfully promotes the decomposition of the vegetable and excrementitious matters it contains. In the centre of each perch a heap of the lime shells is placed from the cart in heaps, and then covered with earth. In dry weather the slaking may necessarily take some days, but if the ground is moist, and the air humid, the heaps soon slake. They are then spread and well harrowed into the surface.

Hoeing by hand and horse-hoe is general now among Wheats, Beans, Peas, and early Potatoes. Wheat hoeing should be finished in time for the rolling of the land for the reaping machine before the plants are too far advanced.

Grass seeds may be rolled into hoed Wheat, but if the Wheat has been sown broadcast it may be better to roll heavy land, and sow the seeds and then harrow in with light harrows. In lighter soils the seeds may be rolled in.

Soluble manures are sown broadcast, and are either hoed or harrowed into crops requiring them. In moist weather a shower will wash them into the roots of crops.

The pastures entered upon at Lady-day may yet be renovated by top-dressing and Grass seeds. Before the manure is applied the land should be carefully gone over, and Tussacks and weeds of every kind above-ground removed. The seeds may be bush-harrowed in, and also the top-dressing into the sward, and to effect this properly a bout or two of the bush-harrow may be necessary to work the manure properly into the roots.

Lady-day Entries often leave work to be done in April which had better been done in previous months. A different system of cropping is entered upon, old hedges are stubbed out, the grass-lands which they enclosed are pared and burned preparatory to being sown with Turnips or Rape, and gaps in the hedges which remain are filled up with the freshest and best plants carefully dug out of those which are removed. This latter—the filling of gaps—should be done as early as possible, and the newly planted Thorns copiously watered, to consolidate the earth about their roots. But the cutting of hedges and plashing to fill up gaps seldom do well in April, more especially old sickly hedges in early season. Entries are either to the Grass and fallow lands, the outgoing tenant retaining occupation of the lands under corn, or else (which is common) the incoming tenant purchases the entire interest of his predecessor, and each of these plans has its peculiar effects upon the various operations of farming. W. B.

Notices to Correspondents.

ESTIMATION OF PHOSPHATES. J. W. P. Esq. In reply to your letter we reproduce a portion of the report by Mr. W. Little, of Lincolnshire, from the *Chemical News*—Mr. Barnard, in his ingenious process, recommends 100 grains of the manure to be tested to be added to two pints of water; and this large quantity of water is employed that sufficient of the sulphate of lime may be taken up by the water, to afford lime by its decomposition with soda for combination with the biphosphate, which is also in solution. The following is the exact method I have adopted in working out Mr. Barnard's process.—I have a measure holding 1000 grains of water it is, in fact, a piece of glass tube, about half an inch in diameter, stopped at one end, and divided into 100 equal parts, consequently each division represents 10 grains of water. I then dissolve 10 grains of neutral carbonate of soda in rain water, and make it up to 1000 grains. This constitutes my test solution of soda, every 10 divisions of the measure represents exactly 1 grain of soda. I then take another glass tube, about 1 foot long and one-eighth of an inch diameter, stopped at one end with a plug of gutta percha, which is perforated with a pin; the object of this tube is to add the test solution of soda, drop by drop, at the termination of the operation, when great nicety is requisite; this may be effected by applying the finger at the other end of the tube. I now proceed to test, agreeably to the recommendation of Mr. Barnard, one-half of the solution, or one pint, with my small tube, graduated into four divisions, so that each division represents one-tenth of a grain of soda. It may require soda solution equal to about ten divisions of the small drop tube (or one grain of soda) to neutralise the free sulphuric acid that may be present in the solution operated upon; but this is readily ascertained by adding the test solution gradually, and so long as the liquor remains quite clear when well agitated by stirring; directly the liquor assumes a slight milky appearance, the free sulphuric acid is neutralised, and the conversion of the biphosphate in solution into neutral phosphate is beginning, the milkiness being occasioned by the precipitation of phosphate of lime through the decomposition by the soda of the sulphate of lime in solution. At this time a piece of blue litmus paper, fastened to a piece of cork, must be put into the liquor, when it instantly becomes red. Having noted the exact quantity of soda solution employed to neutralise the free acid, more of it may now be added gradually, until the liquor begins to show an alkaline reaction, constantly stirring the whole time, this will be readily seen by the litmus paper assuming a bluish colour. We will now suppose that 1 grain of soda has been employed in neutralising any free acid that may be present, and 12 grains have been employed in decomposing the sulphate of lime for the precipitation of all the biphosphate as neutral phosphate, it now remains to estimate the quantity of biphosphate in the 100 grains of manure. Now, 1 equivalent of carbonate of soda (53) combines with 1 equivalent of anhydrous sulphuric acid (4) to form sulphate of soda. Consequently we have this proportion—As 53 is to 40 so is the 12 grains of soda to the quantity of anhydrous sulphuric acid employed in the conversion of the neutral phosphate of lime into biphosphate which is 0.05 but as we have only tested half the liquor, the whole will show 14 1/2 grains as the quantity of anhydrous sulphuric acid employed in the 100 grains of manure. Again, 80 parts of anhydrous sulphuric acid are necessary to form 100 parts of biphosphate consequently, we have this further proportion to show the percentage of biphosphate contained in the 100 grains—As 80 : 100 :: 14 1/2 : the percentage of the biphosphate formed by the 14 1/2 grains of anhydrous sulphuric acid, which shows the manure to contain about 22 1/2 per cent. of soluble or biphosphate of lime.

EXHAUSTION OF LAND. Land cannot be exhausted by the application of manure, the idea is altogether a mistake. The exhaustion, if it takes place at all, is due, not to the manuring but the subsequent disposal of the crops grown.



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Beauty of Strathmore	0 0	6 0	6 0
Beauty of Strathmore	0 0	0 0	0 0

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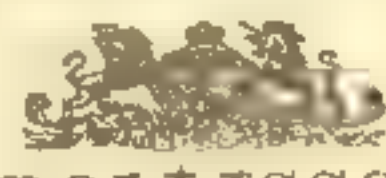
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BRILLIANT NEW TRICOLOR GERANIUM, THE MOONSTONE

IS NOW BEING SENT OUT.

The habit of the above most beautiful Tricolor is compact and exceedingly free; the leaves, which are of substance and moderately large, are almost round, and from the slight convexity of their shape they exhibit to advantage the rich and varied colourings with which they are adorned, the centre of the leaf is of a bright green surrounded by a dark chocolate zone, which is much intercepted by the most intense blood-red. The colour shades off, towards the edge of the leaf, to a soft crimson-lake, which entirely encircles the whole with a bright lemon-yellow belt. It is somewhat in the way of *Lion's Griev* in its coverings, but is rather more and, unlike the shy habit and slow growth of that variety, "The Moonstone" is almost as free as *Thumb*, while it remains constant in character. This, without exception, is the finest Tricolor yet offered to the public.

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MORNING STAR.—A variety possessing the most compact habit, leaves small, but very dwarf and compact, and very free in habit, flowers large, and of a most brilliant and intense crimson, colour great, shaded with bronze, and a narrow white zone in the "Carillon" of the *Penny*, 1867, and a variety of superior habit, and worthy of extensive culture. Price 5s. each.

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MODEL OF PERFECTION.—A superb variety of branching habit, leaves small, but very dwarf and compact, and very free in habit, flowers large, and of a most brilliant and intense crimson, colour great, shaded with bronze, and a narrow white zone in the "Carillon" of the *Penny*, 1867, and a variety of superior habit, and worthy of extensive culture. Price 5s. each.

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Invites the attention of intending TRICOLOR and BICOLOR GERANIUMS...

Golden-leaved Pelargoniums of the Season. Golden Queen, Golden Emperor, Golden Queen...

Golden-leaved Pelargoniums of the Season. Golden Queen, Golden Emperor, Golden Queen...

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Golden-leaved Pelargoniums of the Season. Golden Queen, Golden Emperor, Golden Queen...

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Golden-leaved Pelargoniums of the Season. Golden Queen, Golden Emperor, Golden Queen...

Golden-leaved Pelargoniums of the Season. Golden Queen, Golden Emperor, Golden Queen...

To Noblemen and Gentlemen Planting for Pheasant DRIVES, &c.—Now is the best time to PLANT YEW, HOLLIES, TREE BOX & WHITEHOUSE, Brevelon Nursery, Rugely, begs to offer stout bushy YEWs and HOLLIES...

Planting Season.—Walton Nursery, Liverpool. To PLANTERS OF PUBLIC OR PRIVATE PARKS, CEMETERIES, PLEASURE GROUNDS, OR WOODS AND FORESTS...

WAL SKIRVING begs to offer his choice Stock of TREES and SHRUBS...

Vegetable, Agricultural, and Flower Seeds. Mince Cakes, Giant Hoping Plants, Sweet Violets, &c. ROBERT PARKER begs to announce that his CATALOGUE, containing DESCRIPTIVE LISTS of the finest kinds in cultivation of the above-named...

RICHARD WALKER's ROUND POTATO out, AMERICAN RED. It boils as white as snow, and is the heaviest Cropper in this country...

POTATOS. A few tons of new Seed of Patahoy and Fluke will be offered low, to clear out. CABBAGE PLANTS, autumn-sown, of Scotch Drumhead, Red, and Early, in quantity.

HOLLYHOCKS, 1-yr. old, from cuttings of the choicest mixed double varieties. CALCEOLARIAN Spotted, a large quantity in 3 and 4 inch pots...

PAMPAS GRASS—A graceful and ornamental plant for Islands, lakes, lawns, and flower beds, and useful for game cover. QUEEN GERANIUM. The only good variety for winter bloom...

Silver Sand, Silver Sand. BEST and CHEAPEST, delivered to Rail from a part of England. Apply to J. S. ...

PHOSPHORIC GUANO, a valuable fertilizer for gardeners and agriculturists. THE LONDON MANURE COMPANY (ESTABLISHED 1840) Have now ready for delivery, in fine condition, CORN MANURE, for Spring Use...

LAWES' MANURES are now ready for delivery for present season, 1900. LAWES PATENT TURNIP MANURE. DISSOLVED BONES. SUPERPHOSPHATE OF LIME. WHEAT, BARLEY, GRASS, and MANGEL MANURE. CONCENTRATED CORN and GRASS MANURE.

ODAM'S NITROPHOSPHATE for CORN. ODAM'S NITROPHOSPHATE for ROOTS. ODAM'S DISSOLVED BONES. ODAM'S SUPERPHOSPHATE OF LIME. ODAM'S PREPARED PERUVIAN GUANO. ODAM'S GRASS and CLOVER MANURE.

THE PATENT NITROPHOSPHATE or BLOOD MANURE COMPANY (LIMITED). Chief Office—100, Fenchurch Street, London. Western Counties Branch—Queen Street, Exeter. Irish Branch—40, Westmoreland Street, Dublin.

Chairman—JOHN CLAYTON, Littlebury, Essex. Deputy Chairmen—JOHN COLLIER, 256, Camden Road, Holloway. EDWARD HILL, 45, Marlborough, Brighton. RICHARD HILL, Stanstead Abbot, Herts. ROBERT LEEDS, East Acton, Norfolk. GEORGE SAVAL, Ingham, near Stamford. SAMUEL JONES, Orsby, Orange, Essex. CHARLES DORMAN, 31, Essex Street, Strand. THOMAS WEBB, H. Lersham, Lambeth, Surrey. JAMES WEBB, Melton Ross, Leicestershire. CHARLES J. LACY, 60, West St. Thelwell.

London Agents—Messrs. Barnetts, Hoares & Co., Lombard Street. Southern Agents—Messrs. K. G. & Co., 11, Cannon Street, Strand. Agents for other parts of the Kingdom apply to the Secretary, 100, Fenchurch Street, London, E.C.

THE TENANT FARMERS' MANURE COMPANY. Its Members are interested in the production of crops of food, which has been for years under management with Manures of their own Manufacture, consequently the consumer has the best guarantee for the genuineness and efficacy of the Manures manufactured by this Company.

Particulars will be forwarded on application to the Secretary, or may be had of the Local Agents. C. T. MACADAM, Secretary. Chief Office—100, Fenchurch Street, London, E.C.

The Vineyard, Garston. JOSEPH MEREDITH, The Vineyard, Garston, near Liverpool, begs to announce that he has many years of experience in the cultivation of the Vine and Grape growing, in now the first time, to the Horticultural world, the which in a great measure he attributes the success that has attended his exhibitions of Grapes in England, Scotland, Paris, Brussels, Antwerp, and Maastricht. In doing so he is offering from experience the most valuable aid to both practical and amateur in not only securing fine fruit, but good flavour and high finish of colour, and to plants the greatest help towards a successful cultivation ever met with. To be had in sealed bags of quarter cwt., 10s. 6d., half cwt., 5s.; one cwt., 10s., with full directions for use. For further particulars see Circulars, to be had on application as above.

Waaps, &c. DESTROY WAAPS, COCKROACHES, CRICKETS, and other Garden Pests. See testimonials, &c., on application to J. SCOTT, The Seed Store, Yeovil, Somerset.

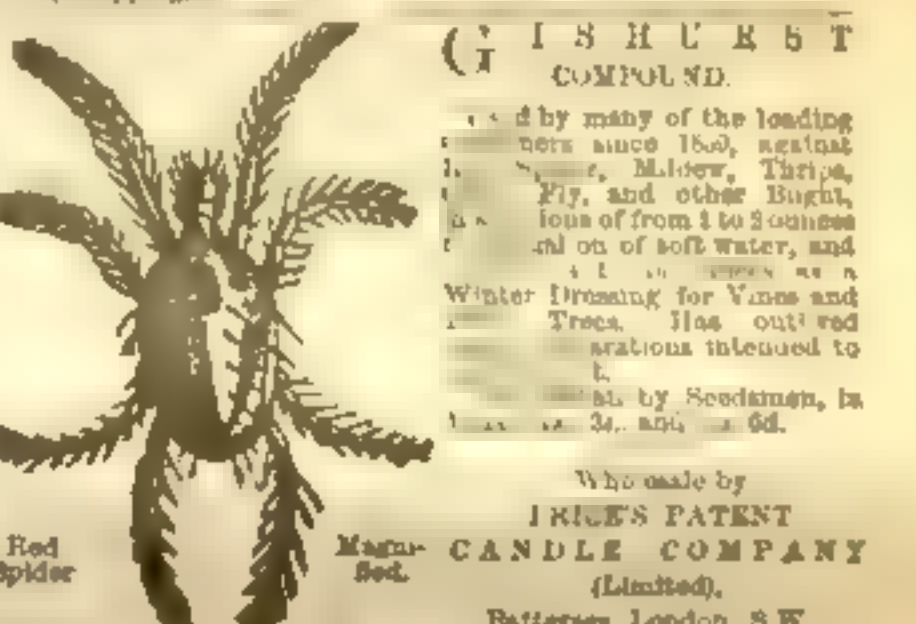
The Best and Cheapest Vermin Killer. The Gardener's Magazine, conducted by SHIRLEY HILL, Esq., F.R.H.S., of August 18, 1898. UNDER PERMISSION OF THE HON. BOARD OF CUSTOMS, THE LONDON GROUND & SPACE CO., Ltd., for the Destruction and Prevention of the Grub and Blight in Plants. Sold in Tins, 1s. and 3s. 6d. each, by Seedmen and Druggists, POWDER DISTRIBUTORS, &c. each. Manufacturers, CORRY & BORN, at their Bonded Warehouse, Shed Thames London, S.E. (AGENTS WANTED).

PATENT OUT-DOOR FUMIGATOR, for the destruction of other Plants.—This useful fumigator is made of galvanized iron, and is easily removed from one place to another. Price 1/6. Manufactured and sold by Messrs. ROBERT CLARKSON & CO., of whom a Drawing may be had on application to the Patentee, J. H. B. & CO., 10, Abchurch Lane, London, E.C. 4.

The Cheapest and Best Insecticide. DUTY FREE TOBACCO. By HER MAJESTY'S ROYAL LETTERS PATENT, AND BY PERMISSION OF THE HON. BOARD OF CUSTOMS.

DOOLEY'S TOBACCO POWDER, for the Prevention and Destruction of Blight and other Diseases in Plants. Sold by Nurserymen, Seedsmen, and Florists, in Tins at 1s., 2s. 6d., and 5s. Powder Distributors, 2s. 6d. and 5s. 6d. each. "I find it exceedingly useful for killing the Aphides on Roses and other Plants."—Geo. Evans, Superintendent, Royal Horticultural Gardens, South Kensington, May 1898. Sole Manufacturer, T. A. DOOLEY, Bonded Warehouse, Sumner Wharf, Wapping, E.

GISHURBT COMPOUND. Used by many of the leading gardeners since 1860, against Blight, Mildew, Thrips, Flea, and other Bugs, it is a most valuable remedy for all insects of from 1 to 2 inches in length, and is also a most valuable remedy for all insects of from 1 to 2 inches in length, and is also a most valuable remedy for all insects of from 1 to 2 inches in length.



SCRIM CANVAS, 72 inches wide, from 7/6 per yard, and HESSIAN, 74 inches wide, at 1/6 per yard is the best and cheapest material for protecting Fruit Trees and Shrubs from frost, and for covering up plants in winter. Also, TANNED NETTING, and FORFAR SHEETING at the lowest prices. Estimates given for outside SHIP REPAIRS, fitted on the improved self-acting spring roller. JAMES T. ANDERSON, 10, Abchurch Lane, London, E.C. 4.

SEED BAGS and SACKS, and BAGS of every description, in all quantities, at the most reasonable prices. ARHANGEL and LAFAN, 10, MARK LANE, London, E.C. 4. DUNN & MATS, 10, MARK LANE, London, E.C. 4.

NETTING for FRUIT TREES, SEED BEDS, RIFE STRAW BERRIES, &c. TANNED NETTING for Protecting the above from Frost, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130, 132, 134, 136, 138, 140, 142, 144, 146, 148, 150, 152, 154, 156, 158, 160, 162, 164, 166, 168, 170, 172, 174, 176, 178, 180, 182, 184, 186, 188, 190, 192, 194, 196, 198, 200.

Rosher's Garden Edging Tiles. THE above and many other PATTERNS are made in Terra-Motta Ware, and are of the most durable and artistic quality. They are made in all sizes and patterns, and are suitable for all kinds of garden edging. Price 1/6 per tile. JAMES T. ANDERSON, 10, Abchurch Lane, London, E.C. 4.

ORNAMENTAL PAVING TILES for Conservatories, Halls, Corridors, &c., as cheap and durable as stone, in blue, red, and black, and capable of forming a variety of designs. These tiles are made in all sizes and patterns, and are suitable for all kinds of ornamental paving. Price 1/6 per tile. JAMES T. ANDERSON, 10, Abchurch Lane, London, E.C. 4.

SILVER SAND, REFINE, at the above price. It is a most valuable material for all kinds of garden edging, and is suitable for all kinds of ornamental paving. Price 1/6 per cwt. JAMES T. ANDERSON, 10, Abchurch Lane, London, E.C. 4.

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ESTABLISHED OVER QUARTER OF A CENTURY.

ESTABLISHED OVER QUARTER OF A CENTURY.

FRANCIS MORTON & CO., LIMITED.

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ENGINEERS AND PATENT WIRE FENCING MANUFACTURERS.

THE ONLY MEDAL AWARDED SOLELY FOR WIRE FENCING.

GALVANISED IRON MANUFACTURERS, WIRE DRAWERS, &c.

F. M. & Co. have received the Medals and highest Commendations of all the leading Agricultural Societies.

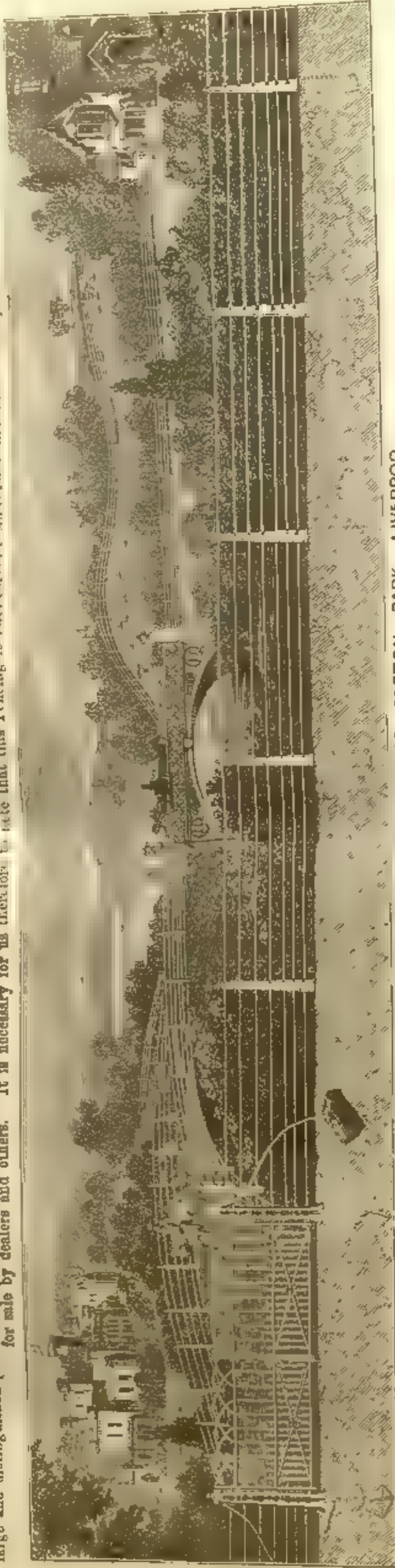
F. M. & Co. have received the Medals and highest Commendations of all the leading Agricultural Societies.



THE ORIGINAL INTRODUCERS, PATENTEES, and SOLE MANUFACTURERS of "FRANCIS MORTON'S" SYSTEM of CABLE WIRE FENCING,

which during the past few years has come into use over **SEVERAL THOUSAND MILES OF FENCING."**

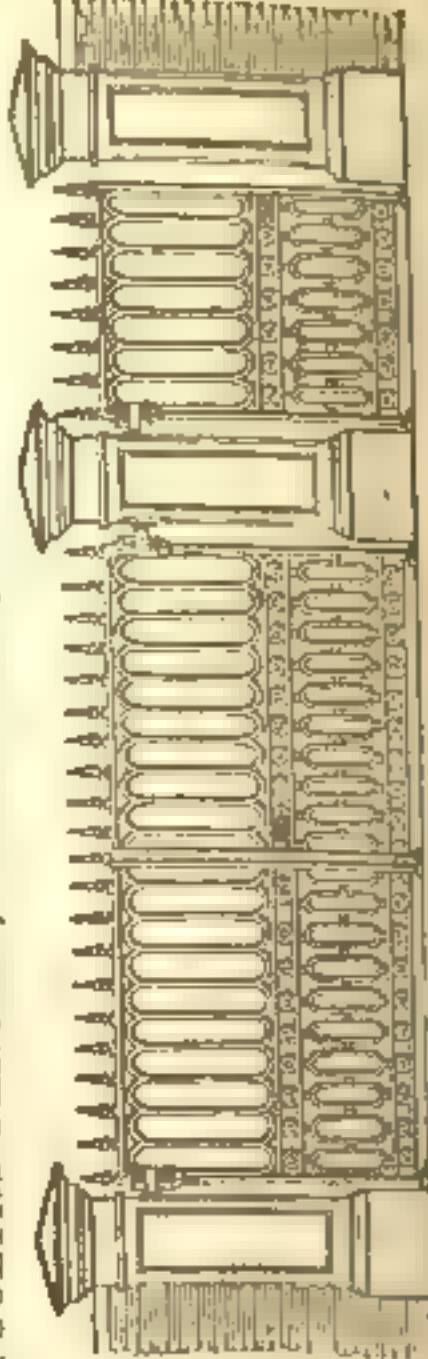
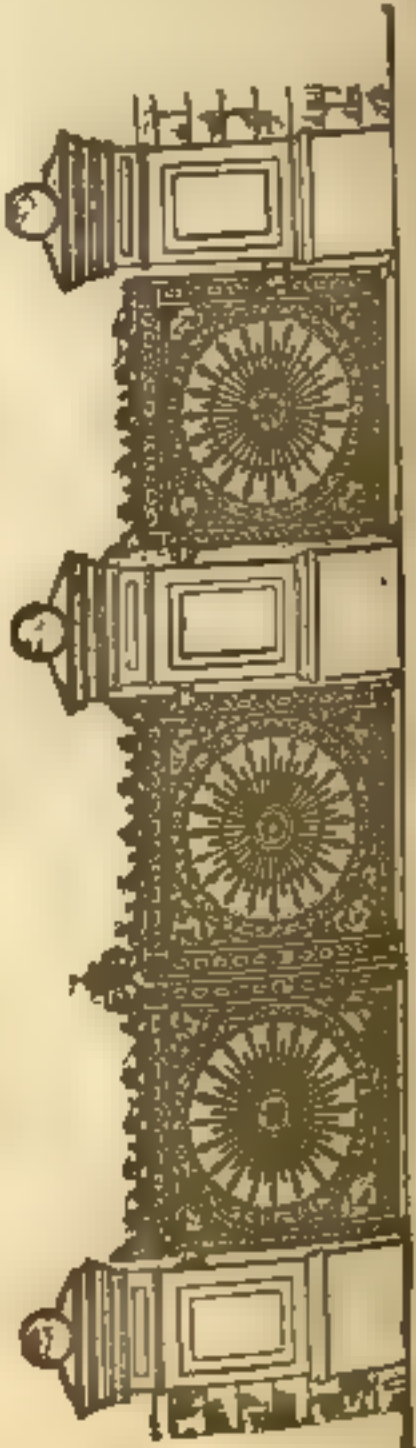
And has received a large and distinguished preference over every other description of Park and Farm Fencing. The great success attending the introduction of our Patented Improvements has led to numerous worthless imitations being offered for sale by dealers and others. It is necessary for us therefore to state that this Fencing is FACI-SIMILIA MANIAT REB at our Liverpool Works.



OUR PATENT WIRE FENCING IS CHEAPER, STRONGER, MORE DURABLE, MORE EFFICIENT, AND BETTER IN APPEARANCE THAN BAR IRON FENCING, HURDLES, &c., AT TWICE THE COST. Thoroughly efficient Workmen sent to erect in any part of the Kingdom. Special Estimates prepared for considerable quantities.

AS SELECTED FOR THE NEW PUBLIC SEFTON PARK, LIVERPOOL.

CAST AND WROUGHT-IRON PARK, ENTRANCE, AND FIELD GATES, PLAIN OR ORNAMENTAL, OF THE BEST DESIGNS.
ALSO, CONTINUOUS BAR IRON FENCES, HURDLES, AND TREE GUARDS, RABBIT NETTING, WICKETS, POULTRY FENCING, PALISADING, &c.



With all similar Manufactures required for the Embellishment or Improvement of Landed Property.
Solid Wire Drawn and Rolled, of every description, at the lowest prices.
Dear Fences of the most approved Designs.

COGNIAL WIRE FENCING

LARGE CONSUMERS PLACED ON



PAXTON'S STRAWBERRY CRINOLINE.



THE STRAWBERRY CRINOLINE is in the form of a table, made in halves, so as to be used without disturbing the plant. It is 16 inches in diameter, and stands above the ground, Galvanised. Its use is to preserve Strawberries from Slugs, contact with the soil, superfluous moisture, and other nuisances. They are considered permanent at least with care.

Price per Gross, £4.

THE STRAWBERRY CRINOLINES are declared by all who use them to be of the greatest use in keeping the Fruit clean and assisting its growth—thus in the production of early crops. For particulars see Illustrated Catalogues, and Testimonials sent to us by our Patrons last year.

The contrivance is by the late Sir Joseph Paxton, who, after testing them for one season in his own Gardens, "Rock Hill," gave his approval of their usefulness. The design was transferred to

HOLLIDAY, PRACTICAL WIRE WORKER, 2A, PORTOBELLO TERRACE, NOTTING HILL GATE, W.

TESTIMONIALS RECEIVED upon the PRACTICAL USE of PAXTON'S STRAWBERRY CRINOLINE.

"Farnborough, Shipley, near Leeds, Feb. 26, 1868.
In reply to your letter, asking my opinion of your 'Strawberry Crinolines,' I consider them invaluable. They keep the fruit away from the wet and slugs, and materially assist in bringing forward a large proportion of the fruit, which is so generally covered by the leaves that it gets no sun or heat. I expect to send you an order for a lot more in about a week.—Yours, &c.
"EDWARD SALT"

"Mr. Holliday, please forward three gross of Strawberry Crinolines.—Yours, &c.
"EDWARD SALT"

"St. Andrew's House, Hertford, Feb. 14, 1868.
I have used the Strawberry Crinolines with which you supplied me last year, for one year, and consider them extremely useful for the purposes for which they are intended. They keep the fruit from the soil, and expose it more freely to the sun.—Your obedient servant.
"JNO. MARCHANT, Jnr."

"Portobello Road, Notting Hill Gate, W. March 17, 1868.
I have had the Strawberry Crinoline in use during the fruiting season of the past year, and I can confidently state that they are invaluable for all the purposes for which Mr. Holliday, the maker, recommends them.
"JNO. H. McELROY, correspondent of the 'Gardener's Magazine.'"

"Peopleton, Pershore, Feb. 20, 1868.
The Rev. JAMES COLE wishes to express his great satisfaction with Mr. Holliday's Strawberry Crinolines, very neat and efficient.
"The Arboretum, Hecy Road, Ipswich, Feb. 11, 1868.
I am so well pleased with the Strawberry Crinolines you supplied me, that I am anxious to advertise them extensively, and I am persuaded their great price will be very generally adopted. They not only effect a great saving in the cost of the fruit, but the quality is also greatly improved.—I am, Sir, yours truly.
"W. B. JEFFRIES."

"The Fishery, Maidenhead, Feb. 8, 1868.
I found the Strawberry Crinolines I had of you last May very useful, as they kept the strawberries free from dirt and slugs, and are much superior to anything I have used before for that purpose.—Yours obediently,
"FREDK. NORMANSELL."

"Flasby Hall, Gargrave-in-Craven, Feb. 4, 1868.
I am very much pleased with your Strawberry Crinolines, they answer perfectly and keep the fruit clean and free from slugs. The only fault is their price, as, if quantities of Strawberries are wanted, the number of Crinolines required involves a serious expense.—Yours, &c.
"J. W. PRESTON"

"Kington, Radnorshire, Feb. 4, 1868.
The Strawberry Crinolines (one gross) supplied by you last May answered very well (those which were sent)—I am, Sir, yours sincerely,
"E. COOPER."

"Chilham, Canterbury, Feb. 4, 1868.
Your Strawberry Crinolines were very useful to me last season, and more so as I, during the season, worked the earth between the rows of Strawberries very deep and very close, and the fruit was very large and fine, which your Crinolines kept from touching the lower part of the fruit, and palatable.—Yours, in haste,
"WM. MARTIN"

From Mr. JAMES PEARSON, Gardener to H. Bentley, Esq.
"Ebbald House, Woodlesford, near Leeds, Feb. 11, 1868.
I got one gross of your Strawberry Crinolines in the middle of the ripening season, 1867, and I got them all to use without delay, and I have great pleasure to say they were the means of saving a great deal of fruit from perishing, it being a very wet season, likewise in keeping them clean from dirt and slugs, which is a great nuisance to the eater, indeed, they answer all the usefulness I got from them.—Yours respectfully,
"J. PEARSON."

"Longmead, Bishopstoke, Hants, Feb. 4, 1868.
I can speak in the highest terms of your Strawberry Crinolines, which I consider are very useful in preserving the fruit from dirt and slugs. I ordered a gross from you last year, and they fully answered my expectations. You can confidently offer them to the notice of Strawberry growers.—I remain, Sir, yours truly,
"ALFRED BARTON"

"Redwell Lodge, Weymouth, Feb. 4, 1868.
I have no hesitation in saying your Strawberry Crinolines answer admirably. The only drawback to their universal use is the expense, for where many varieties of Strawberries are grown the quantity required would be considerable, and the expense amount to a large item in the garden expenditure. You can use this in any manner you think proper.—Yours truly,
"FREDK. CHAS. STEGGALL"

"Mendlesham, near Ramsgate, Feb. 5, 1868.
The Strawberry Crinolines I had from you last year answered remarkably well, and I have recommended them to my friends.—I am yours obediently,
"A. C. BENTHALL"

"Eaton Hall, Hatfield, Feb. 6, 1868.
I have much pleasure in adding my testimony to the usefulness of your Strawberry Crinolines. I used them last summer with great success.—I am, Sir, yours obediently,
"W. T. TURNER"

"Brokenhurst Park, Lymington, Hants, Feb. 10, 1868.
I have much pleasure in enclosing you the testimonial you ask for. I consider your invention, the Strawberry Crinoline, of great value in keeping Strawberries clean from dirt and slugs, &c.—Yours, &c.,
"JOHN MORGANT"

"Chipping Norton, Feb. 4, 1868.
The Strawberry Crinolines I had from you last year answered my expectations. I recommend them to others in Chipping Norton, who were also much pleased with their usefulness. I am, Sir, yours truly,
"J. H. BENTLEY"

"Moyra Park, Navan, Ireland, Feb. 5, 1868.
I have used your Strawberry Crinolines, and highly approve of them. They answer all the purposes advertised for, and are, I think, an acquisition to the fruit garden.—Yours, &c.,
"J. O. C. POLLOCK"

From Mr. W. ELLIOTT, Gardener to J. Dodson, Esq.

"Littledale Hall, Eaton, Lancashire, Feb. 6, 1868.
At your request I write, and with much pleasure, to state that your Crinolines answered admirably here last year. Our crop of Strawberries was double what it has ever been (many around us failing altogether), and the fruit both ripened well and was unusually fine and clear of soil. Yours obediently,
"W. ELLIOTT"

"The Limes, Thetford, Feb. 10, 1868.
I used the Strawberry Crinolines you sent me last year, and was much pleased with them, they effectually answer the purpose of keeping the fruit clean, and assist the ripening. Last season being very dry, they were not so much required, but I feel sure that in a wet season they will be found most useful.—Yours,
"JOHN HOUGHEN"

"Barnstable Place, near Lewes, Feb. 5, 1868.
In reply to yours, I beg to say that my experience teaches me that it is very desirable to keep the fruit of Strawberries clean away from the ground. The Strawberry Crinolines supplied by you to me last year certainly kept the fruit away from dirt, slugs, and superfluous moisture.—Yours truly,
"G. GRANHAM"

From THOS. WHIDDON, Gr to H MAUDSLAY, Esq.

"Bristol, Exmouth, Feb. 20, 1868.
I think your invention of the Wire Crinoline a great boon to Strawberry growers. We used the wire crinoline we received from you last year, and found them to answer a very good purpose. They keep the fruit clean, and clear from the attacks of slugs and wire-worms. I think in wet seasons they will be very useful.—Yours,
"THOS. WHIDDON"

"The Gardens, Moor Court, near Stroud, Gloucestershire.
In reply to your request, I beg to say the Strawberry Crinolines (one gross) answer the purpose remarkably well for which they are intended. They are the means of saving much fruit from slugs and dirt in wet seasons, and ripen their fruit much better than lying on the ground.—I remain, yours truly,
"WILLIAM BASSETT."

ORNAMENTAL ROSARY FOR GARDEN ORNAMENTATION, &c.

HORTICULTURAL WIRE WORKS.
GARDENS and CONSERVATORIES FITTED UP with all kinds of WIRE WORK.
DIAMOND TRELLIS for CREEPERS.
SUSPENDING BASKETS.
FLOWER STANDS.
AVIARIES.
PHEASANTRIES.



ROSARIES. ARCHES.
ROSE TEMPLES.
ROSE FENCES.
SCREENS. VERANDAHS, &c.
Every description of WIRE WORK for GARDENS CONSERVATORIES, &c.

ILLUSTRATED CATALOGUES OF HORTICULTURAL WIRE WORK FREE ON APPLICATION.
HOLLIDAY, PRACTICAL WIRE WORKER, 2A, PORTOBELLO TERRACE, NOTTING HILL GATE, W.

Cineraria Seed. Sow for an early crop. To offer SEED of the above...

Genuine Seeds. CATALOGUE of FLOWER and VEGETABLE SEEDS...

Verbenas, Verbena, &c. Now sending out new varieties of...

COLEUS, Royal Horticultural Society, 1868, for 10s.

Verbenas, 5s. per 100; 40s. per 1000. WILLIAM BARNES has to offer as under...

Verbenas, 5s. per 100; 40s. per 1000. WILLIAM BARNES has to offer as under...

Stocks, Stocks, Stocks. WILLIAMS has much pleasure in offering...

Choice Primula Seeds. WILLIAMS begs to call special attention to his...

Cyclamen Persicum Hybrids. WILLIAMS has to offer in offering...

To the Trade. LARGE DOUBLE PURPLE ROCKETTS, 3s per doz...

Dahls imperialis. DAVIES having a large stock of this...

Splendid Indian Azaleas. WILLIAM BARNES' unrivalled Collection of...

To the Trade. WHITEHOUSE, Breton Nursery, Rugby, has to...

Bedding Plants. The Nurseries, Merritt, Somerset, has as...

One Hundred Thousand Bedding Plants. WILLIAMS has great pleasure in offering...

Bedding Plant Establishment. WILLIAM BARNES' unrivalled Collection of...

Genuine and First-class Seeds, Carriage Free. W.M. PAUL begs to announce that his NEW...

New Plant. M. R. WILLIAM BULL is now sending out the beautiful...

New Golden Coleus. H. WALTON having a fine stock of the following...

New Golden Coleus of 1869. H. CANNELL has procured a large stock of the...

CHARLES TURNER, The Royal Nurseries, Slough, has to offer the following...

Superb Double Hollyhocks. Now is the time for planting to ensure good success...

Hollyhocks, Bedding Plants, &c. AND J. R. MILEY have to offer the under named...

Roses. JOHN CRANSTON will be happy to forward on application his DESCRIPTIVE CATALOGUE...

New Roses, &c., 1869. W.M. KNIGHT begs to offer the following Plants...

New Roses of 1869 19s. 3d. per dozen. L'ÉVÊQUE ET FILS, NURSERYMEN, 132 and 134, Boulevard de l'Hôpital, Paris...

ROYAL BOTANIC SOCIETY. EXHIBITION of SPRING FLOWERS, APRIL 21 and 22. LIST of AWARDS...

MISCELLANEOUS. Mr W. Paul, for Collection of Roses in 1868...

FLORAL and HORTICULTURAL FETE. To be held on the RACE COURSE, NORTHAMPTON...

THE ROYAL HORTICULTURAL SOCIETY'S GRAND EXHIBITION at MANCHESTER...

Table with 3 columns: Good, Medium, Inferior. Rows include Grapes, Melons, Strawberries, Gooseberries, Currants, Apples, Peas, French Beans, Broad Beans, Carnations, Summer Cabbages, Turnips, Globe Artichokes, Onions, Spinach, Rhubarb, Potatoes, Mixed Seedling.

The Gardeners' Chronicle.

SATURDAY, MAY 1, 1869.

MEETINGS FOR THE ENSUING WEEK. MONDAY, May 3 - 10 o'clock at Royal Horticultural Society...

THE announcement which we have made of the desire of the Council of the Royal Horticultural Society to meet the exhibitors...

reviewer's orthodoxy have been called into question... As it that our

will collect and dry everything... was utterly out of my power to plates the ascent of Nat-toung.

and it were almost as per to attempt to prove... but on the contrary has been recog-

terrigit. Eos.]

Foreign Correspondence.

MOULMEIN.—It took me to 14 days

Shuang

Saluen, about equidistant, between it flows. Sittoung

found in the Tenasserim pro... in Rurmah proper, exc...

somewhat scrubby jungle. I am not aware of any other locality for it in Rurmah. This tree produces a very hard wood, and is much used by the natives for building...

station on the N

the present right bank of the river... here I was nearly at the foot of that range... which form the watershed between the Saluen R... on the east and the rivers of the Pegu plain on the west...

Vaccin... on trees... drons... plant, and... name R... growing after the manner of the Thibaudias, whereas this latter species is a tree 30 feet high with...

the skirting of its very margin... a counterpart of the other the form of the net of the entire leaf, that the name of the latter

and its venation? supporting Mr.

and do of... he writer... gardeners Chronicle

to the form of the leaf being scratched out before the

only to interfere with the botanist, who knows that

unless blinded by prejudice, the true

calyx, the botanist does not say with this reviewer, "the... knowing intuitively to the contrary, he says at once, "At the part where the sepals unite," says Halfour (T 380), "there is occasionally a prominent line formed by the union of the vessels of each." This line is precisely analogous to the space which I have called, as applied to the union of the

have been, and doubtless are, destined to expand into so many similar leaflets, and that their cellular papillae, in the course of expansion, contract adhesion [cohesion] to a... after which the

lobes, or... can deny... the schools, grooves... any way... to his own... he has ever... can he say they have become separated... They simply exist in a state of... [coherence] at their edges has ceased for a longer or shorter period before they have arrived at maturity, and when separation commences the gap which he calls... In conclusion, it is to be regretted that in thus writing at random statements have been made which are altogether irreconcilable with facts. [7] Fortunately, however, there are always to be found a few honest aspirants neither trammelled by prejudice nor by the dogmas of the schools. But while I find dicta taking the place of argument I shall still adhere to my own hypothesis... the lobed leaf is, like the gamosepalous calyx, gamophyllous. a. John Gorham, M.R.C.S. (Space forbids the insertion of the whole of our correspondent's lengthy letter. If he had used the term "conventional sense, to express things as they are, rather than as they are, or been uncalled for. The... however, turns upon the actual way in which leaves are built up, not upon a conventional but inaccurate method of classifying the innumerable variations in form which the perfect leaf presents. Had our correspondent employed the skill and pains he has expended upon his paper upon an investigation

Societies.

ROYAL BOTANIC... April 27 and 28.—The... of this Society was held in a...

incess Mary of Cambridge and Prince... though not extensive, was nevertheless... on Paul, and... was taken by Mr W. Paul, whose plants were... and furnished some splendid... following varieties—Paul B... Senateur Vauze, Glory of Wel... Pierre Notting, Souvenir d'E... de Rothschild, Messrs. Paul's... set of plants, but they were...

Verdier, Souvenir Princess Mary of C... the class for three new varieties...

comes; and Monsieur Furtado... with Impératrice Charlotte, Madame Furtado. Mr. James, gr. to W. F. W... six nice plants in the amateurs' class... Roses were sent by Mr. W. C. Osmond, Stanmore. In addition to a charming collection of well-known... ly in furnishing the show.

duced a lively contest... most part exceedingly... to Mr. Fairbairn, Syon House Gardens, Wheeler, gr. to Sir F. H. Goldsmid, Bart. Section were grand specimens of Alocasia acaulis, and fair examples of Sobralia...

well grown and well-flowered

orata, Hercules, Hood's... Wilkie was 2d with... rlingtonii. Duo de Nassau, F... Mr. Fai... Cutbush & Son, Highgate, Mea... and Mr. T. Burnett also exhibi...

Exotic Ferns were shown in Wright, who took the 1st prize with... consisting of Cibotium Schottii, Als antarctica, Lomaria gibba, Cibotium cuneatum. Mr. Wilkie received the

sloping shield. B... bourne, took a 1st... Olga, Beauty of B... Othello, and Mrs. S... nevertheless the coll was a very praisew... class. Mr. Turner, the only a group consisting of Cal... more, Miss Brightley, G... Mr. Butcher, Camberwell, Mr. James 5d but their

Primula cortusoides and Calceolaria were shown by... stand of Pansies. Mr. Bright Pansies. Mr. W. P. Roberts, gr batch of Neapolitan Violets, Mr. Dobson & Sons sent six varieties of good pots of Lily of the Valley and well...

ANY notice of the newer form PRIMROSE would be incomplete without the fine and varied collection at Southampton, the residence of the gardener, Mr. Stewart, has engaged on the improvement... been among the earliest to... while as the raiser of some choice Paelegoniums, and notably as bidders in the silver-edged

It is that these... utmost of what their Prim... cultivate libera... given up, and repl... generous mo... Were this done, Primul... would then become the rule of cultivati... not the exception they too often form in these da... R. D.

The Apiary.

MELILOT CLOVER. The attention of

lucing plants, to enable bees to... poor seasons, and au... ones. Among the plants recommended are the A... and Melilot Clover.

seed having been procured from Mr. H. M. Thomas, of Brooklyn, Ontario, Canada West.

In the summer of 1867 I procured a small packet of Melilot Clover seed from Mr Baldrige. I found the plant identical with one growing here, and called by some Dutch Clover and by others Sweet Clover.

From what has been... plants, I must say, that so far I have been... disappointed in them both. The... expectations. The seed... to the acre, on sandy soil (where it is rep... loing with Wheat, and dragged in. No withstanding the dryness of the season, and the fact that the Wheat would retard its growth,...

as Red Clover sown at the same time in adjoining fields. It promises now, with me, to be equal if not superior to Red Clover for hay and pasture; and it will, without doubt, prove valuable for bees.

The Melilot Clover commenced blooming early in July, and continued to bloom until September. But few bees could be found on it at any time, with the exception of about two weeks after a rain, during which time...

the... producing... I was... the... during the dry weather but...

from it. J. A. Townley.

[We have often heard the Alsike and Melilot Clover spoken of in terms of high praise as honey-secreting plants, and I have seen the former recommended to...

Have any of our agricultural... and if so, what report can they... a remunerative crop, apiarists... be more extensively grown, as...

The... of its value as a...

W... have this... and we have had large supplies filled in an exceedingly short period of time when there was an ample supply of this food within a short distance of our apiary. The honey also is of very fine quality. We should be glad to know more of the Alsike Clover from any one who has had any experience with it.]

...

Garden Memoranda.

ROBIN GARDENS, THE SEAT OF THE RIGHT HON. LADY ROLLE, BUCKINGHAM PALACE, LONDON.

From the arboretum we naturally turn into the flower garden. As already observed, the garden as it were cuts its way broad and clean out of the extensive grounds devoted to trees and shrubs or, to write more fully, the arboretum ends in a screen of shrubs that runs up to the flower garden on one side, while on the other, the American ferneries, &c., occupy the space between the flower garden and the public road. The greater portion of its length it has an additional inner boundary of brick wall furnished through out with Magnolia grandiflora. The upper boundary is marked by the noble range of...

Peach-houses and early... In the middle... substantial and imposing ornament of the range. The glass reaches the entire distance between the two walls (about 110 yards), the end houses (Peach-houses) being inclined to the side wall, to take off the sharpness of the corner. In front, the garden and its accompaniment of water, &c., is bounded by a fine new church, built by Lady Rolle about 10 years ago, by high banks crowned with lofty shrubs, a level glade and...

the banks, carrying the eye along to a noble obelisk some way off in the distance, and with portions of the park itself to the left of the church. The ground is probably 50 feet from the range of glass to the side of the church. It is in the form of a long narrow...

ramble, sloping to the south, and is wholly composed of three sides, and almost wholly fronted by the high turf bank, and their shrub-crowned heights the church, &c.

Its most eligible site for a flower garden is divided into three portions, and devoted to three distinct purposes—the upper to flowers, shrubs, and trees, the middle to Grass, and the lower to water. A space of about 100 yards in depth, measuring from the gravel walk in front of the glass, is devoted to the flower garden proper. A gravel walk is then carried across, and the ground is arched down by means of a Grass bank to a level about 14 feet lower, the side walks reaching the lower ground by flights of stone steps. Then follows a piece of perfectly level close-shaven turf, destitute of all ornament, except a row of statues arranged across its

...

...

...

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...

...

... being considerably larger than...

with a broad margin of turf, on which standard Hays were arranged at regular intervals. This is succeeded by another Grass slope, carrying the ground down about 5 feet lower in fact to the water level. The...

adapted to the highly formal character of the ground. Two-thirds of the space is devoted to a square water, leaving a wide block of turf at each end...

This turf likewise proceeds in a narrower band along the bottom, thus surrounding the square sheet of water with a boundary of green Grass, but, just in the centre of this narrower band, an elliptical reservoir is...

water from the square into a narrow canal, that forms a second water-line at the bottom, and then doubles back along the ends of the block of turf already noted. These end canals are slightly beyond the lines of the enclosing walls that bound the flower garden, and form, as it were, a finishing barrier of silvery water between the flower garden arrangement and the arboretum, on the one side, and the...

on garden on the other. The walls do not reach down to the water, so at this point there is no boundary but that of the water, on one side, and in addition to this a solid mass of vegetation, chiefly...

on a very high Grass slope. A little beyond the water there is another more Grass...

of the huge Grass bank already noticed, probably 13 feet high, carried round far enough to hide the end of the pinetum and the old church and churchyard, and suddenly terminating at the beautiful new church. Beyond this, on the left, is the American rockwork, shell-house, and the overflow...

from the canal, furnished with the Bamboos, Pampas Grasses, &c., already noticed. It will be seen that the ground as a whole is unique, and the effect of these three kinds of beauty, each seen by itself, and in juxtaposition, close enough to contrast, harmonize...

... next green Grass pure and simple, and the water level at rest...

... and arboreal character or spirit pervading the whole. There is the temple at the top, the beautiful church at the bottom, fountains, vase, stone seats, and...

... tower up in the park in front, and high over the wall on each side, and you feel that the temple of Flora is enwreathed with garlands borrowed from other and almost equally beautiful arts. Imbued with this...

one doubts whether Flora's temple is quite worthy of...

I think for Bixton she deserves more...

... I would have more formality in the...

... and one of the best and largest geometrical designs that has ever been laid down would not be too good for this grand position. My meaning will appear more obvious as I proceed to describe the flower garden as it is.

First of all there is a border in front of the glass range, then a fine gravel walk followed by the inclined piece of turf on which the garden is displayed. The upper border at the time of my visit (August) was one of the grandest sights I have ever seen, filled from end to end with the Belladonna Lily in full flower. Why does not everybody grow this lovely Lily in the garden and the drawing room, since scarcely anything can equal it in regal grandeur. The Lily is succeeded in the autumn and winter by the grand expanded Violet, so sweetly described in your...

... that one could almost have smelt them, by Mr. Robinson. On the opposite side of the walk are some well-filled vases of Pelargoniums, &c., then follow two enormous Pampas Grasses, that have each produced 100 or more blossom-spikes at one time. Close to these are two very fine Deciduous of atrain party time, and then on each side, between these plants, massive vases lined with Pelargoniums. These vases are each surrounded by a...

... with the usual bedding plants. In the middle of each fountain on each side...

... four beds at their feet. These were filled with Camosillas, Pelargoniums, Pink, and Hyacinths, and these there is an outer rim, cut into four other beds, with...

They were filled with Iresine Heros, Amaranthus melancholicus, Cineraria maritima, and Lobelia, the four small circles with Pelargoniums. Then a large dial stands in the centre, with two whole circles at equal distance on either side, possibly furnished with the two...

... two very large stone baskets on each side, surrounded with groups of 12 beds each, well filled with the usual occupants. Near here again, specimen Calceas and Mugnias cannot be seen. Then follow border groups of Roses, Ruscus dendrons and common shrubs, and a low wall of vases surrounded with oval heart-shaped beds devoted to Veronias, then a couple more heavy vases, surrounded with mosses and ferns, followed by massive stone seats on each side, completing the flower garden and bringing us to the end of a formal walk...

... small figures representing, I suppose, the virtues, or Virtues, or both.

Through its whole...

...

...

...

...

...

...

May 1, 1869



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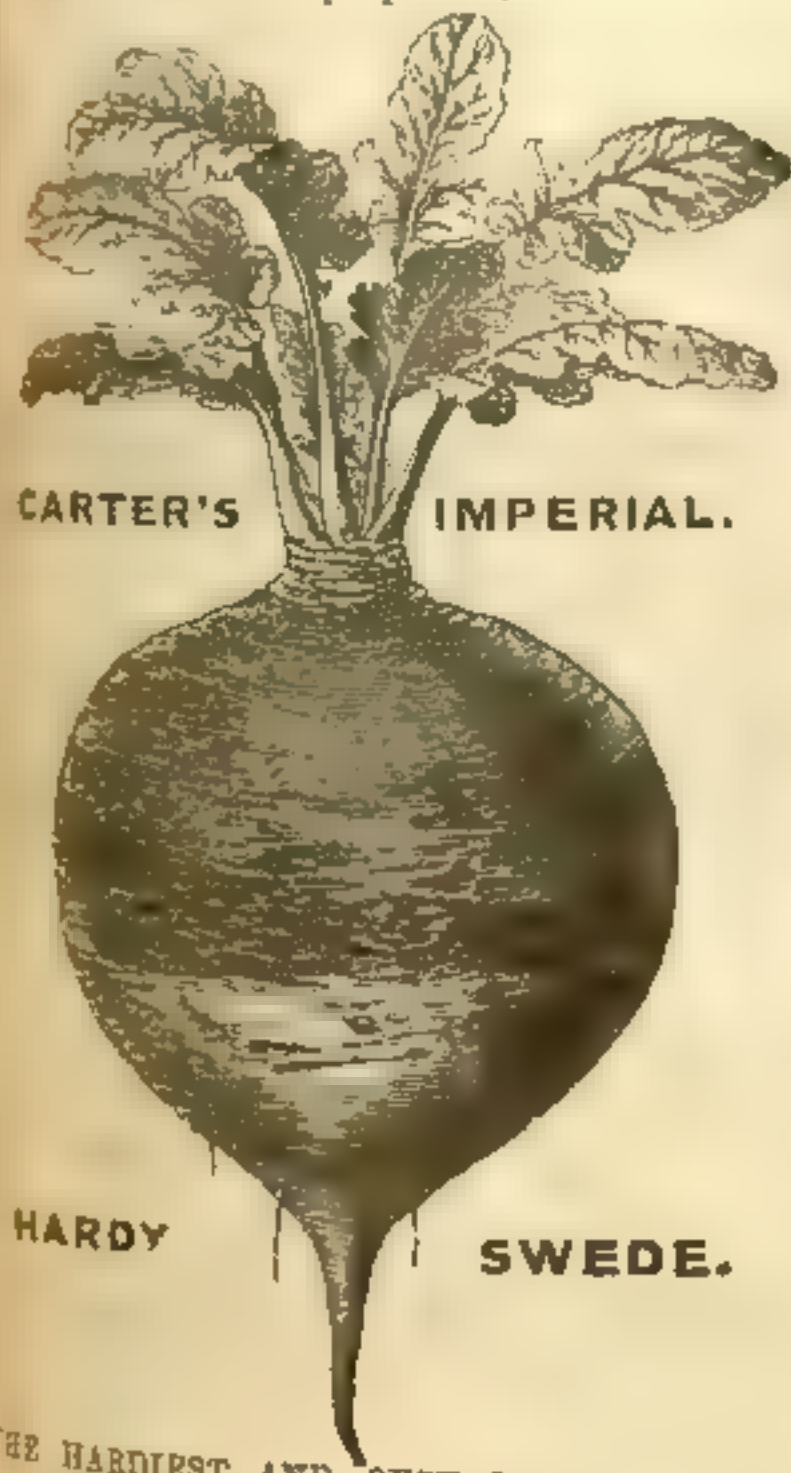
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See illustration at p 451 of last week's *Gardeners' Chronicle*.

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THE HARDEST AND BEST IN CULTIVATION.
Price 1s. per lb.; cheaper per cwt.

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NEW AND UNADULTERATED,
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SUTTONS' CHAMPION SWEDE.
The hardest, the most productive, and best shaped Purple-topped Swede in cultivation.

Price 1s. per lb.
Cheaper by the bushel. Lowest price for large quantities quoted on application. Carriage free to any Railway Station.
This maintains its character as the best Swede in cultivation. It is a very large purple-topped yellow variety, perfectly hardy, and stores exceedingly well. It is of fine globular shape, and remarkable for its small neck and freedom from coarse roots. It has taken for seven successive years His late Royal Highness the Prince Consort a Prize Cup, of the value of 20 guineas each. These silver cups were last year awarded at the meetings of the Royal East, Berks and South Bucks Agricultural Societies to crops of our Champion Swede, and other improved varieties of Agricultural Roots. Numerous other Silver Cups have been awarded to crops of this Swede, while it almost invariably obtains the first prize for purple roots. Some very fine roots, weighing upwards of 16 lbs each, grown by one of our customers in Ireland, and exhibited on our stand at the Smithfield Club Show in December last, attracted marked attention.

From Geo. RANSON, Esq., Poplar House, Sproughton.
April 21, 1868.—"I had this year 15 acres of your Champion Swede, the finest and best grown in my neighbourhood. I am only now finishing them."
From J. ARWAT, Esq., Manor House, Tinagrick.
April 16, 1868.—"I took several prizes last year with crops grown from your seed, and amongst them was a £10 prize for the best general crop. I think there is no better Swede than the Champion grown."
From A. M. WHARFORD, Esq., Gashorpe Lodge.
March 2, 1868.—"I believe you are aware this is a great seed district, particularly for Turnips, &c., but your unrivalled Champion Swede is almost exclusively grown."
From J. C. MOORE STIVERS, Esq., Wincott.
April 2, 1868.—"I won a Ten-Guinea Silver Cup last year for Swedes grown from your Champion Seed."
From Messrs. DICK & SON.
April 14, 1868.—"We grew some splendid Champion Swedes from the seed you sent us last year."

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J. C. WHEELER & SON, Seed Growers, Gloucester, and 60, Mark Lane, London, E.C.

ROYAL AGRICULTURAL SOCIETY OF ENGLAND.
DR. VORLCKER'S RESEARCHES.
A Lecture, "On the RESULTS of CHEMICAL INVESTIGATIONS made during the PAST YEAR," will be delivered by Dr VORLCKER, on MONDAY, May 10, at 2 P.M., at the Society's Rooms, 12, Hanover Square, W.
Members of the Society and their Friends, as well as other Gentlemen interested in the subject, are invited to attend.
H. M. JEVKINS, Secretary,
12, Hanover Square, London, W.

The Agricultural Gazette.
SATURDAY, MAY 1, 1869.

MEETINGS FOR THE ENSUING WEEK
May 2: London Farmers' Club, Mr. Henry Corbet on Foxes v Rabbits at Salisbury Hotel—5 P.M.
— 4—Chamber of Agriculture at Salisbury Hotel
— 6—Royal Agricultural Society of England, at Hanover Square.

English agriculturists are once more concerned for the security of their flocks in respect of the much dreaded small-pox, which has again been introduced into this country by sheep imported into London and Harwich. Three cargoes were detained last week by the veterinary inspectors to the Customs.

More than 3000 sheep have been slaughtered on the wharves of London and Harwich in the last few days, but of that number not more than a dozen were actually affected with small-pox; the others were detained as a measure of precaution, and not on account of their being unsound at the time.

All the consolation which the home producer is offered is conveyed to him in the official statement that the existing arrangements are sufficient for the emergency; and that, as at present informed, the Government does not contemplate the re-enactment of the Order to slaughter at the landing-places all sheep imported from the Continent. Under these circumstances the farmer naturally asks—What are the existing regulations, and how do they act to prevent the spread of infectious diseases?
It is generally understood that considerable discretionary power is vested in the authorities

May 1, 1897

refer the reader to Mr Secretary SIDNEY and the price list.

Town Drainage and Sewage Utilization Com-
pany has been incorporated. Mr J BAILEY-DENTON
 has been appointed. The Company propose to
 have the action of the town in disposing of their
 sewage by act as a medium between the sewer autho-
 rities and farmers, and to apply sewage on the lands
 of farmers, or on any other land which may be
 available for the purpose. They will undertake the
 purchase of land for the reception of sewage by
 any other means, or they will institute the pre-
 paration of plans and specifications, the provision
 of funds, and the execution of works under the immediate
 supervision of their own engineers. They will
 be prepared to advise upon, and to treat for, the
 preparation of plans and the construction of works
 necessary for the supply of water to towns and dis-
 tricts at present insufficiently provided. The company
 has been constituted at a time when works of the
 kind thus contemplated are likely to meet a very
 general want throughout the country.

The following paragraph from the *Pall Mall*
Gazette appears to us to deserve general attention.
 The allegation has been made that if the Game Laws
 were in any degree modified, the farmers will suffer so
 much from trespassers that they will demand a strin-
 gent Trespass Act. The idea is preposterous. Larks
 are not game nor are plovers' eggs, yet both are
 scarce, which bring a high price. But who ever
 heard of a farmer complaining of the damage done by
 persons snaring larks or seeking for plovers' nests?
 The fact is they are not preserved, and therefore they
 are not immediately numerous, and by consequence
 there are no bands of men hunting after them. They
 are afforded an occasional remuneration to a few persons
 not more than a tenth of the damage in a whole year
 than is inflicted in five minutes by a single run with
 a dog over a field of young wheat, or even by the
 trampling of a horse, or by the trampling of a dog
 with his friends, keepers, and cogs, beating a
 field in early autumn. It is not the Game Laws
 which preserve our lands from trespass, they create
 trespass by creating the occasion and temptation
 therefor. Our unreasonable game preservers are happily
 equally even among landlords. They have done
 much mischief by pushing to extravagance the
 extension of the laws which were never intended to
 extend to their most serious trespassers. They have now
 sought to extend the reaction, beginning in Scotland, but
 now to extend to England, which demands the
 abolition of laws they have perverted. We counsel
 them to yield to the first demand. At present the
 Scottish farmers are ready to compromise with them
 for the abandonment of hares and rabbits. But if this
 is resisted the great towns are sure to take the question
 up and ask why we keep in force laws which breed
 poverty as well as pleasure, and fill our gaols as
 certainly as our preserves. The wiser Conservatives
 will stand by the demand to be inevitable, and their
 English brethren will be very foolish if they reject the
 present Sybilian offer.

In a recent case before the Court of Record at
 Edinburgh the plaintiff was formerly in the employ of
 the defendant's servants at Hull, in the capacity of
 warehouseman, and in April, 1897, informed them that
 he had discovered to him that acorns ground into meal
 would make very good "bun" for cake. Bun is
 a cake what "bunkum" is to speech. On that sugges-
 tion the defendants bought at various times 295 tons of
 acorns, and used upwards of 200 tons of it in lieu of
 flour. The price of the latter was about 5s. a ton, and
 of acorns at Smyrna 17s. a ton, the difference in value
 being 10s. 6d. per ton. The plaintiff's case was that defendants had pro-
 mised to remunerate him for imparting this secret, but
 they had done so. He had sent in a bill claiming
 10s. 6d. per ton, which amounted in the aggregate to
 2,950s. 6d. The defendants denied that they had pro-
 mised to remunerate the plaintiff, who was their
 servant, but had said that if the meal turned out well
 they would make him a present. It had not answered as
 "bun," inasmuch as the farmers complained that
 cake made from it was bitter, and they would not buy
 it. Defendants had between 80 and 100 tons of acorn-
 meal on their premises now, and had tried in vain
 to sell it. They had given up using it two or three
 months ago. The jury found a verdict for plaintiff
 for 10s. 6d. per ton.

What are the merits of a public house pig?
 We are induced to ask this question by the
 following extract, which appears to be a communica-
 tion from an authorized correspondent of the *Stamford*
Chronicle.

The first annual meeting of the recently estab-
 lished Stamford Pig Club was held on the 14th inst., at the White Horse
 public house, and was a most successful and interesting affair. The club
 has been formed by Mr. W. S. S. S., the treasurer. The club
 has a capital of 100 guineas, and the monthly contributions are
 1 guinea. The club has a number of members, and the first
 meeting was held on the 14th inst. The club has a number of
 members, and the first meeting was held on the 14th inst. The club
 has a number of members, and the first meeting was held on the 14th inst.
 The club has a number of members, and the first meeting was held on the 14th inst.

pigs are liable; and accordingly that it is a good
 thing for a poor cobbler, husbandman, or other
 labourer, who puts all his pence in one pig, to have
 some neighbourly mode of assuring himself against the
 entire loss of his pig from some unforeseen and un-
 avoidable visitation or casualty. But how prudent
 such a plan is to be maintained by a public-house publican,
 so that, thereby, one of the small-wages class may
 be induced to practically realize 'how important a
 good pig is to the family of a labouring man,' we are
 not able to determine from the above details.

OUR LIVE STOCK

LAST week we briefly noticed the principal points of
 interest of the Didmarton sale. We have since heard
 that Lord Dunmore has purchased another 3000 guineas
 from Mr Bowly at a high price, and that, taking this
 last sale into account, the average of the females has
 been raised to 100l. It may be so interesting to our
 readers to learn that *Kirklevington 12th*, which Lord
 Dunmore obtained from Mr Loney at an advance over
 the 384 gs. she fetched at the Didmarton sale last
 October, produced a heifer calf on the 22d inst. to
 2D DUKE OF COLLINGHAM. Henceforward Dunmore
 will be associated with Kirklevington blood, as Lord
 Dunmore apparently loses no opportunity of securing
 any number of this fashionable family which comes
 into the market.

LOD WILD EYES 5TH, the property of Mr
 Harvey, was put up for sale at Didmarton with
 Mr Bowly's stock, and was purchased by Lord Fitz-
 hardinge for 110 gs., the previous bid of 100 gs. having
 been made by a tenant-farmer of the neighbourhood.
 The following is a complete list of the animals, their
 purchasers, and the prices realised.

Name of animal	When calved	Price	Name of Purchaser
Females.			
<i>Southern</i>	Mar. 1897	42	Capt. De Winton
<i>Rose of Oxford</i>	Aug. 1897	3	Mr W J Edwards
<i>Coronet</i>	Aug. 1897	4	Mr. H. J. J.
<i>Glacier</i>	Oct. 1897	34	Mr Bourne
<i>Harpuchord</i>	Nov. 1897	50	Mr Lawrence
<i>2d Rose of Oxford</i>	July, 1897	41	Lord Dunmore
<i>Edinburgh</i>	April, 1897	200	Lord Dunmore
<i>Musical 2d</i>	May 1897	50	Mr H. Hobbs
<i>Musical 3d</i>	Jan. 1897	68	Lord Fitzhardinge
<i>Musical 4th</i>	July 1897	78	Mr Walker
<i>Musical 5th</i>	Oct. 1897	80	Mr Moore
<i>Musical 6th</i>	Jan. 1897	62	Lord Bolton
<i>Musical 7th</i>	July 1897	75	Lord Dunmore
<i>Musical 8th</i>	Aug. 1897	dead	
<i>Musical 9th</i>	Feb. 1897		Lord Fitzhardinge
<i>Edinburgh 1st</i>	Mar. 1897	400	Lord Fitzhardinge
<i>Edinburgh 2d</i>	Mar. 1897	50	Lord Fitzhardinge
<i>Musical 12th</i>	Jan. 1897	110	Lord Fitzhardinge
<i>Edinburgh 3d</i>	Jan. 1897	50	Lord Fitzhardinge
<i>Musical 13th</i>	Mar. 1897	80	Mr J P Foster
<i>Stamford 1st</i>	Mar. 1897	70	Mr. H. J. J.
<i>Stamford 2d</i>	Apr. 1897	10	Lord Fitzhardinge
<i>Stamford 3d</i>	Apr. 1897	10	Lord Fitzhardinge
<i>Stamford 4th</i>	Apr. 1897	10	Lord Fitzhardinge
<i>Stamford 5th</i>	Apr. 1897	10	Lord Fitzhardinge
<i>Stamford 6th</i>	Apr. 1897	10	Lord Fitzhardinge
<i>Stamford 7th</i>	Apr. 1897	10	Lord Fitzhardinge
<i>Stamford 8th</i>	Apr. 1897	10	Lord Fitzhardinge
<i>Stamford 9th</i>	Apr. 1897	10	Lord Fitzhardinge
<i>Stamford 10th</i>	Apr. 1897	10	Lord Fitzhardinge
<i>Stamford 11th</i>	Apr. 1897	10	Lord Fitzhardinge
<i>Stamford 12th</i>	Apr. 1897	10	Lord Fitzhardinge
<i>Stamford 13th</i>	Apr. 1897	10	Lord Fitzhardinge
<i>Stamford 14th</i>	Apr. 1897	10	Lord Fitzhardinge
<i>Stamford 15th</i>	Apr. 1897	10	Lord Fitzhardinge
<i>Stamford 16th</i>	Apr. 1897	10	Lord Fitzhardinge
<i>Stamford 17th</i>	Apr. 1897	10	Lord Fitzhardinge
<i>Stamford 18th</i>	Apr. 1897	10	Lord Fitzhardinge
<i>Stamford 19th</i>	Apr. 1897	10	Lord Fitzhardinge
<i>Stamford 20th</i>	Apr. 1897	10	Lord Fitzhardinge
<i>Stamford 21st</i>	Apr. 1897	10	Lord Fitzhardinge
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<i>Stamford 93rd</i>	Apr. 1897	10	Lord Fitzhardinge
<i>Stamford 94th</i>	Apr. 1897	10	Lord Fitzhardinge
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<i>Stamford 99th</i>	Apr. 1897	10	Lord Fitzhardinge
<i>Stamford 100th</i>	Apr. 1897	10	Lord Fitzhardinge

Two valuable heifer calves have been added to
 the Kingscote herd this week, on the 13th a roan from
 the *Countess of Oxford*, by COUNT BICKERSTAFFE
 2D, and on the 20th, a roan, by 3D DUKE OF
 CLARENCE (23727), and from *Honey 21st* by 2D DUKE
 OF WETHERBY (21818), dam *Honey 15th* by DUKE OF
 CLARENCE (19611). It will be seen by a perusal of
 the pedigrees of this latter calf that it is bred in and
 is very close; it, however, shows no symptom of
 weakness, but is a fine specimen of what a Shorthorn
 calf should be, with all that vigour so characteristic of
 Bales blood. COUNT BICKERSTAFFE 2D is full brother
 to COUNT BICKERSTAFFE (23330), and *Countess of*
Oxford is by 1TH DUKE OF AIRDRIE (2315), dam
Gem of Oxford by 2L GRAND DUKE (12961). Major
 Conolly, M.P. has purchased *Ariel Duchess* by DUKE OF
 WHARFEDALE (19618), of Col. Kingscote, for the
 respectable sum of 200 gs.

Mr Loney, of Wateringbury's, sale will take
 place on Thursday, the 6th inst. Twenty three heifers
 and as many bulls will be offered to the public by
 Mr. Strassford, and from what we have lately seen and
 heard, respecting *Duchess* and *Kirklevington* blood,
 we may expect to witness plenty of competition and
 high bidding. We have so recently called attention to
 Mr Loney's herd, and its high character is so well
 known, that it is hardly necessary on the present
 occasion to enter further into details as to its merits.

The Ridlington Catalogue has at length
 appeared. It contains no fewer than 64 entries, of
 which 50 are females. All these animals, bred by Mr.
 Wortley, will be offered for public auction, by Mr. John
 Thornton, on Thursday, 13th inst., at Ridlington. Mr
 Thornton, in his lucid prefatory remarks, tells us that
 "the tribes from which many of these animals are bred

have been located in the county of Rutland for a great
 number of years, and are of the same stock as that from
 which Mr Baker, of Cottesmore, bred his celebrated
 Shorthorn gold medal heifer in 1837 and his gold
 medal steer in 1840." Six females are descended
 from Mr Bowly's *Kirklevington* cow *Ariel* by
 4TH DUKE OF YORK, and are full of Bales
 blood. The essential character of the herd is,
 however, both in name and pedigree record four
 or five crosses of this blood. The two sires last used,
 were first IMPERIAL COUNT 21,155 by IMPERIAL
 WINSTON, both bred by Mr Carr, of Sta. Kew, and
 from a grand-daughter of Mr John Booth's
Citadel, by HAMLET, and also HIGHLAND CHIEF
 21,111, bred by Mr Wortley, by BRITISH FLAG
 19,311, and from a daughter of *Prince of Southwick*,
 the winner of the 1st prize at the Worcester meeting
 of the Royal Society in 1853. The stock are pronounced to
 be in good healthy condition well haired possessed of
 good feeding qualities, and to be excellent milkers.
 Several of the cows are newly calved, and others have
 been served by IMPERIAL COUNT, HIGHLAND CHIEF,
 GENERAL NAHER (21,023), the property of Mr.
 Cheney, of Gablesby Hall, and PRESIDENT, bred
 by Mr. Adkins, of Milcote, and descended from
 FAVOURITE (252).

From Longford House Murchingshampton, we
 are favoured with the following *Crusula 21st* by
 7TH DUKE OF YORK let at Mr. Rich's sale at Did-
 marton, in October, for Wm Payne, Esq., produced
 on Monday last a very handsome red and white female
 calf to 2D DUKE OF COLLINGHAM (23,730), which it
 is proposed to call *Queen of Didmarton*.

RURAL SCHOOLS.

The President of the Hampshire Farmers Club, the Rev.
 Frederick Breton, recently delivered a lecture before its
 members, of which the following is an abstract.

By way of a peg on which to hang my remarks, I will
 refer to a statement made a few days since by Canon
 Girdlestone in the *Times* of the state of the school in
 the parish of Halberton. The statement which Canon
 Girdlestone had previously conferred on that parish
 relieves me from any hesitation in referring to it,
 while the exact details with regard to his school which
 he has now published furnish me with the best
 possible illustration of the present parochial system.
 Halberton, with its 7000 acres and population of 1000,
 may be taken in these respects as an average rural
 parish. If the boundaries of parishes (as it is to be
 wished) should ever be readjusted, and their popu-
 lation approximated, Halberton would not be a bad
 standard of acreage and population. The number of
 children attending the school are not much below the
 average proportion, which is about one child over
 17 per head, whereas in many rural
 parishes, is not more than one child to 100. It was, how-
 ever, to utter in a recent paper that Canon Girdle-
 stone made his statement in the *Times* and the *Times*
 endorsed his complaint as applicable not only to
 Halberton, but to all England. And I am free to own
 that if his complaint will bear consideration in
 Halberton, it may be accepted as fairly applicable to
 any parish school under the same system.

Canon Girdlestone's complaint has respect to the
 incidence of the cost of the school. He complains that
 much too large a share falls upon himself as the clergy-
 man of the place, and demands a compulsory transfer
 of that share by the process of a rate to the owners and
 occupiers of property. The cost of the school last year
 was 1371s. 6d., and was thus distributed - 561 16s.
 or more than two-fifths, was provided by the general
 tax-payers, and received as a Government grant, 261s.
 or somewhat less than one-fifth, was voluntarily sub-
 scribed by the owners and occupiers; 241 17s. 3d., a
 still smaller one-fifth, was paid by the parents, leaving
 exactly another one-fifth, which was met by an endow-
 ment of 47s., and Canon Girdlestone's own contribution
 of 221 11s. 3d. In other words, of the 11, which the
 schooling of each child has cost, more than 8s. has been
 paid by the Government, 4s. by the endowment and
 vicar, not quite 1s. by the voluntary subscribers, and
 4s. less than 1s. by the parent. Now, what is the true
 in crease to be drawn from this statement? What is
 the real grievance to be complained of? Is it not that
 the public already does far too much, and the parent
 far too little? Ought not Canon Girdlestone, as a true
 friend of the labourer, to call upon him to do his own
 duty before he acquiesces for an extra burden to be com-
 pulsorily laid upon those who already do voluntarily
 for their neighbour's child more than he is willing to
 do himself? What can that education be really worth,
 to whom the parent contributes so little? I might add,
 how unsatisfactory to their minister must be the
 result of his own example and instruction, if it leaves
 them contented to do so little.

Though I may have the misfortune to differ from
 Canon Girdlestone in some of his views, I have been
 disposed to admire sincerely the energy and independ-
 ence of spirit, even if it borders upon stubbornness,
 which he has shown in fighting the cause he has
 undertaken. I feel it, therefore, difficult to understand
 how he, of all men, should fail to perceive the injury
 that is done to the independence of the English
 labourer by thus stepping in between him and his
 child, and encouraging him to cast upon others one of
 the first duties that belong to him as an English and a
 Christian parent. I can only attribute this strange
 unkindness of good and kind men, that will not let us
 look upon the labourer as one of ourselves, and expect
 from him the feelings and the consequent duties of any
 other good man, to these utterly unfounded views of the
 agricultural labourer's ensaved position in England
 which Canon Girdlestone has taken up and so loudly
 proclaimed. What is that position? Why simply
 this. The English agricultural labourer, instead of
 being an owner or occupier of land, is a dealer in those

that are thin, chalky, and too close to the rock to carry... The yield of the crop greatly depends upon... The seed... I say, have the best seed, which, if... The seed... I say, have the best seed, which, if... The seed... I say, have the best seed, which, if...

DISCUSSION.

Mr. W. ... speaking of sainfoin, remarked that he had... recently taken up a piece of land that had been down to... sainfoin for the last nine years, and the Grass was almost as...

Mr. W. ... had sown Italian... grass that had paid for itself in a single year as much as... the English seeds if any one were to take him a present of a...

Mr. F. C. BAUNDERS said if a farmer hoped to keep his land... in the best state, it was essential that he should be particular in selecting... the very best seeds. Italian Rye grass was very useful, but it...

Mr. ... demurring to the statement set forth in the... article, he said that the weight of the Italian Rye-grass, reared... in this country, was not so high as that of the Italian Rye-grass...

because it was sown too often with that plant, the land... required longer time to rest, and he felt convinced by the nine... years system the crop would yield half as much again as...

Mr. ... in reply to Mr. ...'s question as to the best... time to sow Italian Rye-grass, might mention that he sowed... it with broad Clover, therefore it would not do to put it in...

Reviews.

Horse and Man. By C. S. March Phill pps, author of... "Jurisprudence," &c. Longmans, Green, and Co.

This little volume will be sufficiently brought under... the notice of our readers by an extract from its...

"I may be able to do good service by introducing to... the civilian horseman those elementary principles of... M. Baucher's system which Captain Nolan has judged...

"An Englishman naturally hates theory and perhaps... no Englishman hates it so thoroughly as an English... sportsman. The fact is in my opinion, highly creditable...

"But I do not observe that, when Englishmen have... once perceived the practical value of a theory, they are... either incapable or impatient of the abstract reasoning...

"I persuade myself that M. Baucher's system is one... which will stand this test. The simple and obvious... method of manipulation by which it imparts lightness...

Mr. Phill pps goes on to say that he adds one work... more on equitation because the modern English... manna, which alone are good for anything, have all...

were to suggest that we cannot do it, but... as if we were complaining that we cannot... mering or squinting. It is very singular...

"Now I am well aware that most of these gen... know much more of good riding than I do, but I... myself that I know more of bad riding than th...

We add that the instructions which the author give... based thus upon his own experience are given in good... and simple English, and that the book is very pleasant...

Examples of Modern Steam, Air and Gas Engines of... the most Approved Recent Types, &c. By John... Bourne, C.E. In 1 Vol. 4to. Illustrated by about...

Ten or eleven of the monthly parts of this elaborate... and very complete work have already appeared. The... steam-engine yields now so material and considerable a...

Farm Memoranda.

CHADBURY, NEAR EYESHAM (concluded from p. 459). -... Harvest was finished on the last day of July, during... the previous week I had scarified 22 acres of Winter...

You will perhaps ask how, with only 5 acres of... Cabbages, more than 1000 sheep were maintained from... July to the middle of September. The draft ewes...

As it was important, with a view to the next Wheat... crop, that all the Mustard and the Rape where... Mangels should have been, should be eaten off in good...

The ewes are now upon the grass-land, and only the... lambs (520) upon Rape. At first we lost several (not...

1 cwt. Bran, costing 6s. 3d
1 cwt. Malt Past 5 3
1 cwt. "Ground-nut meal" 4 11

with 30 bushels Clover chaff and Wheat chaff, given... two-thirds in the morning, and one-third at night. This... "ground-nut" meal is a new article of food.

Thus I hope to get my sheep stock through the... winter. For spring and summer food—Clover and... mixed seeds having entirely failed—the 81 acres sown...

10 acres
33 "
30 "
6 "

My difficulty will be with ewes and lambs at first, the... provision for them coming on in the following order -
8 acres Rye
6 " Rape grown on Wheat stubble } while lambing.
16 " winter Oats.
30 " Rye-grass.

MAY 1890

bers of this species of animal will be speedily poachers (if they can longer be called so), for the advocates of the measure to blink result. But there are two facts worth...

In your Norwich Mercury, March 3, 1889, very interesting article about the growing of England, and I, therefore, send you a few...

the latter part of July and August, to feed the cattle with, as done by the smaller cultivators, is also very obnoxious to the growth of the Beets, as they are apt to form green tops...

Calendar of Operations. May.—Barley is sown in some late districts about the end of May, but it is liable to suffer from the early autumn frosts of such districts, much...

earlier the better, if intended for forage cropping. Drill as in last month. Lupine is also sown throughout May, as directed in April, on poor sandy and peaty soils adapted for its growth.

Rape is sown early, for sheep feed in July. The preparation of the land, manuring, and seeding, are similar to Turnip culture. It is generally sown in rows from 12 to 20 inches apart, on the flat. The crop is well adapted for heavy soils, and is very commonly grown after paring and burning, not only for sheep, but for mowing for stall or yard-fed cattle.

Hoening of spring corn is generally finished this month. Thistles now make their appearance in the rows on land that is cultivated too shallow, and require to be spudded out. Beans, Peas, Parsnips, Potatoes, Cabbages, and Carrots require both horse-hoeing and hand-hoeing, and all these crops require the earth to be drawn well up to the plants in hand-hoeing them.

Grass seeds.—Sowing after the last hoeing is preferred by many to the counter practice of laying down land to Grass at the time of sowing the corn without hoeing.

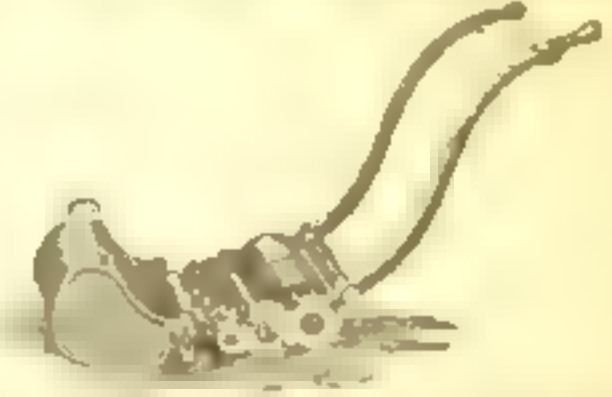
Turnip foliage on a large area of every province in the kingdom, in the latter part of the land ready for sowing is the result of the late sowing of the crop. On some farms and dairy farms, where the soil is light and the four-course system is followed, a shift of cropping, one year, is made, or the land is annually in the hands of the turnip for several years, however, is generally the case.

It is next ploughed lengthways, harrowed, and carefully weeded, and then rolled, when it is generally ready for ridging for the manure, or for spreading the manure and ploughing it in. But the ploughing is generally preceded by the cultivator, who, with a well-drawn up any weeds to the surface, and then, by a heavy roller, expels them from the plough. The cultivator keeps the natural moisture in the ground, if harrowing and raking be kept well up, and the winter-made mould is thus kept upon the surface, both of which are essential in the successful growth of the turnip.

Notices to Correspondents. FOREIGN PALENT MEAL.—R.N.W. Unless the cheaper price be owing to admixture with trash of any kind, and that is to be ascertained only by an examination of the particular lot for sale, you should not be deterred by the price from purchasing. Our manufacturers are as good at squeezing out the oil as any are, and the foreign meal is likely to be the richer of the two.

Highway J.G. Next week. LAMBS H.G.P. The best method of the operation is that to which the shepherds of the district are accustomed. In a matter where there is ample local experience, the local rules are the safest to adopt, and an old shepherd is as good an adviser in such a thing as a veterinary surgeon.

J. B. BROWN AND CO'S NEW PATENT BB LAWN MOWER for 1889. PRICES REDUCED AND THE MACHINE PERFECTED.



The BB LAWN MOWER (London made) is universally allowed to be, by practical judges, superior to any other—being the best designed, also of best material only, all parts liable to breakage being of malleable iron, and made to standard gauge, all accurately numbered, and the entire Machine fitted and finished in a manner inconceivably superior to any other Lawn Mower manufactured.

Alex. Mackenzie, Esq., Alexandra Park, Muswell Hill—appointed by the Metropolitan Board of Works to lay out their New Public Parks, and to plant the Thames Embankment, thus writes— "I have recommended your Lawn Mower to many of my friends, believing that the machine does its work better than any other, and combines strength superior to Shanks' machine, with the lightness of Green's. Having now four of your Lawn Mowing Machines in constant use on our grounds, and two of these having been in work over a year, I have never had cause to alter this opinion of your machine, which I now have pleasure in giving to you."

The BB LAWN MOWER was selected at the Paris Exhibition, in 1875, by the celebrated Engineer, Mous. Henry, and was also selected by the French Legislative Assembly.

PRICES—NEW PATENT BB HAND MACHINE for 1889. 10-inch } For a Boy { £3 5 0 | 15-inch A Man and Boy £7 10 0. 12-inch } A Man { 4 5 0 | 20-inch } £10 0 0. 14-inch } A Man and Boy { 5 10 0 | 24-inch } £12 0 0. 16-inch } A Man and Boy { 6 10 0 | 30-inch } £15 0 0. Prices of Horse and Pony Machines on application.

Prize Medal, 1867. Every Cottage should be provided with a Water Tank. Iron Cisterns. BRABY AND CO. having laid down more extensive and improved Machinery on their Deptford premises (100 Wares), are prepared to supply WROUGHT-IRON TANKS, GALVANISED or PAINTED, of superior quality, at reduced prices, and at very short notice.

Every Cottage should be provided with a Water Tank. Iron Cisterns.

LISTS ON APPLICATION.

An Illustrated Price List of Wrought Iron, and other of Brass & Steel. Max. & Co., Limited, Fitzroy Works, Euston Road, London; through all respectable Ironmongers.



COTTAM'S HURDLES are made in the best manner, of superior Wrought Iron, by a new method. Illustrated Price Lists on application to Cottam & Co., Iron Works, 2, Winsley Street, Oxford Street, London, W.

COTTAM'S PATENT PORTABLE UNITED FITTINGS.



Their advantages are—Portability, not Fixtures, removable at pleasure, no Woodwork or Partitions to impede Ventilation or breed Vermin, H.P. used with as unnecessary, increased width and depth of Feeding Troughs, Water Cistern, and Patent Drop Cover to prevent over-gorging. Cleanly, durable, and of infection, being all of Iron. Prices of Fittings per Cow 5s. Prospectuses free of Cottam & Co., Iron Works, 2, Winsley Street (opposite the Pantheon), Oxford Street, London, W. where the above are exhibited. Improvements in Stable Fittings just received.

NO IMPROVEMENTS OR ALTERATIONS FOR THE PRESENT SEASON, 1869,

IN

GREEN'S PATENT SILENS MESSOR,

OR

NOISELESS LAWN MOWING, ROLLING, and COLLECTING MACHINES.

The Extraordinary Success of GREEN'S PATENT LAWN MOWERS is an established fact. During the last five years the demand has been unprecedented, and alone is a proof of their superiority over all others. The following are their characteristic features:—

- 1st. Simplicity of Construction, every part being free of access.
- 2d. They are worked with far greater ease than any other Lawn Mower.
- 3d. They are the least liable to get out of order.

From the fact that these MACHINES are so well known in Great Britain and Ireland, also on the Continent of Europe, T. GREEN AND SON do not deem it necessary to trouble the Public with a list of the numerous Testimonials that they have received from time to time, but would simply add,

THEY ARE THE ONLY MACHINES IN CONSTANT USE AT

THE ROYAL HORTICULTURAL SOCIETY'S GARDENS, SOUTH KENSINGTON
 THE ROYAL BOTANIC GARDENS, REGENT'S PARK
 THE CRYSTAL PALACE COMPANY'S GARDENS, SYDENHAM
 BUCKINGHAM PALACE GARDENS
 MARLBOROUGH HOUSE

THE HYDE PARK GARDENS
 THE WINTER PALACE GARDENS, DUBLIN
 THE DUBLIN BOTANIC GARDENS
 THE LIVERPOOL BOTANIC GARDENS
 THE LEEDS ROYAL PARK

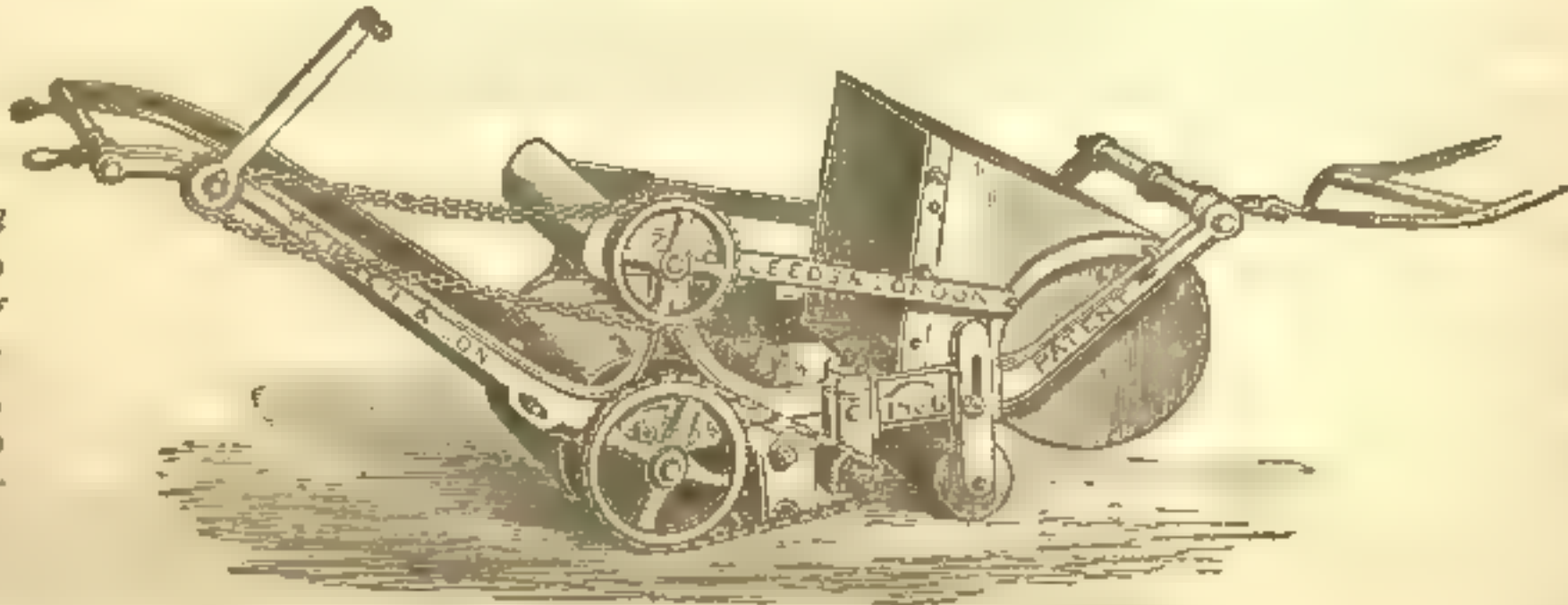
THE HULL BOTANIC GARDENS
 THE BOTANIC GARDENS, BRISTOL
 THE SUNDERLAND PARK
 THE PRESTON PARK

AND IN MOST OF THE PRINCIPAL PARKS, SQUARES, ETC., IN THE UNITED KINGDOM.

HORSE, PONY, AND DONKEY MACHINE.

GREEN'S PATENT LAWN MOWERS

have proved to be the best, and carried off every Prize that has been given in all cases of competition. Since the first year they were introduced (1836), upwards of 46,000 have been sold, and 25,000 of that number during the last five seasons.



T. GREEN & SON warrant every Machine to the entire satisfaction, and if approved of can be returned unconditionally.

PRICES of HORSE, PONY, and DONKEY MACHINES, including Patent Self-delivery Box; Cross Stay complete, suitable for attaching to ordinary Chain Traces or Gig Harness.

PONY AND DONKEY MACHINES.

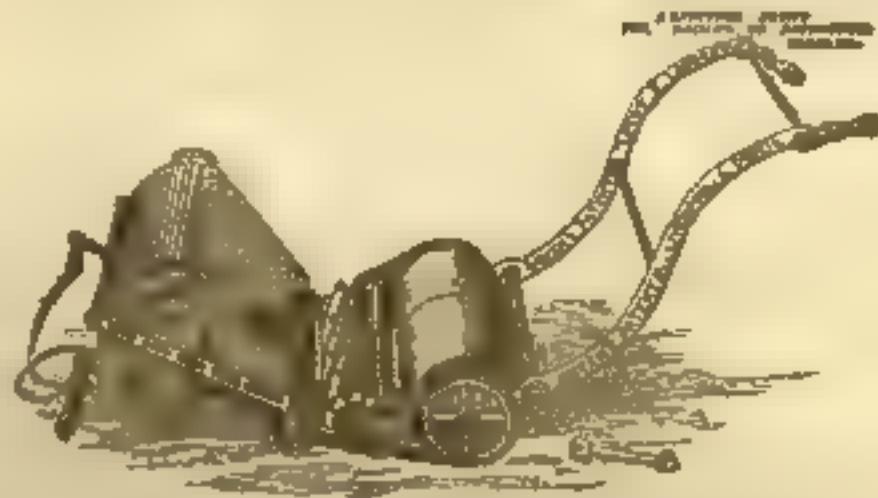
To Cut 26 inches	£18 0 0	} Leather Boots for Donkey, 18s. } Leather Boots for Pony, 22s.
" 28 "	.. ..	15 0 0
" 30 "	.. ..	17 0 0

HORSE MACHINES.

To Cut 30 inches	£21 0 0	} Leather Boots for Horse, 30s.
" 36 "	.. ..	24 0 0
" 42 "	.. ..	27 0 0
" 48 "	.. ..	30 0 0

Both the Horse, Pony, Donkey, and Hand Machines possess (over all other Makers) the advantage of Self-sharpening. The cutters being steel on each side, when become dull or blunt by running one way round, the cylinder can be reversed again and again, bringing the opposite edge of the cutter against the bottom blade, when Machine will cut equal to new. Arrangements are made that the cylinder can be reversed, by any inexperienced person, in two or three minutes.

HAND MACHINES.



To Cut 10 inches	..	£3 10 0	Suitable for a Lady
" 12 "	..	4 10 0	" "
" 14 "	..	5 10 0	Suitable for One Person
" 16 "	..	6 10 0	" "

To Cut 18 inches	..	£7 10 0	Suitable for One Person
" 20 "	..	8 0 0	Suitable for Two Persons
" 22 "	..	8 10 0	" "
" 24 "	..	9 0 0	" "

Packing Cases are charged at the following low rates, viz. —for the 10 and 12-inch Machine, 3s; 14 and 16-inch, 4s; 18 and 20-inch, 5s; 22 and 24-inch, 6s. Persons providing themselves with Lawn Mowers are recommended to purchase the cases in which to stow them away, when not in use, to prevent them from getting damaged, and returned, two-thirds will be allowed for them.

The above MACHINES are made from the best materials, and of superior workmanship; are delivered Carriage Free to all the principal Railway Stations and Shipping Ports in England, Ireland, and Scotland.

HORTICULTURAL and AGRICULTURAL IMPLEMENTS, GARDEN SEATS and CHAIRS, FOUNTAINS, VASES, PLAIN and GALVANISED WIRE NETTING and ORNAMENTAL WIRE WORK of every description.

Having very extensive Premises in London, we are in a position to do all kinds of Repairs there, as well as at our Leeds Establishment.

Having a large quantity of MACHINES in stock at our Leeds and London Establishments, we are in a position to execute Orders on the day they are received.

THOMAS GREEN AND SON, SMITHFIELD IRON WORKS, LEEDS;
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HOTHOUSES FOR THE MILLION.

AWARDED A PRIZE MEDAL, INTERNATIONAL EXHIBITION, 1862.

ON THE PRINCIPLE INVENTED AND PATENTED BY SIR JOSEPH PAXTON, M.P.

Combining Simplicity, Cheapness, Excellence, and Durability. Being capable of fulfilling in the most perfect manner all the requirements of Horticulture.

"Nothing can be more easy than to build them, nothing more simple than to remove them" *Daily News, May 22, 1862.*



MANUFACTORIES:—LONDON, GLoucester, COVENTRY, ULVERSTONE, PAISLEY, and ABERDEEN only.

ESTIMATES given for ORNAMENTAL CONSERVATORIES, GREENHOUSES, &c. to Designs, Sketches, or Specifications; also for HEATING APPARATUS, and complete anywhere in the United Kingdom. REFERENCES can be given to works executed in every County of England, and to many in Scotland and Ireland.

ILLUSTRATED CIRCULARS with LISTS of PRICES of the PATENT ROOFS, with Views of Conservatories, can be had on application to

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The THIRD EDITION of a HANDBOOK of VINE and FRUIT TREE CULTIVATION, as adapted to the above Patent Hothouses, containing Illustrations, Hints for Heating Houses, and General Directions for Cultivation, &c., by S. HEREMAN, Chatsworth, price 1s., post free, 1s. 1d.

The instructions given for the cultivation of the Vine and other crops are essentially practical, and are evidently written by one who has himself performed all the operations before he attempted to instruct others.—*Cottage Gardener, October 6, 1863.*

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HYDRAULIC ENGINEERS,

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Illustrated and Priced Lists of WARNER'S HORTICULTURAL IMPLEMENTS, comprising GARDEN ENGINES, WATER BARROWS, PUMPS, STRINGES, BRANCH PIPES, RUBBER HOSE, FOUNTAIN JETS, &c. will be sent upon application, or goods may be obtained from any Ironmonger or Seedsman at the Manufacturers' prices. Owing to the greatly increased demand for these engines during the last few years your early commands will be oblige.



FRAMES & PUMPS FOR DEEP WELLS.



No. 35.

CAST-IRON PUMPS.

2½ inches	..	£1 8 6
3 "	..	2 1 0
3½ "	..	2 6 0
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WARNER'S CRYSTAL PALACE FIRE ENGINE, or PORTABLE FORCE PUMP.

Price on Barrow, with Branch Pipe, Spreader, Unions, and Suction Hose, £6.

1½-in. 2-ply Rubber Suction Pipe, per foot, 2s. 2d ;
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Messrs. WARNER & SONS.
"GENTLEMEN,—I feel great pleasure in stating that I was present at a trial of your small Crystal Palace Fire Engine, and was much pleased with its efficiency and simplicity. The Pump throws out a steady jet of water to a height of 50 feet with very little labour. The Pump we have is well made, very simple in its parts, and not likely, I think, to get out of order. The advantage of this pump is its being very portable. Besides being a good Fire Engine, it will make an excellent Garden Engine."
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"Edwin Ross, Engineer to the
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SWING WATER BARROW.

60 gallons	..	£5 12 0
38 "	..	3 17 0
30 "	..	2 13 0
20 "	..	2 2 0

WARNER'S GARDEN ENGINE Holds 5 gallons, is light, portable, and easily worked by a lady or child .. 60s.



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GARDEN ENGINE

28 gallons	..	£5 10 0
24 "	..	4 19 0
16 "	..	3 14 0
10 "	..	2 19 0



WARNER'S AQUAJECT

Useful for every variety of purpose—in watering or washing flowers or trees in gardens, Conservatories, &c. also, for washing Carriages or Windows, laying Dust, &c.
Price, complete .. £1 10 0
Small size for the hand, as an ordinary Syringe 0 15 0

Indestructible Terra-Cotta Plant Markers.
MANUFACTURED BY JAMES HARRISON & CO. LTD.,
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 PATENT STEAM PLOUGH
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NEWLY PATENTED EDGE-CLIPPING SILENT LAWN MOWER
 THE MOST IMPORTANT IMPROVEMENT EVER INTRODUCED.



MESRS. SAMUELSON AND CO. REG. TO DRAW SPECIAL ATTENTION TO THEIR NEW LAWN MOWER for 1886. Which are fitted, when required, with a new EDGE-CLIPPING arrangement, superseding the tedious operation of Clipping by hand. All Machines fitted with new Silent Bearing giving perfect freedom of noise when at work. Catalogues, with descriptions and prices of the new Patent Edge-Clipping Silent Lawn Mower, on application.

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GREEN'S IMPROVED PATENT ROLLER,
 FOR LAWNS, DRIVES, BOWLING GREENS, CRICKET FIELDS, and GRAVEL PATHS SUITABLE FOR HAND OR HORSE POWER.

PRICES OF HAND ROLLERS.

Diam.	Length.	£ s. d.
30 inches	32 inches	7 10 0
24 inches	26 inches	4 10 0
20 inches	22 inches	3 10 0
16 inches	17 inches	2 15 0



PRICES OF ROLLERS FITTED WITH SHAFTS, SUITABLE FOR PONY OR HORSE POWER.

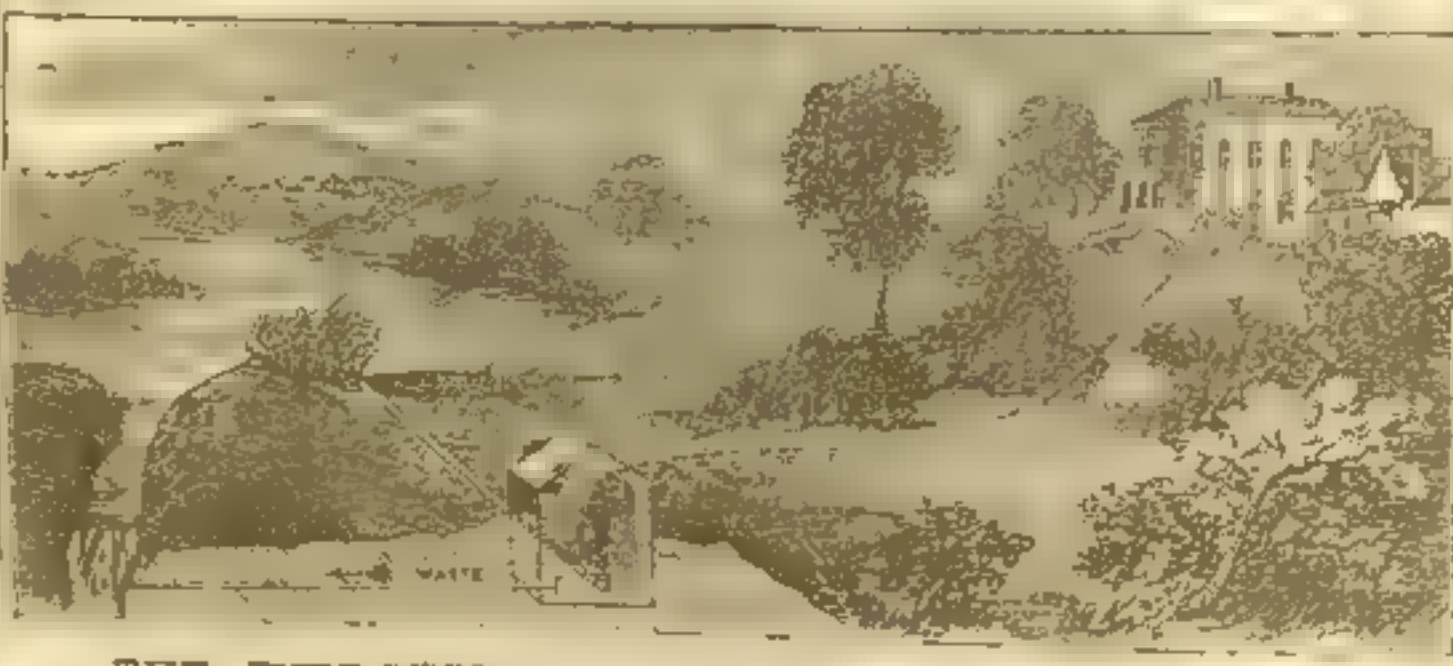
Diam.	Length.	£ s. d.
30 inches	32 inches	10 10 0
30 inches	42 inches	11 10 0
30 inches	48 inches	13 10 0
30 inches	60 inches	15 10 0
30 inches	72 inches	17 10 0
30 inches	84 inches	19 10 0

These Rollers possess many advantages over all others; they are made in two parts, and are free to revolve on the axis, affording greater facility for turning, and the outer edges are rounded off, or turned upwards, thus avoiding the unsightly marks left by other Rollers. They are manufactured of the best materials, and are got up in a manner surpassing any ever yet brought out. The rollers 24 by 26 inches, 20 by 22 inches, and 16 by 17 inches, are made in one part, at a reduced price, and, for Rollers of that size, will be found to answer many requirements. The handle can be reversed to either side of the Roller at pleasure.

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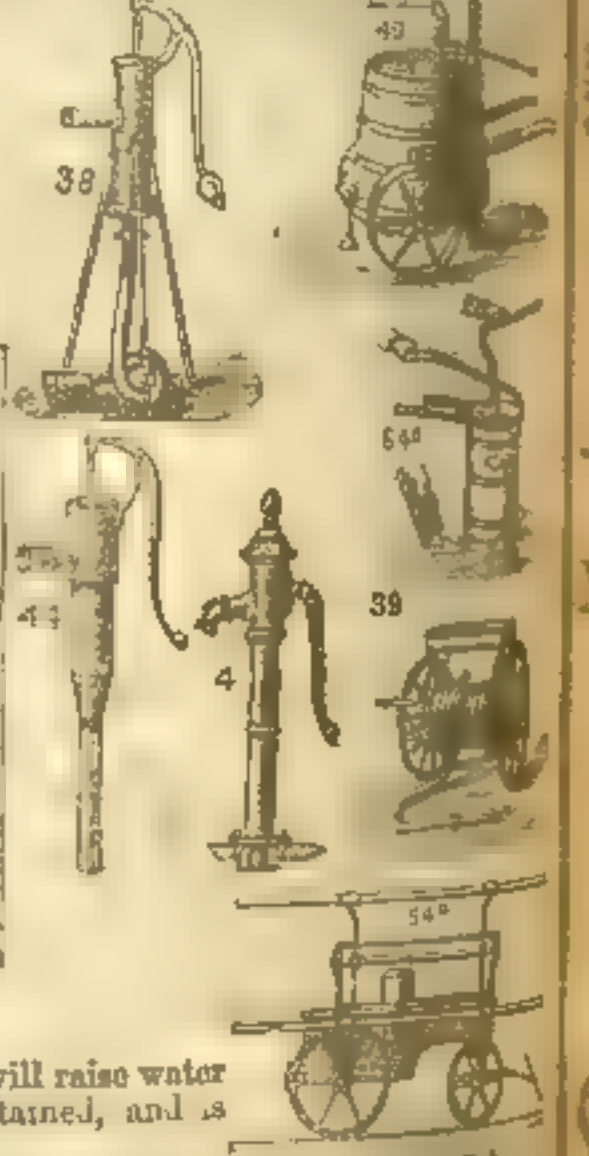
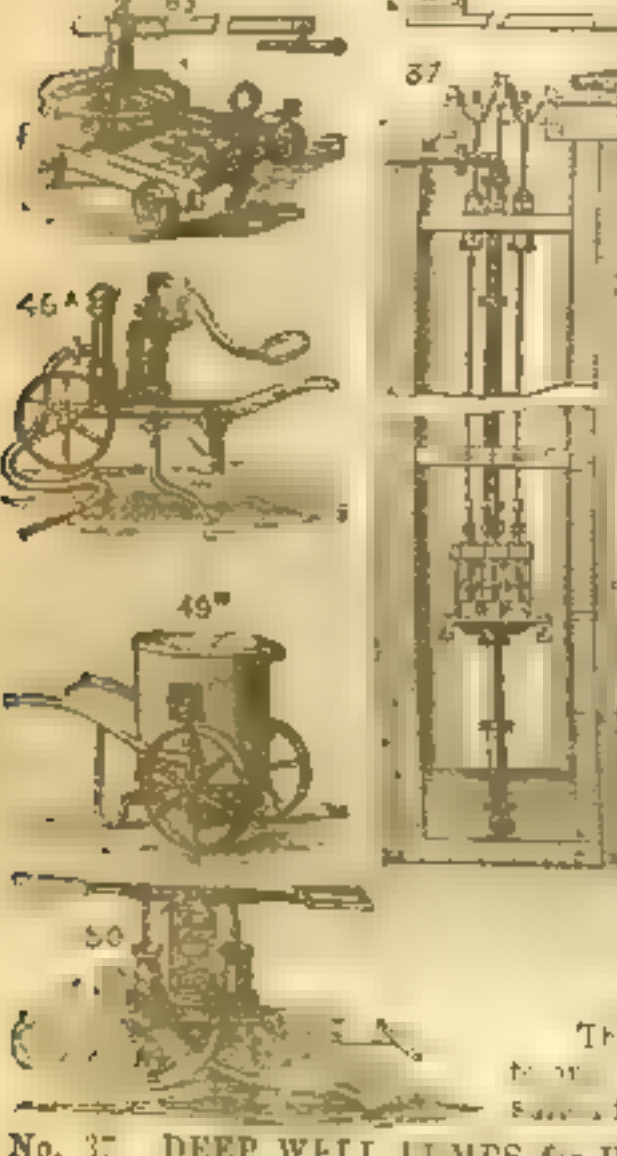
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HYDRAULIC ENGINEERS,
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THE IMPROVED SELF-ACTING HYDRAULIC RAM.

This Self-acting Apparatus, which works day and night without needing attention, will raise water from any distance, without cost for labor or motive power, where a few feet fall can be obtained, and is suitable for supplying Public or Private Establishments, Farm Buildings, Railway Stations, &c.



- No. 37. DEEP WELL PUMPS for Horse, Hand, Steam, or other Power
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- No. 46a. IMPROVED DOUBLE ACTION PUMPS on BARROW for Watering Gardens, &c.
- No. 49a. GALVANIZED SWING WATER CARRIERS, for Garden use.
- No. 50 and 51a. FARM and MANSION FIRE ENGINES of every description.
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- No. 49. GARDEN ENGINES, of all sizes, in Oak or Galvanized Iron Tank.
- No. 51b. THE CASSIBURY FIRE EXTINGUISHER, as designed for the Right Hon. the Earl of Essex.
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- No. 4. CAST-IRON GARDEN, YARD, or STABLE PUMPS.
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S. OWENS AND CO. Manufacture and Erect every description of Hydraulic and General Engineers' Work for Mansions, Farms, &c., comprising PUMPS, TRENDS, WATER WHEELS, WARMING APPARATUS, BATHS, DRYING CLOSETS, GAS WORKS, Apparatus for LIQUID MANURE distribution, FIRE MAINS, HYDRANTS, HOSE PIPES, &c., &c. Particulars taken in any part of the Country. Plans and Estimates furnished. ILLUSTRATED CATALOGUES CAN BE HAD ON APPLICATION.

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THE "AUTOMATON"

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THE "AUTOMATONS" are the most perfect lawn mowers ever invented. They are easy to work, and require no attention, almost noiseless; and are driven by machine-gears, and are intended to cut...

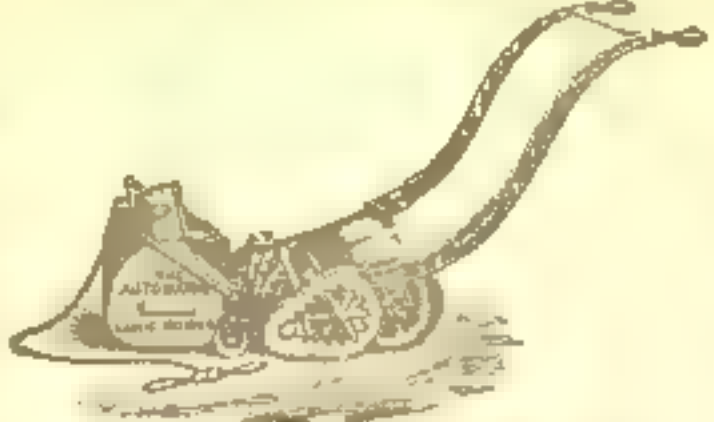


Table listing prices for 'THE AUTOMATONS' in various sizes: 14 inch, 16 inch, 18 inch, 20 inch.

Table listing prices for 'GARDEN ROLLERS' in various sizes: 18 inch, 20 inch, 24 inch.

LAWN MOWER.

2400 Sold since 1867.

Delivered Free to all the Provincial Stations in England.

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H. DOULTON & CO.'S GARDEN EDGING TILES



THESE TILES ARE MANUFACTURED IN

VITRIFIED STONE-WARE AND IN TERRA-COTTA OF THE BEST MATERIAL, WHICH IS BURNT TO AN EXTRA DEGREE OF HARDNESS, AND WARRANTED IMPERISHABLE.

Price Lists of the above, and also of TERRA-COTTA GARDEN VASES, FOUNTAINS, PENDANTS, WATER-POTS, FERN-CASES, &c., &c., may be had on application to DOULTON AND CO., HIGH STREET, LAMBETH, S.E.

PORTABLE AND FIXED HOT-WATER APPARATUS,

FOR HEATING CONSERVATORIES, HOTHOUSES, CHURCHES, PUBLIC BUILDINGS, PRIVATE RESIDENCES, ETC., WITH TRUSS PATENT UNIVERSAL FLEXIBLE AND LEAKLESS PIPE-JOINTS.

T. S. TRUSS

It is to state that the apparatus of APPARATUS... HORTICULTURAL SOCIETY... T. S. TRUSS, C.E., CONSULTING HORTICULTURAL ENGINEER, &c., SOLE MANUFACTURER, IRON MERCHANT, HOT WATER APPARATUS MANUFACTURER, AND HORTICULTURAL FURNER, FRIAR STREET, BLACKFRIARS ROAD, LONDON, SE

Table showing costs for hot water apparatus: TWO FOUR-INCH PIPES ALONG ONE SIDE AND ONE END OF HOUSE. Columns include Apparatus Complete, Erection, and Size of House.

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Advertisement for The Packington Plant Trainer, featuring an illustration of the device and text describing its use for training plants.

Advertisement for MR EDWIN COOLING, Horticultural Valuer, with details on agricultural valuations and services.

Advertisement for Sales by Auction, featuring Messrs Blake, Son, and Haddock, listing various plants and horticultural items for sale.

Advertisement for a Highly Important Sale of Established Orchids, listing various orchid species and their prices.

Advertisement for Manor House Shacklewell, listing various plants and horticultural items for sale.

Advertisement for Messrs Protheroe and Morris, listing various plants and horticultural items for sale.

Advertisement for Richmond - To Gentlemen, Florists, and Others, listing various plants and horticultural items for sale.

Advertisement for Wicken Park, near Stony Stratford, listing various plants and horticultural items for sale.

Advertisement for Sale of First-class Shorthorns and Prize Leicesters, listing various breeds of cattle for sale.

SHANKS'S PATENT LAWN MOWERS FOR 1869.

UNDER THE PATRONAGE
OF
HER MOST GRACIOUS MAJESTY
THE QUEEN,



AND MOST OF THE
PRINCIPAL NOBILITY
OF
GREAT BRITAIN.

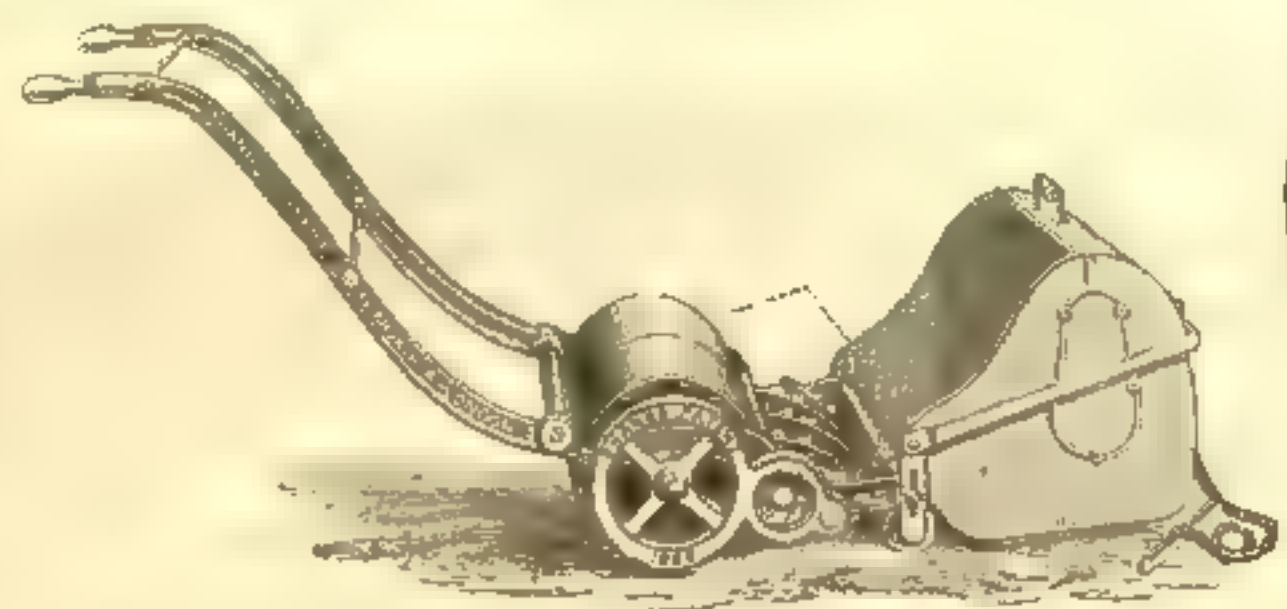
The Patent Improvements recently introduced give Shanks's Machine several important advantages possessed by no other Lawn Mower.

PATENT DOUBLE-EDGED SOLE PLATE, WIND GUARD, &c., &c.

THE UNPRECEDENTED SALE FOR 1868 BEARS TESTIMONY HOW MUCH THESE ADVANTAGES HAVE BEEN APPRECIATED.



THE FIRST PRIZE MEDAL
OF THE
INTERNATIONAL EXHIBITION,
LONDON, 1862.



HAND MACHINE.



THE FIRST PRIZE SILVER MEDAL
OF THE
UNIVERSAL EXHIBITION,
PARIS, 1867.

ALEXANDER SHANKS AND SON, in presenting their "PRICE LIST of LAWN MOWERS for 1869," have much satisfaction in intimating that among all Exhibitors of Lawn Mowers at the Universal Exhibition of 1867, they are the only Firm to whom the Jury have awarded a Medal.

A. S. AND SON have, in addition to the PATENT DOUBLE-EDGED SOLE PLATE and WIND GUARD, made very great Alterations and Improvements in the Machine. These alterations, which were introduced last Season, have now undergone an effectual trial, and the result has been so successful as to enable A. S. AND SON to offer a Machine which far excels any other that has ever yet been offered, *whether for ease in working, certainty of action, or durability.* It has only to be compared with other Machines, when its superiority will be at once seen and understood.

PRICES—INCLUDING CARRIAGE TO ANY RAILWAY STATION OR SHIPPING PORT IN THE KINGDOM

SHANKS'S NEW PATENT HAND MACHINE.

10-inch Machine	.. .. .	£3 10 0	} <i>By a Lady</i>	16-inch Machine	.. .. .	£5 10 0	} <i>By a Man</i>
12-inch Machine	4 10 0		19-inch Machine	7 15 0		} <i>By a Man and a Boy</i>
14-inch Machine	.. .. .	5 10 0		22-inch Machine	.. .. .	8 10 0	
			<i>By a Boy</i>	24-inch Machine	.. .. .	9 0 0	<i>By Two Men</i>

The Hand Machines are all with Silent Movement.

SHANKS'S NEW PATENT PONY and DONKEY MACHINE.

Width of Cutter	.. .. .		If with Patent Delivering Apparatus
25-inch Machine	.. .. .	£12 10 0	25s. extra.
28-inch Machine	.. .. .	14 10 0	30s. "
30-inch Machine	.. .. .	15 15 0	30s. "

Silent Movement, 12s. 6d. extra.
Boots for Pony, 22s. per set.; Ditto for Donkey, 18s. per set.

SHANKS'S NEW PATENT HORSE MACHINE.

Width of Cutter	.. .. .		If with Patent Delivering Apparatus
30-inch Machine	.. .. .	£19 0 0	30s. extra.
36-inch Machine	.. .. .	22 0 0	30s. "
42-inch Machine	.. .. .	25 0 0	40s. "
48-inch Machine	.. .. .	28 0 0	40s. "

Silent Movement, 20s. extra. Boots for Horse, 26s. per set.

SHANKS'S PATENT LAWN MOWERS

ARE THE ONLY ONES IN DAILY USE IN THE

ROYAL GARDENS AT KEW, WINDSOR, BUCKINGHAM PALACE, HAMPTON COURT, OSBORNE, AND BALMORAL,
IN THE GARDENS OF THE ROYAL HORTICULTURAL SOCIETY, IN THE GROUNDS OF THE CRYSTAL PALACE COMPANY, &c.
SOUTH KENSINGTON; SYDENHAM,
IN HYDE PARK, IN VICTORIA PARK, IN BATTERSEA PARK;

And in many hundreds of the principal Gardens in the Kingdom, as well as abroad, where their merits have been fully proved and their success firmly established.

Every Machine warranted to give ample satisfaction, and, if not approved of, can be at once returned.

ALEXANDER SHANKS AND SON, DENS IRON WORKS, ARBROATH,
AND
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27, Leadenhall Street is the only place in London where intending purchasers of Lawn Mowers can choose from a Stock of from 150 to 200 Machines.
All sizes kept there, whether for Horse, Pony, or Hand Power.

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Printed by JAMES MATTHEWS, at the Office of Messrs. HENRY, EVANS & Co., Lombard Street, Precinct of Whittetiers, City of London, in the Co. of Middlesex, and Published by the said James Matthews, at the Office, No. 41, Wellington Street, Parish of St. Paul's, Covent Garden, in the said County, —SATURDAY, May 1, 1869.

with class	Mrs
and moderately vigorous	1st class in 1869
dark red zone	leaves bold, flat, entering them
Moderately vigorous	leaves large, flowers scarlet
yellow edged, with distinct red zone	leaves lobed, yellow
foliage of this is very effective	1st class
spreading vigorous growth	light red
with orange-red zone, flowers	1st class
Alhambra, Florence, Hunt	
Mrs. Bayon, Mrs. G. Williams, Ruby King,	
Queen of Trion	
Countess, Titania	
Moderately vigorous	leaves with creamy
and faint pink zone, flowers bright scarlet	margin and
of vigorous habit	leaves with creamy
white edge and faint dull brownish zone; flowers scarlet	margin and
1st class in 1865	
Moderately vigorous; leaves with creamy	
margin and faint pink zone; flowers rose	1st class in 1866
Glen Eyre Beauty	leaves with creamy margin and
bract above red zone	In the early part of the season it
was even superior to the	at class in 1867
of moderate	leaves with creamy
vigorous spreading habit, leaves	margin and
creamy white, with distinct rosy-pink zone, flowers	margin and
scarlet	1st class in 1868
Moderately vigorous; leaves flat, with green	
centre, creamy margin, and well marked deep rosy	
and effective	1st class in 1868
From the	
latter a free-growing and effective plant	
Attraction (Galbes), Burning	
Bush, Cambridge Gem, International, Lady	
Elena Mary, Little Beauty, Rose Queen,	
Rosette, The Countess, White Lady	

WINDOW GARDENING IN TOWNS.

I was highly gratified with "Lina's" remarks upon this subject. On a recent visit to the commercial metropolis of Glasgow I remarked the prevalence of window gardens almost every window of the town was a window garden. Many are of the most beautiful, others are furnished with many of the grasses and ferns with admirable cultivation. There are numerous large houses which are described as having parterres painted or repainted fitting into the window and with earth unfurnished with flowers of the summiest description or hung as Lina points out, or penny packets of gas Anemones—with Maurandias, Nasturtiums, Canary Crocuses or Convolvuli, hanging down gracefully over the heads of the passers-by, or climbing up the sides of the window, and shaping the sky line with floral arches of beauty. Others again substitute tiles or stoneware, china, or ornamental iron boxes, for wood. Some of these window boxes are highly artistic, better patterned, and give a taste first to the front of the houses.

But the difference in the treatment of these gardens is as nothing to the varieties in structure and form of the upper stories. For the most part one is used that probably a majority of these spaces are not used at all, but green or hothouses to boot. For the purpose of keeping out the blacks and improving the climate, immense numbers of them are converted into green or hothouses. The simplest mode of effecting this transformation is the following—Squares of glass, of the desired height, are pushed firmly down into the soil along the front and ends of the window garden. A large square of glass is then carried across from the window to an arch beyond the glass side of the box. This forms the roof. It is held in position by two or three pieces of hoop iron being carried up from the side of the box to the height of the front of the roof and ends with a bar of iron across the front edge of the glass. A square of wood or a similar bar of iron is also carried across the top of the box with a hook at each end, and the roof is supported about halfway across the box by a similar bar of iron. One of these took the form of a simple arrangement, the greenhouse being supported by a simple arrangement of iron rods and being all tight. Even ruder contrivances than this may be met with. Invention has been severely taxed in the matter of glazing. I believe every known method has been illustrated in these window gardens in Glasgow. And the modes of fixing in the glass can hardly be more varied than the shape of these tiny houses. You may see curves of all forms, lean-to's, spans, half spans, ridge-and-furrows, domes, bells, glass steeples, quadrants—all shapes are pressed into use. The most elegant are perhaps the semicircular roof, sweeping down from the top or middle of the window to the surface of the garden. Very ingenious devices are used for ventilation, and most of the expedients known in gardens, from the removal of a pane of glass by hand, to the

opening of crossing of vent at big spaces, have been applied to these interesting miniature glass houses. The most common height of the glazed sash of the gardens reaches to the top of the bottom sash of the windows. The under sashes are capable of being slid up or doubled back throughout their entire length. Two glass sashes are attached to the top of the upper sash, and is often attached to it. In that case the pure air must either come into the room, or be admitted through the window, or be admitted through the door. The latter is objectionable, as it creates draughts and the plants, and runs the risk of vitiating the air by the outside air. In rooms where each window is furnished with its garden, the glass sash can be attached to the window frame, but to an extra bar, and the upper sash be left free to move at will. It is important that the ventilation of the room should be separate and the window garden should be in danger of being over-heated by the air while their plants will either have too much, or the living room too little air, unless the one is rendered quite independent of the other. This danger guarded against, nothing can add more to the enjoyment of a home than these glazed window gardens. We have heard a good deal lately about window greenhouses, but in these glazed window gardens possess all the merits of the most perfect portable window greenhouse. We can adjust the glass sashes, our gardens, or shut them out of our living rooms or bed rooms at pleasure. And that is the power of shutting out the sun, or entering in a great extent in the enjoyment of a window greenhouse, but it is also of the utmost importance to the health and beauty of the plants. Supposing, for instance, such a garden is furnished with tender plants, it is necessary to close the tropical heat and excess of moisture within the limited area. On the other hand, if it is not heated, and the night is cold, throw up the window, and the heat of the room will preserve the plants from frost. But morning comes and with it the sweep or the house-maid down with the window, and preserves your plants from a dusky and glib breakfast of soot and dust. The window garden, placed ever so closely, must never induce its owner to respire with the window. This inner barrier of glass is needed to separate between the two forms of life. Our object is to keep the plants there is to have a maximum of enjoyment from them with the minimum of injury to the plants or ourselves. As to the plants which are to be grown in these window gardens, almost any known plant may be made to grow in them. Their areas are necessarily limited, but, fortunately, more can be developed in these window gardens, and even size may be had within reasonable limits. It would therefore seem superfluous to enumerate lists of plants suitable for cultivation in such structures. Among tender plants few could be more suitable than the hardier Caladiums, Begonias, Ferns, and Mosses. Amid curious plants there are the Cacti, Melocactus, Echeverias, Mesembryanthemums, Saxifragea, and all the various races of succulents. For the general run of such gardens there are the Pelargoniums of all kinds and colours, forming a host in themselves, sufficient to fill all such gardens with beauty throughout the year. Then there are the Fuchsias, of which almost the same might be said, with Petunias, Balsams, Verbenas, Chinese Primroses, Chrysanthemums, Camellias, Indian Arizans and the easier grown Heaths, Cystisus, and Coronillas, all admirably adapted to enter window gardens at the various seasons of the year. The whole host of bedding plants, whether grown for foliage or flowers, will thrive in such situations with proper care, while in the wall-glazed little house Achimenes, Gloxinias, Begonias, and all such plants will grow well, flower in summer, and give the lower half of the window a tropical richness, even though the upper half reveals the proverbial leaden skies of the northern parts of Britain. Almost every wild or common garden plant may be found in these window gardens, and I confess that I look upon the rough boxes of the poor and the struggling classes with most interest. There was something pathetic in noting the efforts of the poor to bring some fragment of the beauty, purity and freshness of the country to brighten up the dark, close, stifling garrets, and dark, dreary cellars in which so many of them are doomed to dwell. I had the privilege, or pain, for it was both—of visiting some of the worst parts of Glasgow in company with a city missionary, and I found the love of flowers, as proved by their possession, to be almost universal among the lowest classes of society. It would have humbled the pride of many professional call-vaters to have seen the poorest of these wretched creatures, some of the most wretched of the race, to be the only gardeners that I met in the most depths of the city. It was the one ray of hope and the one bright spot in the lives of these poor men to man but birds man to his Maker and who can tell how many may have been drawn back by their gentle saint ministry to duty, virtue, and goodness, after another ministry had failed. But leaving the regions of wretchedness and glacially ascending the social ladder to the ranks of industry, we seem to breathe the fresh air of a new world, and while we gratefully note how much clearer and purer it is, we cannot but be aware that it is now so heavily laden with the fragrance of flowers. There are for these among the working poor of Glasgow seemed universal. Much of their time at home is spent in cultivating, and most of their short holidays in collecting flowers for the window garden. The following sample of flower-hunting, in which I shared, is given as a fair illustration of the means used to

furnish these windows. I was gratified to find them filled at a cheap rate through the day a trip to Stirling was proposed, and Glasgow friend—every window in whose floor had its window box or garden—was particular about providing, before starting, two or three large pocket-handkerchiefs, and a box of soap. No sooner had we cleared the streets than the reason of our carrying these things was made known. The water events it must be known—yes, the water was fished out of the pond. He had had one thing like it, before, and it had had two windows and expanded two or three times. We also hunted for Mosses, Lichens, and ends, to set off the "other tower window." Some fine Daisies, Bachelor's buttons, and Gardeners' Garters, had been seen in the latter's garden, and some of the same flowers to be seen in others, that the garden took more of the old place at home. The mixture looked better than if they were all wild or tame. A week's cause of the day or an expression of respect to—"It's just a grow year ago in the auld house at my order" was generally sufficient to transfer a handkerchief from the cottage gardens to the handkerchief. Oocas was a of something was given in exchange, and the handkerchief seemed to change hands during the garden to the handkerchief. But the sometimes met with the "ready ye're welcome to the bit flowers, bars and handkerchiefs" which were spent at home, but when the handkerchief was given, the wife had to be given to the wife. "Kent him" was a year ago, when the wife and handkerchief were as a handkerchief. A woman's love of make the whole world know. During the whole of a year there had been the collection of out with an energy and enthusiasm as to any other country; and called with a most together of the world. At last enough of better. Well, man, I an array of flowers, and the the station. So I went to town for a day, and I had a new record of an of some with a bearing him. Lack of the collection of flowers their success at the window garden, this passage of the handkerchief compared to the handkerchief when we reached the window with its handkerchief and a toast, sweet cake, and a tea-table and more attraction. My friend seemed to be in a preserve. The flowers were here or there, but they were shed now, but they were pairs of tiny hands with living tenderness, or clapping, while their little feet actually about for very gladness of "Oh you little dainty!" addressed heard from tiny lips, and old ones. Every vase, glass, and even the old less tea-pot were in it, tant ready and no sooner were all the duty overflowing handkerchiefs were made treasures. That room, in the heart of the city of Glasgow, was transformed into a representation of the flora of Scotland. I confess that, amid all these things, I felt a gathering lump in my subdued my cravings for tea; more than any one when all the of the beautiful was at last man lane pleasure of giving and standing that as the handkerchief, which every day I was to renew the window gardens on the morning undertaken with fear and trembling bold face upon it, and began to of the windows with the handkerchief to the ringing in of the new. However, nearly brought me to ground, had lead-looking bits, as I soon had spread, or reverenced as home had been carried from the battle-field that been brought from Burnside Hill, and that little plant of a struggling "wee bit o' the Maiden's Blush" that front of the handkerchief. These things must be done, and the handkerchief had to be inserted, and the window and room must be kept for the window they must be made to grow. The handkerchief was a very good one, and I very much enjoyed over these window gardens. I had done since over far more matters came at last, and it was a little bit never "lookit see pretty at the window." Every window garden is more or less

beautiful, but unfortunately the weather... The Victoria house... the most spacious I have seen, but it is not... contain anything worth particular notice... of the month, or even before June or July... course considered as a sanctum... is admitted without special... however, through the glass... and contains only a limited... of plants.

I am told, 34 houses here, but I do not... however, that a good few of these houses... such plants as in England and other... in winter. They... at least from 40 to 50 pairs... There are two species of houses for tropical... Avocets, Yuccas, Cordylines, &c., but... and many of them are what... called Tree Ferns, having trunks, if... to describe them, from... and fronds about 6 feet long, so that... at least a space of 12 feet.

of a *Blatantium*, which has a... 2 feet thick and from 3 to 4 feet high;... it during the winter it was quite bare, ... about a dozen young fronds are shooting... could think that in the course of a month... be beautiful. What promises to be the... of all the Tree Ferns, is one which is... and about which I have not yet succeeded... any information; the stem is fully 7 feet... inches in diameter. It has been nursed... time, and is at present bound up with a little... but the young fronds are shooting out freely... of them are nearly 3 feet long.

Several remarkably fine specimens of... from Van Diemen's Land, ... similar... 1 foot high, and fronds from... these large and beautifully... there is an extensive collection of small... benches or shelves near the glass all

of the Agaves there are some eight or ten, about as... any I have ever seen. Some of the Yuccas too... plants, from 3 to 7 feet high... other plants remarkable for their handsome... there are several specimens of *Encopha...* and *E. caffer*; the latter has... feet high, and the head is at least 8 feet... Another large and beautiful *Cycad* is called... *Peroffskiana* (Begel), this plant is about... diameter. It was introduced from Mexico... Peroffsky, formerly director of this garden... to be the only one of the kind in Europe... *revoluta* has a stem fully 6 feet high, and... 9 feet in diameter.

You are already acquainted with an Ivy... named *Hedera Helix* var. *dentata*... among the Ferns with several other... leaves are about 6 inches in... with in late prickles, not teeth... Apart from its technical characters, ... the best *Hedera*s in cultivation... and *Hedera Helix* var. *maculata*, ... distinct in outline, and slightly... *H. Helix* var. *Wagneriana* is a fine large... regular at the margin.

I wrote you the other day I have had... the preparations for the Exhibition, ... now better able to form an idea of their... I find that the house, or series of houses, ... before are being arranged as stores for... of plants which it is intended to flower... opening of the Exhibition, which will itself... whole of the riding school adjoining a... and well-lighted hall, about 150 paces long and... 50 paces wide. A large doorway has recently been... in the wall, which will serve as a communica... to the Exhibition and the plant-houses. A... number of workmen are busy arranging... which will be laid out as a garden. At... rockwork and mound are being formed, ... visitor may obtain a general view of... but there is a great deal to be done yet... like design can be seen, for the... alterations have recently been set to... recently. I should say there will be... for the windows are large and nume... would have been a great advantage if the... were 10 or 15 feet higher. However, I... a better place for an exhibition of flowers and... easily be found. The Neva has been... for 8 or 10 days, and the bargemen are... direction. The weather at present is... I think this year the navigation will... sooner than usual, so that those who... from England and other countries with... or plants to the Exhibition, are likely to be... this soon enough if they come by sea. K.

MARTZBURGH, NATAL.—The great want in this... is timber. Along the coast there is a belt of bush, ... in the interior timber in the kloofs or ravines, but... the plains, for miles upon miles, not a tree is to be... Then you come to a thorn district, where the... scattered about, gives the country a park-like... appearance, as it has indeed all along the coast, ... where the scenery is sometimes very beautiful indeed. ... The native woods all grow very well at the same eleva... and with the same shelter as they have at home... they won't do in the open. The Blue Gum and... Wattle and Willows of Australia will do well, but... require much care and cultivation. They will not do... to take care of themselves; they may live, but

they will not thrive, though if taken care of, their growth... is rapid in the extreme. I saw... Gums raised from seeds and plants... last three years, and many of them... 30 feet high. The tops of the... are flat, table mountains being found... The character of the soil is very fertile... of Wattle. The only trees to be seen... in the garden are the Wattle, the... the richness of the soil as some assert—may be... gathered from this. I had to enclose my garden from... the open "held" or common, and to break up and get... the land in order, and have now in the fences and... banks, Oak, Ash, Elm, Furze, Poplar (all English)... Blue Gum, Willow, and Wattle (Australian); also... Aloe and Prickly Pear (American). The Banana is... in good bearing with the Walnut and Hazel close by, ... the Pomegranate and Raspberry alongside each other... The Fig and the Ribston Pear, the Strawberry, and... China, Arrowroot, and Cabbage—the latter the richest... I ever ate. Cotton and Tobacco, the Peach and Pome... granate are grown together for fences, the former so... that I feel my eyes in them, and yet with... and stock of all kinds in the garden... in an almost hopeless state of insolvency.

Societies.

ROYAL HORTICULTURAL May 4.—James Bateman... F.R.S. in the chair. At the conclusion of the... usual preliminary business of the meeting the Rev... J. Dix, in announcing the awards made by the Floral... Committee, directed attention to the various objects of... interest and beauty brought before them, and more... especially to some flowers of *Menyanthes trifurcata*, a... beautiful British plant that is found growing in... marshes and which was said to be the property of Mr... Earley at E. Power, Esq., Dagenham Park.

The Rev. M. J. Berkeley, in addressing the meeting... first referred to the arrangements made regarding... the prize for the best collection of *Narcissus*, and... said that in consequence of it was found impossible... to get a great number of species in flower at... the same time, in consequence of the flowering... periods of the different species extending over a con... siderable time. He then informed the meeting that it... had been decided to open the competition at the next... meeting, May 18, from which time a record would be... kept until the termination of the contest at the first... Tuesday meeting in April, 1870. He further stated, that... when the prize was first offered it was not intended... that garden varieties should be admitted into competi... tion, but only true species; but it was now decided... that all marked varieties should be included, and that... it would be left at the option of the judges to disqualify... false varieties that were exhibited.

(Mr. Berkeley) then exhibited a specimen of what was... called *Narcissus biflorus*, though it was not always two... flowered—as in some instances he had found five flowers, ... and sometimes only a single flower. In all probability... the plant in question was a hybrid, as it appeared never... to produce ovules. He then alluded to the new form of... *Colerix* exhibited at the Floral Committee. Mr... Berkeley then called attention to the new *X Dieffenbachia*... *nebulosa* was a cross between *Wendlandia picta*, raised... by Mr. Haase. In allusion to the one shown by Mr... Standish, Mr. Berkeley stated that some of the Marquis... possessed many fine specimens of *X Dieffenbachia*... *campestris*, and *X Dieffenbachia* var. *platanoides*, were... desirable of it. With reference to the *Narcissus*... shown by Mr. Standish, Mr. Berkeley stated that out of 1000... seedlings raised between *annuncium* and *Muricoides*... only 12 resembled the female parent. Attention... was then called to some sports of *Croton variegatum*... all produced on the same plant. A specimen was also... made to an *Urtica* like plant, called *Urtica*... *spectabilis*, so named on account of its poisonous bark. ... It belongs to the same family as the *Oleander* and the... *crispata* plant of Malabar. A specimen of *Urtica*... *florida*, a common *Urtica*, from Abyssinia was then... exhibited. Mr. Berkeley then repeated the observa... tions made at former meetings, respecting the growth... of Truffles; and with reference to the mildew on *Roses*... stated that it could be cured, as was also the case... with the Hop and Vine Fungus, because the... mould grew on the surface, and not within... the substance of the leaf. Some flowers of the common... *Baccharis Button* (*Lychnis dioica*), in which the... anthers were affected with Fungus (a species of... *Ustilago*) were then shown. In this case Mr. Berkeley... observed that the spores must have travelled from the... plant. Alluding to the advertised nostrums for... destroying smut, mildew, &c., Mr. Berkeley stated... that at these were in some cases fallacious. But Mr... Berkeley said, might be remedied, but mildew and... smut could not be entirely eradicated, but the... large to enter the stomata of the plant, and the spores... in germinating, produced fine threads, capable of... penetrating these apertures. The best remedy in... the case of smut had been found to be a mixture of... Glauber's salts and quicklime. A Tulip was then... shown with numerous excrescences upon its petals, of... the same character as those so often seen on the leaves... of Cabbages.

Mr. Bateman then made some comments upon the... objects exhibited, and, in conclusion, informed the... meeting that the band would play in the garden on... every Tuesday and Saturday afternoon during the... London season.

SCIENTIFIC COMMITTEE May 3.—Dr Thomson, F.R.S.,... in the chair. Mr. Berkeley stated that he had examined... the specimens of Sugar-cane alluded to at the last meet... ing (see p. 447). He had found that the ducts in the... lower portions of the culm were more gored with... upwards to the hearts of the young shoots, which... matters, might have caused the peculiar pink discolora... tion that was observable in the canes. Specimens of diseased Peach shoots and of Vine... roots, similar to those before alluded to, were shown. ... With reference to the latter, Mr. Berkeley stated that... which injures the roots. The leaf-insect is not only... itself larger, but its eggs are larger also. Specimens of... the roots of *Conifers* were exhibited, which had been... attacked by the *Conifer* root-insect. The insect was... killed. Vine roots were shown which were... with mycelium of the common *Muscardin*. Some... specimens of *Conifers* were shown which had been... attacked by the *Conifer* root-insect, and that the birds... were stripped off the... however, nothing to indicate the... hypothesis.

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other branches of science), in his old age... and so reduced in circumstances that... he was living in a very small room...

Bougainvillea speciosa.—This plant is certainly when properly treated, one of the most lovely of all stove climbers. A few days since I visited Sandbeck Hall, the seat of the Earl of Scarborough, and I then had the pleasure of seeing this Bougainvillea in the highest state of perfection.

Garden Operations

(For the ensuing week.)

PLANT HOUSES.

THE temperature of Orchid-houses proper should now be gradually advanced to the full growing maximum, which, during bright sunny weather, may reach to a mean of about 90° in the latter part of the day.

are dug, or forked over, however, a small quantity of manure should be added.

KITCHEN GARDEN.

The remarks which I have offered above, turning up or digging light open soils during hot weather have equal, if not more value, in such grounds, if they are light, should be immediately after the heavy weather and the ground is moist.

TWO GARDENING.

THE following hardy annuals will all succeed well sown now in the manner I have previously directed. They will also produce their flowers in July, August, and September if the patches are frequently watered during the summer.

STATE OF THE WEATHER AT CHISWICK, NEAR LONDON. For the Week ending May 5, 1889, as observed at the Horticultural College.

Table with columns for Day, Max, Min, Mean, Wind, Rain, and other weather metrics for the week ending May 5, 1889.

Apr. 29 Fine, at and overcast, with drizzle. May 1 Very fine, foggy and calm, with drizzle.

STATE OF THE WEATHER AT CHISWICK, NEAR LONDON. During the past 24 hours, for the evening week ending May 1, 1889.

Table with columns for Day, Average Temp, Max Temp, Min Temp, Wind, Rain, and other weather metrics for the evening week ending May 1, 1889.

Notices to Correspondents.

NOTICES. A R. The leader... and rather rare Wood Leopard... NATIVE COUNTRY OF PLANTS. 1. Clerodendron... 2. Diplazium crassinode...

HARDY FRUIT GARDEN.

The necessary thinning out and pinching back of the young shoots forming upon Wall trees generally must now be entered upon earnestly.

HARDY FLOWER GARDEN.

Ordinary flower borders, if no spring display has been attempted by planting in them such early blooming plants as are now in the height of their beauty...

SUTTONS' HOME-GROWN FARM SEEDS,
NEW AND UNADULTERATED,
CARRIAGE FREE
CULTIVATION IS
SUTTONS' CHAMPION.



SUTTONS' CHAMPION SWEDE.
The most productive, and best shaped Purple-topped Swede in cultivation.

Price 1s. per lb.
Lowest price for large quantities quoted on Carriage free to any Railway Station.
It is character as the best Swede in cultivation. It is a large purple-topped yellow variety, perfectly hardy, and of one of the most uniform shapes, and remarkable for its freedom from coarse roots. It has taken for many years the title of the Prince Consort's Swede, and is the variety which the Royal Horticultural Society, the Royal East London Horticultural Society, and the Society of Agriculturalists, and numerous other Societies have awarded prizes to. Some very fine crops of 10 lbs. each, grown by one of our customers, and exhibited on our stand at the Smith's Exhibition, attracted marked attention.
For sale at Poplar House, Spryngton
I had this year 10 acres of your Champion Swede, and they grew in my neighbourhood. I am on your side.
Mr. J. M. Wharton, Esq., Manor House, Tynnington.
I took several prizes last year with crops grown amongst them was a £10 prize for the best and there is no better Swede than the Champion.
Mr. M. Wharton, Esq., Gouthorpe Lodge
I am aware you are aware that in a great seed catalogue you have put in your Champion Swede, but your variety is the best I have ever grown.
Mr. C. Moore Stevens, Esq., Wincott
I won a Ten-Guinea Silver Cup last year for your Champion Swede.
Messrs. Dixon & Son
We grew some splendid Champion Swedes from your seed last year.

SUTTONS' IMPROVED VARIETIES OF TURNIPS FOR PRESENT SOWING.
SUTTONS' LINCOLNSHIRE-RED PARAGON.
SUTTONS' POMERANIAN WHITE GLOBE.
SUTTONS' PURPLE-TOP MAMMOTH.
SUTTONS' IMPERIAL GREEN GLOBE.
SUTTONS' IMPROVED GREEN TANKARD.
SUTTONS' EARLY SIX-WEEKS.
Lowest prices per bushel on application.
FOR FURTHER PARTICULARS OF
SUTTONS' HOME-GROWN FARM SEEDS SEE
SUTTONS' FARMER'S YEAR BOOK
for 1869.
sent post free, gratis to customers.
Carriage Free, except small parcels.
6 per cent. allowed for cash payment.
SUTTONS' AND SONS, SEED GROWERS, READING.



THE ROYAL SEEDSMEN.

James Carter & Co.
Seed Growers

237, 238, and 261, HIGH HOLBORN, LONDON, W.C.

SEED FARMS:
JUPES HILL FARM, DEBHAM, ESSEX;
GOD'S HOUSE FARM, ARDLEIGH, ESSEX;
EAST HOUSE FARM, DEBHAM, ESSEX;
THE SEED FARM, ST. OSYTH, ESSEX.



CARTER'S GRASS SEEDS.

As SUPPLIED TO
H. M. G. MAJESTY THE QUEEN, and
H. R. H. THE PRINCE OF WALES.
For full particulars, see
CARTER'S FARMER'S CALENDAR FOR 1869
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CARTER'S WARDEN IMPROVED MANGEL.
The best variety ... 1s. 6d. per lb.
Cheaper per cwt.



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THE HARDEST AND BEST IN CULTIVATION.
Price 1s. per lb.; cheaper per cwt.
EVIDENCE OF QUALITY
E. J. Ward, Esq., Standlands, writes —
"The Swede Turnips (from your seed) were the best in the neighbourhood."
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"Your Imperial Swede is the best that has been seen in this locality."
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CARTER'S PRIZE SWEDE AND TURNIP.

	Per bushel	Per cwt.
HALL'S WESTBURY SWEDE	0 10	1 0
HARTLEY'S SHORT-TOP SWEDE, a large mottled-top variety	1 0	1 3
CARTER'S CHAMPION HYBRID TURNIP, fine quality	1 3	1 6
CARTER'S DEVONSHIRE GREYSTONE TURNIP	1 0	1 0
CARTER'S EARLY NIMBLE or SIX-WEEK, a very quick-growing variety	0 10	0 10
POMERANIAN WHITE GLOBE, a handsome variety	0 10	0 10
IMPERIAL GREEN GLOBE, a heavy cropper	0 10	0 10
LINCOLNSHIRE RED GLOBE (very hardy)	0 10	0 10

Cheaper per cwt. or bushel.

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ESTABLISHED 1777, and
SOUTHERN AGRICULTURAL SOCIETY ASSOCIATION,
For the Encouragement of AGRICULTURE, ARTS, MANUFACTURES, and COMMERCE.
Patron—H. R. H. THE PRINCE OF WALES, K.G.
President—The Right Hon. the EARL OF CARBONTON.
The ANNUAL EXHIBITION of SHEEP, HORSES, PIGS, POULTRY, MILKMAKING, WORKS OF ART, and HORTICULTURAL SPECIMENS will take place at SOUTHAMPTON on MAY 1, 2, 3, and 4.
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ROYAL AGRICULTURAL SOCIETY OF ENGLAND.



DR. VOELCKER'S RESEARCHES.
A Lecture, "On the RESULTS of CHEMICAL INVESTIGATIONS made during the PAST YEAR," will be delivered by Dr. VOELCKER, on MONDAY, May 10, at 2 p.m., at the Society's Rooms, 12, Hanover Square, W.
Members of the Society and their Friends, as well as other Gentlemen interested in the subject, are invited to attend.
H. M. JENKINS, Secretary,
12, Hanover Square, London, W.

ROYAL AGRICULTURAL SOCIETY OF ENGLAND.



MANCHESTER MEETING, 1869.
ENTRIES of HORSES, CATTLE, SHEEP, PIGS, BUTTER, and CHEESE, CLOSE on JUNE 1, and all Certificates received after that date will be returned to the sender.
H. M. JENKINS, Secretary,
12, Hanover Square, London, W.

The Agricultural Gazette.

SATURDAY, MAY 8, 1869.
MEETINGS FOR THE ENSUING WEEK
May 10 { Royal Agricultural Society (Lecture in the Society's Rooms, 12, Hanover Square, by Dr. Voelcker, on "Results of Chemical Investigation.")

In the course of the recent Election Addresses one candidate, in speaking of the Irish Question, referred to the Land topic as one too lengthy and complicated for the popular treatment necessary on such an occasion, and intimated his purpose of entering into it in fuller detail on some more suitable occasion. We look upon all land subjects as our own; and we shall be glad to see the promise carried into effect.

It would be idle to attempt to hide from ourselves the fact that after the settlement of what is called the 'Irish Church question,'—(not very accurately; for, Establishment and Endowment are not the Church, but its official clothing, and habiliments,) that after this, must come the Land question: and it has already long become the fashion to say that this will prove the more difficult question of the two.

Very likely. But difficult or not, it must be met. For, what alternative is there? If there be evil to be remedied, or error to be amended, it must be done. England cannot afford, year after year, to

"Split itself,
And go to buffets with the other half"
in the person of that close-adjointing country whose relation with it must, like that of a wife, be either a vital element of national strength, or an essential weakness, a 'Thorn in the flesh,' close, constant, and besetting. It is not really a question of Party: be it Whig or Tory, Conservative or Liberal, it is a matter that must be dealt with. It cannot be done in a passion. It can only be dealt with by the most judicial treatment. In the present day, national justice cannot be denied, or deferred: and if it could, the Government of this country is not one that would deny, or delay the remedy of a proved wrong. We should not permit either in our own case; we must not in the case of our fellow subjects.

But there is one great difference between the Church and the Land Questions—and it is this: that whereas in the former case we are satisfied with the institution which we ourselves enjoy, and erred perhaps only in trying to force the cap that fits our head, upon another skull of widely different shape and size—in the latter case, we have a system at home which is condemned by—we might almost go the length of saying—every one who has taken the trouble to understand it. Indeed, if we were asked what one thing is left for an Englishman to complain of, what one

to answer for. Certainly a rabbit... Mr. Robinson, when about to deliver... Mr. Newdegate mourned over... Mr. Newdegate mourned over... Mr. Newdegate mourned over...

barrenness to luxuriance and abundance. One's memory is treacherous, but we find it difficult to remember a year when Grass was so good... The same remark will apply also to the Wheats... The Oats are now well up and with the exception of a few suffering from the ravages of wireworms, are planting well...

them up; but we do not commit the common error of giving our hens a "warm breakfast." Many of our... Assisting Chickens out of the Shell.—I have read with much interest the poultry articles in your Paper for some time past.

Reviews. Plans, dedicated to the Landowners of Carmarthenshire and Pembrokeshire. By John Frederick Vaughan, Earl of Cawdor. W. Ridgway, London, W. 1869.

The fine weather occasioning such a rapid growth of Grass, combined with the present and probable future high price of beef, have made fresh beasts very good to sell, and the demand appears almost to exceed the supply.

Assisting Chickens out of the Shell.—I have read with much interest the poultry articles in your Paper for some time past. Last week's article contains these words—"We have hardly ever known the dry-handed assistance to be successful."

The Poultry Yard.

ECONOMY IN FEEDING CHICKENS. Those who keep chickens know very well that if all the feed that is given to them has to be purchased, the profit arising from keeping them is very small.

The Quid of Tobacco.—Thanks to you and to "J. N." of Colchester, for his letter, appearing in your Journal of February 27, on the efficacy of the "quid of tobacco."

Miscellaneous.

Emigration.—The class of people at home that would most immediately benefit themselves by emigrating to Canada are the agricultural labourers.

Farm Memoranda. ALLEBY HOUSE, CHATERRIS, CAMBRIDGESHIRE. The cold and wintery weather of March was followed by a showery and growing April.

Another strong inducement Canada holds out to this class is in the facilities afforded to boys and girls of getting situated in what they can, from the first, maintain themselves, learn the ways of the country, and by degrees become prepared for commencing something on their own account. How many happy mothers of families have I seen in this fair Province of Ontario sorrowful by all the soul comfort of life, and with equally good prospects for their children, who had they remained in the old country would scarcely have had a chance of rising higher than becoming the wives of farm labourers, who must struggle hard for the barest means of physical existence. I told the people at home that Canada was pre-eminently the country for the poor man, who, possessing the qualifications of health and strength, sobriety and industry, need have no fear of making progress, although he might arrive among us without a penny. The experience of thousands will confirm this statement. But it must never be forgotten that success essentially depends upon the possession and exercise of the qualities before mentioned, and that this is no country for the frivolous, the idle, or the dissipated. People of the sort usually blame the country for their want of success, instead of blaming themselves, as they ought to do. *Professor George Buckland in the "Ontario Farmer"*

Mr Smith, of Woolston, on the Drainage of Grass-land—My farm, containing 112 acres of arable and 60 of grass-land, consists of two distinct qualities of soil. The valley land is mixed gravel and clay. I have generally called it light land, it is, however, by no means light working land for ordinary horse culture, it always needed three horses to plough it. The hill land is very heavy clay—On grass-land hereabouts the drained and un-drained fields were both alike burnt up. I could not see that either of them had any advantage over the other in contending with the dryness of the summer. On arable land, that which was drained had the advantage, and greatly so in all cases in the Wheat crop, to the extent of more than a quarter per acre. As the crops on well drained land were fine and full, whereas all the crops on un-drained land were thin on the ground, and nothing like so bulky when cut, yet they ripened well. The effect of drainage upon the Bean crop was very perceptible, for on the un-drained lands they burnt up very early in the season, whereas on the well drained land they did not burn up so quickly, and on my own well drained and deeply cultivated lands they stood out to the last 10 days before harvest, and I had the honour of having the best Beans in the neighbourhood this dry summer, the result of drainage and deep steam cultivation. I can, however, give you one instance of drainage having done an injury to a good meadow. Forty years ago a mill in the adjoining parish was pulled down. I have a meadow that floods in the winter, and had always been mown. It is situated half a mile above this mill; and as soon as the mill was pulled down, this meadow gave a less produce than it has done before by more than a load a year, and it continued to do so for 10 years, and I a weir was put up holding the water to the height it stood at before the mill was removed, and then the meadow at once returned to its increased productivity, and it has continued so ever since. Side-drains have been put in, so that the uplands are all well drained, although the water in the river stands at its former height. The deep stirring of my land by steam-power has enabled it to withstand the drought better than shallow horse-worked land had done. This was clearly shown in my Bean crop. They were planted at the same time that the neighbouring horse-farmers planted theirs, yet they came up first and kept first. They stood 5 feet high, and were well corned, and kept green longer than those on horse-worked land did, and were much the best crop in the neighbourhood. *Journal of the Royal Agricultural Society*

Calendar of Operations.

MAY.—*Kohl Rabi*, sown in beds or in drills in early spring are now transplanted, but this mode of culture is being superseded by that of sowing as for Swedish Turnips, with the liquid manure-drill, applying about 500 gallons per acre. Some only apply about 200 gallons, but the quantity is too small, as it only wets the surface, for vegetation is only started with nothing to support it below. For many soils in dry seasons 1000 gallons is too small a dose. Much depends upon the state of the land. If comparatively dry, 500 gallons may do, less than 200 gallons when the land is moist. The liquid should sink to the depth of 5 or 6 inches deep into the soil, so as to apply available nourishment to the rootlets, which very soon strike to this depth. If it only sinks an inch, the liquid is too strong, assuming that from 3 to 4 cwt of superphosphate has been dissolved in 200 to 500 gallons of pond water. In judging how much water to apply, put a gallon of clean water into a watering pan, and then with the edge of a hoe open a drill, and ascertain how far it will moisten the soil to a proper depth, bearing in mind that the more widely the liquid spreads itself through the soil, the more economical and successful will the supply of food be, not only to the young plants, but also to the roots when they begin to swell. Having ascertained now far a gallon will go, it is easy to calculate how much will be required per acre. When the liquid-manure drill is at work, it is a poor saving to stunt the land of water.

Rolling spring corn crops is general in this month in ordinary seasons, so as to make a smooth surface for the reaping machine. Before rolling strong ground it should be cleared of large stones brought to the surface, pieces of wood, as the points of hurdie and netting stakes left in the soil, where Turnips have been eaten off by snecp short pieces of hoop iron, and such like, as the roller in passing over them very often lifts up one end, so as to come in

contact with the knife of the reaping-machine. Land infested with Coltsfoot should also be carefully gone over, as the smallest bit left, when pressed in with the roller, will take root and spread. The roller not only smoothes the surface, but breaks crusty clay soils when sown broadcast, thereby supplying mould for tilling, &c. Such soils require a heavy roller, and heavier in some seasons than in others. To effect this difference of pressure, rollers are provided with means for increasing the weight as the land requires, as for instance the weight in the roller, &c. Many pastures are the better to be rolled with a heavy roller at this season so as to crush clods, worm-casts, and break hard soils, so as to induce the tilling of the Grasses and filling of the ground.

Farm-horses are said to be "soft" this month. A little extra corn and grooming is needed with the green food. The latter will sometimes bring away the bots better than drastic purgatives.

Weaning of Calves is a work of degrees. Before they are weaned they should be learned to eat sliced root, cake, corn, and hay; and if this is done, early calves which have been fed by the pail may now have their milk gradually taken from them. If they suck, their dams should be milked nearly dry, and finally dry, before they are put to them.

The Dairy.—As soon as milch cows are grass-fed, cheese-making comes into season as the calves are weaned, but until the cows are fairly taken with the Grass, so that their bowels and the secretion of milk are both in a healthy normal state, good cheese cannot be made. Sour whey (lactic acid) and saltpetre are sometimes dissolved in the milk, to prevent "heaving," but they lower the quality of the cheese; neither can good butter be made. The true plan is to correct the food of the cow, until she has fairly taken with the Grass. This done, good cheese and butter may be made. During this month, however, particular attention requires to be paid to the ventilation and temperature of the dairy. Dairies are generally kept too damp and cold during winter, and this, with the increase of temperature due to the season, accounts for much that is experienced, in the way of turning milk sour, and causing cheese to be variable and at times inferior in quality, when other conditions are the same. The dairy should be kept dry at the proper temperature, and free from stagnant air. In Lutter dairies, there is a diversity of opinion as to the temperature of the milk room, if raising cream the range being from 55° to 60°. The sudden chills which milch cows experience when first turned out to Grass, also injuriously affects the quality of their milk.

Wireworm and Slugs often play sad havoc in corn-fields and grass-lands in May. Some apply lime to Turnip fallows as a remedy, spreading a liberal dose out of the cart, or by broadcast sowing-machines, others sow soot and salt by hand, or broadcast sowing-machines. In each case the application of the lime, soot, and salt is followed by heavy rolling. The clod-crusher and land-presser are also used with less or more effect in crushing the enemy to death, and fixing the roots of the plants in the ground. In case of slugs, the lime, soot, or salt is sown at night, when they are abroad feeding, and when followed by the roller immense numbers are destroyed. But wireworm is not so easily got rid of, as it is defended by a tough, leathery coat, and feeds more below the surface. Lime, soot, and salt, are obnoxious to the insect, so are nitrate and sulphate of ammonia, but unless applied in a soluble form, they do not reach the wireworm, consequently, it is only in moist weather, or when the land is sufficiently moist to dissolve them, that their application is effective. In dry weather, therefore, the water-cart should follow the broadcast sowing-machine, if the two are not combined in the form of a broadcast liquid manure-distributor. Where town sewage or water is laid on to the land for irrigation, a free use of either in time is doubtless the best mode of getting rid of both wireworm and slug as it not only kills them, but promotes the growth of those plants which have been cut through to a single root, and the tilling of others less injured, thereby filling the ground. Blanks may be filled up by transplanting corn of the same kind from a different field, or from patches of the same field which have escaped the ravages of the insects. The work is best done in moist weather. Twelve inches apart each way will tiller and fill the ground, if rich and in good heat, and the expense of transplanting is far less than some may imagine who have never tried it. When grass-land is attacked by wireworm, as it sometimes is, the best time for applying salt, &c., is when the insect first begins its work of destruction, as it is then less strong, and hence more easily destroyed. When nothing is done to arrest its ravages at the commencement, it cuts its way between the roots and soil, so that over large patches of the field the latter becomes separated from the former. In bad cases bushes of wireworms may be collected. A rich compost of lime should then be spread over the bare places, and Grass seeds bush-harrowed and rolled down. When old grass-lands are suspected as they justly may be when cockchafer, click-beetles, and daddy-long-legs abounded on the pastures the previous season—they should frequently be examined during March, April, and May, and, as soon as observed, active measures should be taken to soak the roots of the Grasses, on which they live, with liquid manure such as the land and Grass require, the application to be followed by the clod-crusher and roller when dry. *W. J.*


Notices to Correspondents.

PRESSINGS. *J. T. G. G.* The earthen compost with 10 or 12 bush lbs of bone dust per acre will bring 1-2 tons the same with one cwt of nitrate of soda, and two or three cwt of guano, will promote the luxuriant growth of the Grasses.

Caution to Gardeners.—When you ask for **SAYNOR AND COOK'S WARRANTED PRUNING and BUILDING KNIVES**, observe the mark SAYNOR, also the Corporate Mark WARRANTED, without which no name is genuine. S. & C. regret having to cut out Gardeners and others compelled to do so, in consequence of an imitation of quality, having been so far for the genuine one, and with their many complaints to be made to them of knives which their make, and of which are warranted both by S. & C. and the cheapness of the market. **S. & C.'S PRUNING and BUILDING KNIVES** are at the **Patron Works, Sheffield.** Established upwards of 20 years.

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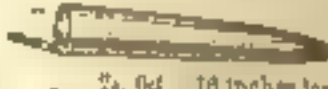
Each—	d	12 inches in diameter
2	0 8	12
3	0 4	13
4	0 5	14
5	0 6	15
6	0 8	16
7	0 10	17
8	1 0	18
9	1 2	19
10	1 4	20
11	1 6	21

BEE GLASSES, with ventilating hole through top

4 inches in diameter	6s 6d	6 inches in diameter
5	0 8	10
6	0 10	11
7	1 1	12
8	1 4	13

Either flat or conical tops.

CUCUMBER



24 inches long	7s 6d	18 inches long
22	10	14
20	1 8	12
18	1 6	10

HAND GLASSES,



Each—	d	16 inches
12 inches	0 6	20
14	7 6	22
16	8 8	24

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2' by 1' 1/2	2' by 1' 1/2	2' by 1' 1/2	2' by 1' 1/2	2' by 1' 1/2	2' by 1' 1/2	2' by 1' 1/2
2' by 1' 1/2	2' by 1' 1/2	2' by 1' 1/2	2' by 1' 1/2	2' by 1' 1/2	2' by 1' 1/2	2' by 1' 1/2
2' by 1' 1/2	2' by 1' 1/2	2' by 1' 1/2	2' by 1' 1/2	2' by 1' 1/2	2' by 1' 1/2	2' by 1' 1/2
2' by 1' 1/2	2' by 1' 1/2	2' by 1' 1/2	2' by 1' 1/2	2' by 1' 1/2	2' by 1' 1/2	2' by 1' 1/2

SMALL SHEET SQUARES, 16 oz., per 100 lbs.

8 by 4	7 by 5	8 by 6	9 by 7
12 1/2	13 1/2	14 1/2	15 1/2
16 1/2	17 1/2	18 1/2	19 1/2

LARGE SHEET SQUARES, 16 oz., per 100 lbs.

10 by 5	12 by 6	14 by 7	16 by 8
16 1/2	18 1/2	20 1/2	22 1/2
24 1/2	26 1/2	28 1/2	30 1/2

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- TODEAS | DICKSONIAS | ADIANTUMS | LOMARIAS | CIBOTIUMS | PTERIS, &c.

J. & R. T. would also intimate that they are now sending out a

VERY CHOICE ASSORTMENT OF BEDDING-OUT PLANTS,

Well-grown and well-rooted, and which may be relied on for a grand Summer and Autumn display. Selection left to J. & R. T., 20s. to 30s. per 100, and

- ANTIRRHINUMS | CERASTIUMS | GERANIUMS | PETUNIAS
- AGERATUMS | DAHLIAS | HELIOTROPES | SALVIAS
- CALCEOLARIAS | FUCHSIAS | HOLLYHOCKS | VERBENAS
- CARNATIONS | GAZANIAS | LOBELIAS | &c. &c.

ROSES in great variety, 9s. to 18s. per dozen.

60, BUCHANAN STREET, and NORTH WOODSIDE NURSERY, GLASGOW.

NEW GOLDEN COLEUS, 1889.

QUEEN VICTORIA, the finest of all, 3s. 6d. ALBERT VICTOR, 2s. 6d. BARONESS ROTHSCHILD, 2s. 6d. PRINCESS ROYAL, 2s. 6d. CARTEL, or HEATHY ST. JOHN'S WOOD, 1s. 6d. PRINCESS BEATRICE, 2s. 6d.

John & Charles Lee, Royal & Beyond Nursery and Seed Estate, Bushmead, Hammondsbridge, London, W. New Golden Coleus of 1889. H. CANNELL has procured a large stock of the above splendid Coleus plants...

Table listing various Coleus varieties such as Princess Louise, Prince Leopold, Empress, etc., with prices per plant and per dozen.

The usual discount to the Trade. Amateurs are respectfully invited to inspect them. A set of H.C.S. Escalier and other GERANIUMS, which are in splendid colour, and are now attracting the attention of those who see them.

Verbenas, 5s. per 100, 40s. per 1000. WILLIAM BADMAN has to offer us under VERBENAS, Purple, White, Scarlet, Rose, Crimson, &c.

LOBELIA SPECIOSA (true) from cuttings, 5s. p. 100, 40s. p. 1000. PELARGONIUM CRYSTAL PALACE GEM, the finest golden leaf in cultivation, in small pots, 4s. per doz.

ADAM FORSYTH begs to inform the Trade and the Public that he is now sending out the following NEW CHRYSANTHEMUMS, viz -

Mr. Evans, Miss Mary Morgan, Mr. Geo. Haslett. He is confident they will give as great satisfaction as any others he has hitherto introduced.

HURST AND SON offer the following - TROPICOLM CASARIENSE at reduced price. Re-creon's Intermediate Scarlet Stock.

Bedding Plants. ARCHD. HENDERSON'S DESCRIPTIVE and PRICED CATALOGUE of BEDDING PLANTS is now ready, containing all the novelties of the past two years.



Cheap Bedding Plants, from 2s. per dozen. SCOTT, Merritt, Somerset, has to offer the above, selected by purchasers from his Catalogue, which will be sent free to all applicants.

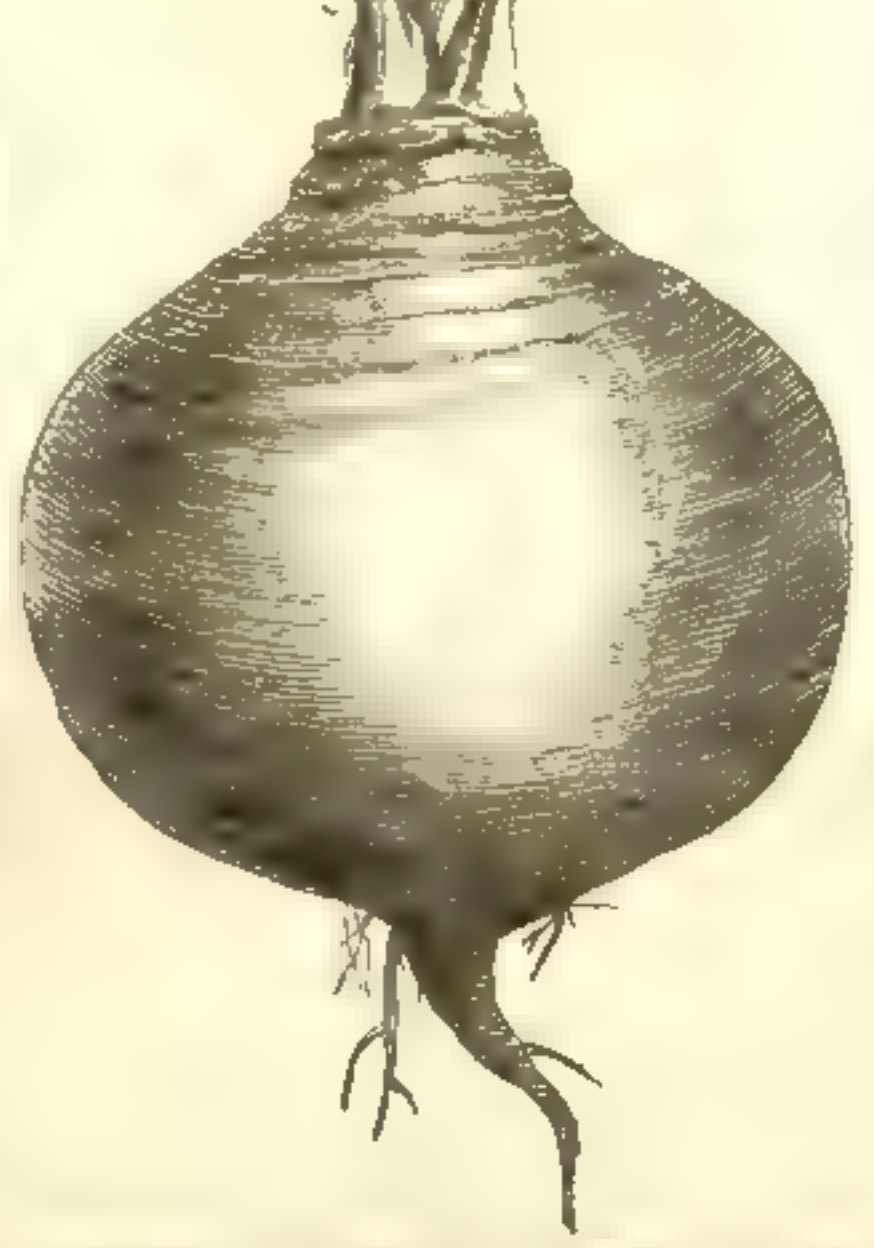
One Hundred Thousand Bedding Plants. THOMAS PERKINS has great pleasure in offering the following, all strong, well established plants, turned out of single pots, at 2s. per doz.

West of England Bedding Plant Establishment. THOMAS SAMPSON, The Preston Road and Houndstone Nurseries, Yeovil, Somerset, is now prepared to send out his unrivalled collections of BEDDING PLANTS.

The Vineyard, Garston. MEREDITH'S VINE, PINE, PEACH, and PLANT MANURE. JOSEPH MEREDITH, The Vineyard, Garston, near Liverpool, after many years of Vine and Grape growing, is now induced to offer, for the first time, to the Horticultural world, the MANURE to which in a great measure he attributes the success that has attended his exhibitions of Grapes in England, Scotland, Paris, Brussels, Antwerp, and Maastricht.

Notice - To Tulip Growers, Amateurs, and Others. A VALUABLE COLLECTION of NAMED TULLIPS, together with IRON FRAME, CANVAS COVERING, CABINET, &c., to be SOLD at a very low price.

Wheeler's Imperial Swede. A large, round, bulbous vegetable with a root at the bottom.



WHEELERS' IMPERIAL SWEDE - Purple top, very hardy, very nutritious, large, handsome, and heavy - 1s. per lb., 45s. per bushel. Carriage free excepting small parcels under 2lb. in value.

J. C. WHEELER & SON, Seed Growers, Gloucester; and 59, Mark Lane, London, E.C.

LAWES' MANURES are now ready for delivery for present season, 1890. LAWES' PATENT TURNIP MANURE. DISSOLVED BONES. SUPERPHOSPHATE of LIME. WHEAT, HARLEY, GRASS, and MANGEL MANURE. CONCENTRATED CORN and GRASS MANURE.

MANUFACTURED BY THE PATENT NITROPHOSPHATE or BLOOD MANURE COMPANY (LIMITED).

Chief Office - 109, Fenchurch Street, London. Western Counties Branch - Queen Street, Exeter. Irish Branch - 40, Westmoreland Street, Dublin.

THE TENANT FARMER'S MANURE COMPANY. Its Members are Cultivators of upwards of 50,000 Acres of Land, which has been for years under Management with Manures of their own Manufacture.

C. T. MACADAM, Secretary. Chief Office - 109, Fenchurch Street, London, E.C.

THE LONDON MANURE COMPANY. Have now ready for delivery, in fine condition, CORN MANURE, for Spring Use. DISSOLVED BONES, for Dressing Pasture Lands. SUPERPHOSPHATES of LIME. PREPARED GUANO. MANGEL, and POTATO MANURES.

SCOTT'S WASP DESTROYER. Destroy Wasps, Cockroaches, Crickets, and other Garden Pests. Price 1s. 6d. and 2s. 6d. per bottle.

PATENT OUT-DOOR FUMIGATOR, for destroying Roses and other Plants. This useful Fumigator is constructed for the purpose of destroying Green-Fly and other insects on infest Rose Trees and other Outdoor Plants.

The Best and Cheapest Vermin Killer. The Gardener's Magazine, conducted by Shirley Hibberd Esq., F.R.H.S., of August 15, 1886.

THE LOND IN GROUND TOBACCO. For the Destruction and Prevention of the grub and other Plants. Sold in Tins, 1s. and 2s. 6d. each.

The Cheapest and Best Insecticide. DUTY FREE TOBACCO. By Her Majesty's Royal Letters Patent, and by Permission of the Hon. Board of Customs.



POOLEY'S TOBACCO POWDER, for the Prevention and Destruction of Blight and other Diseases in Plants. Sold by Nurserymen, Seedsmen, and Florists.

"I find it exceedingly useful for killing the Aphides on Rose and other Plants." Geo. Evans, Superintendent, Royal Horticultural Gardens, South Kensington. May 7, 1890.

GISHURST COMPOUND. Used by many of the leading Gardeners since 1843, against Red Spider, Mite, Thrip, Green Fly, and other pests.



Wholesale by PRICE'S PATENT CANDLES COMPANY (Limited), Battersea, London, E.C.

Bee-Hives. TWO SILVER MEDALS AWARDED TO GEO. NEIGHBOUR & SON, at the PARIS EXHIBITION OF 1867 and the GREAT ENGLISH EXHIBITION OF 1884.

NEIGHBOURS' IMPROVED COTTAGE BEE-HIVE. An originally introduced by GEORGE NEIGHBOUR & SONS, working these hives in glass, is nearly as strong as those made of straw.



Price, complete, 5s. 6d. Stand for otto 2s. 6d. THE LIGGIAN ITALIAN A.P. BEE HIVE much in request. G. & S. Sons supply colonies of bees with genuine Italian queens (which will shortly be yellow Italian Alp Queen) at 5s. 6d. each.

A newly-arranged CATALOGUE of other Improved Hives, with Drawings and Prices, sent on receipt of two stamps. Address, Geo. Neighbour & Sons, 157, High Holborn, W.C.

SOFT-WOODED AND BEDDING PLANTS.

JAMES VEITCH & SONS

HAVE THE PLEASURE TO ANNOUNCE THAT THEIR CATALOGUE OF SOFT-WOODED AND BEDDING PLANTS For the present season, comprising a LIST of the BEST NOVELTIES, as well as a selection of the most approved kinds in general cultivation, is NOW READY, and will be sent POST FREE ON APPLICATION.

ROYAL EXOTIC NURSERY, KING'S ROAD, CHELSEA, S.W.

NEW PLANTS FOR 1869.



JAMES VEITCH & SONS

BEG TO ANNOUNCE THAT THEY WILL SEND OUT ON AND AFTER MAY 21,

THEIR UNDERMENTIONED SPLENDID NOVELTIES.

Ampelopsis japonica.

A new hardy Virginian Creeper, sent to us from Japan by Mr J G Veitch. It is remarkable for its compact shrubby habit, and for the great beauty of its foliage during the autumn months, the colours surpassing those of the popular Virginian Creeper, A. hederacea. After being exhibited before the Flora Committee of the Royal Horticultural Society in October, 1868, and awarded a First-class Certificate, it is thus described by Mr Moore. — "A bold habit and remarkably beautiful hardy deciduous climbing shrub, with broad ovate oblong leaves, which in autumn assume a rich orange-red tint, and are extremely beautiful. It was much admired." Price 7s. 6d. each.

Begonia rosaeiflora.

This is one of the many beautiful Begonias discovered by the late Mr. Peares, in the Andes of Peru, coming from an elevation of 12,000 feet. It is admirably suited for cool greenhouses, and is very nearly if not quite hardy and may be safely planted in sheltered situations. It is a stoloniferous species, with orbicular reniform but also radical leaves, and scapes supporting from three to five flowers of a bright rosy colour as large as those of Begonia Veitchii. It is figured in the "Botanical Magazine" for December, 1867. Price, good plants, 10s. 6d. each; extra strong plants, 21s. each.

Ocrotan (Codiseum) anoubesfolium.

One of the most distinct of the many fine varieties of Croton, found by our Mr J G Veitch in the South Sea Islands. It forms a handsome compact growing shrub, with oblong acuminate leaves 6 to 8 inches long, by 2 to 3 in width, tapering at the base. The surface of the foliage is of a beautiful dark glossy green, thickly studded with yellow, or somewhat crimson blotches, the midrib and veins being slightly tinged with pink. Bearing a strong resemblance to the well-known Aucuba japonica of gardens, it takes its name from that popular plant. This plant was awarded a First-class Certificate at the Royal Botanic Society's Exhibition, June 6, 1868. Price 21s. each.

Ocrotan (Codiseum) Hillianum.

Amongst the many Crotons introduced by our Mr J G Veitch from the South Sea Islands, none are likely to be more useful and generally appreciated than this fine variety. It is probably the most compact and close growing kind of the whole collection, and this characteristic, added to its beautiful shining variegated foliage, renders it a fine ornamental plant and peculiarly adapted for filling vases or for table decoration. The foliage is oblong sub-ovate acute unto, from 6 to 7 inches in length, by 2 to 3 in width, the upper surface being shining purplish green, the midrib and veins being bright crimson, and the under surface dull purple. It is remarkable for the reddish yellow effect of its foliage. A First-class Certificate was awarded to this plant by the Royal Horticultural Society on July 7, 1868. Price 31s. each.

Ocrotan (Codiseum) maximum.

This magnificent Croton is probably the finest variegated plant of the season, and certainly one of the most striking ever offered. It far surpasses all others hitherto known, and it affords us peculiar satisfaction to have been the means of introducing it through our Mr. J G Veitch, who discovered it during his trip to the South Seas. It is one of the largest yellow leaved varieties, of a strong robust habit, and admirably suited for exhibition or general decorative purposes. The leaves are oblong lanceolate acute, from 12 to 14 inches in length, by 5 to 4 in width, of a rich golden colour, marked on each side the midrib with dark olive-green bands of irregular form. It is one of the showiest stove variegated shrubs, and has only to be seen to be admired. It has been figured in the "Flora Magazine," and awarded First-class Certificates by both the Royal Horticultural and Botanic Societies. Price 42s. each.

Davallia hemiptera.

A beautiful dwarf stove Fern, very similar in appearance to some of the fine filmy Ferns. It is exceedingly dwarf and compact in habit, easily grown, and producing an abundance of the most delicately cut fronds, from 4 to 6 inches in length. This will prove a decided acquisition to all collections of Ferns. It was awarded a First-class Certificate at the Royal Horticultural Society's Exhibition, July 7, 1868. Price 10s. 6d. each.

Dracaena Macleayi.

It affords us great pleasure to be able this season to offer two more of the beautiful Dracaenas brought home by Mr. J G Veitch from the South Sea Islands. This and the following are both very handsome additions to this useful class of plants, which have of late years become so deservedly popular for decorative purposes. It is exceedingly robust and compact, with leaves from 15 to 18 inches long, by 3 to 4 in width, of a dark bronzy brown, with a decided gloss or metallic tint over the whole surface. The peculiar habit and colour of foliage of this fine species renders it perfectly distinct from any other in cultivation. Price 6s. each.

NEW ORCHIDS FOR 1869,

INTRODUCED DIRECT FROM THEIR NATIVE HABITATS BY MESSRS. VEITCH AND SONS

Angraecum falcatum.

A very pretty, neat dwarf growing Orchid, from Japan. In habit it is remarkably dwarf and compact, seldom exceeding 9 to 12 inches in height, producing its charming spikes of white, sweet-scented flowers in great abundance. It remains a long time in bloom, and is of very easy culture, succeeding well in a cool intermediate house. Price 12s. to 12s. each.

Coclogyne (Pleione) Reichenbachiana.

The group of Pleiones has for many years sustained a high position in the estimation of all admirers of Orchids, being of easy culture, and requiring only a medium temperature, it comes within the reach of almost all plant growers. The species now under notice was discovered by our indefatigable correspondent, Colonel Benson, of Rangoon, and is thus described by Dr. Hooker, in the "Botanical Magazine," for February, 1866. — "This is decidedly the finest species of the Pleione group of Coclogyne known; it is very distinct from any other, by the great size, peculiar shape, lobing, and reticulated coloration of the pseudobulbs." The flowers are large, often measuring 2½ inches across, with oblong spreading rose-lilac sepals, recurved petals, and a fringed emarginate lip, white, beautifully marked with deep magenta. This lovely plant bears the name of Professor Reichenbach, the celebrated botanist. Price 12s. each.

Dendrobium crassinoda.

One of the most remarkable Dendrobies hitherto discovered, whether we take the singularly formed stems or its distinct and beautiful flowers. The former are produced from 9 to 12 inches in length, and formed throughout of swollen internodes closely set together, giving them the appearance of rows of large beads. The flowers are 2 to 4 inches in diameter abundantly produced from the upper nodes; white, with broad rose tips to the sepals, petals, and lip, and a large bright yellow disc to the latter. In its native habitat it is described as producing as many as 25 of its charming flowers on one stem, thus rivaling the most beautiful of its genus. It is of very easy culture, and can be highly recommended to all lovers of Orchids. The Floral Committee of the Royal Horticultural Society awarded a First-class Certificate on February 16, 1869. Price from 63s. to 145s. each.

Dendrobium macrophyllum Huttonii.

This beautiful plant is a white variety of the well-known D macrophyllum. It was sent to us direct from the Moluccas, by our late collector, Mr. Hutton, after whom it has been named. It possesses all the good qualities of the original species, being if possible a more profuse bloomer, and its handsome white flowers, which are deliciously scented, last during a long period in bloom. Price, good plants, 105s. each; strong plants, 147s. each.

ORDERS ARE NOW BEING BOOKED, AND WILL BE EXECUTED STRICTLY IN ROTATION.

A NEW ILLUSTRATED DESCRIPTIVE CATALOGUE

Of the above and many novelties sent out by other houses will be forwarded free on application.

ROYAL EXOTIC NURSERY, KING'S ROAD, CHELSEA, S.W.

Dracaena nigro-rubra.

This fine stove variegated plant forms a fitting companion to the foregoing. It is of bold erect growth, with leaves from 18 to 20 inches in length, of a dark brown, with a large rosy-crimson centre, the young foliage being, as a rule, entirely of the latter showy colour. In habit it is very similar to Dracaena ternstroemia, but its striking shades of crimson render it quite distinct from that of any other species. We have no hesitation in recommending it as a desirable acquisition. It has been frequently exhibited, and received similar awards to the preceding. Price 21s. each.

Dipladenia (Echites) Boliviana.

This distinct and beautiful stove plant may be best described as a very free flowering Dipladenia. In habit it is very compact, producing an abundance of flowers in a much smaller size than most any other species. The foliage is medium in size, of a light glossy green colour, the flowers are somewhat smaller than those of D. crassifolia, pure white, with a distinct yellow centre. It forms a pleasing addition to the already popular Dipladenias. It has been frequently exhibited, and was awarded the First Prize (Silver Medal) at the first of plant in flower at the Royal Horticultural Society's Exhibition, June 16, 1868. Price 15s. each.

Eranthemum aspersum.

A beautiful stove flowering shrub, introduced from the Solomon Islands by Mr. J G Veitch. It has glabrous branches, ovate oblong leaves, forming a long leafy inflorescence of very dense long-tubed white flowers. Each flower has an expanded bilabiate limb of five segments, four of which are dotted with purple and the fifth heavily blotched with the same colour, like the lip of an orchid. It is of very low growth, dwarf in habit, and an abundant bloomer. It is figured in the "Botanical Magazine" for May, 1868. Price 7s. 6d. each.

Hedaroma (Darwinia) fimbriata.

This very distinct and beautiful greenhouse plant was introduced from the south-east of Africa. In character it closely resembles the well-known Hedaroma Trappifera, but is dwarfier, and more freely in a small state. The flowers are of medium size, bell-shaped, of a bright rosy colour, and beautifully fringed on the outer edge. It is a decided addition to that useful and popular class of greenhouse or conservatory flowering plants. It was awarded a First-class Certificate by the Royal Horticultural Society on May 1868. Price, good plants, 15s.; a few stronger plants, 21s. 6d.

Maranta (Calathea) tubispatha.

A beautiful stove plant, introduced by ourselves from Western Tropical South America. The following description is taken from the "Botanical Magazine" of November, 1863, in which number it is figured. — "A very graceful species. Its habit and prettily blotched leaves cannot fail to render a valuable addition to our variegated stove plants." The leaves are obovate, elliptical, shortly acuminate, from 8 to 12 inches in length, of a pale green colour, with a row on each side of the midrib of a pair of oblong deep brown blotches—the strong contrast between the lively green groundwork of the leaf and the brown blotches rendering the plant at once distinct and elegant. It has received a First-class Certificate from the Royal Horticultural Society. Price 15s. each.

Rhododendron Henryanum.

A seedling raised by that successful hybridiser, Isaac Anderson-Henry, Esq., of Edinburgh. It crosses between the handsome Rhododendron Dalhousiana, and R. neesii, and is of a pure white and very sweet scented, and in shape a medium betwixt the two parents. It forms another decided addition to the popular class of conservatory sweet-scented Rhododendrons. It has been exhibited before the Flora Committee of the Royal Horticultural Society and received a First-class Certificate. Price 10s. 6d. each.

Thibaudia acuminata.

A beautiful greenhouse shrub, introduced by ourselves from the Andes of Ecuador. It is described by Dr. Hooker in the number of the "Botanical Magazine" for January, 1868, in which it is figured. — "A very distinct, showy, free flowering shrub. Being a native of the lofty regions of the Andes (from 8 to 10,000 feet), it is well suited to a conservatory temperature, where its handsome green foliage, purple tinted young leaves, and brilliant red flowers, which are produced in great quantities, render it a very attractive plant." In its native habitat it is said to be in flower during the whole year, and under cultivation it blooms almost constantly. Price 10s. 6d. each.

Masdevallia Veitchiana.

This most extraordinary and strikingly beautiful Orchid was introduced by ourselves from Cordillera of Peru. It is acknowledged by all who have seen it to be the finest Orchid of recent introduction, and we have no hesitation in saying it is equal if not superior to any hitherto known. Coming from a high elevation, it thrives well under the coolest Orchid treatment, and is a very free growing plant and an abundant bloomer. No description can convey an accurate idea of the striking effect of this plant when in bloom, the form and colour of the flower being entirely unique. It has small oblong pseudobulbs, linear oblong, dark glossy green stems and erect slender racemes from 12 to 16 inches high, each bearing a single flower from 5 to 6 inches in length, by 3 to 4 in diameter. Each flower consists of three broad ovate sepals, extending into long tail-like points at the end, brilliant orange-scarlet colour, delicately shot with purple, added to this there is a vivid blue ground over the whole flower, by the inner surface being studded with minute papillae, of a brilliant orange-yellow. It may be easily imagined from the foregoing description, and considering that each flower remains open from five to six weeks, that for striking beauty this plant is quite unsurpassed. It has been figured in the "Botanical Magazine," and "Flora des Serres," and exhibited at the Exhibitions of the Royal Horticultural and Botanic Societies, and also at the Horticultural Show held at St. Petersburg. In every instance the highest Prizes have been awarded, and Messrs. Veitch & Sons recommend it as one of their finest introductions. Price on application.

Vanda insignis (true).

It affords us great pleasure to be the medium of introducing this splendid species, which for so many years been sought after by European cultivators. The Vanda is perhaps altogether the finest genus of Orchids, and we have no hesitation in saying that the true V insignis is one of the very finest of its genus. It is peculiarly distinct in every way, having the habit and foliage resembling those of the sunia and tricolor, but, unlike these species, young plants only 8 to 12 inches produce spikes with five to seven flowers. The flowers continue open an unusually long time, and measure 2½ inches in diameter, being of sepals and petals of a bright glossy ochraceous brown colour, blotched with chocolate. The labellum forms the most striking feature of the flower, being an inch across, of great substance, and of a beautiful lilac-pink colour. This remarkable plant was sent to us from the Moluccas, by our late lamented collector, Mr. Hutton. It has received the highest awards ever bestowed on a New Plant, and a universally deserved. Price on application.

Rhododendrons.

WATERER AND SONS beg to announce that RHODODENDRONS are NOW FAST COMING INTO...

Now Ready

HENRY WALTERS begs to inform his Friends and the public that his NEW SPRING CATALOGUE is now ready...

PELLERONIUMS

PELLERONIUMS. Sophie Cassel, Madeline Schiffer, Lady of Shalott, etc.

Tricolor Pelargoniums.

WATSON, New Zealand Nursery, St. Alban's, begs to announce that he has a beautiful TRICOLOR PELARGONIUMS...

Best Gold leaved Pelargoniums of the Season

WATSON'S GOLD LEAVED PELARGONIUMS. The best Gold leaved Pelargoniums of the Season are Golden Emperor and Golden Queen.

Cheap Tricolor Geraniums.

ALFRED FAYRE offers 50,000 fine Plants, at the following prices for cash. Package free.

CHOICE BICOLOR and TRICOLOR GERANIUMS.

Per doz. - s. d. Model 5 0 Paris 5 0 Viceroy 10 0

New Tricolor and Bicolor Geraniums.

FAYRE & SMITH are now sending out their new varieties of the above, amongst them the following sterling ones.

PERALONIUMS, Show, Spotted, and Fancy.

PERALONIUMS, Show, Spotted, and Fancy, in various beautiful plants, 12 fine named sorts for 6s., 24 for 10s.

New and Beautiful Variegated Geraniums.

ALFRED FAYRE & SONS beg to offer the following variegated Geraniums, by the dozen or 100, prices on application.

Tricolor, Bicolor and other Bedding Geraniums.

J. C. CARTER'S TRICOLOR and FLORIST, Bathford and other strong Plants of the following varieties.

New Tricolor Pelargoniums for 1885.

JOHN A. CHURCHIES LEE attend to send out in the following fine NEW TRICOLOR PELARGONIUMS...

NEW TRICOLOR PELARGONIUMS.

NEW TRICOLOR PELARGONIUMS. A beautiful Golden Tricolor, of robust habit and fine color.

New Plant. M. R. WILLIAM BULL

is now sending out the beautiful LANSIARA MACRANTHA. The flowers of this plant are truly marvellous...

W. have had the finest blooming specimens of the noble Lansia macrantha, sent us by Mr. J. C. Carter...

Beautiful Grimse-foliated New Bedding Plant.

IRENE ACUMINATA. ONE OF THE GEMS OF THE SEASON. Price 6s. each.

New Semi-double Gloxinias.

JAMES VEITCH AND SONS beg to announce that they are now sending out these fine Seedlings...

LADY CREMORNE. Flowers erect, white, with a rich deep rose throat, the perianth rays which give the flower its double appearance...

JOHN GRAY. Flowers erect, rich dark crimson, shaded in the centre, the outside of the prolonged calyx is of a light crimson...

The Royal Horticultural and Royal Botanic Soc. as have awarded Certificates to both these Novelties, and they are figured and fully described in the 'Flora Magazine' for 1885, page 401.

DOBSON'S PRIZE FLOWER SEEDS.

DOBSON'S CELEBRATED PRIZE CALCEOLARIA. This strain is, if possible, finer than we have ever had in this country...

DOBSON'S PRIZE CINERARIA, 1s., 2s. 6d., and 5s. Received 60 First Prizes in 8 years.

DOBSON'S PRIZE PRIMULA. Unsurpassed in the trade for fringe and colour.

CARTER'S PRIMULA, CALCEOLARIA, and CINERARIA.

J. C. & Co.'s strain of Calceolaria is saved from plants that were awarded a 1st Prize at the late International Show.

CALCEOLARIA and CINERARIA.

Per packet - s. d. Calceolaria, finest hybrid 2 6 Calceolaria, Dobson's strain 2 6

PRIMULA.

Per packet - s. d. Primula, choicest mixed 2 6 Primula, choicest white 2 6

CALCEOLARIA INTERNATIONAL PRIZE.

INDIA RUBBER HOSE at Manufacturer's prices, 40 feet (with comp. etc. fit up), 25s.

ROYAL HORTICULTURAL SOCIETY.

SHOW OF POT ROSES and SPRING FLOWERS, May 8. AWARDS OF THE JUDGES.

CLASS 1 - POT ROSES, in pots, distinct. (Nurserymen) 1st, Mr. W. Paul, Paul's Nurseries, Waltham Cross, N., £2

CLASS 2 - 12 NEW ROSES of 1887 or 1888, in pots, distinct. (Open) 1st, Mr. C. Turner, £2

CLASS 3 - 12 NEW ROSES of 1887 or 1888, in pots, distinct. (Open) 1st, Mr. C. Turner, £2

CLASS 4 - 12 NEW ROSES of 1887 or 1888, in pots, distinct. (Open) 1st, Mr. C. Turner, £2

CLASS 5 - 12 NEW ROSES of 1887 or 1888, in pots, distinct. (Open) 1st, Mr. C. Turner, £2

CLASS 6 - 12 NEW ROSES of 1887 or 1888, in pots, distinct. (Open) 1st, Mr. C. Turner, £2

CLASS 7 - COLLECTION OF ALPINE PLANTS, in 8 boxes, each 1 foot square, 1000

CLASS 8 - 6 POLYANTHUSES, distinct. (Open) 1st, Mr. J. James, £1

CLASS 9 - 4 RHODODENDRONS, 2 kinds. (Open) 1st, Mr. A. Wilks, £2

CLASS 10 - RHODODENDRON, single specimen. (Open) 1st, Mr. A. Wilks, 15s.

CLASS 11 - 6 PANSIES, in pots, distinct. (Open) 1st, Mr. J. James, 10s.

CLASS 12 - 6 POTS OF LILY of the VALLEY. (Open) 1st, Messrs. Haxney Brothers, Nurseries, Notting Hill, W., £1 10s.

CLASS 13 - MISCELLANEOUS COLLECTION OF PLANTS in FLOWER. (Open) 1st, Messrs. J. Standish & Co. Royal Nursery, Ascot, £1 10s.

EXTRA PRIZES. Messrs. Paul & Son, Collection of Roses, in pots, £2.

Mr. W. Paul's Collection of Cut Roses, £1 10s.

Mr. C. Turner's Collection of Cut Tulips, £1

Mr. J. James's Collection of Cut Tulips, 1s.

Mr. H. Hooper, Stand of Bedding Pansies, 15s.

Mr. C. Turner's Collection of Alpine Anemones, 10s.

Mr. H. Hooper, Stand of 30 Bedding Pansies, 10s.

Mr. H. Hooper, Stand of 57 Pansies, 7s. 6d.

Mr. H. Hooper, 24 Ranunculus, 7s. 6d.

Mr. J. James, Stand of 24 Pansies, 7s. 6d.

LEEDS HORTICULTURAL SOCIETY THE GREAT EXHIBITION OF PLANTS, FLOWERS, FRUITS, and VEGETABLES will be held at the ROYAL PARK, on WEDNESDAY, THURSDAY, and FRIDAY, June 9, 10, and 11.

THE ROYAL HORTICULTURAL SOCIETY'S GRAND EXHIBITION AT MANCHESTER, in connection with the SHOW of the ROYAL AGRICULTURAL SOCIETY.

A SILVER CUP (copy of the famous Cellini Cup), VALUE £250 will be offered by the Proprietors of the GARDENERS' CHRONICLE and AGRICULTURAL GAZETTE for the best COLLECTION of 6 FRUITS and 6 VEGETABLES.

In awarding the Prize, Marks will be assigned according to the following scale:

Table with 4 columns: Name, 1st Mark, 2nd Mark, 3rd Mark. Includes items like Grapes, Melons, Strawberries, etc.

This Prize is open for Competition amongst Amateurs and Gardeners of private families.

The Gardeners' Chronicle.

SATURDAY, MAY 15, 1885.

MEETINGS FOR THE ENSUING WEEK.

Tuesday, May 13. Royal Horticultural, Fruit and Flora Committee, at South Kensington, 11 A.M.

Wednesday, May 14. Royal Horticultural (First Summer Exhibition of Plants and Flowers), at South Kensington, 2 P.M.

Thursday, May 15. Royal Horticultural (Special Prize and Pelargonium Show), at S. Kensington, 2 P.M.

FEW men not actually engaged in the practice of Horticulture have done more to promote its interests than the late Sir CHARLES WENTWORTH DILKE.

The present is a good time for saying a few words on a fault which too generally characterises our BRITISH FLOWER SHOWS, and one which has often been unadverted on, but which remains uncorrected to the present day.

It is the almost total disregard which is generally paid to producing artistic effect with the materials sent for exhibition. No one can have visited a Continental show without having remarked the contrast exhibited in this respect with an English one.

groups, so that the bright colours of the flowers are brought out by the green of surrounding foliage. Those that are displayed singly are planted in smooth turf provided for the occasion—not a pot is to be seen. The pots of the plants which are staged are concealed by the foliage of other plants arranged in front of them, large masses are thrown together here, interrupted by smaller and lower lines there, until the whole assumes the aspect of a natural scene of beauty. Whether this can be said of our English shows, we leave our readers to say. Long rows of the same kind of plant are regimented, with their pots displayed in all their native hideousness—each individual flower a gem of beauty, perhaps far surpassing anything to be met with on the Continent, but in combination deteriorated in effect by their unvarying uniformity, modest flowers killed by the unrelieved glare of something that is called “a blaze of beauty” in their vicinity, and as to general effect, of course that is impossible where the show is parcelled out in different patches and exhibited in different places. There is nothing to prevent our producing as good an effect in our shows as our neighbours do. There is no mystery or difficulty in it. We did it in the great International Exhibition in 1868. The Rhododendron shows of the Royal Horticultural and Botanical Societies are examples where it is done every year, and now and then a more or less successful effort in the right direction has been made by these societies in their general shows, sufficient to prove that they can do it when they choose, and to remove every apology from them for not doing it always. A great show which was held last week in Berlin, has suggested the above remarks, and which may serve to indicate the way that we should go.

The show was held in a riding school, as is usual on the Continent, and the whole place had to be put into order, covered with soil, gravel, turf, staging, rockeries, waterfall, &c., in the space of three days. In these three days, too, while the work was going on, the plants were received and put in their places, and here is the point of difference between the English and the Continental practice, in which our chief difficulty lies. Our exhibitors send their plants in only on the morning of the day of exhibition, the Continental exhibitors three days before. But our horticulturists have shown themselves willing to part with their plants for two, three, or four days, some of our shows have lasted that time; would they then object to send them (if required) two days, or even only one day, before the show, if the show were not continued beyond two days after opening? We imagine not. Whether or not it would be practicable to fix different days for sending in different kinds of plants we do not know. We can easily imagine that it would be a convenience to some exhibitors who were sending more than one van-load to send some on one day and some on the next, and that others who had something of especial rarity or value would not like to send it until the last moment, and would not be willing to make two journeys for all that they had to show. But all that is a question of detail. If the mass of plants were in the hands of the officials a day before the opening, we venture to think we should inaugurate a new and better state of things. But another thing, not less necessary, is preliminary preparation. The plan of the campaign has to be arranged beforehand—the place of the great masses has to be fixed, and the plants to fill them provided. At the Berlin Show, the Botanic Garden sent all the large, massive, fine-foliated plants. At home, the Horticultural, Botanical, and Crystal Palace establishments have all that within themselves. Each massive group could be prepared days beforehand, with holes left into which to pop the glowing Azaleas or bright flowering plants when they arrived, and thus, as at Berlin, each separate exhibited plant could be displayed with a thick framework of dark green foliage setting it off, and although thus mingled with other plants, the whole of one exhibitor's plants in that class kept by themselves. It would take a good deal more space, and would entail a great deal more trouble on the part of the officers charged with the exhibition. That we do not deny—but as our object is to make the exhibitions more effective, and more attractive to the public, that is surely worth the extra trouble.

One other point to be noted is, that the stages for the smaller plants, would require to be more

nearly vertical than we are accustomed to make them. It is easy to see how these smaller plants may be arranged effectively and without showing the pots, if we once admit the idea that for almost every plant that is sent for exhibition there shall be another green foliated plant to form the setting in which the exhibited plants are to be placed.

—THE NATIONAL HORTICULTURAL EXHIBITION which opened yesterday at MANCHESTER, is probably the finest show which has yet been held in that city. Mr WILLIAMS' prize of 50l. for which there are two competitors, has brought together the finest group of 50 plants ever staged by one exhibitor in a single collection, and when we add that this group comes from the collection of H. MICHOLLS, Esq., those who have witnessed Mr. BAINES' style of growing plants will have little difficulty in realising something of the cultural merits of the subjects produced. Those grand Saracenias, at which horticulturists gazed in sheer amazement a year or two since, are there, looking finer than ever, another conspicuous object in this group is a grand bush of *Genetylis tulipifera*, robed in wondrous beauty. We remark throughout the show that in all cases the plant is more finely coloured than usual, which is probably owing to the thorough ripening of the wood, from the excessive heat of last summer. Mr WILLIAMS himself exhibited something like a hundred specimen plants in the various classes. Orchids and Azaleas from various sources, Roses and Rhododendrons from Messrs. LANE, Ferns and Conifers, and the thousand miscellaneous subjects which go to make up a great flower show, are staged in profusion, and, altogether, this is, as we have said, one of the finest flower shows that Manchester has witnessed. It is to be desired that the weather may continue to be as propitious as it now promises to be, in order that the holiday folk may enjoy to the full the feast of flowers, which Mr. FINDLAY and the Manchester Botanical Society have spread out for their delectation.

—We learn that the BOTANIC GARDEN, MANCHESTER, is not available for the purposes of the ROYAL HORTICULTURAL SOCIETY'S EXHIBITION, in July next. The arrangements between the two Societies have, as it appears, come to naught, owing to the Council of the Manchester Society demanding privileges for their Fellows to an extent beyond what the Horticultural Society can in reason accede to. Under these circumstances the Royal Horticultural Society had no option but to look about for another site, and we believe that a very eligible spot has been secured just beyond the Botanic Garden, and attached to the best portion of the Royal Agricultural Society's Show.

—In accordance with a wish expressed by many exhibitors who intend to be present at the SPECIAL PELARGONIUM SHOW on the 23d inst., we believe that some arrangements are in progress by which they, as well as their friends who may be desirous of attending the discussion meeting, which is to take place in the Council-room during the time the awards are being made, may be served in the garden with a substantial breakfast. Messrs. SPIERS & POND will, we believe, be willing to cater for them, if they will take the trouble to provide themselves with a breakfast ticket (to be had at the refreshment stand) not later than 8 A.M. It is proposed that the breakfast should be served at 10 A.M. precisely, so that the meeting may take place at 11 o'clock, as already intimated (see p. 391).

—Mr. W. ROBINSON'S work on the PARKS, PROMENADES, and GARDENS OF PARIS, has just been issued by Mr. MITCHELL, and forms a handsome volume of more than 600 pages, with 400 woodcuts, plans, &c. It is by no means a mere amplification of his former volume, but while it is in great measure devoted to the subject indicated in the title, it appears to comprise a complete account of the best and most noticeable features of French gardening in all its departments. Further examination will be needed before any opinion can be offered as to the technical merits of the book, but in the meantime we may safely commend it to the notice of all desirous of a richly illustrated souvenir of the French capital.

—The first volume of Mr. WILSON SAUNDERS' useful REFUGIUM BOTANICUM is now completed. The last part is devoted mainly to species of *Cotyledon* (*Echeveria*). Of this we shall take occasion to speak more fully at another time. Meanwhile we tender the hearty thanks of all horticulturists and garden botanists to Mr. SAUNDERS for his public spirit and welcome aid.

—M. ALPHONSE DE CANDOLLE, the President of the Botanical Congress of London, 1868, has been elected one of the foreign members of the Royal Society.

—The Chair of BOTANY in ERLANGEN, vacated by the death of Dr. SCHNITZLEIN, has been filled by the election of Dr. KRAUS, formerly assistant to the Professor at Leipzig.

New Plants.

—*VANDA DENISONIANA*, Benson and Echb. fil.
 Folia ovato-lanceolata apice inequali obtuse bilobis (sine dente medio—semper?), racemo valido plurifloro, sepalis cucullato-oblongis obtuse scutis, petalis magis cucullatis abrupte dilatatis subhastatis, labelli auriculis subquadralis, lamina pandurata, lacina antica angusta basi equali anguste ac obtusangulo subaequilata, antica emarginata, carinis a basi in discurum approximatis quinque obtusis, calice emarginato postposito, calicari conico vix breviori, lobis velutina. Flores lactei, apicibus flavo-viridibus suffusis, calicari fundus ac regio circa ostium aurantiaca, linctis puncturum brunnescentium geminis atrisque.

The white Burmese Vanda was one of the secret treasures of the Royal Exotic Nursery for a while. It has just flowered, and Messrs. Veitch have kindly placed in our hands the beautiful *spolia* of this striking

novelty. The habit of the plant may be compared to that of *Vanda Bensoni*, though, as far as our observation goes, the new one is much stronger. The leaves, Mr. Harry Veitch informs us, are wider than those of *Vanda Bensoni*, late, unequally bilobed at the attenuate apex, and the petals are reflexed as in the majority of *Vanda*. Both sepals and leaves somewhat hastate, milk white with a yellowish-greenish hue on the apex. The upper sepal bilobed, subhastate, anterior part, not broader than the base, not so much like a heath-sock as that of the *Vanda Bensoni*. A peculiar feature is the callous line springing from it. There are five raised ridges on the disc of the lip, and a little callus at its base, the concave spur is very short at the end, deep orange around the mouth of the tube over which stand two parallel oblique rows of papillae around it.

We live in the days of novelty in *Vanda*, as we did years ago in the days of new *Phalenopsis*. One of our plant will create a sensation among amateurs. We can scarcely say that it is one of Colonel Benson's striking discoveries, though we should not be surprised if appointed the modern Paris, to decide which was the loveliest among the Bensonian families just now in hand another extraordinary Bensonian variety. We have dedicated this *Vanda* to Lord Londesborough, naming it *V. Denisoniana*, a great lover for Orchids. Messrs. Veitch, who may be proud of their success, inform us that the new *Vanda* appears to be a free flowerer as the same plant has just produced a new flower spike. H. G. Rees.

NOTES ON BEDDING PLANTS.

“I WRITE down my experiences,” says an author, “that men may see how life looks to one who has plucked its joys and tasted its sorrows, and who lived to be devoutly thankful for the experience both.” In some such way might one speak of the experiences of bedding-out. I write mine, narrating a success here, detailing a failure there, so that others who bed-out may take heart again, or at least lose it altogether over something they have “looked on with longing eyes.”

Bedding plants are numerous and varied, and the most fastidious gardener—what to select for grand desideratum. Here is a *Heliotrope* that bedders-out who use the *Heliotrope* would do well to secure—the name surpasses Guasco—the colour lavender, the trusses simply immense—big enough to be the breast of a drawing-room “jarvis,” the habit bushy, and free-blooming. I saw it last summer at John Fraser's, Lea Bridge Road, and made it as a worthy joy to pluck. Not that *Heliotrope* is much used now a days for bedding purposes, but early frost soon gives them the appearance of being the unlovely thing, yet this variety will make the most effective bed, and furnish plenty of cuttings into the bargain.

Iresine aereo-reticulata has succeeded with me even with what would have been thought to be a dry hot summer. Whether raised in the tropical department, or braving the vicissitudes of a more exposed flower garden it has failed to tempt me to praise it. It is a plant not to be despised, nevertheless, for it has its uses, and here, at this season, a specimen in a warm house, and here, at this season of the year, it makes a good display among bedding plants, the leaves being large and of a lustre of green hue, while the net-like marking of gold is very clear and striking.

Generally, the Golden Feather *Pyrethrum* is to be a decided acquisition for bedding purposes, though some condemn it. Even these, however, object to its proneness to flower too early, the labour incurred in keeping the buds from opening. Particularly is this proneness to flower characteristic of autumn-struck plants, as they commence naturally enough, early in the summer. Seedlings raised in the spring should be used, as they do not till quite late in the season when it is to a great extent a matter of indifference. Raising raising plants from seed, use spring struck cuttings. Is this plan enough to stand the winter and so be made ready for the spring garden? A wet season is more favourable to the golden *Pyrethrum* than a dry hard winter, and if a damp causes it to speedily decay, and if a frost massed for effect is not harmonious with the hue of yellow. The spring garden needs the hue of yellow more than the summer flower garden, as of flowers the yellow *Crocus*, *Alyssum saxatile*, *Oxyria*, *santhemoides* (a most useful early flowering annual, richly deserving to be much more grown than it is), *Limonium Douglasii*, *Limnium californica*, and the invaluable yellow *Pansy*. *Viola* does not bloom early enough to make an effective bed. Of yellow-foliated plants there are *Sedum* now in flower, “draped with gold,” and invaluable for bedding, and rockeries, if only properly appreciated, even the gaged forms of the *Arabis*, &c.

Coming back from this digression it may be asked if any of the new variegated *Pelargonium* those of the golden-leaved and gold and bronze can be recommended for bedding purposes. My experiences of bedding-out during the last season no variegated zonal *Pelargonium* that I saw compare with Mrs. Pollock for effect. *Pelargonium* was good, finely marked, and vigorous. *Pelargonium* considered too moist to grow it in reflection in

leaves playing with the sunbeam," and the "diffusive" of the beautiful "hovered over many a bed of this plant, in its gay beauty so striking as to transcend even the most sanguine hopes of those who had reaped various experiences in using it. Alas! there was no spot 'too moist' to be found anywhere above ground in July and August many a frizzle horticulturist sighed for it, and "sought but never found." Two varieties only of the new kinds of variegated zonal plants that I saw being tried last season came near Mrs. Perkins' for effectiveness, those were Perkins & Sons' Queen Victoria, and Lady Craven, and of the two the last best. They also possess one great quality for bedding purposes.—constitution. In a few instances beds of Lady Craven were to be seen—a capital plant making short stocky growth, but dull in appearance, showing too much of the dark zone.

Of the golden-leaved section, Crystal Palace Gem makes high an effective and durable bedder. The leaves are shaded with a darker colouring, giving them a marked appearance, but not in a manner to detract from its usefulness. It is a decided improvement on the Golden Chain and Cloth of Gold, and stands exposure admirably. It is said to have originated at the Crystal Palace as a sport from the old Lady Margaret or Trenton Rose, and, though dwarf in habit, blooms as profusely. It withstands rain and sun alike, and maintains its character with undeviating constancy right up to the expiration of the bedding season.

Of the somewhat numerous gold and bronze zonal section, Kent's Hero, one of Messrs. Downie, Laird & Lang's new varieties, and the Rev. W. F. Rydley's, one of Messrs. Windbank & Kingsley's seedlings, are worthy the highest praise, while they are not enough for the last named to be used as an edging to the former. In a remarkable degree, Kent's Hero is strong and vigorous constitution, and at autumn it was in one case allowed to remain out-of-doors until the cold rains came, and it nevertheless retained its original brilliancy almost unimpaired. To these can be added Ebor, a really fine and useful bedder, and Beauty, probably raised at Hantroyde, having excellent habit, compact growth, and bright leaves. Of the many new kinds tried at Chawick, some, in spite of an adverse season, were very promising as bedders, but, to speak definitely of their usefulness in this respect, they require to be soon bedded-out in the usual manner. Of the white edged variegated Peltandium, Mrs. C. J. Perry, a variety of dwarf and bushy growth, the leaves deeply tinged with white, cannot be too highly recommended. As an edging to large beds it is invaluable, as the compact and even growth of the plant gives a good surface of white to the leaves "map white as wings," like a snowy mantle. Castelmilk is another capital kind, the leaves edged with a pale cream, the habit good, but for its distinctness, for its peculiar wavy habit, and for the contrast between the dark green of the body of the leaves and its edging of white, I give the palm to Albion's Child. A note should be made of each of these varieties by bedders-out who may be sighing for something new and something good as well. The new variegated ivy-leaved variety L'Elegante makes a capital edging plant, and stands exposure well. In some exposed positions of the north, and till quite late in the season, it was very effective, used as an edging for beds. In such a relation it should be pegged down, to preserve the symmetry of the line.

In the north likewise, Viola lutea was exceedingly common, though in many places the drought and heat were very tested, and in some instances almost destroyed. Its usefulness. It was during a very trying summer that opportunity was given to bed it out on anything but a large scale and altogether opposite experiences have been recorded of this plant. In the north also at the Lpton Nurseries, Chester, I saw a bedding Pansy, bearing a profusion of greyish pale blue flowers, named Beau de Ciel, and which was supposed to be of French extraction. In size of flower it approached the Clveden blue Pansy, in character of habit it came nearest to the bedding Pansy, and I was told that it came into bloom as early as March, and continued to bloom during the summer months till late in the season. It had one advantage over the Clveden blue Pansy, that during the hottest weather it did not become so pale as is to be expected of the latter.

The foregoing are only a portion of the newer bedding plants courtng popular favour. There are yet others, and of these something shall be said. *Qno.*

The following is a list of descriptions of the typical form of each, with its principal varieties and their synonyms.

1. *N. Pseudo-Narcissus* (Linn. Sp. Plant p. 414).—Bulb ovoid, not more than half an inch thick. Leaves generally two to a scape, very slender, green, 1½–2 lines broad, concave on the face, scape 8–12 inches high, very slender, terete, flowers one or two to a stem, on pedicels 2–3 lines long, which equal or exceed the spathe, densely crowded, 14–16 lines long, exserted, the lobes of the corona about half an inch long, the upper three inserted near the mouth of the tube and reaching nearly to the throat of the crown, style filiform, reaching nearly to the base of the tube, corona entire, inflated, style exserted, 2–3 lines long, 3 native of Spain, Portugal, the opposite coast of Africa, and the south-west of France as far north as Bordeaux.

This, the 'harp pettecoat,' was divided into 'species' by Herbert as follows, and we give references to the figures and Haworth's and some other synonyms, but we fear that even taking the plants as slight varieties, they are barely distinguishable—

- 1. *N. Pseudo-Narcissus*, Herb. Amar. p. 207. Size as described above, corona slightly inflated entire and inflated, style shorter than the corona. Redd. Germ. t. 41, p. 30 and 31, and Redd. Germ. t. 1, p. 1—The latter figured Bot. Mag. t. 68, Sweet Fl. W. Gard. ser. 2, t. 164.
- 2. *N. Pseudo-Narcissus*, Herb. Amar. p. 207. A robust form, with slightly repand corona and exserted style. Sweet Fl. W. Gard. ser. 2, t. 326. *N. Pseudo-Narcissus*, Det. in Red. L. vol. 8, p. 100, constant and under Haworth.
- 3. *N. Pseudo-Narcissus*, Herb. Amar. p. 207. A slender form, with erect shining leaves, a distinctly exserted style, and a distinctly lobed corona. *N. Pseudo-Narcissus*, Salisb. Prodr. p. 22, Red. L. t. 476, Sweet Fl. W. Gard. t. 114, constant and under Haworth.
- 4. *N. Pseudo-Narcissus*, Herb. Amar. p. 207. More slender than the type, leaves drooping, corona entire, inflated, style exserted. *N. Pseudo-Narcissus*, Prodr. p. 222. *N. Pseudo-Narcissus*, Haw. Journ. Trans. p. 244.

The following are more striking varieties than any of the above:—

- 5. *N. Pseudo-Narcissus*, India Fl. Nov. p. 9. Leaves 2–3, scape not more than 3–4 inches high, perianth not more than 8–10 lines long above the very slightly stalked ovary, the divisions of the limb as long as the filament, reflexed, corona 2–3 lines long, style exserted, lobes of the corona exserted. *N. Pseudo-Narcissus*, Bourgeois, p. 228. From the island of Java, under the name of *N. Pseudo-Narcissus*, Held in *N. Pseudo-Narcissus*, Webb in Bot. Beech. p. 2, t. 1, p. 82.
- 6. *N. Pseudo-Narcissus*, Webb in Bot. Beech. p. 2, t. 1, p. 82. Scape 4–6 inches long, perianth not more than 8–10 lines long, lobes of the corona exserted, style and longer stamens exserted. *N. Pseudo-Narcissus*, Held in *N. Pseudo-Narcissus*, Webb in Bot. Beech. p. 2, t. 1, p. 82.
- 7. *N. Pseudo-Narcissus*, Webb in Bot. Beech. p. 2, t. 1, p. 82. Scape 4–6 inches long, perianth not more than 8–10 lines long, lobes of the corona exserted, style and longer stamens exserted. *N. Pseudo-Narcissus*, Held in *N. Pseudo-Narcissus*, Webb in Bot. Beech. p. 2, t. 1, p. 82.

II. *N. Pseudo-Narcissus* (Linn. Sp. Plant p. 414).—Bulb ovoid, half an inch or a half thick. Leaves five or six to a scape, glaucous, erect, flattish upwards, equaling, or rather shorter than the scape at the time of flowering, five or six lines broad. Scape about a foot high, with two prominent edges, flowering in the middle of March, before any of the other species. Flowers always solitary, nearly sessile, or with a very short pedicel within the spathe. Flower 18–20 lines long above the ovary, the obconical tube about half an inch deep, the divisions of the limb in one or less seen and superior yellow, paler than the crown, along lanceolate, 9–10 lines long, 5–6 lines broad at the base, the outer ones rather Junier than the others, the crown just equalling the anthers, deeper and more orange-yellow than the divisions, the most about an inch across, slightly plicate and incised-crenate, filaments uniseriate from the base of the tube, 7–8 lines long, flattened downwards, straight, the anthers linear four lines long. Style above an inch long, straight, slightly exceeding the anthers. Extending as a wild plant from Sweden and England, to Portugal, Spain, Italy, and Transylvania.

Of this, the Daffodil, there are five well-marked varieties, which were known to, and described by, Linnaeus; and which keep up their characters well enough under cultivation to stand as species for a garden purposes, as follows:—

- 1. *Pseudo-Narcissus*, Linn. Sp. Plant p. 414. The ordinary average form of which we have described above. Redd. Germ. t. 41, p. 30 and 31, and Redd. Germ. t. 1, p. 1—The latter figured Bot. Mag. t. 68, Sweet Fl. W. Gard. ser. 2, t. 164.
- 2. *Pseudo-Narcissus*, Linn. Sp. Plant p. 414. Larger in all its parts than the last, the leaves 6–8 lines broad, the flower 2–3 inches long above the ovary, the divisions of the limb twice as long as the broadly obovate tube, the same colour as the crown, which slightly exceeds them, and spreads near the throat (in an extreme specimen that lies before us whilst we are writing, an inch and a half broad). Redd. Germ. t. 41, p. 31, and Redd. Germ. t. 1, p. 1—The latter figured Bot. Mag. t. 68, Sweet Fl. W. Gard. ser. 2, t. 164.
- 3. *Pseudo-Narcissus*, Linn. Sp. Plant p. 414. Smaller in all its parts than the type, the whole plant when cultivated not above 6 or 8 inches high, the leaves a quarter of an inch broad, often only 3 or 4 inches long, the flower 12–15 lines long, exclusive of the ovary, the crown the same colour as the divisions, and slightly exceeding them, the divisions 2 lines broad at the base. *N. Pseudo-Narcissus*, Herb. Amar. p. 207, and *N. Pseudo-Narcissus*, Haw. Journ. Trans. p. 244.
- 4. *Pseudo-Narcissus*, Linn. Sp. Plant p. 414. Smaller in all its parts than the type, the whole plant when cultivated not above 6 or 8 inches high, the leaves a quarter of an inch broad, often only 3 or 4 inches long, the flower 12–15 lines long, exclusive of the ovary, the crown the same colour as the divisions, and slightly exceeding them, the divisions 2 lines broad at the base. *N. Pseudo-Narcissus*, Herb. Amar. p. 207, and *N. Pseudo-Narcissus*, Haw. Journ. Trans. p. 244.

5. *Pseudo-Narcissus*, Linn. Sp. Plant p. 414. Flowers large, or middle sized at first a very pale sulphur yellow, finally nearly white, the divisions narrow and more lanceolate than in the type, the same colour as the rest of the flower, equaling or slightly exceeding the divisions. Bot. Mag. t. 68, Sweet Fl. W. Gard. ser. 2, t. 164.

All these five varieties are none of them very rare in cultivation in England at the present time, but 1 and 2 are very much the commonest, both being frequently seen "double" in gardens. *N. Sabini* Lindl. Bot. Beech. t. 762. *Domeles major*, Haworth, is most like No. 1, but the corona is decidedly shorter than the divisions, and the filaments are inserted higher up in the tube, and scarcely exceed the anthers. Doubtless it is a garden hybrid.

III. *Calathinus* (Linn. Sp. Plant p. 415). Bulb ovoid, not more than half an inch thick. Leaves generally two to a scape, very slender, green, 1½–2 lines broad, concave on the face, scape 8–12 inches high, very slender, terete, flowers one or two to a stem, on pedicels 2–3 lines long, which equal or exceed the spathe, densely crowded, 14–16 lines long, exserted, the lobes of the corona about half an inch long, the upper three inserted near the mouth of the tube and reaching nearly to the throat of the crown, style filiform, reaching nearly to the base of the tube, corona entire, inflated, style exserted, 2–3 lines long, 3 native of Spain, Portugal, the opposite coast of Africa, and the south-west of France as far north as Bordeaux.

A very distinctly marked plant, easily known from the Daffodil and from *N. Pseudo-Narcissus* by its slender tube, basinate stamens, long pedicels, and reflexed divisions, and from *N. Triandrus*, which otherwise it very closely resembles, by its longer corona. We have seen wild specimens only from the Isle of Gleanans, in Brittany, gathered by Gay and others, and from Portugal, gathered by Baron Paiva, and are not aware that it is now in cultivation in this country. We follow Redd. and De Candoille in regarding it as the *Calathinus* of Linnaeus, but the plant figured in the "Botanical Magazine" under that name is very different, being a slight form of *N. odoratus*. *J. G. Baker*

Home Correspondence.

Indian Forest Appointments.—The discussion that has lately been going on in the columns of the *Gardeners' Chronicle* on this subject will, doubtless do a great deal of good to both India and our native land. Many proprietors of waste land may be inclined to think that whilst we are training young men for India, a few trained for home service would do no harm. Training young men to manage Indian forests is very meritorious, and a step in the right direction. Let us have a few for home service. I think I may state, without fear of contradiction, that the forests of our English nobility are the worst managed part of their property. The result is a heavy loss of rental to the proprietor, and a general loss to the country. This result is in most cases owing to the ignorance of the person in charge of the forests. I refer to one of the largest estates in Staffordshire, which I give as an example of many more that I know. There have been three agents in about 20 years. No. 1 was an auctioneer, No. 2 a linen-draper, and No. 3 a Catholic priest: all three very nice men in their own line of business, but they knew little more of forest management than "the man in the moon." So long as our landowners leave vast tracts of valuable timber land in the care of such people, so long will our forests be anything but what they ought to be. It is often deplorable to see land being planted with trees entirely unsuited to the soil and situation—trees that delight in damp sheltered places planted on high, dry, exposed places, and vice versa. The idea of sending young men to Germany to learn how to manage forests is simply ridiculous. The Germans are the worst foresters on the Continent, in fact they do not manage them at all, but leave them to Nature. I have lately had several long conversations with the ranger of one of her Majesty's forests. He has lately been over a great part of Germany, and he assures me that nothing can be made worse than the foresting. In France the forests are now much better managed than formerly. When I was last at Chambery in Savoy buying trees, I found the Government agent in the same nursery buying young forest trees by the million. He told me that the Emperor took great interest in the forests, also that thousands of acres were being planted every winter with young trees suitable to the soil and situation. The English send to Germany for Dogwood to make gunpowder, and leave square miles in Ireland, England, and Scotland unplanted, that would produce a better and cheaper wood. I may say the same of many marshes that would, if planted, produce large quantities of Willows for basket making and crate wood. I know one hill in my native county (Aberdeen) that formerly did not produce enough to keep a dozen geese. It was planted with Fir and Larch, about 20 years ago, and now produces a handsome yearly rental to the proprietor, besides giving employment to woodmen, sawyers, and carters. I could also give many instances where large sums have been spent in planting land with trees entirely unsuited to the soil and situation, and the natural result has been, dead loss and disgust to the proprietor. *John A. Watson, Campaign Lammermoor, Geneva, Switzerland.*

Calanthe Veitchii.—I am quite certain every Orchid grower will thank Mr. Anderson for teaching us how to manage the lovely *Dendrobium*.

REVIEW OF THE GENUS NARCISSUS.—II.

Group I. MAGNICOBONATE crown as long or rather longer than the divisions of the perianth.

Of the Narcissus which have the crown in the middle of the flower as long as the divisions of the flower, there are only three well-marked species, each of which corresponds to a genus of Haworth's, two of which are well known in cultivation, but the third, which is very rare in a wild state, is now, we fear, lost from our gardens. They may be distinguished from each other as follows, viz.—

- 1. *BULBOCOLUM* (Genus *Corbularia* Haworth). Filaments and style straight; divisions of the perianth linear-lanceolate, and to an eighth of an inch broad at the base.
- 2. *PSEUDO-NARCISSUS* (Genus *Ajax*, Haworth). Filaments and style curved; divisions of the perianth oblong lanceolate, 5–6 lines broad at the base.
- 3. *CALATHINUS* (Genus *Asarum*, Haworth). The cylindrical rather widened at the top, five or six times as long as broad; divisions of the perianth distinctly reflexed.

could not sell. A Colonel might as well talk of selling his Regiment as a Tenant in chief (or *capite*) selling his *fief* (or feudal estate). It descended from father to son—to the eldest of course, as being the first who could discharge its duties, in regular succession of 'primogeniture' a line never broken except when "some fair mischance," inconveniently occurring in the shape of a Daughter, was as matter of course immediately consigned to the first Favourite of the royal list who wanted—a Pief.

Remember there was no Standing Army, no Navy no Civil List no Parliament to 'vote supplies.' The King had to do it all himself and this network of *subordination* which penetrated the whole body politic, say rather this pyramid, of which the sovereign was the summit, embraced at once his military power, and whole bond of government. The Land was the basis on which it all stood, the pivot on which the whole turned. War being the one occupation of life—the 'natural pursuit' of man,—to follow to the field some warlike lord was the Rent which each vassal paid to his Superior, throughout all the links of the feudal chain.

But there was one class of Society which did not go to war. The Churchmen of those days (for Lawyers, like other national blessings, were of later birth) were the only scholars as well as the only landlords, in the land in *proving* sense of the word, and by degrees, invented modes of *leasing*, and then *leasing* land, which, gradually superseding the old fashion of *enfiefment*, furnished one out of several ingenious and evasive modes of passing the actual *ownership* from one to another *in fee* and in an evil day,) even of conveying it *in trust* to one man for the actual benefit, or use, of another, the latter thus enjoying what was called the *equity*, while the former held the *legal* estate.

But here let us take breath for a moment, and survey the jungle we have got into! Lord Suzerain, Tenants in Capite, Profs, and Profits, Leases and Releases, Leases and Trusts, Legal and Equitable Estates, and Feudal Tenures in general! With such a vocabulary over its head by way of pedigree, will it now be wondered at, that that unhappy bit of land, about which those two citizens were last week complacently negotiating, changed masters, under their simple Cheque-and-Receipt-book operations about as effectively as if they had proposed to buy and sell the old day out of the Week, or one of 'The Twins' out of the zodiac?

To modern eyes the power to Buy and Sell seems almost inseparable from the idea of ownership. That freedom and facility of transfer, which has during the past year enabled three and a half Millions Sterling to change owners at the London 'Clearing House,' is due solely to the growth of Trade, and Commerce, and Manufactures, those 'Younger Children' of national history, which as they rose to wealth and importance, obtained laws for themselves adapted to the stature and intelligence of the periods in which they attained to corporate existence and maturity. Laws are to a nation very like what Habits are to an individual: it is easier to make a new one than to alter an old one, and thus we must not be surprised to find the modern trade Interests of society clothing themselves with the legal habiliments of advancement and intelligence, while Land was still struggling in the fetters, say rather the swaddling-clothes of a system, which while studiously retaining the old appellation of *real* property, deprived it of that which is recognised as the best test of all proprietary right,—the power of disposal, or 'alienation.'

There is nobody to hang, or even to blame for this. It is not the fault of the lawyers. They did not make it. It *grew*. The poor old feudal system was a good one in its day—and suited to its day. It kept society together in a sort of chivalrous interdependence, which was better than independent barbarism. The evil is, when a thing has lost its use and meaning, and become obsolete, when the candle has burnt down into the socket and grown mischievous, that the extinguisher is not put on to prevent its becoming disagreeable.

But why, you will ask, if this obstructive system exist no longer in the other countries of Europe, once as subject to feudal laws as England, and has never existed at all in the American States, since they ceased to be a Colony—why does it still hold its ground in the United Kingdom of Great Britain and Ireland? Why have the efforts of our Legislature, as in

the Act of 1832, which limited Land titles to twenty years been unavailing? Why was Lord WESTBURY'S Bill of 1861 for the registration of indefeasible titles, unavailing? Why was the proposal perhaps the best of all,—to cut the Gordian knot by Insurance, buyers and sellers uniting to insure till the twenty years had run out, and the title run *in*—unavailing?

If you ask the question of a layman, he will answer, smiling, with the aphorism that "No Craft reforms itself." And as the Public think they *can't* do it, and the Conveyancers *won't* do it, landed titles in England and Ireland can only wait patiently for another Deluge, or some terrestrial cataclysm like those which Sir ROBERT MURCHISON and the Geologists tell of, to give us a fresh start altogether, and put us on a par with Holland, Denmark, Norway, Germany, Switzerland, the Tyrol, Italy, and Belgium, where no doubt some such convulsions must have happened, as they have made short work of Feudalism, and demoralised the conveyancers down to the vulgar doctrine of 'small profits and quick returns.'

But if you are not afraid to ask a Conveyancer himself about it, and he should chance to be one of

"those better brothers
Who think of something else beside the pen,

he will probably ask you in return (also smiling, "like any christom child") "How on earth are we to enable you to sell land, like Horses? How would you set about selling a horse whose master had *settled* him in such a posture that his head was in this century, and his tail in the *next*, or *—a year*? If you could see *here*, how would you deliver him? We have to deal in a kind of ware more far-reaching than the Atlantic Cable, more delicate than the electric brain-thread, the nerve that links our mind to matter. We are your only true spirit-'mediums.' They, poor bungling-scholars, only profess to bring the dead back to life, and evening parties, and round games. But our machinery, *our* dealings are with *the Living*. They are our real clients, those antenatal, 'in Remainder;' for they are always 'coming,' and they have got, and for ever and for ever hold the *Fee*, while that poor breathing wretch, the 'life in being,' the 'Tenant for life' in *tail*, whom you ignorantly call the *owner*, and address as 'Esquire,' is a being whom we look upon as autogaster at the wrong end of the Settlement, for any good, or harm he can do, and as in *our* eyes, nobody at all. His life estate—his '*posse*' is daily diminishing, while the Remainder man's '*posse*' is daily dilating, and enlarging on the *view*."

You say that that won't exactly do, for the purpose that the soil was made for, viz, its agricultural use, that it was meant to be cultivated like a garden by *somebody*, not tied up, like a Lettuce, for somebody *else's* future enjoyment, and that the land, if it be 'real property' ought also to have a real *owner* of some sort: that the proprietor ought to have some *Motive*, the Tenant some *Security*, the Labourer some 'place where he may lay his head,' after his hard day's work, and *near* it too, and you say that this long-winded system of entail on an *unborn* generation interferes with *all* of these, and sacrifices the present to a future uncertainty, which the very instant it ceases to be future and uncertain, and comes into possession, is chained down in turn to the despised and despicable 'life estate,' and from that instant begins to

"Lose the name of action."

Well! what can the Conveyancer do to help it? He has only to obey Instructions. 'The Family' asks it, and "the Law allows it." You say that it is written *somewhere*, that "the earth was made for all"—that, *to this day*—and mark that, it is as responsive to the Spade, as to the Steam Plough, *and more*—and that if a live dog is better than a dead lion, a living Nymph should be able to buy, and *sell*, his five acres (and without taking S. NEAD'S 'old man of the sea' on his back, in the shape of a lawyer) as easily as AHAB to inherit his five thousand. It sounds dreadfully 'radical,' but it is the nature of things that *penetrate* the soil to be so. Yet how to 'disestablish' this unborn tyrant, and restore English and Irish earth to "any number of lives *in being*," as in America? Won't it give birth to a Revolution—i. e., amongst the Unborn, whose 'vested interests' it so cruelly disendows? Ay! there's the rub!

But, happily, for every poison there's an antidote, and for "this Nettle danger," there is the Dock to soothe the sting—that the very moment

the unborn rebel comes into life, he drops once his objectionable character, and *comes* within our admitted circle of rights as reasonable entail! Once establish this number of Lives *in being*, but no crawling into the unborn world!" and you get rid of that stifles the free transfer of British and landed absurdity, one chapter of the *unborn* soil. Very terrible advice, no doubt. The wonder is that such a restriction has not occurred earthquakes in the before-named *unborn* begins, but worse remains behind for it was halt a history but "Sir, a whole history of our quotation spoke of.

— THE corn markets throughout the country have been without any important changes. Foreign Wheat in foreign Wheat was at a slight advance. The meat and live-stock markets lower prices have been made, from the short supply at previous times. The number of beasts on Monday was 1,630, of which 3,134 were foreign, and the highest prices made were per 8 lb. Of sheep there were 32,400, nearly all being foreign which sold at much lower prices. The lambs made 7s. per 8 lb.—But little is doing in the seed trade. Some speculative exchange has been made in the Clover seed market at a slight advance in prices.

— The Returns of the CHANCELLOR of the EXCHEQUER on Local Taxation were issued on Thursday, and they appear to be of more importance than anything which has been published on the subject, and, of late, much vexed question. The amount to be levied for the poor-rate, a though it is not an exonerate for the relief of the poor, was, at 11,061,502, as against 10,304,067 in 1867—an increase on the year of 757,435. In England the amount was 10,132,457, and in Wales 599,157. The contributions out of the poor-rate as contributions to the borough, and police rates, amount to the aggregate to 2,325,717 in England, and 127,467 in Wales to Highway Boards, 611,577 and 655,777 respectively. Burial Boards, 107,127 and 339,000 to bath and wash-houses (of which there are none in Wales 11,398), and to fire-brick in England, 127,127. Making these deductions, the exact cost of the poor-rate exclusive of Scotland and Ireland is 8,881,877.

— Mr PENNY, the contractor for the new show-yards of the Long-stay Agricultural Society during the five years which will end with getting on with his work at Manchester. A space of 70 acres, some four times as long as it is broad, between the Manchester and A. Ringham Ballers to the south, and the Manchester and Chester roads on the north, is already enclosed. The architectural elevation which greets the visitor on approach is a ready in its place—the framework of the rows for implements is already planted in long lines of shelving for machinery in motion as seen on either side as you get within the yard—the further end, divided off by a public highway (which will, however, be closed during the week of the show) so much of the shelving for sheep, and pigs as it is safe to put up by the closing of the entry list has declared in much exactly will be wanted, is a ready framed position—the horse-boxes are in progress—of the apartments for judges, stewards, secretaries, &c. a very near completion—and Mr PENNY is congratulated on his obvious resolution to do everything in perfect order long before the time to which his contract ties him. The asphalt, and at its eastern end next Manchester it is clayey, but ample care is being taken frequent large and shallow drains with many openings to the surface, to provide for the rapid drainage of surface water, if the weather should be wet. It can, however, be denied, that the risk of discomfort there should be any considerable rainfall during the snow of this year very much enhanced by the character of the land. Let us hope that what may be pronounced the usual good for one of the Society's this year attend it, and that the multitude of spectators who await its arrival at Manchester may see the advantage of seeing its capital show under fortunate circumstances.

— The Birmingham Horse Show is fixed for June 17—20, inclusive. At a meeting last week presided over by Mr T. B. WRIGHT several alterations were made in the programme. The principal suggestion by Mr WRIGHT was that the carriage class should be struck out of the programme in regard to stallions, setting hunters. This suggestion was adopted. The classes for stallions were also expanded. An extra prize of 5/13, however, added for the best horse and a new class for hunters not exceeding 16 hands was agreed to, the prizes offered being 20/ and 10/ respectively. The prizes altogether are increased by 100/ over last year, and the guarantee amounted last week to 10,000/.

— A Bill for the institution of County Finance Boards has been introduced into the House of Commons by the Government during the past week, which the following summary is given in the Times. It is proposed that in each county a number of representatives of the ratepayers shall be associated with county magistrates. In each county a composite Board is to be formed, consisting of the magistrates. The *ex officio* members are to be the magistrates, while the elective members are to be guardians of the poor chosen by the County Board.

they respectively belong. The number which... to delegate as to vary from one to... gross estimated rental and the... expected, will be to send to each Financial... representative of the rate-... every two magistrates. But, as many of the... do not attend the strength of... would in practice be pretty equal... committees of the Board equal... would be drawn from both classes. The Act... compulsory, so as to secure uniformity of system... the country, and to avoid those disputes... seem to be the inevitable result of a permissive... measure.

Warning to Cattle Dealers is the reading of a singular action in the Sheriff's Court at London. Mr. CHARLES DALLAS, of Haughhead, was sued for personal injury done in St. Andrew Street by an ox which was described in court as being of large and in a furious state, along that street. From the evidence, it appeared that the bullock was, on the day in question, along with other bullocks, being driven, under charge of one man only, and ran off from its companions. It was attempted to be shown in defence that the injury to the plaintiff was the result of a simple accident, occurring through the bullocks having been barked at by a dog, and when barking at the dog, snapping its foot, and coming down with its head on the street. The Sheriff gave judgment against the defendant. He held that the occurrence raised a presumption of fault on the part of the defendant which he must rebut, and that he had failed to do this. In the first place, the alleged fall of the bullock was only spoken to by the man who had charge of the cattle. No bystander—although there must have been many—had been called to substantiate it. Again, the defendant had tendered no evidence as to the previous character of the bullock, and he must assume that had favourable evidence on that point been obtainable, it would have been presented to the court. Besides, it seemed to him that if a person chose to drive a number of bullocks through the streets of a city with only one man in charge, then, if harm happened to the public, the owner must be responsible. It might be that generally one man was found quite sufficient, and it was for the owner's interest to have only one driver in order to save expense, but it was clear that when anything unusual occurred one man was not sufficient to control such a number of cattle, and for his own purposes the owner had only one person in charge, then he, and not the public, must bear the attendant risks.

OUR LIVE STOCK.

Two important sales of Durham cattle have recently attracted attention among admirers of high-bred stock. One held at Watlington, Kent, on Thursday, the 9th inst., in which Mr. F. Leney offered for sale 20 heifers all below two years old, and the same number of young bulls. The other, held at Wicken Park Farm, Bucks, when Lord Penrhyn disposed of 22 females and 18 bulls. Lord Penrhyn's cattle made the very excellent average of 60*l.* 10*s.* all round. Further inspection of the prices realized shows that the 34 cows and heifers averaged 67*l.* 2*s.* 9*d.*, while the bulls brought 47*l.* 19*s.* each. The Wild Eyes tribe were in the greatest demand, eight individuals making 9*l.* 12*s.* each. *Grand Duchess of Wales*, by 11TH GRAND DUKE of this tribe became Lord Danmore's property at 300*g.* *Grand Duchess 3d*, by DUKE OF GREVEL, and of Wild Eyes extraction, was purchased by the Hon. C. W. Fitzwilliam for 105*g.*, and *Grand Duchess 5th*, by the same sire, and from *Grand Duchess 3d* was knocked down to Mr. F. Leney at the same figure. The Darlington also created much competition. *Darlington 12th* was bought by Mr. H. J. Sheldon for 105*g.*, and Lord Kenh's secured the 15th and 17th of the name for 120*g.* each. The 11 members of the family averaged 75*l.* 10*s.* We hope on a future occasion to give a full list of the prices and purchasers.

We beg to remind our readers of the Costerton sale of Northern cattle and Leicester sheep which takes place on Tuesday next, under the superintendence of Mr. Thornton. Mr. David Ainslie's stock is of first-rate quality. The cattle we have noticed on a previous occasion, and we now add that the sheep have signally sold themselves by carrying off a large number of prizes both at the Highland Society and Border Union shows. Costerton, near Edinburgh, is eight miles from Dalkeith, and three from Tynehead Station.

Mr. R. Gibson, New York, has purchased two heifers and a bull from Mr. Booth, of Waraby, for the sum of 2000*g.* It is some months since Captain Gunder disposed of his *Duchess 5th* to Mr. Cochrane, of Canada, for 1000*g.* The Booth blood on the present occasion has asserted its equality with that of Bates, *Bride of the Vale* having realised the same noble figure. The remaining heifer, *Merry Peal*, and the young bull ROYAL BRITON, were sold for 500*g.* each. *Bride of the Vale*, a roan, is rather more than four years old, and is a daughter of *Soldier's Bride*, by W. SUSSEX (1893), and LORD OF THE VALLEY (1890). *Merry Peal*, a roan, is by COMMANDER-IN-CHIEF the 1st prize aged bull at Leicester, and from *Lady North*, of the Bliss family, by S. B. SAMUEL (15,302). ROYAL BRITON is still a calf, he is by LORD BLITH, 22,126, and from *Royal Bridesmaid* by PRINCE ALFRED (13,191), and therefore descended on the male side from the cow *Bliss*, and on both sides from LEONARD, the sire of *Bliss*.

Mr. F. Leney's sale was even more successful than that of Lord Penrhyn, the general average being 64*l.* 1*s.* 6*d.* This figure was, however, greatly due to the sale of the GRAND DUKE OF KENT, calved Dec. 23, 1868; a son of LORD OXFORD 2D (20,215) and *Grand Duchess 9th*, and tracing back to *Grand Duchess* by

GRAND DUKE 10,281, and previously through a long line of Duchesses to *Duchess 1st* by CUMBY. This splendidly bred calf was purchased for 500*g.* by Mr. Moore. Deducting this exceptionally high price from the catalogue, the average is lowered to 53*l.* 2*s.* and the bull average is brought down to 52*l.* 10*s.* The same gentleman also became the owner of *Countess 2d* by KNIGHTLEY of the *Charmier* tribe, for 255*g.*, and of *Duchess* by GRAND DUKE 10TH, also a descendant of *Charmier* by LITTLE JOHN, for 75*g.* The same blood had a so attractions for Mr. J. P. Foster, who bid 200*g.* for *Tien Duchess 3d* by KNIGHTLEY. We append a list of the prices realised, and the names of the purchasers.

Name of animal.	When calved.	Price.	Purchaser.
<i>Females.</i>			
<i>Garland 6th</i>	July 8, 1867	29	The Queen
<i>Tien Duchess 3d</i>	Sept. 19	200	Mr. J. P. Foster
<i>Beauty 3d</i>	July 28	35	Mr. J. W. Larking
<i>May Duchess 1</i>	Sept. 11	47	Mr. W. Arkell
<i>Blanche 9th</i>	Sept. 14	45	Major Stapleton
<i>Sultana 6th</i>	Sept. 23	40	Mr. S. Plesher
<i>Fleur 8th</i>	Dec. 3	38	Mr. J. W. Larking
<i>Key Beauty 3d</i>	Jan. 19, 1868	61	Major Stapleton
	Nov. 21	23	Mr. Geo. Moore
<i>La</i>	April, 1868	10	Mr. Geo. Moore
<i>Pa</i>	April 5	21	Mr. J. W. Larking
<i>Johnny 10</i>	April 10	8	Mr. R. Russell
<i>Jenny 15th</i>	April 16	1	Mr. R. Russell
<i>Francis 4th</i>	May 31	43	The Queen
<i>Cafre 2nd</i>	June 6	34	Mr. R. Russell
<i>Theresa 1st</i>	Oct. 2	21	Mr. T. Parkes
<i>Perce 3d</i>	Oct. 9	52	Mr. J. W. Foster
<i>Theresa 2nd</i>	Aug. 11	41	Mr. Atterborough
<i>Theresa 3rd</i>	Sept. 11	47	Mr. Atterborough
<i>Duchess</i>	Nov. 1	173	Mr. Geo. Moore
<i>Europa 1st</i>	Dec. 11	26	Mr. B. Hall
<i>Fleur Duchess</i>	Dec. 12	30	Mr. Musgrave
<i>Ruby</i>	Jan. 12	83	Mr. G. Moore
<i>Bulls.</i>			
S. B. RAJALD	Dec. 10 1867	49	Mr. T. Parkes
S. W. WATSON	Dec. 21	36	Mr. T. Morris
J. THE JOHN	Jan. 13 1868	40	Mr. Waterman
D. OF W. 18. TOX	Jan. 20	31	Mr. Cottingham
CHERRY DUKE	April 10	35	Mr. F. Tappin
WHITE KNIGHT	July 7	18	Mr. Ashdown
<i>KNIGHTLEY BUTTER.</i>			
FLY	April 10	4	Mr. Tomkins
WATER 2D	June 6	17	Mr. Watman, M.P.
WATER 1D 2D	Oct. 1	25	Mr. R. Russell
FANE WITE	Sept. 19	18	Mr. C. Sturgeon
ROUSE	May 9	24	Mr. Cottingham
D. OF K. NT	Sept. 15	66	Mr. J. B. White
<i>GRAND DUKE OF</i>			
WATERBURY	Oct. 3	37	Mr. G. Phillips
D. OF S. S. S. S.	Oct. 9	Noon	
R. OF S.	Oct. 9	Noon	
T. OF S.	Nov. 7	3	
THEY OF S.	Dec. 7	43	Mr. F. Lyder
ESS S. S. S.	Dec. 16	12	Mr. W. Arnold
T. OF S.	Dec. 16	29	Mr. Russell
W. OF S.	Dec. 19, 1868	15	Mr. W. Arnold
GRAND D. OF KENT	Dec. 23	300	Mr. Geo. Moore
BARON OXFORD 2D	Feb. 3, 1869	14	Mr. W. Arkell
OXFORD LAD	March 1	45	Mr. E. Lythall

Average of 23 females 47*l.* 5*s.* 2 = 41615 19 0
 Average of 26 bulls 56 19 3 = 1139 6 0
 Grand total £2755 4 0
 General average £44 1 6

We hear that the heifer calf dropped by *Kirklevington 12th*, which we recently noticed, has to be known in future as *Marchioness 1st*, and that all the produce of the *Kirklevington* and *Siddington* stock now at Danmore will be designated *Marchionesses* and we presume also *Marquises*.

Old Moss Rose, purchased at Kibbrow for 400*g.* by Mr. D. R. Davies, has produced a rich roan bull calf to GRAND DUKE 10TH *Cleopatra 5th*, of the same herd, has calved a white heifer to GRAND DUKE OF ESSEX 4TH.

THE CIRENCESTER SCHOOL OF ART

[The following very beautiful address was lately spoken, on the occasion of an award of prizes at the School of Art in Cirencester, by Prof. Church, of the Royal Agricultural College.]

I SHOULD be glad to be allowed, in saying a few words to you to-night on the subject of Art, to ramble about a little in this wide domain. Only three days ago did I hear that I might perhaps be of some use here this evening, and since then my ordinary work has not permitted me to prepare such an address as would have satisfied your expectations and my wishes. Excuse then, I beg, my presumption in speaking at all in this place. Let my interest in Art and my desire to help, in any way at all possible to me, on such an occasion as this, be my excuse for standing before you and giving you, for a few minutes, some desultory talk. 1st. I would take up then as they come into my mind a few subjects of artistic moment about which I have often thought.

First among these stands the relation of science to art—its help and its interference more particularly being in my view just now. It has often happened that the period in a nation's history when art has attained its greatest perfection has not been distinguished for special moral excellence, or large literary achievement. Chinese colour is most lovely, its combinations and modes of application afford splendid examples of refinement of taste, yet the stereotyped character of Chinese civilisation is a by-word in Europe. In North Africa, again, we have several rough and half-civilised tribes possessed of a style of ornament which both as to design and colour is worthy, I will not say of imitation merely, but of the deepest study. A bit of Arabic inlay, such as some of the Meymar specimens just added to the South Kensington Museum, or a plate of Persian faience will show us that we must not disdain to learn from peoples far behind us in general civilisation

—who know less, and certainly talk less than we do, but who seem to have felt more, and commonly achieved, in some art directions, greater successes than are usual amongst us. Looking back 300 years, we find in Western Europe the splendid structures of medieval architecture, from A.D. 1100 to 1500, together with the perfect products of many kindred arts, coeval with a state of society, of feeling, and of general knowledge which in some points was absolutely barbaric. Was it then, I want to ask, the growth of science and the spirit of philosophical inquiry which deadened art then, or must we look to our own era before we can trace any great influence of this kind? I ask this question not because I can here answer it competently, but because it gives me the opportunity of mentioning one point of contact between science and art which leads often, in individual cases, to distinct failure. You know that men of science who are always questioning Nature and learning her secrets, can now do at their will, and more perfectly than before, many things which men knew not the reason of formerly, and which came as it were hap-hazard, and now and then to the earlier workers. Take an example. When the great French potter Bernard Palissy was at work (he died in 1590), no knowledge of the real nature and affinities of the material of pottery, of glazes and glazes was to be got. He struggled through years of experiments and years of disappointment, and at last achieved at last a success of the most durable sort. During the last hundred years or more every problem that puzzled Palissy in glazing his ware has been solved by science. Invention and processes and improvements may even have been too abundant. Our manufacturers and those of Europe have done great things, but the ware may be perfect in texture and durability, the colours may be pure and bright as those of flowers, the glaze may have the polish of a jewel, but if there be lacking the artist's spirit to imbue the exquisitely-prepared body with true life, the finest porcelain-paste, and enamels, and glazes are worse than dead. Those old potters whose works are now-a-days preserved as precious, did not invent their materials first, and then begin to think of design and colour, and the idea of the form and the ornament had wrought itself into order, and then were sought by long-continued trials materials which should give it substance and adequately represent it. Now, a chemist, or experimenter, or manufacturer invents a new glaze, and a man needs but to cover everything he makes the vessels to show off the wonderful new glaze, and not to give that it may produce the beauty of the vessels. See, for example, the Beckington. Science has brightened our colours, but lay on bright chemical pigments thick as you can, glaze them with the juiciest of glazes, and if feeling and art be wanting, the result is a dead, artificial, and dull display of hues given you, which, after you have seen it once or twice, will be forgotten. I have seen their so-called harmonies of a day, but never again, you never tire. In Josiah Wedgwood you have an illustrious example of a man who pressed into the service of his manufacture all the resources of science, and yet so used them that they served only to exalt the artistic merit of his productions. For to Wedgwood's ware chemistry gave the right composition, while mechanical skill gave truth and perfection of texture and form. By countless trials under scientific guidance Wedgwood improved his materials, not to display them as such, but in order worthily to represent the lovely designs of Flaxman and to reproduce the beauty of antique art. I have given you illustrations of the way in which science may help or endanger art; hundreds might be cited from painting or from architecture, where, especially, mathematical precision and mechanical hardness are too often quite fatal to beauty of effect; but I must rest content with having directed your thoughts to a question of such great importance as the right attitude of science to art.

I am naturally led to say a few words now on another topic, intimately connected with the last. We have seen, or may infer, that improvements in manufacture arising from increased knowledge of the intimate properties of the materials used may often aid and often damage art. If, for example, you make all your pigments pure and bright, you may have no repose as the result—what we may name temperance of colour may become impossible or difficult. Use but do not lavish the gifts that scientific progress offers. Take a Persian dish as an example. On a white ground is a beautiful arabesque of conventional ornaments from leaves and flowers. The designer used four colours only, a pale greenish-blue like the turquoise, a deep rich blue, a grey-like Indian ink, and lastly, a red, a peculiar tint—very dull and very dirty, not quite unlike that of a halfpenny stick of very bad sealing-wax or a poor sort of red lead. But this colour must not be brightened only let a scientific man come in and suggest and substitute the last new chemical red, let him take the dulness out of the red and the beauty is taken out of the whole combination of colour. And then the Indian ink colour, a smoke colour, is on these Persian plates for a similar reason. Often their borders have, besides ornaments in colour, hundreds of little spiral parts of grey giving at once quietness and solidity to the edge or frame, and thus brightening the central design of the piece. Temperance in colour does not indeed mean dullness and dowdiness of colour—it means proper relief combination, and proportion of colour. Let some of these rarer tints be introduced among your blues and reds and yellows, which you cannot exactly name but which the watchful student of Nature may see trembling on the leaves of the Willow, or paying the autumn palette of the forest, or shining at sundown from the depths of the sky.

I hardly like to take up the third point about which I had wished to speak to-night it would demand for proper treatment many illustrations and examples.

This might have been done at a very small cost... society... but it was not done... such a comparison... spirit which characterizes the whole of the country.

Home Correspondence.

Steam Cultivation. Any farmer who has heard the signature of W. H. ... command attention... however, from the fact that his remarks refer more to the cultivation of the soil only, and not to the more important question of the otherwise... A correspondent... looked upon... interesting... may be a fact that... whatever the nature of the soil may be, is more effective than once over the ground by horses, whether in ploughing, grubbing, or harrowing, but such a rule does not imply that steam culture involves fewer ploughings, &c., for in practice the requirements of the soil, season, &c., may demand the opposite, viz., more frequent ploughings with steam than with horses. We can easily perceive cases where frequent and effective ploughings are better in favour of steam, and very probably this may be the rule in the vast majority of farms, but from some a rule would also have to apply to cases where once over the ground with steam... the ground by horses, which in not a few examples steam can enter the soil more easily, by which the work by one operation when horses have to wait a more advanced season for favourable weather, at a sacrifice which the harvest favouring never fails to estimate at its true value. It is the loss to arrive at practical results that would induce any farmer to bring steam to aid. He has come to the conclusion, and, no doubt, it must be admitted a correct one, that by a better pulverisation, a looser moving of the soil, his crops are largely increased, involving more carriage in every respect. It is in regard to this carriage we must see what can be done. In the *Agricultural Gazette* for Jan. 2, p. 14, Mr. Smith gives us an estimate of work done, and what can be done, which, on the whole, is not altogether discouraging, but an alarm of fire is raised. "Ah! 'tis a good servant, but a bad master," but can we not keep it in bounds?—for you will observe it is "fire" that is put forward as the only drawback. It has been remarked that when a horse is put to work and other... to us... still require... of Wheat... the time to reap... will be heat or to... we wish to bring a... here to the reaping... will start, and will be put forward as an essential reason for retaining horses on the farm in number more than can possibly be required. Mr. Smith shows by his "correct card" that his horses worked on an average of 122 days each in the year—that is three acres on 112 acres arable and 10 acres grass, and but for the average recommended by the R. A. S., 100 acres would be necessary to keep more than four horses. Mr. Howard's bailiff writes (p. 177) that 10 or 12 horses are sufficient for 100 acres under the plough, a fact which steam, but do they not seem too many? Assuming the work on 100 acres to be four times that of Mr. Smith's case, by mere matter of multiplication we certainly would arrive at the conclusion that 12 would be required, but is it so? There are always exceptions to the rule, let us hope that this instance is one, and that the work can be done by four or five horses on 224 acres arable. Allowing there is a pinch at haymaking and harvest, a horse might be purchased and again disposed of if hiring is out of the question, but with a good class of farm-horse, one in which steam has inspired a rival spirit of activity, one horse to every 50 acres of land would be found sufficient. I will not here refer to the great in fact immeasurable, advantage to be derived from the use of steam, thereby enabling deeper and more effective cultivation, in the greater economy of manure of labour, the... of the... engine be made... servant "fire" what other obstacles are present... will point to the small lands or stretches which the undrained and unpulverised state of their ground requires to prevent if possible the crops being "waterlogged," but steam cultivators know such are not requisite. There is certainly a great drawback in the hedging, timber, and small fields, but with a little management this might be overcome. The fact of their being obstructions will in very many instances cause their removal. Another use to which our engine might be put is in irrigating our fields with liquid manure or water. It is well known in farming that the root-producing portion of the farm has thereto failed on the whole to pay its own expenses and has consequently entailed a heavy charge on the corn-producing moiety. But liquid manure and irriga-

tion would render them self-supporting by furnishing at a diminished percentage of cost a greater increase. It may be remarked that this irrigation is a costly affair, but taking into consideration the value of the straw that is now trodden under foot in its conversion into, in many instances, so-called manure, it does not seem wrong that such waste should be avoided. Is it not possible to consume the greater portion of straw, now so wastefully used on the majority of farms, in assisting to produce meat, animals themselves being kept on swarded floors, by using a large quantity of liquid British guano, the appliances requisite for its conveyance to the fields being, I suppose, not so thoroughly considered as they should be? 70s. per acre, varying with the position of the field, it may be, and perhaps has been used. We have seen... There is no possibility of... the strength of... will be... the... even... of applying guano, nitrate of soda, and such like manures in a liquid state. How many farmers of light land or otherwise, would have been thankful in the past season had their farms been laid with a thin grasp of the 3-inch guano or water pipes? And it may be presumed that it had been so the winter months would have been more productive. A fatal failure would in its effect have been written down by these gentlemen who kindly assisted you in doing a trustworthily statement of the... Again, does the fact of a larger amount of manure being applied to the soil, which in the next season would have been written on an average, 10 per cent. on the farm, for the purpose of better... which in many cases, in hardly so named owing to the rainfall from the... getting in return manure, the value of it or... Here we are met with, "Where is the money to come from?" If we will but for a moment consider the large sums that are invested in foreign and other roads by many owners of land here, whose estates would be benefited by an ordinary... it has some... asked as often without getting an answer in any way satisfactory. Risks will be incurred in a "London and Dover," or a "Kent and... rail, or the mere report of the engineers of such undertakings, backed up by the opinion of some one who has had great experience in these matters at the same time that, with some worthy examples for imitation of the immense good that can be done in "foraging for our own people," so little can be noted by way of advancement in the agricultural world. In... Mr. Smith's... wireworm and a glance at Hampshire farming. Having just visited Hampshire I was... so many... destroyed a wireworm. All this might have been easily, cheaply, and certainly prevented by the sowing of about six bushels of salt per acre just as the manure was being brought. I have some land subject to this pest, and for several years, having tried the salt I have prevented the ravages. "Oh, but," say or write without... My reply has been—Do it with any water with the salt? This soon... It would do to wait for a... of larvae before... the withering of the plant... after the stem has been bitten through by the wireworm. In some cases wireworms are the best friends to farmers, that is, when they only destroy one half or two-thirds of the too thickly sown plants, thereby teaching a wholesome lesson on thin seeding. A Hampshire farmer told me the other day, as I looked over his wireworm eaten field, that last year he had despaired of getting any crop, but the few plants left by the wireworm had... grow... have... Hampshire... with a... I was a good... system in the district... from the wheat. This in fact would be considered a culpable and unprofitable... The... in the spring and find it a paying operation. On the part of a Wheat field, where a long heap had been removed the wheat was densely thick and great advanced in growth beyond the rest of the crop. Here was an instructive lesson. It teaches us that with very ordinary quantity of seed would be enough and that the excess in this case would be ruinous to the crop, and hardly save it from premature falling and rotting. There is always maintained, in despite of many opinions to the contrary, that land can never be

too rich for wheat. I should like to see... I am told that we are not... with cake and corn, for we should have... of Barley or Oats." I am... improved condition of the... corn as we do with roots or... between them... J. J. May, ...

Foreign Correspondence.

Paris, May 1. The... turn a purely... of the... and... a good supply of manure... H. W. ... number between 60 and 70, distributed... of... our primary schools, might by means... league seeks to obtain... geology, as applied to agriculture, inorganic chemistry, as applied to... and vegetable physiology, cultivation... anatomy, the study of fish, reptiles, and... and economical history of worms... zoology, and general physiology, are... including M. M. Chevreul, B. Bernard, but it is complained, more or... familiarity with rural matters. The... present month, and the Minister... from amongst the pupils of the... the provinces a certain number of... an... Plantes, at the... A proposal... Deputies, was made in the... for a special grant of \$2,000, for the... super- or agricultural education, the... the regional schools, farm schools, ... orphan asylums, and for the... for agricultural experiments. The... over, proposed the... of the... have been... already... The new... to progress rapidly, and it is... Delano, a... appointed agent of the Society for England.

...the soil was steeped and covered with a layer of... hours before sowing, and each drill marked with stakes...

- 1. Seed without any preparation. Inferior.
2. Seed steeped in linseed oil for 24 hours. Superior.
3. Seed steeped in turpentine for 24 hours. Superior.
4. Seed steeped in kerosene for 24 hours. Superior.

On July 17, I particularly examined all the beds. None had entirely escaped the fly. The least injury was done to Nos. 29, 28, 24, and 23, which grew so luxuriantly as to produce...

...steeped with various articles, as follows, in order to endeavour to ascertain the most effectual remedy for preventing the fly destroying the plants. All the different experiments were marked with a letter...

Table with 2 columns: No. and Description of experiment. Includes items like 'Seed steeped in linseed oil', 'Seed steeped in turpentine', etc.

On July 17, I particularly examined all the beds. None had entirely escaped the fly. The least injury was done to Nos. 29, 28, 24, and 23, which grew so luxuriantly as to produce...

From the foregoing experiments we may, I think, safely conclude that the seed steeped in oil was preferable to any others, nor do I think that it is at all a matter of importance as to a few hours' steeping. If the seed becomes well saturated with oil it will achieve two important objects, viz., the destruction of any insects or parasites that may be upon the seed, and also accelerate the growth of the plant out of the reach of its first enemy.

The CHAIRMAN (Mr. Evan Davies, of Patton) said Mr. Roden had not at all entered into the history or habits of the turnip beetle, or attempted to show any connection between the seed, the embryo, and the insect, whereby a steeping of the seed might be beneficial for its destruction.

steeped in oil and the attack of the fly prevented. A Dr. P. ... the microscope by a practical illustration. He sowed part of the seeds with the white spots in the open part of the ground, and part in a flower-pot, which he covered with a bell glass, to prevent the ingress of enemies...

Rebifetos.

Journal of the Bath and West of England Society 1868. W. Ridgway, 169, Piccadilly

The current volume contains reports on the Falmouth show—papers on the Geology and Physical Geography of Cornwall, Somerset, and Devonshire also one of Mr. Whitley's excellent meteorological essays...

The most laborious and original, and, we hope, fruitful, of these essays is a report by Mr. W. Froude, steward of the implement department of the Falmouth show, in which he discusses at great length, and with great fairness, one or two of the classes of machinery whose exhibition he superintended.

therefore, must be rated at verification of this result I made per minute, the result was 10 foot-pounds per minute. Now the rules accepted by the best authorities rather than falls short of the work a bodied man is able to perform...

"If then each stroke may, as my me, be assumed to clear a space of 5 ft. 10 foot-pounds of each superficial feet, giving 100 foot-pounds per square foot of space cleared, to the square...

Other experiments were made to determine the power required for cutting grass. It was found that the net expenditure of power was 12 foot-pounds per square foot of surface cut...

Mr. Froude's summary comes to the conclusion that the power expended by existing machines is in the proportion of 12 to 100 foot-pounds per square foot of surface cut, whereas the power required for the same work is only 12 foot-pounds per square foot...

Mr. Froude's summary comes to the conclusion that the power expended by existing machines is in the proportion of 12 to 100 foot-pounds per square foot of surface cut, whereas the power required for the same work is only 12 foot-pounds per square foot...

To sum up what has been said:—The existence of some radical improvement in the power of mowing machines is shown—

- (1) By the fact that when 'working dry' nothing is done but to raise the grass when cutting a first swathe.
(2) By the great and unwarranted draught, which different machines as tested by a dynamometer exhibit when performing the same amount of work, and
(3) By the fact that the power expressed in square feet of surface cut is even in the best machines grossly in excess of that which, as a direct consequence, is the utmost required for the same amount of the work.

To account for this I have no doubt that the action imposed on the knife-bar and rollers involves a stress upon the working parts very maximum is nearly forty times as great as that which the performance of useful work alone requires.

(2) I deduce from the above that the stress that an excessive power of mowing and in backlash the loss of power is very great as regards friction, and the pressure is very least almost as much waste as appears in the best machines.

(3) Lastly, I point out a remedy which is admirably adapted to the present state of the art, and which, if adopted, would reduce the abnormal stress by the operation of a counter-balance, which would be a very valuable improvement.

The simple fact that the power of mowing machines is in the proportion of 12 to 100 foot-pounds per square foot of surface cut, is of itself a very striking fact, and somewhere they embody a principle which is not understood by the general public. The power of mowing machines is in the proportion of 12 to 100 foot-pounds per square foot of surface cut, is of itself a very striking fact, and somewhere they embody a principle which is not understood by the general public.

and seed-drill. On inferior soils, with less farmyard-manure, Peruvian guano should be sown over the dung, and the superphosphate applied in a liquid form along with the seed, or the guano and superphosphate may be both sown over the manure and river-water, applied by the drill, to start the seed into braird. In dry weather some farmers put a heavy roller over the drills after the sowing machines, thereby rolling them flat, and leaving the land as if it had actually been sown on the flat. But in moist seasons the drills or ridgelines are left high, as the land when moist supports the rollers of the machine better than when dry. This latter plan, however, is objectionable, for when the dry weather sets in the young plants and manure both suffer. As a general rule, therefore, farmyard-manure should be covered rather deeply—or, as it is sometimes termed, "down below the weather," and the drills rolled nearly flat after sowing—assuming that the land is thoroughly drained. The practice of high drills in wet seasons no doubt took its rise before and was drained, as they would then in some measure protect both manure and plants.

Live stock are said to begin their new year with May, the time for turning out to grass being from the middle of April in the south, to the middle of May in the north. When first turned out from the home-stead they require to be carefully attended to, as the nights are sometimes biting cold. This is more especially necessary with milk cows, brood mares, and all cattle that have shed their coats in warm stalls. It is a good plan to turn stall and box-fed cattle out to open yards for a week or ten days before they are sent to the pastures, and if there is green food, as Tares, or water-meadow Grass, they should be fed on such fodder in the yards, so as to prepare them for the permanent change to Grass. Milk cows and working horses are often taken from the fields at night during May.

Fattening Cattle and Sheep.—The remainders of winter-fed stocks are now disposed of, those ripe for the shambles being sold to butchers, those not fit for slaughtering being sold to graziers, who commence filling their parks or pastures from the middle to the end of the month, according as the weather and the forwardness of the Grass may allow.

Fat Lambs are now abundant north and south. In the north some farmers buy in draft-ewes (4-year-old Cheviots and 5-year-old blackfaced) in autumn, serve them with Leicester rams, and by the end of May many of the lambs are sold off, and the ewes then soon become fit for the shambles. The lambs of the remainder are drafted and sent to market, and their dams follow as soon as they are ready.

Dorset Ewes are served in the home counties from the beginning to the close of the month with Sussex Down or Hampshire Down rams, for early lamb. In many cases the ewes are brought and served purposely to get them and their lambs both ripe for the shambles together. The practice of buying in old ewes for a crop of early lambs is thus similar to that of May lambs in the north. Technically it is termed "lamb and dam fattening." Sussex and Hampshire Down ewes also have early lambs, but the horned Dorset ewe is generally preferred.

Lambing in May is common in the Highlands of Scotland—indeed it seldom terminates before the close of the month in late districts.

Castration of Lambs should be done in mild weather, when they are from 10 to 14 days old. Those fattening for the shambles need not undergo the operation. The whole lamb flock is generally docked and marked at the same time, some only brand or mark the ram lambs and ewe lambs selected for breeding—the marking of the others being left to those who may purchase them in the summer markets.

Weaning of lambs takes place with those dropped in February and March, and continues on to July as they come of a suitable age.

Sheep-washing and Shearing commences generally about the close of the month in our southern provinces, the month of June being more common in the north. Some flock-masters have small washing places built of stone or brick expressly for the purpose, the size allowing one or more sheep to be washed at a time, according to the size of the flock. Water is laid on from a pond or stream by means of a pipe. A few steps lead down to where the shepherd stands, the water being drained off below, others dam a running stream, the shepherd standing in a cask while washing; a third and an older plan is, to swim the sheep through and through a deep pool in a river or dam in a stream until clean. The poet Dyer appears to allude to this latter practice when he says—

"Gay shearing time approaches. First, however,
Dive to the double flid, upon the brim
Of a clear river. Gently drive the flock
And plunge them one by one into the food."

As soon as the wool is dry, shearing commences. In the larger hill flocks of the North the shepherds join or club, shearing first one flock and then another, each flock being thus put through the shears in less time.

Bacon Hogs.—Young pigs intended for bacon are allowed to grow more steadily, and hence are fed on less nourishing food than those forced forward for the shambles as small porkers, but it is short-sighted economy to allow young pigs which are intended for bacon to lose their milk flesh.

Breeding Sows that farrowed in February and early March will be dry, and coming forward to litter in August; they should be well kept, but not too fat, and this applies to those still nursing.

Notices to Correspondents.

NAME OF PLANT J. H. M. Your plant is without flowers. Is it not the dark variety of *Oxalis corniculata*?

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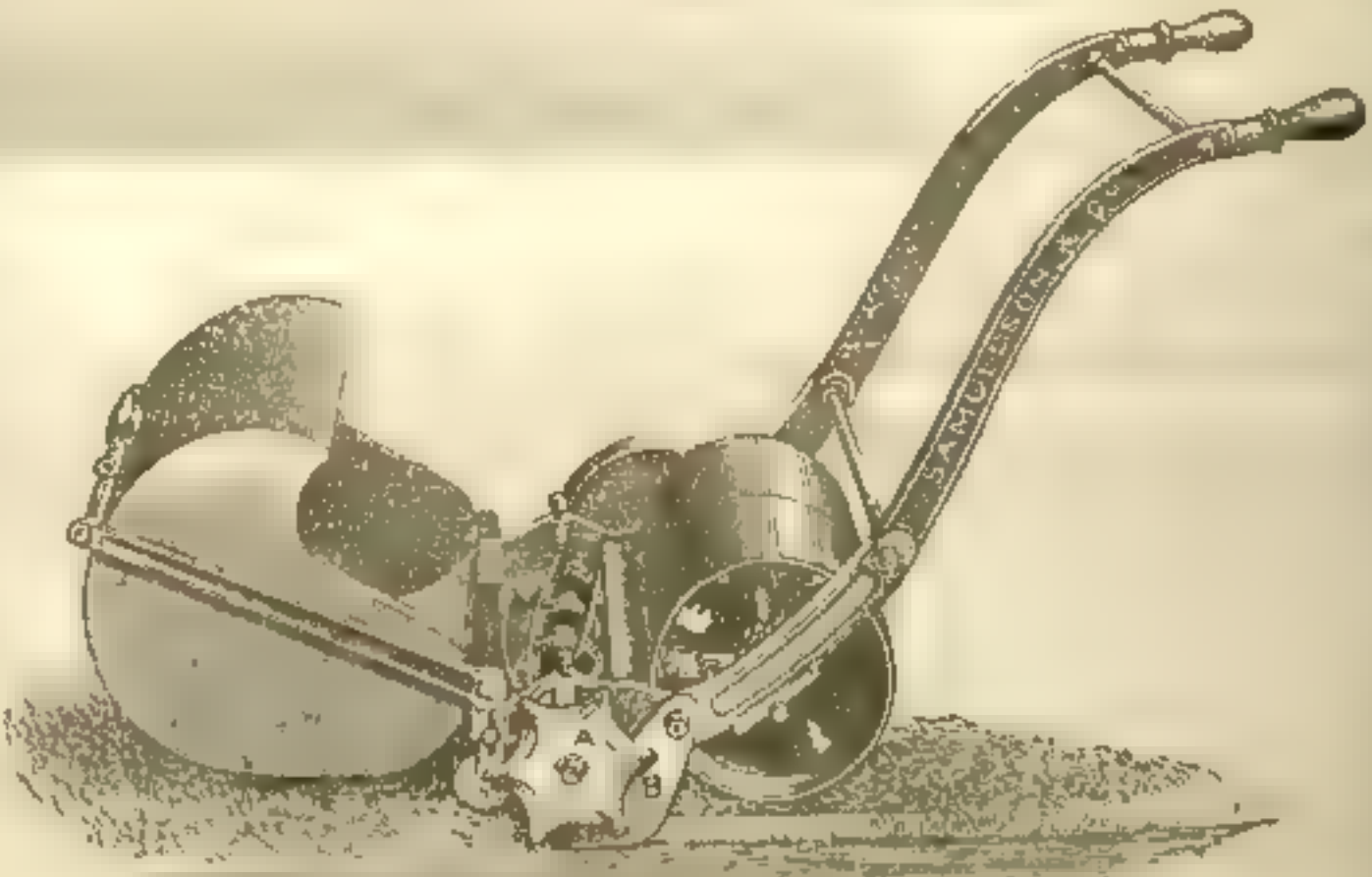
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 List by post. **ARTHUR and FENNER** of every description.
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THE TANNED LEATHER COMPANY,
 Armit Works, Greenfield, near Manchester.
**TANNERS, CURRIERS, and MANUFACTURERS of IMPROVED
 TANNED LEATHER DRIVING STRAPS for MACHINERY
 PRIME STRAP and BULL BUTTS.**
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PERFECTION IN GARDEN ENGINES First-class Certificate of Merit, MANCHESTER HORTICULTURAL EXHIBITION, 1867.
BAMFORD'S Registered (No. 1552) "MODEL" GARDEN ENGINE.



The Inventor has great pleasure in offering this GARDEN ENGINE to the Public for the fourth season. Many Improvements, which have been suggested by experience or otherwise have been added, in combination with increased strength and new design in several parts. Although in competition with many new forms and variations, which have been brought out to meet the requirements of the public, none have so thoroughly succeeded as an article of utility in every class of Horticulture.

The "MODEL" GARDEN ENGINE is the only one that will throw a steady, continuous, and powerful stream of water. The simplest and most effective apparatus for throwing water by hand power.

Their style and small amount of friction renders it easy for a Lady to use them, as evinced by numerous Testimonials.

From Mr THOMAS FARMER, Gardener to Lady Cotton Sheppard,
 Crickmarsh Gardens, March 12, 1868.

"Dear Sir,—I am very pleased to bear testimony to the efficiency of your 'Model Garden Engine,' I find it invaluable for damping down Fruit and Peach Houses, also for syringing Peach and other Wall Trees, Roses, &c. I may safely add it beats the Hyacinth and all the Garden Engines and Sprinklers I have before met with.

"I am, dear Sir, yours truly,
 THOMAS FARMER."

GARDEN OR HOT-HOUSE ENGINE,
 With air vessel, capable of throwing from 30 to 50 feet, (improved
 Cast iron, India-rubber Tube, and Brass Spread)

No 10, to hold 10 Gallons £3 5s.
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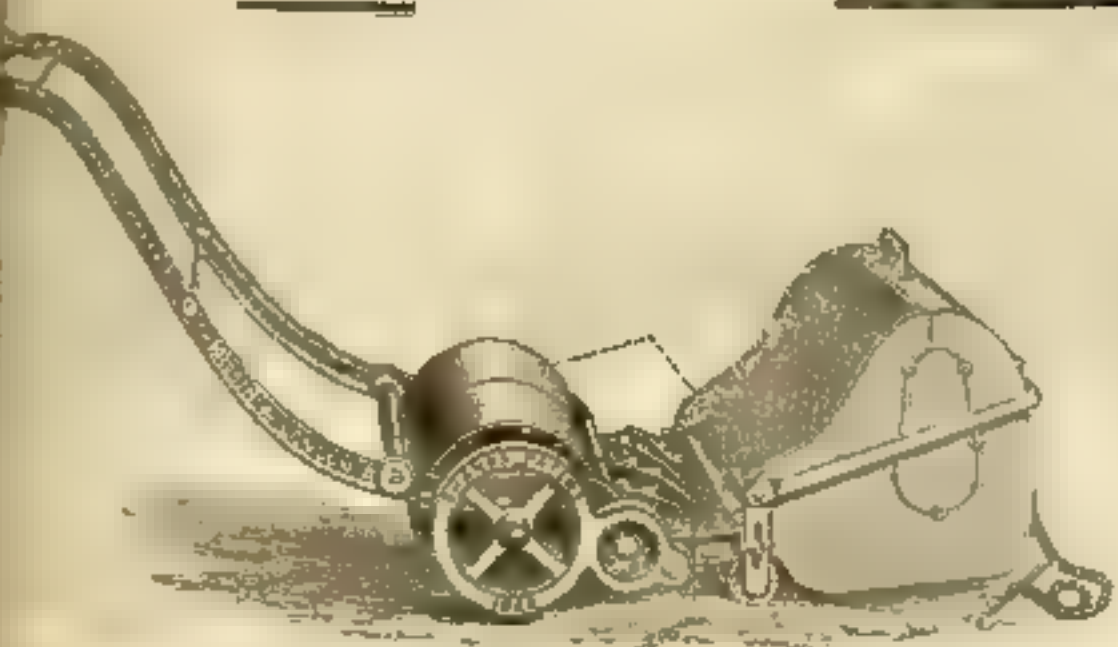
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SHANKS'S PATENT LAWN MOWERS FOR 1869.

**UNDER THE PATRONAGE
 OF
 HER MOST GRACIOUS MAJESTY
 THE QUEEN,**



**AND MOST OF THE
 PRINCIPAL NOBILITY
 OF
 GREAT BRITAIN.**



SHANKS'S PATENT LAWN MOWERS
 ARE ALL FITTED WITH
**PATENT DOUBLE-EDGED SOLE PLATES, WIND GUARDS, AND
 SELF-SHARPENING REVOLVING CUTTERS.**

Advantages possessed by no other Lawn Mowers.

The unprecedented Sale of SHANKS'S LAWN MOWERS for 1868 forms the most convincing testimony of the value and success of the Improvements introduced last Season.

HAND MACHINE
PRICES—INCLUDING CARRIAGE TO ANY RAILWAY STATION OR SHIPPING PORT IN THE KINGDOM.

SHANKS'S NEW PATENT HAND MACHINE.

Machine	..	..	..	..	..	£3 10 0	} <i>Easily Worked</i> By a Lady	16-inch Machine	..	..	..	..	£3 10 0	} <i>Easily Worked</i> By a Man and a Boy
Machine	..	..	..	..	..	4 10 0		19-inch Machine	..	..	..	..	7 15 0	
Machine	..	..	..	..	..	5 10 0		21-inch Machine	..	..	..	..	8 10 0	
							By a Boy	24-inch Machine	9 0 0	} <i>By Two Men</i>

The Hand Machines are all with Silent Movement.

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Machine	£12 10 0	} <i>If with Patent Delivering Apparatus</i> 25s. extra.	30-inch Machine	£19 0 0	} <i>If with Patent Delivering Apparatus</i> 30s. extra.	
Machine	14 10 0		36-inch Machine	22 0 0		30s. "
Machine	16 15 0		30s. "	42-inch Machine		26 0 0	40s. "
							30s. "	48-inch Machine	..	..	..	..	28 0 0	40s. "

Silent Movement, 12s. 6d. extra.
 Boots for Pony, 22s. per set.; Ditto for Donkey, 18s. per set.

SHANKS'S NEW PATENT HORSE MACHINE.

Machine	..	..	..	..	..	£19 0 0	} <i>If with Patent Delivering Apparatus</i> 20s. extra.	30-inch Machine	..	..	..	..	£19 0 0	} <i>If with Patent Delivering Apparatus</i> 26s. per set.	
Machine	..	..	..	..	..	22 0 0		36-inch Machine	..	..	..	..	22 0 0		30s. "
Machine	..	..	..	..	..	26 0 0		42-inch Machine	..	..	..	..	26 0 0		40s. "
							40s. "	48-inch Machine	..	..	..	..	28 0 0	40s. "	

Silent Movement, 20s. extra. Boots for Horse, 26s. per set.

Every Machine warranted to give ample satisfaction, and, if not approved of, can be at once returned without any expense to the buyer.

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 27, LEADENHALL STREET, LONDON, E.C.**

27, Leadenhall Street is the only place in London where intending purchasers of Lawn Mowers can choose from a Stock of from 150 to 200 Machines.
 All sizes kept there, whether for Horse, Pony, or Hand Power.

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READ'S NEW PATENT HYDRAULIC SUCTION PUMP.

This Pump is highly approved by the Nobility, Gentry, and by the principal Horticulturists, &c., throughout the Kingdom, also by Shirley Hibberd, Esq., F.R.H.S., the late Professor Lindley, and many others connected with Horticulture, &c.

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LARGE ASSORTMENT of GARDEN ENGINES, MACHINES, and SYRINGES

Upon the most approved principle. Manufactured by the Patentee—

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 ROYAL ZOOLOGICAL SOCIETY, London.
 ROYAL BOTANIC SOCIETY, London.
 ROYAL BOTANIC GARDENS, Dublin.

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JOHN WARNER & SONS,
 BELL AND BRASS FOUNDERS TO HER MAJESTY,
 HYDRAULIC ENGINEERS,
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FRAMES & PUMPS FOR DEEP WELLS.



No. 35. CAST-IRON PUMPS.

2 1/2 inches	..	£1 8 6
3 "	..	2 1 0
3 1/2 "	..	2 0 0
4 "	..	2 14 0



No. 20. WARNER'S CRYSTAL PALACE FIRE ENGINE, or PORTABLE FORCE PUMP.

Price on Barrow, with Branch Pipe, Spreader, Unions, and Suction Hose, £5.
 1 1/2-in. 2-ply Rubber Suction Pipe, per foot, 2s. 2d.;
 1 1/2-in. ditto Delivery Hose, 1s. 4d.

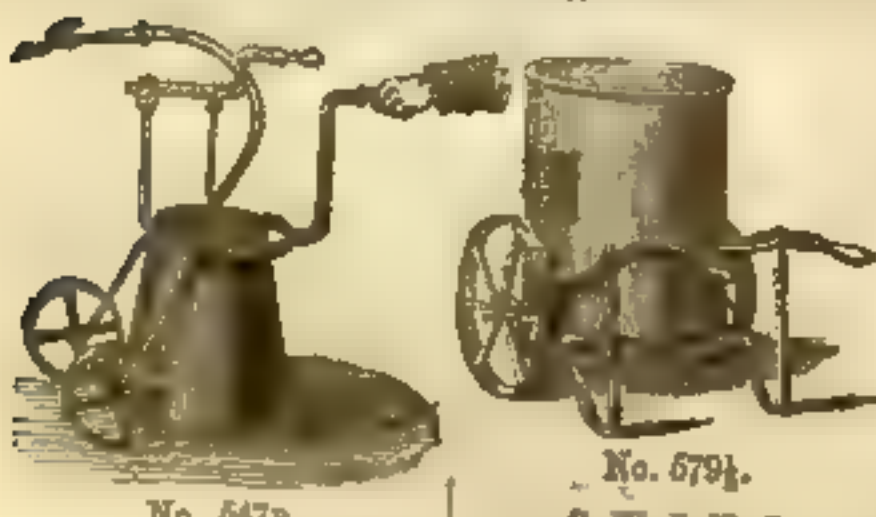
Crystal Palace, Sydenham, March 2, 1867.
 Messrs. WARNER & SONS.
 "GENTLEMEN.—I feel great pleasure in stating that I was present at a trial of your small Crystal Palace Fire Engine, and was much pleased with its efficiency and simplicity. The Pump throws out a steady jet of water to a height of 50 feet with very little labour. The Pump we have is well made, very simple in its parts, and not likely, I think, to get out of order. The advantage of this pump is its being very portable. Besides being a good Fire Engine, it will make an excellent Garden Engine."
 "I remain, gentlemen, yours obediently,
 Lewis Storr, Esq. near to the Crystal Palace Company."



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No. 547A. GARDEN ENGINE
 28 gallons .. £ 3 0
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 50 gallons £5 12 0
 38 " 3 17 0
 30 " 2 18 0
 20 " 2 2 0

Drawing and Estimates for Wind Engines, Water Wheels, and Hydraulic Machinery of every description for Steam, Horse, or Hand-power will be forwarded upon application.

WARNER'S GARDEN ENGINE (Caption for illustration on the right edge)

NO IMPROVEMENTS OR ALTERATIONS FOR THE PRESENT SEASON, 1869,

IN

GREEN'S PATENT SILENS MESSOR,

OR

NOISELESS LAWN MOWING, ROLLING, and COLLECTING MACHINES.

The Extraordinary Success of GREEN'S PATENT LAWN MOWERS is an established fact. During the last five years the demand has been unprecedented, and alone is a proof of their superiority over all others. The following are their characteristic features —

- 1st. Simplicity of Construction, every part being free of access.
- 2d. They are worked with far greater ease than any other Lawn Mower.
- 3d. They are the least liable to get out of order.

From the fact that these MACHINES are so well known in Great Britain and Ireland, also on the Continent of Europe, T. GREEN AND SON do not deem it necessary to trouble the Public with a list of the numerous Testimonials that they have received from time to time, but would simply add,

THEY ARE THE ONLY MACHINES IN CONSTANT USE AT

THE ROYAL HORTICULTURAL SOCIETY'S GARDENS, SOUTH KENSINGTON
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 THE CRYSTAL PALACE COMPANY'S GARDENS, SYDENHAM
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THE HYDE PARK GARDENS
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 THE DUBLIN BOTANIC GARDENS
 THE LIVERPOOL BOTANIC GARDENS
 THE LEEDS ROYAL PARK

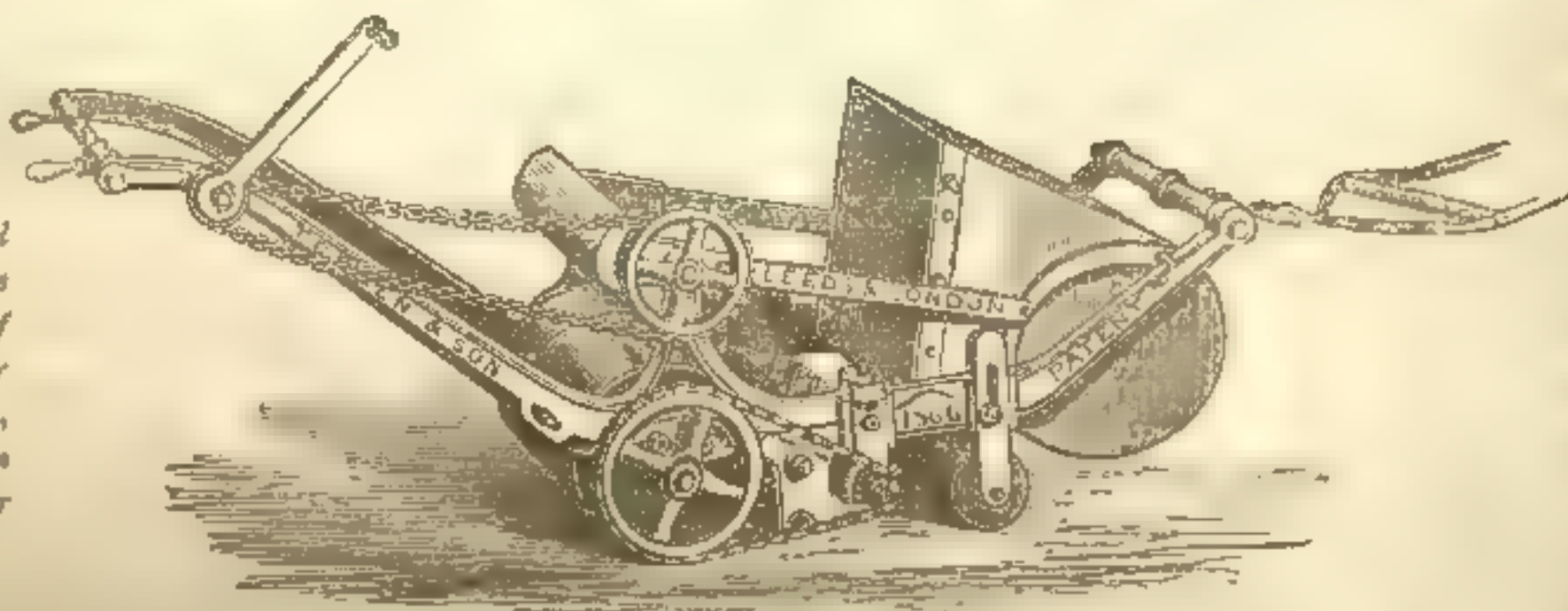
THE HULL BOTANIC GARDEN
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AND IN MOST OF THE PRINCIPAL PARKS, SQUARES, ETC, IN THE UNITED KINGDOM.

HORSE, PONY, AND DONKEY MACHINE.

GREEN'S PATENT LAWN MOWERS

have proved to be the best, and carried off every Prize that has been given in all cases of competition. Since the first year they were introduced (1856), upwards of 48,000 have been sold, and 25,000 of that number during the last five seasons.



T. GREEN & SON warrant every Machine to give entire satisfaction, and approved of can be returned unconditionally.

PRICES of HORSE, PONY, and DONKEY MACHINES, including Patent Self-delivery Box, Cross Stay complete; suitable for attaching to ordinary Chain Traces or Gig Harness.

PONY AND DONKEY MACHINES.

To Cut 26 inches £13 0 0	} Leather Boots for Donkey, 18s. } Leather Boots for Pony, 22s.
" 28 "	.. ..	.. 15 0 0
" 30 "	.. ..	.. 17 0 0

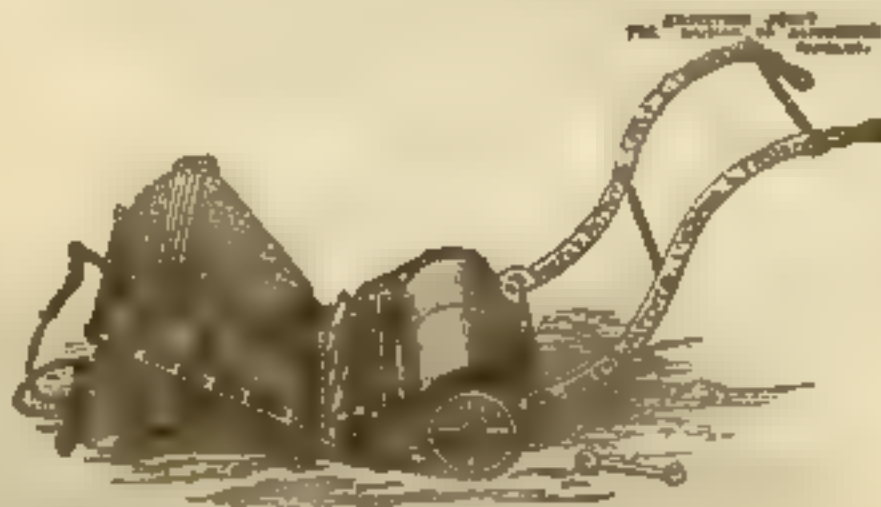
HORSE MACHINES.

To Cut 30 inches £21 0 0	} Leather Boots for Horse, 30s.
" 36 "	.. ..	.. 24 0 0
" 42 "	.. ..	.. 27 0 0
" 48 "	.. ..	.. 30 0 0

Both the Horse, Pony, Donkey, and Hand Machines possess (over all other Makers) the advantage of Self-sharpening. The cutters being steel on each side, when become dull or blunt by running one way round, the cylinder can be reversed again and again, bringing the opposite edge of the cutter against the bottom blade, and the Machine will cut equal to new. Arrangements are made that the cylinder can be reversed, by any inexperienced person, in two or three minutes.

HAND MACHINES.

To Cut 10 inches	.. £3 10 0	Suitable for a Lady
" 12 "	.. 4 10 0	" "
" 14 "	.. 5 10 0	Suitable for One Person
" 16 "	.. 6 10 0	" "



To Cut 18 inches	.. £7 10 0	Suitable for One Person
" 20 "	.. 8 0 0	Suitable for Two Persons
" 22 "	.. 8 10 0	" "
" 24 "	.. 9 0 0	" "

Packing Cases are charged at the following low rates, viz. — for the 10 and 12-inch Machine, 3s., 14 and 16-inch, 4s., 18 and 20-inch, 5s., 22 and 24-inch, 6s. Persons providing themselves with Lawn Mowers are recommended to purchase the cases in which to stow them away, when not in use, to prevent them from getting damaged. When returned, two-thirds will be allowed for them.

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Having very extensive Premises in London, we are in a position to do all kinds of Repairs there, as well as at our Leeds Establishment.

Having a large quantity of MACHINES in stock at our Leeds and London Establishments, we are in a position to execute Orders on the day they are received.

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Editorial Communications should be addressed to "The Editor" Advertisements and Business Letters to "The Publisher," at the Office, 41 Wellington Street, Covent Garden, London, W.C. Printed by JAMES MARYON, at the Office of Messrs. BRANDEY, EVANS & CO., Lombard Street, Princt of Whitechapel, City of London, in the Co. of Middlesex, and Published by the said JAMES MARYON at the Office, No. 41, Wellington Street, Parish of St. Paul's, Covent Garden, in the said County.—SAYINGS, May 15, 1869.

...the abundance of bloom this season was due to the... the hot season... Winter frost it was... the frequent dropping of... than imperfectly...

Committee - The Rev. J. Dix in the chair.

...the Rev. J. Dix in the chair... the specimens were the same as exhibited at... the Crystal Palace...

The best of the nurserymen's class came from Mr. H. W. ...

...the best of the nurserymen's class came from Mr. H. W. ... the specimens were the same as exhibited at... the Crystal Palace...

Committee

...the specimens were the same as exhibited at... the Crystal Palace... Charles Lawson, a grand specimen, having about 50 nearly...

Committee

...the specimens were the same as exhibited at... the Crystal Palace... included a large number... an insufficiently developed...

...the specimens were the same as exhibited at... the Crystal Palace... Mr. D. Donald exhibited some grand specimens in the class...

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Committee

...the specimens were the same as exhibited at... the Crystal Palace... included a large number... an insufficiently developed...

Phoridium Colensoi variegatum, P. tenax Veitchii... the specimens were the same as exhibited at... the Crystal Palace...

stellata, with creamy sepals and a...

...the specimens were the same as exhibited at... the Crystal Palace... Mr. D. Donald exhibited some grand specimens in the class...

The Apiary.

BEST ASPECT FOR BEES. Will you please to give me your opinion in next number of Gardener's Chronicle as to which is the best aspect for bee-hives for young swarms... The best aspect for bee-hives is the south side, so that they were not exposed to the full blaze of the noontide sun.

On the other side of the lawn of the first apiary, exactly facing the hives just alluded to, there was a row of hives standing on separate pedestals at intervals of about a dozen feet... The best aspect for bee-hives is the south side, so that they were not exposed to the full blaze of the noontide sun.

Charles Lawson, a grand specimen, having about 50 nearly... the specimens were the same as exhibited at... the Crystal Palace... included a large number... an insufficiently developed...

SUTTONS'

HOME-GROWN SWEDE AND TURNIP SEEDS,

NEW AND UNADULTERATED.

Saved from carefully selected roots.

EARLY, MEDIUM, AND LATE SOWING.

Lowest price per bushel on application

Goods Carriage Free, except very small parcels.

SWEDES.

CHAMPION.—The best Swede in cultivation. A very heavy cropper, perfectly hardy, stores exceedingly well, and seldom suffers from mallow. 1s. 3d. per lb., much cheaper by the bushel.

PURPLE-TOP.—A useful variety, fine stock. 1s. 3d. per lb., much cheaper by the bushel.

POOL.—A well-known sort. 9d. per lb., much cheaper by the bushel.

GIANT TANKARD.—One of the heaviest croppers, and quite distinct from the Yellow Tankard Turnip. 1s. per lb., much cheaper by the bushel.

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YELLOW-FLESHED TURNIPS.

GREEN-TOP YELLOW HYBRID, and **PURPLE-TOP YELLOW HYBRID.**—These are very superior varieties. If sown in July and August they will produce a heavy crop, scarcely inferior to Swedes sown in June. 1s. 3d. per lb., much cheaper by the bushel.

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LINCOLNSHIRE RED PARAGON.—Very large, and of excellent feeding properties. Sow in June and July for autumn and winter use. 10d. per lb., much cheaper by the bushel.

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IMPERIAL GREEN GLOBE.—The best Turnip for the main crop. Very heavy and nutritious, and of valuable feeding properties. Sow in May, June and July. 9d. per lb., much cheaper by the bushel.

PURPLE-TOP MAMMOTH.—A new and distinct variety, very free grower. Flesh firm, white, and juicy. Sow in May and June for early feeding, and August to stand the winter. 1s. 6d. per lb., much cheaper by the bushel.

IMPROVED GREEN TANKARD.—The best of the Tankard varieties. Suitable for early feeding on account of its very quick growth. Sow in May and June. 1s. per lb., much cheaper by the bushel.

GLOBE or GREY STONE.—Should be sown the same time, and for the same purposes, as the Red Paragon. 10d. per lb., much cheaper by the bushel.

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APPLY TO **SUTTON AND SONS, SEED GROWERS, READING, BERKS.**

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White Stone or Stubbie | Marshal's Purple-top Swede
Sutton's Champion Swede
AGRICULTURAL MUSTARD (fine sample).
DWARF ESSEX SOWING RAPE.
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CARTER'S GRASS SEEDS, supplied to H. M. G. MAJESTY the QUEEN and L. R. H. the PRINCE of WALES.



CARTER'S IMPERIAL HARDY SWEDE, The hardest and best. Price 1s. per lb., cheaper per cwt.

CARTER'S PRIZE SWEDE AND TURNIP.

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HALL'S WESTBURY SWEDE	0 10
HARTLEY'S SHORT-TOP SWEDE, a large mottled-top variety	1 0
CARTER'S CHAMPION HYBRID TURNIP, fine quality	1 8
CARTER'S DEVONSHIRE GREYSTONE TURNIP	1 0
CARTER'S EARLY MARBLE or S.W. WEEK, a very quick-growing variety	1 0
POMERANIAN WHITE GLOBE, a handsome variety	0 10
IMPERIAL GREEN GLOBE, a heavy cropper	0 9
LINCOLNSHIRE RED GLOBE (very hardy)	0 10

Cheaper per cwt. or bushel.

For full description, see "CARTER'S ILLUSTRATED FARMER'S CALENDAR" for 1889. Post free, 6d. (gratis to purchasers.) **JAMES CARTER & Co., 27, 238, & 261, High Holborn, London, W. C.**

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Patron—HER MAJESTY THE QUEEN.
President—HIS GRACE THE DUKE OF RICHMOND, a Lord-in-wait to Her Majesty.
Married £10 per annum. Male £20 per annum.
Widows and Unmarried Orphan Daughters £20 per annum.
Every information to be had of the Secretary, by whom Subscriptions and Donations will be thankfully received.

ROYAL AGRICULTURAL BENEVOLENT INSTITUTION. The NINTH ANNIVERSARY FESTIVAL of the FUND for the INSTITUTION will take place in the New Hall, Freemason's Tavern, on WEDNESDAY, June 9, at 6 o'clock.
The Right Hon. Lord Roskar Mordaunt, M.P., in the Chair.
Dinner Tickets, 21s., Ladies Tickets, 14s., to be had of the Secretary, at the Office of the Institution, and at the Bar of the Tavern.

ROYAL AGRICULTURAL BENEVOLENT INSTITUTION. The ANNUAL ELECTION of FELLOWSHIP and CHILDREN will take place at the Freemason's Tavern, on WEDNESDAY, June 16, at 11.30 A.M.
All Subscriptions shall be deemed payable on January 1 in each year, and no Contributor shall vote while the same is in arrears.
No. 55, Charing Cross, London, W. **HOLSFIELD SHAW, Secretary.**

BATH and WEST of ENGLAND SOCIETY (Established 1777) and **SOUTHERN COUNTIES ASSOCIATION** For the Encouragement of AGRICULTURE, ARTS, MANUFACTURES, and COMMERCE.
Patron—H. R. H. THE PRINCE OF WALES, K. G.
President—The Right Hon. the EARL of CAMBRIDGE.



The ANNUAL EXHIBITION of SHEEP, HORSES, PIGS, POULTRY, IMPLEMENTS, WORKS OF ART, and HISTORICAL SPECIMENS will take place at SOUTHAMPTON on MAY 7, 8, 9, 10, 11, 12, 13, and 14.
JOSIAH GOODWIN, Secretary, 4, Terrace Walk, Bath.

ROYAL AGRICULTURAL SOCIETY of ENGLAND.



MANCHESTER MEETING, 1869.
ENTRIES of HORSES, CATTLE, SHEEP, PIGS, BUTTER, and CHEESE, CLOSE on JUNE 1 and all Certificates received after that date will be returned to the sender.
H. M. JENKINS, Secretary, 12, Hanover Square, London, W.

The Agricultural Gazette. SATURDAY, MAY 22, 1869.

MEETINGS FOR THE ENSUING WEEK
May 29 { Norfolk Chamber of Agriculture—County Financial Board.
Horse Show, at the Agricultural Hall, Litchington.

To those who have confidence in the Science of political economy it must afford matter of interesting thought to mark the occasional force of Circumstance in compelling obedience to laws which argument, however cogent or reiterated, had failed to demonstrate. When the late Sir ROBERT PEELE was still but half a convert to the long resisted doctrine of free trade, the formidable visitation of the Potato Famine in Ireland—foretold, years before, by COBBETT, and by McCULLOCH—precipitated not only the abandonment of the 'Sliding Scale,' but the wholesale abolition of the Corn-laws. "The stars in their courses fought against Sisera." Events which to the great body of general observers come simply as 'accidents' are often neither less nor more than the practical self-vindication of Natural Laws, which however slow, are as certain in their operation—as certain to reach their culminating point, as the overflow of a dam by the silent accumulation of the stream,—or that retributive course, in the Moral laws, of which it has been so sternly sung,

"raro antecedentem et lectum Deservit Poena pede claudo"

It would be well for mankind, if their rulers believed in this salutary doctrine, better still if they believed in it themselves. But we go contentedly on violating the maxims of a Science which is, after all, but the 'horn-book' of natural law, a sort of grammar of factology "collected and arranged for the use of students"—a class whose limited demand will hardly pay the publication.

Were it otherwise, would the appeal now made to England on the Irish land-difficulty present the all but insuperable problem that it seems to do? Are we sure that in this question "our withers are unwrung"? Are we ourselves in a position have we qualified ourselves to undertake—we will not say the cure—but even to estimate its features, or honestly to look it in the face?

We have said, and we repeat that—apart from every shade of political thought, from every turn of party views—we regard Land questions

as essentially our own. What would be the use or end, of all we write and write on agricultural and landed topics—what would our office as journalists be worth if when a question so vitally consequential as this is harassing the minds not of landowners and legislators only, but of every thinking man, who has his country's good at heart, we stand aloof, watching as mere lookers-on the painful evolution of a problem whose elements touch the very marrow of our weekly task and study, and refusing to contribute our mite towards its solution?

We have spoken in two former articles of 'the law's delay,' and cost and difficulty, in the Transfer of land, amounting almost to a national scandal, but become inevitable under our complicate system of Entails, Executory devises, and the endless legal refinements interwoven with them. So long as these remain, my living dormant claims under all wills and deeds and unexecuted testaments, long Abstracts of title must and will be required, and long delays, and long bills of Costs, must follow. On this point what says the distinguished Economist to whom we are indebted for the best edition of ADAM SMITH'S great work. "By preventing the sale of land," says McCULLOUGH, "or placing it, as the lawyers say *extra commercium*, Entails are obviously adverse to the progress of agricultural improvement, and property is hindered from coming into the hands of those who would turn it to the best account."

But entails are by no means responsible for the whole of the evil, nor is it, as will easily be seen, their use but their extravagance that needs correction. There is another cause, developed into more significance since McCULLOUGH wrote, and far more insidious in its operation upon the freedom of the soil, but so entrenched by public error that it almost baffles the fair assault of argument. Nor will we attempt to storm it, until MENENTIS-like we have shown it its own image, not in his immortal vein of allegory, "once upon a time," but by a simple tale of modern life.

In a certain street, at the extreme West-end of London, there lived, not long ago, a well-known householder, who became notorious for the odd fancy of never allowing his windows to be cleaned. Under the silent influence of the dust, if not of ages yet of years, which answer to some end of our enterprise, what should have been a great and life-giving minutes, became an exposure even to the passers-by. No friend, instance, or relative, of friend or relative had any influence on the obstinate man to abate the nuisance. Every form of appeal, before it had well begun, he stopped and smothered with the same retort of which the burthen was that on the opposite side the street there stood a house, in which nearly every window-pane had been cracked, by the clumsy vehemence of the cleansing process, constantly repeated. The fact was true, unfortunately: for, no effort of discrimination could induce him to admit, or see, that between the extreme evils of fracturing every pane, and allowing them to become useless within, and offensive without, there was a very wide interval indeed,—of which in fact, every other house in the street stood witness.

On the other side of the British Channel there lies a country where an imperial demagogue made a law, which still remains in force, that no man should be able to make a will of landed estate except in such a proportion as permitted each of his children (male and female) to share equally with himself. If he had only one child, he could make a will of half, if two, of one third; if six, of one seventh; and so in the other cases. This pernicious law was intended by its shortsighted framer as a preventive of the growth of aristocracy—what it became was and is, a preventive of *progress*—and this at the hands of one who said that "the greatest woman in France was she who furnished most sons—to the Conscription." But its evil influence does not operate in France alone

"like a midwived ear
Blotting the wholesome brother"

it has had the consequence on this side the Channel of rivetting the shackles of a law of landed intestacy, which has drifted down to us from feudal times, and which errs in the opposite extreme, and of arresting its very discussion with the pious cry—"Heaven defend us from the French *morcellement!*" "Our opposite neighbours' paces have been cracked by the impulse of rude hands; let no finger disturb the dust, or let daylight into ours!"

Yet,—this landed exception apart,—in no

country of the world has the 'daylight' gained, in their respects, a freer admittance. If a foreigner writing of England were describing the mode in which the Law disposes of the effects of an Intestate, he would speak of it as excellent beyond the reach of criticism. "On the death of any person without a will," he would say, "the Law divides his wealth amongst all his children, with an equal proportion to his wife, if living, and to the children of a deceased child, with an impartiality that seems to approach the perfection of justice. But let him have inherited or bequeathed any of his money in *fee*—then all is changed—the whole shall go to the eldest male to the exclusion of all the other children." Thus there are two separate principles of distribution of property, diametrically opposed to each other, and that in the most commercial country in the world, where every kind of property is equally available under the hammer of the auctioneer, land itself included, so far as the act of sale is concerned.

It is, however, urged in reply that this law of 'primogeniture' comes very rarely into operation, that the devolution of land in this country is governed almost entirely by Trust Settlements, and family Deeds of Intail, so that if this exceptional case which feudal habits have lifted down to us, were laid hold of and extinguished tomorrow, the *costs* of limited inheritance by the first born son would suffer no interference; people would only be more careful to make their Wills or Settlements, and landed property would remain unaffected by the change of the law.

'Why then alter it?' it is asked. If its operation is so trifling now, and would probably be still rarer afterwards, why alter it? The question is gravely asked, with all the persuasive emphasis with which men defend a system which they would never have dreamt of creating. As if the proof, or reproach, of the justice of a law were to be measured by the frequency of its operation. Would homicide once a year be more 'justifiable' or less *criminal* than once a month? or a law permitting it less censurable? The question is not of the frequency, or extent, but of the policy and justice of its action. Individuals may divide their property as they please. There is no good reason why any man should not devise, or settle, all his land upon his eldest son, and other sons to his youngest daughter; it is simply a question of private will, and preference, and he must be trusted to make what provision he pleases for his widow, and his other children, and if he omit this duty, it is a matter with which the public and the Legislature, in a free country, cannot meddle: all such restraint would be an impolitic interference with the rights of property.

But it is still more important that THE LAW should not speak in two voices, nor make capricious exceptions, in this kind of property, or in that, to its own even-handed justice. It must be consistent with itself, and a Rule of Right. "No human laws" says the great Judge BLACKSTONE, "are of any validity if contrary to the Law of Nature, and such of them as are valid derive all their force and all their authority, immediately or immediately from this original."

The will, or settlement, of a Parent while ostensibly giving all the landed estate to the eldest son, charges it with, or makes other provision for the widow, and younger children. The *law*, in the case of land, does nothing of the kind so that, as has been humorously said of it by a high living authority, "when it does make a will for a man, it makes one that any man would be ashamed to make for himself." But frequent or infrequent as its private operation may be this is a small part of the mischief of the law in question. Its real evil power is on systems of which it is the root and of which 'Real and Personal' as terms of distinction, applied to different kinds, or rather conditions, of property, is the luxuriant growth. It is hardly possible to convey an idea of the history of Litigation which has grown up in our Courts of Law and Equity out of these two words, and the conflict of two discordant and irreconcilable systems—the Commercial and the Feudal, *several actually operating*, to which they have given the key-note, and remained the fundamental cause. The disputes between the 'Heir-at-law and the 'Personal representative,' as they are called,—the respective champions of the two conflicting codes,—would, if the recountal of the tale of centuries were possible, surpass that of

Through those centuries the dust has gathered and no hand has essayed to lift it, and the daylight in. But it is the darkest dawn that precedes the Dawn.

Mr. W. SMITH, of Woolston, has received for his farm. He can no longer give his labour to the promotion of steam cultivation, and talk with the usual confidence of detailing his experience, and drawing conclusions teaching them, with characteristic urgency, without a return for his attention he was giving the public. The tax upon his farm has become excessive, and the tax upon his five guineas is for the future to be charged on his farm lecture. His reasons for this given in the following letter from him.

"I have shown my farm to thousands from all quarters by walking over it with them, and explaining my system, within the 14 years since we start, without netting a farthing for my trouble. I have now made up my mind that I will no longer walk and talk for nothing any longer, especially as my facts are stronger than ever. There are my Bean crops on Nos. 1 and 4, heavy and seed-beds costing 7s. an acre, the strongest in the neighbourhood, with the land as good as a garden, although it is the 14th crop without a fallow, and yet under horse culture this year, and fallow every fourth year. Then there are my Beans on Nos. 2 and 3, heavy land, costing only 6s. 9d. an acre for seed-bed, beating everything on similar soils in the neighbourhood. No. 1, light land, similarly treated with Wheat, at a like cost, is quite the best in the neighbourhood, and these lands are as good as a garden. Then there are my Barley crops, the third year in succession, on a seed bed, and the soil worked a foot deep, as fine a plant as ever I saw, and my other crops are all as good as any I have seen, besides all that, I have just gained the first prize for my own, the heavy plough, and the first prize for a sowing machine, and I can be assured that I have not only how productive I can make a 14 years' but in the worst soil, I can make a first-rate condition by steam power. So, in the case, and the public must be made to pay more than if they have them. You are all aware, I may, however, come and see for yourself, if you like. The 14th crop—Wheat—costing only 6s. 9d. an acre, and that was cost for ploughing once over at least 10s. 6d. (and I shall have to pay tax for ploughing the fallow land this year on the farm that was just bought) is a fact that must sooner or later mark upon the land and farmers of the country, and not the cost of a set of tackle or low machinery can employ a set, that they need care much about, but their great concern must be how to apply it; and that is what my 14 years' practice has learned me."

We entirely sympathise with Mr. SMITH. He stands, we believe, on an altogether different platform from that which is occupied by any other of the promoters of steam cultivation in this country now remaining to us. Mr. SMITH cannot quote their large expenditure and costly efforts in the same direction, with a view to being placed by outsiders in the same rank as which our Woolston hero stands. That is a misfortune incidental to the nature of their contribution, valuable, efficient and essential as it has been, to the success which we have now to record. No doubt it needed pluck as well as capital to follow as a manufacturer in the track of the farmer's first commission of a steam engine, without a will, and we gladly acknowledge the good spirit which prompted and inspired the efforts of the agricultural machine makers in the promotion of steam cultivation. But the manufacture has long since become a standard profitable. Hardly anyone, unless it is the pioneer who, each for himself, commenced one of the early firms of steam cultivation machines, and lost by it, can say that steam cultivation is not now a profitable business to every one concerned in it. There are no one probably of those who have spent 20 years been working at it, but has made a fortune by it. And a most fit and proper acknowledgment of its every one admits this to be those who are achieving this result, whatever their rightful claim to it, think as we do, not as a matter of fact receive the measure of an hour and of gratitude which is awarded to the inventor and the teacher. Even an inventor, if he be also manufacturer necessarily receives money payment for his labour and his genius, submits to a different valuation of his services from that which we accord to others. And Mr. SMITH, the courageous signaller, the persistent advocate, the confident and unquenchable leader in this particular department of our country's improvement, stands now almost alone in the opinion of his contemporaries among the claimants of the highest rank.

the progress of a great industry. These are considered as indicative of the intention to establish what is asked for by agriculturists and Professors, namely, a complement to the scientific education...

at the expiration of a lease they had frequently made some increase of rent. If it appeared that the number of years a person had held a farm was not enough to compensate him an advance had been made him and the full rent had not been demanded...

landlord or the incoming tenant ought to pay for that. It was a matter easily enough made the subject of agreement at the time. One speaker had seemed in favour of arbitration at any time. He confessed his experience went the other way...

Societies.

NOESTER.

on the Lease.—The following is an abstract of the paper on this subject by the Cirencester Society of Agriculture, reported in these columns...

Mr. SMITH (Bibury) thought arbitration should be carried to a greater extent than it generally was. His opinion was that they would be better without any lease at all than with a short one but was in favour of long leases...

Professor WRIGHTSON in replying, said there appeared to be some difficulty in understanding the nature of the question. He thought the value of the means used in the form of manure and feeding stuffs to produce this abnormal fertility, would meet the difficulties of the case...

Farmers' Clubs.

MORAYSHIRE.

Rees and Wood Pigeons.—At a late meeting of this Club, Mr. GEDDES (Orblston) said: I believe it was the overwhelming increase in the number of crows that induced the committee to adopt this as the question for discussion upon this occasion...

the ownership of the whole of it. Of course, if they were owners of an estate they would deal with it as they pleased, but if they were only owners of a limited interest in it, they must so deal with it as best to make that limited interest serve their purposes for the time they held it...

Mr. WRIGHTSON said the resolution merely affirmed that short tenancies and the insecurity of capital were calculated to act as obstructions in developing modern agriculture. It seemed to him that was only another way of saying what was already well known...

Roses in Pots.

SON have now ready for immediate planting several thousands of ROSES in Pots, new and old. Their List contains the names of 1800 they have seen and recommend, and these are as under:—

NEW CHRYSANTHEMUMS, PYRETHRUMS, &c. JAMES EARLE AND SON beg to announce that they have sent out their NEW JAPANESE and other CHRYSANTHEMUMS, PYRETHRUMS, &c. A DESCRIPTIVE CATALOGUE will be forwarded on receipt of two postage stamps.

NEW CATALOGUE of New Plants for 1869. JAMES EARLE AND CHARLES LEE'S CATALOGUE of NEW WOODED PLANTS is just published, and may be had on application. It contains accurate descriptions and illustrations of the New Double Pearsons for 1869, New Genia, and New Norway, New Gloxinia, New Colusa, New Chrysanthemum, and New Field of Plants.



ROSE. Earle's Nursery, Peterborough, has a large stock of the following, which cannot be surpassed by any nursery in the Kingdom.

PELARGONIUMS. Earle's Nursery, Peterborough, has a large stock of the following, which cannot be surpassed by any nursery in the Kingdom.

Bicolor Pelargoniums. JAMES EARLE invites the special attention of the public and other purchasers to his extensive stock of BRONZE PELARGONIUMS, JAPANESE and CHINESE CHRYSANTHEMUMS, FUCHSIAS, and other plants, at the lowest prices for cash.

Best Gold-leaved Pelargoniums of the Season. JAMES EARLE AND SON are now sending out the above plants, in a strong established plants, at a 25% discount to the Trade.

New Tricolor and Bicolor Geraniums. JAMES EARLE AND SON are now sending out their new plants, amongst them the following sterling varieties:—

Cheap Tricolor Geraniums. JAMES EARLE offers 50,000 fine plants, at the following low prices for cash:—

First Prize Bronze Pelargoniums. JAMES EARLE, LAIRD, and LAIRD have great pleasure in announcing that they are now sending out the following plants, which were awarded the First Prize at the Special Exhibition, May 21, via BLACK KNIGHT, 10s. 6d.

Tricolor Pelargoniums. JAMES EARLE AND SON, St. Alban's, begs to offer his two beautiful TRICOLOR PELARGONIUMS, 'PRINCE' and 'MRS. DIX', awarded for freedom of growth and coloring, in good plants, 5s. each.

M. OLORE DE NANCY (fine double). JAMES EARLE AND SON, St. Alban's, begs to offer his two beautiful TRICOLOR PELARGONIUMS, 'PRINCE' and 'MRS. DIX', awarded for freedom of growth and coloring, in good plants, 5s. each.

New Tricolor Pelargoniums for 1869. JAMES EARLE AND CHARLES LEE intend to send out in the autumn of 1869, the following NEW TRICOLOR PELARGONIUMS, which they can warrant to be of strong constitution, and bright and clear colors.

JOHN CLUTTON is a Silver Tricolor of a very striking and novel character, the broad bright crimson zone being well defined, and the white edge clear and distinct.

ALL MILNER.—A beautiful Golden Tricolor, of robust habit and free growth. The centre of the leaf a bright green, the margin a bright flame colour on black, and the margin clear and well defined.

ROYAL HORTICULTURAL SOCIETY.—SPECIAL PRIZE and PELARGONIUM SHOW, May 21.

AWARDS of the JUDGES. PRIZES OFFERED by HIS GRACE THE PRESIDENT.

CLASS 1.—9 GREENHOUSE AZALEAS in Bloom. (Open.) 1st Prize, Messrs J. & C. Lee, Nurserymen, Chiswick, W. Extra, Messrs J. & C. Lee, Royal Victoria Nursery, Hampton, in Extra, Mr. A. Wilkie, Gr., Addison Road, Kensington, W.

CLASS 2.—9 ROSES in Pots in Bloom. (Open.) 1st, Mr. C. Turner, Royal Nurseries, Slough. Extra, Mr. W. Paul, Pat's Nurseries, Waltham Cross. Extra, Messrs. Paul & Son, Old Nurseries, Chesham.

CLASS 3.—6 Double-flowered Zonal PELARGONIUMS, not fewer than 8 kinds, in Bloom. (Open.) 1st, Messrs. J. Standish & Co., Royal Nursery, Ascot.

CLASS 4.—6 NEW PLANTS sent out in 1867 or 1868. (Open.) 1st, Messrs. J. Veitch & Sons, Royal Exotic Nursery, Chelsea, Silver Flora Medal. 2d, Messrs. J. Veitch & Sons, Bronze Flora Medal.

CLASS 5.—6 NEW PLANTS sent out in 1869. (Open.) 1st, Messrs. J. Veitch & Sons, Silver Flora Medal. 2d, Messrs. J. Veitch & Sons, Bronze Flora Medal.

CLASS 6.—NEW PLANT, shown for the first time in Flower in Great Britain. (Open.) 1st, Messrs. J. Veitch & Sons, for Denrobium Jamesianum, Silver Flora Medal.

CLASS 7.—NEW FOLIAGE PLANT, shown for the first time in Great Britain. (Open.) 1st, Messrs. J. Veitch & Sons, for Croton Hookerianum, Silver Flora Medal. 2d, Messrs. J. Veitch & Sons, for Dracaena magnifica, Bronze Flora Medal.

CLASS 8.—NEW GARDEN SEEDLING, of any kind, in Flower. (Open.) 1st, Messrs. J. Veitch & Sons, for Rhododendron "Lady Rolle," Silver Flora Medal. 2d, Mr. J. W. Wilmott, Ashburnham Park Nursery, King's Road, Chelsea, for Pelargonium (Ivy-leaved) "Willis' rosea," Bronze Flora Medal.

CLASS 9.—GROUP of FOLIAGE and FLOWERING PLANTS, 3 of each. (Open.) 1st, Mr. C. Turner, £5. 2d, Messrs. S. Glendinning & Sons, £3.

CLASS 10.—8 STOVE and GREENHOUSE PLANTS, distinct, in Flower, in 12-inch pots. (Open.) 1st, Mr. G. Wheeler, Or. to Sir F. H. Goldsmid, Bart., M.P., St. John's Lodge, Regent's Park, N.W., £5. 2d, Mr. A. Wilkie, £3.

CLASS 11.—1 Golden Variegated Zonal (Tricolor) PELARGONIUM (Open.) 1st, Messrs. E. G. Henderson & Son, Nurserymen, St. John's Wood, "Peter Griev," 15s. 2d, Messrs. J. Carter & Co., Nurserymen, Forest Hill, "Prince of Wales," 10s. Equal, Mr. C. Turner, Nurseryman, "Mrs. Hewley," 10s. 3d, Mr. C. Turner, Nurseryman, "Achilles," 10s.

CLASS 12.—1 Silver Variegated Zonal (Tricolor) PELARGONIUM (Open.) 1st, Mr. C. Turner, Nurseryman, "Excellent," 15s. 2d, Mr. C. Turner, Nurseryman, "Lady B. Bridget," 10s. 3d, Mr. C. Turner, Or. to Lieut. Col. W. Kinson, Finroy Park, Highgate, "Mrs. Col. Wilkinson," 10s.

CLASS 13.—1 Gold and Bronze Zonal (Bicolor) PELARGONIUM (Open.) 1st, Messrs. Downie, Laird & Laird, Nurserymen, Forest Hill, "J. W. Morris," 15s. 2d, Messrs. Downie, Laird & Laird, Nurserymen, Forest Hill, "Red Ring," 10s. 3d, Messrs. Downie, Laird & Laird, Nurserymen, Forest Hill, "Empress Eugenie," 5s.

CLASS 14.—1 Golden-leaved (Self) PELARGONIUM (Open.) 1st, Mr. C. Turner, "Pillar of Gold," 15s. 2d, Messrs. J. & C. Lee, "Golden Nugget," 10s. 3d, Mr. C. Turner, "Carr's Bowler," 5s.

CLASS 15.—1 Silver-edged PELARGONIUM (Open.) 1st, Mr. C. Turner, "Bright Star," 15s. 2d, Mr. C. Turner, "May Queen," 10s. 3d, Mr. C. Turner, "Mrs. Cutler," 5s.

CLASS 16.—1 Ivy-leaved PELARGONIUM in Bloom. (Open.) 1st, Mr. J. W. Wilmott, "Wish rosea," 15s. 2d, Mr. J. Stevens, "L'Elegante," 10s.

CLASS 17.—1 Nosegay PELARGONIUM in Bloom. (Open.) 1st, Messrs. Downie, Laird & Laird, "Fire King," 15s.

CLASS 18.—1 Zonal PELARGONIUM in Bloom (Open.) 1st, Messrs. F. & A. Smith, "Acme," 15s. 2d, Mr. G. Smith, "Juby," 10s. 3d, Messrs. F. & A. Smith, 5s.

Echeveria metallica (Special Offer). JAMES CARTER AND CO. beg to offer, in quantity, nice Seedling Plants of ECHEVERIA METALLICA, the singular and beautiful Shell Plant, very effective for bedding purposes. Price per dozen, 6s., per 100, 42s., per 1000, £18—well-established plants, in small pots, with four to six leaves each. Larger, at usual Catalogue prices.

Vines for Planting in a Growing State. JOSEPH MEREDITH, The Vineyard, Garston, near Liverpool, has now ready for planting fine extra strong YOUNG VINES, with 3 to 4 feet of extra strong Wood of the season, and 10 to 12 leaves, in a whole year, and prevent disappointment by planting between now and August next. Planting in a Growing State ensures success. Packed to travel any distance with safety.

Exhibition of American Plants. ANTHONY WATERER begs to announce that the AMERICAN PLANTS at Knap Hill are NOW in PERFECTION. The Nursery is readily reached by Train from Waterloo to Woking, where capital conveyances may be obtained. ANTHONY WATERER also invites inspection of his EXHIBITION in the HORTICULTURAL GARDENS, South Kensington, and at the CRYSTAL PALACE.

New Golden Caladium. THE DIRECTORS of the CHISWICK GARDEN of the ROYAL HORTICULTURAL SOCIETY desire to apprise the GROWERS of NEW PLANTS, that they are willing to RECEIVE OFFERS for the PLANTING of the above, and in consideration of the beauty and constancy of which have never been fully proved. The plants are in a well-advanced condition, and may be seen, and further particulars as to price, on application to Mr. BARROW, at the Garden.—May 21.

July 19th to 24th, 1869. THE ROYAL HORTICULTURAL SOCIETY'S GRAND EXHIBITION at MANCHESTER, in connection with the SHOW of the ROYAL AGRICULTURAL SOCIETY.

A SILVER CUP (copy of the famous Collier Cup), VALUE £21 will be offered by the Proprietors of the GARDENERS' CHRONICLE and AGRICULTURAL GAZETTE for the best COLLECTION of 6 FRUITS and 6 VEGETABLES, to be made up as follows:

Table with 4 columns: Good, Med. val., Inferior. Lists various fruits and vegetables like Apples, Peas, French Beans, etc.

This Prize is open for Competition amongst Amateurs and Gardeners of private families. The Fruit and Vegetables produced must be of the Exhibitor's own growing, and any article otherwise obtained will disqualify the Collection. It is expected that the several articles will be neatly and effectively displayed.

The Gardeners' Chronicle. SATURDAY, MAY 29, 1869.

MEETINGS FOR THE FORTHCOMING WEEK. (Royal Horticultural, Fruit and Floral Comm. Meet. at South Kensington, 1st & 2nd June, 1.30 p.m. Ditto (Scientific Committee) 3rd June, 1.30 p.m. Ditto (General Meeting) 4th June, 1.30 p.m. Royal Horticultural Great Show of the Season, at South Kensington, 24th & 25th June, 10 a.m. to 4 p.m.

THE Horticultural Society of London, as is proved by its charter, was established to promote the science of cultivation, and the improvement of our gardens. To that end the periodical EXHIBITIONS of GARDEN PRODUCE were established nearly 40 years ago; and though the shows were small at the beginning, they have now assumed proportions which may truly be described as levithian. True, however, to its charter, the Society has uniformly encouraged the cultivator rather than the collector; and those who, like ourselves, can trace the exhibitions back for the last quarter of a century, will see that the cultivator in the long run has always beaten the collector. We might give names to substantiate that fact, but the sudden manner in which exhibitors of large plants have appeared upon the field, and as suddenly disappeared, will illustrate what we mean. Money may make fine plants go together in a rather mysterious manner, but money never yet, except when backed by practical ability, made such gardening hold together for many years. We therefore consider the Council of the Society is perfectly justified in the course it is taking with regard to the exhibitions of future years. Large plants have certainly had their day as a leading feature, especially as too frequently they lack both novelty and variety. Look to the reports:—A. sends Hedera and Pimelea, B. contributes Pimelea and Hedera, and the same wearisome tautology runs through every class in the exhibition, while through

the best time for syringing to be between 3 and 4 p.m. When the weather is very hot, a disastrous effect on the wet foliage, and he would use a little blower to dry the leaves.

The issue of green-leaved and variegated female parents from the former was generally, but not always, the stronger and those from the latter generally, but not always, the weaker. As regards future progress, he thought we should be able to obtain yellows yellower, higher-coloured zones, and darker feet he did not believe that we should be

Mr. S. ... he preferred a slightly convex leaf, as the dust was more easily wiped off. Mr. Dombrain, on the other hand, upheld the florist's cane and preferred a ...

... that he had ... of the varieties ... Mr. S. ... of the ...

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Week-end Mr. S. ... Essay last week

A NEW VEGETABLE

At a meeting of the Horticultural Society of London held in the Museum Room on December 18, 1885, Mr. Berger read a paper on the ... of what was to be ... and most of the members present, an entirely new vegetable—the "Scolime d'Espagne."

The "Scolime" is cultivated largely in many parts of Spain, where it is esteemed a great luxury, as well as a profitable and wholesome vegetable. When growing it looks like a line of Thistles, only rather more handsome than the emblem of Scotland. The root somewhat resembles an ordinary-sized Altringham Carrot, but is white in colour. Mr. Berger brought a good basketful of the roots, which he distributed to ...

The ... of the ... was ... for ... The seed must not be sown before about June 15, or else it will be ... and the roots will be as tough as leather. In June to some of the earlier kitchen garden crops are ... of the ground and as the ... takes four months to ... to maturity ...

Modern ... are now so long and tedious, that I am a ... seed merchant's to add new ... them ... at the risk of being ...

Myosotis dissitiflora. — Since writing my last notice of this charming plant in the *Gardener's Chronicle*, I have been quite embarrassed with correspondence concerning it. As I cannot possibly give private replies to all the inquiries, I crave permission to give a general response through your columns. There is no question whatever but that my plant is the true *dissitiflora*, as my who's stock has been raised from cuttings of the plant. The specimens forwarded to Mr. Baker were so named by ...

Home Correspondence.

Dendrobium Falconeri. — I mentioned incidentally, when writing upon Mr. Sait's *Dendrobium*, that orchidophiles were hard to advise, and "G. H.'s" utterances at p. 370 in some measure verify my statement. He evidently is dissatisfied with the estimate I arrived of the ... under criticism and, with what some ... as a ... introduce the word ...

free measurements for his satisfaction. Now, I can't say I am ... in shape, not only show some lack, but a little politeness, if they desire to ... I am therefore not surprised at the absence of a contemporary two years ago, if "G. H." put his questions in the same ... way. I may state for the benefit of the general reader, that since I wrote at 501, I have seen Mr. Bateman's plant referred to ... and by which will be ... Mr. Sait's plant and any other that ... in ... of my remarks.

... further state that at Mr. Menzies' I saw a plant growing in an East Indian ... in a Cattaya house. The latter greatly ... the former, and I set both. I was ... under as leaf ... physically, as ... with regard to the ... treatment of ...

... at the mode of treatment recommended by Mr. Anderson, and suggested to him by the condition of the plants whose appearance pleased him so much when visiting here. In reply to the queries of "G. H.," and by way of supplementing Mr. Anderson's remarks I beg to state that the temperature maintained in the Cattaya house, where the plants have been kept, ranged during the growing season from 40° to 50° by night, and from 70° to 80° by day, with a ... breeze blowing from the ...

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... of the ... was ... for ... The seed must not be sown before about June 15, or else it will be ... and the roots will be as tough as leather. In June to some of the earlier kitchen garden crops are ... of the ground and as the ... takes four months to ... to maturity ...

Modern ... are now so long and tedious, that I am a ... seed merchant's to add new ... them ... at the risk of being ...

Myosotis dissitiflora. — Since writing my last notice of this charming plant in the *Gardener's Chronicle*, I have been quite embarrassed with correspondence concerning it. As I cannot possibly give private replies to all the inquiries, I crave permission to give a general response through your columns. There is no question whatever but that my plant is the true *dissitiflora*, as my who's stock has been raised from cuttings of the plant. The specimens forwarded to Mr. Baker were so named by ...

be formed on the young stems, after the manner of layering. In fact, with ... mode of increase. The plants should not be ... in the ground where they are ... positions. But then are they not, like other ...? Well, not here, although a certain percentage of them will generally prove ... the show ground, by growing weak and ... flowers of a puny size, and ...

... I should be glad if they were ... Practically I get rid of ...

... I should be glad if they were ... Practically I get rid of ...

What Sized Pot? ... the general public is ... of the ... and still possess it. Eds.]

What Sized Pot? ... the general public is ... of the ... and still possess it. Eds.]

What Sized Pot? ... the general public is ... of the ... and still possess it. Eds.]

Walter... I have never seen such quantities of blossom as I have had this season upon any of my fruit trees... the blossoms were so thick that it was impossible to see any wood, and I am now much disappointed to find that I have not got more than a quarter of a crop of fruit on the best of my trees, and half the trees without any fruit at all setting on them. The garden is very much exposed to the easterly wind and during the time the trees were in blossom easterly winds were very prevalent. Would this destroy the

Gas-tarring Orchard Trees. I have never seen such quantities of blossom as I have had this season upon any of my fruit trees... the blossoms were so thick that it was impossible to see any wood, and I am now much disappointed to find that I have not got more than a quarter of a crop of fruit on the best of my trees, and half the trees without any fruit at all setting on them. The garden is very much exposed to the easterly wind and during the time the trees were in blossom easterly winds were very prevalent. Would this destroy the

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Vines not Setting their Fruit. I have never seen such quantities of blossom as I have had this season upon any of my fruit trees... the blossoms were so thick that it was impossible to see any wood, and I am now much disappointed to find that I have not got more than a quarter of a crop of fruit on the best of my trees, and half the trees without any fruit at all setting on them. The garden is very much exposed to the easterly wind and during the time the trees were in blossom easterly winds were very prevalent. Would this destroy the

Loss of Fruit Crops. I have never seen such quantities of blossom as I have had this season upon any of my fruit trees... the blossoms were so thick that it was impossible to see any wood, and I am now much disappointed to find that I have not got more than a quarter of a crop of fruit on the best of my trees, and half the trees without any fruit at all setting on them. The garden is very much exposed to the easterly wind and during the time the trees were in blossom easterly winds were very prevalent. Would this destroy the

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Down's, I sent a man... Down's to send with it, grapes, and was surpris... I have never seen such quantities of blossom as I have had this season upon any of my fruit trees... the blossoms were so thick that it was impossible to see any wood, and I am now much disappointed to find that I have not got more than a quarter of a crop of fruit on the best of my trees, and half the trees without any fruit at all setting on them. The garden is very much exposed to the easterly wind and during the time the trees were in blossom easterly winds were very prevalent. Would this destroy the

Deadrobium barbatalum. Your correspondent... I have never seen such quantities of blossom as I have had this season upon any of my fruit trees... the blossoms were so thick that it was impossible to see any wood, and I am now much disappointed to find that I have not got more than a quarter of a crop of fruit on the best of my trees, and half the trees without any fruit at all setting on them. The garden is very much exposed to the easterly wind and during the time the trees were in blossom easterly winds were very prevalent. Would this destroy the

The Treatment of Trees. In washing I never... I have never seen such quantities of blossom as I have had this season upon any of my fruit trees... the blossoms were so thick that it was impossible to see any wood, and I am now much disappointed to find that I have not got more than a quarter of a crop of fruit on the best of my trees, and half the trees without any fruit at all setting on them. The garden is very much exposed to the easterly wind and during the time the trees were in blossom easterly winds were very prevalent. Would this destroy the

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with coal-tar. In the way of... the wound is larger, but it is exactly in a state to be healed, for the descending sap which forms the wood must pass by the and in passing by will deposit a fresh layer every year... the other case, the wound, I smaller, is in each remains and

...the winter when they are not at all... I have never seen such quantities of blossom as I have had this season upon any of my fruit trees... the blossoms were so thick that it was impossible to see any wood, and I am now much disappointed to find that I have not got more than a quarter of a crop of fruit on the best of my trees, and half the trees without any fruit at all setting on them. The garden is very much exposed to the easterly wind and during the time the trees were in blossom easterly winds were very prevalent. Would this destroy the

Viola lutea. My attention havin... p. 528 by your intelligent correspondent... I have never seen such quantities of blossom as I have had this season upon any of my fruit trees... the blossoms were so thick that it was impossible to see any wood, and I am now much disappointed to find that I have not got more than a quarter of a crop of fruit on the best of my trees, and half the trees without any fruit at all setting on them. The garden is very much exposed to the easterly wind and during the time the trees were in blossom easterly winds were very prevalent. Would this destroy the

Foreign Correspondence.

THE RUSSIAN INTERNATIONAL HORTICULTURAL EXHIBITION AT PETERSBURG.—The inaugural ceremony took place on Sunday, the 16th inst., at 11 A.M., when a Te Deum was sung, and the Exhibition blessed, as already recorded in your columns. Subsequently General Greig, president of the Society, addressed the jury, and after w to Russia, observed:—"When I look on this group, in which science is represented in so manner by many eminent men, whose renou since passed our frontiers, I cannot reser... At 1 P.M. on Monday, the 17th, the high of the empire, the Foreign Ministers, and forei exhibitors, the members of the Botanical Com and of the Imperial Horticultural Society of St. Petersburg as well as a large number of members of the Ministry of Education, were present, and were accompanied by the vice-president of the Horticultural Society, having the honour to point out the most remarkable objects which were shown. Several exhibitions were honoured by being presented to the Ministry.

In giving a return... reading features of... I have never seen such quantities of blossom as I have had this season upon any of my fruit trees... the blossoms were so thick that it was impossible to see any wood, and I am now much disappointed to find that I have not got more than a quarter of a crop of fruit on the best of my trees, and half the trees without any fruit at all setting on them. The garden is very much exposed to the easterly wind and during the time the trees were in blossom easterly winds were very prevalent. Would this destroy the

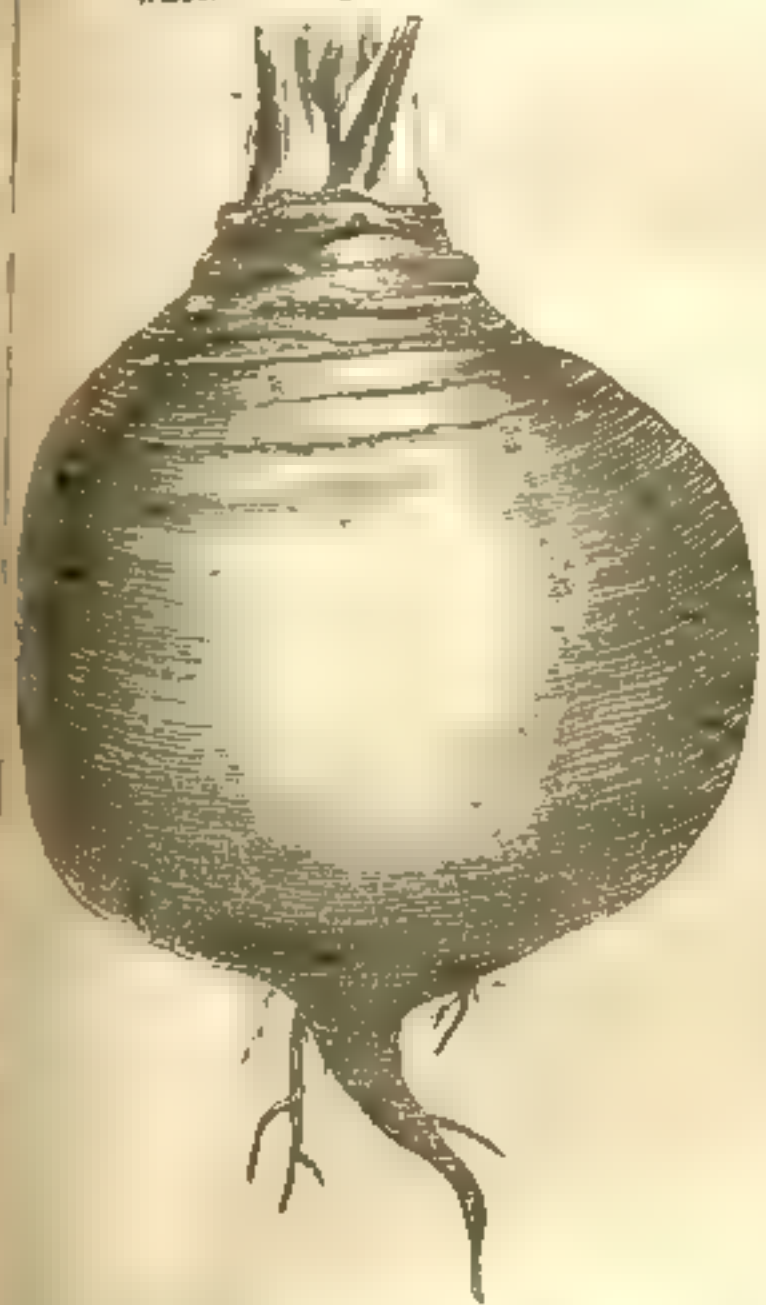
MAY 29, 1869.

To the Trade.
TURNIP and MANGEL SEEDS, growing crop of 1869, splendid stocks, various kinds. Seed Catalogue sent on application. Seed Catalogue sent on application. Seed Catalogue sent on application.

To Farmers, Gardeners, and Others.
EXCELLENT strong Spring-sown CABBAGE, BRUSSELS, SAVOY, BRUSSELS, and various other plants on offer price on application.

WHEELERS' IMPROVED TURNIP SEEDS—The subscribers beg to call the special attention of Agriculturists to the extra selected stocks of Turnip Seeds, which for quality and yield cannot be surpassed. Prices furnished on application, and free delivery as formerly.

Wheeler's Imperial Swede.



WHEELERS' IMPERIAL SWEDE—Purple top, very heavy, very nutritious, large, handsome and heavy. Price 1s. per lb. Carriage free excepting single parcels under 10s. For five consecutive orders 10% discount is taken. For the 1st order—order to the Gloucestershire Root and Turnip Society, as the best seed in cultivation. It is a sort especially to be recommended. Price 1s. per lb. J. C. Wheeler & Co., Seed Growers, Gloucester; and 59, Mark Lane, London, E.C.



SUTTONS' CHAMPION PURPLE-TOP SWEDE—Suttons' Champion, price 1s. per lb., much cheaper by the bushel, carriage free. Lowest price per bushel on application. Sutton & Sons, Seedmen to the Queen, Reading, Berks.

Messrs. Suttons' Collection of Grasses.
 SOUTHAMPTON MEETING, 1869, of the BATH and WEST of ENGLAND, and SOUTHERN COUNTIES ASSOCIATION To AGRICULTURISTS AND OTHERS INTERESTED IN LAYING DOWN LAND TO GRASS.

MESSRS SUTTONS' COLLECTION of GROWING SPECIMENS, consisting of 100 sorts (from their Experimental Farm, Reading), presents an opportunity rarely offered for obtaining a personal knowledge of the properties and habits of growth of the various kinds of Grasses suited to the English climate. Attendance will be given during the Show, and further information may be had on application. STAND No. 18. MIXTURES prepared for every description of soil. Sutton & Sons, Seedmen to the Queen, Reading.

The Exhibition of the Bath and West of England Agricultural Society, Southampton.

JAMES CARTER AND CO., THE ROYAL SEEDSMEN, 237 and 238, High Holborn, London, W.C., invite inspection of their extensive and varied Collection of Samples of CARTER'S PRIZE MEDAL MANGEL, SWEDE, TURNIP, and other FARM SEEDS, harvested on their own Seed Farms. On view and sale during the Show at SHEPHERD No. 26, Implement Department. STAND No. 194. JAMES CARTER & Co., Seed Growers, 237 and 238, High Holborn, London, W.C.

The Royal Seedsmen.

Lewis Carter & Co.
Seed Growers

237, 238, and 261, HIGH HOLBORN, LONDON, W.C.



CARTER'S GRASS SEEDS, supplied to H.M. & MAJESTY the QUEEN, and H.R.H. the PRINCE of WALES.



CARTER'S IMPERIAL HARDY SWEDE, The hardest and best. Price 1s. per lb.; cheaper per cwt.

CARTER'S PRIZE SWEDE AND TURNIP.

HALL'S WESTRURY SWEDE	Per lb.—s. d.
HARTLEY'S SHORT-TOP SWEDE, a large mottle-top variety	1 0
CARTER'S CHAMPION HYBRID TURNIP, fine quality	1 3
CARTER'S DEVONSHIRE GRAYSTONE TURNIP	1 6
CARTER'S EARLY NIMBLE or SIX WEEK, a very quick-growing variety	1 0
POMERANIAN WHITE GLOBE, a handsome variety	0 10
IMPERIAL GREEN GLOBE, a heavy cropper	0 9
LINCOLNSHIRE RED GLOBE (very hardy)	0 10

For full description, see "CARTER'S ILLUSTRATED FARMER'S CALENDAR" for 1869. Post free, 6d. (gratis to purchasers.) JAMES CARTER & Co., 237, 238, & 261, High Holborn, London, W.C.

RAYNBIRD, CALDECOTT, BAWTREE, DOWLING, and COMPANY (Limited), Corn, Seed, Manure, and Oilcake Merchants. Address, 89, Seed Market, Mark Lane, E.C., or Basingstoke. Samples and prices sent free on application. Prize Medal, 1851, for Wheat, 1862, for "Excellent Seed Corn and Seeds."

SUTTONS' GRASS SEEDS for ALL SOILS, Carriage free. As supplied to SUTTON AND SONS, Seedmen to the Queen, Reading, Berks. H.M. THE QUEEN have at hand each variety of the various clover PERMANENT PASTURE GRASSES and CLOVERS, suitable for various descriptions of soils. For PERMANENT PASTURES, 30s. to 35s. per acre; Carriage For PARKS, 18s. per bushel; For LAWNS, 20s. per bushel; free. Special estimates given for large quantities. For further particulars apply to SUTTON & SONS, Reading, Berks.

ROYAL AGRICULTURAL BENEVOLENT INSTITUTION, for the RELIEF of DECAYED FARMERS, their WIDOWS and ORPHANS. Patron—HER MAJESTY THE QUEEN. President—HIS GRACE THE DUKE OF RICHMOND. Allowances to Pensioners. Married ... £40 per annum. Male ... £35 per annum. Widows and Unmarried Orphan Daughters ... £20 per annum. Every information to be had of the Secretary, by whom Subscriptions and Donations will be thankfully received.

ROYAL AGRICULTURAL BENEVOLENT INSTITUTION THE NINTH ANNIVERSARY FESTIVAL in aid of the FUNDS of the INSTITUTION will take place at the New Hall, Freemason's Tavern, on WEDNESDAY, June 9, at 6 o'clock. The Right Hon. Lord Roscar Monro, M.P., in the Chair. Dinner Tickets, 2s.; Ladies Tickets, 5s.; to be had of the Steward; the Secretary, at the Office of the Institution and at the Bar of the Tavern.

ROYAL AGRICULTURAL BENEVOLENT INSTITUTION—The ANNUAL ELECTION of PENSIONERS and CHILDREN will take place at the Freemason's Tavern, on WEDNESDAY, June 10, at 11.30 a.m. All Subscriptions shall be deemed payable on January 1 in each year, and no Contributor shall vote while the same is in arrears. No. 55, Charing Cross, London, S.W. C. ROUSFIELD SHAW, Secretary.

ROYAL AGRICULTURAL SOCIETY of ENGLAND MANCHESTER MEETING, 1869. ENTRIES of HORSES, CATTLE, SHEEP, PIGS, BUTTER, and CHEESE, CLOSE on JUNE 1, and all Certificates received after that date will be returned to the sender. H. M. JENKINS, Secretary, 12, Hanover Square, London, W.

The Agricultural Gazette. SATURDAY, MAY 29, 1869.

MEETINGS FOR THE ENSUING WEEK.
 MONDAY, May 31 } Bath and West of England and Southern Counties Agricultural Society's Annual Show, at Southampton.
 FRIDAY, June 4 } Home Show, at the Agricultural Hall, Islington.
 MONDAY, May 31 }
 FRIDAY, June 4 }
 WEDNESDAY, June 2 } Royal Agricultural Society of England—North.
 SATURDAY, — 6 } Norfolk Chamber of Agriculture at Norwich.

On some late occasions we have endeavoured to point out, as familiarly as the subject will admit, the faulty features of our English land laws, features retained in this country, after almost every other European State, with one well-known exception, has got rid of them. Even while we have been writing, this exception has begun to disappear. Austria, the once backward, but now progressive Austria, has actually set about amending her land laws, after the Prussian—we may almost say the European pattern, and has recognised at last the wisdom and policy of freedom for the land,—freedom of Transfer, freedom from prolonged Entail, freedom from exceptional laws of Intestacy.

The opponents of this freedom in England are of two classes, consisting on the one hand of Landowners themselves, and on the other, of Lawyers of the land-agent, and lower conveyancing classes. The opposition of the landowners is rather passive than active, it really consists in a backwardness and indisposition to help themselves, arising out of a kind of timorous individuality that shrinks from allowing its own wound to be probed or known. Unfortunately, too, there is such a thing as the Timidity of Ignorance, a not uncommon complaint, which has the effect of peopling the dark unknown, or the twilight half known, with all sorts of spectres, so brain-born and unsubstantial as to elude all fixity for the purpose of examination, or the detective power of argument. One of the commonest of these, in the present instance, is a visionary theory about subdivision of land and 'peasant proprietors,' which are assumed as being the object of those who ask for Land-Emanicipation, and also assumed as being unfavourable to agriculture. Both assumptions are groundless, and untrue; but they are repeated, from print to print, and from mouth to mouth, with a persever-

and that makes one often wonder... if it is that sets on foot, and underlies... gratuitous, and beside the mark... begun with assertions of the evils of small... evil of small... and a distinct... The answer... instead of... United Kingdom... the aggregation... smaller estates... that is starting... more right to ask... "are you then... than to say... "are you then... a results or..."

The wish that... or even... the good they prevent... Natural Laws whose salutary action they intercept. It ought to be superfluous to say that what is wholesomest for every country and every part of every country, is that there should be both large wealth and small wealth, and wealth of every intermediate size without hindrance from the blinding agency of factitious rules and... The same is true, absolutely and... which takes the form... that small estates are bad things, or that large estates are bad things, but it is true that artificial restrictions, and exceptional laws directed to produce either extreme whether a... or a... country, are bad and far more mischievous than is commonly supposed. They damage not only the immediate subject matter of their operation, but disturb the whole relations of society connected with it. And of nothing is this so true as of the land. Volumes might be written upon that fatal phrase, 'agrarian law' and each chapter might take for its theme a different... on the political and social development of life, as traceable to this original. There is not a class of society unaffected by it, scarcely a destination of life which it does not reach.

Whoever doubts this, or imagines the propo... and call to... earth is... original source of all Wealth and of the whole machinery of human society, or suppose there can be any such thing as a... whether it is likely, that an error in the laws that profess to govern it, should be a trifling matter, a mere mistake, of small moment, or limited action, involving no consequences that interpenetrate the body politic in its vital relations whether, if it be true that there are... laws belonging to, and in the very structure of created things, presiding over their organisation, just as each plant, or tree, though growing in the same soil, develops its own special foliage and individual form, in accordance with the law of its being, — whether, if this be true, it is a safe or prudent responsibility, to go dogmatising on, with man-made theories and conceptions, taking such childish forms of expression as 'being in favour of small estates' or 'large estates' in land, when the trodden experience of daily life ought sufficiently to demonstrate that the mere tendency of a 'law' to produce either extreme is, at once, its condemnation.

It is true that the Napoleonic law, in France, compelling subdivision, is impolitic and injurious. It is true that the triple action of the land-tax, the entail laws, and obstructed Transfer resulting from them, intercepting land-... in England, is impolitic and injurious. Which is the... is simply one of those matters of speculative opinion on which men will take this side and that side, as long as "the sun and the moon endureth." To some lands and to some peoples, one system is better adapted,—for instance, where attachment to the soil is little, and capital for vicarious employment on it, large,—where men look solely to annual profit, and would rather rent of another, than cultivate, or ornament, their own,—there, the 'grande culture' of territorial Estates farmed by large tenants is sufficiently indicated. On the other hand, where the land is loved, like an heirloom for its own sake,—where capitals are small, and adapted to a smaller class of produce,

other Dairy belongings... variant tribe of pigs, where even the... and in... who that can discriminate at all will refuse to see the sign of a small scale... and the... and... it is... that is... when treated... or fact... and... the mark... the proportion of... that men may choose to... or... of... banking... Never do I... 'think wisely, and in the... of... presumptuous... when they argue... for 'large' or 'small' holdings, 'grand' or 'petit'... the land... National... and... Must we have King CANUTE back again, and reverse his chair, and his lesson, in order to explain that the LAND is governed by its own eternal and irrefragable laws, as well as the SEA? and that nothing but the obtuseness of our... and the narrowness of... would... to work with human hand the Supreme... "So far shalt thou go, and no further."

But, for our other class of... the Lawyers, what shall we say to them? Must we invoke the shade of... and furnish up and re-adapt the old machinery to an 'Anti-Law League' and wind up the old... against the weary... about the... of Protection? Is it... that the 'landed interest' must now be in their turn the 'doctrinaires', and set about explaining that the seventy or eighty... of British and Irish acres are not going to... like a half-trained colt, the instant the... and the... are... Can it really be necessary to argue that the sum of land transactions will not be less, nor the quiet... likely to come out in fewer figures when activity and freedom are the...? It is hard, they say, to persuade men against their interest, how often has modern experience shown it quite as hard to guide them in the true path of it... and... not behind the... of the community, will long be regarded, like a... by the... as they rear, when it has at its head the knowledge, the will, and the power to confer on British soil the greatest boon it shall ever have received since the time of its great statutory emancipation in the days of CHARLES the SECOND.

THE ninth anniversary festival in aid of the funds of THE ROYAL AGRICULTURAL BENEFICENT INSTITUTION will take place at the New Hall, Freemasons' Tavern, on Wednesday, June 9—next Wednesday week—the Right Hon. Lord ROBERT MONTAGU, M.P., in the Chair. The annual election of pensioners and children will be held at the same place on the following Wednesday, June 10, at 11.30 A.M. There will then be elected on the list of the society's assistants 12 male pensioners, at 25/- per annum, 6 married pensioners at 30/- per annum, 12 female pensioners at 25/- per annum, and 12 orphan children, to be maintained and educated by the Institution. These numbers will thus be added to a list on which 126 names have been already placed, 18 married couples and 90 single men and women having been elected during the past eight years to the benefits of the charity founded by Mr. M. M. And how large the distress which has in so many instances associated with the... of the... which have each year... and... the... is the...

Number of Pensioners				Number of Children			
Year	Male	Married	Female	Year	Male	Female	Total
1891	19	4	9	3	3	5	20
1892	30	9	23	4	9	5	21
1893	32	14	25	4	9	5	21
1894	37	16	28	4	9	5	22
1895	40	21	28	4	9	5	23
1896	41	24	29	4	9	5	23
1897	41	30	29	4	9	5	23
1898	41	3	29	4	9	5	23
1899	47	15	34	4	9	5	26
1900	47	15	34	4	9	5	26

Here is evidence enough of distress—evidence,

too, of very considerable services... must of all this trouble... debts personal all health... seasons on... had turned... acres... 26, and 10... by Mr. M... become a real godsend... man, but, notwithstanding... of help that... pleading heavy... these small... increasing and the... which any one may... support of... could... nearly... and during the... that no... will ever check the... benevolent.

We have now, however, to... management of the... Seeing that for... have annually... that the... blocked out... Agricultural... gifts for the relief... provision, according to its... sons to... their wives... and educate the... It has... given 81... ways... of the year... task? Besides... 17,311 10s. 8d. during... chest of stock... 116/0s 4d. its... make up... donations, subscribers... it had received during the years 1898-1902... every 100/- which the Society has received... thus... and if the... spent 20... away... We... rather to... the... after... 15/- has been spent... only 2/ 18/- has been... purposes which the... intended.

The following are the... arranged from the last eight years report will be seen that salaries, incident... ling expenses and commission... pensioners have amounted during the... to 20,000... that... 2697/- 11s. 11d., that rent... furniture, and gas, &c., have cost... that anniversary expenses, including... Pensioners... the two... six... to... and... We... the... study these figures in detail—

Year	Donations		Salaries		Expenses		Total	
	£	s. d.	£	s. d.	£	s. d.	£	s. d.
1891	504	12 1/2	21	10 0	100	10 0	625	12 1/2
1892	1149	1 4	21	10 0	100	10 0	1270	1 4
1893	764	3 6	21	10 0	100	10 0	885	3 6
1894	1143	12 8	21	10 0	100	10 0	1264	12 8
1895	981	6 1	21	10 0	100	10 0	1102	6 1
1896	607	12 6	21	10 0	100	10 0	728	12 6
1897	504	12 1/2	21	10 0	100	10 0	625	12 1/2
1898	504	12 1/2	21	10 0	100	10 0	625	12 1/2
1899	504	12 1/2	21	10 0	100	10 0	625	12 1/2
1900	504	12 1/2	21	10 0	100	10 0	625	12 1/2
1901	504	12 1/2	21	10 0	100	10 0	625	12 1/2
1902	504	12 1/2	21	10 0	100	10 0	625	12 1/2
1903	504	12 1/2	21	10 0	100	10 0	625	12 1/2
Total	412	2 7	210	10 0	800	10 0	1422	2 7

Add for salaries and other expenses...

... subjects, viz. ... as applicable to ... Land Surveying; and to enable him to take ... he was also required to pass in ... he had also the option of offering them ...

... Harle, Haydon Bridge, and C. G. ... no life members of the Society, and ... prize of 50l., and the latter ...

... was adopted on the motion of Colonel ... that so small a number ... because the affairs of the ...

... Turning to the report, after express- ... Mr. Sewell Bead had resigned his ... he directed attention to the ...

... appeared, ... committee that, instead of ... essays, it would be far ... every year for ...

... Some eight ... selected for inspection ... clearly understood that they ... considered to ...

... that they should institute a ... like that in con- ... universities; that, selecting young ... they should send them ...

spend a month or six weeks in Ireland, and looked at matters from an English rather than an Irish point of view, would no doubt be able to contribute most valuable papers to the Society's Journal. One of the best papers he ever remembered seeing in the Journal was a paper on farming in the Lothians. At the present moment he believed steam cultivation was being extensively applied in that part of the world, and he should very much like a good man to be sent down to tell them what steam cultivation was doing for agriculture in that district. These matters had been referred to a select committee of the Council, and he could have wished to provoke a discussion, with a view to obtaining the opinion of members of the Society with regard to them. A few words now with respect to education. There was no doubt that the examination this year had, according to the report of the examiners, been a very satisfactory examination, probably the most satisfactory they had yet had. The worst of it was perhaps, that when they looked at the list, they found that all the first and second class prizemen, with one exception only, had been educated at the same place. He would like to see the field from which their candidates were taken somewhat more extended. He believed one of the prizemen was of the mature age of 29 or 30. Now he scarcely thought that they ought to give educational prizes to young men of that age, men who had gone regularly into the practice of agriculture. It was a question for consideration—first, whether these examinations were to be carried on another year, and if so, next, whether they ought not to put some limit to the age of those who took part in them. Another question was, whether the gold medal of the Society of the first class, and a silver medal of the second class, with a certificate, might not be a sufficient inducement to the gentlemen to come up for examination. This was the day for the election of additional members of the Council, and he had a very strong feeling that they did not introduce anything like enough new blood into the Council. He had frequently urged that one-half the list should retire, and be ineligible for re-election. No doubt they might lose some of the most useful and practical men in the body. Still, there were as good fish in the sea as those which had already been caught, and he thought that if possible they ought to do something to get more new members into the Council.

Reviews.

On the Art of Valuing Agricultural Land, and on the Indications of the various Qualities of Soils. By Philip D. Tuckett

This is another of the papers read before the Institution of Surveyors, and printed in their Transactions for the session 1868-69. It is a detailed and careful examination of a subject which stands in the very front of the agricultural world, and with which Mr. Tuckett's paper on sewage has, we think, enabling the author to tell his tale to our readers as he did to his auditors some eight or nine weeks ago in Great George Street—by frequent extracts from his pages.

The amount of rent claimable from a tenant of land is theoretically to be arrived at only as the late Robert Baker, of Writtle, in his edition of "Baydon on Rents and Tillage," suggests—by estimating the expenses incurred in the production of the whole course of one rotation of crops on the best soils, and he very justly observes, that the valuer must be constantly alive to the changes in the market price of the various articles of produce, and he might now have added, to the supply of agricultural labour in the various localities.

Mr. Tuckett acquiesces in this view only to the extent that the sound plan is to go carefully into these calculations as to the best and worst qualities of both light and heavy arable and pasture land, so as to form and keep a well settled scale of values, to be filled up on going over each estate.

A knowledge of the rents actually given for land by good tenants is also, he admits, a most important practical test of the accuracy of such individual calculations, and is gradually acquired by the negotiations incident to the practice of a land agent; but whatever the method by which the valuer fixes in his mind his scale of rental value, what he has to do in looking at any particular lot or estate, is to obtain such indications of its quality as will enable him unhesitatingly to give it its true place in this scale.

We now proceed with our extracts—

1. On the Indication of Value afforded by Trees and Plants. It is exceedingly dangerous to attempt to judge of the quality of a soil from the crops grown upon it in one particular year only, still many useful indications may be obtained from its more permanent products, especially from the trees and grasses. Most of our ordinary forest trees have special proclivities for the various soils on which they flourish, and a careful observation of their growth, and of the height to which they attain, affords information which will seldom mislead. A young sapling Elm tree or Hazel cannot be found where there is not a good mixed soil, whilst an abundance of Oak and Blackthorn are indications of heavy soil, and the growth of the trees will generally correspond with the quality of the soil. The Alder and the Willow are only found in wet places, chiefly by the water-side, and the Birch grows in wet places. On the other hand, the Scotch Fir prefers the lighter soils, and the Scotch Fir grows in the woods which will produce nothing else except deer and the Beech though it will grow elsewhere on good land is sensibly indicative of a calcareous soil. The hycarium is partial to light or sandy soils, whilst the Walnut and I believe I may say the Maple also, usually grow on good mixed soils. The Ash is scarcely a sign of any particular kind of land, if it is of rapid growth, it indicates good land, in poor soil it is constantly met with, but is of slower growth and often stunted. The Wattle, I believe, grows on a more indistinct soil, and one never sees a strongly grown Quince fence on inferior soils. The various permanent Grasses which make up the swards of an old pasture, and even the weeds found in the land, and

the character of the growth of both, form most valuable indications of the quality of the land. This part of the subject is treated in great detail in a long and admirable essay by Mr. Bravender, published in the fifth volume of the Royal Agricultural Society's Journal, to which I would refer those who desire a greater amount of botanical detail than I can afford space for in this paper. It is estimated that the distinct species of natural Grasses, natives of this country, are in number about 150 or 160, whilst those which are recognised as covering the surface of good old pasture land number, I believe, only about 50. It is said that a square foot of old pasture or meadow land contains about 1160 plants, a square foot of water-meadow about 1500, and a square foot of a crop of Grass seeds on arable land only about 80. The species of the best permanent Grasses being so moderate in number, it is worth while to learn their names, and also to recognise them at sight when in flower.

- Dactylis glomerata Cock's-foot Grass
Alopecurus pratensis Meadow Foxtail
Festuca pratensis Meadow Fescue
Festuca ovina Hard Fescue Grass
Panicum pratense Greater Meadow Cat's-tail
Anthoxanthum odoratum Sweet-scented Vernal Grass (which gives its scent to hay)
Meadow Oat-grass
Avena pratensis Yellow Oat-grass
Avena sativa Crested Dog's-tail Grass
Cynodorus cristatus Tall Oat-like soft Grass
Heliclus avenaceus, or Arrhenatherum avenaceum Meadow Barley-grass
Lolium perenne Rye-grass
Lolium temulentum Annual Meadow Ryegrass
Poa pratensis Meadow Stalk and Meadow
Trifolium pratense Clover
Trifolium repens White Clover
Vicia cracca Creeping Vetch
All really good pastures are composed chiefly or almost entirely of these Grasses, and they take up so much of the surface of the land that they are necessarily well watered, even when the surface is otherwise dry. The proportion of these best Grasses which occupy the surface is a pretty sure indication of quality.

Mr. Bravender, in the paper above mentioned, gives several lists of flowering plants and natural Grasses, with their several indications, but, with a view to condensation, I shall confine myself to selecting only a few specimens—a few of the principal plants indicating cold, wet land, and a few of those found on very dry soils; because, as the valuer visits the land in all sorts of weather, and at different seasons, he may be principally dependent on vegetation to tell him whether a field is injured by excessive wet in its ordinary condition, or, on the other hand, whether light land is excessively dry and likely to burn, whilst of almost everything else he can always judge by other means, and because, if one attempts to extend the list to all the indications intended to be derived from them, the result is a long and simple. It is a very curious fact that the herbage of a wet grass-field almost entirely changes when it is drained. This is the reason why people used to say that grass-land could be easily over-drained, and was often ruined by draining. The fact is, wet grass-land is not ruined by being so for two or three years, the old Grasses dying off, and the better ones not having yet fully taken their place.

- Plants Indicating Cold, Wet Land
Agrostis palustris Marsh Bent Grass
Alra aquatica Water Hair Grass
Alra crispata Tufted Hair Grass
Alopecurus geniculatus Hoating Fox-tail Grass
Carex Carnation Grass
Centaura calcitrapa Blue Bottle or Star Thistle
Ononis palustris Marsh Thyme Thistle
Hippuris vulgaris Mare's Tail
Potentilla anserina Silver Wood
Primula veris Cowslip
Rhinanthus cristifidus Yellow Rattle
Scabiosa succisa Field Bit Scabious, or Field Bitton
Thymus latifolius C. Hebe
Plants Indicating Light Soils
Agrostis tenuis Common Fine Bent Grass
Alopecurus pratensis Wavy Mountain Hair Grass
Festuca ovina Crested Hair Grass
Festuca ovina Canterbury Bells
Heath Bell Flower
Ononis palustris Common Heath, lang, or Heather
Poa pratensis Sheep's Fescue Grass
Poa trivialis Yellow Ladies bed Straw
Poa trivialis Wild Sainfoin
Poa trivialis Wild Tyme

In addition to the species of Grasses, a good deal may be learned by the character of their growth. On good land the blade grows full and broad, on poor wet land it often looks stunted, whilst on thin sandy soils it is apt to be thin and wiry. When pasture land contains a large proportion of the Mooses it is a sure sign of poverty, and more often of poverty caused by constant mowing at the want of manure than of natural barrenness. On common and unimproved land the common Brake or Fern (Pteris aquilina) generally grows on the best land, and Irish Gorse, Heather, &c., on the inferior portions.

The general colour of the surface of pasture land is also some guide to its quality. The colour of all pastures changes with the season, and no land is green all the year round (though the best land looks green the longest), and a fresh green colour is often dependent on recent manuring; but in winter, when the frosts have stopped the growth of the Grass, poor soil turns brown, whilst good sound pastures are never brown, but assume a whitish hue.

On this last point we remember a happy remark of the late Mr. John Morton, when about to complete the purchase of an estate near Thornbury for the late Earl of Ducie. Referring to the quality of its undrained pastures, he told the solicitor who was conducting the sale, "There is an instrument termed the cyanometer—a circular card of varying shades of blue—by which the meteorologist, holding it between him and the sky, determines the depth of colour in the heavens for record in his register. Now, the last time I rode by this land, having on an old brown great-coat, I bethought me of this test, and looking at the pasture fields over the arm held up between me and the Grass, I found the agreement in the colour perfect. Your 'poor cold grass-land' had turned brown. It is not worth the 30s. at which you value it."

Take now another extract, on a subject of which Mr. Morton was an original student and one of the earliest writers. Relations of Geology to the Value of Land.—There is one science which is often spoken of as having an important bearing on the profession of a surveyor, but I have never seen any

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...apply it. Mr. Braye
...taken great pains
...careful and
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...that mode of t
...I map before set
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...mechanical conditions resulting from the accident of their
particular position. I have been led to think, in the course of
my observations of the soils on the various strata, that this
subject is susceptible of an entirely different treatment; and
the use to which I propose to apply geology in land valuing is
to trace and describe the mechanical conditions of the soil
of the various strata. It is to be observed that the strata
which are the most
principally of alluvial clays
the Tertiary strata of the
...and the
...layers
of the coal measures, and those weak clay soils of
limes, found amongst the Silurian and Cambrian
...strata.

Now clay soils, on each of these formations, comprise a con-
siderable portion of the surface of the country. In the
...of the same consistency and depth on either the Lias or
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...of the same consistency and depth on either the Lias or

...clay. This formation comprises some very stiff, poor, thin-
stratified land, as well as much that is better
...of the same consistency and depth on either the Lias or
...of the same consistency and depth on either the Lias or
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...The lighter soils are not so easily com-
...of the same consistency and depth on either the Lias or
...of the same consistency and depth on either the Lias or
...of the same consistency and depth on either the Lias or

...the chalk containing flints and made up chiefly of
sand, gravel, and chalk, and one resting on the
...of the same consistency and depth on either the Lias or
...of the same consistency and depth on either the Lias or
...of the same consistency and depth on either the Lias or

...the granite forma-
...of the same consistency and depth on either the Lias or
...of the same consistency and depth on either the Lias or
...of the same consistency and depth on either the Lias or

...Mr Tuckett somewhat abruptly terminated his dis-
...of the relations of geology to the value of land,
and referred shortly in conclusion to other points on
which the opinions of the valuer must depend—the
mechanical composition, depth, and quality of soil and

...the value of the soil, and the general character of the
...of the soil, and the general character of the
...of the soil, and the general character of the

[Perhaps the opinion of another valuer not present
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...of the soil, and the general character of the

...prising that serious errors are often committed, an
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Now, there can be no such thing as a settled scale of
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...of the soil, and the general character of the

...Blue Button, Coltsfoot, and
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...of the soil, and the general character of the

Farm Memoranda.

FOULNESS. Admission of Tidal Water into Drainage.
The Commissioners of Sewers for the Island of
met at Southend, on Wednesday, for the purpose
considering two counter memorials which had been
presented to them on the admission of tidal water
the island for sanitary and other purposes. The
memorial was signed by eight gentlemen, owners and
occupiers of 4,772 out of the 6,304 acres of land
the island contains, and stated that they had
long been deeply sensible of the great in-
sustained through the admission of salt
...of the soil, and the general character of the
...of the soil, and the general character of the

"We, the undersigned inhabitants, householders
occupiers of lands in Foulness, being informed that
...of the soil, and the general character of the
...of the soil, and the general character of the

Mr. GRPP, clerk to the commissioners
evidence which was received upon the subject
last court. Mr. Parsons, who has been 38 years
...of the soil, and the general character of the
...of the soil, and the general character of the

Mr. J. W. ...
...of the soil, and the general character of the
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Mr. CHARLES HARVEY ...
...of the soil, and the general character of the
...of the soil, and the general character of the

manuring and seeding of the land being similar to what is described under "paring and burning."

Limeing Turnip follows continues up to the time of sowing, the lime being spread and well harrowed into the land prior to its being set up in drills for the manure. Instead of the shells being laid down in small heaps upon the land, and covered up with earth to slake it is emptied in heaps of several cartloads on the headland, or near where there is water to slake it and the slaked lime then spread with shovels from the tail of the cart. This practice neutralises acid qualities, which destroy the germinating power of small seeds in "sour" soils. Potato land is also limed from the cart, and hoed in with the horse-hoe and hand-hoe in hoeing. When Potatoes are aboveground the lime should be applied in dry weather, as the slight dusting of the lime will then do the stems comparatively no harm, particularly if the hand-hoes follow so as to shake it off. In moist weather, or on dewy mornings, it does harm to the wet leaves, although not to the extent which some farmers imagine.

Worms in great variety now begin to emerge from their winter quarters, where they have lain in a chrysalis state and to enter upon active life, depositing their ova in Parsnips, Carrots, Cabbages, Beans and Turnips. Parsnips and Carrots become cracked, Turnips have anbury, or finger-and-toe, and Cabbages and Beans are club-rooted. The Turnip fly attacks the young brass before it gets into rough leaf, and as the plants become sickly and rot, they form food and breeding ground for other varieties. They are more numerous and destructive in dry seasons than in wet ones, and in land that has become "tired" of growing any of the above crops; in other words, when crops begin to degenerate they are liable to be infested with insects. But the most healthy Cabbages, &c., in virgin soil are attacked. The Curculionides are vegetable feeders but they live chiefly on the decaying remains of plants, while others subsist on animal matter in the soil. Hence they are seldom found in a healthy fertile soil where such matters undergo immediate decomposition. Hence, also, the best plan of getting rid of these insect tribes is the use of active manures, especially in a liquid form, and of a quality such as the crop to be grown requires.

Hot-gardens furnish employment in hoeing, digging, and tying of bins. It is never too late to apply guano and fish manure in a liquid form, much diluted, in dry weather, if the bins require it. In moist or wet weather the manure may be sown dry, when it will be washed in by the rain. Hoeing will bring it to the roots, if the hills are sufficiently moist to dissolve the manure when applied.

"Wheat flagging," when necessary, should be done in time, or before the ear rises to be in the way of the scythe or reaping hook, and while the young plants grow erect. When blanching or etiolation takes place, the stalks become not only weak, bend and "kink" at the bottom, but the broad heavy leaves also become weakly, and bend so as to be below the edge of the scythe; they are also more difficult to cut; but when growing erect they are easily cut. A very small bit from the point of a leaf will effectually check exuberant growth, and let in the light to the bottom. The scythe or reaping-hook requires to be kept sharp and evenly drawn across the tops, but an experienced hand finds no difficulty in doing this. The work is best done in rather moist weather, and in the morning, if the weather is dry, as under the influence of a burning sun the leaves bend and do not stand up to the scythe. W. D.

Notices to Correspondents.

BARLEY FOR SEED: T. S. We fear that, under the circumstances, no jury would give you damages.

CABBAGE COR. Early Yorks, sown in July and August, will be ripe in May. Then pull every fourth Cabbage, and transplant Drumheads sown in February. They will be ready in November, and will keep till January, and if you sow in April again, you may have a crop which will be good food in January and February.

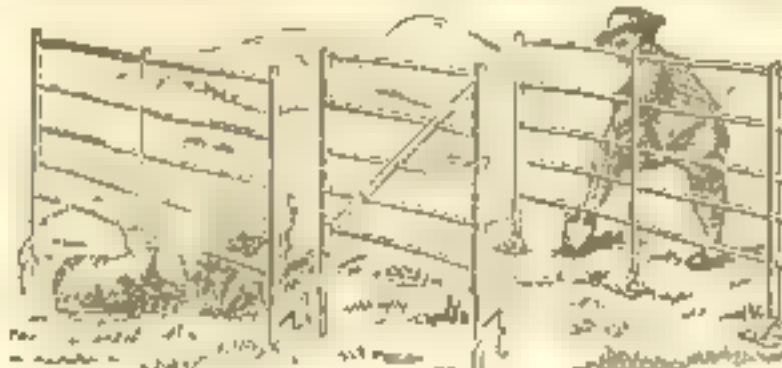
COTTON CAKE. Inquirer writes: "Will any one who has been in the habit of giving cotton cake to cows, say if he has any reason to suppose it has prevented them from being in calf?"

DISEASE IN SHEEP. R. Llanely, Carmarthenshire, writes as follows:—"Can you, or any of your correspondents, inform me what is the disease of which eleven sheep died near here lately, and of which the following are the symptoms. The sheep (part of a flock of about 60) appeared very healthy until a short time before they died. They were feeding upon high land, dry, adjacent to the sea-shore. They appeared heavy and dull, frothing at the mouth and nose; drank water. On being opened it was found that the heart was swollen, the tongue black, teeth, in some, loose. Inner coat of stomach came away when handled, smelt badly internally, swollen under the jaw. The cloven hoof in a few days several more were affected but recovered after being moved to another part of the farm. The lambs of the dead sheep are healthy." (The disease, judging from your description of it, is one of those blood affections of which splenic apoplexy is the type. It occurs generally on undrained and retentive soils, which have been much fed over, or otherwise highly manured. We have met with the disease on all kinds of pastures where the herbage, from any cause, was luxuriant and of rapid growth. Without knowing more of your system of management, and the general condition under which your stock are placed, we cannot advise you beyond suggesting the obvious course of keeping sheep off the dangerous ground while the herbage is springing.)

HIGHWAY PATRONS should apply to a Justice of the Peace, who could, under the General Highway Act, sect. 44, summon the surveyor of the parish before the Justices at some special sessions for the highways, when the said Justices may appoint some competent person to view the road, or may view it themselves, and direct the surveyor to meet them upon the spot; and if it shall appear that the road is not in a state of thorough repair, the Justices may order it to be done within a given time, and if the surveyor neglect their orders, they may fine him 5l.; and if he should be guilty of this, they may fine him again to the extent of the actual cost of the repairs needed. A Surveyor of Thirty Years' Experience. To keep the Law at his Fingers' ends.

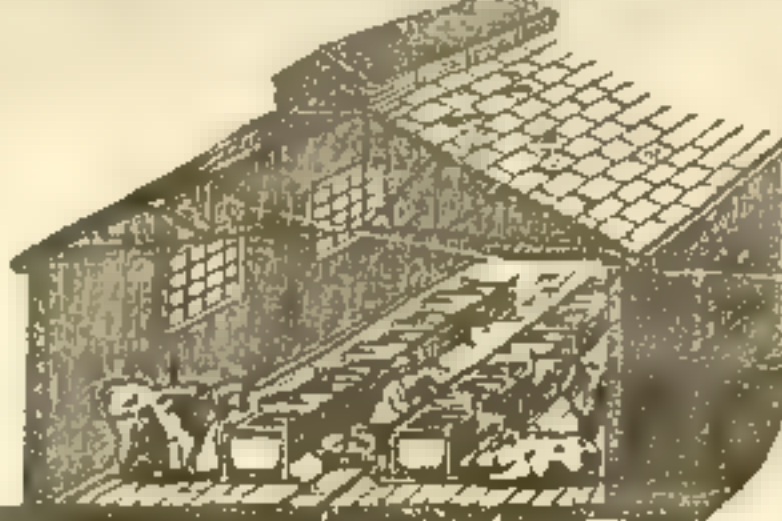
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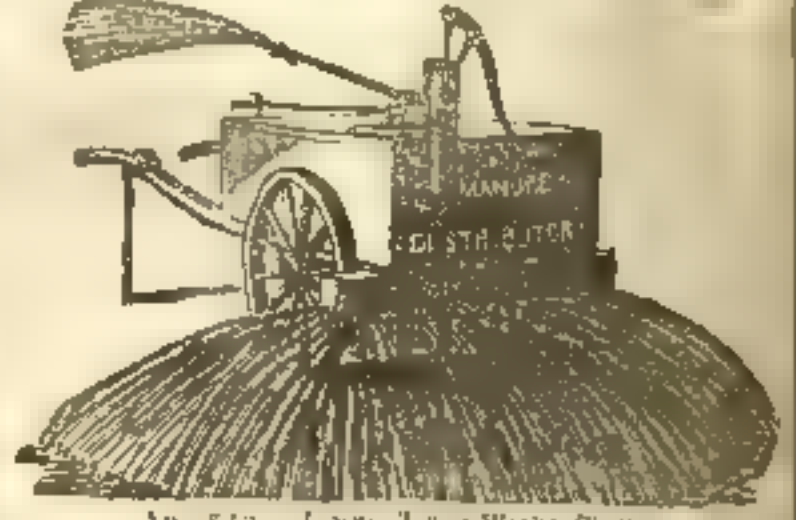
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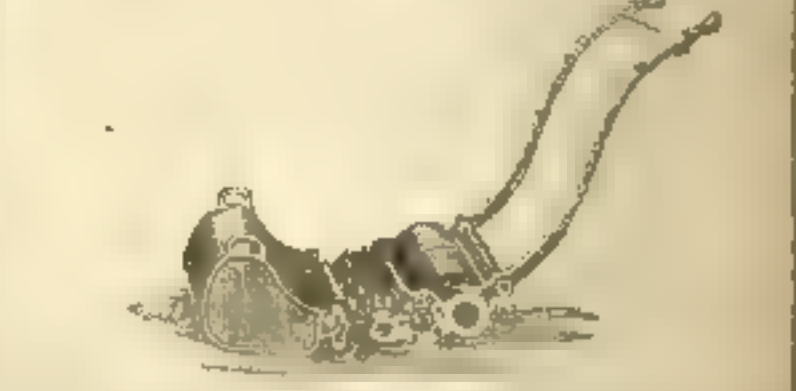
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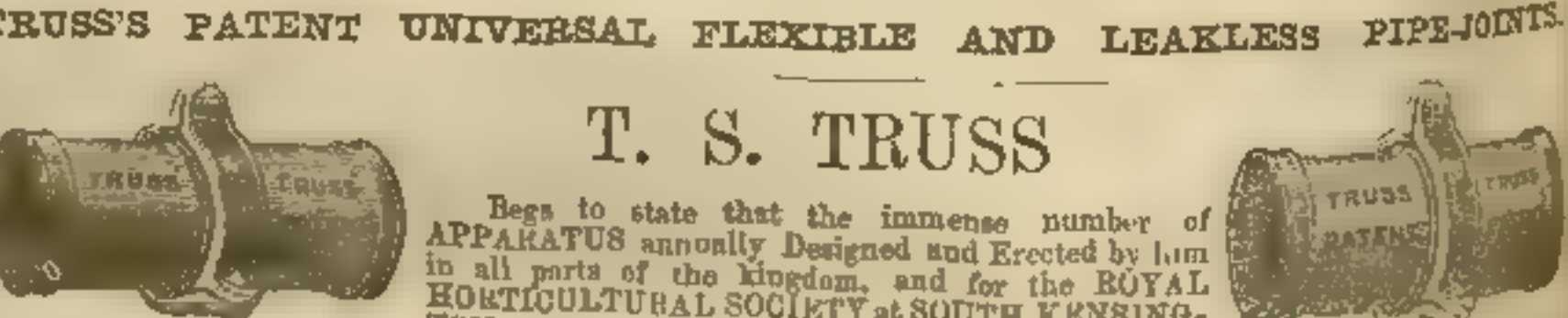


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 PURPLE TOP, 8d. per lb.; per bushel, 20s.
 TURNIP GREEN TOP, or BARRELS, 7d. per lb., per bushel, 18s.
 RED, 8d. per lb. per bushel, 20s.
 WHITE STONE, 8d. per lb., per bushel, 20s.
 WHITE STAR, 8d. per bushel, 18s., per 4 bushels, 68s. Sacks 1s. 4d. each, 1 bushel 18s., 4 bushels 68s. to accompany an order.
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POOLEY'S TOBACCO POWDER, for the Prevention and Destruction of Blight and other Diseases in Plants.
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Weeds Eradicated from Lawns.
WATSON'S LAWN SAND, sprinkled upon Lawns, rapidly destroys Dandelions, Daisies, Clover, &c., and at the same time promotes the growth of Grass. 2s. per cwt. 4d. per lb.
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GISHURTS' COMPOUND
 Used by many of the leading Gardeners since 1850, against Red Spider Mites, Green Fly, and other Insects, in solutions of from 1 to 10 ounces to the gallon of soft water, and of from 4 to 16 ounces in a Winter Dressing for Young and Fruit Trees. Has superseded many preparations intended to supersede it.
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DIPLADENIA AMENA.
J. W. WIMSETT
 HAS GREAT PLEASURE IN ANNOUNCING THAT HE HAS PURCHASED THE WHOLE STOCK OF THE ABOVE BEAUTIFUL PLANT, Raised by Mr. Take, of Bramley, near Leeds, who also raised the lovely Dipladenia amabilis. A Figure of the beautiful D. amena is given in the "Florist" for April, 1868. Plants now ready for distribution.
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 May 1.

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CARTER'S TRICOLOR, BICOLOR, and DOUBLE-FLOWERING GERANIUMS received Five Prizes and Two Certificates at the Royal Horticultural Society's Show at South Kensington, May 22, Two First-Class Certificates at the Royal Botanic Society's Show, May 19 and 20, and Special Prize at the Crystal Palace Show, May 16, 1868.
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 INDIA-RUBBER HOSE at Manufacturers' Prices. Sixty Feet, with fittings complete, 25s.
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THOMAS METHVEN
HAS SECURED THE STOCK OF THIS GRAPE,
 Which was raised by Mr. Thomson, of Dalkeith, from the Black Lady Downe's. The Vine is of the same vigorous habit of growth as the parent, equally fruitful, sets more freely, requires less heat, and is not liable to scald as the black variety is; keeps as long, if not longer; and has fully as good a flavour. It is guaranteed to be the latest keeping White Grape in cultivation. It received First-class Certificates at the Edinburgh Show on March 20, 1867, and at Glasgow on the 27th of the same month. It will be Exhibited next Spring at all the March and April Shows.
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 Strong Planting Canes, 21s. and 42s. each; Extra Strong Fruiting Canes, 63s.
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MESSRS. VEITCH & SONS

DESIRE TO CALL PARTICULAR ATTENTION TO THIS

DISTINCT AND BEAUTIFUL VARIEGATED FOLIAGE PLANT.

The ground colour of the leaf is a light green, which is profusely shaded and mottled with bright yellow, giving quite the appearance of mosaic work. It is a most effective ornamental plant, and from its free growth is well adapted for burning purposes. During the summer of last year it proved a most valuable addition to our collection, and when plants from the open ground were exhibited at the Floral Committee Meeting of the Royal Horticultural Society, held September 1, 1868, it was awarded a First-class Certificate as "a charming addition to our decorative plants." It attains a height of about 1 1/2 foot, is of compact habit, and is strongly recommended.

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For full descriptions, see Gardeners' Chronicle, May 15, 1869, page 526.

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HER MAJESTY'S GARDENER USES

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INSECTS, BLIGHTS, and MILDEWS

easily and effectually destroyed without injury to the most delicate plants.

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in FOWLER'S GARDENERS' INSECTICIDE.—See the Testimonials from eminent Gardeners throughout the Kingdom. Sold by all Nurserymen and Seedsmen.

HER MAJESTY'S GARDENER SAYS—

"I am satisfied that the Insecticide will kill any insect that it comes into contact with, without injury to the plant."—Vide Mr George Wynnes' Letter

THE FOLLOWING ARE MOST IMPORTANT.

Mr THOMAS MOORE, Botanic Gardens, Chelsea, says—"We have formed a very favourable opinion of Fowler's Insecticide as a remedy for many of the insect pests of plants. It effectually destroys White and Brown Scale, Thrips, Red Spider, and the Green and Black Fly; at the same time it does not injure the plants."

Mr BARKLEY HINGGINS says—"Fowler's Insecticide is a sure remedy for American Blight, it will clear off the horrid vermin, and do no harm to the bark, or even to the young leaves. The trees are now as clean as polished walking sticks."

Messrs. Wm Wood & Son, Marefield say—"We have tried it on Roses affected with Mildew, Camellias covered with Green-fly, and Aucubas and Oleanders infested with Scale, and we have much pleasure in stating the plants are now perfectly clean and healthy."

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Vide "The Gardener's Magazine," conducted by Shirley Hibberd, Esq., F.R.H.S., of August 15, 1868.

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POWDER DISTRIBUTORS, 2s. each.

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TOBACCO PAPER ISSUE,

for DESTROYING RED SPIDER, MEALY BUG, THRIP, GREEN and BLACK FLY, without the aid of a Fumigator.—This article having been before the Public for the last three years, and being now used by many of the leading Horticulturists—from several of whom Testimonials have been received as to its efficacy.—The Manufacturers beg to recommend those who have not used it to give it a trial, feeling confident that they have done so they will see nothing else, as it is far superior to paper or rag, and will not injure the plants. Sold in 11b. packets and upwards, price 2s. 6d. per lb. carriage free. A reduction in price for large quantities.

To be had of MESSRS. ROBERTS AND SONS, Tobacco Manufacturers, 112, St. John Street, Clerkenwell, E.C., of whom Samples and Testimonials may be obtained, and of all Seedsmen and Nurserymen.

W. H. LASCELLES' MACHINE-MADE

Table with columns for Melon Lights (6 ft. by 4 ft., 6 ft. by 8 ft., Double Lights, etc.) and Greenhouses (Woodwork only, Prepared and Fitted, etc.).

Finbury Steam Joinery Works, 121, Banbury Row, E.C.

Rosher's Garden Edging Tiles.



THE above and many other PATTERNS are made in Terra-Metana Ware Terra-Cotta, Monocore, and Redware, and of great durability. The plainer sorts are especially suited for KITCHEN GARDENS, as they harbour no Slugs and insects, take up little room, and once put down incur no further labour and expense, as do "grown" Edgings, consequently being much cheaper. GARDEN VASES, FOUNTAINS, &c., in Artificial Stone, of great durability and superior finish, and in much variety of design.

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Halls, Corridors, Balconies, &c., as cheap and durable as Stone, in blue, red, and buff colours, and capable of forming a variety of designs. Likewise more elaborate designs. Pattern Sheets of Pavements, with prices, forwarded for selection. WHITE GLAZED TILES, for Lining Walls of Dairies, Larders, Kitchen Ranges, Baths, &c. Grooved and other Stable Paving Bricks of great durability. Dutch and Adamantine Chimneys, Wall Copings, Red and Stoneware Drain Pipes, Slates, Cement, &c. To be obtained of F & G Rosser at their premises as above.

SILVER SAND (REIGATE), at the above addresses—

11s. per Ton, 1s. 2d. per Bushel. 2s. per Ton extra for delivery within three miles, and to any London Railway or Wharf. Quantities of 4 Tons 1s. per Ton less. A coarse grained Sand 1s. per ton more. Samples of Sand by post on receipt of stamp. FLINTS and BALLS of BRICK or ROCKERS or FERRITES. BEST PEAT and LOAM supplied at lowest rates.

F & G Rosser.—Addresses see above. N.B. Orders promptly executed by Railway or Vessel. A liberal discount to the Trade.

New Roses for 1869.

JOHN AND CHARLES LEE are now sending out the following TWO NEW ROSES - CLEMENCE RAOUX (Granger). Bush, edged and spotted...

Calceolarias, Bedding, in 12 varieties, including Sparkler, Amplexicaulis, Sultan, Beauty of Herbs, Golden...

Vines for Planting in a Growing State. JOSEPH MEREDITH, The Vineyard, Garston, near Liverpool...



DOBSON'S PRIZE FLOWER SEEDS. Now ready, in sealed packets, post free. MOST CELEBRATED PRIZE CALCEOLARIA. This strain has...

ROUSE. Footgate Nursery, Peterborough has a large stock of the following, which cannot be surpassed by any...

The best Gold-leaved Pelargoniums of the Season are Golden Emperor and Golden Queen. SALMARSH AND SON are now sending out the above...

Tricolor Pelargoniums. WATSON, New Zealand Nursery, St. Alban's, begs to offer...

First Prize Bronze Pelargoniums. DOWNIE, LAIRD, and LAING have great pleasure in announcing...

New Tricolor and Bicolor Geraniums. F. AND A SMITH are now sending out their new varieties...

New Tricolor Pelargoniums for 1869. JOHN AND CHARLES LEE intend to send out in 1869...

THE GARDENERS' ROYAL BENEVOLENT INSTITUTION. Instituted 1838.

The TWENTY-SIXTH ANNIVERSARY FESTIVAL will take place at the London Tavern, Bishopsgate Street, London, on WEDNESDAY, June 23. His Grace the Duke of Argyll, K.T., has kindly consented to preside upon the occasion.

- STEWARDS. George Child, Esq., Chairman. Henry Bagin, Esq., Vice-Chairman. His Serene Highness the Prince of Teck. The Right Hon. Lord Egerton of Tatton. The Right Hon. Lord George Hamilton, M.P. The Hon. Robert W. Grosvenor, M.P. The Baron Laugel de Bothschid, M.P. William Harrison, Esq. Saml Heath Head, Esq. Andrew Henderson, Esq. William Holmes, Esq. William Hurst, Esq. Charles Lawson, Esq. John Lee, Esq. John Mackintosh, Esq. R. Marbrook, Esq. Horatio E. Norfolk, Esq. The Rev. Chas. F. Norman. Thos. Osborn, Esq. G. William Pether, Esq. J. E. Richard, Esq. J. D. Rawlings, Esq. W. H. Smith, Esq., M.P. Richd. Smith, Esq. Chas. Turner, Esq. Anthony Waterer, Esq. Josiah W. Fox, Esq.

July 19th to 24th, 1869. THE ROYAL HORTICULTURAL SOCIETY'S GRAND EXHIBITION at MANCHESTER.

in connection with the SHOW of the ROYAL AGRICULTURAL SOCIETY Amongst various Special Prizes. A SILVER CUP (copy of the famous Cellini Cup), VALUE £21 will be offered by the Proprietors of the GARDENERS' CHRONICLE and AGRICULTURAL GAZETTE for the best COLLECTION of 5 FRUITS and 8 VEGETABLES, to be made up as follows:

Table with 3 columns: Good, Medium, Inferior. Rows include Grapes, Melons (3 Fruits), Strawberries, Gooseberries, Currants, Cherries, Raspberries, Apples of 1868, Peas, French Beans, Broad Beans, Can't flowers, Cucumbers (brace), Summer Cabbages, Parsnips, Turnips, Globe Artichokes, Onions, Spinach, Rhubarb, Potatoes, Mixed Salad.

This Prize is open for Competition amongst Amateurs and Gardeners of private families. The Fruit and Vegetables produced must be of the Exhibitor's own growing, and any articles otherwise obtained will disqualify the Collection.

The Gardeners' Chronicle. SATURDAY, JUNE 5, 1869.

MEETING FOR THE ENSUING WEEK. Monday June 7 - Entomological. P.M.

THE ST. PETERSBURG EXHIBITION is at an end; the plants which so lately graced its now empty space are being borne by ship and railway to the various quarters in Europe from which they came...

After all the prizes had been determined, the Exhibition was wound up by a grand public ceremonial of distribution of prizes. The Minister of Domains, M. ZELENOW, had, as we should word it, kindly consented to give away the prizes; or, as the Russians prefer to phrase it, had had the great condescension to undertake the distribution of the prizes.

The ceremonial took place in a fine large hall, the Library of the Ministry of Marine. The first step in the proceedings was to invest the delegates or Presidents of Juries with the insignia of certain Russian Orders. The English delegates were alone omitted. This appears to have arisen from some mistaken notion that English subjects cannot accept foreign decorations without the QUEEN'S permission.

may accept a decoration, although he may not wear it in England without special permission. He may wear it abroad, or leave it as a souvenir to his family. It may be thought that it would have been better, seeing that so many men of science from other countries accepted this recognition of their scientific eminence at the hands of the EMPEROR, that our delegates should have done the same without making any demur about it.

The President, Aide-de-Camp General GREIG, next made a suitable address. The President speaks admirably well; all his speeches—and he has had no end of them to make—having been exceedingly clever, appropriate, and spiritual. The presentation of prizes followed, and the 'triumph' flourish of a military band added force and dignity to the loud acclaim of popular applause with which the more successful candidates were successively greeted.

We understand that a pecuniary success has been obtained, and that the EMPEROR, by the munificent donation of 10,000 roubles, secured the undertaking from any chance of actual loss. It is in a horticultural and botanical point of view, however, that its success is most important. It was a bold and daring thought for a country such as Russia, untried as she was in such adventures, to enter the lists with the western nations in an enterprise of such difficulty. That thought emanated from Dr. REEGL and it seemed to be universally admitted by those acquainted with the progress of the scheme, that but for his energy and perseverance it would have been a fiasco in spite of the high protection it received.

We may add, in conclusion, a few remarks on the competition, and the prizes which were awarded.

Among those, of all the foreign exhibitors, M. LINDEN, of Brussels, stood facile princeps. The large gold medal (value 150 roubles) was gained by him for "a collection of six different plants introduced into Europe by the exhibitor himself, and not yet in commerce." In fact he gained this twice. There were only three competitors, and the two lots of plants to which the first and second medals were awarded turned out to be both from M. LINDEN.

The second and third extra gold medals, offered for a collection of three plants introduced into Europe by the exhibitor himself, and not in commerce, were next carried off by M. LINDEN (the 1st prize having fallen to Messrs. VEITCH). He also carried off the first gold medal for the best single plant introduced by the exhibitor, and not in commerce, with Cochlostema Jacobianum. Then the first gold medal for the best collection of 15 plants introduced since January, 1867. A large silver medal (1st prize) for a plant in flower, not in commerce next fell to his Rudaea nymosa (S. Catherine's, 1867). He next gained a large silver medal (1st prize) for a plant "remarkable for the beauty of its foliage, and not in com-

EVERGREEN BERBERRIES.

HAVING paid much attention to the cultivation of this beautiful family of shrubs during the last few years, perhaps the result of my experience may prove interesting to some of the readers of the Gardeners' Chronicle. I shall begin by noticing those species which are best worth cultivating, and which are found to be hardy, or nearly hardy, in this part of the country—the neighbourhood of Canterbury, and end with a few observations on certain valuable species fit for a conservatory or cold greenhouse. With regard to cultivation the majority of the species appear to delight in a rich well-manured soil, but some of them require the addition of a portion of sand. Where botanical descriptions are given at full length, they are generally quoted from Professor Lindley's articles in the Journal of the Horticultural Society.

B. Aquifolium (N. America) — This species requires but little not as it is grown in most shrubberies, and is generally admired for its highly varnished leaves and abundant flowers. It may, however, be observed, that there have sprung up of late years many mongrel varieties that have been honoured with various high-sounding names, but most of which are far inferior to the original species, the leaves of these varieties being characterised by their dull surface. There are, however, two exceptions that may here be noticed, viz., that known by nurserymen as *B. floribunda*, which is very handsome in growth, and another called *B. nitens* first raised at Exeter—remarkable for the extremely glossy appearance of the old leaves, which when young are of a rich bronze, changing to a dark green. This variety is of a dwarf and compact habit, it requires a shallow situation, and a copious of peat, loam, and sand. I am informed by Mr Masters that seeds from the same plant will produce plants, some with nine leaflets, others with five. Again, the surface of some will be like that of others bright.

B. arbutata (Nepal) — A handsome, fast-growing evergreen, with reddish-brown branches, named as above from its leaves being usually fringed with bristle-pointed, fine close serratures. The leaves vary much in this species, both in form and size, on the same plant are found leaves with four or five spiny teeth, some wholly destitute of toothings at the sides, and others with the fine close serratures above noticed. The berries are red and oblong. The species is perfectly hardy, and grows well in ordinary garden soil.

B. Beali (China) — Of the hardy species this is perhaps the finest, being beautiful at all seasons of the year, either as regards foliage or flower, while the fruit in colour and size surpasses that of any other species. The leaflets of *B. Beali* vary in size to an extraordinary extent, even on the same plant, some measuring as much as 5 inches in length, and 3½ in breadth, the average size being about 3 inches in length and 2 in breadth. They also differ considerably in form, some being nearly square, with 5–6 coarse spiny teeth, and others long and rather narrow, with a very stiff triangular point. This species requires very careful cultivation to do full justice to its merits; shade, shelter from gusts of wind, and rich soil, being absolutely necessary. Not only ought the ground to be well manured at the time of planting, but every winter a much of half rotted stable manure should be placed on the surface of the ground, around the plant. The so-called varieties, *B. japonica* and *B. intermedia*, belong to this species, the former rather absurdly so named, as the species is not a native of Japan. *B. Beali* will defy the rigour of any winter like, or to be experienced in this country, a convincing proof of which is, that during the very severe frost of January, 1857, many plants were in full flower in this neighbourhood, and not a blossom was injured. By pruning to a single stem, *B. Beali* may be made to assume a Palm-like character, which is very effective. This species is easily propagated from seed, a single berry frequently producing three plants.

B. Darwinii (S. America) — One of the best known, and one of the most useful and ornamental of the small-leaved species. Nothing can be finer than the sight it presents in spring, with its beautiful orange-coloured flowers and highly varnished leaves, which are not more than ½ inch long, with three large spiny teeth at the end and one or two more on each side near the middle, or without any at the sides. The branches are covered with reddish, weak, straggling hairs. It occasionally makes enormous shoots, and generally suffers from this luxuriance of growth, many of the branches dying off without any other apparent cause. To remedy this, and to keep the plant in good health and vigour, the frequent application of half-rotted manure to the surface of the ground above the roots is strongly recommended. It would make a beautiful and effective fence, being of quick growth and quite hardy. There is a valuable hybrid between *B. Darwinii* and *B. empetrifolia* named *B. stenophylla*, the leaves somewhat resembling those of the latter species and the flowers being in beauty with those of Darwin. This hybrid is handsome as a bush or trained against a wall, is a free grower, but quite hardy and flourishes in a mixture of rich soil, peat, and sand. Cuttings taken in a autumn strike readily under glass.

B. dulcis (Magellan) — A pretty sub-evergreen, and one of the best known of the genus. The leaves are bluish green, small, and generally without any toothings; the flowers very abundant, and of an amber-yellow colour. Some individuals of this species retain their leaves the whole winter, whereas others speedily become bare. Another species, viz., *B. buxifolia*, is sometimes confounded with *B. dulcis*. The latter-named species is quite hardy, and appears to thrive in a mixture of peat and sandy loam.

B. fascicularis (California and Mexico) — Remarkable for its very prickly but not shining leaflets. Very handsome but, unfortunately, not quite hardy, requiring the shelter of a wall during very severe winters. Care should be taken to obtain the true species, as there are

some hybrids closely resembling it. It is easily propagated from layers and cuttings, and thrives in a mixture of leaf-mould and sandy loam. There is a hybrid between this species and *B. Aquifolium*, which, being very handsome and rapid in growth, is a favourite in shrubberies, and known by the name of *fascicularis* hybrida. The leaflets of this hybrid are more regularly toothed than those of *Aquifolium*, but without their lucidity. It is much more hardy than its parent *fascicularis*, and is said to attain the height of from 10 to 12 feet. It is not particular as to soil.

B. Fortunei (China) — This species is figured in vol. i. of the "Journal of the Horticultural Society," and there described as follows:—"This shrub forms a deep green smooth bush, with from three to four pairs of leaflets, and an odd one to each leaf. The leaflets are about 4 inches long, narrowly lanceolate acuminate, with shallow distinct spiny serratures." Mr Shirley Hibberd, in "Floral World," August, 1862, has noticed "the peculiar tone of pure green" to be observed in this plant. This species is handsome when well grown, but rather difficult of cultivation, and liable to injury from very severe frosts. It probably would thrive better in a conservatory or cold greenhouse than out-of-doors. O.

(To be Continued.)

CINCHONAS.

ANOTHER instance of the successful cultivation of the Cinchonas in a foreign soil reaches us from St. Helena. In that small but interesting island, through the recommendation of Dr. Hooker, and the great interest taken in the matter by the Governor, Sir C. Elliott, as much as by Mr J. C. Melliss, the Cinchonas have been introduced, and, under the care of Mr. George Chalmers, the Government gardener, upwards of 5000 plants have already been raised, and these are all strong and healthy, some about 18 inches high, many of which have already been transplanted to a site selected for a Cinchona plantation in the neighbourhood of Diana's Peak.

Mr Chalmers, formerly of Kew only arrived in St. Helena in the month of May last, and the Governor, in a report to the Colonial Secretary, dated November, 1868, says:—"We have already more than 2000 young plants, set out in boxes, and thriving vigorously, raised from seed of several approved descriptions of the tree, for which we are indebted to Dr. Hooker's kind and lively interest in this undertaking. These plants will all be permanently set out in the course of the next four or five months. Beyond this number, at least 4000 more have germinated, and are doing well from seed sent from Kew at more recent dates than the first supply, and planted at different times as it reached St. Helena. Amongst these are plants of *C. succirubra*, *C. Pahudiana*, *C. officinalis*, *C. Calisaya*, *C. Condaminea*, &c." Sir Charles Elliott further asserts as his belief, judging from the result of careful observations as to the time required for the germination of the seed, that if their resources for preparing the ground and fencing in the young plants were increased, they could have in less than a year, 20,000 young plants *in situ*. The portion of ground selected for these plantations on the recommendation of Dr. Hooker, lies along the inclines of the ridge of which Diana's Peak forms the culminating point, the general elevation of which is between 2000 and 2700 feet, the mean annual temperature rather below 60°, and the soil composed, to a depth of several feet, of vegetable mould. At the above elevation this rich deposit is bathed in moisture for at least three days of every week in the year, and thus favoured has become covered with a luxuriant growth of Ferns, and other plants of a similar nature to those usually found in the native seats of the Cinchonas. The very interesting report, from which the foregoing information has been gathered, proceeds to say that it is proposed carefully to test the lowest elevation at which different descriptions of Cinchonas will succeed in St. Helena, so remote from great masses of heated and that the mean temperature is probably cooler at 2000 feet than it would be at 3000 feet in tropical continents. In well-sheltered situations in St. Helena, some of the Ferns thrive at 1700 or 1800 feet, and perhaps that may prove to be the case with the Cinchonas.

Sir C. Elliott draws attention to the importance of introducing these invaluable plants in all soils and climates where there is any possibility of success, and remarks that both Dr. Hooker and the late Sir W. J. Hooker strongly advised the formation of Cinchona plantations in St. Helena. Dr. Hooker especially has pointed to a fact of high interest connected with the subject. It was found, he says, during the late disastrous fever at the Mauritius, that the Cinchona leaf contained a powerful febrifuge principle, so that for distances of no great length as between St. Helena and the coast of Africa, it would be easy to transport large means of abating the dreadful scourge at very moderate prices compared with that of quinine. In five or six years the plantations would be sufficiently advanced and of sufficient value to maintain themselves.

While on the subject of Cinchonas, it may not be without interest to notice how the cultivation of the plants is progressing in other countries where they have been introduced. From Jamaica we learn that about 30,000 plants are by this time ready for planting out, a plantation of 50 acres having been prepared for their reception. Amongst this large number all the most valuable species occur, as *C. succirubra*, *C. Calisaya*, *C. officinalis*, &c. The accelerated formation of this plantation will be most advantageous to the island, as it will enable the authorities there to devote their attention to propagating the plants for sale, so that with the assistance of private enterprise their cultivation will become more widely distributed.

The success of the plants in the East Indian plantations has become such an established fact that it

appears almost needless to refer to the subject, but the receipt at the Kew museum of specimens of the bark of several of the most valuable species from plants grown at Ootacamund, from one of which the unprecedented amount of 7.8 per cent. of sulphate of quinine has been obtained, again arouses our interest. Mr. Broughton, the Government analyst at Ootacamund, says that the plants yielding this valuable bark were raised from seed received from Mr. Cross, who had charge of the first batch of Cinchona plants from their native soil to the first trial ground in India. This plant, Mr. Broughton thinks is peculiarly distinct from its companions. It has markedly lanceolate leaves (almost like those of a Pear tree in shape). In a letter from Mr. Broughton he also draws attention to the fact that among the varieties of Cinchonas there are innumerable gradations between the typical forms, so that among the many thousands of plants on the Ootacamund plantation it requires a search to find specimens which possess all the characters of the variety required by the published descriptions of authorities. Thus, for instance, some of the distinctive peculiarities of var. *Crissia* are combined with those of var. *Bonplandiana*, and Mr. Broughton, as a chemist, says he does not find any essential or constant chemical peculiarity to justify the distinction of so many varieties. With regard to the formation of the alkaloid in the plants, it may be interesting to refer to Mr. Broughton's own remarks. He says:—"I have some reason at present for thinking that the alkaloids are formed in the cells of the tissues in which they are found and are not elaborated elsewhere. The alkaloids are not found to any appreciable extent in the leaves and the very young bark. They are not found, as far as I at present can make out, in the liquid that fills the lactiferous vessels. When bark is removed without injuring the cambium, a liquor is poured out by the latter which coagulates and soon becomes a layer of protecting cells, as these grow they become bitter and contain gumme, although there is no perceptible communication with any part of the plant besides the cambium. The wood I have found to contain alkaloid, but in small quantity, and of this the heartwood is richer. The liquor that the cambium first secretes is not in the least bitter." Mr. Broughton appears also to have made an analysis of the leaves of the Cinchonas, to test their medicinal value, which has been by some high spoken of, as in the case of the fever at the Mauritius before alluded to. He found that they contain a minute quantity of dubious amorphous alkaloid, but that they owe their bitterness mainly to the presence of quinovic; he considers that they are of little or no medicinal value, and that sulphate of quinine cannot be prepared from them. It is probable that, as the plants get more widely distributed and more perfectly naturalised in places where they are now introduced, we shall learn more about the value or uselessness of the leaves as a febrifuge. John R. Jackson, Kew.

Home Correspondence.

The Royal Horticultural Society's Show at Manchester.—I quite agree with your foot-note at the end of Messrs. Shaw and Baines' letters (p. 585). In reply to Mr. Shaw's remarks, I shall feel obliged if you will insert Rules 9 and 16:—

"IX. That persons who desire the privilege of attending the gardens without being proprietors, be admitted by payment of the usual annual subscription, but that such persons take no part in the business meetings of the Society.

"XVI. That, Sunday excepted, every member have free admission to the gardens for himself or herself, and the resident members of his or her family, including resident tutors and governesses, and for persons having no place of abode or business within ten miles from the gardens, except on exhibition days, when the members only and their families shall be admitted on producing their tickets of signing names, when required, in a book to be kept for that purpose at the lodge."

Another point in Mr. Shaw's communication is answered in your issue of last Saturday, for he is remembered, our members and their families have admission when our own exhibitions are held, and yet we have always a large balance in our favour from receipts at the gates; so that I confess I cannot see at a glance how the admission of our subscribers to their own garden would have resulted in a financial loss. I am aware that certain "special meetings" were called some years ago in connection with the Manchester Botanical Society, the result of which was nearly to put an end to the Society, and I would ask whether it would have been wise to upset the constitution of our Society for such an evanescent affair as a flower show, and that in a locality where a great horticultural show is no novelty? Respecting the special prizes, there can be no doubt but that the majority have been promised under the impression that the show was to be held in the Manchester Botanic Gardens. The Royal Horticultural Society has thought it prudent to hold its show elsewhere, and it has a perfect right to do so. I think it has taken a wrong step, but that shall not prevent me from doing what little I can to make the meeting in Manchester an agreeable and prosperous one. I conclude, as Mr. Baines did, by remarking, "I could say much more, but refrain from doing so from the conviction that nothing should be done to widen a breach that ought never to have existed," but, however, let us forget all differences, and do what we can to make the forthcoming meeting successful. Bruce Findlay, Botanical Gardens, Manchester.

Ground Vinerias.—The shoots of strong Vines, which have been planted three or four years, appear to be sometimes difficult to get down to the floor of ground vinerias without their being broken. A Black Hamburgh, whose shoots were easily pegged down, after they had become a little hardened at the base, for the first three years of its growth proved this year quite

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With all the waiting that was possible, it was impossible to get the shoots down without breaking them off and five accordingly went one after the other—some that started straight upright being snapped in the middle by the frame being lowered. Long wire instead of hair-pins, were tried to catch the shoots, and draw them only a little, but besides that the joints of the slates often did not answer for these, a stone was quite sufficient to prevent them going down, and the wire thrust down, it came up again five or six from the pull of the shoot. The difficulty at first appeared insurmountable, but has been overcome thus—Galvanised wire, as thick as thin whipcord, was cut into convenient lengths, a crook for the end was turned upon one end, and the other for 4 or 5 inches was bent at a right angle for a stone or piece of brick to lie upon. This allowed the shoot to be pulled as much as first as could be done without breaking at the base, and by degrees the lower part of the wire was shortened with ease. What was a tremendous bother now became a pleasure and certainty, and I was even enabled without risk to pull over strong shoots from the opposite side to fill the gaps. Those who have only young Vines have no occasion to resort to this contrivance, as all the while the Black Hamburgh of four years' growth was pulling me, several younger companions beside it presented no difficulty. By waiting till the shoots were well hardened, they were easily and safely laid down on a piece of tile, or a flat stone, with a pebble on the outer side of the shoot for it to rest on. A. B.

Potatoes.—At p. 530 you express a wish to be informed as to the growth of Potatoes this year. In this parish, indeed, in this neighbourhood generally, persons acquainted with their coming up very irregularly. Race-courses Kidney, Ashleaf, Early Oxford, seem alike in this respect. Warminster Frame, a new round Potato, to be as early as the Ashleaf, is hardly showing, and planted more than two months. My man tells me the missing roots are growing underground. This is the country for fruit of all kinds, owing to the mildness and spring frosts—on the 8th June, 1868, a crop of Kidney Beans was killed in a neighbour's garden. I have Pear, Apple, Plum, and Cherry trees of a good standard, there are few walls; they were covered with bloom, but in many cases after apparently once the fruit was dropped, in all cases to some extent, though I have sheltered with elm boards supported on two or three stakes. Pears have suffered most. Out of two dozen, one has 30 Pears, two 8 or 9, and about one apiece, most of them none at all. You only advised me at the end of September, 1866, about apples, which I find are likely to succeed best of any kind. I should feel obliged if some of your correspondents would give me a list of half-a-dozen of the best Plums. I have a Denyer's Victoria grafted on a stock, hardly the size of a Currant bush, with two dozen Pears on *The Shepherd of Salisbury* stock.

Weed Destroyer.—A few days ago I saw on a large parcel at one of the London stations the following advertisement.—“Weeds extirpated from lawns. Watson's lawn sand, or weed destroyer, sprinkled upon lawns rapidly and effectually destroys Dandelions, Daisies, Clover, Ribgrass, and other weeds, at the same time makes the Grass grow, and gives it a most healthy appearance. Price, 28s per cwt., or 4d per lb.” What a wretched discriminating application is this! which has such deep-seated weeds as Dandelions, and at the same time “makes the Grass grow”! W. M. [Marvelous, J. true. Eds.]

Anteater Gardening.—There are many persons who, like myself, are fond of gardening on the small scale practicable by amateurs of moderate means, some of whose flower gardens may contain borders along walls or hedges, and surrounding lawns or croquet grounds, and with shrubs such as Laurels, Bays, Laurustinus, Rhododendrons, &c., and even trees, and which are particularly difficult to bed-out in, or even to keep in a satisfactory condition throughout the summer, on account of the drip and shade of the shrubs they contain. Such persons will be, as I have been, probably unwilling to widen these borders to any great extent, so as to afford room for a high background between the stems of their shrubs and the flowers they wish to see encircling their lawns, for they will not like to encroach upon the Grass, perhaps for fear of impeding croquet, and they will not like a moderately wide border, say four or five feet from the stems of the shrubs, always looks ragged at the back, and is difficult to get on to trim or cut flowers from. It may be worth their while to try the plan of a detached border such as has suggested itself to me. Instead of having an earthen border of 4 or 5 feet wide, I advise them to grow Grass as close to their shrubs as may be, filling up around their roots with Fry, Periwinkle, St. John's Wort, or any other plants that will continue the green right through to the wall, and will also conceal the stems of the shrubs, then to cut their border for flowers out of the turf, so as to leave 1 foot of good sound Grass behind it. The inner edge of this border will be not more than 3 feet from the stems of the shrubs if they be well-grown, and if made 2 or 2½ feet wide, it will give ample space for a very bright display. The Grass edge and Ivy behind the border will improve the brightness of the flowers, and facilitate their culture, and the effect will be far greater than if a plain, uninterrupted border of 5 feet had been employed. I may add that, during the extremely hot summer of last year, I derived great benefit from having turned into my flower-beds plenty of long litter. The ends of the plants peeping out were certainly a dis-sight until the absence of surface-caking due to their affording a free passage for water to the roots, was quite surprising. I found, too, that Mignonette, sown broadcast over beds

and borders, kept them cool and moist, and was especially valuable for Calceolarias, and its quiet tone enhanced the beauty of foliage and flowers, while its sweet fragrance was no mean addition to their scent. R. E.

Rainfall in Nottinghamshire.—On Wednesday night, May 20, in 24 hours my rain gauge registered 1 inch. It rained heavily and steadily from six o'clock on Wednesday morning until the forenoon of Thursday, with the wind north east, the barometer standing at change, the lowest temperature being 39°, and the highest for that day 45°. The soaking has well washed the blight off the Roses, and all life off the fruit trees, and started all our early Peas off in racing style. I generally sow the crack sorts at three seasons, as the weather suits, viz., at the beginning of November, December, or January, and early in February, and often pick the first dish off all three sowings. In 1865 I pulled my first dish on June 22, 1866, I pulled on June 18, 1867, I pulled on June 13, and last year, 1868, I pulled on May 29. Although my Peas are podding now, and looking remarkably well, unless a great change takes place in the weather, I do not expect that I shall be able to pull any before the middle of June. I have scarcely ever seen Peas looking so well. Laxton's Supreme is a strong grower, the other new sorts are strong and vigorous. French Beans and Scarlet Runners are just aboveground, but I don't expect the sowings of them will do any good, sodden as the ground is. With the exception of these, I give my respective seedsmen great credit for supplying me with first-class seeds. The committees and the cooking of the last dry summer have done them more good than harm. Small fruit is with us plentiful. Strawberries are apparently going to flower well, and if proper attention is paid to mulching, the late rain will do them good. J. Miller, *Workshop Manor*.

Bedding Plants.—From my experience I can confirm “Quo's” notes (p. 523) respecting the Pyrethrum Golden Feather as a bedder, and its being not so free-blooming when grown from seed, also respecting Pelargonium Crystal Palace Gem being an “effective and durable bedder.” I would add a word respecting one or two other things which I have found good. Pelargoniums come first, and amongst the golden tricolors Louisa Smith has a first place. Mrs. Pollock is an old favourite, and is cheap, and must be grown either for odd lang syne or its cheapness, which is the powerful consideration with the multitude, but I am confident that when Louisa Smith is seen growing with Mrs. Pollock it will be found quite as good a “doer.” At Reading, where I saw it in one place, it was doing much better, both being planted out together. I also saw it near Weymouth, where it was splendid, having grown into a large plant and, indeed, wherever I have seen it, the opinion seems to be that it is quite as good a grower and it is much brighter in colour than the other sort—the leaf is also a finer shape, being rounder, and the green does not run so much outside the zone. I am informed by those who have seen it—I have not—planted out at its home, the Dulwich Nurseries, that it is very fine there also. Lady Collin is a first-rate grower, and very distinct, but not sufficiently effective for bedding-out; the zone is all, or nearly all, quite black, and the margin is so narrow that it has no effect. Among common zonal varieties, Glorious, rich deep vermilion-scarlet; Rebecca, cherry, and Vesuvius, bright scarlet, with a white eye, are worthy of every praise, habit, flowers, truss, and profuseness of bloom are unsurpassed—perfect balls of bloom all the season. Tropaeolum Mrs. Treadwell is unique as a bedder the flowers such a rich crimson, the leaves such a dark green, and so profuse, moreover, a fine winter bloomer. For the few who can afford it, Achyrocline Saundersoni (E. G. Henderson & Son) will be a valuable acquisition amongst white-foliaged plants, being of a beautiful silvery tint and exquisite in habit, and moreover, useful all the year round. In the same way is Artemisia Stelleriana, first-rate for bedding, and perfectly hardy. From what I have seen of all the above, I am sure they will give every satisfaction as bedders, if they only get a fair field and no favour—favour has given not a few things a bad name, and nearly killed Mrs. Pollock—fair play to all they want. Alexander, 29, Union Road, Cambridge.

Gas-tarring Orchard Trees. Canker—Your correspondent, John Lloyd, p. 556, seems to have injured his fruit-trees by an overdose of gas-tar. I have before now had to resort to the same expedient, and a very useful one it is, but when applied all round the tree, as Mr Lloyd seems to have done, it is almost certain to produce a bad effect. I only daub a little here and there on the stems and about on the ground. This serves to scare away the rabbits and hares, as they do not like to get their faces soiled by such a bad-smelling thing as gas-tar. If Mr Lloyd will carefully pare off most of the tarred bark, hurting the inner bark as little as possible, and then paint his trees with a mixture of cow-dung and clay, I think that they will soon recover their pristine healthiness. He need have no fear to well peel his trees, as no injury will accrue to them by doing so. I have been for some years in the habit of peeling, in spring, to counteract the bad effects in frost-bitten, cankered, or hide-bound fruit-trees. I generally commence at the ground, removing all the outer bark to a considerable height, and then prune back the branches either close to the tree or as far back as there is any blistered or cankered places, then painting the tree with the composition recommended above. It often happens after severe winters, such as 1860 and 1866, that fruit-trees get frozen through—at least a great many do—by which canker is induced, which is certain destruction to the health of the trees so affected. In fact, they often become a mass of canker. In all such cases I resort to peeling, and have never found it fail in restoring my trees to health. When the trees have been very much frozen, it is well to cut all the

branches clean off and head down the tree to about two-thirds of its height, then peel and paint. Many, I may say most, people attribute canker to the roots going too deep into poor cold soil, but for one cankered tree so produced, I think 99 per cent. are cankered by frost, and all that can be said to the charge of the cold soil is its tendency to cause the tree to grow too much, and so produce crude, unripened wood, a great drawback to fertility in all kinds of plants, hence the cold or frost acts with double force upon the watery tissues, and disruption and canker follow. I do not recollect ever hearing any one speak of frozen trees, nor have I ever seen the subject mentioned in books. It is always bad soil that bears the blame if a tree gets cankered. I have had hundreds of fruit-trees killed by frost in my soil but never one by the roots penetrating too deep. The Kingston Black Apples here in 1860 were all rendered so cankered and so injured, that I have abandoned its cultivation. At the time I speak of I had over 5000 trees of this kind, as it is much esteemed in this neighbourhood as a cider fruit, all were more or less injured. There are not many Apple trees so tender as this, but yet there are several others that might be mentioned. Reinette du Canada, for instance, Baltimore, &c. Of Pears the tender ones are far more numerous, such as Forelle, Glou Morceau, Louis Bonne of Jersey, Serkle, Belle Angevine, Duchesse de Mars, and Citron des Carmes, are sorts that occur to me, on the spur of the moment, as being very tender and easily cankered by frost. I have a fine tree of Flemish Beauty, now loaded with fruit, which was very much frozen in 1860 for about 2 to 3 feet up the stem, all the branches were beginning to get cankered; I skinned it all round for about 3 feet above the ground the result was, the branches are become healthy, and it is, as I have said, loaded with fruit. One bad result of frost-bite is, the trees whilst under its influence never produce good fruit, it is generally speckled with Fungus and other marks—in fact, my Forelle trees, where they have not been peeled, do not produce an eatable fruit. Those of them I have peeled are this season perfectly healthy, and were loaded with fruit, but, like all other early-flowering sorts, they dropped it, from being affected by the few frosty nights we had in April, when our glass went down to 25°. I may say that nearly all the kinds that flowered later have fruit upon them, although many of these have been sorely tried by the cold prevailing all through May. I do not know whether this letter will throw any light upon the subject of cankered trees; if it does, it will be a pleasure to me to have contributed in a small degree to turn people's thought in the right direction, and also to have shown that there is a ready and sure cure for so destructive a malady. John Scott.

Spring Gardening.—A few days ago I had the pleasure of calling at Crabwood establishment, near Southampton, the residence of Rolles Driver, Esq., to see my friend Mr Higgs the gardener, there, who has for some years past paid considerable attention to spring gardening, and to selecting the best subjects for that purpose. Mr Higgs has now for several seasons been able to produce very pleasing and harmonious results from simple means, and those, too, of a very inexpensive nature; so much so, that the materials employed by him are within the reach of every person who has a garden, and is able to devote a portion of it to ornamental purposes. The gardens at Crabwood are on a small scale, but in small gardens we often meet with meritorious results. The flower beds here are close to the south side of the mansion, at perhaps a dozen yards or so distant from the windows; a gracefully curved walk intervenes between the beds and the house, which winds along until passing out of sight amongst the shrubs beyond the flower garden. This flower garden has about 14 beds cut out in Grass, having ample space between the beds for promenading with ease, and beyond the beds there is enough space to allow of the modern game of croquet being played, beyond this there is an irregular and diversified outline of shrubbery, which when seen from the mansion seems, as it were, to hold and encase this little gem of spring flower gardening in a living frame of shrubs. There is one great point to be observed in connection with spring gardening, viz., that the plants employed must all be in flower about the same time, and to secure this end, Mr Higgs principally uses the following four—*Silene pendula*, pink; *Myosotis sylvatica*, blue; *Limnanthes Douglasii*, yellow; and *Saxifraga granulata*, white. These four are those principally used in the flower beds. In some of the borders a small yellow *Cheiranthus Marshallii*, and a scarlet Daisy, which yields an abundance of flowers, are used. In the largest beds Mr Higgs uses three colours; for instance, next to the Grass is the yellow *Limnanthes Douglasii*, next is the blue *Myosotis sylvatica*, having the taller-growing and more showy pink *Silene pendula* in the middle of the bed. Some plan the white *Saxifrage* in the middle, but in any bed where the *Silene* is used it grows too high to allow of the *Saxifrage* being seen to good advantage. These plants are all hardy, and when in flower, a shower of rain or a moderate amount of frost does not detract from the beauty of their display. G. Dawson, *Shirley, Southampton*.—I had the pleasure of walking through the gardens at Osberton last week, and I say Mr Bennett may well be proud of his spring bedding, for it is certainly a grand success. As the Osberton gardens are so well known to most of your readers, I may be allowed to offer a few remarks on the spring bedding, &c. In the kitchen garden was a ribbon-border of *Cerastium*, *Primroses*, *Variegated Kate*, and *Wallflower*, which looked well. A design with coloured walks in front of the conservatory was arranged with *Viola cornuta*, *Primroses*, *Tulips*, and *Hyacinths*, some little diamond-shaped beds at each end of the conservatory being planted with a few choice flowers, and edged with that little gem the blue *Gentian*. Leaving the conservatory and Rose garden we entered upon a long walk

centre, and dark margined leaves. Distichlis... with greyish mottled leaves. Fittoula glauca, more robust than... very useful...

First-class Certificates. They were accompanied by... chins specimens. A Natal terrestrial Orchid, with large yellow... sent the new French sport of Colusa...

chocolate colour. They also produced Pelargonium Victor... one of the best doubles yet shown, a brilliant scarlet... A Special Certificate was voted to Messrs. E. G....

It included three fine Van... the blue orange eyed Deadblow Farmer's Cypripedium... several plants of Epidendrum...

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Notices of Books.

Reports on the Pruning of Forest Trees and on... row Trees. By John Morrison, Croydon, Surrey. Stirling. Report on the General Management of Forests... By C. Y. Michie, Forester, Culn House. (From the "Transactions of the Highland and Agricultural Society of Scotland," 1868 and 1870.) It is now some two or three years since the Highland Society made an important alteration in the publishing its "Transactions." They used to be published for the Society, but not distributed gratuitously to the Fellows. Both public and private had to pay for them. They are now distributed gratuitously to all those Fellows who indicate their desire to have them. This, we think, is a more effective course for such a Society as the Highland Society, which has a peculiar purpose and aim it is to disseminate practical knowledge among the body of its members. In matters of pruning and forestry we are especially pleased to see that sound views are making progress. The old belief in the efficacy and in the safety of pruning as a "medicine" or "fresh air" is being given up, and in the papers we have placed at the disposal of our readers this notice the principle is acknowledged, and in different degrees, that pruning is only a remedial measure in exceptional cases and for special purposes. At the same time, notwithstanding that both Mr. Morrison and Mr. Michie have obtained prizes from the Highland Society for these Essays, and both within the space of a few months, a very material difference exists in their practice and also in their theory, and we are anxious to see that Mr. Michie's Essay is decidedly in the right respect to what we consider the proper course to be taken of the question. Mr. Morrison's practice is an improvement upon what used to be regarded as the orthodox belief on the subject, and Mr. Morrison's again an advance upon Mr. Morrison's. Mr. Morrison still announces that "one of the most effective means to be employed for promoting the healthy condition and increasing the value of plantations is pruning," and fortifies his opinion by an argument that the necessity of, and advantage of, pruning forest trees may be traced and supported by reference to the beneficial results attending the pruning and training of fruit trees." Mr. Morrison's opponents of pruning as one of the chief arguments against the practice. The purpose for which trees are pruned is totally different, and a different forest trees, and what is good for the one must be good for the other. Mr. Morrison's practice as a necessity be bail for the other. Mr. Morrison adheres, too, to what we cannot but consider an erroneous idea, that it is the forester's business to

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the tree growing to branches instead of to the trunk. The chief object of pruning is to prevent the energy of the tree being wastefully expended, and to direct it into the proper and natural channels, so that it may become profitable.

It is not possible to put into view any question as to the results of this system, that being a disputed matter of fact which must necessarily take the place of an opinion on one side and counter-assertion on the other, and which would wish those who adopt the views followed by Mr. Morrison to remember, on the point of theory and practice, first, that every branch must *ex necessitate* contribute to the stem before it can contribute to its own growth, and second, that each tree has its own growth, and that if men will only let it alone, it will grow if men will only let it alone.

Pruners are tormented by the fears of what will happen, if the branch is allowed to stand or that bud is not pushed forth. They see a tree in its young state, and branches springing from the ground, and assume that if they allow these to remain they will retain the same relative proportion to the trunk which they have now. But it is a perfect fallacy to suppose that the trunk will grow and the side branches will be thrown out, and they have served their present purpose of bearing the sustenance and life of the plant. The pruner anticipates Nature and removes the twigs before the proper time, depriving the tree of the advantage of temporary presence. Nature has diverse ends to accomplish, for which different means are necessary, and she uses her apparatus when she requires it, and she takes away what she has done with it. The pruner demands the present requirements of the tree and interferes to making the most shapely skeleton out of the materials he has, or expects to have, before he takes upon himself the office of Nature's workman, and makes journeyman's work of it.

The healthy and convincing foresters of the mass of the country are in the fact that it is almost impossible to reduce anything on either side but hypothetical grounds. Thus, Mr. Morrison makes the following statement of what will follow from a particular course of treatment—"In the case of an Oak 40 or 50 years old which has had no kind hand in the course of its life, to check its wild luxuriance, the trunk is found comparatively only a few feet high, with several leaders, a striving for the mastery the trunk its immense head and dwarfish stems being almost useless either for wood or bark."

It is not possible to understand the value of the branches better. In speaking of some particular cases he says "The best skill in future years can never rest re-act, that the tree will be almost entirely a dead weight, and branches will be left to rot, and the trunk will be a mass of decayed wood, and the value of forest trees, more especially of the old, is the age of the tree when the branches have been checked." But Mr. Michie is not in all respects sound. He argues for a certain amount of pruning and gives his reasons for it. If he must go to the rules of Procrustes we should recommend him to shorten the branches on the trunk side, rather than to balance the tree, rather to apply himself to pruning out and cherishing those on the other. It is not his duty and has the merit of taking nothing from the tree. Other reasons chiefly resolve themselves into the cases, as removing second leaders, shortening branches that seem likely to break from snow or wind, or otherwise do mischief—as to which a discretion must always be left to the forester, and in exercising it he should always remember that a discretion is not an option. He has the power to prune, but it is not always well to exercise it. It is excellent to have a giant's strength, but tyrannical to use it like a giant.

Mr. Morrison touches slightly on the pruning of the trunk. He is perfectly aware that he is on dangerous ground and treats the kind of pruning which he recommends as exceptions to the general rule, not to be done with the knife. We cannot agree with him in the view he takes of these exceptions. For the most part he recommends pretty free pruning for Abies, and when young, the side shoots often come very strong, and form themselves into leaders, unless checked at this stage, they take more the part of bushes than trees. But they are easily cut under, and stand the knife well when applied to the young branches, are of very free growth, and when they attain about 6 feet in height, there is less of the side shoots overtaking the leaders." Mr. Morrison's precaution against Douglas becoming a tree is very unnecessary. If anything could make a tree a tree, it is the very course of procedure adopted by the present, but it is a giant that, like Samson, the fetters man would impose. The growth of the side shoots, which has done much to the character of the tree when it has spread, and is one of its great beauties.

Some of the views and some of the differences between the views held by our authors in regard to pruning we think highly of the papers in question, and we subscribe without qualification to much that is recommended by both. Mr. Michie's paper being on the general management of plantations gives him most weight, and he is obviously a sound adviser, whose recommendations may be safely relied on.

strong hue of colour much wanted, the flowers small and somewhat cupped. Next came President A. Verzevaffelt, salmon-red, spotted with purple on the upper segment, a paid but somewhat loose flower. Duke of Buccleuch, was in the same way, but slightly paler. Frederick II, paler still, of a pale salmon-red hue, the upper segments plentifully marked with small blotches of rosy purple, a very free-blooming variety. George Eses, still paler, and of a softer hue, a bold and snowy stem and well-formed flower, awarded a First-class Certificate for its undoubted good qualities. Le Paix, a light rosy-purple flower, something in the way of Charming, and certainly not equal to it. Reine Marie Hericette, pale pink, with narrow margin of white, the upper segments heavily marked in a striking manner with deep violet-rose—in the case of a few flowers, one or more of the segments marked with pale scarlet, a fine and bold flower, though somewhat rough-looking—awarded a Second-class Certificate, and Mrs. Turner, a thin and somewhat flimsy-looking form of Criterion, scarcely so good in colour.

Here, too, was seen the first representatives of the new show Pelargoniums of the season. Mr. Turner had North Star, a flower of the lower petals glowing orange, red, with light dark blotch on each, dark upper petals, with regular margin of very range of colors, small and somewhat rough, a valuable high-coloured decorative variety, of the rose habit. Needle Gun (Hoyle) a showy painted flower, the lower petals violet rose overlaid with orange, and painted dark red, upper petals good, regularly margined with a slight edge of pale rosy-crimson, free blooming and showy. Herald (Foster), lower petals deep orange-rose heavily painted with dark, glossy dark top petals, with regular margin edge of rosy-crimson, free-blooming and good habit. Heroine (Foster), soft rich pink lower petals, large pure white throat, upper petals blotched with dark close to the throat, broad margin of deep pink lit up with orange, good habit. Lady of Lyons (Foster), delicate pink lower petals, with very slight blotches of rose, dark top petals, margined with fiery orange, and slight edge of pink; a large and somewhat rough flower. That grand variety, Troubadour (Foster), was shown in excellent condition by Mr. Turner. Of Fancy Pelargoniums, Mr. Turner had Marston, a very fine dark purple-rose self flower, very slightly edged with white, and white throat, a striking exhibition variety. Ladies or shaded rose, lower petals, with a kind of blotch of white towards the centre of the flower, lower petals rose pink with white, the same white throat. Leontine, a very fine dark pink self flower, with a white throat, and white lower petals, with a white throat. A capital cover-edged Pelargonium named Bright Star was also shown, by Mr. Turner, the leaves are edged with creamy white, and the plant has bright orange-scarlet flowers, larger and much finer in quality than is generally seen in this class. Miss Ingram Rose also received a First-class Certificate, it was shown in fine condition, the flowers rarely expanded, and of a delicate bluish-white, with a tinge of deep blush in the centre. Fancy Pansy Marie from Mr. Hooper, of Bath, represented as a bedding kind, has large flowers of a bright purple ground blotched and margined with pure white, it is certainly novel in character, the flowers large, and of good shape and substance.

The Special Prize and Pelargonium Show at South Kensington, on the 23d inst. was the means of bringing together a goodly number of new florists' flowers, in addition to the new Variegated Pelargoniums. Mr. Mann, of Brentwood, brought a batch of fine Zonal Pelargoniums, which quite maintained his reputation as a raiser of new kinds, and the Flora Committee acted with great discretion in only awarding Certificates to flowers of undoubted superiority. First-class Certificates were awarded to Duchess of Abercorn, of Mr. Mann's batch, a flower of a rosy-salmon hue, shaded with orange on the upper petals, large circular well-shaped flowers nearly 1 1/2 inch in diameter dark zonate foliage, and to Luminator, rich bright orange-scarlet, large, and very showy, and having dark zonate foliage and good habit. Other good flowers in this group were Lady Hope, pale salmon (Charming salmon-rose), Ariosto bright orange-scarlet (Christiana), pale salmon, faded violet (Lord Stanley), bright crimson (Challenger), salmon, Prince Teck, a fine scarlet variety of a brighter hue than Lord Derby. Irona Diana, orange-salmon and rose, large and showy. Princess Leek, pale salmon, with light centre. Beauty of Brentwood, salmon-rose, a fine flower. Pandora, salmon-scarlet, flushed with orange; and Ambition, orange-scarlet, very fine. Mr. Groom showed Mrs. Sach, white, tinted with pink about the centre. Mr. Thomas Laxton, Stamford, had a batch of promising bright flowers, the best being Sophia Clapton, salmon-rose shaded with violet, large and showy. Consequence, deep orange, very bright, Imperial, orange-crimson, showy and striking. Vivid in the way of Sophia Clapton but darker, and Nisi Prius, vivid orange-crimson, with dark zonate foliage. First-class Certificates were awarded to the following double flowering Pelargoniums—Wilhelm Pfizer, with large and full fringed flowers, full and of good shape, and having a dwarf compact habit of growth, and Marie Lemoine, flowers large and full and of a soft pale pink, habit good, a promising variety for pot culture. The same award was made to Mr. Harman Denham for a Variegated Ivy leaf Pelargonium, named Mr. Lambert, a great deal in the way of Duke of Edinburgh but with more yellow in the variegation, habit robust and variegation good. The same award was made to Ivy-leaf Pelargonium Wills rosea, one of the best of Mr. Wills' new hybrids, yielding flowers of a fine hue of rose, smooth, and quite as circular in shape as those

of the ordinary zonal kinds. Mr. Turner contributed some new Pelargoniums similar to those described above, and First-class Certificates were awarded to Heroine (Foster), shown in fine condition, and to fancy Pelargoniums Excalibur and Agrippa, described above. The same award was made to Mr. Wilhelm Paul for a silver-edged Pelargonium named Waltham Bride, the mode of growth somewhat resembling that of Flower of the Day, and producing pure white flowers, habit good.

Some Gold and Bronze and Zonal Pelargoniums were furnished by Mr. J. R. Pearson, Chilwell, a raiser who has distributed some fine things in this way. Two of the latter are very promising, viz., Principal, having a fine shade of magenta-rose, and Margaret Wilson, salmon-scarlet, lit up with orange, both varieties of good habit, and having dark zonate foliage.

Two Roses received First-class Certificates, viz., climbing Rose Duchesse de Mecklenburg, with pale salmon rose-coloured flowers, from J. H. Arkwright, Esq., Hampton Court, Leicester, and to H. P. Mons. Woolfield, bright pink, suffused with rose in the centre of the flowers, which were large and full, a beautiful and delicate flower, this came from Mr. Turner. A much darker coloured flower was shown by Messrs. Paxton & Son under the same name, the flowers appeared to be deeper in the tube and less globular in shape. It was thought that differences in the mode of cultivation might have had caused this difference, though by some it was feared that they were two distinct flowers, one incorrectly named. R. D.

The Apiary.

CLOVERS.—An interesting paper by "B" on Clovers and their relative value to bees as honey plants, which appeared in your last week's number, contained two or three statements to the correctness of which I feel bound to take exception.

1. "B" writes "that the Red Clovers, *Trifolium pratense* var. *perenne*, and *T. medum*, are much visited by bees, as well known." If this applies to the ordinary Red Clover cultivated by farmers, I must beg to differ with him. It is pretty generally understood by apiculturists that the Red Clover is of little or no use to the bees, and, from many years' observation, I am convinced they are correct in their belief. The larger humble bees can and do extract honey from the blossoms, and it is possible that, in unfavourable seasons for the secretion of honey by ordinary bee-plants, the hive bees may follow the wild bees, and attempt to extract honey, chiefly by taking advantage of small holes formed in their masses by the stronger individuals of the latter. This is precisely what is done by the hive bees in respect to the Kidney Bean and *Fuchsia* blossom. I do not assert that this is the case as regards the Red Clover blossoms, in fact, I have never yet, during my many opportunities for observation, seen them visited by more than a small number of bees; and those, after one or two vain attempts, acted very speedily, as if they had made a mistake, by flying away.

2. "B" does not consider the *Trifolium incarnatum* to be much sought after by bees. I am surprised at this statement as I have long believed that a large field or two of this cattle or sheep food grown in the vicinity of an apiary to be an enormous boon to the bee-master. I once visited a field of *Trifolium incarnatum* situated about two hundred yards from my garden. The moment I entered the gate I observed bees busily at work. Going a little further into the field, I measured out with my eye a square yard, on which the foragers were very numerous. I had previously been much surprised at the rapid increase of combs and honey in my supers, and was now satisfied that I had discovered the true source of plenty. In subsequent seasons the hives in that apiary always did well in the short period during which this crop was allowed to be in flower by the farmer. S. Bevan Fox.

Miscellaneous.

Cricket.—On Saturday last the employes of Messrs. Beck, Henderson & Child, 221 and 222, Upper Thames Street, played a cricket-match on Dappas Hill, Croydon, between the married and single members, in which the latter were victorious by seven runs.

Pruning Cottons.—There is a method of cultivating a few kinds of Plums as vertical cordons practised in France which is likely to be popular. It is simply selecting the proper sorts (first cutting your bare), then planting them in ground not too rich,—say a calcareous sandy loam, and then pinching in, during the summer, all the young shoots, and trusting to this to re-train the growth of the trees, without either root-pruning or removal. The varieties adapted to this mode of culture, are as yet but few, viz.—Oullin's Golden Gage, Reine Claude de Bayay, Belgian Purple, Large Black Imperial, Cluster Dawson and Prince Engelbert, of the latter kind upwards of 1000 trees are planted here for fruit bearers, they are now five years old, and are becoming compact, fertile, cylindrical trees. In the course of time, there will doubtless be many kinds of Plums adapted to this mode of culture, for here we have 2000 seedling Plums all raised from three varieties, and likely to give kinds as well adapted to our climate as is the Early Rivers or Early Proffe, well known to be the hardiest Plum known, but yet only the first removed, by seed from one of the most tender French varieties, *Precoce de Tours* Plum. These vertical cordon Plums should be planted from 4 to 5 feet apart, row from row, and the same distance from tree, the former distance will allow of 2700 trees per acre, the latter 1700, and, as far as I can see, many years will elapse before they will require thinning, and they will bear many bushels of fruit per acre. *Spencer's Fruit Garden.*

Florists' Flowers.

The opening of the great exhibition is the occasion for the production of new Florists' Flowers, and at the exhibition of the Royal Botanic Society on the 21st ult. Mr. Turner was strong with new Continental flowers, the majority of them partaking of fiery hues. The darkest was *Eclatante*, deep red, a fine and

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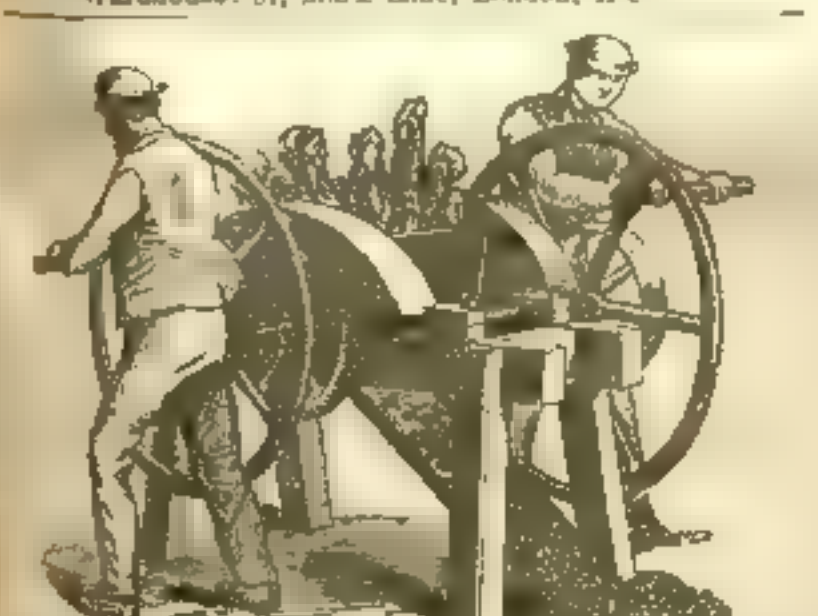
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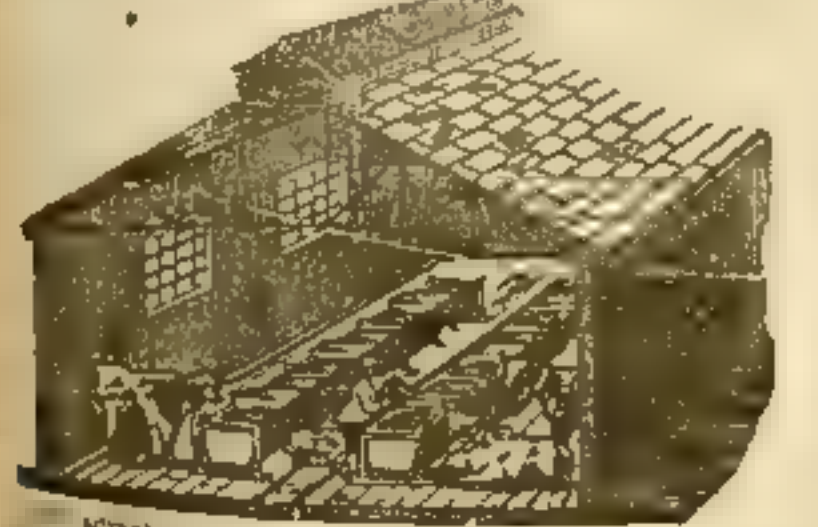
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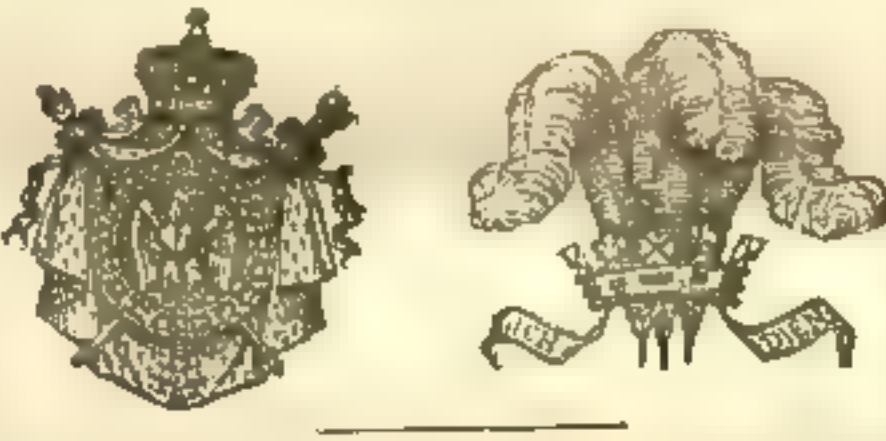


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THE LAND LOAN and ENFRANCHISEMENT COMPANY (Incorporated by special Act of Parliament), is empowered, subject to the approval of the Inclosure Commissioners for England and Wales, to advance Money to the Owners of Settled and other Estates, for the Erection of Farm Buildings and Cottages, and for the Drainage and general Improvement of Landed Property in any part of the United Kingdom, the amount borrowed being made repayable by annual instalments spread over a period not exceeding 25 years.

The expenses incident to the transaction are paid by the Company, and added to the amount to be charged on the Estate. An investigation of the Landowner's Title is necessary. Terms and further particulars may be obtained of Messrs. GILCHRIST & CO., W. 2, 31a, George Street, Edinburgh. Agents for the Company in Scotland of Messrs. RAWLINS & BOYD, 7, Great George Street, Westminster, S.W., and Salisbury; of Messrs. ASHMAN, Messrs. & Co., Solicitors, 6, Old Jewry, London, E.C., and at the Offices of the Company **EDWIN GARROD**, Secretary.
No. 22, Great George Street, Westminster, S.W.

ROYAL AGRICULTURAL BENEVOLENT INSTITUTION, for the RELIEF of DECAYED FARMERS, their WIDOWS and ORPHANS.

Patron—**HER MAJESTY THE QUEEN**
President—**HIS GRACE THE DUC OF RICHMOND.**
Advocates to Pensioners
Married .. £40 per annum. Male £26 per annum.
Widows and Unmarried Orphan Daughters .. £30 per annum.
Every Information to be had of the Secretary, by whom Subscriptions and Donations will be thankfully received.

ROYAL AGRICULTURAL BENEVOLENT INSTITUTION—The NINTH ANNIVERSARY FESTIVAL in AID of the FUNDS of the INSTITUTION will take place in the New Hall, Freemason's Tavern, on WEDNESDAY, June 9, at 6 o'clock.

The Right Hon. Lord ROSSLYN MORRISON, M.P., in the Chair. Dinner Tickets, 21s.; Ladies Tickets, 6s.; to be had of the Stewards; the Secretary, at the Office of the Institution; and at the Bar of the Tavern.

ROYAL AGRICULTURAL BENEVOLENT INSTITUTION—The ANNUAL MEETING of PENSIONERS and CHILDREN will take place at the Freemason's Tavern, on WEDNESDAY, June 16, at 11.30 a.m.
A Subscriptions shall be received until January 1, 1870, each year, and no Contributor shall vote while the same remain arrears.
No. 55, Charing Cross, London, S.W.
C. LOUNSFIELD SHAW, Secretary

The Agricultural Gazette.
SATURDAY, JUNE 5, 1869.

MEETINGS FOR THE ENSUING WEEK.
June 8. Central Chamber of Agriculture (to consider County Financial Reports, Ground Game, &c.) at Salisbury Hotel—11 a.m.
Oxford and Banbury Agricultural Society's Show at Oxford.
Royal Agricultural Benevolent Institution (Annual Dinner), at Freemason's Tavern.

No one has a better right than Mr. MECHI to speak for THE ROYAL AGRICULTURAL BENEVOLENT ASSOCIATION. But what is the explanation which he offers of its expenditure, to which we last week called attention? "My experience," he says, "has taught me that the stream of charity does not always rise and flow spontaneously, but has to be sought for and pumped up at considerable cost, and it is not always the cheapest management that produces the largest result, but rather on the contrary." But we submit to him that the expenses, whatever they may be, connected with the Royal Agricultural Benevolent Association, are carefully and explicitly published in the accounts of the Society. There is no need whatever, we presume, of referring in general terms to the inevitably heavy costliness of managing benevolent associations; for the amount under every division of the outlay is stated, and may be submitted to analysis and discussion. Last year, for example, when 5259s. 10s. 6d. was received, we are glad to know that the anniversary expenses were only 16l.—a good deal less than they had been in any previous year—an exceptional economy which will, we hope, guide the practice of 1869, and all years to come. We know, too, that the salaries and collector's poundage, commission, &c., together with incidental expenses, amounted in 1868 to 497l. 18s. 3d.—rather more than they had been in any former year. Of this we presume, from previous entries, that 278l. is the amount of salaries and wages; but even here, where a degree of uncertainty exists, there is no justification of Mr. MECHI's hazy indefiniteness of assertion on the general subject of the costs of charity. In printing, stationery, postage, advertisements, again, the cost last year was 362l. 7s.; and in rent and gas and furniture, 94l. 13s. 8d. Each of these items can be carefully investigated, and instead of general and indefinite assertion, tending rather to justify costliness of management, it is the part of every well-wisher to this institution to desire that every department be taken one by one into special examination.

remembering that every 20% saved makes another annuity available. The total cost last year was close on 10000—the amount spent in pensions was close on 20000, and stock to the amount of 20000 purchased. Here, then, is the division of the pound contributed into 200000, 20000, and 20000, of which we complain. Is this an economical method of administering the contributions of the benevolent subscribers to the Agricultural Benevolent Society? We do not think it is.

Another correspondent, whose letter follows Mr. MECHI's, suggests a much simpler and much better way. In place of funding property he would buy annuities from the National Debt Commissioners for those who are elected on the foundation of the Society. The Secretary of the Society would be the recognised attorney for all the annuitants—receiving and transmitting their quarterly allowances on receipt of the necessary proof of life. The interests of the pensioners would thus be absolutely and permanently safe. The property of the Society would be absolutely secured and the whole of it, barring annual expenses, would be available as the contributors contemplated and desired.

And these annual expenses might certainly be very much reduced, by the plan which our correspondent suggests. Annual expenses need not, we presume, be ever more than they were last year. And if postage, printing, advertising, commission, postage, and house rent were brought within reasonable limits by any secretary who should set himself energetically to save the annuities of another dozen pensioners out of the existing cost of maintaining them, we do not suppose that anybody would begrudge him, in that case, well-earned salary. But certainly it is plain upon the face of it that the expenditure is at present excessive.

Will anybody give us, for example, the justification, if any, for a jump made in these costs between 1864 and 1866? The annual charges stood at 8500, or thereabouts, during the three years 1862-3-4; in 1865 they fell to 7847; in 1866-7-8 they have stood at about 9700. What is the reason of this jump of rather more than 100%? It is not explained by any unusual increase in the number of the annuitants who would make very well indeed with the rate of contribution which we have suggested. It is not explained by any increase in the amount of the Society's stock, which was 111100 in 1861-6000 in '62, 18000 in '63, 23000 in '64, and 62000 in '65. What, then, is the explanation to be offered of a clean leap over 100% in the annual expenditure at that time, by which the annuities were swallowed up of five expectant pensioners in just that class which is both most numerous and most helpless?

If, as our correspondent suggests, the cost of management could be reduced one half or to 5000 a-year, we should have about two dozen additional pensions at once available, and surely there is no one knowing the poverty and trouble coming under the notice of the Association who will not welcome the idea that, by a little better organisation or more economical management, so great an addition to the serviceableness of the Institution may be made. Let us hope that Lord ROBERT MONTAGU may be able next Wednesday to assure the annual meeting of members and subscribers that no consideration whatever will hinder the Council, on whom the responsibilities of the Institution rest, from instituting the sharpest possible inquiry into the possibilities of economy.

CONSTITUTIONAL tendencies of a physical kind like qualities of the mind cannot be accounted for; they can only be investigated in respect to their nature and consequences. Now what is called HABIT IN PLANTS is understood except in the same limited sense. Acquaintance with these habits is necessary to the cultivator; it is that special knowledge which enables him to give each plant or crop the treatment it requires. Without this knowledge he is not a duly qualified practitioner. Every successful farmer understands precisely the various little details of management which result in a heavy crop; the method becomes a more exacting routine on bad soils than on good, but the same end is always in view. It is the object of the routine of tillage, and need not be much interrupted even by the exigencies of cleaning the land. It is skilfully kept in view, though not discussed and apparently not recognised by the plain practical farmer. To the agricultural student the habit of plants is worthy of systematic study. The first

stumbling block of an amateur farmer is his ignorance of special knowledge; he departs from the beaten path without the knowledge necessary for his guidance in a new one. He is unacquainted with the ordinary routine; he does not understand its aim and object, and consequently cannot estimate its merits or detect its defects. Ignorance may be professed, but there is no opposition so blind and unreasoning as that of fancied or mistaken knowledge. The scientific education of the amateur does not enlighten him much in practical subjects, and he is frequently led astray by some plausible theory, which further information would have led him to reject. Science interprets natural laws; practice complies with them, and in agriculture, when practice habits, as it does with different farmers, it is often neglected, and seldom from absolute ignorance. In the practice of farming an approved system seldom leads far wrong.

The best period for sowing Wheat, as it depends on the habit of that plant, must be decided by practice. It is found that this crop thrives best when sown in autumn, in a moist, cool seed-bed; a rapid early growth seldom progresses sound and healthy. The theorist may properly watch this practice and put it to the proof, and we have known some practical farmers do so too, by sowing a month earlier than usual, in a warm seed-bed, each grain being deposited with much learning and solemnity, singly and at proper intervals. This was done with the most scientific objects in reference to light air, circulation, space, food, &c. But our Wheat turned out badly; it became blighted and unharvested, and for the future we shall be less prone in measuring the elements of a proper dress for cereals. Space and air are very essential, no doubt, so are milk and butter and butter, but there may be too much of a good thing. Experience is the best nurse. In those purely practical matters, any very wide departure from custom generally proves a mistake. Plants have special habits of growth which experience can alone discover. We are taught this by numerous striking examples in gardens.

A garden is the best field for observation, and the principles of plant culture. It is in fact a large experimental ground. There is no room for fruitless experiments there, and in the hedges and beds, and in the green-houses, hundreds of plants under treatment, more or less artificial, whose cultivation requires great nicety to accommodate their special habit. A course of such gardening would not be thrown away on an intelligent pupil. He would observe much in the active management of a garden which he could usefully apply on the larger scale of a farm, and knowing that the same general laws govern the whole family of vegetables, whether they grow in fields or gardens, he would learn a great deal of what we will call practical physiology, that would have a direct influence on his management as a farmer, and would help to prevent that apparent wandering after error which often marks the course of the unpractised farmer.

We know a highly intelligent agriculturist, living in a dry warm county, who believed he could rival the successful Potato-cultivation of the Lothians, living as he did one-twelfth the distance from the London market. His soil was suitable; but he failed, for want of the cool, moist, Scotch atmosphere. There is no analogy in the cultivation of a farm which could teach him this unexpected effect of climate. In the garden, such observations are forced on the attention by the cultivation of plants in the green-houses and hot-houses. The alternation of heat and drought of the plants of South Africa and Mexico must be reproduced in the cultivation of the African Lilies and the Cactus. The Palm requires its desert heat and dryness, the tropical Ferns and Water Lilies their steaming swamps, and the Vine its alternations of warmth and cold of activity and rest. These are very general characteristics, but there are cultural refinements in horticulture, and fine shades of difference in the treatment of delicate plants, and to learn these thoroughly would make us gardeners, not farmers. The Vine should be only transplanted when the roots are active, as it does if moved in the dead of winter, thus we find our root crops have more vitality, and power to resist frost, when they are rooted in the ground than after their separation. On the same principle any plant transplanted in

autumn, as Turnips for seed, should be allowed time to "get hold" of the ground. Plants in gardens do not blossom freely while their growth is excited by water and space for their roots to extend in a slight check to their growth throws them into flower, and the effect is part of the gardener's art which he constantly practises. The tendency of plants in this respect is of interest to an arable farmer, the most important part of his business is to produce blossom, or rather to grow seed, of one sort or other and that at a low rate. These garden observations explain why the Onion does not seed freely except in very favourable years, why a full plant of carrot does not ripen most equally, why Mangold for certain conditions runs to stalks and not fruit. Some garden plants and even British plants, take kindly to heat and forcing well, the Polargones, on the other hand, requires sufficient heat for production from frost, but the least attempt at forcing is to be avoided. The Onion prefers a hard, firm soil, the Cabbage one that is more porous, some require an abundance of manure and produce their fruit or seed freely, others yield only a few and stems under such circumstances. In potted culture, several plants thrive best when they are potted in with a rougher soil than when they are potted loosely. In short, the habits of plants in the treatment of plants shows that their requirements in cultivation demand close attention to their special habit.

A truly scientific cultivator will not draw conclusions founded on theory. The gardener has other means of a purer observation, which has the nice requirements of plants as to soil and climate. He will know what suits the soil of the country. A Kentish Hop grower produces an acre for his land, in the county of Kent, as well as labour in Essex. But the delicacy of the aroma of the best Kentish Hop gardens only yielded a coarse article. Hop. Custom had fixed in Kent and had in Essex, and the original selection was an accidental one. The analogy of the Vine teaches us how greatly flavour depends on conditions of soil and aspect. The best of the potted plants are grown on adjoining ground, in one place, in the next, the common white-flowered plant. On some soils white Wheat is grown, if sown, it becomes red in a few years. Let us recommend to the practical cultivator to guide him, and to the theorist to practice to carry a lantern in front.

— The rise of 1s to 1s 6d per quarter on Wheat at Mark Lane on Monday has been sustained, and the provinces throughout the week. The market was firm, without any alteration in the wheat and sheep are again on a par as regards price. The highest price for best home-grown per bush is 1s 6d, and the agricultural soil trade is more active. The price of the agricultural soil trade is more active. The price of the agricultural soil trade is more active. The price of the agricultural soil trade is more active.

— On the subject of the breeding of horses, the present demand is said to be for a more compact and powerful form of horse. The quantity and quality of the stock of horses bred in this country. If the nobility and gentry of influence who feel interested in the matter could provide sound powerful, and useful, horses to serve their own needs, and their own small farms, the farmers and those who have an innate love of horsemanship, soon afterwards the opportunity of greatly increasing the number of Englishmen. The great industry now experienced by a farmer wishing to breed from a favourite mare is to find a horse fit to use except a few of the crack stallions of the day who can command any price for their services. The price of the mare would be a great deal more than the price of the horse.

— A general statement was made in the House of Commons on Friday, May 31st, 1890, by the President of the Board of Agriculture, Mr. BRIDGES, in answer to a question put by Mr. BRIDGES, in reference to the annual collection of agricultural statistics for the present year. Mr. BRIDGES has said that the statistics collected by the Government must be of very great advantage to the ordinary weekly and monthly transactions of trade at the same time, taking a wider view of the question, it was desirable that statistics should be given from year to year showing the progress of agriculture, and there was, therefore, no objection on the part of the Government to discontinue the collection.

— Farm servants were discussed in the House of Commons on Friday last. The Chancellor of the Exchequer, Mr. BRIDGES, informed the House that farm servants were exempted from the tax on servants. But if farm servants were employed as under-gardeners, they would be liable to the tax.

It is a very good thing to make any... when you are not a painted with... that the other that grew less sugar. That... from our ordinary experience to be the... I have some curious examples... of water contained in large pieces... of water and of 2 per cent of sugar... there the sugar dis... a great extent. Our... must be... the raw material, so as to... to produce a crop of the... may succeed in growing from 15 to 18 tons... Of course, it is... than that which we are in the... of Margate. But the... is... or where... you better to grow a moderate weight... for which you get a higher price... better to grow a heavy crop which... and is not so valuable... a matter of expense, and it must be... way that it can be settled... The... I think... Mr. Denton... his... at the present time in the manufac... of sugar in this country and the... has a great influence on the growth of... which is by no means a good... I have no doubt, be instrumental, if not... as a permanent crop, in giving... to an improved system of farming... at the end of September... It could not be a weed to... Now, in relation of this... the tops. When they... take them up. They... but be taken up at... The roots will keep. If you leave them... to form a second crop of leaves, the... at the expense of the sugar in the... injury is thereby done to the root... by the elimination of sugar which is... of the substance of the second leaf, but... in the root in motion, so that... the root will not keep well, in... of an over-ripe Pear, and the... gradually disappears... the greatest importance to attend to... for taking up Beetroots from the land... Mr. Denton you think that the... of last year was favourable to a... of sugar in Beetroots.

Mr. Denton... I find that from... worked up into sugar already—... has to be carried on very... more than 8 per cent, though... should have been 11 per cent. It... therefore, I suppose that last year... the fact being that it was one of the... for the manufacture of sugar, because a... was formed, and a portion of the... transformed into the substance of the leaf, and the sugar that remained was in an active state... On that account, it was an unfavourable...

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thick potash would help me? I have never tried it.

The Chairman asked Dr. Voelcker whether in Germany...

Mr. Reap had great pleasure in moving a vote of thanks to Professor Voelcker for his interesting and valuable most interesting lecture...

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Home Correspondence.

The Royal Agricultural Society—Mr. Dent appears to have had the matter in the lead when he suggested that one-half of the retiring Council should not be eligible for re-election. I presume for a limited period in order to introduce fresh blood into the Council, of which it stands in need. The remarkable attendance at the annual meeting, although, no doubt, in some measure due to the... of last year, was... by the members generally. Why should they... Agricultural Education—At the general meeting of the Royal Agricultural Society last Saturday, Mr. Dent, on behalf of the Council, expressed a wish to know more of the opinion of the outer world on the points to be discussed in committee. While your columns are open to contributors, I hope the members of the Society will not withhold the aid of suggestion to those who at considerable expense of time and trouble are seeking to serve their interests, and to advance that which is declared by our charter to be the seventh national object to be prosecuted by the Society. Our opinions are specially invited to two suggestions already referred to a committee—the first made by Mr. Thompson, that travelling scholarships should be instituted for the double purpose of advancing the education of young men who had shown agricultural ability, and of deriving from their report matter for insertion in the Journal; the second offered by Mr. Dent, that older and practised men should be employed to visit and report on the agriculture, not only of England, but also of foreign countries. As a means of promoting agricultural education, each of these schemes is probably inferior to that of periodical examinations, already tried with success by our Society; but, while the national disgrace continues, that in this great country there should be but one good school of agriculture, it may be urged that the prizes might almost as well be given at once to the best men at Cirencester without the cumbersome and expensive process of a separate examination. Not all civilized nations, however, are in the same backward state as ourselves in this matter, and we may perhaps reap some advantage from their superiority in this respect, by a modified combination of the schemes already under discussion. Let competitive scholarships be founded by the Society for certain foreign schools of agriculture giving, say, 40*l.* per annum towards the maintenance of the successful candidate during two years of study at the appointed school. In this way we might every year have one young English farmer trained in one of the excellent and numerous German schools of agriculture, another attending the course of agricultural lectures lately founded by the French Government in the Jardin des

Plantes, and another in one of our best American schools at Yale. The... of the... could be obtained from... always a... of... with the... of other nations. The... for... should require a knowledge of... at the school, and... at the... of the Society... of the two years... a... report on... of... Many of our members would like to have... of... for the... of the... which... as a... of... If we... the... of... those who take either the diploma at Cirencester or that given by the Highland and Agricultural Society of Scotland. By a very slight supplementary examination we might ascertain, if need be, that none of these should fall below the standard of qualification required for the first class in the late examinations held at Hanover Square. This sort of reward has the advantage of being more valuable to the recipient than it is costly to the Society.

Adulteration of Seeds—There has been much writing and talking lately about the adulteration of seeds... I have been... with the trade and those... and if a few sensible remarks from me are... of any value, you are welcome to make use of them. Perhaps they may assist to reassure the public, who have been lately terribly frightened about the adulteration of seeds. The mixing of old and new seeds is not by any means a new thing caused by the excessive competition of modern times. The ancients were not averse to try their hands at it, and perhaps the practice is as old as the trade itself, being a perfectly necessary concomitant of it. The more modern refinement of a thing and dyeing a cheap kind of seed, to make it pass for another sort of much greater intrinsic value, is quite a different matter, and cannot be established on any pretext whatever being simply a fraud. Seed of various years' growth may be mixed with advantage to the public if the merchant is careful thereby to supply the customer with a more vigorous growth, but sellers of seed which has been killed and dyed to represent other kinds for several years' growth, and to be sold as such, is a different matter. It is a... of the law are those who are detected in the very act of preparing the seed for the market, and that... of the... It will take... of the... and an honest seedsman may buy it unwittingly, and believe it to be a genuine article. Seedsmen cannot always estimate their requirements so exactly as to be independent of the open market, and an unexpected increase in the demand for any particular seed may exhaust their own guaranteed stocks, and compel them, especially at the end of the seed season, to seek supplies from other sources. In such a case a small rogues' seed-men may be imposed on, and induced in the press of business to buy a doubtful article for the sake of supplying the urgent demands of impatient customers. A large proportion of the adulteration of seeds is caused by the public themselves, and I can tell them plainly that they are the remedy very much in their own hands. If people will insist on getting their seeds at a lower price than respectable seedsmen offer them, and will risk their crops of Turnips, Clovers, &c., for the sake of a paltry saving of a few shillings, there will always, as long as the world remains as it is, be plenty of unscrupulous seedsmen ready to humour them. Better far to pay a penny more per pound to a well known respectable seedsmen who has fairly earned his right to public confidence by a long course of fair dealing. If the proposed Bill to prevent the adulteration of seeds passes into law, it may with all its imperfections strengthen the hands of honest dealers, but the public can protect themselves very much by avoiding dealers who profess to sell cheap seeds. W. B. S., *Edinburgh, May 17.*

Agricultural Statistics—Mr. Sedgwick has sent a copy of the... addressed by him to the President of the Board of Trade. I trust that the agricultural statistics will be as future as they are now, and be told annually, and not, as Mr. Pell recently proposed in the House of Commons, quinquennially. Mr. Pell's objections to their annual collection are, firstly, "that they are of a speculative character," secondly, "that they had failed because the area was but an imperfect measure of what the fields would yield to the granary," and thirdly, that they were faulty because they "left out all wood, waste, and garden ground." With respect to the speculative character of the returns, it is evident that they tend to lessen speculation, inasmuch as they make known to all the food-producing area of the country. Speculation is based generally not upon what is known, but upon what is uncertain. But I need not dwell on this point, as Mr. Pell has successfully answered himself by stating that "as corn dealers are heedless of statistics, therefore the returns are of no speculative value." The second objection, which virtually means that as the returns only give the area under different crops and not the average yield, therefore they are imperfect. It would doubtless be more satisfactory if returns of the acreage yield, as well as of the different areas under crops, could be obtained, but it by no means follows that because there are difficulties in obtaining the one the other ought to be abandoned. Experienced observers can give an approxi-

Finance Steward informed us that 30,000 had entered. Thursday was the first day as regards the stock and machinery this Society has had, the best meeting this Society has had, the number of the stock was not quite so large as at Bristol, in consequence of there being no classes here. The exact numbers are—Bristol, Southampton, 528 head. The machinery increased greatly, in both the number and value of articles.

The Shorthorns were a collection that did not do credit to this breed of large heavy cattle. The 1st prize was awarded to the Messrs. Garne, for a heavy beast, that had muscle in abundance and was strong for any reasonable connoisseur. The 2nd prize was given to Mr Stratton's, also a heavy animal, with much flesh. In the class for bulls under two years there was much evidence of over-feeding. The 1st prize was awarded to the Babraham bull, which reminded us of First Fruits, the Babraham bull at Battersea in '62. Lord Sudley was the owner here, and his young bull was within a week or two of two years of age. He is a most attractive animal, but when we come to consider his perfect fat-ox ripeness must have on his countenance and that of his issue—if he ever be capable of a sire—it is clear that it is the duty of every influential society to disqualify animals which are unsuitable to the practical judges of this country to make up a bull into the form of the 1st prize at Southampton with a view of securing a prize. It is a degradation to any society to allow a bull to be offered for stock purposes to leave the prize with the highest honour, instead of bearing the stigma which such treatment of any young animal entails. This is what we must come to, and the sooner the Society comes to a determination on the subject, and sticks to it, the greater will be the honour and the advantage of the society will gain. The result is evident—the result of the way in which his bull had been produced and got up for show, for he shows signs of degeneration in the family to which he belongs. He is excellent for his symmetry, no doubt, but he has lost the character for which this breed is famous, or Clipping Norton, is a bull which for his character for his age was undoubtedly the most valuable bull in his class for legitimate profit. His character is immense, and his fair feeding has not been lost. He was only Highly Commended. But in this and the 2d prize animal, there was a young bull of great promise, unnoticed by the judges. His colour is a rich straw, and he has a beautiful long silken coat. These were in the condition in which breeding stock should be kept, and considering the length and form of his body he would certainly have met with success at the hands of the authorities. He was sent by Mr Walter, M.P., of Barewood Park, and we hope to see him in good company next year and go before judges who will take into consideration the views we have urged.

There was no calf class at this show. This may not be a mistake perhaps, for calves after so much of a year or two that we do not see the good of showing them for prizes. Calves may be valued by the parent, but it is next to mere guesswork to say which calf will be the best animal when he comes to maturity. This after all is, or ought to be, the object of public judging and awarding prizes. The judges are supposed to know nothing of pedigree or pedigree, how is it possible they can do so in a class of calves?

Cows and heifers were not numerous. We cannot judge the judging in the class of aged cows. The 1st prize was an animal which retains the true character of a Shorthorn dam, wide hips and expansive rump, and therefore ample width between the points for carrying a full bag of milk, a cow's chine, a long neck, and a long face below the eyes. These are the kind of cows that we now need to have stamped with the approbation of judges. The breed may be adapted for breeding broad-shouldered heavy-backed bulls, but if the race of females must be bred for this purpose, we had better think about the breeding and milk-giving character of our herds. But rather than this should we should be better without excessively broad-shouldered and heavy-necked bulls.

Young heifers were more numerous, and there were a few excellent animals, but here the judges were evidently guided by the prejudice and fashion which has been established of late years, during the time when the country has beset some of the wealthy men of our country who have taken to Shorthorn breeding as a speculation. The difficulties into which many of these are now merging ought to be obviated now that we have ample trustworthy data to guide us in the art of breeding.

The 1st and 2d prize bulls were placed first in the yard, and so the quality goes. They were 22 in number. The 1st prize was more admirable than were the 2d prize sent by Mr Walter Farthing, Mr Buller, and Mr Burton. As we have remarked, however, there is an undersize in the specimens of this breed which are brought to public notice, a great question whether the course pursued by the leading breeders has been a judicious one. The staying or lasting character of their specimens may be considered. The 1st and 2d prize bulls were however, and some of the cows were as good as they could possibly be mated. But if we are to go on decreasing in size as it has done during the last few years, we shall be able to find models for purposes of Kerry and Breton and Jersey cows for Herefords were not strong, and the main

strength of these animals was displayed in a magnificent bull and cow, the former sent by Mr Arkwright, and the latter by Mr. Allen, as set forth in our prize list. The bull is an extraordinary fellow, but beyond him there was nothing worth notice in the aged class, for the 2d prize was a narrow, irregular fore-quartered beast, with a deal of poddiness, which gave him anything but an improved or improving appearance. The cow, however, to which we have referred as being naturally a grand creature, has been greatly over-done with rich or fattening food. The injury of this is clearly shown in the size of the calf a few days old by her side, for it is just one of the diminutive things which look to be too good to knock on the head, but which it is clear would cost twice as much to rear it and feed it for the butcher as it would be worth when full grown.

The Sussex bulls were in bad condition, their coats being full of scurf and dust. This negligence is unaccountable. If it had not been for two or three great and good cows, and a few handsome and well-grown or growing heifers, this breed would have been a discredit to the show as well as to the county of Sussex.

The Channel Islands cattle were upwards of 80 in number, and a finer collection of this peculiar breed of animals we never saw out of their native islands. The prizes of the society brought the whole of the islands into competition, and as there is as much dissimilarity between the Alderney and Jersey and the Guernsey breeds, as there is between North Wales runts and South Wales cattle, it was not possible to give even the usual amount of satisfaction among the somewhat Frenchified and excitable island exhibitors. The Jersey men object so much to the Guernsey breed that they will not allow a single one of them to pass the landing wharf at St. Helier's. We may add, the Guernsey breeders are even more strict than this, for they will not allow a single Jersey animal to be imported into Guernsey. Mr Le Saunier's 1st prize was considered by some of the Jersey breeders to be but a fourth or fifth-rate one, because he was leggy, light in colour, and otherwise favoured the Guernsey type. This decision was more objectionable to most of the Jersey men, because what they considered the best bull was only Highly Commended. This animal is Mr. Elias Nicole's, Trinity, Jersey; the dam, too, of this bull was awarded the 1st prize at the Royal meeting at Plymouth, and 100 guineas were then offered for her to be taken to America. The decisions among the cows and heifers gave even more dissatisfaction, and there certainly was a large amount of inconsistency in class 23, for if the light sandy colour, Guernsey type of heifer, be the right stamp of animal for the 1st prize, the very neat and beautiful fawn-coloured heifer, with black points, was not suited, with so much choice and excellence, to receive the 2d prize. But this may be accounted for from the fact that a Jersey man and a Guernsey man, and an English resident in Guernsey, were the judges. Prejudice in these cases will not give way, so the judging probably proceeded on the principle of "giving and taking."

The following are the awards in the cattle classes:—

- DEVONS.**
 Judges—Devon and Sussex cattle—Messrs. Ford and Tremain, Herefords and Shorthorns—Messrs. Thomson and Baldwin.
 CLASS 1. For the best Bull, exceeding 2 and not exceeding 4 years old on the 1st June, 1869.—1st, Mr Walter Farthing, Stowey Court, Bridgewater, 20; Mr James H. Buller, Lownes, Crediton, Devon.
 CLASS 2. For the best Bull, not exceeding 2 years old on 1st June, 1869.—1st, Mr Walter Farthing, ditto.
 CLASS 3. For the best Cow in calf.—1st, Mr W. G. Nixey, Upton Court Farm, Slough, Bucks, 10; Mr Walter Farthing, ditto.
 CLASS 4. For the best Heifer in calf, not exceeding 3 years old on the 1st June, 1869.—1st, Mr Nixey, 10; Mr J. H. Buller.
 CLASS 5. For the best Heifer not exceeding 2 years old on the 1st June.—1st, Mr R. Burton, Place Barton, Broadcrag, Devon 5; Mr W. Farthing, Commended Mr J. H. Buller.

- SHORTHORNS.**
 CLASS 6. For the best Bull, exceeding 2 and not exceeding 4 years old on 1st June, 1869.—1st, Messrs. Garne & Son, Broadmoor Gloucestershire, 10; Mr R. Stratton, Buryatop, Swindon, Wilts. Highly Commended Lady Pigot, Branches Park, Suffolk.
 CLASS 7. For the best Bull, not exceeding 2 years old on 1st June, 1869.—1st, the Right Hon. Lord Sudley, Toddington House, Winchcombe, 10; Mr R. Stratton, Swindon, Highly Commended Mr G. Garne, Churchill Heath, Clipping Norton, Oxon.
 CLASS 8. For the best Cow in calf.—1st, Lady E. Pigot, 10; Mr J. Atkins, Barton Peverell, Bishops Cleeve.
 CLASS 9. For the best Heifer in calf not exceeding 3 years old on 1st June, 1869.—1st, Mr James How, Broughton, Huntingdon, 10; Mr G. Garne. Highly Commended Mr G. Garne.
 CLASS 10. For the best Heifer, not exceeding 2 years old on 1st June, 1869.—1st, and 5th, Mr R. Stratton. Highly Commended Lady E. Pigot.

- HEREFORDS.**
 CLASS 11. For the best Bull, exceeding 2 and not exceeding 4 years old on the 1st June, 1869.—1st, Mr J. H. Arkwright, Hampton Court, Leominster, 10; Mr W. Rossiter, Stragways, Marnhall, Blandford.
 CLASS 12. For the best Bull, not exceeding 2 years old on the 1st June, 1869.—1st, Mr N. Benjafield, Short's Green Farm, Motcombe, Shaftesbury, 10; Mr W. B. Simonds, M.P., Abbots Barton, Winchester.
 CLASS 13. For the best Cow in calf.—1st, Mr J. D. Allen, Tisbury, 10; Mr W. Tudge, Adforton, Leintwardine, Herefordshire. Highly Commended Mr J. H. Arkwright.
 CLASS 14. For the best Heifer in calf, not exceeding 3 years old on 1st June, 1869.—1st, Mr W. Tudge, 10; Mr J. H. Arkwright, Leominster. Highly Commended and Commended Mr J. W. James, Blandford.
 CLASS 15. For the best Heifer, not exceeding 2 years old on the 1st June, 1869.—1st, Mr W. Tudge, 5; Mr J. W. James, Nappowder, Blandford.

- SUSSEX STOCK.**
 CLASS 16. No entry.
 CLASS 17. For the best Bull, not exceeding 2 years old on the 1st June, 1869.—1st, Mr T. Smith, Beckley, Staplehurst, 10; Messrs. J. and A. Heasman, Angering, Arundel.
 CLASS 18. For the best Cow in calf.—1st, Mr W. Botting,

- Hurstpierrepont 10; Mr T. Smith. Highly Commended: Mr G. Jenner, Rye. Commended Messrs. Heasman.
 CLASS 19. For the best Heifer in calf, not exceeding 3 years old on the 1st June, 1869.—1st, and 10th, Messrs. Heasman.
CHANNEL ISLANDS.
 JUDGES—Mr J. James, Guernsey, Mr M. Gibart, Jersey, and Mr. Midleton, Calverton, Oxford.
 CLASS 21. For the best Bull, not exceeding 4 years old on the 1st June, 1869.—1st, Mr T. Le Sieur, Maufant, St. Saviour's, Jersey 5; Mr P. Pitta, Newport, Isle of Wight. Highly Commended Mr Louis Nicole, La Fontaine, Trinity, Jersey.
 CLASS 22. For the best Cow in calf.—1st, Mr T. Maindonald, St. Peter Port, Guernsey, 5; Mr N. Arlaud, St. Mary's, Jersey. Highly Commended Capt F. A. Maxse, R.N., Holly Hill, Southampton. Commended Mr Arthur.
 CLASS 23. For the best Heifer, not exceeding 2 years old on the 1st June, 1869.—1st, Mr J. Dorey, St. Martin's, Jersey 5; Mr J. D. Sherrington, Bramshaw, Lyndhurst. Highly Commended Mr D. Le Chaminat, Sables, Guernsey. Commended Mr P. Gaudin, St. Helier's, Jersey.

Sheep.—The sheep were a good show as a whole, although there were some very inferior animals present. The Leicesters were placed 1st on the list, and Mr. Sanday, of Holmepierrepont, took the two 1st prizes in the ram classes with sheep that were of an excellent form and of a creditable size as Leicesters now go. These sheep, as we have often remarked, are not thrifty enough in either muscle or wool for this go-a-head age. But we hope the great value of the sheep as a pure breed, and for improving Lincoln and Northamptonshire sheep, and for crossing with Hampshire Down, will long be appreciated, as it would undoubtedly prove to be a great loss to the country if this woolly tribe were merged entirely into other breeds, or become altogether extinct.

Of Cotswolds there were only nine lots, but they were of their usual large, fine, and white character—excepting one, however, for Mr. Rynbird sent as great a brute as was ever consigned early in life to a dog-butcher.

Southdowns for show without Lord Walsingham's name being associated with the exhibition is an oddity, after the success which has attended his lordship's continuous efforts for several years. Mr. Rigden and Mr. Heasman here had it nearly all their own way. The Southdowns were, however, a long list. There were 34 entries of shearing rams, and 16 of any other age. Mr. Rigden, Mr. Heasman, and Sir W. Throckmorton, Bart., took two prizes each in these classes. Mr. Rigden's two-shear ram is excellent for form and substance, and the ewes of both Mr. Heasman and Sir W. Throckmorton were remarkably beautiful for symmetry and fine white wool. The Highly Commended pen sent by Mr. R. Neville-Grenville, M.P. were also excellent, and but little, if any inferior to the prize sheep.

The Hampshire Downs were sure to be in strong force. A more valuable collection of sheep we never saw together, no matter what may have been the breed. The 1st prize ram had a back which was not surpassed for its touch in the yard. The weight of this sheep, too, although he was not excessively fat, was great. This is one of the valuable traits of these sheep: they contain so much lean. Some of them are still coarse in appearance, but this view applies more to their big head and their large hairy legs than anything else. Mr. W. E. Pitt had a fit of weakness when he sent No. 249, for he had the appearance of one of the German Noah's Ark toys magnified a few hundred times; and some one who rejoices in the name of Mr. Frederick Sigmund Schwann, sent an animal similar in outline, but which had a stomach twice as large or doubly distended with wind. The ewes were a capital class, and the large entry and character of ram-lambs, 20 in number, some of which had their mother by their side, did credit to this breed, which is rapidly coming to the front, now that we can get a superabundance of wool from foreign countries. These animals grow meat, and they will increase in popularity when some of the present fine and fashionable flocks are neither seen at Royal shows nor thought anything of in their own district or county.

The Shropshires have found their way all this distance south, but only in small numbers. Lord Chesham, however, had a pen of ewes which, for smartness of appearance and uniformity of character, their legs and face being black, we have seldom seen surpassed. His lordship's 1st prize ram was also of the same character, but neither the ewes nor the ram would be considered large enough for the old-established Shropshire breeders. However, taking them as they are, they are very beautiful sheep. Mr. Horton sent two, and Mr. Wood, of Romsey, Hants, sent four rams and a pen of ewes—three of the rams, however, were bred in Shropshire. This breeder has taken a liking to this breed, and it does not appear that his fancy has been at all misplaced, while his success shows that the supposed suitability of these sheep for almost any soil or climate has some sound foundation.

The Somerset and Dorset breed, with their long white curly horns and white wool, were well represented, and they readily reminded one of the first lamb of the season, for producing which their value is great, and fully appreciated in this neighbourhood and the Isle of Wight. There were, too, some Exmoor sheep, which have a similar form as regards horn and frame, but as they have apparently been on the high hill-sides of the moor after which they are named, they are very small. According to Mr. Tucker, in the Strand, there is no sweeter mutton than they produce, and they live where nothing else except goats would exist. They are, therefore, worthy of the position in which they stood at the Society's show, which embraces their native ground.

- The following is the list of awards
LEICESTERS.
 JUDGES—Leicesters, Cotswolds, and Oxford Downs—Messrs. Payne & Twitche, Southdowns, Hampshire, and Shropshires—Messrs. Canning, Hart, and Cureton.
 CLASS 24. For best yearling Ram.—1st, Mr. Sanday, Holmepierrepont, 5; Messrs. J. & A. H. Gould, Pottimora, Exeter. Commended Mr. Sanday.

PORTABLE AND FIXED HOT-WATER APPARATUS,
 HEATING CONSERVATORIES, HOTHOUSES, CHURCHES, PUBLIC BUILDINGS, PRIVATE
 RESIDENCES, ETC., WITH
TRUSS'S PATENT UNIVERSAL FLEXIBLE AND LEAKLESS PIPE-JOINTS.

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is a guarantee for skill of design, superior materials, and good workmanship, while the great advantages of his IMPROVED SYSTEM cannot be over-estimated, consisting of perfectly tight joints with appearance, EFFECTS A SAVING OF 25 PER CENT on cost of Apparatus erected compared with other systems, facility for extensions, alterations or removals without injury to Pipes or Joints, can be effected by any Gardener, an ordinary size Apparatus erected in one day; and PERFECTNESS OF DESIGN GUARANTEED, INSURING NO EXTRAS. Complete Apparatus, of the best materials, delivered to any Railway Station in England, and Erected at the following prices. Erection beyond 25 miles of London, railway fare for one person included. Considerable reduction on large works.



TWO FOUR-INCH PIPES ALONG ONE SIDE AND ONE END OF HOUSE

Size of House	Apparatus Complete.	Erection	Size of House	Apparatus complete.	Erection
10 feet	£9 0 0	£2 0 0	50 feet by 15 feet	£17 10 0	£3 0 0
12 feet	11 15 0	2 10 0	75 feet by 15 feet	20 0 0	4 0 0
15 feet	15 0 0	2 15 0	100 feet by 15 feet	26 0 0	3 6 0

Bath and Gas Work erected in town or country. **The Trade Supplied.**

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 Has great Covering properties.
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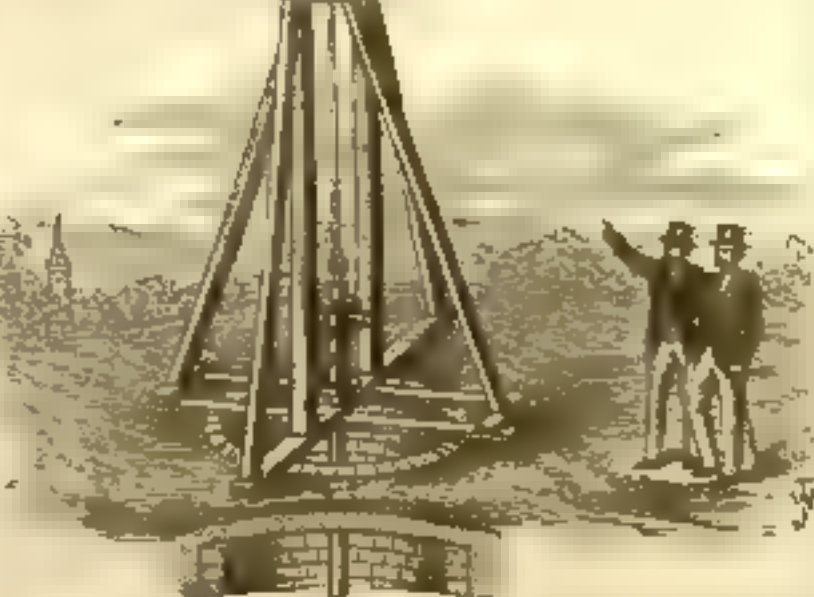
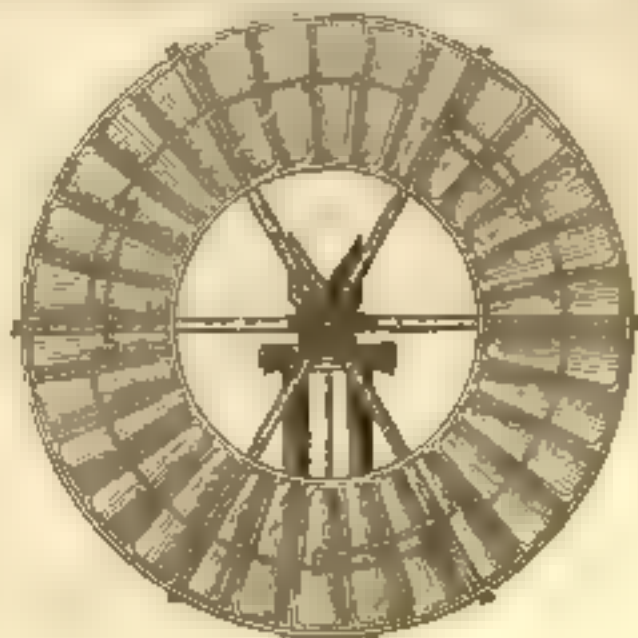
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2 1/2 inches	£1 8 0
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THE PATENT ANNULAR SAIL WIND ENGINE.

These Engines are adapted for Grinding, Chaff Cutting, &c., as well as for Pumping.

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28 gallons	£5 10 0
24 "	4 19 0
16 "	3 14 0
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WATER BARROW.

50 gallons	£5 12 0
38 "	3 17 0
30 "	2 13 0
20 "	2 2 0



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WARNER'S GARDEN ENGINE

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WARNER'S AQUAJECT

Useful for every variety of purpose—in watering or washing flowers or trees in Gardens, Conservatories, &c., also for washing Carriages or Windows, any Lust, &c.
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 Small size for the hand, as an ordinary Syringe 0 15 0

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BY SPECIAL APPOINTMENT,
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THE DUBLIN BOTANIC GARDENS
THE LIVERPOOL BOTANIC GARDENS
THE LEEDS ROYAL PARK

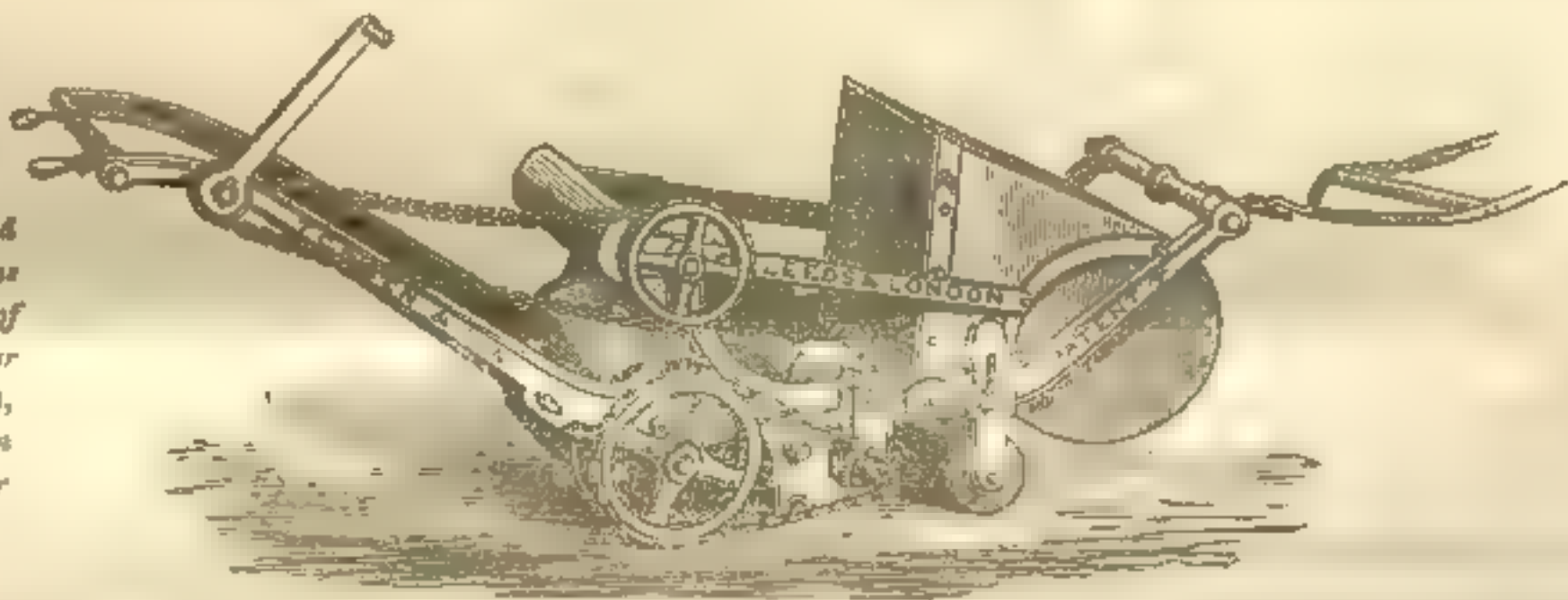
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have proved to be the best, and carried off every Prize that has been given in all cases of competition. Since the first year they were introduced (1856), upwards of 46,800 have been sold, and 25,000 of that number during the last five seasons.



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warrant every Machine to
entire satisfaction, and
approved of can be returned
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PRICES of HORSE, PONY, and DONKEY MACHINES, including Patent Self-delivery Box, Cross Stay complete, suitable for attaching to ordinary Chain Traces or Gig Harness.

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To Cut 30 inches	£21 0 0	} Leather Boots for Horse, 25s.
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Both the Horse, Pony, Donkey, and Hand Machines possess (over all other Makers) the advantage of Self-sharpening. The cutters being steel on each side, when they become dull or blunt by running one way round, the cylinder can be reversed again and again, bringing the opposite edge of the cutter against the bottom blade, when the Machine will cut equal to new. Arrangements are made that the cylinder can be reversed, by any inexperienced person, in two or three minutes.

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To Cut 10 inches	..	£3 10 0	Suitable for a Lady
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SHANKS'S PATENT LAWN MOWERS FOR 1869.

UNDER THE PATRONAGE
OF
HER MOST GRACIOUS MAJESTY
THE QUEEN,



AND MOST OF THE
PRINCIPAL NOBILITY
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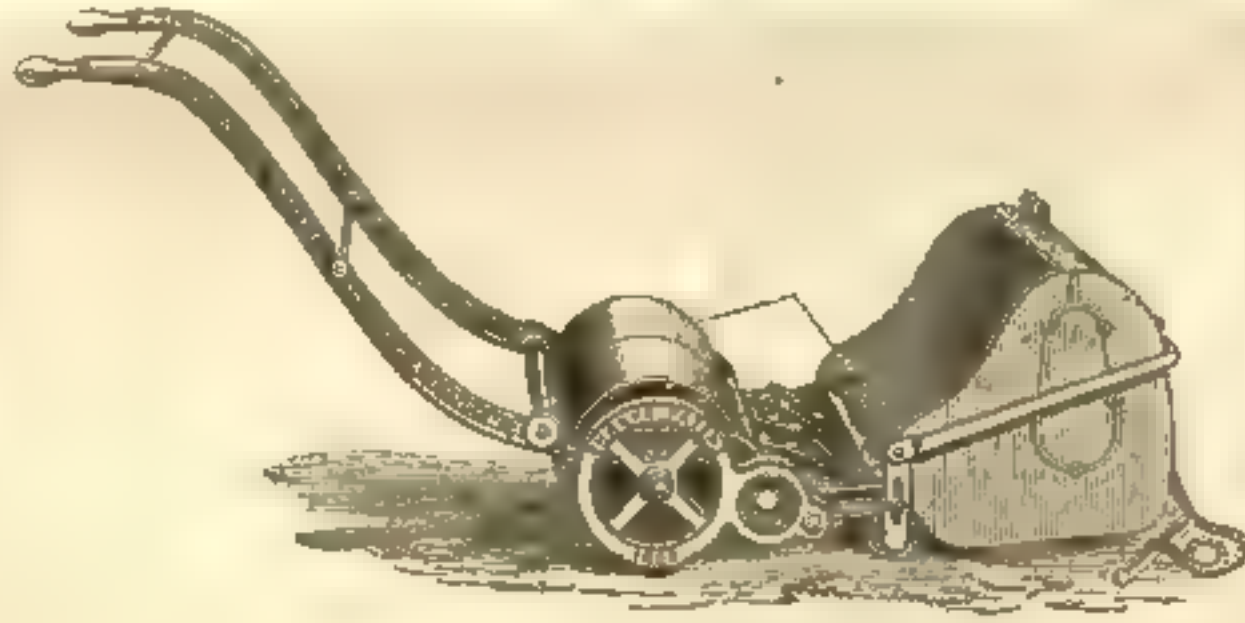
The Patent Improvements recently introduced give Shanks's Machine several important advantages possessed by no other Lawn Mower.

PATENT DOUBLE-EDGED SOLE PLATE, WIND GUARD, &c., &c.

THE UNPRECEDENTED SALE FOR 1868 BEARS TESTIMONY HOW MUCH THESE ADVANTAGES HAVE BEEN APPRECIATED



THE FIRST PRIZE MEDAL
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INTERNATIONAL EXHIBITION,
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HAND MACHINE.



THE FIRST PRIZE SILVER MEDAL
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A. S. AND SON have, in addition to the PATENT DOUBLE-EDGED SOLE PLATE and WIND GUARD, made very great Alterations and Improvements in their Machine. These alterations, which were introduced last Season, have now undergone an effectual trial, and the result has been so successful as to enable A. S. AND SON to offer a Machine which far excels any other that has ever yet been offered, *whether for ease in working, certainty of action, or durability* It has only to be compared with other Machines, when its superiority will be at once seen and understood

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10-inch Machine	£3 10 0	} <i>Easily Worked</i> <i>By a Lady</i>	16-inch Machine	£8 10 0	} <i>Easily Worked</i> <i>By a Man</i> <i>By a Man and a Boy</i> <i>By Two Men</i>
12-inch Machine	4 10 0		19-inch Machine	7 15 0	
14-inch Machine	5 10 0		22-inch Machine	8 10 0	
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Width of Cutter.					
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Boots for Pony, 22s. per set.; Ditto for Donkey, 18s. per set.

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Width of Cutter.					
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36-inch Machine	22 0 0	30s. "	
42-inch Machine	26 0 0	40s. "	
48-inch Machine	28 0 0	40s. "	

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OR

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BY SPECIAL APPOINTMENT,
MANUFACTURER



TO HER MOST GRACIOUS
MAJESTY THE QUEEN.

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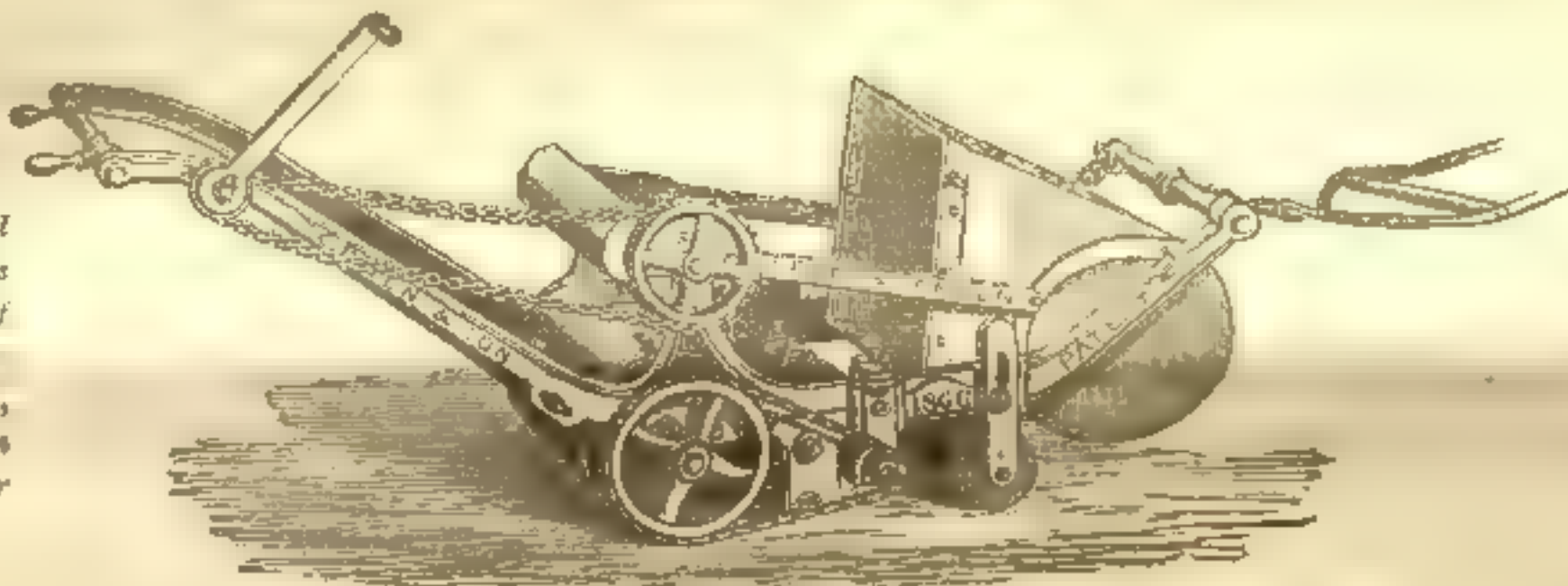
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New Zonal Pelargoniums. CHARLES TURNER strongly recommends the following: EXCELSIOR, Silver Type... MAY QUEEN...

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Bedding Plants. ARCHD. HENDERSON'S DESCRIPTIVE and PRICED CATALOGUE OF BEDDING PLANTS is now ready...

Hardy and other Bedding Plants. ROBERT PARKER begs to offer the under-named, all of which can be supplied in strong, healthy plants...

DIPLADENIA AMENA. J. W. WIMSETT HAS GREAT PLEASURE IN ANNOUNCING THAT HE HAS PURCHASED THE WHOLE STOCK OF THE ABOVE BEAUTIFUL PLANT...

THE ROYAL SEEDSMEN. GENERAL PLANT CATALOGUE, ILLUSTRATED WITH COLOURED DRAWINGS. JAMES CARTER & CO'S NEW PLANT CATALOGUE IS NOW READY...

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Table listing various plants and their prices, including Achimenes, American Plants, Aquatics, Carnations, Geraniums, and Orchids.

W. R. & SONS will also be happy to forward either of the following Catalogues on application. CATALOGUE of FERNS, CATALOGUE of FRUITS, CATALOGUE (Spring), CATALOGUE of IMPORTED DUTCH and other BULBS...

made of laths or strips of wood, with intervals... These trays are made as to be stacked one on the other...

VERTICILLUMS run into extremes the most nervous things at the lowest... What sort of plants should be entrusted to the...

BLENDING UNDER DIFFICULTIES

...Mr. Anderson... terms to the composition of two plants, what to grow and what to...

...extra cost and trouble... a plant that shows... in the midst of tall...

...the most... the most... the most... the most... the most...

...the most... the most... the most... the most... the most...

...the most... the most... the most... the most... the most...

...the most... the most... the most... the most... the most...

...the most... the most... the most... the most... the most...

choice of city nurseries, growing and blooming in spite of all surrounding dirt... Among biennials and perennials...

Some people have tried and failed with Delphiniums, even with Digitals, which has too flimsy a leafage to withstand smoke...

I will not permit me to give you points of importance that might otherwise be directed to... I should have had something to say about the...

...the most... the most... the most... the most... the most...

There is yet another style of gardening that I very much wish to be taken in hand by city gardeners...

...the most... the most... the most... the most... the most...

...the most... the most... the most... the most... the most...

thing brought into requisition, and it is within the reach of many in almost every town in the kingdom...

The great matter is to get a certain amount of air to grow... the matter should be considered and suited to the particular locality...

If there be one thing more than another that will stamp the action of your Association with the due sterling worth...

THE DELARGONIA CONGRESS

...the most... the most... the most... the most... the most...

...the most... the most... the most... the most... the most...

...the most... the most... the most... the most... the most...

...the most... the most... the most... the most... the most...

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full sized leaf, not a rampant one, and we must have, if possible, perfect colour. The latter for preference in any event. Tulip growers (now alas few and far between) have always had the same difficulty only in a much higher degree, for the colour of the Tulip is still in a much higher degree. They overcome it by using old well-rotted, and decomposed cow manure, and I would do the same. I compost then, and had three parts of very fine sand, obtained if possible from an open pasture, where the grass is the best stacked, just enough to kill the grass, and then pulled to pieces, and one part of cow manure, and a part of a sandy peat and one half of a part of water. This is at a distance in the largest of Mr. Sargleton's plantations of Jersey who has a splendid collection of Tulips, and has obtained the best results during the last five years, and is ordered from thousands of seedlings, and whose reputation is therefore worth listening to. He was led to use it by noticing how the roots seemed to fasten upon the cyster when he sometimes used instead of drainage, and he has found it improve both the growth and colouring. If reasoning from analogy be of any use at such matters, he is right. For Mr. Thos. Rivers has pointed out that calcareous water improves the colouring of Apples and Pears.

2. In Pots.—What is worth doing at all is worth doing well. Do not waste time, labour, or the space of a half pot of soil. Applying these wise considerations to the best of the trial, I have found that the best way is to use a 32-sized pot. Having fixed upon the position of the bed (which if possible should be fully exposed to the sun, and sheltered from the north and east), remove the old soil to the depth of 2 feet, then fill in for about 6 inches with stones, brick-bats, clinkers, &c. (the largest at the bottom), to secure good drainage, cover these with a layer of sods, grass downwards, or, failing these, with a thin layer of brush wood, or short straw &c., next, rough ridings from the potting-shed, or then fill up to some 2 inches higher than the intended level, with the compost recommended above, or imitate it as nearly as convenient—e.g., hot sun, manure (after doing duty, not before, may be used for the purpose), and may be applied in rather larger proportions than in pot culture, for which the compost is used to be specially meant. A large bed here, but smaller plants after the above fashion, was really magnificent. The plants, when put out, soon made vigorous growth, and near the end of the autumn the plants fully had dry summer, affording many dozens of cuttings, while at the same time, in the aspect, and within 10 feet of the same spot, plants of the same size and varieties, but planted in the ordinary unprepared garden soil, made no progress at all, and were taken up in autumn no longer than when planted out, without having yielded a single cutting. The cuttings alone from the large bed repaid the cost of labour and materials.

3. In Pots.—From the cutting to the exhibition table—I will begin by taking off a good, mature cutting, the best time for doing so for our purpose being about the middle of April—by all means avoid the 1st. Put it into a thumb-pot, in equal parts of loam, peat, and silver sand, then place it in a cold frame, and shade from sun till rooted. When the roots reach the sides of the pot, re-pot into a 50 in the compost given under the head "soil" and return it to the cold frame. Shade it for a day or two, till re-established, and then give plenty of air. When the plant has six mature leaves, pinch out the growing point, and when the roots again reach the sides, re-pot into a 32-sized pot, and return the plant to the cold frame. Continue to stop it when needful—having in view the future finished plant—and above all things avoid the knife. If any shoot threaten to grow too rampant, it may be brought to reason by bending it gently down for a time, and a weakly one may be encouraged by placing it more upright. When the weather will permit, take the lights off all night. This and the nearness to the glass will give colour to the leaves. In the hot season, a little water may be given, but not more than is needed to keep the soil moist. The water should be put on a high shelf close to the glass, at the back of the greenhouse, and from a reservoir run the plant out of its pot, trim the outside roots, run the fingers gently through the ball, and place it in the same sized pot. Now, put it into a close frame, having a gentle bottom-heat, and shade from sun till again established, when it may be returned to its place in the greenhouse. Continue the stopping and trailing as the growth advances; and, as soon as the roots have again filled the pot, shift into its exhibition home, a "No. 24." Place it in a close frame, slightly heated, for not more than a week, and then return it to its old shelf in the greenhouse, when it must be carefully tended, stopped, trained, and regularly turned round, to avoid its growing out of shape. By no means drive sticks through the best roots, but train with matting to a wire round the pot, or some such contrivance. At least a month before exhibition, cease stopping, and remove the plant to a cold frame. Diffuse the sun's rays by means of stretched tiffany, or something equally transparent give plenty of air, and at night remove the lights whenever the weather will allow. During this finishing month clear weak soot water, or sulphate of ammonia (1 or 2 gal. lons of water), may be given twice a week.

The plant will now be ready for the exhibition table, to conquer or be conquered, its exhibitor being "equal to either fate." And now my labour of love is completed. Jonathan Smith, Jersey National School, Don Street, Jersey.

Home Correspondence.

Dendrobium Falconeri.—I must needs ask you for a small space to answer Mr. Anderson's notice of my letter, more particularly as he appears to have wrongly understood my remarks, and even goes so far as to say that I have introduced the word precision with something like a sneer. Now I did not write it in a sneering mood, but simply with a desire to elicit some further information, and I made my remarks as short as I could that I might not take up space in your pages when my standing as a gardener or a writer upon gardening did not entitle me to; and thus my letter might carry an appearance of abruptness. First let me notice that I did not impugn Mr. Anderson's own gardening experience, nor did I wish to appear to doubt the facts he gave us, I simply asked for more precision of expression, and being an employer of mechanics, and accustomed to the use of callipers in measuring small diameters, I asked for the measures, as I would have given them had I been asked. I am afraid I am again going to run the risk of being misunderstood, but that I cannot help, further than by disclaiming such intention. D. Falconeri is distinct in many ways, and in one important one is, I think, singular,—the bulbs do not thicken as they grow longer, even if good part of a yard long, and having many fresh points of departure added each year. Each joint in the bulb depends for its size upon the leaf that forms it; if the leaf gets damaged it remains smaller than the others, and perhaps neither forms a flower nor becomes the starting

point of a fresh bulb. Such being the case, any average growing growth is a good sample of the strength of the plant, first, there is the leafless part, then come five or six green joints, with the leaves still on, and so many of them should become points of departure when growing strongly. Dr. Lindley tells us a flower shoot is a stunted growth only. Mr. Anderson says this plant is as green as a Rush, the moisture it has lived in has preserved the leaves, and the leaves have kept that part of the bulb green, and the new growths are wood buds and not flower buds. I have one that has done the same thing, remained green all winter, the three oldest still green joints commencing fresh growths, and I conclude they never will flower or, as far as growing is concerned, the treatment appears identical, but I must still press the question as to the size of the joints, &c. I thank Mr. James Lorimer for his answer, and the temperatures he has given me. I can only express my continued surprise at the tremendous speed at which Orchids are killed. Now this should not be, and though I confess I put as a contrast to Mr. Anderson's cool treatment the highest temperature my house is likely to attain, I gave it no higher than it often has been in July and August. From 70° to 80° is enough for Pines as a rule, and is a heat that I believe Orchids require. Our grand question yet is to flower Falconeri, not to grow it; and I think that if Mr. Lorimer will read my letter again he will see we only differ in the mode of raising the required moisture, the atmosphere in my house is as near saturation as the heat at which it stands will permit. I have not the rule, I wish I had, but I believe it will contain nearly half as much again at 75° than it can at 55°. The paper I mentioned as having written about two years since was not an answer to any one, it was an attempt to start a discussion upon the meteorological requirements of Orchids, as shown by the paper I mentioned in the Journal of the Scottish Meteorological Society. Orchids want the warm rain condensed by the high elevations at which they are found, but they also need the hot sun to ripen the bulbs to the required flowering point, for what plant or tree has this tendency induced by cold?—and when I add that support should be given with the stimulating heat and moisture, I have again gone over all the points I wished to draw attention to in my last letter G. H.

Our Fruit Prospects.—So many friends, both at home and abroad, have written to me on the above subject—the spring having been so peculiar—that I am, with permission, induced to give the result of my observations in your columns; and to be as methodical as possible, I give it alphabetically. For the sake of foreign friends, or perhaps I ought to say colonial friends, some of whom have seen this place, and appear always to take a warm interest in it, and many others who have heard of this corner of Hertfordshire yet are never likely to see it, I may perhaps be allowed to give a short description of site and soil and climate. Saw-bridgeworth, a rural parish on the Great Eastern line of rail, lies about 20 miles in a direct line to the north-east-by-east of London, and at the extreme eastern end of Hertfordshire its climate is cold, sunny, and dry, summer heat 2° or 3° less than that of Chiswick, winter and spring frosts not so severe by 2° or 3°—so that we are cooler in summer and not so cold in winter as that central point of horticultural observations, for instance, on the 1st May last 6° of frost were registered at Chiswick, but here only 3°. With regard to site, we have those pretty undulations peculiar to the county, with its brooks and springs and watercourses, the latter bordered with rich alluvial loams, mixed with alumina and carbonate of lime; these clayey loams, with occasional fields with subsoils of calcareous sand, are disposed over a large district—this parish alone containing 7000 acres,—and are most fertile arable lands, often producing 8 quarters of Wheat per acre, yet, oddly enough, our pastures, unless heavily manured, are not rich, and have but little fattening power even under the highest culture. Apple trees, in the orchards of the farmers, succeed well, and have not that wretched, mossy, scraggy appearance they have in Devonshire, nor are they as luxuriant as they are in the Worcestershire and Herefordshire orchards. The crop this season on standard orchard trees of some 30 to 50 years old is very scanty. Such sorts as Dumelow's Seedling, Rymer, Sturmer Pippin, and others, are almost or quite bare, while, curiously enough, dwarf bushes, or pyramids on Paradise stocks, whether English, French, or Dutch, are crammed with fruit,—little bushes, from 12 to 18 inches high, will require a large portion of their fruit thinned out or they will die under the pressure. I have never thought more highly of these little trees than at present they require no wires or stakes, and but little trouble, merely that required by pinching-in their young shoots during the summer. Too much cannot be said in favour of them for small gardens, as they may be planted 3 feet apart, in rows or squares, and even less. Apricots on standards in the open air are quite bare of fruit, they bore large crops in 1867 and 1868. Trees trained against walls are also bare of fruit, as are the majority of those in orchard-houses the exception here is some tall standard trees in pots in the central border of one of our large orchard-houses, their heads were in a comparatively warm dry atmosphere, and the pollen consequently dry and active. Cherries are a most abundant crop, more so than I have witnessed for many years, boys have been employed for many days in chipping off the fruit from pyramids, more particularly those of the Duke tribe, such as the May Duke and Empress Eugenie—the ground is literally strewn with bushels of fruit, just on the point of colouring, causing some regret that they could not be suffered to ripen their beautiful fruit, but unless removed the rooks destroy

the trees. These trees, some thousands in number, are on the Mahaleb stock (*Cerasus Mahaleb*), which is at home in the calcareous soil. Cherries on standard trees in orchards are equally abundant. Currants and Gooseberries are a most abundant crop. Figs on walls are really loaded with fruit, a rare occurrence here, as the winter generally destroys all the young Figs formed in autumn, even when the trees are protected. I saw the other day in bush-like trees in the open ground weighed down with the quantity of fruit [We can confirm this. Ens.] Grapes never were more abundant bushes in the open borders, vines trained to walls, some under ground vinerias, and in houses where they are planted in the borders of vineyards under glass, all are full of fruit the latter are coming into bloom, these pyramidal vines will one day be popular. I may add that those trained under the roofs in cool vinerias are also showing abundance of fruit. Peaches and Nectarines may be reckoned a total failure. Trees trained to walls in the open air and protected by lights placed against them, and those on the same wall protected with the new-invented glass screens, and those on the same wall unprotected for an experiment, all are bare of fruit. Peaches and Nectarines in unheated orchard-houses are, with few exceptions, as bare of fruit as those on walls; the exceptions here are tall standard trees in pots standing with the Apricots I have mentioned, and some three or four dozen of dwarf bushes in pots which were placed in gentle heat in January, they are full of fruit, which is now ripening. My oldest tree, some 15 years old, and which never before failed to be fruitful. It appears to me that the dull moist weather in March, gaged the pollen to the anthers, so that a soaking tree when it was full of beautiful blossoms, no dust, as usual, flew off, the stigmas were therefore not properly impregnated, the fruit appeared to fall freely, and after a scoring attempt to swell dropped off. Still there are some strange anomalies, as I observe some Peach and Nectarine trees, neither old nor young, and mostly seedlings, standing among those that are fruitless, that are loaded with fruit. Years on standard orchard trees, are for the most part an abundant crop. Williams' Bon Christian, Beurre de Capiaumont, and other hardy kinds, have set large quantities, the fruit is now swelling fast, still they are not yet safe for the old market garden saying occurs to me, that "Fruit is never safe till in the basket." The exception to crops of Pears on standard trees here is the total failure of Marie Louise, my trees are over 30 years old, and they are quite bare of fruit, but only enough, some standard trees of the same sort, double-grafted on trees on the Quince stock, are full of fruit. Pears on Quince stocks are this year a great triumph, bushes and pyramids are for the most part set thick with fruit; cordons near the ground have not done so well. The most gratifying sight I have seen since 1865 is a plantation of I have Bonne Pears, 5000 in number, trees are from 5 to 25 years old, the former planted 3 feet apart, the latter about 6 feet. The old trees set such immense quantities of fruit that we have been compelled to cut off with a sharp knife millions of fruit, and still there are ten times more than we can suffer to remain. The little trees, some only 3 or 4 feet in height, were, like the old ones, masses of blossoms, a most beautiful sight; these, lacking age and strength, have set only moderate quantities, but they are charming objects. Plums are, with some exceptions, a good crop, the exceptions are the Green Gage, Jefferson, and all the Damsons, which, although very twig was full of blossoms, are a total failure. The Diamond Plums—or, to use a Borough Market phrase, the "Black Diamonds"—blossomed abundantly, and set immense quantities of fruit, which has now dropped off, leaving but a "sprinkle." Victoria set the varieties of Greengage Reine Claude de Burg and Oulin's Golden Gage, are bearing fine crops, but the most satisfactory of all Plums in this district is the Early Prolific, the trees of which, many hundreds in number, from 5 to 20 years old, are full of beautiful fruit swelling fast, and apparently quite safe. Prince Englebert (Engelbert of the Dutch property) a great bearer, has partially failed this year, as has the Belgian Purple, a most prolific sort. Plums of all kinds in orchard-houses have set large quantities of fruit, they are now placed out-of-doors and are well-plunged. Cherries in my Cherry-house are most abundant, and the early kinds, such as Gage's Early Prolific and Early Purple Gage are dead ripe, many other kinds are also fully coloured, and approaching to ripeness the house is full of beauty. *Thos. Rivers.* Would any of your correspondents kindly inform me what are the prospects of the Peach and Nectarine crop in orchard-houses this season without the benefit of a failure, owing, I believe, to the cold damp, sunny weather when the trees were in bloom. If and of a winter for it in any other way, as the trees are doing remarkably well. A. H. E. A general complaint.

The St Petersburg Exhibition.—One point on which dissatisfaction seems invariably to arise in the international exhibitions is the arrangements with the railway companies. The managers of the exhibition are naturally anxious to obtain some reduction of the fares for their expected visitors, and of the freight of the plants which they write to be sent to the exhibition, and these have been agreed to by the railway companies, and announced to the public, but when they come to be acted on, it is found that the privilege is so fenced in with stipulations, so encumbered with formalities, so hampered with trouble, that without going the length of charging the railway companies with intentionally breaking the law, the public (a charge which has been made by many of the victims), the practical result is that the exhibitor or visitor has not profited

to the extent promised him, and on the basis of which, it may be, that he undertook the... or sent his plants. It was so in Belgium. I... I was there denied the return privilege on... way back, and to secure it by representation or... insurance would have involved a delay and expense... Something of the same sort took... in Holland, and now again it has been repeated... Peterburg and that in spite of a payment having... made by the exhibition for the conces-... in spite of the special protection and favour... of S. Rogonow, the Minister in charge of the... department in Russia, who, by an arbitrary... of his power, which would probably be... nowhere else, redressed such complaints... under his personal cognisance. It is plain... these experiences that the present system of... with railways for a reduction of prices does not... and I think most people will agree with me, it... would be better that it should be altogether... unless it can be put on some better footing... no insuperable obstacle in the way of doing... The present evils arise chiefly from the arrange-... almost always of an exceptional nature, they... generally a matter of favour. The managers... in their official capacity have no knowledge... favour for horticultural exhibitions. Their... title is, not to promote horticulture, but rail-... roads, and they have no right to sacrifice a... of the interests they might make for any extraneous... however praiseworthy. If they can be con-... that, by reducing the fares or freights, they... an additional source of temporary revenue... may reduce them or if by offering them (as I... was done at St. Petersburg) a money payment... reduction, they may make it. The first, the... traffic brought for a week or two by a horti-... exhibition, is too brief and too trifling to have... weight. The second is the right way, but it will... work so long as the concession is arranged as an... arrangement, for which special instructions... to be given to all the railway officials on all the... lines. It is these special arrangements that... mischief. Before they can be completed, and... properly instructed, the travellers or goods... in the absence of instructions of course... are charged, and the mischief is done. To... work as properly the concession must be... a shape that will not require any new... or the issuing of any fresh instructions to... clerks and guards. Most, we suppose all... companies, have already sufficient machinery... operation (at all events in the summer... which the demands of an international or... exhibition could be easily adjusted. The... excursion tickets or books supply it ready... by previous arrangement the excursions could... suit the routes required by the exhibition, they... of these tickets could be supplied to... at so much per head "on sale or return."... would impose on the managers of the exhibition... of retailing these tickets to their members... at such prices as they might fix—perhaps... prices to the different kinds of members, exhibitors, members, &c. The trouble... not be great, however. Circulars require to... at any rate, and a paragraph adding that... is wanted at the reduced rate, the price... be remitted in advance, would only entail a second... One very great advantage of this plan would... be the routes allowed by the excursion, all the... interesting places in the neighbourhood might be... the journey going and coming might be... and the opportunity might lead many to... for the sake of the cheap excursion and the exhibi-... together, who would not have come for either by... such an arrangement, of course, would not... to the conveyance of plants, and it is not easy to... any general plan could be adopted with regard... On the whole I would suggest that, instead... with the railway companies, the exhibi-... should deal with the exhibitors themselves. Any... attempts at reduction of freight, drawback, or... to be given up, and rather let the exhibition... such a large allowance to the exhibitors, in pro-... of the cost of conveyance of their plants, as... would know. Sure am I that these draw-... and returns only lead to trouble, mystification, and... disappointment. There is another point in the... of these exhibitions wherein some improvement... possible. It is one of some delicacy, and which... with hesitation, and rather with the wish... what others think on the subject than to press... of my own. It will not be disputed that such... as these international exhibitions are, are some-... We are not born in the purple, and un-... is in a goodly number of chemical mixtures so here, the... always comes to the top. It occurs to me that it... worthy of consideration whether it would not... to have a few and ample general committee... of eminent members who might represent the... on these occasions when it was not desirable... great crowd should invade the domains of any... host, who desired to extend his hospi-... protection to the Congress, but did not bargain... conditions invasion of hungry locusts. It is in... of the Congress and exhibition itself that I... for it a plan that if we make ourselves un-... whether by our numbers or our manners, we... and less likely to be favoured with such... in the future. *Victor.*

measure to its having been transplanted last autumn, and also to the great drought of last summer. *Picea nobilis*, 8 feet high, transplanted at the same time as *Webbiana*, has seven cones upon it. *J. Pearson, Range-more Gardens, Burton-on-Trent.*

Variiegated Elm.—I enclose two branches from a Chinese Elm 30 feet high. The green branch is the natural colour, which it produced till within the last five or six years. Now the entire tree is, with the exception of some young shoots from near the ground, variegated as in specimen enclosed. Can this change be accounted for? *H. H.* [We are sorry to have no other answer for you than "we do not know." Eds.]

Cyrtanthus McKenii.—This pretty bulbous plant was discovered at Port Natal, by Mr. Mark J. McKen, and was sent by him to Dr. Hooker, who has named it.



It is described as a semi-aquatic, and seems to be extremely free-flowering; nearly all the bulbs received in the spring of 1868, though very small, having flowered in the autumn. The stronger plants produce from 7 to 8 flowers on a scape. The plant requires to be cultivated like *Imantophyllum*, and, blooming late in autumn, and being very sweet-scented, like *Hyacinth*, it may be recommended to florists. *Haage & Schmidt, Erfurt* [A neat and interesting though not a showy plant, evidently growing and flowering freely. The flowers are white, and are represented of the natural size in the detached figure shown in the margin. Eds.]

Rhododendron Falconeri.—It may perhaps be interesting to some of your readers to know that this beautiful Sikkim Himalayan *Rhododendron* is flowering here in the open ground. It was raised by my employer about 20 years ago from seed which he received from the late Sir *W. Hooker*, and was planted out when very small, the plant is now 7 feet high, and the branches spread 19 feet in circumference. The flowers, which are of great substance, are creamy white, and average about 25 in the truss, of which there are 15 on the plant, its noble foliage and massive branches make it quite a conspicuous object. We have also *R. Dalhousiae* and *Edgeworthii* in flower, but they don't appear to be so hardy. *R. barbatum* has been gay all the winter with its compact brilliant scarlet trusses, and appears to be as hardy as *R. ponticum*; *R. Thomsoni* does remarkably well also, and has flowered profusely through the winter. *W. Johnstone, gr. to W. Shilton, Esq., Tremough House, Penryn.*

Roses.—I hear the *Roses* are in a sad condition in various quarters. Mildew, honeydew, Orange fungus, and black stains in the leaves are the chief causes of the complaints, to which I fear may be added Aphides. I have had to contend with all these foemen. The *Rose* trees here are however in very fair condition, and I hope to gratify "D" of Deal, who promises me a visit on June 22. I have cut out the Orange fungus, and killed the Aphides, the black stained leaves are removed, and now honeydew is very rife both here and elsewhere. To-day (June 7) I have two men employed to wash it off the leaves, and also to water the plants. There are two great errors with regard to honeydew. The first is, that it falls from the skies. If this were the case all trees would be affected alike, and the tops of trees more so than the base. The other error is, that because where honeydew is, insects congregate, the honeydew is occasioned by the insects. Sycamore trees, Hornbeam, and *Roses* are the most liable to it of any trees. It is nothing more than the viscous secretions of the tree after a long continuance of N.E. or E. winds and cold nights. It must be washed off before it is dried on the leaves, the pores of which it will stop. I write this hoping I may be in time to save some of the *Roses* of England. The trees may not die, but if they are seriously affected, they will do nothing more for you this year, and the same remark applies to Orange

fungus. Usually this last evil does not affect the trees observably till August. Once more you must cut it out and burn it! In a few days I will send an account of some of the *Roses* of the last two or three years. *Paul Verdier* is very beautiful here. *W. F. Radcliffe.*

Fruit Prospects in France.—I learn, from the "Revue Horticole," that not only in the centre or north of France new Almonds, Peaches, and Apricots have failed, but a letter from M. Glady of Bordeaux states that a like failure has occurred in the south and the south-west of France, for he says that in his visits to his neighbors he remarks the total absence of Almonds, Apricots, and even of Peaches, a few only of the two latter are to be found here and there in isolated places. Pears are, however, an abundant crop, as are Cherries and Plums, the former having set as many fruit as they showed flowers. Apples at the period when M. Glady wrote (May 5), gave great hopes of an abundant crop, and the Figs were showing, as in this country, a heavy fruit crop; and he adds, that Vines everywhere show such a quantity of bunches as to give hopes of a fabulous crop. It is curious to note the failure of Apricots and Peaches over such a large extent of Europe, and in a climate where, one would have thought a bright sun, so unlike our cloudy spring, would have insured a different result. *T. R.*

Myosotis dissitiflora.—In reply to several inquiries respecting the above, I say the original introducer of this lovely plant (see *Gardener's Chronicle*, pp. 599, 600, 1868), affords me space just to say that I have never found the least difficulty in its culture or propagation. As regards the former, Mr. Fish's directions, I dare say, will succeed very well; but the fact is, it is a plant for everybody, rich and poor alike, much more likely to be nursed and managed to death, than to die of neglect. No doubt it will thrive with moderately generous treatment. It loves a pure air, and an open situation with a free light soil, and if it has these it will thrive anywhere, in sun or in shade (I do not mean directly under the drip of trees) in our cottage gardens it luxuriates beautifully with very little culture. With respect to propagation, it proves in most situations to be a most abundant seeder, indeed so much so that for the last 12 years or more I have never thought it worth while to save seed, but destroy all the plants as soon as the beauty is on the decline, trusting to the numerous seedlings which are sure to spring up in the borders, as it sheds its early seed freely before the beauty is exhausted. As before remarked (*Gardener's Chronicle*, p. 600, 1868).—"It has become quite a weed in the gardens about here," and this from seed. I do know of one or two localities where it does not reproduce itself as abundantly. As regards the many failures spoken of I attribute most of them to the practice of propagating from cuttings, and that sometimes from unhealthy plants, and also endeavouring to save the old plants over after flowering—they are never so good as fresh from seed. That Mr. Fish's plant is identical with mine there can be no reasonable doubt. I sent up specimens from my garden for examination (which are alluded to at p. 600, 1868) about the same time as Mr. Fish, and believe I can trace his plant originally from my stock in a pretty direct line. I take the opportunity of correcting an error or misprint of one locality for it—instead of *Bogelberg* it should have been *Fogelberg* in your former notice. *Jas. Atkins, Painwick.*

Foreign Correspondence.

THE SPRING IN ALGERIA.—Since I wrote from Algiers, I have visited rapidly a considerable portion of Algeria, posting from seven in the morning until six in the evening. This is a favourable mode of progression, inasmuch as it not only gives time for a minute inspection of the main characteristics of the country, geological and botanical, but admits of a stoppage on the road whenever any feature of interest presents itself. The survey I have made may be divided into three sections. firstly, an expedition to the East, to Fort Napoleon, at the base of the granitic or primary mountains of Jurjura, the highest point of Mount Atlas, secondly, an excursion to the entrance of the Desert of Sahara at Teniel el Haad, and to one of the summits of Mount Atlas (5500 feet high), in the middle of the range, where it assumes the form of rocks of transition—mica-schist; thirdly, a journey from Milanah, at the base of this region, to Oran, through a limestone and tertiary range, corresponding to the cretaceous period, and to the Italian tertiary sandstones. Singularly enough, I could find no work on the geology of Algeria at Algiers or Oran, and the various French guide-books do not allude to such a science, nor do they give any account of the nature of the rocks or soils in the different regions they describe. I was told that the only work on the subject is an expensive report of a Government Commission, published in quarto, with map, issued by the School of Mines many years ago, but I could not get a copy. In the catalogues of books on Algeria, published by the various booksellers in Algiers and Paris, there was not the mention of even a pamphlet on the subject—a most singular fact, when we consider the bearing geological formations have on agriculture, and on the botanical aspects of a country. It would seem as if the study of, and the interest in, geology in France, even in its application to agriculture, were confined to the scientific men professionally connected with it. Having no authorities by me, what I state is thus entirely derived from my own observation. I believe, however, that I am right in dividing the Atlas range, from the province of Constantine to the frontiers of Morocco, into three sections. East, granite, Middle transition, mica-schist and sandstone, West, cretaceous, and it will be seen that vegetation follows strictly these geological divisions, as is everywhere the case.

I think it best to mention at once the deductions which I have drawn from this survey of the spring

70 feet from the stems of the Vines, beyond this distance the roots may take the chance. Indeed, if only one-half or a third of the above-named area has been at some time well prepared as a Vine-border, and the whole of the space, after it was found that the roots had taken possession of it, was kept sacred to their use by annually feeding them on the surface with some appropriate sustaining matter, such as half-rotted bones or the Vine manure alluded to in p. 388, if this space has been kept undisturbed, except by having the surface slightly stirred during the summer months to keep down weeds, and to prevent cracking during hot weather, large quantities of rootlets will be annually emitted from the base of the stem and the larger roots, and will in succession take possession of the space allotted, until the whole area becomes one complete mass of roots. A better instance of this cannot be found than at Ilarewood, near Leeds, where a noble Muscat Vine fills a house 60 feet by 20 feet, and annually produces between 400 and 500 bunches of Grapes, which for colour and flavour can scarcely be surpassed, as the fine samples cut from this remarkable Vine and exhibited before the Fruit Committee on the 19th of January last, abundantly proved.

As the cultivation of the Vine is to be one of the principal features of interest at Knowsley, I may be pardoned for wandering so far away from the subject which forms the heading of this paper. My only apology for doing so is my wish to throw in a small ray of light upon Vine growing, and the heating and surface cropping of Vine-borders, so much discussed of late in your pages. I purpose in my next to enumerate the various horticultural structures at Knowsley, stopping only to notice the most prominent and striking objects they contain. *J. Wills, F.R.H.S.*

Garden Operations.

(For the ensuing week)

PLANT HOUSES.

Ferns, both British and exotic, are now making active growth, and according to the way in which they are cared for, so will be the size and quality of individual fronds, and the beauty of the plants. We are very prone, in our anxiety to get fine plants, to coddle them far too much, especially during what should be a period of rest. Take, for instance, the delicate and fragile *Adiantums*, and I here allude especially to *A. cuneatum*, *A. macropodium*, and other kindred species, though few, if any, plants delight in a period of rest more than do these and similar kinds, how very seldom do we meet with specimens in a resting state, if such a period be insured, and the roots be healthy, not a tithe of the warmth, moisture, and forcing routine is necessary that is usually employed. Take, as an example, ordinary British Ferns, and see their robust growth, stimulated as it is by the very moderate amount of heat and moisture of our March and April. So robust a growth under a purely artificial regime is not possible. What a lesson is here indicated. In Fern growing, under artificial circumstances, very much depends on the manner in which they are potted. Few things delight in crude soils more than do Ferns, but it must be so afforded each plant that nothing whatever in the way of sudden matter comes near them. They delight in an open porous soil, as opposed to a close one of small grains, or adhesive texture. And yet they thrive well in soils containing an extraordinary amount of moisture. To secure these necessary conditions it will be requisite, first of all, to obtain and to maintain a perfectly constructed and an efficient drainage. Next, a soil so beaten, and hence divested of its more retentive earthy matter, that the now quickly decaying fibrous material chiefly, or alone remains. Porous crocks, broken up from the softest baked potsherds, portions of soft and moderately burnt red brick, and pieces of charcoal, moderate in size, should be freely mixed with the soil. The whole then should be pressed firmly down, and a portion of smaller particle or more retentive soil should be used for the final surfacing process, with a view to counteract too free evaporation during the drier periods of a summer season. In our treatment of Ferns we are too prone to scouse them too often "over head and ears" with water. This often causes the delicate young fronds of some of the more fragile-leaved varieties to damp or fog off. A nice moisture-laden atmosphere, of moderate warmth, and where no cold chilly draughts are permitted, is alone suited to all ordinary varieties. The old, but most lovely and neglected species, *Didymochloa truncatula*, and its fair ally, *D. pulcherrima*, will be found to thrive remarkably under such a treatment, as indeed will most others. Air, both by night and day, must now be admitted into greenhouses more and more plentifully, until, by a proper gradation, all the quantity possible be admitted without draught. Keep up a nice moisture in the atmosphere surrounding the plants, by damping down all cool surfaces as frequently as necessary. By placing some of the more hardy subjects in the most exposed situations, they may be hardened somewhat preparatory to being turned out. I am an advocate for partially depriving them of their accustomed supply of root moisture, for a week or so previous to turning them out. I consider that, by so doing, the leaf fibre becomes somewhat more hardy, and will the better withstand the very decided effects which attend on full and sudden exposure to light and air. I do not, however, advocate the plan to be carried to such an extent as to cause the plant to flag perceptibly, &c. An actual tax is easily levied on any well-nourished plant, without resorting to such a system of torture as this.

FORCING HOUSES.

Fires may be dispensed with in *Vineres*, the plants in which are now finally ripening their Grapes, except

in instances where haste in ripening is of the first importance. Under such conditions, however, the atmosphere must be kept dry. A good high range of temperature may be afforded by the sun's heat by day, with plenty of air. But the house should not be closed too suddenly or too early, or whilst bright sunshine penetrates directly into it, as it invariably causes moisture to rise in the form of vapour, and this condenses afterwards and settles freely on all around, and does in mischief if the night temperature be low. Those *Vineres* from which the fruit has all been used, should have a plentiful supply of air from this time. In regard to *Pines*, it is a practice followed by some growers at this hot drying period to place a fresh surfacing of tan upon the tan-pit into which the pots are plunged, this for a double purpose. It not only increases the warmth of the mass contained therein, but also, by being placed well up to the rims of the pots and occasionally over the whole ball, tends to keep the balls more moist, and to do away with very frequent waterings, &c. One word about *Melons* before I finish with this department for the present. If there be no decided and obvious change from dull sunless weather to a bright period by the time this appears, I must advise that less water than I have ordinarily suggested be afforded the roots. If the upper crust or soil upon which the vines rest be kept too constantly wet, the plants will not succeed thoroughly. Have resort therefore to tubes, which may be formed of moderate-sized drain tiles or bottomless garden pots, which when sunk in the soil will prove an easy means of affording bottom moisture to the roots without too frequently moistening the whole surface soil. Be particular, once the fruits are set, to elevate them upon some dry surface, in order to insure them against an excess of moisture, which will frequently cause them to rot off if they are permitted to lay in direct communication with the damp soil.

HARDY FLOWER GARDEN.

Those who make a practice of layering *Chrysanthemums* should now peg down the long shoots which have been formed, that they may turn their heads up preparatory to the proper layering process. *Tulips* may now be taken up out of the ground. Lay them carefully on to a cool moderately dry surface, that the fibres which remain attached to the bulbs may ripen off finally. Do not store or pack them away into a close place until this is thoroughly done. *Bedding plants*, which may have had a tolerably good shower of rain upon them, and the beds in which they are planted will now be very quickly benefited by having the surface soil carefully loosened with a hoe. It will be necessary afterwards in some instances to secure such plants as *Verbenas*, *Petunias*, &c., against the ill effects of wind waving, by pegging them down, or other similar means. Finish transplanting all early *Asters* and other similar tender annuals. *Polage plants*, adapted to outdoor work, may also be safely put out now. Where any of the newer varieties of *Clematis* are bedded out or made to furnish hoops &c. they will need constant care and attention in regard to pegging down tying them in, and so on. These are rather averse to any sort of restraint, and being very brittle, need care in the handling. *Roses* in small pots should be shifted into pots a size or two larger, and so be encouraged to make a good summer's growth. *Auriculars* should now receive a slight amount of shading when the sun is at the hottest, about midday, keep them scrupulously clean, and where necessary pot off choice seedlings. Remove all old seed-vessels from *Rhododendrons* immediately the flowers are over, and so aid the young shoot formations in making a good growth.

KITCHEN GARDEN.

The first showery weather should be taken advantage of to transplant out into permanent quarters different varieties of *Broccoli*, *Brussels Sprouts*, and successional batches of *Brussels Sprouts*, all of which will have grown freely, and thus become fitter for the operation during the past warm period. Those who neglect making free use of the hoe during bright weather, will hereafter find to their cost the additional and unnecessary labour which such negligence entails. *W. E.*

TOWN GARDENING.

CHRYSANTHEMUMS, both large-flowered and pompons, now require attention in the matter of staking and tying. The tall-growing sorts should receive this attention at once, unless they are required or preferred dwarf, in which case they should be laid down, but the tops of the shoots should not be taken off. The leading shoots of the Pompons should now be removed, and these, if stuck in the ground in a shady place, will readily make roots, and grow into dwarf bushy pot plants before autumn. Watering is now one of the most important operations in town gardening, and especially during dry weather, the water-pot should therefore be used freely. Instead of using the latter, a more effectual plan for large places is to have the water supplied by a water company to a plug, on which a hose can be attached, as by this means the trees can be readily and beneficially washed, and a good soaking given to the ground at convenience. *J. D.*

STATE OF THE WEATHER AT CHISWICK, During the last 43 years, for the ensuing Week ending June 19 1889.

June	Average Highest Temp.	Average Lowest Temp.	Mean Temp.	No of Years in which it Occurred	Greatest Quantity of Rain	Prevailing Winds.							
						N	NE	E	SE	S	SW	W	NW
Sunday	71.9	47.8	59.8	25	0.58 in	1	5	0	1	2	4	10	9
Mon.	72.8	47.9	60.3	19	0.68	1	8	7	1	7	12	9	8
Tue.	73.8	48.2	60.9	19	0.79	2	7	7	3	5	11	2	6
Wed.	73.8	48.3	60.4	14	1.16	4	5	8	1	10	7	8	3
Thurs	72.9	47.3	60.1	23	0.80	3	5	4	4	7	11	7	7
Friday	73.9	48.1	61.2	21	0.85	1	1	4	6	7	11	1	1
Satur	74.8	49.6	62.2	22	0.95	2	5	7	2	4	10	4	3

The highest temperature during the above period occurred on the 19th, 1846, therm. 83 deg., and the lowest on the 13th, 1850—therm. 30 deg.

STATE OF THE WEATHER AT CHISWICK, NEAR LONDON For the Week ending June 9, 1889, as observed at the Horticultural Gardens.

June	Moon's Age.	TEMPERATURE.						
		Barometer.			Of the Air.			Of the Earth.
		Max	Min	Max	Min	Mean	1 foot deep	
Thurs	3	29.975	59.7	69	46	54	51	
Friday	4	29.973	59.6	62	44	53	51	
Satur	5	30.122	58.2	73	46	59	55	
Sunday	6	30.143	58.5	83	46	59	55	
Mon	7	30.111	59.0	84	48	59	54	
Tue	8	30.191	59.0	74	42	54	54	
Wed.	9	30.114	59.5	73	43	54.0	55	
Average		30.097	59.016	74.4	44.7	54.4	54.1	

June 2—Densely overcast, overcast, brisk w. ad. 4—Overcast, fine, overcast, brisk w. ad. 5—Fine, very fine, clear, and fine at night 6—Very fine exceedingly fine, very fine in A.M. 7—Very fine exceedingly fine and hot 8—Overcast, very fine, brisk wind clear and fine 9—Very fine overcast, but fine clear, cold wind Mean temperature of the week 18.10 deg. above the average.

Notices to Correspondents.

APPLE SHOOTS INFESTED WITH OIDIUM: A. J. The apple shoots are infested with an Oidium. The malady is common this year. You can either just the trees with sulphur or, what is better, cut all the affected shoots burning them immediately. *M. J. B.*

CALCEOLARIA ALBA FLORIBUNDA: Mrs. Calceolaria is a more or less liable to go off, canker and decay from the bedding-out time, and after as well, in some strange way the causes of which are as yet unknown. In some gardens of late years, they have become so fruitful of mushrooms and so uncertain in their lives, that their culture has almost been abandoned. More injury we believe is done them through over kindness than through neglect. Some varieties also—a particularly that under notice—appear tender in constitution, and are more liable to die than others.

CUCUMBER LEAFY SCALD: S. O. The blotches on the cucumber leaves and cotyledons are evidently scald, but the colour of the leaf sent there seems to be a very vigour, which is, perhaps, constitutional, about the base. Try a pinch of guano on the soil. This has sometimes a wonderful effect when plants are weak. *M. J. B.*

CUNNINGHAMIA MENZIESII: C. D. Undoubtedly the specimen you send from Bletton belongs to the species, as *C. Cunninghamii*.

DRAWING: A young *Passer*. Apply to James Richard Esq. Assistant Secretary, Royal Horticultural Society, 5, Kensington, W.

FERNERIES: W. F. In type.

GOOSEBERRY CATERPILLARS: A. B. One foot radius is quite sufficient for small bushes; larger sized ones, however, should be treated according to the surface area covered by the bush.

GRAPE BUNCHES BEHAVING BEFORE FLOWERING: A. D. Entirely owing to chilly and water resting on them combined with a lessness of temperature at one time and great excitement following. It is very frequent occurrence in late houses with little artificial heat, where the vines are growing vigorously, but more common than usual in season, which is remarkable for cold chilly nights. See answer to C. D., at p. 50.

HERBARIUM: Alpha. Get some coarse paper, lay the plants on a sheet, and arrange them as carefully as possible on a place half-a-dozen more sheets, then more plants at a distance of this half, nailed at a little distance from the sheet by means of a wire. I think you had the paper, as much the better. The pile completed in this way, place a heavy weight on the top. After a day or two remove the damp paper and put dry in its place. The frequency of changing depends on the succulence of the plants, on the state of the atmosphere, and other causes, which experience will teach. When dry the specimens may be carefully packed down with thin glass on to sheets of white paper of the size, and daily labelled and arranged. If brushed over with a solution of corrosive sublimate (poison) in methylated spirits insects will not attack the specimens.

INSECTS: Beta. Your insect is Oribyphidius. Shake the rods at night, placing a cloth under them, and a few nights you will destroy every individual. *M. J. B.*

JUDGING PEACHES: W. F. It is often impossible to determine positively which of the specimens shown in the indefinite class are most entitled to the award. Indefinite classes, which are a great annoyance to exhibitors and jurors, are generally determined by the custom of the neighbourhood, or the views of the market. If, as you put it, A shows 25 distinct equally good plants and B shows 60 plants, including 25 as good as A, and A's, the rest being duplicates and smaller plants, we see how, since B's collection is equal to A's and more, the judges can avoid picking B first as the best collection, unless, indeed, there are such specimens amongst his duplicates as may fairly be regarded as marks against him. This conclusion is in the case of the introduction into a schedule when there is to be competition for prizes. Had the schedule you quote from the collection of 15 distinct sorts, and the uncertainty had been avoided, and A's group would have been comparable with B's, because each must have stage more.

MIMULUS: W. F. A very interesting insect, I think, combining the white spotting of the olive and the rich coppery red of *M. cupreus*. Those which may be seen as much enlarged forms of pupae with prominent are particularly showy, and have most merit.

NAMES OF PLANTS: T. S. P. About Douglas's *M. B.* To make us pay postage, and name plants in the list, much crushed, but sufficient remains to make it possible to do that they are affected with the parasite *Ascomyces deformans*, which is very common on the almond trees. No remedy is known. *M. J. B.*

PEARS ATTACKED BY INSECTS: T. B. Your Pears are in the same state as some which were submitted to the Committee two or three weeks ago. The insects, undoubtedly Dipterous, and identification is promised, but has not at present been received. The flower was transmitted, but in no case can we undertake to name varieties.

SPOT ON PEACHES: Sigma. It is a sort of gumming which attacks fruits are more or less subject to, and is caused through a little unhealthy action of the roots, and possibly your soil is a little sourish—cool, and rather not at all in harmony with the temperature of the house.

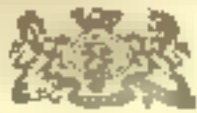
STEPHANOTHYS: J. S. We advise you not to try experiments on the fruit. The plant belongs to a bad lot, as far as pests are concerned.

COMMUNICATING: R. F. J. D. G. — J. H. F. — J. S. T. — E. N. — A. J. C. M. H. — T. B. — H. H. — F. M. — W. A. P. — J. J. — I. A. — F. E. — J. A.

The Best Swede in Cultivation is Suttons' Champion.



SUTTONS' CHAMPION PURPLE-TOP SWEDE—
 Of course Champion, price 1s. per lb., much cheaper by the
 bush, carriage free. Lowest price per bushel on application.
 J. C. SUTTON & SONS, Seedsmen to the Queen, Reading, Berks.



The Royal Seedsmen.

J. C. Sutton & Sons
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SEED FARMS:

JUPES HILL FARM, DEBHAM, ESSEX;
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CARTER'S GRASS SEEDS,
 as supplied to H. M. G. MAJESTY the QUEEN, and H. R. H.
 the PRINCE OF WALES.

Finest quality, per acre, 2s. to 3s.

For full particulars see CARTER'S FARMER'S CALENDAR
 of 1869 (illustrated). Post free, 6d.; gratis to subscribers.

CARTER'S IMPERIAL HARDY SWEDE,
 The hardiest and best in cultivation. Price 1s. per lb.,
 cheaper per cwt.

EVIDENCE OF QUALITY

C. J. WARD, Esq., Standlands, writes:—"The Swede Turnips (from
 your seeds) were the best in the neighbourhood."

FRAN A. LARKE, Esq., Boxhead:—"Your Imperial Swede is the
 best I have ever seen in this locality."

H. BARROW, Esq., Wouda, says:—"The Swede Turnip (Carter's
 Swede) was very good, I shall certainly have more in the Spring."

CARTER'S PRIZE SWEDE AND TURNIP

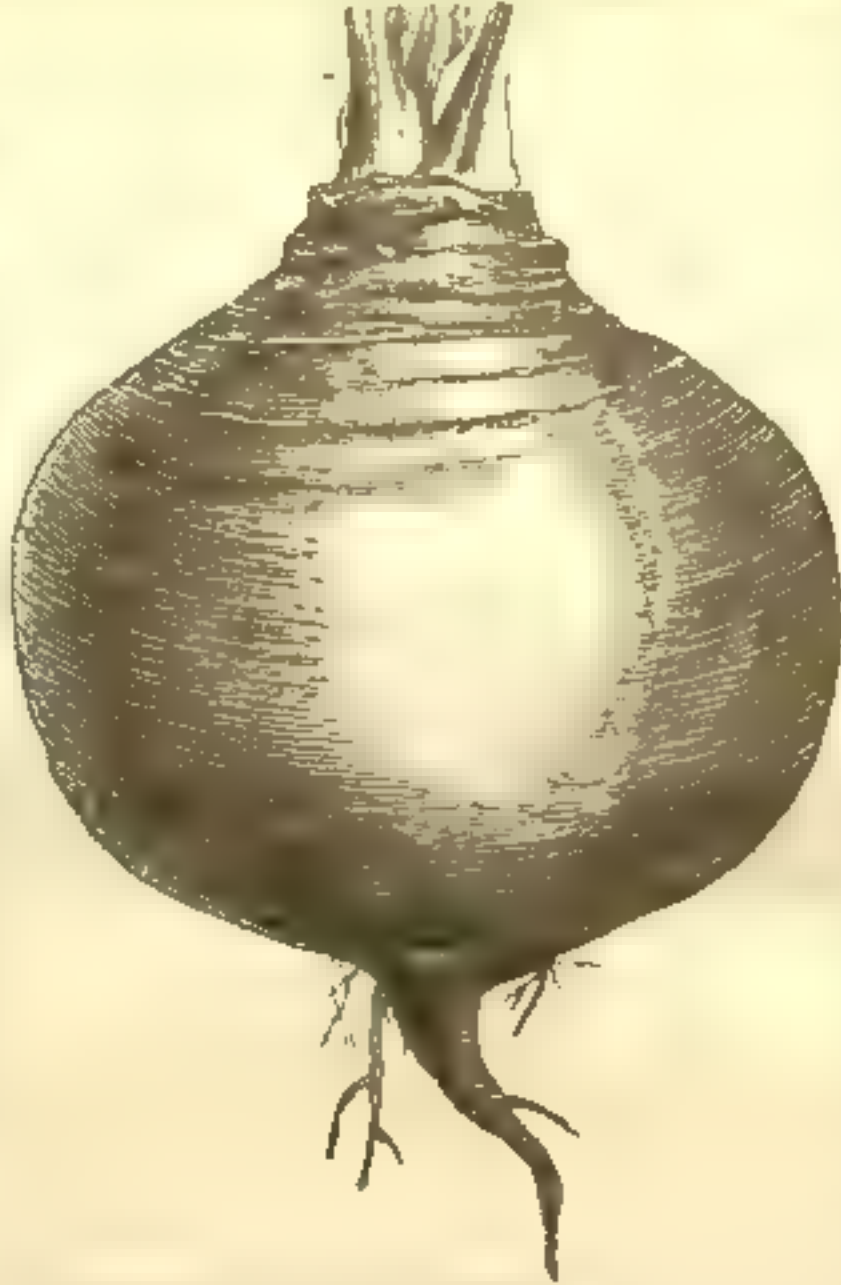
	Per lb.	s.	d.
BALL'S WESTHURY SWEDE		0	10
HARTLEY'S SHORT-TOP SWEDE, a large mottled-top		1	0
CARTER'S CHAMPION HYBRID TURNIP, fine quality		1	0
CARTER'S DEVONSHIRE GREYSTONE TURNIP		1	0
CARTER'S EARLY NIMBLE or SIX-WEEK, a very		1	0
quick-growing variety		0	10
POMERANIAN WHITE GLOBE, a handsome variety		0	10
IMPERIAL GREEN GLOBE, a heavy cropper		0	9
LINCOLNSHIRE RED GLOBE (very hardy)		0	10

Cheaper per cwt. or bushel.

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 Turnips, Grasses, and other Farm Seeds, harvested on their own
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WHEELERS' IMPERIAL SWEDE—Purple top, very
 hardy, very nutritive, large, handsome, and heavy. 1s. per
 lb., 4s. per bushel. Carriage free excepting small parcels under 20s.
 in value. Five per cent. discount for cash. For five consecutive
 years our Wheeler's Imperial has taken the 1st Prizes—open to all
 England—at the Gloucestershire Root and Grub Society, as the best
 Swede in cultivation. It is a sort especially to be recommended
 for 3 lb. per acre.
 J. C. WHEELER & SONS, Seed Growers, Gloucester, and 150, Mark
 Lane, London, E.C.

Improvement of Grass Lands.



SUTTONS' RENOVATING MIXTURE
 of the GRASSES and CLOVERS
 sown 1 1/2 months after the Hay is carried.

From 6 to 12 lbs. of seed required per acre
 Price 6d. per lb. net per cwt., carriage free

This is the best Mixture to improve the
 quality and yield of Grass, and for
 Pastures destitute of bottom swardage is
 invaluable.

Sutton & Sons, Seed Growers,
 Reading, Berks.

The Agricultural Gazette.

SATURDAY, JUNE 12, 1869.

MEETINGS FOR THE ENSUING WEEK

June 15—Hants and Berks Agricultural at Reading.
 — 16—Essex Agricultural at Colchester.
 — 16—Thorne Agricultural at Thorne, Doncaster.

THE history of every branch of scientific know-
 ledge is marked by an identity of character. Its
 early investigators have always wandered into
 error; for the ray of truth which first enlight-
 ened the mind, instead of being prized as an
 individual principle, has generally been too
 hastily made the foundation-stone of a theory.
 In this manner the original truth has almost
 invariably become intermixed with a mass of
 confused and incorrect ideas, and subsequently,
 when the theory has been rejected because
 proved to be fallacious, we find the truth and
 the error treated with equal contempt. Thus
 has many a truth been hidden for centuries after
 its original discovery. It need not, therefore,
 be a matter of surprise that the science of agri-
 culture should have the same difficulties to
 encounter. There is reason to hope that those
 who are now engaged in promoting it will learn
 wisdom from the past to guide them for the
 future.

It is for this reason that recent scientific in-
 vestigators have avoided in a great measure the
 formation of agricultural theories. Their primary
 object has been to prove, by careful observation,
 certain fixed principles, and from these we learn
 the laws which govern animal and vegetable life.
 As these truths become established and recog-
 nised, the sphere of inquiry widens, and thus
 the discovery of one truth prepares the way for
 its successors. Those who have promoted our
 sciences have been patient and diligent
 searchers after truth—persons who have accumu-
 lated facts, and from the evidence of facts have
 deduced the laws which had been in operation.
 When a number of these laws are discovered
 it is quite possible we may be able to form an

opinion of their combined action, but this can
 never be done with any degree of safety until we
 are fully acquainted with all the primary laws
 which are in operation, and even then caution
 should characterise our proceedings.

It is by no means uncommon to hear of science
 being placed in opposition to practice. Science
 cannot contradict practice; theory may do so,
 and if it be incorrect it must of necessity do so.
 What is science? It is knowledge. A know-
 ledge of the facts of Nature can never be opposed
 to the effects produced by her laws. The
 farmer carries out the tillage of the land, and all
 his operations come under the influence of the
 laws of Nature, and it is these laws which deter-
 mine the result. Hence a knowledge of these
 laws can never oppose the experience of practical
 men; or, in other words, science cannot con-
 tradict practice. If, however, from want of full
 information, we form an imperfect or incorrect
 theory, the experience of practice must prove it
 to be wrong.

The agriculturist in his daily operations is, as
 it were, asking questions of Nature, and she
 replies to them by the measure of success or
 failure which attends his proceedings. If he be
 an observant man he gains after a series of years
 a certain amount of experience, containing much
 truth, intermixed with more or less error.
 Hence we see the folly of those sweeping
 censures which have been passed upon the
 practice of entire districts. Long established
 local customs are always entitled to respect, and
 an entire disregard of them produces failure. It
 is true that in many instances there is much
 that is worthless intermixed with the true prin-
 ciple which is concealed within, and he who would
 improve the farming of any district, whilst he
 may winnow away the chaff from local customs,
 must be sure that in doing so he does not lose the
 corn which is amongst it. As, however, the
 value of all experience must depend upon the
 observer's judgment in connecting effects with
 their causes, so it is evident that he whose mind
 is prepared for its task by a knowledge of the
 laws of Nature, combined with that systematic
 arrangement of his ideas which only a good educa-
 tion can impart, will draw the most correct con-
 clusions, and his experience will give truth in a
 purer form than the observations of another
 destitute of these advantages.

There are few, if any, of the great causes of
 modern times which have not been damaged to
 a greater extent by the indiscretion of their advoca-
 tes than by the opposition of their opponents.
 Amongst these the cause of agricultural improve-
 ment forms no exception. How frequently have
 the failures of theoretical men been brought
 forward as an argument against the advantage of
 science to the farmer. It must, however, be
 admitted that in many instances these results did
 not arise so much from the modified practice
 being incorrect as from the incompetency of
 those carrying them out; they being destitute of
 that practical knowledge, without which even
 approved operations could not succeed. For
 several years past there has been a steady in-
 crease in the number of farmers who possess, not
 only a practical acquaintance with the cultivation
 of the soil, but a knowledge of science which
 enables them to take advantage of improvements
 which are introduced. The time has now come
 when the numbers of such men must be largely
 increased, and the progressive movement which
 has taken place amongst other classes of society
 will spread with equal rapidity throughout the
 agricultural body. "Onward" is the motto of
 the day, and those who mean to maintain an
 honourable position must not content themselves
 by pointing at the failures of others, but rather
 profit by their experience. In ancient times
 seamen were afraid to lose sight of the shore, and
 hence their voyages were long and circuitous;
 but when the mariner's compass came to their
 aid, they soon began to make their voyages in a
 more direct line. This sometimes brought them
 upon "sand banks and hidden rocks," which
 caused loss and decay, but as these became
 known they were recorded on charts as warning
 for other. Science is the farmer's magnetic
 needle, it will lead him to attain the results he
 has in view by a more direct and economical
 course of procedure. The early adventurers
 will, without doubt, sometimes find "sands and
 rocks" in their career, but let them be marked and
 recorded, so that others may derive advantage
 therefrom. Thus even our failures will become
 valuable to ourselves and others, if we gather from
 them the lessons they are calculated to yield.

The duties of the agriculturist bring him in

contact with the operations of Nature, and their agencies are not only beyond his control, but he is subservient to them. It is beyond his power to alter their mode of action according to his will, but it is quite possible for him, by a knowledge of their nature to modify his own operations, so as to enlist their aid, instead of combating with their opposition. If, therefore, the arts of life have been advanced by the aid of science, even where the influence of Nature is less felt, may we not hope for still greater advantages from its more complete association with agriculture. The advantages of a knowledge of chemistry and mechanics are known and appreciated in all the manufactures of the land, and under their aid results have been gained which would appear incredible, did not our every day observation render us so familiar with them that we lose sight of their magnitude. Take as a single instance, that marvel of science, the steam engine. By this agency we produce in England a power far greater than the combined strength of every human being in the world, and yet it represents a force completely under control. Then, again, we see how this power may be multiplied by the aid of machinery, for in some of our factories one man is by this assistance enabled to do as much as 200 or 300 men could do without its aid, and we cannot fail to be struck with wonder at those sciences which enable man to increase his power to such an extraordinary degree, and which has given mind such control over matter.

An art may reach a high state of perfection without any knowledge of principles, but it will be reached slowly, laboriously, and with a vast expenditure of time and money. The application of scientific principles to an art, by indicating the causes of failure and success, and by pointing to new and shorter methods of arriving at the same results, will rapidly raise it to a position which only ages could give it, without such assistance. Indeed, it is a well-known fact that the arts have made more progress during the last century than they ever did before, and this doubtless arises from the sciences being better known and more usefully applied. Agriculture itself yields strong evidence upon this subject. The practice of agriculture, which the Romans introduced into this country 1800 years since was very similar, and in some respects it was superior, to that adopted in some large districts of England a century ago. It is therefore satisfactory to know that the co-operation of men of science has in no small degree contributed to the fact, that more progress has been made in the art of agriculture within the last 50 years, than during the preceding 1800 years.

It is, however, singular that there has generally been great reluctance on the part of those engaged in the arts of life to accept the assistance which science is ever ready to give. Any feeling of this kind which may have existed amongst the agriculturists of this country is now rapidly disappearing, and they are, as a body, preparing themselves for further improvements, which cannot fail to be beneficial. Many are the improvements which have been brought to a high degree of perfection during the last ten years, and operations are now economically performed by machinery which were at that time looked upon as mere speculations. A cordial desire for co-operation exists between men of science and the agricultural community generally, which will without doubt be productive of good results. It is no new principle that knowledge is power. It is as much so to the agriculturist as to any other person. That man who has a reason for all he does must of necessity be in a better position than another who adopts a certain course of procedure as a mere matter of routine. If a person tutors his mind not to do anything without seeking a reason for the same, he will carry out the same habit of thought in watching the plans adopted by others and thus he will extract sweets from many a flower, and store his mind with many truths of Nature which will be valuable to himself and others in after times. The education of the rising generation of farmers should be such as will train their minds to habits of thought and reflection, and if to this is added a knowledge of the sciences they will be put in a position to judge for themselves upon all they see around them, and gather from the book of Nature that instruction which will be of the greatest practical benefit. Nor will this be the only beneficial result, it will make them not only more successful agriculturists but better denizens of the world, for as they ascend the hill of knowledge they will attain higher and purer

views of the work of Nature; and, seeing every arrangement so complete for promoting the happiness and well-being of man, they will become more humble in their own estimation; and goodwill to those around them will characterize all their actions.

[And from all this we infer that the Royal Agricultural Society of England will be acting in direct contravention of all the purposes for which it has been constituted, if, abandoning its efforts for the promotion of professional and scientific education among farmers, it shall divert its education grant to other less important purposes.]

— At Mark Lane the Corn Market has again relapsed into the previous rates, the hot days and the warm nights of the latter part of last week having greatly improved the appearance of both Wheat and spring-sown crops. On Monday the decline was about 2s per quarter, and this fall has been followed throughout the provinces. — Feeding stuffs are much easier now that an abundance of Grass is general. Foreign Beans are obtainable at 30s per quarter, Oats at from 21s to 28s, Linseed cakes at 10s to 12s per ton, according to quality, and Maize at about 28s for 480 lb.

— At the Metropolitan Cattle Market previous high prices brought a large supply of beasts, and prices gave way 4d. a stone on Monday, but a more proportionate supply on Thursday caused a rally to 4s 10d per stone for animals of the first quality. Sheep on Monday were worth 6s 8d, and on Thursday 6s per stone. Lambs have been in excess of the demand, and they have generally been in very fine close-coated condition. Lambs are worth about 6s and calves 5s 1d, only per stone.

— During the meeting of the Bath and Southern Counties' Agricultural Society, held last week at Southampton, an address was given by Mr. W. G. SPOONER, in the Town Hall there, to the Hampshire Chamber of Agriculture, on the very important subject of cattle importation. The Contagious Diseases (Animals) (No. 2) Bill, as introduced by the Government and amended by committee, was described as follows:—It consists of 10 parts and 135 clauses. Part 1 is preliminary, part 2 relates to the local authorities, the inspectors, and officers, part 3 is devoted, with its 15 clauses, to foreign animals, and the rules by which their importation is to be regulated, part 4 refers to the discovery and prevention of disease, part 5 to the slaughter in cattle plague and compensation, part 6 relates to Orders in Council and local authorities, part 7 to the acquisition of land for the purposes of the Act; part 8 to expenses of local authorities, part 9 to offences and legal proceedings; part 10 to Scotland. There are also 10 schedules, which refer to the details by which the Act is carried out. The much-contested subject of the foreign market has resulted in this—that the Corporation are to have a period of three years to provide it, and on their doing so they are to be allowed to increase their charges in Islington market, but being to do so their present money over a radius of seven miles is to be taken away. Foreign cattle are to be allowed to go into Islington market, and to travel by railway, provided they come from countries that have been free from rinderpest for the space of three years, and are not countries of transit from places where the cattle plague has existed. Mr. SPOONER does not think, however, there is any particular magic in the number 3, he believes if it were altered to 1 or 2 it would be equally effectual. "Let us suppose," he says, "this was an exporting instead of an importing country, should we not think it rather hard that, because the rinderpest had existed here within three years, it was therefore to be considered as a suspected country, and subject to various restrictions, when we know that it has been long free from the disease? During a space of twenty-four years not one single diseased beast had ever been imported into Southampton; and would it be right, therefore, to destroy that portion of the trade of the port for a fancied evil, more particularly when scientific authority was directly opposed to it?"

Mr. HEDGER, the dockmaster, said the cattle trade of Southampton was very different from that carried on with London, Hull, and other ports. Those interested in the trade in Southampton sought only to improve what might be termed the natural trade of the port—the importation of fat cattle from Brittany, Normandy, France, Spain, and Portugal, where the disease was unknown. They were landed within a defined area, and under very careful inspection. If intended for the London market, they were loaded, after 12 hours' rest, in railway trucks, and conveyed direct to the metropolitan market, Copenhagen Fields. The ships which brought them over were all well ventilated, roomy, and clean. Cows were under very careful inspection, and under a heavy bond not to have been employed during the previous three months in any other cattle trade. In addition, too, to that bond by the shipowner, the master of the ship had to give a bond to the Customs at the port of landing that he had not called at any other port since he took the cattle on board. The railway trucks that conveyed the cattle to London were cleaned and disinfected after every trip. They could not leave the metropolitan market until they were cleaned and sprinkled with a disinfecting fluid. In the present year, up to May 31, 2718 oxen and 131 cows had been landed at Southampton, out of which 1309 oxen and 51 cows had been sent to the metropolitan market, and 1409 oxen and 77 cows had been taken in Southampton for local consumption. None had been placed in quarantine. — Mr. SPOONER regarded the restriction as to animals coming out of London alive as one of the best securities against the introduction and spread of the

rinderpest, far exceeding in importance the question of foreign cattle markets. He concluded by arriving at the points on which he believed they were agreed:—1st. That with reference to the two principal questions, the grand things to keep them out of the country. 2d. Whilst doing this effectually, we should accommodate our purpose with as little interference as possible with the freedom of trade and the supply of animal food for the people. 3d. That these purposes can be most effectively accomplished by limiting the importation of cattle to the metropolitan area, and to certain specified ports where suitable accommodation can be afforded, not only for the landing, but the housing of imported cattle, and retaining of them in quarantine for several days. 4th. On the indication of any infectious disease, the whole of the animals will, of course, have to be slaughtered on the spot, the place disinfected, and again used for a fortnight at least. 5th. During quarantine any of the animals should be allowed to be sold and slaughtered on the spot, and the remainder after the expiration of the quarantine, and should be submitted to a second examination, and then allowed to travel alive on the railway to the metropolitan market. 6th. No cattle or sheep should be allowed to leave London alive, except calves not exceeding a month in age. — Mr. BLYNDEN could not say with respect to the removal of live cattle from London. They knew very well that the rinderpest was disseminated in this country by the young calves that were allowed to go out of London. — Mr. SPOONER's resolution, with a few unimportant variations, was unanimously adopted.

— The Anniversary Banquet of the Royal Agricultural Benevolent Association was held last Wednesday evening. Lord ROBERT MONTAGU, in the course of his lordship announced the subscription list of the year as having amounted to 8889d. He was of opinion that the Council were wise in investing a considerable portion of their income, and not trusting too unreservedly to the permanence of benevolence. Mr. MARCH gave more according to those who have than to those who want. He added that there are 25000 farmers in Great Britain, and 12 from each would triple or quadruple the Society's income. Mr. MARCH defended the expenditure on the Society's operations. "You should print," he said, "advertisements in every county paper. You should advertise everywhere, and, notwithstanding the expense, you should hold meetings in every part of the country." Many large counties, Mr. MARCH told us, are hardly represented on the subscribers' lists. Even Yorkshire to its shame, is one of them. Mr. CANTRELL desired that no expense should be spared. He sent out the green book of the Society far and wide, every 6d. thus expended had brought him in a guinea. He thought the Society had now sufficient property hoarded, and that the pension list ought to be increased. The thanks of the Society were due to the Secretary, Mr. SHAW, who announced a subscription amounting to about 4000. — Mr. MARCH has sent a memorandum on the expenditure of the past year in connection with the management of the Royal Agricultural Benevolent Society. He says—

"I have made a minute investigation of the balance-sheet and find that the actual total expenditure for working the Institution is barely 12 1/2 per cent on its annual income—£1452:—

9	Salaries and wages	246
44	Books, stationary, and printing	24
14	Rent	2
14	Postages	2
14	Advertising, coals and gas	2
1	Excision and petty expenses	2

18 1/2
I trust that such a statement will be satisfactory to the subscribers. Collecting subscriptions from 1200 persons widely scattered is no easy task, and would be impossible but for the zealous and untiring aid of our honorary (unpaid) local secretaries, to whom we must all feel very much indebted."

— The Central Chamber of Agriculture held its June meeting at the Salisbury Hotel on Tuesday last. The business to be done consisted of four topics. The first was a report of the sub-committee on the subject of local taxation, which Sir MATTHEW LOPES, the chairman, read. In moving this report, Sir MATTHEW LOPES said he desired to impress upon every Chamber the importance of the question. And not only would he do this, but he called upon all local Chambers to subscribe to a special fund for the purpose of thoroughly ventilating this great question. Mr. WHITTAKER, of Worcestershire, seconded the adoption of the report, and in doing so urged the importance of further subscriptions by local Chambers. Mr. CLARKE explained in reply to Mr. WHITTAKER, and as a member of the North Cheshire Chamber that previous annual Chambers had been satisfactory with subscriptions because they had understood that a number of sentencers or missionaries were to be sent about the country for the purpose of agitating the public on this question. Sir MATTHEW LOPES explained the project referred to by the last speaker had been abandoned. The report was then unanimously adopted.

The second subject related to the Contagious Diseases (Animals) Bill. Mr. MANSFELD moved, and Mr. WILSON seconded, the following resolution—

"That this Chamber reaffirms its resolutions of April 1880 as to the present necessity for rendering the Contagious Diseases (Animals) (No. 2) Bill applicable to the whole of the kingdom, and calls attention to the importance of the measure of which Mr. CHAMBERLAIN has given notice should it be carried, the most determined opposition should be given to the Bill."

Upon this Mr. MYAT, of North Cheshire, wished to call the attention of the meeting to Lord Bessborough's

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WOOL YARN—THATCHING CORD. **BROWN'S FLORAL SEEDS** Sold by Nurserymen and Seedsmen. No. 1 3 1/2 inches wide, 25 yards long, at 1/4 per yard. No. 2 3 1/2 " " " 20 " " " 1/4 per yard. No. 3 2 1/2 " " " 15 " " " 1/4 per yard. Samples on application to **CHARLES BROWN, 6, Collyer Quay, London, E.C.**

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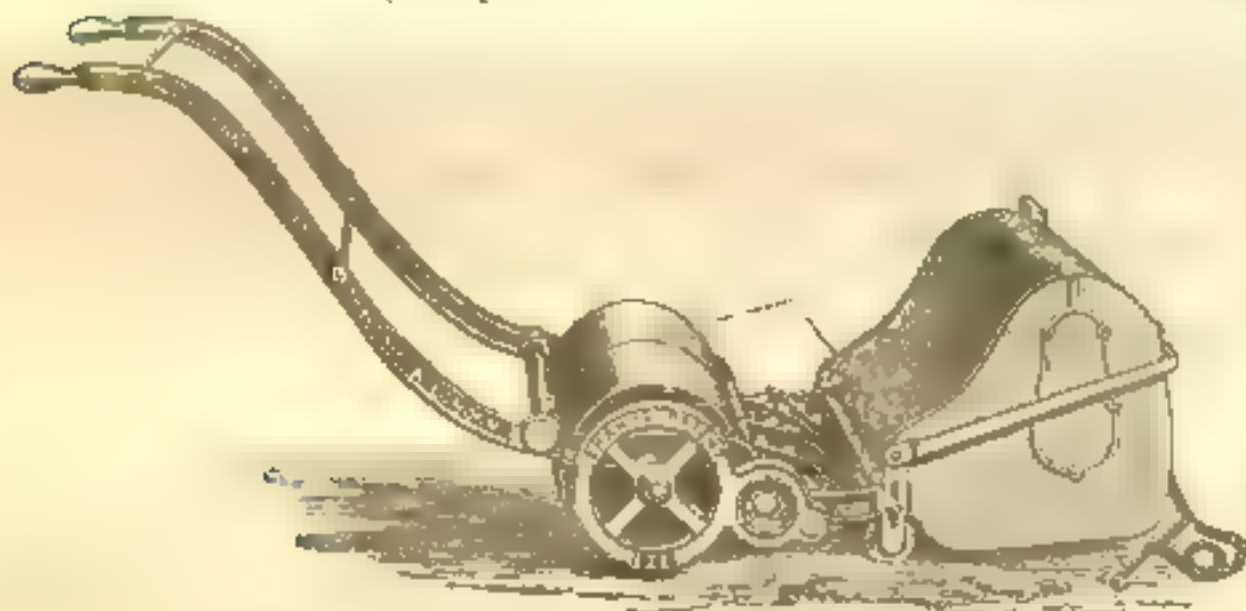
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**HER MOST GRACIOUS MAJESTY
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PRINCIPAL NOBILITY
OF
GREAT BRITAIN,



SHANKS'S PATENT LAWN MOWERS

ARE ALL FITTED WITH
**PATENT DOUBLE-EDGED SOLE PLATES, WIND GUARDS, and
SELF-SHARPENING REVOLVING CUTTERS.**

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PRICES—INCLUDING CARRIAGE TO ANY RAILWAY STATION OR SHIPPING PORT IN THE KINGDOM.

SHANKS'S NEW PATENT HAND MACHINE.

Machine Size	Price	Operated by
10-inch Machine	£3 10 0	Easily Worked By a Lady
12-inch Machine	4 10 0	
14-inch Machine	5 10 0	By a Boy
16-inch Machine	£6 10 0	Easily Worked By a Man
19-inch Machine	7 15 0	By a Man and a Boy
22-inch Machine	8 10 0	
24-inch Machine	9 0 0	By Two Men

The Hand Machines are all with Silent Movement.

SHANKS'S NEW PATENT PONY and DONKEY MACHINE.

Width of Cutter	Price	With Patent Delivering Apparatus
26-inch Machine	£12 10 0	25s. extra.
28-inch Machine	14 10 0	30s. "
30-inch Machine	15 15 0	30s. "

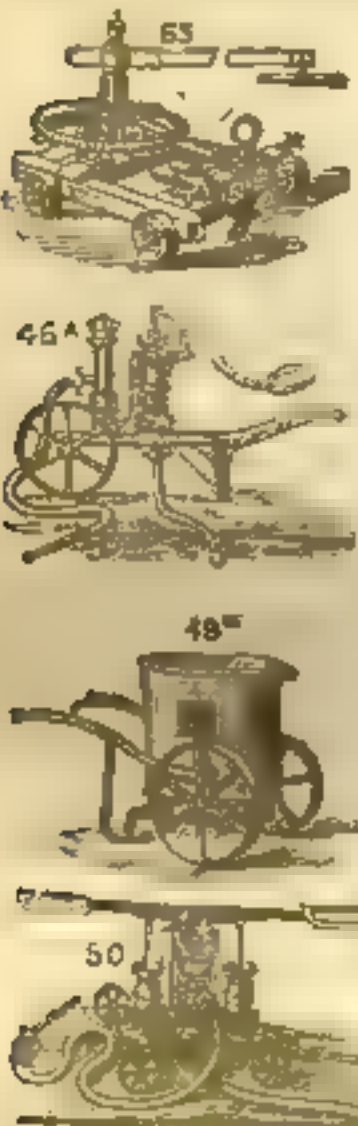
SHANKS'S NEW PATENT HORSE MACHINE.

Width of Cutter	Price	With Patent Delivering Apparatus
30-inch Machine	£19 0 0	30s. extra.
36-inch Machine	22 0 0	30s. "
42-inch Machine	26 0 0	40s. "
48-inch Machine	28 0 0	40s. "

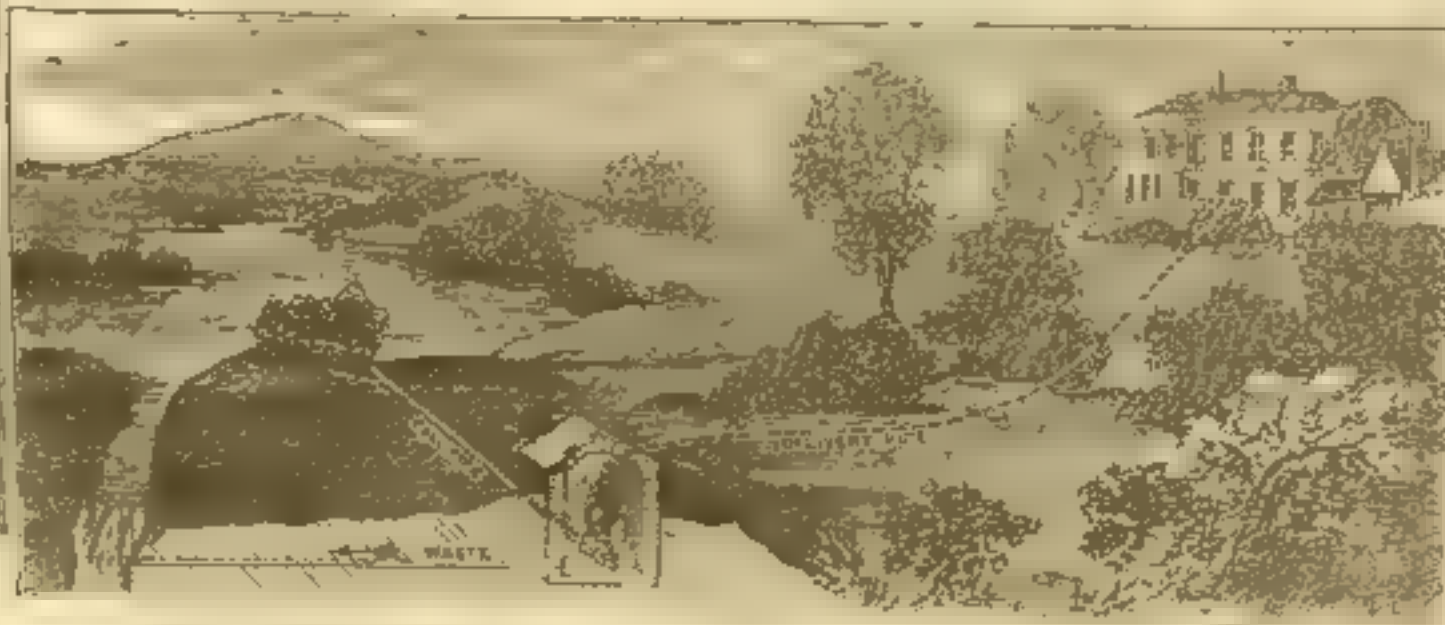
Boots for Pony, 22s. per set, Ditto for Donkey, 19s. per set. Every Machine warranted to give ample satisfaction, and, if not approved of, can be at once returned without any expense to the buyer.

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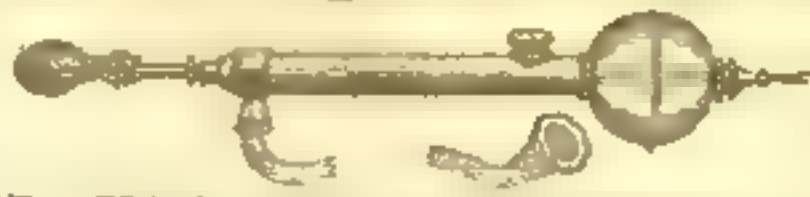
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Allen Henry Clarke, Esq.
John Corke, Esq.
John Crisp, Esq.
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F. J. Graham, Esq.
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The Rev. Chas. F. Norton
Thos. Osborn, Esq.
G. William Foster, Esq.
J. E. Richard, Esq.
H. D. Sawings, Esq.
W. W. Saunders, Esq.
W. H. Smith, Esq., M.P.
Richd. Smith, Esq.
Chas. Turner, Esq.
Harry J. Veitch, Esq.
Anthony Waterer, Esq.
Josiah Willey, Esq.

Dinner upon Table at 8 o'clock precisely. Ladies to enter through the Gallery, 1s. 6d., for whom a Band will play. Collection is provided.

EDWARD R. CUTLER, Secretary.

14, Tavistock Row, Covent Garden, W.C.

FLORAL and HORTICULTURAL PETE

to be held on the **RACE COURSE, NORTHAMPTON**, in connection with the Northamptonshire Agricultural Society's Annual Show, on **FRIDAY, July 1.**

Silver Cups and Premiums to the amount of **TWO HUNDRED and FIFTY POUNDS** will be offered for competition. Open to all England. Prizes to be Paid on the Day of Exhibition.

President The Worshipful the Mayor of Northampton.

Treasurer Mr. MARK DONNAN, Hon. Sec. Mr. THOS. L. GOSWELL.

CUT ROSES, Open to all England.

No. 29—43 Roses, three trusses, distinct kinds—Silver Cup or 1st prize, £8; 2d, £5; 3d, £3, 5s.

No. 30—24 Roses, three trusses, distinct kinds—1st prize, £5; 2d, £3, 5s.

No. 31—24 New Roses (such as have been sold for not more than two years to be accounted new)—1st prize, £7; 2d, £4, 5s; 3d, £2, 5s.

No. 32—24 Cut Roses, single blooms, distinct kinds (Gardeners only)—Silver Cup or 1st prize, £4, 2d, £2, 3s, 5s.

No. 33—4 Cut Roses, single blooms, distinct kinds (Gardeners only)—1st prize, £2; 2d, £1, 5s; 3d, 10s.

No. 34—12 Cut Roses, single blooms, distinct kinds (Amateurs only)—Silver Cup or 1st prize, £4, 2d, £2, 3s, 5s.

No. 35—4 Cut Roses, single blooms, distinct kinds (Amateurs only)—1st prize, £1; 2d, 10s.; 3d, 5s.

No. 36—6 Cut Roses, single blooms, distinct kinds (Amateurs only)—1st prize, £1, 2d, 10s.; 3d, 5s.

No. 37—12 Cut Roses, Tea-scented, single blooms, distinct kinds (Amateurs only)—1st prize, £1, 2d, 10s.

No. 38—12 Cut Roses, of any other kinds, single blooms (Amateurs only)—1st prize, £1, 2d, 10s.

Schedules on application to the Honorary Secretary, or J. F. PERKINS, 2, Gold Street, Northampton.

July 19th to 24th, 1869.

THE ROYAL HORTICULTURAL SOCIETY'S GRAND EXHIBITION AT MANCHESTER.

ALL THE PRODUCTS OF AGRICULTURE AND ANIMALS... SILVER CUP... VALUE £21

Prizes to be adjudged according to the... for the several articles produced.

Table with 4 columns: Name of article, 6 marks, 3 marks, 1 mark. Lists various fruits and vegetables like Apples, Peas, French Beans, etc.

The Exhibition amongst Amateurs and Gardeners of private families. The Fruit and Vegetables produced must be of the Exhibitor's own growing.

The Gardeners' Chronicle. SATURDAY, JUNE 19, 1869.

THE BILL for the prevention of the ADULTERATION of SEEDS, to which we have already referred on more than one occasion, was read a second time on Wednesday last, with an understanding that certain clauses should be considered and modified, so as to make the Bill as certain in its operation as possible.

what instructions they have given, or are about to give, to their employes, we imagine Mr BRIGHT's question would be pretty well answered, if it be not already, by the highly interesting document read to the House of Commons by Mr WELBY, wherein, some opposition individual pleads of necessity, because his business is likely to be injuriously affected by the legislation in the question of the adulteration of seeds.

We are compelled to put these questions before the House, because the Bill of the Board of Trade has been already introduced by the representatives of the seed trade, and the Society of Gardeners, whose experiments and tests, though as well enough as far as they go, are nevertheless very defective as pieces of scientific evidence.

We have great pleasure in inserting the following communication from an excellent practical gardener, Mr WILLIAM EARLBY, and we trust that his appeal, on behalf of the aged and enfeebled members of his craft may meet with a satisfactory response both in the matter of fruit and of finance.

that co-operative principle which secures to the subscribers assistance in the time of need in consequence of the forethought and self-reliance exercised by them under previous more favourable circumstances. The Institution is deserving the support of all gardeners and lovers of horticulture.

We are indebted to Mr FORTUNE for the following account read at the last Friday meeting of the Royal Horticultural Society, of the beautiful and hardy species "Mora Japonica" nearly 100 years old.

M. FOURNIER has recently addressed to the French Academie des Sciences a communication respecting the FERNS of MEXICO. Of 605 species considered by M. FOURNIER as forming the Fern flora of Mexico, 178 only are peculiar to that country.

We are informed that the successor to Mr. BARNES at BICTON is Mr. BEGON, late of Castle Martyr, the seat of the lamented Earl of SHANNON, whose tree lore was as great or greater than that of any arboriculturist of the time.

The exact nature of the inflorescence and of the fruits and uses of CONIFERS is a fertile source of controversy. M. VAN TIEBDEM the latest writer on the subject, confirms Mr. BARNES'S views, that the ovules are really not enclosed within any ovary but are formed upon the dorsal surface of a leaf, borne by a branch that is axillary to the branch.

All the world loves a Rose, and the world grows them, some a great therefore of a rose, method of growing them will be sure to be acceptable. There is growing them in the garden of P. PRYOR, Esq., of Digwell, Wexford, which are under the able management of our excellent correspondent, Mr. WILLIAM EARLBY, a Rosarian of about 230 feet long.

standing the heavy showers of rain and hail of the preceding day, presented on Wednesday last a charming mass of bloom. The hedge was originally a row of half standards, of which the crimson Boursoult formed the mass, this row was afterwards trellised over with wire to the height of about 4 feet 6 inches, and 4 feet in width at the bottom. Many of the best of the old and well known sorts were planted in the space. They have all since been grown on what Mr. EARLEY aptly calls the "extension system." Plenty of wood is left in, and this is tied to the trellis, and all vacant spaces are filled by budding. The whole of the row is now completely covered with growth, and literally loaded with blooms in all stages of development. The following varieties, which form the principal mass, seem to be admirably adapted for the purpose.—Charles Lawson, fine flowers and a very free bloomer, Lord Raman, Comtesse de Chabrol, first rate Bant, No. 2, beautiful flower, very free bloomer de Dijon, profusely bloomed Jules Marechal, Grand General Jacquemont, Comtesse de Suseal, Cleopatra, Anna Alexoff, the last rate, the yield of all copper-colored varieties of the latter is very high, and last, though not least, the Manetti, now so much in favour as a stock, and which gives relief and variety to its more showy rivals. That this method of cultivation is a very successful one there can be no doubt, as the result of Mr. EARLEY'S skill amply proves this. As the trellising can be made to any height or width, the plan cannot be too strongly recommended for furnishing tall or dwarf edgings along the walks of either kitchen or flower gardens, or even to form back rows in ribbon borders, and there is no doubt it would succeed equally well on the outskirts of shrubberies, which sometimes present a very rough appearance near the ground.

To complete our account of the honours received by our countrymen at the late INTERNATIONAL HORTICULTURAL EXHIBITION at ST. PETERSBURG, we may say that in addition to the awards made to the Messrs. VEITCH, that have already been announced that firm also took the 1st prize, a gold medal, for three new Orchids, and two large silver medals, for a collection of seeds and an assortment of garden tools. Mr. W. HENDSPATH of Haltwistle, Northumberland, also received a gold and a silver medal, for a collection of ornamental garden pots. Mr. FORD, gardener at Leonardlee, Horsham, sent a splendid collection of Apples and Pears, which, had they not arrived too late, would no doubt have secured the 1st prize.

New Plants.

SARCANTHUS CHRYSOMELAS, sp. n.

Pellis lato loratis spicis inaequalibus; panicula scapula, bracteis triangulis ovaria pedicellata longe non sequentibus; sepalis oblongis, petalis subaequalibus; labelli laciniis lateralibus triangulis aristatis, arista ascendente, lacina media triangulari, lobis subaequalibus; calycis lobis subaequalibus; antheris brevibus; ovulis numerosis; stigma lobato; tubo staminis gracili basi pubescente.

In the way of *Sarcanthus paniculatus* and *racemifer*, with splendid foliage, and a large inflorescence of Saundersian flowers, yellowish, with the disc of the sepals and petals, blackish purple. *Sarcanthus paniculatus* has a trifid anterior lacinia to the lip. *S. racemifer* (*Saccobolium racemiferum*, Lindl., *Sarcanthus pallidus*, Lindl.) has a totally different column, another callus, and different side laciniae to the lip.

Sent by the indefatigable Colonel Benson, from Moulmein, to Messrs. Veitch, who kindly forwarded me a leaf and inflorescence. H. G. Rehb. f.

HOTHOUSE BOILERS.

WHEN a young man I was always anxious to see the processes of manufacture, as carried on in large establishments. In looking over the great Butterley Ironworks near Derby, I remember having been struck with the first reverberatory furnace I came to. Though I knew chemists considered the flame to be the hottest part of a fire, and though I was not ignorant of the effects of the blowpipe, I was still surprised to see the flame alone employed in melting iron. This was a lesson I never forgot.

Having 21 houses, some of them 100 feet long, and 24 to 30 feet wide, I have had a good deal of experience in heating, and have nine different kinds of boilers in use, but I have never been satisfied with any of them, for it has always appeared as if the makers had ignored the power of flame. As I had seen flame melt iron, I could not think it well employed when striking against a brick wall.

Of all the boilers invented, I think the tubular ones are the worst and the most expensive. No doubt the tubes in a locomotive boiler suggested the idea; but because fire carried through tubes surrounded by water is found to heat that water quickly, it does not at all follow that water contained in tubes which enclose a fire should be rapidly made hot. A boiler on this plan can be made of any size, and will hold any amount of fuel, and this I conceive is its only advantage. The flame must pass by and between but few of the tubes into the flue, and the heat will be to a great degree wasted. A tubular boiler must be surrounded by brickwork, and were it fed with small coal and slack, would be choked; it is, therefore, necessary in practice to use large coke, a most expensive fuel. Moreover it requires a very deep hole to stand in, and the Royal Horticultural Society has just paid 80*l.* for setting one. Such a boiler is dear at a gift. Then, again, each tube being caulked into a ring of metal at each end, the large number of joints is fed upon by the fire is sure to give rise to leakage in time, and the unequal expansion of the metal is likely to crack it. I have known so many tubular boilers recently taken out of use that

introduction is so recent, that even if it were a good form of boiler to heat water, and economical in fuel I should hesitate to use one. To put hard water into a hot-water apparatus at all is very bad policy, but it must very quickly destroy a tubular boiler. The water-way is so very small that any incrustation must soon fill it up, and it will in that case soon burn or crack, and I have never heard of any attempts to mend one when once damaged.

My last objection is common to nearly all boilers, namely, that they are necessarily surrounded by brickwork, which must become red hot, the return pipes must pass through such bricks before entering the boiler, and, unless special precautions are taken to prevent it, return currents will be set up, and the circulation will be impeded. These objections do not apply to some of the improved wrought-iron boilers, but wrought-iron boilers rust so rapidly, particularly when not at work that this circumstance alone is a very grave objection to their use.

Impressed with these ideas, I have for years been trying to induce Mr. Foster, who has my leases, to make me a boiler, and at last I have got into work one of which I append sketches. Fig. 1 shows the front of the boiler, the lower door being the ash-pit,

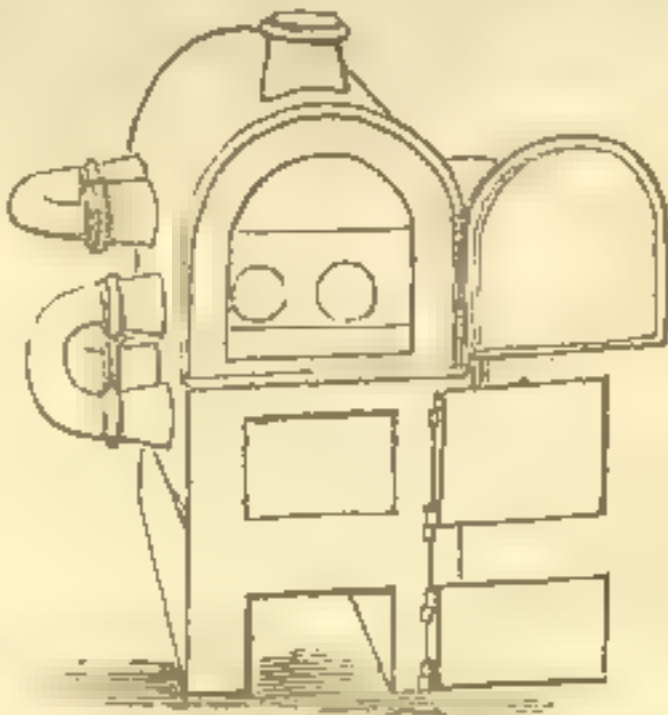


Fig. 1.

the middle door is the fireplace, and the large upper door is for cleaning out the soot. Fig. 2, is a side view, and also shows the back, against which the flame strikes

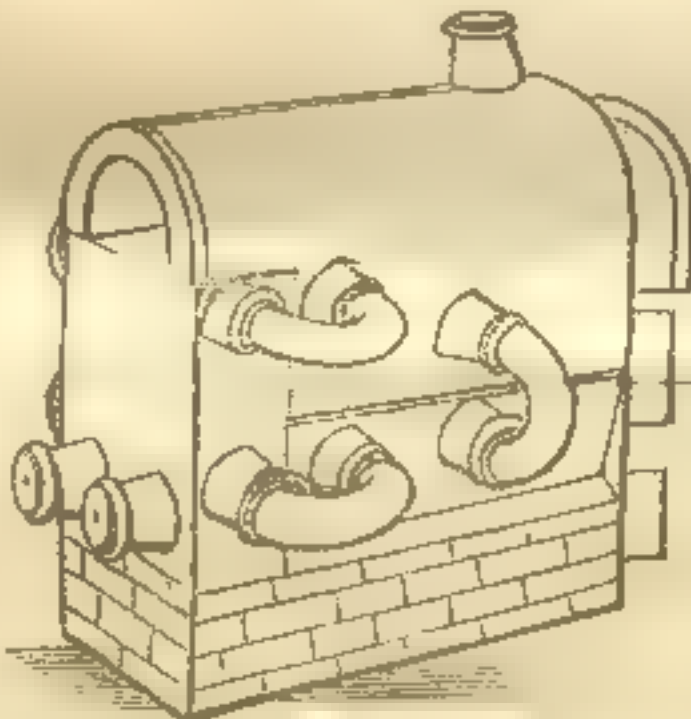


Fig. 2.

in the first instance, returning through the two holes seen in fig. 1, and again returning under the arched dome to the back of the boiler, and so into the flue or chimney. In fig. 2 is also shown the flow-pipe at the top, and two return pipes at the back, with three of the six bent connections uniting the different sections of the boiler. Fig. 3 shows the four sections

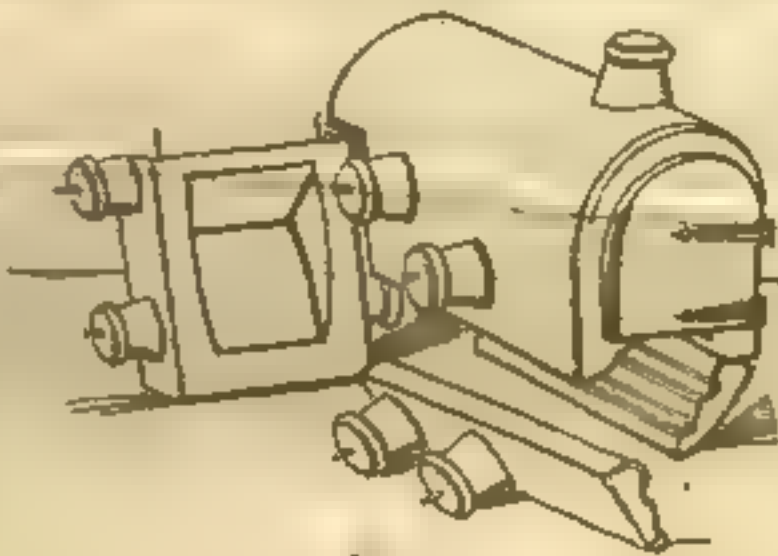


Fig. 3.

of which the boiler is composed. It quite equals my expectations, in fact I have seen nothing like it for quickly heating a large body of water. The boiler is 3 feet 9 inches in length, and as the fire never comes in contact with anything but iron backed by water, and traverses it three times from end to end, it must be most powerful. Supposing such a boiler to be badly used—slated up with lime-water for instance, and in time injured, being made in four sections, the sides next the fire-bars, which would be the parts sure to suffer, could be replaced at a small cost. No bricks are required above the fire-bars; and even if it be convenient to surround it with bricks, such bricks would only become warm, not hot. Every joint being outside, the boiler is safe from the action of fire. The only objection to mine at present is, that having only 800 feet of 4-inch pipe to work, it is too powerful. It is fed with slack and cobbles mixed, costing here about

6*s.* a ton, and yet the ash-pit door has almost always to be closed, and generally a heap of ashes is put against it to stop the draught. I believe if all my boilers were on the same plan, I should save half my coal bill. I hope Mr. Foster will soon advertise his invention, and make it known. Of its value I have no doubt. J. R. Pearson, Chilwell, Notts.

Home Correspondence.

Our Fruit Crops.—We have again arrived at that season of the year when we can form a tolerably correct estimate of our fruit crops. From all I have seen and heard the fruit crop in this part of Yorkshire is, on the whole, a satisfactory one, for though below the average it is very much better than was expected, considering that the crops of fruit of all kinds last year, with the exception of Black Currants, were very heavy. Owing, no doubt, to the hot wet or last summer, so favourable to the ripening of wood, especially on trees on strong soils, there was plenty of blossom on all kinds of fruit trees this spring, and though much, through being weak and imperfect, fell off without setting, especially from trees that were either heavily laden last year, or which suffered from the drought on light soils, a good deal of it set so that there is more fruit of all kinds than was looked for. Apricots are a very irregular crop, though, on the whole, I do not think it will be much below the average in some places thin, in others moderate, and in some instances heavy—even on the same wall they have set irregularly. On two trees here there was sufficient fruit set to make a fair crop for half-a-dozen trees. The trees came into blossom about the beginning of March. There was plenty of blossom, but it was weaker than usual, and much of it fell off without setting. Peaches and Nectarines are in some places a heavy crop, especially on trees on heavy soils, on trees on light soils they are thin—the tree has suffered much last summer from the drought. Here Peaches are a splendid crop, on most of the trees I have had to thin the fruit very freely, and more will have to be taken off yet. The trees were protected at night, what they were in flower but there was no frost to do them any injury, as I had they have set well in other places unprotected. Trees on light soils showed a good deal of blossom, but much of it was weak and imperfect, and fell off without setting. I believe there will be but an average crop, if not more, this season. Cherries are abundant and fine everywhere. Pears are a good crop in most places, both on walls and in the open ground: here there is a good crop. Some standard trees of Aston Town, Williams' Bon Chretien, Beurré d'Espérance, Beurré Diel, &c., are a beautiful sight, being laden with fruit. These trees I planted 18 years ago, and they have regularly borne crops for the last 12 or 13 years, and I believe that this year the crop is above the average. Apples will be rather below the average: here the crop is a fair one, and the fruit will be fine. Some trees are heavily laden, on others there is a fair sprinkling of fruit, and some old trees that bore heavy crops last year, have little or no fruit on them. Plums are a thin crop. There was plenty of blossom, but the fruit is small and weak, which was not caused through the weather, as it was fine and more favourable whilst the trees were in flower than it was last year, and the crop of last year was a very great one. Gooseberries in some places are a thin crop, especially the sorts that come into bloom early, late sorts are better, but the crop will be below an average. Currants are most abundant everywhere, also Raspberries, though they suffered much, especially on light soils, from the drought of last season. Strawberries will be an average crop. Some of the early sorts suffered greatly last summer from the drought, and the plants promised badly, but the fine rains we had during May brought them up wonderfully. Here old beds of Keen's Seedling and British Queen are rather thin but young plantations are so abundant as they were last year. From the foregoing review it will be seen that our fruit prospects this year, in this part of Yorkshire, are so far from being discouraging, very cheering and satisfactory and especially so when we consider the very heavy crops of all kinds of fruit we had last year, and further, when we consider how, owing to the heat and drought of last summer, and the mildness—the autumn and winter, everything was in a very forward state at the commencement of the season, and in consequence exposed to injury from the mildness of the weather. Some people attribute the failure of our fruit to our variable climate but it is wrong to do so. In some seasons, very severe spring frosts may do some injury to the blossoms, but it is very seldom indeed that the whole crop is thus destroyed. Through bad management trees are allowed to get full of wood, full of spurs, full of buds, and full of blossoms, and when there is a crop, it is so excessively heavy that the trees are exhausted in bringing it to maturity and bear only a year's rest to store up what is required for another crop. In orchards this is the case almost everywhere. A tree will attain a certain size and age, and when an attention is paid to pruning or thinning out either the wood or buds they seldom bear heavy crops of fruit two years consecutively. I am convinced, from long practical experience, that our much-abused climate is not the cause of the failure of our fruit crops. When the soil and locality is favourable for fruit growing good management will, in six seasons out of seven, secure favourable returns. Apricots, Peaches, and Nectarines can not be grown without walls, but on these, if properly managed and well protected whilst the trees are in flower, good crops can with great certainty be obtained six seasons out of seven. We occasionally have extraordinary seasons such as the one of 1870, when ripe wood cannot be obtained, and a failure to some extent is sure to follow, but these exceptional seasons only occur occasionally. From what I have seen in this part of the

I have the... the best fruits must be scarce; and in refer-

Mr. Rivers... Upon the whole they are not... the best fruits must be scarce; and in refer-

under glass we have a very good crop, but I... useful to have the experi-... readers generally upon the state of blossoms...

De Sikim Species of Rhododendron... I have read... Mr. Rivers... the best position for water and early spring flowering

Rhododendron Culture... The Rhododendron trusses... gathered from plants grown by Messrs. Stanton...

Alfrida, habit and truss perfection, of... purple; Exquisite, truss 9 inches in... Cabrera, crimson, blotch of dark purple spots, a splendid

gentleman promises us before the year is out a work on... alpine, with a special reference to their natural... habit and illustrations of alpine scenery.

By the first frost. Compactness of texture, and not... of leafy plants... the preservation of their health. I have recom-

of this the water... the frost... the best position for water and early spring flowering

By the first frost. Compactness of texture, and not... of leafy plants... the preservation of their health. I have recom-

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Scientific Committee.—W. W. Saunders, Esq., F.R.S., in the chair. After the transaction of the formal business of the Committee, a letter was read from Mr. Deavin, gr at Porter's Park, Barnet, relating to some Peach leaves which were perforated with small holes. Shortly after the appearance of the holes gum oozes from the trunk, the leaves and most of the young fruits drop off, often the shoots die also. After this state of things has continued a short interval, and the tree has become where the gum has exuded copiously, and in a short time a shaggy-looking young wood, of which what fruit is left attains a large size. Mr. Berkeley considered the phenomenon thus described to be due to the effect of cold, as explained at former meetings of the Committee. Some specimens of Lime shoots from Mr. Woodford, East-wall Park, were exhibited, showing similar diseased conditions of the leaves (see p. 633). An interesting communication was read from Dr. Ferdinand von Müller, relating to the effect of frost on plants in the vicinity of Melbourne. No doubt this valuable contribution will be printed in full in the Journal of the Society hence we confine ourselves to the statement that on July 12, 1868, the thermometer recorded 37°.4 Fahr. in the air, and 24° on the grass, a degree of cold never before observed in the district. Plants of various kinds more or less affected by the frost, were appended.

The Chairman remarked that he had found the most convenient and efficient mode of protecting trees from frost was to thrust in among their branches masses of Fern or small evergreen boughs, the effect of which, in the effects of frost, was most remarkable.

Mr. Saunders gave some details as to the extraordinary fertility of some English white Oats, observed near Benares. One plant on good soil, and which had been well watered, measured 3 feet 6 inches in height, had 85 stalks, and bore 4180 grains. Other illustrations of a like character were given.

A letter from Mr. Penn, as to the "clubbing" of Potatoes, was read. The substance of this communication has been already given (p. 616). Mr. Penn further remarked that when the Ribston Pippin Apple was grafted on the Blenheim Orange, the flavour of the Ribston was much impaired, but at the same time its value as a culinary fruit.

Dr. Thomson exhibited specimens of Bladder Plums from a hedge in Northamptonshire. The fruit here presents none of its ordinary succulent character, the stone is not formed, and the ovule is more or less atrophied. Sometimes a second carpel is produced. The phenomenon in question is due to a parasitic Fungus, *Ascomyces deformans*. In India a particular form of the Bird Cherry is pretty constantly affected in this way, and the plant has in consequence received the name of *Cornus cornuta*. A species of *Rhus* was also stated to exhibit a similar deformity.

Mr. Moore exhibited a series of plants of various kinds of them of very uncommon occurrence. Some of the good illustrations of particular changes. They consisted of fasciated stem of *Carduus palustris*, from Dr. Moore of Gussowin, double flowers of Apple, looking more like Roses than Apples; the "calyx tube" was not developed so that the carpels were superior, and the petals increased in number and size. Flowers of *Epacris* from Mr. Pennington of Pennington, in which the petals were not its place supplied by a leafy shoot, which thus appeared to be prolonged through the flower; and regular cup-shaped flowers of *Digitalis purpurea*, arising from the fusion of several flowers into one—the axis in this case also was prolonged through the centre, and bore flower-buds.

Mr. Saunders exhibited specimens of a species of *W.*

Mr. or Trevor Clarke showed a specimen of *Palar-* growing in the garden. It was also stated, that a series of experiments as to the effect of manures on the growth of *Palar-* had been made by Messrs. Lawes and Gilbert having been made to provide the requisite manures for the purpose.

Mr. Saunders remarked that in most instances the superposition of various layers of cells, and the red pigment cells which were present in the epidermis were really bronze coloured, and not red.

The Chairman stated that the pink flowered *Crotalaria* was taken from a plant originally a seedling from a white flowered variety, and produced white flowers for several years. It had borne pink flowers, but never grown on well-matured and well-drained clay soil. These Oats produced short stout straw, and a great tendency to develop stolons from the base.

Some stems of *Crepis biennis* were shown which never grew in height, and never produced ears. No conclusion was come to as to the cause of this undesirable peculiarity, which was stated to appear in some seasons and be absent in others.

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Floral Committee. A full and interesting report was made by the Floral Committee, which was a beautiful small-growing plant with slender stem, and close set leaves. Mr. Cripps, of Tunbridge Wells, exhibited a *Clematis* of the lanuginosa variety, and had larger outer or guard sepals, with a tuft of short petaloid bodies occupying the centre in the place of stamens. The inner sepals were violet-purple, the sepals marked with a

a handsome Rose, of the group of pillar or climbing perpe colour, full and symmetrical, and, from samples of the stems exhibited, evidently a free-growing variety. A handsome *Mitella*, probably *foetida*, or a finely-coloured variety of spectabilis, came from Mr. Findlay, Botanic Gardens, Manchester, this has bluish sepals and petals, and the lip marked with bars of deep red. *Adiantum eximium* Leyl, from Mr. Ley, nurseryman, Croydon, is a sport from *A. eximium multifidum*, and is remarkable for its short, close-tufted, and densely cristate habit. Messrs. Rollison & Sons, Tooting, in a very pretty group of flowering plants, showed the true *Epidendrum vitellinum majus*, under the name of *superbum*. *Phyllocactus violaceus*, a cross between *speciosissimus* and *Ackermani*, came from Messrs. F & T Smith, it is a dwarf, free blooming sort, with three winged stems, and large crimson flowers, shot with purple in the

p. 638. A very handsome Ivy-leaved *Pelargonium*, named Gem of the Season, came from Mr. Ford, gr Leonardslace, near Horsham. It has large and abundant salmon-pink blossoms, show the lobed form of the leaves, and are, some green, some with dark green centres, and some almost gold. Mr. Ford must be congratulated on obtaining this plant, which is one of the valuable acquisitions of the year, and was awarded a

Amongst the other subjects brought forward was a curious semi-double *Rhododendron* named Fra Diavolo, from Mr. Noble, a whitish flower with coppery blotch and petaloid filaments; Mr. Noble also sent the beautiful *Spiraea palmata*. A seedling Rose named Earl of Eldon came from Mr. H. Coppin Shirley, Croydon, it was a cross between Cloth of Gold and Gloire de Dijon, and was of a creamy buff tinted with rose, but had the defect of "quartering." Messrs. Veitch & Sons sent an interesting collection of plants, which receive Special Certificate, as did also Messrs. Rollison's collection.

Roses from Mr. Turner and Messrs. Veitch. In a group from Mr. Williams was a noble plant of the *Amalia Sieboldi aureo-marginata*, a fine variety, quite distinct from the common variegated form, *Thrinax grandis*, and *Pandanus glaucophyllus*, with the base of the leaves covered with white powder. Messrs. E. G. Henderson & Son, Wellington Road Nursery, exhibited several grey-leaved plants recommended for bedding purposes, namely, *Gnaphalium tomentosum* and *Achyrocline Sandersoni*, both of compact shrub habit, the latter with something the aspect of a Lavender bush, and with the leaves clothed with a greyish down, and *Cineraria acanthifolia*, with oblong incise-lobes apparently of a neater habit than *C. maritima*. With these were some Golden Variegated Zonal *Pelargoniums* with such unwieldy names as Pleasures of Memory, Love me Long, &c. From Messrs. J. & C. Lee came *Pelargonium Golden Brilliantissimum*, a habit, with yellow-edged leaves, and numerous but small, on coloured flowers. Another collection of Mr. Foster's seedling *Pelargoniums* was staged by

included flower named Admiration, having pink lower petal-veined with and having slight blotches of rose dark blot-

dark slightly runs, and outer edge of pink and a Second dark top petals, very free flowering, the flowers small, but somewhat rough. The others were Rebecca, pink lower petals, slightly veined with rose dark blotch on top petals, with broad margin of pink and edge of pink a pleasing flower, and a third, violet-pink lower petals,

overlaid with dark rosy pink, white tips, with narrow edge of Plantagenet, soft pink, with broad margin of fiery orange, and broad outer edge of pink, a pleasing soft flower, free blooming, and good habit. Flower of the Day lilac-pink lower petals with veins of rose; dark blotch on top petals, with broad margin of pale fiery carmine, and edged with pink; Florence, violet-carmine lower petals, with slight dark veins, dark blotch on top petals, with broad margin of fiery orange, and of pink good habit.

ter, pale pink lower petals, with slight pencillings of

ne instead, the former splendidly coloured, these also are

exhibited a very

ry zone, and golden edges, were well defined; of circular shape and growth—quite a contrast with new kinds staged at the same time, the leaves

of which were so rough as to have the appearance troubled horticultural sea on a small scale. There was a very interesting competition for the special prize on this occasion. The lat prize for the best six double-flowering zonal *Pelargoniums* was taken by Messrs. Gordon & Co., who had

Lemon, white, Pâleur, and

andish & Co. Holo de Nancy, Wilhelm specimens, but not fully in with Victor Lem Inc

For

Mr. Turner who

Mr. James Smith, Bath, was taken by Mr. James, with large specimens Messrs. Dobson & Son, of

plants in was taken by Mr. Wero, of Tottenham, the who had the *Oenothera marginata*, *Silene al* *matronalis purpurea* *alopecurades*, *D* *ans*, *Funckia albo*

Orchids latifolia

Fruit Committee

ring the past season. From Mr. Graham, two fruit of the Madras Citron, which were produced by trees grown in pots, and fine.

At June 18-19—The Grand York the past week. This

horticultural gatherings which go far to rival even not in some of their features as usual, the floral show the metropolises. Not a little of this success is due to the hearty and cordial manner in which the whole arrangements are carried out. The show opened on Wednesday, notwithstanding the nature of the weather, was a fine one in every respect. It was arranged in a large circular central radiated four long tents of ample size, filled to overflowing with the choicest

are glad to bear testimony which is not so well or so deserves to be; and though give a detailed report of its

with further

and to Ferns, of which some very excellent shown, Mr. Baines again taking the first place. bordered by Roses, on one side in pots, and a cut blooms amongst which latter Messrs. Cheshunt, occupied the last of noble and exquisite flowers, which the leading prizes. A second lot with *Pelargoniums*, among which varieties from the Sheriff of York of high-class cultivation, amongst zonal and nosegays, which have this season made the though still within of impro

was occupied by

F & T Smith's plants stood prominent. Roses shown in this tent were very and bushy, with healthy foliage to

loomed. A third long tent was of which some grand examples from the W. ment were staged, new plants, and a zoo-

men plants. A fourth similar tent was fruit and Orchids, of each of which the display was of a meritorious character. It shows a one of the great in the north of England, numerous excursion trains in

visitors from various manufacturing towns by sands. As a horticultural show it occupied a very high place. We should not mention that a fine group of rare plants

was exhibited by Mr. Williams of Halloway

show and West of Scotland

—This exhibition, which

the Society has ever

noticed an infusion of new blood of no occasion the tables of plants furnished by Mr. Thomas Coats of Forge Campbell of Blythswood, by Messrs. J. & R. Thyne,

exhibitors, the names of

years in Edinburgh. Keith, from The Glen the tables would be

gr. to the Duke of good Orchids, chief of of *Vanda teres*, much that we have seen either the exhibition table.

Scottish Fanny Society.—The this Society was h season has been

was a large amount of and were very rich and being

beautifully tin specially noted on, and

places in every seedlings (open Laird & Laing, who had the John Beveridge, who was in class. H. W. Adair, Esq., also took the special prize the same award for the the Ladies' Prize for the most Fansies.

Notices of Books.

The Parks, Promenades, &c. in the last W. Robinson, F.L.S. M

From matters of taste and we naturally turn to the reg hours across the Channel are an have done much to please the lively sense that man is an est

ant. His love of ar

and s or parks.

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market—transferred from the charge of a copy-
 right who are themselves, it seems, helplessly
 liable to be cheated, to that of the farmer who in
 each locality may not take the precautions of the
 wants of a known list of clients and customers
 with whom arrangements had been made during
 the previous season.

Mr. MORRISON'S plan of 'co-operation' is a
 very good one, and in many respects is based upon
 this course. We hope, however, to see with
 Mr. WILKINSON'S Seed Bill, which is supported
 by Mr. G. S. HARRIS M.P., who we have met
 the case which he described. There is a
 marked difference, he said, between the
 case of adulterating seeds and other things—
 feeding stuffs for instance. The farmer
 knows his oilcake is not all louseed, but
 adulterated with bran; that his nitrate of
 soda is mixed with salt, and his ground bones
 with oyster shells, but little harm results in
 these cases beyond that of short measure. The
 case of adulterated seeds is different. In the
 case of a crop may rain a small crop. The rogues
 which exposes, especially the small farmer, to
 such risks as this, is certainly a proper subject
 for vigorous legislation.

If 'catch' or 'snatch' crops did not interfere
 with the main crop of roots, stock farmers would
 no doubt find two green crops instead of one,
 within the year, exceedingly convenient. But
 in this country the climate is slow and inter-
 mittent, spring is cold and variable, and summer is
 generally a long time coming. A farmer who
 grows intermediate crops is often disappointed
 sometimes cold or drought in May starts his
 Trifolium, and it never gets high enough to har-
 row—as it happened last year, or not in at
 weather and a backward spring delay the crop,
 which is consequently being fed off when the
 land ought to be ploughed, and in good order for
 the roots that are to follow. The 'snatch' crop
 itself, though often useful, seldom produces more
 than a fifth the weight of a good crop of Swedes,
 and it is the latter which is the crop which
 is the mainstay of the farmer's system, the
 main crop of roots, the main crop of stock.

It is a pity that the 'snatch' crop has
 been so generally abandoned, and that the
 long run one good crop pays better than two bad
 ones. But the truth is the practice is only
 suited to the warmest, earliest land. In Surrey,
 that southern county, which derives its name
 from being near the south and the sun, we have
 seen it succeed under energetic, clever manage-
 ment, but this was on the warm land of the
 'greenstead,' where the sheep farms are very
 favourably situated for the intermediate forage
 crop, because harvest is early, and the crops
 ready to fold 10 days sooner than in the eastern
 counties—and the root crops may be sown later.
 No precise formula can be laid down for the
 successful management of these crops—it is not a
 lesson that can be learned by rote. The com-
 mon rotation in the district is the four-course,
 the intermediate crops—Trifolium, Tares, Rye,
 Mustard, stubble Turnips, and early Peas—
 are not grown on any formal system. The
 maximum of the Surrey farmers who cultivate the
 sands and loams of Godalming, Bramley, Albury,
 or Abinger, seems to be to keep on sowing
 which they do with a thorough know-
 ledge of all details, and a shrewd calculation
 of what the crops will do in the various seasons. In
 the case of Mangel a foreign crop is sown inter-
 posed through the eye is considerably taken. It is
 the greatest advantage of the four-course system
 and it is at the end of March or May I have
 seen it as high as the hedges, and at that season
 grows starchy and worthless. Italian Rye-grass,
 sown in the spring with Trefal for bottom
 feed, follows immediately after. Trifolium
 blossoms about the third week in May, it is
 useful before Tares, the earliest of which come
 on by about May 20, but food better than either
 of these affords precedes them, for making ewes
 and their young lambs. Turnip-tops and Rape
 are ready to fold before Rye, and generally fit
 to blossom and become worthless between the
 middle of April and the end of May. These two
 crops are by far the most useful for early food,
 and as the autumn-formed bulbs are stored in
 the nutriment which helps to form greens in
 spring, they are less dependent on the soil,
 consequently, we find Turnip-tops and Rape as a
 spring provision for making ewes on almost all
 sheep farms, and even in backward districts on
 soils where Rye and Italian Rye-grass yield but

little food. They are the common spring crops
 on the sheep farms of Cambridgeshire, Hamp-
 shire, &c., and on chalk soils elsewhere which
 are too cold for the other early crops referred to.
 Another forage crop preferred to Rye on the
 colder soils, and following Turnip-tops, is winter
 Barley, after which Trefal and mixtures sown
 in the spring carry on the stock together with
 successive crops of spring Tares. Constant
 shifting of the flock among these several green
 crops, with care, brings the south and west
 county lands to the natural level in the spring
 condition.

'Snatch' crops which have been used to are of
 little service for this reason. Mustard which is
 fit for feeding in eight weeks is little grown,
 because, though a good preparation for Wheat, it
 lasts but a fortnight, and is gone by the time the
 sheep are accustomed to it. Fresh food some-
 times does mischief, we remember a farmer
 defending Mustard from the charge of being but
 poor diet, by declaring that three of his ewes
 had died of it during the week.

On warm soils forage grows fast and so do
 weeds, and in bad harvests we have seen the inter-
 mediate crops fail through the fouling of the
 land, but this was not the fault of the system.
 The following is a record of the number of crops
 grown in a single rotation in one of the parishes
 named above—the seasons were unusually favour-
 able and the crops successful—

- 1864. Wheat sown in the ploughed land at 150 with Rye.
- 1865. Italian Rye-grass, Turnip-tops, and three ploughings.
- 1866. Canadian Oats, at table ploughed once and sown with Turnips.
- 1867. Rye, at table ploughed once and sown with Rye.
- 1868. Wheat, at table ploughed once and sown with Rye.
- 1869. Swedes, Turnips, after one ploughing.

The most certain cause of mischief to the next
 crop arises from the dry harsh state of the land
 when ploughed Swedes are off a lot after Trifolium
 through evaporation. The immense leaf
 surface exhausting the soil, fits in moisture. Tares
 have a similar defect from the same cause, and on
 the heavier soils especially, this crop when fed by
 sheep leaves the land in a state which if
 not restored by the next crop, will be a
 serious loss to the farmer. The system of
 intermediate crops, and the way in which
 the land is restored, is a very important
 feature of the system, and one which is
 not generally understood.

We need not point out the gain in time and
 the other advantages derived from having the
 land in high condition; nowhere has this been
 more striking than at the sewage-farm at
 Barking, where a heavy crop of Rye is
 cut so early that the after-crop is never
 injured by the want of moisture in the soil.
 Practically the system of intermediate crops
 is unsuitable to any but warm early soils, and
 even then only to a part of the fallow break;
 it is entirely unsuited to cold soils. If the agri-
 cultural statistics were collected in January
 instead of June it would be found that the area
 covered by these crops, even in the south of
 England, is not considerable.

At Mark Lane the Wheat trade has recovered
 the fall of last week, the boisterous weather, accom-
 panied with heavy rains and hailstorms, having caused
 some speculative purchases. Other grain and feeding
 stuffs remain unchanged.—A short supply of prime
 British stock has kept both beef and mutton as high
 as 60 per stone, but large numbers of coarse and thin
 fore-quarter animals keep the lowest quotations at 30 and
 40 per stone.—In the seed trade there is but little doing.

On Tuesday last we were riding over high lands
 in the Craven district of the West Riding, through
 some of the most fertile and best of the north and north-
 west hills, and the soil was of a very rich rather than
 of a poor quality, and the soil was very fertile, and
 the weather very dry, and the water of the river of
 the valley of the Craven was very low, and the great
 loss was suffered in the county during the Tuesday
 last. Sheep clipping is going on in the uplands of the
 northern counties, always attended with more or less
 danger, and the northern escarpments of the wolds
 feel the full force of Tuesday's gale, and it is on these
 hills that the great loss has occurred, fat sheep and
 ewes are dying from the cold and exposure. Sheep
 clipped on Tuesday were turned out into the rain and
 cold to be found dead under the hedges next morning.
 The losses from sheep are very heavy, and have been more
 severe than farmers will admit, the farmer alone having
 sent a load of 17 dead sheep to the manure works. In
 some other cases the starved sheep have been housed,
 but many will die.

A conference, called by the local authorities of
 Salford, and attended by the members of Parliament
 for 14 boroughs and the members of Chester and Lan-
 caster, was held at the Westminster Palace Hotel, the
 other day under the presidency of Mr. Cawley, for
 the purpose of considering the provisions of the Con-
 taminated Diseases (Amendment) No. 2 Bill. One of the
 features of the Bill most strongly objected to was that
 it re-enacted those provisions which exempt towns
 having quarter sessions from the county rating-

The Agricultural Gazette.

WEDNESDAY JUNE 19, 1869.
 MEETING OF THE FENCIBLES WEEK
 1. 10.00 AM. Meeting at the Agricultural Society.
 2. 11.00 AM. Meeting at the Agricultural Society.
 3. 12.00 PM. Meeting at the Agricultural Society.
 4. 1.00 PM. Meeting at the Agricultural Society.
 5. 2.00 PM. Meeting at the Agricultural Society.
 6. 3.00 PM. Meeting at the Agricultural Society.
 7. 4.00 PM. Meeting at the Agricultural Society.
 8. 5.00 PM. Meeting at the Agricultural Society.
 9. 6.00 PM. Meeting at the Agricultural Society.
 10. 7.00 PM. Meeting at the Agricultural Society.

Discussion of the Seed Adulteration Bill,
 which a report is given on another page, is a
 good illustration of the conservatism and
 of official personages, even when the
 represented by a man of such vigorous
 as Mr. BELSHAM. The difficulties
 the ready advantages of legislation for the
 of an acknowledged evil, were never
 ably stated by an advocate of the
 old time than they were the other
 by the light of the President of the
 of Trade. A man is levied at the
 of mixing bad seeds with living in
 at the purchaser might be cheated in the
 would be a service unless it could
 the customer from buying seed which
 a fatal death. A man of good
 and it was inevitable, even in the
 perfectly consistent denning. The practice
 of was dying out without the
 of the law. A new corps of inspectors
 abled for, and ultimately one-half of
 city would be employed under the new
 by Mr. MORRISON, the assertion that
 of a 'co-operative' and
 of a new and good seed order
 was in the way, and no legis-
 lation to be made.—We are glad, never-
 theless, that Mr. BELSHAM admits the exist-
 of a evil which urgently demands
 it is also a most satisfactory thing
 of the seed trade generally are certainly
 that attempt at legislation for
 of oppression of necessity. If it should
 we may feel perhaps be disposed to
 Mr. MORRISON'S suggestion and see if
 of the trade, the heavy and bulkier seeds of
 that in Grass seeds, Clover seeds,
 of the Mangel seeds, &c.,
 conducted at the ordinary weekly

perceptible extent. Nitrate of soda is the best of all dry manures that I have tried to subdue Moss and increase the verdure. I have also found that nitrate of soda in combination with earth, will improve a Mossy sward to a degree that requires to be seen to be fairly satisfied. By the application of manure it is easy for the grass to grow in a sward, but without the aid of a sward, the grass will not grow. I have also found that where charred earth is applied to the surface of the sward, the grass will grow more luxuriantly. I have also found that where charred earth is applied to the surface of the sward, the grass will grow more luxuriantly. I have also found that where charred earth is applied to the surface of the sward, the grass will grow more luxuriantly.

acquainted with soils and the nature of Grasses, must be evident that Grasses, by their growth, gradually exhaust the soil of its most nutrient parts and that these are replaced by the addition of materials of a lasting nature, and which favours the growth of the Grasses. Manure, therefore, is an extreme of after-effects, but the Grasses, however, are unable to do so; they must be re- complete solution before this can be effected. Manures, therefore, can act only by furnishing solid or gaseous matters, capable of being dissolved by water, for such substances as pass off into the atmosphere are soon dissolved and lost.

All my experience and observations lead me to recommend frequent top-dressing, and a chief part earth, to sustain Grass and prevent Moss growing.

Regarding surface manuring on permanent pastures, I would beg to call the attention of the Club to a series of experiments I have been carrying on at the home park of Killybeggs, Co. Londonderry, the results of which are detailed in the report of Mr. James Lawes, and in the report of the Horticultural Society, London, in the year 1851. I have also published a paper on the subject in the Gardeners' Chronicle, and in the Gardeners' Magazine, London, in the year 1851. I have also published a paper on the subject in the Gardeners' Chronicle, and in the Gardeners' Magazine, London, in the year 1851.

the plants on which complex mineral manure is applied—consisting of salts of potash, soda, magnesia, and sulphate and phosphate. The results of these experiments are detailed in the report of Mr. James Lawes, and in the report of the Horticultural Society, London, in the year 1851. I have also published a paper on the subject in the Gardeners' Chronicle, and in the Gardeners' Magazine, London, in the year 1851.

genous manures, the herbage yielded from 70 to 80 per cent of the whole produce; and in the case of the true Grasses, the herbage yielded from 70 to 80 per cent of the whole produce; and in the case of the true Grasses, the herbage yielded from 70 to 80 per cent of the whole produce.

On the other plots it was found that salts of potash and phosphate increased the growth of Clover and greatly increased the weight of leguminous plants.

In calling attention to these invaluable experiments at Killybeggs Park I would beg to say that some of the gentlemen connected with the Killybeggs Farmers' Club will take up the subject and take it to the meadows around Killybeggs, and will be very glad to have the pleasure of consulting a benefactor who has been so kind as to give me the use of his meadows for the purpose of these experiments at any rate I hope the members will be most anxious as a farmers' club we heartily appreciate the valuable service done to agriculture by these experiments by Messrs. Lawes and Gilbert.

The last point I have to consider is the removal of Moss from a pasture when it has taken root on the surface to a considerable depth. The breaking up of such pasture to remedy the evil of Moss is a matter within the scope of this paper, and I will not refer to that plan of improvement.

From what has already been stated regarding the natural character of Mosses, it will be inferred that it is not difficult to destroy Moss for a season when practically gone about, but in eradicating Moss we must aim at more than the mere killing of Moss. It is required to produce a good sward of mixed herbage. In treating land overgrown with Moss I have seen nothing so effectual and so magic-like as the application of a dry time in the month of March, and the rapidity with which the Moss is destroyed. I have also seen the effect of eradicating Moss by the application of a dry time in the month of March, and the rapidity with which the Moss is destroyed.

Quick-lime is often used to destroy the growth of Mosses, but before applying caustic lime the surface should be well broken up by bush harrowing, and this should be completed by top-dressing and sowing Grass seeds on poor land, or where it is inclined to damp when I, there is perhaps no Grass so suitable for this purpose as the rough Cocksfoot Grass, from which as here advised, I have seen splendid results.

Until agriculturists cease to sow what is termed

pastures to the highest standard. I have also seen the effect of eradicating Moss by the application of a dry time in the month of March, and the rapidity with which the Moss is destroyed.

You are all, I am sure, familiar with the superior quality of the herbage produced on a well-managed pasture. I have also seen the effect of eradicating Moss by the application of a dry time in the month of March, and the rapidity with which the Moss is destroyed.

THE SEED ADULTERATION BILL.

The following is an abridgement of the discussion on this Bill, which was read a second time in the House of Commons on Wednesday last.

Mr. MURPHY stated at some length the facts which rendered necessary. The farmer of an arable farm was dependent upon purchased seed, particularly of the sort of which he was most likely to be imposed upon, and of which he had the least knowledge. Constantly in the habit of buying seed, he was in the habit of observing it in the state of its growth, the farmer became a good judge of its quality. It was a pity that the farmer was not more generally so, and that he was almost entirely at the mercy of seedsmen; and this was true of the small farmer very much more than of the large farmer. The farmer of an arable farm was dependent upon purchased seed, particularly of the sort of which he was most likely to be imposed upon, and of which he had the least knowledge.

one-third of the seed sold to farmers was worthless and this was shown indirectly by the fact that a farmer usually sows one-third less of seed which was of his own growth. The farmer of an arable farm was dependent upon purchased seed, particularly of the sort of which he was most likely to be imposed upon, and of which he had the least knowledge.

which were by no means true. The practices were the killing of inferior sorts of seeds, and the doctoring and colouring of the better sorts, simply on the principle that "a good seed is no tale," in order that they might be mixed with the other seeds, and the doctoring and colouring of the better sorts. The practices constituted a separate and distinct trade. He believed that the Bill was well known and recognised in the House of Commons.

advantage on the public. Any change must be compound of universal application and that made the Bill. The farmer of an arable farm was dependent upon purchased seed, particularly of the sort of which he was most likely to be imposed upon, and of which he had the least knowledge.

Mr. COLLINS hoped the Bill would be read a second time. The farmer of an arable farm was dependent upon purchased seed, particularly of the sort of which he was most likely to be imposed upon, and of which he had the least knowledge.

Mr. SHAW LEVEYRE said it was impossible to deny that the evils the hon. member hoped to put an end to were of a very serious character, demanding a lowering of the standard. The farmer of an arable farm was dependent upon purchased seed, particularly of the sort of which he was most likely to be imposed upon, and of which he had the least knowledge.

Mr. HEAD hoped the Bill would be read a second time and would be passed. The farmer of an arable farm was dependent upon purchased seed, particularly of the sort of which he was most likely to be imposed upon, and of which he had the least knowledge.

There was a marked difference between sowing seeds and other things, food, &c. The farmer knew his mistake was not made with bran, that his mistake was not made with bran, that his mistake was not made with bran.

but little harm resulted beyond that of short measure of adulterated seed was different, it might even ruin a small man. With reference to the practice of adulterating seed, the farmer knew his mistake was not made with bran, that his mistake was not made with bran, that his mistake was not made with bran.

which it prevailed, but he doubted whether the remedy it, because of the difficulty of proof. Would it prove that any killed seed had been heated? The farmer of an arable farm was dependent upon purchased seed, particularly of the sort of which he was most likely to be imposed upon, and of which he had the least knowledge.

his best to find a means of overcoming it. Mr. MURPHY said they had some experience to throw light on this question in connection with the Food Act, which they all knew had been passed. The farmer of an arable farm was dependent upon purchased seed, particularly of the sort of which he was most likely to be imposed upon, and of which he had the least knowledge.

would not prove a failure. Then it was a question of the evil. It related only to the purposes of adulteration and the farmer of an arable farm was dependent upon purchased seed, particularly of the sort of which he was most likely to be imposed upon, and of which he had the least knowledge.

much more than he did about this subject, he had informed him a certain farm was than that of another, and that it varied from one to another. The farmer of an arable farm was dependent upon purchased seed, particularly of the sort of which he was most likely to be imposed upon, and of which he had the least knowledge.

no longer in his possession, as him to tell whether the failure in by some peculiarities of the soil. The farmer of an arable farm was dependent upon purchased seed, particularly of the sort of which he was most likely to be imposed upon, and of which he had the least knowledge.

days, to see whether they would on a trial made upon 100 seeds that be good and productive. The simple method mentioned gave these results—25 seeds per acre on the fourth, 18 on the fifth, and 3 on the seventh; making a total of 46 seeds per acre.

unsatisfactory not only to the tradesman. One gentleman wrote to him sued a farmer for 19s., a small debt of the kind and the farmer retaliated by bringing an action with having sold 14l worth of Swedish Turnips. The farmer of an arable farm was dependent upon purchased seed, particularly of the sort of which he was most likely to be imposed upon, and of which he had the least knowledge.

88l., the farmer claimed 100l. damages, which he said was rather more than a half in which the seed was killed in a field. The farmer of an arable farm was dependent upon purchased seed, particularly of the sort of which he was most likely to be imposed upon, and of which he had the least knowledge.

seven years old age to seeds it would be a great advantage to the farmer of an arable farm was dependent upon purchased seed, particularly of the sort of which he was most likely to be imposed upon, and of which he had the least knowledge.

19, 1869.]

the Strand. No one would deny that they were
 They and their predecessors had been in the
 the 200 years, and what they said was this, that one
 did not get a good crop and another almost a failure from
 bulk of seed, it would be, therefore, an intolerable
 that a man should go before a magistrate and say
 had sent him adulterated seed, and throw upon
 of making out their case, which it would be
 seeing that the seed might have come from
 gone through a dozen hands. The result
 could, he hoped, do something. The delay
 would not be very long, and some were very
 that there should be no legislation on the matter
 was not maturely considered. He hoped, therefore, if
 was read a second time—and he should not oppose it
 would be referred to a Select Committee.

He said he was glad, notwithstanding the strong speech
 the President of the Board of Trade had made against
 that he was prepared to support the second reading,
 the ability which the right hon. gentleman had shown
 the measure were applied to improving it, he had
 but they might pass the Bill this session without
 of those affected by it. The right hon.
 had mentioned the different circumstances which
 affect the reproductive character of the seeds, and
 out the difficulties which might arise if all persons
 which did not germinate were liable to a
 process. But this is a most professional and
 failure of which

in which the vendors had no control. The same
 seeds "knowingly" destroyed or coloured, and
 the objections of the right hon. gentleman, though
 plausible, did not really apply to the particular
 of the Bill. He had no doubt that under the third
 would be very little difficulty in looking up the
 to set up for carrying on this fraudulent trade.

He said he was aware of the great difficulties with
 question was surrounded, and it had often struck
 through one of those magnificent
 in agricultural exhibitions how it came to pass that
 of adulteration did not prevail to a much greater
 Any one who walked down through the long rows of
 various kinds of seed displayed in these exhibitions,
 an extremely practised eye to be able to distinguish
 another. But there was no doubt that a grievance
 of a most cruel and abominable character, which it
 position was offered by the
 of the Bill, and
 to it, an

member for Northamptonshire had not already
 suggestion, he should have ventured to recommend
 Board of Trade should take counsel with the hon.
 who had charge of the Bill, and see whether or no
 machinery could be devised for giving effect to the
 without at the same time exciting unnecessary litigation
 throwing the whole trade into confusion.

ed to perceive that there existed so general
 opinion that some early legislation on that
 le. If it should be deemed requisite, he
 to the Bill going before a Select Committee
 mittee were instructed to confine its attention
 of the clauses of the measure.

read a second time.

Home Correspondence.

Summer Prospects.—In the absence of any
 agricultural statistics of "our summer
 it devolves upon individual observation and
 conductors of the agricultural Press, to
 the best information they can collect of the
 and judgment of those in whom they have
 upon a subject of such high importance
 Agricultural Gazette has hitherto stood promi-
 before the public in obtaining and diffusing
 most valuable information, and as an old contri-
 I venture to give my views upon the present
 prospects. The winter was one of the driest
 ever known, consequently the crops of
 and winter Beans tided through it without
 to any extent, nor did they become "winter
 become too forward in growth. The
 of our country crops passed the winter ordeal
 in a satisfactory state. Farm stock, too,
 well through the winter. The cost was
 to the summer's drought destroying the
 crops, but the casualties were kept at a minimum
 very few exceptions. We then commenced the
 with a good plant of corn and an unusual and
 increased show of farm stock, more particularly
 stock. This was owing to the smaller number
 graziers were enabled to fatten in the winter,
 to wait the summer grazing. The spring sow-
 ing has been all-gather satisfactory. The
 of Peas progress remarkably well,
 here and there look well, but many
 of each kind, e. g. Barley, Oats
 and Beans, look to be in a point, and the May
 prevented their kindly progress. Wheat, too,
 was retarded in growth during the month,
 and crops looked thin and yellow, but all is
 now showing both colour and general appearance,
 they bid fair to produce an average harvest, but
 there is no prospect of an early harvest, or
 to last year's, and taking into account the
 on the days and hot gravels, the chances
 of a fat average yield. The root crops are
 now in a point. Many of the Potato crops are
 planted very backward, and a much less
 than last year. The tubers being
 planted in the ground, both in field and in grave,
 and the progress of plant. Manure is good where
 it is used, but the tubers are very thin and unpro-
 ductive. Turnips are not all sown, but the soil is in
 state to receive the seed, and they are going on
 satisfactorily. There can be no hesitation in pro-
 nouncing our summer prospects in grain to be
 and of roots a fair average. Farm stock being
 graziers have supplied themselves to a
 extent than usual, owing to the unexampled
 of grass during the month of April. The
 of the early part of the season, consequently
 were the best early, and upon the whole the stock
 progressed well, so that the markets are already
 in the spring fed cattle and sheep. Prices still

range high; but as the markets are increasing in
 supplies they must in some measure give way, but to
 no great extent. Figs are unusually dear as stores,
 and pork maintains a high price. Vast numbers have
 been fed from last year's diseased Potatoes, which
 probably causes the scarcity. Wool is making a fair
 start. It is good in quality, being well washed, and
 through the mild winter, and of a beautiful colour.
 The staple is rather short, owing to the drought of last
 summer preventing the sheep's progress.

Law of Hypothec.—It appears to me that Mr
 Cunningham, in his letter on this subject, endorsed by
 the Council, has mistaken the ground on which Lord
 Elibo's views. The matter does not depend on
 the selection of investment being free from compulsion.
 Choice of investment is regulated by the consideration
 of advantages, which weigh very differently with
 different minds. The investment in land at 3 per cent.
 is chosen, amongst other reasons, on account of its
 security—security in one respect; for there are two
 elements of doubtfulness in all purchases. 1. Whether
 the thing purchased is in itself worth the price given.
 2. Whether the returns promised will be realised. It
 is in this first respect alone that land is a subject of
 commercial speculation, and there is seldom much
 room for this cause to operate. As regards the
 second, and taken out of the sphere of com-
 mercial speculation, by a private law, it is a
 of depression, but it is the result of commercial
 speculation. A privilege is a special advantage con-
 ceded by the community, on the ground that in some
 way their existence—upon the whole, beneficial to the
 community. It may be a mistaken view—and opinion
 sets with force against class legislation, and tends to
 restrict and repress private enterprise. It is in consideration
 that in practice the privilege has been and may be
 abused to the perpetration of the grossest iniquity that
 it is fair to call for its modification or abolition.
 Granted that the Law of Hypothec is a privilege which
 ought to be abolished. Let it be so; but in the mean-
 while there is no general infringement of equity in its
 operation, because it is a part of our social compact.
 Rather the present landowners might claim with
 greater show of equity some compensation, if the
 security, on the strength of which they made their
 investments, is abolished, but it would probably be felt
 that the free trade principle, i. e., the operation of a
 natural law, would compensate them sufficiently, for
 most surely other things remaining as they are, if the
 certainty of recovering rent was taken away, rents
 would rise. I. S. I. S.

Clover: Cow.—In Mr. Radclyffe's interesting
 paper, Dr. V. says that the value of Clover root to the subsequent Wheat crop, he
 says, "never feed off your young Clover." Here we think
 it necessary to eat it close down, say through May
 before letting it stand for seed, and on this plan I have
 grown sometimes 4 or 5 tons of Welsh Red Clover seed
 of excellent quality. Does Mr. Radclyffe mean to say
 that the crop will yield more, and ripen as equally
 and earlier, if left to grow in May without being eaten
 down? To make it perfectly level we usually pass the
 scythe over it when the cattle are taken out. Does Mr.
 R. advise its being left entirely alone from harvest to
 harvest?—Allow me to add, as I am writing, that I
 have had a cow, which on the night of Wednesday, the
 2d inst., gave birth to still-born calf; on Thursday
 morning, perhaps eight or nine hours after, to another
 and on Sunday, the 6th, about 10 A.M., a third was
 taken from her. She was much reduced, but doing
 well. All the calves were before their time. Eric.

Societies.

ROYAL AGRICULTURAL OF ENGLAND
SPECIAL COUNCIL. Tuesday, June 15. — Present:
 Lord Walsingham, Vice-President, in the chair, the
 Earl of Powis, Viscount Bridport, Lord Kesteven,
 Lord Tredegar, Sir E. Kerrierson, Bart., Sir A. K. Mac-
 donald, Bart., Mr. Campbell, Mr. Dent, M.P., Mr.
 Drum, Mr. Brandreth Gibbs, Mr. Hornsby, Mr. Wren
 Hoskyns, M.P., Colonel Kingscote, M.P., Mr. Milward,
 Mr. Statter, Mr. Torr, Major Wilson, and Mr. Jacob
 Wilson.

FINANCE.—Major-General Viscount Bridport
 Chairman reported that, with reference to the cases
 of those members against whom legal proceedings have
 been taken, two defended cases, viz., Henry Stanton,
 of Coleman Street, London, and Richard Hodgson of
 Chingford, Essex, were heard in the Western
 County Court on June 3, when the former was dis-
 missed, and the latter the latter being a bankrupt
 until July 1, to enable the Society to produce its original
 charter; and the committee now recommend that the
 Secretary be authorised to produce the same before the
 court, and his agreement as Secretary to the Society,
 as well as such other documents as the Society's solicitor
 may think fit. The committee are happy to state
 that in no less than five cases of defaulting members
 the arrears and costs have been paid; the two remaining
 cases, of the nine authorised by the Council to be
 proceeded against, are at present in abeyance, one
 member being in Canada and the residence of the other
 not yet ascertained.—This report was adopted.

GENERAL, MANCHESTER.—Lord Walsingham re-
 ported that the committee recommended that the sum
 granted for advertising the Manchester meeting be
 increased to 800L, on condition that the local com-
 mittee pay any amount spent in excess of that sum,
 and that the Secretary be instructed to apply for
 double the usual force of London police.—This report
 was adopted.

JUDGES' SELECTION.—Major-General Viscount Brid-
 port presented the report containing the proposed list
 of judges of live stock and implements at Manchester.
 This report was adopted.

On the motion of Mr. Torr, it was resolved that the
 Society's small dynamometer be lent to the Lincolnshire

Agricultural Society, immediately after the Manchester
 meeting, that Society undertaking to pay all expenses.
 On the motion of Mr. Brandreth Gibbs, it was
 resolved that four new exit turnstiles be procured, and
 that the number of entrance turnstiles be increased
 to 16.

The Honorary Director was empowered to make such
 alterations in, and additions to, the showyard plant as
 he may deem necessary.

ESSEX AGRICULTURAL SOCIETY.
Colchester. June 15 and 16.—The meeting has been
 held under the most unusual circumstances of weather.
 On Tuesday it was stormy early in the morning, and
 at intervals during the day heavy hail-storms fell from
 clouds which were driven up so suddenly before gusts
 of wind, that it was hard to run for it from the horse-
 ring to the cattle tents, 50 yards or so distant. Towards
 evening it turned bitterly cold, as the strata of air in
 which the hail was congealed then seemed to have
 descended to the surface; and there seemed no end to
 the variations of climate. Wednesday promised to be
 even worse, and the morning signs were verified up
 till nearly three in the afternoon, for heavy storms,
 with streams of rain, were varied by gusts of wind
 which tried the whole of the shedding in the show-
 yard and made many tents yield to the force of
 the nor-wester. When we arrived in the show-
 yard, about 11 o'clock, the stallions were being led
 about to keep them warm, mares and foals had been
 taken out because their shedding had either given way
 or the cold blast had made their coat stare, and the
 attendants in more favoured spots were standing
 beside their animals "flanking" their hands and
 stamping their feet to prevent the blood from stagnat-
 ing in the extremities.

If the Essex Agricultural Society be intended to be
 a show, that is, a show of doing something, while every-
 one who looks on is to be kept in a happy, or an
 irritated condition of ignorance in regard to the classes
 they bring together, its authorities cannot do better
 than continue their method of making entries, the
 formation of classes, and the arrangement of the
 catalogues, repeating it in time to come in the
 exact form in which all these things were done
 at Colchester. The coolest head and the sharpest wits
 at figures and facts could not comprehend in a week
 the subtleties of two, three, and four different num-
 bers over the head of many animals, and the several
 classes which they formed a part of in the catalogue.

The Horses were placed first in the catalogue, and
 as far as the agricultural classes went they were a
 grand show.

There were 29 stallions, young and aged, in the yard, as
 stock horses for agricultural purposes, and nearly all of
 these were of the Suffolk breed. We will not venture
 to be critical under the conditions which we have
 described. Mr. Wolton, Mr. Ward, Mr. Winch, Mr.
 Wren, Mr. Drum, Mr. P., Mr. Bradham, Mr. Boby,
 Mr. Bot, and other well-known owners and breeders
 of Suffolk horses, were exhibitors in the stallion classes;
 and we need say no more to indicate that the show in
 this department was a good one, and that the competi-
 tion was close and the task of judging arduous.

The geldings, mares, and fillies in this department were
 equally good, the former especially, and particularly
 when they were shown in "teams" of four. There were
 five of these teams—Mr. Winch's, Mr. Hallum's, Mr.
 Frost's, Mr. Green's, and Mr. Badham's. The premium
 was fairly awarded to Mr. Green's four chestnuts, for
 a more magnificent line of strong and active horses,
 with good form and symmetry to make them attractive
 to look at, we never saw. The other four teams were
 scarcely second to them in either appearance or useful-
 ness. This was the best collection of the kind that we
 ever saw at any show.

The entire thoroughbred horses and the hackneys
 and roadsters were more of a character for discussion
 in sporting journals. Too often, however, we might with
 truth have exclaimed, "weedy," "weedy," "weedy," as
 lines of thoroughbreds and not thoroughbreds passed.

We cannot quit this part of the proceedings at
 Colchester without once more condemning the
 "jumping" introduction which has been introduced to
 the horse ring by this and some of the other less
 experienced societies. If there were any use in it, as
 regards testing the stamina of horses, there might not
 be so much to say against it. But to adopt this practice
 as a mere draw—a mere "sawdust" and other
 unbusinesslike and unprofitable—to stake the
 stability of any agricultural association by entering
 into such a contest, and to have a horse-stealer and
 a thief as a witness, is a very unwise and
 well intended, no doubt, for the town committee to
 give a Colchester Town Prize Cup, 10L, for the best
 "jumper," but this is an agricultural association, and
 it is for farmers to say whether they will have these
 business meetings turned into cooped-up fairs, and
 water-jumping tomfoolery. It is unfair to exhibi-
 tors in every other class, as their animals or machines
 are liable to be neglected, and thus the instruction
 which these meetings are intended to impart is almost
 altogether superseded or thrown away.

The Cattle are nearly confined to "pure Short-
 horns" and "Short-horns" with a pedigree. The
 only exceptions are a few Channel Islands cattle.
 The pure Short-horns are a great and good show. Mr.
 Tippler's DICK, by NINE TREE JESSIE, Jam. Duckess, is
 a long and heavy red and white bull with ample muscle
 in his fatry-fed shoulders. Mr. Osier's MONARCH is
 a flat ribbed white of fair size with a good head and
 Mr. Osier's HOWARTH, by MISS BATTLE, Jam. Duckess,
 is a very handsome and well grown straw-
 berry and white bull with a splendid front, his back
 is straight and even, and his whole outline, from a side
 view, is very fine. With the exception of his trust and
 slower rounds he might be described as an animal of
 near perfection as possible. When we add that he was

re they are forthcoming. It has

engaged to go somewhere else three months before their time... Mr. Oulton endorsed all Mr. Bate had said as to the necessity... had not been more warmly taken up, but if anything he had said tended to the improvement of the labourer classes, he would feel amply rewarded for the trouble he had taken.

faithful servants are the children of those parents who, whether it was the wish of the farmer to re-engage the suggestion to put the registers... Mr. Oulton endorsed all Mr. Bate had said as to the necessity... had not been more warmly taken up, but if anything he had said tended to the improvement of the labourer classes, he would feel amply rewarded for the trouble he had taken.

to be faithful and obedient when they enter

Mr. Oulton endorsed all Mr. Bate had said as to the necessity... had not been more warmly taken up, but if anything he had said tended to the improvement of the labourer classes, he would feel amply rewarded for the trouble he had taken.

Mr. Oulton to the discussion, said, Mr. Oulton had said with which or two things which he thought

would hardly bear the test of practical working. At and Mr. Aston too, seemed to forget the class they

that anything in the shape of compulsion or tion was objectionable. The proposal to deposite servants of the class in question was very objectionable to Mr. Oulton. He thought that it would be better to let the farmers do as they pleased, and what was best for them.

He had attended to his satisfaction. He had a good deal to say on the subject.

Mr. Oulton said that the farmers had much neglected the supplying of a where their men had to toil. A good deal

at comfortable fire-places, a warm room, and a few cheap papers

There were some farms where this sort of thing had been adopted, and attended with the best results.

was not so much a matter of shortcom- is—that if unprincipled farmers offered

they could possibly get over it. They knew

he suggested that they should afford facilities, say once a

thought it was much better to present a small honorarium above them when servants were heavily pressed and did their duties well.

Mr. OULTON congratulated the many Con Christmas was impossible

but with the evil tendencies connected with them, and there he suggested that servants could still go home at stated times to have their gatherings and parties. He was surprised to Mr. Bockett mention the word compulsion

adopt some such plan as he recommended. The servants had readily agreed. He considered its injurious influences and practices, a

Farmers' Clubs.

WEST MICHIGAN

At the late bi-monthly meeting of this Farmers' Club, Mr. TOWNES read the following paper—

Genuine Peruvian guano should contain 16 to 19 per cent of ammonia, and 20 to 25 per cent of phosphate of lime. The average quantity of ammonia in the best Peruvian guano is 16 to 18, and of phosphate of lime 20 to 25. It can only be obtained from the English firm, Messrs. J. & C. B. & Co., Ltd.

These quantities of ammonia and phosphate are not more than sufficient for the limited supply of the compound. The limited supply of the compound, which is the best of the kind, is the result of the combined causes of the

The quantities with which the guano is adulterated are very small, and a large quantity of which are sent from our nearest neighbour to Liverpool and other places, and so skilfully are these compounds prepared that the most experienced buyers are often imposed upon; the proportions, of course, depending upon the conscience of the compounder, and on the presumed gullibility of the purchaser. I have met with beautiful-looking samples sold for Peruvian guano which did not contain one particle of real guano, but which were mixed with half a ton of ground limestone, and of no value whatever.

It is unfortunate that there are so many simple-minded farmers who are so easily imposed upon, and who are so ready to believe that they are getting the best of the kind of guano for their money.

An imperial bushel weighs about 69 or 70 lbs. It is a very important fact to know, and one which is often overlooked. With the best of the kind of guano, the results will be greatly improved.

But the only trustworthy method of detecting adulteration is chemical analysis. The farmer should never purchase guano without a guaranteed analysis, and if it turns out in any way inferior, return it to the seller, and compel him to pay all expenses. Farmers have the means of detection in their own hands, they have only to be united, and they will be supported by every responsible dealer who wishes to have his goods sold.

Low of Guano. The use of guano as applied to various crops is a subject which practical farmers widely differ. It should be freely advertised, and it is to be used with any other artificial manure, it should be mixed with an equal bulk of turf mould, or some other material which will give it more easy of application, but it serves to a great measure the same purpose as the other. It is a matter of fact that the use of guano, should be avoided as having the contrary effect. Its utility as a fertilizer is not to be found in the rapid germination of the plants, but in the steady and uniform growth of the plants, and in the large quantity of produce which they yield. It is a matter of fact that the use of guano, and were not it, the results would be greatly improved. It is a matter of fact that the use of guano, and were not it, the results would be greatly improved. It is a matter of fact that the use of guano, and were not it, the results would be greatly improved.

without an exception, but, as a general rule, it is necessary in conjunction with farm

Indeed, the use of guano is a matter of fact, and one which is often overlooked. With the best of the kind of guano, the results will be greatly improved.

Again, on very early stages of the growth of the Turley, the use of guano is much to be desired, and the results will be greatly improved.

The use of guano on grass-land will always be recommended, and the results will be greatly improved.

The use of guano on grass-land will always be recommended, and the results will be greatly improved.

The use of guano on grass-land will always be recommended, and the results will be greatly improved.

overcome by digging a well and applying water... An ill position when the...

the same person, and I am in favour of... Mr. W. gave a lesson...

meeting of the General Committee of... the Highland...

Calendar of Operations.

These and hard hoe, sowing the plants... These and hard hoe, sowing the plants...

the roots and manure, as a small rubble on the surface... is worse than none.

Rye-grass and Clover and irrigated meadows. The... therefore they may be described separately.

Rye-grass and Clover-hay when made in bright... sunny weather is very liable to "roast," more especially...

Some Grasses flower in May, others in June, July, and August... flower. Some Grasses flower in May, others in June...

Stacking is a nice operation when the hay is properly... shaken out and mixed in the stack.

Thatching should never be delayed. Thatch should... be in readiness, and stacks of Rye-grass and Clover-hay...

Notices to Correspondents. Mr. W. gave a lesson... information regarding it, either by letter or by message.

Caution to Gardeners. When you ask for... PRIZE KNIVES, see that you get them...

Horticultural Glass Warehouse. THOMAS MITCHELL AND CO., NEW STREET, LONDON, E.C.

Table with columns for dimensions (e.g., 2 ft by 2 ft, 2 ft by 3 ft) and prices per 100 feet.

Table with columns for dimensions (e.g., 12 by 12, 12 by 18) and prices per 100 feet.

The above are given for the sake of stating a quantity of any... that may be required.

SHADE GLASS. In sheets of various sizes, ranging from 6 to 9 feet super.

Table with columns for dimensions and prices for shade glass.

SHADE GLASS is made in the following substances, to wit:

- GREEN PAINT, unshaded. 25s. to 40s.
BLACK PAINT. 24s. to 36s.
RED PAINT. 22s. to 38s.
GROUND BRUSHES.
DUSTERS & WASH TOOLS.
LANTERN BRUSHES.

ERS, 3d. to 4d. per lb. OXFORD COBRE, 3d. to 4d. per lb.

- FINE OIL PUTTY.
FINE OAK VARNISH, 10s. to 12s.
CARRIAGE OIL, 12s. to 16s.
KOPAL.
KNOTTING.
INTERS. (ROUND SIZE).
BLACK JAPAN.
GLAZIERS' DIAMONDS and TRILLS.
MILLED LEAD and PIPES.
OLD LEAD Bought or taken in exchange.

The above are Not for Cash, and as such cannot be booked. Lists of any of the above on application.

Glass for Garden Purposes. JAMES PHILLIPS AND CO. beg to submit their REDUCED PRICES as follows:-

Table for PROPAGATING GLASSES with columns for diameter and price.

Table for BEE GLASSES with columns for diameter and price.

Table for CUCUMBER GLASSES with columns for length and price.

Table for HAND GLASSES WITH OPEN TOPS with columns for length and price.

London Agents for HAMILTON'S IMPROVED PATENT ROUGH PLATE. LINSEED OIL, GENUINE WHITE LEAD, CAULSON'S PAINTS.

GREEN'S PATENT SILENS MESSOR,

OR

NOISELESS LAWN MOWING, ROLLING, and COLLECTING MACHINES.

BY SPECIAL APPOINTMENT,
MANUFACTURER



TO HER MOST GRACIOUS
MAJESTY THE QUEEN.

The Extraordinary Success of GREEN'S PATENT LAWN MOWERS is an established fact. During the last five years the demand has been unprecedented, and is a proof of their superiority over all others. The following are their characteristic features—

- 1st. Simplicity of Construction, every part being free of access.
- 2d. They are worked with far greater ease than any other Lawn Mower.
- 3d. They are the least liable to get out of order.

IMPORTANT NOTICE.

Trial at the London Horticultural Society's Gardens, Chiswick, June 5, 1857; four competitors—First Trial on level ground, Second Trial on uneven ground, Third Trial on intricate places, around trees, &c.—when GREEN'S PATENT was unanimously declared to be the best in each Trial by COLONEL CHALLENGER, Dr. HORTON, and G. McEwen, Esq., the appointed Judges, and on every subsequent Trial to the above have GREEN'S PATENT LAWN MOWERS carried off every Prize that has been given in competition for superiority in every point.

PRIZE MEDALS AWARDED TO GREEN'S PATENT LAWN MOWERS.

FIRST PRIZE MEDAL AT THE INTERNATIONAL EXHIBITION, LONDON, 1862.
FIRST PRIZE MEDAL AT THE INTERNATIONAL EXHIBITION, DUBLIN, 1865.
FIRST PRIZE MEDAL AT THE NAMUR EXHIBITION.
FIRST PRIZE MEDAL AT THE GAND EXHIBITION.

FIRST PRIZE MEDAL AT THE LAKEN EXHIBITION.
FIRST PRIZE MEDAL AT THE LINCOLN EXHIBITION.
FIRST PRIZE MEDAL AT THE BRUSSELS EXHIBITION.
FIRST PRIZE MEDAL AT THE HAMBURG EXHIBITION.

THEY ARE THE ONLY MACHINES IN CONSTANT USE AT

THE ROYAL HORTICULTURAL SOCIETY'S GARDENS, SOUTH KENSINGTON
THE ROYAL BOTANIC GARDENS, REGENT'S PARK
THE CRYSTAL PALACE COMPANY'S GARDENS, SYDENHAM
BUCKINGHAM PALACE GARDENS
MARLBOROUGH HOUSE

THE HYDE PARK GARDENS
THE WINTER PALACE GARDENS, DUBLIN
THE DUBLIN BOTANIC GARDENS
THE LIVERPOOL BOTANIC GARDENS
THE LEEDS ROYAL PARK

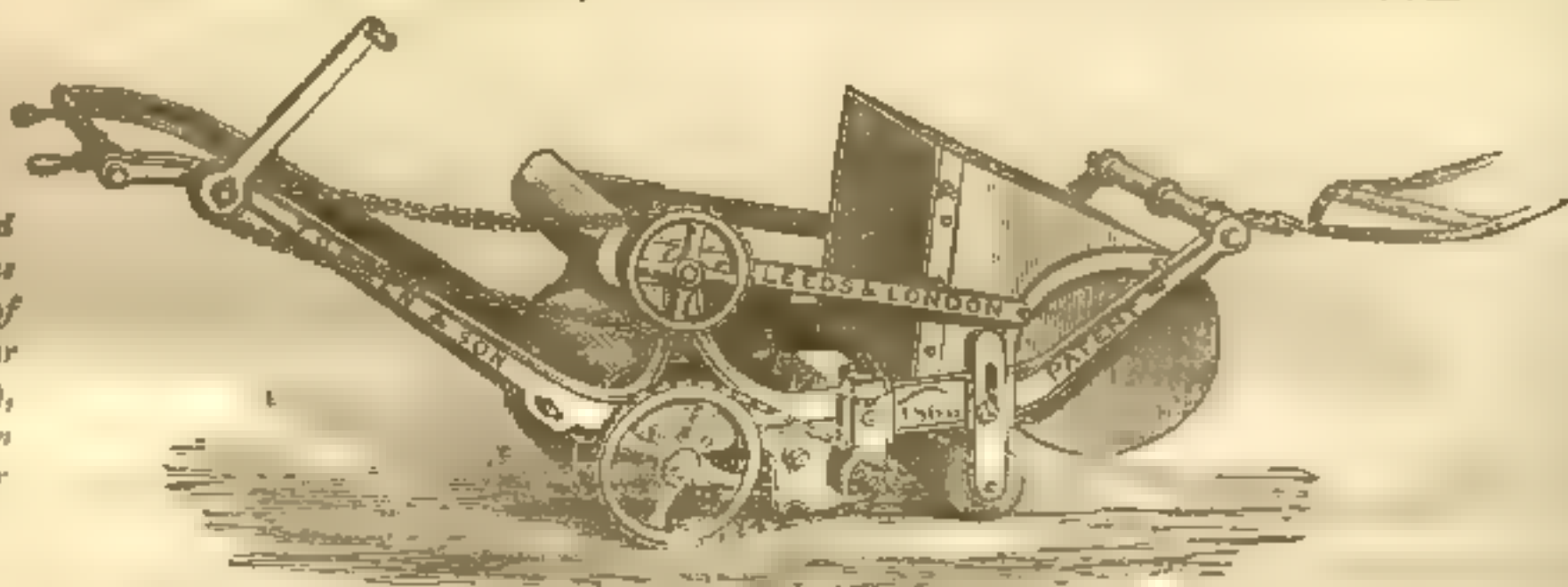
THE HULL BOTANIC GARDENS
THE BOTANIC GARDENS, BROMLEY
THE SUNDERLAND PARK
THE PRESTON PARK

AND IN MOST OF THE PRINCIPAL PARKS, SQUARES, ETC., IN THE UNITED KINGDOM.

HORSE, PONY, AND DONKEY MACHINE.

GREEN'S PATENT LAWN MOWERS

have proved to be the best, and carried off every Prize that has been given in all cases of competition. Since the first year they were introduced (1856), upwards of 46,000 have been sold, and 25,000 of that number during the last five seasons.



T. GREEN & SON
warrant every Machine to
entire satisfaction, and
approved of can be
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PRICES of HORSE, PONY, and DONKEY MACHINES, including Patent Self-delivery Box, Cross Stay complete, suitable for attaching to ordinary Chain Traces or Gig Harness.

PONY AND DONKEY MACHINES.

To Cut 26 inches	£13 0 0	Leather Boots for Donkey, 18s. Leather Boots for Pony, 22s.
" 28 "	.. ..	15 0 0
" 30 "	.. ..	17 0 0

HORSE MACHINES.

To Cut 30 inches	£21 0 0	Leather Boots for Horse, 25s.
" 36 "	.. ..	24 0 0
" 42 "	.. ..	27 0 0
" 48 "	.. ..	30 0 0

Both the Horse, Pony, Donkey, and Hand Machines possess (over all other Makers) the advantage of Self-sharpening. The cutters being steel on each side, when they become dull or blunt by running one way round, the cylinder can be reversed again and again, bringing the opposite edge of the cutter against the bottom blade, and the Machine will cut equal to new. Arrangements are made that the cylinder can be reversed, by any inexperienced person, in two or three minutes.

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To Cut 10 inches	£1 10 0	Suitable for a Lady
" 12 "	4 10 0	" "
" 14 "	5 10 0	Suitable for One Person
" 16 "	.. ..	6 10 0	" "



To Cut 18 inches	.. ..	£7 10 0	Suitable for One Person
" 20 "	.. ..	8 0 0	" "
" 22 "	.. ..	9 10 0	" "
" 24 "	.. ..	9 0 0	" "

Packing Cases are charged at the following low rates, viz.—For the 10 and 12 inch Machines, 3s., 14 and 16-inch, 4s., 18 and 20-inch, 5s., 22 and 24-inch, 6s. and 8s. respectively. Providing themselves with Lawn Mowers are recommended to purchase the cases in which to stow them away, when not in use, to prevent them from getting damaged. Returned, two-thirds will be allowed for them.

The above MACHINES are made from the best materials, and of superior workmanship, are delivered Carriage Free to all the principal Railway Stations and Shipping Ports in England, Ireland, and Scotland.

HORTICULTURAL and AGRICULTURAL IMPLEMENTS, GARDEN SEATS and CHAIRS, FOUNTAINS, VASES, PLAIN and GALVANISED WIRE NETTING and ORNAMENTAL WIRE WORK of every description.

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and 54 & 55, BLACKFRIARS ROAD, LONDON, S.

July 18th to 24th, 1869.
THE ROYAL HORTICULTURAL SOCIETY'S
GRAND EXHIBITION at MANCHESTER,
 in connection with the
 48th of the ROYAL AGRICULTURAL SOCIETY
 Annual Meeting at Special Place,
 near the Fair, on the 11th of July. **VALUE £21**
 to be offered by the Proprietors of the
THE GARDENERS' CHRONICLE AND AGRICULTURAL GAZETTE
 to be made up as follows.

In awarding the Prize, Marks will be adjudged according to the following scale, for the several subjects produced.

	1st mark	2nd mark	3rd mark
Apples (1 doz)	3	2	1
Apples (2 doz)	3	2	1
Apples (3 doz)	3	2	1
Apples (4 doz)	3	2	1
Apples (5 doz)	3	2	1
Apples (6 doz)	3	2	1
Apples (7 doz)	3	2	1
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Apples (98 doz)	3	2	1
Apples (99 doz)	3	2	1
Apples (100 doz)	3	2	1

The Prize for the Competition amongst Amateurs and Gardeners for the Fruit and Vegetables produced at the Exhibition is a silver vase, and any articles otherwise marked will be disqualified. It is expected that the exhibition will be neatly and effectively displayed.

The Gardeners' Chronicle.
 SATURDAY, JUNE 26, 1869.

MEETINGS FOR THE ENSUING WEEK.
 Royal Horticultural (Great House Show),
 at the Royal Horticultural Society, 11, St. James's Place, London, W., on Wednesday, June 23rd, 1869.
 Royal Horticultural (Fruit and Vegetable Show),
 at the Royal Horticultural Society, 11, St. James's Place, London, W., on Thursday, June 24th, 1869.

As is the condition of the gardens at Kew, and great as has been the improvement in some of the departments of the gardens, the Orchids in that establishment never be pointed to as illustrations of the best cultivation. With that exception, which prevails all departments of our national garden, the Orchid-house at Kew has been built, forming a portion of a new range of buildings, when completed, will be a valuable addition to the garden. But on looking at the newly erected house, we are disposed to doubt if it be well suited for the growth of Orchids.

There are many reasons why, in a large public establishment, the same amount of success as is obtained in the more important private collections of Orchids, is hardly to be looked for. The continual ingress and egress of visitors, and the continual opening and shutting of doors, and the consequent currents of cold air, are in themselves very disadvantageous circumstances.

With open doors, in addition to the ordinary mode of ventilation, the necessary moisture during the day is leaked up, and the very life blood of the plants is positively stolen away at every opening and crevice. Many of the plants, in spite of the greatest skill, can scarcely recoup themselves by the evaporation and condensation of moisture in the evening and during the night. A liberal mode of ventilation, a certain amount of shade, but a too liberal off-hand mode of ventilation, with them is liable to lead to disastrous consequences. The question arises, what should be done under such circumstances? The British public is so sensitive over national affairs, and public parks and gardens in particular, that to attempt to shut up the Orchid-house might perhaps be the signal for another Hyde Park demonstration in miniature. Moreover the present Government would not care to incur the responsibility of sanctioning what might be considered to be a purely conservative measure, even were it desired by the managers of the garden—a very unlikely thing. We must look in some other direction for a scheme whereby the public will not be denied the privilege of inspection, and one in which the interests of the plants can be studied also.

Two modes seem to us practicable—the one to enclose the existing Orchid-houses, and the other to distribute the plants in what may be called growing and flowering houses.

The first plan is open to this objection—that it is exclusive; for it might well be argued that passing in at either door would be about as satisfactory as walking round a glassed promenade and straining the eyes to catch a glimpse of any floral

treasure within. Moreover the present houses are not adapted for carrying such a plan into effect advantageously; for their width and form would present an almost impenetrable barrier to anything like a satisfactory inspection in the way indicated. If this outer corridor were thought of, all the flowering plants would require to be arranged on the side tables to bring them within sight of those outside, but many of the plants, on account of their stature, could not be so placed. Any arrangements for accommodating the public after this fashion would be well considered before a plan of building was adopted at all; and failing this plan, either a block of new Orchid houses could be built and the present houses utilised for other purposes, or the plan of distributing the plants into growing and flowering houses could be adopted.

Upon the whole this latter plan seems to us by far the best of the two, for it preserves the existing order of things, and only stipulates for auxiliary growing houses with closed doors. The present houses may remain and do duty as show houses, but they are quite unsuited for the permanent growth and well-being of a general collection of Orchids. It is found quite practicable in many private collections to move plants from their growing quarters to cooler houses wherein to display their flowers, but it would be the height of folly to have them exposed to a fluctuating atmosphere in a condition where air currents were uncontrolled. The season of rest of most of the Orchids begins with the wane of the inflorescence, and therefore open doors during the few weeks the plants are in bloom would not be of material consequence; but when the season of growth approaches, every advantage in the shape of proper temperature, duly modulated air currents, and sufficient moisture, must be husbanded else the day of grace passes away, and the life of the plants vanishes along with it. By this separating system both the public and the plants would have justice done them. Moreover it would be far more interesting to a general observer to see the plants together, in flower, removed, as they would probably be by a display in suitable places. It is not well to be told if such an arrangement were carried out, and to the visitor there would be always some novelty to inspect and admire.

As a growing house the new Orchid-house at Kew is much too lofty for the majority of the plants in the collection. As a rule this great family delights in a rather confined atmosphere, and most of its members show special luxuriance in proximity to the glass covering. On that account, and on that alone, many of the plants in the new Orchid-house are not likely to grow and thrive to the best advantage. On the other hand, a limited atmosphere and low roof are injurious to the flowers, for the condensation of moisture destroys many of their beautiful tints. Hence the wisdom of providing a suitable habitation for the plants, both in their growing and flowering state.

The green glass employed seems to us, as far as most Orchids are concerned, to be more a theoretical than a real acquisition. It may be, and evidently is, useful for many plants, such as the economic plants that are ranged in the new buildings near to the Orchids, as obviating the necessity for close shading, but it cannot divert the rays of the sun from acting injuriously upon Orchid life. Shade is requisite and when shading is required, the permanent interposition of any colour to intercept light cannot have any good practical result. During the dark days we want all the light at command and unless at that period the green glass could be exchanged for the clear, translucent glass in everyday use, it appears to us that, instead of securing a benefit we are contracting a loss, and placing our position in point of light and darkness by so much the nearer to the state of affairs at the North Pole.

THE 26th anniversary festival of the GARDENERS' ROYAL BENEVOLENT INSTITUTION was celebrated on Wednesday evening last, at the London Tavern, under the presidency of his Grace the Duke of ARGYLL, K.T. who was supported by JAMES BATEMAN, Esq., F.R.S., G.F. WILSON, Esq., F.R.S., Professor OWEN, R. WRENCH, Esq., A. HELPS, Esq., Mr. Alderman MERRI, and a large number of well-known horticulturists, including Mr. EVLES, Mr. FORBETH, Gunnersbury; Mr. JENNINGS to Lord HILL, Hawkstone, Salop; Mr. BARLEY, jr. to F. PRYOR, Esq., Mr. SMITH, jr. to C. B. PETER, Esq., Norwood, &c. The tables were tastefully decorated with flowers and fruit. Of the former, a very fine Liliac and an equally handsome Armeria Scherzeriana were very conspicuous; while at the back of the chair

was a charming arrangement of flowering plants, tastefully arranged and which were liberally contributed by Messrs. LEE, VEITCH, LUNN, and WILKINS. Some time before the meeting from the gardens of his Royal Highness the PRINCE OF WALES, at Sandringham, from those of Baron ROTHSCHILD, of Gunnersbury; and from those of Mrs. DIXON, of Stanstead Park, Emsworth, and others. After the usual toasts, the noble Chairman proposed the toast of the evening, viz., "Prosperity to the Gardeners' Royal Benevolent Institution," and in so doing referred to the objects of the Institution, which were to provide a pension for the members of the gardening profession in their old age; and said that this Institution the pensioners were allowed to live with their families, which was an advantage not shared by many other similar institutions. Another rule of the Society commented on by his Grace the Chairman is that those who subscribe to the fund for 15 years take precedence over subscribers for shorter periods in obtaining the pension. After alluding to the manner in which the funds of the Institution were raised, the Chairman remarked, that if every gardener would subscribe yearly, the funds could be easily raised without the necessity of being dependent upon the subscriptions of any one individual. As an illustration to the manner in which the funds of the Institution were raised, the Chairman stated that the various London Gardeners, as a body, labour under certain disadvantages, through being scattered in remote districts throughout the country, and that if they were not to be the same amount of co-operation amongst them that existed in their respective localities, but when united, it would be a most powerful force. Nevertheless, he earnestly recommended gardeners to subscribe to the funds of the Institution, and thus to provide for themselves when aged and infirm. The Chairman then expressed his admiration of the manner in which the market-gardeners around London catered for its immense population in the shape of vegetables and fruit, as regards the latter, he stated his belief that this country was better supplied than any other, and that the tables of the EMPEROR of the FRENCH, and a large number of the nobility of France, were supplied with the produce of the English gardeners' skill. As regards flowers, the Chairman referred to the remarks of the vegetation in foreign countries contained in Mr. WATSON'S "Mosses and Ferns," and mentioned very interesting remarks on the skill of the gardeners in producing flowers, and on the science of gardening as carried on in this country. The Chairman afterwards gave "Physiological Science," and coupled with the toast the name of Professor OWEN, who was supported by Mr. HELPS, Mr. WRENCH, Mr. WILSON, Mr. MERRI, Mr. WRENCH, and Mr. WILSON, who read a list of donations amounting to nearly 5000. Mr. Alderman MERRI proposed "The Nursery and Seed Trade," to which Mr. HENNER responded. "The Ladies" were then given by the noble Chairman, after which the proceedings terminated.

We have authority for stating that the Bill for the PREVENTION OF THE ADULTERATION OF SEEDS is to be referred to a Select Committee, for the purpose of collecting evidence as to the facts of the case, and to resist certain clauses of the Bill. The promoters of the measure, we believe, have assumed that the course with a view to any possible objections that might be raised by the breeders of Irish or other parties, if such a plan were not adopted. As the proposed legislation is of somewhat novel character, it perhaps as well that the growers should for themselves have an opportunity of ascertaining the magnitude of the evils. It is considered that sufficient evidence can be brought forward to satisfy the Committee as to the necessity for legislative interference without going into very elaborate details, and without compromising the position of the respectable seed firms.

In a recent number (p. 609) we stated that we understood that the British representatives at the ST. PETERSBURG EXHIBITION did not accept decorations like those awarded to the representatives of other nations, owing to advice given by Dr. HOOKER. We now learn from Dr. HOOKER, and are requested by him to state, that he gave no such advice, that he was never consulted on the subject of giving decorations to jurors or delegates, and that he would naturally have shrunk from doing anything of the kind without consulting his compatriots. As the proceedings at St. Petersburg seem to have been very informal and confused, there is no room for surprise at the misunderstanding on our part.

We understand that the Floral Decorations at Buckingham Palace, on the occasion of the visit of the Viceroy of EGYPT, have been supplied by Mr. WIMBETT, of the Ashburnham Park Nursery, Chelsea.

Those interested in City Gardening will be glad to learn that the new SOUTHWARK PARK was opened to the public on Saturday last by Sir JOHN THWAITES, the Chairman of the Metropolitan Board of Works. The land selected formerly belonged mainly to Sir WILLIAM GOMM, and comprises an area of 63 acres, situated on the south-west of Deptford Lower Road, and reaching in that direction as far as Jamaica Lane, thence to the pleasure ground, and will prove an admirable resort to a portion of the population, at a cost of about 100,000. The ground which has a very flat appearance, has been laid down with grass, large open spaces are left for promenading, and along the sides of the principal paths and other prominent positions large mounds of earth have been thrown up, which are planted with Rhododendrons and various other shrubs.

JUNE 26, 1890.

flowers well at how this year, both in No. 1 house and in the open garden, and our description is taken from the specimens. It resembles most the bicolor variety of Pseudo-Narcissus from which it may be distinguished by its smaller size, bright green leaves, and its flowers not more than half an inch long. Is it a hybrid between Tazetta and some of the varieties of the genus? The N. ... (Pl. Franco, 3, p. 255) corresponds with it, but we have not seen ...

INCOMPARABILIS (Curt. Bot. Mag. t. 121).—Hull oval ... Leaves 3 or 4 to a scape, about a foot long ... Flower always solitary, produced about or early in April, more or less distinctly ... expanded flower 2 1/2-3 inches ... 1 1/2-2 lines thick at the middle, 3 lines at the ... and anthers each 3 lines long ... reaching to the top of the tube. ... yellow or milk-white. N. albus, Spanh. ... Kunth. The flore-pleno form is the "Orange ... of the gardens.

It is a wild plant from Spain and the south of France to the Tyrol, and nearly or quite as common as the Daffodil in cultivation. It quite corresponds with the Daffodil in the leaves and general habit, but even through the double-flowered forms ... as the divisions of the limb. Herbert ... which is figured at tab. 33 of vol. 29 of the "Garden Register," which is exceedingly like ... fertilizing one of the varieties of the ... with the pollen of N. poeticus. We cannot ... N. Bernardi of Henon, judging of it from ... and from copious dried specimens, by ... character from incomparabilis, but Prof. ... in his excellent and full account of the French ... in the "Fore de France," keeps up incomparabilis as a species, but regards Bernardi as a hybrid ... the Daffodil and poeticus. If this view be ... we have a true and a hybrid incomparabilis ... distinguishable from one another, like the true ...

... Hull oval ... Leaves 3 or 4 to a scape nearly a foot long ... Flower always solitary, produced about or early in April, more or less distinctly ... expanded flower 2 1/2-3 inches ... 1 1/2-2 lines thick in the lower part ... at the throat, the divisions 9-13 lines long ... in the middle, usually imbricated ... Crown 5-8 lines deep, not ... lobed, 4-5 inch across, stamens ... tube, the filaments and anthers both about ... lines, the latter reaching about half ... of the tube. ... calathinus, Bot. Mag. ... Ency. 4, p. 427, ... Kunth, Enum. 5, p. 725; ...

A very distinct and well-marked plant, deservedly common in our gardens, extending in a wild state from Spain through the south of France to Italy and ... Neither the divisions nor the crown, so far as we have seen, vary materially in colour, being always of them a decided bright yellow. It comes nearest the typical incomparabilis, but the leaves are quite different, and the flowers are rarely solitary, and possess a decided fragrance. It was in order to mark the contrast between the two that Herbert ... incomparabilis to festiva, an alteration ...

... Kunth, Enum. 5, p. 725; ... Flower smaller, the divisions being scarcely longer than the ... which is the same size as in the type. ... Kunth, Enum. 5, p. 725; ... a native of Spain and the South of France. This is one of the smallest plants in the genus, and is too small to be generally popular ... at Kew, and we have seen it lately in two private collections. It is very like the Jonquil on a smaller scale, and may be readily distinguished by the crown being half as long as the ...

... Hull oval ... Leaves 3 or 4 to a scape nearly a foot long ... Flower always solitary, produced about or early in April, more or less distinctly ... expanded flower 2 1/2-3 inches ... 1 1/2-2 lines thick in the lower part ... at the throat, the divisions 9-13 lines long ... in the middle, usually imbricated ... Crown 5-8 lines deep, not ... lobed, 4-5 inch across, stamens ... tube, the filaments and anthers both about ... lines, the latter reaching about half ... of the tube. ... calathinus, Bot. Mag. ... Ency. 4, p. 427, ... Kunth, Enum. 5, p. 725; ...

A native of the South of France and the ... Marseilles, Avignon, and Nice. We have not seen it in English gardens, but there are excellent figures in the works of Reichenbach and Mogridge, which we have quoted. On the one hand it resembles junceifolius, but the leaves and stem are quite different, and the flowers are a uniform pure white, instead of a bright yellow. On the other hand it comes exceedingly near some of the multiflorous varieties of Tazetta, of which I shall have to treat in my next paper. J. G. Baker

NEW VINE DISEASES.

FROM information which has reached us from various quarters since January 30 last, (when we published our illustrated article on certain Aphidicous insects which had attacked the young roots and also the leaves of the Vine), we regret to learn that the mischief caused thereby is widely spreading both at home and abroad. On March 27 (p. 332) Mr. Berkeley reported that specimens of Vine roots infested by the root insect had been forwarded to him by a correspondent, and that he had recognized in it the insect which we had figured from the leaf-gall; adding, however, that it was possible that a second species belonging to the same genus existed, and that it differed such a great difference from the first as to be distinguished by its eggs. In support of the opinion that the leaf insect is



Fig. 1.—Young of Vine leaf Gall Insect

specifically different from that of the root, although structurally we could discover no specific distinction between them, i.e., between the wingless female state—not having seen the males, which will doubtless be winged and afford better specific characters, we may remark that the French observers of the root species make no mention of the simultaneous attack upon the leaves, and indeed the first notice in England of the appearance of the insect on the Vine leaves in France was recorded in the Standard, and in our own pages of April 17 last, when "a new disease in the Vine, attributed to vermin which are found on the leaves" is mentioned as having broken out in the district of Orange (Vaucluse) where 5000 Vines were destroyed by it on an estate of 25,000 acres. At Sarrians few plants remained in a healthy state; at Roquevaire the loss amounted to one half and the disease was spreading on all sides. Lastly in our issue of May 29 (p. 580), an answer to a correspondent will be found who has sent us a Vine leaf infested with these insects, and from south-east France, to whom we recommend familiarization as a means of eradication. Of course this remedy would be better applied to the insects themselves as in France, but it is very probable that the smoke of a tobacco pipe held to the insects within the galls, as they are on the upper surface of the leaf, and by an essential in destroying them as it is in killing external-feeding Aphides, such as the Rose Aphid or common green-fly. We have had no opportunity of confirming Mr. Berkeley's observation as to the different size of the eggs deposited respectively by the root and leaf-gall females; but we may observe that in both cases the fluids of the Vine are sought after by the insect, whose rostrum is thrust into the young rootlets or the tender leaf; and that it is the vegetable action of the different parts of the plants which are attacked which constitute the great apparent difference of the two insects. Some curious observations on this head have recently been made by two independent observers. Mr. F. Smith of the British Museum, who has devoted the careful attention of many years to the study of hymenopterous insects, has noticed that whilst the root gall in the roots of the Oak, made by the deposition of eggs by the female Cynips aptera, resemble bananas of currants, the galls on the base of the stem of the tree aboveground are consolidated, and form a solid mass (Proc. Ent. Soc., Feb. 1, 1869), in like manner, Mr. Walsh, of Illinois, has just recorded the fact, that he has reared insects which

cannot be distinguished, inter se, from Cynips Quercus spongifica from two different kinds of galls upon two distinct kinds of Oak (Proc. Ent. Soc., May, 1869). In the woodcut (A) at the head of this article we have figured the very minute larva of the leaf-gall specimens soon after leaving the egg. The two dots within the small circle above the insect are about twice the size of the insect at this period, and the upper figure represents its foot, the thickened base of the tarsus evidently representing the distinct basal joint which is observed at a later state of growth, as seen in the lower detached figure, which clearly exhibits also the two terminal hooks or ungues of the feet, thus negating its relationship to the Coccid. The upper detached figure represents the antennae of the young larva, the extremity of the proboscis or sucker of which is seen extending between the first and second legs on the lower side of the body.

From an excellent paper by Dr. Shiner, published in the Proceedings of the Academy of Natural Science of Philadelphia, for January 29, 1887, it appears that the Vine leaves in the United States have been attacked by an insect in a manner so singular to that which takes place with us, that we should have been tempted to consider them as identical, but Dr. Shiner's description and details of structure will not allow such an approximation. He has formed for this insect a new genus, which he terms Plectylophera, from certain globular pedunculated appendages at the extremity of the feet (of which no trace is found in our species). In the accompanying woodcut (B), the lower figure represents one of the legs of D. vitifolia,



Fig. 2.

with two of these appendages (a), and the upper figure (with six of these appendages, a, a) represents one of the legs of a second species, found on the Pig-nut Hickory (Carya glabra). In the fig. 2b represent the terminal ungues. The woodcut (C) represents the winged female of the insect, the same as that which we reserved for our illustration in the "Garden Register" of April 17 last, and which we have figured in our present issue.

and habits of this species, from which we have only space for the following short extract—"The young larva leaves the gall usually soon after being hatched, and resorts to the tender leaf as it is expanding from the bud, fixes its location where it feeds by puncturing the leaf and sucking the juices, this irritation causes an abnormal development of the leaf, and thus produces a cup or bottle-like excrescence or gall, in which the insect now develops to maturity, and where she resides, laying eggs during the remainder of her life. From 50 even up to 5000 eggs may be found with her at once, and one female may be the progenitor of many millions in one season, even 10,000,000,000,000. Sometimes a few of the female larvae, from some cause, appear to remain in the gall until maturity at other times the galls are so closely packed, that two or three are blended into one irregular gall, with as many primary parents. I. O. B.

Home Correspondence.

Oncidium altissimum.—A splendid specimen of this showy Orchid was exhibited a few days ago at the show of the Bitters Horticultural Society, near Southampton, by John Lancaster, Esq., of West End. The plant, which was very healthy and clean, and growing in a tub, must have been nearly a foot in diameter, and had ten large flower spikes, with an aggregate of one thousand expanded flowers besides buds. The plant has been in Mr. Lancaster's possession about six years. Large growers of Orchids may perhaps see nothing of unusual importance in the proportions of this specimen, but forming as it does one of a small collection of plants in Mr. Lancaster's possession cultivated in a mixed house in the most judicious manner, the fine development of this species is very remarkable. R. D.

Gum-tar for Trees.—Better let it alone. If tar is used at all, Stockholm is less injurious, but neither sort is safe. I saw a quantity of nice healthy Poplars killed overnight last winter through being tarred to keep the stock from rubbing against them. As antidotes to game or stock a thick paint of cow-dung, cloacal matter, sulphur, &c., is effectual, and nourishes the trees while protecting its bark. Tar is always injurious. Even patches of it injure every patch of bark they smear, and although the sap can find its way between the patches, all such interference is injurious in proportion to the number and size of the patches. Mr. Scott's peel and paint prescriptions belong to the age of horticultural barbarisms which it was hoped had for ever passed away. Nature does not produce bark to be peeled off and coated over with clay or other emollients. I can hardly conceive of any remedy that would be given more likely to prove disastrous to amateurs and young gardeners than that recorded on p. 413 for the instruction. Mr. I. O. B. He need have no fear to wash his trees, and a remedy will accrue to them by doing so. No remedy. Then Nature has made a mistake and trees may better have their nakedness, than a covering of clay and cow-dung muffled up under a hideous covering of clay and cow-dung. And this, from the times of the boot and the thumb-screw, set forth as serious in the Gardeners' Chronicle for June 5, 1890. Oh! Liar Eye. (The

... passes to the other so that a ... temperature ... If by ... the weather of last June was ...

... on the thermometer has been below ... This it did freeze at ...

... of Strawberries in Egypt - It may be ... to know that ... I have grown ...

Foreign Correspondence.

... from Algeria ... the Atlas ...

... the Atlas until Bidah ... Protected ...

... products - cereals, grasses, ...

... the morning of the 25th, descending ...

... the valley of ...

... in addition to the trees ...

... I found the Weeping Willow ...

... and last in order, although first in power and wild ...

... the next stage was a live of about 40 inches ...

... the morning of the 25th, descending ...

... the valley of ...

... the morning of the 25th, descending ...

... the valley of ...

... the morning of the 25th, descending ...

... the valley of ...

... in addition to the trees ...

... leisurely through this lovely mountain scenery ...

Societies.

... Dr. Cloghorm in the ...

... Median zone, from 16 or 20 fathoms ...

... of these seaweeds are abundant, they are rare in the lower ...

... the living scaphytes, and although not more than a quarter ...

... of an inch in length, without doubt it could be referred to ...

... at Key West ...

... the morning of the 25th, descending ...

... the valley of ...

... in addition to the trees ...

These are arranged in the following manner:—arrangement, form, colour, number or position, displacement, proliferation, altered sexual organs, &c. Alterations of form include changes from arrest and excess of development, as well as metamorphosis. Changes in number and size are arranged according as they are due to or defective development.

In the principal of the hitherto changes (exclusive of those diseased and amorphous growths resulting from insect attacks) the following are included:—

The following extracts may serve to show in what manner the author has worked. Alluding to the subject on the explanations usually points in the ordinary structure of

done much towards showing the morphological statements that still exist, though their fallacy has been shown. In many cases the views of the author are restricted to the ordinary relation

remarkably they show that the several organs are not so different as they are generally supposed to be. In many cases the identity of the organs, it is impossible to avoid the conclusion that, however distinctly these parts are distinguished, yet morphologically they

many of the subjects treated on are of practical importance to the gardener. The numbers of "sports," "fancies," "improvements," and "monsters" submitted to the Royal Horticultural Society are so numerous that it is impossible to do more than mention a few of the most interesting. To secure as consistent with har-

of teratology deserve the attention of those who are concerned in the embellishment of our gardens. The florist's standard of perfection, and conformity to that model. Whether it be to value all flowers in proportion as they are more or less deviated from the type, or to stop to inquire, suffice it to its broadest sense, the aim is to produce flowers, brightly coloured, the colours must stand out. When all this is done, the flowers become 'monstrous' in the eyes of the more interested to the public on that account. In like manner the

many other products of our kitchen gardens are the estimation in which they are held entirely due to the fact that they are the result of cutting, the formation of adventitious roots, and extension of his plants, are also processes on which the cultivator so greatly relies. Teratology concerns itself. Again, the occasional in getting vines, straw-

when some plants possess a unisexual condition

Florists' Flowers.

So far, the exhibiting of new Large-flowered PELARGONIUMS has been confined to Messrs. Hoyle of Reading, and O. Turner, Slough—the last-named having Mr. Foster's flowers as usual. Some 12 or 15 years ago it used to be thought characteristic of the strains of these two famous raisers, that Mr. Foster should produce but finely-formed and high-coloured flowers; while to Mr. Hoyle appeared to have effected the improvement of the larger flowers, having the more-coloured and pink hues. Of late years, however, the two raisers have to some extent taken each other's ground, and both alike have come to raise not only flowers of the styles named above, but have also struck out new paths, each now appearing to cover the whole area of Pelargonium improvement. The great show at South Kensington on June 2, brought from each of these raisers groups of new flowers illustrative of the position just advanced, though Mr. Foster's seedlings were a little more varied, and generally finer.

Three First-class Certificates going to Mr. Hoyle's, white five Mr. Foster's flowers. Eight First-class Certificates for large-flowered Pelargoniums at one thing remarkable, especially in the descriptions have asserted that the certificates mark a new era, confined to the set-up. The flowers so dark top petals lit up with a slightly running out into it, and flowers very fine, well-proportioned, and smooth excellent, and very free-blooming. Maid of Honour (Foster), a white and showy flower; lower petals small dark blotch; broad margin of salmon-rose lit up to the extreme edge of the lower petals, lower petals like those of Maid of Honour, with less of salmon and more blue, the upper petals having a dense dark blotch margined with fiery carmine, into which the dark runs in the form of faint lines, and extreme edge of pink—a good advance, flowers fine, stout, and bold; the Pretender (Foster), a rich red and white flower, but wanting, as all these more or less do, the s and rose-coloured kinds, pale orange-red lower petals, with a slight dark blotch on each, and lines of the same, five dark top petals, with regular

Warrior (Foster), dark orange-carmine lower petals, irregular dark blotch on top petals, margined with fiery orange, and narrow rose edge, a showy flower, and forming a fine decorative plant; habit spare. Sultana (Foster), lilac lower petals, with small dark blotch on each, and lines of dark; large white centre, dark top petals, and narrow edge of pink, excellent habit, free-blooming. The certificated flowers in Mr. Hoyle's list were Bonnie Charlie, a dark painted flower rose lower petals, dashed with orange, and heavy with dark; dark top petals, rather rough; habit a little more open. He also rose lower petals, with a line of dark; dark top petals, with faint

There are a way of flowers that will go on and on. The following are some of the most interesting:—Herald (Foster), and Harold (Foster), both described at p. 617, the latter under the name of Herald. Plantagenet (Foster), soft pink lower petals, white throat; upper petals of great size, having irregular dark blotch broken into by fiery crimson, and edged with a fine but somewhat rough flower. Velutina (Hoyle), fiery orange lower petals, stained with dark; dark top petals; flowers small, rough and

Hoyle), orange-crimson lower petals, with dark top petals, with violet-rose blotches on top petals; free blooming and Mr. Turner also received First-class Certificates for the following fancy Pelargoniums, viz. Mrs. Wigan, pure white throat; fine and showy habit, and very free-blooming. Mrs. Carrington soft pink, with white throat, and very free and showy, a pretty flower. Mr. Turner also exhibited a group of six fancy Pelargoniums, the following new varieties:—Langbeens, Fanny Gair, Mrs. A. Wigan, Excelstor, and Princess Teck, the last the prettiest and best formed pale flower ever sent out. A First-class Certificate was awarded to Mr. Turner for silver-edged

At the second great exhibition of the Crystal Palace

Mr. Turner had most of the Pelargoniums named, of these the following were awarded First-class Certificates—Heroine, Sultana, Corsair, Warrior, Her Majesty, and Harold, also to fancy Pelargoniums Leola, and Sultana, suffused with violet, the flowers of large size, smooth and of fine substance; to silver-edged variegated Pelargonium Bright Star; and to White Clove The Bride. Second-class Certificates were awarded to Maid of Honour, and to fancy Pelargoniums Lady Carrington and Marmion, all previously described.

The Apiary.

NEWS IN SOUTH DEVON.—A neighbour of mine had a large swarm early in June. In shaking the cluster, about one-half of it fell down on the ground; the bees rose again, and clustered in a Currant bush. The owner had the two clusters in separate straw hives, both of which stand in the garden and work well. He will warrant the issue to have been a first or prime swarm, having watched the bees too closely to have missed the first swarm. Each hive has undoubtedly a queen. It is, I suppose, a delayed swarming, the young queen having come out

time as she did. My bees are swarming this season rather than working. I had a case of regicide the other day. Outside a stock, full of bees, healthy and strong, I noticed a cluster of bees, the rest being wild and excited. I carefully separated the bees in the small cluster, and found their queen closely encased. I offered her carefully to her subjects, but they would not have her, and killed her outright. I searched minutely over the cluster three times, there was no queen, and shortly afterwards a great stir arose among the bees who were looking for the queen they had murdered. Queen cells have been raised since then. Why did the bees thus destroy their queen, not then having any immediate prospect of her place being supplied by a successor?

My hybrid Egyptian queen breeds black bees, and black drones, without a shade of yellow. I have a queen which went back again after being hived. I found the queen on the ground close to the front of the hive. I ought to have killed her then and there, but put her back again. I thought she would not fly, as she had ragged wings. The next day the swarm went off again and pitched high up in a tree, and I had some considerable trouble in getting off the branch and bringing the bees down. They were successfully hived, but at 4 P.M. they again left, and this time clustered in a hedge of brambles and nettles close under the tree. I imagine that the queen could not have been in the hive at all, but when the swarm took wing in the morning, had fallen amongst the brambles, where the bees at last found her out. Why, if this was the case, did they stay so long in the hive, viz. from 10 A.M. till 4 P.M.—did the queen leave and return to the place? I had very difficult work in hiving the bees amongst the nettles, and was dreadfully stung—by the nettles, but not by a single bee, though without having on any protection of veil or gloves. My square glass hive threw off a splendid swarm a few days ago, and is now apparently as crowded as ever. South

I do not think the divided swarm first alluded to in "Hams," in which both divisions have a queen, have been a case of delayed swarming in the same way. It is much more probable that the queen was in the hive at the time of the division, and that the bees which were first hived were impregnated by an Egyptian drone? I do not imagine, this is the case, it would be surprising if she bred any other than black drones, as would upset all the theories of Dzierzon and Von Siedow, now universally accepted by scientific apiculturists. I

hybridised by an English drone, then it is strange she breeds black drones. It is not an unusual circumstance for a queenless swarm to be apparently contented when the bees suddenly rushed off and pitched in a high tree close by. They were a young swarm, and their habitation remained just as before during that day, but left about the same time as the first wing. We had suspected that the queen had been lost, and a search for her was being made, but it was not until the bees were determined to ascertain whether this was the case. The bees were fumigated, and every one passed separately under our observation, but no queen was there. The bees were then united to another stock, and all afterwards went on satisfactorily.

Miscellaneous.

Presentation to Mr. Wilson.—At the recent exhibition at York, the opportunity was taken by those gentlemen who have been interested in the show, as exhibitors and judges, to present to Mr. Wilson, the secretary, a handsome chain and seal, as a mark of their appreciation of his courtesy on all occasions. Mr. Wilson, who has filled the post of secretary for 10 years, has laboured hard in the interests of the exhibition, to raise special prizes. In 1852 he interested himself in getting up a

ROYAL AGRICULTURAL SOCIETY - THE ANNUAL SHOW OF HORSES, HORNE... THE SECRETARY, WILLIAM HENDERS ON...

ROYAL AGRICULTURAL SOCIETY OF ENGLAND.

ROYAL AGRICULTURAL SOCIETY OF ENGLAND. THE ANNUAL SHOW OF HORSES, HORNE... THE SECRETARY, WILLIAM HENDERS ON...

GENERAL NOTICES.

OF HUNTERS. - The Trial of Hunters will take place in the Show Yard at 2.30 daily, commencing on the 26th. Admission to the ground, 1s. per day...

from a foreign stock not used to these vicissitudes, so that when time, tillage, climate, and seed can all exert such powerful influence the evidence that land is so sick of Clover as to refuse to grow it is by no means to be relied upon.

The next crop we shall advert to was also one of 50 acres, consisting partly of broad Clover alone, and partly of this mixed with perennial Rye-grass. This field was sown down with Barley in 1866. In the following year the Clover or "seed" crop was partly fed off with sheep...

We would now offer a few remarks on the Wheat crop which succeeded the Clover. - The Wheat crop of last year was the best we have had for some time, but had we not read, as well as had some little experience upon the subject, we should hardly have been prepared for the fact that where Clover hay had been taken and followed by a crop of seeded Clover, our Wheat crop, "White Hear," averaged 12 sacks an acre...

Our last year's seed crop consisted of Hye and Rye-grass, and was a very heavy one, this was chosen because in 1863 the field of 32 acres was mostly in Clover, which was seeded. However, by way of experiment, 2 acres were sown with broad Clover and Rye-grass, 10 lb. of the Clover seed to the acre. This, in as far as the Clover was concerned, was a total failure, but as this small quantity of seed was sent for from a neighbouring town, and used, contrary to our usual custom, without examination, much less testing, we are inclined to think it might not have been over good...

was a good crop, cutting over 2 tons of hay to the acre. Our present crop is from a fine bold seed, germinating to the extent of 96 per cent.; the balk was clean, and so free from Plantain that not a specimen, as far as we know, can be found in the 50 acres.

In practice we have found that the mode of sowing Clover seed is important to insure its proper growth. Thus, when the roots have been got off so late that the Barley sowing is done in a hurry, and the ground is rough and in hard knobs, neither the Barley itself nor its accompanying seeds get on well, especially in a dry season. Clover seed, indeed, is as much sown in stony places, and as readily dies away after germination in hard knobs not broken down by wet, as the seed in the parable. In so small a seed care should be taken to roll the soil before sowing as firm and smooth as possible. As a proof of the recognition of this fact we here append a labourer's report on our Barley crop, made April 18 of last year: -

"When the ground is mellow (mellow) and simple sowing it da come altogether suant-like even, but when catty clung and doubly lumpy it aise comes irregular.

We have seen many a crop of roots perilled for want of a fine tith. Curiously enough, if we lose Clover plants under these circumstances we say the land is Clover sick, but one never hears the term Swede sick or Mangel sick. We hence conclude that, as there are so many circumstances affecting the well-being of the Clover crop, the idea conveyed by the term "Clover-sick" land is not only indefinite but doubtful; and long and often as the Clover crop has been a failure, yet observation and experiment are still wanting to determine the cause.

On Saturday last the Rothamsted Experimental Farm was visited by M. DEMAS, the distinguished French chemist, and by a large number of the leading scientific men of this country. Mr. LAWES and Dr. GILBERT accompanied the party round the fields, and explained the treatment which each plot of land had received during many previous years, and the result of this season of the year was a satisfactory answer to the question, as to both the positive and relative effect of the varying manures that had been applied. Our readers already know generally on what a scale and with what intelligence and patience the leading questions in agricultural chemistry have been put to soil and plant and animal at Rothamsted. That which in other countries has been done by Governments or National Societies has in England been even more successfully accomplished by an individual agriculturist and chemist. And upon a more elaborate plan and over a greater area, and with a longer-continued perseverance than has anywhere else been exhibited, Mr. LAWES and Dr. GILBERT have here devoted themselves to the investigation of the whole field of agricultural chemistry. While in the midst of their research a large sum of money, contributed by the agriculturists of this country to express their sense of the professional and national value of their labours, was spent in the erection of a laboratory at Rothamsted, and presented to Mr. LAWES, in the name of a body of subscribers, including all the leading landowners and farmers of the country. In this laboratory the company first assembled last Saturday, and here Dr. GILBERT invited attention, among other things, to a case of specimens illustrating in a very striking way the organic and theoretical botanical composition of a pasture after 14 years of various treatment. The kinds and quantities of the several grasses and other plants contained in a given area of each of the experimental plots was represented by actual portions of each plant in the proper relative quantity. And thus we could see at a glance how the whole produce of a plot had altered in quantity, and how that produce had changed in character as well as quality at the end of 14 years' treatment. It was seen in this collection of dried plants just as it was afterwards more strikingly seen in the field, how ammonia, salts, and mixed manures of various kinds each of them applied year after year to the same plot had at length worked upon the original pasture changes as great as if the several beds had been sown with altogether different mixtures. The changes thus exhibited had been produced, not only by the increased vigour given to the coarser and bulkier Grasses, enabling these to crowd and hustle out the more delicate species, but also, as shown for example by the curious effect produced on the relative

The Agricultural Gazette.

MEETINGS FOR THE ENSUING WEEK. 25th Northamptonshire Agricultural Society, at Northampton. 27th Suffolk Agricultural Society, at Ipswich.

The Clover plant is in itself so valuable as a lawn crop, and affords such a good preparation for the growth of Wheat, that any notes upon its growth can hardly be other than useful. We propose, therefore, to offer a few observations upon the cultivation of common broad Clover on a somewhat extended scale.

In 1864 a 50-acre field of Barley was sown down with Rye-grass and broad Clover. Now, though in that extraordinarily dry summer the hay grasses grew very well, the Clover was entirely destroyed so that in the whole field scarcely a dozen Clover plants survived, and it was accordingly concluded by most people that the land was "Clover sick."

In 1867 the same field was smashed up and sowed with Howard's double engine steam sowing machine, which were very good. These were followed with Barley, sown down with broad Clover and a small admixture of Hop Trefoil Medicago lupulina. This, which was considered a bold experiment by most of our neighbours, is so far justified that at the present moment we have as large and fine a cut of Clover as we have ever grown broad-leaved Clover indeed, inasmuch as the leaflets are not uncommonly over 2 1/2 inches long, and 1 1/2 inch broad.

Now it will be recollect that last summer was almost if not quite, as dry as the summer of 1864, so that we cannot attribute our failure of 1864 altogether to the season, but with regard to the present crop, it may perhaps be reasoned that the extension of time between it and a former crop of Clover, together with steam cultivation, have aided in bringing about the observed difference. But, while admitting that these may have something to do with the matter we can by no means agree in considering the failure due to Clover sickness, as in that year much Clover was smothered out by a good crop of Barley, and more killed by a succeeding cold winter—and perhaps the seed was

quantities of the two species of the ... the usual grain crops flourish, and rich fruits are produced, where a large portion of the land is exported to ...

the native cattle in a province of great fertility, where the usual grain crops flourish, and rich fruits are produced, where a large portion of the land is exported to ...

CHIEF, calved June 19, 1888, and bred by Mr. W. ... of Aylesby. He is by MOUNTAIN ... and from WA ...

and was calved March 2, 1868. He is of a roan colour, and altogether a good specimen of his pedigree shows that ...

where their passage on foot was ... interesting from time to time to ...

Mr. Chas. Loney's sale, postponed to a place on Wednesday at West ... Excellent arrangements had been made ...

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Reviews.

... the Statistical Society last year... the common food for the working poor... its price like that of wheat... the most useful and most profitable... the resources of agriculture... the experience may render it...

the woods. These processes of grubbing, rolling, and harrowing are then repeated as frequently as necessary... Dr. Kitchin of West... the most useful and most profitable... the resources of agriculture... the experience may render it...

scribed capital, buildings have been erected, roads made arterial drainage completed a great deal of leveling done and the whole brought into good working order... It is the lower part of the land next the embankment which will be the most suitable part of it for receiving the sewage of Preston if ever an outfall... The Magazine is sufficiently illustrated the figures, however, like the text, we have seen to be...

Farm Memoranda.

WEST SUSSEX, June 13. We are now in the midst of harvest... Oats look very well, but the wireworm has done mischief in many places... Potatoes at present look promising but much rain is not the thing we like to see for them... We have been behind with our work about a fortnight all through the spring, and are not able to overtake it now, owing to the weather... Although during the winter there were more hands than we could have wanted they are none too many now... The mowing machines are at work in many places, and the crops being heavy they are more than usual, and where the grass is hard, which it is in many places, they are unable to get the work done... that it has succeeded so well... There is here a farm of 100 acres recently embanked from the main road...

... the further side—the same, we suppose, as that which from a similar standing ground could once have been seen behind us... The drainage of the farm is carried out upon the farm by means of portable railways... It is 555 acres in extent, and is effectually protected... the drainage of the farm is carried out upon the farm by means of portable railways... It is 555 acres in extent, and is effectually protected... the drainage of the farm is carried out upon the farm by means of portable railways... It is 555 acres in extent, and is effectually protected...

... a lot of good and useful agricultural reading... the most useful and most profitable... the resources of agriculture... the experience may render it... the drainage of the farm is carried out upon the farm by means of portable railways... It is 555 acres in extent, and is effectually protected...

a new set of plants may be secured. Some nurseries have given up growing this consequence of not being able to keep the plant, however, is so very pretty worth a trial in every garden, and certainly may surely be found to suit it. The leaves often change in autumn to several shades of brown to deep red.

A very handsome, rather free shrub, bearing a general resemblance to the difference, according to the leaves of the tree, in the autumn. It is said to be of garden origin, and was first introduced in 1807 with it from the neighbourhood of London with a little sand, and is not a species. Figured in 'Floral World' and in the 'Illustration Horticole.'

One of the most beautiful and particularly adapted for pot culture in greenhouses, although well able to endure winter in the open air. For the purpose of experiment I am indebted to Dr. ... for several specimens. ... leaves ... alternate, ... divided spine, ... Lower leaves ... as long as the ... above, paler beneath. ... and nearly cut near the base. ... long. Figured in ...

A very curious little shrub, ... although Mr Osborne and other ... to be allied to B. actinacantha. There appears to be very little known of this species, but it is supposed to have been ... the collector attached ... from the Straits of ... he has described it as ... tufted, erect shrub, scarcely ... shoots and ... leaves, fringed with ... stalks, more ... they are pale green, ... on the upper side of the ...

This species stands ... in the open air, but was ... in the severe ... use or conservatory ... It is not a common ... from some of the nurseries. ... every collection of choice evergreen ... there is a doubt if it will stand our severe ...

There are two varieties ... one of which, called B. macrophylla, has much larger leaves than the other, ... a handsome ... than the common variety. ... somewhat resembles B. ... which are "spinulose." It is a very handsome shrub, a free grower, ... Botanical Magazine, ... the following description

... country ... leaves ... in length ... found near the summit of ... in Nepal, by Dr. ... means scarce, and grows well, in a ...

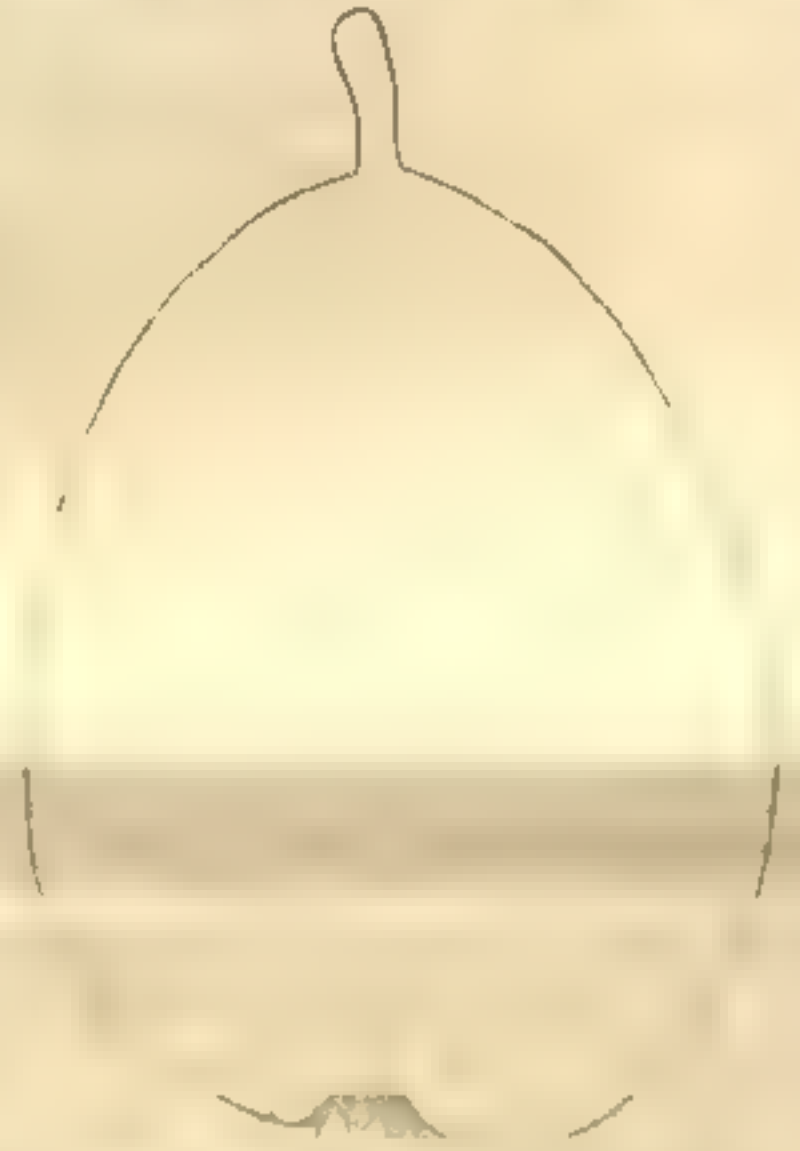
This very ... described in the Journal ... part I, has become ... whether it can be ... This plant is well ... leaves are longer and ... of any other simple-leaved species ... of B. ... 4 1/2 inches ... As the species has become ... the following ...

and remarkably netted, on the other side they are pale green ... The writer hears from Mr Lobb, through Messrs. Veitch, of Exeter, that this species will be found much more tender than the common B. Wallingtoniana, and that a fact it is often killed to the ground. Should this beautiful species be ever reintroduced for general cultivation, it ought certainly to be named B. macrantha without any alias. The venation of this is distinct from all the Berberies I have seen, for the primaries unite with the tertiaries in one confluent mass to one quarter the distance to the margin, and then break up and branch in very bold divisions. In addition to those already noticed, there are a few valuable early specimens that appear to have gone out of ... country, a though they may possibly still exist at Key J. J.

(To be Continued)

WASHINGTON PEAR.

This is a small early Pear, of more than average merit as regards flavour, hardness of constitution, fruitfulness, and general usefulness. For flavour and the texture of its flesh it is altogether first-class. In appearance, however, it is greatly wanting, the fruit generally being small and rather scrubby, the outline here given being that of a fine-sized fruit, while many of them are considerably smaller. It may be thus described:—Fruits below medium size, obovate, regular in outline, surface even. Skin smooth, of a pale green colour, slightly speckled with russet, like the Boyenne Blanc. As the fruits ripen after being gathered, the colour in most cases changes to a uniform pale yellow. Stalks about half an inch long, moderately stout. Eye rather small, with segments erect, open. Flesh white, perfectly melting, very juicy, the juice rich and sweet,



a little musky, very refreshing, and grateful to the palate. Tree hardy, and a prolific bearer as an orchard standard. Season, beginning of September to middle and end of month. The fruits ripen in succession, like the Seckel, as they fall from the tree it is however, better to gather them when they begin to fall, as by that means their season is prolonged, and they are also of better flavour than if allowed to ripen on the tree.

This is a Pear of American origin, as its name implies, and rather an old one too, yet it was somehow or other been strangely neglected, and is at the present time almost unknown, having been passed over for more showy but less worthy varieties. To our knowledge it has never yet been figured or described. We have, however, three manuscript notices of it, beginning with that of Mr Thompson in 1829, all speaking of it in the highest terms. To this we add our own experience of it for several years, and heartily recommend it as a good and useful early Pear. B., in 'Floral World and Pomologist'

COOL TREATMENT OF ORCHIDS

GROWERS of Orchids, and especially of such Orchids as will bear cool treatment, are on the increase it is well, therefore, that there should be a proper understanding what this so-called cool treatment exactly means, and, I opine, not the worst way of arriving at satisfactory data is to have a temperate investigation of the whole question, based, of course, upon practical experience. Looking at the matter as it has been presented to the public in your columns from time to time, and elsewhere, there have been much truth or safe advice propounded, and some error—a good deal of argument based, as the sequel has shown, upon unreportable premises, and consequently the outcome or result is by no means so satisfactory as it, perhaps, appears and deserves to be. Far be it from the writer to claim anything like the mantle, not indeed of an inspired writer, but of seeming perfectness in essaying and debating upon doubtful points, the best of us must be aware of our shortcomings in dealing at all with subjects that are best governed by the natural laws. On the other hand, it would not only be impolitic but improper, in the interests of

horticultural progress, for all, to remain silent when advice, if it were tendered, might be a means of doing good, both directly and indirectly—directly as bearing upon the subject under consideration, and indirectly as having a tendency to stimulate minds to reflection, and carrying the theories further over the individual mind to probably a more practical issue.

The best written and illustrated treatise on the subject that has come under my observation is that of the Messrs. Backhouse, which, so far back as p. 171, 1845, ... and obtained a distinct ... When it is reproduced, under peculiar circumstances, at p. 109, ... exercised a certain effect ... I take exception to a few points, ... that I ask you to give me space to meet them, upon the following grounds.

First, I hold it to be no criterion of cultivation in its widest and broadest sense, that because certain plants can be exposed to a few degrees of frost for a day or two, or even for a week or two, that similar treatment is what should be aimed at under our artificial system of cultivation. Second, I hold that different localities, with corresponding temperatures, and different seasons, different constitution, and that the period of growth and the period of rest start precise difficulties as to a common line of treatment, particularly as regards temperature. Third, the cool-house system of the writer, the remarks under consideration, ... put it nearly in the wrong, ... not exactly essay to 'grasp the oar' with a span, ... his cool-house system to a very large tract of land, ... advised it is not only suitable for some or even for many, but for perhaps most of the Orchids from Brazil, Mexico, Peru, New Grenada, Nepal, Khasya, China, and Australia, ... will bear a temperature close upon the freezing point without injury.

The cultivators of cool Orchids in this and other countries have certainly erred in exposing many a rich and valuable lot to a degree of heat, unaccompanied by sunshine, that was damaging in the extreme to the constitution of the plants. The Messrs. Backhouse, to my thinking, are erring in the opposite direction. Every cultivator knows that Epidendrum velledum will withstand quite as much cold as Oncidium glaucosum, but it is highly prudent to make a practice of an experiment ... for the purpose, but with the expectation that the experiment will be a failure or will produce some result. There some plants under certain circumstances will ... and come out of an ordeal of exposure to cold that under slightly altered management they would succumb to.

'Previous management' has much to do with creating a constitution. Peruvian plants from high altitudes are hardy enough, certainly, but the artificial treatment to which they are subjected ... in this country ... to be in a safe direct one. A little extra warmth may do much good, a little extra cold may do much harm. But it is not solely on the principle of begging the question that I demur to the findings of the writer; I even presume upon higher ground. Take any of the Orchids that have been proved to do best under superlatively cool treatment, and I will guarantee to any grower who has a good rationale of practice that the plants can not only be much more safely managed, but equally if not better cultivated, say at the moderate maximum figure of 45° Fahrenheit. If winters were upon a par with that of 1860-61, then the minimum might be reduced to 35° or 35° rather than have an excess of the best artificial heat producible. It is sufficiently known that Epidendrum rubescens, Lachnolobos, Oncidium, and other species, from a comparative point of view, might be very safely left in an atmosphere oscillating between 35° and 30°, if the pseudobulbs and roots happened to be in the dry order, as we professionally dub it, but I should have great doubts of leaving them in an atmosphere of that kind if their physical condition were of opposite character. I, as an individual, most emphatically aver that mild winter temperatures will in no way diminish the constitution of these plants, but most decidedly warm summer temperatures will do so. There have been more plants sacrificed by the heat of summer plus fire-heat, as applied in one or other of its forms than ever have been killed by moderate winter or resting temperatures. Therefore I hold that it is better to err on the side of the warm side during our winters, than the same number in the cold side. The Messrs. Backhouse, with the additional experience of the last year or two, very lately have seen proper to change their opinion in favour of the moderate cool system, for in one of the last issues of their Catalogue they state that Orchids may be grown in a greenhouse or vinery in cases where the temperature is not allowed to fall much below 45° in winter, for although many have survived several degrees of frost, a lower temperature than that stated has not been found advantageous.

As to the second objection touching upon the physical character of the climate, and its attendant peculiarities upon that portion of Flora on which we are debating, there can scarcely be two opinions. Although the writer has not travelled over the ground, and consequently has been deprived of the pleasure of noting its physical character, it is notorious that similar altitudes in ... considerable variety of climate, and that consequently plant life and health are governed by the peculiarities of such ... the peculiarities of such ... the most peculiar portions of the low ground and along the coasts being scantily supplied with moisture and the lofty plateau between the two makes of the Cordilleras rising to a height of between 10,000 and 14,000 feet above the level of the sea, subject to great fluctuations from a moisture

point of view. Compare and contrast this with that mild, moist, and withal cool region all around Bogota, in the province of New Granada, from which some of the most beautiful Orchids have been taken, and while the mean temperature does not greatly vary, the plants present a very different constitution, and demand treatment in the artificial homes of a corresponding diversity. Take that portion of Mexico whose climate, from a thermometrical point of view, is nearly allied to the hilly regions of Peru and New Granada, and what do we find? Great fluctuations as to drought and moisture—so great, indeed, that many of the plants indigenous to the regions with which it is compared, would not only refuse to grow, but to live. Instances of this kind might be multiplied were it necessary, and did your space permit.

But let us inquire how plants themselves that show a disposition to be of a hardy constitution, capable of standing a fair degree of cold, may be affected under various conditions. Take the Flor de Mari of the Mexicans (*Lichia maxima*), and the Flor de San Joseph (*Lycodendrum crubescens*), and Fox comes it that with impunity they can resist so much cold? The answer, by the practical man, who has never even seen or read of the localities which yield them to us, is simple and at his tongue's-end. Because the plants rest during our winter. Their pseudobulbs are ripened like the mature wood of the Grape-vine, but like it their young growths would no more resist even a stated temperature of 40° than would a Vine shoot in the height of its growth. The same remarks are applicable to the Peruvian *Oncidium macranthum*, the Buenos Ayres *Oncidium bifolium*, the Australian *Dendrobium speciosum*, and the Mexican *Cattleya citrina*. All these names I may not exactly be left out in the cold, but from the finished state of their growths during our dark, dull, resting season, they may be safely treated to a minimum of 40°. Now observe my experience of their fellows from precisely similar localities. The Peruvian *Odontoglossum roseum*, one of the gems among recent introductions, because it is in the habit of maturing its growth during autumn and winter, and yielding its inflorescence at the "turn of the day," was not successful, y res at the amount of cold that its compeer, *Oncidium macranthum*, will. Neither will the Mexican *Lichia silda* and its varieties and allied species, nor the New Grenadan* *Odontoglossum coronarium*, although it revels under cool summer treatment, nor *O. Alexandre*, *O. urvium majus*, nor, in fact, any one of the lot from that locality, because they are all growing in some degree during our winter. It is therefore absurd and inconsiderate advice to tell those who trust for information to the leading journals, that such plants are best cultivated and wintered in houses of low temperature.

There is no rule without exception, however, and I have been a good deal puzzled why the Mexican *Epideodrum vitellinum*, the Guatemalan *Odontoglossum nebulosum*, and the Peruvian *Oncidium nubigenum*, unlike a. their compeers of the respective regions, should grow in England over winter without the slightest symptoms of being affected or distressed by extreme cold. One may have understood plants at rest being all the better fitted for sending forth energies of growth on the return of their spring, but these species have capabilities of endurance beyond the ordinary run of plants living in temperate localities. The young growths seem to revel in the cold, and are invested with a vigour and power of inflorescence which to the Orchidologist and the Orchid culturist must seem equally amazing. Any one might suspect these three particular plants to the lowest temperature that ever epiphytal Orchids were treated to, and come off victorious. Both to the interested and uninterested reader it must seem that the constitution and peculiarities of the Orchid family must be submitted to a crucial test at home before any extreme practice is resorted to.

As to the third and last objection raised, it is too wild to demand anything like a closely reasoned debate. But let it be again fairly put. "There is every reason to believe that many and perhaps most of the Orchids from Brazil, Mexico, Peru, New Granada, Nepal, Khasya, Ceylon, and Australia will bear a temperature close upon the freezing point without injury. Of course it is qualified by the expression that the writer does not recommend it to be tried, but if it was his belief there was no need for promulgating it, more especially as it might have a tendency to mislead a few, probably many, whose efforts at cultivation have been conspicuous by failure, and who gladly catch at any but to get at a successful practice. Besides, and above all these provinces and places enumerated represent nearly all the climates of the earth, from extreme heat to perpetual cold. It would have been, therefore, more convincing and better understood by the novice if particular altitudes, rather than great stretches of country vastly differing in physical configuration, had been referred to. Let any one follow the advice which I not actually give may be understood to be inferred from the article which has called forth the above criticism, and a loss of *Cattleyas* will be in a lamentable plight on the return of summer. But it is not only *Cattleyas*, it is *Miltonias*, *Lycastes*, *Laelas*, *Epideodrams*, *Oncidians*, whatever may be their constitution and character under treatment at home—all that is necessary to vouch, according to the ideas of this writer, is that they have come from one or other of the countries above named, and that consequently they may be placed in cool houses, and treated accordingly, with some few exceptions.

Some Orchids are not difficult to cultivate; it takes a good deal of indifferent practice to kill any of them, but once let them get out of a first-rate healthy condition, and I know nothing in the range of horticultural

subjects that requires more time and patience, and skill if you like, to induce a better state of things. One year's bad management requires three years' good management to get the plants corrected, and up to their former selves again. A wave of cold sustained for any length of time upon a house of even cool Orchids does not take immediate effect, if one were to judge by immediate results, it only becomes apparent weeks, and months possibly, after the infliction. Several people to my certain knowledge have been visited with a mishap of this kind, and did not know the cause, results having tarried so long before manifesting themselves. Is it not, therefore, incumbent upon us all, especially in the interests of those who have recently drifted into Orchid culture, to raise a warning voice, ere it be too late, within hearing of such votaries as have their spurs to win? *J. Anderson, Meadow Bank.*

ABUSES IN HORTICULTURE.

Continued from p. 54.

THIS inquiry was further gone into at another sitting. The Commissioners having taken their seats, an elderly gentleman was seen moving to the front, who turned out to be Mr. Aster Rigidus. He said, Gentlemen, through an infirmity (which I am sorry to say has got hold of so many of my set) I was not in time at your last sitting, but being an old member of a large family, I am deputed to-day to protest against the practice of casting us to the hedges and ditches, where many of us have gone out of the world outright, and all this to satisfy the mania for colour. Take my word for it, gentlemen, these showy things will wear out, I have lived long enough to see many things twisted about. Instead of receiving due attention, so as to improve us, we are ignored, and by-and-by, when again we are wanted—as I believe we shall be—we shall be found to have fallen half a century behind. The C. Have you a remedy to propose?—Mr. A. Yes, two. In order to satisfy the clamour for relief, let large beds be introduced in those fashionable mazes of colour, in which we may be planted, and then we shall relieve the mind as well as the eye, and refresh the senses as well as cool the glare. Otherwise, let us have a garden to ourselves then, as of yore, there shall be a flower when needed, of every shade, the year through—aye, said the old gentleman, with emphasis, and with odour too. Visitors will not then be content to view their bees from the r windows, or, like the painter, go back at a distance to see, but will do as they used to do—come down among us, study our habits, admiring our varied colours and penillings, breathing in our perfume, and we in turn giving back health with pleasure. But, gentlemen, individuality now is nothing it must be a mass, anything or nothing—let there be colour. In conclusion, I wish to say—and I believe I have the whole floral world with me when I say—that in a flower garden, in the place for flowers, nothing should be found but what produces a flower. Gentlemen, as I have said before, things will have a twist.—The old gentleman, who had been by many a most forgotten, was listened to throughout with the attention due to his age, and, receiving the thanks of the Commissioners, sat down.

Mr. Erica Cavendish, who seemed to be the leader of a large number of fellows, was anxious to say a few words. He said, Gentlemen, it has been with some diffculty that I appear before you, and I fear I shall give pain to all those who listen to me, through my extreme height and size: indeed this is the burden of my request, that we be not grown into such monsters. As we grow larger, our admirers grow less. One is put to the trouble of fetching a pair of steps to see just one side of us, and in the attempt has fallen down; another has stretched his neck to get a sight of us that in him we have lost a friend, while both ridicule such spoliation of beauty. Why, gentlemen, should the pleasure which many derive from us, be attained through so much trouble and pain? Let us be grown so that we can be seen as a whole, in pots that can be easily lifted about, and we shall get more admirers, be a credit to horticultural skill, nor seem so much trouble at home or abroad. All present were evidently glad when Mr. E. had retired. Mr. Vine now again made his appearance, though at times perplexed, he made some straightforward remarks. He said, Gentlemen, I question whether and all the queer doctrines laid down, and the quackery practised to make my fruit pleasant to the eye or eatable, even his Majesty the Bramble would consent to thrive. One goes in for steaming the bottom, another for steaming the top; at one place my feet are hot, while my legs are unprotected; at another I have plenty of air at the bottom, while the top is suffocated by heated and poisoned air, which has passed through me again and again, at another place I am forced out of myself at the top, while my feet are freezing, at another my bed is gaily dressed, as if to keep visitors outside. Gentlemen, I must enter my protest against such practice. ("Hear, hear," from Mr. Peach, who, when requested to keep in order, said, with an unusual melancholy look, he wished to enter the same protest with regard to himself.) Mr. V. continuing, Gentlemen, those gaudy dressed rascals are thieves in disguise. Who will tell me they rob no heat? ay, they are worse than robbers, they leave the germs of death behind them in the form of Fungi. I say, keep these rogues away, and people need not—if the other things which I have to say be attended to—linger outside, but rush within to see what they have heard so much about. The C. Well, Mr. V., what have you to say with regard to other matters you have hinted at?—Mr. V. It would be, gentlemen, quite impossible to give advice suitable for all places, and under all circumstances. I can therefore only make a few general remarks. In the first place I would say, whatever I am to do in riper years, begin early to give me attention. Let me not be cramped and distorted, with all my sap channels contracted, by starvation in youth

If wanted to yield my fruit in spring, train me in my youth up. Give me the necessary warmth in autumn and winter, as if nothing was doing out of ordinary course, viz., summer heat at the bottom, and summer heat at the top. Provide the necessary means to keep my roots in as natura, a condition as possible, and no more. Keep my roots as dry as possible from the time my fruit is ripe until the next wanted again. You would be surprised, gentlemen, to know how we like this. I have been with you for months, and none the worse for it, but better sweet bed, gentlemen, and good food—two most important essentials can only be secured by a knowledge of the local circumstances by which we are surrounded. Whatever these circumstances are, we have them, or our owners must have disappeared. If wanted only in the natural way, assist nature as much as possible, but do not make it so troublesome when we are ready not. We want no expensive watering or draining, provide only what will carry off the surface of water, and give all the air and sun possible, keep us out of what we can, and what we like let us have to ourselves. Do not to give air a one, but to take off moisture. V., receiving the thanks of the Commissioners, was listened to with great attention. There was no response to the call of the Commissioners for further evidence, the Commission was declared closed for the present. There were, however, some remarks outside, that the Commission did not include the culture, gardeners' grievances, &c., in its scope. Mr. Aster Rigidus was loudly cheered on leaving the bystanders. *Your Reporter.*

Home Correspondence.

Honeydew.—Mr. Radclyffe's remarks on *Rosa* always read with great interest by lovers of beautiful flowers, as coming *ex cathedra*, but an excellent correspondent has not manifested the acuteness of observation in forming his theory of honeydew. I trust, therefore, that he will pardon for the remarks I am about to make. Various theories have been advanced to account for the phenomenon of the production of honeydew. Pliny called honeydew "the sweat of the heavens," and "the stars," and was inclined to believe that it fell from the atmosphere during the process of its purification. Others have supposed that it is generated in the atmosphere, and that it falls like dew upon the leaves of plants. But this cannot be the case, because always most abundant on the lower leaves, and not overshadowed by the upper ones. It has been supposed to a peculiar haze or mist loaded with minute particles, stimulates the leaves to make a morbid secretion. Neither can this be the case, because it appears perfectly healthy leaves. It has also been supposed an electrical change in the atmosphere, and many theories and absurd notions have been advanced respecting this very simple natural phenomenon, which show how far men may be led astray by theorising without opening their eyes. Some have supposed honeydew to be extravasated sap, caused by great heat of summer, producing an increased flow of the secretory system, and Mr. Radclyffe now says he considers "it is nothing more than the excretion of the tree after a long continuance of E. winds and cold nights." These two theories, which are as opposite as the poles, are as the N. E. to the S. W., are alike unsupported by proof. All the before-mentioned theories are untenable, the question arises, What, then, is the cause of honeydew? I answer, without hesitation, it is assuredly produced by aphides, and by them only. These insects, although individually very minute, are able collectively to produce gigantic effects. They cover all the leaves of all the trees of a forest with their viscid and saccharine secretions, and thus produce an abundance of sweet food for other insects. Honeydew is only to be found where aphides are or have been, for they always precede its formation, which the insects puncture the plants and suck up their substance, and eject the viscid saccharine matter from their bodies, and that with considerable force, as that it may not touch the leaf upon which they are feeding. This residue falls in minute liquid drops upon the leaves or any other object beneath the tree, and becomes honeydew. I have observed on *Rosa* these small round liquid drops as they have fallen, and which soon became more viscid, and assumed a globular appearance as they spread and combined with other drops, and assumed a speckled look. I have noticed also the plants and stones under the trees speckled in the same manner with honeydew. Professor Reuss, by means of a lens, actually saw aphides eject the honeydew drops. He also made an experiment of wiping off the honeydew from *Rosa*, and placing over it a piece of writing-paper, and became in a few hours sprinkled with honeydew, but no more was formed on the paper if it was protected. I have repeated this experiment by placing pieces of paper under the aphides on *Rosa* and *Rose* trees, and with a like result. The paper in one day became sprinkled with honeydew, and round glistening spangles of honeydew were observed also that tree leaves partially covered with leaves resting closely upon them, have had honeydew under the leaves that protected them, but the exposed parts of these partially covered leaves were not abundant. I think, therefore, there can be no doubt of what is the true cause of honeydew. Mr. Radclyffe's theory of honeydew seems to be a mere whim as to the object of ants in haunts of *Rosa* where aphides are abundant. If I remember

* This has been found in other times in Peru, according to Mr. Pearce, at an elevation of 10,000 feet above the sea.

because they are the enemies of aphides, and would destroy them. This, however, is not the case, on the contrary, ants are the friends of aphides, and would not destroy them for the sake of the rich nectar they find on which the ants are remarkably fond. It is not the aphides, the honeydew expelled by them, which I have an opportunity, because they are the robbers of fruit. *A. Thompson, June 29.* [Our correspondent expresses the general belief among gardeners as to this matter. Our readers will be glad to see the statements of Prof. Westwood on this point, and the following letter from Mr. Radcliffe.]

—When the honeydew prevailed here a few days back, there was not an aphid about the plants. The insects which assemble where honeydew is, are the consequence, and not the cause, of the honeydew. Bees are very fond of it. A year in which the honeydew abounds is always a good honey year. It is not heat, with alternations of cold cutting winds, or rain, or insufficiency of water, I believe, which causes it. It always makes its appearance first on the south frontage. The same was the case at Rushton. The sun is the most powerful agent in the world, and the juice from the distillation of the pores of the upper surface of the leaves, which it always disappears. How could it be so if the plants were more or less smeared in one night by the honeydew? When there was not an aphid about the plants, it is right about Geant des Batailles. I saw it up four years ago, on account of its midwintery habits. *W. F. Radcliffe.* [We submitted the following to Professor Westwood, who kindly replies that aphides secrete a saccharine fluid which is sought after by ants is known to everybody, and this fluid is discharged by the aphides, independently of the ants, is equally true, and if there are ants underneath the twig infested by the aphides, the leaves become coated with the fluid, which soon dries, and renders greenhouse plants, not to mention the cleansing action of rain filthy. Within a few days, my young outdoor Rose shoots have been infested by the aphides, and on looking at the leaves it is easy to see many leaves perfectly free from insects, yet coated with the shining sticky fluid; it was only necessary to lift the eye to the shoots immediately above the leaves, to discover from whence the fluid had fallen, the other leaves being quite clean. That the action of the sun upon leaves, which, by-the-by, we have yet had so little this year as scarcely to allow it to be supposed that that had been the cause of honeydew lately observed, I draw out a similar fluid from the pores, I am prepared to deny. Indeed, we know that the sticky sap of Elm trees, for instance, oozes out from the trunk, and attracts wasps, beetles, and flies in great numbers.]

Myosotis dissitiflora. I fully agree with Mr. Fish that it would be folly for any one to depend on the seedlings of *Myosotis dissitiflora* for their plants, where very many are required. I recommended it of its free seedling properties. As regards the appearance and beauty of my plants, grown with no more than ordinary care, I can confidently appeal to the pages of the *Gardeners' Chronicle*, to Dr. Masters, Mr. Fish, and others. Mr. Fish's elaborate directions in growing it appear to have deterred some correspondents from attempting it. I can only repeat, that after years of extensive cultivation, I have always had it of the easiest culture—as hardy as a Dandelion, and if they will follow the plain, simple directions of Mr. May (p. 689), I have no doubt of their success. Trust not to plants from cuttings when you can have seedlings. I regret being unable to furnish very numerous correspondents with seed, not being in the habit of saving more than just sufficient to supply my personal friends. The plant certainly behaves with me than with Mr. Fish, for though I do not recommend such situations, there is now a fine specimen of it in full bloom under the shade of a spreading tree within a few yards of where I am writing, which has annually reproduced itself from seed for several years at least, without the slightest cultivation, so that "sudden death" is not always the consequence of shade. *James Atkins.*—I congratulate Mr. Fish upon his good fortune. The white one will prove valuable, as it has been difficult hitherto to find a plant to match the delicacy and elegance of the white. The Arabis is so different in habit, the white is not suitable, and now we have the prospect of a new colour by its contrast, while the plants in all other respects alike. My fingers itch to try it, and I trust to have one of the first specimens of the white variety. Your correspondent "S. B." seems to have misunderstood me. I cannot now expose upon banks, or previous cultivation, to be called nursing. As to *Imperatrice Elizabeth*, it is not worthy to be named with *dissitiflora*. The only *Myosotis* that can hold the candle to this is the blue or white, and these are generally two distinct varieties. *Dissitiflora* is also hardier than the other. So that "F. N. B." need have no fear of growing it on the flat. But on mounds it is earlier, and I think more beautiful. Finally, I plead not guilty to the charge of versatility made by "F. N. B." I am a wiser man, I may outgrow some opinions; but I am certainly no traitor of my character. When I select my present pet, and run over the common and variable in the muddy ditch after new Forget-Me-Nots, your correspondent indirectly advises, then the charge of versatility may be—not otherwise—nor till that appears. *D. T. Fish.* We bear willing testimony to the appearance and beauty of Mr. Atkins' plants, no less than to those of Mr. Fish. Our own, derived from Mr. Atkins,

have also been very fine, except one plant, which was started in the manner indicated by Mr. Fish. Eps.]

Zinc Edge for Flower-beds on Grass—Gracful curvilinear beds on lawns are often much distorted after a time in consequence of the encroachment of the Grass round their edges, and without much care in cutting it is almost impossible to keep the original design. I have therefore much pleasure in laying before your readers a simple plan to remedy this, and effect a saving of labour. The thought struck me that some kind of metallic lining would answer the purpose, and about 12 months ago I tried the experiment in my home garden, the result of which is very satisfactory. The following are the instructions—Edge round your flower-beds with a perfectly even upright cut in the Grass, 2 inches deep; let into this cut a strip of stout zinc the same depth, bending and fitting it exactly to the shape of the bed on a level with the surrounding grass. To keep the zinc firmly in its place, drive down some small, square, red deal pegs about a foot apart, driving them low enough for the tops to be covered by the soil of the bed. With a little brown paint brush the zinc edge, which should be left 1 inch deep after the soil is replaced. These strips might be painted and sanded on one side before they are put down; they cost about 3d. per foot run, and are cut from 8-foot sheets of zinc, of No. 13 thickness. The mowing machine will eat over this edge, and the stray blades of Grass that escape can be very easily clipped off, so that even a lady gardener with a pair of scissors may keep the edges of her beautiful scroll-work parterres in perfect order. *Henry Curtis, Devon Rosary, Torquay.*

Manure for Transplanted Shrubs.—Will you kindly tell me, in your next Number, whether I could use with advantage highly diluted artificial manure, such as ammonia, or guano, or nitrate of soda, to the roots of large shrubs. About a year ago I removed a number of very large Hollies, Yews, Box, &c., and, though by dint of constant watering, I kept most of them alive through last summer, they still seem very feeble and unable to make a vigorous start again. I infer the cause to be the loss of many of their roots, a loss which even with the greatest care in removing a large shrub, must occur. Some sorts of chemical manures are known to promote the formation of fibres at the roots of plants. I reason, that if I can cause my shrubs to make fibres at root, I shall cause them to make leaves and recover their health. But will you kindly tell me whether I can with safety make the experiment, and which is the best manure to use for this purpose? If you can give me a hint or two, you will greatly oblige *An Old Subscriber.* [We should, under the circumstances you mention, be inclined to put more faith in liberal watering or in mulching the roots with cocoa nut fibre, than in the use of manure. Perhaps superphosphate of lime, 1 to 1 oz., forked into each square foot of soil round the shrubs, might be of service. Eps.]

Large Mushrooms.—Eighteen genuine Mushrooms, some not quite opened, at an average of 8½ inches in diameter, one 10½ inches, were brought to me on the 23d June from the meadows adjoining the Great Western Railway. Have you or any of your correspondents a record of any of similar size? *R. B. Ardington, Wantage.* [Is our correspondent sure that they were genuine Mushrooms, and not *Agaricus arvensis*? Eps.]

Phormium tenax.—The following particulars respecting a plant in my possession may be interesting. In 1836 it became too large to be sheltered in the greenhouse, and therefore was left out in a pot standing on gravel till Jan. 3, 1837, the thermometer the previous night registering 15°. It was then in its frozen state put into an empty cottage, where it remained until May, 1837. Not seeming a bit the worse for its unkind treatment, it was repotted and replaced in its former position on the gravel, where it has remained up to the present time. The pot was broken in December last, and left the roots exposed on one side, but the winter was not severe enough to injure them in the least. The plant was repotted in March last, and has now four flower-stems, 6 feet high, the flowers on which are just expanding. *William Foster, Stroud.*

Abies Morinda.—I am induced to offer a few particulars as to the size of a specimen of this noble Fir, which is growing in the grounds of Mr. Joseph Smith, Shelsley Walsh, Worcestershire, near to the river Teme. It is a graceful and magnificent specimen, developed in all its beauty, and sparkling in the sunshine with hundreds of its vivid green cones, from 6 to 8 inches long. It measures 9 feet in circumference at 1 foot from the ground, 51 feet in diameter in its branches on the ground line, height, 110 feet the bole rises 28 feet without a bough, then branches out with great strength and vigour, giving to the trunk the appearance of a greater girth than above quoted. The branches bend gracefully down and kiss the ground, and on one side dip into the waters of a rill which is constantly running, and flows from the wooded heights behind. The side branchlets hang down to the length of 15 to 20 feet, which gives a very elegant effect. The soil is clay, and of great depth. The situation is sheltered from the north and west, but perfectly exposed to the south-east. This tree is supposed to have been planted for upwards of 300 years. In some situations this tree is subject to have its young shoots destroyed by early spring frosts. Notwithstanding all drawbacks of this sort, I believe there is to be found in every garden in Great Britain a situation suitable where the *Morinda* will be found to do well, and display its great beauty as an ornamental tree. *G. Westland, Witley Court, June 28.*

Gigantic Arum from Nicaragua.—The paragraph, extracted from one of my letters, which you published on the 27th of February last, about the gigantic Aroid discovered by me in the mountains of Nicaragua, has had the good fortune to make the rounds not only of the English and Continental

papers, but also of the American, and been commented upon in many ways, even by your facetious contemporary "Punch." I daresay some thought, when reading of the dimensions of the plant, that I, when penning that paragraph, allowed my imagination to run riot, and was dishing up a mere traveller's tale. But I took the precaution to preserve the flowers in spirit, and to send Mr. William Bull two fine rhizomes of the plant. Both of the latter are now growing, and one of them, received in England only on the 17th of April, is now in a fair way of proving that I rather understated than overestimated the case. It is in a pot of only 11 inches in diameter, and on the 23th of June the petiole of the leaf (the plant has only one leaf at a time) was 7 feet high and 9 inches in circumference. The blade is not yet developed, and I believe that before this communication sees the light the petiole will have attained more than 10 feet, the height it had in Nicaragua. It looks like some huge snake (beautifully mottled) standing bolt upright at the command of some eastern charmer. I may add that the leaf in the present state already exceeds the largest recorded dimensions of all other Aroids with a like habit, and, when fully developed, it will turn out to be what I said, the largest Aroid, both in leaf and flower, of which we have cognisance. The flowers being hermaphrodite, not dichous, the plant in question cannot be referred to *Amorphophallus*, *Conophallus*, or allied genera of the Eastern hemisphere, but will on closer investigation prove to be either a genuine *Dracontium*, or the representative of a closely allied new genus, which "Punch" has asked me to name after Gog and Magog. It would not be the first barbaric name we have in botany, and probably not the last either, and who knows what, after due consultation with the City Corporation, I may do? *Berthold Seemann.*

Foreign Correspondence.

THE SPRING IN ALGERIA (continued from p. 619).—Tenuel is a fortified military outpost and station, occupied by about 3000 men, the settlers who minister to their wants, and a few farmers, or colonists as the French call them. I estimated it to be 4000 feet high with the barometer. From this point the road descends into the desert. Five miles beyond all trees or shrub vegetation ceases, with the exception of a few wild Jujube bushes. This shrub had shown itself all along, even in the Mitidja, as a mass of slender, naked, thorny branches, twined in and in, and lying on the ground like dead brambles here and there. It followed us to the top of the Atlas, and we were told that, along with the Squill, it was the last plant to disappear in the desert. It is clearly the thorn Solomon speaks of that crackles when burnt. It is cut and used by the Arabs as a protection to their camps in this state. Later it throws out leaves, and becomes a pale green bush. A couple of miles to the west of Tenuel there rises a mountain peak, 1400 feet high, the noble flanks of which are occupied by a magnificent Cedar forest, similar in all respects to that which clothes the Mount of Lebanon. A drive of about 13 miles by a haggard road took me and my companions into the midst of this truly mighty forest, and then a climb of 1000 feet brought us to the summit of one of the highest peaks of the Atlas range. A truly glorious sight was there unfolded to our sight. On the north the grand old Cedars covering the mountain's flanks, the two lower ridges we had crossed the day before, the plain of the Chiffell, and the high mountain on the south side of which Milanah is situated, on the north a slope at our feet, covered for a few miles with scrubby, dwarfed Ilex, then gentle undulating green with Grass and corn, then a green flat plain, and then about 15 or 20 miles beyond us the real desert, a flat yellow sea of sand. On the far-off south-east horizon was a ridge of low mountains, several days' journey off in the desert, and inhabited by the wild Touareg Arabs, the conductors or pillagers of the caravans. The abundant winter and spring rains, precipitated by old Atlas, had clothed even the high plains which form the margin of the desert with fugitive grasses and verdure, but no shrub or tree could stand the glare and heat of the summer sun and the breath of the desert lower than about 1000 feet beneath where I was standing. Protection from the south had now become a question of life. If the Date Palm can bear his rays even further south, in the desert itself, it is only on condition of profuse and constant irrigation during the summer. A Date Palm oasis can only exist and thrive if there is an abundant supply of water, sufficient to irrigate constantly every tree. The Cedars are most majestic and venerable. They cover an extent of 6000 acres. Some we found from 24 feet to 30 feet in circumference, or from 8 to 10 feet in diameter. The forest belongs to Government, and many trees are being cut down to make sleepers for the railways, a rather sacrilegious use for massive beams of Cedar wood. The ground underneath was enamelled with flowers—*Hyacinths*, *Narcissus*, *Buttercups*, wild *Roses*, *Daisies*, *Pansies*; whilst the *Honeysuckle* and *Bramble* grew vigorously from cavities in old Cedars. Perhaps the seeds of these plants, the Hawthorn for instance, may have been brought by some bird of passage from the far north, for I recognised the note of birds that regularly visit the Pine forests of Norway during the summer. Snow still filled the ravines, 200 or 300 feet from the summit, whilst the thermometer, even at Tenuel, was 85°. We heard the toucan sing, and saw many jays and crows. There were many deciduous Oaks of considerable size, just beginning to put forth their new leaves. In a word, whilst sitting under the shade of a Cedar tree, and looking into the great desert of Sahara, we were surrounded by the vegetation of an English wood in May, and enjoying the delightful coolness of an English spring. The soil was a deep rich leaf-mould, the result of vegetable decay for thousands of years. On passing

delay and cost equivalent to a law-suit and with most of its characteristics, and pressing in *inverse ratio with the extent* of the transaction,—heaviest upon the smallest;—and what other result could there be than that which is exhibited by every evidence we possess?

The actual number of land owners in England has been estimated at different periods down to the present time from very imperfect data, and with varying results, but one feature in the computation is uniform and unvarying, the decrease, at each successive period, is the one thing most remarkable. The silence, the ir-illiousness of the operation conceals it from the public view. To the mass of the community it is as insensible as the earth's diurnal movement, or the Nutation of the Poles. Freedom of trade, and a reduced Tariff, instead of exposing and bringing it to view, actually help to disguise it, by supplementing to any extent from other lands *inter alia* the deficient produce, both in kind and quantity, of our own: we say deficient because it is not pretended, at least by any one who has studied the capacity of the soil, that the large-scale cultivation gives anything like the same absolute produce with the small.

What is asserted for it is that the acreable return is greater *relatively with the amount of labour employed*: a doctrine and phraseology borrowed—with cruel misapplication, from *Manufactures to the Soil*; which is not a dead machine of human fabric and invention, whose virtue lies in the amount of manual labour it displaces, but a living agent and partner to the hands and brain and motive in league with it * which, like the Cow's udder, gives more the more urgently it is entreated, but dries off to a scantier yield in proportion as the pressure becomes relaxed, or artificial. Or, indeed, we might amonid the simile by contrasting the incomparably more abundant yield which the animal affords to the reiterated importunity of her own offspring, against the daily dolo more rudely withdrawn by the hard hand of the milkman as he hurries through the Dairy-hord. The Earth was made before man, and "was made for all"—we do not say for 'peasant-proprietors,' nor for Norfolk squires and Lincolnshire lords farming their three or four thousand acres,—not for either of these, alone, but for *all* comprised by these two extremes, themselves open perhaps, like all extremes, to some objections not applying to their intermediates.

The truth is that the machinery-doctrine of 'most produce by least labour' is simply, as applied to the soil, the doctrine of starvation and dispossession and instead of belonging to the advance of knowledge and civilisation, is a retrogression towards the time when a 'knight's fee' included a whole Wapentake or Hundred, and a Count was territorial lord over a County. It is this error which underlies the ills of the agricultural Labourer, and in conjunction with our universal system of 'Tenancy,' makes it nobody's interest to find him a cottage that will pay for the building, *that is*, for which his wages will enable him to pay the rent. The farm tenant cannot do so—the land is not his to build it on, nor the permanent interest has, to care to sprinkle the land with dwellings that might furnish hands for a res, *i. e.* those who come after, or even, it may be, for *next year*, for who can tell what a *six months' notice* may bring forth? And the Landlord cannot do it: for what, in fact, has he to do with the matter? He lets his land for the most that another man's capital and skill can make of it, by any means not forbidden in the 'agreement for a year.' It is the Tenant's business, and natural endeavour, to make the most that he can, and in the shortest time and if he could cultivate his farm *entirely* by machinery, without employing a single labourer upon it, it would be worth his while even to sacrifice a further subtractional percentage from the real yield, to purchase a saving so economical to an occupier from whose point of view each cottage is a standing threat upon the *Rates*, subject to which he rents his farm. There is in China a refined method of capital punishment called 'slow mangling,' by which the culprit is gradually flattened out and attenuated between *two hard surfaces*, upper and nether, just as a baker rolls out dough. The head alone is spared, lest the victim's life should be destroyed before he has had full time to

appreciate the whole process. Whether there are any *Iron-Houses* in China for the last polishing-off or 'Finish' we are not accurately informed. There ought to be; to make the parallel complete.

Such is the English Land tenure system, as represented by three *degrees per se*—1. A Tenant-for-life under Settlement, whose *landed ancestry*, for such it is, after meeting every outgoing of the estate (we will not further the text by an attempt to enumerate them), must be devoted to the education and provision for his younger children, who, taking nothing hereafter, are the first claimants for every spare shilling that can be saved from it by the present 'Life-in being.' 2. A yearly Tenant, *farming* the land, for the speediest profit that can be made from it, by the most compendious machinery, with the least outlay in manual labour. 3. A Labourer of whose interest in the soil, or relation to it, or to either of the before-named parts, it is difficult to find words properly descriptive. Perhaps his truest definition, and the shortest, is by negations. He is *not* his landlord's Servant, and he is *not* his employer's Tenant;—*i. e.*, the man who employs, cannot house, and the man who could house, does not employ him. Dependence has its advantages, and Independence its charms: but his lot is cast in a sphere equidistant from either. The proposals to improve his condition by education rather bring to mind that of the Bourbon Princes who wondered why the famishing poor in Paris, if they were short of bread, did not use Pastry. Education, which enhances the sensibility to suffering, also, happily, tends to emancipate the sufferer: and an *educated* Farm-labourer is, in nine cases out of ten, a farm-labourer no longer. When we are considering the problem how to *improve the Nest*, you will hardly help us much by merely showing the birds how to fly out of it. The question as to his cottage accommodation becomes, under such a system, one of those detached problems that fall into the waste basket of 'pure philanthropy.' Whence he comes, in the morning to his work, or whether he goes, in the evening, when he has done it, provided he *has* done it—what is that to his employer? who has no cottage to give him, nor means of building one: and if nothing to *him*, what is it to the landlord? who has no motive for spending the portions of his younger children in making questionable additions to the inheritance of his eldest, by putting up a class of buildings that *don't pay*?

Such is the system; described in the abstract not, of course, as it is modified and ameliorated, in *England*, by land resident landlords, and enterprising Tenants, confident in their holdings under the title of a 'good understanding.' What we have to consider when examining a system, is its *absolute* elements and structure, not the dress it may be made to wear under special and long established circumstances,—a resident proprietary almost partnering their Tenants' interests, a national love of country life, agricultural pursuits, field sports, and 'local self-government.' Taken in conjunction with all this, the system finds plenty of advocates, who think they see in it the ultimatum of 'agricultural prosperity,' men whose view never for one instant has penetrated this outward dress and *filigree*, to the skeleton within the bare and forbidding form that presents itself wherever these consoling adjuncts are altogether absent,—as instanced in a non-resident proprietary, estates of enormous extent—twenty—forty—sixty thousand acres life-owned by a titled absentee, and committed to the vicarious charge of an agent, himself non-resident, and acting for *several* such 'properties' at once,—in a word, all that is comprised in "The Realities of Irish Life."

In vain you tell its defenders that (with the now diminishing exception of Russia,) there is no other country in the world where such a system prevails. They even hear in this a compliment and tell you that is because other countries don't understand Farming as well as we do. In fact, the world's area should, according to them, be laid out on the pattern of a couple-of-thousand-acred Norfolk farm, and those who don't happen to be either large landowners or large Tenants must 'get out of the way.'

"Solitudinem faciunt,—Furtum appellant."

It is not difficult to see that in a prosperous commercial and manufacturing country, where the displaced agricultural population can find employment in the Towns, such a system can go on, and prevail, for a considerable time, without

challenge. The crowding and other evils creates in thousands of narrow streets and the miserable cellars and garrets, reeking with population that ought to be scattered over smiling country districts, are indeed sad to think of, but there is one sadder thought—that of ignorance that cannot, and too often does not, will not see that the cause of all this is to be found in laws which preclude reforms, and which thought unpatriotic to call in question.

THE Contagious Diseases Animals Bill, No. 2, now before the House provides for an important alteration in the present system of regulating the foreign cattle trade. According to the law now in force importations of cattle and other animals, or of substances connected with cattle, can only be prevented by order of the QUEEN IN COUNCIL. The Bill proposes to obviate the inconvenience and delay to which this necessity has sometimes given rise, by conferring the Privy Council the power, "by order, to prohibit landing," "in relation to foreign animals, or to any specified kind or class of foreign animals." With this exception every thing is left very much as it was, and the various clauses of the Bill, divested of their technical phraseology, amount in effect to regulation of the foreign cattle trade in the way which the Privy Council may from time to time deem necessary. It is conceded that a very considerable range of power is desirable to enable the Lordships to meet emergencies, but it does not appear to be generally determined to what extent the power should go. The Bill at once disposes of the whole question by making the power absolute; so that by Order of Council importation of animals from any country may be prohibited or permitted; cattle and sheep of certain countries may be landed and treated as native cattle, and it is for the Privy Council to determine to what classes of animals this privilege shall be extended, and what other classes shall be landed with a defined parts of ports where they be so landed and segregated.

Whether these provisions be effective abortive depends entirely upon the capacity the Privy Council to decide when restrictions are necessary and its energy in enforcing them. One thing is quite certain, the Bill, as at present amended, does not meet the views of the home producers, while its provisions are too stringent to accommodate those who advocate unrestricted trade in foreign stock. The first complaints are directed to the stamping out of infectious diseases when they have already attacked our stock, and that nothing is attempted in the way of protecting us against the introduction of such maladies from abroad. On the other hand, those who represent the consumer contend that the proposed restrictions will be quite sufficient to hamper the trade and keep up the price of supplies. Meanwhile the idea of a 'free market for the sale and slaughter of foreign stock' has undergone a change, the agricultural interest, as represented by the Chamber of Agriculture, formerly required "safety markets for all imported cattle and sheep, now the demand is limited to the establishment of such markets for animals which are brought from 'infected countries,' and the principle of movement for animals which are imported from countries where cattle plague or small-pox have not existed for a certain time, is accepted.

Upon the subject of separate markets for foreign animals the Bill is permissive, and peremptory, "the local authority may, if it shall, establish markets in defined parts of ports, is the language of the clause relating to the material point. At the outports, where foreign animals are landed, the authorities have established markets, and in respect of the matter the Corporation has agreed to construct a separate market for the reception of all foreign stock which is imported from 'non-affected countries.'" So far the 'safety market' question may be considered as settled, but it is infinitely more important question what animals are likely to be sent to it remains to be answered. Knowing something of the details of the foreign cattle trade, we can quite understand that the number of cattle which will be landed in the "defined port" will be extremely limited. With Spain, Normandy, Brittany, and probably Sweden and Denmark free to send cattle without restriction to this country, we may fairly anticipate a considerable falling off in the supply of stock from the "infected or transit countries."

* For thou shalt be in league with the stones of the field.—Job 8: 13

by more judicious purchases, and that fine old bul. GARIBALDI (17,919), of Cambridge Rose blood, was used. The dire effect of the plague in the county in 1865-6 necessitated the greatest vigilance; the cattle were housed until the middle of June, when, tempted by one hot bright day, they were turned out to grass, in the course of a few hours sickness appeared, and in a week or two the larger part of the herd was swept away at a great loss. Old GARIBALDI and a few others survived, and, nothing daunted, as soon as the county was healthy, Mr Davies was again in the market, and the pedigrees of his more recent purchases are before us.

The cattle are arranged in families. At their head stands *Moss Rose*, one of the best known and most public cows in the country, a 100 qrs. purchase at the Killbow sale last year, beside her stands her white heifer, two years old, by 17TH DUKE OF THORNDALE. Then comes *Wellingtonia*, from Haverling Park, a Waterloo, and her roan heifer by 12TH DUKE OF THORNDALE, below these stands *Surmise 14*, six years old, by a Cambridge Rose bull. These pedigrees, given on pages 2 and 3, are of good Bates blood. Turning over we have five *Cleopatra* from Harker, full of Princess blood. A K. platy cow, *Harmony*, from Mr. Cole, succeeds them, and is paired with four *Roses of Thorn* etc., and descendants of Mr. John Wood's *Garibal* or *Rose* family. Pages 4 and 5 are filled with *Constance* & *Duchess*, and her roan cow calf, these are of the old Colling Lady tribe; at their foot pedigrees of two *Charlottes* from Mr. Logan's are placed—a tribe better known for personal merit than for fashionable descent. On turning over we have two of the *Kirkcubright* or *Sockburn* *Blanches*, and two *Leonoras* from Mr. Jolly's that survived the plague. The last pages of females contain three *Princess Royals*, and three *Flattations*, both of short pedigree, but bred originally in the neighbourhood of Thirsk, Yorkshire.

The bulls are headed by 12TH DUKE OF THORNDALE, the imported American bull of 1867, GRAND DUKE OF ESSEX 4TH, a high-priced animal of the Barrington blood at the Haverling Park sale, and *Moss Rose's* young roan son by 10TH GRAND DUKE. These three bulls are, and will be in use, the eight others are of the same families as the heifers, and range from four months to two years old, and are by Bates' bulls, and of various colour, and for which, probably, in sale language, "no reasonable offer will be refused." GARIBALDI and GRAND DUKE OF ESSEX 4TH are the sires of most of the younger animals, and three are accredited to the Thorndale bull. The herd will probably receive many visitors during the great show week, and will no doubt give as much satisfaction as the pedigrees, which not only read well, but are nicely printed on the toned catalogue issued from Langham Place.

PRESENT APPEARANCE OF THE CROPS.

Berkshire.—I am sorry I cannot speak favourably of the growing crops in this neighbourhood. Wheat and Barley especially have been injuriously affected by the large quantity of rain and lowness of temperature we have had during the months of May and June. Oats, Beans, and Peas promise at present to produce the best crops. *James Hulbert, Stroudley, near Reading, June 30*

Devonshire.—The Wheat crop is not so promising as last year, although the late hot weather is improving it much on all weak lands. It is coming into ear very unevenly, and with a small ear. The cold ungenial weather in May was injurious to both Wheat and Barley, and the latter will not be a great crop. Oats are looking very well. Peas are blighted. Beans will be a great crop. Mangel Wurzel does not grow well, and Swedes are only just sown. Grass seed is plentiful, but the hay crop is light. *George Turner, Cudbury, Tiverton, June 28*.—Wheat is again the best cereal, and promises a full yield. Barley short, inferior, suffering from drought. Oats short, rusty, unpromising. Potatoes field crops not looking well, no luxuriance, growth arrested by the very dry weather. The blight has again appeared in the earlier crops. Mangel a good regular braird, and the plants flourishing. Swedes patchy. Hay good crops, and well saved. Orchard Apples one-third of a crop. *P. Cowan, Barnstaple, June 29*.

Dorset.—In reply to your letter of yesterday, respecting the present prospect of our crops in this neighbourhood, on much of the Wheat on the wet, and also on the poor soils, which are not highly maintained, the plant in the early spring ran up very spindly and thin, and where it was not harrowed about and rolled down it did not tiller out, consequently it looks thin, and will be a lighter crop. It is now just out in ear, it looks very uneven, and I am of opinion that, even with a good turn, the yield must be about four sacks less per acre than last year. The Barley and Oat crops look well, and promise for a good crop on most of the good soils, except on very wet land, where it was put in during the time the land was very wet and did not work well. The Mangel plant looks very well, and Turnips and Swedes are taking well. The disease has made its appearance in many places about here in the early Potatoes, which we are now beginning to make use of. *T. H. Saunders*.—Grass is abundant, the hay crop in the meadows over an average, and is being well secured. Clover, average. The appearance of Wheat on clay is much under average. Barley, Oats, and Peas, a prospect of a good crop. Turnips, an excellent plant. Potatoes, a good prospect at present. *W. J. Toss, West Bucknowle, Corfe Castle, June 26*.—The fine weather during the last ten days has raised the spirits of the agriculturists in this locality very much, and has enabled them to secure a large crop of hay, of fine quality, in good condition. The Wheat (much lighter in straw than last year) has improved, and the ears are much more even than I expected they would be ten days ago. We shall not have so large a crop as last year, still I hope there will be very nearly an average one. Of the Barley I cannot speak confidently, as it is not

sufficiently forward. The winter Oats appear to be a most promising crop, although the straw is struck with rust. Flax a heavy crop. Mangel plants regular and promising. Swedish Turnips very hopeful. Potatoes partially affected with disease. On the whole I see no cause for despondency, but opinions vary much. *Symondsbury, June 28*.

HANTS.—The appearance of the crops of corn in this neighbourhood is not very satisfactory. The Wheat crop appears to have suffered very much from the cold wet weather in May and the low temperature prevailing up to this time, especially upon cold heavy land and light soils in low condition, and upon the whole the Wheat crop is not likely to produce an average should the weather prove favourable, and the harvest will be something like three weeks later than last year. Oats and Barley may produce an average, but much will depend on the weather, as a large portion of the crop has suffered from the cold wet weather, but not to the same extent as the Wheat plant. Beans and Peas are generally well spoken of, and bid fair to exceed an average produce. The hay crop has been very abundant, except in those cases where the seeds were deficient, and a third of the crop has been stacked in good condition, the remaining portion is injured by the late rains, but not seriously. The meadows and up and pastures have above an average produce, only requiring favourable weather from this time. All kinds of fodder crops are very abundant, as also Grass in the grazing land. A large breadth of Mangel has been sown under favourable circumstances, and never promised better. Swedes and Turnips have also planted remarkably well, with but little injury from the fly. Potatoes promise well, without any appearance of disease at present. *Joseph Blundell, Land Agent, Southampton, June 25*.—The Wheat crop is bad on wet land and poor thin clays, and far from good on loamy and gravelly soils. It is best on chalk soils, but the ears are not large. Although much will depend on the weather during July, yet in any case the harvest must be backward and under an average. Barley varies, but is about an average, Oats over average. Beans and Peas good, Mangels a good promise; Swedes and Turnips an excellent plant. *W. C. Spooner, Eling, near Southampton, June 28*.

KENT.—I am getting my bustle over with my seeds, and have commenced my usual walks by the footpaths to inspect the crops. There are in this great corn county only a few fields of Wheat that will yield an average crop. On all sands, gravels, chalks, &c., there is not half an average crop, the Wheat not being knee high, and has been as yellow as gold. As to Barley, there is not one good field in fifty, many not 1 foot high, and others not knee high, not half an average crop. Peas are bad, and many not the seed again. Beans a very partial crop. Oats, but few grown. On the whole I cannot see half the crop of corn of last year, nor half the straw. The old Sainfoins are a great crop, those sown last spring are like the Clovers—mostly Wheat and Barley from the shedded corn last harvest. A great crop of hay. A more unproductive crop of corn I have not known for many years. The weather has been, all the spring and summer thus far unheathly. A general blight on all fruits, no wall fruit, and but little other kinds of fruit. The year 1890 was a wet harvest, and I did not finish carting my Wheat till October 2. There is a great breadth of Potatoes, at present not the least appearance of blight, they are selling well, at 8s a bushel. When I have made my annual inspection, and make my report, I shall be able to give you a more correct report. I expect the harvest here one month later than last year. I have seen about 1000 mounds, and upwards of fourscore years, and I still see a deal of harvest, so many of my old friends, staying two or three days with each of them; they drive me about to see every improvement in their localities for instance, the fens of Cambridgeshire, Norfolk, &c.—the greatest improvement in all England—which, when the roads are complete, costing 3002 a mile, will, in the course of time, be studded with farm houses, with resident tenants, which is so much required in most parts of England, thereby making homes for hundreds, increasing the produce of this dependent England, and also doubling and trebling the value of the land. England is not half farmed, with a few things, such as security of tenure, &c., as I have pointed out to several M.P.'s, the produce of England might be doubled. Leases of 14 years are not sufficient; let any man take a beggared farm, it will take him seven years to restore it. He has then only four years to himself, and the remainder to ask himself a few questions as to a fresh lease. *Robt. Malson, Wingham*.—The Wheat crop about here does not look so well as we should like to see it. The cold weather keeps it back. Where it is out in ear the ears are small. Barley is not a good colour, and Oats are in many places much eaten with the wireworm. I consider, under present appearances, our corn crops will be under an average. The Sainfoin has been got up, but not very well, there has been so little sun the cut was light. Mangel Wurzel is thin in plant, there being great complaints that they are eaten either by wireworm or the grub. Turnips are coming nicely, but want warm weather. *Mark Sandford, Martins, near Dover, June 29*.

Lancashire.—Wheat, below average, thin and light of straw, and late. Barley, not much grown, but where grown good. Oats, generally good, occasional fields may have yellowed a little, but upon the whole promise well. Potatoes the principal crop of the district is good, and promises largely; plenty of tubers at the roots, and only requiring warm weather to develop them. Turnips, not grown except after early Potatoes. Eye-grass hay, a fair good crop, deficient in Clover, but will bulk largely. Meadow hay early meadows are good, and an abundant crop, and are even cutting

up better than anticipated, late ones also promise well, but will not bear heavily. Beans this crop is not much cultivated, an occasional field may be seen, some very good and others indifferent. *Northbrook, Leyland, June 25*.

ST. ESSEX.—The weather up to the present time has been very bad for the growing crops, only a week or frost out down the Potatoes and French Beans in particular spots. To-day is better, over half a day of sunshine, the longest day here was more like a December day, very dark and gloomy. The Wheat crop is bad, much of it cannot be, under any circumstances, over half a crop, the early Wheat has had a very hard blooming time.—I trust there is a better time for the late. You see occasionally a good piece of Wheat, but it is quite the exception on this year. The best Wheat in our district is on the early good sandy land, but I fear the cold nights and sunless days will tell badly on them. Barley is very much the same as Wheat, but will no doubt improve very much in the present fine weather continues. Oats promise good, being strong and healthy. Beans good, I fear the winter Beans are blighted. Peas good, some are breadth sown. Mangel coming on very well, Swedes and Turnips doing pretty well, but rather late on account of the wet. Hay, Clover, and the mixed Grasses, under an average crop, and deficient on account of the failure of the seed, considerably damaged by rain. Meadows a good crop, early much damaged by the weather. Pastures bare, cattle and sheep have not done well,—too wet and cold. On the whole, Wheat must be a bad crop, would be very much improved by fine warm weather. Barley may be an average, but like Wheat, needs fine warm weather. Oats, Beans, and Peas promise good. *James Eames, Lynch, Midhurst, June 28*.

WOMEN AND CHILDREN EMPLOYED IN AGRICULTURE.

The following is an abridged report of Mr Fawcett's speech on this subject in the House of Commons last Friday.

MR FAWCETT moved—That, in the opinion of this House, the education of agricultural labourers is in general so unsatisfactory a condition that immediate legislation upon the subject is imperatively demanded. This House, therefore, thinks that the Government ought to legislate upon the subject during the next session of Parliament. The Commission appointed to inquire into the subject had not yet completed their labours, but enough had been done to enable the House to draw some accurate conclusions as to the general condition of the country, and those conclusions were that education was generally most unsatisfactory, that wages were most inadequate, and that the cottages were in a most miserable condition. He believed that little could be done by Parliament directly, but he believed that this House could exercise an important indirect influence in raising wages and improving the condition of agriculture. The educated labourer could produce a larger figure of wealth than the uneducated labourer, and if they gave them that refinement of mental culture, they would refuse to live in the miserable hovels in which the ignorant labourers were contented to dwell. Our schools were a splendid success in the education of the population if the parents were not sufficiently educated, these were, and there was a large demand for juvenile labour. Formerly there was more time for school, now the children were removed at too early an age. The question was how these two evils were to be cured. Some, no doubt, would say that compulsory education was anti-English, and contrary to the free spirit of the nation; but the time for such a plea had passed away, and to the honour of the great Conservative party they destroyed it 26 years ago by enforcing compulsory education in manufactures. They, therefore, could not be surprised when the manufacturers found that the evils they predicted from the system had not been realized, that they should do their best to confer the same blessing on agriculture. They had extended the Factory Acts to every branch of industry except agriculture, and the principle had been laid down that no child be employed until he was eight years of age, and that between eight and 13 years of age every child employed must attend school a certain number of hours daily. If, therefore, they were to have Parliamentary interference, what was the best form for it to assume? Compulsory education had been employed in two forms. In almost every branch of industry, except printworks, the half-time principle had been laid down, but where it had not been adopted the plan was that for every child employed under 13 years of age the attendance at school should be as many hours a year as the half-time system had been a great and extraordinary success, whereas the system adopted under the Factory Act had been a complete and disastrous failure.

The Half-time System.—The child who was at work half-time and at school half-time worked better and learned better than the child who was wholly at work or wholly at school. But if they only enforced a certain number of hours a year for attendance at school and they were gathered into three months and the child worked nine months continuously, the child forgot in the first months what he had learned in the previous three months. The Assistant Commissioners in reply to the half-time system, or any modification of it in agriculture. He would ask the House whether there were not greater advantages associated with any other scheme that could be by any possibility suggested. They must bear in mind the impossibility there was of imposing legislative interference or any particular test without causing some temporary disturbance and hardship. And he thought it would be impossible to impose any scheme upon agriculture without causing some amount of temporary disturbance and hardship. They must, therefore, consider whether the advantages that would be secured therefrom. The scheme that had found most favour in connection with agriculture was the forbidding a child to be employed in that industry until he was 10 years of age, he would time he would have received a sufficient amount of education. He, however, thought the standard education which a child of 10 years of age would have acquired would, when he went to work, be very away, but there was the further difficulty, how were they to get the child to school until he was 10 years of age, because it must be borne in mind that hitherto their legislation had been in reference to those who were at work, and not to those who were not at work. Without, therefore, they took some security that the child should attend school until he was 10 years of age, they would confer greater injury than benefit on him by not permitting him to work under 10 years of age. Without it there would be no guarantee that the child would not be sent to work

I look forward confidently to the day when every root grown in this country shall be converted into a dry feeding substance, and every particle of straw not absolutely required as litter to secure the comfort of stock (and by placing cattle and pigs on boards this may be reduced to a minimum) will be deprived of its feeding value before it is returned to the land as food for vegetable life. Hugh Smith, 21, Westbourne Terrace Road, W., London, in "Mark Lane Express."

STEAM CULTIVATION.

I HAVE seen Mr. Greig's paper, read before the Chamber of Agriculture at Cirencester, the other day, and I beg that you will let me take part in the discussion upon it. Mr Greig says as follows—First, "Take for instance a piece of heavy clay land and Wheat stubble, which is intended for a green crop the following year. My impression is, that in no case should any subsoil be brought to the surface, but that the land should be stirred to the greatest depth possible, and, after being stirred, that it should not be touched again during the autumn,—the manure, of course, being applied before the cultivation, so as to become thoroughly mixed with the soil by the process of stirring. In the spring, I consider that all green crops on this sort of land should be sown entirely on the frosted mould."

I take it that Mr. Greig has not well considered the point, for if we manure and smash up a piece of heavy clay Wheat stubble to lie through the winter, in the spring we find it overrun with self-sown Wheat, if with nothing else, and very frequently with Grasses of various kinds. Professor Wrightson questions the use of the smasher for such an operation on such soils, and goes on, from information that he has received, to infer, "that when the cultivator was used instead of the plough, weeds, such as Coltsfoot, Thistles, and Docks, were rather apt to become a difficulty to the farmer." This inference clearly proves that the learned Professor does not clearly understand the growth of those weeds, for the plough merely cuts off some 5 or 6 inches of the top or strong part of them, and rolls them over to be planted, and grow with the next crop. For instance, a Thistle in a Wheat stubble after Beans thus treated is tenfold stronger than it is in a Wheat stubble after a fallow, and a Dock turned down will be safe to grow again stronger than ever. Mr Smith, of Bibury, goes on to show that "he had seen a piece of land every day that spring, which had been cultivated instead of being turned over, that was as green as a meadow, needing now four times more work than if it had been ploughed in the autumn. That was in Barsley parish. If that had been ploughed in the vegetable matter would have manured the land." Now this is an extreme case, and not worth talking about, for it is a piece of land in a wofully filthy state, and must be costly to clean, whether done by the cultivator or by the plough. What are we to learn by all this? I say that Mr. Greig's deeply stirred land will in the spring be overrun with Wheat, &c., and that when the seed-time comes there will be no "frosted mould" left in which to drill his seeds for a green crop. Professor Wrightson says that he must plough it, or it will be all Coltsfoot, Docks, or Thistles, and Mr. Smith, of Bibury, says plough it. And I now say ridge-plough and subsoil it, laying the land in ridges a yard in width, worked a foot deep, but do not do it until October—until the Wheat fallen out in harvest has grown so that it may be turned under with the dung and buried, and in this way open up the subsoil in the trenches to the action of the sun, frost, air and water, during the winter months. If this land is to be planted with Mangels in the spring, it should be well harrowed to pull down the ridges, and to destroy all the seedling weeds that may have grown during the winter. This harrowing may be done with horses, let Mr Greig say what he may about the tread of their feet on the land in the spring, for my Mangels on land thus treated speak for themselves—that they have received no harm, but look well. If it is intended for Swedes, the ridges should be split and thrown down by a subsoiler worked by horses, and, after lying a time, well harrowed, to kill the seedling weeds that may have grown upon the land during the winter. My Swedes on land thus treated speak for themselves by their healthy appearance.

Secondly—"From what I have observed, I believe the best method of putting in cereal crops is merely to scratch the surface, loosening no more soil on the top than is required to cover the seed; but of course I am supposing that the land has been thoroughly loosened for the previous green crop." We must not take this in the plural number, for what may do for Barley will not do for Wheat, and I have a right to infer that Mr. Greig is pointing only to the former or spring seeding. When roots have been fed on the land by sheep, and the land is in a nice, clean, friable state after a frost or so, all that is needed to make a seed-bed is a mere breaking of the top crust, which is a certain way of procuring a good crop of Barley, but, if we look to Wheat seeding in the autumn, I find it quite another thing, for my combined cultivator and drill did this cracking of the crust most excellently, but then I found that I was trying it too much, for my land showed signs of getting overrun with Knot-grass, &c., so I abandoned it, and now give the public the benefit of my experience.

Thirdly: "The cultivation of clay land is a matter of which we are almost entirely ignorant at present. By forethought and management the deep work can be done in a few weeks in the year, and if the land is never touched when wet, one-fourth of the cultivation at present required will be quite sufficient." This points to the cost of a deep, clean, and cheap seed-bed, and supports my own practice, excepting that I can do my ridging and subsoiling, after we have had some rains in the autumn, better than I can when the land is in a dry hard state. Professor Wrightson ques-

tions the cost as compared with horse-work. He perhaps may have some reasons for doing so, when he compares some operations that he may have seen himself with horse-work, but then this shows that he is one of the slow school, or he must have got my lessons by heart before this. I will give him one over again. A Bean stubble smashed up in the autumn, at a cost of 1s. 9d. an acre, and then cross-cultivated by horses at a cost of 2s. an acre, shakes out all the "Coltsfoot, Thistles, and Docks," at no cost, and makes a capital seed-bed for Wheat, at a total cost of 6s. 9d. an acre. I have at this moment three fields, containing together 33 acres of Wheat on land thus treated, as fine as any to be found in England. The straw is like reeds, nearly as high as my head, higher than I can see over when standing in it, yet the Coltsfoot, Thistles, and Docks on this land are nil. Let Professor Wrightson bring his data as to horse-work, and compare with this if he can. He can do so I know, but he will, I also know, be vastly behind in the race. But I can support my statement by a next crop standing by the side of the Wheat—my Beans. The Wheat stubbles, after a light dressing of manure having been spread over them, were ridge-ploughed and subsoiled last autumn, at a cost of 7s. 0½d. per acre, and the Beans were planted by hand in February last without any other operation, therefore the total cost of seed-bed is only 7s. 0½d. per acre. The Beans are as fine as any to be seen in England, strong in straw, nearly up to my chin, and well bloomed. Take the two crops together, the average cost of seed-bed is 6s. 10½d. an acre. Let the learned Professor bring his evidence against it, if he can; if not, let him learn of me. I speak plain, because Mr. Greig says that "the cultivation of clay land is a matter of which we are entirely ignorant at present." When he says "we" he may be right, for it is clear that neither he nor the learned Professor understand the matter, but I do, for my crops and clean land tell me that I am right, and my 6s. 10½d. an acre must stagger them both.

And lastly "It serves no good purpose to use rollers or clod-crushers in cultivating such land; all must be done by Nature." These are capital words in support of those published in my first pamphlet in 1856—"After Wheat sowing is completed, all the manure that is ready may be drawn out and spread on the land, the trenching and subsoiling-plough may be most efficiently and beneficially applied; the soil will be all broken up, the manure will be covered, and the land trenched up and exposed to the action of the weather during the whole of the winter." My after practice proves that my view upon that point was right, and so says Mr Greig now, when he says that "Nature" is our grand worker.

"This deep stirring breaks up the 'pan' formed by the horse treading." These are significant words in support of mine before the Society of Engineers at Birmingham, in 1857.—"We must take the pitch-plaster from the earth's lungs, the hard horse-trodden pan." The thing will right itself shortly, for my boys are beginning to learn, and Mr Greig appears likely to be one of the foremost of them.

In conclusion I must say a word upon Mr Smith's, of Bibury, stumbling-block. "The pan is on the rock." Limestone rocks are not very extensive, but too much so to be passed unnoticed. The best farmers on them scratch them down as deeply as they can. When thus treated, and manured with light dressings of artificial manure in addition to the manure made on the farm, with a fair supply of cake to the stock, they become very productive, and farmers who thus manage them generally do well upon them: therefore it is quite clear that if we can get implements to scratch them a bit deeper by steam-power, we shall give a good help to the now best-to-do farmer upon them. These are what I call the stout rocks, and they are extensive in Herts, Berks, Hants, Wilts, and other counties. The best farmers on those soils work them as deeply as they can by scratching into the rock whenever they have a chance, and these soils, when thus treated and well manured, become very productive as stock and corn farms. I will bring one witness to bear upon this point—Mr. Child, of Vernham Manor, who farms 800 acres of such land, and well too, for I walked over it all last spring and found it clean from end to end, and worked as deeply as he could work it with horses, but not deep enough to satisfy him, so he obtained a set of steam tackle, supplied under my direction, and some months back he wrote to tell me that the steam cultivator made the stones grumble at it as it passed along, and on June 21 he wrote thus—"I have done more than 90 acres, and am pleased, having driven stones 20 inches deep from the soil, 114 lb. weight, without hindrance—men who happened to be there at the time expressed wonder." You see that men who have farmed deeply heretofore will work deeper now that they have a power to help them, instead of crying out, like Mr Smith, of Bibury, "How would they cultivate that?" His question is answered Scratch it deeper. And then there are the rocks of clay. Many men will tell you, under a plea of great knowledge, that yellow stuff must not be touched, or it will poison your top of 3 or 5 inches, yet for all that I have cut into mine full 10 inches deep, and my crops now upon them tell me that I am right—Wheat and Beans, as fine as any to be found in England, upon these once called poor clays, needing a dead fallow every fourth year to keep them clean and up to the mark for growing not much over half the quantity of corn they do now without any fallow. Last year, taking the Wheat and Beans together, I got 15 bushels more per acre than they grew under horse culture, and this year I shall have more than that. Mr. Smith admits that deep cultivation by steam-power on such soils is good, yet sets the stone rocks up against it as a bugbear. As to costs, let me refer him to what I have said upon that point in this letter, and we shall not

hear much from him again about his two horses and a boy. William Smith, Woolston, Blechley Station, Bucks, June 28.

Home Correspondence.

Agricultural Reflections.—As I muse among the palaces of Pall Mall, Belgravia, and Tyburnia, during "the season," amid the fiery steeds and gorgeous equipages of a noble and fashionable world, my thoughts diverge to the wretched cottage, the dilapidated farmery, the ill-conditioned farm roads, lanes, and fences, and the undrained and half-farmed lands of Britain. I ask, can these be alike the property of one and the same individual? Is agriculture so poor and needy that it languishes for want of means? No, that cannot be for in the bankers' clearing-house, in Lombard Street, 2500 millions of pounds sterling changed hands a year (1863)—nearly four times the amount of our national debt. Well, then, there is no lack of cash, but non-improvement arises from a satisfaction with things as they were, both on the part of the tenant and landowner, and a non-appreciation of the fact that steam-power has changed all our commercial and manufacturing conditions—that it has created gigantic interests, increased wealth, and vastly multiplied population. Agriculture is as yet only on the verge of the stream, but it must soon be hurried on by the impetuous rush of steam-aided advance and improvements. Rents would be higher, land more valuable, tenants more wealthy, were agriculture in its proper condition relatively to other of our industries. Would it be believed that in our forward county of Essex I could point to a farm of 1000 acres where the approach to the farm buildings and residences is through a muddy lane, nearly a mile long, impossible for gig or carriage in the winter? It is even impossible by sheep in wet weather, and the flock is therefore kept in yards. The owner rides on horseback by the hedge side; not much fear of the landlord driving down in winter to inspect the farm. I could multiply such instances of neglect and miscalculation, but they would be merely confirmatory evidence of a comfortable satisfaction with things as they were. It does not appear to occur to the parties that such neglected uncommercial, unprofitable, and unworthy. They have not realised the great fact that we are passing from a pastoral, wooded and wooded age, to one of iron and steel, where the impassable road is made smooth and easy by a bridge of steel rails and a flying engine. Where agriculture is improved, every implement on a farm, from a hurdle to a pig trough, participates in the new iron age. The production of our food is our best managed farms has become almost a manufacture, reapers, mowers, palpers, crushers, steam threshing and steam ploughing machines, mangle, chaff-cutters, and cake-breakers are gradually encroaching on the vast domain of old-fashioned unalterability. The sooner that domain is conquered by these new forces, the better for the country at large. I know that I am looked upon in certain retired nooks as a defender of comfortable agricultural antiquarianisms; but I really am merely endorsing with vigour the bills of indictment that have been abundantly preferred, in the press essays on the farming of our various counties, in the 28 volumes of the Journal of the Royal Agricultural Society of England. Could we but return to earth again in 50 years, what a mighty change and progress would be seen in British Agriculture! J. J. Nash, Tiptree, June 29.

Sources of Pauperism.—The working of the Scotch Poor-laws is just now a subject of inquiry before Committees of both Lords and Commons, but I contend that pauperism is necessarily the normal condition of worn-out rural labourers. Disputing the erroneous inferences of the Rev. Dr Begg in his recent examination, of which a notice appeared in your columns last week, I have sent Mr Crawford, the chairman of the Committee before whom Dr Begg appeared, letters of mine which were published before Dr. Begg gave his evidence, to show him and the Committee the state of matters in the border counties, where there are too many cottage ploughmen. It is easy to prove that worn-out ploughmen are victims of circumstances. I have repeatedly reduced to one the rate of Roxburghshire hinds' wages, as given by Mr Munro, of Farnington in the North British Agriculturist, of July 13, 1864—

£ of cash	24 0 0
18 bushels of Barley, at 11. 4s. 3d per imperial qr.	2 14 0
6 bushels of Peas, at 5s.	1 10 0
100 stone of oatmeal, at 1s. 4d.	6 13 4
Four weeks victuals during harvest	0 16 0
Minimum money substitute for cow's keep	5 0 0
1800 lineal yards of Potato drills, at 6d a score	3 0 0
The cartage of five tons of coals from the nearest station, at half price, a house and garden rent free, and the liberty to feed a pig	22 11 4
5 ranges of bondager to hand	
Say 12 days in harvest, at 1s. 10d., and board	1 14 0
301 days, at 10d.	13 10 10

Aggregate gross total paid to hand for his own wages and the bondager's contract £37 15 4. Fancy the notorious fact that too many farmers had for the year ending May, 1865, the services of two able-bodied labourers for less than 40s. Were you, Mr Editor, a kind, with a family of five or six, and eldest not exceeding, say 12 years of age, and had to pay a hired bondager 12s. a-year for wages of such notoriously small gross total as 40s., where you had scope in 1864 for your supporting four wife, family and bondager, off the remaining 28s., and the liberties of the free house, cartage of coals, and the liberty to feed pigs, and also preventing your aged parents

the birds require abundance of good sharp gravel. But we feel perfectly confident in saying, from our own experience, that it will pay well to cook bran and corn meal as a food for fowls. *Houdan, in "Albany Cultivator."*

SETTING BRAHMA HENS.—My plan of setting is to have a room not accessible by the laying hens. In this room I arrange a row of boxes 12 in high and 11 in square, in which I form a nest by first placing paper over the bottom and put sifted coal ashes on the paper, giving the dish-like form and about 1 inch thick, on the ashes I put about an inch thick of straw or hay—on this place the eggs. At twilight in the evening I take the hens desirous to sit, and handling them gently place them on the nests, by morning if they remain on they will stick; and those I have set so far have done their duty. I set not less than two, or all I wish, at one time when I can, so that in hatching I may place at least 15 to 20 chicks under one hen, the other hens I shut up in a coop for a week by which time they will forget to cluck, and soon commence laying. I find the Brahma a superior mother, and in no instance have they broken the eggs while setting. I allow the chicks to remain 24 to 36 hours under the hen after hatching, and they hatch in 21 days from the time of setting. I always feed the young chicks with cornmeal mixed with boiling water, stirring in a little salt, sufficient to taste it slightly, and mine have not been sick or troubled with pip; last year I lost none until six weeks old, when 1 out of 103 died of disease. My coops for hen and chicks are 20 by 36 inches, tight all round but the front, which is open and covered with lath close enough to keep in the hen. The coops are stationary 12 in one row—standing on the ground with 4 inches of coal ashes for the floor, facing the south-east, and enclosed by a yard 18 by 20 feet square, and pickets 7 feet high to keep off cats and vermin, and placed 1/2 inch apart to keep out rats, with a base board 1 1/2 inches wide, 6 inches of which is in the ground. The ground is dry, and so arranged that in rainy weather the water runs off freely. When necessary, the flooring of ashes is renewed. Wood ashes are equally good. My setting-room and laying and roosting rooms are covered with wood and coal-ashes 6 inches deep, which I remove to the garden when necessary, and replace with fresh ashes. Connected with the setting-room is a small yard, into which the setters can go to stretch and dust themselves. I find the Brahma chicks very hardy. *Albany Cultivator*

Calendar of Operations.

JULY—*Haymaking* in early seasons in the southern counties of England is sometimes finished in June, but it as often extends into the current month; while, in the north, the work is seldom over before August is well through. Generally speaking, therefore, the bulk of the hay crop is secured in July. Town sewage irrigation, farm sewage irrigation, and the other modern plans of liquid manuring grass-land are, however, affording or producing many exceptions to this old rule for several green forage cuttings for sowing are taken, so as to place the cutting for the hay crop immediately before or after corn harvest, according as the weather in the district is the best suited for the operation, or two hay crops may be taken, one before corn harvest and another after it, where there is a full command of town or farm sewage.

Common Turnips are extensively sown during this month in the southern counties, very generally after Vetches, Rye, failing Clover, Italian Rye-grass or other forage crops, and, in a few instances, after old pastures or meadow lands that have been burned. The following of land after Vetches, &c., so as to prepare it for Turnip sowing will depend upon the state the land is in. If clean, a single ploughing with a skim-coulter and a weighted chain for turning down the stubble into the bottom of the furrow, and well turning up the furrow slice over this, with the necessary harrowing and rolling required, may complete the work that is, assuming that the seed is to be drilled in on the flat along with artificial manure, either in a liquid or dry form. In dry weather the liquid manure drill is to be preferred. If the land is clean, and to be manured with farmyard or town manure, it may be skim-ploughed, leaving the stubble on the surface. The manure may then be spread and ploughed in along with the stubble, or a scarifier may precede the plough, if the nature of the land so requires. If, on the other hand, the land is full of Couch and other weeds, "ribbing," or "rafter ploughing," or close ploughing and scarifying, &c., may be the practice. In dry weather one thing has specially to be attended to, viz., to keep the natural moisture in the ground, otherwise it will be difficult to get an equal brard without a plentiful supply of liquid manure. And, besides, in the process of keeping the moisture in the ground the furrow slice is easily broken down, which, if the newly-turned furrow be not at once harrowed and rolled at this season, but allowed to lie and bake in the sun, more work and less certainty of a plant will ensue. Practically speaking, keep the harrowing and rolling close up to the ploughing, and, if the soil can be thus reduced to a suitable condition, then keep the seed-drill close up to the harrows.

Turnips should be horse-hoed as soon as possible, and singled as soon as they will permit the free use of the hand-hoe. No greater mistake can be made than to fall behind in the hoeing of this crop, as the plants not only blanch, but draw each other out of the soil. In the north, sowing being earlier, hoeing is earlier too, so that the second hoeing is very generally over before the beginning of this month; but in late seasons and districts the work will probably not be finished before the middle of July. As soon as the bulbs begin to form, and the leaves to rise off the ground the double

mouldboard-plough follows the horse-hoe, the latter being a day or so in advance of the former.

Mangels, Swedes, and Kohl Rabi will generally require to be gone through a second time with the horse and hand-hoe. In the north few Mangels are grown, and the hoeing of Swedes and Kohl Rabi is generally finished towards the close of the preceding month.

Cabbages planted last month will require horse and hand-hoeing during the current one. The practical rule is to hand-hoe and loosen the earth about the plants as soon as they have fairly started growing, the loose earth being drawn gently up to them. This practice applies also to those grown from the seed—a practice, however, which is seldom advisable. Those planted in April and May, and hoed last month, will generally require going through a second time during this.

Parsnips, Carrots, and Sugar-Beet, and Chicory also, when grown for its roots, should be horse and hand-hoed, the loose earth being kept well up to the roots care being taken at the same time not to injure them with the sharp corners of the hoe. All these crops luxuriate in a finely pulverized and freely aerated soil, so that frequent hoeing, when the land is sufficiently dry for the operation, is greatly in their favour. On the contrary, hoeing in wet weather does harm. When the land is too wet for hoeing, weeds may be kept down with the paring plough, the small ridglets formed in the middle being split with the double mouldboard-plough, if the land continues too wet for the drill harrow. But in such cases, as soon as the weather breaks up, give the land a thorough loosening with the horse and hand-hoes, to let in heat, fresh air, and night dew.

Lucerne, Sainfoin, and Lupine, when grown in drills as forage plants, require to be gone through after every cutting, and all weeds either hoed or pulled out by the hand. The heavy rains which generally fall about the close of June or the beginning of this month, are very liable to raise up weeds, and as the successful growth of these crops depends much upon their being kept clean, every drill should be carefully gone over.

Rape or Cole Seed is sown this month for consumption in autumn, from two to four quarts of seed per acre being used, according to the state of the land and weather at the time of sowing. The crop succeeds well after paring and burning, especially on fen or peat soils, on which it answers better than Turnips both for feeding and fattening sheep and neat cattle. For the former it is consumed on the land as Tares are, for the latter, mown with a scythe and carted to the home-stead or cattle yard. Manure and sow as for Turnips. Where Turnips sown last month fail, many farmers prefer sowing Cole seed to the risk of sowing Turnips a second time. Cole seed sown towards the latter end of June will require a rough hoeing as directed last month, and blanks, if any, may be filled up by transplanting in moist weather.

Rape which was sown towards the close of April or in the beginning of May, will be ready, if it has done well, for feeding off with sheep, so will Vetches sown in early spring. At this season the feeding of sheep on such feed is seldom attended with any difficulty in dry weather. Fresh pots should be folded and fed off daily, so as to eat up the Rape or Vetches clean; but sheep folded on fallows over night should not be turned on to fresh Rape hungry. So also when heavy rains fall, it is often advisable to shift the sheep into grass-land until the weather breaks up. Vetches in such a season form rather a washy diet for fattening sheep; so is Rape, and the same may be said of Clover. It is therefore common to mow such crops a day or some hours before they are given to sheep, and then to feed in low troughs or racks, the sheep, as they advance upon fresh ground, picking up any stubble left better and cleaner than they do when turned in upon the standing crop. But when much cake or corn is consumed along with the Tares or Rape, they may be given shortly after they are mown, and when the green forage does not contain a sufficiency of sap to supply the flock with moisture, water should be supplied in troughs; for although sheep do not require much water to drink, they suffer greatly in the summer time when short of the small quantity they do need. In feeding off Rape, Vetches, Clover, or Lupine, a sufficient breadth is taken in so as to spread the sheep rather thinly over the advancing strip of fresh ground, so as to prevent crowding and trampling, and the troughs for cake, corn, salt and water, should for a similar reason be equally placed along the whole line, and at a suitable distance back in the rear, so as to obviate crossing and trampling the fresh stubble or forage folded on. Sheep thus fed often suffer much for the want of shade in bright summer weather, and straw hurdles should be provided for them to lie under.

Green manuring is perhaps less practised now than it was prior to the introduction and use of artificial manures. Most green crops ploughed into the land, as Rye, Vetches, Buckwheat, Rape, are more profitably fed off by sheep, or otherwise consumed by live stock. But occasionally exceptions occur where green manuring is successfully carried out, and sowing one or more of these plants on heavy land this month, for ploughing in for Wheat, is a cheap and effective practice for increasing the yield. *W. B.*

Notices to Correspondents.

ADDRESS WILL Mr. Forsyth, of Salford, kindly send his address.
POOR MOSSY GRASS ON CHALKY SOIL. B. R. Keep feeding stock on it with hay and Turnips. That must ultimately improve it. Do not mow it for a season or two, and then while apply towards winter 10 to 20 bushels of well rotted bone-dust mixed up (after rotting) with as large a quantity of earthy compost free from weed seeds as you can get. Feeding cattle on the land is the best improvement you can give it, giving them cake along with hay or Turnips in winter and along with the pasture in summer.

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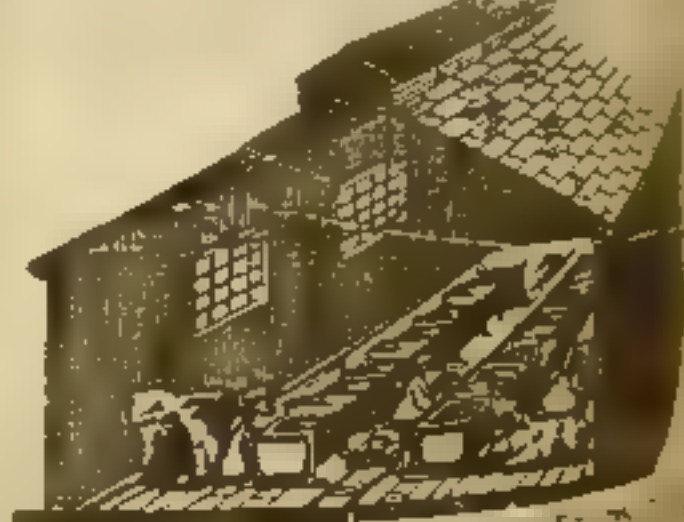
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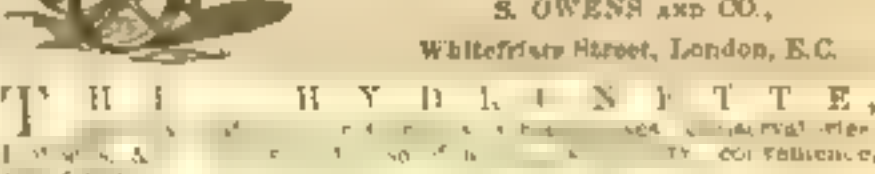
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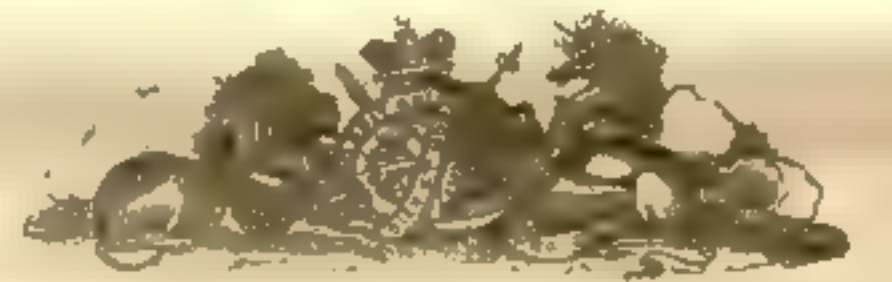
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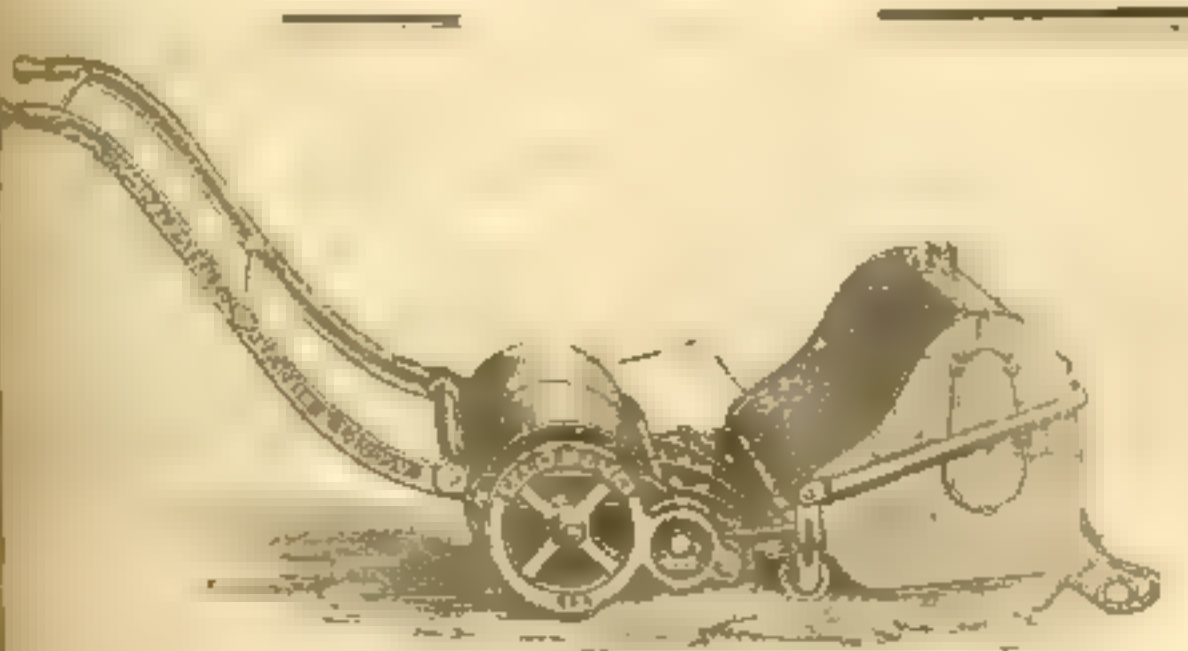
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EDWARD PARKE FRANCIS—Pursuant to the Act of Parliament of 22 and 23 Victoria, cap. 35, intitled "An Act to further Amend the Law of Property and to Relieve Trustees," Notice is hereby given that the CREDITORS and all PERSONS having any CLAIMS or DEMANDS against the ESTATE of EDWARD PARKE FRANCIS, late of Hertford, in the County of Hertford (who died on the 12th day of January, 1866, at Hertford aforesaid, and whose Will was proved in Her Majesty's Principal Court of Probate on the 25th day of April by John Stank Barnes, George Bagot Francis, and Kershaw Francis, the Executors thereof), are to send in the particulars in writing of such Claims or Demands to the said Executors, at the Office of the Undersigned, on or before the 5th day of August next, at the expiration of which time the said Executors will distribute the Assets of the said Testator among the parties entitled thereto, having regard to the Claims of which they had notice; and that the said Executors will not be liable for the Assets or any part thereof so distributed to any person of whose Debt or Claim they shall not then have had notice.

Witness the Twenty-sixth day of June, 1866.
 J. S. LANE, Esq., Solicitor, one of the Executors.

Weeds Eradicated from Lawns.

WATSON'S LAWN SAND, sprinkled upon Lawns, rapidly destroys Dandelions, Daisies, Clover, &c., and at same time promotes the growth of Grass. 25s. per cwt., 4d. per lb.

May be ordered through any respectable Seedsmen, or direct from Agent, W. D. BARBOUR, 5, East Parade, Leeds.

THE LONDON MANURE COMPANY
 (Established 1840)
 Have now ready for delivery, in fine condition,
 CORN MANURE, for Spring Use
 DISSOLVED BONES, for Drossing Pasture Lands
 SUPERPHOSPHATE of LIME
 PREPARED GUANO
 MANGEL and POTATO MANURES
 Also Genuine PERUVIAN GUANO, and NITRATE of SODA
 ex Dock Warehouse, SULPHATE of AMMONIA, FISHERY SALT, &c.
 E. PURSER, Secretary.
 Offices, 14, Fenchurch Street, E.C.

New and Choice Flower Seeds, Post Free.
B. S. WILLIAMS,
 SEED MERCHANT AND NURSEYMAN,
 Victoria and Paradise Nursery, Upper Holloway, London, N.

WILLIAMS' SUPERB STRAIN OF PRIMULA.—B. S. W. can with confidence offer his superb strain of Primula as being the finest in cultivation.

CALCEOLARIA, Weatherill's choice strain, the best in cultivation. 2s. 6d., 3s. 6d., and 5 0

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CARNATION, from Prime Flowers 1s. 6d., 2s. 6d., and 3 0

CYCLAMEN (Wiggins' prize strain) 1s. 6d. and 2 0

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LIANTHUS DAMPieri (fresh imported seed) 1 0

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SOLANUM (Weatherill's hybrids).—B. S. W. was awarded a Special Certificate for a Collection exhibited before the Floral Committee December 15, 1865. 2s. 6d., 3s. 6d., and 5 0

ECHINERIA METALLICA (new bedding plant) 1 0

HOLLYHOCK, from the best named sorts... 1 0

PANSY, from prize flowers... 1 0

PINK, Double-fringed very fine... 1 0

PICOTEE, from prize flowers... 1 0

SWEET WILLIAM, Hunt's Auricular eye 1 0

OXALIS VALDIVIANA, quite hardy, the flowers are bright yellow and sweet scented, and produced in bunches of large size (new)... 1 0

MYOSOTIS AZORICA ALBA, the flowers are pure white, contrasting beautifully with the blue variety *Caesalina* (new)... 1 0

MYOSOTIS AZORICA var CELESTINA, beautiful sky blue... 1 0

ANTIRRHINUM ASARINA, very beautiful for rock work (new)... 1 0

VIOLA LUTEA (yellow flowered Violet) 1s. 6d. and 2 0

TALSONIA VAN VOLKEMII, a beautiful greenhouse climber... 2 0

WALLFLOWER (Sanderson), fine dark variety... 1 0

Victoria and Paradise Nursery, Upper Holloway, London, N.

CARTER'S PRIMULA, CALCEOLARIA, CINERARIA
 J. C. & Co. a strain of Calceolaria is saved from plants that were awarded a 1st Prize at the late International Show. The Calceolaria and Primula stocks are also saved from the finest Prize Winners and cannot be surpassed.

CALCEOLARIA and CINERARIA

Per packet—s. d.	Per packet—s. d.
Calceolaria, finest hybrid	Calceolaria, Dobson's
" " spotted	Cineraria, extra fine

PRIMULA

Per packet—s. d.	Per packet—s. d.
Primula, choicest mixed, fringed	Primula, fringed
" " dark carmine, fringed	" " Pure-louise
" " rose fringed	" " "

CALCEOLARIA INTERNATIONAL PRIZE.—The Seed of the above strain cannot fail to produce a decided variation, as in season's plants took 1st Prizes wherever exhibited. Per pkt., 2s. 6d.

PRIMULA FEMBRATA, New scarlet. This is a decided novelty, being of a deep scarlet colour and cannot fail to be much admired wherever grown. Per packet, 2s. 6d.

INDIA-RUBBER HOOK, at Manufacturer's price, of the very complete fittings, &c.

JAMES CARTER and CO., The Royal Seedsmen, 227 and 238, High Holborn, London, W.C.

Choice Flower Seeds for Autumn Sowing
DOWNIE, LAIRD, and LAING have the pleasure of offering the following choice Flower Seeds:—

CALCEOLARIA, Hybridised, saved from a superb Prize Winner, 2s. 6d., 3s. 6d., 5s. per pkt.

CINERARIA, extra choice, saved from an unequalled specimen of named flowers, 1s. 6d., 2s. 6d., 3s. 6d. per pkt.

HOLLYHOCK, extra fine, saved from our own magnificent stock, in 12 colours, 5s. per collection.

HOLLYHOCK, extra fine, saved from our own magnificent stock, mixed, 1s., 2s., 3s. 6d. per pkt.

PANSY, Show, saved from our unrivalled Exhibition Stock, 1s., 1s. 6d., 2s. 6d. per pkt.

PANSY, Fancy, saved from a selection of the most beautiful named flowers, 1s. 6d., 2s. 6d. per pkt.

PRIMULA, Fringed (Red and White), saved from the finest stock in cultivation, 2s. 6d., 3s. 6d., 5s. per pkt.

PRIMULA, Fern-saved (Red and White), saved from the best strain in cultivation, 2s. 6d., 3s. 6d., 5s. per pkt.

Stanstead Park, Forest Hill, London, S.E., and at Edinburgh.

DIPLADENIA AMENA.

J. W. WIMSETT

HAS GREAT PLEASURE IN ANNOUNCING THAT HE HAS PURCHASED

THE WHOLE STOCK OF THE ABOVE BEAUTIFUL PLANT.

Raised by Mr Tuke, of Bramley, near Leeds, who also raised the lovely *Dipladenia amabilis*. A figure of the beautiful *D. amena* is given in the "Florist" for April, 1868. Plants now ready for distribution.

Price 1½ Guinea each. Strong Half Specimens, 5 and 7 Guineas each.

ASHBURNHAM PARK NURSERY, KING'S ROAD, CHELSEA, S.W.

May 1.

J. WILLS, F.R.H.S., Manager.

MANCHESTER MEETING,



ROYAL AGRICULTURAL SOCIETY.

JAMES CARTER & CO.,

THE ROYAL SEEDSMEN,

237 AND 238, HIGH HOLBORN, LONDON, W.C.,

INVITE INSPECTION OF THE LARGE AND VARIED

COLLECTION of SAMPLES of CARTER'S PRIZE MEDAL SEEDS

ON VIEW AND BALK AT

STAND 323, IMPLEMENT DEPARTMENT.

JAMES CARTER and CO., GROWERS and DISTRIBUTORS of GENUINE SEEDS.
237 AND 238, HIGH HOLBORN, LONDON, W.C.

SEED ADULTERATION BILL OF 1869.

It having been intimated to the Promoters of the above Bill that Members of the Seed Trade throughout the country are desirous of assisting in carrying the Bill through Parliament, it is hereby notified that SUBSCRIPTIONS for that purpose may be paid to the Treasurer, THOS. THORNTON, Esq., 2, St. Thomas Street, Borough, S.E., and the EDITORS of the *Gardeners' Chronicle*, who have consented to receive Subscriptions, and by whom their names will be acknowledged in the *Gardeners' Chronicle*.

Inserted by Order of

THE COMMITTEE of PROMOTERS of the BILL.

HAMBURG INTERNATIONAL HORTICULTURAL EXHIBITION.

The English Sub-Committee have the satisfaction to announce that Her MAJESTY the QUEEN has graciously pleased to signify her intention to present

A SILVER CUP AS A PRIZE

FOR THE BEST SPECIMENS OF GRAPES SHOWN AT THE ABOVE EXHIBITION.

The Committee would at the same time call attention to the fact that LIBERAL PRIZES are OFFERED by the HAMBURG COMMITTEE for PINES, GRAPES, PEACHES, MELONS, FIGS, &c., as well as for Collections of APPLES, PEARS, CHERRIES, PLUMS, and other FRUITS. They believe that, owing to liberal terms which have been proposed for the conveyance of objects to and from the Show, they will be forward Packages of Fruit, Free of Cost or Trouble to the Exhibitors, and they trust that this may induce Cultivators to respond liberally to the invitation to exhibit. Prizes of considerable value are also offered for classes of EXOTIC PLANTS, CONIFERAE, &c.; and for GARDEN IMPLEMENTS, MACHINERY, &c.

Intimation of the intention to exhibit should be sent in not later than July 31.

Further particulars, with Prize Schedules, &c., may be had on application to the Secretary

MR. GEORGE EYLES, ROYAL HORTICULTURAL SOCIETY, SOUTH KENSINGTON

invitation to exhibit, more especially in the department of fruits, the transmission of which with entail little or no difficulty, inasmuch as a liberal offer for the conveyance of exhibition articles has been made to the English Committee who will take charge of, and believe they will be able to forward, all English contributions, except implements and machinery, to and from this country to the exhibition, free of cost to the exhibitor. Intending competitors should at once communicate with the secretary, MR. EYLES.

Let us remind young gardeners that the Royal Horticultural Society's MIDSUMMER EXAMINATION takes place on Tuesday next, July 13, commencing at 10 A.M.

We may call the attention of such of our readers as may be interested in the matter, to the fact, that the CELLINI SILVER CUP offered by the Proprietors of this Journal, is open for competition amongst amateurs and gentleman gardeners, for collections of fruits and vegetables staged as indicated in our advertising columns; that is to say, consisting of five kinds of fruits, and eight kinds of vegetables selected from a specified list of subjects, and set up in a neat and tasteful manner. In a district so famous as that around Manchester for horticultural talent, there should be found many competitors for so choice a prize.

The examination of witnesses before the Select Committee appointed to collect evidence relating to the ADULTERATION OF SEEDS has been carried on Monday and Thursday last. Several witnesses were examined, and the inquiry stands adjourned till Monday next. It is to be hoped, on all accounts, that in giving evidence witnesses will reply only to such questions as they can answer from personal knowledge. To expect a seedsman to give satisfactory replies to purely scientific questions is as absurd as for a man of science to give an opinion on the details of trade practices.

A very effective arrangement of Sedums and similar plants is now to be seen at Messrs. VEITCH'S nursery. For terraces, architectural gardens, for town gardens, or any situation where this formal style of bedding is suitable, Messrs. VEITCH'S raised beds with supply valuable hints. Messrs. VEITCH, at our request, have given us the following particulars of the plants, and the way in which they are distributed over the mounds.—There are three distinct arrangements. In No. 1, or the largest slopes, Pyrethrum Golden Feather is used to define the diamond-shaped spaces—each space being filled with different plants. In the centre of each of the three top diamonds there is a large plant of the Echeveria metallica—the centre diamonds being filled in each with Alternanthera amabilis and variegata, and the spaces on either side with Echeveria sanguinea, and Klema repens. The other diamonds are filled with Sempervivum californicum, tabulariforme, tinctorum, anomalum, and montanum. Below a pattern racemosa, gracillima, calciphana, Sedum brevifolium and glaucum, anglicum and phillipoides, corsicum and globiferum; Saxifraga pyramidalis, longifolia, cristata; Sedum tinctorum and arachnoides. In the second arrangement, the slopes in which are smaller, there is an oblong pattern. In the centres are Alternantheras of sorts, followed by Veronica candida, or, for variety, Aubrietia variegata—the groundwork being the Golden Feather Pyrethrum. In one instance the new Iresine Lindeni is being tried, and all the slopes are planted somewhat differently. In the third plan of arrangement the slopes are devoted more exclusively to alpines, &c. The patterns are of oval form, with oval centre of glaucous-foliaged Sempervivums and Sedums, these being surrounded by various kinds of plants to contrast in the foliage. Amongst others are used Thymus lanuginosus, Aubrietia purpurea, Antennaria tomentosa, Bellis minima, Carex colorata, Eriophora prismatica, &c.

Example is better than precept. So thought Major CLARK the other day at the general meeting of the Horticultural Society, when he sliced up the one specimen of GIANT PUFF-BALL, and caused the slices to be cooked and handed round to the company. He assured by the evident looks of satisfaction which beamed on the countenances of the members of the Council, who very properly took the "first bite," the Fellows present partook of the delicacy with it the fear and trembling or prejudiced loathing which usually attends such experiments. The general verdict was satisfactory, though we think the mycophagists (excuse the word) run into extremes in extolling the plant as a comestible. For a figure and full details of this and other edible Fungi, we refer to p. 1004 of our last year's volume.

The ROYAL NURSERY, SLOUGH, which were lately put up to auction, have, we learn, passed by purchase into the hands of the former lessee, now the spirited proprietor, MR. CHARLES TURNER. May his shadow never grow less!

We have just received some curious partly woody and partly fleshy EXCRESCENCES from the sprouting joints of VINES, which are quite new to us, though in all probability they have often been seen before. The excrescences, which are subglobose, resemble externally Truffles, and are more than an inch in diameter, and the resemblance is not confined to the obscurely areolated exterior, for the substance within is mottled very much after the manner of a young Truffle. On a close inspection, the whole pallid substance, which is surrounded by a coarse brown bark, is seen to be divided into several more or less distinctly defined areolae, those towards the centre being more obscure, while the same structure obtains in the bark, though the areolae in that part are much smaller. Under the microscope may be seen in the centre of the areolae large thin-walled cells, some of which are almost globose,

having between them large intercellular spaces, and surrounding these is the ordinary radiating medullary tissue, accompanied by some dotted cells, with large intercellular wedges of woody tissue, and large open intermedullary ducts, with an admixture of vessels with partially undulating and very frequently interrupted spiral structure, so as to present an annular and scalariform structure. The whole mass is evidently formed of a number of confluent adventitious buds, the ends of which are more or less developed, such, at least, is our interpretation of a more horizontal slice off one of the burrs. It is far from an uncommon thing for the base of spurs in Vines to become gouty, and it is probable that the substance before us is a more exaggeration of the more common appearance. If our notion be correct, we should be inclined to consider that the cause is very much the same as that which induces some varieties of Vine to throw out clusters of roots from the stems. We should, however, like to see one or more of the burrs as they are connected with the stem, without which it is perhaps unsafe to pronounce a very decided opinion. M. J. B.

No rule without exceptions. Botanists have, by general consent, divided flowering plants into dicotyledons and monocotyledons, according as the embryo plants have one or two cotyledons, and the distinction holds good in the great majority of instances. But in the same genus it sometimes happens that there are plants with one or two cotyledons respectively. Thus, Professor DICKSON has lately shown that while PINGUICULA LUSITANICA is dicotyledonous, P. vulgaris and P. grandiflora are monocotyledonous. From indications of the presence of five carpels to the ovary, Dr. DICKSON is inclined to put Lentibulariaceae, the family to which Pinguicula belongs, near to Primulaceae, with which it agrees in its free central placentas.

New Plants.

CATTLEYA LABIATA TRIANA (?) LACINA.

Habitat—Cattleya Trianae, petalis cuneatis oblongis acutis grosse serratis, labello cuneato atrinque dente arguto, delto oblongo acuto lobulato.

This is a puzzling plant. It has the habit of Cattleya Trianae and appeared among a collection of these. The flower is white, with a purple hue. The petals have thick teeth. The lip is narrow, cuneate, unguiculate, with a tooth at each side of the base, and a cuneate oblong toothletted lamina. The four pollinia have no caudicles, and look as if they were composed of two, confluent, as in the mule Laelias. Can it be a mule between a Brassavola and Cattleya Trianae? It is most decidedly the strangest Orchid we saw during our last stay in England. We found it with J. Day, Esq., who complained, with a melancholy look, of these, his pets, being so constantly very ugly. We are afraid we shall have to bear a heavy burden of complaints, as, three names having been forbidden the other day at Kensington, we now bring out our odd child with four. H. G. Rehb. fil.

PLANT PORTRAITS.

ANTHURIDIUM LINDENIANUM.—Gartenflora, t. 558. Oronticeae. A stove perennial, with a short stem, long lanceolate acuminate dark green leaves, gradually attenuated at the base, and set on long terete petioles, and linear-lanceolate, reflexed spatulate on terete peduncles, a foot half as long as the leaves. Native of South America. Introduced by M. Linden.

BEGONIA LINDENIANA.—Bot. Mag. t. 5695. Begoniaceae. A dwarf stout stem perennial, with obliquely ovate cordate serrated leaves, and branched panicles of neat white flowers. Introduced from Trinidad to Kew.

CESTROPOGON LUCASII.—Rev. Hort. 1868, 291, with fig. Lobeliaceae. A handsome subshrubby temperate stove plant with oblong lanceolate leaves, and pretty rosy colour. The flowers produce a free, at the ends of short lateral spurs. It flowers in winter. A garden specimen raised from Cestro Pogon fastuosus fertilised with Cestro Pogon betulaefolius, by M. Desfontaines, of Versailles.

DENDROBIUM LINDENIANUM.—Bot. Mag. t. 5180. Orchidaceae. This is the plant shown at South Kensington by Mr. Wentworth Buller as Dendrobium thyriformum. A very distinct and handsome stove climbing orchid, with slender stems, oblong lanceolate leaves, and a terminal raceme of flowers. The flowers are of a pale yellowish green, with a yellowish white lip. Native of Mexico. Introduced by W. W. Buller, Esq.

LEUCANTHEMUM LINDENIANUM.—Bot. Mag. t. 53. Apocynaceae. A very distinct and handsome stove climbing shrub, with slender stems, oblong lanceolate leaves, and a terminal raceme of flowers. The flowers are of a pale yellowish green, with a yellowish white lip. Native of Mexico. Introduced by W. W. Buller, Esq.

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ODONTOGLOSSUM CONTRAICTUM.—Bot. Mag. t. 5180. Orchidaceae. A very beautiful stove epiphyte, with a short stem, long lanceolate acuminate dark green leaves, gradually attenuated at the base, and set on long terete petioles, and linear-lanceolate, reflexed spatulate on terete peduncles, a foot half as long as the leaves. Native of South America. Introduced by M. Linden.

PASSIFLORA CINCEANATA.—Bot. Mag. t. 5177. Passifloraceae. A beautiful stove climber, with glabrous stems, deeply lobed lanceolate dark green leaves, and bold showy flowers of a deep purple, and having a corona of long and staminate twisted dark violet filia, marked with a narrow white and purple near the base. Native of the West Indies. Introduced from the West Indies to Kew by Mr. P. Frost.

RECHERIA LINDENI.—Bot. Mag. t. 5174. Passifloraceae. A stout stemmed plant, of little horticultural value, with linear-oblong deeply lobed almost pinnatifid leaves, and yellow tubular flowers. Native of the West Indies. Introduced from the West Indies to Kew in July, 1844.

ROSA INTERMEDIA.—Rev. Hort. 1868, 290, fig. 2. Rosaceae. A very curious and interesting species of Rose, with the organic peculiarities of Rosa with the growth and inflorescence of Rubus. It is a climber, with shining bark, imparipinnate leaves with serrated elliptic toothed leaflets, and very numerous small scented pure white single flowers, which form neat heads. Introduced from China and flowered by M. Linden.

STENOCLADUS LINDENI.—Rev. Hort. 1868, 291, with fig. Liliaceae. A pretty dwarf-growing hardy bulb, with linear-oblong flat leaves, and Crocus-like pale yellow flowers produced in early spring and not in autumn, as is the case with S. luteus. Introduced from Karabagh to the Botanic Garden.

TACONIA BENSONIA.—Bot. Mag. t. 5004. Oronticeae. A beautiful stove plant, with a short stem, long lanceolate acuminate dark green leaves, and large showy flowers of a bright rose purple towards the centre, and by deep rich purple towards the base. Native of the West Indies. Introduced from the West Indies to Kew by Mr. P. Frost.

VACCINIUM LINDENI.—Rev. Hort. 1868, 291, with fig. Ericaceae. A slender woody plant, with sparingly branched branches, 1 to 2 feet long, clothed with small lanceolate leaves, and bearing a raceme of deep red flowers. Native of the West Indies. Introduced from the West Indies to Kew by Mr. P. Frost.

LA VERGREEN BERBERIES.

(Continued from p. 711.)

The following species, adverted to in the "Journal of the Horticultural Society" nearly 20 years since:—

B. acifolia (Terra del Fuego).—There are four very different species which have had the name attached to them as an abas, but there is also one distinct species, which was considered by Dr. Hooker to be the handsomest of the genus. The leaves of this shrub are described as being "obovate, petiolate, acute, coriaceous, dark shining green, especially above, pale beneath, the margin coarsely and distinctly serrate, and each serrature armed with a distinct spine." The foliage is said to resemble that of B. Wallichiana, but the inflorescence to be very different. The species is considered to be quite hardy, and it is to be reintroduced for cultivation in the nursery.

B. hypoleuca (Nepal).—The leaves of this species are said to be larger than those of any other species, sometimes measuring 1 inch in length and 1/2 inch in breadth. They are leathery, of a dull dark green above, very white underneath, with coarse spiny teeth. The species does not appear in any of the nursery catalogues, but is probably still existing at Kew, or in the Horticultural Garden at Chiswick.

B. parviflora (S. America).—Described as a wooded evergreen bush, with slender branches and rather fine spines, and bright green leaves. The leaves are about 1 1/2 inch long, by 1/2 inch wide and are exactly the form of a lengthened wedge, whose broad end is almost always divided into three equal rounded lobes. The teeth are other teeth, however, occasionally at the sides. The flowers are unusually small, and are five or six together in nodding clusters. This species was first introduced many years since by Messrs. of Hammersmith, who inform me that the species is a handsome plant, and is quite hardy.

The following, with the exception of those mentioned above, being rather common, and all rather common, will be but briefly noticed.

B. atacamensis (Chili).—A stiff shrub, valued for its great palmate spines, and small green, spiny fasciated leaves. The flowers are clustered, and racemose. It is quite hardy, and in common garden soil.

B. aurantiaca (New Grounds).—Described as "an elegant shrub, with straight, erect branches, bearing leaves of two sorts—the lower coriaceous, enlarged and angular in the sinus, where they are jointed with the petiole, which is very long, and obovate, elliptical, tapering to the base, and very wavy, with a few marginal spiny teeth near the base, and very glaucous beneath. The flowers are in racemes, drooping, and very deep yellow." The specimen very few of the leaves have more than a tooth at the end. It is a hardy plant, and in common garden soil.

B. dealbata (S. America).—A good-looking, with stout brown branches, scarcely spiny, and lanceolate leaves of a bluish green on the upper surface, and almost white beneath. The latter are truncate, with three spray teeth at the end, and three more at the sides, sometimes 2 inches long, and 1 1/2 wide. The flowers appear in short oblong racemes, and are yellow. It is quite hardy, and in common garden soil.

B. empetrifolia (Mazatlan).—This very common well-known species is to be described in the "Journal of the Horticultural Society," vol. 5, part 1, as a trailing bush, with stiff three-part spines, and pungent leaves, not unlike those of Genista.

CLY. A. 20. MAY 10, 1869.

clustered, and about 1 inch long. From the month of May, a few bright flowers appear, growing singly or in pairs on stalks...

Mexico. — This species appears to have been introduced from the country. It is a very beautiful foliage, and to resemble the last worth cultivating of the...

India. — There appear to be more than one variety with this name, and certainly very different ones are sent out from the nurseries as...

Probably the true species is to be found in the gardens at Chiswick, under the name of B. fascicularis, which is described as a hardy bush, with a spreading manner of growth...

Peru. — Under the name of B. fascicularis, there are several varieties and small palmated species. The leaves are dark green, scarcely glaucous, and tapering to the base...

Some valuable species of those which are sent out from the nurseries are — B. fascicularis. — A magnificent species with pinnated leaves, 1 foot in length, and of a green and somewhat as many...

B. trifurca. — This fine species has become very scarce, the only specimen that the writer knows of being that of Mr. Dancer, at...

B. trifurca is a magnificent shrub with leaves about 20 inches in length, and lanceolate with a serrated margin...

B. trifurca (China). — This fine species has become very scarce, the only specimen that the writer knows of being that of Mr. Dancer, at...

B. trifurca (Mexico). — This is a rather remarkable species, as its leaflets are quite destitute of serrations, with the exception of a single serration at the base...

B. trifurca (Mexico). — Easily distinguished by its long pinnated leaves being ovate-lanceolate, pale bright green, and perfectly free from any markings...

A handsome greenhouse plant with rather short pinnated leaves, the leaflets being rather small, and the largest being about 1 inch long...

A handsome greenhouse plant with rather short pinnated leaves, the leaflets being rather small, and the largest being about 1 inch long...

1 1/2 inch in length. This species can be still had from some nurseries.

B. toluensis (S. America). There appears to be very little known of this plant, how or when introduced. The following description of a specimen in my collection may, however, give some idea of its appearance and peculiarities...

ONCIDIUM MACRANTHUM.

SINCE the exhibition last summer of Lord Londesborough's fine variety of this plant, the growers of Orchids have been anxious to know more of a species which was then seen to possess so many claims to a prominent position amongst ornamental epiphytes.



Nor are the feelings of admiration which were excited by the plant in question likely to be other than strengthened by the beautiful specimen, with 28 flowers, which we have already noticed as having bloomed this year in the choice collection of E. Salt, Esq., and which was exhibited in all its loveliness at the meeting of the Royal Horticultural Society on Tuesday last...

The imported plants are variable as to colour. Lord Londesborough's has darkish olive-tinted sepals. Mr. Salt's though having the olive tint is somewhat yellower, while one bloomed in the Bishop of Winchester's collection, is said to have these organs of a pure yellow.

Pseudobulbs elongate ovate, compressed, furrowed and transversely wrinkled when old. Leaves oblong, marked with several distinct pallid veins. Stipe from the base of the pseudobulbs, extended into a long climbing panicle, furnished rather sparsely with short lateral flowering branches...

rounded obtuse apex, petals clear yellow, slightly larger than, but of the same shape as, the lateral sepals, attached by a broad short stalk, 1, comparatively small, hastate, the lateral lobes spreading dull purple, the middle lobe approximate yellow, stained with purple at the edge, crest very large and prominent, white, with a few purple spots at the apex, having a central keel extended into a tooth at the top, and furnished with two large reversed teeth on either side. Column wings broad purple.

GLAZING AND GREENHOUSE BUILDING.

At length I have gained sufficient time to go into the calculation of the cost of our new structure for the growth of variegated Pelargoniums, and as it may appear to be out of the usual style of such buildings, I think a short description in aid of the sketch published in the Gardeners' Chronicle (1869), p. 135, may be acceptable to some of your readers.

The whole of the brickwork is 4-inch, or single brick; this is rough cemented inside where covered up, and finished where seen, the cement used is the best Portland. The reasons for this are—first, economy, and, secondly, strength and endurance combined with dryness of the walls. As may be observed, the beds on which the plants stand are filled in nearly 1 foot with ashes. This is more suitable for the plants in all seasons than either boards or slates, as it secures good drainage, with a freely drained yet moist bottom, and is therefore a more natural condition for the well-being of the plants. If the inner side of the pit were not cemented, the outer walls would be damp, and in frosty weather the work would be torn to ruins in a few years. This would occur even if the outer walls were 4 inches thick. Thus I have experienced, whereas a wall well built in mortar of a single brick in thickness, cemented inside to keep it dry, will last a lifetime. I should here observe that the external walls are not cemented. The inner pit has a cross wall every 7 feet, to connect the inner wall of the path with the outer walls, this enables the work to bear the weight of the bed of a bed and the plants without bulging. There is no partition in the centre of this house, the whole length of which is 100 feet, dividing it into equal parts of 50 feet. The height in the centre is 7 feet, the outer walls from the surface of the ground are 2 feet, side ventilators and plates 15 inches, the width is 11 feet 8 inches, the bars 7 feet long, width of opening for ventilation in roof, 8 1/2 inches; angle of house about 40° in slope.

I have estimated the bars or astragals as 2 inches deep and 1 1/2 wide, the double ridge 1 inch thick and 5 inches deep, the cap or ventilator 1 1/2 inch thick by 11 inches wide, brought down at the edges to 1 inch. This should have iron ribs at the ends, and one in the middle (two would be better if 21 feet long), on the upper side, to preserve the work from casting through sun heat. The glass should be 21 oz. free from lenses, and should be a good flat over sample, avoid false economy here. The arches for supporting the roof should be not less than 3/4 or 1 rod iron, and should be turned before drilling; the screws used should be galvanised throughout the whole of the work.

The door-posts are 3 by 4 inches, with oak sides; the doors 1 inch thick, plate 1 by 5 1/2 inches, side ventilators 1 inch thick by 11 inches wide if in one pairs are divided as seen in the figure.

Anyone can take the plan and estimate the cost, and as nearly as I can presently calculate, this building should only cost 150. This sum does not include bands, or any charge for heating apparatus.

I must restate that as the glass does not closely meet, the rain enters and runs down but does not drip, except at the bottom over the plate which should have an outward inclination. Wherever this is the case a little green dirt accumulates in course of a few months, yet is easily cleaned off with a cloth, and then strongly syringed. A lad can clean the whole of our house in a day. Once or twice a year will suffice for this, and a wet day is best for the job, when thus cleaned the house looks as if newly glazed.

Some of my correspondents have been troubled about glass expansion. This is very minute, and may be provided for by making the ridge groove 1/2 inch deep. The glass used only enter 1/2 inch, leaving 1/2 inch play for expansion, which is ample for a wide roof, if preferred, the 1/2 inch might be done with a slip of india-rubber which will prevent the ingress of air.

I shall always feel pleasure in giving any further explanation, in reply to letters addressed to me here, or to receive visitors and show the plan of glazing, &c. F. T. Smith, Lutwick.

Home Correspondence.

Gladiolus insignis. What a gorgeous flower for decorative purposes this is, whether for beds, borders, or pots. Grown in the latter, especially in large sizes, it would be a fine thing to slip into large vases, where, for the time, it would look grand, or even if used to

Lindley, Gen. et Sp. Orchid. Plants, 207

Mountain Ash, Cytisus, Lonicera, &c. or to any mountain vale in England in summer time. In winter, too, as many of the trees—the Fig, the Mulberry, the Apricot, the Pomegranate, the Vine—are deciduous, it must look nearly as naked and desolate as old England. J. Henry Bennet, M.D., Grosvenor Street

Societies.

ROYAL HORTICULTURAL: July 6.—W. W. Saunders, Esq., in the chair. The usual preliminary business of the meeting being concluded, the Rev J. Dix announced the awards of the Floral Committee, and in so doing noticed especially the magnificent Oncidium macranthum from Mr. Salt's collection, and the charming group of out Iris of the English and Spanish breeds, sent by Messrs. Barr & Sugden, which he (Mr. Dix) said were easily grown and deserving of the most extended cultivation, on account of their glowing colour. G. F. Wilson, Esq., then, in noticing the various objects brought before the Fruit Committee, directed attention to a fruit of Monstera deliciosa, sent from the gardens of Lady Ashburton, which was remarkably fine for this season. Major Trevor Clarke (in the unavoidable absence of the Rev M. S. Berkeley) presented a large number of the objects of interest sent to the meeting, and first noticed a Pelargonium named Empress, in Messrs. E. G. Henderson's collection, which, instead of being of the florists' form, had crisped edges to the petals and was altogether quite a ladies' plant. A small dark form of Aralia, in the same collection, was then alluded to, as being one of many kinds of dark-folaged plants which are now coming into fashion. A collection of Satyria and other ground Orchids from the Cape, sent by the same firm, was next brought before the meeting as being worthy of notice, as they were rarely seen in good condition. The most successful cultivator of this interesting class of plants was said to be Sir John Herschel, the great astronomer. The Pinks and Carnations were then referred to as not having received that attention from hybridisers that they deserve, and he (Major Clarke) recommended this class of plants to the attention of hybridists, to see what could be done in developing the flowers and colour. A small specimen of Sturtia pentagyna, which is closely allied to the Cotton plant, was then alluded to, and Major Clarke proceeded to notice the fine specimens of the Giant Puff-Ball (Lycoperdon giganteum), sent to the meeting by Messrs. Carter & Co., of High Holborn. The rapidity of growth and excellent qualities of this giant Fungus were expatiated on, and the company had the opportunity of forming their own opinion as to the latter point, as some cooked slices were handed round, and were found to have a delicate Mushroom flavour. Mr. Wilson's Lilium longiflorum then came under notice, as the name had been questioned, but Major Clarke said there was no doubt but that it was L. longiflorum, as he had a specimen in his own conservatory, like the one here shown, having four or five flowers in the umbel. Asperula odorata was alluded to as being a pretty blue flower, which was said to great advantage when in a mass. A specimen was then presented of the large strain of Antirrhinum that was made in the first cross between a wild form and a large-flowered garden variety.

Mr. Wilson Saunders then referred to the fruit of the Monstera deltoidea, which he had grown and of which he had eaten several times with pleasure; the fruit, if eaten at the proper time, was most delicious, even when pitted against Pines and Grapes. The fruit was ready to eat when the outer scales fell off, and was then of a most delicious flavour. The plant was said to be of easy cultivation. A specimen of a Briar Rose, which he had received through the late Dr. Boyle, from the Himalayas was then noticed, as bearing a profusion of white and delightfully fragrant flowers. Mr. Saunders stated that it would not stand pruning and if left to grow wild, it formed very large thick stems. He (Mr. Saunders) had found it difficult of propagation by cuttings, and it was only last year that he had succeeded in striking it from cuttings of young growing wood.

Mr. Bateman briefly noticed the Monstera, of which he said a new sort had been advertised, as being without prickles, and also Puff-Balls mentioned above. A batch of Potentillas was then said to be in great beauty at Chiswick; and he reminded those who wished to see them in their present state that they had better do so at once, as this class of plants was rapidly passing into the hands of the florists, by whom he had no doubt it would be greatly altered from its present form. Mr. Bateman then alluded to the Orchids, and especially to a new Mormodes, which came from Mr. Wilson Saunders, which was very curious, having the colour of a Cynochas and the lip of a Mormodes, and mentioned that as Colonel Benson was now in England he hoped to be able to induce him at the next meeting to give them some particulars as to the habits of the many splendid species which he had introduced into this country. He then proceeded to give a short lecture on the C. C. C. Mer, as announced in our columns at p. 710, the main facts concerning which have frequently been given in our columns. At the termination of the meeting, specimens of the beautiful Lythospermum petraeum, from Mr. W. Robinson, were shown and commented upon.

Floral Committee. Rev Joshua Dix in the chair. This was a very interesting meeting. Messrs. Veitch & Sons sent a new and beautiful species of Cypripedium, named Parishi, which will shortly be figured and described in our columns. Also Mitella Regnellii purpurea, a beautiful pale rose flower with a purple violet lip, to both of which First-class Certificates were awarded. With these came a collection of Orchids, and other subjects, in which were the graceful drooping Dendrobium filiforme, the pale yellow and purple spotted Staphopsea oculata, Oncidium Papilio-petale, Tubalia Benoniensis with beautiful rosy purple flowers, Dendrobium Bannoniae superbum,

Parishi, and formosum, Epidendrum nemorale; Orthosiphon stamineus, which we hope shortly to notice more fully; Liliom Szovitsianum, and Iresine metallica, a dark bronze variety, &c. A Special Certificate was awarded to Messrs. Rollason & Sons, Tooting, for a nice group of plants, in which were a new Tootling, for a nice group of plants, in which were a new Tootling named Meyerbeer, with a creamy white ground Caladlum named Meyerbeer, with a creamy white ground edged with green, and veined with crimson, which received a First-class Certificate. Amongst other plants sent were beautiful examples of Cattleya superba, the rare Saccolabium Blumei majus, Vanda melleagrif, Cypripedium a. perbiense, and Cattleya Aclandiae, a new English spotted Pelargonium named Marquis of Bute, and Ardisia japonica picta, a prettily variegated species. From Mr. Green gr. to W. W. Saunders, Esq., came a very interesting group of Orchids, amongst which were a new species of Latasetum from Mexico, with flowers of a beautiful green, densely spotted with brown, and the south American Brassavola leucata, with white flowers, to which American First-class Certificates were awarded. With them came the First-class Certificate for Physosiphon Loddigeanii, singular-looking orange-flowered Physosiphon Loddigeanii, Oncidium purulium, Trichopilla turialis, Cattleya Forbesii, Oncidium purulium, Trichopilla turialis, Cattleya Forbesii, a grey-orange coloured Marillaria, near M. crocea, the small greenish yellow flowered Sarcanthus ornatus, Sarcopodium Lobblii, with four beautiful flowers, Epidendrum diurnum, with one nicely flowered spike, a specimen of Arum Draconculum, and a flowering branch of the Rose above mentioned. A Special Certificate was awarded. From G. F. Wilson, Esq., came a fine specimen of the large flowered longiflorum, for which he also received a Special Certificate, and from Mr. Bull came a collection of Palms, Orchids, &c., to which the same award was made. Mr. Noble exhibited the beautiful Spiraea palmata, in splendid condition, and Messrs. Barr & Sugden, a charming collection of British and Spanish Iris, richly and variously coloured. Messrs. E. G. Henderson & Son received a Special Certificate for a large miscellaneous collection of bedding plants, comprising many novelties, already noticed. Mr. T. Cooper H. haecdale Road, Helgate, sent a small but interesting group of Cacti, and to Mr. Edwards, Nurseryman, Natta, Notts, a First-class Certificate was awarded, for Paris serrulata cristata magnifica. From Mr. Lorimer, gr. to R. Salt, Esq., Fernhurst, came the splendid Oncidium macranthum, referred to in another column (p. 739), which is the finest specimen that has yet been shown, and to which a Special Certificate was awarded. As a variety, however, it is scarcely equal to that in the possession of Lord Londesborough. From the Society's gardens, Chiswick, came a box of Aubrieta purpurea variegata, which will be a valuable acquisition, if it retains its present golden colour. It was requested to be sent again. To Mr. B. S. Williams, of H. Lawley, a First-class Certificate was awarded for a nice plant of Agrostis, which was very fine in condition. Several other novelties in the class of flowers were shown. These will be found treated upon in another column.

There was a considerable and very attractive exhibition of Carnations and Picotees, occasioned by the offer of some special prizes for these pretty flowers. The boxes of cut flowers were arranged in front of the raised dais, and attracted as much public attention as their more formidable rivals, the new plants and Orchids. It was like one of the battles of the old florists being fought over again. In the nurseryman's class for 24 Carnations, Mr. C. Turner, Slough, was 1st with 24 blooms of British Queen and Prince Albert, scarlet bizarres, Eclectic, King of Carnations, Premier, Rainbow, Rifleman, and Scintillation, crimson bizarres, Lady of the Lake, pink and purple bizarre, Beauty of Woodhouse, Colonel Wyndham, Dr. Foster, Favourite, Juno, and True Blue, purple flakes, Africana, Christopher Sly, Debutante, Splendour, and William Cowper, scarlet flakes, and James Merryweather, John Root, Merrimac, and Princess Royal, rose flakes. 2d, Mr. Henry Hooper, Bath, who had good blooms of British Hero, p.f., Dr. Hogg, r.f., George Tugwell, r.f., Beautiful, p.f., Mayor of Nottingham, r.f., and Duke of Cambridge, John Root, and Rosina, s.f. 3d, Mr. William Bragg, Slough. In the Carnations class for 12 Carnations, Mr. N. Norman, p.f. 1st, Queen Victoria, Lady of the Lake, and Mayor of Nottingham, p.p.b. 2d, June and Mayor of Nottingham, p.f. 3d, and two seedlings of the same division; and Dr. Hogg, John Root, and Miss Napier, p.f. 2d, Mr. E. F. Kingston, Militia Barracks, Bath, and 3d, Mr. N. Norman. With 6 Carnations, Mr. Norman was also 1st, having Jubal, c.p., John, p.f., Comet, a.f.; Mayor of Nottingham, p.f., John Root, r.f., and Lady of the Lake, p.p.b. 2d, Mr. C. F. Kingston, 3d, Mr. J. Smith, Lyncombe, Bath. With Picotees, Mr. C. Turner was also 1st with 24 blooms, which were of superior quality like his Carnations. The varieties consisted of Ascot Giant, a large heavy-edged flower, Deloch, Mrs. Dodwell, and a seedling, red-edged. Countess, Duke of Devonshire, Exquisite, Lord Nelson, New Colour, a medium bright purple-edged flower, Prince Arthur, and a seedling, purple-edged, Ade 1, Ingelton, Emmeline, Lucy, Miss Sewell, Miss Williams, Miss Wood, and Northern Star, rose and scarlet-edged. 2d, Mr. B. Hooper, 3d, Mr. E. F. Kingston, Bath. With 12 varieties of winter greens, Mr. E. F. Kingston was 1st with flowers not common to districts accepted as authorities, and to varieties, 2d, Mr. J. Smith, 3d, Mr. E. F. Kingston. With 6 Picotees, Mr. N. Norman was 1st with Prince of Wales, and a seedling, red-edged, Eliza, and Mr. May, purple-edged, and Miss Sewell and Miss Wood, rose and scarlet-edged. 2d, Mr. E. F. Kingston. In the nurseryman's class for a collection of 36 Carnations, Picotees, and Cloves, Mr. C. Turner was 1st, and Mr. H. Hooper, 2d. And in a similar collection of 24 blooms from amateurs, Mr. E. F. Kingston was 1st, Mr. J. Smith, 2d; and Mr. Norman, 3d. Mr. Bragg contributed boxes of cut Pinks, and also Fancy Panaisa, Mr. Hooper having some of the latter also.

Fruit Committee. Mr. F. W. Saunders, Esq., F.R.S., in the chair. Messrs. Rivers & Son, of Sawbridgeworth, sent a collection of dwarf Apple trees, grafted on the Nonpareil English Paradise stock, to show their productive habit and suitability for growth in suburban gardens, the specimens were about 2 feet in height, and showed on the average about one dozen and a half fruit on each. The stock which was raised at Sawbridgeworth from seeds of the old Nonpareil Apple, is very productive on the soils in that district, as was fully illustrated by the examples sent. A Special Certificate was awarded. Mr. J. Hopper, gr. to J. W. Hogg, Esq., The Elm, Aylesbury, sent a fine specimen of a new variety of Apple, which was very fine and for two seasons, after which it was very fine, and to which a Special Certificate was awarded. Messrs. Rivers & Co. and Messrs. Rivers & Son, of Sawbridgeworth, sent a fine specimen of a new variety of Apple, which was very fine and for two seasons, after which it was very fine, and to which a Special Certificate was awarded. Messrs. Rivers & Co. and Messrs. Rivers & Son, of Sawbridgeworth, sent a fine specimen of a new variety of Apple, which was very fine and for two seasons, after which it was very fine, and to which a Special Certificate was awarded.

again. From Mr. W. Paul also came examples of the Hardy White Cos Lettuce; and another new sort, called the Hunt Park White Cos, was sent by Mr. J. G. Debonham, Esq., Cleghant Park, High Wycombe, which were offered to be the ordinary variety of White Cos. From the Society's garden came specimens of White Carmes and Atrato Jonette Pears, which are quite a new time before those growing on younger trees. Good, gr. to Lady Ashburton, Metchett Court, near Bath, a fine specimen of the Metchett Court, &c. Mr. Gilbert, gr. to the Marquis of Exeter, L. sent a very fine collection of vegetables, which did not arrive in time to be brought before the meeting. The collection comprised dishes of Monks Fruit, fine fine Globe Artichokes, Early Dwarf Turnips, Early Carrots, Tripoli Onions, four remarkably fine early Dickson's Favourite Peas, good examples of M. Park, Telegraph Cucumbers, and large dishes of Marrow, open air.

ENTOMOLOGICAL. June 7.—Mr. E. W. Doherty, in the chair. A new part of the Society's Transactions was laid on the table. Mr. Pascoe exhibited a singular insect, from Swan River, apparently allied to the genus of Histeridae, as well as a new species of the genus, which he exhibited a remarkable new species of the genus, by M. Millere at Cannes from the Gairia alle, and Paradoxus Ostridellus. It had also been found in Germany, and was distinguished by its large size, and also specimens of Gaebeia atrata, bred from Hyperba, the stem of which it burrows, having previously been case formed of a small piece of the stem of an ornamental plant. Mr. F. Smith exhibited living specimens of the beautiful Physoneta gigantea, from South America, in large numbers in a cage of logwood, from America, and its species, which he exhibited, however, had also a living larva, probably of a Physoneta, from which emits a beautiful green light from the head end of the body, on each side of the body, while the head emits a light, also a bee of the parasitic genus Mitea, which he found struggling in the grass in the neighbourhood of a field covered with the parasitical larvae of Mitea. He also read a letter from the Secretary of the Entomological Society of South Africa, in which he mentioned a young specimen of a seed leaf by a small beetle, Thymus parvulus, and a Turnip flea-beetle. Mr. Druce exhibited some small butterflies from Borneo, including a new species of Gaebelesia. The following papers were read: "Notes on the Eastern Butterflies of the family Eurytomidae and Argynnis," by Mr. A. B. Wallace. "Notes on the characters and description of a new species of Mamestra," by J. Walker. "A Monograph of the Hymenoptera genus Pascoe," containing 43 species, by Mr. F. Smith. "Description of new genera and species of exotic Hymenoptera," by Mr. F. Smith. "Revision of the Nomenclature of the Lixidae and descriptions of some new species," by Major F. Parr. Descriptions of some remarkable forms of Gaebelesia, illustrating the Punctiforme affinities of the singular genus Gaebelesia (Anapestria, King), by Professor Westwood. A note on the Carpenter Beetle of India, made to the Government of that country, was communicated by Mr. G. H. Bates.

Notices of Books.

A Practical Treatise on the Cultivation of the Grape Vine. By William Thomson. 5th edition. pp. 83. Blackwood.

It is not necessary to reiterate our terms of commendation every time a new edition of the well-known book appears. Suffice it to say, that the volume in each succeeding issue keeps abreast of his subject, and hence the reader will find in the present edition reference to the controverted points which have occupied so large a space in our columns recently. To the advantage of bottom-heat for Vines, Mr. Thomson's opinion, "founded on experience, is the subject scarcely admits of discussion, our correspondents seem to have thought very differently as to its advantages. I used to think that it was a disadvantage to have a bottom-heat in the month of May last year I planted a Vine with young Vines, principally from eyes the size of their roots are confined to a border inside the pit 4 1/2 feet wide and 18 inches deep. This border was by two rows of 4-inch pipes under pavement. There are no means of turning off this bottom-heat, one end of the pit there is a tank for collecting water 9 feet long, where there is no bottom-heat. There are two Vines planted in this tank, one is White Frontignan, the other a Royal Marquis. During last summer these two Vines did not make progress the others of the same kind did, and I had bottom-heat. And this year the difference was more remarkable. In consequence of the bottom-heat being used for forcing Strawberries and French Beans the Vines were started at a higher temperature than they ought otherwise to have been. For the heat soon rose to 95, and for a few days it was 100. Those that have bottom-heat broke quicker, and showing far more fruit than those that have no bottom-heat and are now set and ready for the market. The cold border are not in bloom; nor is the fruit much more than half the size of the same kind. Vines where they have the bottom-heat, as far as an example of the good effect, as far as bottom-heat for Vines when applied to so early a stop-valve on the bottom-heat pipes, I will not obtain the heat as compared with what it is." The result have been anticipated on physiological grounds, but we fancy most gardeners would not have a lower degree of bottom-heat. Such an advantage as that mentioned in this instance seems quite disproportionate to the temperature of the border. There is a certain proportion to be observed between the temperature of the border and that of the house. The custom of leaving the roots to be chilled by the coldness of an outside border while the top of the plan of scorching the roots and leaving the roots comparatively cool temperature. Mr. Thomson's

...a gardener to err in either of the ways we have mentioned. We supply a vert to the subject to rest on the ground that it is a healthy and a true relation between the order and that of the cause...

...on Greenhouse Plants con- sidering the number of up to one thousand specimens... By Benjamin S. Williams, F.R.S. Published by the Author, Southampton, Colarod, & Co.

...and Larry volume will supply a real want in horticultural literature that of a reliable modern treatise on the cultivation of the most beautiful flower- ing plants, whether for exhibition, or for the decoration of the stove and greenhouse. We see from the title that it is to be followed by a similar volume on plants with ornamental foliage, and this we can only hope will be equally welcome.

Florists' Flowers.

...at the meeting of the Florist Convention... the English growers were in earnest to compete for the cup... the French raisers on the other hand, and as an important collateral, the breeches- argument that the number of indifferent new roses...

...the development of Roses, and the substance of this flower may be thin from... the variety of this flower may be thin from... the variety of this flower may be thin from... the variety of this flower may be thin from...

Madame Lemoine as to suggest the possibility of this... The same exhibitor had Ascendancy, very like Gion de Nany... Mr W... has said with truth and fitness that the new double Pelargonium should have at least the name of Marie Lemoine and Wilhelm Pflanz...

At the same meeting, a First-class Certificate was awarded to Mr J. George, Putney, for Harry George a very fine hybrid rose-gay Pelargonium, of excellent habit, with faintly zonal foliage, and producing immense globular trusses of bright orange-rose coloured flowers...

Mr Appleby, of Mr Terry Raleigh House, had some pink and blue flowers of forms of bedding Lobelias... of these one named Marie Queen received a First-class Certificate... growth, and free of bloom and having good sized bright blue flowers...

The Apiary.

The following letter was sent to us some weeks ago, but its publication has been unavoidably delayed:— "In answer to yours respecting the hive I wrote about, I find, from a direction since given me, that I made a mistake in calling it the Cory hive. I had been given to understand that Cory was the maker but I find it is King, it is sold only by Cory, so I have no doubt but that you have seen or heard of it before...

Hives with us in the south of England seem this season, so far as we can ascertain, to be more depressed than elsewhere... We generally adopt the plan of cutting out a broad comb, whether of drones or workers, that may be discovered in the supers, returning the mutilated combs to be repaired and filled with honey...

Garden Memoranda.

RED LODGE NURSERY, SOUTHAMPTON. A recent visit to the nursery at Red Lodge, Southampton, and its proprietor, Mr. J. G. ... A more charming situation for a large nursery could hardly be conceived...

The route to the nursery from Southampton is in itself a feature of great beauty. Those of our readers who are familiar with the wood at the Hazue, or the road to Breckenhampton from that town, will best be able to form an idea what the avenue is like. It is to a large extent characterised by the same sylvan and "grassy" beauty as pertains to our own New Forest...

In front of the residence we have a well-kept lawn, edged by masses of glorious Rhododendrons, and dotted over with fine specimens of Conifers such as Araucaria imbricata, Cupressus macrocarpa and Lawsoniana, Pinus Cembra, and others. In the rear of the house the nursery, occupying a succession of slopes and valleys, which covered as they are with many-tinted occupants, would charm the eye of an artist, even were they not backed up by a distant prospect of the hills and glades of the New Forest...

Conifers in general thrive well at Red Lodge. At the time of our visit, early in June, even the smaller plants were particularly noticeable from the infinite variety of tint on the young growths. This was specially manifest on young plants of Picea nobilis, and of course on the various golden-leaved varieties, such as Taxus elegantissima, Retinospora pisifera aurea, Thuja aurea, &c. One plant of the last-named variety can no longer be considered small, as it is at least 5 feet in height, and proportionately large in circumference...

The odd-looking sickly-coloured Umbrella Pine, Sotadopytis, does not appear to grow any more rapidly in proximity to these than it does in a distant little hammock-like plants deserve notice on account of a peculiarity which one of them presents constantly and the other not, Abies Canadensis, which some suppose to have been originally a burr-knot on the common Spruce, and Abies pyramis, which has the same habit. The Canadensis Spruce keeps constant but the pyramis, like the fir, the foliage is constantly showing in some of its branches, the habit is to have the stems of its branches at right angles to the trunk, and the branches at right angles to the stems, and the branches at right angles to the stems, and the branches at right angles to the stems...

spring far better than such lands in ordinary seasons and have been less affected by it. This glorious weather, coming at the blossoming season, is most valuable, and I incline to believe that the Wheat on all strong land will be an average crop, the only probable drawback being that a good deal was broken down, as though sheep had been driven through it, by a wind on the 15th ult., and may not fill. On light lands Wheat cannot reach an average. Barley not an average crop. Peas and spring Beans will be an average crop. Winter Beans, with the greatest bulk of straw ever known, will not produce more than half an average crop of corn. Oats few are sown, the crop not heavy. The hay crop is, without exception, the greatest I have known in 40 years' experience, and secured in perfection. Mangels are very good. Cabbages good. Swedes and Turnips standing well. Pastures abundant. Harvest will probably be a month later than last year—a week later than in ordinary seasons. C. Randell, Chadbury, near Bresham, July 2.

AMERICAN EMIGRATION,

AS AN AID TO THE SKILLED HORTICULTURIST AND AGRICULTURIST WITH SMALL CAPITAL.

HAVING made a professional visit to America to inspect its lands, landscapes, trees, climates, and capability for improved horticulture and agriculture, and its advantages to the skilled English and Scotch horticulturists and agriculturists who have saved a little money, and now find it difficult to obtain suitable situations in this country, I may tell them that to go to America to seek for such things there is, with a few exceptions, not to be recommended. The second hand or foreman, young and willing and ready to take up anything, is more in demand after, and at this time a more useful man in America than here, and should emigrate. Nevertheless there is a fine home for the skilled workman with a little money who desires to own land and cultivate his own farm or garden with one-tenth the amount of capital required in this country. Having worked out this, with the best opportunity of getting information on the spot, it can be relied upon, and what I desire to point out is that men can go and buy lands in Virginia, which has one of the finest climates in America, capable of producing the finest Wheat, corn, Grass lands that have been in cultivation for more than 100 years. The names and titles are English. The owners of the properties having lands for sale will be glad to show kindness to Scotchmen or Englishmen in preference to any other. The reason of the lands being offered for sale is the condition the war with the North has left the South in, at this time without money to cultivate their lands. The slaves being free and uneducated are willing to return to their old masters and make good servants, but if offered lands to work and manage themselves, and return to their owners a third or fourth part of the produce, they will not work, so this is one reason for desiring English agriculturists and horticulturists to come among them. One estate, 1100 acres, I could purchase at 5/ per acre. It is as good land as is to be found in England. The Wheat I saw grown, was equal to 30 to 35 bushels per acre. Clover ready for cutting three loads per acre. The crops of Tobacco, Indian Corn, orchards of standard Peaches, Apples, and Pears, a dwelling house that cost 1800 dollars, with other buildings and plantations of the greatest variety of Virginian deciduous trees. Three other estates, of 1000, 1500, 1800 acres, could be had upon a lease for five years at 1 dollar per annum. Other estates, amounting from 3000 to 25,000, at 1/ 10s per acre, and those owning them will be glad to offer every assistance. I have seen the lands in the north, west, and also the south of the United States; and in travelling for this information, I was with a party, starting from New York, and prospecting for land-buying for aiding emigration. One of this party, a solicitor, the head of the German Emigration Association, told us that this Association had found homes, and added 2,500,000. General J. D. Imboden was the conductor of our party, and you will see by the three letters in print I send you to make any extracts you think well, that we were well posted in our subject. I thought it was worth my trouble to get information for Englishmen of a different class from those who start and land in New York in Castle Gardens without a penny in their pocket, and have to lie for a week, often by hundreds, on the board or floor of the building, without a bed, or any friend to help them, or any one to tell them how to find employment. But, notwithstanding the mistakes yet made in this country in the advice I have heard in London given to poor emigrants, I am able to find good homes, and should be most happy to aid any of your readers. But what I desire to impress upon them is that they should form little bodies or companies of 10 and 20 men with 100/ to 200/. Half the money going to buy land, the other to cultivate and help one another, more could be done to the advantage of a , by working it themselves, than each one going separately. And not only for this class. There is a fine opening for the younger son of the farmer, with 1000/. He could do more in the part of America I here allude to than on any other estate to be bought in our country for 10,000/. But it must be understood that this advantage will not last long in its present state. They rapidly get over the effects of the war, and in three more years the whole state of things must change, and any one settling just now will have the advantage, as the labour question in this country is just now one of the most important. I have thought it proper to bring it first before your readers, for no time is to be lost for those who desire to take advantage of the information, as the month of October or fall, is the season for preparing for the Wheat-growing season, a most important matter for the next years crop. Joseph Newton, 74, Oxford Terrace, Hyde Park

THE ROTHAMSTED FIELD EXPERIMENTS.

MEMORANDA OF THEIR PLAN AND RESULTS.

I. EXPERIMENTS WITH DIFFERENT MANURES ON PERMANENT MEADOW LAND.

THE PARCH.

The land has probably been laid down with Grass for some centuries. No fresh seed has been artificially sown within the last 50 years certainly, nor is there record of any having been sown since the Grass was first laid down. The experiments commenced in 1856, at which time the character of the herbage appeared uniform over all the plots. Excepting as explained in the Table, and in the foot notes, the same description of manure has been applied year after year to the same plot. (Area under experiment, about 5 1/2 acres.)

PLOTS.	MANURES, PER ACRE; FOURTEENTH SEASON—1890.	PRODUCE PER ACRE, WHEAT AND HAY	
		Average per annum 17 years 1856-1892.	Thirteenth season 1891.
		cwts.	cwts.
1	200 lb ammonia salts ¹ (also, for the first 8 years, 1856-1863, 14 tons farmyard manure per acre per annum)	4 1/2	42
2	Unmanured, 1864 and since (for the first 8 years, 1856-1863, 14 tons farmyard manure per acre per annum)	42	39
3	Unmanured continuously	39 1/2	17
4	Superphosphate of lime ²	24 1/2	19
5	Superphosphate of lime and 400 lb ammonia salts	18	25
6	400 lb ammonia salts	20 1/2	21
7	Sulphates of potass, soda, and magnesia ³ and superphosphate of lime	30 1/2	27
8	(previously 1856-1868 inclusive, ammonia salts as plot 5, and superphosphate of lime)	35	25
9	Sulphates of potass, soda, and magnesia ³ , and superphosphate of lime, and 400 lb ammonia salts	32 1/2	27
10	Sulphates of potass, soda, and magnesia ³ , and superphosphate of lime, and 400 lb ammonia salts	32 1/2	24
11	Sulphates of potass, soda, and magnesia ³ , and superphosphate of lime, and 800 lb ammonia salts	30 1/2	46
12	Sulphates of potass, soda, and magnesia ³ , and superphosphate of lime, and 800 lb ammonia salts	6 1/2	60
13	Sulphates of potass, soda, and magnesia ³ , and superphosphate of lime, and 800 lb ammonia salts, and 200 lb each, silicate of soda and silicate of lime ⁴	6 1/2	70
14	Unmanured, continuously	25 1/2	21
15	Sulphates of potass, soda, and magnesia ³ , superphosphate of lime, and 400 lb ammonia salts and 2000 lb cut wheat straw	53	54
16	Sulphates of potass, soda, and magnesia ³ , superphosphate of lime, and 500 lb nitrate of soda ⁵	50	5
17	No sulphates of potass, soda, and magnesia, no superphosphate of lime, 550 lb nitrate of soda	4	2
18	Sulphates of potass, soda, and magnesia ³ , superphosphate of lime, and 275 lb nitrate of soda	47	5 1/2
19	No sulphates of potass, soda, and magnesia, no superphosphate of lime, and 75 lb nitrate of soda	35	5
20	Mixture applying the quantity of potass, soda, lime, magnesia, phosphoric acid, silica, and nitrogen contained in 1 ton of Hay (commencing in 1865)	32 1/2	27

¹ Equal parts of pot. and mag. of ammonia of commerce. ² 800 lb. in 1856-8 & 400 lb. in 1859-60-61, 500 lb. since. ³ 200 lb. bone-ash, 150 lb. sulphuric acid (sp. gr. 1.7) ⁴ The application of silicates did not commence until 1864. ⁵ 550 lb. Nitrate of soda is reckoned to contain the same amount of nitrogen as 400 lb. of ammonia-salts. ⁶ Average of 10 years only as the manures specified were applied in 1859 (previously 1856-1868 inclusive, without any). ⁷ Average of 11 years only, as these experiments did not commence until 1859. ⁸ Average of 4 years only, as the experiment only commenced in 1886.

II. EXPERIMENTS ON THE GROWTH OF BARLEY YEAR AFTER YEAR ON THE SAME LAND, WITHOUT MANURE, AND WITH DIFFERENT KINDS OF MANURE. HOOS FIELD.

Previous cropping—1847, Swedish Turnips, with dung and superphosphate of lime; the roots carted off 1848, Barley & Clover; 1850, Wheat; 1851, Barley manured with ammonia salts. First experimental Barley crop in 1852. Barley every year since, and, unless stated to the contrary in the foot notes, the same manure has been applied year after year to the same plot. (Area under experiment, about 4 1/2 acres.)

PLOTS.	MANURES, PER ACRE, EIGHTEENTH SEASON—1890	PRODUCE PER ACRE					
		Average per annum, over 17 years, 1852-1868			Seventeenth Season, 1888.		
		Dressed Corn Quantity.	Weight per bush.	Total Straw	Dressed Corn Quantity.	Weight per bush.	
		bushels.	lbs.	cwt.	bushels.	lbs.	cwt.
1 O.	Unmanured continuously	20 1/2	52 1/2	12 1/2	10 1/2	54 1/2	1 1/2
2 O.	Superphosphate of lime ¹	26 1/2	53	14	12 1/2	55 1/2	1 1/2
3 O.	Mixed alkalis ²	23 1/2	52 1/2	12 1/2	14 1/2	55 1/2	1 1/2
4 O.	Mixed alkalis and superphos.	28 1/2	57	14 1/2	14 1/2	55 1/2	1 1/2
1 A.	200 lb. ammonia salts ³	33 1/2	51 1/2	15 1/2	20 1/2	54 1/2	1 1/2
2 A.	200 lb. ammonia salts and superphos.	47 1/2	53	25	31 1/2	54 1/2	1 1/2
3 A.	200 lb. ammonia salts and mixed alkalis	55 1/2	52 1/2	20 1/2	25	54 1/2	1 1/2
4 A.	200 lb. ammonia salts, superphos., and mixed alkalis	46 1/2	53 1/2	28 1/2	34 1/2	55 1/2	1 1/2
1 AA.	275 lb. nitrate of soda	37 1/2	51 1/2	22	27	55 1/2	1 1/2
2 AA.	275 lb. nitrate of soda and superphos.	40 1/2	52 1/2	30 1/2	44	55 1/2	1 1/2
3 AA.	275 lb. nitrate of soda and mixed alkalis	38	52	24 1/2	27 1/2	55 1/2	1 1/2
4 AA.	275 lb. nitrate of soda, superphos., and mixed alkalis	50 1/2	52 1/2	33	4 1/2	56	1 1/2
1 AAS.	275 lb. nitrate of soda and 400 lb. silicate of soda ⁴	38 1/2	51 1/2	23	20 1/2	54 1/2	1 1/2
2 AAS.	275 lb. nitrate of soda, superphos., and 400 lb. silicate of soda ⁴	40 1/2	52 1/2	31	45	55 1/2	1 1/2
3 AAS.	275 lb. nitrate of soda, mixed alkalis, and 400 lb. silicate of soda ⁴	40 1/2	52 1/2	25 1/2	36 1/2	56 1/2	1 1/2
4 AAS.	275 lb. nitrate of soda, superphos., mixed alkalis, and 400 lb. silicate of soda ⁴	50 1/2	52 1/2	33 1/2	40 1/2	56 1/2	1 1/2
1 C.	1000 lb. rape-cake	45 1/2	53 1/2	27 1/2	37	56 1/2	1 1/2
2 C.	1000 lb. rape-cake and superphos.	47 1/2	53 1/2	29 1/2	38 1/2	56 1/2	1 1/2
3 C.	1000 lb. rape-cake and mixed alkalis	43 1/2	53 1/2	27 1/2	35 1/2	55 1/2	1 1/2
4 C.	1000 lb. rape-cake, superphos., and mixed alkalis	47 1/2	53	29 1/2	35 1/2	55 1/2	1 1/2
1 N.	275 lb. nitrate of soda	37 1/2	51 1/2	22	25 1/2	55 1/2	1 1/2
2 N.	275 lb. nitrate of soda	41 1/2	52 1/2	23 1/2	25 1/2	55 1/2	1 1/2
5 O.	200 lb. sulphate of potass and superphos.	23 1/2	53	12 1/2	15	54 1/2	1 1/2
7 A.	200 lb. sulphate of potass, superphos., and 200 lb. ammonia salts	44 1/2	53 1/2	28 1/2	36 1/2	57 1/2	1 1/2
31	5 lb. each, superphos. and sulph. magnesia and superphos., and 200 lb. ammonia salts	30 1/2	51 1/2	12 1/2	14 1/2	54 1/2	1 1/2
6 (1)	Unmanured continuously	23	52 1/2	12 1/2	16	55 1/2	1 1/2
6 (2)	Ashes (soft soil, turf, and wood) and Farmyard dung (14 tons every year)	23 1/2	52 1/2	12 1/2	16	55 1/2	1 1/2

¹ 200 lb. bone-ash, 150 lb. sulphuric acid (sp. gr. 1.7) ² 200 lb. sulphate of potass, 100 lb. sulphate of soda, and 100 lb. sulphate of magnesia (for the first 6 years, 300 lb., 200 lb., and 100 lb., respectively). ³ Equal parts sulphate and nitrate of ammonia of commerce. ⁴ First 6 years 1852-7, 400 lb. ammonia-salts per annum, next 10 years 1858-67, 200 lb. ammonia-salts per annum, nitrate of soda commenced in 1868. 275 lb. nitrate of soda is reckoned to contain the same amount of nitrogen as 200 lb. ammonia-salts. ⁵ The application of silicates did not commence until 1864 in 1864-5-6-7, 200 lb. silicate of soda and 200 lb. silicate of lime were applied per acre, but in 1868, an equal amount of silicate of soda, and no silicate of lime, the plots AA's, containing, respectively, one half of the original AA plots and, excepting the addition of the silicates, have been, and are, in other respects, manured in the same way as the original harvest, and, for the sake of comparison with the latter, average produce is given for the whole period of 17 years 1852-1868. ⁶ 2000 lb. rape-cake per annum for the first 6 years and 1000 lb. only each year since. ⁷ 800 lb. sulphate of potass, 400 lb. bone-ash, and 100 lb. sulphuric acid (sp. gr. 1.7), with 100 lb. nitrate of soda, the first year (1852), nitrate alone each year since. ⁸ 550 lb. nitrate of soda for 1853-4-5-6-7 and 550 lb. each year since. ⁹ 300 lb. per annum for the first 6 years, and 200 lb. and 100 lb. ammonia salts also the first year, but not since. ¹⁰ Average of 16 years only. ¹¹ Average of 16 years only. ¹² Average of 14 years only.

THE ADULTERATION OF MANURES.

The following discussion of this subject was raised by Lord Elcho last week on motion that the subject be referred to the attention of the Board of Trade.

Lord Elcho called attention to the adulteration of feed-stuffs and manures. His attention was first called to this subject by a letter he received on March 20 last from the Earl of Rosebery, a most eminent agriculturist, who has done more for agriculture than any other man in Scotland. That letter, referring to the greatly increased demand for artificial manures, stated that a corresponding amount of adulteration had arisen. Adulteration was carried on to a most extraordinary extent, and so artfully was it done as almost to escape notice. What he asked was not any protection that would enhance the price of agricultural produce to be marketed, but protection against the fraudulent practices which existed, and were daily increasing, in the manufacture of manures. Last week the Highland Society met, and the report of the committee stated that on no previous occasion had the number of analyses been so large, clearly proving the necessity of care in purchasing these manures. The amount of adulteration detected was small compared with what passed unchallenged. Considering it his duty to get what information he could, he had gone to the Professor of Chemistry to the Royal Agricultural Society of England, and he would state some of the results of his inquiries. Of late years one of the most important manures in this country was guano, of which there were six different descriptions. The best Peruvian sold in the Liverpool market at 12s. 6s., the next description was sold at 7s.; others fetched 6s. 10s., 6s. 15s., 9s., and some sorts as low as 4s. per ton. The best Peruvian contained 10 per cent. of ammonia, but it was very good at 15 per cent. of ammonia, and it contained only 24 and 15 per cent. of phosphoric acid. It was adulterated with chalk, gypsum, and, above all, with lime, and in an island in the Mersey, a Liverpool being the great manufactory of the adulterated article that Messrs. ... yellow sand used for the purpose of adulteration was fetched from 2s. to 2s. 6s., and its appearance was most deceptive. Fifty per cent. of this lime was mixed with guano, and, instead of the price of the genuine article being 12s. per ton, the adulterated article was sold at 8s. There was a kind of British guano which was absolutely worthless. It was sold at 4s. and 5s. per ton. The farmer, pretending to be very knowing, was deceived by finding a lump of guano which he broke, and finding them gone and bought the article eagerly, but those lumps were so strong that they destroyed all vegetation. Then, again, the presence of ammonia being known by a strong smell, something was put in order to create this strong smell. These adulterations could not be detected by the eye—they could only be detected by analysis. Another mode of making spurious goods pass for sound was by inventing wrong names, making up a name of composition and calling it "Swan Island Guano," or some such name, taken from a place which had no existence, and the manufacturer giving out that he was the sole possessor. He called his bones, which in their raw state were worth 1s. per ton, and when crushed from 7s. to 7s. 10s. They were sold for 6s., 7s., or 8s., not in their pure state, but when adulterated with 50 per cent. of gypsum, worth from 1s. to 2s. per ton. They were further adulterated with ... by turnings from factories at Birmingham, which were sold at 2s. 10s. or 3s. per ton, and the only value of which arose from their use in a ... were many manufacturers who bought ...

England he might safely say that the sum expended by farmers upon artificial manures amounted to fully more than their rent.

As to manure now to feed-stuffs. The main feeding stuff was linseed cake, of which there were two descriptions. The pure contained from five to six per cent. of oil, and the best test was to dissolve six grains in a ounce of water, and if the cake was pure it ought to form when shaken a thick jelly. He had said that Liverpool was the headquarters of adulterated manures, but Hull was the headquarters of adulterated food-stuffs. Out of the 40 mills in Hull, only three manufactured pure linseed cake, and, taking the whole United Kingdom together, there was not a mill which made pure cake. Pure cake was a fancy article, and the operative agricultural society had been started to supply it. When asked for Hull it was said it did not exist. Some of these cakes were supposed to be pure, and were analysed with the result to indicate that they were so; but, as he was informed by the eminent chemist to whom he had before referred, analysis showed that it contained from 20 to 30 per cent. of adulteration. The best article was, as a rule, 10 per cent. worse than pure. In fact, the brand of the trader was a security for the quality of Linseed as a whole. Some kinds of adulteration were comparatively harmless—that is to say, they only misled a buyer, but other kinds did positive injury to the cattle. Some of the samples which had been analysed contained 80 per cent. of adulteration, and in certain cases such a quantity of Mustard-seed had been used, that the cake pretending to be oilcake might have been broken up and sold as Mustard. Among the specimens of cake which were analysed as being part of the cake that had killed Mr. Sanderson, and as held in his hand a sample of cake that had killed a cow belonging to an hon. member of that House, another portion of cake he held in his hand was made of mere sweepings of various manufactures, and, although utterly worthless, was sold at the rate of 4s. a ton. The system of adulterating food-stuffs was carried to a great extent in the case of adulterating the food of bipeds had been formerly, and therefore he thought it was Parliament had thought it right to legislate in the latter case, they should take some steps to interfere in the former case also.

Doubtless he should be met by the great argument—that he should be told that the remedy he should look to was not legislation, but an increased intelligence on the part of the farmer. He had, however, thought it was the duty of the Government to protect the people against fraud as well as against violence. It was impossible that the small farmer could bring the requisite chemical knowledge to bear upon the subject to protect himself from robbery of this description. The real question, in his opinion, was whether or not the evil was so generally great to justify legislative interference. He did not know what views were entertained upon this point by the right hon. gentleman, the President of the Board of Trade, who he was sorry not to see in his place upon that occasion, but from a remark which the right hon. gentleman had let fall the other night when speaking to him upon the subject, he was afraid the farmers had not much to hope from him. The right hon. gentleman had said to him on the occasion to which he referred, "Why do you always take up the most ridiculous questions?" He mentioned that circumstance to show that the farmers who looked up to the President of the Board of Trade as their protector—almost their guardian angel—against fraud were not likely to obtain much satisfaction at the hands of the right hon. gentleman. The impression that prevailed among the farmers in Scotland was that the right hon. gentleman was extremely ignorant upon this subject, and required enlightening upon it. The right hon. gentleman had said the other day that if we were to go on inspecting everything, one-half the world would be inspecting the other half;

but if inspection were necessary, steps should be taken to insure the establishment of a proper system, under which it could be carried out advantageously. The principle of inspection had been acted upon with reference to cheese and other adulterations of human food, and there was no reason why the same principle should not be applied to the adulteration of the food of cattle. He felt certain that the Government ought to apply a remedy. What he would suggest was the remedy of publicity—that an analysis should be made, and that the names of fraudulent tradesmen should be published at stated periods in the *London Gazette* or some other publication. Something, at all events, should be done, and he moved that in the opinion of the House it was desirable that the attention of the Board of Trade should be directed to this subject.

Mr. WELBY seconded the proposal of the noble lord, for he was fully convinced of the enormous extent of these frauds and adulterations. He, however, admitted that there were serious practical difficulties in the way of legislation on the matter. Of the two branches of the subject, the adulteration of food-stuffs was the most important, and one difficulty in dealing with this subject arose from the fact that the primary object of the seed crusher was, not the manufacture of oilcake, but the production of oil; and another difficulty was, that chemical analysis frequently failed to detect the adulteration. Some oilcakes contained no Linseed at all, and many were adulterated with pernicious materials. The hon. member here mentioned instances in which cattle, sheep, and horses had been killed by adulterated oilcakes in a few days, and said that matters had gone so far that special machinery had been invented to detect the adulteration. Last year, in consequence of the failure of the green crops, adulteration was carried on to a greater extent than ever. One means of putting some limit to adulteration would be to establish mills, the primary object of which should be to produce oilcake for the farmers. The excuse for these frauds was that the farmer, from ignorance, would only give a certain price for his oilcake or manure, and the dealer must find an article for him at that price, or not sell him any at all. There was a good deal of force in that argument, and it was the case that the farmer might be carried to far in Scotland, and the farmers were so disgusted with the result that they had formed themselves into an association for the purchase of their manures from the manufacturer with a guarantee of quality, and they employed a professional analyst to test their quality. In this way they had already saved a large sum of money, and their next order would probably amount to 10,000 or 15,000 tons. It was in that direction, he thought, that they must in the first instance look for a remedy. At the same time, if a law could be devised that would meet the difficulties of the case, and assist the farmers in their efforts to protect themselves, it would be a very desirable one. He would not say that he would not be extremely small, and he should feel grateful if the House in its wisdom could assist the farmers in protecting themselves against these frauds.

Mr. McLAGAN considered that the farmers had the law in their own hands, by purchasing manures with guaranteed analyses. This plan had been adopted by the farmers forming themselves into a local association in a district where adulteration had been carried on to an immense extent, and after two years there was not found one single article of adulterated manure. In his opinion the farmer should be treated as other traders were, and if other traders did not ask for protection he did not see why the farmer should. He spoke boldly on this point, because he belonged to the agricultural district.

Mr. SHAW LEEVER said that the two hon. members who had spoken before him, while admitting that adulteration existed and also the difficulty of legislation, had not indicated to him what the true remedy was in the hands of the farmer himself. He was glad that this discussion was being carried on so soon after the meeting of the Association of Seed Dealers, because it was possible that the Association would be able to devise a remedy applicable to the present case also. There was another Bill before the House upon a matter of great importance, namely, the adulteration of the food of the human race, and it would be possible to deal with so small a subject as feed-stuffs and manures while the important question of the introduction of inspection into the food of the people was concerned was still undecided. The noble lord had said that the small farmers were unable to protect themselves, but the information he had received pointed to an opposite conclusion. He had received a letter from a gentleman of great experience, who in the last few days pointed out that in various districts of Scotland the farmers were successfully protected by forming an agricultural association among themselves. The assistance was given of a district in which in the beginning much bad seed was sold, but the members of the association ceased to purchase from those who sold bad articles, and one by one the inferior vendors were weeded out. That would show that the farmers had the means of protecting themselves, and even of stamping out adulteration of their food. Let us know that there was an agricultural association within the district and adulteration would cease.

Mr. LEAS said that protection was utterly beyond the reach of small farmers. He did not fancy that the question was ripe for legislation, but he held that the whole question of fraud should be inquired into, and he hoped in a short time they would have a commission to investigate the subject. As to farmers having their protection in their own hands, so had other people, and yet the Government stepped in to protect them. For instance, persons who sent diseased meat to market were liable to fine and imprisonment.

Mr. NORWOOD believed that farmers would be able to obtain plenty of pure oilcake if they would only pay a fair price for it. The motion was then negatived without a division.

is best adapted for every occupation. Farmers must consider if it is adapted to suit their crops. Take the fans and strong loams for instance. It is not every reaping-machine that can cut such crops as are commonly grown upon such soils. In average seasons only they are heavy and laid, and it requires a strong and peculiar machine to cut them satisfactorily. It is so in every district where the crops are heavy and laid. A most any of the modern reaping machines will do satisfactory work upon light standing crops, and it is comparatively immaterial whether it be self-acting or not, or has a side-delivery, sheaf delivery, or manual labour is employed. These are matters for the consideration of farmers in accordance with the soils they cultivate and the crops they grow. If it is requisite to cut the corn down in order that it may lay awhile to wither and dry, as in many Barley crops full of green Clover or seeds, a side self-delivery machine would appear to be most desirable, if all is tied up as it is cut, a sheaf would seem to be best adapted for it, but for heavy crops, laid and thorough grown, the strongest and most effective machine cleared by manual labour would probably prove best. I have frequently seen these machines in competitive trials and otherwise, and I have never seen one yet that could satisfactorily cut and lay a heavy thorough-grown crop in readiness for tying. The manual delivery machines, if strong and properly made, have with this manual assistance made the best work. I hope the crops to be operated upon at Manchester will be above the average in quantity and length, so that the trials may be a real test of capability in every machine. I repeat that almost any machine can cut light crops. Horse rakes—These are scarcely corn-harvest machines, but it is very desirable they should be used after the reapers, and for this purpose care should be taken to observe that they are capable of regulation, so as to cleanly rake up the corn without scraping up the soil or stones. The teeth should have ample scope for raking up in full and satisfactory rows without compressing the rows so as to require subsequent forking out. Carts and Waggon—The question relative to the quickest mode of clearing a cornfield by cart or waggon, is not for decision at Manchester, but it is a question well worth the consideration of every farmer attending the meeting. The competition would appear to be, which is best respectively for harvesting corn, not for general service—this is more especially for the consideration of visitors and farmers who desire to purchase for general service, as well, especially, for harvest work, must be the decision of purchasers, and it is to this point farmers must look. It is a very easy matter to buy or supply the farm with implements, and at a very expensive rate. The great thing is to purchase these only that are of the most generally useful, not an investment for every particular service, as many do and are soon laid aside. A good harvest cart or harvest waggon may be as useful upon the farm, and as serviceable for harvest work, as one constructed more especially for harvest work. Both should be strong, but as light as possible, in accordance with their heavy work as well as the lighter harvest work. The adaptability of the "raves" in carts is of great importance, and not to be lightly thought of in waggons. Fore ladders and hind ladders which are movable are great acquisitions to waggons in harvest work. Handforks and handrakes are highly useful and indispensable implements in harvest work. A competition in the smaller things ought not to be beneath the attention of the Royal Agricultural Society. Stock staves, ladders, bearers for setting down carts, and other little matters connected with harvest work, deserve the encouragement of our great society. O. F.

Emigration—A vast emigration, both of capital and population, is finding its way to countries where there is land to employ both, and where towns are not yet overstocked with either. Here our towns and cities are overstocked with both labour and capital, and so both take to themselves wings and fly to more genial and appropriate climes. Our land does not employ either capital or labour sufficiently, so they are forced upon our cities, where they are not required, and must again move on to the United States, or our own colonies. This is lamentable, in a national point of view. These elements of strength and dignity might still, for a long time, be retained here, were we to do our duty in agriculture. My own experience of 25 years has taught me, that not only does agricultural improvement employ a vast increase of labour and capital, but, by the consequent greater crops, demands permanently much more human aid. Well, then, if we would employ more labour and capital, and grow more food concurrently at home, we should thus shut out, *pro tanto*, the foreign supply, and keep the money circulating profitably among ourselves. So long as Britain is, as at present, only half farmed, so long shall I continue to protest against our present suicidal action. J. J. Mechi, Tiptree, June 29.

The Prejudice against Bothies.—Whoever shall persist in hurling his anathemas at bothies, they will remain indispensable parts of the buildings on well-appointed farms. It is strange that a mere name should draw forth such hostility. I am mistaken if there is not a "young men's room" on the Queen's Home Farms near Windsor. The word bothy is merely a term applied to furnished lodgings. The popular prejudice is so great, that when I republished a tract form a few of my detached essays on the bondager system and its remedy, the local editors took no notice of it. And, notwithstanding that I advertised it 13 times in a *Kelso paper*, Sr. 11d. was my gross receipts for all my trouble and expenditure. About a year ago I was much pleased with a letter by Mr. Willoughby Wood on the contradictory nature of the discussions in agricultural journals; and Mr. Wood referred to

Home Correspondence.

The Harvesting of Crops—The machines and implements for the harvesting of crops are the class of implements to be tested at the Manchester meeting of the Royal Agricultural Society during the next week. They consist of mowing, reaping, and haymaking machines, hay collectors, horse-rakes, carts, and waggons. This gives a fine opportunity for visitors and farmers in particular to ascertain the utility and value of these machines for their respective occupations. It is not because a reaping machine can do admirable work under trial upon an average crop of corn that it

JULY 10, 1869

...seeing now buyers of horses are now int-...connected with breeders of them, cannot...be raised, but the number he may send...ought certainly to be limited to one, or at most two...

...What is the use of our sending our animals in...farmer's condition of grazing and brooding...dealers and letters of horses have 20 or 40 in...professional condition to pick from? The 1st prize of...awarded to Mr. Percival, of Wansford, and the...to Mr. Gale, of the Rugby side, both dealers.

The 1-year-old geldings or fillies are seven and a...very promising class, the 10/ in cup or coin being...awarded to a powerful, ready, and well-bred bay, by...belonging to Mr. Prior. There were two...members paraded before the judges for their final selec-...tion. Mr. Gale's being a very strong dark brown, with...and a useful animal for a light youth or little lady.

The hackneys are 23, and a very good collection they...of them being really good animals. Mr...which took a prize together as carriage...and one of which took the single hackney prize...at the metropolitan show. Mr. Harry has a...and elegant chestnut, and Mr. Wood a good...red roan, which "bends" well, viz., lifts up...but in that "bending" she makes a deal of...in getting over 6 1/2 miles an hour. This is the sixth...Mr. Hornsby's "Sambo" has taken

The...are excellent in both classes, Mr. Barn-...1st in the class exceeding 13 hands, is a light and...chestnut, which is a beauty to look at and go...Whitehead's, 2d prize, is a very handsome cream-...creature, the flowing light tail and mane of...greatly attracted the attention of the ladies.

Mr. Hornsby again successful in the mare and foal...His brown mare, by...is a well-bred, roomy, and...powerful mare. She has also won six prizes, and...never been beaten. Mr. S. Middleton,...

The agricultural geldings and fillies are a capital...Mr. Vawear taking the prize in the 3-year-...for a brown colt by FARMER'S GLORY, and Mr...prize in the 2-year-olds for a compact and...by MAJOR. The cart colts,...

The...exactly the same as they did...Northampton. The Marquis of Exeter's and Mr...Wood's oxen still look like winners at Christ-...and they are 1st and 2d here as there. In fat...

The bulls are few, Mr. C. W. Griffin's prize animal...is very showy and excellent, with a straight...back, a well finished obine, and good neck...we say his head is pretty, we indicate an ob-...appearance there which is objectionable in a male...

The cows and heifers are generally fish onable—that...more given to grow beef than to make milk, Mr...Webster's 1st a white, is, however, a good cow with a...bag. Mr. Lamb is 2d; and a real old-fashioned...maker with a long head and thin neck, wide hind-...quarters and a bag from which, as some one said, "you...

The sheep are few, but some of them are good. Mr...Lynn, of Stroxtan, takes the 10/ prize for a neat...heifer ram. In the other classes Mr. S. Middleton, of...Water Newton, takes all the 1st prizes with a most...collection of sheep and lambs. They are all...in form and countenance, while their wool is full...

In the pigs the prizes are divided between Mr. Jabez...Farmer, who has a good boar, Mr. S. Deacon, who has...good sows; and Mr. G. Harris.

Reviews.

The Quarterly Journal of Science No. XXIII, July, 1869 Longmans & Co. The present number, besides the very full account which gives of the progress of science in all its departments during the past quarter, contains papers on sea-weeds, archaeology, geology, reviews of books, a discussion of the policy of teaching natural science in schools, and several astronomical papers. It is quite up to the usual standard of general interest as well as of strictly scientific information. We extract a passage which the Editor has given, under the head "Agriculture," among his "Chronicles"...

...ual statistical records of the Registrar-General, and the annual agricultural tables issued by the Board of Trade are used in it with great ability to trench upon the leading facts regarding the aborigines in our fields, and their relations to the corresponding facts regarding the labourers in our mines and in our workshops. The main features of agricultural practice and experience in the several English counties are also cleverly marshalled, and explained so as to explain the distribution of the agricultural labourer over the country. The whole is not only discussed in a very well-written essay, but unconsciously well depicted and presented to the eye in diagrams and maps. In one set of curves for example the percentages at the several stages of the whole number of labourers employed on land and on coal and iron respectively are shown, and we see at a glance that a larger proportion of an that are engaged of the male age in the cases of coal and iron than in the case of land. The curves of coal and iron labour stand higher between the ages of 15 and 45, and the curve in the case of land labour stands highest over the early years and over the later years. The explanation is that many of the boys of the farm leave it for the workshop as they become men, and return to it as they approach old age and begin perhaps to look out for a maintenance at the expense of their parish. Other diagrams illustrate the quantity of agricultural labour employed per acre in several counties, and it appears that it is in the case of arable land in a county which determines the quantity of agricultural labour employed per 100 acres, that depends rather on the quantity of live stock which is on the land and especially on the quantity of dairy stock. Lancashire and Middlesex employ more labour than other counties, not that they have a large proportion of grass-land, no doubt because of the great quantity of live stock which their agriculture maintains. There is however a good deal of difference in this particular, as due to the nature of the soil. Light lands are suitable for sheep farming, and sheep require but little care. On heavier soils cattle must be kept, and on arable land they must be kept in yards and stables, and this necessitates much labour. A portion of the essay is devoted to a discussion of the improvements in agriculture which are required in the interests of the labourer. We are not at all disposed to lament the decrease in the number of those employed in fields, which is the leading fact before reviewers of this subject. We may admit that any tendency of this kind is the result of industrial revolution on the part of those engaged in agriculture, which is prompted by the sharpest and most anxious motives of self-interest. If the sons of agricultural labourers are as a rule gradually leaving the soil, we should accept it as a fact, and rather as a lamented and if possible prevented, but rather as a fact which is the result of the industrial revolution, and which is likely to be true in any other, is likely to be true in any other. When it should become the interest of the farmer to employ more labour, and when he shall have been driven by the force of circumstances to pay a higher wage, than the course of events will alter, and we may possibly have hereafter to report that cottages and gardens, and education and wages in country places, are together offering attractions to the labouring man superior to those which are presented in the circumstances of our town population. There can be little doubt that when that happens, we shall have a longer list of labourers upon the whole than we have at present. That is an advantage affecting especially the very young, in which the town labourer is unquestionably at a great disadvantage.

Index to the Transactions of the Highland and Agricultural Society of Scotland. 1799-1863.

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Farm Memoranda.

LAUGHTON FARM, LINCOLNSHIRE.—In the course of a roundabout route—per Great Northern, Lincolnshire, and Midland railways to Northampton last week, we found ourselves in the Bourne and Fellingham districts of West Lincolnshire with a few hours on our hands. And having paid a flying visit to this neighbourhood in 1866, and having regularly seen for some years at Peterborough fairs the "cream" of flocks which have been reared thereabouts, we resolved to drop down at Laughton to see the conditions under which one of the leading flocks is produced.

West Lincolnshire is as purely and interesting an agricultural district as is now to be found in this country. Taking a line from Stamford to Skeaford, and on the road to Lincoln, before Lincoln Heath is reached, there are throughout the course small hills and valleys in an undulating form, which is pretty to look at, and at the same time not at all inconvenient or difficult for purposes of agriculture. These small hills rise above and lie within a short distance of the vast expanse of flat surface which stretches down to Peterborough, past Spalding to Wisbeach, and beyond Boston to the Wash. On the ridge of these elevations may be seen the smoke belching from factory chimneys at Spalding, 10 miles away, and Boston Church steeple, or "stump," as it is locally called, is conspicuous in the horizon 21 miles distant. These pictures, no features are remote, because, while they add to the pleasures of a tour and the interest of its reflections, they are intimately connected with the practical agriculture of the district to which we are now

especially referring, for most of the large and important breeders and farmers there are enabled to make the mark they do because a few farms are generally held in connection with their occupation on the higher ground.

One fine day last week, then, we spent with Mr. John Henry Casswell at Laughton, a name and farm now well known in Lincolnshire and many other counties from the superiority of the Lincolnshire rams and ewes which have been shown at Royal Agricultural and other meetings, and sold at Peterborough and other fairs. Mr. Casswell has two farms, as referred to, the fen farm being five miles or so away to the east, through Aslackby village and hamlet.

It would take too much space to relate separately and minutely the peculiar features of both these occupancies, but if we work up the two together the salient points of each will present themselves, and at the same time afford all the practical information on which can be imparted in a pen-and-ink description of farming. These upper and lower farms comprise 635 acres, two-thirds of which are arable, and one-third old pasture and permanent grass land. This year 1202 sheep have been clipped. Of these 370 ewes—the animals we felt most interested in seeing—have been lambed down. About 100 shearling ewes are "set" in the flock annually, so that as a rule allowing for casualties, the flock is renewed every four years. Of rams, there are generally produced, for sale and use 100 to 120, most of which are sold as yearlings, a few only being lot, and these are such as are not wanted, according to their descent, for use at home as shearers, although their particular strain and character may be required when the lambs, then growing up, shall have become of a proper age for breeding. This year the stock of rams is small, in consequence of the extraordinary drought and loss of the Turnip crop of last year, meaning, may, compelling Mr. Casswell to dispose of every sheep that was not really of the most promising character. But there are now 75 yearling rams in most excellent form and condition, and some among them are magnificent sheep, there is one in particular, which, we dare to predict, will cause some admiration at the Lincolnshire show this month, and some spirited competition among raw breeders should he be offered for sale or for a season's service. Beyond referring to the fine compact form, the well-marked features, bright complexion, and general pleasing appearance of this sheep, we will defer a full description of him till we see him in person. Besides the shearlings, there are 11 two-shear and other sheep, ranging in age up to seven years.

Now that we have seen the Laughton ewes with their compact, heavy frames, and straight, well-set legs, and their generally good and substantial form, which they necessarily endured last autumn, when they were so severely tried, that the fact of their being so good a figure of a public, and a profitable one to the owner, is beyond the calculation of outsiders, by practical breeders. The reason why the Laughton rams have made the highest averages at Peterborough for some years past is easily understood when the females of this flock have been seen fresh out of their coats with their last crop of lambs by them.

Before entering into the leading details of the system whereby this large and heavy flock is supported, and kept up to the state of perfection for which its owner is so famous, we will simply enumerate the other stock which is usually kept on these farms. The number of cattle is generally about 150, divided into cows, 3-year-olds—which are now going to market off Grass and corn, or cotton-cake,—2-year-olds, yearlings, and calves. About 30 cows are kept, on which, or by the milk of which, the calves are reared, and a finer and more thrifty stock of Shorthorn cattle than there is throughout this part of Lincolnshire where these calves are bred, we have never seen. A great and good bull among the cows is a sufficient indication of the spirit with which this department is also pursued at Laughton.

The methods of cropping these farms are,—on the upper land farm, a four-course system; and on the lower level, or "fen land," a five-course system. The first is fallow and Turnips, Oats or Barley, Clover or Peas or Beans, and Wheat. This high land is naturally a strong and poor one, and if it had not been for the large and expensive dock which Mr. Casswell has kept, this farm could not have been brought to the high condition in which it now is. After saying this, it would seem to be somewhat contradictory to speak in the next sentence of the way in which the Turnip land, the first round of the course, is managed, by the way it is necessary to keep such a dock on it at the autumn and winter season. But it only requires a little explanation to make these apparently paradoxical views perfectly consistent. For, in the first place, Mr. Casswell says:—"After spending 2/ an acre in artificial manure to grow Turnips, and 10s. per acre in hoeing and cleaning, this land is 1/ per acre poorer for growing Barley or Oats than it would be if the inexpensive course of long fallowing had been adopted." Thus, a crop of Turnips cost here, in manure, labour of sowing, seed, cultivation, and injury to the land, above 1/ per acre. This is altogether apart from the cost of preparing the Turnips for the sheep. But this Turnip-cropped and sheep-folded land has to have its reduced fertility restored either for the next cereal crop, or for the following Clover or pulse crop. And it is here where the other points of Mr. Casswell's liberal practice tell, for the sake and care given to the best rams and the other beasts in yards and sheds, places so large a quantity of richly charged straw-manure at its disposal, that the Clover and pulse crops are adequately fertilised, and the heavy crops of them which are grown the result.

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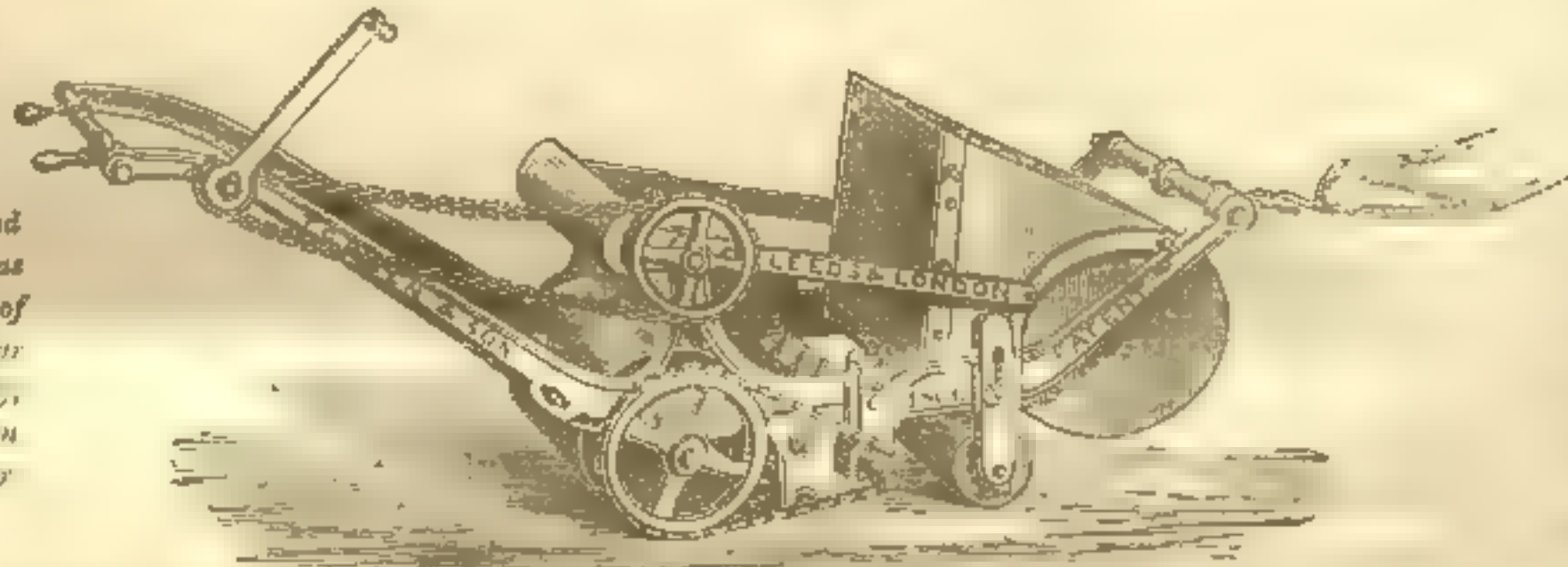
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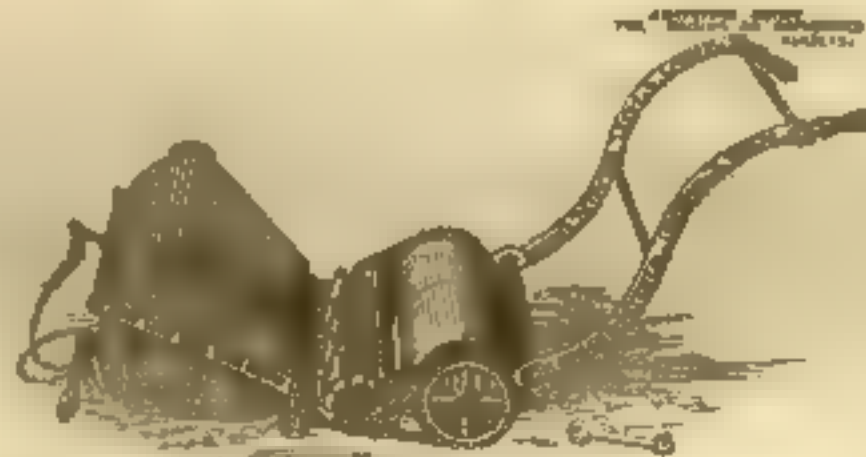
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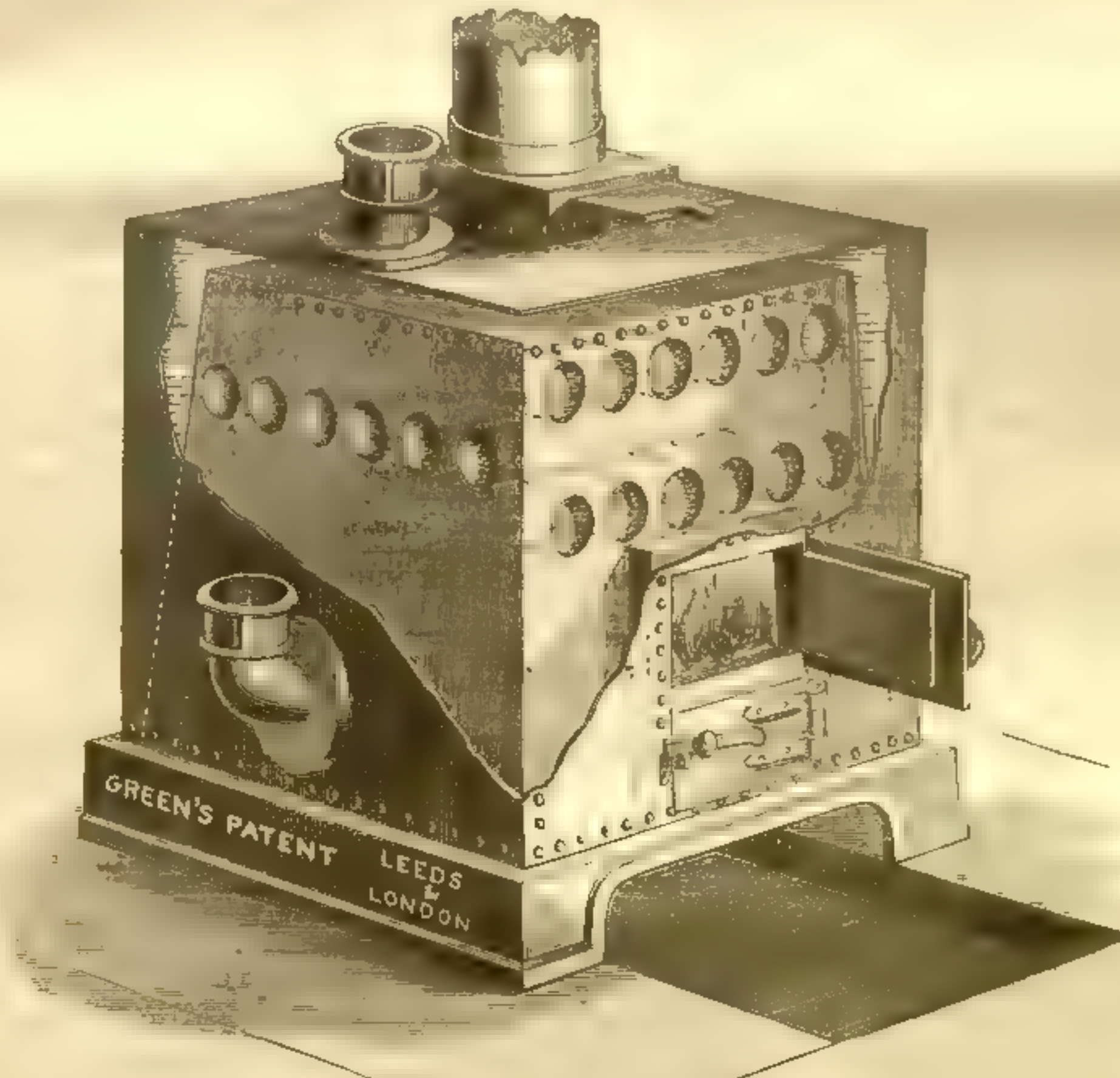
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It having been intimated to the Promoters of the above Bill that Members of the Seed Trade throughout the country are desirous of assisting in carrying the Bill through Parliament, it is hereby notified that SUBSCRIPTIONS for that purpose may be paid to the Treasurer, THOS. THORNTON, Esq., 2, St. Thomas Street, Borough, S.E. the Editors of the Gardeners' Chronicle, who have consented to receive Subscriptions, and by whom they will be acknowledged in the Gardeners' Chronicle.

The MEMBERS of the COMMITTEE of PROMOTERS of the SEED ADULTERATION BILL of 1869 who have each SUBSCRIBED £20 as a GUARANTEE FUND towards the expenses of the Bill, are—

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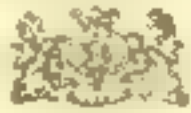
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J. ROBERTSON, 22, Mary Street, Dublin. THE COMMITTEE of PROMOTERS of the Bill.

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SILVER SAND (REIGATE), at the above addresses—14s. per Ton, 1s. 2d. per Bushel; 2s. per Ton extra for delivery within three miles, and to any London Railway or Wharf. Quantities of 4 Tons, 1s. per Ton less. A coarser grained Sand 4s. per Ton more. Samples of Sand by post on receipt of stamp.

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nine months. The plants were remarkable for compactness and vigour, and the fruit of large size (Cayenne and Black Prince, of 4 lb. to 7 lb. each), considering the plants which produced them.

Illustrative of the practice which we wish to inculcate, we may instance an experiment made more than 30 years ago. At that time some Pines, principally Black Jamaica, Montserrat, Antigua, Brown Sugar-loaf, and Havannah, ripened off their fruit from October to Christmas, and, as was usual at that time, each plant (three years old, threw up a quantity of suckers. As it was late to remove them, it was thought expedient to thin out the smaller ones, retaining two or three of the strongest upon each plant. From these the old leaves were stripped away, so as to expose the base of each sucker, and around these were placed some pieces of turfy loam, a fine growing bottom-heat being maintained by means of steam-pipes under the bed. The suckers soon showed that the arrangements were suitable to their requirements, and they grew accordingly. Early in the following February, a pit having been prepared for their reception, the suckers were taken off, potted into 8-inch pots, plunged, and kept moist. They grew with more than usual luxuriance, and by the end of April some of the most forward began to show fruit, and the others followed in quick succession. As the plants showed fruit they were removed into larger pots, and the result was that, in the September following, 15 fruit were shown at a local show, from those suckers, that averaged nearly 4 1/2 lb each. Nearly the whole of the plants fruited within the year. This, we think, is conclusive evidence of the value of the practice we recommend—a much more simple plan than that generally followed.

RASCALITY is beyond the pale of pity, nor can any right-minded person have a grain of sympathy for those who give way to attacks of kleptomania. Plant-stealing, and cutting-stealing, if we may judge from recent announcements, are deplorably on the increase, and require to be at once vigorously repressed, or they may grow to very serious lengths. It seems that exhibitions are the usual scenes of such depredations, and it certainly behoves the managers of them to have a sharp look-out kept to prevent any outrageous wrong being perpetrated on those who contribute to make up the exhibitions. The following letter speaks for itself, and needs no further comment:—

* There is in your issue of July 3, an advertisement from Mr. Wm. PAUL, respecting the loss of a cutting from one of his variegated Pelargoniums at the late shows in London, and we are sorry to have to record, from our own experience, that such losses are becoming far too common. At the last York show, some five or six of our plants were cut in a most outrageous manner; and at a subsequent show at Northampton, some person cut off the whole of a plant of one of our new varieties, worth about six guineas, leaving nothing but the stump in the pot. There is no disguising the fact that these variegated Pelargoniums appear to be a great temptation to some light-fingered people with dishonest propensities, so much so, that it becomes imperative that something should be done to protect these plants during the time they are in the care of the managers of the show, wherever it may be. The growers of these plants are now becoming very numerous, and all should have a common interest in protecting the plants. Would it not be well for them severally to state their views respecting the best means of securing the object in view? We may here remark that at a recent London show there was exhibited a plant of Jetty Looy, as large as our largest specimen, a variety we sent out in August last, i.e., about nine months ago, and of course it was distributed in small plants. It would have been utterly impossible for any one to have grown so large a specimen as the one shown since that date, indeed it would take some two years or more to accomplish. We lost a cutting of this variety nearly three years ago, when exhibiting at Brighton. This seems to be a curious coincidence; and we should feel greatly obliged if the exhibitor of the plant in question would communicate to us any information relative to the source from whence he obtained his plant, so as to enable us to trace the connection, if any, between the cutting we lost, and the plant exhibited. F. & A. Smith, The Nurseries, West Dulwich, S.E.

OUR readers will learn with satisfaction that the Council of the Royal Horticultural Society, anxious that the PAPERS to be read at the Manchester Meetings should be made public as soon as possible, and having no publication of its own available for that purpose, has decided to place them in our hands. The papers, it will be remembered, were by the terms of the invitation to remain at the Society's disposal. We need not say that, having taken a leading part in organising these meetings, we are glad to be able to render our aid in this extending their usefulness. We shall publish weekly until they are exhausted and at such length as our space will permit an instalment of

the essays, which, we may add, prove to be of a most varied and interesting character.

The following is the PROGRAMME of PAPERS to be read at the Manchester Meetings of the Horticultural Society. The proceedings commence at noon on each day:—

- July 11.—W. WILSON SANDERS, Esq., F.R.S., &c., in the chair.
 1. On the Pruning, &c., of Fruit Trees, as affected by Soil, Climate, Stocks, &c. By Mr. A. F. BARRON, Royal Horticultural Gardens, Chiswick.
 2. What Soil is best suited for the Production of Grapes? By Mr. A. CHAMBERLAIN, to the Earl of Duca, Fortworth Court, Wiltshire.
 3. On the Prospects of Hybridisation. By Major R. TRAYNOR CLARKE, Welton Park, Doncaster.
 4. On the Improvement of Plants by Selection, Hybridisation, and Cross-breeding, having special Reference to the Tulip, and the Rose. By Mr. WILLIAM PAUL, Paul's Nursery, Waltham Cross.
 5. On Foreign Seeds found mixed with Cotton. By R. H. BARRON, Esq., Huddersfield, Lancashire.
 6. On Edible Passion-flowers. By MARY W. MASTERS, M.D.
 7. Critical remarks on Pruning and Training Standard Rose Trees. By Mr. W. EARLEY, to F. FRYOR, Esq., Digwell, Weymouth.
 8. On the result of a few Experiments with Sub-tropical Plants at Battersea Park during the winter of 1886-7. By Mr. J. GIBSON, Superintendent, Battersea Park.
 9. Bottom Heat, its Use and Abuse. By Mr. J. STANISH, Royal Nursery, Ascot.
 10. On the Culture of Chrysanthemums. By Mr. R. FLEMING, to R. BOURGON, Esq., Sandhays, Waterloo, Liverpool.
 11. Nature's Scavengers—Plants as Sanitary Agents. By Mr. D. T. FISH, to Lady GULLON, Hardwicke House, Bury St. Edmund's.
- July 12.—Major R. TRAYNOR CLARKE in the chair.
 1. On covering Walls with Glass for the protection of Fruit Trees. By Mr. W. TILLERY, to the Duke of Portland, Welbeck, Worksop.
 2. On Smoke versus Vegetable Life. By Mr. E. GREEN, to Col. the Right Hon. J. WILSON-PATER, M.P., Bank Hall, Warrington.
 3. Is the Designing of New Works by a Gardener advantageous while continuing to serve as Gardener the same employer? By Mr. G. MACDONALD, to Colonel the Right Hon. W. F. TIGHE, Woodstock Park, Luistigo, Ireland.
 4. On Repeated Grafting of young Fruit Trees. By Mr. J. WILSON, to Lord STAFFORD, Cossey Park, Norwich.
 5. On various Methods of Grafting, with an attempt to inquire into the Influence which the Stock exercises upon the Scion, and vice versa. By Mr. P. GIBSON, to the Rev. E. R. BENYON, Cullford Hall, Bury St. Edmund's.
 6. On Vine-borders their Construction, Heating, &c. By Mr. C. A. PEARSE, to R. E. E. WARRINGTON, Esq., Arley Hall, Northwich.
 7. On Plant Life and its Teachings. By Mr. J. ANDERSON, to T. DAWSON, Esq., Meadon Bank, Uddingston.
 8. Remarks and Experiments on the Application of Water to the Roots of Plants growing under glass. By Mr. T. REED, to Col. E. LOYD, Lillsaden, Staplehurst.
 9. Notes upon Orchids. By Mr. B. E. WILLIAMS, Victoria Nursery, Upper Holloway.
 10. Horticultural Exhibitions their Influence on Gardening. By Mr. T. BAILEY, to H. L. MICHELLS, Esq., Summerfield, Bowdon.
- Horticulture for the People. By Mr. A. MEIKLE, to Mr. J. H. Whalley.

Intending Exhibitors at Manchester will be glad to learn that there is a tolerably good road from the adjacent railway siding into the Horticultural Society's Exhibition ground, and that the railway authorities will draw vans into the show ground. These facilities will, no doubt, be fully appreciated by those who have many plants to move.

We are requested to announce that arrangements have been made by which any horticulturists, who may desire to dine together at Manchester, may participate in the JUDGE'S DINNER, on Monday next. The position of the gentlemen upon whom these censorial duties devolve, and the probable presence of additional representatives of the Floral and Fruit Committees, will impart quite a horticultural character to the little assembly, and will make it a fitting nucleus for the more extended gathering which seems to be desired. Indeed, such a social gathering as this, appears to have many advantages over a more pretentiously-organised dinner. Tickets (3s. each, we believe) will be obtainable on Monday morning, at the Exhibition ground, from the Refreshment Contractor.

We learn officially from Hamburg that the Queen's Silver Cup, mentioned by us at p. 757, is to be given for the best three bunches of Grapes. We have also received information of the following reductions in the freights on the lines of steamers running between Great Britain and Hamburg, and the Custom-House facilities for articles of exhibition:—

- 1. Reduction of Freight. To entitle exhibitors to a reduction of freight on the different steamship lines, they are requested to label the objects to be exhibited as going to the International Exhibition of Horticulture at Hamburg, and to address them to Messrs. W. Grund & Co., in Hamburg. All invoices and declarations must be accompanied by the certificate of admission, which the committee send post free upon receipt of the forms of application for certificates, filled up. A reduction of 50 per cent. on the freight out and home is granted by the General Steam Navigation Company's Messengers (London—Hamburg), the steamers of Messrs. Pearson & Langens trading between London and Hamburg, the steamers of the united companies trading between Hamburg, Hull, Grimsby, and West Hartlepool, the Messrs. H. J. Penhach & Co's steamers (Hull—Hamburg), the Messrs. Grimsby line of steamers Messrs. G. & Co's steamers (Hull—Hamburg), the H. & L. Steam Packet Company; the West Hartlepool Steam Navigation Company. For persons accompanying exhibition articles an abatement in the fares will also be allowed. A freight reduction of 50 per cent. will be made on all perishable articles transmitted to Holland, and for articles not liable to spoil the regular outward freight will be charged, but they will be conveyed back freight free by the Leith, Hull, and the Hamburg, Steam Packet Company, and the Liverpool—Hamburg line of steamers. The term allowed for return tickets is extended to the end of September.
- 2. Customs-House Facilities.—The Exhibitors will be glad to learn that all exhibitors will be allowed to take out duty free. With regard to articles coming from the Zeyher, we would call attention to the following regulations:—A special article has been submitted to a special examination at the Custom House of the place of loading, and have been placed or sealed, will be allowed to be re-entered

duty free on their return at the same Custom-House providing the identification of such articles is indisputable. Agricultural produce, viz., seeds, &c., is excluded from this privilege. B. Articles subject to export duty are allowed to be exported duty free, and need not be re-imported if it is proved that they are actually sent to the Exhibition. C. Every possible facility will be afforded to all articles cleared at the Custom Houses coming or going. The last clause is particularly A refers only to such agricultural produce which is not identified. It must be particularly understood that articles which are liable to duty get changed, and should the official marks of identity become obliterated, will not be allowed to be re-entered free of duty.

In the present issue we have given a translation of extracts from the important memoir of M. PLANCHON on the INSECT which is so DESTRUCTIVE to VINES in France, and which is unhappily widely distributed in this country. We hope in the course of the summer to be able to determine whether the insect on Vine leaves, which is clearly congenic, belongs to the same species, a point which it is highly necessary to determine, as the prompt destruction of every affected leaf might greatly diminish the evil. Our impression is that the species is much larger, but at the present moment we are unable to determine this point. Meanwhile we have made accurate measurements of the insect and eggs, from roots which we have received from the neighbourhood of London, and from Derbyshire. We observed that the ultimate joint in the young active insect is transversely ringed, which we have not found to be the case in the adult. Mr. DUNN, the intelligent gardener of Lord Powis-COURT, in whose domain we had first an opportunity of studying the insect, in 1867, informs us that he succeeded in mastering the plague to a great extent, and has promised later in the season to communicate his plan. The point illustrated by M. PLANCHON of the occurrence of winged females, is one of great importance and importance, and requires fresh confirmatory observations, as it might possibly be some parasite, though the figure, which is not however very satisfactory, and the accompanying observations, militate against the notion. M. CARRIÈRE promises at a future occasion details as to the remedial measures which give the best scope of combating this serious pest. We may also refer to the article and figures of Professor WESTWOOD, published at p. 677 M. J. 2.

The curious little GREENOVIA exhibited by Messrs. E. G. HENDERSON & CO. at the last meeting of the Floral Committee illustrates very well the structure of the Rose flower as explained by M. CASPER DE CANDILLE. In the GREENOVIA the leaves are arranged apparently around and within a hollow cylinder, the bricks of a chimney. This appearance is obviously due to the arrested growth of the true summit of the stem as compared with the lower and outer portions, in consequence of which the real apex of the stem is at the bottom of the cylinder. Now M. DE CASPOLLER'S view as to the structure of the "calyx-tube" in the Rose and similar flowers, is that the organ in question is a ring-like projection from an axis whose further direct development is arrested. The secondary projections, or growing points, correspond to the several fibro-vascular cords of the primary ring, and are ultimately developed into sepals, petals, stamens and ovaries. In the case of the Sempervivum the growing points have developed into leaves, and leaves only.

THE NEW VINE DISEASE.

The following is extracted from the *Revue Horticole* 1887, p. 420:—This disease is caused by an insect, *Phylloxera vastatrix*, J. E. Planchon, 'Comptes Rendus Institut,' 1868, p. 588; Rhizophis vastatrix, J. E. Planchon, *ibid.* p. 33. According to some authors it is to be assigned to the genus Rhizobius. The insect though it has been only known for a short time, already bears several names, and may probably still have others. As it is scarcely sufficiently known at present, the nomenclature, however, is of little consequence in regards our present object. The account given by M. Planchon is as follows:—"I am going to resume, briefly, what a series of observations made on the spot in the course of these short visits, have taught me respecting the insect in concerning its habits, when raised in glass tubes during forty consecutive days. "The most prevalent form is that in which there is a trace of wings. The adult female, in the act of laying its eggs, presents a little oval mass, closely applied to the root by its lower flattened surface, but convex above, and surrounded by a little raised border of the thoracic portion, which consists of five rudimentary segments, obscurely separated from the abdominal portion, which has seven rings (somites). Six or seven little soft tubercles project slightly on the first three segments, and are faintly continued under the marginal ring. The head is always concealed under the exterior projection of the thorax the anterior end of the abdomen is always depressed. The abdomen, therefore, is more or less contracted, is more or less elongated, and the eggs are about to be laid, and by reason of the difference exhibits one or two, more rarely three, eggs a greater or less state of perfection. "The egg is yellow during one, two or even three more days after it has been deposited, but frequently the bright yellow changes to a greyish or dull red. It hatches in from about five to eight days, according to the temperature. "The rapidity and abundance of the deposit depend probably on variable circumstances, the health of the mother, the quantity of nourishment, the temperature, and perhaps other causes. A female which laid 15 or 20 eggs on the 20th of August at 8 o'clock had 15 or 20 on the 21st at 10 o'clock in the evening, that is, nine or ten. The maximum seems to be 40, as appears from an observation of a female between the 19th and 21st of August.

In general the eggs of the same laying are crowded in a mass round the mother, without any apparent order. Nevertheless, she changes sometimes the direction of her abdomen and head, so as to turn quite round, and spread her eggs in every direction. The eggs, which have a very smooth surface, adhere but feebly either to the root or to each other, by means of a slight viscosity.

The young insects escape by means of an irregular hole, which is frequently lateral, and near to one extremity. The shell remains for some time empty and shrunk amongst eggs in different degrees of evolution.

During the first days of their active life (from two to five, according to circumstances), the young move about freely. They wander here and there to find a place to fix themselves; they are more active than when full grown, and appear to apply their antennae to the space which they traverse. The movement of the antennae is generally alternate; one might call them the arms of a balance, or, if the comparison may be pardoned the two sticks of a blind man with which he feels the ground as he advances.

After a variable duration of this wandering life the young plant-lice fix themselves at some determinate point; this is most frequently in a crack in the bark, where their proboscis can easily be plunged into the cells of the young tissue, which is full of juices. If a fresh wound be made on the root by the removal of a piece of bark, it is on the circumference of the wound, and on the section of the medullary rays, that they arrange themselves. When once fixed, we see them apply to the root their soon immovable antennae, which look like two little divergent horns.

At this period of their life, from the third to the fifth day from birth, they are more or less sedentary. Nevertheless they change their place from one time to another, especially if a new wound be made near them which promises succulent nutriment. What is the sense which so surely directs these subterraneous wanderers towards the spot which suits them the best? I cannot be sure, for their eyes are simple pigmentary spots, and their gait is that of the blind. It cannot be smell, since they merely seek a vegetable tissue. It is more probably smell, and we may inquire whether the antennae are not the organs of this function, since locality has been so much controverted.

Amongst the non-adult insects, fixed by their proboscis to the roots, we see here and there some of a somewhat ate size, and generally of a deeper orange, more abdomen, relatively shorter, seems more truncated behind. These individuals seem to move about more than the others, and I have sometimes followed them as possibly being males. Nothing, however, has confirmed this very problematical hypothesis, and as I have seen undoubted females approaching those in which of colour and form, I am inclined to doubt any such distinction.

A double moult precedes the adult state, the first always after birth, the second a little time before depositing the eggs. There is, however, some uncertainty about the number of changes, the empty shells being found mixed in a group of plant-lice of different ages, without its being possible to come to any decision.

On the morbid tuberosities of the deeper roots, or on the rootlets, they are perhaps better nourished, and seem to undergo more rapidly their different transformations. They are also of a paler yellow, passing into pure green, without, however, there being any specific difference.

What, however, may be considered as a distinct species or even genus, is the winged state of Phylloxera. The rare individuals which I have met with all come from individuals nourished on the roots of Vines lately attacked. In the young state (or we may call it the larva), this resembles the wingless type. Presently, however, the thorax is more defined; a distinct constriction separates it from the abdomen, the bases of the wings, under the form of triangular tongues of a grayish colour, appear on the two sides of the thorax, and we at once foresee that the result will be a winged insect.

As soon, in fact, as we see one of these nymphs quit the place where it was more or less fixed, and run over the root or the walls of the vial in which it was reared, we may consider it as the sign of an approaching transformation. Presently, instead of a sort of plant-lice, we see, close to a transparent skin, an elegant little fly, with four horizontally crossed wings, exceeding greatly the length of the body.

It is impossible to have any doubt as to the specific identity of this insect and the form which swarms on the roots. The details of the structure of certain organs, antennae, feet, tarsi, proboscis, &c., establish the identity.

The horizontal carriage of the wings perfectly distinguishes Phylloxera from true aphides, in which the wings are more or less inclined upwards. The two superior wings are obliquely obovate, cuneiform, have for more than the basal half of their outer margin a linear border, slightly dingy, between an interior nerve, which I suppose, to the radial. A single oblique nerve is detached from this last, from about its middle point, and is prolonged to the inner border. These, perhaps, are not nerves, but rather folds, for I have frequently ascertained their absence.

The inferior wings are narrower and shorter, with a median nerve running from their base beyond their middle point, and which is lost in a slight projection which the wing shows at this point, a short radial nerve runs parallel to the first, and disappears before reaching the extremity.

We find it attached in the first instance to young succulent roots, in which they cause a little swelling with a depression on one side, in which the insect with its eggs is lodged, the subjacent tissue soon becoming diseased. M. J. B.

The eyes, relatively, are very large, and of a black colour, they are irregularly globular, with a very strongly marked conical projection; their surface is granulated; a punctiform depression is hollowed out in the centre of each papilla, a circular ocellum is seated in the centre of the forehead.

Amongst the 15 examples of Phylloxera which I have observed, none has presented any sexual difference. Almost all have laid two or three eggs and have died soon afterwards, perhaps in consequence of being confined in the vials. The eggs, like those of the wingless insect, to the number of two or three, fill the entire abdomen of the mother. We see them easily by transparent light if we compress the insect on the stage of the microscope. I know not how long they take to hatch, or whether they always yield winged individuals.

It is probable that these winged specimens serve for spreading the malady to a distance, not indeed that their wings serve for a long or continued flight. They generally remain immovable, and but seldom move their wings by raising them up, but without quitting their plane of position. I suppose, however, that the wind is the principal agent in the dispersal of the Phylloxera, as is sometimes the case with ordinary aphides.

At all events, the knowledge of this winged form and aerial habit easily explains facts which were before matters of perplexity as, for instance the dissemination from centres of invasion in vineyards. As regards nearer dispersion, it may be produced by wingless individuals, which, grouped in great numbers at the foot of plants already affected, would perhaps, send out their swarms to neighbouring healthy vineyards.

We may inquire, in this case, what path the insects take to arrive from one plant to another, and especially to reach at once the extreme rootlets of recently attacked Vines? Do they make their passage through the soil, or, rather, on its surface—during the coolness and obscurity of night, working their way down by the fissures of the bark? This conjecture seems the most probable, and is supported by an experiment which I made in the following manner—

In a case about 40 inches long (one metre) I put some garden soil from Montpellier, free from insects. I placed carefully in this truncheon of Vines infested with wingless Phylloxera. I covered each truncheon with a bell glass, slightly raised on one side, to allow the insects to get out. At about a fourth of an inch (3 millimetres) I placed fragments of sound Vines roots, on which I had made fresh wounds, such as the insects affect. In 1 1/2 hours these insects had migrated to the nearest root, and some days after 20 had reached the same fragment. The other fragments received also a small number. One did not receive any. It must, however, be confessed that there were few individuals on the nearest truncheon capable of moving.

A similar experiment, but in soil already infested, was made at my suggestion by Monsieur T. Leydier. It gave only negative results. One would, however, be glad to learn that the invasion was made only from the surface of the soil, for in this case the smearing the base of the Vine with gas tar might present an insurmountable obstacle, whereas in the other case prevention might be extremely difficult.

THE SUMMER CULTIVATION OF WINTER AND SPRING FLOWERS.

No careful observer can have failed to observe that there are flowers and flowers, and that although the two sets may be the same they are by no means alike. Much depends upon site, soil, and climate, more, possibly, upon skill. Doubtless a horticulturist the latter is one of the weightiest factors in determining the sum total of nett results. Skill at once multiplies and improves our resources, and enables us to dispose of them in the most effective manner, either for use or enjoyment. In the early harvest of winter and spring flowers it is emphatically true, that as a man soweth so shall he reap. He that sows skill shall reap beauty. He that sows ignorantly shall reap springly. He that trusts to chance, and neither dies nor sows, nor cultivates, shall probably not reap at all, or find to his sorrow that Nature, however bountiful at other times, provides no rich chance harvests of beauty amid the shivering blasts of winter. Hence, the foundations of winter and spring beauty must be deeply, broadly laid in the vital energy of the plants during the previous summer. The oblique rays of our wintry suns can create no flowers. It is as much as they can do to liberate and let loose the superabundant of the summer's glory to brighten the bleak earth and lay on skies of frost-bound, snow-wreathed winter. The silver sheen of the Snowdrop, the golden glare of the Crocus, the azure blue of the Forget-Me-Not, are each and all but the carefully treasured fragments that remain.

The summer cultivation of winter flowers consists in the storing up of the products of the summer's rains, air, and sunshine, to become the light and the beauty of darker days. Then the winter sun creeps forth timidly, begeth with a golden key that can unlock the store-house, and reveal the pearl of great price and beauty within. But when no key has been made, no flower formed, while the summer sun shone, then, of course, the house is empty, and no beauty is revealed.

Far be it from me to declare that we can make or not make flowers absolutely and positively at pleasure; yet doubtless, we can determine the course, the destiny, as it were, of vital force to a very great extent, and can guide it into leaf or stem, or concentrate it into blossom by the leadings of our skill. The fault of failure is oftener in ourselves than in the fates or the skies. Vital action compounds the products of plants from a sheathful of sunbeams, a breath of air, a morsel of food, and a drop of water, and it depends largely upon our skill whether these products are to be leaves, stems, flowers, or fruits.

Standing close by the great fountain of vital force, it is ours to direct the current very much at our will, and such direction of energy to predetermined ends we call cultivation, leading, or, if "F. N. B." prefers it, "nursing," not, however, using the term in the sense of rendering tender, but in that of taking proper care of judicious nourishing, and guiding aright. It seems needless to remind your correspondent that this taking care for the present and thought for the future, is as needful for hardy plants as for any others, if their highest development is aimed at, or their most effective setting provided for. Wise culture does not enfeeble but strengthens plants, directs their energy into any given channel, such as root, leaf, or flower, and modifies their power of enduring heat or cold. If not this, and much more than this, be true—and it is—it follows that no plants need more careful cultivation than those appointed to bloom in winter or early spring. And for this reason, plants growing or blossoming at other times may receive some assistance in the shape of new material added to their substance on their journey, but these can derive little or no external assistance. They must start with sufficient vital force, and a large enough stock of organizable matter to carry them over and through the entire stage from dormancy to perfect indifference. Hence the special importance of the most careful preparation. In sending ships out to the arctic regions what a profusion of stores are provided. We should act exactly on the same principle with our winter blooming plants. Let us fix their tissue to rejection with summer sunshine. Every ray of it will be a step little before the winter is over, and the entire flowering stage passed through.

Grow, therefore, the lovely *Myosotis disilliflora* and alba—what a gem this will prove—*Alyssum*, *Aubrietia*, *Arabis*, *Viola*, *Heartsease*, &c., right in the eye of the day, that that eye may sparkle with summer brightness from our wintry flower beds. Thus will the energies of the sun be focussed as it were, and transformed into floral envelopes, to be unfolded in all their beauty to enhance our dreary months. Only by such a skilful husbandry of summer sunbeams can we enjoy to the full a harvest of beauty in winter, and every energy and talent should be bent to increase the store. The primary object, then, in the cultivation of such plants is not an extension of parts but a concentration of all the forces of Nature into the formation and maturation of blossom buds. Having provided a sufficient number, the next object is to constitute each individual plant such a centre. Each must become a candle, to give light in winter. Each flowerless plant is simply a candlestick candleless—a fruitless fruit tree, yielding no centre to the general illumination. But it would be just about as reasonable to expect a candle when the light was gone, as to expect winter flowering plants to form blossoms in the flowering quarters. Candles and flowers alike must be provided beforehand, if the light or full measure of beauty is to be enjoyed in the dark, or in winter.

Is the winter blooming quarter a matter of indifference? By no means. The highest authority has given instruction about the placing of candles, and the same rule holds good in regard to flowers. The question resolves itself mainly into one of where and how they can be best seen. Let their light and glory so shine that all eyes may see them together, and this one condition of effective setting is secured. It is implied of course that the setting will be consistent with it not conducive to health—with this reservation, the base line of our favourites should be adapted to their habits and character. As a rule all such plants as the *Myosotis* best flourish best on irregular mounds. But this is a different thing to the statement that they will only grow or blossom freely in such positions. On the contrary, there is no *Forget-Me-Not* to equal this on the flat, either as rows or in masses though it is still more beautiful and a month or six weeks earlier, on raised banks. But the advantages of irregular base lines are not confined to the exhibition of one or two such families. I make bold to affirm that all herbaceous plants look best on uneven ground, while a garden of early-flowering bulbs so disposed, like irregular waves of flowering beauty, would prove irresistibly charming. Even our usual bedding plants would be infinitely more interesting if the heavy tameness of our flat masses was broken up by an artistic undulating base.

True, the art of culture may be unimpaired by the disposition of our ground lines. But the equally important art of disposing of the products of the best manner is largely dependent upon the configuration of our base. In a garden where the surface for the exhibition of floral beauty is an undulating plain, the footsteps of Nature for a long time have variegated the surface of the world with out-cropping mountains, and scooped out valleys, the better to display the richness and grandeur of her covering robes of beauty and glory; and one of the greatest improvements that could be effected in our gardens would arise from our going and doing likewise.

D. T. Fish, F.R.H.S.

The Golden Champion Grape. — As a member of the Fruit Committee of the Royal Horticultural Society I need not say how deep an interest I take in all new fruits of merit. This must then be my excuse for sending you these few remarks regarding the above noble Grape. On Monday, the 11th inst. I made a hurried call at Stoke Rochford Gardens belonging to Christopher Turner Esq. Here Mr. Turner, an intelligent gardener, had planted a *Vitis* some 11 or 12 feet wide, by 45 to 50 feet in length, with *Golden Vines* in May, 1868, all of which were doing remarkably well, and concerning which I hope, with your permission, to say a few words by-and-by. Amongst the many varieties of Grapes planted thereon, the *Golden Champion*, though planted at a later date than the above, had shown eight very fine bunches. These, as

Home Correspondence.

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they grow so rapidly (the age of the Vines being taken into consideration), were reduced to three bunches, each of which exhibited the true characteristics of the Grape as it has been previously shown. The robustness and vigour of the wood is remarkable—more like, in fact, those of a vigorous Trabbiano than otherwise, some of the leaves measuring at least 12 inches across, and with young wood of the current season's growth up to 2 inches in circumference. At the tips of the young laterals, which were forming upon the young wood, I noticed (in one instance) two fair-sized bunches of flowers. These, though only just perceptible, indicate that this variety is as prolific as any amongst our best older ones. Taking the merits of this variety all in all, as seen here, I am more confirmed in my good opinion of it than ever. *Wm. Earley*

Rats v. Peas.—I have been victimised by rats. As my crops of Peas come to maturity, the rats eat them, so that I have hardly had a dish of Peas this year. We have tried poisoning, shooting, trapping, but all to no purpose. The rats still continue the gardener's master; and, as I am as fond of a dish of green Peas as the rats are, I seek your valuable aid to help me to thwart the persevering marauders. *An Old Subscriber, Co. Meath, Ireland, July 12.* [Try a ferret. Eds.]

Reward of Merit.—I am quite sure the majority of your readers will coincide with the excellent arguments which you bring forward in support of a decoration for those who deserve well of their country, and have, by their skill and example, tended not only to enrich it, but render it the emporium of the civilised world. It is no pecuniary reward that is required, I feel sure this would be considered as an insult, and tending to depreciate, instead of to honour the recipient; let it be simple, but let the donor be regal. Coming even from the Council of the Royal Horticultural Society would not give it sufficient weight; they might advise, but not bestow it. In France how many of the leading horticulturists have the Legion of Honour conferred by the hand of the Emperor himself, and should not skill and industry meet with like reward in this country too? Our fruits, our gardens, our plants, in fact the whole of our horticultural productions, excite the surprise and admiration of all who visit us, and is it just that the "pioneers" of the profession have no decoration which they may exhibit with honest pride, and hand down as an heirloom to their children's children? *William Heale.* [The proposed recognition, whatever form it assumes, should not be so widely distributed as the French "Legion of Honour." It is a question whether those undecorated are not adorned the most in that case. True the Sovereign is the fountain of honour, but in this country, at any rate, the only fountain in the least degree applicable to horticulturists is that of the "Bath." The reward should, in our opinion, come from some society or other body capable of appreciating the worth and achievements of the individual. Where is the honour of being decorated by some one who knows nothing whatever of the merits of the case. Eds.]

Foxgloves.—A few days ago we sent you a small box of Digitalis blooms we now send some flowering spikes. These Foxgloves are now flowering profusely amongst our Rhododendrons (which are now over, and are very striking objects, and really deserving of extended cultivation, taking into consideration the small attention they require in their cultivation. *Stuart & Mein, Kelso.* [Very fine examples. Eds.]

Large Rhododendron at Aigburth.—Herewith I send a photograph of a Rhododendron growing in the grounds of J. A. Tunn, Esq., which has been a fine feature on the lawn this season. It is a hybrid from the old R. ponticum, and is 15 feet 8 inches in height, and 11 feet in diameter. Such plants are a grand and telling feature in pleasure grounds. Are there many such plants to be met with? *G. Forbes, Brinsley, Aigburth.*

A New Fruit Growing Idea. In the *Saturday Review* for July 10, I read that "the stiff, loamy, and wet soils" of England, so hostile to fruit culture, are adapted to the culture of Apples, providing the trees are grafted on the French Paradise stock. This peculiar opinion of the reviewer is perhaps scarcely worthy of notice, because there seems to be a want of horticultural knowledge in the article he has written. Still an erroneous idea may spread and do mischief. It is not therefore asking too much to request some fruit grower or growers to give their experience as to the cultivation in England of Apple trees in swamps. I have a small plantation of fruit trees in a wet loam, which owing to its level cannot be drained; the soil is friable and favourable to look at, but neither Pears or Quince stocks, nor Apples on Paradise stocks, nor Plums, will flourish—their leaves curl, and the trees are always blighted. The trees should be several years old, and growing in one place, as they often grow well for a year or two, and then canker. *Inquirer.*

Walnut Trees.—Can any of your correspondents assist me in the following? I have some fine old Walnut trees, showing strong symptoms of rapid decline during the past two seasons. Three years since, water stood at 7 feet below the surface in this district, the main drainage has now lowered it to 36 feet below. Can this be the cause? It is supposed to be so. Near Melbourne they saved the splendid old Gam trees, which were fast decaying, by digging a deep trench and of ample width, close round the tree, leaving it open for some time, and then refilling with better soil. My trees stand on the edge of a large lawn, having a walk of 5 feet and a thicket of Lilac, &c., beyond. *A. W. Eastwood, Denham Lodge, Hammersmith.*

Cut Herbaceous Flowers.—These are often included in schedules of prizes, but it is only rarely that they are well or tastefully shown. In the schedules of nearly all provincial exhibitions there are classes for these as well as for collections of cut flowers, but seldom is it they are well shown. I have seen the latter staged in a simple and effective manner—a tray of sand, and a stick as many flowers as

he possibly could, through all sorts of monstrosities and ridiculous types, inclusive of what the Rev Mr Hole once happily termed a "floricultural dollop," and culminating in something that would have done for an umbrella stand, or, had it been more durable, served the purpose of a clothes-horse in a children's nursery. The latest development of form was that of a beehive surmounted by a design composed of Grasses, Foxgloves, &c. as if elaborate preparations had been made for a grand display of floricultural fireworks en masse, to be let off towards the close of the exhibition. Unfortunately there is frequently a great deal of vagueness in the wording of schedules, and exhibitors must often be at a great loss to comprehend what it is the promoters really require—on the supposition that they know themselves. At the recent show of the Ipswich Horticultural Society, cut flowers of herbaceous plants were very finely shown, though it was only one of many fine features in a thoroughly good provincial show. There were two classes—one for 18 and one for 12 bunches of cut flowers of this character. Seven stands competed in the two classes, and the worst was better than is generally seen. They were shown in neat bunches, with just enough foliage to relieve them. The flowers consisted of Delphinium formosum and Hendersoni, Spiraea Ulmaria, S. japonica, and S. umbrosa; Alstromerias, in variety, Centranthus ruber, and a pale rose-coloured variety as well, Iris germanica and I. anglica, in varieties, Scilla peruviana, Tangier Peas, several varieties of Dianthus hybridus, Diotamnus Fraxinella, Veronica spicata alba, Stenactis speciosa, Campanulas coronata and persicifolia, both blue and white, Prunella grandiflora, Baptisia australis, Pentstemon, Anthericum Innastrum, Gaillardia Richardsoni, the double red Lychnis, Melittis Melissophyllum, Gladiolus byzantinus and G. Colvilli, Tritonia aurea, Lathyrus Lindleyanus, Stachys coccinea, Borage, Aconitum Napelias, and Canterbury Bells. Without exhausting all the subjects shown on this occasion, the foregoing may be regarded as the very cream of them. The Prunella grandiflora produced on this occasion I take to be identical with that which is to be seen in Mr Barron's capital perennial border at Chiswick, under the name of P. pennsylvanica. This border furnishes a few good things just now in the way of perennials treated for exhibition purposes, such as the beautiful Pentstemon Jaffrayanum, Chelone barbata coccinea, the purple and white double Rocket, N. erenbergia frutescens, and the new Rose Canterbury Bell, both single and double. In addition to these, the different varieties of Anemone japonica should not be overlooked, or the red and white Everlasting Peas, the new spotted Foxgloves, double Pyrethrum, &c. There is, indeed, no lack of fine perennials for exhibition purposes; and if many of the prizes that are given at country shows for, and foolishly wasted on wild flowers, were bestowed on collections of perennials and annuals the result would be a great gain to the effectiveness of the exhibitions, and the clearing away of much rubbish. What is to be done with wild flowers. I may say that at a recent exhibition of the Erith and Belvedere Horticultural Society, in Belvedere Park, there was in the schedule of prizes a class for a "collection of cut wild flowers and grasses, open to the children of a classes residing in the parish of Erith," the sum of two guineas having been ingeniously split up to yield 24 prizes, and the astounding number of 278 exhibitors competed for these prizes. One small tent was completely filled with about 180 of these collections, of all sizes and shapes, while the remainder found a resting-place under the shade of a grand old Oak from the little handful of grasses and flowers gathered by the roadside, and simply tied together with a Rush, to designs (actually the want of design) so utterly incomprehensible and yet so elaborately constructed that one could not but heartily desire so much labour had been more worthily expended. Botanical science has much to be hopeful for in the future if 278 children of the parish of Erith can be induced to explore the locality for collections of wild flowers in the hope of getting one share of two guineas divided into 24 portions, but no one thinks that one in 30 of these collections are obtained or arranged by children. Those who believe otherwise indulge themselves with a pleasant fiction for it is the parents of the children who arrange and exhibit. *Richard Dean, Erith, W.* Nothing can be worse than to encourage the exhibition, and too often at the same time the wanton destruction, of the wild flowers. If teaching is the object, take the children out into the field, and instruct them there. Eds.]

Honeydew.—I am obliged to Mr. Thompson and Professor Westwood for their attempt to correct me on the subject of honeydew; but I regret that I cannot bow to their theory. The learned are, and always have been, at variance on the subject. The only book in my possession to which I can refer on the subject is the "London Encyclopaedia." Under the word "honeydew," I read as follows:—"A term frequently applied to a clammy saccharine substance which is often seen covering leaves and other parts of different trees and plants, at some particular season of the year. It does not appear that the cause of this extraordinary appearance is yet fully understood, as it has not by any means been well ascertained whether it derives its origin from external circumstances or some morbid affection of the vegetables themselves. It is generally supposed, however, to be the production of insects." It then says, "See Aphid." Under this head the same doctrine is propounded, as the opinion of Mr Curtis, as was lately given by Mr Thompson and Prof Westwood, viz, that it is caused by aphides. The only other passage referring to it I find under the head of "Hops" in the same work. It is as follows:—"The Honeydew mostly occurs after the crops have been attacked by these kinds of insects (the green and long-winged fly, and when the weather is close, moist, and foggy. In this

case a sweet, clammy substance is produced upon the leaves of the plants, which has the taste of honey, and which at first present a shining appearance, but afterwards soon become black. It is a disease that mostly happens in the more forward crops, and the chief dependence of the planter for its removal, according to Bannister, is that of heavy thunder-showers. This is all I can find on the subject. I cannot accept or admit that aphides do secrete an analogous saccharine matter—First, I had no aphides when I made the appearance. Secondly, it comes in a single night, other day when it occurred here. The weather was very sultry, so much so that I cut my crop—2 tons per acre—made it, carried it, and tipped, and thatched in four days and a half. Thirdly, because it is impossible that such minute insects could squirt such a mess in one night, the honeydew often being thick enough to be scraped off with a knife. Fourthly, because if it was the work of aphides, I would see it invariably, which is not the case. I only occur in particular seasons. Pliny, with his theory of "sweat of the heavens and saliva of the stars," seems to have held a similar opinion to the poor people, who think it drops from the "elements in a heavy night." This was my servant's opinion till I convinced him by saying, "in that case it would be upon a gate-post or mile-stone, as well as upon Roses and some other plants." It is, in my opinion, an exudation of thickened morbid secretions. It is not true that it generally appears on the lower leaves, or upon unhealthy leaves. It will appear on the very tips of newly formed leaves, as well as upon older leaves. It is also to be seen occasionally on leaves covered by leaves, but not so much as on leaves exposed to torridity. The reason I give that it makes its appearance after a foggy night, is that the fog relaxes the stomata of the leaves, and lets out the morbid secretions which have been caused and pent up by adverse weather. Here I leave the matter. I cannot conclude without thanking Professor Westwood for paying attention to my view, and for admitting the doctrine of exudation. I saw on Sunday a single leaf of Baronne Pelletan de Kinbain in a profuse perspiration! Under any circumstances wash off the honeydew, and give sufficient water to keep the whole of the roots. *W. E. Badelyffe.* Will you be so kind as to give me space for a few words with regard to the origin of honeydew, or blight, by which name every evil, which afflicts the vegetable kingdom is called. My own belief is that there is no such thing as either blight or honeydew without the aid of the aphides, and though I do not believe, with one of your correspondents, that cold or east winds or want of water are the immediate cause of the complaint, they certainly predispose the plants to the attack of the aphid by destroying their vigour. Before I read the remarks in your Paper I had expressed my belief to my gardener that what we had thus been the ruin of some Rose trees (and the leaves of the house, which are now casting their leaves black with the sticky stuff. A very large Oak here is above 100 feet across) has almost every leaf covered with aphides in every stage of growth. The one thing difficult to understand is that whilst the aphides are almost always on the underside of the leaf, their saccharine deposit is on the other. *W. C. Henson, Oatlands, Walton-on-Thames.*—I am very glad that "J. S." has gone a little further than Professor Westwood, and has asserted, what I believe to be strictly the truth, that no honeydew exists except such as is deposited by insects. Mr Radolyffe has decidedly put the cart before the horse, and tries to make the horticultural world believe that honeydew is the secretion from the leaf, caused, as he says, by the contraction of the cold north-easterly winds and the sudden action of the sun afterwards, and that the aphides come to feed on the honeydew. I have never seen in my experience an aphid feeding on the upper side of a leaf that is covered with honeydew, but they will be found instead on the ends of the young shoots, and more especially on the young stem itself; and if a clean piece of glass is placed under a shoot much infested with aphides, it will soon be covered with their secretions, which the action of the sun will melt and spread over the glass, or if a pane of glass be inserted over an infested shoot, it will soon show how far the secretions are ejected as the sides of the shoot be covered. Mr Badelyffe jumps to the conclusion that because he saw no aphides on his Rose trees, that suddenly found them covered with honeydew, that consequently the honeydew must have been caused by cold wind and sun. But is it more extraordinary that the aphides to come rapidly, as they will often do in a single night, than it is for the action of the sun and cold wind to bring on the honeydew? For if cold winds in which Mr Radolyffe describes "no Rose trees would be free this year, whereas I have only one Rose tree infested, and they are against a south wall where no north-east wind can touch them, but they are in close proximity to a Trumpet Honeysuckle which is being killed by aphides; and another Rose which is through the Honeysuckle, and has shoots above it not affected, as far, that is to say, as that part of the tree is concerned which is above the Honeysuckle. That cold winds blowing after warm weather or hot sun are conducive to honeydew is true, because it checks the flow of sap, and produces a state of growth of the young shoots which is more liable to the attack of aphides, but hot sun after cold weather has been dry with the cold winds. And I will venture again to assert that whenever a leaf is found covered with honeydew, no green flies will be found on the upper part of the shoot affected, and that those which may be found will not be feeding on the honeydew.

other insects, as wasps and ants, will do so, but I shall be obliged by your answer.

Blairi No 2.—I have three or four Rose trees of Blairi No. 2, which are very grand, bearing 800 to 900 blossoms each. They are really trees, having been growing for 15 years and they have been left, as advised, about 10 points to each bough, when pruned. The weight is so great when they are in flower that the old boughs cannot sustain the least pressure of wind or moisture. I have had several break off the Briar-stem this season, one with the buds on it, and I feel that I may now be subject to the same annoyance annually. My idea is that I should, after one season, by cutting off all the boughs—making Pollards of them—and so depend upon the new wood. And if so, when should it be done? I should like to know as soon as the present blooms are over—i.e., in autumn. Please to advise me. *J. E. G.* [To the Editor.]

Mr. Badolffe kindly replies:—I can hardly answer this question. You must turn the head, and support the tree with a strong stake. If you head the tree, as you propose, you may do it in November or December, however, Blairi No. 2, more than any other, hates a knife. You had better turn the head, and support the shoots on the remainder.]

Mr. J. E. G. writes: I planted in February half a bushel of the Pride Kidney—most beautiful sets, from Messrs. Jackson, of Chester, and a bushel of Ashleafs, my own sowing, also clean, well harvested, and greened in the open air. Not one in ten of either variety has appeared aboveground, and the few that have made their leaves are very, very weak. There are also numerous small tubers underground, where no appearance has been made above. The Mona's Pride are in every part of the garden, under a wall—fine rich soil, and the Ashleafs are in a stiffer soil, but very clean and friable where they were planted. Now no seed could be seen to appear. My own of the Ashleafs was sown with Early Oxford and Flourball. These latter are somewhat sprouted in the pod, but the Ashleafs are not at all. The Early Oxfords and Flourballs are doing well and every set came up well. Now, to country gardeners the great value and interest attached by your Paper is to learn that other parts of the country are in the same affliction. I shall certainly not have one mess or botany of kidney Potatoes to year, and it is the most unaccountable of all the diseases of the Potato tribe. But the strangest thing is that there are some gardens in this county (Wiltshire) where the kidney Potatoes are as good as in W. M. Rowland. Let some of the haulmless remain in the ground all the winter, protecting them from frost by a little litter, if necessary, and please to know the result next year. The rest will do for me. *Eds.*

Agricultural Clubs. Some time since I recommended the formation of a Horticultural Institution for Great Britain, with a central body and branches ramifying throughout the three kingdoms, in a manner to the Chambers of Agriculture, which have recently been established. But I despaired of the project when I began to count the cost, and so I put the paper aside. The Rev. Reynolds Hole's suggestion is less ambitious, and so far more practicable, as the same difficulties lie in the way, and similar questions meet us on the threshold of his project. Can we afford it?—and are the advantages offered worth the cost? Hitherto the pleasures and profits of club life have been mostly confined to the wealthy, and to the poor where they are densely packed together, or when they have been aided by the benevolence of the better-to-do classes. Now, the members as a body are poor; they are scattered far and wide, and they are above accepting even the benefits of social enjoyment, or the sublimating pleasures of the smoking weed from those who are better than themselves. Better have no club than receive a charity from any body of men. But the question whether we could pay for the moderate enjoyment of club life, can hardly be fairly discussed apart from the advantages that might be reasonably expected from meeting with and enjoying the society of our friends. Doubtless and it is of no use disguising the fact self-interest governs and rules the world as a whole, and notwithstanding all the enthusiasm and poetry of horticulturalists, the same principle of powerful sway in our ranks. We are obliged to appeal to it, depend upon it, in the launching of such projects as these. The question with some, perhaps only one with many, is—Will my subscription prove a profitable investment? What benefits may I fairly expect to reap from it? I must be admitted that the club movement cannot be based upon self interest if it is to succeed, and this is true of all clubs, great or small. Looking at the phase of the question steadily in the face, the question of success or failure must be mainly determined by the measure of probable advantage. The Rev. Reynolds Hole gives prominence to two things—mutual intercourse, and puffing together en masse. Dismissing the latter as of little or no account, it may be well to inquire whether the mere pleasure of meeting larger numbers of the craft in specified numbers would float the club project. I think not. Already, by previous arrangement, we can choose our own society, and few possibly would care to pay a club to choose it for them. Besides, our enjoyment is often, generally perhaps, in the inverse ratio of numbers in our social chit-chats. I submit that a much bolder scheme would be more likely to float than the Rev. Reynolds Hole's proposal of our friend. In my paper, which never saw the light, I suggested that the British Institute of Horticulture should take cognizance of four things—the heads, the

hearts, the trials, and the pockets of gardeners. It should stimulate to the utmost intellectual growth, alike by indicating and providing instruction and rewarding merit. It should culture the heart with social intercourse with the best and purest in our ranks, and thus smooth off our rough sharp angles, and give us the polish of the gent eman. It should succour us in sickness and distress, and guard our pecuniary interests at all times. In one word, such an institute should discharge all the duties of a trades' union for horticulturists while shunning all the evils that have made the very name with many a synonym for all that is evil and wicked. And yet there is no trade nor profession that does not seek to better itself by united action, but that of our own. The Duke of Argyll did noble service to gardeners by directing attention to the weakness engendered by our isolation at the anniversary dinner of the Gardeners' Benevolent Institution. We have so little intercourse with each other, that even this useful society languishes for want of support. Be that as it may, the time seems opportune for inquiry whether a new club or institute could not be floated to provide temporary assistance to members when out of work, or disabled by accident or sickness, as well as the granting pensions to the aged or helplessly infirm. In one word, whether one institution could not be formed embracing all the legitimate duties of a trades' union—a sick and friendly society, an insurance office, a scientific institute, a practical school of gardeners, and a learned body, to which it would be considered an honour to belong, and whose patronage and stamp of merit might become useful aids to promotion, and be looked upon as honours that the best men would be proud to receive. Such an institution would excite in its behalf most of the strongest motives that rule and govern men. I boldly affirm that no club nor institute is worthy of the general support of horticulturists that does not endeavour by all means to redress the grievances and anomalies under which gardeners labour, and to promote the social, moral, and intellectual well-being of its members. We have no unrecorded demands, no dark plans dangerous to society. We only want to have our just claims recognised, and to be levelled up to that fair estate of life to which the faithful discharge of our duties, and the number and nature of our services alike entitle us. Nor are these only nor chiefly gardeners' questions. The things that cut us to the quick will affect and injure our employers, and probably tarnish the fair fame, and arrest the progress, of horticulture to-morrow. Now, if ever, the fortunes of horticulture are in the hands of its living agents. Elevate these, and horticulture will go on to prosper, depress them, and horticulture will go down with them. It is the opinion of many that the tide has begun to turn, from the fact of fewer men, and a consequent lowering of wages, entering our ranks. I give no positive opinion upon the matter. All the probabilities are, however, in favour of its truth. Continuous depression in the wages market must inevitably turn the best skill and talent and character into other channels. And if once the current fairly sets in another direction, it will require all the skill and energy of every horticulturist, from the least to the greatest, and an expenditure of means such as the most liberal have not yet devised, to bring the flood-tide of young life, with the necessary talent, perseverance, and strength, back to horticulture again. *D. T. Fish.*

Cucumber and Vegetable Marrow Judging.—I quite agree with your comments in regard to Vegetable Marrows being out so as to be able to judge by the thick flesh, which no doubt is the principal point in a Vegetable Marrow but I am doubtful whether the size you name would be a suitable size for market purpose, as they are generally liked about 2 lb. or 3 lb. weight. I also beg to differ with you on one point in judging Cucumbers you say that a Cucumber should be evenly swelled up to both ends. I quite hold with the flower end, but for beauty I consider the stalk end should be as thin as can be grown, for 3 inches of the stalk end is seldom eaten, as it is often bitter. I should recommend committees to give prizes as you describe—separate classes for different races of Cucumbers. *H. J.* [Our remark as to the size of Vegetable Marrows had reference to their quality for use, rather than to their suitability for marketing and we maintain that there is no comparison as to quality between a quite young fruit *lightly cooked*, and the older ones of the size "H. J." mentions. The more evenly a Cucumber is swelled throughout, the more symmetrical and proportionate, and consequently the handsomer, it is. We cannot admit that one end being pinched up gives the fruit any additional beauty—quite the reverse. The quality of the stalk end has nothing to do with the question, the fruit is not less beautiful because that part may be bitter, but it is more beautiful when it is well proportioned. *Eds.*]

Foreign Correspondence.

SPRING VEGETATION IN SOUTH-EASTERN SPAIN (continued from p. 742).—Whilst at Valencia I went over the Botanic Garden carefully. It appears to be more viewed and directed as a pleasure garden than as a scientific establishment, but even as such was interesting. The plants in flower (May 6) were the common flowers of our English gardens for May and June, monthly and Bengal Roses, with a few hybrid and Tea Roses, Delphinium, Antirrhinum, Thlaspi, Iris, Stocks, Silene, Jasminum revolutum, Ranunculus, Eschscholtzia, Sweet William, Poppies, Verbena, Spirea, Habrothamnus, Paeonies, Nasturtium, Pinks, Aquilegia, Petunia, Carnations, Collinsia, Viburnum, Convolvulus minor, Tritonia crocata, Oak-leaved Pelargonium, Virginian Stock, Aubrietia, Hydrangea. There was a glasshouse, but a green in which I found the Bougainvilleas, Lantanas, Vincas, Heliotropes,

Pelargoniums, Cinerarias, Coleus, as at Murcia. In this glasshouse were all the Palma Cereaceae which are grown in the open in the Genesee Riviera, with the exception of several. Chamaerops humilis and Latania borbonica, planted out in a very sheltered spot. Thus it contained Corypha australis, Carvota, Dion edulis, Thrinax Cycas revoluta, Cordyline, Dracaena Yucca, Ficus repens, Pereskia, Araha, Philodendron, Russelia lancea, Cyperus alternifolius, Banana. There were Abutilons and Oleanders in the garden, but not in flower. From the above facts I feel authorised to conclude, that the winter cold is greater at Murcia and at Valencia than on the Riviera. If it were not so, why should plants that we can cultivate with ease in the open air be placed in glasshouses, and why also should the open gardens contain little else but what is found in the gardens of more northern European regions? This can be easily understood. The eastward of Spain, favoured as it is in climate, is bounded, north and west, by high mountains and the health towns, Murcia, Alicante, Valencia, are at some distance from the foot of these mountains—that is, from their protection—so that the cold winds fall down upon them. The Genesee Riviera, on the contrary, is at the very foot of the mountain wall that protects it; and the cold winds, passing over, leave it blank in the south sea. At Valencia and in this region generally the Lemon tree is only grown except in very sheltered and warm situations, although in such localities it succeeds thoroughly. Nowhere did I find it grown in large orchards facing the sea, as on the Riviera, between Nice and St. Remo. There were some large timber trees in this garden, which are often met with on the promenades in these regions of Spain. Paeonia imperialis, with elegant blue terminal flowers, Celtis australis, a large beautiful tree, Diospyros Lotus, Crataegus melanocarpa, Gleitschia triacanthos, Sophora japonica, Schinus Molle.

The journey from Valencia to Cordova by rail takes the traveller into the centre of Spain, and of the high table land (New Castile) in a westerly direction, then descends due south, crosses the Sierra Morena, and follows the valley of the Guadalquivir. For many hours, for hundreds of miles, the line crosses the monotonous calcareous plains already described, treeless and houseless, with no cattle to enliven the scene. The entire region seems cultivated, but half or two-thirds was bare of all crops, lying fallow. Thus, it appears, the Spanish system of cultivation as with us ages ago. The land, naturally poor, with a thin soil lying on a calcareous base, very like the chalk downs and hills of Wiltshire, seldom or ever manured, is a bare, treeless soil, and thus to recover itself by the unaided efforts of Nature, and two years out of three. The farmer sows the seed, and he and the tenant divide the crop. So in the years of drought or adversity there is no rent paid or received, tenant and landlord both get on, if they can only manage to keep body and soul together. Moreover they both seem to be quite satisfied if this can be accomplished, and with their abstemious habits and frugal wants very little will do that. The fact, too, of the entire population being aggregated in towns, as in the Middle Ages, when men had to unite for mutual protection, at a distance from the seat of their labours, is a very great drawback, a national one. The men, with their southern fear of moisture, stay from work if it rains, or appears likely to rain, for festivities, for any excuse the women gossip all day, the children play about in the streets. Thus the peasant farmer squanders his own time, and does not get that assistance from his family which he does when they all live in a farmhouse in the centre of the field of labour.

No cattle are seen, and very few are kept on these plains, and I was told that the value of manure is so little known that the peasantry require paying to take it away from the towns. As may be supposed, with such a soil and such views of cultivation, the rising crops of cereals, only from 2 to 4 inches high, were very thin, poor and miserable, offering but little promise for the future. Even at this high elevation, from 2000 to 2500, or 3000 feet, there had been but little rain, and further rain, before the summer heat sets in, was anxiously expected. As to vegetation, we had gone back to early April in England, and the cold was positively bitter and very trying after a month in Algeria and South Eastern Spain. There was not a vestige of a southern climate in the aspect of Nature.

As the railway descending due south approaches the Sierra Morena mountains, the direction of which is due east and west, the geological nature of the soil changes. The calcareous soil and rocks are replaced by a silicious soil, by schistic and sandstone rocks. With this change of soil at once appears a change in vegetation. This change is observed both north and south of the Morena mountains, which are crossed at first through picturesque gorges, and then by a tunnel at an elevation of 2600 feet. The familiar shrubs of the Corsican and Atlas granitic sandstone and schistic ranges reappear. The Cistus or Rock Rose, the Broom—the common European form without spines, and Juniper bushes, the Maritime and Aleppo Pines, Myrtle, Lentiscus, Mountain Lavender, and on the south side, to my surprise, the Chamaerops humilis Palm. The Tamarisk fringes the river sides, and the Oleander is often seen along with it. Thus in Andalusia the vegetation of Northern Africa, of the Atlas ranges and rivers, is reproduced, especially along the course of the Guadalquivir, and more decidedly than in Corsica, where I neither saw the Tamarisk, Oleander, nor Chamaerops. It is singular that the Chamaerops Palm should be described as peculiar to Algeria, for in this part of Andalusia it is as common as Gorse on English commons. I saw thousands of acres covered with this dwarf Palm growing luxuriantly in tufts. Indeed it evidently propagated itself spontaneously wherever the soil in the Guadalquivir valley

is too poor to tempt cultivation. As I had seen it likewise in the basaltic soils near Cartagena and Murcia, I have no doubt that it is to be found all over Southern Spain in stichous soils, just as in Algeria, where it appears the moment the soil becomes calcareous. This is another evidence of the geological unity of Africa and Europe, of former days.

After passing the Sierra Morana the lands rapidly, and soon reaches an elevation of 600 or 700 feet. From this elevation exposure protection from north winds, more rain than on the eastern coast, and a sunny soil, vegetation becomes much more luxuriant than on the elevated central plain that we had just seen. Still I saw nothing to warrant the raptures of poets and travellers when describing the far-famed Guadalquivir valley. It seems to me that these raptures are rather the result of comparison with surrounding nakedness and sterility than of any actual exuberant fertility of the valley itself. For, although there is a good sized river rolling its waters in the midst of a wide and fertile plain, there is no irrigation. This is the first point to note, for the entire region was many centuries ago the basis of the Moors, who are the people who have established the irrigation works of the really exuberant valleys of Murcia, Valencia and Grenada. Indeed Cordova, which is built on the river bank, was the centre, the capital of their dominion. Then it occurred to me that it is of but little use to irrigate a poor sandy soil, as the water must all sink through it, and do no good commensurate with the expense incurred for irrigation. The valleys named above, where such extensive irrigation works have existed for centuries and where they secure exuberant fertility, are all the valleys.

Where the soil is gravelly soil through which we passed was everywhere the crops were thin and poor—indeed withered, and that without the expense of an irrigator. Still the soil with these cultivated regions were wide meadows covered with basm lark, Mountain Lavender, broom, and the Chanarops Palm, which could in former days extended over the entire region and yet, as we have seen, remains on the poorer uncultivated soils just as do Heather and Gorse with us, yet the entire country had a verdant smiling look. In the vicinity of the villages and towns, generally but near the river, in regions where the alluvial soil is deeper, are groves of Olives, Figs, Pomegranates, and as we neared Cordova occasional Palms—the Phoenix dactylifera—were seen. The alluvial soils in the distance were no longer naked, as in the lime regions, but clothed more or less with Lark, Cork Oak, Pines &c. Indeed, poor, sandy, gravelly soils, even when covered with very little vegetable soil, are everywhere, even in dry, warm climates, more verdant, more luxuriant with their peculiar vegetation than lime rocks, hills, or soils under the same conditions. The vegetation that clothes these soils bears drought better than that which lives in rich alluvial soils, especially when they rest on clay. The reason is no doubt that in sandy, gravelly soils the roots of the plants are not so deep, and the soil is not so dry, and the water is not so far from the surface as in the lime regions.

Thus I remember last year (1868) being much struck by the difference between the state of the vegetation of Surrey and Middlesex. In Surrey, where my country residence is situated, and where much of the soil is sand or gravel, the Weymouth Pines, Spruce Firs, Birch, Beech, Oaks (Chestnuts, Heather, &c. were perfectly healthy and green in August, after three months drought. There was no perceptible difference as compared with other years. But when I crossed the river into Middlesex, on the rich alluvial soils lying on clay, I found a total and real state of things. The ground vegetation was parched and reduced to lay, and the trees were losing their leaves as in November. Another reason may possibly be adduced as my gardener suggested. Our Surrey plants are like poor people accustomed to poor fare so when a fairer came they bore privation better than our rich Middlesex neighbours, accustomed to richer and better fare.

J. Henry Bennet, M.D., Grosvenor Street

(To be continued)

Notices of Books.

Chips and Chapters a Book for Amateurs and Young Geologists. By David Page, LL.D. Small 8vo, pp. 808. Blackwood.

A series of chatty, pleasantly-written chapters on things in general, that is, so far as geology is concerned. Amongst other things, we find in the present volume a chapter devoted to soils and subsoils. The author does not tell us much that was not before known, but we are none the less obliged to him for coming at the subject in a manner which has been almost entirely neglected by geologists, at least so far as the wants of agriculturists and gardeners are concerned. "Generally speaking," says Dr. Page "the soils and subsoils of a country receive but scanty consideration from geologists, yet few things are more erroneous in their formation, none so indispensable in the economical purposes they subserve. It is true they are recent and insignificant in mass compared with the rocky crust which forms the great theme of geology, but considering how intimately they are associated with the manifestations of vegetable and animal life as well as with the food supplies of man they are deserving of a closer inquiry, whether as regards their origin, their qualities, or their artificial amelioration." The physical nature and mechanical texture of the soil, and the circumstances influencing them, appear to us to be by no means sufficiently attended to, and yet to practical men the benefits to be derived from an investigation of these matters would be hardly confined to those which have accrued from the labour of the chemist.

Speaking generally, it may be asserted that except in certain special cases where the presence, in large quantities, of a certain ingredient, such as lime, materially modifies the character of the vegetation, the physical character of the soil has more to do with the kinds and condition of the plants that grow there than has its chemical composition. This is well shown in the case of a drained or undrained field. Chemically the same, its physical and hygroscopic characters are altered, and we all know how great the change in the vegetation, whether wild or cultivated. Manures, which are known to exert so strong an influence over plants, even to the extent of causing the disappearance of some plants, as has been proved in the pastures at Rothamsted, owe their powers not solely to their chemical qualities, but to a large extent to the physical changes they bring about in the mechanical texture of the soil. The same remark applies likewise to farm-yard manure. We want a geologist-gardener, like Mr Ingram, of Belvoir, a great fruit grower, like Mr Rivers, whose nursery contains such variety of soil and subject to take up this matter, and give us from the wealth of their knowledge some data, collected from a gardening point of view, as to the qualities of plants in relation to the nature of the soil.

Societies.

Edinburgh Botanical May 13.—Isaac Anderson Henry, Esq., V.P. in the chair. The following communications were read—1. On the Regional and Hypogeic Distribution of the Conifers. By Robert Brown, F.R.S.E. This paper was the result of the author's studies regarding the geographical distribution of Conifers over the globe, and the laws regulating that distribution. The result of his researches among the conifers that he has resolved to divide into seven or eight groups, which he designated provinces, and that these provinces might be divided into smaller geographical groups called regions, these regions, finally being composed of one or several forms which might be called "districts." He distinguished the prevalence of some particular species, not found out of the range of their own by local distribution, and then described these geographical provinces of districts, and gave the provincial limits assigned to them, with lists of the species frequently found, and the altitudinal range of the species contained in them. The cases regarding this distribution were next considered. It was shown that in all probability each species has a range which is widely distributed, and a certain northern or southern limit, in that the range of temperate trees within which it could prosper was not great. The limits of forests in America and the latitude, were stated for example, at 45° N. and 35° S. respectively, and the isothermic line of 50° F. Moisture was, however, the chief limiting cause of forests, and it appears that at least from 14 to 18 inches of annual rainfall during the growing season are necessary to the prosperity of forests in temperate latitudes. The origin of prairies was discussed. Geological formation has also a limiting influence, the great forests of Sequoia sempervirens in California being entirely limited to the metamorphic sandstones of the western slope of the coast range, breaks in the forest occurring where the formation was alternated with limestone tracts. 2. On the Distribution of Forests in North West America, with Notes on the Non-Coniferous Trees and Shrubs. By Robert Brown, F.R.S.E. The author has been in the mountains of the Pacific coast, and has been struck by the very distinct arboreal provinces. The vegetation of the coast of the Cascades was wet, and everywhere except in a few places, chiefly by the banks of rivers, covered with dense, almost trackless forest, chiefly composed of alpine conifers and differing from the corresponding forests on the Atlantic in possessing few deciduous trees, and a dense undergrowth of scrubby ferns. This region, Mr. Brown considered, might be naturally divided into the Klamath district, bounded by forests of Thuja plicata and a series of several trees common in the interior south of it. The next district commenced with the forests of Abies Douglasii in a north latitude of 45° N. and extended to 49° N. The presence of the chief tree of it was called the Douglasii district. It was everywhere a dense forest of alpine conifers and a few deciduous trees. Abies Menziesiana, Picea canadensis, Quercus garryana, Acer macrophyllum, Populus monticola, Alnus incana, and Juglans floridana, were the most characteristic trees. The Linnæa district was characterized by the presence of forests of Quercus fragrans, only found here, L. borealis, Quercus agrifolia, and other species to the east, where there was a break in the coast range, but a few L. borealis, Quercus agrifolia, and other species to the east. The Sierra district was divided into two districts, the district of the coast range, and the country between it and the Pacific, and the coast range between the coast range and the Sierra Nevada. The trees most characteristic of the first district were Pinus insularis, P. muricata, P. tuberculata, P. contorta, Abies bracteata, Torreya californica, Cupressus macroblatta, C. macrocarpa, Arbutus Menziesii, &c., and of the second, Oreodaphne californica, Platane racemosa, Abies edifera, Arotostaphylos glauca, Pinus babiniana, P. lambertiana, P. monophylla (Freemontiana), P. baldouiana, Cupressus lawsoniana, and Wellingtonia (Sequoia) gigantea, Lindl. Among its most characteristic shrubs are the serviceberry (A. nelsoniana), Rhamnus Purshiana, Prunus americana, and the Poison Oak (Ilex diabolica)—the type of a great number of species. The coast range district was characterized by Pinus ponderosa, Pinus contorta, P. insularis, occidentalis, &c. The Colorado district region part of the Mexican province than that north of it was marked by the prevalence of Alnus glandulosa, Stromboscarpa pubescens, cottonwoods (Populus sp.), Fremontia, a Yucca, some Oaks, and the giant Cactus (Cereus giganteus, Engelm.), the Pithaya of the native Californians, and on the fruit of which the Indians subsisted to some extent. Another region, the Montana, was marked by certain trees, chiefly Conifers, which were found only at certain elevations over the whole arboreal provinces of N.W. America, though the regions at the base of the mountains were entirely distinct in their vegetation. These were common to nearly all the mountain ranges, no matter where situated in the province, the hypsometrical range of the species varying slightly with the altitude. Pinus flexilis, P. centricarpa, A. las Latomia, Alnus Williamsii, Newberry, and Bridges, which was Kellogg's Abies Bridgiana, A. las Williamsii, Larix laricina, A. occidentalis, &c. were of an arctic type, and the region was marked by the prevalence of the conifers and shrubs (non-coniferous) of the

province, including those discovered or introduced in the author, were described. Photographs and drawings of the trees and forest scenery described were exhibited. **Notes of an Excursion to Cornwall, April, 1880.** By Professor Robert Brown, F.R.S.E. The author has been in Cornwall, and has been struck by the very distinct arboreal provinces. The vegetation of the coast of the Cornwalls was wet, and everywhere except in a few places, chiefly by the banks of rivers, covered with dense, almost trackless forest, chiefly composed of alpine conifers and differing from the corresponding forests on the Atlantic in possessing few deciduous trees, and a dense undergrowth of scrubby ferns. This region, Mr. Brown considered, might be naturally divided into the Klamath district, bounded by forests of Thuja plicata and a series of several trees common in the interior south of it. The next district commenced with the forests of Abies Douglasii in a north latitude of 45° N. and extended to 49° N. The presence of the chief tree of it was called the Douglasii district. It was everywhere a dense forest of alpine conifers and a few deciduous trees. Abies Menziesiana, Picea canadensis, Quercus garryana, Acer macrophyllum, Populus monticola, Alnus incana, and Juglans floridana, were the most characteristic trees. The Linnæa district was characterized by the presence of forests of Quercus fragrans, only found here, L. borealis, Quercus agrifolia, and other species to the east, where there was a break in the coast range, but a few L. borealis, Quercus agrifolia, and other species to the east. The Sierra district was divided into two districts, the district of the coast range, and the country between it and the Pacific, and the coast range between the coast range and the Sierra Nevada. The trees most characteristic of the first district were Pinus insularis, P. muricata, P. tuberculata, P. contorta, Abies bracteata, Torreya californica, Cupressus macroblatta, C. macrocarpa, Arbutus Menziesii, &c., and of the second, Oreodaphne californica, Platane racemosa, Abies edifera, Arotostaphylos glauca, Pinus babiniana, P. lambertiana, P. monophylla (Freemontiana), P. baldouiana, Cupressus lawsoniana, and Wellingtonia (Sequoia) gigantea, Lindl. Among its most characteristic shrubs are the serviceberry (A. nelsoniana), Rhamnus Purshiana, Prunus americana, and the Poison Oak (Ilex diabolica)—the type of a great number of species. The coast range district was characterized by Pinus ponderosa, Pinus contorta, P. insularis, occidentalis, &c. The Colorado district region part of the Mexican province than that north of it was marked by the prevalence of Alnus glandulosa, Stromboscarpa pubescens, cottonwoods (Populus sp.), Fremontia, a Yucca, some Oaks, and the giant Cactus (Cereus giganteus, Engelm.), the Pithaya of the native Californians, and on the fruit of which the Indians subsisted to some extent. Another region, the Montana, was marked by certain trees, chiefly Conifers, which were found only at certain elevations over the whole arboreal provinces of N.W. America, though the regions at the base of the mountains were entirely distinct in their vegetation. These were common to nearly all the mountain ranges, no matter where situated in the province, the hypsometrical range of the species varying slightly with the altitude. Pinus flexilis, P. centricarpa, A. las Latomia, Alnus Williamsii, Newberry, and Bridges, which was Kellogg's Abies Bridgiana, A. las Williamsii, Larix laricina, A. occidentalis, &c. were of an arctic type, and the region was marked by the prevalence of the conifers and shrubs (non-coniferous) of the

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gentlemen of the old school, in regard to a dish of Artichokes. "What be these?"—"Why, they be 'Chokes.'" "Noo, the mun be Pines!"—"Ah, p'raps soo."

Garden Operations.

(For the ensuing week.)

PLANT HOUSES.

Ericas, and especially the more delicate and tender varieties, after having experienced a somewhat dry period, should now be closely inspected, in order to detect any signs of mildew which may exist or be forming thereon. Where Heaths are properly attended to, this is the greatest pest the cultivator has to contend with, as it necessitates constant attention to every branchlet and sprig to detect immediately any symptoms that occur, and to stop its ravages. Flowers of sulphur are a perfect and sure remedy at all times. These should not, however, be scattered too densely upon the plants, the merest dusting, if applied successively for a few days, will effectually destroy it. Stove plants which are intended for early winter flowering may now have a shift into pots a size or two larger, if they have not a sufficiency of pot room. Such a sized pot should be selected as it will be possible for the plant to fill well with roots before the flowering season commences, otherwise no great success in a blooming point of view can be anticipated. These remarks apply especially to Gesneras, Begonias, and many other similar subjects. It should always be borne in mind that those I have specially alluded to will not bear large shifts, the smaller the pots they are grown in the better will the flowers be as a general rule. Some from amongst the earlier batch of Camellias, such as have already set their bloom buds, may now be removed to a sheltered place out-of-doors, where they should be partly shaded from the more direct rays of the mid-day sun. Give Pelargoniums of the scarlet or zonal section, intended for early autumn or winter blooming, their final shift into pots a little larger than those which they now occupy. Do not pinch them back after this date, as it is now becoming full late to make good strong breaks or shoots in time for such a purpose. Others which may not need potting will be much benefited by the occasional use of liquid manure, if not too strong. Should the weather be again cold and ungenial it will be necessary to reduce the amount of artificial heat and moisture in stoves, as the nights are now becoming much longer, the growths which are formed under so cloudy a sky cannot, if allowed to extend too rampantly, be so good as they are when a fair amount of bright sunny weather prevails.

FORCING HOUSES.

In Vinerias generally Grapes will now be making their final swelling preliminary to the ripening process, and a nice brisk warmth must therefore be maintained around them. Keep all internal surfaces as fresh, or sweet and clean as possible, and permit nothing to stand crowded about upon the floor of the house which is likely to impede the freest possible circulation of the air. Moss covered, or stale untraced surface-floors, emit, to say the least, noxious effluvia, which are very unwholesome, and opposed to the requisite sweetness which should at all times prevail. This is not to be wondered at when it is considered that for the want of a simple raking over of the surface, the soil, beaten or trodden down, is incapable of exercising its deodorizing powers. I am not an advocate for excessive waterings, but would rather advise that they should be so effective as to reach the utmost limit of the roots. The opportunity should be taken at such times, to afford a fair quantity of some harmless stimulant to the roots. Perhaps the best plan of affording this aid to the roots is that followed by many of our most successful growers. First, stir the surface of the border over, then add a thick layer of crude cow or sheep-dung, and afterwards surface the latter well over with a layer of good yellow loam. Thus it will be seen that the soil above and below will modify all rankness which may be contained in the manure, absorbing into itself the more unwholesome parts, and turning them to account at a later period. The water poured copiously upon the surface above, will freely wash the nutriment out of this layer down to the roots, and thus material aid will be afforded without a resort to crude manurial drainings alone, which are not always to be relied upon, as food proper for fast growing and hence very delicate sponges. These remarks apply especially to late Vines. Let the back walls and other similar surfaces in these late Vinerias receive another washing with sulphur and freshly slaked lime; and particularly see that none of those bunches which are intended to hang late are so thick as to be likely to impede a tolerably free circulation of air when mid-winter and its dampness and other injurious influences arrive.

Look keenly after those Pine plants which are intended for early winter fruiting, already we may expect to see some symptoms of "showing" in such varieties as Black Jamaica and Montserrat. They require at such a juncture, as I have so frequently suggested, a liberal treatment both in regard to bottom-heat, manure-water, and humidity. Where Pines are very firm, or have made a very fine growth, and have not been so well ripened as they ought to be (and I fear this will be the case in some instances this season, owing to the dull weather we have experienced), it may be that they will not push the bloom very freely. Under these circumstances it will be well to withhold root moisture, in preference to giving a too plentiful supply. This will tend to develop more fully the fibre of the plants, and will act as a slight incentive to fruit production. Shift now into their fruiting-pots such as are intended to show about next May or June, and this is especially applicable to slow root varieties. The night temperature most suited to Pines at this time is between 60 and 70°. That of

the day, by means of artificial heat alone, should rest at a mean as nearly 78° as possible, with an increase of from 10 to 12° by actual sun-heat only. Peaches and from 10 to 12° by actual sun-heat only. Peaches and Nectarines are ripening very generally now. It will be necessary to look over them carefully every day, that they may be gathered immediately they have become sufficiently ripe. If left upon the trees until they fall into the nets, or upon straw, or other similar appliances placed to catch them, they will have become less pleasant to the palate, and somewhat insipid. Keep up a brisk heat in Melon-pits, &c., and thus particularly whilst any are ripening, and afford air freely during bright weather.

HARDY FLOWER GARDEN

Already the flower gardens look more cheerful, and the plants, after an unusually cold and harsh season, are in a very fair way of covering the beds. None have done better during the past inclement weather than Mrs. Pollock, which proves to be the most useful bedder extant. Continue pegging down all subjects requiring such aid. Verbenas have hitherto not required this assistance, so very indifferently have they grown this season. It will aid them much if the beds receive a good soaking of water; the soil should be afterwards loosened with the hoe when sufficiently dry to work without sticking, and then pegging down should be done as required. Continue to increase Pentstemons, Pansies, &c., as required; any young shoots which emanate from around the base of the main stems will do well for this purpose. Plunge specimen pots of Auriculas into cinder-ashes in a moderately sheltered position should a dry period ensue, carefully guarding them against any form of drip, or too full exposure to the direct rays of the mid-day sun. Gather the seeds of choice Polyanthuses, which will now be very generally ripe. Cut away all flower-stalks of any Herbaceous Plants which have done flowering, such as Delphiniums of the perennial sections, &c. Should the weather continue dry give copious waterings, as previously advised, to Phloxes of the decussata breed, and to Tritomas, as neither will flower or flourish effectually without abundance of root moisture.

HARDY FRUIT GARDEN.

Remove all lateral growths which form upon Peach or Nectarine trees, or more especially upon those strong shoots which have already been laid in. In instances where very gross shoots exist, it will be conducive to a more plentiful supply of flowers if the larger leaves which form near the base are cut in two across the middle just about the time at which they are fully grown and have become tolerably well matured. Lay in all the young shoots which form upon any old plants of Cherries or Plums; a good crop is not attainable without their aid. Remove all Strawberry-runners as frequently as they show upon the stools when not needed to form plants, otherwise they will greatly impoverish the main crowns. Where the side shoots upon Currants (red and white) have not yet been removed, this should now be done without further delay. These remarks are equally applicable to Pears and Plums upon walls, or espaliers also.

KITCHEN GARDEN.

Make sowings now of a good stock of Sangster's or Daniel O'Rourke Peas, such as Carter's First Crop or Sutton's Ringleader, and a few Dwarf French Beans for late uses. Plant out upon very rich ground and in well-prepared drill rows the necessary quantity of Leeks. These may be planted some 8 inches apart by 10 in the rows. Make a main sowing of Turnips, and, as previously intimated, get out all the Celery possible at the earliest moment. Sow Cabbage seeds for early winter Collards, also a succession of Spinach. Water the Celery previously planted, if dry weather continues. Keep a sharp look-out for weeds, both on walks and on the cropped ground. W. E.

TOWN GARDENING.

CUTTINGS of Pompon Chrysanthemums that were put in as directed last month will now be well rooted, and should be at once pinched back, in order to make them nice bushy plants. Where it is intended to grow specimen blooms of the larger flowering kinds, all lateral shoots should be removed as fast as they appear, and the plants should be well watered at the roots every evening, and the tops should be syringed at the same time. Pipings of the late-flowering varieties of Pinks may still be put in, as directed at p. 692 and will do well.

The Intermediate Stock does very well in towns if wintered in a cold frame, these should be sown about the 20th of this month, in the following manner - Take out the mould about 6 inches deep, put in an inch of ashes to keep the worms down, then fill in level with fresh mould from the country, giving it a good watering, and the next morning sow the seed, sifting a little fine mould over it, put it down softly, and cover with a glass till the plants appear, when attention must be paid to give plenty of air. The double white Pyrethrum will likewise do well under the same treatment, if sown now. Pelargoniums that have done flowering in the windows should now have the old flowering wood cut down to the next new shoots that are making, and should be placed out so as to get all the air possible. The Balsam makes a charming window plant, and those plants that are now coming into bloom are the best for this purpose, as they have not been sharply forced, and will last a long time if well supplied with water. Reverting to the propagation of the Carnation in last week's article, I forgot to mention that they can likewise be freely propagated from cuttings but this method I should not recommend as a general rule, for they seldom flower the following summer, but if potted and placed in a pot in the autumn, they will flower very early the following spring. J. D.

STATE OF THE WEATHER AT CHISWICK, NEAR LONDON.

For the Week ending July 14, 1892, as observed at the Horticultural Gardens.

Table with columns: Day, Month, Barometer, Air (Max, Min, Mean), Earth (1 foot, 2 feet deep), Wind.

Average July: 80.67, 50.11, 78°, 49°, 63°, 61, 34.9. July 8 - Overcast, fine, cloudy, clear and fine at 6 a.m. 9 - Very fine, cloudy, but fine, cloudy, and air 10 - Very fine, clear and fine, fine, but cloudy 11 - Fine and clear, very fine, but a slight overcast 12 - Very fine, fine, very hot, cloudy but fine rain 13 - Showery, cloudy, drizzly overcast, cold wind 14 - Very fine, clear and very fine, under a cloud. Mean temperature of the week 81.5 deg. above the average.

STATE OF THE WEATHER AT CHISWICK.

During the last 45 years for the ensuing Week, ending July 21, 1892.

Table with columns: Day, Average Highest Temp., Average Lowest Temp., Mean Temp., No. of Years in which it Rained, Greatest Quantity of Rain, Prevailing Wind.

The highest temperature during the above period occurred on the 23d and 24th, 1869 - therm. 93 deg. and the lowest on the 24th, therm. 32 deg.

Notices to Correspondents.

DISEASED CURRANTS. D. D. We have examined your Currant branches closely, and find no insect or Fungus. The quantity of green matter (Chlorococcus) on the leaf, the situation in which they grow is clearly damp. The present season has been so ungenial that vegetation has suffered materially. The ground under Apple trees is a mass of dead leaves as thick as in autumn. Cherries, Plums, and Apples which were perfectly formed have withered and fallen off, and the same may be said of Wines, which promised a short time since a heavy crop. We hope therefore that the bad condition of trees is only temporary and we are the rather inclined to be sure that this is the case, as a black and red Currant are in the same condition. W. J. A.

DISEASE IN ONIONS. S. W. C. T. It is clear that the roots of the Onions have been first affected. There is an attempt to the distorted plants to throw out fresh roots. We believe that the disease is constitutional, and that if any of the plants should seed that the disease may be propagated. At first, such was the case in similar specimens sent to me some years since. In your case, however, it would be important to ascertain whether the seed was of the same origin as that which was raised in the healthy and healthy beds, as this would indicate some other cause. The specimens were much crushed in the post, and arrived in a very unsatisfactory state for examination. M. J. B.

FRENCH PARADISE STOCKS. W. Henderson. Consult the rising columns.

INSECTS. W. C. T. Although carefully examined with a lens, we have not been able to find any insect on your Paradise roots. We can, therefore, only suggest that they have been gnawed by some insect, or by the ground, with a view to kind of N. ter. W.

IRISH GARDENERS REVIEW. Inquirer. Price 2s. Apply to Thomas Edmondson, 9 Dame Street, Dublin.

NAMES OF PLANTS. S. D. Cynoglossum officinale - 7. 1, Claytonia perfoliata 3, Galium, apparently G. palustre 4, Polygala vulgaris, 6, Rhinanthus crista-galli - 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

PELARGONIUM. Mrs. HALLY. Mr. Hally contradicts the statements of R. D., at p. 743. On referring Mr. Hally's letter to our correspondent, he replies as follows - The plants of Mrs. Hally's Pelargonium, exhibited at Mr. Hally's at the meeting of the Floral Committee on the 6th inst., were not by any means in condition as they had a yellowish appearance of the foliage of the plants, which was commented on by many who were present. I can say that I am not surprised at the reputation of what he regards as a thorough Imperialis the reputation of what he regards as a thorough good and distinct thing by sending to the meetings of the Floral Committee indifferently grown and bloomed plants of it, he must not be surprised if the opinions of others of it, from his own. In regard to the similarity of the down of Mrs. Hally with those of several other persons, I can say that in the company of several other persons, I saw that they were nearly alike, and the unanimous vote was that they were very characteristic of habit given to us new variety by Mrs. Hally are exactly those possessed by Marie Lemoine, the real difference (if any, exists solely in the colour of the flower. Mr. Hally may rely on it that the Floral Committee will not exhibit a specimen to his new variety if he has the opinion I express, at p. 744. R. D.

PENITENTIAL P. TEE. F. P. We do not undertake to send everything that may be shown. Look to the list of names issued by the Society.

ROYAL HORTICULTURAL SOCIETY. J. S. Successful candidate receive plants in due time. The gardens are closed from 10 p.m. on the days only. Apply to the secretary.

VINE BORDERS. W. Brokenbrow. We can only recommend you to form an entirely new border, and plant a tree in it. The roots of your Vines must be in very bad condition, I judge from the example I sent you. I would advise you to take into consideration the treatment which I have received first, by the cutting off of the old wood, and the addition of 3 feet of old soil to your border. No Vines could succeed in a border of this sort.

VINE LEAVES. G. H. The little excrescences are very common on vine leaves, and do not seem, as far as our experience goes, to affect the produce so long as the leaves are healthy in other respects, they appear to be sometimes occur on the branches, they appear to be from an imperfect balance between the supply to the vine and the quantity of moisture in the air of the house. I have seen the same on the branches, and add a little of the American blight. Blake a little lime, and add a little of this will stop it. Soft soap may do so. Orange Peppery is difficult to cure. I cut out as much as I dare do of it. I see it. It much abounds. My trees are nearly clear of it. # F. Henderson.

ZERRATUM. In Mr. Smith's article on "Zerratum," p. 746. Oak sides read Oak still.

COMMUNICATIONS RECEIVED. - E. D. - R. D. - C. H. B. - G. G. - Dick Radcliffe & Co. - J. May (thanks) - W. F. R. - C. J. P. - W. H. R.

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THE ROYAL AGRICULTURAL SOCIETY OF ENGLAND.

President:—His Royal Highness the PRINCE OF WALES, K.G.
MANCHESTER MEETING, 19th to 24th JULY, 1869, inclusive.
PROGRAMME.
MONDAY, July 19, to Friday, July 24, inclusive.—Trial of Reaping,
 Mowing and Haymaking Machines, Horse Rakes, &c., in the
 fields adjoining the Show Yard. Admission, 6d. each person.
FRIDAY, July 19, and Saturday, July 20.—The Implantation Yard
 only Open from 8 A.M. to 6 P.M. Admission, 2s. 6d. each person.
MONDAY, July 19, and Tuesday, July 20.—The entire Show Yard.
 Open from 8 A.M. on Monday, when the Judges commence inspect-
 ing the Live Stock and making their awards. Admission, 6s. each
 person.
WEDNESDAY, July 21. Admission, 2s. 6d. each person.
THURSDAY, July 22, Friday, July 23, and Saturday, July 24. Admission, 1s.
 each person.

SPECIAL NOTICES.
SEASON TICKETS.—Non-transferable Tickets, price 10s. 6d. ad-
 mitting the holder, once on each day, to the Show Yard, from July 19
 to 24, inclusive, may be obtained from the Secretary, 15, Hanover
 Square, not later than Saturday, July 10, and afterwards at the
 Secretary's Office, near the entrance to the Show Yard, or at 26, King
 Street, Manchester, from and after June 25.

TRIAL OF HUNTERS.—The Trial of Hunters will take place in
 an enclosed space adjoining the Show Yard at 2.30 daily, commencing
 on Tuesday the 19th. Admission to this ground, 1s. per day
 each person. Admission to the enclosed stands on Tuesday and
 Wednesday, 4s. each person; and on each of the other days, 1s. 6d.
 each person. Season tickets, price 10s. 6d. each, may be had at 26,
 King Street, or at the Local Comm. ticket tent, in the Show Yard.
 Giving the holder admission to the leap ground and the stands
 at any time on any day, from the 19th to the 24th, inclusive. Govern-
 ment and Members of the Society are, however, retained that they
 have not free admission to the Trial of Hunters.

HOUSING SHOW.—An Exhibition of Housings will be held in
 the enclosure for the Trial of Hunters, adjoining the show ground,
 on Wednesday and Thursday, July 21 and 22. Admission, 1s. The
 holders of Season Tickets for the Trial of Hunters have free
 admission to this exhibition.

HORTICULTURAL SHOW.—Arrangements have been made to
 enable persons to pass and repass from the Royal Agricultural Show
 Yard to the Exhibition of the Royal Horticultural Society, after
 separate payment at each.

REFRESHMENTS.—Provision has been made for first and second
 class refreshments upon the ground, at a reasonable charge.

LODGINGS.—Persons at a distance wishing to obtain information
 as to Lodgings, are requested to address Mr. John Duffield, Essex
 Street, King Street, Manchester, at whose office a register of
 part owners and houses is kept, and by whom printed plans will be
 supplied, or inquiries answered on application.

GENERAL NOTICES.
 No person can be admitted to the Show Yard after 7 o'clock on the
 evening.
 The Show Yard will be cleared of visitors each evening at 10 o'clock.
 For admission to the Show Yard, the gates will be open from 8 A.M.
 and of the horses at 12 o'clock at noon, on each day after Monday.
 A Plan of the Show Ground may be purchased at the Printing
 Office, in the Show Yard.
 There are two Entrances to the Trial Fields, one by Seymour Grove,
 and the other by the Military Exercise Ground, both at Old Trafford.
 Access can be had by no other approach.

The Agricultural Gazette.

SATURDAY, JULY 17, 1869.

MEETINGS FOR THE ENSUING WEEK

July 19	Royal Agricultural Society of England, at Manchester—
20	Admission, 6d.
21	Do ditto, Admission, 2s. 6d.
22	Do ditto, Admission, 1s.
23	Do ditto, Admission, 1s.
24	Do ditto, Admission, 1s.

THE Manchester showyard and its contents
 are, we need hardly say, of greater importance
 than any collection of a similar kind which
 has ever been made. As compared with the
 successful Leicester meeting, the following figures
 will show several points of increase:—

	1868.	1869.	Increase.
Stands	337	395	58
Articles	8369	7724	1355

Of the shedding there are 10,500 feet for
 implements, 1250 feet for machinery in motion,
 700 feet for seeds and models, 5000 feet for live
 stock, 406 feet in length of horse-boxes, and
 1300 feet in length of refreshment stands. All
 these are spread over a space of probably 100
 acres; which is exclusive of the large area
 occupied by the ring and "grand stands" in the
 jumping ground.

The trials which were begun on Tuesday are
 likely to be the most prolonged that have
 hitherto occurred under the auspices of the
 Royal Agricultural Society. The mowers and
 reapers that were selected by the two sets of
 judges in this department of the trials numbered
 upwards of 100. Of the 2-horse mowers there
 were 24. Mr. WALTER A. WOOD, Messrs.
 HORNSBY, Messrs. SAMUELSON, Messrs. BUR-
 GESS & KEY, and Messrs. J. & F. HOWARD,
 did some most excellent work in the seven pre-
 liminary trials of half an acre each. Mr. WOOD,
 Messrs. SAMUELSON, and Messrs. HOWARD, cut
 their half acre in about the same time, viz.,
 28 minutes each. This is quick work, when its
 fine quality is also taken into consideration.
 Indeed, nearly all the machines did the work
 well; and, as one of the judges said, the question
 of relative merit is now more one of the cost,
 lightness, and strength of a machine, than of

the quality of its work, and these points will no
 doubt take a leading place in the final decisions.
 At the time we write, the awards have not been
 announced, and it is not likely they will be
 announced before this evening.

The preliminary trials of the reapers and com-
 bined machines are even more numerous and
 tedious than those of the mower alone.

In addition to those already named as exhibiting
 the latter, and who were also among the Rye
 with their reapers, there were several other
 noteworthy competitors. Messrs. BINGHAM &
 BICKERTON did some excellent work with a
 very simply constructed machine. Messrs.
 SAMUELSON have a good new self-raking machine
 at a reduced price. Messrs. HOWARDS' double
 cam self-raker, which carries the gatherers as
 low down, or nearly so, as the rakes, promises
 to take a prominent place for cutting laid corn.
 Messrs. HORNSBY'S "Paragon," a combined
 reaper and mower, did some first-class work
 with the Rye. Mr. OUTHBERT also did some good
 work with an improved Hussey machine.

The judges in these departments possess the
 confidence of both manufacturers and farmers.
 Of mowing and haymaking machines and horse-
 rakes they are—Mr. JOHN HEMSLEY, Shelton,
 Newark, Notts, Mr. J. W. KIMBER, Tubney
 Warren, Abingdon; and Mr. MATTHEW SAVIDGE,
 Sarsden Lodge Farm, Chipping Norton. Of
 reaping, sheaf-binding, and corn-drying ma-
 chines:—Mr. JOHN HICKEN, Dunchurch, Rugby,
 Mr. W. SANDAY, Radcliffe-on-Trent, Notting-
 ham, and Mr. W. SADLER, Ferrygate, Drem,
 N.B. As an instance of the severe test to which
 these machines have been put, fields of Rye-
 grass and Clover are to be rolled down before
 the mowers are put to work, and several acres
 of Rye are to be treated in a similar manner, to
 test the capacity of some of the reapers.

The judges in other departments are as
 follows. Of manure distributors, potato-getters,
 waggons and carts—Mr. JOHN WHEATLEY,
 Newark, Driffield Mr. HENRY CANTRELI, Baylis
 Court, Slough, Bucks, Mr. JOHN GIBSON,
 Woolnot, by Dalketh, N.B. Of miscellaneous
 and lary utensils—Mr. H. B. CALDWELL,
 Monkton Parloagh, Bradford-on-Avon, Mr. F.
 STERBORN, Bolton, Middlesex, Mr. J. K.
 FOSTER, Wulow Bank, Aylesbury. Of plans
 and models—Mr. J. COLEMAN, Escrick Park
 Office, York; Mr. J. BAILEY DENTON, 22,
 Whitehall Place, London, S.W.; Mr. J. E.
 WATSON, Newcastle-on-Tyne.

Among the machinery exhibited there is
 nothing of a very novel character. But there are
 three entries of corn-drying apparatus to
 compete for the Gold Medal offered by the
 Society. These are shown respectively by Mr.
 GIBBS, who was awarded the premium of the
 Society of Arts, Messrs. DAVY, PAXMAN &
 DAVY; and Messrs. ADAMSON & Co.

Among the more ponderous articles, Messrs.
 FOWLER & Co have a traction engine on the
 ground, which they have made for Mr. CAMP-
 BELL, of Buscot Park, the weight of which is
 about 27½ tons.

As to the City in whose suburbs this great
 collection is now gathered—Manchester is rising
 rapidly to a high condition of expectation, in
 anticipation of the visit of their Royal Highnesses
 the PRESIDENT of the SOCIETY and PRINCESS OF
 WALES. Stands are being erected on every
 available spot by which the Royal party pass,
 and windows and houses are being advertised for
 the convenience of seeing the procession down
 the Stretford Road to Old Trafford, where the
 Royal Society's showyard is situated.

If the enormous population in this city and
 neighbourhood be thus thoroughly aroused they
 will, no doubt, follow the Royal party to the
 showyard; and it is evident that nothing but a
 continuance of the fine weather is necessary to
 make our meeting an unprecedented success.

In all essential points the Contagious Diseases
 (Animals) Bill has passed through Committee
 unaltered. The amendments which were intro-
 duced at the sittings of July 9 and 13, although
 important, do not affect the general principle of
 the measure.

Mr. GREGORY'S proposition to substitute two
 months for 10 days, in clause 54, as the period
 which must elapse since the occurrence of a fresh
 case of pleuro-pneumonia before the rules of
 the Act cease to operate in any particular case,
 was modified by the adoption of the words
 "thirty days," and taking the general experience
 in reference to the progress of pleuro-pneumonia
 that time is sufficient; we have known three

months to elapse before the disease has reappeared, although in exceptional instances. On clause 63, relating to the carriage of animals by railways, Mr. FORSTER'S amendment directs that "Every railway company shall make provision for the supply of water and food to animals carried by the company, the same to be supplied on the request in writing of the consignee of any animals at such stations as the Privy Council may direct." This addition to the clause will meet the wishes of agriculturists, and will also be generally acceptable on humanitarian grounds. Mr. FORSTER has also agreed to take into consideration the arrangements for the transit of cattle in steamboats. Details of legislation on these matters is somewhat difficult, as cattle on board ship, like their animal companions of the voyage, are subject to strange modifications of their normal functions, and do not always behave in a strictly correct or usual manner. Spanish cattle, for example, if fed and watered during the first 12 hours of the voyage, suffer considerable inconvenience, which is avoided when they are kept fasting for a longer time. Again, it is well known that some animals will neither eat nor drink at all during a journey. Practical experience is therefore absolutely necessary for the proper arrangement of details, and the whole question must be left open in any Act of Parliament. If the Privy Council undertake to sanction a certain system of conveyance of animals by land or water, it is reasonable to presume that they will obtain all the necessary information to enable them to act consistently.

In brief, as the Bill now stands, the foreign cattle trade will be regulated by "Orders of Council," in respect of the definition of countries from which animals may be imported into Great Britain free, all other classes of imported stock will be landed within a defined part of a port, and there sold and slaughtered.

Referring to some-Lord and other stock in this country, the Bill makes it penal (clause 56) to expose "for sale in a market or fair or other public place, or sale yard, whether public or private," or to send or cause "to be carried on a railway or on a canal, river, or other inland navigation, or in a coasting vessel," or to drive or lead "on a highway or thoroughfare, any horse or animal affected with a contagious disease."

A difficulty of no mean character presents itself in reference to the position of imported stock at the moment of the disease. Legal statutes we know must be construed strictly, and the penalty applies to the owner or "person" who commits the offence, unless he shall show that he did not know, or could not with reasonable diligence have obtained the knowledge, that the animal was so diseased at the time it was exposed for sale or moved by road or river. In the case of an English ox affected with pleuro-pneumonia the probabilities are that the farmer who sends it to market can with reasonable diligence find out whether he has pleuro-pneumonia on his farm or not; but how stands the matter in reference to a Dutch or German ox landed in this country with the undetected disease in his system, passed by a Custom's inspector as a sound animal, and sent to one or two markets before the symptoms of pleuro-pneumonia are detected? Who is guilty of an offence against the Act in such a case?

Again, the more frequent disease, "foot and mouth complaint," is placed in the list of infectious maladies; and it will be penal, when the Bill becomes law, to expose animals affected with that disease in a market, or to move them along the road or river. Hundreds of imported animals are landed in this country, and at the time of inspection give no evidence of disease, but in two days afterwards are undoubtedly affected with the disease, and the responsibility rests in this case? And if proceedings are taken against the importers, what magistrate will convict a man for exposing in the market on Monday a lot of oxen which were passed by the port inspector on the previous Saturday. This part of the measure appears to require correction, and we confess, with a view to the safety of the stock of the country, we should prefer that infectious diseases which may be detected in a market, or on the road, be slaughtered at the nearest convenient place, rather than that the "person" should merely be deemed guilty of an offence against the Act and punished accordingly, while the diseased beast is left alive to do his worst. If the local

authority had power to order "the slaughter of such animals" no great loss would be incurred as the meat in the early stage of both diseases would be sold for food, as it always is, and the danger of propagating the disease be at once effectually averted.

It is very strange how soon accurate remembrance of the weather fades away from the mind unless there has been some very special circumstance to imprint it, and nothing is more common than the exclamation—"We never had such weather as last week" or "last month," as the case may be. Unless we keep a record of instrumental observation we are very apt to be deceived, our feelings perpetually deceive us, and our remembrances still more. For once, however, we have been in accord, instruments, feelings, memories, all agree as to the character of the month of June last past. Recollections must indeed be able to travel half a century to recall such a season as that we have just passed through; but they need only go back a single twelvemonth to call to mind one of the most remarkable contrasts ever presented by our climate, variable as it is.

Last year we had a warm, bright, and dry May as a prelude to a June extraordinary for warmth and drought and, above all, for the clearness of the sky. It was this last feature which by promoting radiation and affording cool nights, served in some degree to moderate the heat—which was nevertheless oppressive, and, combined with extreme drought (not more than half an inch of rain having fallen throughout the month in many places), was very trying to vegetation. This year's June was pre-empted by a May in every way a contrast to that of 1868—cold, dripping, overcast, with biting winds and frequent frosts. The month that followed it has not been remarkable for anything but cold; the temperature in the shade has been about 2° below the average; the absence of rain (not so remarkable certainly as last year, yet such as to constitute it on the whole a dry month, and at its close leaving all crops, except perhaps the wheat, crying out for moisture. But in heat it has produced a most remarkable contrast to the preceding season: instead of the shade of the grove, we have resorted with pleasure to the fireside—while colds and rheumatism have been as much the fashion as in the depth of winter. The days have been cold and dreary, but the nights extremely cold—frosts prevailing in many localities even to the end of the month, whilst the night of the 16th will long be remembered for its wintry severity—the hills in the north covered with snow of great depth, in the south sheep actually perishing with cold.

Now, if it be asked, what has been the reason of this extraordinary cold? the proximate cause may be indicated with certainty, and perhaps the cause lying immediately behind this; though the remoter causes may remain in obscurity.

Observations with a sun thermometer, of which the bulb is fully exposed to all atmospheric influences, rarely show a difference over the temperature of the shade of more than 14° or 15° even in the hottest weather. During the past two months a much larger difference might have been frequently noticed—a difference of 20° to 25°, and on one occasion nearly 30° has occurred. This may be taken as an index that the temperature would have risen to one much more in accordance with our ordinary experience at this season, but for some overmastering influence. That influence has been the translation bodily of masses of cold air from the arctic regions. The prevalence of northerly winds in May and June, 1869, compared with that in the same month in 1868, is nearly as 9 to 3. The same latitudes of this year as the abnormal weather which has obtained in the north of the country, the papers tell us, have been the scene of a larger body of heated air flying off towards the pole, has been a larger quantity forced from the pole southward. What that again depends on it is much more difficult to say; but probably upon some unequal distribution of vapour. A slight departure from the usual course in those natural forces which are the object of study in meteorology has a tendency to increase and propagate itself till, by the natural arrangement, its very excess calls into action a compensating force, which again works out a cycle of variations, and in variable latitudes the merely arithmetical law of combinations is capable of producing almost endless variety. If you take only three degrees of intensity in the ordinary elements of

weather, and calculate the number of combinations which are rendered possible, it will be found that it will take more than a million years to exhaust the series.

WHEAT has risen in price during the month of July nearly 5s a quarter of which is, was due to the Malay market. The price of a good barrel of wheat and dull, the supply exceeding the demand. There is little to report in the agricultural trade.

OUR LIVE STOCK

THORNTON'S Northern Cattle No. 1, in connection with the week, and as a complete month. It opens with the prize Northern, the Royal, Dublin and John and Wm. of England, which it appears that 297 animals of the latter were shown at the former meeting, and 53 of the latter must have been imported, as 121 entries were made in that class. Northern sales eight, four with colour age, and reference pedigrees of 12 animals, as well as the price realised and buyers names together with a summary of the sale and the average price. Notice of the forthcoming sales are also given, likewise a couple of pages of sales that will probably take place during the season, but which are not yet advertised. The season seems to have been good for exporting for about 30 months ago left the country for America, Australia, Germany, Hanover, Holland, Prussia, Russia, and New Zealand, as the progress of the month are given, with the Herd book reference part of the work must be very useful to Continental breeders. About five pages of births is incorporated herds are given, and an account of the private selling and letting of bulls. The sale of some famous animals is a very curious one, with a report of their produce and drawings, the most interesting being the history of the famous bull, THE DUKE OF THORNDALE 1770. The late Mr Benjamin Wilson's is also a broader and more sketchy, the opening phrase, "a neat farm and a good job, being pretty well the keynote of the whole. Very few animals are sold and three on service complete in the morning. The 7th does not mean the apparent care bestowed on the information arranged to be a daily production, and Thornton's breeders should not feel too unsupported.

The second Mr. Park sale of thoroughbred yearlings was not so well attended, still 35 out of the 40 offered were disposed of at an average of 50s each; Mr Cavender purchased for Mr Graham, the two highest prices, 100s each for two splendid fillies many of which were bought for breeding purposes. Mr Dazear bought two very promising ones, a yearling stall for good service horses at 100s and a yearling mare at 100s. He bought a Graduate colt at 100s and a pair of Arab horses for 500s. The best prize animal at the sale is a yearling Arab stallion has also been obtained from the King of Wurtemberg at Stuttgart, these two will be some of the best animals and best blood that have as yet been exported to Australia.

THE ROYAL AGRICULTURAL SOCIETY AT MANCHESTER

The Manchester meeting of the Royal Agricultural Society, judging from the report, is a successful one. The collection of implements, seeds, and roots, comprises a full and complete volume of 500 pages of printed matter. There are 724 entries, making about 100 pages and 1355 entries in excess of last year. The Manchester implement catalogue of last year is well attended. The catalogue of the department is not yet published, but from the information we are given to understand prospects are equally favourable.

The trial of mowing and reaping machines, 1877, was highly attractive to more than the usual public, and witnessing the "The Royal Capital," and the perfection to which the machines have attained, it is too late to report on the exhibit on we have to report, and the interesting receiving, are no more than what was to be expected. Thus, Manchester enters 72 reapers and mowers, 23 combined machines, 51 reapers, and 10 mowers, against a total Manchester 75, 200, 100, and 100, a difference which speaks sufficiently of the progress of the industry.

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a good healthy plant, and grows fast, and the same may be said of the Swedes and Turnips, so that the prospects of the present season are a striking contrast to those of the last, as far as the stock-keeper is concerned. The young Grass seeds look exceedingly well. Harvest will probably commence in this district in about a month. *Cookham Dean, Maidenhead, July 8.*

DORSET—Wheat crops in the neighbourhood of Blandford are looking ragged, weak, and thin, and must be under an average crop, they have never recovered the cold wet month of May. A good field of Wheat, I am sorry to say, is a rare thing to be seen in this locality, even on the best cultivated spots. Warm sun is badly wanted to bring it on. It will be August before any of it will be fit for the reaper, which will make the harvest from 12 to 15 days later than last year. Much as yet cannot be said respecting the Barley and Oat crop, being early for it, but it is at present looking healthy and promising, likely to be an average crop. Keep for all kinds of stock is plenty, and the Mangels, Swedes, and Turnip plants are coming on very satisfactorily. I have not seen anything of the Turnip fly this season, or heard any complaint. *John Ford, Kuston, July 12.*

ESSEX—The following is my estimate of the coming crops—Wheat, barely average. Oats, under average, Barley, good average; Beans, above average, Peas, above average, Tares, above average, Mangel, good, but rather late, hay, above average; Clover, plants lost. *Collinson Hall, Princes Gate, Romford, July 9.*

GLOUCESTERSHIRE—In consequence of the very fine weather we have had lately for the blossoming of the Wheat, I am inclined to think we shall get an average crop. Both Barley and Oats are greatly improved, and promise an average. Beans must be 30 per cent. under an average. The quantity and quality of hay secured from the pasture lands were never better, and the prospect of a good crop of roots is at present very encouraging, and Potatoes are doing up a good crop without any disease. *Edmund Ruck, Castle Hill, Cricklade, July 12.*

HEREFORDSHIRE—The Wheat crop in this district must be much under an average, on the stiff and wet soils there is scarcely half a crop, it being very thin, and coming out in the ear very unevenly. The Barley I think will be about an average crop. Oats are looking well. Beans are strong in haulm, but I do not think will be very well podded. The hay crop is a good one, especially on the drier land. There is at present a very good prospect of roots. *D. Edwards, Brinsop Court, July 9.*

LINCOLN—The corn crops in this part cannot be an average. The Wheats vary much, but will take the lead; it must have been a fine time for flowering. The Oats and Barley are very light and backward. Beans have plenty of straw, but not well corned. *H. Dudding, Panton House, July 13.*

NORFOLK—I have great pleasure in sending you what information I can from this part of the country. The Grass hay a very abundant crop, and mostly well secured, the seeds quite a failure last year. Wheat a good average, Barley, little, Oats, little. Beans under a rather more than an average. The root crops are all very good, scarce a spot failing this year and the warmth of the last few days has promoted their growth immensely. This part of the country is very full of Grass keeping. *Hugh Autmer, July 8.*

OXFORDSHIRE—During the last week the Wheat has come out into ear, and looks better than it promised three weeks ago, but it is yet very uneven, and I fear we will not have an average crop, the yield must be much below last year's. Although last summer's drought was most beneficial for the strong lands, the excessive rain during the winter, with a cold wet spring, made spring seeding most difficult. Barley and Oats have also suffered to the same extent upon strong and sour soils. Beans and Peas are generally good, therefore the prospect for a bountiful harvest is far from general. The hay crop is abundant, and a good deal is well saved. Mangel and Swedes are a full plant, and doing well. *Matthew Savidge, Sarsden Lodge Farm, Chipping Norton, July 6.*

SHERBORN—Wheat short in the straw and light, just out in ear, from three to four weeks later than last year. Barley, very light crop, late sown likely to be very bad indeed, first sown just coming out, but comes out very uneven, must be deficient. Oats promising. Beans good. Peas promising. Swedes likely to be the best we have had for years, though later sown. Hay good average, not much harvested yet. *Richard Shirley, Maslow, Church Stratton, July 9.*

STAFFORDSHIRE—There cannot be a doubt that the Wheat crop has generally improved during the last fortnight, and on good well farmed soils will probably prove an average, on cold strong land and on light, musky muck, the case will be different. I am afraid that last night's wind has done no good, for the ground this morning is covered with pollen. I enclose an ear of autumn-sown Talavera, the whole field is similarly affected. Rust I have not observed elsewhere. Barley must be a light crop in this neighbourhood, one hears of its poverty on all sides, and should we get a wet time for harvesting, even last year's yield may make more sound malt. Oats are not grown much about here, but report speaks favourably of them. Beans and Peas promise well, there is a very large breadth sown. Early sown Mangels and Swedes are mostly singled out, and a little more rain would soon make them cover the ground. The hay crop, a very fine one, has been cheaply and capably secured. Pastures are full of Grass, and stock is generally healthy. One hears of that horrid pleuro-pneumonia being among the Derbyshire dairies. *G. A. May, Elford Park, July 8.*

SUFFOLK—The Wheat in this neighbourhood at the present time I should think scarcely up to an average, from the late frost causing the straw to be short and thin, the appearance of the ear is small. The Barley

has very much improved the last fortnight, there is a good quantity of straw, and I think if the weather is at all favourable it will be a good average crop. Peas and Beans very luxuriant, an immense quantity of straw not forward enough to tell about the corn. Oats, none grown. Clover a failure of quite half the number of acres, but heavy crop on the other half, badly secured. Hay an abundant crop, and well secured. Mangel, splendid prospect of a good crop. Turnips, a prospect of an abundant crop. Potatoes very good, but not an average yield. It is said the disease has made its appearance amongst us. *Samuel G. Stearn, Brandeston, July.*

SURREY—I am sorry I cannot give a very flattering account of the crops in this part of "poor Surrey." Wheat, although within the last few days has slightly altered for the better, cannot by any possibility be an average, and I should put it at six bushels per acre less than last year. A very bad feature of the crop is the unevenness of it, and shortness of the ear. Large tracts within a few miles of this will not go more than 20 bushels. The best crops will be on medium soils. Barley on suitable land is pretty thick, but a very short ear, few over 13 a side, on poor soils it is very bad, and will not be half a crop. Oats at present promise to be a full crop. Swedes and Turnips very backward, few being yet been out. Mangels generally look well. Potatoes also look very promising, but reports of the blight are rife, as usual, about this season, but as yet no outward visible sign. Hay a good crop, but very variously saved, with a great many "uncomfortable stacks." *James Arnot, Carshalton, July 7.*

WARWICKSHIRE—It is much to be feared that the effect produced on the crops by this sunless season will form no exception to the generally admitted opinion, that bright and dry weather are required to produce a good crop of Wheat. Present appearances of that grain are very unsatisfactory, on light and thin soils (when much is growing after Barley) it is short and thin, and on the weak clay lands it is a very small crop, being knee broken and scrawled. On deep well cultivated loams there is a better promise, but on such soils even the crop is not altogether satisfactory, having been given about a good deal by the violent wind, and thus its probable yield is seriously lessened. Wheat is now in full blossom, it is generally remarked that the ears are much smaller than usual. Early sown Barley on land suited to it, is long and level, and promises to be a full crop, but there are large breadths to which an opposite description would better apply. Beans, particularly the autumn planted, are very luxuriant, but pods are thinly set, and I doubt whether the yield of corn will be in accordance with present appearances of the haulm. Peas are most promising, a huge crop of straw covered with healthy blossoms, and at present there is no appearance of blight. The early Turnips and Swedes are unusually good. Mangels are a good plant, and since the wind has changed its course from the eastward, and the temperature has risen, they have grown rapidly. A good crop of hay has been secured in several places. Pastures are green, and stock doing well. *J. C. Atkins, Milecot, Stratford-on-Avon, July 8.*

The hay crops in this neighbourhood are decidedly above an average, and have been gathered in of good quality. We have not had real summer weather here—leadens skies and north-east winds, and, unless great patience has been exercised, we may expect to hear of heated haystacks. There are no good crops of Clover this year, owing to the excessive drought of 1863. The Wheat is now generally in full bloom, but I do not think there is a chance of its being a full average crop, being very short on many of the light soils, and on the clay diminutive ears—a higher range of temperature will much improve it. Corn harvest must be quite a fortnight late, if not more, and cannot be ready much before the middle of August. The crops of Barley vary much, and cannot be an average crop. Winter Beans are much grown, and are very long in the straw, but not well covered. Spring Beans full of promise, if we get rain soon. Mangel, which is much grown here, looking well, but wanting rain. Peas most luxuriant, and very full of blossom. Tremendous crops of all kinds of Plums, and good of Pears, Apples not so abundant. The young seeds at present are a good plant. Oats are not so much grown, but those I have seen are splendid. *John Baldwin, Luddington, Stratford-on-Avon.*

I have seen several reports in the papers respecting the present appearance of the crops, but I have met with none from this, my neighbourhood, and I therefore send you a few lines on this subject. The warm, dry weather which we have lately had has been very beneficial to the Wheat crop, but at the same time the cold frosty nights have been very prejudicial to the blossom, and the consequence is that the crop is not at all promising. I have no hesitation in saying that the yield in this neighbourhood will not be so much as last year by two quarters per acre. The ears are very small and are made up of many artificial corns. The Barley crops look better than the Wheat, but are still not so good as we generally see them at this time of the year. Beans are a capital crop here, and the spring sowing promises to be the heaviest we have had for years. The winter Beans, which looked so magnificent a short time ago, are, alas! a perfect failure, with scarcely a corn upon them. Peas again are very variable; some fields a very fine crop, others being so bad that the plough has been put to work in them. The early sown Turnips are good, as also are the Mangel Wurzel, but many fields are very patchy, and not so promising as one could wish. I have only given you a few hasty notes now, as I purpose in another week or two to make a further report. I will now merely add that the crop of hay has been exceedingly heavy, and secured in fine condition. That the quantity of Wheat remaining in the hands of the farmers is very small, and that with present prospects, and under any and all circum-

stances, I feel convinced that the price of Wheat must and will considerably advance. My report will run somewhat differently from that of my friend Mr. Meck, but I am not such an enthusiast as he is. His crows in his county cannot be as black as they are here. At any rate they are not so numerous as they would find to his cost that 1 bushel of Wheat in the acre would not do. *John Ford, Morlox Hall, Warwick, July 8.*

WILTS—Wheat is by no means a full crop or poor on the ground, a full crop is an exception. It was very uneven at head, when it first made its appearance at the time of blossoming, one stack was feet high, and others too many in number, just bursting into ear, and that unless we have weather very warm and forcing the grain will be decidedly of two characters. My opinion has been we should not have an average crop the last week it is much improved, should the weather from this time be of a forcing character, the crop will be more yielding than was once anticipated. Barley promises well, but in many instances received a check from frost. Oats partially good, water beans appear to be a failure for want of pods spring beans not sufficiently forward, seeds in the field in many instances did not fill up, so that the hay crop was so heavy, pasture very good. The season promises well for a good root crop of all kinds. *Geo. Brown, Avebury, Calne, July 9.*

WORCESTERSHIRE—In this neighbourhood the harvest will be about 28 days later than last year, and from present appearances I am of opinion we shall not have an average crop of Wheat or Barley. Peas, Beans, and Oats look more promising, but of course much depends on the weather for the next few weeks, which, if suitable, may set matters right as regards the former. The hay harvest is progressing satisfactorily, crops pretty good, Turnips, Mangels, and Potatoes badly want rain, which has threatened in several days. We have a fair crop of Apples, but unless we get more sun, will be small. Hops are late and badly blighted, and cannot make half a crop, and have more Grass and keep on the ground than we have had for several years. P.S. I commenced cutting Wheat on July 20 last year. *John Rawlins, Stone Tenbury, July 9.*

APPEARANCE OF CROPS AND HARVEST PROSPECTS IN SOME OF OUR WEST MIDLAND COUNTIES—During a recent trip to Oxford the following notes were made on the aspect of agriculture throughout the districts visited. With but few exceptions the Wheat looks thin, the ears are uneven, the crop is stony, drills still visible, and in some cases the colour is too yellow. No doubt the ripening will be irregular and certainly late, and, what is worse, the yield must be from two to three sacks an acre below an average. Just in this immediate locality, on some good highly farmed land, one might walk through 50 acres of Wheat, at least 3 feet in height, and promising at the same time to produce from 45 to 50 bushels to the acre. From whatever cause it arises, the cold spring or absence of frost in winter there is no doubt the Wheat crop has not turned out to any extent this season, the heavy class of soils promise the greatest yield, especially where drainage and deep farming prevails. In a portion of the old forest of Braydon, Wilts, may be seen 30 acres of as fine Wheat as could be desired, upon land which barely three years back was let at 7s per acre. This result has not been produced without considerable effort and outlay at some future period your readers shall have a description of the work of reclaiming and improving 1000 acres of Braydon Forest, and a detailed account of the cost of the undertaking. Returning to our crops, Barley is not so even or promising as it should be, the cold of May checked its growth, and only in sheltered spots is there a hope of an average crop. Oats are likewise most variable, taking the district we are reporting upon generally, this cereal must make good if it is to reach an average. Beans have all over exhibited a luxuriant growth, and no doubt the winter sown ran away too fast to form pods. Spring Beans promise a good yield. Peas are heavy in the haulm and show fairly for podding, the blight was threatening in some localities, should this be arrested they will be a good average crop of Peas, Savoyon, Yellow Trifolium, and most artificial Grasses have produced heavily, fortunately for agriculturists as in the absence of Mangels and Swedes our live stock would have been ill, had the spring been backward and the ground crops a failure. The hay crop is decidedly good in all directions, a great breadth is secured in good order, and the cleared land is a ready establishment abundant feed. Probably there never was a season when roots exhibited such an even true brand as the present, it appears as though every seed had germinated, and in scarcely one instance has a plant fallen victim to the fly. With abundance of keep in the pastures all kinds of stock have done well, the country generally, horned cattle and sheep were perhaps looked better. Store sheep have well maintained their figure, very fair lambs have been bought at remunerative prices, but the trade in fat lambs has revived, as with pigs—stores are fetch a high price. What with a demand for fat meat, business in the cheese trade, and firmness in the wool market, we may hope to register a prosperous year for agriculturists. It is impossible to pass through this neighbourhood at the present time without being made aware of the spirit of enterprise and improvement of landowners and tenantry, it is very much the fashion to denounce both classes for the absence of the qualities, but no observant practised eye could fail to convict the owners and occupiers of indolence and neglect. Improved residences, convenient homesteads, broad, well cultivated fields, superior and improved stock, expensive modern improvements, well paid, well-housed labourers, betokens a condition

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...society much to be desired. That exceptions to these statements exist no one will deny, but the rule... goes far to prove that agriculture, and all... is steadily and assuredly advancing.

ADVANTAGES OF AGRICULTURAL LEASES.

The following paper on this subject was read last month before the Hampshire Chamber of Agriculture by Mr W. WARNER, of Botley—

Security of tenure has been the subject of discussion by many of the farmers' clubs in the kingdom, and in no form of lease can be framed which will... in all cases and in all parts of the country, still... admitted that greater security for... in land (either by long leases... with compensation for unexhausted... should be given, to insure that proper culti-... of the soil to meet the requirements of the... of the country. I know that on some estates... has been granted for generations, and that... and tenants are well satisfied to go on... to the honour of each other.

There are also some estates where no leases are... perhaps, not the same honourable feeling... as in the former case), where the land is let... year to year, with a six months' notice by either... The consequence is that this is a bar to any... of the soil. The occupier, having no... in the land, his object will be to keep it in... condition, employing but little labour, and... little capital, and what he does spend on... taking out as quickly as possible, feeling the... of his position. I will quote a paragraph... appeared in the Agricultural Gazette some... on the... of a yearly tenant—

...other improvements, he was turned out... at six months' notice, without any reason being... for it. Another gentleman, farming on another... who was a yearly tenant, applied for a lease, and... to give an increased rent if it were granted. But the... refused, saying it would be contrary to his custom, and... no reason for changing. So the gentleman (quoting... words) went on putting a little into the land and... a little out, whereas, if the landlord had given him a... for a good term, with liberal covenants, he would have... 20 per cent. more on the land, and paid 20 per cent. more rent.

I name these instances to show the great loss... both individually and nationally, by farming... without a lease. In some parts of the country tenant-... with a two years' notice to quit on either side... advocated as a security for the tenant as well... the landlord; the incoming tenant or landlord... the outgoing tenant for all improvements and... manures. Now this, though better than... to lease at a... is not at all satisfactory. A tenant... cannot feel comfortable in such a position, being likely... any time to be turned out of his farm at a two... notice. He cannot lay out his capital with... same confidence, neither can he feel the same... in those around him as he would with the... of tenure which a long lease would give him.

He may get back in part what he has laid out; but the... for compensation often leads to litigation as to... that are deemed improvements, and also as to the... of unexhausted manures; and it generally ends... the outgoing tenant getting less than he considered... entitled to, and in the landlord allowing more... than he thinks he ought to do. In fact, tenant-right... expresses a great deal, but is very difficult to carry out... in practice to either the landlord or the tenant.

The next, and I believe the only means, by which a... can have real and good security for the invest-... of his capital in land, is by a lease for a term of... 15 or 21 years—if for 21 years the better. A tenant... with a 21 years' lease need not be afraid of laying out... capital, as he will have ample time to receive it... back again, feeling assured that, if laid out judiciously, it... return to him with profit. The late Lord... one of the greatest friends to agriculture... country ever produced, always granted 21 years'... His advice to any new tenant was to lay out... the money he had of his own, borrow as much as he... and lay it all out on the farm the first seven... get it all back the next seven years, and in the... seven years make a fortune for himself. I believe... tenants in the country have prospered more than... of the late Lord Leicester, and no property has... more improved in value. I believe, also, that, by grant-... long leases, landlords would increase their rentals, as no tenant would object to give a greater rent for his... with a long lease than he would by being merely... at a... Long leases would also be a great social... as a person on taking a lease would consider... a measure, fixed for life in a certain locality, would be looking round for acquaintances and... neighbours, and, having an interest in the well-doing of

those around him, he would be enabled to assist in any measure for the general benefit of the neighbourhood. He would also employ more labour, and take a greater interest in the welfare of his workmen than if he were merely a bird of passage. Long leases would also be a great national advantage, as by having a security of tenure it would induce a greater investment of capital in the land, thereby providing a greater amount of food in corn, beef, and mutton for the people of this country. Now, in advocating the system of long leases I do not presume to say what the conditions of that lease should be, as, I think, in the bargain of buying and selling, or letting and taking, the parties immediately interested are best able to judge for themselves, only I would suggest that it should be as free of restrictions as possible, both in cropping and selling the produce, excepting the last four years of the tenancy, when there should be the necessary restrictions to protect the land. A lease should be drawn up on commercial principles as much as possible, as a tenant is supposed to give the full value of the land; and there ought not to be any of those vexatious and unfair covenants which are sometimes inserted, often to the injury of the tenant, and with no real benefit to the landlord. One thing I would just notice. There are some landlords who, in granting leases to their tenants, think it desirable to retain the cottages on the different farms in their own hands. Now this, though well meant, is a mistaken kindness to the labourer, and operates unfairly on the tenants. It prevents an employer getting rid of a bad and dishonest servant, as, having no control over the cottages, he cannot get rid of him to make room for another. A tenant must be as much interested in the welfare of his labourer as a landlord can be, and if he has a good servant there is no fear of his taking an unfair advantage, and if he has a bad one, he ought to be at liberty to get rid of him as soon as he likes, and this he can only do by having control of the cottage in which the labourer lives.

There is another subject in connection with leases which I cannot pass over—that is, the question of game. I know it is a very delicate subject to touch upon and how sensitive many landlords are on the subject. I have heard that there are more disputes on politics and on game than on any other subject you can name. Too much politics, I am satisfied, is not desirable, and I am half inclined to think that too much game on a farm is also not desirable. It would be a general advantage if, in all leases, the right of shooting was enjoyed in common by both landlord and tenant. In that case a landlord would not be debarr'd from his sport, as his tenant, from having an interest in the game, would take care there should always be a sufficient quantity, and would always feel a pleasure in seeing his landlord on his farm. But I am afraid, we are not yet arrived at that happy state of affairs. I am sure that, in all leases, the tenant should be allowed the right of destroying what is called the ground game, viz., hares and rabbits; and unless he has that right he can never reap that advantage in the cultivation of his land and in the employment of his capital which he is fairly entitled to. It is not necessary for me to state the immense amount of damage done where game preserving is carried to an unreasonable excess. That is continually before the public, and as one rides about the different parts of the kingdom he sees sufficient evidence of it. My only object is to point out the advantage it would be to the country, and to agriculture in particular, if these restrictions, which are a bar to all improvement, and a check to investment of capital, could be removed. I now proceed to quote an extract from remarks by the Rev. J. Fraser on the effects of the over-preservation of game. It is given in his report relating to the employment of women and children in agriculture. He says:—

"The extent to which the system of game preserving is carried on in many parts of the county of Norfolk is assuming a serious significance, both in a moral and an economical point of view. The farmer cannot cultivate his land with the proper measure of profit, and there is a tangible loss thereby sustained in the resources of the country, while the way in which, and the extent to which, preserves are stocked to meet the present taste of battle shooting are to satisfy the notion that you have had the sport unless you have slain 'beasts upon beasts' are unchristianlike incentives with the peasant, who loves his life of sport as truly as the gentleman, and whose honest earnings are not sufficient to enable him to overcome the temptation thus thrown in his way to poach and steal."

I give another extract from a speech made by Mr. Edmonds at the Cromer Farmers' Club—

"A large number of my fellow-farmers whose opinions were much respected, and who were all first agriculturalists, was for some years a great game preserver. He had a large quantity of land in his own hands, and, seeing the great damage and mischief caused by the game, he said, 'It is not honest in me to let my farms, and allow my tenants' crops to be spoiled,' and, feeling convinced of that, he at once gave up game-preserving."

of Wheat yearly is rather over 20 millions of quarters, we are dependent on the foreigner for at least three-eighths of that supply. In fact, in the year ending August, 1888, the consumption, including seed, was 20,800,000 quarters, and the foreign importation was 9,300,000. If, from a general bad crop abroad, as well as in this country, or if, unfortunately, a war were to break out, so as to interfere with the importation of corn, we should have bread at famine price. How necessary it is, then, for the general welfare of the country at large, that all restrictions which interfere with the proper cultivation of the land should be removed? I am aware that in granting long leases there are great difficulties in the case, and many prejudices to remove. Many landlords do not like parting with their property for so long a time, and others do not like giving up game-preserving, others are afraid they may get bad tenants, and the land injured. All these things are to be considered. I think some of those objections might be removed if landlords would more generally be induced to view the question in the light of pounds, shillings, and pence. I think they would find by granting long leases with liberal covenants they would not only get an increased rental, but that the land would be better cultivated and improved in value, and also, if at any time they wished to dispose of their property, it would realise a greater amount than before, as it is well known that the value of property is usually computed from its rental. Many of the difficulties would also be got over if all landlords were to employ only practical men as agents, and who had, perhaps, been farmers themselves; and who, while acting for their employer, would not be unmindful of what was due to the tenant. I think they could draw out an agreement by which the landlord would be fully protected, and one which would be fair towards the tenant. With a due deference to the legal profession, I would never recommend the framing of a lease in a lawyer's office. They may understand the legality, but do not understand the practical working of a lease, and it is only by practical men that a lease can be framed so as to give general satisfaction. As I have said before, I do not pretend to go into the minute details of what the covenants of a lease should be so as to apply in all cases, as the customs differ so much in many parts of the country. For instance, in some counties a Mr. haelmas entry is in practice, in others a Lady Day entry. There are also other matters such as draining, liming, chalking, and repairs, which are best left to competent parties to arrange fairly between landlord and tenant. My object is to prove the general advantage both to the owner and occupier, and also to the community at large, which would arise from the system of long leases, more generally in practice in this country. I have endeavoured to the best of my ability to point out the general advantages of long leases. I am aware I have not done justice to the subject, but will leave it in your hands for discussion, trusting you will excuse any omission on my part. There is one thing we should all feel, both landlords and tenants—that in discussing this question it should be done in a considerate spirit, as it is one in which the whole nation is interested. It is one which concerns the food of the people of this country, and if we can by argument and conviction arrive at any conclusion or suggest any means (without injury and without interference with the rights of others) by which the rental of the land can be improved, the security of the tenant be insured, and the produce of the land be increased, we shall be doing a general good, and not have spent our time in vain.

DISCUSSION.

Mr. Spooner believed the country itself, the landlord, and the tenant-farmer would all be benefited by the custom of granting long leases with liberal covenants. If it were objected that the landlord would have a difficulty in disposing of a bad tenant, he would answer that the landlord would be more particular, in the first instance, in inquiring into the character of the person to whom he let his farm, if he came from a distance, and would ascertain whether he had sufficient capital to manage it properly. Then the tenant's sympathies would be evoked, he would expend his money liberally, pay his labourers well, and take care they were provided with good cottages. He would have far greater inducements to cultivate the land properly and look to the welfare of those dependent upon him than when, under other circumstances, he felt that the land would be the property of a distant party, who might be removed to a distant part of the country. Personally, he had experienced the advantages of long leases, having had a long lease. He occupied several farms for many years, during which a change took place in the estate, and the proprietor wished to double his rent, but as he (Mr. Spooner) knew the land was not worth so much, he left at the end of his term, rather than submit to the augmentation. On the excessive preservation of game, taking the great body of farmers he would assert that 99 out of 100 wished sufficient game to be preserved to afford fair sport for the landlords and also for themselves. But what they objected to was the modern innovation, encouraged here and there, of battle shooting. The large majority of landlords desired nothing more than fair sport, which the tenant was always anxious to give. If the ground game belonged to the tenant, there would always be sufficient to afford fair sport to the landlord and his friends, and he ventured to state that opinion, because he believed it would meet with the approval of nine-tenths of those present.

Mr. Edmonds said that no doubt the chief instrument in the hands of a tenant to ensure his cultivating the land in a manner most to his own advantage and to that of his landlord, would be a long lease with liberal covenants. But this and preservation of game were questions entirely of bargain between landlord and tenant, and if a landlord chose to place certain restrictions upon a tenant at the time of taking a farm, it was for the tenant to consider, before accepting the terms proposed, whether having those restrictions upon it would enable him to get an adequate return for the farm for himself. He was aware that there was a very tender subject. Many landlords were not aware that when the landlord reserved the game, the tenant was at a disadvantage, as he would otherwise fetch, and therefore, as this was a consideration at the creation of a tenancy, the tenant had a right to complain of it afterwards. One point touched upon by Mr. Warner was of vast importance—the reservation of cottages by landlords.

THE ROTHAMSTED FIELD EXPERIMENTS

MEMORANDA OF THEIR PLAN AND RESULTS.

(Continued from p. 748.)

III. EXPERIMENTS ON THE GROWTH OF WHEAT YEAR AFTER YEAR ON THE SAME LAND WITHOUT MANURE, AND WITH DIFFERENT KINDS OF MANURE.

BROADBALK FIELD

Previous cropping—1839, Turnips with farmyard manure (1940, Barley; 1641, Peas, 1413, Wheat; 1415, Oats, the last four crops unmanured. First experimental Wheat crop in 1844. Wheat every year since; and, with some exceptions, nearly the same description of manure on the same plots each year—especially during the last 17 years.

(Area under experiment, about 1.3 acres)

PER ACRE

Table with columns: No., Manures, per acre; Twenty-sixth Season—1899-00, Average per annum—1844-1899, and Twenty-fifth Season—1898. Sub-columns include Quantity, Weight per bush, Total Straw, Dressed Corn, and Total.

1 Since 1875, 200 lb. sulphate of potash, 100 lb. sulphate of soda, and 100 lb. sulphate of magnesia; for crop of 1897-8, and 100 lb. sulphate of soda, 200 lb. sulphate of magnesia, and 100 lb. sulphate of soda. 2 Equal parts sulphate and muriate of ammonia of equal weight. 3 50 lb. nitrate of soda is reckoned to contain the same amount of nitrogen as 400 lb. ammonia-salts. 4 For 1844, and probably only 1/2 lime as much. 5 With 1/2 sulphate instead of sulphuric acid. 6 The 10 acres of plots 1 and 18 are, respectively, year by year, as follows:— 7 Average of 17 years' mineral manures, estimated with ammonia-salts. 8 Plots 17 had the ammonia-salts for the crop of 1895. 9 Plots 18 had the mineral manures for the crop of 1899. 10 Average of 10 years, 1832-1867; in 1868, owing to a mistake at the time of carting, the product could not be ascertained. The plots marked (a and b) are divided into equal portions, a and b, respectively, which were sown alike excepting that, for the crops of 1864-6, the manures on plots 5, 6, 7, 8, 9, 16, and 17 for 18, received a mixture of soil the same as in addition to the other manures, and 1/2 bush without any mineral salt, and for the crops of 1868 and 1869, at straw (1) at produce in the previous year, has been applied (instead of slates) on the same plots (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, and 15, or 18).

IV EXPERIMENTS ON THE GROWTH OF LEGUMINOUS CROPS.

(1) Beans, Peas, and Tares—Experiments on the growth of leguminous corn crops, with different descriptions of manure, were commenced in 1847, about 9 acres being devoted to the purpose. Experiments with Beans were continued for 13 consecutive seasons, to 1859 inclusive; but during the later years, the crop fell off very much, and the land became very hard. In 1860 the land was fallowed. In 1861 a crop of Wheat, without manure, was taken. In 1862 Beans were again sown, but with some manure at once. In 1863 the land was fallowed. In 1864, and since Beans have been grown, with much the same manures on the same plots each year as in 1862. The general result of the experiments with Beans has been that mineral constituents added as manure (more particularly potash and, to some extent, phosphoric acid also) increased the crop very much during the early years, and, to a certain extent, afterwards, whenever the season was favourable for the crop. Ammonia-salts, on the other hand, produced very little effect, notwithstanding that a leguminous crop contains two, three, or more times as much nitrogen as a graminaceous one grown under parallel circumstances. Nitrate of soda, however, has produced very striking effects. But leguminous crops grown too frequently on the same land seem to be peculiarly subject to disease, which no combination of manuring that we have hitherto tried seems to obviate. Experiments with Peas were soon abandoned owing to the difficulty of keeping the land free from weeds, and an alternation of Beans and Wheat was substituted, the Beans being manured much as in the experiments with the same crop above described. In alternating Wheat with Beans, the remarkable result has been obtained that nearly as much Wheat and nearly as much nitrogen, were yielded in eight crops of Wheat in alternation with the highly nitrogenous Beans, as in 16 crops of Wheat grown consecutively without manure in another field, and also nearly as much as were obtained in a third field in eight crops alternated with bare fallow. Experiments with Tares were also soon abandoned, for the same reason, Beans being at first substituted, with some variation in the description of the manures employed, but of late this experiment has likewise been abandoned. (II) Red Clover (Trifolium pratense)—Experiments on the growth of Clover, with different descriptions of manure, were commenced in 1843 and, with the occasional interpositon of a corn crop or fallow, have been continued up to the present time. As with Beans, the result was that mineral constituents applied, as manures (particularly potash, and, more or less, phosphoric acid also) considerably increased the early crops.

To his mind it was the greatest of the evils that the land should thus be left in a state of... Mr. Holaway said... The Chairman said... Mr. Spooner seconded the resolution, which was carried.

...had little or no effect. But in a few years all attempts to grow Clover on this land have failed to give anything like a plant that would stand the usual wear of the ground, notwithstanding that fresh seed was sown again and again. A portion of the land was trenched 2 feet deep, the manure being applied at a depth of one-third at a depth of 3 inches, and the rest on the surface. The result of the experiments is that neither superphosphate of soda, nor organic matter, nor nitrate of soda, nor other constituents, nor

mineral manures, nor a complex mixture, has availed to restore the Clover-yielding capabilities of the land. It is, however, worthy of remark that in 1854 Red Clover was sown in a kitchen garden only a few hundred yards distant from the experiment field, on soil which has been under ordinary garden cultivation for probably two or three centuries, and it has every year since shown very luxuriant growth; and, after re-sowing three times during the period (in 1860, 1865, and 1868), there is at the present time little or no indication of failure. Lastly, in the winter of 1867-8, small portions of the

experimental land were dug, some to the depth of 9 inches, some to the depth of 18, some to the depth of 27, and some to the depth of 36 inches, and sown to the respective depths with different manurial mixtures. From other similarly-sized plots the soil was removed to the depths of 9, 18, and 27 inches respectively, and replaced by soil from the same kitchen garden border, on a portion of which Clover has been successfully grown since 1854, as above referred to. Clover was sown in April, 1868, over the whole of these, and some other portions not so treated, but the plant has for the most part died off during the winter, and Clover has been again sown (April, 1869).

EXPERIMENTS ON AN ACTUAL COURSE OF ROTATION—TURNIPS, BARLEY, LEGUMINOUS CROP (OR FALLOW), AND WHEAT, AGED 11. FIELD.

These experiments were commenced in 1848, so that the present crop (1869) is the 22d experimental one, or the second crop of the sixth course. One third of the land has been continuously manured with superphosphate of lime alone once every four years, that is for the Turnip crop commencing each course; and one-third manured (also for the Turnip crop) with a complex manure, as described in the foot-note, No. 2. In the second, third, fourth, and fifth courses, instead of Clover, half of each plot was sown with the other half left fallow. From half of each of the three plots the whole Turnip crop (roots and leaves) was removed, and on the other half the roots were eaten on the spot, and the uneaten leaves were spread and ploughed in. In the case of all the other crops, the total produce was removed from the land. The abstract of results given in the table is the portions of each plot from which the Turnip crops were entirely removed; and on which, in the later courses, Beans (not fallow) replaced the Clover. (Area under experiment, about 2½ acres.)

DESCRIPTION OF CROP.	PRODUCE PER ACRE.								
	PLOT 1. Unmanured continuously.			PLOT 2. Superphosphate of Lime, alone, for the Turnip Crops only.			PLOT 3. Complex Manure, for the Turnip Crops only.		
	Corn ² (or Roots).	Straw (or Leaf).	Total Produce. ⁴	Corn ² (or Roots).	Straw (or Leaf).	Total Produce. ⁴	Corn ² (or Roots).	Straw (or Leaf).	Total Produce. ⁴
1st Course, 1848-51									
Sorfolk White Turnips	65½ cwt.	47½ cwt.	1111 cwt.	22½ cwt.	106½ cwt.	332 cwt.	218 cwt.	151½ cwt.	369½ cwt.
Barley	4½ bush.	2983 lb.	5676 lb.	29½ bush.	2111 lb.	3841 lb.	7½ bush.	2685 lb.	3704 lb.
Clover (calined as hay)	28½ bush.	3431 lb.	5380 lb.	28 bush.	3371 lb.	6253 lb.	26½ bush.	3552 lb.	5500 lb.
Wheat									
2d Course, 1852-55									
Swedish Turnips	26 cwt.	4½ cwt.	31 cwt.	22½ cwt.	201 cwt.	243 cwt.	300½ cwt.	36½ cwt.	433 cwt.
Barley	34½ bush.	2459 lb.	4463 lb.	28½ bush.	1873 lb.	3569 lb.	39½ bush.	2604 lb.	4873 lb.
Beans	7½ bush.	1853 lb.	1445 lb.	5½ bush.	1108 lb.	1534 lb.	9½ bush.	1355 lb.	2063 lb.
Wheat	35½ bush.	3610 lb.	5820 lb.	35½ bush.	3525 lb.	5820 lb.	37½ bush.	8942 lb.	6371 lb.
3rd Course, 1856-59									
Swedish Turnips	79 cwt.	8½ cwt.	34½ cwt.	136 cwt.	7½ cwt.	143½ cwt.	333½ cwt.	12½ cwt.	346½ cwt.
Barley	48½ bush.	2610 lb.	5337 lb.	28½ bush.	1445 lb.	3076 lb.	48 bush.	3435 lb.	5103 lb.
Beans	6½ bush.	1109 lb.	1515 lb.	6½ bush.	1155 lb.	1005 lb.	12½ bush.	1520 lb.	2157 lb.
Wheat	35½ bush.	4036 lb.	6902 lb.	34½ bush.	3930 lb.	6120 lb.	30½ bush.	4610 lb.	7164 lb.
4th Course, 1860-63									
Swedish Turnips	1 cwt.	6½ lb.	1 cwt.	29½ cwt.	1½ cwt.	30½ cwt.	67½ cwt.	3½ cwt.	99½ cwt.
Barley	36½ bush.	2522 lb.	4718 lb.	30½ bush.	2009 lb.	3775 lb.	6½ bush.	3510 lb.	7321 lb.
Beans	9½ bush.	1840 lb.	3661 lb.	29½ bush.	2150 lb.	4040 lb.	49½ bush.	3390 lb.	5900 lb.
Wheat	44½ bush.	3407 lb.	6359 lb.	34½ bush.	3200 lb.	5610 lb.	46½ bush.	4597 lb.	7676 lb.
5th Course, 1864-67									
Swedish Turnips	82 cwt.	0½ cwt.	82½ cwt.	69 cwt.	42 cwt.	72 cwt.	170½ cwt.	8½ cwt.	185 cwt.
Barley	39½ bush.	2154 lb.	4182 lb.	33½ bush.	1611 lb.	3991 lb.	4½ bush.	2595 lb.	5148 lb.
Beans	16½ bush.	3013 lb.	1689 lb.	7½ bush.	1581 lb.	1581 lb.	10½ bush.	1000 lb.	3343 lb.
Wheat	21½ bush.	2459 lb.	4463 lb.	21½ bush.	1873 lb.	3569 lb.	21½ bush.	3003 lb.	4507 lb.
6th Course, 1868-71									
Swedish Turnips	12½ bush.	1252 lb.	2504 lb.	12½ bush.	1347 lb.	2694 lb.	2½ bush.	278 lb.	547 lb.
Beans	23 bush.	3338 lb.	5467 lb.	20½ bush.	3228 lb.	5300 lb.	25½ bush.	3061 lb.	6244 lb.
Wheat									

1st course—100 lb. bone-ash, and 100 lb. sulphuric acid; second course—100 lb. bone-ash, 120 lb. sulphuric acid, 100 lb. muriate of ammonia, and 2000 lb. sulphate of potash; 3rd, 4th, 5th, and 6th courses—200 lb. bone-ash, 100 lb. sulphuric acid, per acre.

ammonia, and 1000 lb. Rape-cake; second course—300 lb. sulphate of potash, 100 lb. sulphate of soda, 100 lb. sulphate of ammonia, 100 lb. bone-ash, 120 lb. sulphuric acid, 100 lb. sulphate of ammonia, 100 lb. muriate of ammonia, and 2000 lb. rape-cake; third, fourth, fifth, and sixth courses—300 lb. sulphate of potash, 200 lb. sulphate of soda, 100 lb. sulphate

of magnesia, 200 lb. bone-ash, 100 lb. sulphuric acid, 100 lb. sulphate of ammonia, 100 lb. muriate of ammonia, and 2000 lb. rape-cake per acre. The quantities given in bushels represent the dressed corn only. The "total produce" of the corn crops includes dressed corn, offal corn, and total straw.

Home Correspondence.

New Zealand Flax in Ireland—In the *Gardeners' Chronicle* (p. 695), there is a most important letter from Mr. J. D. Hill, on the importance of growing *Phormium tenax* in Ireland. Mr. J. D. Hill is of the subject as of "national importance as reproductive employment," with this I agree. So strongly did I feel the importance of growing the New Zealand Flax as a source of great and peculiar industry to Ireland, that I published it in the *Irish Farmers' Gazette*. In the summer of 1863 the great value of *Phormium tenax* in the manufacture of paper was pointed out in the *Times* by Mr. Cameron, of Edinburgh, after that correspondence, I wrote a short notice to the *Irish Farmers' Gazette*, with some views of the growth of the plant here, it may be of interest to quote a paragraph of that notice from the *Irish Farmers' Gazette*, of Sept. 12, 1863: "Three years old will yield from 30 to 40, or ordinary leaves will produce more than 100 of clean fibre; an acre, with plants at 3 feet apart, would yield from 15 to 20 cwt.—a far greater quantity than ever known from Hemp or Flax. The New Zealand Flax deserves the high consideration of landowners in the south and east of Ireland, as a plant singularly adapted for this climate, and one which will only cause a better development of the native industry." Since that time I have had much correspondence about the culture of New Zealand Flax, and with a gentleman who has just returned to Ireland from New Zealand, and who assures me that the plants growing at this place present the same appearance seen when growing in their native country. The gentleman to whom I refer has shown me a simple and expert way in which the native New Zealanders split the leaves and scrape off the vegetable matter, leaving the outside intact, and quickly convert it into mats, &c. The gentleman whom I speak of is a native New Zealander. Can any correspondent help in the manufacture of New Zealand Flax? I have written the letter of Mr. J. D. Hill that in the process of manufacture there is no loss in that now, if this be so it is

a great encouragement to invest in its culture. I have just measured some of the leaves of the growth of last summer, and find them to be about 6 feet long, and 1½ inches broad, and of fine substance. I note that suckers put in soft ground a year ago have six now leaves nearly 4 feet long. Some years ago I had three plants put firm in between large stones, resting on excavated ground, by the side of an overflow from a small pond. When the plants commenced to grow, the roots extended into the water by the foot long, and it is interesting to observe how the spongy leaves increase with increase of temperature. It is noticeable that these plants growing in the water, when cut down, do not break so freely as others planted in earth. I will greatly rejoice to see the *Phormium tenax* cultivated in Ireland for commercial purposes, it will, however, be a mistake to say that it will grow rapidly in unprepared land. Skill and patience will be required to get good crops established; and when once established, it will prove the easiest managed, and the most valuable of green crops. There are specimens growing here in water, on Peat within the influence of water (the largest), on dry ground, and on good garden soil. If Mr. J. D. Hill cares to have specimens of any or all of these, and will tell me how to forward them, I will be glad to send them for trial. Charles J. Donald, Woodstock Park, June 28.

Aggregation of Properties in England—In your leading article of the 3d July it is stated as a certain fact that the number of landowners in England is continually diminishing. It would be interesting to know whether this fact can be proved. My own experience is limited, but it points in a totally different direction. Around me, land societies are purchasing wholesale and selling retail; one landowner disappears, and in his place 20 or 200 spring up. This takes place daily. But let any one attempt to reverse the process, and try to purchase the 20 plots or fields lying next to his own and belonging to 20 different owners. He would hardly succeed after 100 years. It is just like putting a lump of stiff clay on a sandy field in autumn. It cracks down in spring into a powder, which mixes with the sand, and which you can never form into a clay lump again. Perhaps it will be said that the process of disintegration is vigorous only in the vicinity of towns. But the vicinity of towns, when London is one of them, is a vast area, and the owner of a quarter of an acre of

garden ground must certainly be classed as a landowner. I repeat then, where is the proof that the number of landowners is diminishing? The leading article under discussion is, I think, open to criticism on many points, but I confine myself to the above. G. S.

Foreign Correspondence.

PARIS Experiments in the direct Application and the Purification of Sewage in Paris.—During the years 1867 and 1868 a series of important experiments have been made under the direction of M.M. Milne and Darand Clave, engineers of Ponts et Chaussées, and the results are now made public in an elaborate report. These experiments include the direct application of sewage on the ridge-and-furrow system, saturation of the soil during winter, purification of sewage by means of alum, and, lastly, the application of the precipitated manure, as well as of the clear water after purification. The composition of the sewage, and of the results after purification, are given as follows:—

A cubic metre or ton of sewage is found to contain—	
Nitrogen	0.57 kilogrammes
Phosphoric acid	0.115 "
Potash	0.030 "
Soda	0.101 "
Organic matter	0.729 "
Mineral do.	1.802 "
Total	2.904 "

The precipitate consists of:—	
Nitrogen	8.4 kilogrammes
Phosphoric acid	8.50 "
Organic matter	260.76 "
Mineral	717.50 "
Total	1000.00 "

A ton of the water, after the precipitate has been thrown down, contains:—	
Nitrogen	0.021 kilogrammes
Potash	0.11 "
Soda	0.11 "
Organic matter	0.11 "
Mineral	0.987 "

So that a ton of Paris sewage contains nearly 3 kilogrammes, or 6½ lb. of foreign matter, of which one-third is in a state of solution and two-thirds in suspension.

in the arms by women and boys to the floor, which consists of a few such boards...

pastures.—With plenty of pure water to do well here so long as there is an...

pastures are becoming farther and farther every year, from being now generally...

Notices to Correspondents. M F BRYAN.—In the Agri-culture Gazette for...

THE LONDON MANURE COMPANY (ESTABLISHED 1850) Have now ready for delivery, in fine condition...

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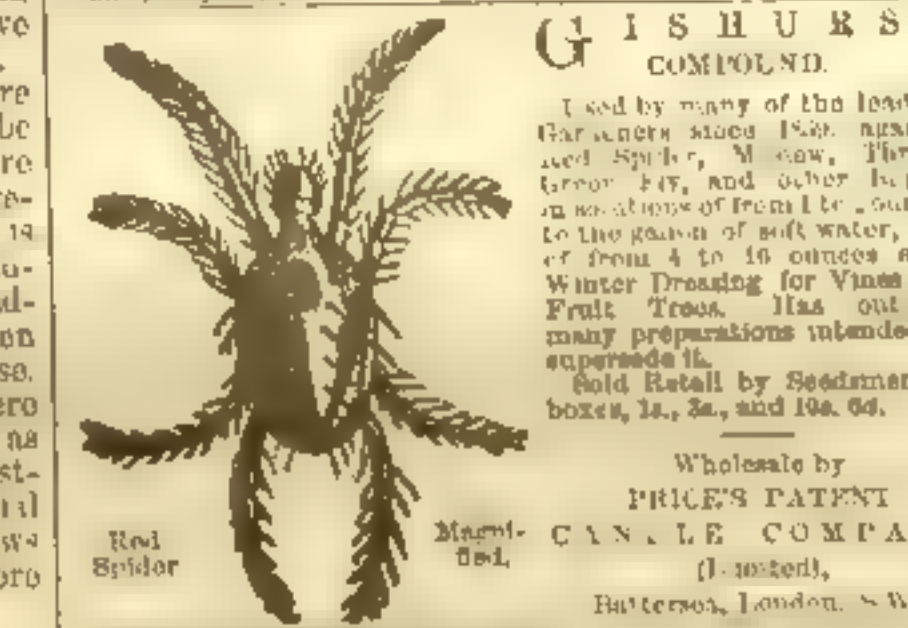
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WASPS, WASPS.—Any place may be immediately cleared of those pests by the use of SCOTT'S WASP DESTROYER.

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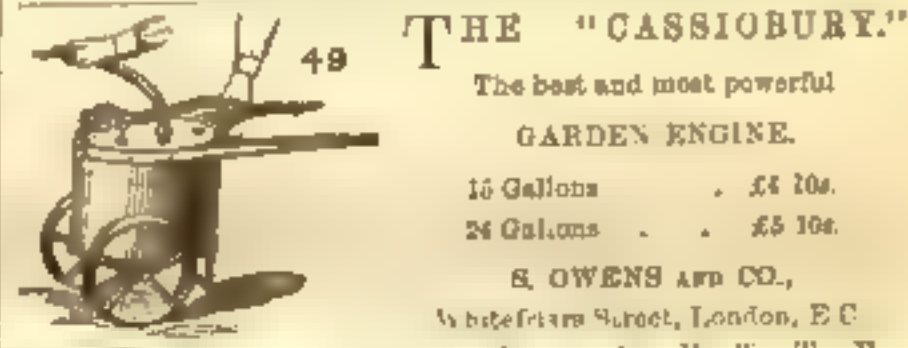


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NETTING for FRUIT TREES, SEED BEDS, RIFE STRAWBERRIES, &c. TANNED NETTING for Protecting the shrubs from Frost, Hail, Birds, &c.



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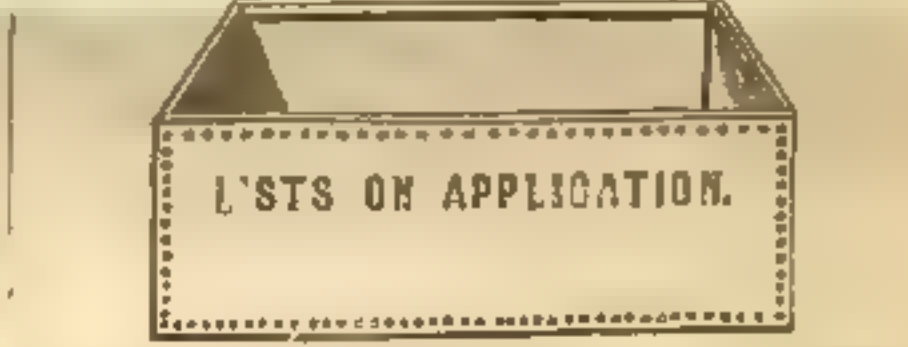


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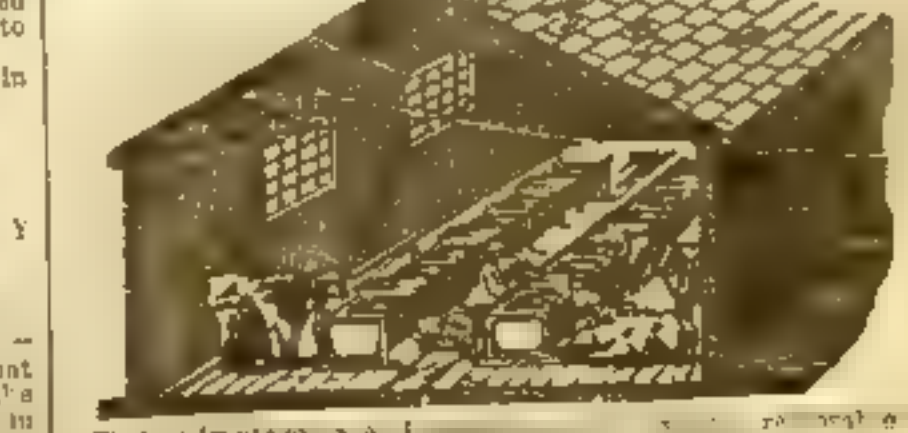
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NOTICE.

- ROYAL HORTICULTURAL SOCIETY, LONDON.
- ROYAL ZOOLOGICAL SOCIETY, LONDON.
- ROYAL BOTANIC SOCIETY, LONDON.
- ROYAL BOTANIC GARDENS, DUBLIN.
- ROYAL BOTANIC GARDENS, LIVERPOOL.
- ROYAL BOTANIC GARDENS, CAMBRIDGE.
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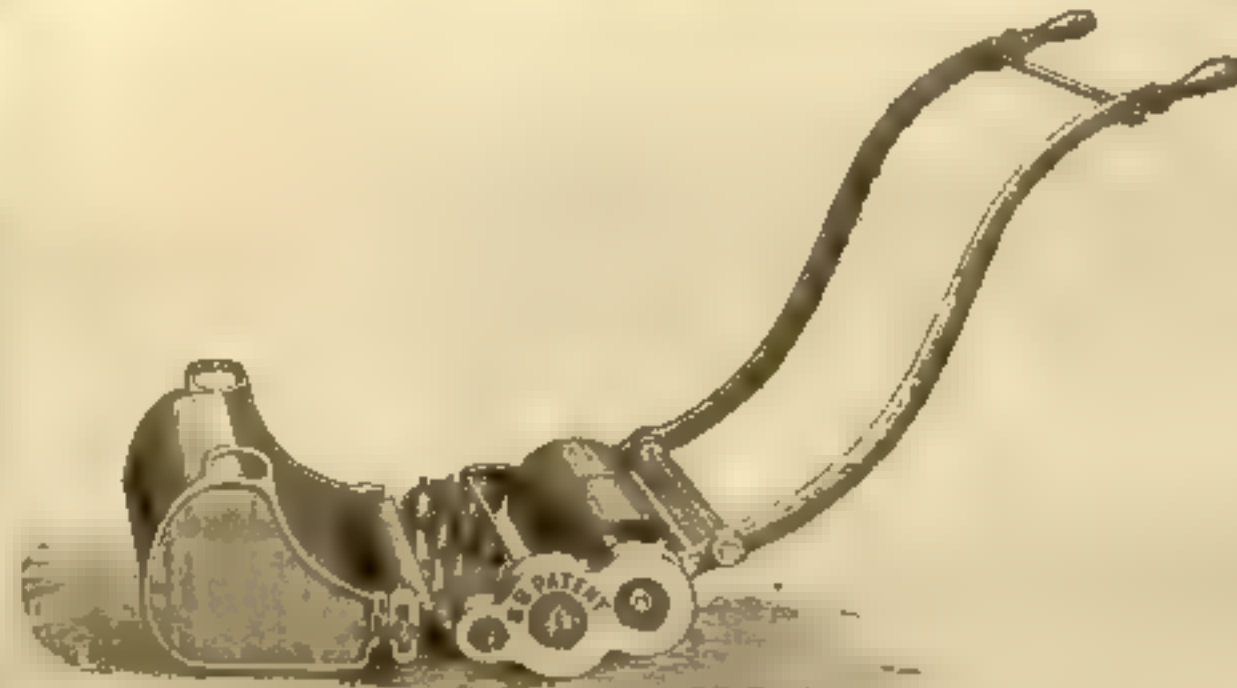
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PATENTERS AND SOLE MANUFACTURERS.

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The BB LAWN MOWER (London made) is allowed to be, by practical judges, superior to any other,—being the best designed, also of best material on v, all parts liable to breakage being of malleable or unbreakable iron, every part made to standard gauge, and numbered, and the entire Machine finished in a manner incontestably superior to any other Lawn Mower manufactured. The BB MOWER is also distinguished by its lightness, silence in movement, ease of working, and is so strong as to be literally unbreakable.

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"SCHNEIDER et Cie., 68, rue de Provence.

"Paris, le 24 Fevrier, 1869.

"MONSIEUR, — J'ai fait faire l'essai de votre Machine à tondre les gazons, et m'empresse de vous faire connaître que les résultats en ont été satisfaisants. Recevez, Monsieur, mes sincères salutations.

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Width of Cutter.	For a Boy.	For a Man.	For a Man and Boy.	For Two Men.
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To the Seed Trade.
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Mr. GEO. HADLY, Seed Grower, Brunstain, Essex.

To the Trade.
TURNIP and MANURE SEEDS, growing crop of 1869, splendid as seeds, various kinds.
FREDK. GEE writes attention to the above, and will be pleased to make special offers of the same on advantageous terms.
Seed Establishment, Dungeness, Kent.

To Farmers, Gardeners, and Others.
F. GEE can still supply excellent strong Cabbage, Cauliflower, Brussels Sprouts, Savoy, Scotch Kale, splendid Variegated Kale, and other PLANTS. Genuine new unadulterated Cabbages, Turnip, Mustard, Cole SEED, &c. Prices, which are low, had on application.—Seed Establishment, Dungeness, Kent.

NOTICE to ADVERTISERS.—In answer to constant enquiries, the Proprietors have fixed the following SCALE of FEES for ADVERTISING.
 Advertisements connected with Gardening or Agriculture, four lines, 3s. 6d.
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ROYAL HORTICULTURAL SOCIETY.

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COTTAGERS' PRIZES.

- Class A—FLOWERS. Mr. W. Clarke, Canal Bank, Loughborough, 7s. Class B—LARGEST COLLECTION GROWN IN ONE GARDEN. Mr. W. Clarke, 10s. Class C—STOCKS, distinct. Mr. H. Biddles, 4s. Class D—ROSES, distinct. Mr. W. Clarke, 5s. Class E—STRAWBERRIES. Mr. P. Back, 3s. Class F—CHERRIES. Mr. W. Clarke, 3s. Class G—APPLES. Mr. W. Clarke, 4s. Class H—VEGETABLES. Mr. W. Clarke, 1s.

VEGETABLES.

- Class K—COLLECTION OF POTATOES. Mr. W. Clarke, 10s. Class L—KIDNEY POTATOES. Mr. W. Clarke, 10s. Class M—ROUNDED POTATOES. Mr. W. Clarke, 10s. Class N—CAULIFLOWERS. Mr. W. Clarke, 10s. Class O—CABBAGES. Mr. W. Clarke, 10s. Class P—PODS OF PEAS. Mr. W. Clarke, 10s. Class Q—PODS OF BROAD BEANS. Mr. W. Clarke, 10s. Class R—CARPOTS. Mr. W. Clarke, 10s. Class S—TURNIPS. Mr. W. Clarke, 10s. Class T—STALKS OF RHUBARB. Mr. W. Clarke, 10s. Class U—ONIONS. Mr. W. Clarke, 10s. Class V—COLLECTION OF HERBS. Mr. W. Clarke, 10s.

PUIG, ORNAMENTAL ROCK WORKER, 21, GROVE STREET, ST. JOHN'S WOOD, N.W. FERNERIES of all kinds, and artificial designs and executed.

WHEELER'S PATENT FRUIT AND FLOWER GATHERER, Wholesale and Retail of RICK AND LITTLE AND CO. 129, High Holborn, W.C.

WHEELER'S PATENT STEAM PLOUGH AND CULTIVATOR may be SEEN at WORK in every part of the County in England.

RODON HURDLES Silver Medal of the Royal Agricultural Society) SHEEP, CATTLE, &c. GATES and FENCING of every description.

Horticultural Glass Warehouse. ORCHARD-HOUSE GLASS as supplied to Her Majesty, the Queen, and the leading Horticulturists of the United Kingdom.

Table with 4 columns: Size (inches), Price per 100 feet, and other specifications for ORCHARD-HOUSE GLASS.

Table with 4 columns: Size (inches), Price per 100 feet, and other specifications for SMALL SHEET SQUARES.

Table with 4 columns: Size (inches), Price per 100 feet, and other specifications for LARGE SHEET SQUARES.

WHEELER'S IMPROVED ROILED ROUGH PLATE PATENT PLATE GLASS for Windows and Screens.

PAINTS, COLOURS, VARNISHES, &c. ROYAL WHITE LEAD, 2s. per cwt. This Paint adheres firmly to Lead and resists the weather.

WHEELER'S PATENT DRY BRUSHES, 1s. per doz. These brushes are made of the finest hair and are adapted for all kinds of work.

WHEELER'S PATENT RUBBER DOORSTOP, 1s. per doz. These doorstops are made of the finest rubber and are adapted for all kinds of work.

THE "CASSIOBURY." The best and most powerful GARDEN ENGINE. 15 Gallons £1 10s. 24 Gallons .. 45 10s. S. OWENS AND CO., Whitefriars Street, London, E.C.



ANDREW HANDYSIDE AND CO. Britannia Foundry, Derby. The Britannia Iron Works have for the last 40 years been well known for the production of cast iron.



THE HYPER-NETTING. A new and improved method of shading plants, invented by Mr. E. T. Archer.



THE HYPER-NETTING is a new and improved method of shading plants, invented by Mr. E. T. Archer. It is made of the finest netting and is adapted for all kinds of work.

E. T. ARCHER'S "FRIGI DOMO." The best and most powerful GARDEN ENGINE. 15 Gallons £1 10s. 24 Gallons .. 45 10s. S. OWENS AND CO., Whitefriars Street, London, E.C.

FRIGI DOMO NETTING. White or Brown, made of prepared Hair and Wool, a perfect non-conductor of heat or cold, keeping a fixed temperature where it is applied.

Established 1833. HANCOCK'S INDIA-RUBBER HOSE and TUBING. CARBIDE, GIG, & DOG CART APRONS.

JAMES PHILLIPS AND CO. beg to submit the prices as follows: ORCHARD-HOUSE GLASS, 16-oz., in 100 foot boxes, boxes included.

Table with 4 columns: Size (inches), Price per 100 feet, and other specifications for ORCHARD-HOUSE GLASS.

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WHEELER'S PATENT RUBBER DOORSTOP, 1s. per doz. These doorstops are made of the finest rubber and are adapted for all kinds of work.

WHEELER'S PATENT RUBBER DOORSTOP, 1s. per doz. These doorstops are made of the finest rubber and are adapted for all kinds of work.

Now is the time to Sow

DOBSON'S SPECTID HYBRIDISED CALCEOLARIAS. New Seed saved from the plants exhibited by us, and which attracted the attention of the Royal Horticultural Society...

WILLIAM CHATER'S HARDY BEDDING PLANTS. The most and best way to raise them for seed is to sow in the open air in July and August, so that they may be ready for sowing in September...

ROBERT PARKER begs to offer the following plants of which can be supplied in any quantity by plants. Hardy and other Bedding Plants...

WATSON'S LAWN SAND, sprinkled upon Lawns, keeps the grass green and the soil soft and friable...

MASSEY'S LEAF-MOULDER. A most useful and economical machine for mowing and cutting grass...

The Cheapest and Best Insecticide. For the destruction of all insects which prey upon plants...

POOLEY'S TOBACCO POWDER, for the Prevention and Destruction of all insects which prey upon plants...

POOLEY'S TOBACCO POWDER, for the Prevention and Destruction of all insects which prey upon plants...

Advertisement for Fishbone Compound, featuring an illustration of a fish and text describing its medicinal properties for various ailments.

Caution to Gardeners. When you ask for SAYNOR and COOKE'S WARRANTED PRIZE PRUNING and BUDDING KNIVES, see that you get them...

Advertisement for Rother's Garden Edging Tiles, showing illustrations of different tile patterns and their uses in garden borders.

ORNAMENTAL PAVING TILES for Conservatories. These tiles are made of stone, in blue, red, and buff colors, and capable of forming a variety of designs...

SILVER SAND (REIGATE), at the above addresses. 1 1/2 tons per Ton, 2s. 6d. per Bushel; 2s. per Ton extra for delivery within three miles...

SEEDS for PRESENT SOWING

Orange Jersey Turnip, White Globe Turnip, White Hearted Turnip, etc. New varieties of Seeds of the above now ready...

FRIEDRICH ADOLPH HAAGE, Jun., Erfurt, Germany (Established 1822) offers the following: ARABIS BRASILIENSIS, 100 Seeds, 1s. 6d.

CARTER'S PRIMULA, CALCEOLARIA and CINERARIA. These plants are now in flower and of the best quality...

CALCEOLARIA and CINERARIA. Per packet - 1s. 6d. Calceolaria, Dobson's strain, 2s. 6d. Cineraria, extra fine, 2s. 6d.

PRIMULA. Per packet - 1s. 6d. Primula, choicest mixed, 2s. 6d. Primula, fringed, 2s. 6d.

JAMES CARTER AND CO. can now offer strong well-grown CANES of the FOLLOWING VINES, this year's growth. It is noted that a vine will be saved...

JAMES CARTER AND CO. Seed Merchants and Nurserymen, 27 and 28, High Holborn, W.C. and Crystal Palace Nurseries, Forest Hill, S.E.

JAMES CARTER AND CO. having often had applications for STRAWBERRIES earlier in the season than they could be supplied from our year's runners...

NEW CONTINENTAL VARIETIES. La Châlonnais, La Petite Marie, Lecoq Pine, Marguerite, Napoleon III, Sabreux, Topoy, La Belle Hortolaise, De Versailles, Janus.

JAMES CARTER AND CO., Seed Merchants and Nurserymen, 27 and 28, High Holborn, W.C. and Crystal Palace Nurseries, Forest Hill, S.E.

New Hardy Plant. To be sent out in September, 1869. For particulars see "Horticultural Magazine," Vol. 25, No. 25, in which Dr. Hooker says: "SPIRÆA PALMATA..."

SPECIAL OFFER to the TRADE. Adiantum pubescens, 10s. per doz. Lomaria globosa, 4s. per doz. Asplenium nidus, 10s. per doz.

Choice Flower Seeds for Autumn Sowing. DOWNIE LAIRD, and LAING have the pleasure of offering the following choice Flower Seeds...

WILLIAMS' SUPERB STRAIN of PRIMULA. B.S.W. can with confidence offer his superb strain of Primula as being the finest in cultivation. Red, White, or Mixed, 2s. 6d., 3s. 6d., and 5s. 0d.

WILLIAMS' SUPERB STRAIN of PRIMULA. B.S.W. can with confidence offer his superb strain of Primula as being the finest in cultivation. Red, White, or Mixed, 2s. 6d., 3s. 6d., and 5s. 0d.

NEW HYBRID PELARGONIUMS, WILLSII, and WILLSII ROSEA. Undoubtedly the finest NOVELTIES of the season. Numerous CERTIFICATES and FIRST PRIZES have been awarded by the Royal Horticultural Society, Royal Botanic Society, &c.

FINE NEW HARDY CLEMATISES, TO BE SENT OUT IN SEPTEMBER, 1869. GEORGE JACKMAN AND SON. Are prepared to book orders for their two following NEW CLEMATISES, that they can warrant as distinct, vigorous, and abundant flowering...

Vertical text on the right edge of the page, including 'NEW GARDENERS' CHRONICLE' and other fragments.

July 24, 1869.]

NEW COLEUS, BEAUTY of WIDMORE.— Indicatively tricolorated leaves beautifully shaped, dark brilliant...

NEW GOLDEN COLEUS Twelve selected from the following: Princess Royal, Queen Victoria, Her Majesty...

NEW COLEUS.— The following are six beautiful varieties, much in advance of present named sorts, both for...

CANNELL'S AUTUMN CATALOGUE is now ready, and will be sent, free for One Stamp. It contains a...

LEADS ROYAL PARK.— THE GRAND AUTUMN SHOW of PLANTS, FRUITS, FLOWERS, VEGETABLES, and BIRDS, will be held in the Park...

The Gardeners' Chronicle.

SATURDAY, JULY 24, 1869.

DETAILS of the great SHOW of the ROYAL HORTICULTURAL SOCIETY at MANCHESTER, which has been held during the week, are given in other columns. A few general remarks...

These difficulties surmounted, the locality at length discovered, and arrived at, the visitor was ushered into a field that would have been better had it been treated to a previous course of ploughing and rolling.

Whatever may be the results of the meeting as a whole—and these are not known at the time at which we write—the managers deserve

success. Of the local authorities we cannot speak so favourably. The arrangements, which, as we suppose, it was their duty to carry out, were indifferent or bad.

It will evidently become a question in the future whether the great provincial flower show would not better be separated from its agricultural brother. The latter is on so vast a scale, its attractions are so manifold, that people have not time to visit both, and a flower show, however good, and however excellent its arrangements, looks small and mean by contrast with its bigger brother.

The Congress was a new and very successful feature of the meeting. It was presided over by the Duke of Buccleuch, Mr. SAUNDERS, and Major CLARKE. The papers read were of good sterling quality, some full of information, almost all eminently suggestive. One fault there was, which we mention in the hope that it will be corrected on another occasion: the papers were, as a rule, too long.

We have drifted from the flowers to their lovers, from the beasts of the field to the "lords of creation," we have shown how the sympathy of brother for brother yearns for fuller opportunities of manifesting itself; and so we may be excused for a moment if we stop from off our own ground of horticulture, to advert to a spectacle that no man could look on unmoved—the crowd in the streets.

Wednesday, the day of the visit of the PRINCE and PRINCESS OF WALES to the city, was observed as a holiday—not a shop, or a bank, or warehouse, or factory, was open, not even an evening paper was published; hence the crowd that thronged the thoroughfares. After all, that was the sight of Manchester. The most confirmed misanthropist must have melted at the sight of those dense myriads of happy, fearless, resolute faces.

We shall revert to the exhibition and the lessons to be derived from it on another occasion, when the general results are more fully known than they are at the time at which we write.

— THE well-known establishment of M. AMBROISE VERSCHAFFELT, of Ghent, has passed into the hands of M. LINDEN, under whose superintendence no doubt its well-won reputation will be fully maintained.

— Under the name of the SELBY FLOWER and FRUIT GATHERER, Messrs. DICK, RADCLIFFE & Co., of High Holborn, have introduced a handy and ingenious form of flower-scissors. By means of a spring clamp attached to the cutting blade, no sooner is the stalk of a flower severed than it is caught by the clamp and retained firmly till purposely released.

— According to M. VILLA, the President of the Agricultural Society of Herault, the main obstacle to the more general use of FRENCH WINES lies in the

amount of fiscal duties payable on them. The cost of production can hardly be lessened, but the duties and cost of transport might be diminished. French wines imported into England pay a duty of 27 fr. to 60 fr. a hectolitre about 22 gallons.

— We are glad to call attention to the following letter, and the announcement it conveys, but we can by no means endorse our correspondent's wish to have a grand exhibition at Manchester and a "little go" at Kensington at the same time. The letter refers to the splendid plants of EPIDENDRUM RADIATUM and DENDROBIUM GIBBONII shown at South Kensington on Tuesday last, and the latter of which remains on view.

New Plants.

DENDROBIUM GIBBONII (Stachybotriaceae) Caulis tenuis caespitosus; racemo secundante subrecto brevi plurifloro, bracteis subevanidis, mento obtuso postice bifido, sepalis oblongis acutis, petalis paulo latioribus, labello rhombico, lobis lateralibus rotundatis denticulatis anticis serratis, lobo antico triangulo denticulato, ungue brevi (carina transversa nulla) nudo, ceterum toto labello superae densissime barbato.

This is a very original plant, with copper-coloured flowers, the apex of the lip golden yellow, with one large brownish or purple blotch on each side of the lip. It may be compared with Dendrobium clavatum, Gibsonii, and fasciatum. Dendrobium clavatum has great sheath-like bracts. Dendrobium Gibsonii has a pendulous raceme with distant flowers, and a quite different very broad short lip bearing a transverse callus on its summit. Dendrobium fasciatum appears to stand nearest of all, yet the specimens of that plant, for which we have to thank its discoverer, Dr. Hooker, show its lip to be quite retuse and emarginate. Our plant is one of Colonel Benson's numerous Burmese introductions, and we have to thank Messrs. Veitch for a very satisfactory specimen. H. G. Rehb. fil.

WHAT SOIL IS BEST SUITED FOR THE PRODUCTION OF GRAPES?

[This and the two succeeding articles were read on Wednesday last at the Manchester Congress, elsewhere alluded to. The remaining papers will be published as opportunity offers. Eds.]

A QUESTION continually asked by amateurs and others is, "What kind of soil should I use in making my vine-border?" "Chouse," says the stereotyped reply, "is my loan from a pasture field." So far the answer is correct; but the geological formation is never named, whether calcareous, silicious, or gneous, assuming that quality in this particular requires no consideration.

I admit that there is some difficulty to secure soil in a free state, as the different formations very often pass into each other. For instance, we have the calcareous sandstone soil when the former predominates over the latter, and again the silicious limestone when the finely divided particles preponderate.

However highly some cultivators may estimate the propriety of providing certain descriptions of soil for the growth of certain classes of plants, our everyday experience demonstrates that the different constituents have separate duties to perform in the vegetable economy, whether the action is chemical or mechanical, and further, we cannot overlook the fact that the duration of life in plants, and the quantity of the fruit, are true expressions of the soil on which they grow. Analogy is certainly not an accurate system of reasoning, but in the present case may be of some assistance. Within the area of the builder's clay it has been found that the best race of men is produced, also the best cattle and that the death-rate is lower. If we accept this statement we need not hesitate to admit the validity of the preceding conclusions.

In relation to, and in support of these preliminary

I now pass on to deal with what may be to some a more practical part of the subject...

berries always set freely, and during the first stage when fully ripe their quality would meet the approval...

frequently perceptible, the skin began to shrivel and turn leathery; there was also a deficiency of saccharine matter, and of that peculiar aroma the exclusive property of the Muscat.

How to account for so decided a departure from the ordinary course eluded every attempt, and my conclusions never rose above mere speculation.

Interposition very frequently alters the whole course of the process, which the agent has prepared, and it so happened with me.

foreknew edge of mine, they were purely the result of unforeseen circumstances. I can best describe the quality of the soil by saying that it belonged to the old red sandstone formation, contained not a particle of lime, and was composed of silex, alumina and organic matter derived from decayed herbage.

beginning to improve the quality of the fruit, certainly the improved quality of the fruit began to appear, and the berries were larger and more numerous.

very decided character has been produced. Now the question is, what is the cause? Not a possibility can it be the lime, as there has been no lime added.

I now feel satisfied I cannot evade the conclusion, the fact is forced upon me that the causal property of the lime has worked as the mesh of, and that the nearer it approaches to a state of carbonate, the more fatal the effect.

Having succeeded in my exertions so far, I next applied silicious soil mixed with a third part of manure, for the growth of our grapes. Without entering into details, the results were the property of every gardener, it will be sufficient to notice that the quality of the fruit was equal to that of the factory, and as a guarantee I may note that a vine of the Alicante, one year from a single eye, matured 18 lb. of excellent grapes.

These results encouraged me to proceed further. I had the earth removed a foot deep, the berries made of calcareous soil, and replaced with silicious soil, on the supposition that it might be as an improver. Although the soil was worked as usual, it freely, and have been doing so for some years past, I have not been able to discover that it has produced any advantage.

observed in the selection of silicious soil, and sometimes to a considerable extent, mixed with oxide of iron, which should be avoided. Whatever opinions are held or may be formed by gardeners on this subject, the red sandstone soil with me, for the growth of the Grape Vine, has long become a settled article of belief.

In making this declaration, I do not exclude soil from other geological formations, I only offer a protest against the presence of calcareous matter.

A writer of considerable reputation has strongly recommended soil from igneous rocks, but of this I have had no experience.

Why, submissively wait on Providence to help them. What is generally understood as mere practice has long ago yielded all the sound information it ever had possess.

perpetrate the folly of threshing the same straw over and over again and winnowing the same old chaff? No, by no means, we are to make progress.

perform in nutrition is clearly ascertained. There is no reason why we should continue to be uninformed on this point any more than on the subject of the composition of the living body.

What we do want is a recognised authority to whom we may apply to have our soil analysed at a moderate charge, which will show that so far from exerting more influence than we are entitled to, it is in fact, a hindrance.

To show that so far from exerting more influence than we are entitled to, it is in fact, a hindrance, we will suppose a case, and the supposition is the correct, viz that one, two, three, or more of the best grape growers, persons whose success has been uniform on some particular kind of soil, we may name the purely silicious, were removed to the calcareous districts, it will be found that the quality of their produce will differ widely even although all their circumstances are the same.

It would then suggest, that the soil on which the districts grapes are grown should be analysed, and the result published. This would inform the cultivator of the soil, and be a guide to others, while making it a duty of the State to have the soil analysed, and the result published.

It would be both interesting and exceedingly useful to did the nature of this discussion and the limit assigned me permit to give a description of these trees and plants that require lime for the proper maturation of their fruit, and those to which it is injurious, success and failure have more to do with these points than we are at all times aware of.

The office performed by inorganic nature in the vegetable system has never been clearly ascertained, at least it has never been fully explained, but has given rise to various opinions, that confuse rather than enlighten the mind.

In conclusion, I would state how desirous I am to see the time when science and practice shall mingle together, and not till then can we acquire the right to open the door of legitimate progression.

immutable law reigns, well as inorganic substances. I believe there is no place where its power is not felt, and nothing beyond the reach of its influence.

In the discussion which has taken place on the subject of this paper, Dr Messing's opinion, and whether the physical character of the soil is permeability to water, and the lime, were the more essential points for consideration, and the result of the analysis, than the chemical constitution, which is the point of view, in which the soil is considered.

Mr Messing's opinion, Mr Cramb's opinion, and the influence of magnesian limestone on vines. The Duke of Devonshire has drawn attention to the

different kinds of limestones, and the consequent necessity for caution not to draw hasty inferences. Ultimately it was agreed that samples of soil, and portions of the vines grown in the various districts, should be sent to the Scientific Committee of the Royal Horticultural Society for

THE PRUNING OF FRUIT TREES AS AFFECTED BY SOIL, CLIMATE, &c.

FRUIT trees are, it is to be presumed, mainly cultivated for the sake of their fruit, consequently the chief object of the cultivator should be directed to its production; and much may be accomplished towards this end by a rational system of pruning.

The judicious pruning or non-pruning of fruit trees is an all-important question, far more important than that of training, with which it is frequently confounded. Training is the producing of form—an ornamental part of the business, and is at times necessary to producing fruit. But pruning, which is chiefly performed for the sake of securing fruit.

To prune a fruit tree is a very different thing from pruning any other sort of tree, inasmuch as the production of fruit is much more difficult than that of timber, or merely ornamental form. It is, indeed, easy to grow a tree and prune it so that it may assume any desired form or size. This is merely a question of time, and of the careful adherence to some given rules or pre-arranged plan; but to make that tree produce good fruit in large quantity, and of good quality, requires the exercise of much more skill and knowledge.

To do this, however, is the office of the pruner, and by proceeding judiciously he may lay down any definite rules for guidance in fruit-tree pruning, beyond the broadest general principles, is impossible, for in practice we have so many variations of soil, climate, subjects, and even stocks, to deal with, all exerting considerable influence, that no given rules can be strictly followed.

According to the amount of foliage during a properly developed, the growth of the tree advances, therefore, although the rate of increase of a tree on which leaves are produced may be the rate of increase on the plant generally, yet the removal of the parts left increase more rapidly, and of their leaves being more fully exposed to the influence of light.

Therefore to prune judiciously is not only advantageous, but in fruit culture it is indispensable. To prune a tree is to cut off a portion of its stem, or parts of its branches, and the object to be attained is the regulation of the vegetation of the plant.

The immediate effect (it may be repeated) of pruning, or the cutting off of any portion of a plant, is to cause a greater supply of sap to flow towards the parts which are left. Thus, if a tree is growing vigorously and making strong upright shoots, the effect of pruning a weak branch will be to increase its vigour instead of weakening it.

A special point to be aimed at in fruit culture is equality of growth and thereby uniformity of action throughout all the component parts of the tree. The most fruitful of all trees are those in which one portion is allowed to have a great ascendancy over the others. The stronger portions of these trees tend to be repressed, and the weaker portions encouraged, which will promote uniformity of growth.

Excessive vigour, is, however, undesirable, as trees in that condition bear but a small quantity of fruit; yet it is possible for a tree to be too weak, and to produce too many small fruits, as well as to be too vigorous and unfruitful.

There may be said to be two kinds of pruning, viz., market garden or orchard pruning, and gentleman's garden or trained-tree pruning. The one is a very different thing from the other, and the trees are of a different character. They are pruned almost entirely for fruit, form or appearance being in a great measure ignored.

In the latter, while fruit-bearing is one main object, yet with this is combined the formation or retention of some particular form. Which of the two, then, is the most productive or profitable? which of the two is most to be recommended? Or is it possible to apply the treatment as regards pruning that is necessary for the one to the case of the other, or to produce the same result?

wanting. These remarks apply more especially, yet not exclusively, to formally trained trees. If we take a glance at the natural tree vegetation of the country, we shall find that the trees are of a dwarf standard character, and are very fertile, while in another they are rampant and vigorous. In the one case we have probably poor soil and an exposure, and in the other deep shelter, and a soil of high fertility.

It is not, however, the soil, but the position of the tree, and the influence of the sun, that is the chief cause of the difference. Nature teaching us, and her general laws we must obey, for though we cannot alter the natural character of a tree, it may be regulated by skill in regard to the one to a small

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of the other. The light soil may be enriched, but it is more than likely to be impoverished, shelter may be procured, but these can only be done in a very limited way. However, something of the sort be done, the trees in the two instances will be very different, and in order to induce an equal amount of fruit, the treatment of the trees as regards manure will require to be very different also.

It is interesting to see the extent to which the produce of Mr. Lawes and Dr. Gilbert at Sawbridgeworth is affected by these manures on different plants, and their tendency to induce a luxuriant growth, and to favour early maturation, &c. It is perhaps something of this way might be accomplished with fruit trees by the application of special manures, which, as in the case of the mineral manures on grasses, would have a tendency towards fruit production than to leaf-growth. It may be a manure for fruit trees, which is of the nature of the existing and necessary portions of the soil, and concentrating all the energies of the plant towards the production of fruit, and if so, how it would be.

Climate greatly influences the growth of trees, and in some respects its effect is similar to that of the soil. In a damp climate, such as that in the south-west of England, counteracts the effect of a dry soil, assuming the results to those afforded by a deep rich soil in a damp climate. In a damp climate trees grow much more luxuriantly as a rule than in a dry one, and as the soil is unfavourable to fruit-bearing, the treatment of the trees must again be modified to the altered conditions. In the orchards of Devon and other parts with damp climates, there is a check which would otherwise be over-luxuriant and stunted, namely, the growth of Mosses and Lichens on trunks and branches, caused, no doubt, by the increased dampness. The presence of these epiphytes, however, in my opinion, as a beneficial check to over-luxuriance, and thereby induces greater vigour than would otherwise be obtained. Here, the nature repressing vigour more effectually than can be done by the employment of any artificial manure. It being then as yet impossible to alter soils to any great extent, we must perforce, for the greatest success be desired, cultivate only those stocks which are most suitable, and that after the manner in accordance with their natural tendency. In a locality where trees naturally grow but dwarf or miniature fruit-tree culture will be most advantageous, and where trees naturally luxuriantly they must be altered to do so, the dwarf, close trained fruit trees are of the most advantage.

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There is the one case—winter pruning—done pruning is necessary to induce greater vigour, and prevent over-fertility and weakness (i.e., assuming the stocks, &c., used in each locality to be the same); and in the other, the object of the pruner is to reduce luxuriance, and this is best effected by non-pruning, or at most, by the throwing out of the shoots and branches where crowded, so as to expose the remaining ones more freely to the influence of light, leaving the strong growing young shoots at almost their entire length, which the next season produce a less vigorous growth, and as a consequence become more fertile, on account of the forces of the plant not being concentrated on a few buds, but being required to spend itself over many. In short, in the one case miniature fruit-tree growing is advantageous and practicable, simply because the trees are not inclined naturally to grow larger, and in the other it is almost impossible, because the trees naturally grow too luxuriantly.

Excessive vigour may, however, be considerably repressed and fruitfulness may be induced by judicious summer pinching of the growing shoots, and also to a great extent by root pruning. The first summer pinching is of paramount importance. It is most easily accomplished on the naturally fertile trees, yet it is most required on the most luxuriant. By constant application rendered absolutely necessary in all formal styles of training, and in the culture of miniature trees. The leaves of a plant are almost its very life, they are its breathing organs. Leaves elaborate the sap which is drawn from the roots and return it into the stem to form woody fibre. If the pruning or cutting away of any portion of its leaves arrests the flow of sap in that direction and directs it towards the parts which are left. Thus, therefore, by stopping the stronger growing portions, those on the upper parts of the tree, which are in advance of the lower or weaker portion, we equalise the flow of the sap, and cause a uniform action throughout. This stopping and checking of the shoot-growing propensities of the tree tends towards the formation of fruit buds, excepting in some cases, namely, in very rich soil, and where it is attempted to confine the energies of the tree within too narrow a limit. Under such circumstances the most important application will be to produce fertility, but will result in the untimely production of watery shoots, and a gradual weakening of the tree. In such cases root pruning may in some instances be resorted to with advantage. Root pruning in miniature fruit-tree culture is almost absolutely necessary, to keep the trees within bounds in many soils. It should, however, only be resorted to as a last resource, after all other means of checking vigour and inducing fertility have failed. Root pruning tends too much to weaken the whole system of the tree, to take away the powers of the plant which are required for the support of what fruit there may be produced. It is not exactly a weakening of the entire system of

the tree which is required but a retention of all its powers, and a direction of those forces towards the production of fruit, instead of that of shoots. In concluding these remarks, I would recommend those who may be commencing fruit culture to take well into consideration the soil and situation of the place, and then to choose, whether for the production of fruit simply, or for fruit combined with the formation of the trees after some particular form. Whatever may be the object, the condition of the soil should be considered, and the trees selected should be suited to the soil, whose requirements can be best supplied by that soil, and by the mode of pruning and general cultivation adopted. A. F. Barron, Royal Horticultural Society, Chiswick.

Major CLARK, in the course of his remarks on the above paper, suggested to stock raisers the desirability of raising stocks from seed, with the especial object of obtaining seedling varieties under different conditions likely to be serviceable. ON THE PROSPECTS OF HYBRIDISATION. THE object of the following remarks is to show how large a field is still open to cultivators in the matter of cross-breeding. In order to see the extent and nature of this I will ask you to withdraw your attention to a considerable degree from the mere in-and-out breeding of a few favourite and already over-bred groups of garden plants, and to turn it to the higher object of originating new forms and qualities, by working with hitherto neglected or unthought-of subjects. Under this head I include—

- General hitherto unattempted
- True species unused, or insufficiently worked out.
- Old garden plants, shrubs, or trees possessing high special qualities.
- Variegated plants of all kinds to be used as the sires or male plants.

Other descriptions might be catalogued, but the above list would give us enough to do. I will not treat these cases separately, for they are much bound up with one another, but will take them as they happen to suit my present purpose, which is to say as much as I can in the shortest space of time. Let us begin with ordinary cultivated things—the old familiar forms of the flower or kitchen garden, and note a few of our shortcomings. Enter genus *Rosa*—the Rose has been said to be coming rapidly to a dead lock, so great has been its cultural improvement. But this improvement has run somewhat in a rut, hundreds and thousands of seedlings are raised annually, and yet we get little more than stunted, dwarfed forms of a few favourite types.

It is interesting to see the extent to which the produce of Mr. Lawes and Dr. Gilbert at Sawbridgeworth is affected by these manures on different plants, and their tendency to induce a luxuriant growth, and to favour early maturation, &c. It is perhaps something of this way might be accomplished with fruit trees by the application of special manures, which, as in the case of the mineral manures on grasses, would have a tendency towards fruit production than to leaf-growth. It may be a manure for fruit trees, which is of the nature of the existing and necessary portions of the soil, and concentrating all the energies of the plant towards the production of fruit, and if so, how it would be.

The promotion of a yellow will be the more of a task. As seed-bearing parents we take the old yellow *Chama*, it is still to be had though very scarce, the yellow *Tea* with the white *China* and old *Sweet Double White*. Cross these with the Austrian and Persian Briars. Also cross together the yellow *Teas* and *Chinas* with the palest and clearest-coloured *Provence* kinds. The *Teas* should be fruited in pots under glass. This will bring them into flower at the same time with the Austrian Briar. Moreover, they set their fruit freely when grown in this manner. For a high-coloured *Tea Rose*, the old crimson *China Semper* would impart a large share of its colour to any of the true *Teas* and the cross might be taken both ways. It will probably take some generations to produce a good rich-coloured *Tea Rose* bearing in one of the *Rose* and *China* seeds, but the *Tea* will produce seedlings of a better colour and frequent flowering habit by a cross with these distinguished kinds, and for an experiment their position is not to be lost. The sluggish-opening *Coupa d'Heur* and *Lu gens*. The sluggish-opening *Tea Noisettes* might be crossed with the old *semi-double yellow China* to produce an intermediate effect. I may here suggest that the noble old *Noisettes Grandiflora* should make a fine seed-bearing parent when

crosses with handsome vigorous Roses of almost any class, but especially the Provence breed.

Again, to create new and hardy races there is sufficient evidence to prove the enormous advance frequently made by a first cross from a wild or natural species with the pollen of a cultivated one. I need not point here to *Paeonia* and *Maria Letitia* raised from two wild single species by the pollen of the double Tea Rose, and the pollen of the same species of the plant should be tried upon every natural species that can be procured.

I fear I have dwelt too long upon the Rose, but it was tempting—the Rose always so tempting. Moreover, it was a good subject for an endeavour to show forth my meaning clearly.

And now we will take a turn in the orchard. A few good Apples and Pears have been raised by definite well considered crosses, but many yet remain to be devised and carried out. One of the first things that will occur to us when once out of the orchard, is that we have scarcely any good summer Apples and Pears, none of any size and none possessing the peculiar and healthy qualities of the autumn and winter kinds. Who has ever raised a seed of *Citron des Carmes*, or reared a brood of young Jargonelles, ennobled by the blood of Marie Louise, or other early autumn Pear? Who has ever collected, selected, and united in wedlock the pleasant but very improvable summer Apples? I think no one, as yet, not even the great Sultan of Sawbridgeworth. Is there any reason why the great size and hardy vigour of the *Catillac* and other culinary Pears should not be imparted to or shared by those sorts whose melting flesh and rich flavour fit them for the dessert table? Mr. Rivers has worked nobly at the stone fruits, and especially as regards the Peach, Nectarine, and Apricot groups, but there is yet a most interesting and important line of work left open to the horticulturist, viz, the

breeding expressly for hardiness. Hardy Peaches and Apricots are known to exist. Let these be searched for, collected, and bred from, let them be sown, reared, and, if possible, fruited away from the sheltering wall. The long frosts of winter, and exposures of male varieties of spring, will of themselves form an effectual selective process. In all crossing experiments hardiness should be kept prominently in view, hardness of constitution generally, and hardness to bear low temperature. It is common enough to hear it said, "Such a fruit is the king of its race, but it is so tender, or it may be such a bad bearer."

Should such things be when the cross breeder has actually the power in his hands to combine given qualities and to impart definite ones? Much attention has been given of late to the Pear, and we possess many fine sorts, but there still remains many a curious and rarely profitable combination to be tried. The pretty and curious Cherry Plum has not yet been used as a parent. The early and prolific *Danson* would certainly produce valuable orchard sorts if crossed with the *Greenage Green Drop*, and other kinds possessing high quality and marked character. The common Bullace is a most promising subject, but it is in itself quaint and pretty as a dessert fruit, and might repay the trouble of crossing with the *Golden Drop*. Even the poor despised Sloe would furnish an importantly instructive experiment in showing to what an extent the austerities of its wild produce would be modified by the influence of a rich and saccharine garden Plum.

I do not think much deliberate crossing has been done with the Cherries. A few subjects of well defined races might be crossed together. The *Morello* produced sterile seedlings when experimented upon by Andrew Knight, yet I cannot help thinking that further trials might meet with success or at any rate verify a result. I need hardly say that to a really scientific mind the

verification of an experiment, or the settling at rest of an old doubt, is a gratification of the highest order.

After the fruit-tree question, of which I fear you must be almost tired, we pass naturally to the shrubs. Are our small fruits incapable of farther improvement? Not when red Currants are sown—and I have pressed myself to an especial audience.—Men of letters, I call upon you to produce an estate of Currants. Red Currants still lastately persons in being and although they were once worked at by the French, but a few generations under the care of the French would undoubtedly improve the *Cocoberry* in favour as well as in size. Your huge *Lawsford* and *Straw* Lians might be made rich with the blood of some of the old rough green, red, and yellow berries, and the "rapid" pachydermatous, prize-taking *Master* might become a *Manilla* for a price.

I had prepared great stores of materials for carrying out far more fully my intention of a treatise of this subject, but I have not yet had time to do so.

So now I will bring my fragment for an performance to a close. I have no better to say abruptly than that I have accumulated an important principle to which to cling out of a rut, and I was all good fortune in a crossing to the bold traveller in untrod ways.—R. T. Clarke, P.S. There is no earthly reason why we should not cross the Pine-apple.

Rev. S. R. HOLE entered a protest against some of Major Clarke's statements, and considered that florists had more reason for congratulation than for despondency.

Major CLARKE, in reply, created some amusement by stating that he entirely agreed with Mr. Hole.

Mr. SANDERS considered that there should be no such thing as resting in horticulture, continued progress must be aimed at.

Mr. D. T. FISH stated that we still wanted a good white and a good yellow Perpetual Rose.

METEOROLOGICAL TABLE FOR THE QUARTER ENDING JUNE 30, 1869.

Observed at Weybridge Heath, Surrey Lat. 51° 21' 18" N long. 0h 1m 46s. W 150 feet above mean sea level, on the Lower Bagshot sand. Soil and subsoil fine sand. By W. P. HARRISON Esq. F.R.S.

Mean pressure of dry air reduced to 32° at sea level.	Highest temperature of the air in the quarter.	Lowest ditto.	Range of temperature in the quarter.	Mean of all highest.	Mean of all lowest.	Mean monthly range of temperature.	Mean daily range of temperature.	Mean temperature of the air.	Mean temperature of the dew point.	Mean reading of thermometer in sun's rays.	Mean ditto in grass.	Mean temperature of the earth.		Mean elastic force of vapour.	Mean weight of vapour in a cubic foot of air.	Mean of historical weight required for saturation.	Mean degree of humidity in absolute saturation at 60°.	Mean weight of a cubic foot of air.	WIND.				Mean amount of rain in the quarter.	Mean amount of rain in the quarter.	Number of days in which rain fell.	Amount collected.	
												One foot deep.	Two feet deep.						Direction.	Force.	Force.	Force.					Force.
30.066	80°.25	57°.76	22°.50	63°.71	42°.97	50°.00	20°.74	51°.87	40°.28	102°.98	80°.74	65°.71	52°.63	3.20	2.7	1.3	74.0	537.8	1.15	15	6	13	3.7	2.92	5.68	5	1.1

ON THE TRAINING OF GREENHOUSE AND STOVE SHRUBS FOR EXHIBITION

The architecture of a tree or shrub is a very difficult subject to deal with, for when the various dimensions of the bole, the limbs, and the twigs are accurately measured, the grand Oak, with a luteous bark and bends, will be found to represent a sugar-loaf shaped piece of timber—a perfect cone, tapering from its codar at the ground to its topmost twig, thus a bole of 12 inches diameter would give two limbs of about 2 1/2 inches diameter, and each of these limbs would give two branches of about 5/8 inches each, and so of the spray and twigs.

The area of the section of the bole, say 12x12x 554 = 113.44 square inches.

The area of the section of the two limbs, 8x8x 554 = 56.72 square inches.

The area of the section of four branches, 5x5x 184 = 45.5 square inches.

Whilst the apparent bulk of the branches is greater than that of the bole, the area when accurately calculated proves that they are less, and that the tree is consistent throughout, and not the top-heavy article we might take it to be.

The outlines of trees and shrubs are therefore by no means a random affair, but are regulated by fixed rules. In the lower orders of the vegetable kingdom the same accurate details may be made out, for if you find with a pair of compasses the centre of a Mushroom of only three days' growth, the circumference will be found to coincide with the line drawn by the other leg of the compasses, but besides the semi-globe and the cone, we have among the ever-varying forms of plants such outlines as the ellipse and the spindle. The cone, whose outline would be an equilateral triangle, will always be a pleasing outline, as it is always a perfect one, standing on its base, it is ever of a conical pyramidal shape to bush or tree, with or without bole or trunk, and mounted on its apex it gives a charming picture when open as an ampt theatre—unless the case of a tree or shrub, a chalice-shaped outline with a flat top and a stem more or less elevated. The architect gives reasons for his arch and its key-stone, and for his pedestals, columns, and capitals, but a certain style of light or heavy slender or massive, according to the number of diameters which go to make its height, custom or caprice have nothing to do with these dimensions, they are regulated by fixed rules.

It is the peculiar character of a vast number of trees and shrubs that their flowers sit upon the twig and form tiers, for if you look into a Cedar of Lebanon, its graceful cones will be found all seated as on a carpet of the leveliest green. The Horse Chestnut is perhaps the finest flowering tree which we possess, yet at whatever angle the branch rises from the limb of the tree the flowers, like great trusses of Hyacinths, are all upright, whilst the foliage is never so. The wild Rose in the hedge bank rambling over some stunted Thorn sets a pattern to the

queen of flowers is mounted on the tip of a pretty little spar, with three or four short pinnated leaves by way of carpet, and these are all set and clustered with an eye to beauty, on long slender wands, gracefully bent. With such elegant models every day before our eyes, one feels outraged to see collections of greenhouse Azaleas and the like bound limb and twig to iron stays, to give a stiff outline, such as is never seen in any of Nature's grandest displays, and, what is worse, bearing no family likeness to the distinctive character and outline of any Azalea whatever. Imagine, if you can, a specimen *Fuchsias* with every flower tied up or out, or to the right or to the left—in short, any way, excepting always being allowed to hang down, and you will easily comprehend what an outrage it is upon other plants to have their distinctive characters destroyed, as if the tying up of *Flora's* train would make her look more graceful. Trees and tree-like shrubs have natural supports, and should not depend upon either props or other plants for their stand, viz, or if they must have supports, it will take very clever handling to put them in and avoid defect on. As the poet has said of satire, so we may well say of these—

"Nature should be like a tiger keen,
Would with a touch that scarcely to be seen."

The fact of such a twiner as the Hop coiling itself round its pole, like some serpent embracing the victim it would destroy, tells clearly that Nature meant it to borrow its support from some sapling in the jungle where it was located, but the Hop does its best to hide the prop it leans upon. Plants for exhibition are usually tied to shapes or frames some little time before they come into flower, so that they may make a grand effort to right themselves, and throw up their blossoms in one unbroken sheet. The glare unremoved by the natural foliage, looks just like some red mantle laid on a bush to dry. The leaves of a tree or shrub are things never to be assumed of, for surely it is the combination of light and shade that makes the picture. Take the lock of raven hair from the lovely countenance, and see the loss, and it is this business that I complain of.

Nature usually places the flowers of greenhouse Azaleas, as well as the flowers of other showy greenhouse shrubs, in tiers or stages, or, as before stated, sets them up on their twigs, and the flowers follow one another, rank behind rank, but at our exhibitions I observed that all the flowers are thrust to the front, and stand as if they were poverty-stricken, in single file. In the worst forms of what is termed "facings," splendid specimens were seen growing on their trollees, all flower, without a leaf to be seen, like great red aprons bulging towards the beholder, these, I am happy to say, are fast disappearing.

Our exhibitors of this class of plants will hardly credit the fact that they have got down to the still

clipped style of the Yew and Holly hedge of our forefathers, but the massive character of the hedge, strong in its supports, could bear the insult better than the plants in question. All specimens have a style the Oak is a mushroom-shaped tree, and looks best in that character, and cannot part with its congruity, even its gouty fork, its knotty twisted grain are ornaments, for that is the style of the "British Oak."

In like manner specimens for exhibition should not be taken out of their own nature, shape or style, and put into artificial shapes that do not become them. No one is to blame in this affair, for it has been creeping in upon the exhibitor for the last 50 years. In order to effect a cure the main good sense of the judges will be required to decide a few cases of the best specimens exhibited in the characteristic style of the plant, and if the plant has leaves as well as flowers, let them appear also on the stage. *Alex. Forsyth*, "Hear! Hear!" Consult the genius of the plant in a. —Eos.

Home Correspondence.

Prunella grandiflora. This lovely gem, which is now to be seen in flower in the newly-formed herbaceous border in the Royal Horticultural Society's Gardens at Chiswick, is one of the most charming subjects to be found in the great rut row, almost neglected family of herbaceous plants that cannot be too highly praised, or too much recommended for general cultivation. It was introduced into this country from Pennsylvania about the year 1801, but, as it is now so seldom seen, I fear it is almost lost. It grows freely to the height of 2 or 3 inches, is perfectly hardy, and throws up an abundance of densely spiced heads (about 1 foot in height) of deep blood-purple flowers, and continues to bloom about six weeks. The heads of flowers are about four times the size of those produced by *P. vulgaris* (the common leafy head of the British *sars*), and when seen in a mass—though it be but a small one—they are beautiful and attractive in the extreme. The plant is admirably adapted for front rows, or for massing in mixed borders, and I doubt not but that if it were tried it would prove an invaluable acquisition for the decoration of the flower garden in general. If any of your correspondents have tried it for this purpose I should feel grateful if they will kindly give their experience through your columns, as any information respecting the cultivation of this beautiful plant, or any of its fellows, cannot be too well made known. It is sometimes called *P. Browniana*, *P. pennsylvanica*, and *P. pyrenaica*, but *P. grandiflora* is the correct name. W.

Roses. When "D. of Deal" was here on the 22d of June he highly recommended to me the Duke of Edinburgh, *Elie More*, *Mille Three Let* and *Vicomtesse de Vesons*, the 2d prize seedling at the

...with a collection of smaller plants, ...

...arranged. Here, however, they are ...

major, with four nice spikes; Odontoglossum Alexandrae, ...

to the Manchester district. There were plenty of variegated zonal and silver variegated Pelargoniums in the various classes devoted to them, generally well grown plants, but in the main destitute of colour, no doubt owing to the hot weather. Pelonias were by no means up to the mark of those shown at Leicester last year. A h monea, which were so well done at the former place were here totally unrepresented, and but few examples were shown.

...vivid orange-crimson; George II. ...

...infusion of newer and ...

and 32 gs., and several realised over 20 gs. apiece. This is one of the earliest sheep lettings in the season, and during this and next month they will be sold over England. The 20th of July seems to be a favourable day, as Mr. Charles Howard's Oxford Downs are let at Biddenham. Mr. J. B. Lytton, sells 100 Shropshire rams and 200 ewes at Longe, H. B. Bingham's from various flocks at Mr. W. Lyson's, Cotswolds are offered at Broadfield, Northampton. Mr. Robert Gurnall's sale of 60 Cotswold shearing rams takes place on the following day at A. Smith, near Northampton, and the Bulbricke ram sale is altered to Wednesday July 25. Mr. Cotner's 31st annual sale of Cotswold rams is to be held the first week in August, Mr. Brown's Norfolk Cotswolds are to be let at Marham Hall on the 5th, and the day previously, the 4th, Mr. J. A. Treadwell's 60 Oxford Down shearing rams, from his prize flock, will be sold by Mr. J. A. Mansford at the Model Farm, Upper Winchenden, Bucks. Mr. W. Goughby Wood's Shropshires are to be sold on the 10th, and Mr. Preece has, as usual, a number of fixtures for the "grand Shropshire."

The Manchester exhibit in this class is better acquainted with three breeds of sheep which had formerly only been known by name to many of us. We refer to the "Limestones," better known amongst their owners as Crag Sheep, the Herdwicks, and the Lonsks. Of these three, the first-named attracted the greater share of attention, and from what we heard direct from the very best local authority, they are well worthy of a wider distribution. The Limestone or Crag Sheep inhabit the barren moors of West Yorkshire, and subsist upon the dry mountain sides during the summer with little water, and during the winter with little artificial help. This suitability for high barren, exposed and dry situations is considered as their strongest point and in this they differ from the Lonsks, which are adapted for land of the worst possible quality, do better on long, moss, and rushy ground. Hence Lancashire and West Yorkshire boast two capital breeds of sheep for poor land, the one adapted for dry and the other for damper situations. Returning to the Limestone Sheep we found them represented by many fine specimens from Mr. Rowland Parker's flock of Moss End, Burton, Westmoreland. They may be thus described. Both sexes horned, face and legs white, wool firm intermedicate in length, and meaning to the character of short rather than long wool. Mr. Parker's flock clip on an average 7 lb. each sheep, and is 3d. has been realised per pound this season. Mr. Parker rears and feeds off his wether lambs entirely on the lower ("in-land") ground, and raises them to from 18 to 22 lb. per quarter at 20 months old. The ewe lambs are kept on the "in-land" until they are one year old, and then go to the "common" or higher ground from May to October. They are again brought down in October, and put to the ram. Mr. Parker assures us of the prolific character of the females. Out of 54 ewes, 11 produce three lambs each, and the entire flock brought in, 100 to weaning time. With such statements before us we cannot doubt the advisability of knowing a little more about the Limestone breed of sheep, and there appears reason to think that they might be advantageously introduced in many of our dry, hilly, and poor districts.

PRESENT APPEARANCE OF THE CROPS.

CAMBRIDGE.—Wheat. On our best lands the wheat is a full crop. A few of the heaviest crops are partially laid, and went down too early, and consequently are liable to be injured seriously should we get adverse weather. These want sunshine and warmth, and may then come to perfection better probably than we at present anticipate. But it is quite the exception for crops laid early to prove productive. The lighter crops are the worst, and present the most unfavourable aspect. Many of them are drooping down, and tumbling about in all directions, not from their being bulky, but from weakness, of these I entertain a very poor opinion, as in my experience I have never known such crops come well to harvest; they generally yield badly, and are of inferior quality. The remainder of our wheats (and these are the larger portion) are full, good crops, and with suitable weather, may easily yield a full average. But our trying time is yet to come. On our fen lands we so frequently suffer from blight and mildew as the corn approaches maturity, and should we have weather to coincide these, we may see the yield reduced from 20 to 25 per cent. below present appearances, and the quality seriously deteriorated. We have known it so in the past, and are therefore anxious to see a continuance of warmth and sunshine, and with these we may have a very good crop. Oats. This crop is irregular. Many fields have suffered severely from the ravages of winter, and although doing well now, are too thin to be a plan to produce a full crop. Where there is a thick plant there is a heavy crop. Barley. This crop has suffered from an excess of moisture, and will be heavier than its competitors at one time indicate, but it may ever now afford a fair, although not a heavy yield. Beans and Peas as far as straw is concerned, are generally pretty good, but I offer no opinion as to the probable yield. Sunflower and warmth, and an absence of rain, is what this county now requires. Alfred S. Ruston, Aylesbury House, Chatteris, July 12.

EAST NORFOLK (Coast District).—It is scarcely possible to give any definite or reliable opinion of the crops at this moment. A fortnight since they presented a very unpromising appearance. I should then have pronounced them decidedly below average, but the last few days of almost tropical heat have produced a marvellous improvement, and should we have a continuation of such weather, may anticipate, at all events, an average harvest. I have examined several

fields of Wheat, some are rather thinly planted, but have shot a good ear, and headed well. The chief defect is weakness in the stem, which is bent from the root to the first joint. I may say somewhat root-fallen. This may be found to be rather general. I lately examined some heads of Wheat in Essex, and noticed the same defect. How this will affect the crop I am unable to say, but must wait, in view of the weather during the next three weeks. The Barley crops, in general, are by no means promising, wheat on good soils well farmed, it is running to a great length of straw, and the first heavy rain will lay thousands of acres flat upon the ground. Oats are good. Peas and Beans promise fairly but I cannot at present say how they are likely to yield. The hay was a very fair crop, but not such a large breadth mown as usual, owing to so many fields being ploughed up in the spring where the seeds perished by last year's drought. The root crop at present being well, and should we get timely showers, will exceed an average. Harvest will be later than usual, and with a continuation of fine weather it cannot be general here before the middle of August, and probably somewhat later. W. Cahill, Bacton Abbey, North Walsham, July 12.

ESSEX.—Wheat under average, a good deal root-fallen or stem-rotten. Barley, average. Oats promising. Beans, over average; winter Beans good where thinly sown, where too thick plenty of straw and few pods, early sown Peas, over average; Mangol, capital; Cabbage and Kohl Rabi, good. No rain for more than a month in our neighbourhood. First-rate hay crop, well gotten, ditto, winter Tares, very little Red Clover. Potatoes want rain. Shall commence harvest August 2, perhaps earlier. J. J. Meek, July 9.

HUNTINGDONSHIRE.—Wheats came out into ear very irregularly, with the ears thin and very far apart. The stems are very tall in some instances 4 feet 6 inches, soft and succulent, and hence thunder-storms, or heavy rains, would be fatal to the crop. The last ten or twelve days have been favourable to the bearing stage as well as to the crop generally, and the ear has thickened, and is much improved. With a continuance of fine weather, and barring accidents, we may possibly reach an average crop of Wheat, but this will be our limit, and at present I think the chances rather against this. Barleys are very light on the strong land, from the excessive rains and cold nights in May and can not possibly be an average crop. Winter Beans are magnificent and Spring Beans, at present, promising. Peas are a very fine crop, generally, but some of the later crops have been struck with the fly, and will now be very deficient. Potatoes the early sorts are very abundant, and the root crops are very promising and well planted. Grass has been one of the largest crops ever known, especially upon the high lands; upon some of the lowest meadows the crop is not so good. With such prospects of food before us, the prices of stock must be well supported. Peter Purves, Brampton, Huntingdon, July 13.

THE WHEAT in this neighbourhood I think about an average crop, perhaps not quite so. The Barley certainly not an average, a quarter or two crops sort of it. The Beans are good. The Winter Beans are a very great crop, though not well podded. The Peas are generally a deficient crop. The Oats an average crop. The hay is a large crop, and secured in a good state. The root crop has every appearance of being good, so that we are likely to have plenty of food for the stock in the winter. Robert Barton, Wigan St. Lees, July 13.

LINCOLNSHIRE. As regards cereals, I am afraid I have nothing very flattering to say. Wheat upon light land and poor clay soil is light, and must be short of an average. Upon well farmed good soils it is much better, and has come out with a good ear. I must say the same of Barley. Oats are bad. Turnips are promising, but rain would do them good. Hay a heavy crop. We shall not have any harvest until fully the middle of August, unless the weather comes very forcing. F. Sowerby, Aylesby, July 13.

NORTHAMPTONSHIRE. Our Wheat crops in this neighbourhood are anything but promising, though they have improved much in the last few days, but even with a continuation of the present splendid weather the yield must be considerably below the average. The same remark will apply to Barley, excepting that on very superior land. Oats promise fairly, and both Beans and Peas look well, and if the fly keeps off will be good crops. Mangels are a good plant, Swedes and Potatoes look well; Vetches were a remarkably heavy crop, and the hay crop more bulky than for many years, the greater part has been secured in first-rate condition, and, as the pastures are full of keep stock of all kinds commands extreme prices. J. Borlase Tibbitts, Ripon Seagrave, Kettering, July 12.

OXFORDSHIRE. My opinion is that the Wheat is not good, being short in the straw and very irregular in ear. The Oats are a fair crop, and are well secured, but it is not to be depended upon. Barley on the best lands is pretty good, but that on the clay is but short in the straw, and very irregular in ear. The Beans are pretty good. Beans later were more promising, particularly the spring varieties, being a moderate length in the straw, and the pods well set. The winter kinds have too much straw, and are not so promising. Peas are good plenty of straw, and well pulled. Hay there is but little Clover, the plant laid last season, and however a great breadth of Trifolium incarnatum made into hay. The upland pastures are good in quantity, and more than an average in quality, the low meadows turn out short in quantity of fair quality. Roots the Mangol plant is rather thin, but they appear to be doing very well, now Swedes, an excellent plant, and a total absence of fly Turnips are very flourishing, in fact we have not had such a prospect for many years. Potatoes free from disease, abundant in quantity, and good in quality. Samuel Druce, Eynsham, Oxford, July 2.

RUTLAND.—The Wheat crop in my neighbourhood on a well-drained and well farmed land is a full average, but on badly drained and early farmed much of it is a bad crop here (the worst we have had for years) and Oats are not so good. Peas and Beans are a very good crop, and Peas do better than below an average. Mangol Wurzel and Swedes very promising and the hay crop a very good one. The greater part secured in good order. The last week the weather has improved the corn crop, and the harvest must be a very late one. George Turner, Junr, Alexton Hall, Tappinham, July 14.

WEST SUFFOLK. The last fortnight has somewhat changed the appearance of the Wheat crop, about that time the prospect was somewhat dreary. A very uneven top threatened a light crop, and great breadths of Wheat looked as if they were about to have the same fate, and about two-thirds of a very late year was all that was estimated upon. But the last fortnight has worked a magical change for the better. Straw and ears seem to have been raised on every acre, and the crop has improved in an extraordinary manner. At this rate the temperature was 95° to-day in the shade—harvest will begin in less than a fortnight. Some of the Wheat is beginning to change, and a field of Rye, very little of which is grown about here unless for seed, or for green food, is changing fast. The Wheat generally seems thinner than usual, but in many fields it looks quite an average, and in all the fields will be much more satisfactory than was expected a fortnight ago. Straw will be plentiful. The Barley is a plentiful crop, nothing could look better at present. Very few Oats are grown, one field I noticed badly sown. The hay harvest is finished, the weather for the past fortnight, with the exception of a partial thunderstorm that passed over a considerable portion of the county last week, being very favourable for the late crops. I was somewhat about the middle of June had the weather though not a great deal of any or straw has been injured. The crops have been very heavy, and there is plenty of Grass in the meadows for sheep and stock. Green crops have come up well, and Sages and Turnips generally look regular and healthy. Mangol and Sugar-Beet will be a regular and generally a heavy crop. But the weight will depend a good deal upon the weather. We had frosts for several nights in June, and this does not encourage a rapid growth in any of the Beets. Still, they are generally healthy, and with growing weather there is plenty of time to have a good return in October. I hope to send further particulars about the Sugar-Beet crop, and its low becoming an important crop in this district. Peas and Beans generally look well, and promise a heavy yield. The plague of green and black fly is very great upon trees, hedge rows, roses, &c., and we have noticed it much on the green crops. One piece of Wheat was noticed very much infected. Is not this a new occurrence? July 13. Splendid rain last night will give vigour to the grain, and size to the root crop, and fill the meadows again with an abundance of food. D. T. P.

THE ROYAL AGRICULTURAL SHOW AT MANCHESTER.

The Manchester meeting has eclipsed all previous experience in the history of the Royal Agricultural Society of England. To this no doubt the Presence of H.R.H. the Prince of Wales has largely contributed, and the magnificent weather of the past fortnight has no doubt immensely increased the number of spectators. But, apart from the mere incidents of the exhibition, its own inherent excellence has placed it in the very highest rank of merit. The cattle-yard, open to the public on Monday, was filled with the very best classes of Short-horn cattle, Leicesters, Southdowns, and Shropshire sheep, that have ever competed for the Society's prizes. The horse classes, more numerous than this Society has heretofore exhibited, were many of them of the highest merit, and the "steep-chase" display within a separate enclosure proved attractive to large numbers of spectators. The implement department, chiefly interesting for the extraordinary competition in mowers and reapers, which occupied the patience and the judgment of laborious judges during a protracted and adjoining day. Steam cultivators, though for the year competing for the prizes of the Society, were full of work and competitive display as ever, and all the various kinds of them were exhibited. Perhaps the showyard was deficient in novelties, but there is no great harm in that. More detailed reference will be made in the following pages to the character of this part of the exhibition. On Monday, July 10, the judges, an admirable large body of men, commenced their examination. The day was a most successful one, and the exhibition was not so long as had been expected, and more purely agricultural than, as a rule, the neighbourhood of the great city, might have been anticipated. Many of the people apparently reserved themselves for the following day, when the Prince and Princess would attend.

On Tuesday their Royal Highnesses the President of the Society and the Princess of Wales visited the showyard, and were most heartily and joyfully received. Their carriage entered the ring set apart for the parade of the cattle, and the winners in the several classes passed before them. At the luncheon tent, after the parade was over, covers had been laid for 600 ladies and gentlemen, and the CHAIRMAN, Earl Sefton, Lord-Lieutenant of the county, proposed the health of the President of the Royal Agricultural Society of England—his Royal Highness the Prince of Wales, coupled with that toast, the name of her Royal Highness the Princess of Wales. He said, "I think that the reception that their Royal Highnesses have met with

upon the relative merits of the two mares, and the spectators seemed to be about equally divided in their allegiance. A last trial, however, was decided upon, and in this the superiority of Mr Casson's mare came out so clearly as to decide the question at once.

The spectators cheered enthusiastically, and Mr Casson was warmly congratulated when the flat of the judges was given in his favour. "Princess" was an excellent second, and the judges were so satisfied with her performances that they awarded her also a silver cup, but of less value than that given to the winner. The winner was ridden up to the royal stand, and the Prince of Wales examined her with interest.

Home Correspondence.

Harvest Dates in Warwick, &c.—I send a statement of the dates of the earing and flowering of the corn on the Holbrook Grange Farm for the last six years. There has been no Barley sown this year. Wheat was very irregular in earing and flowering, and also in length of plant, but the late hot weather has improved it wonderfully. I don't remember ever having seen the straw so long, and if we have any heavy rain I am afraid it will be easily knocked down. There is a larger breadth of Wheat sown than last year, and the prospects are better on the strong than on the light soils, but we can't expect an average crop. Barley and Oats have also much improved of late, but are much below an average. Peas are above average; Beans, the finest plant I remember though not so heavily covered as I have sometimes seen, still they are much above the average. Mangel and Swede Turnips look well. Potatoes have much improved, though some of the sorts, especially Flukes, have come up very irregularly. The hay crop has been the heaviest I can remember, and almost all of it has been got in in first-class condition; but as the store of hay was entirely exhausted in this neighbourhood, there is no chance of this article being very cheap.

Table with 5 columns: Year, Wheat in Ear, Barley, Oats, Wheat in Flower. Rows for years 1884, 1885, 1886, 1887, 1888, 1889.

Charles M. Calvercott, Holbrook Grange, Rugby, July 19.

Paper and Spinning Material from Bog-land in Ireland.—In the Agricultural Gazette of to-day I see an article with the above heading by Mr Hill Dickson, in which he recommends the culture of New Zealand Flax (Phormium tenax) in the swamps and marshes of Connaught, because, forsooth, he had seen the plant with leaves 6 feet long in the garden of the Galway College, and alleges that this plant can only be grown in Kew Gardens under glass. Mr. Dickson also speaks of giving the Spanish Grass (Esparto) a trial on the western coast of Ireland, and hints at giving a trial to the Indian Rheas, which he hears has been grown to perfection in Robert's Park Gardens. What this latter plant may be I am quite at a loss to know; it may be a misprint for Indian Corn (Zea), or "Rheas," a species of Poppy, of which there are many varieties, but all grown for ornament, and not for use, under the names of scarlet, white, or variegated Corn Poppies, but this is mere guesswork, and I honestly confess that the Indian Rheas is nowhere to be found in Loudon's "Hortus Britannicus," nor in any other work that I am acquainted with. Some little information of a practical nature may be of some service, not only to Mr J Hill Dickson but to the Earl of Arran, who seems to have entertained the magnificent idea of converting into sound land, at little or no expense, thousands of acres of swamp and mires of bog so soft that birds only dare set foot on it. And this is to be done by planting rows of New Zealand Flax 8 feet apart, and waiting three or four years until their roots get matted, when surface-rooting plants are to be grown in the spaces, to feed the Connaught man, whilst the Flax clothes him. The writer of this letter has himself grown New Zealand Flax out-of-doors in England, and also under glass. The plant flowered and perfected its seeds, and he raised plenty of plants from the seeds that were saved. The flowers were, however, all impregnated with their own pollen, by using a camel's-hair pencil to insure fertility, as the plant was under glass in a cool conservatory. So grown, it threw up a fine spike of flowers, 9 feet high. In the southern and western counties of England the plant is quite hardy, and is usually grown among Yuccas and the like, to give an exotic appearance to rockwork in flower gardens. One of the finest plants I have met with stood lately in a nursery at Stroud, in Gloucestershire, and I got some of its leaves from the proprietor for comparison with foreign leaves, and with leaves grown under glass, for I must not conceal the fact, that the English and Scotch papermakers have made themselves acquainted with this plant as well as with Esparto. Some 20 or 30 years ago Mr Murray, an author and lecturer on chemistry and botany, gave me a pamphlet written by himself, and printed on paper made from New Zealand Flax. The gist of his argument was in favour of getting paper strong and yellow, as the bleaching process damaged the fibre. "An edition of the Bible," he said, "printed at Oxford on paper whitened with over-doses of chlorine, was found to be quite rotten in the course of a few years." At Dundee a manufacturer showed me New Zealand Flax scutched and dressed for spinning. I saw it also in the hands of a spinner at Bridport, in Dorsetshire, but in neither case had it got to be of any commercial value. What it may be in the hands of Mr J H D who seems to have superior machines for its preparation, I know not, but in

the affair of getting out the flint from straw, and from Esparto Grass, caustic soda seems to be the recognised agent at the present time. If, however he can, as he says he can, get the silex out without using this terrible agent, which has already driven paper-makers off the stream by poisoning the water, he will assuredly be considered a benefactor to society, and well deserving of the encouragement he solicits. The Chester and Holyhead Railway proprietors have made extensive plantations of Bent in the island of Anglesea, in the sand beds, to prevent the sand from being drifted over their line. This Bent is common in Scotland and in England, and I was informed by a papermaker that he had secured some miles of Bent to make his paper from, although, as a general rule, the Bent is strictly preserved to bind the sand hills. I have seen the ruins of the parish church at Forvey, on the Aberdeenshire coast, standing amid sandhills. The tradition of the place is, that the whole parish was sanded up in one night, and utterly ruined. A papermaker showed me a living plant of Esparto in a flower-pot, and when it was compared with a tuft of Bent from the seaside near Dunbar, "the foreign invader" did not at all look likely to displace the "native." There can be no question that the culture of Esparto in the best parts of any of the "three kingdoms" would not yield a profit for some time to come, as it would not be well established in less than one lifetime, while it could always be got from the place where it is indigenous at less cost than it could be cultivated here. I saw the earliest samples of Esparto bleached in Oxfordshire as "half stuff" for paper making; I carried samples of it to paper mills to let my friends see what could be made of it; I also got sheaves of Esparto in the port of Newcastle, and carried the sample to Edinburgh and elsewhere as a curiosity likely to be of "some service," and I saw in the stores of some papermakers bales of New Zealand Flax, disregarded, not as worthless, but as unprofitable in the trade. The following simple fact will set this matter in a clear light. The papermaker prefers rags to any other material for papermaking. Why is he so perverse in clinging to this the oldest and the dirtiest article in the trade? The cost of a pound of good cotton may be set down at 1s. The papermaker does not buy at that price. Cotton at 1s. per lb. is for the spinner, but the papermaker waits for my shirt till it gets into rags, when he buys it at 2d. per lb., the value to him being equal to the raw cotton at 1s. No wonder then that he grumbles at any Government scheme that tampers with his rags or tariffs his paper. The rag is purchased thus at 80 per cent. under its original value. Some years ago a member of the Royal Agricultural Society introduced to that body "the Edoe" and "the Tania" of the West Indies as a substitute for the Potato, and this plant was generously to be extended to Ireland for the benefit of the poor of that ilk; but, when the Edoe and Tania were translated by me into the ordinary botanical name of Caladium esculentum, it became a matter of no doubt, as every plantsman knew at once the exotic character of the plant, which was by no means new to English botanists. The Edoe and Tania scheme consequently fell to the ground. In like manner the New Zealand Flax was made into paper, and that paper printed 20 or 30 years ago, and its merits held up to the world by able hands. The Spanish Grass, too, has run its course, and is now thoroughly understood and duly appreciated. We grow our Esparto as we do our sugar and our cotton just where they grow best, and we manufacture them here, thus following out the true commercial rule of buying in the best and cheapest market. The cultivation of Irish Flax in Ireland is truly an Irish question of national importance, and it is thoroughly understood by many in the north of Ireland. I have seen a buyer tell the qualities of Flax submitted to him with his eyes shut, and the fine soft silky feel of first-rate Flax well easily convince any one that this can be done. I have mentioned this in order to point out to Mr. J. Hill Dickson and others that this is the direction for him to take with improved machines. The staple of Ulster is Irish Flax; the market is good; and the climate of all Ireland being suitable for its cultivation, it is a profitable crop, and gives employment to the natives, men, women, and children. Rain does not damage this crop as it would cereals, or even Potatoes. I should be sorry to say an unkind word to Mr J H Dickson. He is no doubt enthusiastic and ingenious; but he would be a brave man that would face the Atlantic in Connaught, and make a plantation of seedling Phormiums from 4-inch flower pots in an Irish bog, where "the unfeathered biped of Linnaeus" could not set a foot. Galway, the city of the tribes, is beautifully situated, and the mills on Ness' Island are turned by a stream of fresh water that an English inland town would give thousands to possess, and long may the New Zealand Flax specimen flourish in the garden of its college, but let that suffice. Should any loss occur, however, from further experiments, I have given your readers time to warn you. Der Forger Manchester, June 26.

Foreign Correspondence.

BAKER'S ISLAND is situated within a quarter of a mile of the equator, about 2500 miles west from the coast of Peru. It was discovered about the year 1818 by an American sea captain, whose name it bears, and in 1856 it became the property of the American Guano Company. Baker's Island is saucer-shaped, being elevated at the edges, and depressed in the centre. Its greatest elevation above the sea level is about 30 feet, and its extreme length about a mile and a quarter. Standing on the deck of the vessel, as you approach, you see a dazzling crest of gray sand, wreathed in a frostwork of breakers. The low outlines of the island,

with its single framed house, and the flagstaff, upon which you soon see the stars and stripes of the Union, remind you of a rakish monitor with its turret. The air above the island is alive with birds, which swarm like the flies of Egypt's plague; and, as you near the shore, you hear above the sound of the surf their discordant din, which is to echo in your ear day and night as long as you remain upon the island. It is barricaded on all sides by a coral reef, which stretches out into the ocean, and breaks the force of the incoming waves, so that this flat, sand-covered island is swept away by the storms. Outside of the reef, the downward trend of the island under water is so abrupt that an anchor will not grapple, but falls away toward the bottom of the deep ocean. For this reason it has been found necessary to anchor large can-boats on the side the reef, to which the guano ships can moor themselves while receiving their cargoes. Each buoy is made fast by means of two iron cables. One of the cables attaches the buoy to a large sheet anchor, the other passes from the shore along the bottom to another, and prevents it from sliding down the declivity into unfathomable depths. The island itself is of coral formation; it is a low reef, covered with broken shells, and fragments of coral, and has enough soil to support a stunted vegetation. From November to March or April the winds are variable and tempestuous, and the island is almost inaccessible. Proprietors and labourers then sail away together, leaving one or two persons to guard the property until the return of the trade wind, which for several months blows steadily from the south. It allows of a landing with comparative safety on the western or leeward side of the island, and the assumption of labour. The guano deposit covers the central part of Baker's Island, and forms a layer from six inches to three feet thick. It is a grey-brown powder, without smell or any offensive property. In this respect it differs very greatly from the Chincha Island guano, which has a highly ammoniacal odour. This difference in quality is to be explained by the facts—first, that the Chincha guano is deposited in layers of immense depth; and, secondly, that at the islands it rarely or never rains, while at Baker's Island rain falls with considerable regularity at the change of the moon. Thus the free ammonia is thoroughly washed out of the guano of Baker's Island, while it is retained in that of the Chinchas. The slow process of deodorization, however, but slightly affects the fertilizing properties of the guano. Estimates of the amount of guano on Baker's Island differ; the highest is over 2,000,000 tons, the lowest about 500,000 tons, and this is probably a more correct estimate of the larger one. But the American Guano Company, who still actively work this mine of wealth, ship from a hundred to one hundred and fifty tons during about seven months of the year, are fastidious in their method of transferring animal wealth from its native bed to the hold of a ship, as follows—A railway track is laid from the shore inland to some rich farm. Here the guano is shovelled into stout canvas bags, which are then taken on carts by mules, or by the Kanakas, to the landing place at the shore. In its transit over the track the car passes over one of Fairbank's scales, and its weight is accurately ascertained. At the beach each guano weighing about a hundred pounds, is placed on the back of an athletic Kanaka, who bears it to a whale boat, which is drawn up sufficiently far upon the beach to escape the power of the surf. In smooth water each boat will carry about a ton, but when the day is rough the load has to be reduced. While the boat is loading the men stand up to their waists in the water, holding its sides directly toward the surf, which beats furiously upon the beach, and would otherwise strike the side of the boat and swamp it. When a certain quantity has been given the order, each man gives the boat a shove, jumps in, seizes his oar, throws it into the rowlock, and "gives way" with all his might. The deeply laden craft, sunk in the water almost to its gunwales, cuts through the breaking surf which threatens to swamp it, and, to the wonder of the spectators, escapes into the open sea. Arrived at the vessel, the bag is hoisted by appropriate tacking over the side of the vessel, and emptied into the hold. New York Times.

Farm Memoranda.

BUSCOT, LEICHLADE.—An interesting visit was paid recently by the Cirencester Chamber of Agriculture to Mr. Campbell's large farms at Buscot. The first thing inspected was the 50-horse power Poulton wheel, working six eccentric pumps, and throwing some 2000 tons of water per 24 hours to the reservoir at Buscot village. Mr. Campbell will erect a distillery for the production of alcohol from Beetroot, and a new fattening stall capable of holding 400 bullocks, to be fed on the pulp. They next saw the Hop garden. The plants were remarkably healthy, but already ruined by the possession of 8 or 10 feet, were wonderfully free from disease, and seemed to bid fair to give a produce of 6 or 6 six cwt. per acre. There were 34 shearers in one clip, and point out what can be done by having the deeply cultivated and in a good mechanical state. Mr. Campbell has 300 acres of Beetroot, all planted after the 25th of April, and the greater part of the 300 can be irrigated at pleasure. The water, instead of being carted away, will be put into the irrigation pipes and carried by the force of the water some two miles away to the distillery. Some Beetroot seed was obtained from Prussia, and the rest from the North of France. The Beet is drilled on a system adopted by some of the Beetroot growers in France, viz., two rows 8 inches apart, with an intermediate row of 2 feet or 2 feet 6 inches. The reason for this is to allow a deeper cultivation by the horse-hoe.

GREEN'S PATENT SILENS MESSOR,

OR

NOISELESS LAWN MOWING, ROLLING, and COLLECTING MACHINES.

BY SPECIAL APPOINTMENT,
MANUFACTURER



TO HER MOST GRACIOUS
MAJESTY THE QUEEN.

The Extraordinary Success of GREEN'S PATENT LAWN MOWERS is a proof of their superiority over all others. During the last five years the demand has been unprecedented, which is a proof of their superiority over all others. The following are the principal points in their favour:—

- 1st. Simplicity of Construction, every part being free of access.
- 2d. They are worked with far greater ease than any other Lawn Mower.
- 3d. They are the least liable to get out of order.

IMPORTANT NOTICE.

Trial at the London Horticultural Society's Gardens, Chiswick, June 5, 1857, four competitors. — First Trial on level ground, Second Trial on uneven ground, Third Trial on intricate places, around trees, &c.,—when GREEN'S PATENT was unanimously declared to be the best in each Trial by COLONEL CHALLONER, DR. LIVINGSTON, and G. McEWAN, Esq., the appointed Judges, and on every subsequent Trial to the above have GREEN'S PATENT LAWN MOWERS carried off every Prize that has been given in competition for superiority in every point.

PRIZE MEDALS AWARDED TO GREEN'S PATENT LAWN MOWERS.

FIRST PRIZE MEDAL AT THE INTERNATIONAL EXHIBITION, LONDON 1862
FIRST PRIZE MEDAL AT THE INTERNATIONAL EXHIBITION, DUBLIN 1865
FIRST PRIZE MEDAL AT THE NAMUR EXHIBITION
FIRST PRIZE MEDAL AT THE GAND EXHIBITION

FIRST PRIZE MEDAL AT THE LONDON EXHIBITION
FIRST PRIZE MEDAL AT THE LONDON EXHIBITION
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THEY ARE THE ONLY MACHINES IN CONSTANT USE AT

THE ROYAL BOTANICAL SOCIETY'S GARDENS, SOUTH KENSINGTON
THE ROYAL PALACE GARDENS, REGENT'S PARK
THE CRYSTAL PALACE COMPANY'S GARDENS, ST. JAMES'S
BUCKINGHAM PALACE GARDENS
MARLBOROUGH HOUSE

THE HYDE PARK GARDENS
THE WINDMILL PALACE GARDENS, DEWHAM
THE DUBLIN BOTANICAL GARDENS
THE LINCOLN BOTANICAL GARDENS
THE QUEEN'S ROYAL PARK

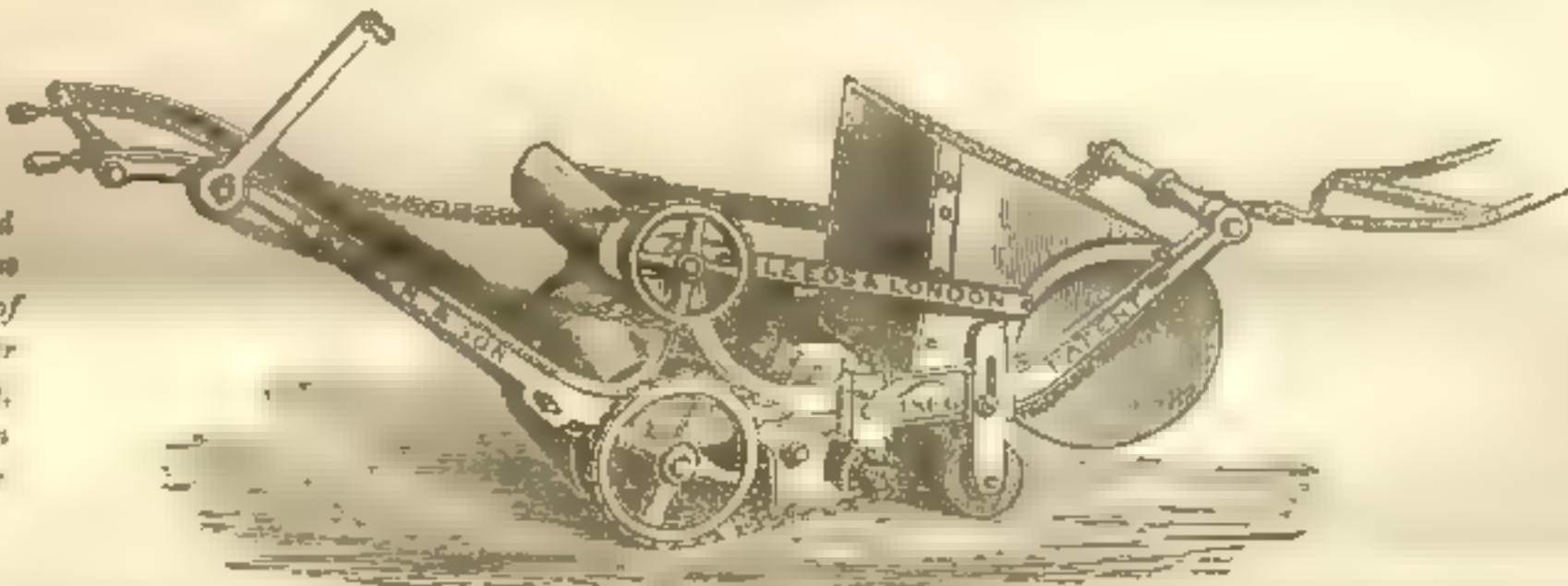
THE FILL BOTANICAL GARDENS
THE BOTANICAL GARDENS, BRUSSELS
THE SUIPER AND PARK
THE PIERSON PARK

AND IN MOST OF THE PRINCIPAL PARKS, SQUARES, ETC., IN THE UNITED KINGDOM.

HORSE, PONY, AND DONKEY MACHINE.

GREEN'S PATENT LAWN MOWERS

have proved to be the best, and carried off every Prize that has been given in all cases of competition. Since the first year they were introduced (1857), upwards of 20,000 have been sold and upwards of 1,000,000 during the last five seasons.



T. GREEN & SON
warrant every Machine to
entire satisfaction, and
approved of can be returned
unconditionally.

PRICES of HORSE, PONY, and DONKEY MACHINES, including Patent Self delivery Box, Cross Stay complete; suitable for attaching to ordinary Chain Traces or Gig Harness.

PONY AND DONKEY MACHINES.

To Cut 26 inches	£13 0 0	} Leather Boots for Donkey, 18s. } Leather Boots for Pony, 22s.
" 28 "	.. ..	15 0 0
" 30 "	.. ..	17 0 0

HORSE MACHINES.

To Cut 30 inches	£21 0 0	} Leather Boots for Horse, 26s.
" 36 "	.. ..	24 0 0
" 42 "	.. ..	27 0 0
" 48 "	.. ..	30 0 0

Both the Horse, Pony, Donkey, and Hand Machines possess (over all other Makers) the advantage of Self-sharpening. The cutters being steel on each side, when they become dull or blunt by running one way round, the cylinder can be reversed again and again, bringing the opposite edge of the cutter against the bottom blade, when the Machine will cut equal to new. Arrangements are made that the cylinder can be reversed, by any inexperienced person, in two or three minutes.

HAND MACHINES.

To Cut 16 inches	..	£3 10 0	Suitable for a Lady
" 12 "	..	4 10 0	" "
" 14 "	..	5 10 0	Suitable for One Person
" 16 "	..	6 10 0	" "



To Cut 18 inches	..	£7 10 0	Suitable for One Person
" 20 "	..	8 0 0	Suitable for Two Persons
" 22 "	..	8 10 0	" "
" 24 "	..	9 0 0	" "

Packing Cases are charged at the following low rates, viz. For the 12-inch Machine, 3s.; 14-inch, 4s.; 16-inch, 5s.; 18-inch, 6s.; 20-inch, 7s.; 22-inch, 8s.; 24-inch, 9s. Parties providing themselves with Lawn Mowers are recommended to purchase the cases in which to stow them away, when not in use, to prevent them from getting damaged, if returned, two-thirds will be allowed for them.

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HORTICULTURAL and AGRICULTURAL IMPLEMENTS, GARDEN SEATS and CHAIRS, FOUNTAINS, VASES, PLAIN and GALVANISED WIRE NETTING, and ORNAMENTAL WIRE WORK of every description.

Having very extensive Premises in London, we are in a position to do all kinds of Repairs there, as well as at our Leeds Establishment.

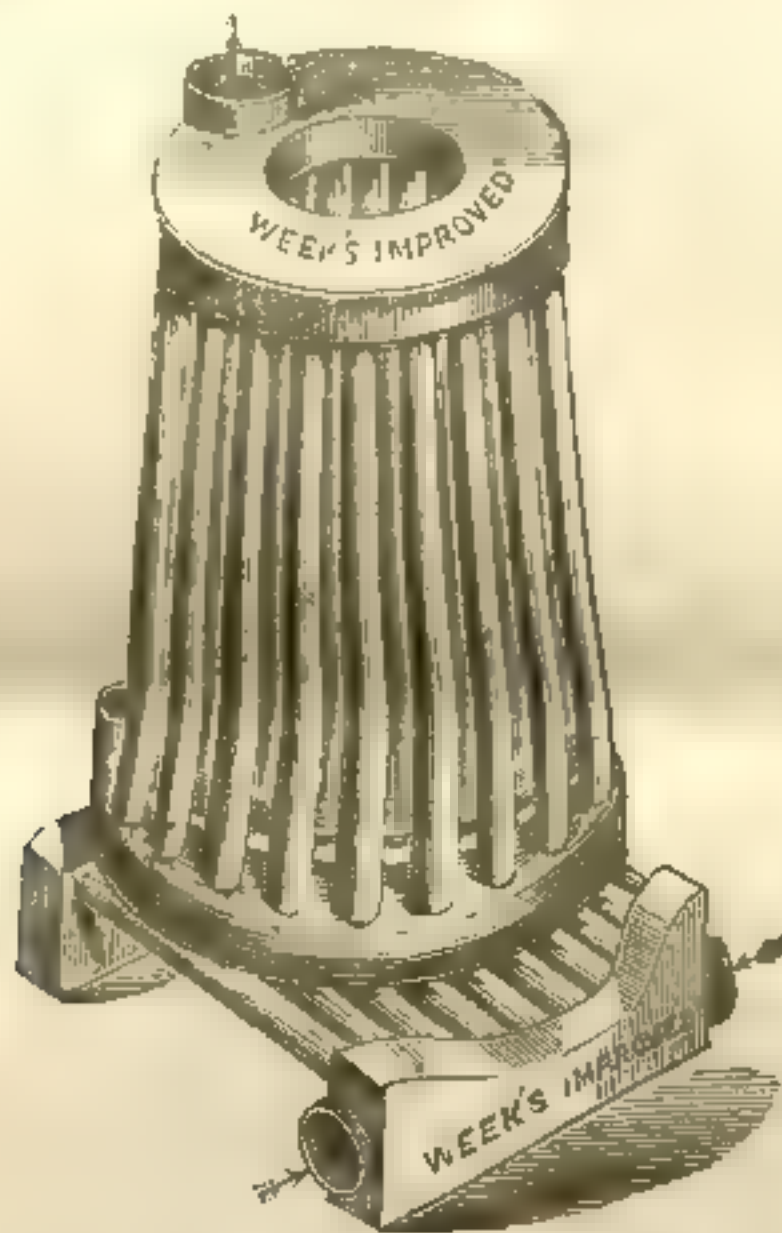
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THOMAS GREEN AND SON, SMITHFIELD IRON WORKS, LEEDS;
and 54 & 55, BLACKFRIARS ROAD, LONDON, S.



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1. In the year 1843 the Horizontal Tubular Boiler was invented by J. WEEKS AND CO.
2. In the year 1855 WEEKS AND CO. discovered the superiority of the Upright Tubular over every other description of Boiler.
3. WEEKS AND CO.'S No. 6 is the only Boiler capable of warming four miles of 4-inch piping.
4. WEEKS AND CO.'S Cast Upright Tubular is 75 per cent. more durable than any Wrought Iron Tubular or Saddle Boiler that can be manufactured.
5. WEEKS AND CO.'S Upright Tubular Boiler is in constant operation at all leading Horticultural Establishments throughout Great Britain and the Continent.



6. The largest Hot-water Apparatus in the world was erected by WEEKS AND CO., and worked on their One-Boiler System.
7. WEEKS AND CO.'S No. 6 Upright Tubular Boiler (as exhibited at Manchester) has proved itself the most clean, efficient, durable, economical, and powerful Boiler extant.
8. WEEKS AND CO.'S Upright Tubular Boiler, after having undergone the most severe and critical tests for the last 15 years, has in every case proved itself the best for Horticultural purposes.
9. WEEKS AND CO. are daily receiving the most flattering Testimonials as to the satisfactory working of their One-Boiler System.
10. Write for their "ILLUSTRATED CATALOGUE" (12th Edition), post free.

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JOHN WEEKS AND CO.,
HORTICULTURAL BUILDERS AND HOT-WATER APPARATUS MANUFACTURERS,
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GREEN'S PATENT SILENS MESSOR,

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FIRST PRIZE MEDAL AT THE INTERNATIONAL EXHIBITION, DUBLIN, 1885.
FIRST PRIZE MEDAL AT THE NAMUR EXHIBITION.
FIRST PRIZE MEDAL AT THE GAND EXHIBITION.

FIRST PRIZE MEDAL AT THE LAEKEN EXHIBITION.
FIRST PRIZE MEDAL AT THE LIESENE EXHIBITION.
FIRST PRIZE MEDAL AT THE BRUSSELS EXHIBITION, on two occasions.
FIRST PRIZE MEDAL AT THE HAMBURG EXHIBITION.

THEY ARE THE ONLY MACHINES IN CONSTANT USE AT

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THE CRYSTAL PALACE COMPANY'S GARDENS, SYDENHAM
ROCKHAM PALACE GARDENS
WARLBOROUGH HOUSE

THE HYDE PARK GARDENS
THE WINTER PALACE GARDENS, DUBLIN
THE DUBLIN BOTANIC GARDENS
THE LIVERPOOL BOTANIC GARDENS
THE LEEDS ROYAL PARK

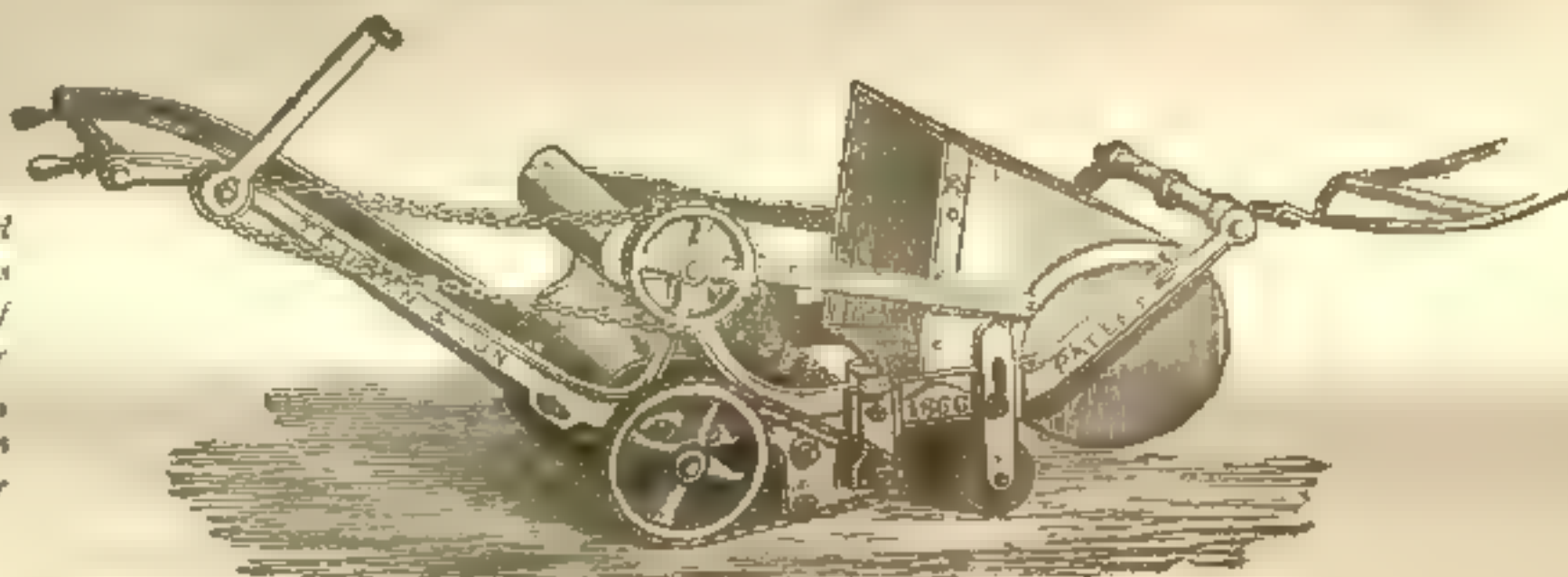
THE HULL BOTANIC GARDENS
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CARTER'S PRIMULA, CALCEOLARIA, and CINERARIA
 J. C. & Co.'s strain of Calceolaria saved from plants that were awarded a 1st Prize at the late International Show. The Cineraria and Primula stocks are also saved from the finest Prize Varieties, and cannot be surpassed.

CALCEOLARIA and CINERARIA	
Per packet—s. d.	Per packet—s. d.
Calceolaria, finest Hybrid 2 0	Calceolaria, Dobson extra fine 2 6
" spotted 2 6	Cineraria, extra fine 2 6

PRIMULA

Per packet—s. d.	Per packet—s. d.
Primula, choicest mixed 2 6	Primula, choicest white 2 6
" fringed 2 6	" fringed 2 6
" dark carmine, fringed 2 6	" Fern-leaved carmine 2 6
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CALCEOLARIA INTERNATIONAL PRIZE. The Seed of this variety cannot be obtained elsewhere. The plants look 1st Prize wherever exhibited. Per pkt., 2s. 6d.

PRIMULA FIMBRIATA New scarlet. This is a decided novelty, being of a deep scarlet colour and cannot fail to be much admired wherever grown. Per packet, 2s. 6d.

INDIA RUBBER HOME at Manufacturer's prices, 60 feet (with complete fittings), &c.

JAMES CARTER AND CO., The Royal Seedsmen, 237 and 238, High Street, London, W.C.

Choice Flower Seeds for Present Sowing.
DOWNE, LAIRD, and LAING have the pleasure of offering the following choice Flower Seeds—

CALCEOLARIA, Hybrid, saved from a superb First Prize Collection, 2s. 6d., 3s. 6d., 6s. per pkt.

CINERARIA extra choice, saved from an unequalled assortment of mixed flowers, 1s. 6d., 2s. 6d., 3s. 6d. per pkt.

MOLLYHOCK, extra fine, saved from our own magnificent collection, in 2 colours, 6s. per collection.

MOLLYHOCK, extra fine, saved from our own magnificent collection, mixed, 1s. 2s., 3s. 6d. per pkt.

BEST Show saved from our unrivalled Exhibition Flowers, 1s. 6d., 2s. 6d., 3s. 6d. per pkt.

BEST Favor saved from a selection of the most beautiful colours, 1s. 6d., 2s. 6d., 3s. 6d. per pkt.

SHRUBS, Fringed (Red and White) saved from the finest strain in cultivation, 2s. 6d., 3s. 6d., 6s. per pkt.

SHRUBS, Fern-leaved (Red and White) saved from the finest strain in cultivation, 2s. 6d., 3s. 6d., 6s. per pkt.

Stamstead Park, Forest Hill, London, S.E., and at Edinburgh.

another excellent gardener—whose opinion, and justly so, is valued in the highest degree among his colleagues—that the immediate effect of pruning is the encouragement of a greater supply of sap to flow towards the parts that are left. The results that follow such an operation are no doubt such as to render this explanation plausible, but is it true? We do not say that it is not, but we ask by whom, and how, this alleged greater flow of sap to an amputated branch has been tested and gauged? Which sap is it that flows to the wounded part? Is it crude sap just pumped up from the roots? Is it elaborated sap?—if so, where does it come from? If you mutilate the top, does not the root suffer in proportion? Till these and a score of similar questions are satisfactorily answered, we must consider such statements in the light of plausible hypotheses, and nothing more. One class of observers see results and have to deal with them, seeing them daily they are naturally inclined to guess at causes for these results, without stopping to inquire whether or no they are correct in their surmises. Another class of observers make it their business to search after causes, and often miss their mark because they are imperfectly acquainted with results, which lie so close under their eyes that they fail to see them.

The following extract from a letter sent from Bangalore last October will be the best proface to the subsequent observations:—

"I am trying an experiment to grow MUSHROOMS from WHITE ANT-NEST SOIL, and will send you a note of the result. Indications of success are apparent. Would you obligingly publish a memorandum on the culture of Mushrooms for a new country where cultivation of them is unknown, but where several useful kinds grow in the month of September (our dampest month). I am making beds for trial, and getting the soil where they grow spontaneously brought in, but one cannot persuade the natives to try a new thing till they see some indication of success. The very simplest elementary rules would be best in a very short article, and we will try to apply Western experience, and the condition of soil and climate here. I believe we shall introduce the culture of Mushrooms in spite of apparent difficulty."

The common Mushroom occurs in almost every part of the world, where the temperature is not so cold as to destroy the spawn; and there are a variety of forms or species in tropical or subtropical countries, many of which are doubtless excellent for food. Some ten or more such forms occur in Ceylon alone, and perhaps if the continent of India had been as carefully investigated as Ceylon has been by Mr. THWAITES, they would be found to be scarcely less numerous there. Cultivation, indeed, has not hitherto been successful with any species except the true *Agaricus campestris*, of which several varieties, however, appear from time to time in our Mushroom beds. Spawn of *Agaricus arvensis* has been carefully collected and packed, but experiments as to its propagation have hitherto failed. We are, therefore, somewhat doubtful as to success in India with other marked forms or species, though the experiment is well worth a trial.

We should recommend in the first place the importation of some good artificial spawn, though we are not certain that it would retain its vegetative powers on transmission. We received many years ago some spawn of a very superior variety from Australia, which was put under the care of Mr. J. HENDERSON, one of the most excellent cultivators we had ever the pleasure of knowing, but its vegetative powers seem to have been lost, as it never made an attempt to run. Spawn, again, taken from the field, is far from being uniformly successful. We should recommend, therefore, in preference, the collection of the dung of horses, placing it in a large heap by itself, under a shady place, and turning it once or twice to prevent it getting sodden. The heavy rains of India might, however, prevent the dung getting into a favourable condition for the development of spawn; it might, therefore, be well to place it under an open shed, in which case it might require occasional watering. When the dung is found to be full of spawn, it may be used exactly like artificial spawn, mixing it well with the proper soil, without breaking it up too much, taking care that the substratum of soil is well drained, and modifying the treatment according to the necessities of the climate.

Experience alone will show whether a cellar or a shed is most conducive to complete development. There should be a thin layer of fine soil over the spawn, and a covering of hay or some other substance would probably in some cases be necessary. Many worse insect plagues would possibly have to be contended against, than in our own country.

It would be necessary to observe whether the Fungi which it is required to propagate spring from horse-dung or from that of other animals. A kind of *Spharia* grows very commonly on elephant's dung, but we are not aware that it yields any esculent Fungus.

As regards ant-nest soil, there is a species of *Podaxon* which grows very commonly upon it, which may possibly be esculent in the young state, when it somewhat resembles young *Coprinus comatus*; but we have no information as to any other Fungus which is developed upon it likely at all to be esculent. We shall be much pleased to know the result of this experiment, and to have specimens if any Fungi appear. M. J. B.

— We are glad to note that the ROYAL HORTICULTURAL SOCIETY'S MANCHESTER SHOW has proved more successful in a financial point of view than was at one time anticipated. The receipts, we are informed, were as follows: July 19 (5s.), 99l.; July 20 (5s.), 240l. 5s.; July 21 (2s. 6d.), 539l. 2s. 6d.; July 22 (1s.), 352l. 11s. 8d.; July 23 (1s.), 286l. 17s.; July 24 (6d.), 128l. 10s.; tickets sold previously, 112l.; refreshment contractor, 100l.; making a total of upwards of 1857l. This amount would probably have been doubled had the Society received that countenance and support from royalty which it was led to expect, and which, indeed, was publicly announced. As it is, considering the overwhelming attractions of the Agricultural Show, the comparative inaccessibility of the flower show, and the roughness of the local arrangements, the financial results of the Royal Horticultural Society's third visit to the provinces are more favourable than could have been expected.

— The Council of the Royal Horticultural Society has conferred on Mr. JOHN SHAW, of Bowdon, a 40 guinea Life Fellowship, in acknowledgment of the services which he had rendered to the Society in connection with the organisation of the Show just terminated at Manchester.

— The 1st prize BOUQUET at Manchester, exhibited by Mr. YATES, was so remarkable for its simple beauty as to call forth the special commendations of the chairman of the general meeting held on the 20th inst. Much of its effectiveness was due to the sparing introduction of single blossoms of a white-flowered *Panicum*, set a little prominent in reference to the other flowers, in which position the narrow recurving perianth segments had a most graceful and charming effect, while the cup was not sufficiently projected to appear obtrusive. This element, combined with the choice character, tasteful arrangement, and well-chosen colours of the other flowers, no doubt won for Mr. YATES' bouquet the position it so worthily occupied in the prize lists.

— Mr. WILLIAMS exhibited at Manchester a new form of *Todea*, which is to bear the garden name of *TODEA INTERMEDIA*, indicative of its appearance, which is exactly intermediate between that of *T. hymenophylloides* (pellucida), and *T. superba*,—sufficiently so to suggest the idea that botanically these plants may form but one species. The plant had been imported amongst others from New Zealand. It has the stalked fronds of *T. hymenophylloides*, while the lamina, instead of being plane, is fringed after the manner of *T. superba*, though in a less degree.

— One of the most interesting exhibitions at the recent Manchester Show, and one but briefly alluded to in our report at p. 741, was a collection of GRAPES, from Dalkouth, Austria, the gift of the application of BOTTOM-HEAT to the roots of the Vines. The collection consisted of White Frontignan, Grizzly Frontignan, Muscat of Alexandria, Reeves' Muscadine, Rivers' Muscadine, Chasselas Napoleon, Black Alicante, and Royal Muscadine. They had all been cut from one house; had all been planted in May, 1868, chiefly from eyes of that year; and had all been subjected to a bottom-heat from piping placed under pavement, varying from 90° to 105°, except in the case of one Vine, a Royal Muscadine, which had had no bottom-heat. Though under equal circumstances this latter variety would have preceded the Muscat in ripening by at least two months, its fruit under the conditions above indicated, was not so much matured when exhibited the other day as was that of the Muscats grown in the same atmosphere but with bottom-heat in addition. This is a striking fact in support of Mr. THOMSON'S views.

— From a schedule now before us of the Royal Society of Horticulture and Agriculture of Tourney, which this year celebrates its second jubilee, or its 50th anniversary, we learn that a great INTERNATIONAL HORTICULTURAL and POMOLOGICAL EXHIBITION is to take place in that town, from the 12th to the 15th of September next. The schedule extends to 143 classes, divided into five sections, viz., pomology (fruits and fruit trees), 61 classes; horticulture (ornamental plants), 61 classes; out flowers (Roses, Dahlias, and bouquets), 20 classes; garden requisites (vases, aquariums, tools, &c.), 10 classes; vegetables and cereals.

The Gardeners' Chronicle.
 SATURDAY, JULY 31, 1869.

MEETINGS FOR THE ENSUING WEEK.
 Monday, Aug 30. Royal Horticultural (Fruit and Floral Committee), at South Kensington, 11 a.m.
 Tuesday, Aug 31. Daily (General Meeting), 2 p.m.

We have often had occasion to comment on the backward state of VEGETABLE PHYSIOLOGY in this country. Other branches of botanical science have their representatives here, but with few exceptions there is scarcely a Botanist who has turned his attention to this department. In the LINDLEY SCHOOL of departments of botanical science, the application of the principles of vegetable physiology, as known at the time at which he wrote, to the details of practical routine, his reputation in the future will assuredly not rest on his personal contributions to vegetable physiology in the restricted sense in which we here use the term. The fact is that so far as its application to practice goes, vegetable physiology is in much the same state as therapeutics are to medicine. The foremost physicians now-a-days have acquired a marvellous insight into the symptoms and consequences of diseased action. They are enabled to ascertain the actual condition of a sick man—to predict the probable course of his malady—to say with something next to certainty what appearances will be presented after death. They know, too, what will in all probability be the immediate effects of the drugs they administer. But when it comes to a question as to how these drugs produce their peculiar effects, or as to what will be the effect of their prolonged administration on the disease, they are for the most part utterly at a loss. They can do much to alleviate, more to prevent disease, but to control it, in the sense in which an excellent practical gardener the other day used the term, is, in the majority of instances, quite beyond their power. The application of what is known in vegetable physiology to practical horticulture is in an equally unsatisfactory condition. Plants are analysed, their composition is ascertained, water is tested, the nature of soils and manures accurately determined, and what then? We have got results valuable enough in a chemical point of view, it is true, but we want something beyond this. We have the plant itself as a machine for action to consider. Let us explain our meaning. An excellent gardener asserts, that lime is injurious to Vines as sand is beneficial. Assuming the fact to be as stated, will any mere chemical analysis of the dead plant (the product of analysis, of course, implies the death of the plant), any investigation of the soil, give the reason for this fact? It may do so, but we venture to think that the probability is that it will not, and this because the experience of other practitioners, under different circumstances, is different from that of Mr. CRAMB. Certainly no one who has seen a French or a German vineyard would infer that lime was injurious to the Vine. We turn to another subject. We are told by

21 classes. The attention paid to fruit-culture, as well as plant-culture in Belgium, is well known, and hence the Tournay meeting may be expected to be one of the most interesting horticultural gatherings of the ensuing autumn.

— We are glad to record that on the occasion of the meeting of the Royal Horticultural Society at Manchester, His Grace the Duke of Devonshire treated the whole of the young gardeners and labourers employed in the gardens at Chatworth to the number of upwards of 60, to Manchester to see the exhibitions, His Grace paying the whole of their expenses.

— In a recent number of the *Bulletin de la Société Botanique de France*, M. ABOLHE TOUQUAINE describes a curious ANOMALY in the STEM of *ALLES PECTINATA*. The trunk of the plant in question had attained a height of between 6 and 7 feet without producing a single lateral bud. The diameter of the trunk (about an inch) is nearly the same at the top as at the base.

Each year's growth is marked by an annular cicatrix, of which there are sixteen. The leaves remain only on the shoots of the year and of the preceding one. This constant suppression of the lateral buds is a very singular phenomenon in such a plant. What excellent hop-poles such trees would make.

Under the name of LOOKER'S PATENT EARTHENWARE PROPAGATING BOXES, we have received a specimen of a box intended for raising or forcing any kinds of seeds, plants, or cuttings. The boxes, or pans, are made of ordinary pottery-ware, of any required shape or size. The top of the boxes is made slightly sloping, with a groove in which a piece of glass is fitted to slide. These boxes will be useful to those who do not possess a greenhouse or forcing-pit, and they will be found serviceable for the separate growth of choice seeds and cuttings within all glass buildings. In principle they seem nearly identical with BENDLE'S Plant Protectors. The value of this invention depends to some extent upon the cost at which they can be retailed, as a common seed-pan with a glass cover would answer the purpose equally well.

New Plants.

ORCIDIUM HYPLEMATIUM, sp. n.

Panicle laxa, sepalis ligulatis scotis margine repandulo-undulatis; petalis subquadrilobis, labello cucinato utriusque angulato, antice reni formi cum apiculo, basi quibusque lamellato, lamellis externis abbreviatis, internis longioribus antice retratis, columnae alis quadratis, buccis semiovatis.

Rhizoma pulv. usculena, radicans. Pseudobulbi rotundi acicipes oblongo ligulati depressi utrinque per discum tricuspidi, monophylli. Folia oblongo lanceolata apice obtuse acuto inaequali, sessili, a foliis duobus vaginatis stipati, cum vagina articulatis, circa vaginam membranaceis, lamina brevioribus. Pseudobulbus junior minus argute costatus. Pedunculus longe exsertus viridia maculis plurimis stragularibus, in divaricatus, vaginula acuminata artia, superne ramulosis, ramuli valde breves racemose in thalamo sessilibus sistentes. Ovaria posticellata labello subaequali, bracteis triangularibus scariose punctata sepalis cucinate oblonga acuta valde undulato-crispa, costata, limbo hinc inde, extra orbem latera et costae, interna curvata disarcinata, petala basi lata sessilibus, latera angulis in disco natis, colorum ex al. labello in basi lata mucronata, utrinque angulato-arteri formi dilatatione antice excisum cum apiculo, superne pulcherrima citrinum, infra purpureo latera in cut. lacinae punctis pallidis sulphureis; carum abscisum lateralis ante postice, media elevata, omnes basi r. d. line. alabastrina anthera obovata, glandula purpurea, alba antea, labello foeml semiovate crenata, fovea oblonga undulata, tubula infrastigmatica utrinque obtusangula.

We named this plant the first for Messrs. Backhouse, of York. It flowered later in Mr. Lunden's nursery. It appeared in October of last year at South Kensington before the arceopage of the Floral Committee, the specimen belonging to W. Wilson Saunders, Esq., and grown by Mr. Green. The beautiful colours won the hearts of the judges, who felt puzzled at the new name (bloody beneath), alluding to the flower being of a blood-red colour on the outside. Sometimes the plant takes the liberty of getting triandrous, thus breaking the ordinary rule. It may come from Western South America, New Granada or Peru, or Ecuador. H. G. Rehb. fil.

CYPRIPEDIUM PARISHI, R. M. F. *Ante Cypripedium glanduliferum, pediculis longissimis apice obtusis.*

circum apiculis in Marbo (2-3 in quovis petalo); staminodii in necto oblongo emarginato basi cornuto.

Cypripedium Parishii, Rehb. fil. MS. in litt. et Rev. C. Parish in Herb. Acad. in Bonn, Jan. 1896. (The Elephant-crushed Lady-slipper.)

Polla latissime ovata apice truncata bifida, reniformi. Pediculus ovatus, apiculis petaloidibus, nectario sessilibus, apice in necto oblongo emarginato basi cornuto. Ovaria posticellata labello subaequali, bracteis triangularibus scariose punctata sepalis cucinate oblonga acuta valde undulato-crispa, costata, limbo hinc inde, extra orbem latera et costae, interna curvata disarcinata, petala basi lata sessilibus, latera angulis in disco natis, colorum ex al. labello in basi lata mucronata, utrinque angulato-arteri formi dilatatione antice excisum cum apiculo, superne pulcherrima citrinum, infra purpureo latera in cut. lacinae punctis pallidis sulphureis; carum abscisum lateralis ante postice, media elevata, omnes basi r. d. line. alabastrina anthera obovata, glandula purpurea, alba antea, labello foeml semiovate crenata, fovea oblonga undulata, tubula infrastigmatica utrinque obtusangula.

Leaves broad, ligulate, 1/2 in. long, hairy, 2 feet long, bearing a 1/2 flowered raceme at its extremity. The bracts are triangular or oblong, blunt, in cl. shorter than the villous stalked ovary. The upper sepal is concave-oblong acute, with one strong

to the most mysterious tales, which were certainly not diminished in oddity by passing from one to another. We are indebted for a story of this kind to Mr. Wentworth W. Buller, but it is a very simple one, and is no doubt true; indeed we have been told much more surprising things than this. The fact is, that the Rev. Mr. Parish put his fingers on this celebrity near the Siamese frontiers as he came from Burmah—we scarcely think he would be anxious to indicate the exact quantity. But now the myth has begun. Mr. Parish was in the company of one, or of two, or of three, or of four, or of a herd of elephants. And whether one, or a herd, all authorities are unanimous that all the elephants had loads of Orchids, lots of new Vandas, Phalaenopsis, Aerides, new genera, numberless Dendrobies, and our *Cypripedium*. On the return to Moulemein the animals got ill-tempered; whether because they did not get a dram, or because they were tired of being in a narrow path in a forest we are not sure, but the latter our just quoted authority declares to have been the case. Now the elephant, or the elephants, throw off their loads and danced, either a pas seul, or a polka, or a quadrille, or a grand ballet dance, on the poor plants. There has seldom occurred such a devastation of the most wonderful materials, and though we have seen many laugh at the funny tale, we may add that it must have been a very melancholy sight for the collector to see the effect of such hard work destroyed, particularly as he is such an ardent lover of good plants. After all, the discoverer, who had spent, as we hear, a very long time during his trip before he found good things, saved but very few plants. We believe we have seen nearly all. The strongest plant was Mr. W. Buller's, who sent it to Messrs. Vortch, a good specimen is at Kew Gardens, one we saw some time ago at Mr. Day's; one at Mr. Sigismund Rucker's, and we believe one is in the Dawsonian collection.

We are indebted for a highly interesting letter on this wonderful plant to Wentworth W. Buller, Esq. We have to thank Messrs. Vortch for a fresh flower and for a very well executed sketch of the whole plant. The novelty was long since expected by us, and yet it came quite a *deus ex machina*. H. G. Rehb. fil.

ON THE IMPROVEMENT OF PLANTS

BY SELECTION, HYBRIDISING AND CROSS-BREEDING, BY DAY AND SO CAL REFERRED TO THE HOLYBROOK AND THE ROSS.

[Read at the Manchester Congress, July 21, 1900.]

THERE are two important methods of procedure open to him who may wish to engage in the modification, or improvement of plants, 1, selection; 2, hybridising and cross-breeding. The first method, "selection" is exceedingly simple, and may be successfully followed by any one who possesses or who may acquire the habit of observing correctly. The second method, "hybridising and cross-breeding," is more complex, and requires, in addition to the habit of observing correctly, an acquaintance with at least some of the laws of vegetable physiology. In adopting the former, we seize upon certain variations or phenomena which we meet with in Nature and endeavour to "fix" or render permanent that which we are accustomed to call accidents; in pursuing the latter, we start with a conception which we labour to convert into a fact. To the mere man of business, selection is usually the more attractive, the method is more suitable to his habits of thought and practice; but to the scientific mind hybridising or cross-breeding are usually more inviting and the results more satisfactory. To both methods are we largely indebted for improvements in the vegetable kingdom, and it would be exceedingly difficult, perhaps impossible, to say how much we owe to the simple process of selection, and how much to the more complex and scientific labours of the hybridist.

It will be my purpose to-day to place before you, as fully and clearly as I can, a few instances of improvements by both processes, drawing, as far as practicable, from my own observations and experiments.

First of selection. It is well known to observers in this field that most plants, and especially cultivated plants, when raised from seed, are prone to vary. The earth was made so various, that the mind of desecrating man, studious of change, and pleased with novelty, might be indulged.



keel on the dorsal surface. The inferior sepal is smaller, and bent under the ovary, so that the two sepals stand very near one another. Both are nanken coloured, with numerous darker veins, which are green outside. The petals are linear-ligulate, undulate at the upper part, blunt and hairy at the apex; the basilar part greenish, with numerous black or brown shining dots, some of them being callous, the superior part port-wine coloured. The lip has the usual channelled ungues, the sac is conical with two projecting angulate arms, and these have at their posterior base a triangular plate descending in the sac. The column is olive-green coloured. The stamens are triangular, bearing a horn at its base, two diverging teeth at its apex, green in the case, white on the margin. The stigma is roundish. The flower is in shape like that of *Cypridium Lowii*, but the petals are diverging, pendulous. The chief feature of the plant lies in its bearing two or three prominences on the sides of the petals, covered with hairs, stars, if you like. Yet it is not the first *Cypridium* with such decorations. The only species that comes near it, *Cypridium glanduliferum*, Bl. in *Magne Bl. olim*, not of Wallich's *Rumphia*, 1791, which has similar stars. Yet our specimen shows that that species has straight leaves, the stem node is acute and the petals are shorter and acute. It came from New Guinea, and may have been discovered by Zippelius, who was a very clever man, whose manuscripts were much used after his death, though not with a authority.

Old celebrities, in the good old times, among the Greeks and the Romans, gave origin to mythical tales. That is the lot of our plant. Its discovery gave origin

[1862]

... handful of seed, and in some cases scarce any of the young plants which arise therefrom, prove identical; there is a difference in size or appearance, in form, colour, or texture. This shows an inherent capacity of progress or development. It is more marked in cultivated than in wild plants, and the tendency increases under cultivation, yet it appears in all states. Among wild plants I have met with no more striking example than that of the Lychnis viscaria, which grows plentifully in the hedge rows surrounding my nurseries at Waltham Cross. The seedlings of some of these self-sown plants are much more than others, some are of a deeper colour, and some of a smoother aspect and more rounded form. The Lychnis, the Dog Rose (Rosa canina) is another case in point. Examples of this fact are, however, plentiful in Nature, and might be adduced almost without limit if required. But it is only by selection and sowing that the most attractive forms of these plants can be fixed and turned to practical use. The advanced Lychnis, if neglected and sown in its native wilds, would probably produce offspring for the most part similar or inferior to itself, except rarely and at long intervals of time. If, however, removed to a superior soil, more highly fertilized, and the seeds sown from the most attractive only, the improvement would probably go on steadily but regularly from generation to generation. To elucidate further the principle and results of selection, let us suppose an intelligent agriculturist sowing in his wheat-fields some individual plants that are more vigorous in growth, or more prolific, or stouter, and fuller in the ear than those by which it is surrounded. He wishes to retain this variety knowing that if he can succeed in so doing he will thereby increase his crop. He sets a mark upon this seed, and sows the seeds separately, selects again the next year from year to year, those most in advance, be they few or many, until the variation first noticed has become constant and fixed, and perhaps even further improved. This process of selection usually requires to be pursued through several generations, some of the individuals from each successive sowing continuing to adhere to the line first indicated, and the whole drawn closer together, till in the end he establishes the identity or constancy of the race. Once established or fixed, the variation will remain an improved race or type, and if the individual plants composing it are not perfectly identical, they are yet sufficiently so for practical purposes. In this instance we have supposed a case of selection for a prolific tendency, but the same principle may be applied to any other desired improvement, as the quality of grain, earliness or lateness of ripening, quantity or quality of straw, or so on. Or, to take another case, suppose a farmer to be desirous of obtaining a larger size of the root and the small size of the top of his Turnips, a root that has stood the frost uninjured, while others surrounding it have been severely damaged; he selects the Mangel with the least of increasing the weight of his crop without drawing too much from his land, the Turnip for the sake of obtaining a harder race of this valuable root, and follows up the process of cultivation already described until he fixes the recognised and coveted variety.

As with the agriculturist so with the market gardener, the superior vegetables are in great part due to the judicious selection of the individual plants from which he saves his seed. Perhaps half-a-dozen of the finest and closest heads of white Broccoli are selected from many acres as the source of the crop for the coming year, and other vegetables and flowers, such as Cabbages, Lettuces, Stocks, &c.—are subjected to the same careful process of selection.

To continue our seed-growers work on the same principle, although in place of leaving a few only of the best, the quantity of seed they require compels them to be just satisfied with eradicating a few of the worst, and the value of their crop of seeds is, or should be, in proportion to the thoroughness of the selection, and the growers term it, the purity of the stock. In the Bill on the adulteration of seeds, now before Parliament, a clause could have been inserted requiring the purity of the stock, I should have considered that by far the most important part of the measure.

I have intentionally given prominence to the above, because I believe the farmer, market gardener, and seed grower, whatever attention they may be giving to cross-breeding now, have in the past derived their improvements chiefly, if not entirely, from selection, whereas, the horticulturist has been for many years past working more or less ardently in both fields. There has, however, I believe, even with him, been recently but little hybridising or cross-breeding, with vegetables, more, perhaps, and for a longer period, with fruits; and most of all, and for the longest period, with flowers.

The vegetables and flowers which I have improved by selection merely are somewhat numerous among the former, Parsley and Brussels Sprouts.

Parsley was the first plant I endeavoured to improve by selecting for seed one or two of the best plants from a large bed, the unusually double or curly leaves of the selected plants having pleased my fancy. The result was striking in the following year that I was encouraged to persevere, and did so from year to year with increasing success, until Paul's Parsley became household words. Brussels Sprouts, the seed of which it was considered necessary in those days to import from the Continent, was the next plant taken in hand, and I proved over a series of years, to my own satisfaction at least, that it was neither the Continental soil nor air, but the practice of a rigorous selection that gave to the Continental seed an acknowledged superiority. The Aster was the next plant taken in hand, and

with the same results. Stocks, Pansies, Roses, Cinerarias, Hollyhocks, Zonal Pelargoniums, Chinese Primulas, and Polyanthus were taken up in due succession, similarly dealt with, and similarly improved.

The Hollyhock would seem to demand at my hands more than a passing word. To the improvement of the flowers of this plant by selection I gave long and close attention from the year 1833 to 1857. Let me submit to your notice some of the results of the sowing of seeds from selected plants, without the intervention of artificial fertilisation. The variety *Gracia Mundi* (yellow) gave *Salpaurea perfecta*, *Argo*, *El Dorado*, *Queen of the Yellow*, and *King of the Yellows*, all yellow flowers, and *Charles Barron*, buff. *El Dorado*, a smooth yellow flower, gave yellow flowers only, a bright in colour, but rough and irregular in form. *Lady Willoughby d'Eresby* (cream colour, gave a lot of rough dirty whites. *Lady Franklin* (deep pink) reproduced itself, and also gave sundry good rose-coloured flowers. *Lady Palmerston* (blush) gave a very fine brood of peach-coloured and pink flowers. *Purple Defiance* (purple) gave a rough lot of purples. *Attraction* (pink) gave a fine brood of pinks. *Prinzess Royala* (cream and chocolate) gave a rough lot of dirty cream and chocolate coloured flowers. *Crasader* (pink) reproduced itself, and also others of similar colour, varying in form. *Celestial* (blush) reproduced itself, and various shades of blush of superb quality. *Mission* (a fine crimson flower) produced regularly some plants bearing crimson, and others bearing purple flowers. *Omar Pacna* (cream edged with white) reproduced itself. A purple seedling of good form and substance gave some purple and some blush-mottled flowers of very indifferent quality. A salmon-coloured seedling of fine quality gave flowers of the same colour, but of indifferent form. A fine dark shining crimson seedling gave flowers, orange, fawn, and buff, of middling quality, but no crimson. A white-edged seedling gave flowers like the parent, but as a rule not so good. A fine rosy peach-coloured seedling gave rubbish. A nankoen-coloured seedling reproduced itself almost without variation. A pure primrose seedling of very high quality gave some primrose-coloured flowers and some primrose with dark base, usually inferior to the parent. A French white-veined seedling gave a lot of prettily and variously veined flowers. An orange-buff seedling gave also some few prettily veined flowers among many very rough ones, of the colour of the parent. A fine purple seedling gave purple, marbled, maroon and lilac flowers, all of superior quality.

Now it might appear at first sight that the above results are in accordance with the theory of improvement by selection, or merely that it is not really so. It must be to it that the above is a record of general results only. In most cases the original variety in some way have been selected, and the result of one year's sowing only, and it certainly proves that a variation cannot always be fixed by a single effort, which we are perfectly free to admit. It shows also the tendency of the mass of seedling plants raised from cultivated or advanced varieties to revert to a less civilised state. It shows further that a variation once obtained, new ground once broken, often proves a fertile source of further variation and advancement. But of this I shall give an example by-and-by. Now I do not think that the variation in colour recorded in some of the above cases was due to fertilisation either by insects or other instrumentality. But it might be so. I merely express an opinion on this point, founded on the fact that the progeny of some varieties varied but slightly throughout successive annual sowings, whereas that of others varied greatly. The inference I should draw would be, that some variations are capable of a more rapid development, some are more sportive, and some more readily fixed than others.

It will be further inferred from the above facts that the finest flowers do not always produce the finest progeny. And I have found this circumstance corroborated in dealing with other plants. Certain individual sorts furnish a fine brood, others, apparently equally good sorts, an indifferent brood. Sometimes a flower or fruit of indifferent quality will produce a high-class progeny, and a high-class flower or fruit an inferior progeny. The whole question, I admit, beset with difficulties, and offers a fine field for observations and experiments. The exceptions to the rule, that the best flowers proceed from the best parents, are numerous. Notwithstanding, unless we possess special knowledge we cannot do better than work upon this rule, for if we reject it we have nothing so good to put in its place.

One word as to the special knowledge just alluded to. Now and then a variation, peculiarly fitted for the work of progress, will arise. Many years ago, a Pansy, named *Queen Victoria*, raised by the late Mr. Thompson, of Iwer, proved of this character; and more recently the *Roses Général Jacqueminot*, *Jules Margottin*, and *Victor Verdier*, may be taken as prominent instances. From these in their day, and for a certain period many more good flowers were raised than from all others of the period put together. Now, if one acquires this special knowledge there is sure ground to work on. But I know of no law by which this quality of a plant can be determined in advance. In the present state of our knowledge, I conceive that it can only be ascertained by observation and experiment.

I have raised many thousands of seedling Hollyhocks, Roses, Zonal Pelargoniums, and other plants, simply on the principle of gathering the seed from the most advanced plants and flowers without any attempt at cross-breeding. My success under this method of proceeding has been greatest with Hollyhocks, as I could claim at one time (about 1857) the finest Hollyhock of almost every colour as of my production. This I account for by the fact that the subject was a good one for experiment. Although a flower long known to us, it had not been long subjected to high culti-

vation, and was fully ripe for improvement. With the Rose the case was somewhat different. It had been experimented on by clever and industrious men in France for a number of years, and doubtless I was here traversing ground which some of them had exhausted long before. However, success here has not been altogether denied me and to which I shall have occasion to allude by-and-by. Of Zonal Pelargoniums, I was fortunate enough to become the possessor of a remnant of stock left by the late Mr. Donald Beaton, and while many of the variations and improvements that have issued from my nurseries are the result of mere selection, others have been carefully and systematically bred. The Polyanthus is a flower with which I am now carrying on experiments, with the view of rendering it more available in spring gardening. Four years ago I selected certain colours from a bed of mixed seedlings, with the view of saving the seeds of each separately, hoping in time to be able to reproduce each colour true from seed. The first sowing produced all colours from each variety, and while subsequent sowings have done the same, yet each successive sowing brings a larger proportion of the colour of the parent, and I do not doubt that ultimately each variety will become fixed, that is, will reproduce itself true in colour from the seed.

With regard to the progress of improvement after selection, it would appear that the greatest progress does not take place when the variation is young. The most marked progress from a cultivator's point of view seems to occur when the variation has been some little time under cultivation, but before it loses the extra vigour not uncommon to selected variations. A case illustrative of this view has recently come under my observation. It is that of a plant of the *Primula sinensis*, which I recent y exhibited before the Royal Horticultural Society, under the name of *Waltham White*. It is a white-flowered variety with red leaf-stalks (the white-flowered variety has commonly greenish white leaf-stalks). The growth is exceedingly vigorous, the plant bearing a huge pyramidal truss of large pure white flowers, of great substance. It is, in fact, a giant among Primulas, and a giant of goodly and fair proportions. Now nothing could have been more unpromising than the original variation from which this grand result has been obtained. It was a coarse weedy-looking plant, bearing rough misshapen flowers, but there were the distinct features of extraordinary vigour, and the red leaf-stalk. The first year's sowing from this plant produced more variation than improvement, the second more improvement than variation, and now, in the fourth year the characters above described seem fixed for all the seedlings raised from a choice pod of seed have blended so nearly alike in colour, size, form and habit that the variation may be fairly pronounced as proved and fixed.

Thus far I have confined my remarks to the variation of plants from seed which appear to arise spontaneously, and are of everyday occurrence. But there are other variations occasionally taking place, which are known to cultivators under the name of "sports." Sports are variations from the leaf-bud rather than from seed, and I class them under "selection" because in their case man does not intentionally step in with the view of giving a turn to the workings of Nature. Cultivation may, and in many cases probably does, induce "sports," but cultivation is not deliberately pursued with that object. As an example of these we may instance the well-known case of the *Nectarine*, which was a sport from the Peach, that is, a branch of a Peach tree produced the smooth-skinned and otherwise different fruit known as the *Nectarine*. My first efforts at improving the Rose were made in 1833, and were induced by discovering a sport. I observed a branch and flower of the *Bourbon Rose Proserpine*, then recently introduced, of extraordinary vigour; the flowers were larger and somewhat lighter in colour than in the original, the leaves were of a lighter green, more obtuse, and destitute of the customary red nerves and red colouring round their circumference. This, which I believe I am right in speaking of as a sport, was nevertheless not a very marked example of this tendency. It was cultivated separately and fixed, but did not depart sufficiently from the original to be thought worthy of a new name, and was consequently sold as a superior variety of the *Rose Proserpine*. About the same time I observed a branch of the *Rose du Roi*, bearing pale flesh-coloured flowers. This branch was propagated, and the new colour fixed. When about to distribute this as a novelty, to my surprise I received it from France under the name of *Celina Dubus*. Now, although I know nothing of the history of *Celina Dubus* as received from France, I yet know that it was identical with my sport, and I think it is reasonable to conclude that it originated in the same way. Also about the same time I observed a branch on the *Rose Dr. Marx*, producing leaves finely striped with gold, and a branch of the *Bourbon Queen*, with leaves beautifully variegated with white. Both of these sports were propagated and fixed. Of *Roses*, the *Moss Rose* group is the most inclined to sport. I have, in days gone by, frequently seen two or three varieties of the *Moss Rose* growing on the same plant. I have seen the *Baronne Prevost*, which is naturally a double rose-coloured flower, produce striped flowers, and others nearly single. I have also seen Mrs. Bonquet, a white Rose, produce a branch bearing red flowers.

But the most notable recent case of this tendency is that of the new double crimson Thorn; and this is remarkable in having been observed in two different places about the same time. It should be told, however, that both these plants had been purchased from the same stock. The particulars of one case are as follows.—A tree of the double pink Thorn had been planted in a garden some 15 or 16 years, when a branch was observed to have started away from the centre of the tree with unusual vigour. It flowered, and the flowers were crimson instead of pink, presenting a

marked contrast to those on the lower part of the tree. The leaves, too, were of larger size, greater substance, and more deeply lobed. Young plants were propagated from this branch by budding and grafting, and the character was fixed.

A few words with regard to the fixing of variations or sports seem desirable here, and with that I shall close this part of my subject. We have seen that variations or sports are, when reproduced from seed, liable to vary greatly in character, with a general tendency to revert to the type. From the first sowing there will probably be but few like the variation, but by successive repetitions of the process of sowing and selecting the variation is at length fixed. It is thus that many of our rare annuals, as *Asters*, *Stocks*, *Clarkias*, *Candytufts*, *Tropaeolums*, and the like, readily propagated otherwise than from seed, have been obtained. But the process of fixing variations or sports from the leaf-bud is almost certain to proceed without interruption. You graft, bud, or make cuttings of the sported branch or plant, and the plants so propagated remain unchangeable. *William Paul, Waltham Cross.*

(To be continued.)

Home Correspondence.

Large Rhododendrons.—Seeing an account of a large Rhododendron at page 764, I send you the measurements of one growing on my lawn here. It is 37 feet 9 inches in diameter, 116 feet in circumference, and 11 feet 8 inches high. It is a mass of bloom every year at least from a great distance. *G. T. Meynell, Meynell Langley, Derby, July 28.*

Climate of Cornwall.—People greatly mistake the climate here it is variable in the most superlative sense. The thermometer to-day (July 20) shows 30° heat, but on the 21st it fell to 18°. Yesterday the thermometer stood at 80° in the shade, last night with a brisk wind. In May and June last we had a lightning wind with frost; nine years ago we had a frost, which killed all our out-of-door plants. The mildness of the extreme point of the county where the early Potatoes are grown is accounted for by the sea air constantly passing over it. The same reason explains why Mr. Smith at the Scilly Isles grows most of the New Zealand plants, *Mesembryanthemums* and *Pearaeums*, into large bushes or shrubs. By the by, an account of this place would be interesting to many of your friends, and would show many evidences of the effect of sea air in warding off Jack Frost. *Henry Miles Esq, Penryn, July 20.*

Humming bird Moth. Yesterday caught a variety of the humming bird hawk moth, which I have not hitherto seen in those places where the more common variety is found. This is more truly a moth, as it flies at dusk, and its wings are of a soberer kind than those of the day one. Its dimensions are extraordinary: spread of the wings, fully 4½ inches; length of body nearly 3 inches, diameter of the body at thickest part, nearly ¼ inch. Its colours are brown on a dusky white ground, suffused with pink, and the body is barred across with brown on a similar ground. It has a proboscis like that of the day variety of the same species, but with a differently shaped wing; and it flies and hums before a plant just like the former. I should be glad to know whether similar moths have been observed by others, and also what its proper name. *Alexander Boyle, Narberth, July 16.* [Surely not a variety of the Humming-bird Moth.]

The Vegetation of New Zealand, though rich and varied, and including many fine timber trees, is, except the so-called New Zealand Flax (*Phormium tenax*), comparatively little known as furnishing articles of British commerce. The country, however, abounds in plants which are in some way or another useful to the natives, and there was more especially the case before the colonisation by Europeans. The genus *Cordylina* was, and is still to be used amongst the economic series: all the species are more or less valued for various economic purposes. The large "Ti," or Cabbage tree (*C. australis*), is, however, the most useful, for its roots, when cooked, furnish a regular article of food; the heart, or young inner leaves, which are blanched by closely growing together, are also eaten both in the raw and cooked states; besides that they are still used to some extent for plaiting into articles of clothing, mats, baskets, &c., as well as for thatching huts, for which purpose they are very durable. From the fibres of the leaves of *C. indivisa*—a handsome large-leaved plant growing on the mountains—very strong and heavy mats, used for clothing, are made, and are highly prized. The following notes on the *Cordylines* occur in a private letter from an old resident in New Zealand. Referring to a species, the name of which I am unacquainted with, he says—"I have cultivated it since 1845, and have now 10 to 15 plants in my garden here (Napier), but it has never flowered. It throws up a thick Cabbage-like stem 4 to 5 feet high, nearly quite straight, with bark much smoother than any of its congeners, producing both suckers and shoots in plenty from root and stem which grow readily when taken off and planted out. I never saw but this one plant, which in 1845 I obtained from an old native cultivator in this neighbourhood, but the old natives generally know it well, and have often when in my garden asked me for it to cook and eat as a *bonne bouche*, with every symptom of mouth-watering over it! I have frequently inquired of them (in former years) respecting it. All knew of it as a thing of the past, like, alas! many other of their natural productions, viz., *Broussonetia*, &c., and I have heard it is still or was to be found at Maungatutu and at Upper Whanganni. I am made sure of its flowering some day. Now that I have several, I shall keep down all the suckers and

shoots, save the terminal one, of one of my best plants, and so try to get it to flower. My original one died long ago; it seems to get to a certain height, 4-6 feet, then throw out suckers, &c., then the parent dies off. I have often had doubts as to its being really indigenous; certainly not I should say in the North Island. All the other *Cordylines* are native to the South Island, and by, or staff of life, in famine, as I have known and proved; but it is terrible labour to dig up its long tap-roots. I think I know of six, if not seven good species, all North Island ones." It will be noted from these remarks that the *Cordylina* is generally applied to all, or most of the species, and not to *C. australis* in particular. We have New Zealand plants under consideration it may be as well to give another quotation from the same letter:—"Here in my garden, without any manure, *Arthropodium* grows in great abundance. It is known to many persons to whom it is scarcely able to recognise. It is a most striking plant, growing like a huge *Tussock*—leaves 18 inches wide and 4½ feet long, panicle and stem 4 to 5 feet, flowers 1½ to 1½ inch diameter, while outside the garden, among the Ferns, its original habitat, it keeps its common size, which, however, is much larger than the Bay of Islands plant. I have a suspicion it may prove a distinct species." *Arthropodium*, like *Cordylina*, is a Liliaceous plant, a few species of which are cultivated in our greenhouses. *John R. Jackson, Kew.*

Honeydew.—A few words of explanation seem to be required from me, in reply to Mr. S. Bevan Fox, who says that he discredits from the opinion I have expressed, that all honeydew is caused solely by aphides. When I have explained my meaning, he will, I think, believe that our opinions do not differ much, our difference arising chiefly from the different senses we attach to the term honeydew. My remarks related only to honeydew proper, that is to say, that saccharine, viscid and vitreous-looking secretion, which has been so abundant this season upon *Rose* and *Currant* bushes with which *Fern*, *Sycamore*, and other trees are at the present time abounding from being so copiously varnished, and with which also the objects under the trees, whether plants, stones, earth or pavement, are spotted and speckled. I did not mean the occasional, and much more rare and limited phenomenon of "exudations from the pores of the leaves" of which Mr. Fox speaks. These exudations are not properly honeydew, although they may sometimes resemble it. They will not be found to have marked the objects under the trees with minute speckles should these fall in drops to the ground; the drops would be large, and very different from those of honeydew. In confirmation of what I have advanced, and by way of answer to Dr. Bevan, I will, with your permission, make a few short quotations from the "Rural Cyclopaedia." "The most strenuous of all the opinions respecting the nature of honeydew assert it to be extravasated sap. All correct physiologists justly regard honeydew as a thing of only one kind, as simply and solely that clear viscid saccharine substance which we described at the beginning of this article, and they naturally enough and quite philosophically, assume it to proceed from only one cause." "Some observers appear to have mistaken the occasional incidental watery exudation of the ordinary sap of plants for real honeydew. Honeydew, unless in quite perverted senses of the word, is entirely the deposit of minute insects." "Aphides, in the opinion of many of the most eminent naturalists are the sole producers of honeydew." "The aphides are when on a leaf, and discharge no more of cement and are provided not only with an anal vent but with two long, hornlike rudiments for ejecting such refuse or portion of their food as is unnecessary for their nourishment." As they may be interesting to your readers, I will also, if you will permit me, make some short extracts from the *History of a Britanica*, from quotations there of the *Abbe Bossuet de Sauvages*, one of the first discoverers of the true nature of honeydew, and one of those who first dispelled the popular delusion that it came from the honeycombs. "The common dew. In speaking of this honeydew he asserts 'that it owes its origin to a small insect called a vine-fretter (or aphid); the excrement ejected with some force by this insect makes the most delicate honey in Nature.' "The juices, at first perhaps hard and crabbled, becomes in the bowels of this insect equal in sweetness to the honey obtained from the flowers and leaves of vegetables." "The form of the drops drew my attention, and led me to the following discovery." "The leaves covered with these drops of honey were situated beneath a swarm of the larger black vine-fretters, and on observing these insects, I observed them from time to time raise their bellies, at the extremity of which there then appeared a small drop of an amber colour which they instantly ejected from their mouths. I saw drops of this nature, of a sweet flavour with what had before fallen on the leaves. I afterwards saw the smaller species of vine-fretters eject their drops in the same manner. This injection is so far from being a matter of indifference to the insects themselves, that it seems to have been wisely instituted to procure cleanliness in each individual, as well as to preserve the whole swarm from destruction, for pressing as they do, one upon another, they would otherwise soon be glued together and rendered incapable of stirring. The drops thus spurted out fall upon the ground, if not interrupted by leaves or branches, and the spots they make on stones remain some time unless washed off by rain." The *Abbe* then, referring to a seat under a Lime tree, which seat shone with honeydew drops, says:—"I was at a loss to conceive how so glutinous a substance could fall from the leaves in such small drops: for I knew that rain could not overcome its natural attraction to

the leaves till it became pretty large drops; but I have since found the Lime is very subject to these vine-fretters." "Bees are not the only insects that feed upon this honey, ants are equally fond of it." "They place themselves near the vine-fretters in order to seize the drop the moment they see it appear on the surface of the leaf." *J. Thompson.*

Grape Soils.—I have read with interest the original remarks of Mr. Cramb, given in his paper read before the Manchester Congress. I only offer a protest against the presence of calcareous matter by which I presume he intended to say that soil, in some cases, for the cultivation of Grapes. Mr. Cramb is a man of long and great experience, and consequently we should attend to his sayings and doings.

Let us, therefore, trust that our great Grape growers will give us a few words as to the soil they employ, and whether they "protest" against calcareous soils. We have seen that Mr. Cramb has been led to regard the calcareous hills as being in high favour with the *vignerons*, and I have heard that in Spain they are in much esteem. In the limestone and calcareous soils of the Grecian Archipelago, and in Palestine and Syria, Grapes are grown in high perfection. In any soil highly charged with calcareous matter, Vines grow in a wild sort of way (without manure), as if they loved it. How is it, then, that Mr. Cramb does not succeed in growing Grapes in a calcareous soil, and even utters a strong protest against it? Mr. Cramb is so honourable and truthful, that we should like to hear more from him as to the reason why. *Muscat.* [And so stand we, Eds.]

Jetty Lacy Pelargonium.—The letter of Mr. John Stevens, of Ealing, opens up one point that is scarcely so clear as I could wish, and probably it has struck other impartial observers in a like manner. I refer to the name of the variegated zonal *Pelargonium* which is in his possession. I think Messrs. F. & A. Smith were quite right in challenging any variegated zonal *Pelargonium* under the name of Jetty Lacy, simply because it is a purely local name, and very unlikely to have been given as an original designation by Mr. Stevens. I believe I am right in stating that the variety in question was raised by Messrs. Wincobank & Kingbury, of Bevois Valley, Southampton, and named by them in honour of Miss Jetty Lacy, the daughter of Major Lacy, of the Ordnance Department, Southampton, Major Lacy having at that time filled the post of Chairman of the committee of the Southampton Horticultural Society. Now it is very unlikely, indeed, that the name of a young lady, in a district so remote as that of Southampton, and who perhaps has never before been heard of outside her own circle, should have been given to a plant by a person who, in all probability, knows nothing of her. This strikes me as "wondrous strange." It is a very unusual name too, to be noted. Any one can understand the name of a well known public character whose name is, as it were, the common property of the people, bestowed on a new plant by two or three raisers. It is well known that there are among variegated zonal *Pelargoniums* one or two named Prince of Wales, as many more Princesses of Wales, and Queen Victorias in all shades. No one wonders at this, and that there should be two Jetty Lacy's, to say the least, a very odd circumstance. I think also, from Mr. Stevens' own showing, that the Jetty Lacy may be as different from Messrs. F. & A. Smith's Jetty Lacy as the latter is from the former, and yet the two may possibly be exactly alike in every respect. I am therefore of two opinions, either the Jetty Lacy raised by Mr. Stevens at the late exhibition at the Regent's Park is Messrs. F. & A. Smith's Jetty Lacy and nothing else, or that Mr. Stevens has taken an advantage by giving the same name to another variety subsequently to the appearance of that of Messrs. Smith. *Southampton.* We observe, Mr. Stevens claims the honour of showing a specimen plant, labelled "Jetty Lacy," at the late Regent's Park Show, and which we thought at the time bore some resemblance to it when in cultivation; and, as so named, the inference was natural, that it was the true variety, particularly as Mr. Stevens' name was not underlined, which would have been the case in a "Jetty Lacy No. 2;" this was a further ground of supposed identity. I have made a second variety under the same name, and I will make a few remarks, just to clear the argument, and issues. Mr. Stevens avers that we named our "Achievement" after his variety of the same name was made public; whereas our variety of that name was shown at the Royal Horticultural Society's Exhibition at Bury, in 1867. We had not at that time seen either Mr. Stevens' or his "Achievement," our knowledge, but our Mr. F. Smith saw it and then at the Botanic Show in 1868, and then called his attention to the case, and requested the favour of Mr. Stevens to rename his plant, which he quietly declined to do. This disposes of any excuse he may offer to set up in justification of his infraction of a well known rule, and we think that the proper name are by right of priority the owners thereof, and this rule is never wisely or usually broken until the old variety becomes old and obsolete, by being beaten in quality. This not being the case in this instance, the public will be curious to learn what motive or reason led any one to adopt the procedure of Mr. Stevens. If his plant was a better variety, vanity or pique might be the inducement; but this was inferior, which alone would deter any sensible person from inviting so close a comparison as to condemn his so-called new sort. Again, how strange that it was never before known under that name, although at the time it was a three-year-old plant, and Mr. Stevens has exhibited on two occasions at least this season previous to this, without producing this Jetty Lacy, and on each of which we suppose a well-done plant would have materially helped him. Possibly Mr.

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...has but lately acquired this plant, but he is extremely reserved on this point, we are not certain what has not been shown before under another name, but in either case we must say of his conduct— "It is strange, his passing strange."

The Nurseries, West Dulwich, S.E.
Early Rose Potatoes.—About the 7th of March I had 1 lb of these Potatoes planted, and nearly a fortnight ago the produce was dug up, and the weight was 264 lb.—a very good yield, so we here think it only about one-fourth of what is advertised as being raised from the same weight of seed. They were of medium size, four of the largest weighing about 1 lb.

J. W. Bachelor, Oditham, Hants.—On the 13th I had some tubers of this root taken up, and they were of a delicate kidney shape, and were watery and mealy. On the 26th inst. I had more taken up, and cooked with some of the Royal Ashleaf Potatoes. They were white and flowery, and had improved in texture, but their flavour was far inferior to that of the Ashleaf. The Early Rose Potato is at least three weeks later than the Royal Ashleaf, so that in England it is not to be called early. It is, however, a very good variety; its foliage and habit much like that of the Royal Ashleaf, or Lapstone—the finest-flavoured potato known. In America the Early Rose is grown to an enormous extent, and sold at a price of 10¢ per bushel.

Improvement of Beans.—In bad Bean years the crop is as low as three, or even two quarters per acre, being nearly the average, five a good crop, and as much as seven being occasionally grown. The cause of the low crop is that the plants are not having taken their full complement of flowers in the axil of each leaf, the most fertile being the lowermost bunch being barren. It follows that the barren tops, seen when the plants are not the consequence of the upper part of the stem not having borne flowers, but that they are the abortion of the flowers from deficient vigour. An expedient which would increase the vigour of the growth of the plant would, therefore, it may be expected, materially increase the produce, especially in bad Bean years. From my experiments on Hemp, as described in this Journal, April 3, I believe this may be effected in some degree, if not to a great extent, by selecting a piece for seed, and cutting off the top of each stem, so as to leave only six, eight, or ten bunches of flowers, according to the fertility of the soil, or at least to such an extent as to reduce in a moderate degree the number of pods produced, and to remove any sprouts which might appear at the base of the stalk, which would be very injurious. If in cutting off the tops too few bunches of flowers were left, so that the crop became materially diminished, it is to be feared that sprouting at the base of the stems would take place to such an extent as to render their removal an expensive operation. Experience would teach to what extent the tops should be cut, and it should be done as soon as possible. By this means Beans of increased size would of course be obtained, because overcropped Scarlet Runners, when three or four pods only are left growing, occasionally bear unusually large seeds, and this operation having been repeated for three or four years successively, a more vigorous plant, less liable to abortion of the flowers in unfavourable years, might be hoped for, if any improvement were apparent, it might be expected to go on increasing year after year. What the result would be after 20 years' experimenting it is not possible to conjecture. *B. Clarke, Mount Vernon, Hampstead.*

Planting under Difficulties.—As a somewhat unusual example of this, I may be allowed to direct the attention of your readers around London to some fine-looking Scarlet Runner Beans that are growing in the open cuttings between Sloane Square and Kensington stations on the Metropolitan District Railway. They are planted at the foot of a wall that is quite 20 feet deep; in fact, on the same level as the rails.

New Invasion.—Last Sunday morning I was surprised by the appearance of an old enemy in tremendous force, in a new position. A good deal has been done to perfect our national defences, but little, however, can be accomplished by way of running a gauntlet across the air. And this seems our most vulnerable point. The broad gate of the heavens was opened wide to admit our foes. For six or eight hours on Sunday, without intermission, and more or less throughout the whole day, our enemies, the flies, were marching in, and fighting in dense flying columns into the earth. The whole air was filled with them, and presented the appearance of a rapid fall of the most snowflakes. At first I took the flies to be a shower of wedges holding high matrimonial carnival in the sky, and wondered that the column did not keep past. But no sooner did I venture to look among them than I was thickly coated with a layer of greenfly or aphides. No place was too sacred for them. They clustered and fought with each other over the whole surface of my face, peered into my eyes, crept up my nose, and hovered earnestly for a passage into my mouth. I went over a mile and a half with hands and handkerchiefs I sought them off the most sensitive points, and on my skin and clothes alike many soiled proofs of the severity of the conflict. I am now of opinion that, in addition to their other bad habits, aphides snap pieces out of our bodies. Otherwise it is difficult to account

for the irritating sensation induced by their passage across the skin, giving rise to a positively painful itching, a long way removed from laughter. In addition to this unpleasantness the cloud of flies gave forth a rank green smell, and conveyed the idea of being smothered in haymow without its sweetness. The aphides seem to have extended for many miles. Between 10 and half-past 10 I walked to Bury through them, and I have seen a gentleman to-day from a distance of 10 miles off, and the flies were equally thick with him. Ten square miles or more of aphides, it is enough to make any horticulturist tremble. And then, what shall we say about the height? It is impossible to say anything positive concerning the elevation of the mass. As far as the eye could see the air was aphides, and apparently nothing else. The density of the living mass varied however, in different places. They seemed to me to be arranged, as it were, in huge waves. Now we had to pass through the great crest of a wave, and again we seemed to walk upon, as it were, the trough of the sea. If it were possible to walk at a uniform level over the surface of the sea, of course we must pass through the greatest mass of waters on the crest of the waves. The arrangement of the aphides reminded me of such a mode of passing through water. At times the mass was so dense that it seemed to interrupt one's breathing, and again it became thinner, and so on many times within the mile and half. But on no point was the air clear. There was but little wind, and the aphides seemed falling towards the earth at about the usual angle of snow or rain. Accompanying the aphides there seemed a smaller crowd, either of young ova or sediment of some kind, which produced an irritating action upon the lungs. Towards evening the innumerable hosts of flies disappeared, and on neither Monday, Tuesday, nor Wednesday have any returned. Wednesday, rain has begun to fall, and it is to be hoped a heavy shower may come to batter down these columns of flies from their seats on the trees, corn, flowers, fruits, and green crops. On Monday morning I began to look out for the moving army upon Roses, fruit trees, &c. I found but few of them anywhere, unless upon the young and tender branches of such plants. But late Peas are literally bent down beneath the crushing weight, and not a leaf nor atom of branch can be seen for the flies. I hope tobacco and clean water will kill them or adieu to all late Peas. I fear the Turnips will suffer much if not immediately sprinkled with soot or some other nauseous mixture. After carefully examining the surface of the earth and the plants, I have come to the decision that the fly storm was a sort of perpetual motion while it lasted, or in other words, that the same flies fell and rose again for many times during its continuance. Had it been otherwise, the whole earth must have been loaded many inches deep with aphides. I observed that the aphides were larger and stronger than I ever remember to have seen them. They alighted, and rose again with great rapidity and strength. Their wings were very large, and the whole of the flies were of a vivid green colour, like the choicest, greenest Peas. Could it be that the flies were swarming? The activity, the excitement, the various degrees of density, and probably, from appearances, of light, seemed as if all the aphides in the world had come here to summer. I would be glad to hear the opinion of naturalists upon the whole matter, and also to learn how far the cloud of flies extended, and the best remedial measures to adopt against their wholesale ravages. One gentleman tells me that there was just such a plague of aphides before the cholera year. But this, if it were so, was doubtless merely a coincidence, and by no means the cause of such a disastrous effect. Such an invasion is a plague enough of, and in itself, without being looked upon as the harbinger of anything worse. *D. T. Fish, Hardwicke.*

Dasythron Hartwegianum. In reference to the letter of Mr J. Verschaffelt at p. 789, I beg to inform him that *Dasythron Hartwegianum* flowered in the Royal Gardens, Kew, in 1859, and was figured in the "Botanical Magazine" of that year, tab. 5099. It is there described by the late Sir W. J. Hooker, with full particulars as to whence and when it was obtained. *John Smith.*

Rose "The Marshal."—Will any of your readers oblige me and many others by telling us how to grow the Rose *Marchal Niel*? I remember some two years since a controversy in a contemporary on the subject. One of the controversialists said—"It is very well for a show Rose where a good stock is kept but for any one who can grow but two or three plants of a variety, it is the worst introduction of late years." Further on the same correspondent adds—"This Rose (*Marchal Niel*) requires the cultivation peculiar to that class." What is this cultivation? *A Florist.* [To this question "S. R. H." kindly replies as follows:—"Having grown this magnificent Rose in various situations, soils, and stocks, upon walls, with aspects east and south, and in the open garden, in light loam and in heavy clay, upon the Briar, the Manetti, and *Gloire de Dijon*, and having realised its golden glories in every instance, I cannot understand the complaints which are made from time to time that the *Marchal Niel* is an austere, unapproachable niggard. I believe him, on the contrary, to be as generous as he is handsome; I believe that wherever Roses prosper, *Rose Marchal Niel* may be grown to perfection. With me it is produced most quickly and certainly from the Briar. I have fine flowers now upon stocks which were budded just 12 months ago, and which will be strong large trees in autumn. These will bloom abundantly next season, early and late. The growth of *Marchal Niel* on the Manetti is here much slower than upon the Briar, and it requires a wall to bring it to maturity. When once established, and with this advantage, it blooms profusely. The largest flower of the *Marchal Niel* which I have seen this season was one which I exhibited at Newark. It was grown upon a Briar, budded

in 1867, and transplanted in 1868 to a wall having an east aspect. There is nothing abnormal in the method of culture, except that in pruning the knife must be used very abstemiously, only weak and decayed wood must be removed, the strong ripened shoots being left intact. The *Marchal Niel*, like some other Frenchmen and softly be it spoken, and other Roses, is a gross feeder.

The Manchester Show. Your reporter gave a long report of the Manchester Show, I have received a much shorter one from one who has been one of our chief exhibitors for 30 years. "I have just returned from Manchester, it was simply a big muddle and a big failure." Is it to be wondered at? The Council of the Royal Horticultural Society, with that perversity that so often marks their proceedings, which made them keep aloof from the International Exhibition, refused the co-operation of the Manchester horticulturists? Were they likely to give them aid after that? and have they not found themselves simply in the position of the dog and shadow? It is, moreover, to be remembered that the Manchester people had their special exhibition in the spring, into which they had then thrown their best energies. It seems to me that the Council of the Royal Horticultural Society live in a very elevated atmosphere, and do not really understand the practical working of such matters. Dukes and lords give a favour to the Society, but we want some good practical horticulturists associated with them, and all subservient to the dish. They seem to me to have an entirely ideal view in such things, and their officials work with arms tied. There are two sides to the question which "X" moots, and it seems to be utterly impracticable to bring both parties to the same view. The divergency of opinion and of action consequent on this state of things was, no doubt, greatly to be deplored, and could not have other than a deteriorating influence on the show, which, considering all the circumstances, was not after all so bad as "X's" friend would have us believe. The names of the prize-takers is indeed sufficient evidence of this. *Ebs.*

Orchid Culture.—There are some very good remarks in Mr. Bullen's letter in your number of July 10, and which will bear repeating. He says that it would be a great boon to lovers of Orchids, if growers would publish the result of their experience with any particular plant which they may happen to cultivate to a high state of perfection. I think that this is what is wanted for all kinds of exotics that require any skill at all in their cultivation, and that the smallest fact in their behaviour under cultivation is worth more than pages of theorising as to what they ought to require, considering the climate that they come from. It is a general truth that it is impossible to tell how an exotic will behave under cultivation in England until it has been tried. Of two kinds of trees which constantly grow side by side in their own country, one may be perfectly hardy in any part of England, while the other will be killed down to the ground every winter. Of two epiphytes taken from the same tree, one will grow in almost any house you try to grow it, whilst the other is only induced to live with the greatest difficulty, and by constant care. Of course a knowledge of the climate, &c., in which a plant naturally grows is of use in order to determine the sort of experiments that are likely to succeed in cultivating it, but it cannot be too often repeated that a knowledge of what suits a plant under cultivation comes only from actual experience, and any facts which are the result of experience are always interesting and valuable. The remainder of Mr. Bullen's letter is therefore very interesting, especially his experience of the treatment of *Epiderman bicoloratum*, and it is perfectly true what he says, that because certain Orchids bear frost with impunity in their native country, it is not therefore certain that they will do so in a house in England. Nor, of course, on the other hand is it to be assumed that, because a plant lives in a constant steam-bath in its own country, it will necessarily require the same here. My experience in Orchid growing is but small, but of those that I have tried I find no two kinds alike in what suits them. Shade is commonly prescribed for them, and to many it is absolutely necessary, but some delight in a blazing sun, and many Ferns do so also; and similarly with a dry or moist atmosphere, and with ventilation or its absence. What is wanted is particular information on all these points for each particular plant, and in a great many instances this is not at present to be procured. *C. W. Stocking.*

St John's Wort and St Peter's Wort.—From the remarks of your correspondent, Mr. J. W. Lighton, upon the old English names of plants (p. 789), it would seem that he believes *Hypericum calycinum* to be the only plant referred to under the name of St. John's Wort, and that by the St. Peter's Wort is meant *Symphoricarpos gomerata* (or, as it is now called, *Symphoricarpos vulgaris*). As these views appear to me questionable, I have been turning over some Herbaria and other books to see what I could find, and here is the result. A Herbarium of the date 1633 describes five different kinds of St. John's Wort, all being species of *Hypericum*. In Dodonæus' Herbarium of 1578, in black letter, only two kinds of St. John's Wort are described. Both these works evidently apply the name of St. Peter's Wort to *Hypericum quadrangulare*, which they also figure under the name of "Square St. John's Grass." Another old work, after giving an account of *H. perforatum* as the St. John's Wort, commences its description of *H. quadrangulare* in the following quaint terms—"The St. Peter's Wort groweth higher and stronger than the St. John's Wort, and good reason too, ask the Pope else, for though the Lord would have the saints all equal, the Pope is of other opinion. It hath a square stem," &c. Referring to more modern works I find Mr. Benthams, and also Messrs. Hooker and Arnott, do not apply the name St. Peter's Wort to any English plant, and that the former restricts the name of St. John's Wort to *H. perforatum*, while the

Jan 31, 1869.]

and F. A. Zaro, and if it meets with the necessary support, will appear every two months, each part consisting of about eight sheets of quarto, and two or more lithographic plates. The papers are not confined to the parasites themselves, but cover also the consideration of such diseases as are presumed, either theoretically or demonstrably, to depend on the presence of parasites. It will, of course, be expected that Dr. Haller's views should be a prominent feature in the journal, and however we may differ from him, or object to his mode of investigation, we are still glad to see those views well developed. We would wish, however, that the figures were more satisfactory—a little more, in fact, prepared after the admirable examples of the Messrs. Tulasne.

The original papers contained in this preliminary number consist of—1, Observations on the Dysentery of 1868 in Weimar, by Dr. Pfeuffer, 2, On Sigar-worm sickness in Bahia, by F. M. Drauert, 3, On the Muscularities of the Caterpillar of the Pine Lappet (Gastrophila Pini), by Dr. Haller, 4, On the Exobasidium of Woronin, by H. Karsten, and 5, On the Parasite of Dysentery, by Dr. Haller. These are followed by a number of small communications gathered from different sources, a very useful list of publications on fermentation, formation of yeast, disinfection, general hygiene, &c. notices of publications, and finally information as to one or two matters of interest, viz., a special list put out for the investigation of parasites with a microscope, and a new number of Rubens's collection of dried Fungi, to which valuable work our correspondent Mr. Bromme has so largely contributed.

We have to object to a nomenclature very different from that commonly in use amongst mycologists, and as we think, very unnecessary, and a disposition to draw conclusions without any direct undoubted connection between the several objects figured. Dr. Haller has clearly a foregone theory, with which every phenomenon is made to accord. Nothing can well be more interesting than such investigations, but to command reception from mycologists, we must have something like demonstrable origin of the various forms from a common source, and while we have nothing better than such figures as the ascus of Puzosia salicina, which by some authors is said to have migrated to the leaves of the Fir, we must for the present be excused if we do not without hesitation admit his conclusions. We suppose that his Puzosia salicina is the same with Capnodium salicinum, Montagne, which we should be very surprised to find on Fir leaves. The figure of the contents of the ascus is altogether different from what is figured by Montagne, and is indeed different from anything we have seen in the genus. The perithecia, as figured on Fir leaves, is totally different from that of the parasite on Willow. We have no way to say that a variety of forms may be assumed by the same species under different circumstances, or that varieties may be formed from a common parent, and at the same time we have seen a large female, and a certainty that the objects in question are referred to the true species.

We think it necessary to make these observations because there was a disposition in this country to adopt Haller's conclusions as logical, without due investigation or accurate knowledge of the organisms in question. We have no wish, however, to say a word against the journal in general, which contains a great deal of valuable information, and is a welcome contribution to those who are interested in the subject. We have indeed a guarantee for this in several, but certainly not in all the names which are given as likely to be contributors.

Florists' Flowers.

The new Florists' Flowers that came under the consideration of the Floral Committee at the Great Exhibition of the Royal Horticultural Society at Manchester, though somewhat numerous, contained but few things of special excellence, and these from well-known sources. The Manchester district, that might reasonably have been expected to contribute some new things of this character, was scarcely represented, and by nothing of first-class character. The following First-class Certificates were awarded—To Messrs. Downie Laird & Co. for gold and bronze Pelargonium Imperatrice Eugenie, a fine and distinctly marked variety, having a golden leaf ground, and a broad, well-coloured, reddish-chocolate zone. Like Kentish Hero, this promises to make a fine bedding variety. To Mr. Charles Turner, South, for Proteas Admirabilis and Miss Turner, the former a splendid heavy rosy purple-edged flower, of full substance and fine quality, the petals short and well rounded, the latter a smaller but charming flower, with a medium light rose edge, and of good substance. Mr. Turner also exhibited flowers of these two new varieties, in his stand of 24 Proteas. To show the continuous blooming character of his new perpetual-flowering Proteas, Prince of Orange which was awarded a First-class Certificate

This fine moth is extremely rare in this country. It is bred by Curtis, British Entomology, vol. 1, tab. 1, under the name of P. salicina. It is very common in the name of P. salicina. It is very common in the name of P. salicina. It is very common in the name of P. salicina.

The same observation applies in great measure to the communication on the disease of the Sugar-cane. We can see no necessary connection between the organism which is described in the paper and the disease. It is high time that such publications should be referred to Fungi instead of Agri. A publication of this nature will appear in this Journal, as it is separating in connection with the disease in Sugar-cane, which was brought before the Scientific Committee of the Horticultural Society, and reported on at p. 417.

at a recent meeting of the Floral Committee in London, Mr. Fred Perkins, of Leamington, brought a box of cut blooms of fine quality. It was said that these blooms came from plants exhibited in flower as far back as the beginning of June, and that they are now in full bloom. Higher praise can scarcely be written, or more justly deserved. First-class Certificates were also awarded to Mr. C. J. Perry, Castle Bromwich, Birmingham, for Verbenas Butterfly and Rising Sun, two fine flowers, every way worthy of Mr. Perry's reputation as a raiser of new kinds, the latter has a ground colour of glowing salmon-red, with small white eye encircled by a rich deep maroon ring, pip and truss fine, the former is of a warm flesh ground, and has a showy crimson ring round a pale eye, a distinct and fine variety. Some others were also staged by Mr. Perry, but they will no doubt come before the Floral Committee before long.

The Floral Committee when at Manchester had to contend with a very bad and deceptive light in the fruit tent, in which the new things were staged. This was somewhat strikingly illustrated in the form of a new bedding Lobelia of the Erinus speciosa section, of dwarf growth, named Favourite, and exhibited by Mr. Price, or to F. Taylor, Esq., of Manchester. Under canvas the flowers of this variety had the appearance of being heavily tinted with dark violet, in the full light of day this apparent hue entirely disappeared, and a bright blue was its place. In a group of bedding plants, arranged in one of the tents by Mr. John Kellett, of Heaton Grange, Stockport, was an almost pure white variety of L. Erinus speciosa named White Lady, the flower white, but very faintly tinged with pale blue on the edges. This appears to supply a very good white bedding Lobelia. Some new Petunias were staged by Messrs. Bell & Thorpe, Stratford-on-Avon. Of these the best were Ann Hathaway, pale ground, with large purple centre, veined with dark, flowers stout and of good form, and Novelty, purple, with a flame of crimson in the form of quarters, a flower of fine shape, and somewhat novel. Two new Verbenas were also staged by the same, one, Mr. Thorpe, in the way of Perry's Butterfly, but, as shown, not such a finished flower, and Mrs. Staples, dark cerise, with lemon eye, surrounded by a dark ring—a variety that had scarcely had justice done to it in the way in which it was exhibited.

From Mr. W. Cunningham, Burton-on-Trent, came zonal Pelargonium Admirabilis, a very bright pale orange-scarlet variety, with flowers of fine form but scarcely distinct enough to merit an award, though much fancied, and Grande, a Nosegay variety, of a shade of colour something between Eclat and La Grand Variegated zonal Pelargonium Miss Tomkins, from Mr. Tomkins, of Sparkhill, is a promising variety, the leaf brightly coloured, of good shape, and regularly edged with green. Another of a like character named Howard was also shown in one of the tents, and I mention it because, though I have occasionally met with it before, and in a way as a good and effective exhibition variety, I don't remember having seen it round London on any occasion. R. D.

The Apiary.

£70 A-YEAR—HOW I MAKE IT BY MY BEES; AND HOW A COTTAGER, OR OTHERS, MAY SOON DO THE SAME.—This little book, by J. W. Pagden, Alfriston, Sussex, of which the second edition is now before us, is, we consider, rather unfortunate in its title. The author's calculations as to the natural increase of an apiary, and the profits which must arise from it, are, in our opinion, by far too sanguine, and are not at all likely to be realised by one bee-keeper in a hundred. The author also makes no calculation as to the amount or pecuniary value of the time it would require to attend to 100 or 200 stocks. Few people can spare the time out of their ordinary business or occupation that would be necessary to the management of a number of hives sufficient to ensure the realisation of this large income. There are few districts in England where so many stocks can be kept by one person within a radius of three miles. He states that 300 hives may be kept in the different gardens of any good-sized village. We believe this, as regards most districts, to be an utter mistake. The author imagines that in the ordinary prosecution of their labours, to take a longer flight than is generally supposed, and that a radius of four miles is with an easy range to them. If hives have often to send out their foragers to half this distance, they will not be likely to thrive very well, but will have to struggle hard for a precarious subsistence. Barring these and a few other statements which may be calculated to mislead the over-sanguine novice, the little book is one which we should not hesitate to recommend to the notice of any who may be desirous of keeping bees in a simple manner. The author does not lay claim to originality in his views as regards bee management. He acknowledges that he has borrowed his system from various sources. The hives he recommends seem to vary very little from those known as Payne's hives; and as we have used some of similar construction we can report favourably of them.

The directions given as to the proper aspect and position of hives in a garden are very good, and the mode of ensuring proper protection from sun and rain possesses the recommendation of being both simple and effectual. Mr. Pagden is an advocate for placing the swarm, as soon as it is securely hived, on the stand of the parent stock, which is to be removed to another part of the garden. This we have long proved to be good practice. Mr. Pagden works on the collateral and nodding systems, as well as the more usual one of top supering. We have no great faith in any but the last named for general success. The directions for feeding bees, both as to the manner of administering

the food and the proper times and seasons for so doing, are very judicious. The various instructions contained in the remainder of the pages are also very good.

We have no hesitation in saying that this little book may be advantageously read and followed by cottage bee-keepers who may be desirous of taking a step or two in advance of their fellows, and by those aspirants of a higher class who may still be unable or unwilling to adopt more expensive methods, or more complicated systems of manipulation.

Obituary.

WE have to announce, with regret, the death of CHARLES B. WARNER, Esq., which took place at his residence at Hoddesdon, Herts, on the 27th inst. Formerly, in the days of the Chiswick exhibitions, Mr. Charles Warner was one of the most successful growers and exhibitors of Orchids—Mr. Williams, who has won for himself a high position amongst Orchid-culturists, having been then his gardener, but for some years past Mr. Warner had given up growing for exhibition, and at Stratford, and more recently at Hoddesdon, confined himself to growing a select collection for his private gratification. At the period above alluded to, Mr. Warner was an active Fellow of the Royal Horticultural Society, and for some years occupied a seat at its Council board. His enthusiasm was contagious, as, by his example, he stimulated and induced others to become as fond of horticultural pursuits as he was himself. He was an earnest supporter of cottagers' shows for fruit and vegetables, and in this, and many ways, made his influence such that his loss will be severely felt by those who knew him. The funeral takes place at Hoddesdon this afternoon.

Miscellaneous.

"Snobs at Work."—The mention made in "Snobs at Work," of the destruction ruthlessly dealt by them in the Earl of Stamford's beautiful gardens at Enville, received full confirmation in The Worcester Herald, June 12, 1869. A paragraph there states that Lord Stamford has again granted permission to the public to visit the Enville gardens, and adds, "It is to be hoped that this privilege will be duly appreciated by visitors, and that they will refrain from those silly acts of mischief by which so much injury was done before, and the repetition of which would ensure the closing of the grounds again." An advertisement in the same newspaper, regarding the opening of the gardens, thus concludes—"Visitors found cutting letters on the seats and trees, or doing any damage to property in the gardens and grounds, will be prosecuted and the gardeners immediately used by order of S. TAILIN, gardener to the Royal Horticultural Society, the Earl of Stamford and Warrington. If the Earl could read this, he would be glad to know that the Earl should not take their pleasure so seriously, but bravely and senselessly. Lord Stamford is about to open his gardens at Alton Towers, and is deterred therefrom by the wanton and mischievous. The Enville Gardens are within reach of the Black Country people, who ought to appreciate the boon of being admitted to such lovely scenes. The gardens cover 100 acres of fine upland scenery, naturally varied with hill and valley, diversified with noble foliage, lakes, fountains, conservatories, orangeries, pheasant-tries, eagle-dens, &c. How many miles of ribbon-borders there are, I am afraid to say; but when I last visited the gardens, the bedding-plants required for those ribbon-borders were 150,000 in number, and represented the value of 7000l. But the Snob thinks it fun to switch their blossoms with the stick that ought to be laid soundly on his own shoulders Once a Week.

Shading.—There is a great want of some better material than we yet possess for shading plant structures—a material which shall possess sufficient strength, without being so thick as to cast too deep a gloom over the interior of the house. We are extremely sorry that all attempts to supply the want have up to the present time proved fruitless. The best material we can recommend is canvas, which on one side must be made fast to a strong roller, and on the other must be nailed to a lath fixed lengthwise near the top of the sashes. In mounting the blinds, care must be taken that they are quite equal in breadth throughout, or the roller will not run regular. A narrow covering should be fixed along the ridge of the house, under which the blind may rest when not in use in order to protect it from wet. The blinds and rollers may be taken down during the winter as little or no shade will be required during that period, and if they are looked to after damp weather, and in winter thoroughly dried and stored away in a dry shed, they will last for several years. Some cultivators, however, like to use them as a protection in winter on frosty nights, as recommended in our "Orchid Manual" and when this is done they must be rolled up at day-break, so that no light may be excluded from the plants during the short winter days. Blinds for the sides can be made of canvas or tiffany, we use and prefer the latter. The strips should have rings sewed to them on both edges, to fasten on hooks, fixed in the house at corresponding distances. This fixing is necessary to prevent the wind blowing the blind on one side, and thus exposing any part of the interior to the sun's influence in an unguarded moment. B. S. Williams on Choice Stove and Greenhouse Plants. How to Catch Rats.—A cheap and effective way is to cover a common barrel with stiff, stout paper, tying the edge around the barrel, place a board so that the rats may have easy access to the top, sprinkle creosote-parings or other "feed" for the rats on the paper for several days, until they begin to believe that they have a right to their daily rations from this source; then place in the bottom of the barrel a piece of rock, about 6 inches or 7 inches high, filling with water until only enough of it projects above the water for

Early Spring Feed.
IMPROVED ITALIAN RYE GRASS
 The best and most productive of any kind in the world. It is a fine, early maturing, and very nutritious grass, which will grow in any soil, and is particularly adapted for the use of horses, cattle, and sheep. It is sold in bundles of 100 lbs. each, and is also available in large quantities for exportation. Price per bundle, 10s. 6d. per 100 lbs. net weight. For particulars, apply to the Secretary, Mr. W. M. TOMKINS, Newcastle.

THIRD, CALDECOTT, SAWYER, DOWLEN & CO.
 Seed and Planting Materials, 10, Abchurch Lane, London, E.C. 4.

ALL AGRICULTURAL COLLEGE, GARDENERS' CHRONICLE, MONDAY, AUGUST 1, 1869.

WILTSHIRE AGRICULTURAL SOCIETY -
 FORTHY SHOW at TON on TUESDAY, AUGUST 11. Prize offered for the best batch of the year. Open to all competitors. ENTRIES close at 12 o'clock. Full particulars in the programme. The show will be held on the premises of the Secretary, Mr. W. M. TOMKINS, Newcastle.

State of the Crops, 1869.
GARDENERS' CHRONICLE and AGRICULTURAL GAZETTE, SATURDAY, JULY 31, 1869. will contain a TABLE STATEMENT of the STATE of the CROPS in the UNITED KINGDOM. Order of any News Agent, or apply to the Secretary, Mr. W. M. TOMKINS, Newcastle.

Agricultural Gazette.
 SATURDAY, JULY 31, 1869.

MEETING FOR THE ENSUING WEEK.
 August 1st Yorkshire Agricultural, at Beverley.

The history of agricultural production some striking events have occurred in the past in several countries of the world. Here we experienced a revolution, noiseless, and dire little observed. In a paper on the "Production in the Future and Supply of Wheat," a most interesting paper of the Journal of the Royal Agricultural Society, Mr. EVERSHED shows that the average annual imports of corn for the 10 years of this century had ranged from 1,000,000 quarters to 1,300,000, they have subsequently increased rapidly, and have latterly been 14,000,000 quarters.

Increased population, wealth, and trade account for these startling figures. Increase of population during the past years has been about 3,000,000, while the corn in the average year has been 12,000,000 quarters. In 1841, the average annual imports of foreign wheat, at less than 1,000,000 quarters at the period. Since the last census the average of wheat in each year have maintained 10,000 of our population, while for each year the decade closing in 1841 they maintained over 1,000,000. And in these two periods our growth has maintained respectively an average of 19,000,000 and of 24,000,000 in each year. Our average growth facts 5,250,000 less than once did.

These figures refer to the United Kingdom. In regard to Ireland, the Potato famine and the circumstances have driven out three millions of her people. England, examined in a similar manner, would give a much more satisfactory account of her agricultural progress in the last 28 years. We fully admit in the article referred to, that the writer comes to the conclusion that these positions of vast social and political importance connected with the food-supply of a country will probably become subjects of great urgency and of practical discussion. The rapid increase of population, here and on the Continent, and the competition of other countries, will force the country to the production of a self-supporting system of agriculture.

The writer concludes with a pointed reference to agricultural defects and hindrances, and that the want of secure tenure, which prevents the farmer from "burying his capital deep," so as to get the best returns, has become so excessive through the increase of our town population. "The present social system wastes, so far as reproduction is concerned, a large portion both of unimproved and of home-grown food. Against such waste the manures and cattle feed 'staffs' are a very trifling set-off. Agriculture has to contend with a gigantic system of spoliation, and must inevitably suffer from the diminished fertility of the land." This is strong language, and our readers will scarcely think it justified. For ourselves, we think the subject quite worthy of that "discussion" which it mainly has not yet received.

It must be admitted that the soil of this country ought to become richer in the same degree that the soil of exporting countries becomes poorer. Look upon our little island with a large farm, and see how many materials which, at a low rate labour, earn, and manure will "bring on" to our land. The soil ought to get better every year. The subsoil, instead of being broken up for what it may contain, ought to be needed to mix with the fat surface and make it milder. The best farmer sows part of his produce, but our large farm parts with nothing and "brings on" 14,000,000 quarters of feeding corn every year. The land ought to yield heavier crops, and its character ought to alter perceptibly to our senses, instead of which we are not agreed that our average yield of grain has increased in the last quarter of a century. In fact, many people maintain that instead of increasing the richness of our soil, we are living upon its resources, spending our capital instead of living on the interest of that capital.

The present system of town waste is, it must be remembered, entirely modern. It is a thing of yesterday, and we must wait for our experience of its results. It must be a good while we are careful of the manure of all animals but one, and rightly so, for all our agricultural improvements, without manure, would prove ineffective, like a charge of cavalry without infantry to support them? What would be said if we were to send the manure of our 36,000,000 sheep into the rivers? Our human population is almost as numerous and much better fed. It is clear that if the manure of all animals were wasted, English farming would come to a stand before the end of a four-course rotation. But as we only waste a portion of the manure of the country, no such disaster occurs, and the extent of our loss can't easily be measured. We are told that the soil of corn-exporting countries, where no cattle are fed and no manure is made, becomes poorer. Fertile lands in South Russia and America, formerly capable of yielding 40 to 50 bushels of wheat per acre, have been starved down to an average yield of about 15 bushels; and the general average of these countries has been reduced to between 14 and 15 bushels per acre.

Our soil, which is already so poor, is being further impoverished by the waste of manure. How, then, can we retain for the use of our agriculture, the remains of the corn we receive from abroad. The real extent of loss to the land is in exact proportion to the food consumed at present without return.

This waste, we are told in the paper just referred to, must be arrested. "No agricultural improvements can maintain the fertility of the soil under such a drain of plant food. More tilage—even by steam! does not create anything, practically it destroys, if the fruits are thrown into the sea."

We have referred here only to Mr. EVERSHED'S general conclusions at the close of his article, and to the word of warning, without which a paper on the subject of our future supply of corn would have been incomplete.

The subject of thin-sowing seems to be again coming under general discussion. Mr. MARCH writes to insist upon the national importance of saving so many pecks an acre which are now wasted; another correspondent of the Times argues in favour of a still greater reduction, and Mr. CARTWRIGHT, of Newbottle Manor, Brackley, says—

"I not only sow my Wheat, but my Barley also, at 14 bushels per acre and this year I have some Wheat and Barley at 10 pecks per acre. As some of my neighbours were last year very disappointed in the average of their wheat, I have this season sown my side with five 2 pecks the same quantity of land dried at 2 bushels, and the difference in the appearance between the two quantities is most striking. After I have threshed the corn I hope to send you an account of the produce, and I shall be most happy to show my crops to any gentleman who may wish to come and see them."

"I can also corroborate Mr. MARCH'S statement of the usual quantities sown in Scotland. I tried there last year 6 pecks of Barley and 8 pecks of Oats per acre (my land in Scotland is not Wheat land, with such good results that I dried the same quantities this year, and when I saw my crops there last month they showed every sign of producing an equally good yield."

It is plain that the subject is one which experience and not arithmetic must decide, otherwise this gentleman who sows 8 pecks of Oats lays himself almost as open to what may be called destructive criticism as those whom he attacks. Eight pecks of Oats should produce nearly

20 plants on every square foot of ground, which any one who draws a square of that size on a piece of paper must at once see is an outrageous crowd. The condemnation or justification of practice here is, however, not a question for the arithmetician at all. It is a question for the agriculturist. Crops differ from one another, not by pecks but by bushels and sacks per acre, and it is the plan which shall yield the largest crop that must be recommended. If thick sowing proves best during the harvest month, it can withstand the exposure of its folly during all the other eleven months of the year. It must be admitted, however, that the quantity of grain sown per acre is gradually diminishing, and that 4 to 6 pecks per acre are generally considered enough in the Wheat field, where formerly 8 and 10 were sown. But even 6 pecks per acre are close upon 1,000,000 grain, and that is more than a score of plants on every square foot of land; so that the arithmetic of the subject is really almost as extraordinary as ever.

— THE corn trade has been in a quiet state throughout the week, at about previous prices which is somewhat remarkable considering the fine for the weather we have had during the present month. The live stock and meat markets have been somewhat depressed, in consequence of the heat of the weather. The top prices of beef and mutton have come down, respectively, to 5s. 4d. and 5s. 1d. Lambs vary from 3s. 6d. to 5s. 6d. — In seed there is but little doing. — Hops are foul, and but little improvement has occurred.

— The following are the published returns of the Manchester showyard and its visitors — Monday Season tickets, 2345, payment of 5s. each, 2345. Tuesday Season tickets, 2570, payment of 5s. each, 12,850. members, 3500. Wednesday Season tickets, 2317, by payment of 2s. 6d. each, 40,405. Thursday Season tickets, 1190, by payment of 1s. each, 57,120. Friday Season tickets, 1601, by payment of 1s. each, 31,245. Saturday Season tickets, 1578, by payment of 1s. each, 36,392. — The total number of visitors during the week is estimated at 188,516 besides 11,629 season-ticket holders, and the total receipts were over 17,000l. This is the highest sum ever received since the formation of the Society.

— The discussion in the House of Commons of the Game Law grievance and of the law of hypothec is not this session to bear any direct fruit. All the rival bills on both subjects have been withdrawn for the season, and there is some understanding that Government will themselves attempt to legislate next year on both.

In consideration of the small proportion of the elected members on the County Financial Boards, the Government has laid upon the table of the House of Commons a statement of the number of this class whom they think it is "probable" will be upon the County Financial Boards of each shire, as well as the actual number of magistrates upon the county rolls, and the Pall Mall Gazette thus comments upon the return in question — "It is imperfect — we were about to say 'of course,' the genius of slip slop must have watched over its production, for at a time when so many members of the Legislature are anxious to know what would be the numerical force thrown upon the bench of quarter sessions by the Home Office scheme of county financial reform, the paper is published without a single total or summary, though a statesman would probably look first to the general bearing of the statistics before he investigated their local relations. How easily such a summary could have been given we will show by placing one here. The statistics for the first schedule of the Bill represent 39 English counties, excepting from Cambridge, Hertford, and Northampton respectively, the liberties of Ely, St. Alban's, and Peterborough, which come under the second schedule. We have reckoned Lincolnshire only as one county, but each of its three parts for the purposes of the Bill is a county in itself, and in that view the English shires may be called 41. The second schedule consists of the three English counties of Monmouth, Rutland, and Westmoreland, the three liberties just named, and the 12 counties of the Principality. The epitome of the return in fact, we submit, have been appended in some such shape as this —

	Number of Quarter Sessions Jurisdictions.	County Magistrates in 1863.	Number of Elected Members.	Number of Magistrates on the Roll.
First Schedule	41	85,145,000	1571	16,153
Second Schedule	19	7,122,000	236	1,830
Total	60	92,267,000	1807	17,983

The great diversity of representative power, whatever may be the worth of the privilege anywhere, is under this Bill inevitable, because the scheme gives representatives, not according to the number of magistrates at each board, but according to rental. Thus, for example, Cambridgeshire part of, with 1,000,000 rental, is to have only 14 elected members to 157 magistrates, while that part of the county which is a quarter of the county of Ely for half the rental (500,000) is to have 7 representatives to 15 magistrates. Thus the poorer section of the county will send one representative to sway the counsels of 14 magistrates while the poorer section will have far greater chances of influence at quarter-sessions if

1870.]

surprised. Of course no rule can be laid down as to soil climate and mode of farming... a quite certain that great crops cannot be grown on such excessive quantities of seed.

Manchester Meeting.—The Royal Agricultural Society of England have never enjoyed such a satisfactory meeting as the one just concluded at Manchester.

the plants grow so thickly and to such a size as completely to obscure a man on horseback riding amongst them John A. Jackson New July 27

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Societies.

THE Society had a very large and successful meeting on Wednesday last, held in the West Meadows, Manchester. While some of the classes of cattle were exhibited and a few sheep were shown...

Mr Bruce's BARONET, bred by the Duke of Buccleuch, and after a long struggle was placed 2d, but not with the public approval: the 1st prize bull being light in the neck, with a harsh wiry coat.

The cows were a shockingly poor show considering how many good ones there are north of the Tweed. Only four were entered. Sir W. Stirling Maxwell's Flower Girl was withdrawn so Mr Currie came 1st with Lord Strathalbyn's Rose of Strathalbyn...

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hair, stood well out 1st, he was also 3d with "Stalchd Bhoideach" There were some capital specimens of fat oxen, especially some Highlanders, Mr. C. Morrison's Charlie being one of the best 4-year-olds.

As a collection of the best horses we have scarcely ever seen a show better represented. The entries were very numerous and many an empty stall was to be seen. Mr. Martin's "Conqueror" was 1st, and is a very fine brown horse of 5 years 2 months, and was bred near Gorsebridge.

Alex. Buchanan's filly, and in yearlings, Mr. J. N. Fleming was 1st and 2d. The draught horses were shown in harness, and made a very pretty sight, doing a deal of credit to the groomers.

Class 3 comprised a very large show of Border Leicester sheep many of which were scarcely fairly shorn. Mr. Rossie, of Leaton, took the 1st and 2d prizes for aged Leicesters, the only ones shown, and Mr. Torrance was 3d and 4d to Mr. Ford's 1st in shearlings, who was 2nd 1st in yearlings.

Mr. Bruce's BARONET, bred by the Duke of Buccleuch, and after a long struggle was placed 2d, but not with the public approval: the 1st prize bull being light in the neck, with a harsh wiry coat.

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Section 5. Heifers calved after 1st January, 1868.—1st, George Robertson Barclay, Keavil, Dumfrieshire, Booth's Scapular 2d, George Robertson Barclay, Keavil, Dumfrieshire, Booth's Lancaster 3d Robert Scott, Manroan, Edin., Nelly Illeg

FOULDED ANGUS OR ABERDEEN.

1st-prize Bulls at former Shows.—Alexander Morrison, Bognie, Montblair, Turf, Ory 2d.

Section 7. Bulls calved before January 1, 1867.—1st, William James Taylor, Huntly, Clackmannan 2d, James Scott, Stonehaven, Tamerlane 3d, D. R. L. Grant, Alford, Paton of Antikerr

Section 8. Bulls calved after January 1, 1867.—1st, the Earl of Dunmore, Striving Main 2d, Alexander Brown, Arbroath, Jim Crow 3d, William James Taylor, Huntly, Elmore

Section 9. Bulls calved after January 1, 1868.—1st, James Scott, Stonehaven, Prince of Wales 2d, William M'Combie, M P, Tillyfour, Forth 3d, Alexander Paterson, Keith, Sir William

1st-prize Cows at former Shows.—Colonel Charles Fraser, Castle Fraser, Aberdeen, "Mina."

Section 10. Cows of any age.—1st, George Brown, Fochabers, Cairness 2d, Colonel Charles Fraser, Sybil 3d, William M'Combie, Skene, Aberdeen, Young Queen

Section 11. Heifers calved before January 1, 1867.—1st, William M'Combie, M P, Tillyfour, Sweetheart 2d, William M'Combie, M P, Tillyfour, Sweetheart 3d, James Skilmer, Ballindalloch, Beauty

Section 12. Heifers calved after 1st January, 1867.—1st, C. Fraser, Lively 2d, Col. C. Fraser, Sybil 3d, William M'Combie, Easter Skene, Lety Bird

GALLOWAY

Section 13. Bulls calved before January 1, 1867.—1st, James Graham, Briddle, Newcastleton 2d, William Clark, Corra, Kirkness 3d, William Kerr, Newcastleton

Section 14. Bulls calved after January 1, 1867.—1st, William Beatty, Brisco Hill, Long Loch, Tarbrack 2d, John Thomson, Blaker, Crickford

Section 15. Bulls calved after January 1, 1868.—1st, Peter Morton, Laws Hill, Longtown 2d, John Thomson, Blaker, Crickford

1st-prize Cows at former Shows.—James Cunningham, Tarbrack, Dalvennie

Section 16. Cows of any age.—1st, Thomas Hogg, Dalvennie 2d, James Graham, West Linton, Carlisle 3d, James Cunningham, Tarbrack

Section 17. Heifers calved after January 1, 1867.—1st, Joseph Kerr, Cockatfield, Dumfries 2d, James Cunningham, Dalvennie 3d, James Cunningham

Section 18. Heifers calved after January 1, 1868.—1st, the Duke of Buccleuch and Queensberry, 2d, the Duke of Buccleuch and Queensberry, 3d, the Duke of Buccleuch and Queensberry

ARABIAN

Section 19. Bulls calved before January 1, 1867.—1st, Sir Michael R. Shaw Stewart, of Ardgowan, Bart. 2d, Robert Wilson, Forehouse, Kibbarchan 3d, John Hyslop, New Cumnock

Section 20. Bulls calved after January 1, 1867.—1st, John Dick, Sherril, Bedouin 2d, John McKillop, Seafield, Bathgate 3d, Thomas Ballantyne, East Kilbride

1st-prize Cows at former Shows.—The Dowager Duchess of Athole, Denkeld

Section 21. Cows in Milk, of any age.—1st, John McKillop, Seafield, Bathgate 2d, Robert Young, Cambuslang 3d, James Williamson, Bantyre

Section 22. Cows in Calf, of any age.—1st, Lawrence Drew, Merryton, Hamilton 2d, William Hunter, Abington 3d, James Pollok, Blackhouse, Newton Mearns

Section 23. Heifers calved after January 1, 1867.—1st, Robert Murdoch, Halhills, Cambuslang 2d, Stewart Turnbull, Sunhill Place, Banton 3d, George Fender, Dumbreck, Killyth

Section 24. Heifers calved after January 1, 1868.—1st, Lawrence Drew, Merryton, Hamilton 2d, the Duke of Athole, Bathgate 3d, Robert Young, Cambuslang

HIGHLAND.

1st-prize Bulls at former Shows.—The Hon. Lady Menzies, Rannoch Lodge, Pitlochrie

Section 25. Bulls calved before January 1, 1866.—1st, the Duke of Athole, K.T. 2d, the Duke of Athole, K.T. 3d, Archibald Clark, Garvie, Glendaruel, Colliestrae

Section 26. Bulls calved after January 1, 1866.—1st, John Malcolm, Poltalloch, Lochgilphead 2d, John Stewart, Portree 3d, the Hon. Lady Menzies, Pitlochrie

Section 27. Bulls calved after January 1, 1867.—1st, John Malcolm, Poltalloch, Lochgilphead 2d, Donald M'Laren, Corrychone, Callander 3d, Robert Peter, Urral, Aberfeldy

1st-prize Cows at former Shows.—The Duke of Athole, K.T.

Section 28. Cows of any age.—1st, the Duke of Athole, K.T. 2d, John Malcolm, Poltalloch, Lochgilphead 3d, A. M. Donald, Strathcathie, King's Hill

Section 29. Heifers calved after January 1, 1867.—1st, Robert Peter, Urral, Aberfeldy 2d, John Malcolm, Poltalloch, Lochgilphead 3d, Robert Peter, Urral

CLASS II.—HORSES.

Jockeys.—Clydesdales, and Extra Draught Horses: John Buchanan, Colliestrae, Drymen, John Dove, Rodes, Newtown, Kelso; Robert Finlay, Springhill, Bilsborrow, Hunters, Carriage, and Extra Sir David Baird, of New Byth, Bart., Princeskirk; Robert Calder, Kelso, Kelso, Kelso.

FOR AGRICULTURAL PURPOSES.

1st-prize Stallions at former Shows.—James Hall, Frederick Street, Aberdeen.

Section 1. Stallions foaled before January 1, 1866.—1st, Murdo Bothnie, Drim, Bowly, "Cossack" 2d, David Bell, "K" wile, Duntocher "Scott" 3d, David Bell, Duntocher, "Yo"

Section 2. Stallions foaled after January 1, 1866.—1st, James Hall, Frederick Street, Aberdeen 2d, James Hall, Frederick Street, Aberdeen 3d, James Hall, Frederick Street, Aberdeen

Section 3. Entire Cows foaled after January 1, 1867.—1st, Robert Weir, Curwen, "A" 2d, James Weir, Curwen, "B" 3d, Thomas Milne, Inch, Aberdeen, "Young Inkerman"

Section 4. Entire Cows foaled after January 1, 1868.—1st, John Robertson, Lochwinnoch 2d, John Robertson, Lochwinnoch 3d, John Robertson, Lochwinnoch

Section 5. Mares (with foal at foot) foaled before January 1, 1866.—1st, Sir William B. Maxwell, of Keir, Bart. 2d, Sir William B. Maxwell, of Keir, Bart. 3d, Allan Snodgrass, of Cross, "Bell"

1st-prize Mares at former Shows.—John Watson, Glencairn Hill, Motherwell

Section 6. Mares (in Foal) foaled before January 1, 1866.—1st, Lawrence Drew, Merryton 2d, Sir William Stirling Maxwell, of Keir, Bart. 3d, Robert M. Buchanan, Mid-Caldor

Section 7. Fillies foaled after January 1, 1866.—1st, John Graham, Mid-Caldor 2d, James Fleming, Carronock 3d, Robert M. Buchanan, Mid-Caldor

Section 8. Fillies foaled after January 1, 1867.—1st, Alexander Buchanan, Carronock Mains, New Kilpatrick 2d, William

Kirkwood, Stanlymuir, Paisley; 3d, James Nicol Fleming, Kield, Campbeltown.

Section 9. Fillies foaled after January 1, 1868.—James Nicol Fleming, Kield, Campbeltown; 3d, James Nicol Fleming; 3d, William Kerr, Mid-Caldor.

EXTRA SECTIONS.

Section 10. Mares or Geldings foaled before January 1, 1865, suitable for field.—1st, Andrew Williamson, 15, Moray Place, Edinburgh; 2d, Earl of Hopetoun; 3d, Allan Gilmore, Eagle sham House, Glasgow.

Section 11. Mares or Geldings foaled between January 1, 1865, and January 1, 1867, suitable for field.—1st, William Forbes, Callendar, Falkirk; 2d, Thomas Cunningham, Callendar; 3d, W. Brodie, Lennox, Upper Keith.

Section 12. Mares or Geldings foaled before January 1, 1865, suitable for carriage.—1st, John H. Macnab, South Arthurie, Barrhead; 2d, Andrew Williamson, Edinburgh; 3d, Earl of Hopetoun.

Section 13. Mares or Geldings in harness.—1st, Thomas Ross, Edinburgh; 2d, James Scott, Edinburgh; 3d, James Scott, Edinburgh

Section 14. Mares or Geldings between 12 or 14 hands high.—1st, William Illeg, West Lauriston Place, Edinburgh; 2d, Robert Scott Stirling, Campbton, Drem; 3d, Thomas Watson, Forport, Gorsebridge.

Section 15. Mares or Geldings under 12 hands high.—1st, James Mack, Upper Keith, Edinburgh; 2d, John Torrance, East Crosscairnway, Fifeburgh; 3d, M. G. Rannie, Edinmonth, Kelso

EXTRA HORSES.—PONIES.

1st-prize Pony Stallions at former Shows.—The Duke of Athole, K.T.

CLASS III.—SHEEP.

Jockeys.—Leicester and Long-wooled: Robert Hardie, Harrietfield, Kelso; George H. Sanday, Holme Pierrepont, North York; Walter Woodhouse, Manor, Morpeth; Cheviot: George Mack, Burnside, Leckie; David Mandell, Heath, Leith; Inverness: John Robson, Brynosa, Otterburn; Blackface: James Craig, Polgahoy, New Cumnock; James James Millan, Fintry; Peter Robertson, Achilty, Dingwall; Southdown and Short-wooled: Charles Randall, Cheddar, Exmouth, Henry Woods, Merton, Thetford.

Section 1.—Tups not above 4-shear.—1st, J. W. Brodie, Leith; 2d, J. W. Brodie.

Section 2.—Dismont or Shearling Tups.—1st, William Ford, Hardengreen, Dalkeith; 2d, George Torrance, Slaterspath, Dunse; 3d, James Fleming, Carmuir, Falkirk.

Section 3.—Tups not above 4-shear.—1st, James Fleming, Hardengreen, Dalkeith; 2d, George Torrance, Slaterspath, Dunse; 3d, James Fleming, Carmuir, Falkirk.

Section 4.—Tups not above 4-shear.—1st, J. W. Brodie, Leith; 2d, J. W. Brodie.

Section 5.—Dismont or Shearling Tups.—1st, William Ford, Hardengreen, Dalkeith; 2d, George Torrance, Slaterspath, Dunse; 3d, James Fleming, Carmuir, Falkirk.

BORDER LEICESTER.

Section 6.—Tups not above 4-shear.—1st, Rev. R. W. Downington, Hook, Alwark, Northumberland; 2d, J. & W. Dinning, Nisbena Ridge, Haydon Bridge; 3d, T. Simson, Hainthill, Laner.

Section 7.—Dismont or Shearling Tups.—1st, T. Simson, Hainthill, Laner; 2d, Adam Smith, Stevenson Mains, Haddington; 3d, J. & W. Dinning.

Section 8.—Tups not above 4-shear.—1st, G. Simpson, Court Hill, Kelso; 2d, J. & G. Imlay, Kelso; 3d, Rev. R. W. Downington, Hook, Alwark.

Section 9.—Dismont or Shearling Tups.—1st, J. W. Dinning, Nisbena Ridge, Haydon Bridge; 2d, T. Simson, Hainthill, Laner.

Section 10.—Tups not above 4-shear.—1st, James Brydon, Kinnehead, Moffat; 2d and 3d, Thomas Elliot, Hardslope, Jedburgh.

Section 11.—Dismont or Shearling Tups.—1st, 2d, and 3d, James Brydon, Kinnehead, Moffat.

Section 12.—Tups not above 4-shear.—1st, James Brydon, Kinnehead, Moffat; 2d, James Archibald, Kelso; 3d, Thomas Elliot, Hardslope, Jedburgh.

THE KWEE.

Section 13.—Tups not above 4-shear.—1st, J. J. Archibald, Cambuslang, Stow; 2d, Thomas Elliot, Hardslope, Jedburgh.

Section 14.—Dismont or Shearling Tups.—1st, John Archibald, Cambuslang, Stow; 2d and 3d, Charles Hawtorn, Dorn, Murray.

Section 15.—Tups not above 4-shear.—1st, John Archibald, Cambuslang, Stow; 2d, Thomas Elliot, Hardslope, Jedburgh; 3d, James Archibald, Kelso; 4th, James Archibald, Kelso; 5th, James Archibald, Kelso; 6th, James Archibald, Kelso; 7th, James Archibald, Kelso; 8th, James Archibald, Kelso; 9th, James Archibald, Kelso; 10th, James Archibald, Kelso; 11th, James Archibald, Kelso; 12th, James Archibald, Kelso; 13th, James Archibald, Kelso; 14th, James Archibald, Kelso; 15th, James Archibald, Kelso; 16th, James Archibald, Kelso; 17th, James Archibald, Kelso; 18th, James Archibald, Kelso; 19th, James Archibald, Kelso; 20th, James Archibald, Kelso; 21st, James Archibald, Kelso; 22nd, James Archibald, Kelso; 23rd, James Archibald, Kelso; 24th, James Archibald, Kelso; 25th, James Archibald, Kelso; 26th, James Archibald, Kelso; 27th, James Archibald, Kelso; 28th, James Archibald, Kelso; 29th, James Archibald, Kelso; 30th, James Archibald, Kelso; 31st, James Archibald, Kelso; 32nd, James Archibald, Kelso; 33rd, James Archibald, Kelso; 34th, James Archibald, Kelso; 35th, James Archibald, Kelso; 36th, James Archibald, Kelso; 37th, James Archibald, Kelso; 38th, James Archibald, Kelso; 39th, James Archibald, Kelso; 40th, James Archibald, Kelso; 41st, James Archibald, Kelso; 42nd, James Archibald, Kelso; 43rd, James Archibald, Kelso; 44th, James Archibald, Kelso; 45th, James Archibald, Kelso; 46th, James Archibald, Kelso; 47th, James Archibald, Kelso; 48th, James Archibald, Kelso; 49th, James Archibald, Kelso; 50th, James Archibald, Kelso; 51st, James Archibald, Kelso; 52nd, James Archibald, Kelso; 53rd, James Archibald, Kelso; 54th, James Archibald, Kelso; 55th, James Archibald, Kelso; 56th, James Archibald, Kelso; 57th, James Archibald, Kelso; 58th, James Archibald, Kelso; 59th, James Archibald, Kelso; 60th, James Archibald, Kelso; 61st, James Archibald, Kelso; 62nd, James Archibald, Kelso; 63rd, James Archibald, Kelso; 64th, James Archibald, Kelso; 65th, James Archibald, Kelso; 66th, James Archibald, Kelso; 67th, James Archibald, Kelso; 68th, James Archibald, Kelso; 69th, James Archibald, Kelso; 70th, James Archibald, Kelso; 71st, James Archibald, Kelso; 72nd, James Archibald, Kelso; 73rd, James Archibald, Kelso; 74th, James Archibald, Kelso; 75th, James Archibald, Kelso; 76th, James Archibald, Kelso; 77th, James Archibald, Kelso; 78th, James Archibald, Kelso; 79th, James Archibald, Kelso; 80th, James Archibald, Kelso; 81st, James Archibald, Kelso; 82nd, James Archibald, Kelso; 83rd, James Archibald, Kelso; 84th, James Archibald, Kelso; 85th, James Archibald, Kelso; 86th, James Archibald, Kelso; 87th, James Archibald, Kelso; 88th, James Archibald, Kelso; 89th, James Archibald, Kelso; 90th, James Archibald, Kelso; 91st, James Archibald, Kelso; 92nd, James Archibald, Kelso; 93rd, James Archibald, Kelso; 94th, James Archibald, Kelso; 95th, James Archibald, Kelso; 96th, James Archibald, Kelso; 97th, James Archibald, Kelso; 98th, James Archibald, Kelso; 99th, James Archibald, Kelso; 100th, James Archibald, Kelso.

Section 16.—Dismont or Shearling Tups.—1st, John Archibald, Cambuslang, Stow; 2d and 3d, Charles Hawtorn, Dorn, Murray.

Section 17.—Tups not above 4-shear.—1st, John Archibald, Cambuslang, Stow; 2d, Thomas Elliot, Hardslope, Jedburgh; 3d, James Archibald, Kelso; 4th, James Archibald, Kelso; 5th, James Archibald, Kelso; 6th, James Archibald, Kelso; 7th, James Archibald, Kelso; 8th, James Archibald, Kelso; 9th, James Archibald, Kelso; 10th, James Archibald, Kelso; 11th, James Archibald, Kelso; 12th, James Archibald, Kelso; 13th, James Archibald, Kelso; 14th, James Archibald, Kelso; 15th, James Archibald, Kelso; 16th, James Archibald, Kelso; 17th, James Archibald, Kelso; 18th, James Archibald, Kelso; 19th, James Archibald, Kelso; 20th, James Archibald, Kelso; 21st, James Archibald, Kelso; 22nd, James Archibald, Kelso; 23rd, James Archibald, Kelso; 24th, James Archibald, Kelso; 25th, James Archibald, Kelso; 26th, James Archibald, Kelso; 27th, James Archibald, Kelso; 28th, James Archibald, Kelso; 29th, James Archibald, Kelso; 30th, James Archibald, Kelso; 31st, James Archibald, Kelso; 32nd, James Archibald, Kelso; 33rd, James Archibald, Kelso; 34th, James Archibald, Kelso; 35th, James Archibald, Kelso; 36th, James Archibald, Kelso; 37th, James Archibald, Kelso; 38th, James Archibald, Kelso; 39th, James Archibald, Kelso; 40th, James Archibald, Kelso; 41st, James Archibald, Kelso; 42nd, James Archibald, Kelso; 43rd, James Archibald, Kelso; 44th, James Archibald, Kelso; 45th, James Archibald, Kelso; 46th, James Archibald, Kelso; 47th, James Archibald, Kelso; 48th, James Archibald, Kelso; 49th, James Archibald, Kelso; 50th, James Archibald, Kelso; 51st, James Archibald, Kelso; 52nd, James Archibald, Kelso; 53rd, James Archibald, Kelso; 54th, James Archibald, Kelso; 55th, James Archibald, Kelso; 56th, James Archibald, Kelso; 57th, James Archibald, Kelso; 58th, James Archibald, Kelso; 59th, James Archibald, Kelso; 60th, James Archibald, Kelso; 61st, James Archibald, Kelso; 62nd, James Archibald, Kelso; 63rd, James Archibald, Kelso; 64th, James Archibald, Kelso; 65th, James Archibald, Kelso; 66th, James Archibald, Kelso; 67th, James Archibald, Kelso; 68th, James Archibald, Kelso; 69th, James Archibald, Kelso; 70th, James Archibald, Kelso; 71st, James Archibald, Kelso; 72nd, James Archibald, Kelso; 73rd, James Archibald, Kelso; 74th, James Archibald, Kelso; 75th, James Archibald, Kelso; 76th, James Archibald, Kelso; 77th, James Archibald, Kelso; 78th, James Archibald, Kelso; 79th, James Archibald, Kelso; 80th, James Archibald, Kelso; 81st, James Archibald, Kelso; 82nd, James Archibald, Kelso; 83rd, James Archibald, Kelso; 84th, James Archibald, Kelso; 85th, James Archibald, Kelso; 86th, James Archibald, Kelso; 87th, James Archibald, Kelso; 88th, James Archibald, Kelso; 89th, James Archibald, Kelso; 90th, James Archibald, Kelso; 91st, James Archibald, Kelso; 92nd, James Archibald, Kelso; 93rd, James Archibald, Kelso; 94th, James Archibald, Kelso; 95th, James Archibald, Kelso; 96th, James Archibald, Kelso; 97th, James Archibald, Kelso; 98th, James Archibald, Kelso; 99th, James Archibald, Kelso; 100th, James Archibald, Kelso.

Section 18.—Tups not above 4-shear.—1st, John Archibald, Cambuslang, Stow; 2d, Thomas Elliot, Hardslope, Jedburgh; 3d, James Archibald, Kelso; 4th, James Archibald, Kelso; 5th, James Archibald, Kelso; 6th, James Archibald, Kelso; 7th, James Archibald, Kelso; 8th, James Archibald, Kelso; 9th, James Archibald, Kelso; 10th, James Archibald, Kelso; 11th, James Archibald, Kelso; 12th, James Archibald, Kelso; 13th, James Archibald, Kelso; 14th, James Archibald, Kelso; 15th, James Archibald, Kelso; 16th, James Archibald, Kelso; 17th, James Archibald, Kelso; 18th, James Archibald, Kelso; 19th, James Archibald, Kelso; 20th, James Archibald, Kelso; 21st, James Archibald, Kelso; 22nd, James Archibald, Kelso; 23rd, James Archibald, Kelso; 24th, James Archibald, Kelso; 25th, James Archibald, Kelso; 26th, James Archibald, Kelso; 27th, James Archibald, Kelso; 28th, James Archibald, Kelso; 29th, James Archibald, Kelso; 30th, James Archibald, Kelso; 31st, James Archibald, Kelso; 32nd, James Archibald, Kelso; 33rd, James Archibald, Kelso; 34th, James Archibald, Kelso; 35th, James Archibald, Kelso; 36th, James Archibald, Kelso; 37th, James Archibald, Kelso; 38th, James Archibald, Kelso; 39th, James Archibald, Kelso; 40th, James Archibald, Kelso; 41st, James Archibald, Kelso; 42nd, James Archibald, Kelso; 43rd, James Archibald, Kelso; 44th, James Archibald, Kelso; 45th, James Archibald, Kelso; 46th, James Archibald, Kelso; 47th, James Archibald, Kelso; 48th, James Archibald, Kelso; 49th, James Archibald, Kelso; 50th, James Archibald, Kelso; 51st, James Archibald, Kelso; 52nd, James Archibald, Kelso; 53rd, James Archibald, Kelso; 54th, James Archibald, Kelso; 55th, James Archibald, Kelso; 56th, James Archibald, Kelso; 57th, James Archibald, Kelso; 58th, James Archibald, Kelso; 59th, James Archibald, Kelso; 60th, James Archibald, Kelso; 61st, James Archibald, Kelso; 62nd, James Archibald, Kelso; 63rd, James Archibald, Kelso; 64th, James Archibald, Kelso; 65th, James Archibald, Kelso; 66th, James Archibald, Kelso; 67th, James Archibald, Kelso; 68th, James Archibald, Kelso; 69th, James Archibald, Kelso; 70th, James Archibald, Kelso; 71st, James Archibald, Kelso; 72nd, James Archibald, Kelso; 73rd, James Archibald, Kelso; 74th, James Archibald, Kelso; 75th, James Archibald, Kelso; 76th, James Archibald, Kelso; 77th, James Archibald, Kelso; 78th, James Archibald, Kelso; 79th, James Archibald, Kelso; 80th, James Archibald, Kelso; 81st, James Archibald, Kelso; 82nd, James Archibald, Kelso; 83rd, James Archibald, Kelso; 84th, James Archibald, Kelso; 85th, James Archibald, Kelso; 86th, James Archibald, Kelso; 87th, James Archibald, Kelso; 88th, James Archibald, Kelso; 89th, James Archibald, Kelso; 90th, James Archibald, Kelso; 91st, James Archibald, Kelso; 92nd, James Archibald, Kelso; 93rd, James Archibald, Kelso; 94th, James Archibald, Kelso; 95th, James Archibald, Kelso; 96th, James Archibald, Kelso; 97th, James Archibald, Kelso; 98th, James Archibald, Kelso; 99th, James Archibald, Kelso; 100th, James Archibald, Kelso.

Section 19.—Tups not above 4-shear.—1st, John Archibald, Cambuslang, Stow; 2d, Thomas Elliot, Hardslope, Jedburgh; 3d, James Archibald, Kelso; 4th, James Archibald, Kelso; 5th, James Archibald, Kelso; 6th, James Archibald, Kelso; 7th, James Archibald, Kelso; 8th, James Archibald, Kelso; 9th, James Archibald, Kelso; 10th, James Archibald, Kelso; 11th, James Archibald, Kelso; 12th, James Archibald, Kelso; 13th, James Archibald, Kelso; 14th, James Archibald, Kelso; 15th, James Archibald, Kelso; 16th, James Archibald, Kelso; 17th, James Archibald, Kelso; 18th, James Archibald, Kelso; 19th, James Archibald, Kelso; 20th, James Archibald, Kelso; 21st, James Archibald, Kelso; 22nd, James Archibald, Kelso; 23rd, James Archibald, Kelso; 24th, James Archibald, Kelso; 25th, James Archibald, Kelso; 26th, James Archibald, Kelso; 27th, James Archibald, Kelso; 28th, James Archibald, Kelso; 29th, James Archibald, Kelso; 30th, James Archibald, Kelso; 31st, James Archibald, Kelso; 32nd, James Archibald, Kelso; 33rd, James Archibald, Kelso; 34th, James Archibald, Kelso; 35th, James Archibald, Kelso; 36th, James Archibald, Kelso; 37th, James Archibald, Kelso; 38th, James Archibald, Kelso; 39th, James Archibald, Kelso; 40th, James Archibald, Kelso; 41st, James Archibald, Kelso; 42nd, James Archibald, Kelso; 43rd, James Archibald, Kelso; 44th, James Archibald, Kelso; 45th, James Archibald, Kelso; 46th, James Archibald, Kelso; 47th, James Archibald, Kelso; 48th, James Archibald, Kelso; 49th, James Archibald, Kelso; 50th, James Archibald, Kelso; 51st, James Archibald, Kelso; 52nd, James Archibald, Kelso; 53rd, James Archibald, Kelso; 54th, James Archibald, Kelso; 55th, James Archibald, Kelso; 56th, James Archibald, Kelso; 57th, James Archibald, Kelso; 58th, James Archibald, Kelso; 59th, James Archibald, Kelso; 60th, James Archibald, Kelso; 61st, James Archibald, Kelso; 62nd, James Archibald, Kelso; 63rd, James Archibald, Kelso; 64th, James Archibald, Kelso; 65th, James Archibald, Kelso; 66th, James Archibald, Kelso; 67th, James Archibald, Kelso; 68th, James Archibald, Kelso; 69th, James Archibald, Kelso; 70th, James Archibald, Kelso; 71st, James Archibald, Kelso; 72nd, James Archibald, Kelso; 73rd, James Archibald, Kelso; 74th, James Archibald, Kelso; 75th, James Archibald, Kelso; 76th, James Archibald, Kelso; 77th, James Archibald, Kelso; 78th, James Archibald, Kelso; 79th, James Archibald, Kelso; 80th, James Archibald, Kelso; 81st, James Archibald, Kelso; 82nd, James Archibald, Kelso; 83rd, James Archibald, Kelso; 84th, James Archibald, Kelso; 85th, James Archibald, Kelso; 86th, James Archibald, Kelso; 87th, James Archibald, Kelso; 88th, James Archibald, Kelso; 89th, James Archibald, Kelso; 90th, James Archibald, Kelso; 91st, James Archibald, Kelso; 92nd, James Archibald, Kelso; 93rd, James Archibald, Kelso; 94th, James Archibald, Kelso; 95th, James Archibald, Kelso; 96th, James Archibald, Kelso; 97th, James Archibald, Kelso; 98th, James Archibald, Kelso; 99th, James Archibald, Kelso; 100th, James Archibald, Kelso.

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is a common word, but never perhaps realised by the hill farmer in the same degree from day to day and month to month. What the effects of a severe winter would have been with the short supplies, it is difficult to conceive of as anything short of starvation, and now that there is an appearance of roughness and keep about, the sense of relief is great, but that relief did not come all at once or suddenly. We had a fine February, cold March, remarkably fine April, and a backward May, and though the corn crops have grown well of late, the harvest can scarcely now be an early one. Turnips promise very differently from last year, there are partial failures, however—the severe and stormy rain we had a month ago having told against the unbraided or newly braided portions, and the flea followed up with a vigorous attack on the battered and slow-growing plants, so that cases of re-sowing are quite general.

Sheep stock had a good deal of lee-way to make up, having been thin in spring, and, from the want of their usual winter and spring supplies, the clip is light. We have had more than the usual death among them, and that chiefly in the autumn. During the drought of last summer the shepherds began to prophesy death when the Grass came; and they were not wrong, for grass-ill, or braxy, made great ravages, in some instances killing as many as three and four in the score. The lambing season was looked forward to with much anxiety, and the short supplies of extra food economised to the utmost. For one lot of ewes (half-breds) we began to lead off Turnips early in January, beginning with the worst-conditioned first; and when the whole lot (12 score) were put on, two cartloads of Turnips per day was their allowance. The rest of their keep they had to hunt for, with the help of a little hay in the hard weather. Although not by any means in the condition we have often seen them, or would like to have them, they were in tolerable lambing condition, and the flush of Grass in April was worth more than any amount of artificials. One small lot of Cheviot ewes, with the run of several Grass fields, had neither Turnips, corn, nor cake, but the offer of some hay, which they refused to eat, choosing rather to pick up a living on the early Grass which they found in burn-sides and sunny spots. The hill Cheviot ewes got corn, and part of them Clover hay, which they made good use of. The hay was laid down to them daily in small handfuls on the heath. We have tried giving the hay in racks with the view of saving waste, but found that there was more waste from the racks than when spread over a new and clean piece of ground each day, or at all events their finding-ground shifted frequently. Those which had corn got from half a pound to a pound per day. There is no question this corn and hay was a great deal better than nothing, but as little question that Turnips would have been better still. After considerable experience in the use of artificial feeding for hill sheep, we have come to see that nothing supplies the place of Turnips either in bringing them through the winter, or as regards their progress on Grass afterwards. Of course this refers to hill and store stock, which have always a good outtake of rough pastura. The case may be different in regard to field stock and with bare pastures, where the question is one of full Turnips, or Turnips and artificial food combined, the pastures supplying little bulk to fill the animal.

With the present promise of a Turnip crop, which mainly influences the lamb markets, we would expect prices to be somewhat nearer par than last year. Of course what par means exactly we do not undertake to determine, but should fancy that, if it has not, it at least ought to have some relation to rents, which, as now generally arranged, seem to date back to the year 1866, when Cheviot ewes with their lambs were selling at 65s. The one or two markets which have been already held show a material rise from last year in the price of lambs, and there was ample room for it, as such a dog-hanging as our great Melrose lamb market was last year we hope never to see again. J. S. B.

AGRICULTURE OF SOMERSETSHIRE.—We cannot complete our article without stating some general conclusions at which as practical farmers, we have arrived during our examinations and explorations in Somersetshire. We would first direct attention to the fact that Somerset is one of the most important among what are termed the "Cider Counties," and there are those who would yield it the palm of superiority on this account. Granting, however, that a thickly-wooded country, dotted here and there with orchards, looks lovely in early spring, and has a rich and promising appearance when autumn bends down the boughs with the weight of the ruddy fruit, yet we cannot help thinking that this very plethora of cider tends, after all, to increase the poverty of the land.

In cider districts the enclosures are always small, and turbar is grown to the greatest possible extent. In such case the farmer pays rent for trees, rent for grass, and rent in timber, besides rent in the shape of about 10 per cent. for hedges and ditches, which are only impediments to anything like open-handed liberal farming.

If asked to propose a remedy, we should say it would be for the special advantage of Somerset to root out half its orchards. If cider is to be produced, let it be made from good sorts of apples, and with something like care and attention. Half the quantity of good cider is worth more than double the quantity of inferior produce.

We believe that this is a matter deeply affecting the landlord and tenant, as well as the nation at large. Larger fields, less wood, and less orcharding in the fine fertile soil of Somerset are desiderata affecting the well-being of all.

The next point to which we would direct attention is the general backwardness in farm operations which prevails among the occupiers of small holdings.

Indeed the small Somerset farmer is always for putting off work, with the observation that it is time enough to sow Wheat or Beans, or otherwise, at some particular fair, whereas the occurrence of foul weather too often precludes the fair opportunity. In late farming there may be some reason for very thick sowing; but even then, in so far as we have observed, at least one-third more seed is employed in Somerset than is beneficial.

The truth is, that dilatory habits and thick sowing to make up for loss of time, are the great evils of small farmers with small fields on strong land. The whole thing wants to be expanded, the fields to be enlarged, steam to aid in cultivation, more labour, good buildings, and, in fact, well-weighted business arrangements carried on with capital, in the place of what in the west is significantly called "nugling." There are, however, many notable exceptions to this remark, and it were easy to point to several agriculturists who occupy a foremost rank among the farmers of England.

Thick sowing is intimately connected with another subject, namely, that of weeds. I recently saw some very fine ears of Wheat, which I was told were a fair sample of the whole field, and my informant requested to know the cause. Our reply was, weeds. On being assured that the land was as "clean as a flower-garden," we told our friend how a French gentleman had authoritatively declared that the worst weed of Wheat is Wheat, and so it proved here, for, being late in sowing, an odd lot of seed had been drilled at the rate of a sack an acre! But, besides this weed-source, there will ever be found wild plants peculiar to certain soils and districts, and these grow in such quantities as to impede the development of the crop. Professor Buckman, in the "Journal of the Bath and West of England Agricultural Society."

The Poultry Yard.

ACCORDING to general opinion and practice our cattle have reached nearly as high a point of perfection as is supposed to be profitable, possible, or desirable. Seeing that the development of our domestic fowls has, in a great measure, been under the auspices of those who have done so much for cattle, the question arises, would they not do something if they gave the same attention to their poultry? Is it likely that the originators of the great herds, and the hard books, where the pedigrees are carried over in numbers that require a Colenso to read them at sight, had any idea as to what their care and attention would lead? It will be universally admitted that the quality of our poultry as general produce is improving, but not in its proper ratio. We have had during the present breeding season the visits of a large number of American poultry breeders, who have ransacked the yards of France, England and Ireland, with fair judgment and more money on purpose to find birds of high excellence in the matter of breed, to put down with the stock they already have. They say they have the pure blood and good type, but the high excellence they must get hence. It seems strange that men, who in the course of a holiday traverse a great portion of the world, although they go through the departments of France, of which the birds they are in want are not yet do not find them of a quality sufficiently high to please them, and they buy here on the return journey.

We may expect in the course of the next year or two to see birds sent us from America of greater size than any of our European breeding, and then we may still more look for improvement. When we consider what has already been accomplished in the improvement of our breeds of poultry, we are encouraged to look still forward, and to remove to a great distance the limit to the size of our birds.

—The taste for aviaries and pheasantries seems to be spreading among us, and we know no pursuit more pleasing. The continued traffic between our ports and distant parts of the world, is the means of bringing many choice and interesting specimens. A visit to our Zoological Gardens, with a view to examine the splendid additions made to the pheasant tribe during the past year or so, will show how much may be done. Of all the new birds none are so likely to do well as the pheasants, and of them, few so well as the splendid Reeves's or Long-tailed.

—From all parts of the kingdom, and from fanesera of all varieties, come letters and inquiries as to the probability of a poultry show in London or, in default, at the Crystal Palace. It is certainly a matter of regret that the home counties, so rich in amateurs and in birds, should be so badly off for shows at which the latter may be exhibited. If there be no place suitable in London, surely at the Palace at Sydenham a poultry show would be as attractive, if not more so, than one of singing birds. We know of no locality in which a larger number of real amateurs would be collected—people who keep and breed poultry for the love of it, and who attain great excellence in its development. In no other place or building does there exist the same command of space and material, and in suggesting the revival of the annual meeting, to be held either in London or at the Palace, we think we are only commencing that which will be heartily followed up and carried out. The prize-list is always a difficulty and the Birmingham, Manchester, Bath and West of England, and the Royal Agricultural Societies have all in their turn received a very fair share of criticism on the compilation of their respective prize-sheets. It is always very much easier to find fault with the performance of others than to excel it, and we feel diffident in offering a few suggestions to those who may have to draw up the prize-lists of future shows. There is much to retain and admire in the programme of the Bingley Hall Society, and as long as poultry prize lists are wanted

that may be taken as the alphabet of their construction.

We have an idea that the pen of cock and two hens is preferable, the birds being kept apart like the congregation in the Temple Church. Certainly for exhibiting the appearance is more effective. We would always offer a first prize of as high a value as the funds admitted. The second and third should be as good in proportion; the commendations, which cost nothing and are consequently now scattered broadcast, should be few. The classes now seem too numerous, good and well-matched hens are split up to furnish a pen more in each class. In Dorkings colour is now recognised sufficiently to make it the mark distinctive classes in a breed, the old amateurs of which can remember the time when it might have been described as a bird without a colour. In simplification of the now lists, say a class for cock and hen, or cock and two hens, coloured Dorkings, and one for white only, silver grey and red speckles to take their chance with their coloured brethren. Brahmas are now universally conceded two classes, and the best birds are made the running. It is doubtful, however, if they can attain the perfect on of the dark birds but where we give two prizes for dark ones we should, for impartiality's sake, do the same for the light. Spaniards always hold their class, and generally fill it.

Game fowls have at present a string of classes allotted to them, and they have a class of admirers whose devotion to them is intense, nevertheless, after you have passed at a good show the classes for the black and brown reds with the duckwing, how many others will they seem only put up to bother the printer, and three or three pens divide the prizes. The game fowl do not suffer by mixed competition. In all probability the finest exhibition of birds ever seen was that at Liverpool a few years since, when Sir Piers Mackenzie won the sweepstakes of 100 gs. against a marvellous collection of game birds of all colours. Crèvecoeur and Houdans are well worthy of a class each, so is the La Plèche, but we have them not in sufficient numbers to fill one. The other French breeds, such as La Bresse, Breda, &c., may worthily fill a class for the destitute—the class for "any other variety" Hamburgs must have four classes, and it is doubtful whether the blacks should not have one to themselves. Out of respect to antiquity, the Malines might still have a class; but the Polish might certainly be massed. Bantams we would divide into four classes—Sebright games, black, white, and foreign bantams. The turkeys, ducks, and geese we will as they are. We are fully aware that the foregoing remarks are open to a great deal of criticism, but shall be quite content if they invite attention to a subject that is, we hope and believe, only latent, and forgotten.

Miscellaneous.

Death of Mr. Edward Carroll.—[We take the following notice of the life and labours of our excellent correspondent, W. E. Carroll, from the columns of the *Dublin Farmers' Gazette*.] We regret to announce the death of Mr. Edward Carroll, which took place on the 21st inst. at his residence, Walnut Grove, Glasnevin. Mr. Carroll, who had attained the ripe age of 70, was for some time prior to May 8, 1888, Editor of the journal, and since that period a frequent contributor to its columns. For some years past Mr. Carroll had in charge of the horticultural department of the Agricultural Training Institution, Glasnevin, and gave lectures on all the branches of horticulture, being a department in which he had much experience. Mr. Carroll has had a long and useful career, which in many ways afforded to the youth a whose training has been engaged at Glasnevin a most valuable, instructive example. From his youth he was most earnest and laborious in the study of agriculture and horticulture. He was a man of great breadth of view and of a wide range of thought. He was one of the most single-minded of men, and carried this quality to a degree that marred his own pecuniary advancement. He entertained strong views on many of the questions on which people differ in this country; but in his advocacy of these views he studiously avoided offending those who differed with him. To the interests of stewards and gardeners he paid much attention, as the readers of his journal are well aware. When he brought his varied knowledge and his warm and sympathetic disposition into the lecture room at Glasnevin, he commanded the respect and admiration of his "young friends," as he used to call them; and in testimony of their appreciation of their friend and teacher, the pupils have themselves borne his remains to that bourne whence no traveller returns. The announcement of Mr. Carroll's death will be received with deep regret by a large circle of friends, by whom he was much esteemed during a long and useful career.

Clover Experiments.—The current number of the "Agricultural Journal" contains reports of several experimental researches, conducted by Dr. Voelcker into the effects of various manures on Clover and Grass. His observations on the Clover under treatment are that nitrate of soda is about as efficient in the production of growth as sulphate of ammonia—that common salt is variable in its effects, in one year producing growth and in another no effect—that the heaviest crop is obtained from a mixture of superphosphate of lime and marlate of potash, that where salts of potash have been used the second cutting of Clover was 2½ more than the second cutting of the unmanured crop, whereas when nitrate of soda has been used the second cutting is inferior. These are the results in the special instances reported; but every agricultural fact is the result of so many circumstances besides those to which the attention of a reporter is especially directed, that it is never safe to give to particular examples the value of a general law. In the case of ordinary grass-land,

Heating by Hot Water. W. J. HOLLANDS, IRON MERCHANT, 11, Bankside, E.C.

Table listing prices for hot-water pipes, elbows, tees, siphons, and throttle valves in various diameters.

Cash remittance with order. N.B. All Goods of first-class manufacture. No second quality kept.

Glass for Garden Purposes. JAMES PHILLIPS AND CO. beg to submit their REDUCED PRICES as follows:-

Table for propagating glasses with diameters ranging from 2 to 11 inches.



Table for BEE GLASSES with diameters from 4 to 11 inches.

Table for CUCUMBER GLASSES with lengths from 24 to 36 inches.

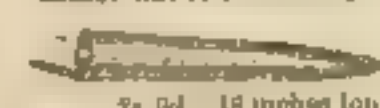


Table for HAND GLASSES with diameters from 12 to 15 inches.



Table for LONDON AGENTS for HARTLEY'S IMPROVED PATENT ROUGH PLATE.

Text listing various products like LINSEED OIL, CARBON'S PAINTS, and SHEET AND ROUGH PLATE GLASS.

Horticultural Glass Warehouse. THOMAS WILKINGTON AND CO., 37, Bishopsgate Street Without, London, E.C.

Table for ORCHARD-HOUSE SIZES with various dimensions and prices.

Table for SMALL SUFFET SQUARES, 15 oz., per 100 feet.

Table for LARGE SHEET SQUARES, 15 oz., per 100 feet.

Text describing the quality and uses of the glass products.

Table for SHEET GLASS in sheets for cutting up.

Text describing HARTLEY'S IMPROVED ROLLED ROUGH PLATE.

Text describing PAINTS, COLOURS, and VARNISHES.

Text describing STUCCO PAINT and WHITE WASH.

Text describing M. ROYAL ANT-RUST and ANTI-CORROSION.

Text listing various materials like GENUINE WHITE LEAD, CARBON'S PAINTS, and GLASS.

Text listing various tools like GROUND BRUSHES, DUSTERS, and NASH TOOLS.

Text providing contact information and a note about the above list.

GREEN'S IMPROVED PATENT ROLLER, FOR LAWNS, DRIVES, BOWLING GREENS, CRICKET FIELDS, and GRAVEL PATHS.

SUITABLE FOR HAND OR HORSE POWER.

PRICES OF HAND ROLLERS.

Table listing prices for hand rollers with diameters from 15 to 30 inches.



PRICES OF ROLLERS FITTED WITH SHAFTS.

Table listing prices for rollers with shafts, suitable for pony or horse power.

Text describing the features and benefits of the rollers.

Text providing prices for different roller sizes.

Text providing contact information for THOMAS GREEN AND SONS.

CUMMING & EDMONDS, HORTICULTURAL BUILDERS and HOT-WATER ENGINEERS.

LILLIE BRIDGE, FULHAM, LONDON, S.W.

Text describing conservatories and horticultural structures.

PATENT TUBULAR SADDLE BOILER, the cheapest and best Boiler constructed.

Table listing specifications and prices for different sizes of saddle boilers.

Text stating that plans and estimates are free of charge.

GRAY'S OVAL TUBULAR BOILER. INTERNATIONAL EXHIBITION, CLASS IX, No. 2119.

Text stating that Mr. Gray begs to call the attention of the Nobility, Gentry, Nurserymen, Gardeners, &c.

NEW OVAL TUBULAR BOILER.

Text describing the boiler as a great improvement on every form of tubular boiler.

Text mentioning the boiler was exhibited at the International Exhibition in 1862.

Text stating that the boilers are made of all sizes and can be had on application.

Text providing contact information for JAMES GRAY, HORTICULTURAL WORKS.

PORTABLE AND FIXED HOT-WATER APPARATUS, FOR HEATING CONSERVATORIES, HOTHOUSES, CHURCHES, PUBLIC BUILDINGS, PRIVATE RESIDENCES, ETC., WITH TRUSS'S PATENT UNIVERSAL FLEXIBLE AND LEAKLESS PIPE-JOINT.

T. S. TRUSS

Text describing the apparatus and its benefits.

Text stating that the apparatus is guaranteed for a long time.

Text providing contact information for T. S. TRUSS.

Table listing prices for two four-inch pipes along one side and one end of a house.

Text providing contact information for T. S. TRUSS.

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Text providing contact information for T. S. TRUSS.

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NEW COLEUS, BEAUTY OF WIDMORE.—Distinctly tricolored, leaves beautifully shaped, dark brilliant green, belted with bright rose and green edged with silvery white. 25 distinct varieties, including the above and all other new ones of this season, free by post for 2s.

ALTERNANTHERA AMABILIS. A new variety, far superior to all the other Alternantheras, 4s. per dozen.

HELVETIA METALLICA.—The beautiful Shell Plant, 4s. per dozen.

JAMES CARTER and CO., Seed Merchants and Nurserymen, 21 and 23, High Holborn, W.C., and Crystal Palace Nurseries, First Hill, S.E.

INTERNATIONAL HORTICULTURAL EXHIBITION to be held in HAMBURG from SEPTEMBER 1 to 12. The EXHIBITION will be held in the grounds of the Exhibition, and will be opened on SEPTEMBER 1 at 10 o'clock in the morning. The grounds of the Exhibition are situated on the banks of the Elbe, with an unobstructed view of the Harbour of Hamburg, and will be presented to the Visitor a most perfect picture of everything appertaining to Horticulture. Besides a vast number of Plants and Trees in the open ground, as well as a vast number of Greenhouses, there will be exhibited all the products of Horticulture and Agriculture, and every variety of Machines, Greenhouses, Heating Apparatus, Summer-houses, Fountains, Statues, Bridges, Follies, Terrariums, Aquariums, &c. &c. Under the same programme there is a large number of Extra Prizes, awarded by H.M. the King and H.M. the Queen of Prussia, H.M. the Queen of England, H.R.H. the Grand Duke of Oldenburg, the Senate of the City of Hamburg, the Austrian Ministry, the Prussian Ministry, the Magistrates of the City of Altona, and numerous private individuals. Numerous applications have been received, the participation of the European and the Transatlantic States will be enormous. A separate Committee has been appointed for the purpose of procuring Lodgings. Address, Dr. CARL GOSLFR.

Through Tickets for the entire Exhibition, the Distribution of the Programmes, and the Auction on September 11, can be had at 1s. each after August 20. Prices of admission: First day, 1s.; second day, 6d.; for the second week, 1s.; for the last day and the last days of the Exhibition the admission will be 6d. THE COMMITTEE OF THE INTERNATIONAL HORTICULTURAL EXHIBITION of 1869. Hamburg, July, 1869.

the Great Shows in London, while they concentrate its efforts upon some of its most legitimate horticultural functions. Moreover, by reducing the aggregate number of meetings, not only exhibitors, but also committee men, will be relieved from such repeated attendances as the present arrangements necessitate. We have but mentioned the general features of the scheme, the actual arrangements determined on, with the schedule of prizes to be offered at the several meetings, will be speedily prepared and issued. These matters of detail should be well-considered and thoroughly matured, and that being done, we strongly urge the Society to continue the same arrangements for a series of years without material alteration, except in so far as additions may be found desirable. Moreover the exhibitors should have some assurance that such will be the case. Changes in the nature or limits of the classes upset the calculations of the growers, and do immense injury to exhibitions. Hence, again, though the subjects of the classes may be varied under somewhat novel associations, we trust the classes themselves will be made as nearly as possible to correspond with those of the schedules of recent years.

The arrangements we have thus briefly shadowed forth are intended to fit in with the scheme of International Exhibitions which has been announced by HER MAJESTY'S Commissioners of 1851, to which we have elsewhere referred.

A LETTER from a New Zealand correspondent in our last issue, clears up what had previously been a mystery to us. Readers of SIR CHARLES DILKE'S "Greater Britain," will remember the glowing terms in which he speaks of the ROCKWOOD LILY. In our notice of the work in question (see p. 84), we expressed our regret that neither the name nor the description given were sufficiently technical to enable us to state what the plant really was. HOOKER'S "Flora of New Zealand," wherein the local names are carefully given, contains no Rockwood Lily, nor were we able in any other work relating to New Zealand botany to trace it. Our correspondent, however, has given us the clue, and declares the plant to be a species of Buttercup, *RANUNCULUS LYALLII*. And now, good New Zealand correspondents, fail not to send us seeds of this glorious Buttercup—for glorious it is. Dr. HOOKER, in the "Handbook of the New Zealand Flora," calls the plant, as well he may, the "most noble species of the genus"—"the Water Lily of the shepherds." Indeed even in the dried specimens of which there are many in the Kew herbaria, the resemblance to our common white Water Lily is striking. The plant is stated to grow in moist places in the Southern Alps, the Wurumui mountains, in the glacier regions of the Forbes River, near Otago, and elsewhere in the Middle Island, at heights of from 1000 to 5000 feet above the sea. In habit it seems almost identical with our common marsh Margold, but it is twice or thrice larger. The leaves are circular, 12 to 15 inches in diameter, very like those of the plant last mentioned, but peltate, as in the *Nelumbium*. The flowers are borne in panicles, each flower is of the purest waxy white colour, 3 to 4 inches across, and in shape and aspect is like a Brodiaugian Buttercup. With such a *supplement* we can readily give credence to Mr. FRASER when he says "the whole plant looked ready made." We imagine there would be no great difficulty in growing the plant if we once got it here. To this end we should be disposed, in addition to more ordinary methods of transport, to try several means, such as sowing the seeds in a Wardian case, or placing them in a closed bottle in damp Moss or moistened earth. At any rate, "moist shady gullies" in New Zealand mountains must no longer be suffered to have the monopoly of so grand a plant as this.

good reason either for passing such plants over entirely, or for making them the same sort of award as is bestowed on more showy but more commonplace and intrinsically less interesting objects. And yet under existing circumstances one or other of these two things happens if a plant unknown to the trade, and unappreciated by the florists, makes its appearance before the Committee. To show the absurdity of the matter, let us take an illustration from the garland of poetry. We suppose that where there is one reader of BLOWING there are a hundred of TENNYSON. Shall we, therefore, take the bookseller's view of the case, and award all our praise to the poet whose works sell best? Many admire TUPPER who have no fancy for TENNYSON. Is that a reason why the latter should have no certificate and the former be awarded a "first-class?"

The Floral Committee, on the whole, does its work well, and, we believe, with thorough impartiality. If occasionally deserving plants get passed over, it is because they are such as are not familiar to, or understood by, the generality of the members, or because things are brought into comparison one with another which really present no fair terms of comparison. The adoption of some form of award for non-commercial plants, or for plants of scientific interest, would, we believe, meet the case, and prevent the scandal that must arise if the highest floral tribunal of the kingdom either pass over without comment deserving plants, or insult them by giving them the same award as they would to a "good bedder" or to one which is likely to be a "good thing" for the pockets of the possessor.

— WE have been requested to publish the following particulars relating to the proposed ANNUAL INTERNATIONAL EXHIBITION OF SELECT WORKS OF FINE and INDUSTRIAL ART and SCIENTIFIC INVENTIONS —

A. Her Majesty's Commissioners for the Exhibition of 1871 announce that the first of a series of annual international exhibitions of selected works of fine and industrial art will be opened in London at South Kensington, on Monday, May 1, 1871, and be closed on Saturday, September 30, 1871.

B. The exhibitions will take place in permanent buildings, designed and erected by the Royal Commission.

C. The promoters of the exhibition will be subject to obtaining the certificate of excellence that they are of sufficient excellence to be worthy of exhibition.

D. The objects in the first exhibition will consist of the following classes, for each of which will be appointed a reporter and a separate committee:—

1. FINE ARTS.
 1. Painting of all kinds, in oil, water-colours, enamel, porcelain, &c.
 2. Sculpture in marble, wood, stone, terra cotta, metal, ivory, and other materials.
 3. Engravings, lithography, photography, &c.
 4. Architectural designs and models.
 5. Tapestries, embroideries, &c. shown for their fine art and not as manufactures.
 6. Designs for all kinds of decorative manufactures. Copies of ancient pictures, engravings, reproductions in plaster, electrotypes of ancient works of art, &c.
2. SCIENTIFIC INVENTIONS AND NEW DISCOVERIES of all kinds.
3. MANUFACTURES.
 - a. Pottery of all kinds, including that used in building, viz., earthenware, stoneware, porcelain, Parian, &c., with machinery and processes for the preparation of such manufactures.
 - b. Wool and worsted fabrics, with the raw produce and machinery for manufactures in the same.
 - c. Educational.
 1. School buildings, fittings, furniture, &c.
 2. Books, maps, globes, &c.
 3. Appliances for physical training, including toys and games.
 4. Specimens and illustrations of modes of teaching fine art, natural history, and physical science.

4. International exhibitions of new and rare plants, and of fruits, vegetables, flowers, and plants, showing specialities of cultivation, will be held by the Royal Horticultural Society in conjunction with the above exhibitions.

5. In Classes 2 and 3 producers will be permitted to send and exhibit their own works, and to be accompanied by a detailed rules applicable to each of the above classes, and lists of the separate trades engaged in the production of objects of manufacture will be issued. Special rules for horticultural exhibitions will be issued by the Royal Horticultural Society.

F. The arrangement of the objects will be according to classes, and not nationalities, as in former international exhibitions.

G. One third portion of the whole available space will be assigned absolutely to foreign exhibitors, who must obtain certificates for the admission of their objects from their respective governments. Foreign countries will appoint their own agents. The remaining two thirds of the space will be filled by objects produced either in the United Kingdom, or if produced abroad, sent to the United Kingdom, and approved of by a judge appointed by the British Exhibitors. Objects not accepted for exhibition will be removed according to the notices given, but no objects can be removed until the close of the exhibition.

H. All exhibitors or their agents, must deliver at the building, into the charge of the proper officers, the objects unpacked and ready for immediate exhibition, and free of all charges for carriage, &c.

I. Her Majesty's Commissioners will send large glass cases, etc., to the exhibitors, and except in the case of machinery, carry out the arrangement of the objects by their own officers.

J. Her Majesty's Commissioners will take the greatest possible care of all objects, but they will not hold themselves responsible for loss or damage of any kind.

K. Prizes may be attached to the objects.

The Gardeners' Chronicle.

SATURDAY, AUGUST 7, 1869.

MEETING FOR THE ENSUING WEEK. Friday, August 10—Royal Botanic Anniversary.

The modification in the Royal Horticultural Society's LONDON MEETINGS and SHOWS to be held during 1870, and to which we have on one or two occasions already adverted, has now, we learn, been definitively adopted by the Council, and will be officially announced forthwith. Virtually these changes consist in the strengthening of the fortnightly meetings, which are the most useful and prosperous of the Society's gatherings, by throwing into them the various shows held during the season, and in the abandonment of separate "shows." Moreover, since Wednesday is a more profitable day of the week than Tuesday regards visitors—the next best, indeed, to Saturday, which is objectionable on various grounds—there is to be the slight change of making the meeting day from Tuesday to Wednesday. The latter day is equally convenient to all the parties concerned, while it has the advantage over any other admissible day, at its adoption, so far as past experience enables one to judge, would help to make the winter shows pay.

These Wednesday meetings, to be held in the first or third week, or the first and third week in each month of 1870, will, as we understand, consist of such meetings as the present Tuesday meetings, supplemented by shows, some small and somewhat like the prize meetings of the present season, others larger, like the spring and other exhibitions of ordinary years. All the meetings are to be show days of a major or minor order, and no separate exhibitions are to be held, except the Provincial show, which will take place in the course of the summer. The days fixed on are the third Wednesday in January and in February, the first and third Wednesdays in each month from March to September inclusive, and the first Wednesday in October, in November, and in December. At each meeting or show some characteristic flower and fruit in season will be selected as the special feature of that meeting, and will be made the subject of certain special prizes while other seasonable objects will be grouped around them, sufficient in quantity to make up a larger or a smaller exhibition. The subjects proposed are the following—

- 10.—Forced flowers—Kitchen Apples and Pears.
- 11.—Chinese Pines—Desert Apples and Pears.
- 12.—Hyacinth and Tulips—Early and late Grapes.
- 13.—Cyclamens—Apples and Pears.
- 14.—Camellias—Greenhouses and Forced Salads.
- 15.—Pot Herbs—Forced Vegetables.
- 16.—Aucubas—Blossoms, Fruits.
- 17.—Paeonies—Figs—Strawberries.
- 18.—Rhubarb—Peaches and Nectarines.
- 19.—Orchids—Strawberries.
- 20.—Roses—Pine-apples.
- 21.—Carnations and Pinks—Cherries.
- 22.—Raspberries—Early Peaches and Plums, and Gooseberries.
- 23.—Grapes—Peaches and Nectarines.
- 24.—Dorset—Figs and Apples.
- 25.—Jesters—Early Apples and Pears.
- 26.—Fuchsias—Grapes.
- 27.—Aucubas—Desert Pears.
- 28.—Late Chrysanthemums—Desert Apples and Pears.

The changes proposed by this scheme appear to us to be steps in the right direction, inasmuch as they relieve the Society from the incubus of

operations." These in their turn may, for a similar object, and with lasting benefit, be again reduced somewhat and thinned out. Being only the second season after successful budding and removal, the capabilities of the roots and the requirements of the head are tolerably evenly balanced one with the other. And what is the result? That at this age, namely, from two to three or four years from the bud, far finer and more plentiful blossoms are produced than are ever seen afterwards upon the same trees where extreme use of the knife is resorted to, and no natural extension of the head, commensurate with and contemporaneous with the ever increasing size of the root, is permitted. Whether it be a Rose, an Elder, or any other deciduous tree, it matters not, an unreasonable amount of mutilation during the resting period must force the tree into making robust growth in the effort to right itself, and that at the expense of well-matured wood and fine flowers. The long shoots produced by standard Roses pruned upon the close principle, with inferior Roses at their apex, and the robbers, or side-shoots, which are produced at the same time, and which run away with the aid the flowers require, are patent to all, the latter especially to exhibitors of cut blooms, who know well the injury they cause, but who dare not remove them at the risk of having a dishonoured stand. The presence of suckers, whether from above or below ground, points to the same cause—violated Nature! I distinctly demur to the suggestion that, by cutting Rose-shoots down to the lower eyes, better blooms are likely to follow upon such shoots than if other eyes nearer to the apex were left.

By close observation I have come to the conclusion that those well-plumped eyes upon wood which has had all the benefit of full autumn sunshine, are equal to and, indeed, better than, those below them. Compare the abundant foliage and bloom of a moderately-pruned Madame Bonquet, Charles Lawson, or, indeed, Sénateur Vasse, with that of others close pruned! Why are Roses in the form of dwarfs and grown upon their own roots, superseding the standard on the hardest and readiest rooting stock which the world produces, but for the fact that those on their own roots are treated in a more natural manner? Was ever a standard *Gloire de Dijon*, or a Charles Lawson, or, indeed, a Marechal Niel, grown on the restricted principle, even if only six or eight flowers were produced, so good as the same sorts would be with a hundred flowers each when permitted to grow freely and naturally, and with but a moderate and reasonable amount of restriction? If we are to have standards or half-standards, let them at least be worthy objects of our skill, even if we have fewer in number. There are few who have not actually seen such objects as standard Roses enrobed in all the magnificence which liberal extension tends to develop, who will be able to form any conception of the wonderful profusion of bloom of which they are capable?

I remember reading some time since a very able article by, I believe, that excellent rosarian, Mr. Radclyffe, in which the following passage (or words to that effect) occurs—"Standard Roses should be taken up, and receive a moderate root-pruning about every third or fourth year." Now this coincides in principle with my own views. The means to the end and the effect are, however, widely different. Instead of root-pruning, or reducing the feeding capacity of the roots in proportion to the requirements of a harshly-pruned or greatly mutilated head, I would encourage every root and rootlet to the minutest spongiola! And the head should be so trained upon a suitable support or trellis (umbrella-shaped, or otherwise, according to individual fancy), that the branches, after such an amount of pruning as would tend to equalise their strength, would present to the eye the greatest surface possible, evenly balanced, and so exposed to the sun that each "eye" could push forth freely, and without being overgrown by its surroundings, and display its flowers with distinctness. The general contour would, under such circumstances, be far more beautiful and effective than the examples with which we are now habitually treated—examples which, in fact, need no skill in their production, and afford but poor illustrations of either our skill or ingenuity as experts in the culture of Rose trees. *William Earley, Digswell, Welwyn, Herts.*

FOREIGN SEEDS FOUND MIXED WITH COTTON.

[Read at the Manchester Congress, July 21, 1869.]

It is well known that with many of our imports there are introduced at the same time the seeds of foreign plants, and that some of these have germinated and become common weeds in our country. Cotton as well as other foreign produce, is a medium by which exotic plants find at least a temporary habitation with us.

All the cotton that comes into this country is contaminated more or less with various impurities, which are in some cases introduced fraudulently, and in others accidentally. If in the middle of a bale of cotton we find a number of heavy pebbles, or large lumps of seed denuded of its cotton, or layers of dusty waste, which are evidently the refuse of the cotton gin, we are fairly entitled to call them fraudulent additions to make weight. If we find a man's cap, or his knife, or even a stray box of lucifer matches, we may readily believe that such extraneous matter has found its way into the cotton by accident. Then, though the ginning of cotton, or the separating of the cotton tissue from the seed, is often conducted with great care, there is no description of it which comes to us absolutely free from cotton-seed. Some kinds of cotton are remarkable for the very large quantity of seed which is mixed with them, especially those which have the fibre adhering very firmly to the seed.

To any one interested in the botany of the cotton plant there is much information to be gathered from the investigation of these seeds, which can be found in nearly every bale. It is not, however, of cotton seeds that I am about to treat. There are still other impurities which are unavoidable. Whether by ripe cotton falling on the ground, or by means of the wind, I do not know—probably from both causes, cotton bales contain, mixed up with the fibre, an enormous quantity of seed of various kinds. Some of them are very minute, and can only be distinguished by careful observation, and many probably could not be picked out without the help of a magnifier. Others are so large that they could not have been caught up either by the wind or by the cotton falling on the ground, but must have been introduced during the process of packing, either by accident or design.

The first thing that the cotton-spinner has to do is to get rid of all such impurities as I have mentioned. For the manufacture of the finer classes of fabrics this is done with so great care that a considerable portion of fibre is wasted at the same time, and all cotton fibre is of such value that the refuse from the finer work is used in the manufacture of coarser fabrics. At last, when all available cotton has been used up, there remains a residuum, which, consisting as it does only of cotton and other seeds, soil, sand, broken-up leaves, and cotton capsules, bits of bread, feathers, bits of rag, and various other substances, is good for nothing but to be put on the land for manure. And very good manure I believe it makes, for it is readily sold at half-a-crown for a cartload, and it does not weigh heavy. In such-like refuse may be found a great number of minute seeds such as I have mentioned, and they afford much matter for thought and study to the botanist and horticulturist.

About three years ago, to my great surprise, I suddenly came upon a number of plants, some of which do not belong to our British flora, and others which, though British plants, are found only in the south, and not in this district. These plants had all sprung up from seeds out of cotton refuse which had been laid there, and also many others which are common with us.

It will be necessary for me to describe the kind of place where the refuse was thrown down. It was an odd corner, used for no other purpose than the stowing away of rubbish. The soil is clay; the surface is to some extent covered with cinders, and on that are little heaps of old bricks, slates, flags, and other useless things which are allowed to accumulate until there is a cartload or two, and are then removed. There was no vegetation excepting such as one meets with on the most barren spot, and there was no sheltering hedge-bank, tree, shrub, or bush, to afford sufficient protection for the growth of many of our commonest weeds, neither was there any water but what falls directly as rain. So there were no conditions which might be considered especially favourable to the sprouting up of a number of plants of any kind in this place, excepting the laying down of cotton refuse. Perhaps the expression laying down is not quite sufficiently descriptive. The cotton refuse was taken there in a hand-cart each day and placed in a heap, awaiting only for a few days some farmers' cart to remove it, and the plants were to be met with not so much on the actual spot where it was placed as on the ground over which it had passed, and in corners and other still places where seeds might be blown by the wind or have dropped out of the conveyance. Finding a strange plant I naturally gave the ground a good looking over, and my search was rewarded by many discoveries. One plant which was growing very abundantly was the Black Nightshade (*Solanum nigrum*). Now this, though common enough in many places, is rare in the neighbourhood of Bury, so rare that I have never either seen it or heard of it in the locality excepting now and then as a garden weed. It seems not unlikely that these occasional appearances of the Black Nightshade may be brought about by the same cause, as cotton refuse is much used by cottage gardeners for the packing of hot-beds.

Another plant which I found was the common Vervain (*Verbena officinalis*), which, though a British plant, is not known to occur in this neighbourhood. Bentham tells us that it is found "on roadsides, and in waste places, in central and southern Europe, and Asia, extending northwards into southern Sweden. Frequent in the southern counties of England, rare in the north, and in Ireland, and almost unknown in Scotland."

Another plant which appears is the narrow-leaved Pepperwort (*Lepidium ruderale*). It is a British plant, but is not a native of these parts. I again quote Bentham as to its distribution. It is found "on dry gravelly soils, waste places, on rubbish and old walls, chiefly near the sea nearly all over Europe and Russian Asia, except the extreme north. In Britain along the coast of England, from Bristol round to Norfolk, but scarcely wild inland."

Next there is the round-leaved Goosefoot (*Chenopodium polyspermum*), which has just a similar geographical distribution to the others I have mentioned. It does not grow in our neighbourhood, but is "dispersed all over Europe and Russian Asia, except the extreme north. In Britain limited to southern and central England."

There are also a few labiates, which though they may not be very uncommon within a short distance, undoubtedly sprung up in this instance from imported seeds, such as Black Horehound (*Ballota nigra*), and Pennyroyal (*Mentha Pulegium*). Then there are several composites some of them common, as Flea-bane (*Pucaria dysenterica*), and the common Bur-Marigold (*Bidens tripartita*). I have ventured to say that these plants, though common enough, arose in this instance undoubtedly from imported seed, entirely on my own authority, because the place in which they were found, and the curious way in which these speci-

mens were huddled together in a small space, coupled with the fact that to find any of them—so far as I know the district I should have to travel at least some miles, seems to preclude the probability of any other supposition.

The four plants, *Solanum nigrum*, *Verbena officinalis*, *Lepidium ruderale*, and *Chenopodium polyspermum*, each belonging to a different natural order, seem in some respects to form a little group of these plants from cotton dirt. They are all British plants. The first, *Solanum nigrum*, grows round about us, as in the sandhills at Southport and other places, but not in our own immediate neighbourhood, the other three are not plants of our locality, but have exactly the same geographical range, and probably come from the same source. I cannot say with certainty where they come from, for we have used cotton from all parts of the world, but the Black Nightshade might come from India, or any other cotton-growing country, and most of the others would probably come from India and Egypt.

I have wondered whether it was probable that the distribution of these and such-like plants would be affected by the spreading on the land of enormous quantities of cotton refuse; but it seems not, for this has been going on during several years, and we do not hear of any such additions to our flora, and we have so many observant botanists that they could scarcely have escaped notice.

Such foreign plants which are found, more or less frequently, apparently wild, have to be appropriately divided into two classes—colonists, or those which spread in their new habitat as though they were native plants, and aliens, or those which only reappear when the causes of their introduction recur. To the latter must be referred, I think most plants springing from cotton refuse. There is no species of plant which is peculiar to England, or that does not exist elsewhere. Several species seem to reach their geographical limit in the southern part of England, extending southwards into warmer climates. *R. H. Alcock, Hudear, Bury, Lancashire.*

(To be Continued.)

WEEPING ELMS.

I HAVE the pleasure of looking from my bedroom window on to my lawn, of rather considerable extent, sloping gently to the south-west (well sheltered by my neighbour's plantation of nearly a century's growth), and sprinkled with ornamental trees of my own planting. My attention for two or three weeks past has been drawn to Weeping Elms; their foliage is so abundant, and their habits so varying and graceful.

The most wildly picturesque of this group of trees is the old variety, *Ulmus montana pendula*, the Weeping Scotch Elm; this, with its large deep green leaves is very imposing and effective. Its congener is the Scampston Weeping Elm, a variety of *Ulmus montana*, but much more pendulous than the first-named; its branches, covered with grand foliage, seem to rush downwards perpendicularly, and a tree soon forms a dense circular arbour.

Ulmus rugosa pendula seems to be a hybrid between *U. montana* and *glabra*; its leaves are not so large as those of *U. montana*, but are of the same dark green and rugose nature. This is a very graceful per se tree. My specimen is about 30 years old and 30 feet in height. On the opposite side of the lawn, and some 30 or 40 yards distant, is a very fine specimen of *Ulmus glabra pendula*. This variety I imported from France many years since. My specimen is from 30 to 40 feet in height, and every shoot more or less pendulous. This tree, like the preceding, is very graceful.

My next favourite Weeping Elm is a lady among the Elms, so delicate and graceful is its foliage and habit. It is from America, and was sent over as *U. americana pendula*, although it is said by my American friend not to merit the specific name of *pendula* more than the Elms commonly planted in the New England towns and villages, as they are all pendulous.

My friend, the lamented A. J. Downing, when on a visit here some years ago, aroused my county pride by persisting that the American Elms were more gracefully pendulous than our Hertfordshire Elms (*U. glabra*), even after I had shown him those to the south of the Roydon station, Great Eastern Railway, which are very beautiful trees. It is only with a these few years that I have given way, and I now believe the American Weeping Elm to be the most beautiful and graceful of weeping trees, so different from the lumpy ungraceful nature of the Weeping Sophora or Weeping Ash. My American Weeping Elm is some 15 years old, and rather small of its age (not more than 15 feet high, as it sustained a grievous check in being removed from where it was established to its present quarters in the centre of my lawn. From the size and richness of its leaves one would think it related to *U. montana*, but their colour is such a delicate green—quite *sw generis*, and they hang on the shoots as if they were placed there by a fairy hand, and in a gentle breeze they flutter as if some young lady fairies were exercising their fingers among them. The tree is really charming.

It is very remarkable that the American Elms, or at least the kind I have, will not succeed when grafted on our English Elms. Scions from my tree have been grafted on the Scotch Elm (*U. montana*), the stock usually employed in nurseries, and on the variety of *Ulmus glabra*, called the Huntingdon Elm, to which, to judge by its light green leaves, it has some relationship. Still it will not unite to its cis-Atlantic conspecifics, and even when grafted by approach (worked) on standards of the last-mentioned kind, and suffered to remain from March, when they were grafted, till the spring following, all the scions died when detached.

There is yet another Weeping Elm deserving of mention, *Ulmus microphylla pendula*, its leaves are

rather smaller than those of the Weeping Birch, it is not quite so graceful as that lady-like tree, but, owing to its dark dense foliage, it forms a very distinct picture. My tree is probably the oldest and largest in England, and is now about 15 feet in height.

There is, perhaps, no family of trees that varies to such an extent as the Elm, there are probably but two species, both of them bearing seed freely, viz., *Ulmus montana*, which rarely varies to any great extent, and *Ulmus glabra* [campestris?], the varieties of which are endless. I cannot be present on two very remarkable varieties, one from the last-named species, called *Ulmus pyramicalis*; this has deep glossy green leaves, and grows more closely pyramidal than the Lombardy Poplar, it is of French origin, and very curious. The other is a sort received some 30 odd years ago from a Mr. Smith, a Scotch botanist, who was very industrious in collecting varieties of British plants. He sent this Elm to me under the name of *Ulmus montana pumila*. My tree is, I think, 36 years old, and it is just 36 inches in height. Nothing can show more forcibly than this tree the control of the graft over the stock, for it is growing near my specimen of *Ulmus glabra*, and is grafted on the same kind of stock, *Ulmus montana*. One is in round numbers 36 feet, and the other 36 inches, in height, both are as nearly as possible of the same age.

Diverging from Elms, I cannot pass over one of our most magnificent penitential trees, the Weeping Lime, *Tilia ba pendula*. My tree is about 20 years old, it formerly stood near my house, but its rapid growth and grand foliage encroached too much on the space allotted to it, so about 10 years since it was removed to its present site. It was a great shock, from which it is only just recovering. This kind of Lime blossoms a fortnight after the common Lime, and fills the air with its unique fragrance. *Thos Rivers*. [See an article on Elms, at p. 941, 1868, for other notable kinds. Eds.]

WHAT IS A KITCHEN GARDEN? AND WHAT SHOULD IT BE?

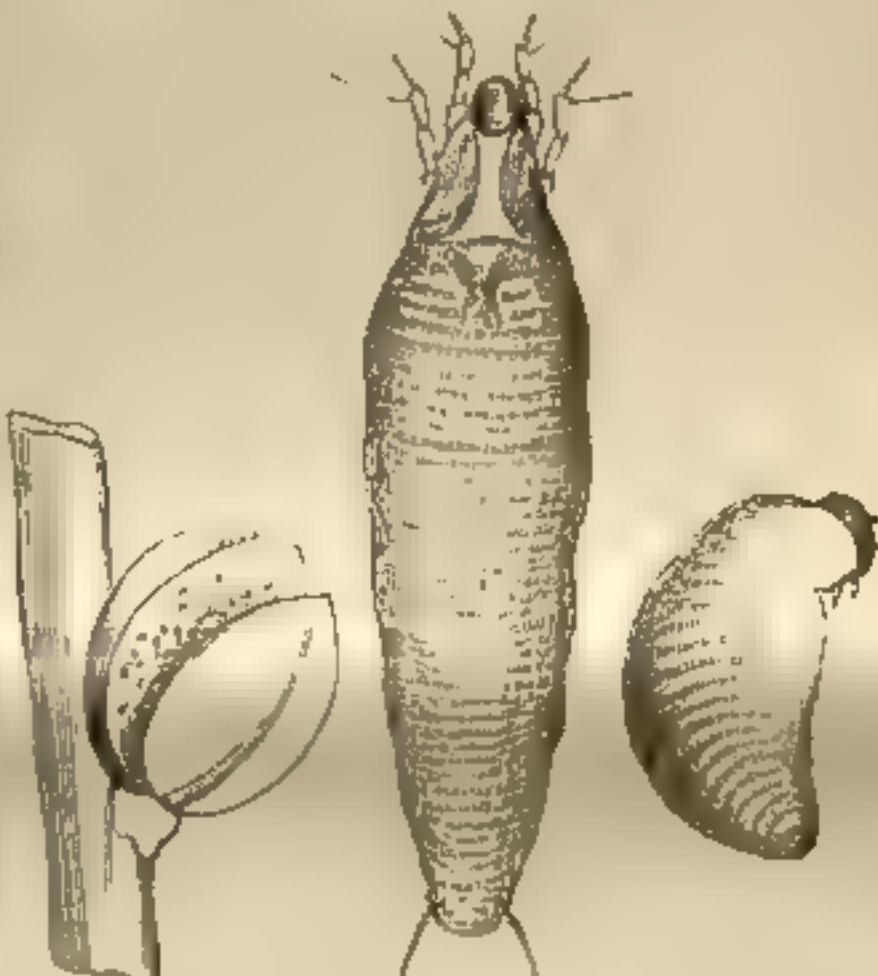
WHAT is a kitchen garden? When the word "kitchen" was first applied to a garden, did it possess the heterogeneous character it now does? Then why the word "kitchen?" Mr. Punch probably would say, "Because in it you would have a chance to get a 'mess.'" In a horticultural sense, then, is there not often found—and that, too, almost unavoidably—a "mess?" What is and has been going on in our kitchen gardens? It is to be feared in too many cases a wholesale destruction of the roots of fruit trees. But how? In preparing for our "kitchen" winter stuff, the Pear cries out against the Cabbage. By-and-by the Cabbage will cry out against the Pear. Does not the practice explain why so many reformers, and here tasteless fruit is about. Ever yearling, the root through which, perhaps more than any other roots, are conducted the fruit and flavour properties—are cut off or mangled, at the time when most wanted. And yet we have heard, with a boast, of something like this being done with impunity! Is there not also a reckless disturbance of the nature of the soil? But, my some, we give plenty of farmyard manure. What is farmyard manure when applied to the roots of fruit trees? Why, poison. And then, in winter the spades dig down again knee-deep, and layers of some strong dung are thrust about the roots, burning and destroying all the tender ones which it comes in contact with. Oh, say some, that is not for the tree, it is for the Cabbages. But the nature of the soil, I maintain, is altered and deteriorated for fruit culture. This sheltering and nursing, too, of Cabbage stuff is quite unnecessary, as may be seen in the comparison of plants grown by a market gardener, and the leggy things seen in gentlemen's gardens. Are we, in the race we have had for local display, to neglect these things?—to put all our energies in one garden, and leave things so uncomfortable in the other? Depend on it, there are many questions to be settled, many disputes to be arranged, in our "kitchen" garden.

Then, we may ask, what should be a "kitchen" garden? The shortest answer is, a garden for the growth of kitchen vegetables, and for vegetables alone, where no trees should interfere with them, nor they interfere with the trees. We have been "setting class against class," we want "reform." Events have taught us that to bring about a general reformation of any long-practised custom, an agitator is necessary among its promoters. We certainly want a new law here, to be passed and come into force at once. Let then, a "hard and fast line" be drawn, between trees and vegetables. Let the wall garden be a fruit garden, and let a vegetable garden be constructed elsewhere. But how are we to get our "things" early when the walls are gone, and we have no trees? Raised banks of earth, with slopes of the size and form and position required, would answer all the purposes of a wall without any of its drawbacks. I say "agitator, agitator." Owners of large kitchen gardens in days gone by, might have saved themselves great expense in building one-half of the ponderous garden walls we now see, if they had heard of wire netting and cheap glass, and also prevented this everlasting digging in and digging up of vegetables among fruit trees. How much better would it be to have fruit bushes or cordons in our borders—to have our quarters of Pears, Apples, &c. When once the soil was prepared and the trees planted, pruning, cleaning, and watching, would then be all they would require for many years. No see-sawer that could be kept under control should be a low wall in the fruit garden, when grown out of that proportion, if it is to live at all, let it be planted so well to divide them into sections—one a fruit section, the other a vegetable section. To those who are about to construct new gardens, I would say, build no more walls than are sufficient to enclose the amount of fruit trees desired, and provide for a vegetable garden, which might, if desired, have dwarf walls

around it for the training and nursing of young wall trees, and use wire netting above that to keep out rabbits, &c. By thus doing we should rid the kitchen garden of many evils, and have better fruit, and better vegetables. A kitchen garden would still be a kitchen garden, a vegetable garden a vegetable garden, and a fruit garden a fruit garden. *Agitator*.

CURRENT BUD DISEASE.

DURING the last five years our attention has been repeatedly directed, chiefly by Scotch correspondents to a disease with which the buds of Black Currants are infested in the spring months. The Currant buds for need of a number of scales which overlap each other, forming a compact mass, and yet within and between the scales of a single bud hundreds, if not thousands of individuals of a minute creature are developed, which derive their nourishment from the fluid matter in the fleshy portion of the scales, causing them to shrivel up, and so preventing the growth of the embryo bunch of flowers. Our woodcut represents, in the left-hand figure, a bud highly magnified, with the outer scales partially opened, showing a few of the parasites which, on an average, are not more than 1/100th of an inch in length, and 1/50th of an inch in width. The centre figure represents one of these little insects very highly magnified as seen when crawling along, and the right-hand figure represents a very young animal when lying on its side in a state of inactivity. It will be seen that the insect is of a very unusual form, being long, convex, and tapering to the extremity of the body, whilst the anterior portion is of a more conical form when the head is protruded in walking. The head is distinct and oval, but I did not succeed in making out the structure of the mouth,



speedily made their way out of the field of view of the microscope, and being so minute they could not easily be detected by the unassisted eye. The young larvae were already to be found in the buds forming for the next year's crop.

This statement is important, as it militates against the observation of "M. J. B." (*Gardener's Chronicle*, March 13, 1869, pp. 276, 322), that the little animals in March are accompanied by eggs, "and if we mistake not we see very frequently within the body of the mite an egg just ready to be protruded, accompanied by one or two others in a state of progression. The eggs are mostly obovate or broadly elliptical, and about 1/500th of an inch in diameter." We are naturally so much inclined to place full reliance on the observations of "M. J. B.," that we would suggest the possibility of the present being one of those cases in which the ordinary proceedings of insect life are departed from. Parthenogenesis has been already observed among the Acaridæ, and we now know that the young larvae of certain Coccidomyæ, or gall midges, are capable of producing fertile eggs, whilst others of the same larvæ are transformed in the usual manner into midges. Is it possible that this is a similar case of larval parthenogenesis? If, on the other hand, the creature produces eggs as a normal condition of its existence, we have now the case of a perfect Acaridæ never assuming more than two pairs of legs, and which would require for its reception not only a distinct generic name, but also a distinct section in the great family of mites.

Messrs. Duges and Turpin many years ago published the description and figure of a minute species which they had detected in the galls of the Lime and Willow trees. (*Annales des Sciences Naturelles*, 2d ser. n., pl. 114.) These have the elongated body, small sucker, with two short thick lateral palpi, and two pairs of legs, which are seven-jointed. These minute animals Duges considered to be larvae, from the paucity of legs, and he noticed their close resemblance to Tetranych, found occasionally in similar galls. He had also observed these larvae become immovable, and change into elongated chrysalids, in which the shortened body of the future Acaridæ might be observed.

Some caution will be necessary to be observed with reference to the possible species of eight-legged Acaridans, of which it might be supposed that these creatures were the young, as we have received two different full-grown Acari found in the old dried Currant buds in the autumn. One of these was a true Acarus, with the body entirely covered with very long setigerous bristles, whilst the other was a species of Koch's genus *Notaris*, with the eight legs, terminated by two very strong bent hooks or claws.

Barely infested trees ought evidently to be very closely pruned in autumn, as suggested by "M. J. B.," but we would recommend, where possible, the picking off of the old dried buds in August or September, as it is evident that the newly formed buds must become infested almost as soon as they are well developed in the early part of the autumn. Possibly a dressing of the shoots at that period with a thick coating of lime and soapuds might either prevent the females from crawling to the young buds, or the hatching of the eggs if laid in the old buds. *I. O. W.*

Home Correspondence.

Hothouse Boilers. The newly-invented boilers exhibited at the recent show of the Royal Horticultural Society held at Manchester appear to me to possess little or no superiority in regard to heating power over other boilers already in use. The vertical act on so much extolled in those of Ormson's cannot have an economical tendency, a point of fuel, but the reverse, as the products of combustion pass through in an upward course only once, then into the chimney, the philosophy of retaining the heat to the greatest possible distance seems to be lost sight of altogether. There is another new form—namely, Foster's Patent, which possesses a much better internal arrangement, carrying, as it does, the products of combustion three times through its entire length horizontally, and giving off the calorific vertically into the water-jacket, but even this design is somewhat anomalous, first from its semi-detached construction, and secondly because it is supposed to be worked without brickwork, thus allowing quite as much heat to be radiated into the stove-house as is transmitted into the pipes. We have also here a form of boiler invented by one of our best practical gardeners, which is somewhat awkward, but instead of the bricks being used as heat-retainers, they are set in such a way as to be conservators of heat, or rather reverberators of heat. The products of combustion in this case have to pass horizontally through the entire length five times, thus extracting the whole of the available heat before passing into the chimney. I have tested this boiler against a common Saddle and a Cannon boiler having the same quantity of 4-inch piping attached, and the difference in favour of the "Conservative Boiler," for it will henceforth be known under that name, is at the rate of 6 to 1 and 8 to 1 in respect of fuel.—the Saddle requiring six and the Cannon eight bushels to one for the Conservative. It is simple in construction, easily set, and will not cost more than the price of the majority of boilers at present in use. *Robert Mearns, Gr. to the Right Hon. Lord John Lubbock, Vale Royal, North Cheshire.*

Saobs at Work.—I saw the following notice some years ago at the Victoria Park, at Bath, which was effectual.—It is hoped that the public will protect what is intended for the public enjoyment." *W. F. Radcliffe.* At Canterbury a notice—"Respect the walk, it is for the public good," is singularly effective. *Eds.*

Leaf-cutting Bee.—I have to notice a nest of the leaf-cutting

which doubtless consists of a central sucker, defended on each side by an articulated palpus or feeler. Neither eyes nor antennæ were observed. Locomotion is effected by means of two pairs only of articulated legs, the penultimate point of which is furnished with a long bristle on its outer edge next to its distal extremity. The body is white and fleshy, and is covered with minute points, closely arranged in very numerous transverse rows, forming striae of granular lines, and the body is terminated on either side by a long bristle. These bristles, together with the structure of the legs, rather than the structure of the head or body, lead us to the knowledge of the tribe to which the animal belongs, namely, the Acaridæ, or mites, and apparently to the neighbourhood of the genus *Tetranych*, which includes the web-spinning species of the Lime, and also the "red spider" of the greenhouse.

A correspondent, "W. T.," writes to us from Blantyre at the beginning of July, sending specimens of the buds infested with the insects, which were sent in their original four-potted condition, and stating that the disease was quite general in that district, and had been known for 30 years, but that it is not so common as it was formerly. He states that he had examined the buds even during the period of frost and snow, and had then observed the young animals hatching from their eggs. From this statement it is evident that this creature (which differs from the great mass of the eight-legged Acaridæ in having only two instead of three pairs of legs when first hatched) retains its juvenile form for a considerable period, but at a later period (as we learn from "T. C." of Glasgow, a good microscopic observer) they acquire six legs, as was seen in specimens from old buds sent to us near the end of October, when some had two well-developed bristles at the tail. These two bristles we believe to be the rudimental fourth pair of legs, whilst another writer, "D. B." in the *West of Scotland Horticultural Magazine* for November, 1867, states that on examining some of the dried-up buds of the same season's growth still remaining on the Black Currant bushes, he had found the insects in a further state of progress. A good many of them then had three pairs of legs, some of them with a pair of stout bristles, others with several stout hairs, and some of them with two projecting appendages at the termination of the abdomen. A few were also seen with four pairs of legs, being probably another species. Both of those having two six legs and the eight legs walked very nimbly, and

and, from its ornamental foliage, the tree is worth extended cultivation. The beautiful *Hæmanthus cuneatus* was next alluded to, Mr Berkeley remarking that it was different from the species of Blood-plants from the Cape, which flowered without leaves. This, however, was said to belong to a different section, of which one, named *carnea*, was figured in the "Botanical Magazine." Mr Berkeley then alluded to several cases of monstrosity, which, had the Scientific Committee been sitting, would have been brought before that body. The first referred to was a spike of the common white Lily, known in gardens as the double white Lily. The true flower is absent, but there is in its place a large number of white bracts. Next came a Balsam, the upper leaves of which were petal-like and crowded into whorls at the end of the stem. A species of *Phlox* was then noticed as having produced a panicle of bracts instead of flowers. An *Allium*, allied to *A. vineale*, sent by Mr Lowe from Madeira, which had produced bulbous bulbs from the head instead of flowers, was then alluded to. The speaker then proceeded to show specimens of shoots from a Walnut tree in his own garden, which fruited well last year; this season the nuts had all dropped off, and the fruit-buds that should have been developed this season to produce a crop next season, have grown out into leafy shoots. The various excrescences from the spur joints of a Vine, referred to at p. 738, then came under notice, Mr Berkeley showing examples and stating that the fleshy was consisted of a much deformed and distorted web, the individual flowers of which were abortive.

Floral Committee.—Rev J Dix in the chair. This was, surprisingly speaking, a small, but none the less interesting meeting. First among the exhibitors who contributed material in a decorative point of view, were Messrs F & A. Smith, of Dulwich, who sent a large and fine collection of plants, consisting of dwarf grown specimens of the double winter of extremely beautiful colour, for which a Special Certificate was voted. The same award was also made to a very fine example of *Allamanda Hendersoni* (syn *Wardleiana*), sent by Messrs Jackson & Son, of Kingston. The specimen remarkably well grown and beautifully flowered. From the same firm also came 6 admirably grown and flowered specimens of *Fuchsia*, consisting of *Diagnastis*, *retorta*, *major*, *minor*, *Waldenii*, *Atkinsonii*, *largiflora*, *parviflora*, *strawberry*, to which a Special Certificate was given. The Messrs. Vetch also chose to exhibit a fine collection of plants, &c., which were *Atropa*, *Dorlandia*, with two very fine flowers; a lovely *Delphinium Bensoni*, *Odonoglossum Lawrencei*, and *Keatoni*, *M. tonia*, *Regnellii*, *purpurea*, and *speciosa*, the beautiful white-flowered *Burlingtonia candida*, a flowering specimen of the new *Lapageria alba*, well mixed examples of *Dracæna nigro-rubra*, and *Macleanii*, & latter a decided acquisition among the darker kinds of fine yellow-coloured specimens of *Croton maximum* and *subulifolius*, both very effective and most beautiful foliage plants. A Special Certificate was awarded. From Mr Green sent to W. W. Saunders, Esq., came a small group of very curious and extremely interesting plants, *Stenandrium*, *Stenandrium faros*, and a large specimen of *Stenandrium faros*, which were all very fine.

... and leaves, which were of a dark green colour, being covered with stiff brown hairs, while the flowers, which are small, and of a violet or brownish colour, with a streak of orange down the lip, are produced on longish, pendulous, zigzag spikes, which give to the plant a very graceful appearance. In the collection was a South African species of *Agapanthus*, remarkable for its small pale blue flowers, which have a darker blue down the middle of the segments, and a whitish-lined species of *Althea*. From Mr Bell came a small group, in which were *Calceolaria intermedia*, a graceful *Palafoxia*, with white foliage and *Geopogon Schleiperianum*, a fine, pale greenish-yellow flowered species. The former was awarded with a first class certificate the latter with a second class certificate. In the collection, was also shown in the group from Mr E.ley, gr to F. Archer, Esq., a fine well-grown specimen of a pretty free-flowering greenhouse *Passiflora*, named *Beroliti*. The splendid specimens of *Epipendrum rufum* and *Deccan-chalum filiforme*, referred to at p. 745, were noticed here in very fine condition. To Mr Laurence a special certificate was awarded for their excellent condition. To Mr Eley, gr to S. Tucker Esq., a first class Certificate was awarded for the beautiful *Passiflora*, which had a beautiful blue and orange colour flowers. Mr W. Carter, from Walden, sent a very fine group of *Holboellia*, to the award of which first class certificates were awarded. Amongst the collection of *Verbenas*, of which Thomas Hyatt, a fine specimen of *Verbenas*, a beautiful *Verbenas*, R. H. Hyatt, a fine dark shaded purple, and the Rev J Dix a fine dark coloured flower, with a deep rose eye, received first class certificates. Messrs Bell and Thorpe sent a good collection of *Stenandrium*, of various colours, one named *Single*, with a fine flower with a pale blue ground colour, the other, radiating blue and eye of purple was awarded a first class Certificate. The same award was also given to a very distinct golden *Stenandrium*, named *Verbenas*, from the same firm. To Mr S. Tucker Esq., a first class Certificate was awarded for a fine specimen of a *Passiflora*, named *Verbenas*, from the same firm. To Mr S. Tucker Esq., a first class Certificate was awarded for a fine specimen of a *Passiflora*, named *Verbenas*, from the same firm. To Mr S. Tucker Esq., a first class Certificate was awarded for a fine specimen of a *Passiflora*, named *Verbenas*, from the same firm.

Fruit Committee.—G. F. Wilson, Esq. F.R.S., in the chair. On this occasion prizes were offered for competition, in (1) Peaches, single dish from pot plants, (2) Peaches, single dish, grown on painted-out trees, under glass, (3) Peaches, single dish, from pot plants, (4) Nectarines, single dish, grown on painted-out trees, under glass, (5) Apples and Nectarines, best collection, named. The fruit exhibited was remarkably fine considering the character of the season. In class 1 the only competitor was Mr. Douglas, gr. to

F. Whitbourn, Esq., Lexford Hall, Wood, who showed a fine dish of Royal George, for which he received the 1st prize. Mr Tildery, gr. to the Duke of Portland, Wiltshire, was 1st in class 2, with very fine Early Grosse Magnonne from a tree painted out under glass. Mr Turner, Slough, was 2d, with good *Violette Hâtive*. Mr Tildery was also placed 1st in class 3 with *Early King*, but 2d in colour. From Mr Douglas came five examples of *Rivers Orange*. Mr W. Isaacs, Kingswood Warren, Epsom, also exhibited. In class 4 there was no competitor. Mr Douglas, who was the only exhibitor in class 5, showed a remarkably fine *Apple*, consisting of *Violette Hâtive*, *Beauregard*, *Royal George*, *Gauche*, and *Grosse Magnonne* Peaches, and of *Nectarines* *Lowton*, *Violette Rouge*, *Hunt's Tawny*, *Early Murray*, and *King of the Market*, all in first class condition, and for which he was awarded the 1st prize. To Messrs T. Rivers & Son, Sawbridge, worth a Special Certificate was awarded for a collection of 12 dwarf *Apple* trees. They carried a splendid crop of fruit, and were said to be only two years old, and grafted on the broad-leaved *English Paradise* stock, which was raised from seed at Sawbridge, worth from Mr G. Lee, of Clevedon near Bristol, came samples of *Lee's Pringle Black Currant*, a very fine variety, that stands shaking well. A first class Certificate was awarded to it. Mr Lamb, gr. to G. T. Davey, Esq., Colston Bassett, Bingham, Nottingham, sent two good bunches of the *Muscat Champion Grape*, fine in flavour, to which a Special Certificate was awarded. To Mr McIndoo, gr. to his Grace the Archbishop of York, a similar award was also made, for two remarkably fine bunches of *Muscat St. Laurent*, a small, round, white Grape, in the way of *Royal Muscadine*, and which was first sent out by Mr Rivers. The bunches were said to have been cut from a plant that produced 16 in a bush. Mr T. Rivers sent a splendid collection of new and other varieties of Potatoes, and very fine *White Flat Tripod* and *Roca* Italian Potatoes. A Special Certificate was awarded. Messrs. Sell & Clarke, Stratford on Avon, also sent a collection of new varieties of Potatoes. From Mr G. Cooling, of Bath, came a new early dessert *Apple*, named *Bathbrook Seedling*, which, however, was unripe. The Chairman showed some fine *Beurré Giffard* Pears, the Messrs. Rivers, good examples of *Late Purple Galko* and other varieties of *Cherries*, and a fine punnet of *Bigarreau Napoleon* *Cherries* came from Mr Turner. From the Society's garden, Chislewick, came a beautiful dish of *Mulberries*, grown in a pot, and fruited in an orchard-house.

Notices of Books.

Echoes in Plant and Flower Life By Leo H. Grindon. London Pitman Small 8vo, pp. 123.

We are somewhat at a loss how best to give the reader an idea of the contents of this little volume. The title, too, is an odd one, but considerable license may be given to the author, since he expressly tells us that his "pages do not profess to consist of anything more than memoranda and observations from a poet's point of view respecting a certain class of botanical facts." These facts the author, "unable to think of a better name," calls echoes. He means by echoes certain general superficial resemblances in habit and structure between plants whose inner organization is widely diverse. Humboldt was one of the first to allude to this subject in his "Aspects of Nature," where, in an essay on the physiognomy of parts he groups together plants under various headings, according to their outward resemblances, wholly independently of their floral organization. Thus the Palm form would include the *Pandanus*; long-leaved *Dracæna* would be placed with the *Grasses*, and so on. Dr Seemann alluded to the subject in a letter in our columns, June 27, 1868, and it is one that strikes everyone who has his eyes open to the peculiarities of plant form. Every gardener is familiar with the close resemblance between some of the succulent *Euphorbias* and the columnar *Cact.* or *Cereus*—a resemblance so close that, in the absence of flowers, it is often difficult to determine to which of the two families a particular plant belongs. If, on puncturing the stem, a milky juice exudes, the plant is a *Spurge*, while the fluid that flows from a similar wound in the *Cactus* is limpid and transparent. In point of fact, almost every large family of plants has its "succulent" representatives. There are succulent *Euphorbias* and *Jatrophas*, succulent *Composites*, fleshy *Asclepiads*, gouty *Vines* and *Pelargoniums*, hypertrophied *Apocynæ* and *Convolvulacæ*, swollen *Petalinæ*, &c. The flat, ribbon-like stem of the *Bauhinias* finds its match in the compressed stem of *Vitis planicumis*. The fleshy-rooted, near-leaved *Ceropegias*, find their parallel in some of the African *Passifloræ*, such as the *Machadon*, discovered by Dr Welwitsch. Another *Passiflorad*, discovered by Dr Welwitsch in the same district (*Bassanthe*), might readily be passed over for a *Violet*. Other South American *Passifloræ* are trees rivaling *Magnolias* in size and in the aspect of their leaves. The leaves of many *Turneræ* are all but indistinguishable from those of *Waltheria* or *Melbania*. The foliage of our British *Cruiser*, *Diploxys*, is almost precisely similar to that of the African *Waltheria*. The flowers of the labiate genus, *Oenothera*, have a striking resemblance to those of *Cerodædron*. It would be easy to multiply instances by the hundred or by the thousand of this close correspondence in superficial aspect. Mr Grindon cites many such, and these are his "echoes."

Of course, in many cases the reason for this correspondence in outward form is obvious enough. The conditions of life being similar, the results are similar. Desert plants of the most opposite families are characterized by the same aspect—the same dry, shrivelled, interlacing, spiny branches—the same sapless foliage, with roots buried at an amazing depth below the surface, burrowing, in fact, anywhere in search of water. Or it may be that the water is stored in the tissues of the plant itself, and then we get the huge gouty stems, the swollen tubers, reservoirs at once of food and water, and to which we have already alluded. Livingstone tells, in one of his books, a curious tale of the natives, in their search for the juicy tubers, thumping on the ground with their clubs to determine by the sound emitted the presence of these subterranean founts, on the same principle as a doctor thumps the chest of his unfortunate patient, to ascertain whether or no there be fluid in his chest.

Take, again, the plants of salt plains, how like they all are in outer characteristics. We see the same thing in the case of the fleshy leaves of our seaside plants, or in the submerged leaves of aquatic plants. All this is read, & understood.

So also in the case of oblique leaves and flexuose or zigzag stems, a little attention will generally show that these arrangements favour the development of the axillary bud. If the stem retained its primitive direction, or the leaf grew equally, there would be no room for the bud to develop. So, too, if the stems be weak, and unable to bear their own weight, we are not surprised to see tendrils even in plants of the most widely different character.

More marvellous still is the way in which the same end is attained by different means—the same outward appearance preserved by most different methods. Take the tendrils for instance, in all cases they are sufficiently alike to come under Mr. Grindon's appellation of "echoes," and yet how different they really are. The *Vine* tendril and that of the *Passiflower* is the altered flower-stalk, in the *Lathyrus* it is the midrib of the leaf—now it is the stipule, at another time it is an abortive branch. Here is food for a post-naturalist—good wholesome food, too, which will induce more satisfactory results than the mere idle wonderment at the resemblance between plant and plant, without the attempt to ascertain on what circumstances the resemblances depend, and how and why they exist. Mr Grindon's book would have gained an interest even for the most desultory of readers had he guided his Pegasus into these attractive pastures, and not contented himself with hovering on the outskirts, listening to the echoes, without attempting to ascertain whence they come, and how they are produced.

We have also to announce the publication of a second edition of Mr. Grieve's *History of Ornamental Foliaged Pelargoniums* (Baikwood). We have already expressed a favourable opinion of this unpretending little volume, which should be in the hands of all who take an interest in this class of plants. The additional matter comprises a list of the best varieties, and a selection from the articles relating to these plants which have appeared in our own columns, or in those of our contemporaries, since the publication of the first edition.

Florists' Flowers.

It is well to pause, as it were, at intervals, and endeavour to gather up for consideration whatever of information can be gained relative to the improvement of any particular flower, especially if it be one constantly receiving additions in the form of assumed new kinds. What, then, can be so gathered up, respecting the somewhat numerous class of *BEEDING TROPÆOLIUMS*? Much, no doubt, for the varieties of the text are co-extensive with their use. Popularly, they are divisible into four groups, and this simply for the purpose of arranging them, and not because the grouping is assumed to be scientifically correct. These four groups are included in two divisions, the one the trailing, the other the dwarf-growing kinds. This is hardly clear enough, as there are some kinds that are midway between the two, so varied are the characters the numerous garden varieties of late years assume. Under the head of trailing kinds are included the varieties of *T. majus*, and what are known as the varieties of *T. Lobbianum*, under the latter, the varieties of *Tom Thumb*, and the last new form in this section, the compactum varieties.

Since the old *Tropæolum minus* came to us from Peru, in 1593, and 100 years after, *T. majus* and its variety, *atrosangineum*, and, later still, *T. Lobbianum* from Columbia, what a most numberless "fair varieties of earth" have sprung from these Peruvian progenitors, while the old types, still among us in name, have in "the presence of perpetual change" become themselves changed into something better through the operation of that law of natural selection which, consciously or unconsciously, has raised to higher forms so many imported species of garden plants.

Perhaps, of all living men at least, Mr W. H. Dunnitt, of Dedham (now a partner in the firm of Messrs. Carter & Co.), has done most of all to improve the dwarf-growing form of the *Tropæolum*. It is supposed, probably with good reason, that what were formerly known as *Cactæus* dwarf *scabret* and dwarf *prison* *Nasturtiums*, were derived from *Tropæolum minus*, or rather from the improved form of it now found in our gardens. From these Mr Dunnitt selected *Tom Thumb*, *scarlet*, *king of Tom Thumbs*, *ruby*, and others not so well known. The three former varieties named are well known, and are of great service in the flower garden during the summer months. The last-named has a rather dwarfer and more compact habit, and produces numerous brilliant crimson flowers, the foliage being of a dark olive-green. It originated in a selection by Mr. Dunnitt from the old *T. Schultzii*, a half trailing variety of the *T. Brilliant* type. As an effective bedding kind, it was awarded a first class Certificate of merit by the Floral Committee of the Royal Horticultural Society during 1863. It comes very true from seed—in fact, all the varieties of dwarf *Nasturtiums* are to be depended on in this respect, though to secure compactness of growth, and the utmost abundance of bloom, many growers prefer to propagate the plants by cuttings in the early spring. *Crystal Palace Gem*, *Beauty*, and *Spotted Tom Thumb*, are all spotted or blotched with crimson and scarlet on a yellow ground and *Pear* has straw white flowers. Neither of these, though novel in the way, and affording a pleasant variety, can rank as effective bedding kinds, being beaten in that respect by some of the varieties of the *Tom Thumb compactum* kind, to which reference will presently be made. *Tom Thumb*

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BIRMINGHAM HORSE SHOW, 1869—The **FOURTH GREAT EXHIBITION OF HORSES, PONIES, CARRIAGES, &c.**, will be held at **Empire Hall, Broad Street, Birmingham**, on **TUESDAY, WEDNESDAY, THURSDAY, and FRIDAY, August 17, 18, 19, and 20**. The Horses will be judged on Tuesday and Wednesday. Admission, 1s. to 4s. on Tuesday, 5s. after 4 o'clock, 1s. On Wednesday, 1s. to 2s. 6d., after that hour, 1s. On Thursday and Friday, 1s. For Excursion Trains, see the Companies' Buses and Time Tables.
JOHN H. LYTHAL, Secretary.

The Agricultural Gazette.
SATURDAY, AUGUST 7, 1869.

MEETINGS FOR THE ENSUING WEEK.
 August 10—Northumberland Agricultural, at Hexham.
 11—Royal Dublin (Horse Show).
 11—Richmond Agricultural Society's Show.

The crop reports in other pages are more than usually uncertain, indefinite, and unsatisfactory. It has been much more difficult than usual to speak confidently of our harvest prospects. A mid May and June made it impossible that we should have a good Wheat crop; and, from the dry soils especially of our chief Wheat-growing districts, the reports were very gloomy. During a few hot weeks in July the appearance of the grain crops generally, however, very greatly improved, but the cold and rain which have since fallen on us have done harm. In hardly any year have we had so many second returns sent in correction of the first report, which had been more favourable than subsequent examination would allow. On the whole it will be seen that nearly half our Wheat returns state the crop to be below an average—less than half the returns report an average—and only one-tenth of our correspondents are able to state that the crop in their neighbourhood is over average. The Wheat crop, then, we can hardly doubt, must be considerably below its usual productiveness.

Of the returns of the Great crop, 80 put it as below the average, 72 declared it to be average, and 20 put it beyond an average crop. And barley, too, though our reports of it are not so favourable as those of the other grains, can hardly be pronounced an average crop. Seventy of our correspondents, indeed, do so pronounce it, but of 91 others only 31 put it as being over average, and 60 declare it to be under average. At one time promised to be a great Bean and Pea year, and probably these crops are better than we generally have them, but they have both become covered with aphid during the past few days, and neither of them will yield so well as was at one time expected.

The following is the tabular account of the reports with which our correspondents have favoured us; and we place it alongside the corresponding figures for 1868, that the great contrast, especially in the Wheat crop, may be seen.

	1868.			1869.		
	Over Average.	Average.	Under Average.	Over Average.	Average.	Under Average.
Wheat	126	67	13	18	76	85
Barley	54	145	31	51	135	61
Oats	11	168	22	11	135	50
Beans	11	17	26	80	23	23
Peas	6	79	43	8	58	63

As regards all succulent growth, we believe the country may be congratulated. There is a capital plant of both Mangel Wurzel and Swedes, and recent rains have saved much that seemed ready to die. There has been a great hay crop, and though pastures are somewhat bare just now, there is no such complaint as there was last year. The Potato crop promises to be good and healthy.

The Contagious Diseases (Animals) Bill passed through the House of Lords on Tuesday last without having undergone any change of importance. Some amendments were carried in Committee relating to the transit of cattle and the supply of food and water to them on long journeys. The clause of the Bill having reference to this subject fixed a maximum period of 30 hours as the limit of legal privation; the Bishop of GLOUCESTER endeavoured to obtain a reduction of 10 hours, without success, however,

as his amendment was negatived by a majority of 11 in a house of 69 members. Ultimately the clause was amended by the addition of words giving to the Privy Council power to fix any other maximum period not less than 12 hours. It is not quite so easy to make a practicable arrangement for the feeding and watering of cattle in transit, as persons unacquainted with the details of the subject imagine, nevertheless, it is undeniable that much unnecessary suffering is inflicted upon the unfortunate beasts which are destined to supply us with animal food, and the mitigation of their pain is worthy of the careful consideration of those whose duty it will be to carry into effect the provisions of the Bill. On Friday, July 30, EARL FEVERSHAM made an attempt to introduce a clause similar to the one which Mr. CLARE SEWELL READ failed to carry in the Commons. Lord FEVERSHAM'S proposition was to the effect that all foreign animals should be landed in defined parts of ports, and not be moved therefrom alive, excepting those animals which should be "imported from countries in which, during the previous 12 months, cattle-plague or sheep-pox shall not have existed, and through which animals shall not have passed from countries so affected." Earl DE GREY opposed the amendment, on the ground that it was inconsistent with the principle of the Bill, and on division it was lost by 56 votes against 11. On Monday last the amendments were reported, and on Tuesday the Bill was read a third time and passed, after Lord SALISBURY had made an effort to give railway companies the right to charge for disinfecting cattle trucks; this amendment was not carried.

On Wednesday the Lords' amendments were agreed to in the Commons, and in all essential points, therefore, the provisions of the Bill are determined. We are now in a position to state succinctly what are the regulations which will in future operate for good or ill upon the home and foreign cattle trade.

First, in regard to the foreign trade, which most required regulation, the provisions of the measure are based on the principle that foreign animals are healthy and may be safely imported without restriction into this country. Diseased or infected animals are looked upon as exceptional; and for the reception of animals which shall come from countries where infectious diseases prevail, or may reasonably be suspected to exist, a separate market is to be provided in a defined part of the port of London.

Power is given to the Privy Council to regulate, and if necessary prohibit, importation of certain kinds or classes of foreign animals; and when it is known that one of the largest importers of foreign stock holds the opinion that the supply of animals from Western Europe is nearly exhausted, and that we must look for an increase of trade to Central and Eastern Europe, it will be admitted that the power to prevent the landing in this country of certain kinds of foreign animals is a very necessary provision, otherwise we may in a few years have a regular cattle trade from the western shores of the Caspian Sea, the only obstacle at present being the want of railway communication with that locality.

Animals which are imported from non-infected countries will, after being passed by the Customs inspector, be treated as home stock, as cattle from Normandy, Spain, and Portugal are treated now. So far as we can understand, there is nothing in the Bill to compel the slaughter of animals from non-infected countries, or to prevent the purchaser from keeping them as store stock if he thinks proper to do so.

The principle for which agriculturists of this country have contended has been exactly reversed, they demanded a measure based on the assumption that all foreign animals are normally dangerous commodities; and they have got a measure which practically asserts all foreign stock to be normally safe, and which only provides exceptional accommodation for certain excepted classes which will occupy the position of suspected animals.

Regulations affecting the home trade have been modified, since we last alluded to them, by the introduction of an additional clause in section 57, giving the Privy Council power to make further regulations respecting foot-and-mouth complaint. As the clause originally stood it would have been quite impracticable of execution, as we pointed out, owing to the short period of incubation of the disease, and its eminently contagious nature, which together make it impossible to guarantee an animal against an attack for two days. At present the malady is

extensively prevalent among cows in the metropolis, and in many parts of the country; and cattle so frequently become affected in transit that, taking into account the requirements of the trade in the metropolis, we do not see how it is possible to restrict the movement of the cattle affected with this disease in London, at least so long as the cordon round the metropolitan district is maintained.

In respect of the other infectious diseases of which the Bill takes cognisance—cattle plague, sheep pox, pleuro-pneumonia, scab in sheep, and glanders in horses—there is no fear of animals suddenly being attacked in transit, therefore, the same difficulty does not present itself in legislating for these diseases, and no reasonable objection can be taken to the restriction which the Bill proposes to place upon the movement of animals affected with any of them. As soon as the measure becomes law, there will be a further necessity for Orders of Council defining infected countries, and for the purpose of carrying into effect certain other provisions of the Act, and we shall take an opportunity to comment upon any points which may be interesting to the agricultural community.

— At Mark Lane yesterday English Wheat advanced 1s. per quarter, in consequence of a short supply, and more money having been made in the provinces during the week.—The Metropolitan stock and meat trade is good for prime qualities; good beef makes 8d. per lb. by the carcass, and mutton something over that figure. But a large supply of foreign stock keeps inferior sorts as low as 3½d. to 4d. per lb. —Wool is slightly cheaper.

— Mr. JOHN HUDSON, late of Castle Acre, the veteran Norfolk agriculturist, died on July 26, at the house of his son-in-law, Mr. JOSEPH SEWELL, at Cirencester, Gloucestershire. He had long been known as one of the most successful practical farmers of the day—representing more strikingly, probably, than any of his contemporaries the good policy of the very "highest" farming in the interest of the tenant as well as of the landowner and the labourer. Mr. HUDSON was held in high esteem not only in his native county but throughout the English agricultural world. He served for many years on the Council of the Royal Agricultural Society, and many years ago, when three or four distinguished men were asked to speak on the several branches of English agriculture, on the occasion of Mr. HOSKYN'S paper on Agricultural Progress, read before the late PRINCE CONSORT in the room of the Society of Arts he was selected by the Society as its best living representative, to speak of the actual practice of the farmer in field, farmyard, and fold, and its wonderfully increased productiveness as the food manufacture of the country. Mr. HUDSON was born in 1794. The announcement of his death will be received with great and general regret.

— At the recent meeting of the Agricultural and Horticultural (Co-operative) Association, it was announced that during its first year the number of members had increased from 10 to 174, and the capital from 257l. to 1003l., that the sales amounted to 10,342l., and the profits (gross) to 1335l., that at the end of the second year, ended June, 1869, the members were 255, capital, 3584l., sales, 19,102l., and gross profits, 2007l.

— Mr. GIBBS, of Gilwell Park, reciting the offer of its Gold Medal by the Royal Agricultural Society of England (for the best system for drying corn and hay in wet weather sufficiently economical for practical purposes,—protests that he has already proved his system to be both practical and economical, not alone by 15 minutes of hurried experiment in the showyard, but by practical work carried out with the utmost care and accuracy in the presence of unimpeachable witnesses, and he claims to have fully earned and fairly won the offered medal. He submits that if it be withheld the Society will have forfeited all claim to the future confidence of inventors, and will have broken a public promise. The Times, defending its report of the drying machine, states that Mr. Gibbs' hot-air shed of 12 feet by 12 feet ground-floor, and fitted with 32 sheaf tubes, dried 32 wet sheaves in 15 minutes. A house of 10 times that area (measuring say 60 feet by 24 feet), with 326 sheaf-tubes injecting hot air into as many sheaves under rick-cloths in the open field, would, if drying with the same expedition, prepare for the stack 320 wet sheaves in 15 minutes, or 1280 sheaves per hour. This would be the produce of about 2 to 2½ acres of a good crop of Wheat, and would represent about the rate of performance of two pitchers and loaders working at once. A Wheat-dryer exhibited in operation actually denoting on such a scale would have demonstrated the applicability of Mr. Gibbs' system to large farms. It is to be regretted that the apparatus at Manchester was not, at least, large enough to keep one pitcher and one set of carts going. It would then have proved to everybody that the 'system' is practical. But the judges could hardly be expected to award the important Gold Medal of the Royal Agricultural Society for a process exemplified by the action of a working model that dried at the rate of 128 sheaves per hour, or only 2½ to 3 acres in a day of 12 hours. The farmer's horses and men cannot work both night and day, neither can a man of business think of pottering for five or six weeks over the carting of his corn, and it is because Mr. Gibbs' invention is so promising that we again ask him to show in actual operation a hot-blast drying sheaves as rapidly as a set of carters can bring them to

THE PRESENT APPEARANCE OF THE CROPS.

[FROM OUR OWN CORRESPONDENTS, JULY 31]

COUNTY	WHEAT.	BARLEY.	OATS.	BEANS.	PEAS.	POTATOS.	ROOT CROPS.	GRASS.	WHEN WILL HARVEST BE GENERAL?	NAME AND ADDRESS.
SCOTLAND.										
ANKFF	Good, average	Average	Under average			Fair average	Promising	Short	Middle of September	John Barclay, Brass of Fennie, by Fochabers
ABERDEEN	Fair average	Average	Fair, but light on bare soils			Very promising	Fine	Very poor	End of August	James Hamilton, Forres
	Very good	Good, except in very dry ground	Deficient			Good as yet	Very good	Poor crop	End of August	John Grigor, The Nurseries, Forres
	Average	Below average	Average			Look well	Look well	Much dried	End of August	Fochabers
	Average	Average	About average			Under average	Healthy and well	Very inferior	September 1	A. Cruickshank, Sittlyton
PERTH	Full bulk, autumn sown diseased	Over average	Short in straw	Short in straw		Promising	Full average on easy soils	Scarcely average	August 15 to 20	David Edie, Bridge of Burn, Elliothead
RYE	Rather under average	Full average	Under average	Average, but podding very bad	Average	Full average	Average	Average	End of August	John Morton, Lambie-lotham, St. Andrews
	Scarcely average	Above average	Very much under average			Average	Average	Under average	August 20	John Pitcairn, Kinward, Newburgh
	Average	Above average	Under average	Above average		Average	Average	Under average	Aug. 15 to 20	Robert Russell, Falmuir, Leven
HIRLING	Promises a full average crop	Rather below average	Considerably below average	Slightly under average		Very promising	Very good, but on clay lands almost a failure	Deficient but partially recovering	Middle of August	Wm. Drummond & Sons, Stirling
HADDINGTON	Average	Above average	Under average	Average		Promising	Very promising	Very poor	Aug. 15 to 25	George Hope, Fenton Barns, Drum
KENFREW	Above average	Average	Under average	Good		Strong and healthy	Under average and late	Very much dried up	About the end of August	George Boyd
KIRKCALDIE	Average	Full average	Above average	Full average		Average	Very late, except early sown	Far above average	About Sept. 1	Wm Orr, Seed Merchant, Both
	Scarcely average	Light	Under average	Not average		Early kinds not heavy	In great need of rain	Much burned up	August 20	And. W. Ralston, Lagg, by Ayr
PERKIE	Above average	Scarcely average	Below average			Below average	Turnips now reviving	Much burnt, hay light	Third week of August	James Lyle, Innerleithen
PERKIE & SHIRE	Above average	Above average	Under average	Average		Under average	Very promising	Has suffered from drought	About Aug. 15	John Wilson, Edington Mains, Chirnside
WIGTOWN	Average	Average but very little sown	Fair on good land	Fair		Good	Turnips very good	Very poor	End of August	A. H. McClean, Auchmeal, Stranraer
ENGLAND										
SOUTHAMPTON	Average	Under average	Very poor	Average	Average	Good	Very promising	Hay good	Aug 20 to 25	Thomas P Dods, Anick Grange, Hexham
SOUTHAMPTON	Above average in bulk	Above average	Under average	Various	Few grown	Fair	Very good indeed	Light, well got	August 16	Geo. Laing, Cornhill, Co. Stroud
CUMBERLAND	Average	Average	Much under average	Average		Good	Never more promising	Hay good, pastures burnt	August 26	Thomas Gibbons, Burnfoot, Esk, Longtown
WESTMORELAND	Over average	Under average	Under average			Over average	Turnips over average	Over average	About second week in Aug.	Jonathan Robinson, Warcop, Penrith
DURHAM	Under average	Average	Average	Good	Average	Average	Average	Over average	Last week in August	Robert Bland Dixon, Fern Bank, Darlington
	Average	Average; short breadth	Bad		Few sown	Good	Good	Good average	August 20	George Crofton, Kimblyton
	Much improved, but full one-third below average	Very light upon sandy soils, one-third below average	Short in general, but full average crop	Short in straw, but full average crop	Few sown, but full average	Very good, average crop	Very good, average crop is anticipated	Very good, well secured, one-third over average	First week in September	John G. Wainwright, Laines, Calder
	Scarcely an average	Average	Under average	Short, but well laden	Over average	Promising	Better than for several years	Meadow entirely average crop, but very well got	Last week in August	H. J. Turner, Land Agent, Richmond
	Considerably under average	Average	Under average	Good	Good	Too soon to judge	Promising	Great crops	August 15	John Coleman, Esrick Park
	Under average	Average	Various	Average		Promising	Average; want rain	Average, well got	August 15	Peter Stevenson, Rainston Thirsk
	Below average	Average	Below average	Average	Over average	Average	Promising	Average	September 1	R. Bell Layton Fields, Caldwell, Darlington
	4 bushels per acre below average	3 bushels per acre below average	12 bushels per acre below average	4 bushels per acre below average	Average crop	Light crop	Pretty well planted	Large crop upon old meadows	August 14	John Clark, Hessele, Hull
	Much improved of late, but will not be an average	Fair average	Generally light and deficient	Full average	A heavy and very good crop	Good crop	Early sown Turnips very good, those sown late upon strong lands bad	Great crop	In three weeks or a month	Samuel Wiley, Bransley
	Average	Better than last year	Good where in condition	Average	Good	Promise well, but want rain	Promise well	Has been good, but now wants wet	August 12	Thomas Taylor, Dorrington, near Pontefract
	This, one-third less than last year	Under average	Bad	Good	Good	Moderate	Promise well, if rain comes	Good	Last week in August	Brady Nicholson, Star ton Grange, Leeds
	Under average, but improved amazingly within the last few weeks	Good	Good	Good		Splendid	Want rain	Very good	End of August	William Irvine, Halifax and Lane, Kipling Cotes Farm, Beverley
	Much improved lately, average	Under average, but very much improved	Light poor crop generally	Bulky; straw not well podded	Above average	Few grown, and poor	Looking well, want rain	Very good	August 13	John and Isaac, Kipling Cotes Farm, Beverley
		Fair	Under average and short	A good crop	Good; not many grown	Good short of last year's crop	Sweedes generally healthy	Clovers bad; meadows full average	First week in September	Jas. Wilkinson Wotby,
LANCASHIRE							Mangel good	Pastures very good	May all secured in first week of August	George Storey Claxson, Bury
	Average	Under average	Had a crop			Average	Early sown late sown indifferent	Hay good, pastures suffering	Middle of August	John Claxson, Oldwick, near Claxton
CHEESHIRE	A little under average	Very little grown	About average	Fine promise, but injured	None	Moderate crop, large breadth	Fair promise	Large crop of hay	August 14	W. B. Burnham, Spital, Chester
DERBYSHIRE	Below average	Below average	Below average	Not sufficient grown to justify an opinion	Not sufficient grown to justify an opinion	Good	Suffering from drought	Good and well got	End of August	John Parkin, Idridge-hay, Wirksworth
			Average			Excellent	Very good	Never better	End of August	Benj. Swaffold, Hartington
LINCOLN	Under average	Under average	Bad			Very few grown	Very promising	Heavy	August 16	Francis Sowerby, Aylesbury Great Grimsby
	Under average	Average	Bad	Fair	Almost destroyed by fly		Good on light lands	Very good	August 20	Isaac Sharpley, Boswell, near Louth
	Full crop much damaged by storms	None grown	Full average	Full of fly	Very bad	Poor crop	Single small hold	Hay a great crop	August 16	Thomas Alderson, Decy Farm, N. Lincoln
	Average	Average	Average	Under average	Nearly a failure	Free from disease	Promising	Abundant	August 6	W. Bennett, Wotby, Folkingham
	Very small ear, and much below an average	A bad crop, much worse than last year	Very light and bad	Winter Beans a large bulk of straw, short of grain	A fair crop, but few grown in this part	At present a full crop	Turnips very promising, but in want of the Woad	A good crop, but hay not so bad	August 10	James G. Dixon, Calster
	Very various much root-fallen and storm-broken	Good a full average	Good a full average	Greatly improved, a fair average	Various, many crops attacked with aphid	Not promising many plants decaying for want of rain	Mangels a fair average, Turnips much in want of rain	Good a full average, but in want of rain	About Aug 21	John Clarke, Old Bank House, Long Sutton

* This return is made up 10 days too soon to be depended upon.

* Not so good a yield by one-third as last year.

THE PRESENT APPEARANCE OF THE CROPS—(Continued).

COUNTY.	WHEAT	BARLEY	OATS.	BEANS.	PEAS.	POTATOS	ROOT CROPS	GRASS.	WHEN WILL HARVEST BE GENERAL ?	NAME AND ADDRESS.
ENGLAND.										
LINCOLN ..	Generally good, but very backward	Very bad	Variable, but mostly very bad	Very tall, but very few pods	None	Many com-plaints of the yield, good in quality	Never knew a better prospect of a crop	Meadows have been good, and the hay is well got	The first week in September	Thomas Marris, The Chase, Ulceby
	Improved of late, and now nearly an average	A light crop	Bad	A fair crop; not well corned	Moderate	Very thin	Not average	Good crop	September 1	H Dudding, Paul-ton House, Wragby
	Rather under average, im-proved lately	Under average	On good soils average on the fens a failure	Very heavy crop	Average	Average	Very good, and growing fast	Heaviest crop ever known	August 15	W F Marshall, Brans-ton Vale
NOTTS	Broken down and rusty	Generally poor	Fair	Winter, good, spring, bad	Bad	Bad	Good	Good	August 17	Wm Cholter, Junr, South Muskham
	About average	Very light, early sown being the best	Decidedly below average	Good, but infested with fly	Much above average in-fested with fly	Pretty good, but in want of rain	Mangels average	Great crop	In three weeks	Geo H Sutcliffe, Il line Throreport
	* Average	Under average	Under average	Average (greenly)	Average (greenly)	Average, late sown bad	Turnips late	Above average	Mid-August	Charles Lancaster, Rad-ding's Hill, near South-well
LEICESTERSHIRE	† Average	Average	About average	About average	Very bad, not half a crop	Light crop	Very good	Hay crop best for years	In three weeks	George Turner, Alexton Hall
	Under average	Under average	About average	About average	Very bad, not half a crop	Light crop	Mangels good, Turnips want rain	Abundant now burning	In a fortnight	R W Crosswell, Raven-stone
	Fair; not average	Very light	Generally good, rather short	Short; toler-ably corned	....	Promising	Generally good, want rain	Good crops of hay, put together too quickly, much damaged and burned	Aug 10 to 13	Henry Smith, Sul-ton Maddock, Sluina
SHROPSHIRE ..	On liberally farmed good	More planted, but a heavy crop quite the exception	Few grown in this district, and apparently very light	Where mode-rately sown, average crop, but where a mass of stalks, indifferently podded	Tolerably good crop, and considerable breadth planted	Poor and want flavour, late ones want a soak of rain sadly	Early planted Swedes blue and unkind in appearance, for want of moisture, Mangel promising	Good crops of hay, put together too quickly, much damaged and burned	Aug 10 to 13	Henry Smith, Sul-ton Maddock, Sluina
	Wheat soils, average crop, a deal thin and bad, and decidedly under average	Average	Average	Average	Under average	Free from disease	Under average	Burning up	August 12	John Rawlings, Stoke, Tenbury
	Light crop of straw small in the ear, must be under average	Early-sown the best, but not good, late-sown very light	Very good	Very good	Blight has injured them very much the last ten days	Likely to be a small crop, for want of more rain	Early-sown very promising, but want rain	Hay secured in fine condition, full average	About middle of August	Richard Shirley, Church Stretton
	Much improved, will be an average	A good average	Very promising above average	Spicid crop of straw, but barely average	Now attacked by the greenfly	Fair crop, tubers small	In all probability very good	Very good	August 23	Evan Davies, Patton, Wenlock
	Very variable; some fields good, crop reduced a third	Promaturely ripened, a bad crop	Under average	Very good	Blighted	Good	Very good	Good	About August 3 or 4	Thomas Mansel, Ercall Park, Wellington
STAFFORDSHIRE	Under average	Generally not good	Short and under average	Few grown	Few grown	Very much	Good	Heavy hay crop	In a fortnight	W D Green, Market Drayton
	Various; in this parish probably average, in others not so	Below average, many fields spotty	Scarcely average	Spring promised well, tall blighted	Early good, late blighted	Pretty good on light soils	Early-sown good	Getting thin at bottom	Second week in August	George A May, Elford Park, Tamworth
	Under average	Two-thirds average	Average	Winter Beans good, spring Beans bad	Half average, blighted	Under average	Average	Good crop; over average	August 12	Thomas Byrd, Mytton Manor, Panbridge
HEREFORD	Much under average	Average	Good	About average	Not quite average	Good	Wanting rain badly	Hay very good	August 10	D. Edwards, Brins-court
	Below average, but improved since he past three weeks	Below average, late planted very bad	Not many grown average crop	Autumn planted an average crop	About average	Very good in quality	Greatly in need of rain	Hay good and well secured	August 0	T Dickbath, Bayshau Court, Ross
	Best land full average, on poor land very inferior, and far below average	Generally a light crop	About average	Plenty of beans, but badly podded	Very partial on some fields good for nothing	Good	Very promising with rain	Heavy hay the Grass now much burnt up	Beginning of August	Philip Turner, The Leen, Penbridge
	Inferior under average	Generally good	Average not many grown	Quite an average crop	Much blighted	Burnt up; want rain	Plenty of plants, want rain	Very good	In a fortnight or three weeks	Thomas Farmer, Frome Bishop, Bromyard
WORCESTER ...	Below average	Average	Average	Average	Average	Average	Mangels good, Swedes want rain	Hay very good, pastures burning	August 10	Charles Randall, Chad-bury, Evesham
	Much improved, but under average	Variable; supposed under average	Good; not much grown here	Winter Beans very good, spring not good	Fair	Ripening too early, but sound	Mangels promising; others wanting rain	Grass short; heavy hay	August 7 to 9	Stiles Rich, Fearnall Heath
	Variable some good, but will not bear com-parison with last year's	Early planted good late planted very indifferent	Good	Winter Beans good, spring Beans weak	On good land productive, cold land very bad	Early good, late planted small, and poor samples	Excellent, much in want of rain	Very good, and well secured	Second week in August	Joseph Matthews, Great Malvern
	Under average	Average	Average	Average	Under average	Improving	Improving, and good	Very little	August 9	Henry Hudson Wick, near Pershore
WARWICKSHIRE	Thin, weak in the straw, and scrawled	Improved by the dry weather	Very few grown	Winter, bulk badly corned, spring, blighted	Blighted, half a crop	Not many grown	Very good	Large crop, well got	August 12	Joseph Smith, Henley-in-Arden
	Some good crops, but, on the whole, light crop of straw, and ears appear small	Generally a light crop	Some good crops, but short in the straw	Not good, and covered with insects	Great many fields very bad, and covered with insects	Doubtful	Now promising	Very plentiful	Second week in August	Upton, near Nun-aton
	Very much im-proved, and the ears well de-veloped, but yield will be below average	Ripening; below average	Harvest has commenced; crop far below average	Healthy, well grown; not well corned; more than average	Good crop of Early White Peas; above average	Looking well, no disease at present	Mangels, flourishing; Swedes, early sown, flourish-ing; late-sown, patchy	Pastures plenti-ful, but were beginning to burn	Oats general this week, Aug. 10 to 20	Charles M. Caldecott, Holbrook Grange, near Rugby
	Much less than an average	Fully an average	....	A bad crop of corn	Blighted; under average	Good quality, but small	Mangels promising, Tor-ops want rain	Requires rain	August 9	John C Adkins, Milcote, Stratford-on-Avon
	Under average my own average	Not good my own fair	Inferior	Good	Bad	Promises well	Excellent	Much above average	End of August	James Ansd, Newlands, Rugby
	Not an average crop covered with another fly	Fairly planted very good, late not an average	Some very good, others short and thin	Much winter not well corned can not be a great crop	Long, in straw well corned, but smothered by green insect	Promises average crop	Mangels good, want rain.	Very large crops, and well got	Set by the middle of August	John Jackson, Loding-ton, Stratford-on-Avon
	Under average	Under average	Barely average	Average	Many failures		Want rain	Wants rain	Middle of August	J. H. Burbery, The Chase, Kenitworth
NORTHAMPTON	Considerably under average	Average	Under average	Winter good, spring-sown, bad	Early sorts, half a crop; later sorts, total failure	Good	Good plant; want rain	Very good	About August 10	J Borlase Tibbits, Dar-ton Seagrave, Katter-ting
	Good; full average	Light; under average	Much under average	Fair crops, smothered with fly	Full crops, but almost de-stroyed by fly	Light; want rain very much	Mangels bad	Abundant crops	Middle of August	J B Smeaton, Cromwell House, Naseby
	Average	Average	Under average	Above average	Almost failure	Under average	Very good	Extrn abundant	August 8	Peter Love 15, St. Gles Street, Northampton
	Under average	Average	Under average	Winter, aver age spring, under	Much blighted	Good	Good	Hay abundant	August 12	James Bartlett, Whit-field, near Brachley
HUNTINGDON ..	Barely average	Under average	Under average	Under average	Under average	Promising	Very promising	A double crop	August 9	Peter Purves, The Grove, Hampton

THE PRESENT APPEARANCE OF THE CROPS—(Continued).

COUNTY.	WHEAT	BARLEY.	OATS.	BEANS.	PEAS.	POTATOS.	ROOT CROPS.	GRASS.	WHEN WILL HARVEST BE GENERAL?	NAME AND ADDRESS.
ENGLAND.										
WILTSHIRE	A great deal blighted; about average	Various, under an average	Good quality, under an average	Winter Beans, good; spring, bad	Early Peas, fair; late, very bad	Generally good	Good, benefited by rains	The finest crop for many years	August 9	John Wallis, Park Farm, Kimbolton
WILTSHIRE	Not average, the light crops are down the worst	Below average, through wet weather	About average	Winter Beans, above average, spring, average	Below average, spoiled by fly	An inferior crop	Very good	Hay a heavy crop, and well secured	August 7 or 9	Robert Barton, Wigan Farm, St. Ives
WILTSHIRE	Affraid it will not be average	Under average	Bare average	Full average	Not average	A good crop	Good	Abundant	August 10	Samuel Jones, Christhall Grange
WILTSHIRE	Very various, some unkind, other crops heavy, generally average	About average; suffered to some extent	Various; where unharmed by wire-worm, a very full, heavy crop	Average straw, but hurt by fly	Ruined by fly	Average	Various, some crops very good indeed	A heavy crop	August 9	Alfred S. Ruston, Ayies-by House, Chatteris
WILTSHIRE	Not so good by three coombs as last year	Light land ripening unkind; not an average	Average	Average	Under average	Good; want rain very bad	Good, but want rain	Over average	About August 8	Serjeant Wallis, Granchester
WILTSHIRE	Average here, below average generally	Good, and above average	Various	Good	Very indifferent	Good at present	Good; well planted	Good	August 9	Hugh Aylmer, West Dereham Abbey
WILTSHIRE	About average	Good	Good	Average	Various	Good	Very promising	Short	August 20	William Cubitt, Ecton Abbey, North Walsham
WILTSHIRE	Average	Over average, except on inferior land	Good	Average	Early sown good		Good injured by wireworm	Very much scorched	About August 11	Thomas Moore Hudson, Castle Acre
WILTSHIRE	Under average	Fair average	Much under average	Average, but not as expected	Under average	Promising	Will be good	Fine crop, well secured	Middle to 21st August	Thos. Brown, Manor House, Southery, Downham Market
WILTSHIRE	On good mixed soil, where the land has been well farmed, it looks promising; on light soils it is falling	Looks well on land in good condition elsewhere where ripening prematurely	Very variable, but generally not looking well	....	Suffering from the fly, which has destroyed some of the late flowers	Not looking well generally	Looking well generally, but want rain	Pastures very much burnt up for want of rain	Now	Henry Woods, Morton, Thetford
WILTSHIRE	Good average	Fair average crop on cool soils	Good crop	Fair crop, improved of late	Early sown fair, late sown good for very little	Good, but small in size	Good crop; full average	Abundant crop of hay	Middle of August	W. H. Taylor, Merchant, Wymondham
WILTSHIRE	Badly set, but average	Long ears, not a strong crop	But few grown	A fair crop	A fair crop	Bad crop	Not good, too dry	Very short, and dry	August 16	George Dobbs, Lidgate
WILTSHIRE	Heavy land, above average	Very good on heavy and well-farmed lands	Scarcely any grown	Winter Beans good; spring, affected by lice	Fair crop; injured by lice	Below average	Good	Above average	August 13	T. C. Whiting, Barsham House, Beccles
WILTSHIRE	Poor light land, very bad	Over average	Few grown	....	Under average	Healthy, but small	Good plant, looks well	Has been plentiful	August 7	W. E. Bury St. Edmund's
WILTSHIRE	Upon the whole, good; improved within the past three weeks	Very fine and regular best maturing Barley in England grown in the district	....	Winter very fine, late ones suffering	Heavy crop, good sample, more tall than usual from the fly	Not largely grown, healthy and strong as yet	Mangels good, white	A good deal burnt lately	The first week in August	D. T. F., Bury St. Edmund's
WILTSHIRE	Heavy in the straw, but not average, the ears being very deficient	Beyond average plenty of straw	....	Plenty of straw, but little corn	Abundance of straw, early will hung but late not an average crop	Very good	Beyond average	Abundant, and well secured	About August 14	Saml G. Stearn, Branston, Wickham Market
WILTSHIRE	Average in quantity, but deficient in quality, owing to blight in all unsound spots	Average crop, very much improved on all heavy lands the last month	Not grown to any extent	Winter, average; spring, very much injured by lice	Early sorts, average; late, half a crop	Sound, but very small	Mangel Wurzel very good; Turnips suffering	Good	August 9	Fredk. Nunn, Rougham
WILTSHIRE	Good	Very good	....	Attacked by lice	Nearly average	No complaint	Turnips want rain	Very good hay	August 15	George Edwards, Framlingham
WILTSHIRE	On good lands, both straw and crop good; on the poor lands the wheat is light	On good lands a large crop; on the lighter soils, moderate	But few grown, not an average	Not many grown in the district	Clovers a failure, the area of Peas grown very large, about an average	But few grown, and moderate	Mangels good prospect of	Hay good, and generally secured well	August 5	G. M. Sexton, Wharstead Hall, Ipswich
WILTSHIRE	Good	Much improved, promising	Not many sown	Suffering from fly, but podded well	Very few grown	Good, and of excellent quality	Turnips good	Pastures now dry, though not bare	Next week	Henry Trethewy, Silsoe, Ampthill
WILTSHIRE	Below average	Considerably below average	Average	Winter, very good, spring, below average	Below average	Good	Good	Very good	August 8 or 10	Henry A. Bottle, Fetteshall, near Kimbolton
WILTSHIRE	Scarcely average	Average	Average	Blighted	Very bad	Good	Good	Heavy	August "	William Lavender, Biddenham
WILTSHIRE	Quite an average crop	Much below average	Scarcely any grown about here	Very good	Well planted, but very small produce	Good	Good, but want rain	Hay abundant	About Aug. 10	T. E. Pawlett, Beeston, Sandy
WILTSHIRE	Barely average	Average	Average	Under average	Under average	....	Average	....	August 9	James Ross, The Hoo Park Farm
WILTSHIRE	Probably average	Above average	Above average	Above average	....	....	Mangels good, Swedes well planted, want rain	Much above average	August 9	J. B. Lawes, Rothamsted
WILTSHIRE	About average, but some pieces mildewed, which if general must affect the yield	About average	Winter Oats above average, spring Oats under average	....	Heavy straw, affected with the green fly	....	Mangels and early Swedes generally good	Natural Grass good; Clover very light	August 7	George Webb, Beaumont Hall, Redbourn
WILTSHIRE	Improved of late, but under average	Barely average	Under average	Over average	Average	Very promising	Could not look better	Large crop; well made	In a week	John Cobban, Whitfield Berkeley
WILTSHIRE	About average; long and strong in the straw	Much improved lately, full average	Thin in many instances, but likely to yield well	....	Plenty of straw scarcely any corn	Promising, but want rain	Complaints of grub and wireworm	Pastures burnt up	August 9	Edw. Hundy, near Andoversford
WILTSHIRE	Unusually variable quality will be second-rate	Rather under average of past 7 years quality good	Under average, but few planted here	Very variable; full average, and large breadth planted	Under average; large breadth planted	Early planted good crops, late sorts unpromising	A general good plant, but stunted in growth	Hay crop good and well secured	August 9	Wm. Woodward, Ashchurch and Bredon
WILTSHIRE	Average	Average	Average	Under average	Average	Above average	Above average	Above average	August 5	Edmund Buck, Castle Hill, Cricklade
WILTSHIRE	Under average	Average	A little under average	Winter over average	Under average	Early good; late bad	Average, but suffering	Very large crop of hay	August 3	H. Scott Hayward, Procenter Court, Stoneham
WILTSHIRE	Under average	Bad	Under average	Promising	Blighted for want of rain	Good crop	Promising	Good for mowing	Beginning of August	Giles Edmunds, East-leach, Lechlade
WILTSHIRE	Under average	Under average	Under average	Over average	Under average	Very promising	Precarious	Hay abundant	Middle of Aug	Henry Pride, The Cwm, Monmouth
WILTSHIRE	Uneven and bad, excepting on good soils	Very variable, average	Under average	Good average	Average	Good	Very promising, but requires rain	Heavy crops	August 7	L. yuch Fletcher, Hardwick Hill, Chepstow
WILTSHIRE	Many fields short and uneven, scarcely equal to two-thirds of last year	Fair average, but ripening prematurely from drought	Some fields good many much below average	Middling crop, very little corn	Plenty of straw terribly blighted	Uneven crop, suffering from drought	Early sown, good later planted, want rain	Much burnt up, crop well secured	Now	Gen. Garne, Churchill Heath, Clipping Norton

* I have filled up my return for the crops, but I have little confidence in it. I never knew a season in which it was so difficult to estimate the yield. On my own farm, I have some crops as good as I could wish them to be, and some very bad indeed. I believe this is the general state of the crops in the country; and you know how difficult it is to form any estimate under these circumstances. I shall know better when I thresh my experimental crops.

THE PRESENT APPEARANCE OF THE CROPS—(Continued).

COUNTY.	WHEAT.	BARLEY.	OATS.	BEANS.	PEAS.	POTATOS.	ROOT CROPS.	GRASS.	WHEN WILL HARVEST BE GENERAL?	NAME AND ADDRESS.
ENGLAND.										
OXFORD	Under average and some blight	Average, but bad on strong land	Under average	Good	Very bad, much blighted	Sound at present	Full plant, rain wanted	Pastures require rain	August 10	Matt. Savidge, Saraden Lodge Farm, Chipping Norton
	Fair average	Under average	Average	Badly blighted	Very much blighted	Good	Very promising	Good up to the dry weather	August 2	Sam. Drice, Eynham
	Average crop	Below average	Little straw; well corned	Winter Beans, heavy; spring do., very bad	Pleanty of straw, badly blighted	Looking well	Good plant, wanting rain	Parched	Middle of Aug.	John Gillett, Oaklands, Charlbury
BUCKS	Various; not average	Full average	Light crop	Winter-sown good	Many places good	Generally good	Promising	Very good		J. Bryan, Southleigh, Witney
	Slightly below average	Much below average	Average	Above average	Average	Early, abundant	Good	Hay very abundant	August 10	W. G. Duncan, Bradwell
	Over average	Good	Spring-sown, light	Very good	Good. But few grown	Later promising	Very good	Good	In a few days	Edward Evans, Boveney Court, Woodbur
	Over average	Under average	Under average	Average	Average	Average	Under average	Over average	August 12	W. Smith, Woodston, Titchley
	Under average, blighted	Much below average	Much below average	Full straw, ill corned	Very bad	Good	Good plant, but late	A crop and a half of hay	August 9	Alexander Fraser, Claydon, Winslow
	Excellent on the good lands, thin crop on ill drained soils	Fair average	Average	Good	Good	Good	Good plant, but now going off	Large crop of hay, but no aftermath	About August 7	John K. Fowler, Prebendal Farm, Aylesbury
ESSEX	Good, if the fly has not affected it	Very good	Slightly below average	Winter very good, spring affected by fly	Good straw, short of corn	Not many grown	Mangels excellent, early Swedes good	Very heavy crop	About August 9	—, Waddesdon, Upper Winchendon
	Much improved from the spring, but varies very much, cannot be quite an average	Not generally good; it suffered from the cold and wet in the spring; 10 per cent. less than average	Generally good, but rather short	The winter kinds good, over an average the spring kinds affected by insects	The early-sown pretty good, the later ones much blighted	Planted well, but have suffered from the drought, must be a light crop	Mangels, Kohl Rabi, and Swedes well planted, the white kinds short	A great crop of hay, generally well got	August 2 to 9, according to soil	John Claydon, Littlebury, Sadron Walden
	Some very good, but many fields root-fallen and injured	Good, but not a heavy crop	Very good	Very heavy crop of straw, and fair quantity	Very much injured by aphids	Very small, except the early kinds	Very promising	Very short and dry	August 5	William Impoy, Broomfield Place, Chalmersford
	Under average	Under average	Under average	Under average	Under average	Under average	Better plant than for several years	Abundant, and well got up	August 2	Abraham Hardy, sen., Maldon
	Greatly improved since the 5th of this month	Full eared, bulky, and above average	Good average	Average	A third of a crop can only be expected	Free as yet from disease, tubers small	Mangels very promising	A full crop; tolerably well secured	Some cut already (July 30)	Henry Dixon Dorward, Hall, Wilton
	Under average	Average	Winter good, spring middling	Over average; large breadth	Over average; large breadth	Average	Good; over average	Great crop; well got	August 5	J. J. Mechi, Tigtree Hall, Kelvedon
	Average	Under average	Good	Not good	Bad, great complaints	Good; but small	Mangel good; Turnips bad	Abundant crop	About Aug. 8	A. Barfield, Dunmow
	Average	Over average	Average	Over average	Early Peas good crop	Good crop	Want rain; plant good	Over average	August 10	G. D. Badham, The Lawn, Bummer
	Root-fallen, blighted ears; much under average	Not much grown; rather a light crop	About average, but few grown	Winter open better than expected; spring much hurt	Very bad, killed by lice		Mangel pretty good	Good hay; but no after feed	About August 3 or 4	Charles Harvey, Foulness, Southend
Light land	Under average	Average	Under average	Average	Under average	Under average	Average	Good	August 2	S. W. Squier, Hoxton-on-Hill
Heavy land	Full average	Above average	Average	Above average	Under average	Under average	Average	Good	July 23	T. Mitchell, East Hill, Rainham
MIDDLESEX	Average, many blighted ears	Average	Average	Over average	Average	Looking well	Wurzels under average, Swedes planted	Over average	August 6	Thomas Hewitt, Cranford
BERKS	Average nearly	Under average	Average	Above average	Fair	Promising	Mangel	Abundant and well made	Now	E. W. Moore, Colleshill, Highworth
	Average	Much above average	Probably average	Good	Rather over average	Not much grown	Wurzels good	A good crop, carried very well	August 2	Wm. Bulstrode, Mount Farm, Cookham Dean
	An average	Over average	Over average	Average	Average	Very good	Early sown, good	Very short	August 9	J. Adams, Thatcham, near Newbury
	Very variable, many pieces very thin	On well farmed lands promises full average, but signs of blight	About average	About average	A full average	The forward planted very good, but backward very bad	Never promised better	Meadows very good	Next week	Thomas Owen, Clapton, Hungerford
	Under average	Above average	Full average	Generally good, though some light	Very various	Early planted very good, late planted short	Swedes patchy; all others very good	Good Clovers and Grasses, but burning up now	About August 10 or 12	Martin Hope, Saltham, Reading
	About average	Average	Average	Barely average	Average	Fair	Good plant where sown early	First crop pretty good, second indifferent	August 2	William Dawe, Southridge Farm, Pangbourne
	Under average	Scarcely an average	Average	Average	Average	Average, no complaint	Plant good, but requires rain	Clover light; Sainfoin and meadows good	July 28	James Hulbert, Stratford, near Reading
WILTS	Average	Over average	Over average	Average	Average	Good	Mangel good	Average	August 2	James Rawlence, Hungerford, Wilton, Salisbury
	Deficient ear, thin on ground	Good average	Partial, not a good average	Winter Beans not good	Good	Promising for a crop	Fine plant	Promising, but want rain	10 days	George Brown, Calne
	Not average in the county generally	Not average in the county generally	Above average	Above average	....	Average	Good	Hay crop above average	August 5	Cyrus Combes, Draining and Irrigating Engineer, near, &c., Tisbury
	Various; nearly an average	Average	Various; barely average	About average	Under average	Early ones a fair crop	Early sown promising	Over average, but little aftermath	August 8	Thomas Arkell, Pen Hill, Swindon
	Full average	Early Barleys very fine	Over average	Over average	Average	Very good	Starting afresh	Over average	August 10	J. A. Williams, Baydon
	Greatly improved since the 1st of August	Average	Early sown good others very inferior	Good	Good	Small crop	Have done well, considering the late drought	Wanting rain	Early in August	R. Stratton, Burdett, Swinlon
SOMERSET	Under average	Average	Good, but short			Good	Good plant	Over average	August 10	John B. Collins, Dulverton
	5 bushels per acre under average	Nearly average	A little under average	Average		Fair crop; diseased	Mangel Wurzel good; Swedes wanting rain	Good crop of hay, pastures beginning to burn	August 5	Walter Farthing, Stoney Court, Bridgwater
KENT	Loy Wheats on best lands not one-third of an average; the worst crop of wheat for many years	Very various; some very good may be average	Over average	Great breadth over average	Various; under average	Excellent quality	Excellent plant, want rain	Greatest crop for many years	August 9	Robert Mason, Wingham
	Average in later districts	Various; some good fields	Barely average	None grown	Average crop	Looking well	Generally good, and kindly	Good crop	August 15	Mark Sandford, Martin, near Dover
	Below average	Above average	Above average	Winter Beans good, spring inferior	On the whole an average	Present appearance good	Mangel and Swedes good	The hay crop heavy	About Aug. 8	Wm. Manser, St. Peter's, near Margate
SURREY	Average	Average	Under average	Winter good, spring poor	Early good; late blighted	Diseased in places	Mangel very good; affected by drought	Meadow good; Clover light	August 2	Edw. Hilder, Woking

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Paul & Son's Roses Now in Bloom.

PAUL AND SON, The Old Nurseries, Cheshunt, invite inspection of the ROSES, GLADIOLI, HOLLEHOEK, TREES, and other articles...

Choice Seeds for Present Sowing

Table listing various seeds such as WILLIAMS, POLAKIA, and others with prices per bushel.

Direct from the Growers, the most Effectual Means of Preventing Disappointment.

PAUL AND SON'S SEED GROWERS, deliver their best-grown seeds, from the harvest, to all parts of the Kingdom...

included some among what Mr. BRIGHT called 'the most respectable firms.' It is but fair, however, to say that these firms ultimately withdrew their objections...

NATPIN, indeed, says, that it is not only very productive, but is excellent when cooked, provided it be gathered before the envelop of the seeds becomes hard. M. J. B.

A correspondent has been good enough to forward us an AERIAL grown in water in a bottle that has been tightly corked. The effect has been that from the sides of the main root, as also from the stem, a quantity of white root-like processes have been formed...

We have had submitted to our inspection by Messrs. DICK, RAINEY & CO. a specimen of a CHARCOAL FLOWER-POT introduced by them. The theory is that the porous qualities of the charcoal, and its power of absorbing deleterious gases, will be serviceable in the growth of plants.

At the Botanic Garden, Ghent, under the charge of M. VAN HILDEBRANDT, a fine plant of VICTORIA REGIA, in order to ascertain what weight the leaf of the plant would support...

WE learn from Hamburg that the INTERNATIONAL HORTICULTURAL EXHIBITION is so entirely successful as regard entries, as to threaten to overflow the limits which had been assigned to it.

FOREIGN SEEDS FOUND MIXED WITH COTTON.

(Seed of the Manchester Congress, July 21, 1869.) (Continued from p. 840.)

THE three Claytonia—perfoliata, albinoides, and sibirica—seem to be spreading rapidly, having, no doubt, in the first instance escaped from gardens...

In addition to these plants which, though they may be found in the southern parts of England, do not appear in the mainland, to say nothing of the northern counties...

There were many other plants the names of which I was unable to determine. One was a species of Anemone...

These plants, as I have before said, spring from seeds which have come mixed with cotton from all parts of the world, and being scattered indiscriminately on the ground...

One frequent find is the seeds of various Palm trees, and of many Grasses. I think it is not quite certain that it was in Madras...

There appear to be, taking all the seeds or plants I have seen, a great number of species of Cucurbitaceae...

The Gardeners' Chronicle. SATURDAY, AUGUST 14, 1869.

MEETINGS FOR THE ENSUING WEEK. Royal Horticultural Society, Fruit and Flora. Aug. 17. Comm. Trees at South Kensington. Hort. Soc. Meeting. Aug. 17.

LINKS to the courtesy of our correspondents are enabled to present our readers with a report on the condition of the FRUIT CROPS the present season. The large number of acres, and the wide area from which they are gathered, will serve to a very great extent to counterbalance the inevitable shortcomings of a statement. Our report is amply full enough to show the general condition of the crops throughout the country...

are happy to be able to announce that the ADULTERATION BILL received the Royal Assent on Wednesday last. A few amendments were made in the Bill in its passage through the House of Lords, but in principle and in substance the Bill remains in the state in which it passed the Commons. The Bill will not come into operation till May 1, 1870, nevertheless, for the sake of their reputation already put to a considerable strain, we trust that we shall not hear this autumn of the purchase or sale by seed dealers of any more seed "such as you use." It will be remembered that this Bill has been promoted by itself, and much as we may regret that it has not yet been passed, we may at least congratulate them heartily on their present success. Of course there were many who at first objected to the Bill, and did what they could to thwart its progress, and these, too,

CONDITION OF THE FRUIT CROPS—(Continued).

COUNTY.	APRICOTS.	APPLES.	PEARS.	PLUMS.	STRAW-BERRIES.	CHERRIES.	PEACHES AND NECTARINES.	FIGS.	SMALL FRUITS.	NUTS.	NAME AND ADDRESS.
NORTHERN COUNTIES. YORKSHIRE....	Scarcely any, there was a good show of bloom, but small birds picked nearly all off	A fair sprinkling; no Keswicks	Good crop on walls, espaliers, and standards	Good crop of kitchen sorts, none on some trees, mostly owing to birds, late in coming, picking off the flowers	Very abundant crop, and large, rather late in coming in at first	Good crop on walls and standards	Very good crop	....	Abundant and good of all kinds	Wood and Filberts loaded; Walnuts scarce	William Denning, Grimston Tadcaster
	Good show of bloom, but a poor crop	Scarcely any	About half a crop		Plenty set, but suffered from drought	Very fair crop	Generally speaking, very few	Plenty	Abundance of all kinds, excepting Raspberries	Abundant crop	John Nicholson, Mount St John, Thirsk
	...	Very thin crop, suffered from late frosts	Medium crop on walls, standards below average	Moderate crop suffered from late frosts	Light crop; late, suffered from drought	Thin crop, dropped their fruit before ripe	Moderate crop	Plentiful	Currents plentiful, but small; Gooseberries very partial, Raspberries small	Good crop	Robert C. Kingdon, Brantingham Thorpe, Brough
	Very scarce	A fall crop	Moderate crop	A failure	Abundant on plants which were forced last year	Good crop on young trees	Early fine; late a failure	Good inside	Currents middling; Gooseberries very fine crop	Good crop	J. Simpson, Wortley Hall, Sheffield
LANCASHIRE.	A failure; all the blossom killed with early frosts	A fair crop of some kinds; young wood much injured with fly and mildew	A good crop of most kinds	Scarce; trees much infested with fly and spider	An abundant crop of all kinds, British Queen has done remarkably well here	A good crop of Morellos, other kinds scarce	A complete failure, all the fruit killed by the frosty nights in March	A good crop	Raspberries, Gooseberries, and Currants in great abundance.	Filberts and wood Nuts very plentiful	John Giffon, Bretton Hall, Wakefield
	Half crop	Good crops	Good crops	Less than half crop	Very good	Very good	Less than quarter of crop	None grown out-of-doors	Good crops, all of them	None grown	James Frosting Knowley
	None	Good	Early Pears (good) late middling	Very poor	Sir C. Napier, none. Keens' seedling, fair crop	May Duke and Morello, good; other sorts only middling	None grown outside	..	Abundant crop, especially Black Currants and Gooseberries	Very good	J. R. Pugh, Garden, Mackay Hall, Manchester
	Almost a failure	Very fair crop; in some places heavy, others rather thin	Common hardy varieties, a good crop, tender choice sorts, moderate; in some instances failure	Moderate	Generally good	Moderate; Morellos very good	Moderate in some places, below the average in general	Not grown in the open air	Gooseberries very abundant, Currants moderate, Raspberries below the average		F. Green, Bush Hall Gardens, Warrington
CHESHIRE ...	Next to none	Great crop many trees require thinning	Very good crop	An average crop	Almost a failure	Excellent crop	Almost a failure	Not grown out-of-doors	Very heavy crops	Very heavy, both cultivated and in the hedges	W. Muir, Oaks Park
	A very abundant crop	Very heavy crops generally, a few trees under the average	Good on walls, and plentiful generally on standards	Above an average, Damsons very plentiful	Not very good, either in size or abundance of crop	Ordinary kinds not plentiful, Kentish and Morellos very abundant	Very few on outdoor trees, and less than usual in orchard-houses	....	Abundant; but Currants, particularly Black, much attacked by aphides	More plentiful than for many years	W. Whitaker, Crook Hall
	Very few	Early kinds, very few, late, about half a crop	Average crop	Good crop	Much bloom killed by late frosts	Average crop		..	Good crop	Abundant	Allen, Withington Hall Gardens
SURREYSHIRE ..	Few	Kitchen, very poor crops; dessert, a few. Ribstone trees very much blighted	Tolerably good, but backward	Very few of any kind except Damsons	Indifferent	No dessert kinds; Morellos are tolerably good	A sprinkling	Thin, and dropping	Not to be complained of	Filberts and common, remarkably good; Walnuts very thin	J. Pearson, Ebbw, Bawley
	Very poor crops	Partial crops crumpled	Fair crop	Damsons, abundant on light soils, Plums, middling	Abundant here, but only partial in the neighbourhood	Fair average many dropped when stoning	....	Good crops, but they scarcely ever ripen	Gooseberries and Currants abundant, but very much affected with honeydew and insects	Plentiful, Walnuts not so good	D. Judd, Hawkeston
	A good crop here, under a rough plate-glass coping	A good crop on trees on the Paradise stock, very scarce in orchard	Good crop on walls, and dwarf standards on Quince stocks fruit small	Below average	Good in places, not good with us	Good crop generally	A good crop under a coping of rough plate-glass	A good crop, but fruits drop off	Gooseberries, Currants, and Raspberries, abundant	Walnuts all dropped off, Filberts abundant	C. G. Halston, Oswestry
MIDLAND COUNTIES. STAFFORDSHIRE	Fair crop	Scarce	Good crop	Light	Under average	Moderate crop	Failure	Fine crop under glass	Gooseberries and Currants, abundant crop, Raspberries, scarce	Plentiful	J. Ballingall, Drayton Manor, Tamworth
	Almost a total failure	Much below average	Fair crop	Generally below average	Good	Very few dessert varieties Morellos about half crop	Very bad, mildew and aphid has been very troublesome	Not at all satisfactory out-of-doors	Good	Marvellous crops, never seen anything approaching it before	Edwin Simpson, Wrottesley, Warrington
	Too cold a climate for them	Good crops in some situations	Poor crop	Very indifferent, trees bloomed well, but set badly	Very poor crop, from the effects of last dry summer	Poor crop	Only one Nectarine tree grown on south wall, which has a very large crop		Currants very good largest crop of Gooseberries we ever had, Raspberries a moderate crop		John Sherratt, Kerpersley Gardens
	A very thin crop in this neighbourhood	Average crop, the Keswick very much blighted; other varieties look very well	Excellent crop; Williams' Bon Chretien, extraordinary	Very scarce, with the exception of the Wine-sour and Damson	A very good crop and fine quality, nearly over	Average crop; look promising; free from black fly		Very thin; scarcely any	Currants and Gooseberries, an excellent crop; Red and White Currants, blighted a little	Filberts and Cob Nuts are a good crop	Sutton, Collyer
NOTTS	Very scarce owing to the cool weather of March and April	A very good crop, but small	Good average crop	Very good crops	A poor crop here, but better on heavy soils	Very good	A complete failure	Good crops where the trees are protected in winter	Very good crop altho with honey dew	Immense crops	James Tegg, the Gardens, Juxon
	Very thin crop	Fair average crop	A fine crop protected the bloom with the common Brake Fern	Good on wall; scarcely any on standards	Abundant crop, and fine fruit	Good crop	A fine crop, protected from spring frosts by old herring netting	Not grown outside, plentiful under glass	Plentiful	Filberts and Cobs, heavy crop, Walnuts, a thin crop	John Cope, the Gardens, Berry Hill, Mansfield
	Very scarce, flowered well, but will not set	Average crop; many varieties scarcely any	Some varieties heavy crop, others very thin	Plentiful, Damsons very heavy	Good average crop, very late and soon over	Plentiful	A complete failure; trees flowered well, but did not set	Not much grown	Plentiful; Red and White	Very plentiful	William Shank, Hal.
LEICESTERSHIRE	Very few in this district	About half a crop	Some sorts have very heavy crops, while other kinds have none	Very scarce, not the sixth part of a crop	About the fourth part of a crop	A large crop, of fine quality	Complete failure, hardly any	About half a crop	Currants very much blighted A very good crop with the exception of Raspberries, which did not set well	Filberts, the largest crop I ever saw	Montgomery, the Hall, Ashby-de-la-Zouch

CONDITION OF THE FRUIT CROPS—(Continued).

COUNTY.	APRICOTS.	APPLES.	PEARS.	PLUMS.	STRAW-BERRIES.	CHERRIES.	PEACHES AND NECTARINES.	FIGS.	SMALL FRUITS.	NUTS.	NAME AND ADDRESS.
MIDLAND COUNTIES.											
LEICESTER SHIRE	Total failure: less from the direct action of frost than from pro-ludged cold and sunless weather	Very thin; trees blighted, favourable exceptions as to fruit are Herefordshire Pearmain, Frogmore Seedling, and Irish Nonpareil	Good crops of Jargonelle, Knight's Monarch, Marie Louise, Beurré d'Espéren, B. Rance, Louise Bonne of Jersey, Williams Bon Chretien, others thin	Abundant crop of the Victoria, medium of Golden Drop this or a failure in the case of most other sorts	Tolerably abundant, but not particularly fine, quality good President, Sir C Napier, Sir J Paxton, Frogmore Pine, good and prolific	May Duke and Morello on walls, a fair crop; standard trees, no crop	Very much blighted and blistered; crop thin	Promise of a large crop	Raspberries and Currants, abundant, Gooseberries, moderately good crop	Great crop	William Ingram, Bevoir Castle, Grantham
NORTHAMPTONSHIRE	Half our trees good crops, the other thin	Very few here or in the county	Good crop, both on walls and standards	Very few here	Good crops, but not so large as usual	Morello, good crop; other sorts not grown much	Half our trees good crop, other half very thin crop	Very few	Good crops	Not grown here	Emanuel Sage, Gos-sail Hall, Atherstone
NOTLAND-SHIRE	Quarter crop	Failure; scarcely any	Half crop on standards; thin on walls	Good half crop	Quarter crop	Abundant, both Morello and dessert kinds	Very few	Good crop	Gooseberries and Currants very plentiful, Raspberries a fair crop	Extraordinary good crop	R. Gilbert, Kitchen Gardens, Burgh-le-Marsh, Stamford
NOTLAND-SHIRE	Very few	Scarce	Average crop on walls, scarcely any on standards	Below average	Not quite an average	Abundant, both Morello and dessert kinds	Very few	Good crop	Gooseberries and Currants very plentiful, Raspberries a fair crop	Abundant	John Brown, Rockingham Castle
NOTLAND-SHIRE	Failure	Failure	Half a crop	Failure	Half a crop	Good crop		Half a crop	Failure in Gooseberries and Currants, Raspberries fair	Walnuts a failure; great crop of others	M. Hull, Ayton Gardens, Uppingham
NOTLAND-SHIRE	Fine crop of Morepark, Royal a complete failure, although all protected with the same protection, but a scarce crop in general in this neighbourhood	Abundant, and the trees healthy	On walls a fine crop, but was protected with hexagon netting, standards only a few left, the nights being so cold	Green-gages abundant on south-west walls east walls none	All sorts excellent crop; but quite a fortnight latter than usual	Fair crop on south walls; Morello most excellent on north walls, and very large	Only a few where well protected; trees looking very healthy at present	Abundant, and I never remember the trees looking so vigorous	All sorts an extremely fine crop, much better than is generally the case	Filberts the largest crop ever known; Walnuts about one-third of a crop, the nights being so extremely cold throughout June	James Stewart, Nuneham Park, Abingdon
NOTLAND-SHIRE	Under average, but very fine	Under average	Very abundant, but small	Very few	Fair average, good late crop	Good	None out-of-doors, trees much blighted	Very few	Abundant and very fine	Never saw such a heavy crop	W. Lee, Henheim, Woodstock
WARWICK SHIRE	Hardly medium	Fair crop; trees much blighted	Very good	Fair crop	Fair crop	Very good	Failure	Too late	Very plentiful	Filberts plentiful, no Walnuts	S. Elworthy, Stoneleigh Abbey, Kenilworth
WARWICK SHIRE	Very thin	Much under average generally	In localities there are some	Very thin	Good, but soon over	Average crop	A failure out-of-doors	There are some	Very plentiful	Plentiful	William Miller, Cosbe Abbey Gardens, near Coventry.
EASTERN COUNTIES											
INCOLNSHIRE	Not all a crop, but very early	Very good crop on pyramids and espallers, light in orchards	Fine crop on pyramids, required much thinning, on walls, average and good	Average on walls, light standards, Damsons good crop	Fine crop of large fruit	Under average	Very good crop some trees required thinning	Under average	Currants, Gooseberries, Raspberries, and all small fruits abundant	Filberts and Cobs very fine crop, Walnuts scarce	George B. Tillyard, The Gardens, Brooklooby Park
INCOLNSHIRE	A good crop where protected, other wise a failure	A very poor crop	A fair crop on most varieties	Standards a failure, a fair crop on walls where protected	A fair crop of some varieties	A poor crop; Morello a fair crop	A complete failure	A fair crop	An abundant crop	An extraordinary crop of Filberts	David Lonsden, Blackholm Hall, Skeaford
SUFFOLK	Very few	Small and partial crop	Average crop of the hardy sorts	Very few	Below average	Plentiful	Very few	Abundant	Very plentiful	Very plentiful	William Carmichael, Sandringham
SUFFOLK	Almost a failure; a few in patches	About one-third of a crop the fruit very small	Good crop on the wall trees	All but a failure	Half a crop	Half a crop	Complete failure, although well protected with nets	Had crop out-of-doors	Currants average crop, Gooseberries, half a crop, Raspberries, fair crop	Filberts most abundant crop, Walnuts very bad	Wm. Smythe, The Gardens, Elmham Hall
ESSEX	Very short crop	About one-third of a crop	Moderate crop, a great many set that did not swell	Very moderate crop, with the exception of Damsons very scarce	Almost a failure I never saw so few	With the exception of Morello a very poor crop	Very few	A good crop	Gooseberries, Currants, and Raspberries good	Filberts and other Nuts very abundant	Geo Young, Audley End, Saffron Walden
ESSEX	Total failure	Partial crop	Below average	Very scarce	A good crop here, but poor in the district	A fair crop, very few grown here	Total failure	Failure	An average crop, Black Currants poor	Very fine crop	Alexander Crauford, Thorndon Gardens, Brentwood
SUFFOLK	Scarcely any; cut off by the May frosts, trees healthy	Average on pyramids and espallers, scanty in orchards	Nearly an average on walls and pyramids	Very thin, generally scarce	Below average, the plants suffered from last year's drought	Average	Total failure from imperfect development of blossom more than spring frosts	Good, later than usual	Gooseberries and Currants plentiful, with the exception of Black, deficient; Raspberries scarcely an average	Extraordinary crop of Filberts; Walnuts below average	D. T. Fish, Hardwick, Bury St Edmunds
SUFFOLK	Fair crop; trees suffering from the excessive heat of last season	Crops small, trees blighted and suffering for want of rain	Very heavy on Pear stock	Fair crop; trees suffering from fly	Good on deep, trenched land plants killed last season on shallow soils	Heavy crop, but trees much infested with black-fly	Poor crop; trees suffered from the scorching sun of last season	Good show, but three parts of crop have fallen off	Most abundant bushes badly infested with aphides	Heavy crop	J. Sheppard, Wol-verstone Park
SUFFOLK	Failure	Fair crop here, a very light crop in this neighbourhood	Average crop trees clean and healthy	A light crop; Damsons plentiful	Not half a crop, and the fruit small	A good crop; Morello abundant	In orchard house and on walls almost a failure	A full crop, both in houses and on walls	Plentiful and good	Most abundant	Thomas Blair, Shrubland Park
SUFFOLK	A somewhat light crop, but the fruit is large, and of fine quality	A light crop, but the fruit promises to be fine	A very good crop, and the fruit promising to be fine	Very light, especially the Green-gage variety	Plentiful, but of short duration on account of the drought	Morello on walls plentiful; other sorts in orchard houses fair crop	A failure on open walls, and also in orchard houses	Promising to be a fair crop	Black, Red, and White Currants plentiful; Raspberries very light crop	All sorts exceedingly abundant	P. Griev, Culford, Bury St Edmunds
SOUTHERN COUNTIES.											
HERFORDSHIRE	Scarce	Under average	Average crop	Scarce	Plenty	Plenty	A failure on the walls	Not many grown	Plenty	Very plentiful	Alexander McKay, Woburn Abbey
HERFORDSHIRE	...	About half a crop	Good average crop	Scarcely any	Under average	Average crop	Very few	Very few	Abundance of each sort	Very great crop	John Cadger, Luton Roo Gardens
HERFORDSHIRE	Complete failure, owing to the cold weather in March	Very good crop on bush trees grafted on Paradise stocks; scarce in orchards	Middling crop	Half a crop	Very fair crop	Early sorts rather scarce, Morello very heavy crop	Failure, owing to the cold rain with high wind while in bloom	Very fair crop	Plentiful	Very good	D. Cunningham, Moor Park Gardens, Rickmansworth
HERFORDSHIRE	Scarcely any	Middling crop	Very good crop fruit likely to be fine	Very poor crop, fruit keep dropping off	Good crop	Very good crop	Very few, scarcely worth naming	Very good crop	Good crop	Very abundant crop	George Sage, Ashridge Gardens, Berkhamstead

CONDITION OF THE FRUIT CROPS—(Continued).

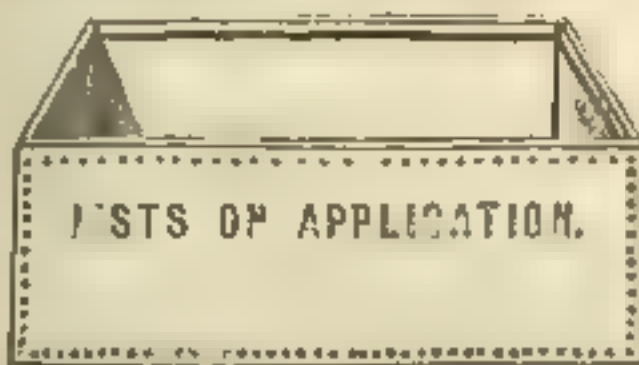
COUNTY.	APRICOTS.	APPLES.	PEARS.	PLUMS.	STRAW BERRIES.	CHERRIES.	PEACHES AND NECTARINES.	FIGS.	SMALL FRUITS.	NUTS.	NAME AND ADDRESS.
SOUTHERN COUNTIES.											
HERTS	Partial crop; on Kaisha and Moor Park there is a fair crop	Fair crop on espaliers and dwarf trees, on standards very thin	Average crop, both on walls and pyramids	Good crop of Damsons and Victoria Plums; all other varieties very thin	About half a crop, the severe frosts at the end of May killing all the first bloom	May Duke and Bigarreau thin on all aspects, Morellos good crop and very fine	Generally thin, one or two sorts swelling off a fair crop	..	Currents and Gooseberries abundant and good, Raspberries abundant but small	Walnuts thin, Filberts and Hazel Nuts very plentiful	Richard Buffet, Brockcott Hall, Welwyn
	Very scarce	Plentiful in places, but partial	Generally, but not universally, good and plentiful	Scarce; more on standards and pyramids than on walls	Indifferent; best where watered last year	Abundant	Very scarce	Plentiful	Abundant	Very abundant	William Paul, Waltham Cross
HUCKS	Very thin crop	About half a crop, have fallen off very much lately	Fine crop on walls, but few on standards	Victoria on standards very fine, but few on walls of any sort	Very fine here, but not generally in this neighbourhood	Good crop	Very few, the worst crop I have known here for the last 30 years	Good crop	Very fine and abundant	Great crop	Thomas Bailey, Shardloes Garden, Amersham
	..	Very light crop; in places none	In places none	..	In places very few; on heavy land a fair crop	Thin	..	Very few	Heavy crops, but very small on poor soils	Very plentiful	Phillip Frost, Dropmore
MIDDLESEX	None	Plentiful	Plentiful	..	..	Plentiful	Very thin	Thin	Plentiful	Average crop	J. Peel, Carbridge House, Twickenham
	Very scarce	Very partial; most abundant on small trees	Very abundant and fine	Scarce in general, Danyer's Victoria very heavily cropped	Under average; very late, and soon over	Good crop	Total failures	..	Very abundant and good	Enormous crop	A. F. Barron, Chiswick
	..	Not an average crop	Fair average	..	Fair average	None on walls; fair average on standards	..	Not an average crop	Gooseberries not average, Currants plentiful	..	R. Hamerson, Feham Palace
	Complete failure, whether protected or not, all seem to have suffered alike	Fully an average crop, likely to swell off well	More than average, a really good crop; swelling off beautifully	Considerably under average, but enough for the usual consumption	Growing crop of good fruit bearing season shorter than usual, through excessive drought	More than average, fruit good in all respects	Like Apricots, a complete failure out-of-doors	Very fair crop; likely to finish off well	Most abundant crop of good fruit; bushes clean, save with a few exceptions	Truly a most wonderful crop; trees literally loaded, Walnuts a complete failure	John Edlington, Wrotham Park, Barnet
BESKS	Very scarce, the greater portion fed just before coming to maturity	A thin crop generally	Fine crop of all kinds, very healthy, and free from spot	Thin crop, fruit still dropping	Generally a light crop, and fruit small; Sir J. Paxton, J. Powell, and Cockcomb, the best here	Heavy crop, of good quality	Very thin crop	..	Good average crop	Filberts plentiful, and Walnuts in abundance	H. Rose, Royal Gardens, Frogmore, Windsor
	None; trees that were covered in spring and those left exposed all alike	Average crop	Average crop	Very light crop	Light crop, fruit small and deficient in flavour	Average crop	Very few, none on most of those protected, and those left exposed all alike	Very light crop	Gooseberries, partial Red and White Currants, average, Black Currants, very heavy	..	Charles Ross, Welford Park, Newbury
BURBURY . . . . .	..	Partial crop	On walls, moderate; on standards, short	Very short	Short; Viscountesse Herbert de Thury produced the best supply	Moderate	Good crops	..	Good Gooseberries, Currants, and Raspberries	Prodigious crops	James Drevett, The Gardens, Denbigh
	None, trees making good wood	Very good	Fair crop	Moderate on walls, none on standards	Very inferior	Very good	Very poor crop	Moderate	Good crop off	Very plentiful	William Whalley, Addington Park
KENT	Almost a total failure	Greatly below a fair average, some few trees are well loaded, but the greatest portion are a failure	Fair average crop, but rather small at present	Great failure, very abundant set of fruit, but nearly all dropped off before reaching the stoning point	Scarcely half a crop, the frost at the end of May killed a good portion of the blossoms	Fair average crop of some sorts, the finer kinds of Bigarreau fall off at the stoning point	Nectarines, total failure, Peaches, almost the same	Abundant	Gooseberries, fair crop, but drop very much, Red Currants and White below the average; Black Currants, good	Abundant	John Cox, Heddesford Gardens, Penshurst
	..	Crop very short, condition good	Crop and condition good, full average	Scarce	..	Medium crop condition middling	..	..	..	Excellent; everywhere abundant	J. Aitken, Sittingbourne
	..	Fourth of a crop	Half a crop	Half a crop	Fourth of a crop	Third under average	Under fourth of a crop	Half a crop	Full average crop	Full average crop	J. H. Bifrons, Canterbury
	..	Very thin about our district, not a quarter of a crop	Very plentiful in some districts	Very short crop, but Damsons are rather better	The crop has been thin and very small in this district	The crop has been middling but very poor	The crop of wall fruit in this district is very bad	..	Middling	Very plentiful	James Chapman, Beering Manor
SUSSEX	Partial	Average, but small	Under average	Under average	Good crops, deficient in flavour	Plentiful	Very few	Plentiful	Gooseberries abundant; Red and White Currants under average, Raspberries good	Fair crop	T. Jack, Battle Abbey Gardens
	Half crop trees very healthy	An average crop, but very irregular	Heavy crop	Good crop on walls, very thin on standards	Not so fine as usual, owing to frost in May and June	Good average crop	Very thin, trees healthy	Wall trees a fair crop, standards very thin	Very plentiful and good	Filberts very thin, common Nuts abundant	John Wilson, Arundel Castle Gardens
HAMPSHIRE	Very few; a failure generally	Fall crop, small	Enormous crop, and promise well	Very good	Average, well flavoured	Generally good, Morellos very large	Almost a complete failure	Medium	Good crop of all kinds	Heavy crop; Walnuts also good	W. Wildsmith, Hookfield Place
WILTSHIRE	None, blossoms all off, although protected	Much under average	Rather plentiful, later varieties the best	Quite a failure	Plentiful, and good in quality	An average crop	Quite a failure both in orchard house and on walls	An average for our situation, which is not good for Figs	Abundance of all kinds, and very good	Very plentiful	A. Johnson, Saversake Forest
	Not half a crop, but fruit fine	Generally bad	Tender varieties bad, hardier sorts good crop	None, with the exception of trees on north walls	Generally pretty good, especially late varieties	Like sorts good	None except when well protected	Plentiful	Abundant	Very abundant	William Scarswood, Bowood
	Failure	Failure	Very good	Scarcely average	Average, but small	Very good	Very scarce	Promising well, but late	Very good	More than average	John Goode, Melchet Court
DORSETSHIRE	Very scarce	Table fruit, and also orchard or cider fruit, very scarce	Much below average fruit dropping after set, from severe cold winds	Very indifferent crop	Good crop with us, but small, many or most places a failure	With us below average	Out-of-doors complete failure, with us in orchard-houses abundant	Fair in orchard-houses	Gooseberries and Currants abundant, Raspberries also plentiful and good	Good crop in hedges, copses, &c.	Henry Munro, Cleavelands, Lynton, Regis
	A good few set, but they fell off afterwards	Thinnest crop seen about here for many years	Thin, but have some good Marie Louise, Passe Colmar Swans Egg, &c.	Wall fruit generally thin, on some standards an average crop	Came in plentifully, but did not last long for want of moisture	Average	Failure all round	Few	Gooseberries Red and White, Currants, average, Black Currants thin, Raspberries plentiful at first	Average	T. C. Elliott, Melbury House Gardens, Dorchester
	..	Very bad crop	Very good	Very bad	First rate	Very fair	Very few	..	Never were better	..	W. F. Radclyffe, Okford Fitzpines

CONDITION OF THE FRUIT CROPS—(Continued).

COUNTY	APRICOTS	APPLES	PEARS	PLUMS	STRAWBERRIES	CHERRIES	PEACHES AND NECTARINES	FIGS	SMALL FRUITS	NUTS	NAME AND ADDRESS
WESTERN COUNTIES.											
WORCESTER-SHIRE	Under average, partial.	Under average, late sorts beat	Under average, late sorts beat	Under average	Very good average	Scarce	Scarce	Abundant crop	Abundant crop of all kinds	Heavy crops	G Westland, Witley Court
	Very scarce: not more than one-fourth an average crop	Average crop in some orchards very heavy trees generally healthy	Good kinds, a partial crop, perry Pears abundant	Crop light on walls, best on standards	Generally a light crop, and soon over	Very good, Morellos fine and abundant	Almost a complete failure, the fruit drops very much in stoning	Very light; not nearly so good as last year	Fine and abundant, bushes generally very clean	Great crop of copplee Nuts and Filberts. Walnuts a partial crop	Wm Cox, Madresfield Court
	Very light crop	Fair crop on the whole	Best kinds are light, common kinds good	Best kinds on walls are a light crop; Damsons a partial crop. Not many	Fair crop	Fair crop	Very light crop		Abundant crops	Very heavy crop	John Wyke, Shakenhurst Hall Gardens, Bewdley
	....	Very good	Half crop	Poor crop	Good	Fair crop	None outdoors. In orchard houses a very partial crop; outdoors none	Good on some trees. Fair average crop	Very great crop. Gooseberries abundant; also Currants and Raspberries, but all deficient in size	Extra crop	D. Mackie, Hagley Hall Gardens. William Dodds, Ash-ton Court
HEREFORD-SHIRE	Much below an average, but heavy crops where glass coping is used	In some places very good, others much below the average	Much below average	Poor crop	Much under average	May Dukes and Morellos an average; other sorts poor crop	In orchard houses a very partial crop; outdoors none	Fair average crop	Gooseberries abundant; also Currants and Raspberries, but all deficient in size	....	W. Ham Hallett, Cossington, Bridgwater
	Not abundant	Scarcely any in some parts	In some places plentiful	Very few	Not abundant on an average	A fair crop	Very scarce	Pentiful in some parts, but near ripe	Currants and Gooseberries very good crops	More than usual	Robert Begbie, Biston
GLoucestershire	Scarce	Average crop in some orchards, garden sorts under average	Standards good, walls not half a crop especially. Here average crop, but very small	Failure	Poor crop; fruit small, soon over	Morellos good crop	Failure; trees much blighted in spring	Good crop out-of-doors, but falling off owing to drought, very good in houses	Gooseberries under average, Red Currants plentiful, but Black and White sorts thin	Very few Walnuts or Filberts	Alexander Aytou, Oxton House, Kenon
	Scarcely any	About half a crop, fruit small	Average crop, fruit also small	Poor crop in general, good on south aspects	Keons Seedling middling, other sorts a failure	Moderate crop	On walls very few indoor Peaches have been good and plentiful. Almost a failure	Under average	Rather under average, fruit small	Excellent crop, and of good size	George Erskine, Lupton, Brixham. Alexander Craib, Tortworth Court, Wotton under Edge
	An abundant blossom crop a complete failure	About one-fourth of a crop, the early kinds are more productive	Nearly a full crop, fruit small sized, and of a stunted growth	An abundant blossom, fruit almost a complete failure	Abundant fruit in all	On walls nearly a failure, the May Duke on standards a full crop	An abundant blossom crop a complete failure	Moderate crop	Gooseberries scarce, Red Currants abundant. Black, moderate Raspberries half a crop	A heavy crop more abundant than for several years past	A. Mc Naughton, Badminton. Samuel Wells, H. J. M. Luy
HEREFORD-SHIRE	A poor crop in a cold house	About half a crop in orchards	Good, standards setting their fruit better than the same sorts on walls	Very few Damsons good	Not a full crop	Not a full crop. Morellos good	....	Moderate crop	Abundant and good	Large crop	William Browne, South Court Gardens, Loominster
	....	Fair crop	Good crop	Very scarce	Moderate crop	Plentiful	....	Moderate crop	Good	Filberts abundant. Walnuts partial	Richard Lynch, Port Edot
	....	Very good, much fuller of during the dry weather	An abundant crop, walls and capsters	Very few; blossoms destroyed by late spring frost	Heavy crop, and of good quality	Dessert kinds average. Morellos very good	Scarcely any, blossoms cut off by frost	Not an average crop	Raspberries, Gooseberries, and Red and White Currants average; Black do, very heavy crop, fine	Filberts and Walnuts light	H. M. Keys, Penryn
GLoucestershire	Very few grown out-of-doors	Reports vary, but may safely say full average crop, taking the country through	Average crop on walls; standards very thin, except the Chaumontel, which are abundant on the Juice stock Good	A failure; very few in gardens orchards were scarcely ever known to have so few	A very short crop, partly owing to the dry weather we have experienced	Fair crop of all kinds	Peaches in some places quite a failure. Nectarines better, but not a crop of either anywhere	An average crop, but will be late in ripening	Gooseberries much under average, some places a failure; Raspberries plenty, also Currants	The common, on hedgerows and woods, are under average	George Brown, Powis Castle Gardens, Welshpool
	....	Good	Good	Half a crop	Good	Good	Not fourth of crop	Average	Half a crop	Fourth of a crop	Geo. Browne, Chirk Castle, Chirk
GLoucestershire	Good, requiring much thinning	Above an average on walls; rather under on pyramids	Remarkably abundant on standards, a fair average on walls	Rather under an average, the result of spring frosts	Very good, especially Morellos and Kentish, other varieties under average	Plentiful	A total failure on open walls set well, but all dropped	Below an average	Gooseberries, Currants, and Raspberries most abundant	Enormous crops this season	P. Middleton, Wynnstay, Rhua-bon
GLoucestershire	About a third of a crop	Plentiful	An extra large crop	Very indifferent out crop	Abundant, but small	Plentiful	Very few—in fact, many places none. Complete failure; in some instances a sprinkling	Few grown out-of-doors in this district. Promise fairly	Fair crop	Abundant crop	J. Eliam Bodorgan
	Average analysis of crops in 14, failure, only a sprinkling	Nearly a full average, but small	Good average, but small	Thin, and very variable, Damsons good crop	Fair crop, some instances a failure	Excellent crops	Very few—in fact, many places none. Complete failure; in some instances a sprinkling	Few grown out-of-doors in this district. Promise fairly	Raspberries, Black Currants, Red Currants, Gooseberries, all excellent crops	Trees and bushes are laden, above average	J. Eliam Bodorgan
GLoucestershire	Good crops under glass without fire heat	Plentiful, but fruit mostly small	Generally a light crop	Very few	Very light crop	Average crop of Morellos	....	Very few	Plentiful, black Currants very fine	....	Thomas Young, Slebeck Park, Haverfordwest
GLoucestershire	Very scarce	Good crops	Good crops	Good crops on a south wall, but none in other situations	Good late crops such as the Elton Pine	Good crop of Morellos	Very scarce	None grown on the open walls	Good crops of Raspberries, Red and Black Currants, also Gooseberries	Good crops	J. Ticehurst, Dynevor Castle, Llandilo
GLoucestershire	....	One fourth of a crop	Full average, fruit very clear	Very few, except Victorias	Very bad	Very few, not many grown	One-fourth of a crop, many places none	Do not do well in open air	Currants and Gooseberries average; Raspberries heavy crop	Walnuts none; Cob Nuts and common Nuts heavy crops	J. Ticehurst, Dynevor Castle, Llandilo
GLoucestershire	....	Moderate crop	Very good	Moderate crop	Very good and fine	Very good	....	....	Very good and fine	....	Thomas Young, Slebeck Park, Haverfordwest
IRELAND. WATERFORD	All killed with the hard frost of March 12, trees being wet from the previous days rain	Very few mostly destroyed by the severe frosts	Average on walls none on standards	None, early ones killed in March, late sorts in May	Nearly all destroyed by frost; early kinds now bearing a second crop	Same as Plums	Very scarce and late	Very light crop, and late	Gooseberries and Currants under average and inferior Raspberries average	Filberts very few, Walnuts, none	J. A. Carraghmore
IRELAND. WICKLOW	Scarce, in some gardens none. It is not set well, either with or without protection	One third of a crop, what there is will be good	Average crop, size good and promise well	Light crop half of the trees with none	Good crop, size small quality first-rate, very soon over, owing to the dry weather	Fair crop size good quality first rate	Scarce, in many places not destroyed by severe weather in May	Average crop	Currants, Gooseberries, Raspberries good crop	Good crop and size	M. Dunn, Powerscourt Gardens
IRELAND. WICKLOW	Bad	Bad	Good	Bad	Bad	Bad	Good	Good	Good

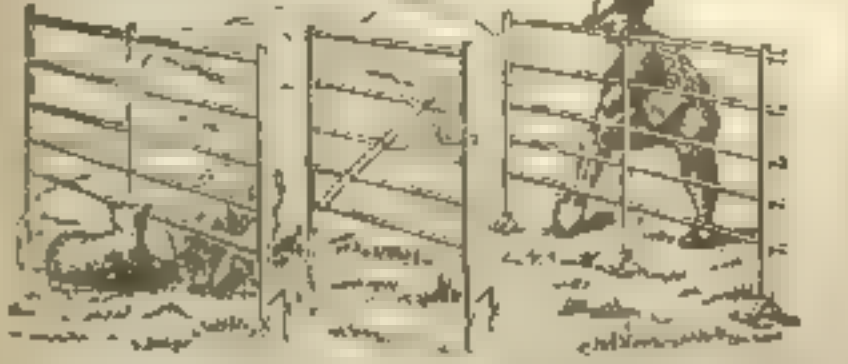
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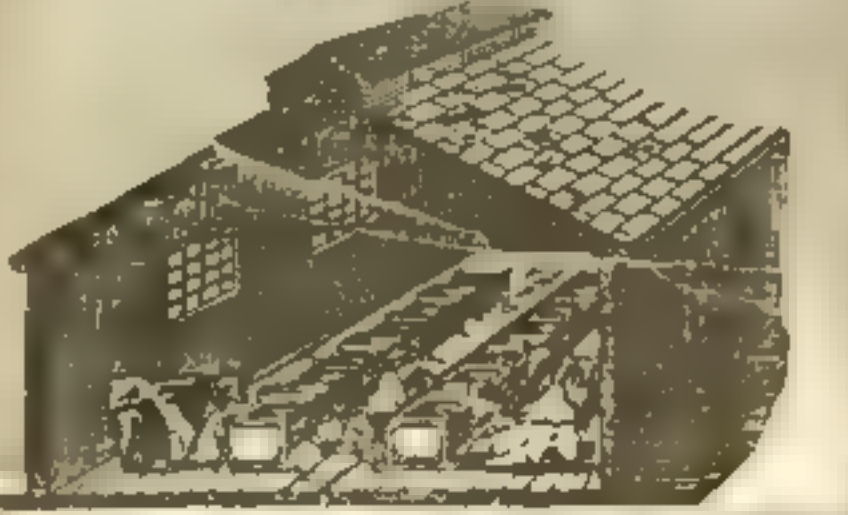
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1867;** Gold and Silver Medals, Havre, 1865, and was, after
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NANT for **CATTLE DISEASES,** and all other Infectious
Diseases, and was specially recommended by the Royal Veterinary
College, London. It is therefore to be promptly used
in all Farms where the present disease is either prevailing or
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STAFFORDSHIRE AGRICULTURAL SOCIETY.—
The next SHOW at BURTON NURENT SEPT. 22.
Liberal Prizes offered for horses hatched the year. Open to
general Competition. ENTRIES CLOSE AUGUST 21.
Prize Lists and Forms of Entry are now ready, and may be had on
application to the Secretary, Mr. W.M. TOMKINSON, Newcastle.

BIRMINGHAM HORSE SHOW, 1869.—The
FOURTH GREAT EXHIBITION OF HORSES, PONIES,
CARRIAGES, &c., will be held in Bingley Hall, Broad Street,
Birmingham, on **TUESDAY, WEDNESDAY, THURSDAY,** and
FRIDAY, August 17, 18, 19, and 20.
The Horses will be judged on Tuesday and Wednesday. Admission
from 9 to 4 on Tuesday, 5s.; after 4 o'clock, 1s. On Wednesday,
from 9 to 2, 2s. 6d., after that hour, 1s. On Thursday and Friday, 1s.
For Excursion Trains, see the Circulars in the Times Tables.
JOHN A. TOMKINSON, Secretary.

The Agricultural Gazette.
SATURDAY, AUGUST 14, 1869.

MEETINGS FOR THE ENSUING WEEK
August 17 } Midland Counties Horse Show at Birmingham.
August 20 }
August 21 }
22—Ragley Agricultural and Poultry Show

As soon as the Royal sign-manual was attached to the Contagious Diseases (Animals) Act, the Lords of the Privy Council were called upon to commence the exercise of the very considerable powers which the measure confers in relation to the importation and regulation of the movement of stock.

The Act, as we explained in our last article, leaves undetermined some very important points. These have been decided by the provisions of two Orders of Council which were gazetted on Wednesday last—one a General Order, the other containing additional and special clauses for the ports. Together with the Act, these two Orders must be read with care, and the effect of the Act is to be ascertained from the Orders. The Orders, which were issued by the Act of 1869 revoked, and at this moment there is practically nothing in force except the Act and the two Orders dated August 10, 1869. The further Orders, which have been republished, defining the ports, are merely repetitions of the former definitions of certain spaces within which cattle may be landed, and do not affect the general laws for the regulation of movement of home and foreign stock.

In our last article we adverted to the fact of the Bill being based on the idea that foreign cattle are normally safe commodities, and that only in exceptional instances and in the case of certain classes are restrictions necessary. On this principle the several Orders of August 10 enumerate certain countries which are to be treated as infected places. In the schedule to the Orders we find the following places, all of which are either countries of transit or localities where cattle plague has a frequent existence—
1. Dominions of the Emperor of Russia, 2. The Austrian Hungarian Empire, 3. States of the North German Confederation; 4. Dominions of the Sultan; 5. Dominions of the King of Italy, 6. The Papal States; 7. Belgium, 8. Netherlands, 9. The Dominions of the King of the Netherlands, 10. Cattle and other animals, imported from Russia, Austria and its provinces, Prussia, Italy, Rome, Belgium, Holland and Greece, must therefore be landed in a defined part of a port, and be slaughtered within 10 days. In the case of the metropolis all these classes of animals will be removed, as at present, by rail from the defined parts of the port of London to the metropolitan market, and be permitted to move within the area of the metropolis, until the proposed foreign market for London is built for their reception, when the cordon round the metropolis will be removed.

From all countries, except those named in the schedule, animals may be imported under the following conditions, which are necessary to prevent contact with any of the infected classes—
The ship in which they are conveyed must not touch during its voyage at any of the interdicted ports, and the owners are required to give proof that for three months previously no animals from the excepted countries have been on board the vessel; the animals must next be landed in a

defined part of a port, and they will not be allowed to depart from the landing place until the Customs inspector has certified that they are not affected with a contagious or infectious disease. These conditions having been complied with, the animals "cease to be deemed foreign animals," that is to say, they may be moved to any part of the country, and otherwise dealt with as home-bred stock. If, however, they are found to be affected with a contagious disease, they are to be dealt with as the Customs may direct. This may be interpreted to mean they will either be slaughtered on the landing place, or sent into a defined part, which will amount to the same thing; and this fate will be shared by all the animals of the cargo in which the disease is detected. Under the operation of this provision, animals brought from France, Spain, Portugal, Denmark, Norway, Sweden, or other non-excepted country, if found on arrival to be healthy, will be free to move in any direction; but, should a single case of mouth-and-foot disease, for example, be discovered, the whole cargo will be condemned.

English breeders will be perhaps disposed to inquire, what is to be done in the not impossible event of foreign animals which have an infectious disease in the incubatory stage, and therefore not apparent to the observation of the inspector? Naturally these animals will be passed, and will "cease to be deemed foreign animals;" and equally certain it is that, if the purchaser, instead of slaughtering, places them upon his farm without previously subjecting them to quarantine, the disease will manifest itself to the injury of the other stock. The imported animals which have "ceased to be deemed foreign animals" will now be under the law which regulates the movement of home stock.

In reference to infectious diseases of animals at home, including glanders in horses, cattle plague, pleuro-pneumonia, mouth-and-foot disease, scab and sheep pox, the General Order provides that "every person having in his possession or under his charge" an animal so affected, shall give notice to a policeman, and the constables required to give notice to the inspector appointed by the local authority. If the inspector find a contagious disease among animals in his district, it is his duty to communicate all information respecting it to the Privy Council week by week, so long as the disease continues. Compulsory slaughter of diseased animals is only provided for in the case of cattle plague; but animals affected with other contagious diseases are not to be sent to fairs or market, or in any way exposed in public places where they may come in contact with other animals, this prohibition is practically an injunction against the removal of them from premises where they are attacked.

The Metropolitan Order makes a single necessary exception in favour of animals becoming affected, as they commonly are, with mouth-and-foot disease, in lairs near the metropolitan market, or in the market, animals so attacked may be moved by licence to a slaughter-house named in the licence, but not elsewhere; for example, cattle which are attacked with mouth-and-foot disease in the lairs at Islington on Sunday cannot be exposed for sale in the market on Monday, but must be sent direct to a slaughter-house. No doubt can be entertained that the enforcement of this law will tend to arrest the progress of mouth-and-foot complaint, which is now so prevalent, but considerable inconvenience will attend the carrying out of the regulations, and we expect to hear some strong expressions of opinion respecting the interference with trade. If, however, the attempt to eradicate infectious diseases of animals is to be anything more than a sham, some amount of hardship must be endured.

Former regulations respecting the movement of animals by railway through the metropolis, and the removal of cattle out of the metropolis, under licence of the Board of Works, are contained in the Metropolitan Order, but the clauses which most concern the agriculturist are those which relate to the importation of animals and the discovery and prevention of infectious and contagious diseases.

The omission of the much desired clause for a general foreign market for all imported stock will not have the effect of prejudicing the farmers of this kingdom against the most complete and effective measure upon the subject of animal diseases which ever passed through the Legislature; if the representatives of the agricul-

tural interest have not gained all they demanded, they have at least achieved all that was of present possible attainment.

No one writes with greater power or influence upon agricultural progress than Mr SMITH, of Woolston. The future of arable farming depends very much upon the increasing use of steam-power for tillage purposes. And no one has done more than he to promote this great agricultural improvement, or to convince farmers by his own experience that it is a practical and profitable thing. His last letter on the subject appeared in the Times the other day, and we reproduce it here. It appears that in his clay country farmers are making money. Mr SMITH himself is buying land, his neighbour Mr WHITWORTH, of Willen, is also buying land. The farm practices of the two is here contrasted and though the cases do not seem exactly parallel, yet it is worth while to read the lesson, which the contrast gives to Mr SMITH, and which he would pass on to us.

"It is a fact," he says, "that I am now harvesting my 14th crop under steam culture.

"It is a fact that Nos. 1 and 4 heavy lands are Beans growing on seed-beds costing only 7s. 3d. an acre, that they are strong in straw well corned, free from fly or blight, and ripening well, unlike many a crop now growing upon shallow horse-worked land, that may be seen to be weak in straw, full of fly, and dying a premature death.

"It is a fact that my Nos. 2 and 3 heavy land are Wheat growing on seed-beds costing only 6s. 6d. an acre that they are strong in straw, full of corn and ripen well, together they are the best I ever had on this land in my life.

"It is a fact that these four fields will give me an average of full 40 bushels per acre and it is a fact that under horse culture (having a good fallow every fourth year) they did not average over 20 bushels per acre, one year with another.

"The next fact to be looked to is, what do our best farmers on such soils get now-a-days under horse culture? Mr. WHITWORTH, of Willen, a mile from here, is a good farmer under horse culture. He occupies three farms—one where he lives, one at Woughton, only a mile from here, and one at Mursley, about six miles from here. To prove that he is a good farmer, let me tell you that he has made money by farming. Two years ago he bought with his own money the Woughton farm for over 1000. He need not say any more upon that point. On his Woughton farm he has six fields of ploughed land exactly in character with my heavy land on the same hill, and within a mile of it. This year three of his fields are Wheat, one Beans, one Vetches, fed on and fallowed for next year, and the other Clover, fed on, and is now being fallowed for next year. The worth of this feed for sheep, after paying all the expenses for seeding and shepherding, is but a mere trifle. I estimate it at 3s. per acre. Now, then, for the produce on the three fields of Wheat and one of Beans it is not over 35 bushels per acre, or from an acre of each added together only 140 bushels. When, divided by six to spread the 140 bushels over the six fields, we find the average to be only 23. bushels per acre, to which must be added 1s. 6d. as a share of the value after payment of expenses, for sheep-keep on the two fields of Vetches and Clover. I do not ask Mr. WHITWORTH'S permission to make this statement, but I state it openly and fearlessly on behalf of steam culture against the best horse culture. Let him or any other man pull me back in the correctness of it, if he can. I know that it is true, and I mean that the world shall know it. Had I taken had farming for my comparison the average would have been less than 20 bushels with 1s. 6d. for sheep-keep to be added per acre against my 40 bushels per acre.

"I ask you to publish these few facts to help me to open the eyes of the landlords and farmers of England as to the use and value of steam-power to culture, and, in addition to what I have stated above, I will state here that my light-land crops are excellent, without troubling you with particulars.

"I might have stated another fact, that this heavy land of mine always needed four good horses to plough it from 5 to 6 inches deep, which cost fully 14s. per acre, whereas by steam power I can now make an average seed-bed for 7s. an acre year after year, and keep my land clean for corn crops every year.

The Woolston and the Woughton facts are worth studying. We have no personal know-

ledge of the latter farm, but the former is no doubt the example farm of England, from the influence it exerts on the progress of steam culture.

— AT Mark Lane the price of Wheat rose again yesterday 2s per quarter at which increase business was ready to jump up both English and foreign samples. A heavy rain during Thursday night, and during the day with rain up to mid day yesterday, had some influence on the market. — The live stock and meat markets are unchanged. Small supplies of prime English and large importations of foreign produce cause prices to range from 3s 3d and 3s 6d down to 3s per 5lb. The seed trade has been at a standstill, which is attributed to the anxiety excited during the passage of the Adulteration of Seeds Bill through the House of Lords.

— The number of foreign animals inspected in the year 1868 by the Custom House Veterinary Inspectors at London and at Leamings Haven was 120,333, of which beasts 17,000 oxen, 208,100 sheep and 2,000 pigs were the whole number were inspected and slaughtered on account of disease or injury—729 beasts, 58 calves, 5072 sheep, 141 pigs. 6031 of these were slaughtered and the meat passed as fit for human food, and 372 were condemned and destroyed—viz., 65 beasts, 35 calves, 127 sheep, 45 pigs. The whole number slaughtered on account of disease or injury in 1868, therefore, was 0.8 per cent of the beasts imported, 0.3 per cent of the calves, 2.4 per cent of the sheep and lambs, 3.8 per cent of the pigs. The proportion of sheep slaughtered is very large owing to the sudden reappearance of sheep-pox in August in a cargo of upwards of 1300 sheep from Holland. A great credit is due to the inspectors for the discovery of this disease, and the consequent seizure of the cargo, which no other means had been received that the disease existed in Holland. The whole cargo was slaughtered at the place of landing, and other cases following quarantine or slaughter of the sheep at the place of landing was ordered. There was no case of cattle plague in 1868. The falling off in the London supply of foreign beasts and pigs from 1867 to 1868 is as follows:—Beasts, 191,545, 139,336, 103,726; cows, 17,626, 17,990, 11, 14 calves, 24,504, 21,013, 21,810; sheep, 77,174, 57,310, 32,317; lambs, 13,796, 7,900, 17,708; pigs, 73,873, 14,079, 33,721 totals, 1,102,192 in 1866, 763,743 in 1867, 511,564 in 1868. The importation this year shows a great recovery, and the total seems likely to be nearer the total of 1866 than of 1868 or 1867.

— A curious illustration of the fitness of arithmetic to agriculture, and of the wonderful results which ensue upon a confident application of the "three first principles," is given by Mr. Smith in a letter to the Editor of the Times, in which he states the conclusion that 16,000,000l. a year would be a moderate compensation for the profits from the milk cows, &c., which should be fed upon—London sewage! The following is his letter:—

"I, Mr. Smith, after a steam cultivation, speaking of the value of the fallow and sheep food, he makes this remark:—

"The worth of this feed for sheep, after paying all the expenses for seeding and shepherding, is but a mere trifle—I estimate it at 3s. per acre."

"Now, as sheep are kept in order to fertilize land on the present alternate green and straw crop system, as well as the curriers and producers of manure for the production of corn, &c., and Mr. Smith if steam power would not be an infinitely better and cheaper carrier!

"In the ordinary way, before Mr. Rawlinson, at Kingston, when the Corporation proposed irrigating the Ham fields, in order to grow corn for utilizing the Kingston sewage, it was estimated that 1000 Indian Ryegrass per acre could be produced in any year, and the following year, without any further manure, 4 quarters of corn could be grown, consequently 4000 lbs. of manure would be produced annually per acre at a cost of 10s. per acre. If steam-power was used to carry the sewage of 1000 acres, the manure, &c., this could be effected in a simple way, and a good result would be obtained. It was estimated that 1000 acres of land would produce annually 1000 tons of manure, which, at 2s. per ton, would be worth 2000l. and 1000 lbs. of Ryegrass, at 2s. per ton, 2000l. I have seen justly, retail all this summer 2s. 10s. a ton for green food for my horses, so that, taking Mr. Smith's estimate for the seed and profit, there would remain 9000l. after all expenses and cultivation, and the production of 40 bushels of Wheat per acre, to pay the seed and profit of the farmer, to prevent the pollution of our rivers, and remove the sewage from our towns.

"The value of the London sewage, taking the inhabitants at 2,000,000 would be 2,000,000l. as a fertilizer and if the sewage was used in the ordinary way, it would be worth 2,000,000l. per annum.

"If Mr. Smith's estimate is correct, the result would be 16,000,000l. per annum, which is a moderate compensation for the profits from the milk cows, &c., which should be fed upon—London sewage! The following is his letter:—

— Mr. MECHER thus calls attention in the Times to the destruction of hay in the rack.

"The crop this year is unusually heavy and I want sufficient manure, or hay making, the terms are 10s. per ton of 1000 lbs. per acre of water, but I do not know the consequence is a generation of rotting hay, &c. &c. The parties concerned in the management of the stock will, in some cases, if the weather is favourable, about three years ago a farmer contracted a simple mode of preparation, which was manufactured by a large mill & Co., and which I at once purchased at a cost of 10s. per ton. It is made by a fine sieve of 1/2 in. holes in the water, and with a fine sieve, the water is washed out. This is taken by a horse and the straw is a very good hay, as suspected the part of rotting

steam finds its way into the pipe, and passes at once out, it is the outside, where an elbow pipe is attached to give it an upward and better draught. When the weather is cool the steam will be condensed, and you will get rid of the water resulting from condensed vapour. No one need have an injured stack, or deteriorated hay, if this simple instrument be used. The pipe may be withdrawn by a horse when no longer required to the stack. By watching the stack at dawn of day, or by the suspicious aroma, one may always have due warning of danger."

We doubt the efficacy of a chimney for putting out a fire. To prevent by patience during haystacks is the only sound advice on this subject.

— Cattle dying from eating Oak foliage is an odd piece of news at first sight; but for a farmer to be successful in bringing an action for damages, is even more singular. The case reported below was heard at the County Court, Monmouth, and as reported in the Hereford Journal, was considered by the judge to be as important in point of law as it was in regard to animal and vegetable physiology, for his Honour remarked that "it would have been well for the public at large had such a case been heard many years ago. The facts were not disputed. About 40 Oak trees were cut down last spring when the "sap was running;" these fell on a "break" in the occupation of the defendant, and four cows and some steers ate the young shoots and twigs of the boughs. The veterinary testimony was as follows:—

Mr. G. Lewis, veterinary surgeon, made a statement of the last autumn that he had seen a cow which had died from having eaten of the young shoots of the oak trees, from the presence of tannin. He advised the defendant to cut down the oak trees, and the defendant did so. The defendant then brought an action for damages, and the plaintiff brought an action for the value of the trees. The judge considered the case as important in point of law, and in regard to animal and vegetable physiology, for his Honour remarked that "it would have been well for the public at large had such a case been heard many years ago. The facts were not disputed. About 40 Oak trees were cut down last spring when the "sap was running;" these fell on a "break" in the occupation of the defendant, and four cows and some steers ate the young shoots and twigs of the boughs. The veterinary testimony was as follows:—

The defendant's case is a very important one. The action was brought against a plaintiff who had bought the trees. The plaintiff said there was no agreement between himself and his landlord, and therefore, there was no reservation. After the usual evidence had been given, the solicitor for the defendant began to address the Court, but his Honour stopped him, and directed attention to the opinion of Mr. Justice Blackburn, as laid down in *Growcott v. Smith*, Exchequer Reports, that, "As a general rule of law a man was bound to use his property so as not to injure his neighbour." It appeared to him that "when a party altered things from their normal condition so as to render them dangerous to any acquired rights, the law cast on him the obligation of fixing the danger, so as not to be injurious to those rights." In the course of further argument his Honour held that it was incumbent on the defendant to have "fenced" the trees, so as to have rendered them innocuous to the acquired rights of the plaintiff. After quoting and carefully considering other cases as applicable to the one before him, his Honour gave judgment for 45l., the full amount claimed.

OUR LIVE STOCK.

MR. GERHARDT'S sale of Shorthorns, at Muswell Hill, near London, was not very successful. The day (Tuesday the 3d inst.) was deplorably wet, and the sale of the ring had to be removed to a sheltered situation. This was neither favourable to the spirits of the buyers or the appearance of the cattle, and no doubt contributed to lower the prices. The highest figure was given by Mr. Johnston for Violet, by 1st year lot which he paid 40s. Mr. Mortons purchased several females and one bull for 100s. The lot of animals realised 10,000s., or an average of 14s. 10d.

— On the 7th inst a number of first-class cattle and two valuable horses, with other domestic animals, were shipped at Liverpool for Canada. They were selected and purchased at a great outlay by Mr. Henson and Mr. Beattie for Mr. Cocurana, of Montreal, and comprised the Suffolk cart station, Duke a thoroughbred, old by Fan Langens, and some back pigs from the late Mr. Crisp's stock. There were three very well bred Shorthorns from Mr. Furr's herd, namely, *Bright Lady* a very fine heifer of the type of PILOT tribe, *Wool Alias*, by LORD BLITHES, sired by *Walden*, by 4TH DUKE OF NORTHUMBERLAND, and more remotely from the Bates' Water family, and a young bull, GENERAL NAPIER, also by LORD BLITHES (2d), and on the mother's side by the *Glitter* by LONDESBOROUGH sired. The remaining Shorthorns we must notice upon a future occasion. These valuable breeding animals are accompanied by 1000 lbs. of manure from the same source. Mr. G. of Liverpool.

We have just received the Duke of Devonshire's new catalogue published in July. Since the last sale, in April, 1868, the herd at Hoker has slightly increased in number. Contrasting the past with the present, we find that the 31 females and nine bulls named in the first catalogue have been increased to 37 females and eight bulls. *Grand Duchess* 5th, by PRINCE IMPERIAL, sired by GLESTER and her daughter *Blanche* by D. S. D. sired by OAKED 2d of the Wolf by the *Grand Duke* sired by 3d and *Welling* sired by the Bates' Water family, all keep their places as matrons of the herd. *Alfred* 10th and *Lady Butter* sired by PRINCE make their appearance for the first time as part of the Hoker stock. It will be remembered that these two cows were purchased at the sale of 1868, and were the first of the first named produced on June 11, a white heifer

authorised inspector to be free from "pleuro," and to have come from a place also certified to be free of diseased stock, and that no certificate should be in force for a longer period than three days.

provided the animal first affected had been bred on the farm, or, if purchased, had been so in a public market, under duly authorised certificates.

trucks only and fitted with spring buffers, and that every truck be washed out after each journey with a solution of chloride of lime or carbolic acid.

THE PRESENT APPEARANCE OF THE CROPS.

[FROM OUR OWN CORRESPONDENTS, JULY 31]

[The following Reports were received too late for last week's publication.]

Table with columns: COUNTY, WHEAT, BARLEY, OATS, BEANS, PEAS, POTATOS, ROOT CROPS, GRASS, WINDMILL, NAME AND ADDRESS. Rows include Scotland (Stirling, Raddington, Midlothian, Roxburgh) and England (Cumbria, Lancashire, Cheshire, Salop, Warwickshire, Cambridge, Suffolk, Essex, Devonshire) and Ireland (Cork).

THE PROPER DEPTH OF DRAINS.

HAVING recently drained a Grass field, it occurs to me to make a few remarks with reference to the controversy which some few years ago was carried on between the advocates of deep and shallow draining.

Throughout the whole work the drains were placed below the rubble, and resting upon the subjacent clay. It so happened that, in order to carry off the water effectually, it was necessary to cut a main drain in some places 1 foot 6 inches deep through an adjoining field, which was also wet on the surface.

which was nearly always wet, although it had been drained by the previous owner, was found to be intersected by 2-inch tiles, placed in drains 12 yards apart, at about a yard deep, each drain leading to the ditch.

the stagnant moisture, that when in Wheat I have seen
 tubers of half an acre completely bare, and when in
 the produce would not repay the expense of the
 culture. On making trial holes in various parts of the
 field I found that at from 18 to 30 inches beneath the
 surface there was usually a certain amount of rubble,
 though not so gravelly in its texture as, and of less depth
 than, in the field which I described in the former part of
 the article. He on this again came to a character
 of soil called as I ever met with, and which
 extended to an indefinite depth. As the cultivation of
 the field caused a heavy annual loss, it was necessary
 to attempt a remedy. I determined to try the effect of
 turning it over again at a depth of 3 feet, at 12 yards
 apart, the new drains being so arranged as to come as
 near as possible about half way between the old ones.
 The ground being very flat I preferred taking the water
 two ways instead of making it all run into the old
 ones. During the course of the work, it became evi-
 dent that the bulk of the wet lay from 2 to 3 feet from
 the surface, in the gravelly stratum, and that, by placing
 the pipes immediately below this porous layer, it would
 easily find its way into them. The result has
 answered my expectations in every way, so that I have
 been able to grow Swedes and Mangel on this
 soil. It is now sowed down with a view to forming
 permanent pasture and will, I have no doubt, become
 useful for young stock. The new drains have
 proved as effective as those of the old ones. I
 will conclude with another instance of the success
 of draining according to routine, which I
 under my own notice some ten years ago. The water
 of a neighbouring property determined to drain a
 well the works being executed by a professional
 contractor. It is necessary to say that the work was at
 all times overseen by a friend of mine, a gentleman of
 high social rank and one whose name would be a
 guarantee for the soundness of his agricultural views.
 Knowing that the drainage operations were being
 carried out with little regard to the nature of the land,
 my friend offered to the superintendent some hints as
 to the most effective mode of removing the super-
 fluous moisture, based on his knowledge of the pecu-
 liarities of the soil. He was, however, met by an
 objection that the information was superfluous as
 the contractor perfectly understood his own busi-
 ness. The drains were accordingly cut 4 feet deep, and
 spaced 12 yards apart, and the result is that the Rubus
 regalis which I sowed the other day one of the
 seeds from which no water was discharging, at a time
 when those from my own land were running freely. To
 drain at uniform depth and distance has sometimes
 been called scientific, if so, it is a science strongly
 resembling quackery. *Widdoughby Wood, Holly Bush,
 & Bell's Messenger.*

and he describes it under the name of *Batata vir-
 giniana*, evidently under the impression that its native
 country was North America. In the reign of James I
 the Potato began to be considered a great deli-
 cacy, very small quantities were used, the price being about
 2s per pound. After a lapse of a few years their value-
 able properties appear to have become more generally
 appreciated, for we find about this time that the
 attention of the Royal Society is drawn to the subject
 of their more general cultivation. Potatoes, however,
 did not seem to be a bait for agriculturists and land-
 owners to bite at, for most writers on agricultural or
 gardening subjects, down even to the commencement
 of the eighteenth century speak disparagingly of the
 Potato. In one work, published in 1718, it is said that
 "the root is very near the nature of the Jerusalem
 Artichoke, although not so good and wholesome, but it
 may prove good for swine."

Somehow or other the plant seems to have been
 taken from Ireland into Lancashire, where it was
 cultivated and used, whence it spread into
 Scotland, where, about 1728, a cottager and day
 labourer succeeded in cultivating good Potatoes on a
 little plot of ground about his cottage. These Potatoes
 were distributed first among the cottagers and then
 among the farmers, and about the year 1760 they had
 become so plentiful as to be grown no longer in
 garden but in open fields. In Lancashire however the
 cultivation made its progress into the course of the
 last century. In 1766 it is said there were in Essex
 some 1700 acres planted with the crop, and in the same
 year in Lancashire there were no less than 107,000 acres under the same cultivation, while
 in Lancashire, it still grows the largest quantity
 of any English county, there were 315,000 acres.

From the foregoing facts it will be seen that the
 Potato, which is now next in importance to Wheat as
 a national food, in its original state is apparently worth-
 less, and that it is only by care and attention to their
 growth that such products can be brought to a condi-
 tion available for use as food in civilized countries. Of
 course we are aware that the quality of the Potato
 depends a great deal on the cooking, and this want of
 knowledge tended in the first place to create a dislike
 for them, for being merely heated, and not cooked
 they adhered to the teeth like glue, and of course had
 at the same time an earthy flavour.

Many substitutes have from time to time been pro-
 posed for the Potato, but we do not think any have
 been sufficiently persevered in for instance, when,
 some years since the failure of the Potato crop was so
 dreaded, a plant known to botanists as *Linnæa tuberosa*,
 was mentioned as being likely to succeed under
 cultivation. Like the Potato it is a native of South
 America and extends over a great part of the
 continent, the Spaniards and Mexicans were
 the first to cultivate it, and it was introduced into
 Europe by Columbus.

It was, however, found to be unsuitable on account of their waxy nature, and
 the presence of a quantity of mucilaginous matter
 of an earthy taste, but these were also the particu-
 lar faults of the Potato on its introduction. Being
 waxy, and not properly cooked, it stuck to the teeth,
 which together with its earthy flavour, made it dis-
 agreeable. The inhabitants of the elevated regions of
 the Andes, where the boiling point of water is not high
 enough to cook the tubers, being obliged to cook them
 in water, prepared them by a system of alternate freezing
 and thawing, so that they become an agreeable
 food. The plant has weak stems, and fleshy heart-
 shaped leaves, which are either prostrate
 along the ground, or raised amongst the surrounding
 vegetation. The leaves are said to have a similar
 flavour to Spinach.

Another genus of tuberous plants, which at one
 time appeared rather promising, but which have since
 been forgotten, is that of the *Conium* and *Opuntia*.
 The first is a native of Persia, and the second of Libya,
 and cultivated in their native countries for the sake of
 their tubers, which are edible. Those of the *Conium*,
 however, are very small, and seldom exceed 2 ounces in
 weight, so that the average product of one plant is not
 more than half a pound; the tubers have an acid
 flavour, but this is dissipated by boiling, when they
 become mealy, but perhaps rather insipid. The ques-
 tion is whether the cultivation of these tubers was
 persevered in long enough to ascertain decisively to
 what size they might have been grown. There are
 specimens in the museum at Kew which were grown
 in the gardens in two or three years. The tubers
 are very small, and of a large size, and of a
 waxy nature, and are not so agreeable as those of the
Conium. The tubers are said to be very mealy, and
 to have a flavour which is removed by heat, so that the
 natives expose them to the sun, which converts the
 acidity into saccharine matter, and the tubers become
 as mealy as Potatoes.

Apios tuberosa is another plant, producing, as its
 name implies, tuberous roots, which are eaten in their
 native country (North America), and are sometimes,
 we believe, sold in the markets in some parts of
 Germany. The tubers are very small, but are very
 farinaceous. Professor Eaton, in his "Manual of
 Botany for North America," remarks that they ought
 to be more generally cultivated. It grows freely in this
 country in ordinary garden soil, and is very easily
 increased by separating and planting the tubers, which
 are produced abundantly. The plant is a climber, and
 belongs to the natural order of Leguminosæ.

Another South American plant is the *Arracacha*, a
 culcitra, which is much cultivated in the cooler and
 mountainous regions of northern South America. The
 roots there form a staple article of food, having, when
 boiled, a flavour somewhat between a Chestnut and a
 Parsnip. The plant, which belongs to the Umbel-
 iferous order, has been introduced into this country.

but the climate is said to be unsuited for it. During
 the past few years some attention has been paid in
 France to the better cultivation of the *Parasiticherni*,
 known to botanists as *Charophyllum bulbosum*, or
Anthriscus bulbosus. This plant is not unknown to
 gardeners, and was introduced into this country in
 1766, but being of easy culture, and growing on almost
 any soil, it has perhaps not commanded so much atten-
 tion as it otherwise would have done. The tubers are
 somewhat the size and shape of a small Dutch Carrot,
 very wholesome, and contain 21 per cent of starch and
 68 per cent of water against 74 per cent in the Potato.

The plants here mentioned are a few of the most
 prominent, and likely to be successful, were proper
 attention and continued perseverance given to their
 culture. Attempts which have been made, as we have
 already acknowledged in glancing through the few plants
 we have mentioned, but it seems to us that those
 attempts have not been followed up by extending them
 over a sufficient length of time. If this were done, a
 Potato famine might cease to be regarded as a national
 calamity. *J. R. Jackson, Kew.*

RECENT AGRICULTURAL HISTORY.

We extract the following description of English Agricultural
 History, and of the above which the late John Grey,
 Esq., of the University of Cambridge, had prepared for
 the use of the Agricultural Society of the University of
 Cambridge, and which was published by Mr. Grey,
 in 1841.

My father's country (Northamptonshire) has indubitably
 been the primitive seat of husbandry common in the
 last century. It is of old a very rich and fertile soil,
 and applied almost exclusively to the growing of Wheat,
 which is a crop exhausting to the soil that after a
 year or two that heavily had to be left to rest for
 several years, and fresh portions of land subjected to
 the same exhausting treatment. It somewhat resem-
 bled the wasteful ways of the cotton-growing slave-
 owners of the Southern States, who were forced by the
 condition of that unnatural engine, slave-labour, to be
 making ever fresh aggressions upon new lands, and to
 leave the old lands a wilderness. In some parts
 of Russia, husbandmen still practise this primitive
 wastefulness. In the stage of agriculture manure is
 not used, but of, except as inconvenient refuse, to be
 got rid of by any means. Thus, on the outskirts of the
 Roman Campagna, not many years ago, might be seen
 wheels full of dung carted out to a distance from the
 city, rolling accumulations from stables and posting-
 houses, spreading pestilence around and on the
 shores of the Tiber, a similar sight. Dung-
 heaps are brought down by the farmers along the
 shores, and are used to the use when the river is
 frozen over and when the winter cold makes it safe
 to step upon the refuse. When spring comes, the thaw
 washes the manure yearly down to the Caspian
 Sea. The large quantities of dung thrown in a smaller
 stream, which the farmers used to make
 their horses drink, was so offensive, that it was
 a great while that the water was not fit to
 be used, and the water was not fit to be used,
 and poisoning the neighbourhood. The sight of such
 thriftless expedients always vexed my father, for he
 knew the worth of that which people were trying to
 get rid of.

The next stage in agriculture was the introduction
 of the simplest form of rotation of crops (a custom,
 however, as old as Virgil's time), and this spring from
 the necessity of growing crops more frequently from the
 soil. Farmers could not afford to let land be
 idle, and it was found that it should be
 restored without loss. The soil must be renewed by
 some equivalent for what had been taken
 out of it. It is as the wants of the soil under the
 pressure of higher cultivation became greater and more
 complicated, chemistry came to the rescue. But of
 that by-and-by. At first it was found that a simple
 rotation of crops was the best. My father said that "the
 introduction of green crops into Northamptonshire
 was the beginning of a new era in the history of
 agriculture" and it was a very marked era, for with
 green crops came in the large increase of cattle as
 agricultural produce. Before this sheep and cows were
 very little cultivated in comparison with Wheat.
 They were generally poor lean beasts left to wander
 at will on the hills and wastes, not used as agents in
 the system of manure, and of course butcher-meat
 was a scarce luxury among the labouring population.
 But many benefits followed the introduction of green
 crops. Cattle were kept in greater numbers, and fed
 on the most nutritious system of upon turn grass.
 The manure of these animals was very valuable, and
 the system of manure was improved. The expert
 husbandman of the present day, however, is not
 content with the simple rotation of crops, but he
 seeks a more extensive and a more varied system
 on bread and pasture. But these animals also manured
 the land, and while feeding upon it enriched it to such
 a degree that more corn would grow upon the same
 extent of surface than before. The farmer now took
 not less but more grain to market than in the days
 when he cultivated Wheat alone. This was profitable
 both to the producer and consumer. Sheep have been
 called "the animals with the golden hoofs," not only
 because of the value of their wool and mutton, but
 because they enrich the soil they are fed upon more
 than anything else does. Much poor dry land was
 thus brought, by means of alternate crops and eating
 off with sheep, to yield constant and good returns.

Green crops produce much manure, but they also
 require manure. The manure of the towns came
 to be used in great quantities, and this opened up new
 fields for the connection between agriculture and
 chemistry. It began to be discovered that that which
 produces pestilence and fever, which shocks our senses

* From the *Edinburgh Review*, but relatively so, to the advanced
 rate of wages required for almost every kind of labour.

THE POTATO.

It is a well known fact that the crops from his land
 by the Wheat harvest, and a healthy crop of
 Potatoes. The interest with which the state of the
 Potato crop is looked forward to is not at all surpris-
 ing, when we consider the importance the tubers have grown
 to be as articles of food, an absolute necessity to a class
 of the population, and the comparative recent date of the
 potato, when it is in its wild state, and how it has
 become to be domesticated. It is not, however, to be
 forgotten that the potato, as we now know it, has
 not been the wild tuber of the mountains, but a
 cultivated tuber, and that it is a very different
 thing from the wild tuber of the mountains, which
 need these very substitutes for the Potato. There
 is, perhaps, not a man in the three kingdoms, least of
 all in Ireland who could deny that he had a part
 in a good Potato, but what has brought the tuber of
 random tubers to the state we now have it?

In its wild state, and when first introduced, the
 Potato was regarded as a vegetable, and it was
 rejected by many as a disgusting and disagreeable
 labour, but the effects of cultivation, together with the
 withdrawal of popular prejudice, has changed all this,
 and made the Potato what it now is. It may not be
 amiss briefly to sketch the history of this valuable
 vegetable, in the hope that I may inspire those who are
 able to make experiments, and to prosecute them in the
 cultivation of some one or other of the plants we
 shall mention, or indeed of any likely plants of
 which they may happen to have a knowledge.
 Though the native country of the Potato has been a
 question of some discussion, it seems pretty certain
 that it originally came from South America, plants
 having been found in a wild state in the Peruvian
 Andes, and on the mountains of Colombia. The
 tubers of these wild plants are said to be of a
 size and shape like a Walnut. It is said to have been
 brought into Europe by the Spaniards in 1492, to
 the 15th century there seems strong evidence for
 believing that its introduction into England is due to
 the colonists sent to North America under the auspices
 of Sir Walter Raleigh, who returned in 1596. The plants
 he brought home were planted in Sir Walter's garden
 in Ireland, and were used as food in that
 country long before they were known in England. So
 many anecdotes are associated with Sir Walter Raleigh's
 name, that it would be strange if one had not been
 recorded connecting him with the introduction of the
 Potato. It is said that when his evidence at his Irish
 estate had succeeded in growing to the full maturity
 of apples, the fruits of the Potato plants which his
 master had given him as a valuable plant from America,
 he brought one to Sir Walter, who, for the first time
 he saw, was very much surprised, and its appear-
 ance, and who thereupon ordered the "weed" to be
 rooted out; and in the course of digging up the plants, the
 man was surprised to find about a bushel of good Potatoes.
 In "Gerard's Herbal," published in 1597, we find the
 plant mentioned as being grown by him in his garden,

or keep his "few thousands" where he can get at them when he wants them, or the interest from them. Any one who would, or could, answer "Half Pay's" questions in the wholesale way he asks him, must be a generalist—and he pardon me for saying so?—as he himself is, and as I was. His own aptitude, the character of his and the neighbourhood, the soil, and a hundred other matters must be known and considered before any of his questions can be answered satisfactorily to himself. And after all, perhaps, instead of the selection of which will bring the largest income, he may be told that his "waggon" will go best on four wheels. Now I am an old man and a busy man, and have no time to waste for among other occupations I hold 250 acres in my own hands. But if "Half Pay" would read like from this taste of me, to hear more of what I could tell him you are at liberty to supply him with my private address. I do not say that I hope to dissuade him from his enterprise because his energy, his capital, and his enthusiasm may make him both a happy and a successful farmer. But all that I know, that if he begins in his present state of knowledge and experience he will have to pay, and show-pay for it. *Write*—Under this head a correspondent, "Half Pay," asks guidance. After 40 years' experience, I can assert that he must not rely on books, nor can he trust to the private experience of others, except he meets with that so hard to find, a really good manager, to direct all the details of farming. If he wishes for occupation, and really likes farming, he may perhaps succeed, but if he seeks an investment to lay out his money elsewhere. As to the soil, he takes a farm of it be of a mixed character—arable and pasture—let him keep all the stock he can, not of one sort only, but believe that no two men agree as to the profits of one first-class sow. There is nothing that varies so much as the price of pigs. It has, I think, been said truly, that if a sow brings eight pigs and keeps her time at each farrow and the pigs bring 1s per head per week, they leave the sow, it pays. If not sold then, they should be kept tight to put up to fatten. The dairy requires, I on a large scale, special good management. I do not think the noble personages make both ends meet, but it is a significant fact that the dairies are mostly in London, except those which send their milk from a distance by railway. If "Half Pay" thinks that Mr. Mechi can answer his question, I would advise him to seek an interview, which will be readily granted. I am sure Mr. Mechi will be able to tell him what to avoid, as well as what to do, and I feel doubly sure that Mr. Mechi will not advise "Half Pay" to begin with experiments. J. C. C.

Concentrated Root Food.—I have written so much on the analytical or feeding value of this food that I have no wish to dilate on the subject. Indeed I have nothing to add. It is on the contrary a variety of food I would wish to say a few words with a view of turning farmers' attention to it. The year 1889 was a year of unusual dearth of roots. The price of roots was high, and the supply was low. The profit of the farmer who grows roots is into their hands instead of into his who grows wheat. What is the remedy? I use one-half of the crop in the old-fashioned way, if you like, raw and convert the other half into concentrated root food. It will keep good for years. A late spring, a dry summer, burning up our pastures, or a less abundant crop of roots next year, give you the command of the market. There is always a time when a store stock is to be bought cheap by storing up an abundance of food you may bite your tongue, and put the profit of feeding into your own pocket instead of letting it slip through your fingers into the pockets of the breeder and dealer. *Hugh Smith, 21, Westbourne Terrace, London, W.*

Foreign Correspondence.

ILLINOIS AND WISCONSIN DAIRY ASSOCIATION.
Cheese-making in the United States. The following is an abridgement of a paper lately read before this Society by V. A. WILLARD of Little Falls—
 The cheese production of 1887 in America amounted to \$1,000,000,000 lb. and in Great Britain to 179,000,000 lb.—total, \$1,179,000,000 lb. for the two nations. The English consumption that year was 200,000,000 lb., and the United States consumed 600,000,000 lb. thus we have the consumption of 800,000,000 lb. by the two nations, which is 75,000,000 lb. more than the production. In other words, to supply the demand of the two countries we must import from some other part of the world 75,000,000 lb. England supplies this deficiency from Holland, but France now comes in as a competitor for their surplus. Hence America must turn north to the main source from which England supplies her requirements, especially as we produce a superior article to the Dutch.
 Another point generally overlooked is that England increases her population every 40 years, and English cheese consumption more than keeps pace with the increase of population. This will make an annual increase in consumption of 4,000,000 or 10,000,000 lb., and in the States the increase of consumption from increase of population is about 4,000,000 lb., thus giving an increase of 18,000,000 lb., to be supplied by increased dairy business. Therefore it is very doubtful if we shall ever reach the limit of over-production, and the consumption of butter goes on in more rapid proportion and a considerable number of dairies must be devoted to that object.
 In the matter of securing fine flavour in both butter and cheese some points have been entirely overlooked in previous discussions. It is only recently that the two causes influencing the flavour of dairy products have attracted our attention. And among these the question of clean, pure water for stock has not been sufficiently appreciated. Milk contains 87 per cent. of

water, and it would hardly seem reasonable to expect that the animal could overstep the laws of nature, and manufacture good milk from stagnant water, yet such has been the case, and because manufacturers have not been able to make a good product out of such milk they have been blamed. With our knowledge and experience in New York we have not been able the past year to locate having some of the best cheese during the hot weather, especially the July cheese. I took some pains to study the question and I found by examining farms and dairies in instances that stagnant putrid water was one of the chief causes. There were other causes but this one was invariable. In one instance the cause was attributed to the milk of one of the patrons whose cows had been drinking from frog ponds. This man changed his fences so as to get good water and so the trouble ceased. In the private dairies of New York and England, particular attention is paid to this matter. On farms where springs are deficient the effort is to be overcome by digging a well and applying wind power for pumping, which can be inexpensively erected and is durable. It is the best plan to have the water pumped up into a tank, and so arranged that it can run back into the well after it has stood a short time, as this will prevent its becoming contaminated by foul gases.

At the present time the old dairy farmers are in error, which is the cause of great impurities in milk, is that they are not taking care to have their cows drink from clean water. I have seen many a farmer's cow drinking from a pond or a stream, and the milk which comes from these places to the factory after having been confined in the can under a close fitting cover will give a most offensive odour and putrid. If there is any manufacturer present who can make clean flavoured goods from such milk, I should like to see him and hear his process. In this respect the English farms are ahead of ours.

For 40 years New York dairymen have been under the impression that the quality of butter and cheese depended entirely upon the manipulations of the milk, wholly overlooking the conditions ensuing from the manner of its production. Of course, much depends upon the manufacture, but good wares cannot be made from bad material. In many points we have advanced to the highest English standard. Our best manufacturers are able, at certain seasons of the year, to make as firm articles as are to be found in the world, but they are not uniform during the season. What is the matter, and what is the remedy? I was the first to direct attention to bad milk, milk spoiled before reaching the factory arising from many causes. You cannot get the butter or cheese which may be tried to by any other means, from the English. America has the cause at her command, and she can produce the best articles. Dairy and other wares, and at certain seasons is very offensive. These causes are chargeable to the farmers and not to the manufacturers. Dairymen can never expect success if their goods are quoted at less than the cost of production. We can make it a great success. We can become the controllers of this great staple throughout the world, but in order to do it, we must show the world we can produce the best articles.

The next subject discussed upon was the proper cooling of milk. It was found that the milk should be cooled to 40° F. before it is put into the butter-tub.

To insure the delivery of pure, sweet milk he urged the Convention to adopt the following rules, to be posted on the door of every factory and addressed to the patrons, saying—

1. That the milk is good when it comes from the stock.
2. That the milk is good when it comes from a cow which has been kept in a clean and healthy condition.
3. That the milk is good when it comes from a cow which has been kept in a clean and healthy condition.
4. That the milk is good when it comes from a cow which has been kept in a clean and healthy condition.

The speaker was interrupted after reading these rules, and a motion for their adoption was most enthusiastically adopted. The question of butter-making was then discussed.

The cheese factories have been of many years to butter-making by the same old-fashioned process. We had ready a very good butter, but the butter He thought really first-class, but it was worth, perhaps a pound, while he did not care how little poor butter sold for. One quart of good cream will produce on an average 13 ounces of butter. Cleanliness, and a temperature of about 60°, never less than 55°, are the most important conditions in churning. The churn should be cleaned with great care. When butter forms the churning should cease, the butter be taken from the churn and all buttermilk worked out, using the ladle instead of the hands.

Good white Oak wood is best for butter-tubs. He approved of the establishment of butter factories, thereby getting better butter and greater profits. Cheese from skim-milk would be much used. China would consume much of it. We make about 20,000,000 lb. of butter each year in this country.

Referring to cheese-making he gave the views of Governor Seymour, favored by that gentleman in a speech to the American Dairymen's Convention at the recent annual session in Utica, N. Y. The market demands a cheese of good texture that is mellow under the finger, but yet of sufficient firmness to be safely handled, and will not fall to pieces

while in the hands of the dealer, is of a clean, nutty flavour, melting in the mouth, and having that delicious aroma that forces itself upon the attention of the customer. A bad or poor flavoured cheese does infinite mischief by closing the appetite and disgusting those who try to eat it—just as a bad oyster taken by chance in the mouth will make one sick of oysters for a lifetime. In cheese-making the work must not be hurried, what heat is required must be slow and gradual, giving the curd time to do their own work, the cheese maker watching all the conditions and standing ready at any time to check the curds when the proper changes are developed.

The interest which we represent to-day is perhaps the most progressive branch of farm industry. It embraces the widest range of topics and the most diversified employment of skill and intellect. First the management of milk in all its relations, and its manufacture into dairy products, and back of this, the great arts of breeding and management of stock, the production of food, &c. These it is important to understand to ensure the largest success. The inauguration of the factory system and these conventions have stimulated inquiry and a desire for improvement which marks a new era in agriculture. The discussions and experiments of dairymen have so sharpened the intellect that there is now no class of men so critical, exacting, or who can weigh a speaker's words with more precision, than those who gather at these conventions.

Societies.

SOUTH DURHAM.

Agricultural Statistics. Mr. MAXWELL said the national benefits to be derived from complete and correct returns of the annual agricultural produce and quantity of stock in a country, have been universally admitted by all classes. Acting under the conviction of the advantages that would accrue to the whole community, nearly all the several Governments of the continent of Europe, as well as the United States of America, have collected agricultural statistics for some time. Our own Government have had statistics or returns collected in Ireland for some years, but it was not till 1846 that returns were begun to be collected for the United Kingdom. Though last to collect agricultural returns, the British nation, and especially the British farmer, were not less aware than other nations and agriculturists of their value, but the jealousy of agriculturists, who, not without some justice viewed such an investigation into their business affairs as placing a dangerous power in the hands of any unscrupulous Chancellor of the Exchequer, against their collection. This standing block was shown to be easily disposed of by the efficient, practical and comprehensive statistics collected in Scotland by Mr. Hall Maxwell in 1846, and in 1847, 1848, 1849, and 1850. Viewed from the agricultural point of view, agricultural statistics would be of immense value were they reasonably accurate, and published in such a tabulated form and at such periods as to be available for practical use. The present returns are valueless to agriculturists, and it need excite no surprise to find them unwilling to place in the hands of any Government details that might really be of great general utility, but which, from the lack of practical knowledge in the arrangement and publication of such statistics, and the objectionable channel through which they are sought to be collected, exhibit on their surface all the worst possible surroundings with the fewest practical advantages. I venture to assert that the success of the effort made by Mr. Hall Maxwell conclusively proves that no objections exist on the part of agriculturists to furnish statistics, when simply required for the honest purpose for which only such statistics should be asked for by any Government. The estimated yield of crops as well as the acreage and number of stock was freely given to Mr. Maxwell, through his judiciously-chosen collectors, on the sole ground that the agriculturists had confidence that their returns would not be applied to any improper use. A good machinery in collecting returns is only therefore required to utilise this confidence. Agricultural statistics, with acreage of crops and number of stock, without an estimate of the yield of the crops, is work half finished and makes us long for the completion of the whole work. There is little good arises from knowing we have so many people and stock to feed if we do not know what we have to feed them with. The acreage of the crops must be taken as a criterion, the yield of the produce as there are such great variations of the yield per acre of all crops in different years. It is for this very fact of our having such great variations in our annual produce per acre from the effects of our varying climate and seasons—and not that there is any material change in the acreage of a particular crop in one year—that agricultural statistics are of such great value. We know by comparison and estimate the amount of food we require between one harvest and another. It is only, therefore, by knowing the produce of the harvest as soon, or even before it is reaped, we can know our deficiency and position in time to go into the markets of the world and make provision economically. The substantial question is—Can the returns be obtained accurately, promptly, and published so as to be alike valuable for national and agricultural purposes, and at a reasonable cost? Certainly the present cost for incomplete returns and the abuses of Mr. Hall Maxwell fully answer the question and even our members of Agriculture may easily arrange a machinery for their collection, publication and publication. The subject is not yet left for any special date, and many agricultural associations and farmers clubs have carefully discussed the practicability of their collection for agricultural purposes only. The following mode of collection and dissemination

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manure. The figures given are as follows — 1 328 kilogrammes of chemical manures gave 51,948 kilogrammes of Beet-root per hectare, while 50,650 kilogrammes of farm manure yielded only 41,811 kilogrammes, hence there is a balance of 10,137 kilogrammes in favour of the chemical manures. Similar results were arrived at in the case of the Potato. M. VILLE considers that the excessive use of nitrogenous manures, and the consequent exhaustion of phosphate of lime and of potash from the soil, predispose the plant to ill-health, attacks of parasites, and the like. For the Potato he recommends as most suitable a manure containing a relatively small quantity of nitrogen and a large quantity of potash. M. VILLE does not enter into the question of the relative cost of the two systems of manuring. As to root crops, although it may be possible to grow large crops from artificial manures alone, either from favourable seasons, or because previous dressings of farmyard manure are not yet exhausted, nevertheless the experiments of Messrs. LAWS and GILBERT go to show that such a course cannot be persevered in a long time.

— Mr FISH lately called attention in our columns to an EXTRAORDINARY SWARM OF APHIDES. From other quarters similar reports were sent, and now we have the complement in an equally vast incursion of LADY-BIRDS (*Coccinella*). Kentish Hop growers generally welcome the lady birds, as they destroy the aphides. The town of Ramsgate was on Sunday last visited by a vast swarm of lady birds. They filled the air and covered the earth at every conceivable point. Their number was greatest about noon, when they were to be seen upon projecting corners of houses, collected so as to form one red patch. Later in the day the air got somewhat thinned of them, owing to the traffic of the streets and the destruction which they met with. The streets then presented a peculiar appearance. The number of these bodies strewn about caused the roads to look as though newly gravelled. In the neighbourhood of Chesham, also, lady-birds were seen in enormous quantities at the latter end of last week.

New Plants.

MORMODES UNCIA, sp. n.

Sepala triangulis acuminatis petala ovata acuminata multo latioribus, lobis angulatis antice rhomboidatis apiculatis, fimbriato, callo didymo angulato in disco partibus antice, toto labello involuta.

A very unexpected novelty from Mexico, introduced by Messrs. Veitch. Its flowers are larger than those of *M. aromatum*, and are whitish, with many violet blotches. It is much superior to the last-mentioned species. *H. G. R.*

ONCIDIUM EXASPERATUM, Lind. Rehb. fl.

Affine *Oncidio coccifero*, sepalis petalisque extus valde muricatis, operculis sepalis cuneato ovatis apiculatis petalis paulo latioribus, labello triangulo basi utriusque obtusigulo, callo depresso a basi in disco apice exserto, utriusque lobato, extus utriusque tridentato (undecima de *St. Ignit*) columna sub fovea contracta.

A new species, and quite distinct in the properties of the outer side of the sepals and petals. The flowers are chestnut-colored, the lip yellowish, with brown bars, the callosity orange. It is probably a native of Ecuador, and was introduced by M. Linden. *H. G. R.*

GONJORA PORTENTOSA, Lind. Rehb. fl.

Racemo elongato purifloro, floribus longipedunculatis, sepalo dorsali ligulato-acuto, sepalis lateralibus oblongis, apiculatis, petalis carinatis linearibus lobis carnosissimis compresso, medio superne angulato armis geminis retrorsis in basi laminarum dilatiformium antice acutis, antice aditum in antrum labelli aperientium; epichilo tabuliformi accipiti parvo ligula lineari bicurva anteposita.

This is a very singular novelty, with numerous large yellowish flowers, having fleshy violet petals with purplish dots, the column is similarly coloured, and the upper part of the shining lip is also violet. We are indebted for it to M. Linden. *H. G. R.*

TRICHOCENTRUM TIGRINUM, Lind. Rehb. fl.

Sepalis petalisque ligulato-lanceolatis acutis, labello cuneato lobulato, in medio emarginato, carinis nervis, lobis geminis in basi, carinis elongatis in disco excavatis tenuis tomentosis antepositis, callo excavato-furcata, columna crassiuscula arrecta, alba parvis acutis erectis.

Trichocentrum princeps. A most extraordinary novelty, with the shining leaves of *Trichocentrum atropurpureum*, and the flowers of *Miltonia spectabilis*, but coloured like those of *Cattleya Adolandi*, except that the lip has a white apex, and the calli are orange. We obtained this splendid plant from M. Linden. It is much more like *Miltonia* than a *Trichocentrum*. *H. G. R. Rehb. fl.*

COVERING WALLS WITH GLASS FOR THE PROTECTION OF FRUIT TREES.

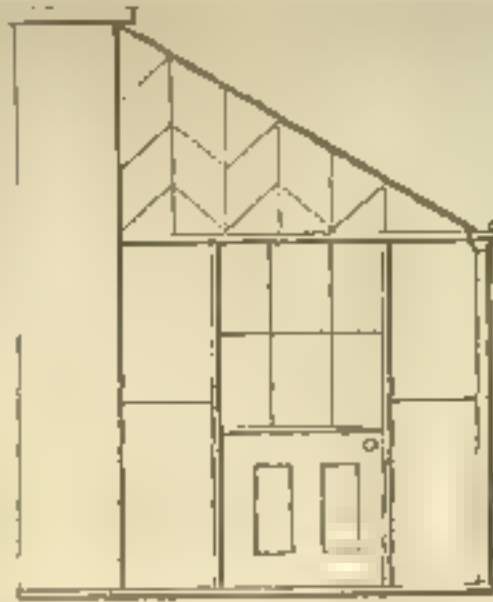
[Read at the Manchester Congress, July 22, 1869.]

THE uncertainty of securing good crops of our finer fruits, such as Peaches, Nectarines, and Apricots, owing to the injuries from spring frosts, makes some kind of protection almost a necessity in our climate. Lately orchard-houses have been prominently advocated by Mr. Rivers and others, and when properly managed they have been a source of interest and profit to amateurs and gardeners with limited means of growing fruit on walls or in hothouses. Where there are walls with a southern aspect in gardens, a covering of glass will, however, be found the cheapest and most certain way of securing crops of our finer fruits. When Peaches, Nectarines, and Apricots are only required to come to maturity by the natural heat of the season, the expense of heating such structures artificially is not required. The spring frosts likely to occur in March and April will not injure the blossoms, for I have proved this on an Apricot wall which was apparently covered with glass. Last year, on the 22nd April, 8° of frost were

registered, yet the fruit trees in bloom, and young Apricots as large as Filberts were uninjured under the glass covering, but on the open walls the crop was quite destroyed, even where protected by branches and nets.

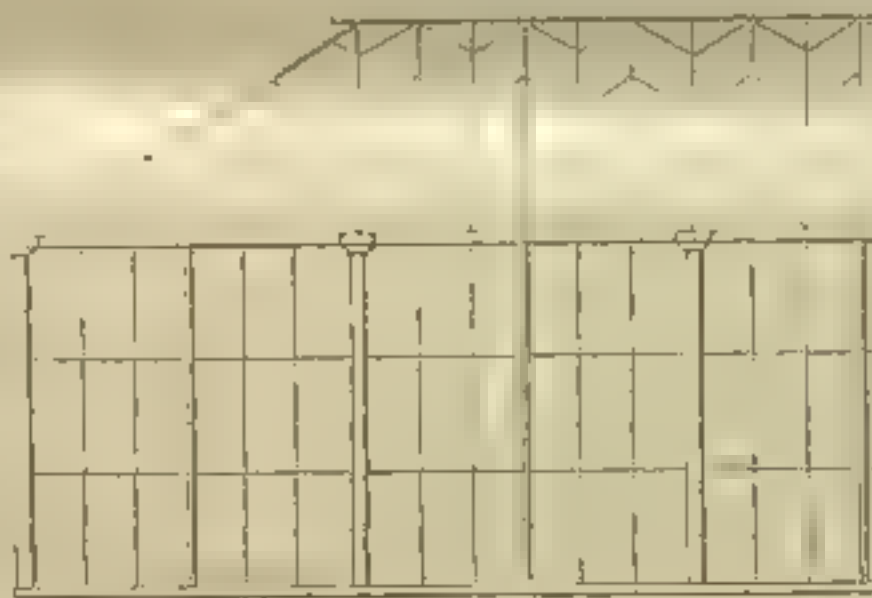
For the last seven years the crop has never failed on this wall until this spring, when some varieties of Apricots were only thinly set with fruit, the season may, therefore, be called an exceptional one, and the failure in the crop may be accounted for by the excessive warmth in February, followed by a dull and cold March. The trees showed plenty of healthy blossoms, but the pollen seemed glued together and did not disperse and even the fruit, where set, dropped off from the sudden cessation of the flow of sap. Some varieties of Apricots on this wall, however, have set a good crop, such as the *Kaisha*, *Breda*, and *Musch-Musch*. In the midland districts all unheated orchard houses have very thin crops this year, showing that artificial heating is requisite in such structures in seasons like the past.

When the new kitchen garden was planned at Welbeck, a range of south wall nearly 800 feet long was covered with glass on a novel principle. As the framework is of iron, and the roof made on the ridge-



and-furrow mode, and glazed with strong plate glass, cast on purpose to suit the curve in the roof. The openings for top ventilation are made in the back wall, and every alternate light in front is opened and shut by machinery worked from the inside. The height of the back wall inside is 13 feet, in the front 7 feet 6 inches, and the inside width 7 feet 4 inches. This structure is heated by hot-water

pipes, and these were found very useful this spring, for good crops of Peaches and Nectarines have been secured, as well as plenty of Cherries, Plums, and Pears grown in pots. Fire-heat is only used at the time they are blooming, or in the autumn, to ripen the wood, as the object of this structure is to get a succession of Peaches and Nectarines after the hot-house ones are over. In such structures, if unheated, it is advisable not to exceed 5 or 6 feet of inside width, so that the absorbed heat in the back wall may have sufficient power to expel any frost when the trees are in bloom. In March and April the sun-heat in clear



frosty weather is often very strong, and when the house is shut up early in the afternoon there is quite heat enough reflected from the back wall to make the blossoms safe.

The long range of glass-covered wall here has a very light and imposing appearance, from the absence of any timber in its construction, and from the ornamental iron bays placed every 22 feet in the inside. These bays are for growing hardy Grapes on, and some varieties have this spring shown plenty of bunches to festoon the top of the bays. All the ironwork in the interior is painted of a light sky blue tint, and the effect is very pleasing. The walk inside is a stone pavement laid on walls of bricks on edge, so that the roots of the fruit trees may run between them. Besides the advantage of furnishing a promenade in bad weather, this immensely long range is useful for so many purposes that I must state them *seriatim*. On the front, where the two rows of 4-inch pipes are placed, there is an iron grating covering them. Its width—2 feet—is sufficient for a long row of 300 fruit trees in pots to stand on. In April and May bedding plants in immense quantities can be placed between the pots, or purpose to harden them off for planting them out in June.

The fruit trees grown in pots consist principally of Cherries and Plums, and a few of the best varieties of Pears and Apples. No Apricots are required here for pot culture, as a sufficient supply is obtained every year from a wall protected by glass lights. The Cherries grown in pots come in about two weeks before those grown on the walls, and consist of the following kinds, according to their time of ripening — *Helle d'Orléans*, *Early Purple Guigne*, *Werder's Early Black*, *May Duke*, *Waterloo*, *Black Tartarian*, *Cleveland Bazarreau*, and for the latest *Florence* and *Late Duke*. The following kinds of Plums are grown in pots in quantities — *Early Favourite* and *Mirabelle*, *Brady's Green Gage*, *Jefferson*, *Cox's Emperor*, *Kerke's*, *Oallin's Golden Gage*, *Magnum Bonum*, and *Golden Drop*. The Pears and Apples grown in pots are confined to a few varieties which are esteemed for their earliness, fine flavour, or colour. Pears — *Citron des Carmes*, *Doyenne*

d'Ete, *Yat*, *Jargonelle*, double-grafted on the *Quince*, which bears freely; *Williams' Bon Chrétien*, *Marie Louise*, and *Bourré d'Amanhis Panachée*, a variety beautifully stripped with red; *Doyenne du Comice*, and *Bourré Clairgeau*. Apples — *Cox's Pomona*, beautifully coloured when grown in pots, *Cox's Orange Pippin*, *Melou*, and *Northern Spy*, both American Apples, and a beautiful Russian sort named the *Red Transparent*.

The selection of Peaches and Nectarines planted against the back wall comprises some of the new kinds raised by Mr. Rivers, and the best of the old varieties. The Peaches, according to their time of ripening are *Early Beatrice*, *Early York*, *Early Alfred*, *Dr. Hogg's Early Mignonne*, *Grosse Mignonne*, *Noblesse*, *Malta*, a deliciously flavoured and medium-sized Peach of the *Noblesse* section, *Stamp the World*, *Barrington*, *Late Admirable*, *Walburton Admirable*, *Gregory's Late Teton de Venus*, and *Salway*. Nectarines, in the order of ripening — *Fairchild's Early*, a very old small red kind, *Hunt's Tawny*, *Rivers' P. orange*, *Violette Hative*, *Eruge*, *Murrey*, *Downton*, *Rivers' Albert Victor*, and *Victoria*.

Another great use of this glass covered wall is for producing salads in the winter months, for without much trouble a succession of fine succulent Lettuces and Endive can be had every day when wanted. The Endive is lifted with balls of earth, and put into covered boxes in the Mushroom-house, where it becomes sufficiently blanched in three or four days. The Lettuces are planted in the border in the autumn, and a slight covering of hay preserves them from severe frosts, should the hot-water pipes not be used. A good supply of blanched Chicory is likewise had by sowing it in July on a north border, and lifting it when wanted to plant in large covered pots, where it soon blanches. This forms the *Barbe de Capucin* of the French salads. *William Tillery, Welbeck*

VARIOUS METHODS OF GRAFTING:

WITH AN ATTEMPT TO INQUIRE INTO THE INFLUENCE WHICH THE STOCK EXERCISES UPON THE SCION, AND VICE VERSA.

[Read at the Manchester Congress, July 22, 1869.]

You see, sweet maid, we marry
A gentler scion to the wildest stock,
And make conceive a bark of baser kind
By bud of nobler race: this is an art
Which does mend Nature, change it rather, but
The art is Nature.

By the above quotation from "The Winter's Tale" it would appear that Shakespeare, whose profound knowledge of human life in all its phases has been, and will long continue to be, the wonder and admiration of mankind, was by no means ignorant as regards the art of grafting. It is reasonable to suppose that he would hardly have written the above lines had he not practised this art himself, or at least been thoroughly aware of the objects for which it is usually performed. This art would indeed appear to be of the greatest antiquity, and the date of its discovery, like the case of its earliest practitioner, is hidden in the mists of countless ages.

The practice is alluded to in Holy Writ and Pliny, and other ancient writers, have also alluded to the subject. In some of the r writings fabulous descriptions are given of extraordinary fruit-trees, so grafted as to produce sundry and very dissimilar kinds of fruit, such as Apples, Plums, Figs, Grapes, &c., upon the same tree. But it will be readily supposed that if any such trees ever existed they must have been produced by similar means to that said to be sometimes resorted to on the Continent at the present day, where trees are occasionally produced, and offered for sale, on which appear to be growing the Orange, the Myrtle, the Pomegranate, &c., all upon one stem. All this, however, as may be supposed, is merely a deception, accomplished by having cut out the centre of the stem of the largest variety used, and drawing the smaller stems of the other sorts through the hollow thus formed, each individual plant retaining its roots and thus for a time maintaining a struggling existence. By the adoption of similar means the Strawberry plant has been represented as growing from the stem of a Rose tree. This, too, is accomplished by taking the runner on which the Strawberry plant is produced through the Rose stem, which had previously been hollowed out for the purpose, while its roots occupy the same soil as that in which the Rose tree is growing.

It may, I think, be reasonable to suppose it possible that Nature, or accident, may have first suggested the practice of Grafting, as instances are frequently to be met with in woods and thickets, where branches of trees happen to cross and to press upon each other and the friction caused by the action of the wind in time disposes the bark, and as the branches increase in strength the friction is resisted and the pressure increased, until the result is a permanent and organic union. This may be considered as grafting by approach, a practice which cultivators have imitated in the method known as *Inarching*. Various modes of grafting are practised, all of which, under certain circumstances, have their respective advantages, but of these methods the limits of this paper will only allow me to glance at those which are found to be the most applicable to general purposes, and many other so-called methods may be considered as merely modifications of the same. In all methods of grafting it is of the greatest importance that similar parts should be placed as much as possible in contact with each other, and on this account the method known as *saddle-grafting* may be considered amongst the best, as presenting the largest possible surface to receive the ascending ducts or sap. This method, however, does not appear to be so generally practised as might be expected — possibly on account of more time being required to perform the

keeping up a supply according to the nature and quality of the plants employed for general decoration.

POTATOS.

There is no vegetable so popular and indispensable as the "noble tuber" Princes, peers, and peasants...

With regard to many seedlings kindly sent to me for trial, I regret that I cannot speak so favourably as I wish. They are all good croppers, but some of them are behind my sorts in quality and flavour.

Two sorts have produced axils of the leaves, and these Potatoes have started...

Thornycroft's Seedling has variegated foliage, and yellow Gleeson's Late is marked like waxed rock in a confectioner's shop; the patches, however, are triangular, and some sabra-fashion...

REMARKS ON THE FRUIT CROPS OF THE YEAR. - At a late date, the late frosts of last year, on account of the late and pyramidal nature of the trees...

the birds; the trees in pots in the Cherry-house ripened large crops, which we commenced to gather on the 25th of May--they are now nearly over.

one of Ker's trellises, the lights only recently removed. Plums have shown strange vagaries; the Early Prolific, found here from a stone some 30 odd years since, seems...

Plums grown largely for market, only one has this season fully succeeded. The Early Prolific Plum trees are all pyramids, about 15 years old, and in number; they are planted in rows, 24 feet row from row, and 12 feet apart in the rows; the 24 feet space has been constantly cropped in a recent plantation...

Owing to the warm summer of 1866 we never had so fine a prospect of a fine crop. Our Apricots in particular, the end of February, were one mass of bloom, but the severe weather we had in March cut them all off.

We had very windy weather, with north and east winds, which the Peaches and Nectarines were in flower and setting the fruit, owing to which, as I believe, many of the fruit which appeared to have set had no vital power, and dropped off, although our walls were protected at night by canvas covers.

Potatoes are very fine and clean here; second earlies are beginning to tuber same as last season. I hear that some diseased ones are to be found in places.

I may mention that the garden here is well protected by high walls all round. The park, in old timber, so that we have perhaps a better chance than most of our neighbours, from whom I hear great complaints. Strawberries I am quite disappointed with. Having planted half an acre last July, which I find is the best time they showed their flower stems a ring and line, but alas the coldest winds which prevailed here over them in the appeared to shrive them up.

On Apricots, Peaches, Nectarines, and cherries I never saw a finer bloom than we had here last spring. We had no frost soon enough to kill, but the bitter east winds completely dried up the bloom.

From a small Peach-house I took up four trees--two Peaches and two Nectarines. Their fruit was all gathered early in 1866. Early in September they were planted in my Peach-house. I have had a full, fine crop from them. The other trees did not average a dozen each.

Potatoes of all kinds are very good crops, and as yet free from the disease. I think the general failure of the Peach and Nectarine crop is attributable to the scorching they had to endure last year, and not altogether to the cold spring we have had, as at this place all the trees were well protected, and yet we must have about 50 fruit.

The cold easterly winds in the spring carried off the fruit before it was set. I had Apricots large enough for tarts in the first week in April, when one morning, to my great surprise, I found most of them turned yellow and dropping from the trees in great numbers.

We must look farther back than their time of flowering for a solution of the unsatisfactory state of the fruit. The trees under which the wood and fruit buds were grown and matured last year. First, the excessive heat and drought of May, June, and July, then in the five following months we had here a fall of 29 inches of rain, being 11 inches more than fell during the same time in 1867--a state of things at that time of the year not conducive to their maturation; and then an open winter (so...

undering the trees much more susceptible to the effects of the frost and continuous cold of March, at the beginning of which vegetation was unusually forward. On the 16th standard Violet Plums were in flower, Gooseberries, &c.; on the 27th, flowers of Horse Chestnuts were frosted, and strewed the ground below the trees.

We have often to deplore the sad effects of late spring frosts, and I have often, in the course of 24 years spent in gardening pursuits, seen the hopes of a fine crop of stone fruit, such as Peaches, Nectarines, Apricots and Plums, destroyed by late frosts. I am sorry to say that this season is not an exception, for we had frost in the North Riding of Yorkshire until the 10th of May. I have a scarcity of fruit. I must add, never in my time do I remember seeing such a quantity of blossom on standard trees, particularly Apples and Plums; and at the present time one requires four eyes to see any fruit of either.

On the 7th of last May I had the Peach trees on the walls at this place uncovered, by having the double covering of netting removed altogether, when I never beheld the trees more promising to be productive of a good crop of fruit, which they have never failed to be for the last 40 years, during which period I have always personally attended to their general management, as I have done in the current season. But, to my mortification, in no sooner did the frost set, than they commenced dropping. At this time there are not two Peaches or Nectarines on the open walls--Linnæus dear bought wit--by premature exposure entirely of the trees to the then fluctuating atmosphere that followed. Of course Peaches and Nectarines under glass are an exception to the above fatality. I am more fortunate by having abundant crops of all other stone fruits that are grown at this place. I find that the variability of our climate during last spring and early summer...

crop ever known, this year we have none. Plums the same, except Victoria. The small fruited were very plentiful and fine last year, this year they are poor and very few of them, except Raspberries which bore well. Several kinds of Apples that in ordinary seasons are very poor, were last year well coloured and well ripened. Peaches and Nectarines were well ripened and very sweet this year they do not swell very kindly, but the trees are very healthy. Apricots scarcely bear a crop, and the same may be said of Figs. The beautiful bright green water we had last year was very beneficial for garden purposes in this dainty climate. The quantity of rain that fell at Carmarthen was a fraction over 30 inches. *J. T. Richard, the Currier, Dynevor Castle, August 2.*

The crops of Peaches in late houses with no fire heat have failed miserably. The frost has been more injurious to shrubs and trees here this year than last year. We have had a little rain up to this date, but it has not been sufficient to do any good. Apples of all sorts are in a very poor state, trees and shrubs are covered with mildew. *J. T. Richard, Dynevor Castle, Park, near Carmarthen.*

The early spring frosts killed the first set blooms, and the sharp frosts at the end of May and beginning of June considerably thinned the remainder. Apples are first-rate on Pippins and those kinds that rejoice in the heat of last year; late frosts and cold west winds, however, were the main causes of the reduced number. If the weather proves favourable, the fruit will be fine in quality. Apples injured the leaves of Plum trees very much, and spoilt many fruit. *H. Knight, Fl. and Hort. Cult. Kew.*

Fruit trees never looked more promising than they do this season, as there was a perfect season of bloom, but unfortunately a week of frost has done much to injure them. The gardens here are in a very poor state, a ring frost has done much to injure them. *J. T. Richard, Dynevor Castle, Park, near Carmarthen.*

The present season in this part has been one of the most favourable to fruit crops. From the first summer I can recollect, there has not been a week covered with such a quantity of rain as we have had in bloom and set in May, and in which the thermometer fell 20 degrees below the freezing point, sometimes as many as 30 degrees below. All the early fruit. The early part of May was a most rainy, with an east wind, the sun was not seen for 10 days. Frost on the 12th of May frost for 10 days, and left many of the trees in a bad state. The garden here lying low and damp spring frost takes great effect, but most gardens in this locality have suffered much from the severe spring. *J. A. Carraghmore, Waterford.*

All early kinds of Potatoes are excellent, late kinds looking well, vegetables in general are good. Peas in particular. Our lowest temperature this year was 11° of frost on March 3, our highest temperature (so far) about 40°. *A. Ingram, Alnwick Castle Gardens, Northumberland, August 3.*

Vegetables in the gardens here are over

runners, and the "killers of the soil" to agree upon the merits of deep cultivation; true, all lands cannot be treated alike, but there is sufficient breath and open to the soil, and it would be well to have a special Act of Parliament to make compulsory to cultivate deeply those lands; and if we are to have a succession of hot and cold summers as we have been having lately, it will be quite as necessary to cultivate deeply as it is to use the use of lime or other substances when a piece of the human or brute creation appears. Our trees and other trees have made a great deal of water, and the leaves are very healthy. *H. Knight, Fl. and Hort. Cult. Kew.*

The crops generally are looking well in this neighbourhood. Peas, Turnips, Cauliflowers, and late Potatoes are beginning to feel the want of rain, not having had much rain since the 1st of July. *George B. Tillyard, Brookley Park, Lincolnshire, August 4.*

Orchard-houses with a view to the production of fruit waxes, immediately under my superintendance about 25 miles distant from the other the soil are on the secondary formation, the one having a substratum of sandstone over the coal beds, the other a substratum of mountain limestone. The latter has the best crops in every instance. There was a fine show of fruit up till the heavy rainfall and cold north-east winds of May. The low geothermal temperature during the spring months was, I believe, the principal cause of failure of the stone fruit crops. Quinces are a failure. There is a fine crop of *Fragaria Ugent* against a wall in Merionethshire. The following is an account of the result for Wynnstay.

1860 shows 54 inches rainfall, and 1861 40 inches. *P. Matthews, Wynnstay, Rhoslan, Denbighshire.*

Home Correspondence.

Golden Champion Vine. We learn as much from our failures as from our successes, hence I am induced to record the following case. A plant of Golden Champion Vine was bought during last winter, from Messrs. Osborn & Sons, and being one of their strongest varieties it bore, and bore a high price. It was planted along with about 20 others in a house properly attached with bellows power and properly made up of the best material. As the vines were allowed to start

a cautious and natural manner, as the season advanced. The Golden Champion was the first to break buds, and pushed vigorously into growth of about 4 in height, which in a short time became shriveled up, and have remained in a half-dead condition ever since. Now the Vine was placed under the same conditions received the same treatment as the others that were planted in the same house at the same time, and they have all, except this one, reached the top of the house. The point settled, "failure not from my treatment." The question arises, where is the cause of failure? Is it the Vine's natural weakness, or is it that it was over-rushed in its young state and badly ripened? Perhaps those who have made purchases from the same batch of plants would be kind enough to state how they have managed. It will enable us to arrive at some conclusion regarding this case. *C. J. B. J.*

Hawk-moth. Your correspondent, *Verulam*, says Boyle is wrong in supposing the insect he has captured to be a variety of the humming-bird Hawk-moth. It is, without doubt, one of the larger Sphingidae or Hawk-moths, but from the description given it is difficult to speak with certainty of the exact species. Several of that family are extremely rare, while others are more frequently observed hovering over flowers at dusk. Your correspondent would seem to wish to deprive the humming-bird Hawk-moth, *M. stellatarum*, of its proper rank and place among the British moths, owing to its more sober colouring. It is true its flight is diurnal yet this is the case with several other species of moths the colouring of which is even more brilliant than some species of butterflies. I distinctly recollect Mr. Boyle has secured a fine, possibly rare specimen of the Hawk-moth *S. H. J.*

Mushroom Culture in India. The common Mushroom grows spontaneously on a grazed and in Bengal. In 1842-3, I occupied part of a building converted from a bullock shed. In the cold seasons, Mushrooms in large quantities forced up the house, which standing in a roomy state. As I gathered many a potato for breakfast, I can testify to the excellence of their quality. That Mushrooms may be very simply cultivated, the following example, the result of an accident will show. A friend of mine here thought he would utilise an old greenhouse in the garden by growing some Cucumbers. In the early spring he had a bed made of his stable litter, with a thin covering of soil. This done, the place was left to itself. Passing one morning, he noticed that the bed was thickly studded with Fungi, which, to his delight, he found

day. I may explain that the greenhouse gets but little sun; that the litter was sawdust and horse droppings, fresh; but, having been stored in an open shed, it was probably well saturated with water. The spring was wet and the greenhouse was well covered, but some of the glass broken. I have had to deal with vast numbers of white ants in my time. From what I know of the soil of their nests, I should think it valueless for growing Mushrooms. I should regard it as a waste of money to send spawn to India. It can be produced there anywhere under the usual conditions. A proper bed in an old greenhouse would soon give 100 lbs. down are general. *Mark A. Wood, based at the Indian stable, as a rule, is not of much value. The droppings are generally kept separate, and the urine during the day is commonly caught in the syce in an earthen vessel, and thrown away. It is necessary to have a good arrangement for producing good litter. By the way, what are the elements or constituents that go to produce Mushrooms—urine, excreta, fermentation, or what? Cattle dung is cold. In the case of the bullock shed, production must have been from urine, the dung being a waste of matter as dropped and reserved for fuel. My friend's sawdust had been well used, and thoroughly saturated afterwards with rain. *W. Clifford, Warwick.**

Iron Pipes Blocked.—I live 20 miles from London, and last year I put up a water-wheel to pump the water into my house. The water-power was brought from a pond, distant about 150 yards from the wheel, through a 3-inch socket iron pipe, with a galvanised coupler at the end to prevent weeds or other material from getting in. I had a spring, and the water is hard. Latterly I found the flow from the pond very much diminished in volume, and upon examination the pipe was believed with a sort of Fungus, or a vegetable matter. I have had it cleaned out at both ends, evidently the living runs through the pipe, as we cannot get an increase of volume. It would not seem to be of any use to break up the pipe, and to have it cleaned out, as the Fungus will grow again. Is it a common occurrence for a vegetable substance to grow in an iron pipe through which water is constantly running? Would the same substance in all probability grow if the iron piping had been galvanised? Would the same substance grow if galvanized rather were piping had been used? Is there any plan or use where a free circulation of water could be obtained at all, and can be had to the pipe? I can't get it by a system of wells at stated intervals. *Wynnstay, Rhoslan, Denbighshire.* The production which is your pipe is apparently *Blasphorophora nymphaea*,

Party (or a very closely allied Polype), referred to Alge by the author of the genus, but belonging rather to the *Hydrozoa*. The smell is almost intolerable, and you must certainly take some measures to clear the pipe. You had better consult some chemist, to ascertain what you may use, which would at the same time kill the animal, not injure the pipe, and not be likely to be poisonous to the water. If you could cut off the supply of water for a time the animal might die, but to that end the supply must be completely cut off; and perhaps, after all, the resting-gorms, which are very abundant, might bear a considerable degree of drought. Chemical treatment is the most promising but the exact nature of the difficulty. *M. J. B. J.*

The Vapourer Caterpillar.—Thanks for your reply about this caterpillar. It has been most interesting to me, and I have been very much surprised to remark that it was not at all particular as to food it was looking. At the base of the Rose trees running ribbon border planted thus—Back row, *Pelargonium Cybister*; 3, *Calceolaria aurea floribunda*, 3, *Polygonum Flower of Spring*, 1, *Coleus Verschaffeltii*, 1, *Pelargonium Lady Cullum*, 6, *Labellia speciosa*, 7, *Corastium tomentosum*, 8, *Oxalis black-leaved*. The Vapourers had got as far as the fourth row, and were picked off the *Pelargoniums* and *Calceolarias* by the post. As I thought we had cleared them from the Roses, but for your prompt answer I should not have examined the ribbon border until their jaw-marks had marred its beauty. As it is, I hope by frequent pickings to save it from being sawn up into food for the horrid Vapourers. I found them gnawing away at the *Calceolarias* and cutting into the *Pelargoniums* in the most wholesale manner. They eat both leaf and leaf-stalk, and doubtless stem likewise, of soft, succulent things. *J. T. R.*

Lilium auratum.—I possess a plant of *Lilium auratum*, which has thrown up two spikes of bloom, one of which has nine blooms on it, the other 45. Is not that an unusual number? *C. Wood, Gr. to A. Drace, Ed. Dulwich.* (See report of Royal Horticultural Society meeting, p. 393. Eps.)

Cedar of Lebanon.—There is a fine Cedar of Lebanon standing in the kitchen garden here, of the following dimensions:—Height, 65 feet; circumference of base 2 feet from the ground, below the first branches, 18 feet 9 inches, above the first branches, at 7 feet from the ground, 19 feet 4 inches; circumference of opposite lower branches, 6 feet 6 inches, 8 feet 6 inches, respectively. The diameter of the tree at 10 feet (allowing 8 feet for the diameter of the base) is 125 feet 6 inches. *Thomas Fowles, Gr. to J. T. R. Warrington, Bart., Stamford Court, Warrington.*

Potatoes.—It was a fine specimen of the American Rose Potato, which were taken at 100 lbs. weight. I had an idea at once, and got as enclosures of the Potatoes were. Had it been offered at that price, I would scarcely have met with any other all the "peas" that have been sung its wondrous merits, to what, on a fair trial, does amount? Why, simply that whilst it is no more productive than many of our own standard varieties by no means of such good quality. There are some extraordinary statements made as to its production, but these results have only been obtained under cultural conditions, such as if applied to some known kinds would assuredly produce a similar result. I gave a pound of it to a friend, who had a very large good-sized tubers were cut into small pieces, and I obtained 10 pecks of fair sized potatoes. I got 10 pecks of very fine ones, the same number of Waterbury's, Warrington's, King's, Duke's, and the King's, I think I have never seen any other potatoes that were so good as these. I had to assist me in the trial, and I had an American rival. Besides, it was the first year that it was previously offered at that price, and the consequence, the first year, was a very high price. In such circumstances it is a fair trial, and it is to be a late second early, producing tubers, of a reddish pink colour, and a very white and mealy on the outside. We have not as good Potatoes here in England as we have in any other country, and perhaps a nationalism, but (for his own country), and I am sure that seems to have existed in the time of the same and other Potatoes, whether a good speculation for some enterprising export to New York a cargo of some of our I think he might make no end of "almighty" it. Another American novelty was raised upon the public last spring—a round American Red. This I find to be very good, and with our own Red Regent in the market, it is a very good one. I may mention that in the winter I purchased a quarter of a peck of imported French Potatoes, much of the colour but of rather a darker shade of red, and proved also to be one of the red Regent type, very handsome tubers of such a present quality that I will prove, after keeping, quite as good as the French. Such is the multiplicity of sorts now, that I would be a great boon both to the trade and the consumer if some central authority would undertake to give, for two or three years in succession, a fair trial of all existing kinds, to synonymise all that have really good, and give them certificates of merit, and let the public take their chance; such a trial as this would be a

bottom and the small ones on the top, and the depth of the drain would be about 3 feet. The bottom of this drain got stopped from the accumulation of sand at the mouth, and we had to open it up for several yards, and as we did so, it being the depth of winter, we were surprised to find nearly a hundred frogs, all of a bright yellow colour, and quite lively, nestled there for the winter in the pure spring water, which never froze, all tightly packed between the large stones in the rubble drain. A Frenchman would have looked upon this as a treasure, and would have dressed and cooked the legs of every one of them, but as we had no such longings, they were all allowed to go down the stream in peace to seek for some other hiding-place.

We are all well aware that a wet frog in frosty weather would be frozen to an icicle unless some such provision had been made for it, but as the winter rains generally keep the ponds and ditches well supplied with water during the frosty season, the frog finds no difficulty to get lodgings in the deep water, or in drains out of the way of frost. At the time I speak of there was a brook of clear water and several pools on the common within a stone's-throw of our house, and from what I have above stated, I need scarcely remark that frogs abounded; they spawned in the pools, and plenty of frogs were to be found in the trout streams, so that when I had groped under the stones for trout, I have been annoyed to find that frogs were there. Whether we kept ducks to keep the frogs in check, or for the sake of the ducks' eggs and ducks' flesh, I know not, but certainly our ducks were quartered upon the frogs, and that for half the year at least they would come waddling home every night with their craws well crammed with this dainty. I have often been in at the death and seen the duck turn the full-grown frog about until she had got it headforemost, when it had to go down alive and kicking into the craw. Now if toads (*Bana bufo*), young or old, had been presented to the ducks, they would not have touched one of them, and this discrimination goes far to prove that the toad is at some time of the year not without venom, as many credible witnesses have testified. Without going further into the history of the toad can at present be balanced against its unsightliness, their numbers might be very much thinned (where they are a nuisance) during the approaching spawning time; the spawn of the toad will be found in lines, whilst the frog spawn is in clusters. One year I had the garden infested with millions of young toads after they had left the water and could crawl, and the following season I gave a boy a score for all the full-grown toads he could collect in the spawning season, and so well did he secure the end in view that very few were seen about the pleasure-ground after what he had netted. But to return to the frog, and first of all let me assure your readers that I am no advocate for the eating of frog legs (for that is not only part that is eaten), but, although we are not to eat them ourselves, that is no reason why our ducks should not eat them, and have such cheap and natural food provided for them. The frog is wonderfully prolific, and the swarms of young frogs that annually leave the spawning pools is such an army that one wonders where and on what they will all be fed. It is a very easy matter to accommodate a colony of frogs if they can only get an old quarry-hole, a marl pit, or even a deep ditch to breed in in spring; and before the tadpoles have legs, let the pool be enclosed with a low wall or close palings, and the frogs and their progeny will be at the service of the master of the pond; it will be a frog preserve. Young pheasants are fed with ants' eggs, young turkeys and chickens get maggots, grubs and worms provided for them; it would be idle to argue the matter with the gamekeeper or the henwife, for they have learnt from experience that nothing will do better for chicks than this fresh live food, and few things have been found to do so well. In Devon, near Torquay, such were the number of snails that in spring you could not walk in the Clover ley without crushing four or five small snails at every step, and when the young ducks were let out in the morning they ran away to the feast of snails, and the game fowls and prize birds kept were always ready for a few crushed snails whenever they could get them. I mention this to show that crawling insects and seeds besmeared with mud and sand are the natural and even the necessary food of poultry, from the handsome peacock and pheasant down to the barn door fowl, for the stones in the craw of the bird tell the plain truth, and you may see them eat stones and sand with avidity. They are all foul feeders, and the duck is particularly so, and has a gluttonous appetite, and should only be kept where it could be fed after its own fashion. Cobbett said ducks should not get to the water as it unfitted them for the table, but I need not quote from this author any further beyond the single word "Quack." Many persons have thought to make money by buying food to rear ducks, but they have generally failed, as the food was all too costly, and generally too dry for this aquatic bird. Had the frog been a true fish, instead of belonging to "Reptilia," I should have had an easy task, as the science of pisciculture is just now in the ascendant, people are beginning to see that if they are to have full-grown fish they must first take care of the spawn and the young fry, and make fish ladders in the weirs for the fish to get to the spawning ground and back again to the sea. With the Frenchman stew or preserves of frogs is a feat already accomplished, whilst we are only feeling our way and borrowing or calling in the aid of the duck to help us to get any good of the frog at all in our domestic economy. The frog eats no man's grain, or other manna, like the thievish mouse, and is of a retiring habit, and always clean washed, and gives a dainty morsel to birds of prey as well as to snakes, &c. One thing, however, is quite certain, that when our ducks get plenty of frogs, and the run of the common, they

land eggs and required little or no feeding, but in winter, when the frogs were protected by ice and deep water, the ducks had to be fed at the barn door. Notwithstanding the dirty habits of the duck, and its frog-eating propensities, ducks, wild and tame, are likely enough to hold their ground, and at present fetch quite an unreasonable price in the market, for they are a luxury at the table of the greatest in the land, and it is high time that a step should be taken in the right direction to get such a want supplied. There is no novelty in this mode of feeding ducks, for who has not read or heard drummed in their ears of the "Frog that would a wooing go" and of the "Lily-white duck that gobbled him up," with the chorus of

"Rokey polky, gammon and spinage,
Heigh-ho! said Anthony Rokey"

Alex. Forsyth.

FLAX CULTIVATION IN IRELAND.

THE accompanying interesting Table, which has just emanated from the Agricultural and Statistical Office, Ireland, is well worth the attention of our readers. It shows in statute acres the extent under Flax in each county and province in 1868 and the present year; also the number of scutching mills —

Counties and Provinces.	Extent of Land under Flax.		Difference between 1868 and 1869.		Number of Scutching Mills in 1868.
	1868.	1869.	Increase.	Decrease.	
ULSTER.					
Antrim	20,147	20,071			78
Armagh	21,723	22,730	1,018		133
Cavan	18,118	14,860	1,53		35
Donegal	22,265	27,973	3,708		280
Down	36,887	37,550	663		267
Fermanagh	6,654	8,981	2,307		30
Londonderry	22,008	24,121	2,015		206
Monaghan	20,302	23,178	1,976		69
Tyrone	29,143	34,505	5,452		208
Total of Ulster	192,230	211,044	Increase, 18,814 acres.		1,420
MUNSTER.					
Clare	683	803	120		3
Cork	1,095	2,020	925		29
Kerry	552	538	14		3
Limerick	127	107	20		1
Tipperary	297	349	52		6
Waterford	87	80	7		4
Total of Munster	2,837	3,796	Increase, 959 acres.		44
LEINSTER.					
Carlow	24	10	14		1
Dublin	6	5	1		
Wick	5	3	2		
Wexford	6	7	1		
Kildare	4	4			
Longford	1	1			
Louth	2,433	1,965	468		10
Meath	843	670	173		10
Queen's	84	74	10		3
Westmeath	181	218	37		6
Wexford	511	242	269		7
Wicklow	6	2	4		
Total of Leinster	5,169	5,258	Increase, 89 acres.		47
CONNAUGHT.					
Galway	254	274	20		4
Leitrim	14	10	4		
Mayo	2,482	2,077	405		5
Roscommon	1,478	2,408	930		7
Sligo	54	47	7		8
Total of Connaught	4,257	5,035	Increase, 778 acres.		34

Total acreage under Flax in Ireland in 1868 and 1869:— 1868, 206,483 acres. 1869, 225,178 acres. Total increase in 1869, 18,695 acres.

Total number of scutching mills in Ireland in 1868, 1,542.

Year	Acres.	Year	Acres.
1851	140,586	1861	147,957
1852	137,008	1862	150,070
1853	174,079	1863	214,090
1854	151,403	1864	301,693
1855	97,076	1865	251,433
1856	106,311	1866	263,507
1857	97,721	1867	253,257
1858	91,846	1868	206,483
1859	130,222	1869	225,178
1860	129,505		

The total area under Flax fluctuates considerably from year to year, as may be seen from the Table subjoined to the one alluded to, in which the aggregate extent of Flax grown in the years from 1851 to 1869 is given. The smallest amount of land under this crop appears to have been in 1858, when only 91,846 acres were reported. Since then the area has increased, although hardly with satisfactory steadiness. In 1864 301,693 acres were under this cultivation, the largest area yet registered, this was decreased to 251,000 acres the succeeding year, and since then the extent has varied from 206,483 to 263,507 acres. The smaller area represents the extent in 1868, and during the present year we are glad to notice an increase of 22,695 acres, making a total area in 1869 of 225,178 acres. This increase is almost entirely due to the province of Ulster, which alone has 18,814 more acres under this crop at present than in 1868. Connaught contributes 3823 acres to the total increase, and Munster 959 acres. The province of Leinster only shows an increase of 89 acres. The great bulk of the Flax crop is therefore seen to be grown in the north of the island, where the people have earned the character of greater thrift than their brethren in the South. Would that the growth of this valuable plant could be more extended in south Ireland the employment it would give to holders of small occupations would be an immense advantage.

AGRICULTURAL GLEANINGS FROM BRITISH CONSULS' REPORTS.

France.—The crops of the last harvest turned out very good, and those of the present year indicate favourable results. The British Consul says this part of France suffers incalculable damage every year from the cockchafer grub (*Melolontha vulgaris*), nothing being safe from its ravages. Considerable sums are paid by the local authorities for the capture and destruction of the cockchasers, and many tons weight of these insects are yearly thrown into the sea. Their great numbers are principally owing to the wanton destruction of small birds which has been allowed to take place.

Lombardy.—The rent of land in Lower Lombardy varies at present from 120 and 200 to over 500 lire per hectare (1/18s 6d. and 3/15s. to over 8/1s. 6d. per acre), this last price being given for meadows and market gardens near towns, especially in the neighbourhood of Milan. Land in Central Lombardy is cultivated on the "metayer" system. The conditions of the contract, which is generally a verbal agreement, vary in different localities, but payments to the landlord are always made in kind, with the exception of a very small rent for a cottage, or rooms, &c. The expenses of cultivation are borne by the peasant, the taxes and certain repairs by the landlord. In Lower Lombardy the land is held on lease by farmers, generally for a period of nine years, and in some few instances for a term of 12, and sometimes 15 years. Any additional building erected, or improvement made, by the tenant is estimated when his lease expires, for which he receives adequate compensation. The position of the agricultural labourer varies in different districts. In Central Lombardy the prevalence of the "metayer" system excludes the question of wages. In Lower Lombardy, however, the system of wages generally prevails, although when rice is harvested payment in kind is very frequently adopted, i.e., so many bags of rice per quantity brought in.

The actual wages of the agricultural labourer seldom exceed one and half lire per diem, but during harvest time he not unfrequently receives from two to three lire. The peasantry of Lower Lombardy are generally in a most miserable condition, badly fed and badly lodged, their hamlets are hotbeds of fever, and from their prevailing want of cleanliness they are especially liable to the ravages of epidemic diseases. In Upper Lombardy, owing to the "metayer" system, the condition of the peasantry is somewhat better, they are at least saved from utter destitution, for should the crop of Indian Corn fail, the landlord provides them with sufficient of that produce for their own sustenance and that of their families. The yield of hay, which is often good both in quality and quantity, is a material of great importance, owing to the large number of cows kept on the dairy farms of Lower Lombardy.

Rye is very little grown in Lombardy, where the soil is better suited for the cultivation of Wheat and Indian Corn. Moreover, as this product does not enter into the ordinary consumption of the country, it meets with no demand. Flax is an important product of the province of Cremona; it is also extensively cultivated in the provinces of Brescia and Bergamo, and in part of the territory of Lodi. Some years ago there was a large export of Flax from the province of Cremona, but there now being in Lombardy several "filatures" for Flax and Hemp, a less quantity is exported.

Georgia, United States.—Of the present state of agriculture in Georgia, it is my opinion, both from a practical knowledge of the same, and from the best information to be obtained, that since the abolition of slavery throughout the State, taken on an average, perhaps one-third less of the number of acres of land may be under cultivation than were planted before that period, and that that portion, now but indifferently worked by free negroes, is not nearly so productive as formerly. When the negro was made free, Georgia lost her agricultural population almost entirely, the negro being the only labourer capable of cultivating the fields, and contending with the climate at the same time. No other population has as yet appeared to take the place of the negro. However abhorrent slavery is, and averse to the feelings of every Englishman, still Georgia had no other resource; that knocked from under her feet, she lies prostrate, unable to recover herself. The freedman, suddenly released from his bonds, entirely unfitted for freedom, looks upon its definition as exemption from labour. He comes to his former owners for assistance when in distress, but forgets them the moment the cause is removed. He, in fact, wishes to revel in all the license of his present freedom and enjoy at the same time all the advantages attached to his former state of slavery. Georgia, never celebrated as a grazing country, raises now but very little stock; her pastures, however fertile, being open to the marauding propensities of the free negroes, are almost useless, and the impoverished state of the Southern farmer has prevented the country being restocked since the war with cattle, sheep, or swine.

San Francisco.—Farming has to be conducted very differently here to what it has in England, or the eastern states of the Union, consequent upon the long drought from May to November, and the intense heat of summer baking the ground to the plough until the rains commence, when work is actively begun, first on the light lands, so as to enable them to hold all the water possible in case of a dry winter, afterwards the low and moist lands are ploughed and prepared for the seed. A quantity of land passed over as worthless, or nearly so, by immigrants in search of farms, is now found to be admirably adapted for the growing of grain under a system very aptly described as follows—The system of summer fallowing prevails to a small extent;

* A Lire is worth about two pence.

to say that the failure took place in the class of agricultural stallions. Of these there were three entries in one section, while the other was a blank, and the three which did come forward were all rejected by the judges. Nor was this state of things from any lack of encouragement. Besides the prizes given by the Royal Dublin Society, a splendid challenge cup was presented by the Royal Agricultural Society of Ireland for the purpose of being awarded "for such pure bred agricultural stallions as may be considered most desirable for improving the breed of draught horses in this country." Owing to the rejection of the horses entered for competition, the cup remains with the Society until next year, when we trust a better claim will be put in for it. The section of agricultural fillies and mares contained, however, some very fair animals, to which awards were made as given in the prize list. The Society, we observe, still continues to offer a prize for the best Spanish sire ass, although it is rarely claimed, and on this occasion the section was blank.

BIRMINGHAM HORSE SHOW

THE fourth annual meeting of this Society has been held this week, and the success which attended it has been even greater than the previous shows. The entries of animals on this occasion were 204, an increase of 54 over last year, and of 71 over 1867. The character of the animals, too, indicated a considerable improvement in the appreciation of these shows by exhibitors; for it was evidently understood that it was useless to send anything that was not really good, or passably so. There were no really bad and "half-middling" animals present on this occasion.

Of thoroughbred stallions for getting hunters there were 10 entries, and 3 present. These were "The Hady," sent by Mr Naylor, of Keltmarsh Hall, Northamptonshire; "Ivanhoff" by Mr Griffiths, Maria Hill, Cheltenham; "Stock nger," by Mr Stephens, Bucknall, Salop; "Amusement," by Mr Westley Richards, of Birmingham; "Dalesman," the most admired horse of the year, by Major Barlow, of Hasketon, Suffolk; "Redoubt," by Mr H Brown, of Monkton, Wiltshire; Mr Manning's "John Russell," Mr Gregory Watson's "Disto," and "The Czar," the property of Fowler Boyd Prime, Esq., Newton Lodge, Monmouth. The 1st prize was awarded to "Dalesman," the strong and elegant chestnut, which was 1st in the recent Lincolnshire meeting, and 2d to the American bred trotter, "Shepherd T Knapp," in Yorkshire, the week after. The 2d was given for "Amusement," a weedy animal, "Ivanhoff," which was 1st two years ago, and 2d to "Motley" last year, being passed over for 3d, "Redoubt" being favoured with that honour.

The hunting classes were a most excellent collection. The grand old bay, "Sprig of Nobility," a horse renowned for taking prizes, was awarded the 1st in the aged class. He is now the property of Major Stapylton, of Helperby, York. Mr McIntosh's "St. Clare," also a well known horse, was 2d, and "Griffin" Mr Berridge, of Barnary was placed 3d. Last year "Mountain Dew" was 1st of this show, the best horse here, however, was undoubtedly Major Barlow's "Topstall." A more accomplished style of minding could not well be possessed, and greater strength in closer compass seldom seen. In regard to his physique "Topstall" may be taken as a model horse. It is not to be wondered at, therefore, that he has carried all before him at the several shows where he has been. Here he of course took the 1st in his class, and he was also awarded Mr Westley Richards' 10 gu. cup for the best hunter. In London he took the 1st in his class, the value of the prize being 50l., in Essex he took 20l., in Suffolk 20l., in Norfolk 30l., and at the Royal the 1st, also 30l. Thus, during this, his first season of appearing in public, "Topstall" has been awarded prizes to the value of 190l. 10s. In the class for hunters under 15½ hands, Mr Westley Richards was awarded the 1st for anything but a taking chestnut, particularly when the good horses by his side are taken into consideration. The 2d prize, Mr Corbet's, of Jumbleton, Mr Humphrey's "Acrobat," a fine old chestnut, and Mr McIntosh's dark brown perfect moving "Voltegeur," were all far before the 1st prize in quality, style, and appearances.

The 4-year-old hunters were an exceedingly good class. Mr Richards was, however, again 1st with a high-bred but far from promising bay. Major Stapylton's strong and staid well-moving chestnut, stood, walked, and galloped like a hunter in every respect. "Chieftain," the property of Mr Jennings, and Mr Berridge's "Shamrock" likewise appeared in most promising form.

The two and 3-year-old colts and fillies were few, and they did not attract much attention.

The hacks, roadsters, and cobs, were a capital collection. In the former Mr Bromley Devonport, M.P., sent a remarkably handsome yearling bay, "Extravagance" by name. Mr Barker's "Bed" the "Wing," a hack 6-year-old and 1½ hands, reaches high, was placed 1st. Mr Cook's "Beauty," a brown mare, is worthy her name, as well as the 2d prize. In the class between 11 and 13 hands, Mr James Hornsby's celebrated animals stepped in to compete. These are "Sambo" and "Beda," a beautiful grey mare to look at and ride. The Yorkshire men the week before last gave the prize against "Sambo," and to the grey mare. This shows how the tastes of men differ, for here are a pair of animals which have always been shown together, and one set of judges have preferred the high-stepping showy action of "Sambo," while other judges have admired the quick but easy and elegant style of the thoroughly-good "Beda." Here the Yorkshire judgment has been confirmed, and the first honour is conferred on the grey mare "Beda."

In the harness horses, Mr Hornsby's "Sambo" and "Beda" were shown as a pair. The prize, however,

was awarded to a fine pair of bright bays, sent by Mr Holmes, of Beverley. Several capital hackneys were sent from the town and neighbourhood of Birmingham. A very elegant chestnut was sent by Messrs. Burbridge & Taylor, of Bradford Street, Birmingham. Mr Joseph Gillman, of Lancaster Street, sent a very good looking white brown hackney. Mr Sanders, of Leamington sent "Peggy," a very clever brown, and Mr Kent, of Spenser Street, Birmingham, sent "Polly," a remarkably elegant dark brown aged mare. Major Stapylton had a splendid 8-year old grey, both as regards appearance and free and fast action.

The ponies were divided into three classes, and a more excellent collection of the various sizes which come under this head we never saw.

The stock cobs and ponies had among them two pure grey Arabs, sent by Mr Clayworth, of Spilsby, Lincolnshire. One of these was very beautiful, and the 1st prize was awarded for him. His reserve price is 300l., and the charge for his sale 2 gu. When we say "King Arthur," the perfect pony which won the 1st prize at Leicester last year, was 2d to the Arab, it will be concluded that the judges had a deservedly high opinion of the Arabian animal.

The dray-horses were but few, and some of the older ones were ridiculously over-fed.

"Honest Tom," the best horse in England, was among the agricultural stallions, and he, of course, took the 1st prize. Mr Manning, of Orlingbury, Wellesborough, Northamptonshire, took the 2d and 3d prizes with "Hercules" and "Black Prince."

The arrangement and management of the show was very creditable to the secretary, Mr Lythall, and all the authorities of the Bingley Hall establishment. The adoption of a card and elastic band for showing the number of each horse on the hat or arm of the rider or leader, was a great convenience, and we hope other societies will follow so cheap and effective a practice. For it often happens that the figures are so small or put so close together, that even if a card be on each side of a horse, it is next to impossible to distinguish the number unless the horse is standing still, and can be closely approached.

— I Cockton Esq, Newsham Hall, Darlington J F Bennett Esq, Richards Row, R. Grange, Rugby J T Plam Esq, The Henlaw Wood, 213 y J E Wey Esq, Barrowby Grantham C Randel Esq, Chadbury Esq, Mr J Swale, Sarsley W. Devonport VETERINARIAN R. HALL—Mr E. Stanley, M.R.S., 3, Islington, and Pershore Street, Birmingham.

Reviews.

Occasional Papers on Veterinary Subjects By William Dick, Founder and Principal of the Edinburgh Veterinary College, &c. With a Memoir by R. O. Pringle, Editor of the "Irish Farmers' Gazette." W. Blackwood & Son, Edinburgh and London.

In his day and generation the late Professor Dick was a name, and in the future his name will be remembered in association with the establishment of the Edinburgh Veterinary College, of which he was the founder and the obtaining of a Charter of Incorporation in which he was prominently concerned.

As an author Mr Dick was but little known, beyond writing occasional articles in agricultural and veterinary journals, he did nothing to add to the literature of his profession, what he did produce, however, was always characterised by that keen appreciation of the practical and disregard of the theoretical which eminently distinguished the writer. From his early associations perhaps he was only safe in the region of facts when he reasoned speculatively he usually arrived at a conclusion directly opposed to one which had been previously deduced from the same premises. His most ardent admirers concentrated their praises in the assertion of his pre-eminence as a practical, never as a scientific man.

Accordingly in the book before us we find a collection of articles which are principally records of the author's observations rather than of his opinions, and as exact and well-defined descriptions of diseases of horses and other animals which came under the writer's notice they are valuable. Mr. Dick's strong bias in favour of the real led him to oppose the idea of a mysterious origin of disease. We see this tendency exemplified in several of his papers, especially in those upon "Foot-rot in Sheep," and "Non-contagious Nature of Epizootic Diseases." Writing of the causes of foot-rot, the author remarks, at p. 95—"The hoofs of sheep, being intended to receive a degree of friction from hard surfaces, are not acted upon when the animal is placed under such circumstances, and the necessary consequence is an overgrowth of the hoof. The crust—the part naturally intended to support the weight of the animal and to endure the greatest share of fatigue—is here allowed to grow out of all due bounds, because the softness of the pasturage upon which it is allowed to present itself, prevents it from being subjected to the friction which the feet of the animal are naturally intended to be exposed to. The crust, therefore, grows unrestrained until it either laps over the sole, like the loose sole of an old shoe, and serves to retain an accumulative earth and filth, or is broken off in detached parts, in some cases exposing the quick, or opening new pores, into which particles of earth or sand force their way, until, reaching the quick, an inflammation is set up, which, in its progress alters or destroys the whole foot."

Again, at page 105, he alludes to the prevalent idea of the infectious character of the disease in the following ironical terms—

"The plague is now known not to be so infectious as it was once thought to be, but the foot-rot will still infect the most extensive downs. The Upas tree may annihilate the existence of all that comes within its pestiferous shade, but what is that to the infection of the foot-rot, when a single sheep will contaminate a

mountain? Nay, it will act even upon parts devoid of vitality, and such, too, as the eccentricity of its action, that it will allow its neighbouring toes to escape, and still infect the whole group."

In the paper upon the "Non-contagious Nature of Epizootic Disease" the same instance is given to illustrate the "infection theory" is uppermost, but, in order to secure adequate evidence, the writer is obliged to state that his choice of illustrations—

At page 200, in reference to the most infectious of an unsound horse, foot and mouth complaint, he writes—

"Its sudden appearance and rapid progress soon proved that it was not propagated by contagion, for when a flock of sheep or a herd of swine, or a large fall of cattle, was attacked, it generally affected the whole of the animals in a night's time, all seemed to be affected, the disease being similar to the eruption of our lips from exposure to cold, or ed herpes. It occurs, however, attacked on the side of a byre, and in some cases almost every alternate cow in the byre being affected, while the other escaped. The disease spread over a great part of the country, but afterwards gradually disappeared, as each variety of the disease being back to a condition of health, and in the case of sheep producing a species of foot-rot, gradually detaching their hoofs."

Pleuro-pneumonia is next alluded to—

"When pleuro-pneumonia followed it was confidently declared by some that it was the result of the previous murrin, and that it also was very contagious, very few, however, who have any knowledge of the disease practically, now believe in its contagious character. It has, however, prevailed to a very great extent, and for a number of years, as an epizootic, and I have no doubt will continue for a considerable time, unless proper means are adopted for its prevention. But what, it will be asked, are these means? Will not a careful separation of the diseased from the healthy do this? Will not a strict quarantine prevent its being communicated to healthy animals? I think not, because it is not, and has not been proved to be, contagious, as I shall endeavour to show."

Lastly, that nothing might be wanting to crown the argument, our author endeavours, in a criticism of Professor Hammond's report on the cattle plague in Galicia, to counteract the belief of the infectious nature of this malady. In reference to the origin of the rinderpest, he writes, at page 225—

"What were the circumstances? I say the want of proper food! Remove the cause and the effects will cease. Had the authorities ordered and enforced the importation of proper food, and given it to the animals, I have no doubt the disease would have subsided. No attempts, however, are made to effect a cure, it is considered so highly contagious, that it is thought that the only way to prevent the spread of the disease is to kill all the cattle that come in contact with a diseased one, and hence the number of victims are enormously increased."

Further at page 230—

"I think it is a pity, that the rinderpest and other diseases have not been more thoroughly investigated in this country, and as nothing can be said in its favour that it is so produced on the Continent, and I believe that it will ultimately be found to arise from causes similar to those prevailing here, and that we have a much safer guarantee against its being brought to this country than either the wholesale slaughter of the cattle, or the carcasses drawn round localities where the disease may have appeared."

The Professor never lived long enough to see, in the progress of the plague in his own country a practical commentary on his argument.

A considerable portion of the volume is filled with the "Proceedings in the Edinburgh Veterinary College," and a memoir of the author of the Veterinary Papers, followed by a list of graduates of his college. By these additions the size of the work is increased, while its interest, except for the Professor's personal friends, is not enhanced.

The Veterinary Papers will well repay the time spent in their perusal, and they will lose nothing in a second edition if they should be associated from their present connection with a record of private and professional feuds belonging to a past period.

Farm Memoranda.

YORKSHIRE. The pleasant prospect of the early part of July is far from being borne out. Around Driffield it is reported that the Wheat ears are very imperfectly filled. In the neighbourhood of Thirsk the same deficiency is prevalent, and the crops are mixed with smut. Tidings from various districts of the county confirm the above statements, and point to the conclusion that a poor yield is inevitable.

HAMPSHIRE AND BERKSHIRE.—A fair estimate may be made of the probable yield, which, from the present state of the crop, and the present and prospect of a drier, is not what a year's production on the ten hills and cold vale land, a partial blight is also prevalent on the heavier crops of the deep leams, but not to any serious extent. Barley is about an average, but blighted where it has been late sown on the downs. Oats are an average crop. Beans, above an average. Peas and Vetches, infested with maggot, but still an average, hay crop, above an average, Swedes, Mangels, and Turnips are safe for a large yield.

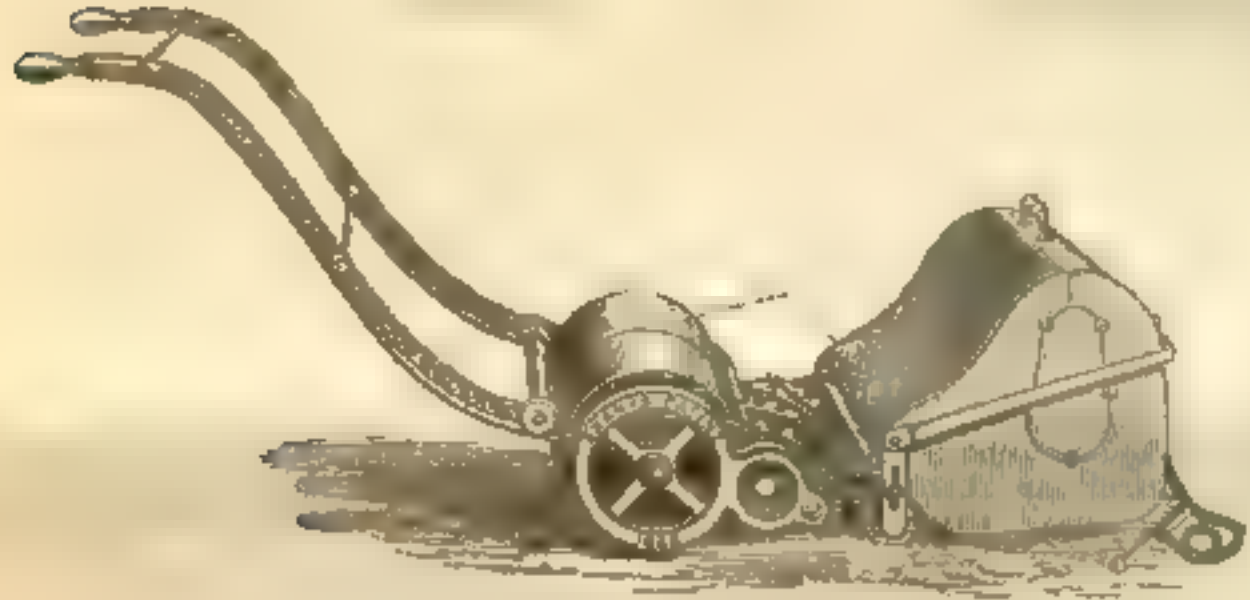
EASTERN COUNTIES.—The weather has been unfavourable for harvest operations. A report from Bungay, in Suffolk, states Wheat to be below an average. The weather has also been very unpropitious about Debenham, in the same county. Farmers complain both of quantity and quality in Crowland, Lincolnshire, in the case of Wheat, but Oats and Barley are reported good. Around Kettering, North-

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to be heard on this subject, not only on account of its importance, but because of the uncertainty of science. Dr. Huxley then proceeded to assert his position, which was that the affirmations of consciousness were unquestionable, and anything that contradicted an affirmation of consciousness was false. Evolutionism did contradict many of these affirmations, and was therefore false. Evolutionism also assumed responsibility and morality. It argued further that the continuance of the selected forms, with the total extinction of the selected forms if they had ever existed, was an objection to the hypothesis which was, moreover, open to all progress.

A very animated discussion then took place. The President asked of the last paper that he was at a loss to see what it had to do with Darwinism. He had some doubts as to the question of the second paper with the subject—Professor Huxley had appeared to have been engaged in a perpetual struggle since he had been in Exeter. The three papers were of different characters. The second was one of which he proposed to take any view whatever. With regard to the third paper, he thought that they should have the most complete connection between science and philosophy, and in the name of philosophy he protested against such a shallow nature of it as that of Dr. McManu. How could the latter give opinions which were essentially the same as those of Bishop Berkeley's conclusions which he did? Let him read Bishop Berkeley's writings which were short. As to the third paper, he said that the affirmations of consciousness being really true did he not know that the foundations of the modern philosophy had been sapped long ago? It was one thing to say that an affirmation of consciousness was absolutely true, and another that any consciousness therefrom was a so-called consciousness. Dr. McManu had carried out because a man must understand before he could believe, but he did complain that he had been misrepresented. He had written in a recent article that the freedom of the human will was the great question of the present day, but he believed it would never be solved, because it lay in the hands of the latest mind. It was not right, he said, to put in a priori a necessitarian. Professor Huxley highly praised Archbishop Freeman for his candour, but he objected to his conclusions. He agreed with the Archbishop in believing that the Bible was intended to teach a moral lesson. The Archbishop's ideas were not new, but he thought the philosophy of biology of Owen and Agassiz were in error. He thought that the uniformity of type and the order to be seen in the lower and was absent from the higher. Dr. Huxley, who had also been criticised by Dr. McManu, said he had no course to defend himself but to read the papers of his adversaries to which reference had been made, and to answer them if they were the constructions put upon them. That was all that he could do, and he therefore retired. Mr. Darwin was a great observer, but by his own admission, he was not a great reasoner. Mr. Huxley pointed out that the papers had been reviewed, and proceeded to give a few statements with regard to Kent's Cavern. He said that the fossil remains and religious men differed in degree and not in kind. There was no possibility of stopping short of the origin of man, a temporary with the fossil animals, and in the origin of man. He had always believed that Moses had written a cosmogony, and he did not yet doubt that it would be some way reconciled with science. There had been a new way of interchange of species, and when they admitted that they must have a number of separate acts of creation, of which there was no evidence. Mr. Wilson said that he considered that any one of the papers ought to have been read that day. If the papers were read, he would be glad to hear of them.

inquiries lately, especially from amateurs, on the subject, I have taken the favourable opportunity afforded by the meeting of Congress to explain my views. I contend, and have no doubt that really practical men will bear me out in this, that there are no fixed rules for gardeners they have to depend so much upon the soil and subsoil of the particular locality in which they have to labour, as well as to obey the laws of Nature, to which they are subject equally with the mariner, who must study his chart otherwise he may find himself amongst the rocks.

As each individual class of plants is governed by natural laws of its own, it practically follows that these furnish our starting point and guide. As we have to grow the Vine in an unnatural climate, and in outside borders, we are bound to bring science and practice to assist us, for I hold that while we consider science all important, still it must not contravene the experience of practice. As regards the Vine, there is no doubt that in several places in England the subsoil suits it completely, and in such cases, of course, it bids defiance to both rule and artifice. I have seen instances where the roots of the Vine have rambed for a considerable distance, permeated through old brick walls and rubble, and become a complete mass of fibres where roots were never thought of.

In the accompanying plan I do not attempt to define the elevation of borders—that must be left to circumstances, being ruled by the general state of the ground, high or low, wet or dry, north or south. Here, in M.D. Cheshire, I should prefer the top of the drainage to be very little below the ground level, and to get as much of



Fig. 1.

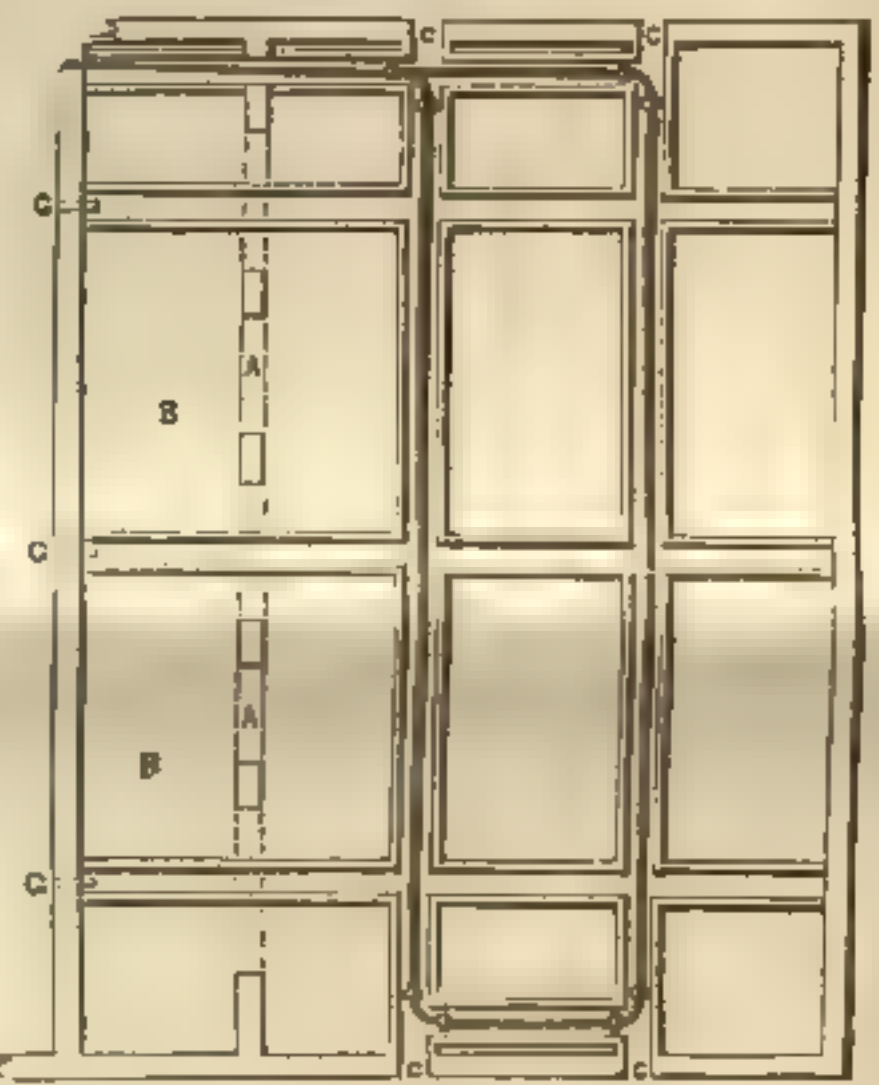


Fig. 2.

the border inside the house as possible. The annexed plan (Fig. 2) shows a house 26 feet long and 12 feet wide outside. The front wall of house A should be built on arches, B is the inside border, C are ventilators. These ventilators I would have fitted with trap doors, either of wood or iron, and they are intended first to act as air passages, and secondly to give access to the pipes. By these means you will at any time be able to ascertain the heat of the pipes, amount of moisture, &c., and by providing the pipes with evaporating troughs they can be supplied with water at pleasure. D (in Fig. 1) is the brick rubble for drainage, E soil of border, F concrete.

The outside border is 12 feet wide and is provided with two 3-inch pipes, flow and return, the pipes to be laid on the concrete and in brick flues formed of two bricks set on edge, and a left pigeon hole, the flow pipes to be nearest the house, on account of the pipes in the border, which will be 12 ft. 2 in. thus bringing the return-pipe sufficiently low for free circulation. I propose covering the flues and pipes with flooring tiles set in cement, so as to prevent the heat rising perpendicularly, and compel it to permeate the border horizontally. I am of opinion this is the one great evil in chambered borders. One can just imagine, after the pipes are at rest, if the subsoil and border are at all moist, there must necessarily accumulate a certain amount of moisture in the lower part of border and chamber, and should the surface of the border become dry, the roots will naturally work downwards in search of moisture. Just picture to yourselves a quantity of nice little white tender rootlets hanging through the cavities advised to be left in chambered borders—you start the bottom-heat, and you have no means of ascertaining the heat of your pipes. What must become of those rootlets exposed to you do not know what heat, before there is any circulation in the sap of your Vines? It would be something like sticking one's toes in the fire. This is one reason why I advocate the ventilation at the end, so that we may know exactly the heat of the pipes, &c., there is no necessity for the pipes to be so hot as to kill or injure the roots of the Vines, but they should secure a nice gentle humid general atmosphere.

These disciples of bottom-heating, who would make their chamber of this the border with four rows of pipes, perhaps adopt a surer method, but it seems to me like putting a kettle on top of a chimney to boil it. I think we should get more heat from the two pipes placed under the border, and they would not require to be so hot, at the same time the heat would be much more evenly diffused than by putting four rows of pipes at one side. I should concrete all borders, unless the roots can be prevented from getting down into any unctuous clayey subsoil. It would be out of place here for me to attempt to deal with any other, for it is the kind of subsoil, with the borders outside, in the north of England, that I consider pre-eminently demands bottom-heat, if the Grapes are required to be ripe in April and May. Air-drains from inside of house, crossing the pipe flues, are shown at G. Now, here is another point I must leave to the option of the constructor, whether he chooses to carry these through to the top or front side, but, under any circumstances, I would construct all air drains so that I could stop them at will. Sometimes you may have occasion to stop them to shut out cold winds, sometimes quite the reverse—to stop dry hot winds. I am of opinion that if the border becomes too dry, and you cannot check aeration, this is not only injurious to the roots, but will have a great tendency to infect the Vine with thrips and red spider.

I will not occupy time further than to state, that I have been frequently told by gentlemen amateurs of the inconsistent, unorthodox, and contradictory writings of gardeners. It is very certain that there are men who prefer running the ribs of their pens unmercifully into each other rather than to depart one iota from them—as, for instance, when they hold to their opinion against turf which has had sheep folded upon it, and assert that caired bones and oyster-shells are dangerous nostrums to be avoided, or when they pass a wholesale condemnation upon such Grapes as Lady Downe's, Black Alicante, &c. I should imagine that most practical men would not object to the former, and as to the latter they are indispensable in most establishments, more especially for the market. Few persons will dispute that when new Grapes can be obtained say through the month of April, &c., they are far preferable to late ones, for a nice dish of new Grapes, with their beautiful bloom, and with the foliage in all its freshness, has much the more tempting appearance, but still I consider that late Black Grapes are invaluable to fill up the previous gap. C. A. Pearse, Arley Hall Gardens, Northwich, Cheshire.

SMOKE & VEGETABLE LIFE.

Read at the Manchester Congress, July 1, 1869.

HAVING been employed for more than 20 years in the midst of a manufacturing district during which period trade has very much increased, and living, therefore, for that length of time had to contend against a gradual increase of smoke and other vapours, which are very injurious to vegetable life, I will venture to lay before you a few plain remarks how that offensive and polluted atmosphere has to a certain extent injured, and in some instances destroyed, some of the trees, &c., in this locality.

When I first came to live in Warrington the air was not so full of smoke and other injurious gases as it is at the present time. Some species of plants which then flourished have now disappeared. I have noticed that as manufactures have increased, one species of plant after another has gradually declined in health, and in some instances has become a mere skeleton of what it formerly was, giving a desolate appearance to that county which it once beautified.

Some plants are much more sensitive than others of the effects of an injurious chemically-poisoned atmosphere. When I came to my present situation the Fir and Larch were healthy—these were the first to give way, and the first which had to be cut down. The Cotoneaster macrophylla next died, the Arbor-vita, Juniper, Erica, and common Rosemary followed. What few now exist of these are in a wretched condition, so is Berberis discifolia the Yew, once very vigorous, is all but destroyed, the Rose struggles hard for existence, the Holly is giving way, and none of the Conifers, if planted on these grounds, will live more than two or three years.

Many of the forest trees that flourished 20 years ago are gradually becoming weaker every year, as the air becomes more and more filled with noxious vapours, and some of them are affected sooner than others. The Sycamore, more particularly the variegated variety, is very tender, and is fast decaying, the Horse Chestnut grows vigorously, but is often severely cut waste the foliage is young, and never worse than at present. The Beech and the Lime trees are somewhat stronger than the above, though very far from being healthy. The Ash seems to stand best, and the Elm the next, but all of these are dirty, and are to a considerable extent injured.

Amongst fruit trees the Pear appears to stand best, but is not up to the mark, and the Plum and Damson moderately well, but they are giving way. The Apple is suffering very much, only young trees are at all vigorous, and these not satisfactory, the full-grown trees are very bad, and the fruit very inferior. Both Red and White Currants have suffered severely, being very subject to the attacks of a mite, the leaves then become covered with an adhesive substance, the soot coats them over and kills the leaves, and the leaves falling off in the summer the wood cannot get matured, and the plant ultimately dies. Our Currant trees, that a few years ago were healthy, and produced very fine fruit, are now quite ruined. The Raspberry stands pretty well in more favoured sites, that is, when the air is moderately free from smoke. The Gooseberry is inferior. The fruit of all these plants would soon be

WINE BORDERS THEIR CONSTRUCTION, HEATING, &c.
Read at the Manchester Congress, July 1, 1869.]
My plan I herewith submit to your notice relates especially to the construction, heating, and elevation of wine-borders. There have been so many contradictory and opposite opinions expressed of late upon this subject that it seems a rather hazardous one to venture on, but my plan is simple and economical, and I consider it; and as I have had many

detected in the market as having been grown in a smoky atmosphere.

Many vegetables which grow strongly do well in summer, but when the autumn sets in the heavy air is so filled with poisonous gases that they soon decay. Kidney Beans sometimes drop off as early as October. Cauliflowers do not stand any frost here like they do a short distance from town; even common winter Greens are injured to a considerable degree, and it is only in very mild winters that the Broccoli keeps alive.

Many half-hardy flowering plants do not prosper. The Pelargonium, which grows the best here, has the flowers often discoloured during the night if the atmosphere is of low temperature and charged with chemical vapours. A few plants stand pretty well. The Rhododendron, Aucuba japonica, and the Hawthorn flourish. Some species of plants suffer in all parts of the garden, while others only suffer in some parts. Where the Hawthorn, Rhododendron, and the Yew are planted side by side the two first are healthy, the Yew almost dead. Where some of the delicate plants are considerably sheltered from the passing vapours, they are somewhat healthier than those more exposed to smoke.

The above remarks have reference only to the grounds on which I am employed, and which are peculiarly situated. Some time ago the town lay to the east and north of the Hall and gardens, but now we are surrounded on all sides except directly to the south. Trade has gradually increased, and during the last three or four years the smoke has progressed too. Some of the works are of a very disagreeable kind, dispersing very noxious smells throughout the town, and unquestionably doing a great deal of harm to vegetable life. I have been on the grounds at all hours of the morning and night, and have felt the disagreeable vapours pass in a body when the wind is from the east.

It is on occasions like this that the flowers are found to be discoloured in the morning. Sometimes we find the foliage while in a young state cut in a straight line, and the leaves are found to be withered.

Before those in the surrounding districts, where there are no manufactories. When the wind is from the east we do not suffer so much as when it is from the west. The smoke, which is carried away by the wind, carries away the smoke, and the air is heavy and moist, and the smoke falls quickly to the ground, hanging among the trees, and passing away very slowly; therefore the plants suffer more.

That some works are more deleterious than others we have sufficient proof. On the east side of the town a firm of long standing has lately introduced a fresh branch into its trade. Close to the works are the factory grounds, which, as well as the land adjoining is wooded in the extreme; forest and fruit trees, shrubs, &c., are dead and dying, and are screened from the works being fit to stand, and even these are looking badly.

The outskirts of Warrington are somewhat better. Conifers that will not live at all with us are found in some of the gardens, but not in a satisfactory state. If we go six miles west we come to one of the most desolate places one ever saw, trees and hedges being killed for a considerable distance. The Thorn and Elder appear to be the hardest; miserable remains of these are nearest to this rising town—Widnes, where chemical works are numerous. If we go another six miles north-west we come to St. Helens, another town spreading desolation, trees are dying for miles away from it. East and southward of Warrington, where no works are, the country is fertile, and the foliage rich.

Warrington is a very unhealthy town, and the bark of the country decaying. The Hawthorn, the Ivy, and the Elder, the Privet grows moderately. All vegetables must be vigorous, others will not stand the smoke. Thirty years ago there were large quantities of ridge Cucumbers in the fields, but now he cannot grow them. The water now grow in the town, unless when the season happens to be favoured by a less amount of smoke than we have on an average.

Under circumstances such as these we can only do our best to grow such plants as will withstand the evil, and ask the manufacturers to assist us by reducing that evil, as far as they are able, by consuming the smoke. Some have done so here to a great extent, we must hope others will follow in their steps. We do not know how much might be done by the aid of a persevering, ingenious man. Many of the plants have been recommended.

usefulness in bringing food, but also for producing things of beauty and adornment, and it is the duty of every man to try to accomplish this end. E. Green, Or to Col. the Right Hon. J. Wilson Patten, M.P., Bird Hill, Warrington.

BRIEF NOTES ON ORCHIDS.

[Read at the Manchester Congress, July 22, 1899.]

THIS is undoubtedly the most interesting of all the three kingdoms around us. The growers most do congregate, and many are the fine and extensive collections to be met with in the neighbourhood. I feel, therefore, that in opening this subject here I have undertaken a heavy task, though I shall be dealing with a very popular subject. When I first began to study the Orchid world a few simple rules for the successful cultivation of Orchids, very few were known, and their habits and modes of growth in a state of nature were even less so, so that as a consequence the

were found very difficult to establish in our plant houses. By steady perseverance, however, the mastery was gained over some few plants, which from time to time opened their curious, beautiful, and, in some instances, delicately-scented flowers, each fresh kind that revealed its beauties only increasing our desire for more, which desire has certainly been gratified in a most extraordinary degree during the last few years, by the immense quantities sent to us from their native habitats by various collectors, until at the present time there can be few short of 3000 species in cultivation in European gardens. Many of these produce flowers of surpassing size and beauty, whilst others, though of small size, and dull in colour, and, though not particularly attractive, are generally most exquisitely marked, and curiously formed, and present a beautiful appearance when viewed with a microscope or pocket lens. These plants, which will naturally enough be regarded by the amateur with limited space, but the whole of the species should be carefully preserved in our large Botanic Gardens, for none are more fully aware of the value of some of these small kinds in determining the limits of genera and species, and none can know the value of living specimens for this purpose, better than the systematic botanist.

It is not my intention, however, to occupy time with the history of the introduction and establishment of tropical Orchids into European gardens, although many curious facts are connected therewith, but to offer a little advice upon their management—to repeat, if I may, some things that many here may have heard me insist upon before, and which therefore will not be new to them, but I will hope my observations may reach many beginners. Orchid growing who may find in them something to assist them in the prosecution of their hobby.

Orchids take first rank amongst the plants cultivated in our gardens on account of their extraordinary size and the peculiar and interesting structure of their flowers. They are found in nearly all parts of the world, and are divided into two large sections, viz., the Epiphytal and Terrestrial. The plants comprised in the Epiphytal are the most showy, and are found in the forks or upon the branches of trees at various elevations, whilst the terrestrial ones are mostly found in the more temperate regions, burying their roots under the surface of the ground, and many of them losing their growth in winter.

The growths of orchidaceous plants are commonly called pseudobulbs, but it has occurred to me very frequently that such distinct forms of growth as those presented by Dendrobium, Odontoglossum, Cattleya, Sobralia, Grammatophyllum, Barkeria, Epidendrum, Catasetum, and others equally dissimilar, require some more discriminative term than this, which is applied indiscriminately to all. In the Eastern world Epiphytal Orchids are mostly represented by such forms as Dendrobium, whilst in the Western hemisphere such usages grow as the rule, true, some few genera in the East, such as Cologlyne, &c., are also Epiphytal, and others, put on this form, but they are exceptional. I do not intend giving in detail the cultivation of this, my favourite class of plants, because my views upon this subject have been for some time prominently before the Orchid world, first in the pages of the "Orchid Grower's Manual," and more recently in the three volumes of my "Orchid Growers' Manual," and in Mr. Warner's illustrated "Select Orchidaceous Plants." The conditions which I laid down at the very first were, moderate heat, an abundance of fresh, sweet air and moisture, with full exposure to the sun, but with shade from the direct rays of the sun; and I have never had any reason to change these rules. I have never seen a plant shriveled, or stunted, or withered, or starved, and perishing through heat, or giving plenty of fresh, sweet air, and keeping it properly charged with moisture, my plants never have the "spot." Spot is the great bummer of Orchid amateurs, and indeed, of many old-established Orchid growers, but it is a disease which, if the previously mentioned rules are followed, and, if in addition, care is taken that no rotten or rotting material is near the roots, either in the shape of sour stagnant Moss, or soil, or decomposed wood.

I am quite aware that some eminent men pronounce this disease infectious, and difficult to cure, and that it is produced by the growth of a minute fungus. That the spot-marks on the leaves are caused by a fungus, I firmly believe, but I also as firmly believe that "spot" is the result of bad health, and not the cause of it, for before the fungus can gain a footing on the plant or plants must have been ruined in health, and have thus become a fitting receptacle for the spores of the parasite. The infectious character, I am sure, is an after-effect of the disease, and if a plant in bad health, and with its roots already becoming spotted, they will become infected with the fungus, and the disease will spread, but if a healthy plant is placed side by side with a spotted one, it will not be harmed. This I have thoroughly tested with my own plants, and have had ample opportunity of watching it in other collections, and I can therefore speak upon the matter with confidence. If a plant infected with spot be by chance introduced into a collection entirely free from the disease, it may readily be cured, but not from the moment it is introduced, but it is better to destroy it, and let the plant be taken out of the material in which it is potted, or if on a block of wood let that be removed; then cut away every particle of decayed or decaying roots, wash the plant and roots thoroughly, and replace it in some good sweet living soil; at the

same time attend carefully to the advice previously given regarding the atmosphere and temperature, and the probability is it will not be long before the plant is again in perfect health.

I have adopted this treatment with perfect success myself for the last three years, and am therefore not propounding a mere theory, but advising a system which I have thoroughly tested. Whilst speaking of theories I cannot help expressing my surprise that many of our leading Orchid growers have been so reckless with their valuable plants, as to have sacrificed them for their whole collection in good health, to test some theory propounded by those who have probably never tried it for themselves. I allude to such cases as those of double-gazons in the houses, exposing the plants to the open air during frost, putting them in draughty situations, and many other whims. Many persons still fight for, and uphold these practices, and are continually persuading their friends to adopt them. Now my advice to all Orchid growers is, if your plants are thriving, be careful not to risk them for the sake of experiment. If you must test a theory, do it with a few common plants, and not risk your collections, as many have done. During the past few years I have seen several fine collections, both private and public, ruined because they were subjected to such theories as these.

It is a fact that many of the older cultivators of these plants seem to have been careless of their charms, and in some instances have relinquished their culture entirely. One reason for this has been the use of fire-heat, which at the same time renders the houses unbearable, hence they have been discarded. Another reason in the case of amateurs, has been the buying of hundreds of newly imported plants of one species, overcrowding their houses, and since as extra ones were taken after they are provided, they become unmanageable, and they are carried in disgust, because a thousand plants do not look so well as a hundred did, in the same space, and with the same care. The cool system, as it is called, has been another source of great annoyance to many, but if carried out in a proper manner it greatly enhances the value of these beautiful plants. Many, however, have launched into extremes, and have, by so doing, young beginners especially, by assuring them that such and such species will grow in an ordinary greenhouse, or even out-of-doors. These assertions, which are not true, the plants have naturally a more precarious existence, and have often perished. Now an ordinary greenhouse is a house with a glass roof, and Ericas, and Fuchsias grow in it, and I beg to say the possibility of any Orchid growing in such a house, or health under the same treatment, and in the same atmosphere that these plants enjoy.

That many kinds will grow in a house, as a temperature I readily admit, but they require less of light, and the sun, they must also have much more moisture, and the walls of the house must be kept damp, and the leaves will soon be spotted, and the plants will be ruined. I would not assert that Fuchsias, or other plants, as a rule, that the species enjoying a temperature do not require a decided period of rest, but that a temperature of 50° in winter, with moderate degrees as little above 65° or 70° in summer, will keep a vast quantity of those denominated "Orchids" in perfect health; and as I am of opinion that greater damage may result from the temperature falling a few degrees below the minimum, than from keeping above it, I never rush to the lowest possible degree. If amateurs would but take some interest in the history of their plants, and have the reason to bear upon the facts, they would soon know where, and under what treatment, they succeed.

But while thus strenuously advocating the cool system of cultivation, I must not forget to mention that East Indian kinds, from the low or hot parts, under the impression that many are doing, are not grown because they think the houses are too hot, and are, therefore, not successful. The need not be the case. Some of the most beautiful known are found among the Vanda, and the Saccolabium, and they will but grow in a house, and in a low temperature, the house being in winter, with the heat ranging from 50° to 60°. They enjoy robust health, and in summer they may be kept at the minimum. A collection of East Indian Orchids, I have recently seen quite astonished me, the house was perfectly unbearable, I can compare it to nothing but a steamed oven, and very little or no air was allowed. The consequence was, no one could remain in the place for even a few minutes with any degree of comfort. Orchids required to be kept in such a house, and I should imagine, would soon learn to correct their habits.

With respect to Terrestrial Orchids, nothing comparatively has been done. As a class they have been much neglected, and for no other reason, I think, than that people imagine they are difficult to grow. This is the opinion of 30 years ago, and I have seen many Duss, Satyrium, Pogonia, Epistephium, Habenaria, Pteris, and others, that many of us have established in our gardens. Cases of failure have been noticed, and that is the complete basking they require in the winter season. In their native habitat, their roots will undoubtedly be deep in the moist soil, although the

is probably of more cultural import than their chemical constituents with certain limits...

in consequence. I doubt they would the growing about maintains the vital current at the flood-tide of its power...

As a result of the above, I think it is probable that the phylogenetic structure will be found to be more or less the same...

THE BEST OF THE CULTIVATED ANEMONES. Anemone alba (white Wind flower).—This I have not met with in cultivation in England...

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Anemone alba (white Wind flower).—This I have not met with in cultivation in England...

that gem the Alpine or Apennine pastures there is not one more worthy of being abundantly naturalised in the groves and shrubberies of all parts of these islands...

as I know, Anemone apennina is not found. It was introduced from Greece by Messrs Backhouse of York, and by them abundantly distributed as the Apennine Anemone...

Anemone coronaria garden Wind flower. A native of sub-humid pastures in the south of France. This plant has been one of the most popular in gardens from the very earliest times...

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There are double varieties and the colour of the flower occasionally blue or reddish, or purplish. I have a single sky-blue variety which has the wonderful property of a fully exposed position...

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Home Correspondence.

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AND DRAINAGE - PLANS MADE, LOANS OBTAINED, and CONTRACTS UNDERTAKEN by...

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THE LONDON MANURE COMPANY

Has now ready for the sale... CORN MANURE, for Spring Use... SULPHATE of AMMONIA, FISHBONE... OFFICE, 116, Fenchurch Street, E.C.

Autumn Sowing.

ADAM'S NITRO-PHOSPHATE or BLOOD MANURE... This Manure is a very valuable preparation for Autumn Sowing...

The Agricultural Gazette.

SATURDAY, AUGUST 28, 1869. MEETINGS FOR THE ENSUING WEEK: Sept. 2 - Hamburg International Agricultural at Hamburg; Sept. 12 - Cleveland Agriculture at Middleborough.

THERE are no other countries that derive such enormous wealth from agriculture as Russia and the United States. It seems that farming prospers when the land is fertile, even without the aid of science...

In these days of sound political and commercial economy it is a matter of indifference to us whether we draw our supplies from the greatest Empire and despotism, or from the greatest Republic in the world, but we must see that they do not fail us or fall short.

It was the opinion of Mr. McCULLOUGH, one of the most trustworthy of our statisticians, that the over-growing resources of America had been greatly exaggerated, and that the consumption would not be sustained...

The small Wheat crop of the rich soils of the United States is popularly attributed to the slovenly system of cultivation. But this is an error, the cause of the extremely irregular Wheat harvest lies deeper than in mere defects of tillage...

The northern limit may be tolerably well marked by a line drawn from Kingston through Lake Simcoe to Lake Huron. And it is because the inhospitable soil and rigorous climate north of this boundary line preclude the profitable cultivation of Wheat that Canada has disappointed the original expectation of her exporting capabilities...

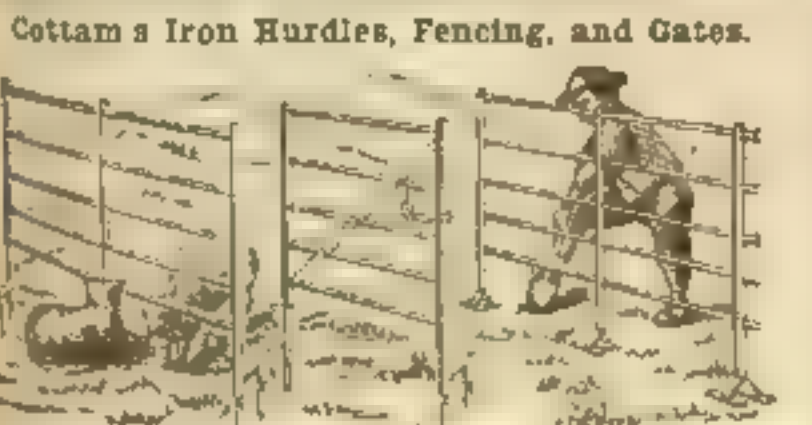
The rich alluvial plains of Georgia and Louisiana yield less than half the Maize crops that are grown in northern Kentucky. A narrow strip of Wheat land, however, follows the Alleghenies even into the south. Eastward of that range the older and more populous States, with their capital cities, and the wide seaboard with its flourishing coast towns, have in general a very poor soil...

The great Maize and Wheat region is that vast plateau, 700 feet to 900 feet above the sea level, which includes Ohio, Indiana, Illinois, a large part of Kentucky, Tennessee, Missouri, Iowa, Wisconsin, Michigan, and Upper Canada. The Mississippi, the Ohio, and their numerous tributaries are carriers, connected and linked together by canals and numerous lines of railway...

One pioneer after growing 30 bushels per acre in one year, sowed 800 acres the following season, of which 600 acres were killed by frost. In another instance one week of excessively hot weather, after a wet spring, rendered the Wheat nearly worthless. A settler had his yield estimated shortly before harvest at 18 or 20 bushels, but soon after he chose to burn his crop rather than reap it, finding nothing but shrivelled husk in the ear.

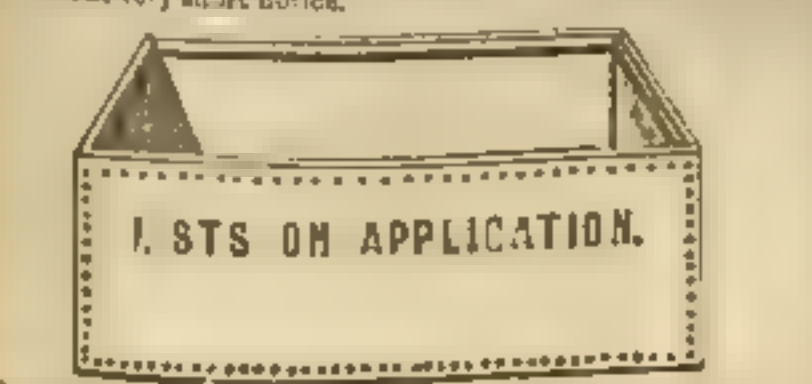
A Kentucky gentleman owning 8000 acres of fine rolling prairie, had a crop of 6 bushels an acre on 800 acres, after which he settled down to stock farming, only growing 1000 acres of Indian Corn each year for fattening cattle. The south is supplied chiefly by the Mississippi and its tributaries, by railways, rivers, and canals, which transport the corn of the north-west States. The States that export to Europe do so through their great emporiums—Chicago, Buffalo, and other lake ports, and by means of the great highway existing in the chain of lakes. Buffalo on Lake Erie, connected with New York by the Erie Canal and Hudson River, is the channel of exportation for the greater part of the grain sent to Europe, both from Canada and the States.

In East Canada, Wheat is only grown in a narrow strip along the river St. Lawrence, where the limestone soil is favourable. In Upper Canada the Wheat district extends farther from the river, and some corn is grown for exportation into the States, and eastward by the St. Lawrence to the districts which are not self-supporting. But the wealth of Canada is derived from the lumber trade, not from agriculture, for which she is naturally un fitted by the extreme rigour of the climate, and the poverty of a great portion of the soil.



Cottam's Iron Hurdles, Fencing, and Gates.

COTTAM'S HURDLES are made in the best manner, of superior wrought iron, by an improved method...



WATER TANKS ON APPLICATION.

As Illustrated Price List of Galvanized Iron, and other of BRADY'S Patent Manure, sent on application.

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Choice Seeds for Present Sowing.

B. B. WILLIAMS can with confidence offer the following, as being the finest in cultivation... Per pkt. 2s. 6d., 3s. 6d., and 5 0

To the Trade. MRS. PINCE'S MUSCAT VINE, Planting Canes, 6 feet, 42s. per doz. CLEMATIS STANDISHII, very strong, in pots, 75s. per 100.

Grape, Mrs. Pince's Black Muscat. JOSEPH MEREDITH, The Vineyard, Garston, near Liverpool, beg to inform his Patrons and Friends that he has the above excellent variety of MUSCAT GRAPE hanging in the greatest perfection...

New Strawberry, William James Nicholson. WILLIAM LAWRENSON begs to offer to the public, after August 25, plants of the above excellent Strawberry at 10s. per dozen...

Valuable Stove and Greenhouse Plants. TO be SOLD, by Private Contract, a unique Collection of the above, consisting of Rare and Choice ORNAMENTAL FOLIAGED and FLOWERING PLANTS...

H. CANNELL'S AUTUMN CATALOGUE is now ready, and will be sent free for One Stamp. It contains a full description, with lowest prices consistent with quality and accuracy, of all the best new and most distinct varieties of PLARGONIUMS...

To Raisers of Geraniums. H. CANNELL begs to inform all lovers of GERANIUMS that he has a small quantity of Seed of the best Hybridized Zonal in cultivation...

GOLDEN FEATHER. -As this plant has thoroughly proved itself to be the greatest bedding acquisition that has been sent out for many years, H. CANNELL begs to remind all lovers of the garden that now is the best time to sow...

Must be Sold, for want of room. NEW BICOLOR and ZONAL PELARGONIUMS - Large plants of the following kinds taken up from the beds, being lots of cuttings, are offered cheap, viz.:-

VARIEGATED FOLIAGED VARIETIES, very strong and - John Gibson, Lord Lyon, Lucy, Mutabilis, Penelope, Inca, Rubea, Vanguard, Wonderfu.

ZONAL PELARGONIUMS - Gaiety, F & A Smith's Magnificent, & A S's Scarlet Dwarf, F & A S's Perfection, F & A S's de Moray, Wa them Nosegay and Crystal Palace Gem, great improvement on both of Gold and Gold Chain. All at 6s. per dozen.

JAPANESE CHRYSANTHEMUMS - 12 varieties of these new and beautiful flowers, in pots, to bloom this season. 6s. the lot sent out last year at 7s. 6d. each. See Catalogues.

SWEET WILLIAM, 6 distinct varieties, viz. - Auricula Eyed, Hunt's Perfection, Crimson, mixed, double, and striped, 6s. per dozen.

A liberal number of plants thrown in against carriage. DESCRIPTIVE CATALOGUES free on application. 5s. per cent. sent to the Trade. T. L. MAYOS, Seedman, &c., Lugwardine, Hereford.

SUTTONS' IMPORTED FLOWER ROOTS. SUTTON & SONS, SEEDSMEN TO THE QUEEN, READING, BERKS.

having received their FIRST CONSIGNMENT of CHOICEST DUTCH FLOWER ROOTS, Selected by themselves from the leading Growers in Holland, are now prepared to receive orders for their COMPLETE COLLECTIONS for WINTER and SPRING BLOOMING, either for indoor or outdoor cultivation.

- Suttons' £2 2s. Collection, For open ground, Carriage Free, contains-- 24 fine mixed Border Hyacinths, 12 fine mixed Gladiolus, 25 Polyanthus Narcissus, 25 Dac Van Thol Tulips, 25 Pheasant's Eye Narcissus, 12 mixed Single Early Tulips, 25 Double White Narcissus, 12 fine mixed Double Tulips, 50 Double Daffodils, 12 Parrot Tulips, 12 large Campernelle Jonquils, 12 Gesneriana Tulips, 100 fine mixed Double Ranunculus, 50 fine mixed Tulips, 100 Scarlet Turban Ranunculus, 12 Scar et Turban Ranunculus, 25 fine mixed Double Anemones, 12 " English Iris, 25 " Single Anemones, 6 " Spanish Iris, 300 Crocus, in 6 sorts, 6 Liltes, of sorts, 100 Snowdrops, 6 Ferraria pavonia, 50 Winter Aconites, 12 Dog's Tooth Violets, 6 Crown Imperials

- Suttons' £1 1s. Collection, For open ground, Carriage Free, contains-- 12 fine mixed Border Hyacinths, 6 fine mixed Gladiolus, 6 Polyanthus Narcissus, 12 Duc Van Thol Tulips, 12 Pheasant's Eye Narcissus, 6 mixed Single Early Tulips, 12 Double White Narcissus, 6 fine mixed Double Tulips, 25 Double Daffodils, 6 " Parrot Tulips, 12 large Campernelle Jonquils, 6 Gesneriana Tulips, 50 fine mixed Double Ranunculus, 25 fine mixed Tulips, 60 Scarlet Turban Ranunculus, 4 " English Iris, 12 fine mixed Double Anemones, 6 " Spanish Iris, 12 " Single Anemones, 3 Liltes, of sorts, 150 Crocus, 3 sorts, 3 Ferraria pavonia, 50 Snowdrops, 6 Dog's Tooth Violets, 25 Winter Aconites, 3 Crown Imperials

- Suttons' 10s. 6d. Collection, For open ground, contains a choice assortment for a Small Garden.

- Suttons' £2 2s. Collection, For pots or glasses, Carriage Free, contains-- 24 fine Hyacinths, by name, 6 Persian Iris, 12 fine Miniature Hyacinths, do. 6 Peacock Iris, 12 Polyanthus Narcissus, do. 100 Crocus, by name, 12 large Double Jonquils, 12 choice Iris, by name, 12 Single Sweet-scented Jonquils, 6 choice Sparaxis, by name, 12 Scilla præcox, 1 Cyclamen persicum, 12 Single Duc Van Thol Tulips, 1 Jacobea Lily, 12 Double Tournesol Tulips, 2 Lilium lanceifolium album, 50 Early Tulips, 10 sorts, 2 " " rubrum

- Suttons' £1 1s. Collection, For pots or glasses, Carriage Free, contains-- 12 fine Hyacinths, by name, 3 Persian Iris, 6 Miniature Hyacinths, by name, 3 Peacock Iris, 6 Polyanthus Narcissus, do. 50 fine Crocus, by name, 6 Large Double Jonquils, 6 choice Iris, 6 Single Sweet-scented Jonquils, 3 choice Sparaxis, 6 Scilla præcox, 3 choice Orula, 6 Single Duc Van Thol Tulips, 1 Jacobea Lily, 6 Double Tournesol Tulips, 2 Lilium lanceifolium album, 25 Early Tulips, 5 sorts, 1 " " rubrum

- Suttons' 10s. 6d. Collection, For pots or glasses, contains a choice assortment of most useful and showy kinds.

The best 12 Hyacinths for 12s., Extra fine double and single varieties.

For further particulars, with complete Cultural Instructions, see

SUTTONS' AUTUMN CATALOGUE FOR 1869, Gratis and Post Free on application.

Flower Roots and Seeds Carriage Free, except very small parcels.

Five per cent. allowed for cash payments.

SUTTON AND SONS, ROYAL HERB SEED ESTABLISHMENT, READING.

Dutch Flower Roots.



JOHN AND CHARLES LEE have just received their usual large importation of HYACINTHS and other DUTCH ROOTS, in fine sound condition, for which they hope to be favoured with early orders. CATALOGUES post-free on application. Royal Vineyard Nursery and Seed Establishment, Hammersmith, London, W.

Dutch Roots.

LUCOMBE, PINCE, AND CO. beg respectfully to call attention to their new stock of DUTCH ROOTS, which are this year finer than usual. Their NEW BULB CATALOGUE contains all the choicest and most select varieties of Hyacinths, Tulips, Crocuses, Narcissus, Ranunculus, Amaryllis, Gladiolus, Lilliums, &c., &c.

Alba multiflora, Pink.

J. WADSON is now sending out this excellent large white forcing PINK (which gained a First-Class Certificate at the Royal Horticultural Society, South Kensington, May 4, at the Floral Committee, at 7s. 6d. per pair; 5s. per pair when 12 or more are taken. See Gardeners' Chronicle and Gardeners' Magazine, May 8, 1869. A remittance from unknown correspondents. Post Office Orders payable at Hammersmith. J. WADSON, Florist, Wellesley Avenue, Hammersmith, Middlesex.

The Gardeners' Chronicle. SATURDAY, SEPTEMBER 4, 1869.

MEETINGS FOR THE ENSUING WEEK.

- THURSDAY, Sept. 7: Royal Horticultural (Fruit and Floral Committees), at South Kensington 11 A.M. Ditto (General Meeting) 3 P.M. WEDNESDAY, - 8: Royal Caledonian Horticultural Society THURSDAY, - 8: (International Fruit Show).

THE INTERNATIONAL HORTICULTURAL EXHIBITION OF HAMBURGH opened on the 2d inst. Sufficient time has not elapsed for us to be able to give a full report of this important Show, but we may say that it is varied and good. We believe that the following, among other prizes, have been awarded:--HER MAJESTY'S Cup, for Grapes, to Mr. MEREDITH; a Gold Medal to Mr. W. THOMSON, for Golden Champion Grape; Gold Medals for Orchids, to MM. LINDEN and KRAMER, of Flotbeck; for Conifers, to Messrs. SMITH and BARRON; for New Plants, to Messrs. VEITCH & SONS.

SUBJOINED are the ipsissima verba of the recently passed ACT to prevent the ADULTERATION of SEEDS. To Mr. CHARLES SILARPE, of Sleaford, in particular, the public and the trade owe their thanks for the passing of this measure, while the Royal Horticultural Society did good service in calling general attention to the subject by its reports and experiments.

Some of those who have been opposed to the Bill wish to give an impression that colouring Trefoil and White Clover can be proceeded with as before, and as this is calculated to lead people into trouble, it is as well it should be known that legal opinion has been obtained, which shows that if any person uses any artificial means to give an old seed, by dyeing or colouring, the appearance of a new seed, he commits a fraud within the meaning of the Act by giving such seeds the appearance of seeds of another kind. The word "kind" embraces a large meaning, and must be interpreted in conformity with the intention of the Act, to do away with fraud in the seed trade. Old seed is one kind, and new seed another kind. This is the interpretation of the word in the Act by men of great experience, in full legal practice, both in London and the country.

32 & 33 VICT., chap. 112.-1. This Act may be cited as "The Adulteration of Seeds Act, 1869."-2. In this Act the term "to kill seeds" means to destroy by artificial means the vitality or germinating power of such seeds; the term "to dye seeds" means to give to seeds by any process of colouring, dyeing, sulphur-smoking, or other artificial means, the appearance of seeds of another kind.-3. Every person who, with intent to defraud, or to enable another person to defraud, does any of the following things; that is to say, (1), kills or causes to be killed any seeds; or, (2), dyes or causes to be dyed any seeds, or, (3), sells or causes to be sold any killed or dyed seeds, shall be punished as follows; that is to say, (1), for the first offence he shall be liable to a penalty not exceeding 5l.; (2), for the second and any subsequent offence he shall be liable to pay a penalty not exceeding 50l.; moreover, in every case of a second or any subsequent offence against this Act, it shall be lawful for the court, besides inflicting upon the person guilty of such offence the punishment directed by this Act, to order the offender's name, occupation, place of abode, and place of business, and particulars of his punishment under this Act, to be published, at the expense of such offender, in such newspaper or newspapers, or in such other manner as the court may think fit to prescribe.-4. Any forfeiture or penalty under this Act may be recovered, enforced, and applied as follows: In England, before two justices of the peace in manner directed by the Act of the session of the 11th and 12th years of the reign of her present Majesty, chapter 43, intitled "An Act to facilitate the performance of the duties of justices of the peace out of sessions within England and Wales with respect

to summary convictions and orders," and any Act amending the same: In Scotland, in manner directed by The Summary Procedure Act, 1864, and any Act amending the same, or by any police or other Act for the time being in force in any place, and providing for the recovery of forfeitures and penalties. In Ireland, in manner directed by The Petty Sessions (Ireland) Act, 1851, and any Act amending the same; and in Dublin by the Acts regulating the powers of justices of the peace, or of the police of Dublin metropolis. Any jurisdiction by this section authorised to be exercised by two justices may be exercised by any of the following magistrates within their respective jurisdictions; that is to say, as to England, by any metropolitan police magistrate sitting alone at a police court or other appointed place, or by the Lord Mayor or any alderman of the city of London, sitting alone or with others within the said city; as to Scotland, by the sheriff, or sheriff-substitute, or by any police magistrate of a burgh; as to Ireland, by any one or more divisional magistrates of police in the police district of Dublin, and elsewhere by one or more justice or justices of the peace in petty sessions. The term "court" shall include the justices, magistrate, or other person or persons before whom proceedings may be had for the recovery of any forfeiture or penalty.—5. In any proceeding for any offence against this Act, it shall be sufficient to allege that the party accused did the act charged with intent to defraud, or to enable some other person to defraud without alleging an intent to defraud any particular person, or an intent to enable any particular person to defraud any particular person; and on the trial of any such offence it shall not be necessary to prove an intent to defraud any particular person or an intent to enable any particular person to defraud any particular person, but it shall be sufficient to prove that the party accused did the act charged with an intent to defraud or with intent to enable some other person to defraud, or with the intent that any other person might be enabled to defraud.—6. In England where the person who is convicted under this Act thinks himself aggrieved by the conviction, such person may appeal to the next Court of General or Quarter Sessions held not less than 12 days after the day of such conviction for the county or place where the conviction is had, in manner and upon the conditions in and upon which a person aggrieved by a summary conviction under the Act of the session of the 24th and 25th years of the reign of her present Majesty, chapter 96, may appeal in pursuance of the 110th section of the said Act. In Scotland and Ireland, in like cases as in England, an appeal shall lie in manner in that behalf provided by the law of Scotland and of Ireland respectively. A summary conviction under this Act in England shall not be quashed for want of form, or be removed by certiorari; and a warrant of commitment on any such conviction shall not be held void by reason of any defect therein, if it is therein alleged that the person therein named has been convicted, and there is a good conviction to sustain the same.—7. Every complaint under this Act against any person in respect of selling or causing to be sold any killed or dyed seeds shall be commenced within 21 days from the time of the commission of the offence complained of.—8. Whenever any complaint is preferred against any person under this Act, and the court upon the hearing thereof determines that it is not *bona fide* made upon reasonable or probable cause, it shall be lawful for the court in its discretion to direct and order that the prosecutor or other person by whom or at whose instance such complaint has been preferred shall pay unto the accused person the just and reasonable costs, charges, and expenses, to be settled by the court, of such accused person and his witnesses, occasioned by or consequent upon the preferring of such complaint, and upon nonpayment of such costs, charges, and expenses within 14 days after date of such direction and order, it shall be lawful for the court to enforce payment of the same in the same manner as if such costs were a penalty incurred by the person liable to pay the same.—9. Nothing in this Act contained shall prejudice or affect the power of proceeding by indictment or libel in respect of any offence herein provided for; nor shall any proceeding, conviction, or judgment to be had or taken under the provisions hereof against any person prevent, lessen, or impeach any remedy by civil process at law or in equity which any party aggrieved by any offence against this Act might have had if this Act had not been passed.—10. This Act shall commence and take effect on the 1st May, 1870.

In the last issued volume of the "Bulletin of the Federation of the Horticultural Societies of Belgium" is an interesting notice from the pen of M. WESMAEL, of the *PLANES* cultivated in the Belgian Gardens. We do not propose to follow the author through his historical sketch of the genus, and his condensed account of the views as to the number and names of the species held by different botanists, from SPACH, who considered that there was but one, to WILLDENOW, who made four. We must limit ourselves to stating that, in the opinion of M. WESMAEL, and, indeed, of most botanists of the present time, there are two species—*P. orientalis* and *P. occidentalis*; the former a native of Afghanistan, Persia, and other portions of the East, the latter a native of North America. Of *Platanus orientalis*, M. WESMAEL considers that there are in cultivation five varieties—*acerifolia*, *cuneata*, *nepalensis*, *pyramidata*, and *variegata*; and of *P. occidentalis* one variety, which he calls *hispanica*.

Now let us see what are distinguishing points relied on to separate these varieties and species. First we have the form of the leaves, then the circumstance as to whether the hairs are longer or shorter than the little achenes or seed vessels they surround. The habit also serves to separate some of the varieties one from another. To these points of distinction cited by M. WESMAEL, other authors add the comparatively early or late separation of the style.

In *P. occidentalis* the hooked end of the style falls off early, leaving the ripe fruit smooth on the surface. In *P. orientalis*, on the other hand, the styles remain so long that the globes of ripe seed vessels are studded with spines on all sides. We believe very little dependence can be placed on the form of the leaves. It is quite true that it is easy to pick out certain leaves and to say this belongs to *occidentalis* and that to *orientalis*, but then it is often as easy to pick off one and the same tree leaves which in form so closely resemble those of the two species referred to, as not to be distinguishable from them. For instance, the common park *Plane* is correctly referred to *P. orientalis*, variety *acerifolia*, but from it it is easy to select leaves which are not distinguishable from those of *P. occidentalis*, while the leaves of *P. orientalis* are almost protean in their form. The relative length of the hairs surrounding the seed-vessel is a better character, but then unfortunately it is not available for most of the forms found in gardens. In *occidentalis* the hairs are nearly as long as the achenes or nuts, while in *orientalis* they are considerably shorter. Judged by this test, *acerifolia* belongs to *orientalis*. The comparatively early separation of the styles is very marked in herbarium specimens from native American trees, but is much less conspicuous in trees of that kind grown in this country, if indeed there are any *rightly so called* now in the country. There are some who consider that the true *occidentalis* is not to be found now in these islands; but M. WESMAEL admits its presence in Belgium, and we are disposed to think that the large tree in the gardens of the Royal Horticultural Society at Chiswick, next to the Council room, is rightly labelled *occidentalis*. It has the shallow, ovate or triangular lobes to the leaves, and it has the long fruit-hairs assigned to *occidentalis*. Whether we are correct in our assumption or not, there are other differences presented by that particular tree in the longer more slender nuts and the more slender anthers—points which correspond with the dried specimens of American origin, and which contrast with the shorter stouter form of the corresponding parts in *P. orientalis*, and the variety *acerifolia*. Again, the scales covering the young buds are much less downy than those of *orientalis* or *acerifolia*. We have not seen fruit produced on any of the garden varieties enumerated by M. WESMAEL, with the exception of *acerifolia*.

On the whole we think, so far as English gardens and nurseries are concerned, it is not difficult to recognise *P. occidentalis* (Chiswick), *P. orientalis* and its varieties *acerifolia*, *pyramidata* and *variegata*. As to the other varieties, we can but think it a pity to give them scientific names. They are probably all seedling forms of *acerifolia*; thus we have seen in various nurseries plants labelled *acerifolia palmata*, *palmata superba*, *grandifolia*, and others—differing one from the other in size of leaves, form of lobes, degree of hairiness, colour, and other minor points, and even in hardness. We believe it to be next to impossible to definitely characterise these varieties so as to render their recognition easy to others, and shall not attempt the thankless task.

Equally impossible is it to arrive at any certain conclusion as to the point whether or no there were originally two species, or one only; though, when we consider the great variability of the plants, the fact that *P. acerifolia* is, in many points, intermediate between *occidentalis* and *orientalis*, and that the fossil *Plane* tree, described by HEEB, from the miocene beds of Germany and Italy is considered to have had closer analogy with the existing American than with the Oriental form, we cannot but lean to the idea that there was at one time but one species, from which the forms now known have proceeded. Should a *Plane* tree occur in Japan like either of the present races, we should consider the unity theory well nigh established. Recently we have heard of the discovery in Greenland of fossil leaves referred by geologists to this genus, which would seem

to indicate that America was the original home of the *Planes*.

— THE subjoined letter, headed LADY-BIRDS and their ENEMIES, appeared in the *Standard* of the 28th ult.—

"If it be true that the ant contributes in a great measure to the propagation of the aphids by securing the Larvæ and depositing it in their subterranean home free from the destructive inclemency of winter, is it not a curious coincidence that the *Coccinella*, or Lady-bird, the most relentless enemy to the aphids, should on the other hand become a victim to the ant's voracity? But yesterday afternoon whilst rambling in the neighbourhood of Watley Common, my observation was directed to a countless number of dead Lady birds, which literally covered the ground for some yards, and myriads of black ants, about a quarter of an inch long, busily exerting themselves in carrying off the dead bodies of their prey to a large excavation near the summit of a steep bank. My observation, however, was not confined to one spot. Proceeding on my walk I came on as many as four different colonies of these insects all engaged in a similar work. Entertaining some doubt as to whether the ants could really sustain the Lady birds I went a distance of about 1 yard, where I observed some hundreds of the *Coccinella* alight on the surrounding vegetable productions, which was no sooner done than two or three ants immediately went in pursuit, and securing their object by the legs, brought it to the ground, and turning it on its back, as it appeared to me, sucked it to death, the assailants at once going in pursuit of other victims, while a relay of their confederates carried off the dead bodies to their habitation."—JAMES PHILLIPS.

— Serious complaints have reached us as to the mismanagement at the CALEDONIAN HORTICULTURAL SOCIETY'S FRUIT SHOW some three years since, when some of the exhibitors lost a quantity of their fruit. We should not have alluded to a matter which occurred so long since, were it not for the hope that by so doing we may induce the managers to take precautions against the occurrence of such misfortunes at the ensuing show.

— The total number of visitors to the Royal Horticultural Gardens on the anniversary of the late PRINCE CONSORT'S birthday, viz., August 26, was as follows:—S.E. entrance, 85,500; N.E. do., 15,500; N.W. do., 9870. Total, 60,870. It is to be regretted that some more stringent rules as to admission are not enforced, so as to keep back those who do not know how to value the privilege.

— The following is the result of the ROYAL HORTICULTURAL SOCIETY'S EXAMINATION of GARDENERS, July 13, 1869

Names.	Fruit and Vegetable Culture.		Floriculture.	
	Certificates.	No. of Marks.	Certificates.	No. of Marks.
Geo. Haskins*	3d	380	2d	625
Alfred Jones*	3d	430	3d	400
Chas. Burley*	3d	420	2d	675
Geo. Dowton*	2d	660	1st	1000
Jas Hudson,† The Deep done Gardens, Dorking.	1st	1200	1st	1000
W. Read, Royal Gardens, Kew	3d	390	3d	425

— The alleged performances of the CONSERVATIVE BOILER have created, as might have been expected, a great flutter among the boiler-makers. The bewildered public will be as much at a loss to choose between competing makers as poor little Nell when she was assured that "Codlin's the man, not Short, by—Codlin. We think the Royal Horticultural Society might at its next provincial show make arrangements for testing these boilers as fairly and fully as possible, so that we might have an authoritative statement to fall back upon. But even then the circumstances of individual cases—the requirements of locality, the management of stokers—are so different, that it would be difficult to fix upon any arbitrary standard. Meanwhile, here is a challenge from Messrs. JONES & SONS, of King Street, Cheap-side, the makers of MONRO'S Cannon boiler (of "We are willing to fix one of our Cannon boilers (of the original make) in any place that may be agreed upon, side by side with a 'Conservative' boiler, which costs half what a Cannon boiler does, including setting (each party bearing his own expense of fixing), and if the Conservative boiler will heat the same quantity of piping in the same time as the Cannon, with half the quantity of fuel (not an eighth part, mind), we will give the inventor of the Conservative boiler a cheque for 100£, and also send a cheque for the same amount to the 'Gardeners' Benevolent Institution,' or any other charity that may be named. Or, if we are allowed to fix one of our 'Improved' Saddle or Cannon boilers, we will agree that the quantity of fuel shall be equal, instead of one-half, as before named, the other conditions remaining the same. We mention this because we have lately introduced some important improvements in the Saddle and Cannon boilers calculated to materially lessen the consumption of fuel and cost of setting."

— The extreme FLUCTUATIONS of TEMPERATURE from sub-tropical heat to sub-arctic cold, which occurred last week, appear to have been experienced pretty generally throughout the country. Dahlias, Vegetable Marrows, and such-like tender stuff suffered to such an extent as to blacken their leaves. A frost so early is most unusual.

— The murder of MDLLE. TINNE in Tripoli, mentioned in our newspaper columns last week, is peculiarly sad. The adventurous lady has succumbed

* Chiswick students.
† This is the only instance in which the whole number of marks has been obtained by any candidate since the commencement of these examinations.

to a more fearful fate even than did her mother, who lost her life in the White Nile district from fever some few years since. Botanists and horticulturists have cause to remember the fate of these heroic ladies, by reason of the publication of the magnificent work, entitled "Plantæ Tinneanæ," mentioned at p. 1169 of our volume for 1867, and in which are described and figured several of the plants collected by M^{rs}. TINNE and her party.

We extract from the Daily Telegraph the following letter respecting the formation of a Flower-giri Brigade for the metropolis, and the injurious REGULATIONS CONCERNING COVENT GARDEN MARKET:

About a month ago you invited discussion on the flower trade of the metropolis. As I believe no dealer in flowers seconded your efforts, I beg the insertion of a few comments in the absence of able correspondents. It is, perhaps, possible to improve the manner in which the flower trade of this metropolis is conducted without establishing a flower girl brigade. There are two classes of retail dealers in flowers, and both labour under conditions unfavourable to the public. It will, perhaps, surprise your readers to learn that until last Easter, only the shopkeepers in Covent Garden were permitted to enter the sacred precincts of the wholesale market until 5 A.M., in order that the tenants of the Duke of Bedford should have the first pick. This rule prevailed at the opening of the Floral Hall, in 1861, and was the chief means of closing it. At Christmas last, a shopkeeper at Knightsbridge, having entered before 5 A.M., was forcibly expelled. This led to several trade meetings, and a memorial to the Bedford office, signed by upwards of 70 growers and dealers in flowers. A deputation was appointed to present it to the Duke's steward; an interview with him was requested. The application was acknowledged, a copy of the memorial for inspection requested, and a promise made to see the deputation. From that time to this no further notice has been taken, beyond opening the market to the public at 4 A.M., the other grievances remaining the same. It would surprise many of your readers to know the amount in value of the cut flower trade of Covent Garden. The wedding orders alone amount to many thousand pounds, and range from one guinea to 100 guineas. These orders have to be executed before 10 A.M.; and in warm weather the flowers must be fresh cut, when the time is too short for any but the market shopkeepers to execute large orders. As they always have as many as they can execute in the season, they are independent; and although flowers in autumn are of little value, a bride's bouquet still costs from one to three guineas in the Centre Avenue. Last year an attempt was made to reopen the Floral Hall. This failed at the moment, more through the general slackness of trade and consequent unwillingness to embark in new enterprises than anything else; but many promised to take stalls at a future time; and as this will probably be the last year the building will be available, perhaps a more successful effort may be made. Among the many projects for the profitable employment of ladies by birth and education, perhaps there are few more promising than bouquet-making in such a place as the Floral Hall; and as many of the aristocracy are members of floral societies for extending and improving production, it is only natural to suppose they will cheerfully support any well organised means for extending the distribution of flowers, and making it an art and occupation for ladies. The regulations of Covent Garden Market, under the Act of Parliament, are so monstrous as to positively exclude more than half the supplies, if strictly carried out. All foreign produce is forbidden market accommodation, as the stands can only be let to growers bringing their produce in their own waggons. Even goods brought by railway from English counties are not allowed an annual stand. I have had goods for many years from Norfolk, Suffolk, Devon, Cornwall, North and South Wales, the Channel Islands, and many other places; but my goods are forbidden, by the Act of Parliament, to be sold on an annual stand, unless taken by the grower in his own wagon. The stands in the flower market are still worse they are allotted in pairs to florists, who, in many cases, only attend the market two or three months in the year, while others that attend the market every month in the year can get no accommodation, the favoured florists only paying toll when they attend the market, and no rent whatever. As the management of the market is about changing hands, through the illness and resignation of the Duke's steward, perhaps a little public discussion at the present moment may lead to a much-needed reform."

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We have received from Watcombe Park, near Torquay, some specimens of CONIFERS and other evergreen trees, which go to prove (if proof, indeed, were needed, with the records of such places as Bicton before us), that Devonshire must be a paradise for the arboriculturist. This park, now the property of Mr. VICARY, was, it appears, planted by the late Mr. BRUNELL, C.E., and much labour and money were expended in ornamenting the grounds with rare trees. Among other Coniferous examples now lying before us, we have noble cone-bearing specimens of Picea nobilis, P. Webbiana; P. Webbiana spectabilis, a grand form, with cones 8 inches long; P. cephalonica, Abies Douglasii, and Pinus muricata, with the cones of four successive years; together with Cryptomeria, Libocedrus, Thuopsis, and various Cypresses. Nor are these beautiful trees confined to the Conifers, for along with the foregoing came examples of some remarkably distinct and beautiful forms of Quercus Ilex, namely, latifolia, heterophylla, and dentata, the

latter with narrow, lanceolate, strongly-serrated leaves; also the beautiful but somewhat tender Quercus glabra, Q. marginata, and the curious small-leaved Q. coccoifera. Who wouldn't live amidst such charms?

New Plants.

ORTHOSIPHON STAMINEUS, Bentham in Wallich Plant. Asiat. Rar. 2, p. 13, et in D. C. Prod. xii. p. 32.

Caule herbaceo erecto subramoso, foliis petiolatis ovatis acuminatis grosse dentatis basi cuneatis retundatis vel supremis sub-cordatis; racemis laxis; corollis calyce triplo longioribus tubo subrecto, labio superiore dilatato; genitalibus longissime exsertis Benth. l. c.

At one of the recent meetings of the Floral Committee, Messrs. Veitch & Son exhibited a flowering example of this very pretty labiate plant. Labiate plant? some one may incredulously ask. It is far more like a Cierodendron; and so it is on a superficial glance at the flower; but a more careful observation will soon show of what lineage it really is.

The plant is herbaceous, with numerous much branched purplish hairy stems. The leaves are ovate or deltoid, tapering at the base into a short petiole, coarsely and irregularly toothed, dark green above, with a purplish midrib, glaucous below, with whitish hairs along the veins. The flowers are very numerous, arranged in verticillasters, and these again in racemes at the ends of the branches. The calyx is leafy, tubular below, two-lipped above, the upper lip roundish, the lower one divided into four linear-lanceolate ciliate purplish teeth. The corolla is nearly an inch long, pale lilac-blue in colour (sometimes

object of acquiring information as to the climate of a place; or, secondly, with the immediate object of extending our knowledge of meteorology, regarded as a physical science. Thus, for instance, a certain kind of reduction might be imagined to be of immediate practical benefit in determining whether a certain place might suit a certain class of persons, or a certain class of plants, but yet it might not materially advance our knowledge of meteorology, regarded as a physical science. But, on the other hand, all observations tending to advance our knowledge of meteorology are of undoubted practical benefit. The amount of vapour present in the air is, without doubt, a very important element of climate, inasmuch as this affects in a marked manner the skin of the human body and the leaves of plants; but I am not aware that it has yet been determined by the joint action of naturalists and meteorologists what is the precise physical function which expresses proportionally the effect of moisture upon animal and vegetable life. Is it simply relative humidity? or does not a given relative humidity at a high temperature have a different effect from that which it has when the temperature is low? There is, in fact, an absence of information as to the precise physical formula which is wished by physiologists as expressing the effect of moisture upon organic life. On the other hand, physicists may be presumed to confine themselves to meteorology regarded as a physical science. It is in this latter aspect that I proceed to discuss the question. Regarding meteorology, therefore, as a physical science, it is one of our objects to ascertain the distribution and laws of motion of the dry and wet components of our atmosphere; and it cannot be denied that we are at the present moment in very great ignorance of these laws. With respect to the motion of air in the atmosphere, it cannot be anticipated that we shall ever possess the same sort of knowledge which astronomy gives us regarding the motions of the heavenly bodies, for in the latter case the identity of the object is not lost sight of, while in the former case it is clearly impossible to ascertain the motions of individual particles of air. Our inquiries into the distribution and motion of the elements of our atmosphere must, therefore, be pursued by that method which enables us to ascertain the distribution and motion of any other substance or product, with the individual components of which we find it impracticable to deal. Suppose, for instance, we wish to ascertain the wealth of our country in grain or in spirits, and the distribution of this commodity over the earth's surface. We should, first of all, begin by taking the stock of the commodity corresponding to a given date; we should next keep a strict account of all the imports and exports of the material, as well as of its home production and home consumption. Now, if we have taken stock properly at first, and if our account of the import, the export, the production, and the consumption of our material is accurate and properly kept, it will obviously be unnecessary to take stock a second time. But if these accounts are not kept with sufficient accuracy, or if we suspect that our material leaves us by some secret channel, which we wish to trace, it will clearly be necessary to take stock frequently, and thus a comparison of our various accounts may enable us to detect the place and circumstances of that secret transfer which has hitherto escaped our observation. Applying these principles to the vapour of our atmosphere, what we wish to know is the amount of the material present at any one station at any moment, and also the laws of its motion. It would appear that the best way of measuring the amount present at any moment is by ascertaining the mass of vapour present in a cubic foot of air, mass and volume being fundamental physical conceptions. Next, with regard to the motion of the vapourous constituent, the method of co-ordinates suggested by Dr Robinson would appear to be the natural way of arriving at this. Let us set up at a station two imaginary apertures, one facing north and south, and the other east and west, and gauge the mass of dry air and the mass of moisture that pass these openings in one hour; we shall by this means get the nearest attainable approach to the elements of motion of the atmospheric constituents from hour to hour. We shall not, however, obtain by this means a complete account of this motion, for we have at present no means of measuring its vertical component. This vertical component corresponds in fact to the secret channel in the illustration given above, which we must endeavour to detect by some indirect method. Another thing that ought to be determined is the production or consumption of the vapourous element of our atmosphere as it passes from place to place. This might be done could we keep an accurate account of the evaporation and the precipitation, the two processes by which this element is recruited and consumed. This would, however, be a very difficult observation. Let us now recapitulate what information regarding moisture we can obtain from such complete meteorological observations as are at present made. We have:—1. The mass of vapour actually present at a station from hour to hour. 2. The mass that passes a station in one hour, going east and west. 3. The mass that passes a station in one hour, going north and south. There is wanting 4. The vertical component of the motion of vapour. 5. Its production or consumption as it passes from place to place. These deficiencies may, however, be to some extent overcome by the following considerations:—First, the atmosphere moves as a whole when it moves, the dry and moist air moving together; secondly, dry air is neither capable of production or consumption, but always remains constant in amount. To illustrate this part of the subject, let it be supposed we wish to investigate the vertical motion of the atmosphere at a certain station. Mass this station the imaginary centre of a circle, the circumference of which may be supposed to be studded with other stations at sufficiently frequent intervals, so that we can tell, hour by hour, how much dry air passes in towards the centre of the circle through its circumference, and also how much passes out. Let us suppose that more is passing in than is passing out, or that the imports into the area of the circle are greater than the exports out of it. Now the dry air that passes in is incapable of production or of consumption, and hence the



white), with a straight tube projecting for some distance beyond the calyx, covered with long whitish hairs, and divided above into a two-lipped ringent limb. The lower lip is concave, oblong acute, the upper one also hollow, and divided into three roundish lobes. Filaments, four, slender, nearly equal in length, attached just below the throat of the corolla, hairy at the base, and projecting for a long distance beyond the corolla. The anthers are purple, sub-globose. The four ovaries are surrounded at the base by a thick whitish fleshy disc, which is raised at the anterior portion into a flat lobe (query, is this lobe an indication of a fifth stamen?). The style is as long or longer than the stamens, and equally thread-like, it is divided at its extremity into two ovate flattened stigmatic lobes.

From the beauty of the flowers and the profusion with which they are produced, there is little doubt that this plant will be a favourite with gardeners. In a wild state the blossoms are usually white, but there are varieties with lilac and blue flowers. The plant is a native of Assam, Siam, and several of the islands of the Malay Archipelago, and extends thence to North Australia, thus affording another illustration of the curious relationship between the flora of certain parts of India and the Archipelago, and that of North Australia. How different the flora in other parts of that vast region! It was introduced by Mr. J. G. Veitch from the neighbourhood of Cape York. M. T. M.

BRITISH ASSOCIATION.

FROM the Proceedings in the Mathematical and Physical Section, we make the following selection:—

"Meteorological Reductions," by Dr. Balfour Stewart, F.R.S., superintendent of Kew Observatory.—It will be desirable to preface the method of reduction herein proposed, by a few remarks on the objects contemplated in such reductions. These objects are twofold—firstly, with the immediate

the atmosphere, including its vapourous constituent, the method of co-ordinates suggested by Dr Robinson would appear to be the natural way of arriving at this. Let us set up at a station two imaginary apertures, one facing north and south, and the other east and west, and gauge the mass of dry air and the mass of moisture that pass these openings in one hour; we shall by this means get the nearest attainable approach to the elements of motion of the atmospheric constituents from hour to hour. We shall not, however, obtain by this means a complete account of this motion, for we have at present no means of measuring its vertical component. This vertical component corresponds in fact to the secret channel in the illustration given above, which we must endeavour to detect by some indirect method. Another thing that ought to be determined is the production or consumption of the vapourous element of our atmosphere as it passes from place to place. This might be done could we keep an accurate account of the evaporation and the precipitation, the two processes by which this element is recruited and consumed. This would, however, be a very difficult observation. Let us now recapitulate what information regarding moisture we can obtain from such complete meteorological observations as are at present made. We have:—1. The mass of vapour actually present at a station from hour to hour. 2. The mass that passes a station in one hour, going east and west. 3. The mass that passes a station in one hour, going north and south. There is wanting 4. The vertical component of the motion of vapour. 5. Its production or consumption as it passes from place to place. These deficiencies may, however, be to some extent overcome by the following considerations:—First, the atmosphere moves as a whole when it moves, the dry and moist air moving together; secondly, dry air is neither capable of production or consumption, but always remains constant in amount. To illustrate this part of the subject, let it be supposed we wish to investigate the vertical motion of the atmosphere at a certain station. Mass this station the imaginary centre of a circle, the circumference of which may be supposed to be studded with other stations at sufficiently frequent intervals, so that we can tell, hour by hour, how much dry air passes in towards the centre of the circle through its circumference, and also how much passes out. Let us suppose that more is passing in than is passing out, or that the imports into the area of the circle are greater than the exports out of it. Now the dry air that passes in is incapable of production or of consumption, and hence the

stock of the material at the central station, and in the area generally, ought to be on the increase, since we have imagined the imports to be greater than the exports. If, however, we ascertain from actual observation that the stock of dry air is diminishing instead of increasing, we may be sure that some is carried off by an upward current, which of course carries the moisture with the dry air. So much for the vertical component; and in the next place, with regard to the production or consumption of aqueous vapour as it passes from place to place. Our consideration has hitherto been confined to quantity; let us now define what is meant by the hygrometric quality of the air. It may be represented by the following quotient:—

$$\frac{\text{mass of vapour in a cubic foot}}{\text{mass of dry air in a cubic foot}}$$

Now this quotient can only alter by evaporation, by precipitation, or by mixture. This hygrometric quality of the air may perhaps be considered as a quality sufficiently constant to aid us in tracing the actual motion of air, just as we may make use of the element of saltness to trace the actual path of an oceanic current. But besides this aid, we may make use of it to enable us to tell the precipitation or evaporation. For instance, a very damp air, in passing over a very dry country, may be supposed to emerge less damp, having its hygrometric quality changed; or a very dry air, in passing over a very damp country, may be supposed to emerge less dry, having its quality changed in the opposite direction. Thus, by actual observation of the quality of the air at the time of its reaching some particular tract of land or ocean, and at the time of its leaving it, we may possibly get much better observations of what goes on in the country, as far as this particular research is concerned, than if it were studied with gauges. I should therefore suggest that meteorological observations should, by a system of relation be made to show—(1.) The mass of dry air and of moisture in one cubic foot actually present at each station from hour to hour. (2.) The mass of dry air and of moisture that passes each station, hour by hour, in two lines of direction at right angles to each other, namely, north and south and east and west. When these hourly elements are obtained, they might for seasonal changes be reduced after the method of five-day means, or for the investigation of abrupt changes of weather, such as storms, they might be utilised in some other way. Retaining the belief that meteorology ought to be treated as much as possible with the view, in the first place, of determining the actual motions of our atmosphere and in the next place, of assigning the cause of these, it is not just the greater movements of the atmosphere that will be indicated by five-day means. It ought, however, to be remarked that the observations at any station are subject to the influence of secondary causes probably more so than those of wind. It would appear that this influence ought to be ascertained, and we can make any trustworthiness of the observations regarding the greater movements of our atmosphere. I should, however, remark that the quality of the air, as herein indicated, may be made of immediate use in the study of storms. It has been suggested by Mr. Meldrum, who expresses his concurrence with the above remarks, that in addition to the five-day means indicated above there might be given a brief epitome of the weather. Thus, for instance, "The wind blew from the N.E. at New from January 1st, 1 A.M., to January 4th, 3 P.M., in all 88 hours, at the average velocity of 16 miles an hour, with an average pressure of 30 inches, a temperature of 40° Fahr., and an average hygrometric quality represented by '075." The same remarks had previously occurred to myself, and Mr. Airy also has recently suggested the study of the meteorological phenomena of those periods during which the wind blows in the same direction.

The following paper was read in the Biological Section—

"On the Relative Value of the Characters employed in the Classification of Plants," by Dr. Maxwell T. Masters. This paper was devoted to the consideration of some of the means employed by botanists in classifying the "natural" systems of classification, and to the estimation of the relative value to be attached to these means. The characters treated of were the following:—1. Characters derived from the relative frequency of occurrence of a particular form, or a particular arrangement of organs; 2. Developmental characters, whether "congenital" or "acquired"; 3. Teratological characters; 4. Rudimentary characters; 5. Special physiological characters; 6. Characters dependent on geographical distribution. Illustrations were given in explanation of these matters and for the purpose of showing their application to particular cases. In estimating the value to be attached to certain characters it is necessary to consider the purpose for which they are required. If the object be synthetic, and the characters are to be used to balance so as to be able to group together a large number of forms into one or two large groups, or to divide the world, in the first instance, into the principal characters, as serving to divide the world into two great numbers, then on those dependent on frequency of occurrence and special physiological office, afterwards such others as may be forthcoming. If the object be analytical and discriminative, the special physiological characters demand the first attention, then those which have the most of frequency and immutability, and then those that are congenital. The systematist can very rarely set up to his own standards. Individual cases have to be treated on their own merits—philosophy has to be sacrificed to expediency, and herein shines the light of genius—the tact and insight of a first class naturalist often lead him to make combinations or to adopt forms, on what seem mere grounds of expedience, but which afterwards prove, when fuller evidence is gained, to be strictly consistent with philosophical views.

ON THE CULTURE OF CHRYSANTHEMUMS.

[Read at the Manchester Congress, July 22, 1869.]

It is well known in the horticultural world that in the dull months of November and December the Chrysanthemum assumes an undoubted sway in the conservatory, and I am confident that all who have once witnessed the gorgeous panoramas of colours which a conservatory full of well-grown Chrysanthemums presents at that dull time of the year, when flowers are so scarce, will agree with me when I assert that there is no decorative plant more worthy of general cultivation.

Since the introduction of the new Japanese varieties, the Chrysanthemum may be divided into three principal classes, viz., Large-flowered, Pompons, and Japanese. From Chrysanthemum sinense, which was introduced into this country from China in 1764, our large-flowered varieties were produced, whilst from the Chusan Daisy, sent home by that famous collector, Mr. Fortune, originated the Pompons; and the new Japanese varieties were raised from seed by Mr. Salter, of Hammersmith, from the variety called roseum punctatum, likewise introduced by Mr. Fortune, from Japan. In this paper I purpose to divide my remarks into two parts—first, that relating to outdoor cultivation, secondly, that relating to cultivation for

the conservatory and for exhibition. I wish it to be distinctly understood that the observations which I am about to advance will be of a purely practical character, or confined to matters which have come under my personal experience.

As to outdoor cultivation, I shall briefly say that after five years' practical experience in Hampshire and the same in Lancashire, I find by careful observation that the Chrysanthemum blooms nearly two weeks earlier in the former than in the latter place, and about ten days later in Perthshire and Forfarshire than in Lancashire. From this it will be seen that the Chrysanthemum will amply repay any labour bestowed on its cultivation out-of-doors from Lancashire to Hampshire, more especially in the southern counties, for by protecting them from frost a good display may be maintained from the beginning of November till Christmas; but much display cannot be expected from this plant when cultivated out-of-doors in latitudes north of Lancashire, while in many parts of Scotland no reliance can be placed on its flowering at all out-of-doors, and in some places there, in late seasons, it requires no small amount of cultural skill to bloom it well under glass.

No grower has attained greater celebrity as an outdoor cultivator of this plant than Mr. Broome, of the Temple Gardens, London, who grows annually thousands of Chrysanthemums, which are the daily admiration of thousands of visitors when no other flowers can be seen out-of-doors. I will speak of propagation, and of the treatment of the young plants, under the second division of my subject.

Presuming that the plants have been kept clear of insects during the winter months, they may be planted out in the open ground in the end of March or beginning of April. Dig the ground deeply, and mix with the soil some rich loam, a little well-decayed manure, and some lime rubbish. They will grow in almost any soil, but in this prepared ground better blooms will be insured. After the plants are fairly started into growth, great attention must be paid to watering, for if they are allowed to flag they will become bare of foliage at the bottom. To prevent this, it is good policy to mulch well. When the plants advance in growth, in order to prevent the wind breaking them, they should be secured with sticks. Two stoppings will be sufficient for them in the south, but none is requisite in the north. They should be syringed with clear water twice a day. They generally show their flower buds in September, at which time liquid manure should be supplied. That produced in the farmyard will be found suitable, if no better is at command; it should be well diluted with clear water, say four or five times as much of the latter, according to the strength of the former. They may have this liquid preparation at every alternate watering, until the blooms begin to open, when it must be discontinued. Every available means should now be employed to preserve the beauty of the plants, and to prolong their blooming period. This may be secured by covering up in frosty weather, with tiffany, calico, &c. By attention to this, as I have before stated, a tolerable display may be kept up out-of-doors in mid-winter till Christmas.

I now come to the second division of the subject, viz., cultivation for the conservatory and for exhibition, and I will submit the substance of my mode of culture in this country. I may say, that old plants cut down and treated the same as Pompons, if they break well, generally make the best specimens, but they are not to be much depended upon, for if frequently happens that when a plant is in full bloom, one or several shoots suddenly die off, thereby spoiling the specimen. As early in November as suckers can be obtained from the old plants, they should be taken off, with a little root, if possible, choosing the strongest, and rubbing off all eyes at the bottom of the sucker, after which they should be inserted singly in thumb-pots, in a compost of one half loam and one half leaf-mould, with a sprinkling of silver sand. After a gentle watering they should be placed in a cold frame, plunging the pots in ashes or any similar light material, keeping them close to the glass, and well syringing for two or three weeks, when they will be found to be rooted. A little air may then be given, gradually increasing the quantity until the young plants are sufficiently hardened, still syringing them frequently in mild weather. By the middle of December the roots will have reached the sides of the pots, when the plants may be shifted into 3-inch pots, using less leaf-mould in the compost than formerly. After this time they must have plenty of air on all favourable occasions. Although they will not grow much in the winter months, yet, if kept close to the glass, and in a sunny situation, with a lining of hot manure round the outside of the frame, and by covering up at night, they will keep gradually moving. The sooner the specimens attain the desired size the earlier the stopping may be discontinued, thus giving the grower more time to thoroughly ripen the wood, which I mention is of the very first importance in Chrysanthemum culture, and without which no grower can produce satisfactory results. As soon as the plants have attained the height of 4 or 5 inches their points should be pinched out, which will cause them to throw out several side shoots. All shoots after this time should have their points nipped out after they have made four joints, until the plants have reached the desired size.

About the middle of January the roots of most of them will again have reached the sides of the pots, when they should have another shift, using oyster shells for crocks, and giving plenty of drainage. At this time I make up the compost, in which I put them at every future shifting. It is made up in the following proportions, three parts turfy loam, and the fourth part one half leaf-mould, and the other half pounded oyster shells, lime rubbish and silver sand in equal proportions. The loam is pulled to pieces by the hand, and any wireworms which are found are destroyed. Where bonedust can be had it is preferable

to oyster shells, using it in the proportion of about 1 to 30. The system most generally adopted is to grow the plants on one stem, and now is a good time to rub off all eyes for two inches above the soil. Towards the middle of February they will require another shift, always watering sparingly after shifting, until the roots begin to work in the new soil. They will then begin to grow rapidly, when pegging down must be had recourse to, continuing the same treatment, and fumigating occasionally to keep them clear of insects. About the middle of March they will be ready for another shift, after which any weak shoots ought to be allowed to grow upright for a time, so as to throw more strength into them, at the same time tying down the strong ones to counteract their inclination to growness, for it is of primary importance to have all the shoots of uniform strength, otherwise there will be a diversity in the size of the blooms.

The grower must now decide in what shape he intends to train his plants. This should not be delayed too long, for as the season advances the shoots become harder and stiffer and more brittle; and frequently the breaking of a shoot at this stage spoils a specimen for the season. There are so many fantastic shapes into which the Chrysanthemum may be trained on account of its extreme adaptability to almost any mode of training, that I refrain from recommending one more than another. I would therefore say, let every grower train according to his requirements, or as his fancy may dictate. After trying the upright, squat, pyramidal, standard, and the convex forms, I will merely say that I have found the latter a very simple and effective mode of training. Round the rim of the pot a wire is fitted, to which the shoots may be tied. In bending the shoots down they may be left a little higher in the centre, one shoot by this method can be tied to another, and the framework of the specimen will with very little trouble be formed, so that any future tying will merely consist in filling in the spaces between the shoots.

By the last week in April the plants will by good management be ready to receive their final shift—the large-flowered ones into 12-inch, and the Pompons into 10-inch pots. The plants should now have plenty of room, and should be syringed regularly morning and evening. In May they should be gradually hardened off, previous to being removed out-of-doors, by taking off the lights during the day. About the end of May or beginning of June a sunny but sheltered piece of ground should be selected, and the pots should be plunged to three-fourths of their depth, placing a small inverted pot under each to secure good drainage and exclude worms, leaving sufficient space between the plants to admit light and air, otherwise they will become drawn and weak, and unripe wood will be the result. The plants will require turning round once a week. After the pots are full of roots great attention must be paid to watering, for neglect in this particular will tell its own tale by throwing off a shower of leaves, which not only rapidly detracts from the beauty of the specimen, but expresses a very detrimental effect on the production of good blooms.

During the months of June, July, and August, but little variation of treatment will be required, only the grower should endeavour to have his plants of sufficient size to enable him to give the large-flowered ones their last stopping in the first or second week in June, and the Pompons in the second or third week. In August earwigs and caterpillars must be looked after, the former may be caught by cutting beanstalks into lengths of 4 or 5 inches, placing them on the plants, and examining them in the mornings, the caterpillars must be sought for among the leaves of the plants. If the pots are lifted nearer the surface in this month, it will facilitate the ripening of the wood; and if any of the plants are inclined to be gross, it will be necessary to withhold water from them to some extent, in order to ripen the wood before they show their buds, when they will do in the first week in September. Now is the time to apply liquid manure, and in my opinion the Chrysanthemum should never have any of it until it shows its buds. There may be a few exceptions to this rule, but many who profess to be good growers, and who like to see their specimens make luxuriant growth, administer liberal doses of liquid manure during the growing season—nothing can be more fatal to the formation of good blooms.

Disbudding should now commence. In the performance of this operation care should be taken, in the selection of the buds to be retained, to choose the fullest and most healthy-looking, and leave only one on each shoot in the large-flowered ones. Some of the Pompons, such as Bob, Matamoras, Martha, &c., do best by disbudding to one and on each shoot, and none of them should have more than three left on a shoot. Some of the shoots will be found to be more forward than others, and apt to blossom before them, but by judicious disbudding this may be avoided. This is effected by tapping out the crown or earliest bud of the earliest shoots, leaving a good side bud, and retaining the crown or earliest bud of the late shoots, this will cause all the buds to be equally forward.

About the second week in October the plants should be taken under glass, that is into houses, or pits, where they can be kept from frost, keeping them cool and close to the glass, with abundance of air. If they are wanted for exhibition, the earlier varieties may be kept outside for a week or 10 days longer, protecting them from severe weather; and again the late varieties may be kept in the warmest end of the greenhouse. The plants should now be watered five times a week with liquid manure, applying it 5° warmer than the temperature of the house; this will concentrate the entire energies of the plants in the buds, which will now be swelling rapidly. Towards the end of the month the large-flowered kinds should be tied to neat green sticks, as the blooms will be too heavy for the shoots to support them. The Pompons will require

side or no staking, but should be neatly tied in, so as to present neat compact specimens.

In the last week in October, or the first week in November, they will begin to show colour, when watering and liquid manure should be discontinued. Any of the blooms that are at this time too late should be nipped off, as it is of importance that all of them should be at the same stage of expansion. I prepare my liquid manure in the following manner—I take a tub, which will contain about 80 gallons of water, into which I put a peck of pigeon dung, over which I pour some boiling water to kill insects, and add a peck of soot and one of lime rubbish. I then fill the tub with liquid manure from the farmyard, stir the contents, and skim the scum off previous to using it. I employ it in the proportion of 1 to 6 of clear water in the autumn milder season to make its appearance, to prevent which the leaves should be dusted with flowers of sulphur. About the 20th of November the plants will be in full bloom.

By following the foregoing treatment the cultivator will be enabled to produce large flowering specimens that will carry 150 good blooms, and which will require no dressing, and Pompons with from 150 to 200 blooms, according as they are disbudded, but it is operative that the grower be to a certain extent an enthusiast, a quality without which nothing great has ever been achieved. If specimen blooms are wanted the plants should not be stopped at all, but the side shoots should be allowed to grow upright, disbanding a limited number on each plant, the fewer there are the larger the blooms will be. Treat the plants in every other respect as recommended for specimen plants. Incurved varieties are best for this purpose, as are also in more request now for specimen plants. Some of the sorts, such as Golden Trilby, Princess of Wales, &c., are subject to climatic influences, and do not bear better in some years than in others. Anemone-petalled varieties, although more tender than the others, are very beautiful and well worth growing.

I will not occupy time by giving a list of what I consider the best varieties, as the various catalogues sufficiently describe the most desirable. In conclusion, consider the new Japanese varieties a great acquisition to the conservatory, for although they do not come up to the standard of what is called a florist's flower, they possess the much desired quality of being late bloomers. This, then, is already a point gained, for it is a greater desideratum to have late blooming Chrysanthemums than early ones, flowers are not so scarce in the autumn months as they are in January and February; and as the natural blooming time of the Chrysanthemum is November or December, something is wanted that will bloom naturally for two or three months after Christmas. I think, I think, will soon be accomplished by improving the Japanese varieties. It is true that by growing them in the early and late kind with the assistance of forcing and retarding, the blooming season of the Chrysanthemum may at the present time be extended from September till February; but as they are forced or retarded the blooms will be proportionately inferior, the plant despises the forcing-pit as much as it dislikes the retarding-house.

I trust, therefore, that not only a greater stimulus will henceforth be given to the cultivation of the Chrysanthemum than has hitherto been accorded it, but that encouragement will be held out to raisers of late blooming kinds by offering premiums for late varieties of the Japanese race, whose natural blooming time will be from Christmas onwards, and I have no doubt that we shall have the Chrysanthemum, with its many beautiful and diversified colours, furnishing in brilliant array the most distinguished places on the stages of the conservatory for at least four or five of the most genial months of the year. *R. Fleming, Sandheys.*

HORTICULTURE FOR THE PEOPLE.

(Read at the Manchester Congress, July 22, 1869.)

THIS paper, a rather long and discursive one, was devoted to the consideration of sundry of the obstacles to horticultural progress, and to the means of overcoming them. The following abstract comprises the main points. Alluding to the ill-effects produced by the custom, in some places, of holding flower shows in connection with public-houses, the writer asks—

What tide is it that flows so noiselessly onwards? It is the tide of copper kettles, and Britannia metal teapots, which may be seen dangling from alcohous windows over the doors of hundreds of public-houses in our towns, as incentives for the artisan florist, the cottage gardener to bring his Pansies, his Pinks, his Gooseberries, his Celery to the habitation of the publican. Why, for one exhibition held on right principles, there are hundreds held by the publican; and the good which ought to flow from horticulture—that good which gives a heightening influence to the soul, is wholly dwarfed by its associations with the tide which has already drowned part of the good of horticulture, and annually we see more of it submerged. And if this tide be not stemmed, the time will come when the whole concern will be under the shade of Banias. And can we find fault with him who has the part he acts? Should we not rather blame our people, who show our apathy in allowing so much to be wasted?

The fruits of the system of public-house shows may be seen in many places, and that system will be found to have increased in a greater ratio where our exhibitions have ceased to exist. In proof, I will take one town, whose population is nearly 300,000 souls, and where our own exhibitions have long ceased to be normal. Go through some localities in this town in the autumn months, and you will be convinced from the number that public-house shows must be in a very flourishing condition. And when it is said that a

great many of these shows do not confine the exhibitors to their own produce, it is easy to conjecture the depredations committed amongst the fraternity. Here the land allotments are cultivated by a pack of wolves, who are as ready to prey on their own tribe as on the unwary stranger who may settle amongst them. For rights previous to their little shows, the best disposed have to tend their gardens against the nefarious attacks of their brethren. And many are the bitter curses that have been uttered on fishing, after all their watchfulness, their best stocks of Celery gone from the trench, or their largest Gooseberries no longer potent. And as long as these shows are conducted on the same principle or held under the same auspices, we may as certainly look for the occurrence of these evil results. Therefore, the essayist who would be the champion of horticulture, would be forced to chalk out a new line for exhibitions, such as would not only counteract their present influence, but be calculated to draw votaries by the thousand to the court of Flora who have never yet tasted of her pleasures, before it could be said that he had carried his banner successfully. In accomplishing this, various paths are open to him. He might boldly endeavour to make those public-house shows, legal, or he might humbly ask our great shows to stop and conquer, or again, he might act independently, and start something similar to those latter shows, but on a different footing.

When land societies and horticultural exhibitions were set on motion, we should not have drawn in our ears and trusted to any breeze which might happen to rise to fill the sails. With land societies and exhibitions the good but sprung into life, but how woefully have we failed to nourish its existence. The once healthy plant has become almost leafless. From numerous towns the spirit has completely fled, and in others it drags on but a feeble existence. While we have set these movements afloat to give the people a greater interest in horticulture, what have we done publicly to give them a greater knowledge of its rudiments? Nothing. The one has been fed full to satiety, while the other has been neglected—which would almost warrant me in saying that horticulture has no rudiments, that it requires no teaching: put the seed in the ground, and it will grow and flourish. I might as well say, leave the babe in the cradle, and the child will arise a man. It may truly be urged that literature plays the part of tutor in this respect, that it is the well from which knowledge may be drawn how to cultivate the fruits of the soil; and that it is a tutor within the reach of all. We may have it bound in calf, we have it continually before our eyes in the Press, and we see it gilding the pages of every penny almanack. But on the other hand, can it not be as truly said, that to thousands this well is as a fountain sealed?—no matter how often or how long they may gaze, they remain mere barren spectators. To them literature is worthless, even if it were not so, that would not justify us in withholding other instruction from them. And there is but one way of applying that instruction effectually, and that is, by pouring it into their ears. Thousands higher up in the scale of knowledge require oral help to make them digest their intellectual food; how much more necessary is it, then, to give such help to those who are placed at the lowest part of the scale?

It has been already shown that many of our great horticultural exhibitions have failed to be interesting to the people; and it may be further stated that they are now only patronised by the select few. Year after year our exhibitions have grown in size, and seemed to have concentrated all their energies in pleasing the eye with immense specimens, to the detriment of lesser objects. They were almost bound to pursue this course to see what the skill of the country could do, but at the same time it is to be deplored that they have weighed anchor and sailed away from amongst the people. And if it could be ascertained that they have now exhausted that skill, which it would be most ridiculous to suppose, their order of working might be changed; as it is, their exclusiveness might be altered to the benefit of the profession and the public.

Although horticultural exhibitions have in a measure deserted the more humble exhibitor, yet that is not the sole cause of their decline; for societies have been known to give every encouragement to all classes, and still they have crumbled into nothingness. External influence weighs heavily upon the matter. How often have we seen on the morning of an exhibition the brightest prospects turned into the most gloomy results through unpropitious weather? And the greater our efforts have been, if we are overtaken by that misfortune, the greater will be the effects of the blow. It is to this cause that we may trace the melancholy fact that many of our horticultural exhibitions are dropping off, one by one, from the scene of action. Therefore I cannot attach much importance to our present exhibitions as affording ready means for giving the people a greater knowledge of horticulture. The requirements of the case demand a far wider field for operations than they can give. Their greatness and scantiness in number are their greatest drawback, though at a subsequent period they may render material aid, and receive no little assistance in return.

It is a most significant fact that while our exhibitions have decreased in number, those of the publicans have greatly increased. Therefore I must go to the publican for lessons on Exhibitions for the People. I must go to him who rears an edifice on the ruins of our own undertakings—I must go and see how he manages to make them stand firm while ours are as if they rested on sand. And if I found him working after a very simple manner, I should also find him working none the less effectually. For his own interest he allows as little time as possible to elapse between the payment of wages and his little show, which is generally held on a Saturday evening, and often extends over the Sunday. He gives from 2*l.* to 3*l.*, which, added to the sum subscribed by the exhibitors, constitutes the prize fund.

Admission is very often free, but not more than 2*d.* or 3*d.* is charged at any time. From 5*l.* to 15*l.* are divided in prizes, reaching down to a very small amount; and these exhibitions very seldom fail in a money point of view or yet in attractiveness. In some cases the exhibitors after stazing sit down together to supper, with a view to lay a good foundation for the quantity of drink they may afterwards swallow. Not an intellectual takes place and the following morning those that are sober enough to count their money generally come to the conclusion that they must have borrowed their prize money from Banias, at the rate of 50 per cent.

Much good would be done by setting up similar exhibitions away from the demoralising influence of the public-house. We might not in the first instance be able to win the publican's votaries to our side, but horticulture, long-headed as it is, has still all the vigour of youth, and thousands would join the movement with delight. And why not have similar exhibitions in our schools? Why not have a window-plant show, a Tulip show, a Rose show, a Gooseberry show, a Celery show, or a Potato show in our schools? I have no desire to hurt any person's trade, but I would have all schools, of whatever denomination, wage war against the publican in this respect—not a war of words, but a war of deeds. It is not to name a Britannia metal teapot as a lure for the artisan florist I would hang out a silver one from the school, if he were alive to his own interest, I would be true to the interest of the community. Ministers of nearly every denomination have been found willing to assist in promoting penny readings. Would they not be found willing to embrace the cause of these little shows? Could not one or two individuals in connection with any school be found who have as much knowledge of horticulture as the publican? Until I am fully persuaded that the one class is unwilling, and the other not to be found, but not until then, shall I consider the case to be hopeless. And it would be a happy day for the community, and a bright one for horticulture, when every school had its window-plant show, its Tulip show, its Rose show, its Gooseberry show, and its Potato show to celebrate. I say again that great good would come from the movement, and it is easy to bring it to the test of practical experience. Schools are ready to our hands, the artisan florist impatiently waiting at the door, and England, mother England, has never yet been slow in putting her hand in her pocket for the purpose of blessing her children.

Although strongly advocating the formation of these little shows in our schools, I do not deem them all that is necessary for the well-being of horticulture. However admirably they act as a stimulant, they give little insight into the practice of horticulture. These little shows should embrace a greater number of Flora's beauties—say, beginning in the early spring with Hyacinths, and terminating by the beautiful Narcissus and Foxglove, then Primroses, Violets, and the Cowslip, not forgetting the cottagers' early Sealing.

In prescribing for the knowledge-giving department, something more must be done for it than can be done by mere voluntary effort. I am aware that great good has been achieved by voluntarism, and that great good still remains for it to accomplish. I am also aware that voluntarism has been, and ever will be, capricious, and that its sides are never free from the marks of the spur. Not that I wish to damp its good spirit, but only to place its knowledge-giving department for safety sake, out of reach of its playfulness. But, first of all, let me explain what I mean by this knowledge-giving department, whose duty would be to take up the task where literature leaves off, and labour for its further accomplishments. And what could do this? What could do it effectually? What but a staff of horticultural lecturers—men well qualified for that labour, and men who must be paid for that labour.

I would attach to all our great municipalities one or more of those lecturers, whose title might be that of Horticultural Directors, and whose duty (besides being a consulting authority for the Town Council) would be to give, throughout the season, lectures on horticulture to the people, free of charge, and for which duty such lecturers should receive any sum of money agreed upon by the Council, but not less than, say, 15*0* per annum. Such individuals would soon be surrounded by a host of kindred spirits. Broused to the work by his efforts, they would carry away his utterances to remote corners, and try to emulate him in their schools. And it is just here where voluntarism would come into play, and be of service. This lecturer would, as it were, set the part of the pulpit, which has continually to remind the pen of its duties, without that go-de, that luxury, that soar voluntarism would give the life of a laggard. Many of our mechanics' institutions are sad monuments to its fame. No greater error could be committed than launching measures for the public weal without giving them some fixity. Newfangledness may make them flourish for a season, but in time that wears off, and, like children's toys, one after another is cast aside, until benevolence is ready to cry out in mortification of spirit, See what I have done for them, and mark how they requite me! *Andrew Meikle, Reed Hall, Whalley.*

ON THE APPLICATION OF WATER TO THE ROOTS OF PLANTS GROWING UNDER GLASS.

(Read at the Manchester Congress, July 22, 1869.)

PLANTS, like human beings, breathe, digest, and perspire. These important functions being partially performed by the leaves, it is a common and wise conclusion that whatever kind of treatment best promotes the healthy and free action of these organs, does a proportionate amount of good to the plant. Cleanliness, a pure atmosphere, and a regular and suitable temperature, with a proper amount of light, may be regarded as the leading points favourable to the above

conditions. But notwithstanding that perfection in plant growth depends so much upon the due performance and regulation of these offices, there is another set of organs which plant growing forces upon our attention, and which should have a prior consideration, viz., the roots of the plant, since they may be described as the foundation of it, because according to Nature's laws they are the soonest developed, and are the first substantial agents at work towards forming and building up a plant.

A plant will not sustain life long without its roots, but many instances are known in which roots have lived without branches or leaves for a great length of time, and they have the power of throwing out fresh ones. However, the more a person dives into the vast subject of vegetable life the more complicated and marvellous does it appear, especially the whole machinery of root action and growth, penetrating the earth in every direction in search of food, while confined to the limits of a pot or other vessel they envelop the earth in their mighty network, so tightly, as though they were jealous of the treasures stored up in the soil.

Heat and water are as essential to root formation and growth as they are to wood and leaf development; they must both be present in the atmosphere as well as in the soil, but it is on the artificial application of water to the roots of plants that I purpose offering a few remarks. I have confined my notes to plant growing under glass for the obvious reason that everything growing under these conditions is influenced more or less by the proper application of water. It has long since been a recognised fact that plants search after and obtain food by the agency of their roots, and that the food so obtained is taken up by them in a liquid state and conveyed to the plant for its digestion. No plainer proof of this fact need be sought than the fact that when a plant becomes sufficiently dry at the roots to cause it to flag it soon recovers itself when water is applied to them. Without entering on a discussion of the various other modes by which plants obtain their support, the above facts will convince the most sceptical that water not only affords food to the plant itself, but it has also the power of rendering the chemical parts of a soil soluble, and fit to be taken up by the roots as required. It is therefore very necessary for all those who have charge of plants to use every means in their power towards gaining a thorough knowledge of their wants as regards water at the roots, for it is as easy to give a plant too much water as not to give enough—either extreme being injurious and most disappointing to the cultivator. Let me impress upon beginners, for whom these remarks are principally intended, that such knowledge is not to be gained without considerable experience, and close observation. It will, however, not be very difficult to put my remarks to a practical test, for I am not prepared to lay before you the results of a series of puzzling scientific experiments with water, but simply to lay down a few rules, and to impart some information on watering.

In order that water may be applied to plants under glass in the most beneficial way, it is absolutely necessary to know what relation the temperature of the soil bears to that of the atmosphere of the house. I have tried it many times, and have found that from a 16-size (9-inch) pot downwards, the temperature of the soil is about the same as that of the air, and subject to the same variations, but above that size, and including the largest tubs and other vessels used for plants, the average temperature by day is a degree or two lower, but subject to less variation. In large beds and borders from 2 to 4 feet in depth, and with the surface exposed to the atmosphere of the house, the temperature, on an average, is several degrees lower, with but a trifling variation. From these facts it appears that the larger the bulk of soil the more uniform is the temperature, and this goes far to prove why plants thrive so well when planted-out in borders.

In coming to the next subject, viz., the influence of water on the temperature of the soil, I may remark that during my four years' experiments I have tried all sorts of soils in which house plants are usually grown, and I find that water has the effect of lowering as well as of increasing the temperature of the soil. For instance, water at a temperature of 60° applied to a pot of soil standing at 75° reduces the heat to 67°, but by reversing the experiment, and applying water at 75° to soil at 60°, the temperature rises to 65°, or about one-third of the difference between the two original temperatures. According to another experiment, on applying water of the same temperature as that of the soil, the heat of the latter is increased 2° or 3°, but if the water be 2° colder than the soil, it has no apparent effect on the temperature. From these experiments we may conclude that the nearer the temperature of the water is to that of the soil, all other conditions being favourable, the more progress the plant will make; for although the variations of temperature caused by water, when it is applied either too cold or too warm, are but of temporary duration, yet repeated applications of water, in one or other of these conditions, cause a permanent derangement of the functions of the plants, which no after treatment can thoroughly remedy. Three years ago I selected a batch of two dozen even-sized Cinerarias, and placed them under one structure. One-half were watered with cold water at a chance temperature, while the remainder always had water of the same temperature as that of the house. In three weeks any one might easily have picked out the former, their foliage being of a lighter green, thinner in texture, and not so large as that of the others, their roots were more wiry and less numerous, and the plants were many days later in coming into bloom. I have been in the habit of growing Vines in pots in 12 months, from the eye to the ripening of the fruit, and when the above experiments were tried with them the results were similar, with, in addition, a deal of shanking in the bunches of those Vines which had had cold water applied to them. The

pot Vines which I exhibited at the International Horticultural Exhibition in 1866 were selected from amongst those which were best treated.

The above facts with regard to the application of water to plants will be sufficient to teach the gardener the importance of comparing the temperature of the water with that of the house he enters, before applying it to plants, and then, if proper judgment be exercised, the results cannot fail to be satisfactory.

Before concluding, I feel anxious to call attention to a few irregularities in the system of watering practised in many places, the principal being periodical watering, and not choosing the proper time for it. The former is bad in principle, because it induces the operator to anticipate the dryness of many of his plants, while others will have become so dry as to baffle all efforts to soak the ball of soil by means of the watering-pot. As a natural consequence, many plants are over-watered, while the dryness of others renders it necessary to immerse the whole ball in water, which I should say is as great an evil as the former, because the roots are inactive from drought, and an excess of water suddenly sets them to work, forming a number of irregular and deformed growths, and in some cases decomposition and death follows. As regards the proper time for watering, I am of opinion that the best time is before the house is opened in the morning, or at shutting-up time in the after part of the day; because, as the house is closed to external air, evaporation is not going on so strongly, consequently the action of the roots is steady and progressive, and at all times equal to the demand made upon them by the branches. Excessive dryness or excessive moisture at the root are the great enemies to plant cultivation. *T. Record, Gr. to Col. E. Loyd, Lillesden, Hawkhurst.*

Home Correspondence.

The Royal Horticultural Society.—I have read an article, quoted from the *Notts Guardian*, respecting the Royal Horticultural Society, the writer of which seems to have overlooked a fact seriously affecting the question therein mooted. In the paper where I read it, some previous notices have appeared, written in somewhat the same tone of condemnation of the course which has been pursued by the Royal Horticultural Society since it shifted its garden to Kensington. Let me state at the outset that I am in no way connected with gardening or with the societies, and that I merely ask you to allow me, as "A Looker-on," to notice one or two facts. In the first place, inasmuch as the diminished receipts from exhibitions are attributed to bad management, and it is insinuated that it is the fault of the aristocratical element predominating in the Council at South Kensington, I inquire whether the same cause obtains at the Regent's Park and Crystal Palace? Is it not rather the natural result of three competitors coming into the field? To me it would have appeared a wonderful proof of a growing love for flowers if, when every other kind of trade has been depressed, so wholly a luxury as flowers had not felt it. If, therefore, blame is to be laid on any management, it must certainly be on the score of extravagance in giving prizes larger than could be afforded during such bad times. It will, moreover, probably strike every business man that the usual law of supply and demand will influence the commercial circumstances of societies, and that as an item of "expense" the sum devoted to prizes must vary, unless they choose to sink money. Supposing, then, that the two causes for diminished revenue are—firstly, the springing up of competitors; and secondly, that people will not pay three times over to see the same plants: there are two remedies which may be applied. The managers must set their wits to work to devise continually, not amusing accessories, but novel arrangements of a legitimate character. I well remember Mr. Ewen's first exhibition of foliage plants at Chiswick; and, although with a limited class of subjects, novelties cannot be presented so frequently as at Sydenham, for instance, I think the gardeners will not deserve so large a number of prizes, if they cannot devise some such attractions to give interest to their shows. They must either do this, or the managers of the three exhibitions must resort to the alternative. What this is, is already suggested by other bodies depending for funds on the interest they create in the public mind. Triennial exhibitions in turns must be concocted by the three competing societies, or, like other trades, they will continue to exhaust their strength and weary the public. This course will no doubt be objected to by the select number who year by year receive the prizes, but they must go with the times in one of the two courses indicated. I repeat that I am in no way interested in either of the concerns, and merely have the same superficial acquaintance with the system of floricultural shows which any one else reading your paper may have; but I think the vague and injurious insinuations against the Council of the Royal Horticultural Society which occasionally appear in newspapers are not warranted in the opinion of impartial persons. The Council, we are informed, labours under debt, a considerable source of revenue has fallen off, and as a measure of common prudence they propose an alteration, to save money. This is decried as an injury to the nurserymen, and a failure of the Society's duty. They are sneered at for having years past spent money specially subscribed to form an Italian garden—an ornament without which the money would never have been contributed; they are blamed for neglecting Chiswick because the public forsook it; and all this is attributed to the predominance of the aristocratical element in the management. I have no means of judging whether the trade has not its due influence in this particular Council, I only say that the grounds for blaming it have not yet been made evident to *A Looker-on*.

The Barnes' Testimonial.—Whatever spirit this was

conceived in, it is quite certain that, so far, it has not been very successfully promoted; so much so, that were I in Mr. Barnes' place, I should feel very much inclined to exclaim, 'Save me from my friends!' I am not one who is much prepossessed in favour of testimonials, except in cases of actual need, for it must be confessed that in too many cases the "hat is sent round" as much from dire necessity as from the honour of the thing. Happily for Mr. Barnes he is independent of such eleemosynary aid, and therefore I have no doubt that as a recognition of high moral and professional ability and standing, a shilling or even a penny from a few hundreds or a thousand gardeners would be more grateful to Mr. Barnes' feelings than scores of pounds subscribed by mere personal friends and acquaintances. If this kind of thing is to be encouraged, then I think there are few gardeners in the country more entitled to acknowledgment, for he has opened up a wide store of knowledge to his brethren, so wide that I should say there are few gardeners who can say "I am not indebted to James Barnes for an idea." For my own part, I confess to being indebted to his writings for many useful hints, and I am certain the young gardener cannot read his essays, with which the columns of the *Gardeners' Chronicle* from its first publication to the present time are so well furnished, without rising from their perusal a wiser and a better man. Therefore I say to young gardeners, crowd up your pence, and show, by a few well-filled columns of the *Gardeners' Chronicle*, that you wish to honour the man who has instructed you. *W. P. Ayres, Nottingham, August 25.*

Tritoma Kniphofia Uvaria.—I beg to forward the dimensions of two plants which were planted here three years ago, being then very small specimens.—No. 1, 3½ to 4 feet through, with 100 spikes; No. 2, 2½ to 3 feet through, with 50 spikes. The above are now in full bloom, and can be seen by anyone. *A. Ingram, Gr. to Mrs. Whittaker, Mariners, Westerham.*

Lilium auratum.—Mr. Goode, of Melchet Court, deserves great praise for his pluck in sending his magnificent *Lilium auratum* so long a journey by rail as it is from Romsey to London, but the credit of its growth, from the first purchase of the bulb, through all its successive stages down to within a few months since, is entirely due to Lady Ashburton's late talented gardener, Mr. Cross, to whose industry, perseverance, and great professional capacity, is owing the fact that Melchet Court now possesses one of the finest private collections of show plants in the South of England. I have no doubt but that if Mr. Cross would inform your numerous readers as to the *modus operandi* which he has adopted to produce what must be admitted to be the finest *Lilium auratum* in the kingdom, he would perform a great professional service. It will interest many gardening friends to hear that he has recently engaged himself as gardener to the Rev. T. Philpotts, of Cornwall, a gentleman well known in that county as an enthusiastic horticulturist; and also for many years as the steward of the horticultural department of the Bath and West of England Society's Exhibitions. *A. D.*

Trellised Walls.—Peaches, Nectarines, and Apricots do not succeed on trellised walls, as they do not like draughts behind them. The nearer the fruit is to the wall the better. Wired walls succeed admirably when the wire is strained, so as to sit close to the wall. Mr. Williams, of Woodland House, near here, has a wired wall, and grows most successful crops. Last year I saw them, two trees of the Late Admirable (erroneously called Millet's Miznonne, which is the same as the Royal George) bore magnificent crops, and the largest Peaches I ever saw. I pointed out to Mr. Williams that no other Peaches except the late Admirable and Téton de Venus have that hideous turgid nipple at the apex. To strain the wires tight to the walls, blocks of wood should be let into the wall at both ends; the wires should be placed 6 inches apart horizontally. Had I seen it before I built my walls (about 170 yards) of brick, I should have certainly had mine done in the same way. *W. F. Radcliffe.*

Weather Fluctuations.—The season through which we are passing has been one of the most fluctuating in my experience. Alternations of heat and cold—the latter predominating, have been the rule throughout the west of Scotland. The drought of last summer was very trying, accompanied as it was with intense heat, but the drought of this season has been more long continued, although it has not told with such a withering effect upon the crops, &c., owing to the generally lower temperature that has prevailed. Wells and springs of water, however, have been dried up to a degree in some places, necessitating the interference of authorities to prevent undue waste, even for domestic purposes; and in the town of Greenock, for example, several sugar manufactories are about to be stopped in order to economise the limited supply for the inhabitants. Garden crops are parched up, and bedding plants generally, with the exception of *Pelargoniums*, are in no better plight. Rain has been anxiously looked for, but instead of rain we have had a severe incursion of frost, blackening up *Pelargoniums*, from Mrs. Pollock and Golden Chain to Stella and Treatham Rose. At Meadow Bank, where the situation is on the banks of the freshwater Clyde, the devastation of bedding plants is complete. *Perillas*, *Dahlias*, *Zinnias*, *Chrysanthemums*, and similar plants of a tender nature, have succumbed to a minimum temperature of 27°. There has been such a wave of cold, traversing all low-lying districts in the west and north-west of Scotland, that nothing of a tender nature has escaped, and even the fresh leaves of *Docks* and *Plantains* are totally destroyed. Fields and fields of *Potatoes* that were in beautiful foliage are flattened and blackened to a degree I should say unprecedented. Late crops may be subject to supertuberation from a totally different cause than that of last year, but the general crop is pretty far advanced, although the check will probably have a reaction upon the keeping of the tubers

It is very annoying, after all the labour incident to the propagation, conservation, and moving from place to place of an army of bedding plants, and then the final planting out, to have the pleasure of looking at them thus suddenly and summarily cut off. We have only had 85 consecutive days this season entirely clear of frost. On the 2d of June the thermometer indicated a minimum of 30°, and now on the 30th of August we have a minimum of 27°. To show the fluctuation I append maxima and minima for the last eight days.

	Max	Min		Max	Min
July 23	86	48	July 27	69	56
" 24	86	52	" 28	72	46
" 25	68	45	" 29	54	44
" 26	66	46	" 30	51	27

—and this morning we have the minimum of 31°, with apparently a change looming. Last year flower gardens were in tolerably good condition up to the 19th of October, the thermometer indicating then a maximum of 26°. We therefore had seven weeks' longer duration of the bedding system, which was some remuneration for labour involved, and, moreover, we had no cold to interfere with planting out after the 19th of May. Should weather fluctuations of this kind prevail in subsequent seasons, those so visited will "bottle up" their bedding-out notions and recur to the mixed system. Choice hardy plants are capable of more endurance even in the matter of inflorescence than most of the favourites selected for parterre decoration, and to them eventually our attention must be directed if we wish to prolong the gay season. *Jas. Anderson.*

On Saturday last, the 28th August, we had the hottest day of this season—thermometer at 84° in shade and 100° in the sun; barometer fell rapidly, about 3-10ths of an inch. Sunday we had a stiff gale from north-east, the thermometer barely reaching 56° at noon. Monday bright and cool, with an east wind. This morning (Tuesday) my gardener's salutation was, "Things sadly mauled, sir." On inquiring further I found the minimum thermometer (Negretti's) had registered 27° (5° below freezing). I send you a leaf of Vegetable Marrow, which tells its own tale. French Beans, New Zealand Spinach, Dahlias, and other delicate plants much blackened; Heliotrope in sheltered situations escaped. Has such a frost ever been recorded in the midland counties in the month of August? *W. B., Aug 31*

—This morning (Aug. 31) we had 4° of frost, the wind, which was cutting, was south-east. In the kitchen garden it has destroyed our Vegetable Marrows, Gourds, Kidney Beans, and Potatos; and in the flower garden, Perilla nankinensis, Coleus Verschaffeltii, Heliotropium, Dahlias, and Salvias, are very much disfigured. The Cloth of Gold and Zonal Pelargoniums (except Maid of Kent and Excellent), the Golden Feather Pyrethrum, and other bedding plants appear to have withstood the frost without being much injured. *Quintin Read, Pleasley Vale Gardens, Mansfield.*—The following was the temperature in the shade, at 2 feet from the ground, as observed by me at 6 P.M. on August 25 (9) Fahr. I sent again at nightfall, when there was only just light enough to see the mercury, and it stood then at 85°. This is the highest temperature noted in my experience. The temperature in the sun at 1 o'clock on the same day is given by a neighbour at 136°, but so many items have to be taken into account with thermometers in the sun, that errors are easily made. It is not so with instruments in the shade, and it may be many years before we witness such a temperature attained in the last week of August as 90° at 6 o'clock in the evening. Our climate is truly a variable one, for the same night the wind veered round to the north, and blew a gale, and the morrow, at 2.30 P.M., rain began to fall, and the temperature had dropped to 50° in the shade. *Alex. Forsyth, 9, Islington Square, Salford.*

—On the nights of August 30 and 31 we were visited by frosts, which in exposed situations destroyed the under-named things in the grounds here:—Dahlias, *Amaranthus melancholicus*, Perilla, *Tropaeolums*, Heliotropes, Ageratum, Salvias, Pelargoniums—Mrs. Pollock, Golden Chain, Countess of Warwick, Pink Stella (not first-rate at any time), Christine, Bijou, Crystal Palace Gem, in the same situation, was not so much cut up. Ribbon borders under walls were not so much caught. Vegetable Marrows and Potatos were quite blackened. We are never safe in this neighbourhood to bed-out before June 1, but now it is a question whether we shall be safe to bed-out before September 1. Is the frost of August 30 and 31 to be considered an early or a late frost (early after midsummer)? We have now had our swarms of green-fly, our Lady-birds, and our frost: what have our learned entomologists and meteorologists to say about these visitations?—and will they tell what we are to expect next, so that we may prepare for it; or are we still to accept, as we have to do in most similar cases, that if so and so was not the cause of it, it must be something else? The result we generally find out for ourselves. Gardeners are often twitted on their diversity of opinion, and this both in respect to their arguments and practice. Will any one say how much on this point gardeners differ compared to any other class of men who consider themselves more learned? In July we had the Congress of gardeners at Manchester, and in August there was the Congress of the British Association at Exeter. I read some of the papers and some of the discussions of both meetings. Will any one say how much more unity of opinion on subjects there was amongst our more learned men at Exeter, than in the case of the subjects read at the Congress of gardeners at Manchester? *Wm. Miller, Combe Abbey Gardens.* [Frost (28° Fahr.) was observed at Ashridge, Herts, on the morning of the 1st inst. *EDS*]

Effects of Hot Weather.—There must have been something very unusual in the temperature of August 27 and 28. The extreme heat might be sufficient to account for the firing of several haystacks, and for turning brown the leaves of Lime and Birch trees,

but not for killing plants of Mignonette, and curling up all the blooms upon Hollyhocks in certain parts of my garden, while others a few feet off are uninjured. The most remarkable instance of partiality in burning occurs on a tall blue and white Aconitum, where the top branch has all the flowers scorched, while the other flowers are quite uninjured. *W. T.*

The Wonderful Plant.—In quoting from the "Gardeners' Magazine" a description of a so-called "wonderful plant," you omit the editorial note which I appended, the object of which was to caution the public against a possible deception. Not having seen the wonder, I could not give a critical opinion upon it; but my note concluded with a hint that it was probably not worth seeing. Your mode of dealing with the subject makes me appear the swallower of a cock-and-bull story. *Editor of "Gardeners' Magazine."* [We quoted at secondhand from our contemporary. We give him full credit for penetration, and are quite sure he is too acute to be taken in by such a sham. *EDS.*]

Roses.—Climbing Devonensis has flowered very finely this season, and the bloom fully equals, if it does not surpass, in beauty its parent. It has bloomed here in immense corymbs, and for extraordinary vigour of growth surpasses even that old favourite, Gloire de Dijon. It will shortly supersede every other climbing light Rose. Lamarque and Solfaterre will be cast entirely in the shade by it. The cottagers in this neighbourhood have the fronts of their houses covered with Gloire de Dijon and General Jacqueminot, thanks to local and other floral and horticultural societies for bringing about this very desirable taste for the cultivation of the queen of flowers. Maréchal Niel blooms finely against a south or west wall, but seems very shy at opening its flowers freely when grown as a standard in this locality. *A Godwin, Ashbourne*

Lady-birds.—Southampton and its neighbourhood has had its visitation of these pretty little insects. There was quite a shower of them on the 28th ult. On examining some small Apple trees I found many of the shoots were greatly infested with green-fly. Here I also found the Lady-birds in considerable numbers, and seemingly busy devouring the pests. Wishing, however, to ascertain, if possible, more closely, whether the aphides were really destroyed, or only sucked, as the ants are said to suck them, I gathered a few leaves, upon which there might have been 100 insects, and these, together with a Lady-bird, I placed upon a plate and covered all with a glass; after 48 hours, upon examining it, I could not detect that any of the aphides were touched, as all seemed to be alive. Had I accepted the result of this experiment as a correct one I should, however, have committed a mistake, as upon examining the Apple trees I found the whole of the green-fly had been devoured. Not a live one was to be seen. Singularly, also, those of the trees that had been free from blight were entirely free from Lady-birds. *A D*—I find these insects are not particular as regards diet—they appear to be equally as fond of vegetables as of insect food, they attack Pears and Plums here at an equal ratio with the wasps and flies, which have appeared in overwhelming numbers the last few days. *J. Edlington.*

—In reply to Mr. Fish's inquiry as to Lady-birds eating green-fly, I beg to say that I have often seen them in their grasp, and therefore conclude that they eat them. One of my boys brought me one a short time ago, and said, "Look, father, here is a Lady-bird with a green-fly in its mouth," and turning it over I saw such was the case. I have often fed them and the larvæ by giving them flies from the point of a knife or stick, and I value them so highly that I set my children on fine days in winter to search for them to put in my forcing-house among Dahlias, and I have no doubt but that they keep them clean. Early this season my Roses swarmed with fly, so that I had to wash the blooms with a brush and water before using them, but a few Lady-birds made their appearance; then I noticed some patches of eggs under the leaves, and I soon had a swarm of Lady-birds at work, which cleared my Roses from their enemies. About 15 years ago I noticed under the leaves of a Dahlia that was infested badly with black-fly, some patches of yellowish-looking eggs, which I believe were those of Lady-birds; these hatched, and in three days the larvæ cleaned the plant. There is also a small red spider, whose body is about the size of a hemp-seed, which I have no doubt whatever feeds on green-fly; I have often fed them from the point of a knife, and have seen them suddenly stop and seize the fly. These are also collected by my children on sunny days in winter for the purposes above mentioned. *George Rawlings, Romford, Aug. 30*—The following remarks by "F. R. S.," printed in the *Times*, are worth adding to the information you have already given respecting the swarm of Lady-birds with which we have been visited, and which it has been assumed have been developed in the places where they have been observed. This, "F. R. S.," says, was certainly not the case, and here is his proof:—"During the 14th, 15th, and 16th of August countless multitudes of the little red beetles appeared upon the coasts of Kent and Sussex. They were most numerous close to the shore—tens of thousands perished in the sea near the land. They extended far inland, and on Sunday, the 15th, myriads were seen in London and its neighbourhood. But the largest assemblages by far were on the east coast, especially at the points nearest to the Continent—this at a time when there was a continuous east wind. On the Sunday in question a scientific friend of mine well qualified to observe and record facts of natural history, was fortunate to witness the actual arrival of one of these swarms. When walking on Dover Pier, after morning service, he observed an enormous multitude of these insects, like a cloud, coming over the sea, as if from Calais. They were flying from east to west. Large numbers fell into the water, others covered the pier-head as with a red carpet, but the great mass flew on

westward, and, as they passed overhead, looked to those who gazed upwards like the interminable flakes of a thick snow-storm as seen from below. A similar occurrence had been seen the same morning. It would be preposterous to imagine that these swarms of Lady-birds had flown to sea in the teeth of an east wind, simply to be blown back again. When we remember the smallness and feebleness of some of our migratory birds, that cross the seas to this country during the stormy weather of early spring, the advent of the swarms of Lady-birds is robbed of much of its wonder. But the interesting question remains—Whence came they? Where did they collect in such prodigious numbers? What was the home that fed the larvæ from which the beetles sprang? Or if, as seems probable, that they had many homes, what impulse brought together these millions for a common emigration?" *Z.*

Lettuces.—I find Hicks' Hardy White Cos a most distinct and valuable Cos Lettuce. If it proves as good a winter Lettuce as it has turned out here this season, its good properties will be considerably enhanced. I am now cutting huge fellows from plants spring sown, and notwithstanding the excessive drought there is no tendency in this variety to "bolt." Where Cabbage Lettuces are at all in demand, the new French Spotted is undoubtedly one of the best to grow for summer purposes. It grows to a large size when well cultivated, and stands well, without the least tendency to run to seed. I consider it a most useful kind, especially for small gardens and cottagers, where a Lettuce, whether Cos or Cabbage, is an object. *J. Edlington.*

Unheated Orchard-Houses.—I fully endorse Mr. Thomson's remarks regarding a deficient crop in these structures this season. I have a house here unheated, and it is as fruitless as his. Mine is not the only one, for I have seen several in the same category. Our trees are healthy, blight is out of the question; like Peaches and Apricots out-of-doors, they failed to set their fruit in spring, through the extraordinary early warm season, then the extraordinary cold just at the time the warm and genial weather was required. *John Edlington.*

Wellingtonia gigantea.—Some years ago a very laudable emulation existed amongst those who possessed specimens of the first batch of this tree, and the length, circumference of bole, and diameter of branches were duly recorded. Of late years, however, this practice has been discontinued; is it in consequence of some of the best specimens dying off? or has the interest in the tree abated? I am unwilling to believe either of these cases, although, from some specimens I have seen, the "going off" of the tree in more than one place creates uneasiness as to its attaining even the size of ordinary native trees; at all events, inquiry is wanted, and I hope those who have lost fine specimens from causes which they cannot account for will publish their losses, which are as important portions of knowledge as the successes of others whose trees still exhibit all the signs of undiminished vigour. It would also be well to inquire how the tree fared in the severe winter of 1855-57, and how it got through the dry summer of last year, and whether the present dry summer has told in any way upon it. All these matters are well worth inquiry, as it would be equally unjust to withhold the good character the tree once had as to give it a better one than it deserves. If, therefore, it threatens to "go off" from some constitutional debility not easily remedied, then let it take its place amongst trees whose usefulness ranks in the second class; if, on the other hand, the cases where it has succumbed be traced to local or special causes, not likely to affect its ultimate usefulness, then let its merits be fully known by those having the best specimens reporting to the world their size, and the number of years they have taken to attain their dimensions, with other information on the matter. *Conifer.*

Hardy Herbaceous Plants.—Allow me to remind amateurs that early in the autumn is the best of all seasons for transplanting most kinds of perennials; and that the finest display of flowers next year will come from those plants which have been moved immediately after the first heavy showers that fall during this month. *W. T.*

Althæa frutex.—Will some of your correspondents well versed in the varieties of this shrub give us a list of the most showy, and any other hint as to their culture, for the plant certainly deserves more attention than it often receives? Its fine Geranium-like blooms present themselves at a time when but few shrub flowers are to be had, and the habit of the plant is far from being objectionable. I should much like to see it more patronised, and cannot but think its present neglect arises from its beauties not being sufficiently known; but as it is now just coming into bloom, I hope those having good collections of it will duly report them. *C.* [There is a fine series at Battersea Park. *EDS.*]

Cedar of Lebanon.—In the grounds of Upper Gattou, near Redhill, there are some very fine specimens of this Cedar. One tree in particular is worthy of notice for its large size. The circumference at 1 foot 6 inches from the ground is 23 feet 6 inches; at this point there are three large limbs stretching out almost horizontally, whose circumference is respectively 7 feet 6 inches, 6 feet 9 inches, and 6 feet 7 inches; at 5 feet from the ground the measurement is the same as at 18 inches. At 6 feet it divides into four principal limbs, each a tree in itself, their circumference being 12 feet 4 inches, 11 feet 7 inches, 8 feet 9 inches, and 8 feet 9 inches. The diameter of the spread of branches is 95 feet, height, 60 feet. The snow-storm of January, 1866, injured this tree very much, which has marred its symmetry, several fine limbs on the north-east side being broken off. *J. Creer, Shabden Park.*

Gnat's Bane.—Being much troubled with gnats, and not having any Rosemary, which, they say, will drive them away, I put some bruised Southern-wood (called here Boy's-love) on my children's pillow, and have not

found them bitten since; but as we had a frost in the night sufficient to blacken the leaves of a Vegetable Marrow in a pit which was exposed, I cannot be quite sure it was owing to this plant that they escaped, but it is well worth trying, as few things irritate the blood so much as severe frost bites.

Oak Tree in a Bottle—In reply to your invitation (p. 931) for suggestions respecting the cause of diseased growths of acorns, both in a corked bottle and in an open Hyacinth glass, I submit the following experiments for consideration. Having twisted a fine piece of stiff wire round an inch of candle-end, or taper lower it when lighted to the bottom of a decanter, and put in the stopper; of course it goes out—any child can tell you why. Light it and lower it again, but do not put in any cork this time, and it still will not burn. How is this? Next, cut out of a stiff piece of cardboard a large letter T, of such a size that the upright part of it will just drop easily into the neck of the decanter; now light and lower the taper again, and put in this T-shaped card, the flame at first may show symptoms of going out, as if not quite at home in its new sphere, but quickly reconciles itself to circumstances under which it has no control, and burns brightly. In order to understand fully the influence which the card-board has in keeping the candle alight, you have only to turn the letter T in the bottle, so that one of its arms shall be towards you, and to hold near the opposite arm a piece of brown paper that has been lighted and blown out; you will at once see the smoke drawn down one-half of the neck of the decanter, while the other half remains clear. This indicates that a circulation of air has been established, and while the heated impure air is ascending one side of the card, fresh air is descending on the other side of the partition, and supplying the oxygen necessary for keeping the flame alive. Now I apprehend that, prior to the formation of leaves on the young Oak tree, the fresh air requirements of the plant are not great; and that, while there would be no more circulation in an open Hyacinth glass than there is in an old well with foul air in it, the fact of a cork not fitting tightly, or the mere influence of the thread between the cork and the bottle, might give opportunity for sufficient circulation. W. T. Ingenious, but inapplicable to the case of the Hyacinth glasses, from the neck of which the acorn was suspended by a thread attached to a piece of wood, nearly half an inch in depth, which would play the part of the T-shaped card. In other words, the cellular outgrowths were formed not only where the air was stagnant, but also in the open glass, where there was more or less circulation of air. Eds.]

Iron Pipe Blocked—I have no doubt but that the "spongy material" which has blocked up "A Very Old Subscriber's" pipes (p. 896), is the same pest which gave me so much trouble here in the lead pipes for several years. It grew much faster in the summer that it did in the winter. My remedy was common salt, which destroyed it, but it had to be repeated generally three times during the summer, and as nearly eight days was required each time in its removal, and it passed through the pipe, it was used in great quantity, and very much later, and with the arrangement of the garden. Last winter I had 200 yards of the lead pipe taken up, and 2-inch gas socket pipes put in its place, in the hope that the substance (animal or vegetable) might not like the cast-iron, but, I confess, your correspondent's statement makes me feel very uneasy. The lead pipe had been down about 25 years when the Polype first made its appearance. I have often searched in the pond, but never could find the slightest trace of it there, although the holes of the "cullender" were often quite choked. D. Buchanan, Dyrham Park.

Golden Champion Grape—Having bought a plant of this fine new sort in the autumn of 1868, I was in some measure disappointed with its condition, as it bore evidence of some peculiar temperament or treatment. The plant was about 2 feet in length, a bit of which was brown, the rest was possessed of tattered, ill-developed, meagre-looking leaves, and although it seemed a doubtful representative of so great a name, I resolved to treat it kindly, and immediately placed it in gentle bottom-heat, keeping it on the dry side, and cut it down to two eyes the following winter. I started it into growth by means of bottom-heat at the middle of March, as soon as it made 15 inches growth, which was at the 25th of April. It was then inarched on a two-year-old Hamburgh Vine. It took hold well, and was severed from its own roots after the lapse of four weeks; its leaves became flaccid pro tem., but soon revived, and it is now a strong rod 25 feet in length, with several lateral shoots of 3 feet. With this ocular demonstration of its exuberance, I feel hopeful that its other important and signal qualities will follow in their turn. John Reid, Haugh Hall Gardens, Aug. 31.—I bought a medium sized plant of this new Vine late last autumn. After cutting it down, and resting it in the usual manner until February, it was put into a pit, and was potted in leaves until it commenced to grow. I then potted it into an 11 inch pot, and grew it among as many more for fruiting in pots. It is now 10 feet long, and is a very fine cane. Permit me to add, that your correspondent's case is not the first that I have heard where Vines planted in a dormant state have refused to grow. E. Gilbert, Gr. to the Right Hon. the Marquis of Exeter, Burghley. [The Golden Champion is doing very well indeed at Ashridge, where Mr. Sage has inarched his plant twice. We have also some other communications to the effect that the Vine is doing well. Eds.]

What is a Kitchen Garden?—Mr. Meikle's argument, based as it is on his own assumption, must go for what it is worth. He, however, admits that the evil complained of exists in the present system of kitchen gardening, and recommends as a cure

"judicious" management. This consists, by his own showing, in allowing wall trees 4 feet root-room. Then he would have vegetables occupying some 6 feet, then again standard fruit trees outside, which take the other 3 feet. Why, this is making matters much worse on a border next a wall than, I venture to say, was ever practised. Is this to ensure the practice of root-pruning? Maturation of the roots of fruit trees would be going on on both sides in the act of vegetable planting, and they in turn crying out more then ever against shade and drought. Mr. M. may dispense with his root-pruning if he keeps away the spade, and allows his roots to come nearer to the surface; I should be sorry to try the experiment of a 4 feet border on the trees I have the care of. They have more than double that run, and have not been "crippled" upon for many years, and this with the best results. I cannot, therefore, accept Mr. M.'s arrangement, but still advocate separate establishments. I think these borders, too, would be found no more adapted than some other parts of the garden with the advantage of a bank for "the early batch." The variegation of that situation which Mr. M. can prove for himself by registering the heat and cold for a year in comparison with other parts of the garden would prove this. The other evils alluded to by your correspondent I know prevail, and ought to be remedied; but that is a matter distinct from that under discussion. Agitator.

Hothouse Boilers—I am surprised that some one of greater length has not replied to Mr. Milne's remarks about boilers, or rather, perhaps, he ought to be congratulated on his great discovery. A saving of 500 or 800 per cent of fuel! Talk about reforming our coal bills, why this discovery will well nigh abolish them; they will be virtually reformed off the face of the earth. Winter will soon be upon us. Do contrive to have this boiler tested before it comes. What is the London Horticultural Society about? Mr. Milne's boiler ought to be instantly applied to their large conservatory. The saving of coal would pay for two or three boilers the first winter. And then, only imagine how popular such a service would render the Society. Estimate, if you can, the money it would put into the pockets of its constituents and patrons. No greater service could well be rendered to horticulture than such an extraordinary saving of fuel. Mr. Milne says a man's abilities are not measured by his experience, and in this I beg respectfully to differ from him. If he can enable us to experience this saving of fuel, he will be acknowledged at once as the ablest gardener within the four seas. He will be decorated with medals, laden with money, and all of us, from the least to the greatest, will hasten to do him honour. Do urge on, and out, the Conservative boiler, and oblige An Old Gardener with a Heavy Coal Bill.

Hydrangeas—We have here three very fine specimens, as full of bloom as they possibly can be. On measuring one of them, I found it 36 feet in circumference, 11 feet in diameter, and 6 feet 7 inches in height, with about 1270 blooms upon it; the other two are nearly as large, but not so high. They might have been cut away long ago, as they have to be cut back very considerably every year to keep them off the walk. They are growing against the wall, at the west side of the house, in a very hot place; and in consequence of the very dry weather we have had to keep them constantly watered. The flower, when fully expanded, is of a light blue colour. Thomas Whetton, Gr. to H. Maudslayi, Esq., Bystock.—It is not at all unusual in the Island of Guernsey to see flowers of different colours on the same shrub. I have frequently seen them with blue and lilac flowers. In the same garden I have often observed plants bearing blue flowers within a few feet of others bearing pink or lilac blossoms. Sometimes there will be a couple of blue, then a pink Hydrangea, and so on. C. M. F.—We have a Hydrangea hortensis now in bloom, with some of the trusses pink and some blue. It grows below a Weymouth Pine (Pinus Strobus). The soil of our garden usually makes the Hydrangea bloom pink. We have now a large group of about 20 plants in bloom, and only one truss among these is not pink. A plant of Hydrangea japonica growing near these has pinky flowers. Another plant of the same species, propagated from a cutting of this pinky-flowered one, has flowers of an intense blue. This latter plant grows near the spot where a large Weymouth Pine was felled a few years ago. S. M. O.

Foreign Correspondence.

BOTANIC GARDEN, ADELAIDE, SOUTH AUSTRALIA.—Trying as the frosts of a European winter undoubtedly are, gardeners here have yet to contend with even greater difficulties than with you; and it requires all their skill and attention to preserve, during the severe and long-lasting frosts, frequently accompanied by scouring hot winds, even many hardy plants. But, notwithstanding, we have in Australia horticultural establishments which, by making due allowance for the short period during which they have been in existence, will bear favourable comparison with others in the mother country, and the one I am about to describe ranks high amongst them.

Less favoured by natural position than any of the other public gardens in Australia, the skill of the gardener had to make up in Adelaide what Nature had denied, and under the direction of Dr. R. Schomburgk much has been done to render these gardens amongst the best in Australia. An almost level piece of ground, containing 105 acres, 13 of which are now under cultivation, intersected by an irregularly running creek, which in winter is frequently filled bank high by a rapid torrent of water, and situated on the north-west end of the town, has been set apart for the garden. The soil, a tolerably fertile friable loam, resting at a depth of about 12-15 inches on limestone, is for the

most part sufficiently good, not only for the cultivation of shrubs and trees, but also for the finer herbaceous plants, bulbs, &c., care having been taken whilst trenching to preserve near the surface the more fertile strata of soil. Artificial means have been employed to make it adapted for this purpose where this precaution had been neglected.

A sheet of water containing about two acres, decorated by one or two tastefully planted islands, and some smaller ponds provided with fountains, statues, or specimen plants in the centre, are included in the above area. The portion under cultivation is laid out according to the best principles of landscape gardening, the general effect being heightened by a small rise of the ground towards the north side, the slopes of which are planted with young specimens of conifers, whilst its top, from whence some charming views of the garden can be obtained, is crowned by a beautiful statue of Niobe. The banks of the creek referred to before, planted with the Buffalo-grass (Stenotaphrum), are, near the top, adorned by a selection of specimen plants. Numerous walks, carried out in gentle curves, and leading through well-kept shrubberies, past parts of grass-land, on which some fine specimen trees may be found, or along the lakes and ponds mentioned above, near which even some of the old favourite European trees thrive admirably, intersect the garden, which is divided into two almost equal halves by a broad straight walk leading from south to north. The walks are all well formed and gravelled, mostly edged with ornamental tiles, and provided with shallow brick drains on the sides, so that even after severe rains a perfectly dry path is obtained. The collection of plants distributed over the ground is large and varied, of most kinds good specimens may be found, sufficient space being allowed for the proper development of each.

Without attempting to enumerate all worthy of notice, I may mention the following as specially deserving of attention—Bauhinia purpurea, 15 feet high; Ficus indica, 19 feet; Ficus Sycomorus, 15 feet; Brexia madagascariensis, Gulandina Bonduc, Wigandia urous, 20 feet; Cupressus obliqua, a beautiful specimen, about 20 feet high; Solanum laevis, Cerbera Thevetia, Cassia Caudoleana, Tessoma velutina, &c., all growing luxuriantly in the open air. Statues, some of them of real artistic value, are placed in suitable localities, whilst an obelisk, sacred to the memory of the late, and first director of the gardens, G. Francis, Esq., stands in a prominent position near the main entrance. Water-plants, such as various Nymphaea, the freely-blooming and graceful Apogoneton distachyum, Cyperus Papyrus, &c., adorn the lakes and tanks, the banks of which are decorated by the beautiful Cyperium argentatum. Great difficulty is experienced in finding a Grass capable of withstanding the severe droughts of summer, the native Couch, Cynodon Dactylon, having proved as yet best for forming lawns. A rich collection of succulents, such as Opuntias, &c., planted out in separate groups, the finer varieties being kept in pots in Wardian cases, are scattered over the ground, most of the latter being found near the main central walk. Annuals and biennials plants, bulbs, &c., in great variety are either planted on the borders throughout the gardens, or in special beds, which are kept gay by a succession of bedding-out plants reared for this purpose in the nursery. By these means an almost endless display of flowers is maintained.

Before proceeding to the inspection of the houses we visit the rosary, containing upwards of 300 varieties of Roses, mostly grown as standards. They are planted on a level piece of ground, laid out in the oriental style. The beds are neatly edged with tiles, and covered with small bedding plants, Verbenas, Lobelias, Dianthus Hedderwigii, Phlox Drummondii, and a charming collection of Portulacas, amongst which there are many with double flowers of all colours. The centre of the rosary is occupied by a statue of the Amazon, by Kiss, and which has been presented by the ladies of Adelaide. A piece of ground on the north-west end of the garden has been set apart for experimental purposes. Collections of Grasses, and of medical or otherwise useful plants, may be found here. An important addition to these has recently been made by the introduction of the Gamea grass (Panicum giganteum), which, should it succeed, will prove one of the most useful fodder plants. Another plot close by, but not yet taken up for regular gardening, is intended for the formation of a natural chess ground.

We now proceed to the Victoria-house, a span-roofed building, 57 by 40 feet, with an oval tank 86 by 26 feet, and a depth of 6 feet. A broad walk surrounds the tank, the sides of the house being occupied with stages, whilst rockeries fill the corners. A collection of about 130 species of Orchids, numerous Aroids, Begonias, &c., are here brought together. The following may be mentioned as being particularly noteworthy—Alocasia metallica, Sphaerostema marmoratum, Sanchezia nobilis, Anthurium augustum, A. leuconeurum, Paratropia longitosa, Anacochilus, collections of Caladiums and Dracaenas, Cratons, &c., as well as several good Ferns, Onocidium Papilio, many Phalanopsis, Cattleyas, Epidendrums, &c., having flowered during the current year, whilst other, in Australia at least, rare kinds promise to do so shortly. Some good-sized Tree Ferns, spreading their feathery fronds, and supporting on their trunks Tillandsias, Orchids, Ferns, &c., make up the fairy-like appearance of the house, the tout ensemble of which can scarcely be rivalled, and much less be surpassed, in Australia. The gigantic leaves of the Victoria (the largest of which measures 6 feet 4 inches in diameter), which still continues to flower, almost fill the spacious tank, scarcely allowing room for the cultivation of some other water plants.

Parterres of flowers and ornamental fountains, for which a great variety of different jets is provided, surround the house. A series of older and smaller glasshouses, containing ferneries and a collection of

pot plants, of less intrinsic value, cultivated more for the purposes of decoration, is situated near the southern boundary of the garden, in close proximity to the nursery and to the museum, a small building containing specimens of Australian and foreign timber, seeds, models of fruits, &c. Whilst here we cannot but admire a splendid specimen of *Strelitzia auzusta*, 25 feet high, and constantly in flower, which adorns the central part of the houses referred to. A group of *Yuccas* and other plants of similar habit, amongst which *Boonapartea juncea*, now in full flower, with a stem about 18 feet high, claims also our attention.

The nurseries contain, besides several shelter sheds, two propagating pits, heated by hot-water apparatus, which also serves the ferneries, &c., mentioned before. Combined with the horticultural establishment is a fine menagerie, containing a collection of 19 species of mammals and 10 species of birds. The animals are kept in a series of cells, forming together an ornamental building. All possible credit is due to Dr. R. Schomburgk for the excellent order in which the gardens are kept and their tasteful arrangement. Whilst he is daily striving to still further beautify this already very charming spot, he also gratefully acknowledges the merit due to his predecessor in office, Mr. G. Francis, the late and first director, under whose superintendence the gardens were commenced in 1856. *E. B. Heyne, Rundle Street, Adelaide*

MELBOURNE: Fruits.—At the meeting of the Horticultural Society of Victoria, held at the beginning of last June, Mr. Carson produced a bunch of Grapes from the original imported Muscat Hamburg Vine, just gathered, in excellent condition, and shown with the view of illustrating its excellent keeping qualities. Mr. J. C. Cole exhibited a seedling Apple, grown by Mr. Piper, of Benalla, a very excellent keeper, and named "Piper's Pippin," and from Messrs. B. and S. Johnson came a very handsome, large seedling Apple, grown by Mr. South, of South Preston, which was named "Henry Wilson."

Societies.

ROYAL PARK FLOWER AND FRUIT SHOW, LEEDS.—This exhibition took place on Friday and Saturday last, and is considered to have been the very best autumn show ever held in the North of England. Birds lent the charm of their song to the exhibition. Dahlias were also shown in great force. The show, which seems to have been carried out with great spirit, owed much to the zeal and energy of Mr. Councillor Clapham.

The Apiary.

BEE-KEEPING IN SOUTH WALES.—I send you an account of my doings this season with Ayrshire and other hives, and shall be obliged by your opinion of this part of the country for bee-keeping as compared with other localities, judging by the results. I had this winter four stocks, by depriving hives, of these one was an Ayrshire, or Stewarton, and the three others ordinary depriving hives, two of which were of 14 cubic inches internal capacity, and the third of considerably less.

May, and a great part of June, were unfavourable for bees; supers could be given to the three last-mentioned hives only from the 22d to the 25th of May, and, though entered into then, for three weeks or more but little progress was made; while two swarms united in a fifth hive, a Stewarton, on the 1st and 2nd June, which is early for this locality, did but little during the same period. On the 15th of May a nadir, with comb, had been supplied to the Stewarton stock, according to the orthodox Scotch practice. By the end of July the three ordinary depriving hives yielded 13 lb., 27½ lb., and 35 lb. respectively, and the super of the Stewarton gave 10 lb., along with 29 lb. of comb, perfectly filled, from its top body box, which came off. This made 144½ lb. in all, or a little over an average of 36 lb. nett from each of the four hives. The double swarm in the new Stewarton quite filled their two boxes, but no more, which is to be partly accounted for by one of the swarms being a weak one, the other, however, being decidedly strong.

Another point, besides the general result that was obtained, and to which I wish to draw attention, is the less favourable results from the Stewarton stock than from the others. This stock was strong, and a nadir nearly filled with comb was given to it on May 15, which was at once taken to by the bees; but on account, as it appears, of the additional room afforded beneath, they did not take to the super till July 15—two months after; and I am certain they would not have taken to it at all but for two or three very sultry days which came in the middle of that month, as communication had been opened for the previous fortnight without their having availed themselves of the additional room. Then they half filled a 20 lb. super, no nadir being supplied when they entered it, as I knew from former experience that giving that at such an advanced period of the season would have deprived me of all chance of getting a super finished. In the present case it appears perfectly natural that the super should have been entered later by far than those of the ordinary hives were, as the top body box, holding about 80 lb., had to be filled before there were any indications that additional room was required, or would be made use of if supplied. Now, let it be granted that in a more favourable season that super would have been taken to sooner, and filled, which I believe would have been the case, so that 19 lb. of honey would have been available, as the greater part would have been in the old combs of the stock hive the value would have been less than that of the average of what was taken from the other three hives; besides, that average would in a more favourable season have been correspondingly greater. As to the milder method of

Scotch management, supplying a super first, and a nadir only after that had been taken to, three seasons' experience of it have shown me that even that invariably prevents the super being finished.

July is our great honey month here, as the fields are then carpeted with white Clover, and the honey made from its blossoms is peculiarly rich.

A bee-keeping clergyman in this neighbourhood, who had seen a little of my driving of bees, hit on a curious plan of imitating me. He had two stocks, which delayed swarming, one of these he took up the beginning of July, floor-board and all, and carried into a coach-house, putting an empty hive on the old stand. After having shut the door, and so nearly darkened the place, he turned the hive up, and commenced driving in the usual manner by beating, but without any live over to receive the bees, which swarmed out and made to the light, while others crawled over the floor. Contrary to what I should have supposed, this succeeded so far as that the swarm became well enough provided to stand over the winter and spring. Very little honey, however, was obtained from the old hive, as the combs were greatly filled with brood. The other hive was similarly treated the end of the third week of the same month. This furnished a fair quantity of honey, but the swarm from it was only able to provide itself with sufficient stores to last over the winter, and it died in spring. Heath being within reach, was probably the reason why they succeeded thus far. It is evident the queen must have found the old locality in both cases; but the swarm was lost in one case, and the honey in the other. From what I heard of the temper of the bees during the operation, it appears to have been a desperate business. *A. B., Narberth.*

Florists' Flowers.

NOT only has Mr. John Mann, of Brentwood, as residing in the East of England, furnished an illustration that the raising of new ZONAL PELARGONIUMS is by no means confined to the district of London, but further East even, another aspirant to honours has successfully put in his plea to be ranked among the best producers of the day. Mr. William Groom, of Ipswich, represents the enterprise of the amateur class, and has succeeded in raising some capital bedding Pelargoniums, well worthy of being better known. Of these a fine white variety appears in Mrs. Sach, a greatly improved White Perfection, flowers almost pure white, large, circular and smooth, a variety wonderfully profuse of flower, habit excellent, and dark zonate foliage. Mr. Groom, who takes a very moderate view of the qualities of his own productions, speaks of this variety as a very fine bedder. He has now in one of his convenient little houses a large mass of this variety, for conservatory work it is highly effective. Another white flower, named Maiden's Blush, gives a very fine white variety for exhibition purposes, the flowers are of great size, and massive and smooth in proportion; white in colour, slightly varied with pink; and forming a large and circular fruss; good foliage and habit. John Hopper is one of those brilliant orange-red flowers in the way of William Underwood, and a glorious bedder. There is a good batch of it in Mr. Groom's garden, presenting a brilliant mass of colour, with quality of individual flowers to match. Another is Surpass Miss Martin, scarcely a good name, yet a truthful one, the flowers of a lively salmon-pink hue, fine, stout, and circular, dark zonate foliage, and excellent habit. A large and massive deep salmon-pink flower, not without some novelty of character, has been named E. S. Dodwell, in compliment to the Pictorial-raiser of that name; the individual pips are large and very fine, and form noble trusses of bloom; the foliage darkly zonate, and the habit excellent. To two of these, viz., Mrs. Sach and Maiden's Blush, First-class Certificates were recently awarded at the meeting of the Ipswich Horticultural Society. In the way of Variegated Zonal Pelargoniums, Mr. Groom is now testing, by bedding-out, the worth of several promising seedlings. At the recent Special Prize and Pelargonium Show at South Kensington, Mr. Groom exhibited some young plants that promised well, both in regard to their leaf-marking and colouring, and shape of leaf. Brillancy of leaf-colouring is one of the chief good points in Mr. Groom's strain, the width and regularity of the golden leaf margin is another. Mr. Groom also has a capital pale lilac-coloured Ivy-leaved Pelargonium, of the type of Bull's strain, which he has named Ipswich Gem. Of compact habit and remarkably free of bloom, it will be very useful for basket work, or in any other mode of conservatory decoration. In one of the tents at the Ipswich Horticultural Show, Mr. Groom had suspended in a line lengthwise, and immediately over the table on which the fruit was placed, some 20 wire baskets of this variety, which formed one of the prettiest features of the show.

After a quiet and unpretending fashion, raising and rearing a few seedling plants, from the sheer and pure love of the thing, and because he is rarely happier than when among his floral offspring, Mr. Groom may be said to pursue the "even tenour of his way," and probably no one will be so much surprised as himself to see this record of his successful work. *R. D.*

Garden Memoranda.

MESSRS SUTTONS' ROYAL BERKSHIRE SEED ESTABLISHMENT, READING.—This establishment is one of the largest in the English wholesale and retail seed trade. The establishment is divided into various departments, over each of which intelligent foremen preside. The comfort of the employes—who number during the busy season considerably over 100—is not forgotten, for there is a large reading room adjoining the warehouses, which is open, after business hours, and

in which there is a good library and a liberal supply of daily papers, &c. Other great boons afforded to them are the Saturday half-holiday, and by early closing, during the summer months.

The principal order room, which is solely used for the execution of garden seed orders, is nearly 100 feet in length, and over 30 feet in width. It is elaborately and conveniently fitted up with long rows of counters, and some thousands of drawers, bins, and shelves, which are all labelled in the simplest and most convenient manner. The number of orders executed in a single day is very large, the system of labelling and checking every article, as carried out here, greatly assisting in the quick and correct despatch of all parcels. On leaving this room, we passed through a large paper-room, in which paper-bags of all sizes were being made in large quantities for next season's use. In connection with this department it may be mentioned that a regular staff of printers is employed on the premises, for the purpose of printing the many thousands of labels which are annually required. Proceeding through many large, well-ventilated warehouses, in which are stored the bulk of all kinds of seeds required in the garden and on farms, we arrived at the agricultural seed order department, which is conducted on the same principle as the other order room mentioned above every division and subdivision, and indeed every bag, being properly labelled. Another system carried out here is also worthy of notice as showing the care and precaution that is taken in executing orders. A warehouse book is kept in which a memorandum is made, mentioning the particular parcel of seed from which a customer is served, for future reference, and a small quantity from each such parcel is sown on the farm for comparison and to furnish evidence, if necessary, against any attempt at fraud. Another large three-storied warehouse is situated in the King's Road, which is used for storing Grass seeds, Mangel Wurzel, and Turnip seeds. In the height of the season these are filled with the several varieties of the seeds above-named. At the time of our visit the first arrivals of Turnip seeds had just come in, and were undergoing the process of cleansing and arrangement, preparatory to the general distribution during the forthcoming sowing season.

Adjoining the seed warehouses, &c. is the nursery, which is merely kept by the Messrs. Sutton to furnish a sufficient supply for a good local trade. In this nursery there is a house heated with hot water, for the purpose of testing the germinating powers of the many stocks of seeds received from their own growers. There are altogether nine good-sized houses in this nursery, the whole of which are heated by two boilers. The houses were filled with the usual description of bedding and general decorative stuff. At Portland Place, near the town, there is also a branch establishment of considerable size in which there is a good stock of young and thrifty fruit trees of all kinds, Roses, and a very choice assortment of Conifers, comprising some very pretty specimens of *Araucarias*, *Picea Pinsapo*, *Cryptomeria japonica*, *Thuja*, &c. There was also a good collection of Hollyhocks, and some very fine flowers of the double Zinnias, and double flowered Stocks, &c.

The trial ground proper is situated a short distance out of Reading, on the London road, and occupies about 3½ acres. The first thing that attracts attention is a large and remarkably fine collection of Grasses, that runs on each side of the drive from the entrance gate to the seed cleaning and drying sheds. It must not be supposed that the Messrs. Sutton grow seeds on this farm to any great extent, their system is to save a desirable quantity of choice selected seed of any particular kind: this is grown here, and the seed saved from this extra selected stock is sent to their growers in Essex and elsewhere, to raise the necessary stock for sale. Thus the process of selection, by being carried out regularly, materially improves the quality of the article, instead of suffering it to become deteriorated, as would be the case if the seed were saved annually without selection.

Of Peas, there has this season been an extensive trial, consisting of about 110 different samples, of which about 60 sorts were the subjects of more particular experiment. Laxton's Prolific and Forty-fold had done very well. Laxton's Supreme, of which there was 1½ acre growing here, was rather small in the pod, a circumstance that has been noticed before this season. There were also two new kinds, not yet sent out, and which have not yet been named. One of these, having bright green foliage and pods, was considered as being much superior to Rangler, the other is a late wrinkled marrow, with good sized, well-filled pods. Potatoes were also growing here in large numbers, so far as varieties are concerned, there being representatives of no less than 126 different parcels. Sutton's Early Racehorse was quite ripe before any of the others, and fully maintained its character in that respect. The much-vaunted Early Rose was here, very small in produce, and not at all coming up to expectation. Another American variety, the Early Goodrich, was growing alongside the former, it is a round, smooth, and clean skinned variety, and that is about all that could be said in its favour. There was also a very prolific red Potato having foliage strongly resembling Raspberry leaves. Cabbage, Broccoli, and Kale are largely grown; in fact, a sample from every parcel of seed sent out. Turnips, Mangel Wurzel, and Kohl Rabbi, of which there are large quarters, looked remarkably well, and gave an abundance of promise of a fine crop of roots this season. Sutton's Champion Swede appears to be in great demand, no less than 2000 bushels of seed being sold last season. Of Kohl Rabbi, Sutton's Improved Green seemed to be a good stock. The Improved Reading Onion was also favoured with a large quarter to itself. There were besides several varieties, principally foreign kinds. Near to

these was a batch of a new Lettuce, named Holme Park Green Cos, a large serviceable-looking variety, not yet sent out; a kind, called Duckett's Perfection, also promised to be a good useful sort. Annuals are not grown very largely here, and these for the most part were over at the time of our visit.

Garden Operations.

(For the ensuing week.)

PLANT HOUSES.

THE genus Lachenalia, which comprises some of the most beautiful dwarf bulbous plants, now requires especial attention in regard to potting, &c. There are several species, many of which are much better than the old and well-known L. tricolor, and are consequently well worthy of cultivation. They delight in a free open compost of fibrous loam and sandy peat: being almost all natives of the Cape of Good Hope, a low temperature of from 38° to 45° is best suited for them through the winter months. In potting up store pots the bulbs contained in old balls should be divided, and are better if kept separate when placed in the fresh pots, though many may be placed in at equal distances apart in each. Slight fires will now be generally necessary in stoves at night, just sufficient only to cause a gentle heat to pervade the pipes, and to keep the temperature at a safe point. Less air will also be required as we merge into the cooler autumn months, and this should be afforded rather later in the day than was the case a few weeks past. Seedling Cyclamens sown this spring should be pricked off into small pots, and be pushed along freely as soon as they show the second or third leaf. This is the real secret by which the fortunate few grow these lovely plants to perfection. There must be no rest—no check, until they are produced in full and abundant bloom. They like a nice brisk and moist growing temperature. Above all, they must be kept entirely free from scale, red spider, and especially thrip. When the latter attacks them, or gets a lodgment, they invariably become safely en-cased upon the crown, amongst the tender young leaves as they form, and these they oftentimes eat entirely away before they are observed by the naked eye. Thoroughly good drainage is an essential point in the successful cultivation of these plants. There are some few subjects which, if they are to be kept much longer in flower, will again need to be removed back into warmer houses, such as Tydeas, Achimenes, and the like. Though these and some few other similar subjects will do moderately well in cool greenhouses during the warmer period, they will not last when cooler nights arrive. Examine late grown Italian Tuberoses, and if the plants show any signs of throwing up a flower spike let them be placed in a high temperature, and have abundance of root moisture, giving them alternate waterings with moderately strong liquid manure. Saucers may advantageously be placed under each pot, the better to support the plant in its effort to form good spikes. Lantanas, of which we have now some very fine varieties, may be induced to prolong their blossoming farther into autumn, if placed in a warmer and lighter position than that afforded by a cool, shady greenhouse or conservatory. A little manure-water will benefit pot-bound specimens of these also; it should be weak and clear, and should not be given to them too frequently.

FORCING HOUSES.

Let late Vineries which are now finally swelling off their crops, and Muscat houses in particular, be carefully attended to. Bear in mind the fact, that all Muscats, however well they may look, even up to the final process, are not good Grapes, in the right meaning of the word, until the golden amber we appreciate so much, the thin-skinned berry, and the flavour are assured facts. Do not let present appearances, however encouraging they may be, lull into such false security. Take advantage of every ray of sunshine, and every passing waft of balmy air, and by free admission of the latter, and by judiciously taking off the air betimes, still further aid these favourable circumstances. Where shanking occurs—and it will do so at times, in spite of most persistent remedial efforts—let every berry so affected, even to the gangrenous attachments on the stalks, be immediately removed. Furthermore, supposing (and I say "supposing" for even doctors disagree hereon) that shanking is caused in consequence of a too meagre supply of nourishment from the root, then the leaving on infected berries, which are shanking, to say the least, tends more to impoverish those which are entirely free from the malady by the very quantity of support which they exact for their partial or imperfect support. All Vineries which are now finally colouring their fruit, should have no more water distributed withindoors after this date. And this I have stated before. I hold it to be a matter of some importance, however, hence I freely refer to the subject again. It is the province of the good cultivator to prepare, in so far as may be possible, for eventualities. We may soon have a dull wet time of it, then it will be seen how very detrimental to the well-being of the crop are borders in a wet sloppy state. The inner atmosphere becomes dense and reeks with impurities, which are much at variance with that dry buoyancy which is so essential for the production of flavour. In regard to Pines, I can add little to the past few Calendars. Push forward the potting of all those which it is desirable to pot at this period. Strong successionalists intended for fruiting next season should be placed at the earliest opportunity into the fruiting pots. This, where the quick fruiting process is carried out. Make every preparation for the attainment and maintenance of a proper amount of bottom-heat in all Pine-pits during the incoming winter. To this end the necessary amount of tan must be procured, and when not wanted for immediate use it must be protected against rains. The lovely weather

we experienced at the end of August was all that could have been wished for the late "shows." Those just expanding into flower will swell away kindly and become far finer fruits than would have been the case had dull weather continued. Where economy is practised, and it is seldom otherwise in gardening matters, it will be well to get in at this time the necessary stock of fuel for forcing, &c.

HARDY FLOWER GARDEN.

Mignonette which was sown in pots a week or two since, and which is intended for winter blooming withindoors, should now be thinned out nicely, so that each plant may have ample room to grow and extend itself freely. Water freely with a rosed water-pot, and still keep in a fully exposed place out-of-doors. Hardy Annuals, which are intended to flower where sown, may now be got in. They comprise such as the following—Linnanthes, Collinsia, Silene, Myosotis, Nemophila, Oxyura, Calandrinia, &c. If the weather continues dry, of course each will need watering, and should be effectually shaded from the sun until such time as germination takes place. The cuttings of various sorts of bedding stuff must now be got in with all dispatch. Where room exists to grow them separately, each cutting properly made may be potted singly into large 60-sized pots in a free, open, loamy soil, intermixed with leaf-mould and sand. When this is done place them out-of-doors on to cinder-ashes, or some similar material, in a fully exposed situation, where sun and air can have full play on to them. It will be necessary, should there be no rain, to give later plantations of Gladiolus good waterings. Those who have afforded this aid to Tritomas, as I have previously advised, will have seen the great benefit which accrues therefrom. It will be advisable to continue watering these, that the late flower-spikes may be brought up with equal vigour. The Gynenium argenteum (Pampas-grass), though an inhabitant of the prairie deserts, delights also in root moisture, and if frequently watered with liquid-manure so much the better. No further delay should take place in regard to making plantings of Pansies which are to stand the winter out and bloom next season. Where the Hollyhock seed sown a few weeks since has not shown above ground, it should be well watered, and induced to do so quickly, otherwise the seedling plants will not be sufficiently large to bloom efficiently next year.

KITCHEN GARDEN.

Little can be added in this department to what has been suggested in the past two or three Calendars. All Celery plantations will require frequent copious waterings. Sowings should be made of Cauliflowers for the purposes of a spring crop. There is little to choose between the many varieties offered. The old London, or improved Hertfordshire, are perhaps the best. I have previously suggested that material should be obtained for the purpose of making early autumn Mushroom-beds. The Mushroom-house itself should be emptied, and receive a thorough cleansing with the aid of the whitewash brush, &c. Where there are dices, let the soil and other dices deposited within be cleaned out, and the exterior well washed over with fresh lime. Immediately a wet period arrives make a sowing of Radishes, and set to work transplanting the earlier autumn-sown Lettuces and Endive into the most sheltered positions, there to withstand the frosts of early winter, &c. Other and successful sowings and "pickings out" must be made periodically, hence a portion only of the border to be occupied should be planted yet. W. E.

TOWN GARDENING.

CONTINUE to put in cuttings of Pelargoniums, Centaureas, Stachys, Ageratum, and the Golden Pyrethrum. The last named I consider one of the best foliage plants for towns, as it shows up well next an edging of Ivy. Annuals have done flowering, and should be cleared away, and the stems of such perennials as have also done flowering cut down. Fill the vacant places with Pompon Chrysanthemums. Intermediate Stocks sown last month will now be fit to pot, they should be taken up carefully, with as much root as possible, and planted three in a pot, close to the edge, in a compost consisting of four parts loam and one part rotten dung, well mixed together, and pressed down firm, watered, and put in the shade for a few days, after which they should be removed to a more open position till October, when they should be removed to a cold frame. Double Rockets do well in town if wintered in a cold frame; these should now be taken up, parted to increase the stock, and potted. I find from experience that though they do well during the summer months they will not stand the winter except in a cold frame. Dahlias will now be coming into flower, and should not be allowed to have too much top, which will impoverish the flower and make them small. therefore thin out the crowded shoots, and where the flower-buds come two or three together take them all out but one. Mignonette should now be sown for early spring use in 48-sized pots, and placed in a frame, and as soon as it is up give plenty of air and a gentle watering, and at all times protect it from wet and frost. J. D.

STATE OF THE WEATHER AT CHISWICK, During the last 41 years, for the ensuing Week, ending Sept. 11, 1869

Table with columns: Day, Average Highest Temp., Average Lowest Temp., Mean Temp., No. of Years in which it Rained, Greatest Quantity of Rain, Prevailing Winds.

The highest temperature during the above period occurred on the 7th, 1868—therm. 91 deg., and the lowest on the 7th, 1856—therm. 28 deg.

STATE OF THE WEATHER AT CHISWICK, NEAR LONDON, For the Week ending Sept. 1, 1869, as observed at the Horticultural Gardens.

Table with columns: Day, Moon's Age, Barometer (Max, Min), Of the Air (Max, Min, Mean), Of the Earth (1 foot deep, 2 feet deep), Wind, Rain.

Notices to Correspondents.

ARRANGEMENTS. A R. E. ... Presuming that the first are as you state them we can only say that the proprietor has not kept faith with you, that such practices are not usual, and that they are very reprehensible. We should suppose there is some misunderstanding. APPLE TREE BORER. T. Z. Your tree has no doubt been attacked by one of the wood-boring moths, probably the Goat Moth referred to at p. 924. If you run a cane or wire up the hole, and so crush the larva, no further injury will be done. The trunk will be weakened, if it is not a large tree, and may need some support against wind. BARNES TESTIMONIAL. Mr. John Pearson, Kinket, Bantley, wishes his name to be entered as a subscriber of 11. BOOKS: Constant Subscriber. "Paxton's Botanical Dictionary" (Bradbury, Evans & Co.); "Gardeners' Dictionary" (Bell & Daldy). Both new editions.—G. Mann. "Kemp's How to Lay Out a Garden," and Loudon's edition of "Repton's Landscape Gardening." CALIFORNIAN RESURRECTION PLANT. Nevada. "The hard, dry, brown lump, looking more like a dead Lycopodium than anything else, but which, upon being immersed in a soup-plate full of water, gradually opened its fronds, assumed a green colour, and, in short, 'rose from the dead,'"—is no doubt the Selaginella lepidophylla, a species of Lycopod or Club Moss, the hygroscopic character of which is well known. You will find a description of it in Spring's "Lycopodiaceae," part ii p. 72. CUCUMBERS. C. The proportions and form are all that need be desired, and the flesh solid, with little inclination of seed, but the specimens as sent are much too old and coarse in flavour, probably they were good at an earlier stage. It is very like a Winter Prolific which we have seen.—W. R. A thickness of border over the pipes of about 18 inches, with proper drainage, will be sufficient in the first instance, and to this surface dressing may be added as the plants need more food, or the roots may require to be encouraged to run into fresh material. There should be means provided to prevent the pipes lying the soil too much below. A less thickness of earth would suffice if the moisture is perfectly under control. DESFONTAINIA. J. W. W. The Desfontainia is generally rather a shy blooming plant. It is, we believe, sufficiently hardy to withstand our winters in favourable, that is, sheltered spots, but won't bear excessive cold. We should recommend a mixed loamy, rather than a pure peaty soil, to mulch the surface in winter, and the use of Mr. Barnes' wicker-work protectors through the winter, and spring, in order to keep the foliage dry. Do not plant at now, but wait till spring, keeping the plants meanwhile sheltered in a cold house. DRY ROT. E. H. C. Your Fungus is the perfect condition of dry rot (Merulius lacrymans), and as it is just now producing its countless spores, immediate steps should be taken for its destruction. To get rid of it perfect ventilation is necessary, and all the parts infected should be treated to a wash of strong solution of corrosive sublimate. It is not at all uncommon, as in your case, to find it spreading over gypsum, brick, &c., as well as woodwork, but as you have had dry rot before, it is not probable that the spores came in the gypsum, but from the former plants. W. G. S. EDITOR. J. Red, Hugh Had. The Rev. M. J. Berkeley is not one of the Editors of this Journal, though a most highly-valued contributor. EARLY ROSE POTATO. J. G. Opinions, as usual, are conflicting. We believe the balance to be rather adverse than otherwise to the claims of this new comer. Our own opinion has been already given at p. 699. EQUISETUM. An Amateur Gardener. Drain your garden more thoroughly. GALVANISED WIRE. W. E. We have not heard that this kind of wire is objectionable to train permanent plants upon. GRAPE. D. M. In a "collection of 16 sorts of fruits," it is quite clear you cannot show two sorts of Muscats as one sort—at least we have no doubt "the judges would object" to such an arrangement. Each "sort" is intended to consist of one variety of fruit only, whether the whole are grouped on one stand as a collection, or are put up in separate dishes. Whether you may advantageously introduce two dishes of different kinds of Muscats in such a collection, is another matter, and the answer would depend partly on the quality of the fruit, and partly on the variety afforded by the other sorts in the group. The more varied group, all other points being equal, should win. INSECTS. E. H. C. The ants you sent are males of Myrmica ruginodis. LIGHTNING. From. We believe the Oak tree may be fairly set down as more liable to be struck by lightning than the Ash or the Beech—at least our own observation and that of others of whom we have made inquiry points in this direction. We are not aware that a covering of Ivy on the trunk of the tree has any influence in this matter. NAMES OF PLANTS: Swanea. Mellanthus major, and Spirea sorbifolia.—C. F. Negundo aceroides.—T. E. Probably some of the many kinds of when wild grow for a time in the manner indicated. Most are natives of the Cape, but have been introduced elsewhere. It is not aquatic. It does bloom. Some kinds furnish the drug called aloes.—G. T. 1. Cestria alnifolia, 2. Neillia (Spirea) opulifolia, 3. Elymus arenarius.—Subscriber. 1. Tecoma jasminifolia, 2. Nepeta Mussini, 3. Helianthemum vulgare, 4. Hypericum perforatum.—J. Green, Maudsloti. The specimens sent were too incomplete to name properly. Probably they are—1. Jasminum Sambac, 2. Sipanea officinalis, 3. Spirea Fortunei. NET TREES. K. G. We can see no trace of weevil, we suppose the marauder may have been a squirrel. ORANGE ORANGE. F. F. For information respecting this plant see pp. 182, 211, and 259 of our last year's volume. The Carya, or Hickory tree, succeeds admirably in England, and makes a fine handsome timber tree. COMMUNICATIONS RECEIVED.—T. W.—R. R.—J. H. Y.—J. J.—J. A. C.—T. L.—R. S.—W. A. W.—J. R.—T. S. T.—D. L.—A. C. Constant Reader.—D. J.—T. W. C.—C. McD.—G.—Indian Forest.—W. T., Ipswich.

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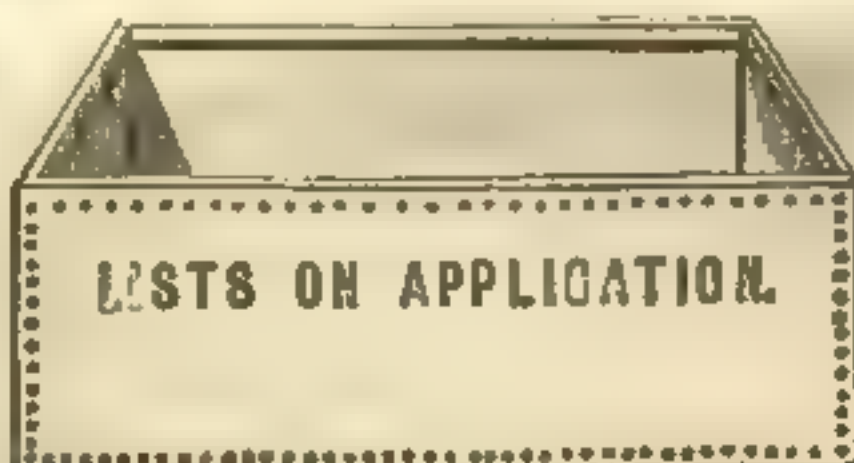
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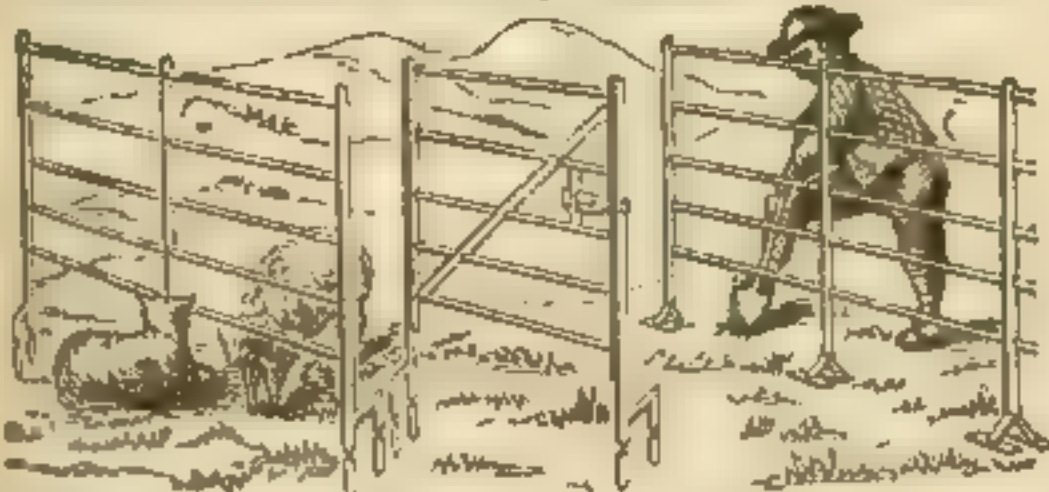
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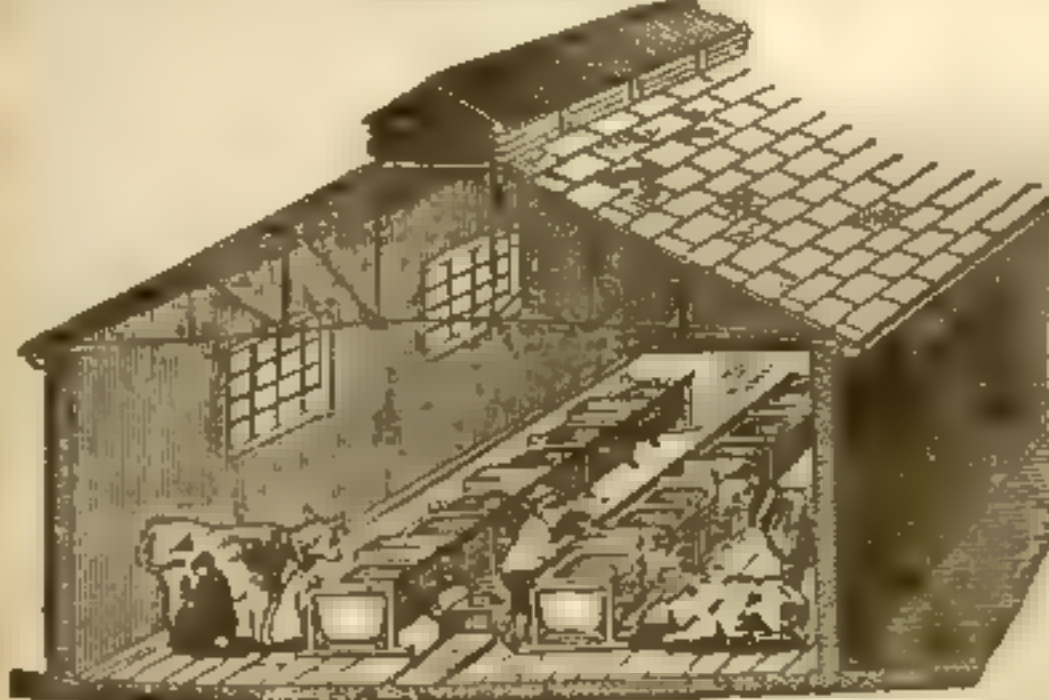
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The Agricultural Gazette.

SATURDAY, SEPTEMBER 4, 1869.

MEETINGS FOR THE ENSUING WEEK.

- Sept 6 to 12—Hamburgh, &c. 7—Bicester Agricultural Society. 8 to 10—Royal Dublin Sheep Show 9—Thames Agricultural Society. 10—North Shropshire Agricultural, at Market Drayton

VIRGIN soils in America have been known to yield 60 crops without manure. We learn from the accounts of competent travellers that for 8, 12, or even 20 years this new land requires no manure; on the contrary, manure makes the grain or Grass crops at first too rank. Gradually the virgin soils are exhausted of their first freshness. "The first settler," says Mr. JOHNSTON, in his "Notes on North America," "is a robber and exhauster of the land; and he who farms land from which six or more crops have been taken, must farm more generously if he expects satisfactory crops." Skill and industry must bring back the fertility which disappeared under the treatment of the pioneers. Our costly system of agriculture is quite inapplicable to new countries. A rotation of crops, as we understand it—that is, a mixture of forage with cereal crops—is never followed. Our object is to make manure in order that we may grow corn. But the settler raises his live stock on the waste land; meat with him is only 2d. or 3d. a lb., and his crop must be such as can be easily exported. It is easier to clear and cultivate the fresh land than to improve the old. In Maryland the exhaustion of the soil by the Cotton crops has forced planters to retire westward. The land has been "worn out" by a system of farming which is justly called the "robber system." And the pioneer can follow no other plan. Like the English farmer, his business is to make the best of the circumstances by which he is surrounded; to farm, not to philosophise. The new States in America are "filling up" fast, and the new soils are being as fast exhausted. In fact the process described has been exceedingly rapid in the past 30 years, owing to the

unexampled progress of nations in both worlds. A comparison of the census reports for the United States and this country discloses some remarkable facts relating to the distribution of population and the source of wealth in the two countries. Here the population of our agricultural districts diminishes, there it increases rapidly. Between 1850 and 1860 the population of the seven North-western States, where soil and climate especially adapt them to corn-growing, nearly doubled; in 1860, it was 5,543,382. The war checked the progress of population in America, and it postponed the fulfilment of Mr. McCULLOCH's prediction that America would cease to export Wheat. He estimated that the population of the United States in 1834 would reach 60,000,000; according to the latest return in 1860 it was 31,445,080. The progress of the older and the manufacturing States has been greatly interrupted. The increase in the mileage of railways in the United States reads us an instructive lesson. In 1850 the total mileage was 9021; in 1860 it was 30,634; this astonishing progress was then interrupted; it was, in fact, arrested in the Southern States, and greatly checked in the Atlantic and New England States; but in the interior, or agricultural States, it still went on. We find that in 1864 the total increase in the four years was 4274 miles, and more than one-half of this was in the interior corn-growing States. But it is important to note the details of the increase just referred to of more than 21,000 miles between 1850 and 1860.

That of the interior corn-growing States was nearly 12,000 miles, and that of the Southern States was 5400 miles. This wonderful opening up of the agricultural districts was followed by a war, which left them untouched by comparison, but which destroyed industry and population in the other States. It might have been expected that other countries would have been deluged with American corn, especially when the Southern market was closed, but this was not the case; the average surplus of Wheat, for exportation, has been only slightly increased.

In a country where the usual breadth of Wheat is 12 or 13 millions of acres, and the crop is extremely various, there is a large surplus in favourable years; hence America was fortunately able to supply our deficiency in 1861 and 1862. The usual exports of Wheat and flour to this country for the six previous and six subsequent years, were about 1,100,000 and 1,400,000 quarters a-year. Part of this increase was due to the Wheat grown in Upper Canada, which is sent to New York or into the New England States by the Grand Trunk Railway, which now brings the best part of the country into connection with lake and river navigation.

Considering the great increase of the means of communication, the actual addition to the amount of corn exported has been so small that it is evident the country is not "opened up" by the stimulus of the export trade, but by the increase of the home demand.

It is only the surplus of abundant years that is exported from America. At present prices it does not pay to grow Wheat specially for exportation. This is a very important feature of the American Wheat trade; it is illustrated by the scarcity of Maize in the country during the past year or two, notwithstanding that Maize can be grown for one-third the price of Wheat; English consumers, for a long period, had to pay 40s. per quarter for it. It is only the surplus which is exported, and any circumstance which reduces the amount of the surplus, or increases the demand for it, must raise the price. In the case of Wheat, when other countries compete with us, as Ireland has done of late years for Maize, the surplus will be more diffused. Under the stimulus of high prices during the Crimean war, Wheat was grown for exportation; but at the present price, 50s. a quarter, the area of Wheat will not increase.

Settlers in Minnesota (a Wheat, not a Maize country) assure us that it does not pay to grow Wheat for exportation. In all probability the competition of other countries will oblige us to pay dearer for Wheat in future years, in order to secure continued, or rather, increasing supplies, and this may occasion a reaction against the constant increase in this country in the area of pasture land—an increase which the country regards with complacency, because it is supposed to increase the number of live stock; but the conversion of arable to pasture has not prevented the rise, for many years past, in the price of meat. If, as we anticipate, the competition of other

countries occasions a gradual rise in the price of Wheat also, the "food question" will become an urgent public question; and the discussion which will then take place will, no doubt, add greatly to the very meagre stock of knowledge possessed at present by the public at large on certain agricultural and economic questions.

PHOSPHORIC acid in Court! Calcium, iron, and aluminium phosphates before Mr. Justice HANNEN at Liverpool, and reduced phosphates before Mr. Baron PIGOTT at Gloucester!

The chemistry of the agricultural phosphates has become an extensive, complicated, and important subject. New raw materials are everywhere sought for, and the varied supplies of apatite, coprolites and phospho-guanos, which have been the rewards of the inquiry, have been pressed into the service of the manure manufacturer and farmer. Now, if we recollect that the chemistry of the action of sulphuric acid on bone earth itself is not thoroughly understood, it will not be difficult to believe that fresh complications are introduced into the question when phosphates other than those of lime are employed. Some of the so-called phosphatic guanos, Sombrero, Navassa, Redonda, for example, contain much iron and aluminium phosphates. Not only does the presence of these compounds demand the use of very much larger quantities of oil of vitriol in order that the raw material may be converted into a superphosphate containing a good percentage of soluble phosphate, but they introduce a new source of trouble. Use as much sulphuric acid as you will, a portion of the phosphate which it makes soluble in water becomes in time insoluble in water—reprecipitated, as it were, in the substance of the superphosphate itself, or, in other words, it is again reduced. The reduction, or going back, here referred to is becoming a matter of notoriety and of serious importance both to the manufacturer of superphosphate and to the farmer. The manufacturer spends extra time, labour, and money in producing soluble phosphates from materials such as ferruginous coprolites and guanos, only to find that, owing to this reducing action, the manure sinks in value when it has been made a few weeks—a fifth part, say, of its soluble phosphate becoming by that time reprecipitated. The farmer, on the other hand, purchases a superphosphate by analysis. This analysis shows 24 per cent. of phosphate rendered soluble: he sends a sample to an analyst for examination, and the report is 18 per cent. of soluble phosphate only. What has become of the difference—6 per cent.? Owing to the nature of the materials employed it has relapsed into an insoluble or less soluble condition. The only question for the farmer here seems to be this—is the reduced phosphate of equal value with that which remains soluble? Most agricultural chemists believe that it is only inferior to the true soluble phosphate in one particular. The soluble phosphate of a manure diffuses itself through a considerable mass of soil, and becomes therein precipitated. In this state it is redissolved by the carbonated water of the soil, and helps to nourish the plant. Now reduced phosphates have been reprecipitated before they came in contact with the soil; they are pretty much in the same condition as the precipitated phosphates just mentioned, but they have very little or no power of diffusion, and in this particular are manifestly inferior to soluble phosphate. This, then, is the farmer's side of the present question—soluble and reduced phosphate should be separately estimated, and so returned in the analysis furnished to him. But the analyst here has a difficulty, for no method of estimating reduced phosphates has met with general acceptance among the chemists, and so even those chemists who do not doubt their existence, or their value in certain superphosphates, are often obliged to ignore both. But the matter cannot be left in this unsatisfactory position. A suitable and trustworthy process must be found. The experiments of a large number of analytical chemists point to two promising methods of estimating reduced phosphates. In one of these a weak standard cold solution of oxalate of ammonia is employed; in the other, a definite quantity of a boiling solution of bicarbonate of soda. Both of these reagents scarcely affect the original raw material (finely ground) from which a superphosphate is made, extracting from them less than a 1/2 per cent. of phosphate, which they are capable of detecting, in a superphosphate which has had all its soluble phosphate washed out by water, a considerable

amount of reduced phosphate. Both the actions which we noticed at the commencement of these remarks arose from questions concerning the true meaning of the analyses of phosphates. In the Liverpool case, DOBELL v. EARLE, a warranty with respect to some Redonda guano described it as "76.66," which was stated to mean 76.66 per cent. of phosphate of lime. On the other hand, it was affirmed that it contained no phosphate of lime, only phosphates of iron and aluminium. Of course, had it been converted into superphosphate, both the drawbacks of a ferruginous material would have been experienced in a high degree.

In the second case, BRADBURN v. STEPHENS, tried at Gloucester, the warranty contained the words "guaranteed to contain 24 per cent. of soluble phosphate, including the reduced precipitated phosphate." A number of chemists were called on both sides, and the main point of difference between them was as to the practicability of estimating reduced phosphates, the value of which was not denied. In other points the scientific testimony was fairly accordant. One of the plaintiff's witnesses, Professor CHURCH, of Cirencester, found, for example, 18.57 per cent. of soluble phosphate in the sample of superphosphate in dispute, while Dr. VOELCKER, for the defendant, estimated the soluble phosphate in the same sample at 18.66. But Professor CHURCH determined the proportion of reduced phosphates in the same sample to be about 6 per cent., while Dr. VOELCKER was of opinion that it could not be estimated.

We shall probably recur to this subject on another occasion.

— THE Wheat trade has been unsettled during the week, and it now remains about the same as it left off at Mark Lane on Friday, August 27. Other kinds of grain are slightly cheaper.—The beef trade has improved with the cooler weather. Mutton has also been more freely bought. The quotations now are 5s. 6d. for prime British beef, and 5s. 8d. for the same kind of mutton.—The trade in agricultural seeds has been of a merely nominal character.—Wool is of about the same value.

— The Assessed Rates Act is creating serious misunderstandings in various parts of the country. Mr. C. S. READ, M.P., who watched, with his usual assiduity, the progress of the Bill through the Legislature, and who therefore is a trustworthy authority on the subject, has favoured us with the following references to it, with suggestions in regard to the difficulties which are likely to arise—

But few magistrates and hardly any parish officers to whom I have mentioned the subject, seem aware that the operations of "The Poor Rate Assessment and Collection Act, 1869," extends to the whole of England and Wales.—As the Bill was introduced to remedy a defect which existed only in parliamentary boroughs, I ventured to suggest that it ought to be confined to those towns, but that anyhow we should not in the country have two Acts in operation for one purpose. The Government preferred repealing so much of the Small Tenements Act as relates to poor rate, but I suppose what remains will still be in force for the highway rate. The Assessed Rates Act comes into operation on the 20th of this month, and it authorises three distinct modes of compounding. These may extend to any hereditament (which however must contain a dwelling-house) whose rateable value does not exceed 8l.—If the parish in vestry assembled should adopt the Act, then the overseers shall rate all the owners of small tenements, and shall allow a deduction of 15 per cent. from the amount of the rate.—If the owner will also agree to pay for empty as well as occupied houses, then a further deduction of 15 per cent. is to be allowed, so he will get off 30 per cent. In the case of parishes not adopting the Act, the owners of any such small tenements may enter into an agreement in writing with the overseers to pay the poor-rates upon all his cottages, &c., "whether occupied or not," and he shall thereupon be allowed 25 per cent. off his rates, "subject nevertheless to the control of the vestry." All parishes in which the Small Tenements Act is now in force, should, therefore, hold a vestry meeting before the end of this month, to agree about adopting the new Act, and the Michaelmas poor rate should be made in conformity with the deductions sanctioned by the Act. There is a great amount of complication in this new measure, and, like all Voluntary Acts, the effects will be uncertain in extent, and in duration, also, as a vestry may alter its decision every six months. In some unions the poor-rates of small tenements will be levied upon four different assessments, and the highway rates upon two others with a 5l. limit. It is not my desire or intention to criticise the Act, but as it is the law of the land, I simply wish to draw the attention of all parish authorities to its main provisions. The greater portion of the Act relates to securing the franchise to the tenants in parliamentary boroughs, which has nothing to do with us who live in the country, and the first clause allows tenants of three months and under to deduct the rates from their rent.

— Harvesting Wheat by machinery is thus considered by a "Durham Farmer":—

"A correspondent of Mr J. J. MERRI, writing from Yorkshire, says, in a letter which appeared in the Times of the 21st Aug. 'I have cut, tied, stooked, and stubble raked 12 acres of White Wheat (about 34 bushels to the acre) for 11s. Reaper back delivery. This statement struck me at the time as being somewhat inconsistent with my own experience in the neighbouring county of Durham, and this year I find by actual experiment that I have cut, tied, stooked, and stubble raked 12 acres of Red Wheat (about 40 bushels to the acre) for 10l. 4s. Reaper back delivery.'

If the readers of daily papers need any information on the subject of the cost of agricultural operations, it is certainly advisable, as the "Durham Farmer" intimates, that they should be so addressed as not to be left in doubt as to whether the expense is 4s. or 17s. per acre.

— As the "Land Question" is now receiving much attention at the hands of certain public men

and in certain quarters, we give the programme of a "Land Tenure Reform Association" as a matter of news—

- 1 To promote the free transfer of land 2 To secure the passing of Mr Locke King's Real Estate Intestacy Bill 3 To restrict within the narrowest limits the power of tying up land 4 To preserve the rights of the public over commons, and generally over all lands which require an Act of Parliament to authorise their enclosure 5 To promote the practice of annexing such lands to the estates of the neighbouring landholders 6 To promote measures by which, without unjust interference with private rights, facilities may be afforded to the workmen and tillers of the soil for acquiring an interest in the land of the country 7 As one means to the object last proposed—to endeavour to promote such an administration of landed property owned by public bodies, or held for any public purposes, as shall help to carry out such object.

— The President of the British Association, in reviewing the progress of science during the past year noticed an interesting investigation recently conducted by Professor CHURCH of the Royal Agricultural College, Cirencester. The researches of the Professor revealed the presence of copper, in considerable quantity, as forming an important constituent in the red colouring matter of the wings of the Turaco or Plantain eater of the Cape of Good Hope. Traces of copper had previously been found in animals, for example in oysters, but in these cases the presence of the metal might be looked upon as accidental. But in the Turaco the very existence of the red colouring matter of their plumage is dependant upon copper, which exists in it at the rate of nearly 6 per cent. It is curious that in the same feather, partly red and partly black, copper was found in abundance in the red parts, but none, or only the merest trace, in the black.

OUR LIVE STOCK.

THE Rev. C. W. Holbeach has instructed Mr. Strafford to sell by auction 33 cows and heifers and 14 bulls, on the 21st inst., at Farnborough, near Banbury. Mr Strafford informs us that the foundation of this herd was laid in 1813, by the purchase of some pure bred cattle in Yorkshire. For many years no great effort was made to compete with the principal herds of the county, but a good stock, often successful at local shows, was kept up. Since 1853 many animals from the best known herds have been introduced. Sixteen of the lots offered are by H.H. DUKE OF OXFORD, and the cows and heifers are mostly in calf to the same bull LORD RED EYES 2D, or 2D EARL OF CLEVELAND.

— We have not space to notice separately the many important sales just about to take place. The advertisement sheets of our agricultural papers are full of important announcements. Mr. Strafford "is favoured to sell" 25 head of excellent cattle for Mr F. H. Fawkes at Farnley Hall, Ottery, on the 14th of October; and Mr. Thornton will sell a large and well-bred stock of Shorthorns, grazing cattle, and South-downs, the property of Mr. Loughbourn, Petersfield, Hants, on the 15th inst. The same auctioneer is also intrusted with the sale of some very first-class Shorthorns and Leicester sheep, the property of G. R. Barclay, of Keavil, Dunfermline, on the 21st inst. These are all important sales, and we hope to treat of them at greater length on a subsequent occasion. It is a matter of regret that the Farnborough and Keavil sales take place on the same day, as many persons would doubtless like to have attended both.

— We are informed that Mr. LACE, of Grenaby, Isle of Man, has purchased Mr Carr's Lady Rosabel due to calve to PEER OF THE REALM in October. The price was 400 gs. This is the second purchase from Mr. Carr's stock made this year by Mr. LACE, as it may be remembered that he secured Mirabel from the same herd in the spring.

— The following changes have recently taken place in the Kingscote herd. Honour Pride by Captain Gunter's GRAND DUKE OF OXFORD (16,184), dam Helen, by OREGON (8371), and her full sister Honeybell, left on Friday, the 20th ult., for Castle town, Ireland, where their relative Honey 15th, and the bull AERONAUT, preceded them some weeks before. All these are good animals, by Wetherby sires, and sold for good prices. On the following Monday the undennamed nine heifers and two cows were sent to Mr. Angerstone, Weetley Hall, Brandon, Norfolk.—Ada and Cerito 14th, by 2D EARL OF WALTON; Chaff 14th, by 2D DUKE OF WETHERBY; General, by ANTHONY (17,307); Honeys 28th, 29th, and 31st; Lady Lilac 14th, Marchioness of Oxford, Merelina, and Baroness Oxford 3d. These cattle were accompanied by 70 Sussex-down ewes and three very good rams, which are let at high prices. The Kingscote herd has also received the following additions.—Cucumber, of Booth and Bates extraction, from Council, and Paul of Fashion, and her heifer calf, by EARL OF GLOUCESTER; Georgina, and her heifer calf, by PRINCE OF BELL'S, of Brocton House. This is the second lot of the Peach and Georgina tribes which Colonel Kingscote has bought from Mr. Bell. They are nearly pure Bates blood and good milkers, a point much looked after at Kingscote.

— The Coleshill sheep on the 20th ult. made good, but by no means high prices. Most of the full-mouthed ewes went off at from 50s. to 60s. each. Colonel Kingscote gave 73s. for a very good pen, and Mr. Clayden bought another for 72s. The six-toothed ewes ranged no higher than 60s. Mr. Fulcher, for Lord Sondes, gave 82s. for a first-rate pen of four-tooth, and Mr. Lucas secured another good pen of 10 for 78s. each. The shearing rams brought from 5 to 10 gs. with four exceptions, in which 23, 20, 15, and 15 gs. were respectively given. Only one ram lamb was sold for more than 10 gs. The description of the sale of the Coleshill cattle and pigs appeared in our impression of last week.

A correspondent requests us to insert the following query. He asks "if there are any means of preventing calves from going mad from a week to two months old?" "I have," he says, "no hope of finding a cure, as they die in most cases within half an hour after taking it; it is very rare for a calf to die here unless from that cause; this year two have died, and for some seasons past one or two have died each year in the spring, and from one herd in this neighbourhood (Gloucestershire) nine have died this season." When we add that this query is asked by the manager of one of the finest herds of Shorthorns in England it becomes important. In a conversation with the gentleman alluded to, he persisted in defining the disease as mad-rage, and would not allow that it was merely the result of violent pain caused by some internal malady.

RECENT RAM SALES AND LETTINGS.

Lincolnshires.—The rams of Mr. Chaplin, of Tathwell, near Louth, were let by auction, by Messrs. Briggs, on Tuesday of last week. Fifty-one rams were penned, 48 of which were shearlings. For size, substance, and fleece, says the Lincolnshire Chronicle, some of them were truly remarkable, and before a more numerous company would have inevitably caused a very keen competition. Of the 51, 38 were let, the remainder being passed. The gross amount made by these let was 384. 10s., being an average of 10l. 2s. 6d.—The Biscathorpe rams were let on the following Thursday, when Mr. Kirkham had around him his usually large assembly of friends from far and near to partake of his hospitality, and otherwise enjoy the objects of agricultural interest—apart from the sheep to be let—which are to be seen at Biscathorpe. The prices which the rams let for on this occasion were not equal to past seasons. The average price of the 120 rams, 60 of which were shearlings, was 12l. 2s.—On Monday last, Mr. Davey, of Owersby, near Market Rasen, had his rams let by Mr. Tateson. Mr. Harrison hired one of the shearlings at 21l., Mr. J. Clarke one at 30l., Mr. J. Byron one at 40l., Mr. T. Dalton one at 17l., Mr. Toder one at 28l., Mr. Minta one at 26l., Mr. Allwood one at 21l., and Mr. R. Howard one at 20l. Of the 2-shears, Mr. E. Davy hired one at 30l., Mr. Markby one at 18l., and Mr. R. Wilmson one at 26l. And of the 1-er sheep Mr. Minta took one at 21l., and Mr. Havercroft one at 40l. Of the 140 sheep offered 135 were let, the sum realised amounting to 1430. 10s., giving an average of a little over 10l. 13s.—Mr. Marshall, of Branstons, who, as our readers know, has been very successful at the Royal and other agricultural society's shows, offered his sheep to be let on the following day (Tuesday last). The prices realised, however, were not equal to the show of prize cards by the 2-shear and aged sheep. Mr. T. Peohell hired one of the shearlings at 21l., Mr. Cartmoo one at 25l., Mr. Middleton, of Water Newton, Huntingdonshire, one at 35l., Mr. Richardson one at 17l., and Mr. Kemp one at 15l. The 2-shear and aged sheep made good prices. Mr. Harrison hired one at 26l., and Mr. Locker, of Winton, Huntingdon, took one at 31l. The 10 shearlings made 375l. 10s., being an average of 9l. 7s. 9d., and the eight older sheep made 121l., or an average of 15l. 2s. 6d. each. The average of the whole was 10l. 6s. 10d.—The Huttoft letting took place on Mr. Robinson's farm yesterday week. The two-shear sheep were in greater favour, and Captain Catlin, of Elne, Wisbeach, gave 20l. and 29l. respectively for two of them. There were 23 shearlings and 24 two-shear. The average of the 52 was 9l. 19s.—Mr. C. Clarke, of Ashby-de-la-Launde, Lincoln Heath, let his annual produce of rams for the first time on Thursday last. He has hitherto—except in the cattle plague year, when they were sold at home—divided his rams between Newark, Nottingham, and Peterborough fairs. On Thursday there were 100 shearlings offered, and we must say they were the best lot of 100 rams we ever saw together as the property of one man. Mr. Pell hired the first at 14 gs.; Mr. Toynbee took one at 30 gs.; Mr. Mayfield, of Dogdyke, one at 23 gs.; Mr. Dudding one at 24 gs.; Mr. E. Paddison one at 35 gs.; Mr. Sampey one at 17 gs.; Mr. Wildgoose one at 19 gs.; Mr. Holland, of Deeping, three at 17 1/2 gs., 18 gs., and 30 gs. respectively; Mr. Garner took one at 30 gs.; and the remainder, as far as they were let, made the good average for the season of nearly 11l. A few were passed at the upset price of 5 gs., but several of Mr. Clarke's regular customers were unavoidably absent after harvest-work, and the surplus will be readily disposed of at from 8 to 10 gs., as the sheep for which there was no bid were, as a rule, quite as good for store breeding as any that were disposed of.

Southdowns.—The annual sale of sheep, and the sale and letting of rams, the property of Mr. William Ridden, of Hove, near Brighton, took place on Friday. There were 18 splendid rams for letting and 16 for sale. Nine pens of ewes were first disposed of, at prices ranging from 8l. to 2l. 10s. Then followed the rams for letting. The highest price, 69l. 6s., was given by Count Bouille; Mr. Barclay, of Headley, gave 40l. 19s. for one. The others ranged from 37l. 16s. to 10l. 10s. The rams for sale went as follows:—Two-year-old, by a son of Reserve, 27l. 6s., Colonel Bowyer; 1-year-old, by a son of Young Plenipo, 13l. 13s., Mr. Henry Webb, Cambridgeshire; 1-year-old, by ditto, dam a Beddingham ewe, bought in at 10 gs.; 1-year-old, by ditto, dam ditto, 10l. 10s., Mr. Page, Bradwell-on-Sea, Healdon, Essex; 1-year-old, by ditto, dam a Goodwood ewe, 10l. 10l., Mr. Page; 1-year-old, by ditto, dam ditto, 17l. 17s., Mr. Page; 1-year-old, by ditto, 11l. 0s. 6d., Mr. Fox, West Hoathly; 1-year-old, by a son of Webb's 21, 10l. 10s., Mr. Wobb, Cambridgeshire; 1-year-old, by a grandson of Archbishop, 12l. 12s., Mr. Wood, Essex; 1-year-old, by ditto, 10l. 10s., Mr. Page, Maldon, Essex; 1-year-old, by 2d prize ram at Battersea, 10l. 10s., Mr. Fox, West Hoathly.

THE WHEAT CROP OF 1869.

(The following important letter on this subject has been written by Mr. J. B. Lawes.)

It would be difficult to select two successive seasons in which the Wheat crop in this country has differed more than in the years 1867 and 1868. To meet the deficient yield of the former crop above nine million quarters of Wheat were imported into the United Kingdom during the twelve months succeeding September 1, 1867. This large foreign supply would have been still larger had not the splendid crop of 1868 been harvested and brought into consumption at an unusually early period, thus reducing the consumption of the crop to a period of little more than 11 months. The range of prices during these two years has been very great, the average price of the harvest year commencing September 1, 1867, having been 68s. 4d. per quarter, while the average price of the year, from September 1, 1868, up to the time I am writing, being a trifle below 50s. per quarter. It is rather singular that the Gazette of May 8, 1867, which gives 74s. 7d., being the maximum price of the year, also gives in the same week of the following year 44s. 4d., being the minimum price of the harvest year—a difference within 12 months of above 30s. per qr. The crop of 1869 presents none of the marked properties of the two preceding crops; it is certainly not a very bad crop, like that of 1866, nor a very good crop, like that of 1868. Its peculiar feature is the remarkable contrast which is to be seen in crops growing side by side, and to all appearance cultivated alike. Some fields present a magnificent appearance, with height of straw and bulk of produce rarely surpassed, while others are thin and root-fallen. These circumstances make it rather difficult to arrive at a definite figure which shall most nearly represent the crop of the country.

In the "Journal of the Royal Agricultural Society" for 1868, I published a paper on the "Home Produce, Imports, and Consumption of Wheat." A portion of the paper was devoted to a comparison between the produce of the field in which I grow Wheat every year with the general crop of the country, in order to ascertain how far the yield of certain selected experiments could be taken as a guide to the yield of the Wheat crop throughout the country. The figures are given in this paper for a period of 17 years, from 1852 to 1868, and can be referred to by any one who is anxious to know what reliance can be placed on the estimates I am about to give.

The following Table gives the produce of selected experiments in a field which has grown Wheat for 26 years in succession. The produce of the five previous crops is given, as well as the crop of this year, and also the average of the last 17 years, no change of any sort having been made during this period in the manures employed, nor have we reason to suppose there would be any fluctuation in the produce except such as is due to the influence of climate.

BUSHEL OF DRESS'D CORN PER ACRE.

Table with 7 columns: Plot, How Manured each Year, Harvests (1864, 1865, 1866, 1867, 1868, 1869), and Average of 17 Years 1852-1868. Rows include Unmanured, Farmyard manure, and Artificial manure (Nos. 7, 8, 9).

WEIGHT PER BUSHEL OF DRESSED CORN, POUNDS.

Table with 7 columns: Plot, Harvests (1864, 1865, 1866, 1867, 1868, 1869), and Average of 17 Years 1852-1868. Rows include Unmanured, Farmyard manure, and Artificial manure (Nos. 7, 8, 9).

We have in this Table an exact illustration of what appears to be the character of the Wheat crop throughout the country; in one case a produce above the average, and in another greatly below it. Comparing the produce of 1869 with the average of the 17 previous years, we find the unmanured space slightly below the average, while the land receiving farmyard dung every year is nearly 3 bushels above it. The crop with artificial manure (No. 7) gives 28 1/2 bushels against an average of 36 1/2, or nearly 1 quarter of Wheat below the average. No. 8 is 4 bushels below the average, and No. 9 is nearly 3 bushels above it. Nos. 8 and 9, which receive equal manuring elements—the first receiving its nitrogen in the form of salts of ammonia in the autumn, and the latter as nitrate of soda in the spring—generally give nearly equal amounts of produce, No. 8 being rather the best. This year the nitrate of soda gives a produce 4 bushels higher than the salts of ammonia, due probably to the long-continued rain during the winter, combined with a high temperature, having removed the ammonia from the soil. If the different experiments are compared with the products of the two previous years, it will be seen that in no instance is it so low as in 1867, or so high as in 1868. Taking the mean produce of the unmanured and dunged land and the three artificially manured lands (these latter being considered as one), we get a product which, over an average of 17 years, very closely agrees with what is considered by our best authorities to be the yield of an average crop in this country. We have in the present crop a product which is almost identical with the average, the one being 28 1/2 bushels per acre, and the other 29 1/2. Refer-

ring to the lower part of the Table, which gives the weight per bushel, it will be seen that in every case the weight is very low, being 2 lb. per bushel below the average of 17 years; it is even below that of the very bad crop of 1867.

In the following Table will be found the produce obtained by threshing 1 acre from several fields under regular cultivation:—

Table with 5 columns: Field No., Bushels of dressed Corn per acre (1867, 1868, 1869), and Lb. per bushel (1869). Rows 1-5 and Mean.

The yield in these fields is very variable, but in every instance the weight of the bushel is very low. This is the more remarkable after the splendid ripening weather we have had, and in crops which were not in any way laid at the time of cutting. The conclusion I draw from these figures is, that the Wheat crop of 1869 is slightly below the average in quantity, and that it will be also deficient in quality, as estimated by the weight per bushel. Assuming that an average crop is represented by a produce of 28 1/2 bushels, weighing 61 lb per bushel, I am disposed to fix the present crop as equal to 27 bushels of the same weight.

I will now endeavour to ascertain how much food such a crop will supply, and what quantity of foreign Wheat must be imported to supply bread to the nation for the next 12 months. It is said that the area of Wheat grown this year is less than that of last year; how far this is correct I do not know. The statistical return for last year gives an area under Wheat of 3,750,000 acres. In the absence of returns for the present year I will take as a basis for calculation 3,700,000 acres, which at 27 bushels per acre, gives 12,487,500 quarters. From this should be deducted the seed for the succeeding crop, which, at 2 1/2 bushels per acre, amounts to a little over 1,000,000 quarters, leaving in round numbers 11 1/2 million quarters for food. The mean population of the United Kingdom to be fed during the next 12 months will be little short of 31 millions. In the paper I have referred to will be found some calculations relating to the consumption of bread by the population of the United Kingdom. I have estimated this at equal to 5 1/2 bushels of Wheat per head per annum, or upon a population of 31 millions, of 21 1/2 million quarters. As I estimated the home supply at 11 1/2 million quarters, this would leave about 9 1/2 million quarters to be supplied from other soils. This quantity may appear very large, and may be somewhat reduced by the stock of old Wheat of the crop of 1868 still in the hands of farmers. Quite irrespective of season, it should be borne in mind that, while our own produce of Wheat does not materially increase, our population is increasing rapidly, and consequently a larger percentage is fed with foreign corn every year. The quantity of Wheat imported into the United Kingdom during the 12 months ending the 31st of August next will be little short of 7 1/2 million quarters, and this with a harvest far exceeding the average and corn at a low price. Our deficiencies, whatever they may amount to, will doubtless be fully supplied, and in the absence of disturbing causes I should not expect to see the price of Wheat very much below or above the present price for the next nine months. Rothamsted, Herts, Aug. 26.

ABORTION IN COWS.

(The following is a summary of conclusions arrived at by a commission upon the prevalence of abortion in the north-east of the State of New York.)

THE north-eastern portion of the State of New York abounds in factories for the fabrication of the magnificent cheeses which are extensively imported into this country, and many of which may compete with our best qualities. This extensive district has of late suffered so much from the abortion in cows that a commission was appointed to investigate the matter, the admirable and exhaustive report of which, by Dr. W. H. Carmalt, has just been kindly forwarded to us. The report, we may observe, is quite a model for such productions; the investigation was carried out with singular zeal, no expense within the limits of prudence was spared to arrive at the truth, and the result is far more conclusive than is often the case with such commissions. The report, indeed, is so good in itself, that we should be glad to possess it even if we took no interest in the subject, which is far from being the case.

We ourselves frequently suffer very much both amongst sheep and cattle, but especially the former, from the same affliction, and there is little doubt that the prevalence in autumn of ergot in our pastures is the cause of the malady. It was natural, therefore, from the well-known influence of ergot on the uterus, that especial attention should be paid by the commission to the parasitic Fungi occurring in the pastures. This, however, was necessarily modified, from the American habit of housing the cattle during the winter months. The hay then was the object of search rather than the pastures. Every phenogamous plant was thoroughly examined, specimens of the less common species secured, and the whole flora of the infected district carefully registered, but the result showed nothing at all likely to be deleterious, and ergot existed in too small quantities in the hay to be of the slightest consequence.

Attention was, however, turned to the habits of the herd masters as regarded their cattle. The object being to obtain as large and as early a supply of milk as possible, and at the same time to get as much profit from the herd itself, the bulls were killed when quite

young; and the bull-calves kept only so long as was necessary to obtain the stomach in the best condition for the production of rennet, and the heifers were put to the bull at the earliest possible period. In consequence, not only was there the prospect of a feeble fetus from the use of such young bulls, but the cows being forced to yield far more than an average quantity of milk, and that long after they were pregnant, it was not surprising that the race should gradually become weak, and that, the proper supply of nutriment to the young calf being too greatly restricted, there should be frequent abortion. Where bulls, cows, or heifers were introduced from an aborting dairy, the disastrous effects were soon felt, and where 1-year-old bulls were employed the average of losses was proportionately greater. The tables show, moreover, that an average excess of 18.5 lb. more milk per cow than the statistics of the whole State determine should be the yield.

The conclusions of the commission are stated as follows:—

1st. That cows, which have first calved at under three years of age, are more liable to abort during their subsequent pregnancies than those who first calved at three years of age or over, in the proportion of five to three; and that 83 per cent. of the cows raised on the farms reporting them do first calve at under three years of age.

2d. That cows subjected to removal at any time are liable to abort, over those raised on the farms, in the proportion of 7 to 4, and that 63 per cent. are thus removed.

3d. That cows subjected to removals during pregnancy are liable to abort, over those moved while not pregnant, in the proportion of 9 to 2, and that 70 per cent. of those moved yearly are pregnant, and 17 per cent. are moved yearly.

4th. That arrest of development is the condition immediately preceding the abortion; that an excessive drain upon the secretion of milk during pregnancy has a tendency to produce arrest of development in the fetus from inanition, and that an excess of 70 per cent. of milk is demanded from cows in this district, where abortion prevails.

The whole expense of the commission was 4610 dollars, about 1000/ sterling, an example of liberality which is worthy of imitation nearer home. *M. J. B.*

AGRICULTURAL GLEANINGS FROM BRITISH CONSULS' REPORTS.

(Continued from p. 906.)

Tonnay-Charente (France).—The past year has been remarkable for the high price of provisions and the deficiency which prevailed, the more to be noted in a largely productive agricultural district, which has had ordinarily a considerable surplus to dispose of by exportation. On the contrary, Wheat and Oats were in great quantities imported in 1868, but with a scarcely perceptible effect upon prices. This arose principally from want of success in the harvest of the preceding year, but it is also probable that the actual production of provisions, properly so called, is diminishing in this district, whilst their consumption is somewhat increasing. There are two main causes tending to this result. First, the large tracts which, having formerly produced corn, are now devoted to the cultivation of the Vine; and, secondly, the absence of sufficient labour-power duly to cultivate the ground. Incidentally to the latter, it is to be observed that much of the richest producing land has been able to furnish grain crops, &c., for many years, without manure, but under this trial it is becoming less fertile every year, and now requires thorough renewing by fertilising applications and deep cultivation. The farmers are injudicious in placing similar crops, or crops with similar exhausting properties, on the same land year after year; and their system of fallowing, by leaving the so-called fallow ground to become the prey of weeds for one year in every five or seven, far from strengthening the land, is likely to injure it.

Leipsic.—The harvest in Saxony (1868) was somewhat below an average. Pasture failed most universally; and as straw was thin and short, cattle and sheep suffered. The noticeable features of the year are the gradual decline of corn prices to the level of former years, and a heavy fall in the value of cattle and sheep. It is scarcely necessary to say that here, as elsewhere, the seasons were abnormal. Winter was severe, intermittent sharp frost and much snow being alternated with mild weather, thaw, and damp. In spring, dry winds and hoar frosts. At Easter snow fell in large quantities, saturating the ground to a considerable depth, and impeding cultivation for several weeks; thus snow was the last moisture on the land for months, for when rain came, it fell usually over a very small area, and not in sufficient quantity. In summer the drought and heat were so serious, that forest fires frequently occurred. Large sums were spent in clearing railway embankments, and in making ditches to arrest the progress of fire; but in spite of all these precautions, some accidents occurred. The great heat, however, was advantageous in some respects—it brought up the Wheat and Rye crops quickly, destroyed all disease in the ears, and produced a crop deficient in amount of straw, but full of weight in grain. Barley, Oats, and Peas, yielded in proportion to the amount of moisture which they got in the summer months. Patches favoured by moisture produced abundantly; others were dried up. The highlands of Saxony were more favoured by showers and dew than the plains; Beet was greatly injured by drought; Potatoes yielded well, and furnished a large proportion of starch.

Amsterdam.—The harvest here gave general satisfaction, a great deal of Wheat was sown and harvested in fine condition. Rye suffered considerably through the long-continued drought, and though there was not much sown the crop has proved to be better than was

expected. Barley succeeded perfectly well, both quality and quantity turning out satisfactory. Buckwheat was a failure. Oats, like Rye, suffered from the exceedingly dry summer; Beans and Peas were successful; the Rape and Canary seed crops were splendid. Linseed and Flax would have been better had there been more rain. The Potato crop was an abundant and excellent one.

Turkey.—The spring set in very late; not a leaf or a blade of Grass was visible in the beginning of April, and consequently in many parts of the province of Bosnia considerable mortality occurred among the cattle through starvation, the small supply of fodder remaining from the scanty crops of the preceding year having been exhausted. Much rain succeeded the cold and inclement months of March and April, and people rejoiced at the prospect of an abundant crop of hay. The cereals also presented a promising appearance, and very heavy crops were expected. In Bosnia, however, it appears that rain is often either too abundant or seriously required, and the incessant wet weather which prevailed until the month of September damaged the greater part of the hay crop, and injured more or less all the cereals, with the exception of the Indian Corn, which was plentiful and of good quality. Rather more than a fair average crop of tolerable hay was stacked, a great part of which will be available this year, as the past winter was so mild and open that the cattle were able to find sustenance in the fields and copses. The crop of cereals was probably below the usual average. The state and condition of the crops appear to have been identical in many parts of Turkey. *J. R. Jackson Kew.*

ON THE DEVELOPMENT OF CEREALS.

(Mr. Hallett read before the British Association at Exeter the following paper upon "The Law of the Development of Cereals.")

FROM continued observations and experiments, extended over nearly 20 years, I have arrived at the following conclusions, that where room has been afforded to the plant for its natural development—

1st. Every fully developed plant, whether of Wheat, Oats, or Barley, presents an ear superior in productive power to any of the rest on that plant. 2d. Every such plant contains one grain which, upon trial, proves more productive than any other. 3d. The best grain in a given plant is found in its best ear. 4th. The superior vigour of this grain is transmissible in different degrees to its progeny. 5th. By repeated careful selection the superiority is accumulated. 6th. The improvement, which is at first rapid, gradually, after a long series of years, is diminished in amount, and eventually so far arrested that, practically speaking, a limit to improvement in the desired quality is reached. 7th. By still continuing to select, the improvement is maintained and practically a fixed type is the result. I have throughout the whole of my records found only three instances in which there were two ears on a plant containing an equal number of grains, and one of these related to the Belle Vue Talavera Wheat, which, as I shall presently show, may be considered quite exceptional as to variation. In both the other instances there was only a low stage of development, the equally finest two ears of each plant containing but 59 grains and 49 grains respectively. In every case where the plant presented an ear of 60 grains and upwards the next best ear was of less contents than the finest one. In 20 instances taken consecutively and without omission from my journal the average difference between the contents of the first and second ears was $7\frac{1}{2}$ grains. These include seven varieties of Wheat. The difference in four of these instances was only one grain, but in another four it amounted to from 17 to 19 grains. For the simplicity of illustration I have here taken merely the number of grains in the respective ears, but the "best" plant, ear, or grain is that presenting in the most eminent degree a variation towards the quality or characteristic in which the improvement is chiefly sought. This may be the property of producing the finest quality of food, as indicated by weight per bushel, the lengthening, shortening, or stiffening of the straw, the increasing or diminishing, in the case of Wheat, the distances between the ranks of corn, &c. In reference to this question of the different powers of grain in the same ear, it seems that in former times an idea was entertained that those from about the middle of the ear were most vigorous. It has also been recently suggested to me that those grains nearest the "centre of growth" might on that account prove to be the best. This investigation as to the place of the best grain I made in 1858. I planted 10 ears of Wheat in the form of an opened book, having upon the right page the grains arranged as they grow in their respective ranks on the point of the stem, and similarly upon the opposite page those growing upon the back of the stem, a vertical line up the centre of each page representing the stem itself, and the grains nearest to this line on both sides of it representing those which grow nearest to the stem. The only general result, among most conflicting ones, at which I could arrive was, that the smallest corns, those most remote from the centre of growth, exhibited throughout, most unexpectedly to me, a vigour equal to that of the largest, and that the remarked worst grains in one or two instances did not by any means fall so far short of the good ones as I had expected they would do. I have since then repeatedly made trials of the comparative power of large and small, good and bad grains—and in the case of Oats, which produce a small grain attached to a large one, trials as to their respective powers with uniformly the same result, viz., that in good grains of the same pedigree neither mere size nor situation in the ear supplies any indication of the superior grain. Theoretically I believe that the power of vegetable growth in a grain is identical with its power of supporting animal life, and

dependent mainly upon the proportion of gluten which it contains, which is also proportionate to its specific gravity.

THE AMERICAN GRAIN CROPS.

THE crop reports from various parts of the United States are more conflicting and doubtful than is usual at this season of the year. The extreme fluctuations in the weather, and the variations of rain and heat, have produced opposite results in different places.

To come to particulars, we find that the crops are very favourable in the New England States, New Jersey, and New York; the hay crops in all these States will be immense, and the cereals are in a prosperous condition. In Virginia and Tennessee there is nothing to be desired. From the North-Western States the accounts are more conflicting; but it appears that damages by the recent tremendous rain-storms are confined to a comparatively limited breadth of country. Wheat, in some parts of Illinois, Iowa, and a few of the North-Western States, has suffered considerably. But even in the most unfavourable States the harvests—except in the unlooked-for event of continued bad weather—may reach last year's average. In Minnesota, which is now the chief Wheat-producing State in the Union, the supply will be immense. A harvest of full 20,000,000 bushels of Wheat is expected. In Ohio, Wisconsin, Indiana, and Nebraska, the Wheat harvest seems superb. Take it altogether, there can be little doubt that the Upper Valley of the Mississippi, and nearly the entire North-West, will advance considerably upon last year's supply. It will be remembered that this will be partly the result of the increased quantity of land placed under Wheat. If it were not for the drawbacks in various localities on account of the weather, the yield would be unparalleled.

In California the wheat has been already harvested, and the yield, in spite of the drawbacks on account of rust, will be in excess of last year's supply. A greater breadth of land has been sown, much of it on new soil, and the aggregate is unprecedented. Every effort is made to push the grain to market, or to *entrepôts* where it may be available for transportation. From Oregon, Washington Territory, and the Pacific slope generally, the accounts are favourable.

The drawback to this favourable view is the indication that corn (Maize) will not much exceed half a crop. The cold spring and the heavy rains have produced injurious results. Nearly all the Western States have something to complain of on this account. A larger portion than usual has been planted in the Eastern and Southern States, which may neutralize the bad results of the short crop elsewhere. Unusually fine weather for the balance of the season may produce better results. But at the present time corn is in an unusually damaged condition, a fact which is sufficiently attested by the advancing market rates.

The South will, undoubtedly, produce more food than last year. In the Valley of the Colorado, Texas, and in portions of the lower Mississippi Valley, immense damages have resulted from the usual inundations. Vast tracts of country have been devastated. But the supply of food from all the Southern States may be safely estimated as being in excess of last year's products. From all parts of Canada the wheat and corn accounts are highly satisfactory. *Abridged from "New York Economist."*

A VISIT TO TIPTREE.

THERE are few farms in the Tendring Hundred, or even in any other Hundred, or, in fact, in any other county except Essex, of so small an extent as 170 acres, that ever created so large an amount of interest or so much notoriety or celebrity as the farm of Tiptree Hall. For the last 27 or 28 years, during the time it has been in the possession of Mr. Mechi, it has been an exhibition farm, and in the present day it has acquired so much fame that it has actually become one of the things worth seeing in this country. Foreigners who come over to England to see all that is to be seen are sure to include Tiptree in their catalogue of sights; one day of their visit must necessarily be spent in viewing the Wheats, Mangels, and agricultural machinery on Tiptree Heath. Even Garibaldi, who, by-the-by is half a farmer at Caprera, paid Mr. Mechi a visit when he was in England last, and expressed himself exceedingly gratified with all he saw.

Most of your readers are aware that Tiptree is about four miles or so from the Kelvedon Station, and although the road is somewhat winding, with several four-cross-ways, which, in a sparsely-populated neighbourhood, are exceedingly baffling to a stranger, the road is made exceedingly easy by the judicious erection of iron finger-posts directing the traveller to Tiptree Hall Farm. When once the visitor has passed the well-known white gate and entered the avenue leading up to the house, he feels as it were upon an enchanted spot of land, and some visitors of a very lively imagination may probably conceive the idea that Mr. Mechi is some Eastern Magi, who by the use of his divining rod and the usual hocus-pocus of legerdemain, transforms wet earth into dry soil, barren land into fertile fields, and produces six quarters of Wheat from two pecks of seed. They may also expect to see him clothed in a mysterious mantle covered with symbols of the cabalistic art, a long white beard, a pair of tortoise-shell spectacles, and a black cat on his shoulder. But how different is Mr. Mechi in the flesh! A portly, genial, kind-hearted English gentleman, who comes out of his house as you drive up, and gives to all his visitors a hearty welcome, so that the greatest stranger feels at home before he has been in his society ten minutes. Farmers from Scotland, from Cornwall, from Yorkshire, or any other county or country are to be met at Tiptree—three gentleman came all the way

from the extreme north of Scotland to see Tiptree, and were pleased with what they saw, on the day we paid our visit. There was also one gentleman from Bristol, who was a large buyer of corn, and who suggested that farmers should grow a certain description of Wheat instead of Rough Chaff, as he would always give 2s. a quarter more for it. The rest of the party consisted of gentlemen from the Tending Hundred.

After Mr. Mechi had introduced everybody to everybody else, a walk was proposed round the farm, his intelligent bailiff, Mr. Drane, leading the way, Mr. Mechi explaining in his very pleasing manner, the different results of his operations and experiments on the farm. "Look here," said Mr. Mechi, "at this hot haystack, and what a simple process does away with all danger;" it was simply an iron pipe pointed at one end, and perforated, driven in the stack, and a long piece of iron piping, with an elbow attached, outside the stack. All the vapour or steam in the stack was drawn into the pipe and let out, giving convincing proof that at the cost of a few shillings many fires might be prevented. Samuelson's reaper was doing its duty remarkably well. The Wheat was not laid at all, consequently the reaping was easy work, and the result was explained by Mr. Mechi to be due to thin sowing. "For," said he, "give a plant room to stand up, and it won't lie down." On entering one field of Wheat he said, "Now, gentlemen, 4 pecks of seed were sown in part of this field, but in some places there are 2 pecks only—as you are practical farmers, see if you can find out the difference." They could not tell the difference; but when pointed out all pronounced the 2-pecks-an-acre crop to be the best. Taking the Wheat crop over the farm there will certainly be 5, 6, and, with the Rivetts, about 8 quarters an acre. Tiptree is not Barley land, and Rivetts are generally grown instead.

It would be worth while for any farmer to go and look at a piece of Winter Beans on that farm—take up one stalk and 54 pods can be counted; the land was certainly foul, but it had been twice hoed, at an expense of 18s. per acre, and winter bean-land is generally foul this year. Passing from the Beans to the Mangels, it was evident that a very heavy crop may be reckoned on. They were principally Yellow Globe and Long Red, three rows only on a stretch, except that here and there four rows were planted, but only for an experiment, for Mr. Drane said they had the heaviest crop of roots from three rows. The thick leaf Mangel with its fibrous roots was found to keep longer than the fine leaf with one tap root. There was a good crop of Kohl Rabi, all of which was transplanted from a nursery bed of about an acre.

Oats were light, and not at all a good crop.

Although Wheats are considered to be generally up to the average, yet Mr. Mechi is satisfied that his farm will pay a good percentage on his capital for this year. Consequently one might anticipate the result by calculation—if 16l. per acre is employed as capital, 2720l. would be the sum employed on 170 acres, and at 17½ per cent. profit, 476l. would be the result. May such be the case, for his energy and enterprise ought to be rewarded. The buildings next claim attention: the bullock houses, the covered yards, the barn, engine-house, &c.

Certainly the bullocks do not look so comfortable on the rails as they do on clean, good straw; but Mr. Drane assured us that they did better, got on faster, and fetched more money from the butcher. If so, that is all to be desired in fattening stock. The covered yards must be good for cattle, as they keep stock warm in the winter, and cool and free from flies in the summer; every farmer would be glad of such yards on his farm. A number of works are carried on in the barn: corn is threshed or ground, cake crushed, and straw cut for food, all by the little engine which Mr. Mechi considers to be his best servant on the farm. As he says, "steam power never tires; feed it well with coal and water and it will never give up." It is surprising how much work that small engine does—pumping the water into the cattle sheds, then sending the liquid manure into the tank, and again sending it out on to every field on the farm, and for 23 years has never been out of repair.

The cart stables and horses are nothing to speak about; they appear to be overlooked in the general management of Tiptree.

Whoever has an opportunity of spending a day at Tiptree should avail himself of it; there is something to be learnt, and Mr. Mechi is so frank and candid, and so willing to impart any information, that a day is most agreeably and profitably spent in his society. No matter whether any one differs from him or any of his theories, it only produces argument, which must be profitable. It is almost impossible to put him out of temper, and for that reason he often gets the best of it. Essex Standard.

HARVESTING IN WET WEATHER.

THE following letter to the Times well deserves a place in an agricultural Paper. The writer describes a method which might well be used in uncertain or bad weather as a means of enabling the farmer to put his corn together earlier than when it is left in the field until thoroughly dry:—

Sir,—I am gratified to observe by your article of Wednesday last that you are giving your powerful influence in directing the attention of agriculturists to the practicability of means for effecting this object, which is of so much public importance for our variable climate, and I will ask you to afford me space in your columns to give a brief detail of my experience in this matter, which will be found to have anticipated to some extent the recent trials on this subject on a farm of under 300 acres, which I have held for some years as a tenant of the Earl of Derby.

During the wet summer of 1863 my friend and brother magistrate for this county, Mr. Gossage, of the well-known chemical and soap manufactory at Widnes, in this neighbour-

hood, paid me a visit to explain and impress upon me some ideas he had long entertained as to harvesting crops so as to be independent of weather. Mr. Gossage's notions were that if corn (however wet it might be) were placed in ricks in such manner that a current of dry or heated air could be forced through it, the superfluous moisture would be speedily driven off and the corn become thoroughly cured. He proposed to do this by means of a centrifugal fan driven by horse or steam power, and if the latter were employed, to use the gases which were produced by combustion of fuel under the boiler to yield heated air to be applied to accelerate the drying.

After mature consideration, I was convinced the plan was a practicable one, and, to prove it, I set up a rick of Beans in so damp a state that all my servants thought it could not fail of being utterly spoiled. The rick was 20 feet by 10 feet, by 20 feet high, being twice as large as the usual size. Before forming the rick, I placed a wooden trough or pipe 9 inches square inside, extending from one end to the centre, and terminating in an aperture on the upper side 9 inches square. In stacking the Beans, I placed a sack (filled with straw) vertically over the aperture above-mentioned, and gradually, as the rick was formed, I kept raising the sack, and forming a chimney of the same diameter, till within about 6 feet of the top. I then connected a centrifugal fan with the end of the air-trough, and had it driven by two men acting on a large pulley from which the motion was connected, by means of a strap, with a small pulley on the fan shaft. I soon perceived evidence of moisture proceeding from the rick, and in a few days, employing cold air, and with these insufficient means of application, the rick of Beans (which it had been predicted would be utterly spoiled) became thoroughly dried, and was threshed out and consumed on the premises. I was thus convinced that the use of artificial currents of air, either cold or, by preference, heated, would, in the latter case particularly, render the agriculturist nearly independent of weather in harvesting his crops; and I have acted upon this conviction when needful in my operations ever since the wet harvest of 1863.

This year I formed four ricks of hay, under wooden covers (called Dutch barns), each 24 feet by 16 feet by 20 feet high, with a wooden air trough running the whole length under them, provided with slides to let on and out off the passage of air, and each rick having a vertical channel formed as before described. One rick of this hay was mown, tedded, and rolled together by horse labour, put by hand into large cocks, and on the third day from mowing, without being previously spread, was carted and stacked. This rick was so out of condition, that my bailiff begged me not to let it be stacked, as it must, in his opinion, inevitably take fire. I put up the three other stacks in different stages of condition, but none thoroughly cured. I then applied currents of cold air to the whole by means of a fan driven by a steam-engine of 1 horse power, and the hay in each stack (including the one above specially noticed) became so thoroughly cured that it has sold at the full market price of the day. By these means the four ricks of hay were harvested with less than one-fourth the expenditure for manual labour usually required.

With regard to Wheat, it has been customary with me to thresh it by steam-power immediately on carting it from the field, without putting it in ricks. On considering the advantages of this mode of drying I erected an apparatus consisting of a double cylinder 8 feet high, closed at top and bottom, formed of perforated zinc plates, the outer cylinder being 8 feet in diameter, and the inner one 2 feet, leaving an annular space of 3 feet, which contained when filled upwards of 200 bushels of Wheat. I applied, by means of a fan, a current of air warmed by passing over the steam boiler, to the inner cylinder, and the air, after passing through the perforations, filtered through the Wheat, causing it to be brought quickly into a fit condition for grinding.

I have stated that I commenced these operations by the advice of my friend Mr. Gossage, in 1863, and have continually pursued them since that period. I consider that I have now so thoroughly proved the practicability and advantage of these operations, that I can recommend their universal adoption by my brother agriculturists, in the full conviction that, by these means, we can render ourselves, to a great extent, independent of weather in harvesting our crops. Robert Neilson, Halewood, Liverpool, Aug. 29.

FOREIGN SUPPLIES OF MEAT.

THE announcement last week that cattle had actually arrived from Montevideo was somewhat startling to graziers, and could not be received by landlords without causing some little reflection as to the consequences. There is every probability that ere long we shall be supplied with larger amounts of animal food from abroad. No one who appreciates the vast improvement made of late years in our means of transit can feel safe from foreign competition, in even that peculiarly British commodity "roast beef."

If this is true, how far is it a cause for alarm? The subject is difficult, but we do not think that even if the dream is fully realised, a large importation would be followed by a serious reduction in price. First, we should bear in mind that if the speculation proves remunerative, not only England, but every civilised and over-peopled country will avail itself of the cheaper source of food. Hence the supply will be diverted to many markets, and this will tend to preserve the balance of prices. Another fact to be taken into account is that the consumption of animal food will be much increased, and this not only in England, but in other countries. A large portion of our people scarcely taste animal food, but as soon as the price is brought down to their level, the rush which will be made will be a considerable check upon further reduction. Thirdly, owing to the inevitable changes of season, we cannot look for a regular supply of live animals from long distances throughout the year. We subjoin some additional information, from a reliable source, on this subject:—

"An experiment of importance towards solving the question as to the possibility of obtaining supplies of fresh meat from the practically boundless plains of the River Plate has been successfully completed. It was stated in April last that the Government of the Argentine Republic, and also the Government of Uruguay, had granted to an English house the exclusive privilege of snipping live cattle from those States for a period of years, with entire exemption from all port charges and customs' duties, and that in the first instance a small trial would be made of the effect of the passage. It now appears that the steamer City of Rio, which arrived on the 20th inst., brought 19 oxen which had been shipped at Montevideo, and had been 31 days at sea, with, it is said, a short supply of water and scarcely any food but the commonest hay. No casualty had occurred among them, although from exposure and insufficient treatment they had become

extremely thin. They were hurriedly shipped, without selection, on its being found that the vessel could take them, and the price paid at Montevideo was 5l. per head, but a contractor at that port offers to supply any quantity at 4l. per head, free on board, well prepared, and weighing not less than 800 lb. each."

Home Correspondence.

Thick and Thin Seeding.—Last summer a letter was written to the Times, giving an experience in this matter. The writer drilled 1 bushel of Wheat to the acre, and found his crop better than when he drilled 2 bushels of seed per acre. On his recommendation I last autumn adopted the plan myself of sowing parts of fields with 1 bushel and other parts with 2 bushels, which had been my previous practice. The Wheat is just cut. No. 1 was grubbed out of Hops, and contained 6½ acres. The whole of this field was drilled with 5½ bushels of seed, which is less than 1 bushel to the acre. The crop is a fair average crop, and nothing more; indeed, my bailiff seems to think if there had been a little more seed there would have been more corn. This field was free from Couch and weeds, not in good heart, but fresh for Wheat. This was drilled the first week in October. No 2 is a field of 7 acres of excellent land and in good condition, and the crop is excellent, the straw for the most part being 6 feet high. We drilled about an acre of the centre of this field with 1 bushel, the rest of the field with 2 bushels, as usual. I have inquired of my bailiff and of the reapers which part of the field they consider the best. The replies I got are contradictory, and I cannot decide myself. No. 3 is a field of poor sandy land, of 37 acres, but free from Couch and in high condition this was drilled on the 8th and 9th of October. One acre is drilled with 1, and all the rest 2 bushels. Here, again, we are in difficulty about which is best, but the preponderance of opinion is in favour of the 2 bushels. My object is to invite discussion. Nos. 2 and 3 were subsoiled three years ago. B. N. F. [When practical men find it difficult to decide as to which crop is best, we cannot be far wrong in saying that there is not much choice between the two. If one crop is much better than another, a good judge would not find much difficulty in deciding as to which is most advantageous. At the same time communications such as the above are unsatisfactory, and by no means convincing to those who have adopted an opposite opinion regarding the question under discussion. Thin-seeded Wheat may appear poor, and yet yield wonderfully well; and the bulkier thicker sown, may, on the other hand, measure up badly. For this reason we would recommend the only test in such matters to be used, viz., scales and weights, both for straw and grain.]

Societies.

ROYAL AGRICULTURAL OF IRELAND.

Tralee.—The great interest now taken in the agriculture of the sister kingdom will be gathered from the numerous and varied list of prizes awarded by this Society, by the wide range whence exhibitors are drawn, and particularly by the speeches made at the banquet by gentlemen high in authority and of great influence in the country. Englishmen and Scotchmen send specimens of almost every kind of the numerous breeds of cattle, sheep, horses, and pigs now established in Great Britain; while Irishmen, although they for some time lagged behind in the agricultural race, now frequently surpass in open competition their more experienced brother breeders on this side the Irish Channel. Our space will not allow us to give more than the principal prizes in the leading classes. The number of animals exhibited we recorded last week. Besides the classes for these productions there were prizes for small occupiers, for dairy produce, for flax, and for poultry. The following is an abridged list of awards:—

CATTLE.—SHORTHORNS.

For the best Bull, calved on or after January 1, 1864, and previous to January 1, 1867.—1st and Purdon Challenge Cup, R. Chaloner, Kingsfort, Kells, Co. Meath, Sovereign, by Royal Sovereign (22,802); 2d, Edward J. Smith, Islanmore, Croom, Co. Limerick, Lictor (24,333), by Master Harbinger (19,352).

For the best Bull, calved in 1867.—1st, H. Lyons, Croom House, Croom, Lord Francis, bred by Joseph Meadows, Thornville, Wexford, by First Fiddle (19,749); 2d, T. Sandes, Sallow Glen, Tarbert, Royal Tudor, bred by W. Talbot Crosbie, Ardferd Abbey, Tralee, by Royal Sovereign (22,802).

For the best Bull, calved in 1868.—1st, E. J. Smith, The Earl, bred by Richard Challoner, by Ravenspur (20,628); 2d, R. G. Cosby, Stradbally Hall, Queen's County, Colonel Frank, bred by Mr. Meadows, by Agamemnon (23,278).

For the best Bull Calf, calved in 1869.—1st, R. Welsted, Ballywater, Castletownroche, Coronet, bred by exhibitor, by Uncle Ned (19,026); 2d, R. Welsted, Lucky Lad, bred by exhibitor, by Uncle Ned (19,026).

For the best Cow, in Calf or in Milk, calved previous to January 1, 1866.—1st, W. Hutchinson Massey, Mount Massey, Macroom, Janet, bred by exhibitor, by Gwynne of Lothian (21,889); 2d, R. Smith, Blossomfort, Mallow, Venus, bred by William Copinger, Barryscourt, County Cork, by Westrom Wonder, (17,225).

For the best Heifer, in-Calf or in-Milk, calved in 1866.—1st, W. Bolton, The Island, Kilmuckridge, County Wexford, Gamo Hen 3d, bred by the late J. Anderson, Grace Dieu, Waterford, by Mercury (22,342); 2d, R. Welsted, Princess Primrose, bred by exhibitor, by Uncle Ned (19,026).

For the best Heifer, in-Calf or in-Milk, calved in 1867.—1st, Sir R. Paul, Bart., Ballyglan, Waterford, Bonnie Lass, bred by exhibitor, by Patriarch (24,497); 2d, R. Welsted, Rossanna, by Sir James (16,980).

For the best Heifer, calved in 1868.—1st, J. Mealy, Fanny 25th, bred by exhibitor, by Agamemnon (23,278); 2d, William Bolton, Ally Gwynne, bred by exhibitor, by Gray Gwintlet, (10,908).

For the best Heifer Calf, calved in 1869.—1st, F. J. Smith, Islanmore, Croom, Co. Limerick, Gertrude, bred by exhibitor, by Lictor (24,333); 2d, Sir Robert Paul, Bart., Mantle, bred by F. G. Bloomfield, Newpark, Waterford, by Glory (24,048).

HEREFORDS, DEVONS, AND POLLED ANGUS.

Best Hereford Bull, calved on or after January 1, 1864.—1st, R. S. Featherstonhaugh, Rockview, Killucan, for Grateful. Best Devon Bull, calved on or after January 1, 1864.—1st, C. Boyle, Tanagh, Dartry, Monaghan, for Blood Royal. Best Devon Cow, in-Calf or in-Milk, calved previous to January 1, 1866.—1st, C. Boyle, for Pride of Braunton. Best Devon Heifer, calved in 1867 or 1868.—1st, C. Boyle, for Pride of Braunton &c. Best Polled Angus or Galloway Bull, calved on or after January 1, 1864.—1st, W. Owen, Blessinton, for Orathie Jock 2d. Best Polled Angus or Galloway Cow, in-Calf or in-Milk, calved previous to January 1, 1866.—1st, William Owen, for Maggie.

KERRIS.

Best Kerry Bull, calved on or after January 1, 1864.—1st, James Brady, Raheny, Co. Dublin, for The Knight of the Glens; 2d, Madame M'Gillicuddy, The Reeks, Killarney, for Lord Glencar. Best Kerry Cow, in-Calf or in-Milk, calved previous to Jan. 1, 1866.—1st, Thomas M'D. Mahony, Cullenagh, Killarney; 2d, George Massy, The Spa, Tralee.

OTHER BREEDS.

Best West Highland Cow, in-Calf or in-Milk, calved previous to January 1, 1866.—1st, Thomas Butler, Prieststown House, County Meath, for West Highland cow Beauty. Best Ayrshire Bull, calved on or after January 1, 1864.—1st, N. M. O'Donnell, Coolemore, Mill Street, County Cork, for red and white Ayrshire bull Bonnie Dundee. Best Ayrshire Cow, in-Calf or in-Milk, calved previous to January 1, 1866.—1st, J. Buchanan, Sackville, Tralee. Best Ayrshire Heifer, in-Calf or in-Milk, calved in 1866.—1st, David Patton, for Maggie. Best Ayrshire Heifer, calved in 1867 or 1868.—1st, Henry Jones, for Boarding School Miss.

SHEEP.—LEICESTERS.

Best Shearling Ram.—1st and Cork Challenge Cup, T. Marris, Uleoby, Lincolnshire; 2d, W. R. Meade; 3d, W. Owen, Blessinton. Best Ram of any other age.—1st, Seymour Mowbray, Killeany, Mountrath; 2d, W. R. Meade, Ballymartle, Ballinlaseig; 3d, T. Marris. Best Pen of 5 Shearling Ewes.—1st, T. Marris; 2d, Seymour Mowbray. Best Pen of 5 Ewe Lambs.—1st, Seymour Mowbray.

BORDER LEICESTERS.

Best Shearling Ram.—1st, R. G. Cosby, Stradbally Hall, Queen's County; 2d, R. Briscoe, Fermoy; 3d, ditto. Best Ram of any other Age.—1st, R. G. Cosby, Stradbally Hall, Queen's County; 2d, R. Briscoe; 3d, ditto.

OTHER LONG WOOLLED SHEEP.

Best Shearling Ram. 1st, T. B. de Brosno, 2d, ditto, 3d, Captain J. B. Smyth, Fedamore, County Limerick. Best Ram of any other age. 1st, Captain J. B. Smyth. Best pen of 5 Shearling Ewes.—3d, Thomas Butler, Prieststown House, Prieststown, County Meath.

SHROPSHIRE DOWNS.

Best Shearling Ram.—1st, Thomas Marris. Best Ram of any other age.—1st, Thomas Marris. Best pen of 5 Ewe Rams.—1st, Thomas Butler.

HORSES.

The Croker Challenge Cup, value 50 sovs., with 20 sovs. added, for the best weight carrying thorough bred Stallion.—1st, F. H. Power, Roskeean, Mallow, thorough bred stallion in hand.

STALLIONS.

Best Stallion of any breed for general purposes bred on or after January 1, 1862, and previous to January 1, 1866.—1st, J. Fleming, Glasgow, bay Clydesdale stallion Star of the West; 2d, J. Magrath, Knockbrack. Best Stallion for agricultural purposes, foaled on or after January 1, 1866.—1st, P. Cahill, Anna, Tralee, County Kerry, agricultural stallion Young Favourite.

SWINE.—COLOURED BREED.

Best Boar under 18 months old.—1st, F. Trevor, Beech Hill, Donnybrook; 2d, ditto. Best Boar over 18 months and under 36 months old.—1st, P. Murnane, Ballyryan, Tipperary; 2d, W. Hutchinson Massy, Macroom, Berkshire boar Pymalion. Best Breeding Sow under 18 months old. 1st, his Excellency Earl Spencer, K.G.; 2d, T. Sanda, Sallow Glen, Tarbert. Best Breeding Sow, over 18 months old.—1st, W. Hutchinson Massy, Berkshire sow Fatima; 2d, R. W. Reynell, Killynora, Killarney. Best lot of 3 Breeding Pigs of the same litter, above four and not exceeding eight months old.—1st, J. Molloy, Dublin; 2d, F. Trevor. Best Sow and Litter of 6 Pigs.—1st, F. Trevor. Best Breeding Sow, over 18 months old.—1st, J. C. Cooper. Best Sow and Litter of 6 Pigs.—1st, J. Molloy, Dublin.

JUNOS.—SHORTHORNS.

H. Thurnell and H. Smith. Other breeds: R. S. Skirving, — Campion, A Bogie Horse H. Briscoe, H. Thurnell, R. S. Skirving. Sheep—Leicesters, &c.: T. C. Booth, J. Hutchinson, A. Warburton Swine A. Warburton, J. Borthwick, A. Darker. Poultry H. Jones, Flax and Butter: Rev. M. Bradshaw, J. Borthwick Implements: B. C. Wade, D.L.; J. Borthwick.

The following are the practical portions of the speech of Earl SPENCER, the Lord-Lieutenant. After some highly complimentary and generous remarks towards the Chairman and officials of the Society, his Excellency came to the showyard and its contents:—

During my visit to the showyard I was enabled to learn the opinions of those better able than myself to form an opinion, and their opinion was that the show was very excellent in quality. The number is, perhaps, not very great in the different classes; but the quality of the animals exhibited is very good. I do not think I ever saw a finer specimen of a Shorthorn bull than the animal called Sovereign, the property of Mr. Challoner. There were many excellent specimens of quality and shape, and no one who ever saw them could fail to admire the symmetry and beauty of some of those animals. The sheep show was a good one, and I can speak myself in reference to the pigs, inasmuch as I was an exhibitor in that particular department. With the view of testing the excellence of the breed of pigs in Ireland, I thought I could not do better, when I formed the intention of being an exhibitor here, than to go to the Royal Agricultural Society in England, and endeavour to get as good a specimen as England could produce. I brought two excellent animals over, one of which, a sow, had an increase in her family. They had obtained a second prize in England, whereas they were only highly commended here. Such was the decision of the judges, to which I must freely bow. I shall be

most happy if the animals I brought over will be of any use in improving the breed in this country. Passing from this, I would say there was another important branch of the show which was well represented. I allude to the machinery. I saw some improved specimens of implements—ploughs, threshing machines, and others—well calculated to assist in agricultural labour. I feel impressed with the idea that reference to improvement in such articles is a very important part of the work which the Royal Agricultural Society performs, introducing in every part of the country the most recent improvement in agricultural machinery. I may here observe that when going round the showyard I saw one machine which I thought rather calculated to cast a reflection on good agriculture. It is a machine which I hope is not much required in this country; but I must confess that on my journey from Killarney to Tralee I saw a good many fields where that machine should be in operation. I allude to a machine for cutting down thistles. I sincerely trust that the energy of the Irish farmers will soon render the sale of that machine almost impossible in this country; that they will eradicate that noxious weed, the seeds of which frequently blow upon neighbouring farms.

Material Prosperity and Progress.—Now, gentlemen, I should wish to refer to some more general matters, and glance at the general condition of the country. In doing so I would refer to two points which are indicative of that condition—namely, the class of houses in which the agricultural portion of the population live, and the amount of their savings. I believe that there is a considerable increase in the better class of houses. During the terrible ordeal through which the country passed at the time of the famine, and the large exodus of the population which then occurred, it was a remarkable fact that there was no diminution in the better class of habitations, but rather an increase. I sincerely hope that the diminution in the class of mud cabins referred to in the report of the Census Commissioners will continue, and that they will ultimately disappear. The reports of the Commissioners of Public Works give some small indications of the change that is going on in that respect. In 1859 an Act was passed to enable proprietors and farmers to borrow money from the Board of Public Works for building cottages. In 1866 it was amended, when a short Act was passed which enabled the Commissioners to lend money, not only for the building of cottages, but for alterations and improvements. The amount so advanced was not very large, but it had been increasing. Since the passing of the Act there had been expended for cottages over 50,000*l.* I confess I should like to see that greatly increased, for nothing is so important for the country. When referring to these improvements, it is satisfactory to find that there has been an increase in loans for general improvements. In 1866 it was little over 26,200*l.*, whereas in 1867 it amounted to 29,357*l.*, and in 1868 to 42,707*l.* The increase for the present year is considerable, and it is likely to amount to 80,000*l.*, making a total already borrowed for the improvement of agriculture in this country of over 2,000,000*l.* That is due partly to the idea which Parliament rightly entertains that they may lend money to advance so useful a purpose on good security. It is also indicative of a considerable amount of public spirit on the part of proprietors in this country. I see in this country an active proprietor, who has his name down for a loan of over 8,000*l.*; and in the county of Longford a proprietor is going in for a loan of 15,000*l.* for the improvement of his estate; whereas, in the North of Ireland, two proprietors have applied for a sum of 10,000*l.* for the same object. I think that is a very satisfactory sign with regard to improvement in the general condition of the country. I would touch on another point—namely, the amount of savings in the banks: I am happy to find that the amounts of deposits have largely increased this year, and close on 20 millions sterling has been deposited in the joint-stock banks in this country, and this year a considerable increase is likely to be made. Such deposits largely represent the savings of the agricultural classes in the community. I would now refer to one or two more distinctly agricultural statistics which I have been enabled to procure, owing to the excellent arrangements which are made in Ireland in respect to agricultural returns. With respect to live stock, I see that this year there is a considerable increase, with one exception, for I find there is a diminution in the number of sheep—over 250,000—as compared with last year. I do not think that is indicative of any great decrease in the wealth of the country as regards sheep, for the last year there was an increase of over a million and a half, but that increase was preparing for a larger export. We find this year that from the port of Dublin alone there was an increased export of nearly 81,000 sheep. I think, therefore, we may consider that the wealth of the country in sheep this year has not very much diminished. The increase of sheep in this country is a significant fact, for since 1841, the first year of the Royal Agricultural Society, the number of sheep in the country would seem to have doubled. In 1841 there were 2,106,189, and in the present year there are 4,648,158. With regard to cattle, I do not think there is anything that calls for particular remark. The number of cattle remains the same. There has been a slight increase as well as a slight diminution in the exports.

Contagious Diseases (Animals) and the Legislature.—While on this subject I cannot help alluding to an important measure which has passed into law in England and Scotland—I allude to the Bill providing against contagion. On a former occasion I spoke at some length on this subject, but the importance of it is so great that I cannot help again alluding to it. That Bill simplifies the various Acts on the subject, and introduces special laws with regard to pleuro-

pneumonia. That is a very important matter, and well worthy your attention. You will consider whether some similar provision should not be applied to cattle in this country. Nothing could be more important than legislation with the view to the prevention of such diseases, and the farmers of England and Scotland forced Government to introduce a measure of this sort. It must be the interest of the farmers in Ireland to do likewise, for in this country, where there are so many small farmers, the loss that would result from contagious diseases would be almost ruinous. The tenant-farmers of Ireland have not the same means of separating their cattle as the large farmers in England and Scotland have. I earnestly hope that on the introduction of such a measure next session it will receive the support of the Irish farmers.

Pigs, Grass-land, and Arable Crops.—With regard to pigs, it is satisfactory to find there is a very considerable increase in Ireland. That is a sign of the growing prosperity of the labouring classes. A pig very early comes to maturity. It is easily kept, and is the best kind of stock for a poor man. It is therefore satisfactory to find that there is an increase in pigs of 210,215, and if the increase goes on we shall very soon arrive at the highest figure which the stock of pigs ever attained in this country. I will now pass from these statistics to other figures, which are also furnished by the Registrar-General. I allude to statistics which refer more particularly to arable land. It is sometimes thought that those who hold prize cattle are in favour of increasing the Grass in this country, and diminishing the arable. I, for one, consider it important that cattle should be increased in this country, but I do not believe it need be done at the sacrifice of tillage land. In this country, which is dependent on agriculture, it is of great importance that the amount of tillage land should be kept up to the highest point which is essential to agricultural progress. I have noticed in England that you will seldom find 200 or 300 acres of the best grazing land without finding some against it equally inferior in quality, which is far more profitable to the farmer. I know it is the case in Warwickshire and Leicestershire, and the modern improvements in farming have converted estates which were entirely grazing into mixed arable and grazing land. Now, I believe that is the case in Ireland as well as in England, and anyone who travels about the country will see a large quantity of grass-land which could with great advantage be turned into tillage land.

Irish Produce. To prove what I say, I would allude to remarks made not long ago by a gentleman well known to you I mean Mr. Monell, M.P. for Limerick. In a statement he made before the Statistical Society in Dublin, he compared the agriculture of Scotland and Ireland in this respect, and the results are very remarkable. He showed that in 11 years, between 1857 and 1868, in Scotland, though Wheat had diminished by 118,657 acres, Barley, Oats, Potatoes, and Turnips increased by 163,610 acres. At the same time stock increased by 1,447,000 head. In the same 11 years Wheat and other crops decreased in Ireland 700,000 acres, or, deducting Flax increase, 579,740, and there was an increase in live stock of 1,040,745 head. But at the same time the increase of stock does not bear anything like the same proportion as the increase of stock in Scotland. That proves what I say. It is not necessary to have a decrease of tillage. If you can increase green crops and artificial grasses you will find immense benefit from it. If I am right, the returns this year are, on the whole, quite in the right direction. There is an increase in Flax and other arable crops—an increase of 5000 acres. With regard to Wheat it is remarkable what free trade has done in Ireland. There is no doubt that Wheat is better grown in other countries. In 1847 there were 743,871 acres under Wheat, and in 1869 there were 281,117, showing a considerable loss. It does not follow that it is necessary all arable crops should increase, but in Scotland, notwithstanding the decrease in Wheat, there is a large increase in other crops. In this country there is a considerable increase in Barley, which is a crop well suited to this country, and there is a small decrease with regard to Oats.

Irish Fences.—There is one point which I think every stranger is struck with, and that is the peculiar character of the fences in Ireland. Such large fences are hardly necessary for agriculture. Every person who had the pleasure of hunting near Dublin looked with horror at the gigantic fences. There is a wide dyke separating the field from the bank which is large enough to engulf both man and horse. There are gentlemen here who tremble in the saddle when approaching some of these large fences, covered by men who are ready to drag out the unfortunate man who falls on the other side, and they go by the name of "wreckers." As a farmer, I cannot see the necessity for such large fences, or why so much land should be taken up with them. I made some inquiry from Mr. Baldwin regarding the excellent institution known as the Model Farm, near Glasgow, which I frequently visit. I was told the amount of land which a fence occupies on that farm, which is 108 acres in extent. The Education Commissioners levelled 13 acres of fences and it was found that 2 acres of fences would be necessary to divide the fields, and they thus gained 6 per cent. of land on their small area. On a neighbouring farm of 81 acres in extent 7 acres were occupied by fences, and 8 per cent. instead of 2 lost to farming. If fences, and 8 per cent. instead of 2 lost to farming. If those large fences. I have now traced over the different points to which I wish to refer. I have shown that the Agricultural Society has had a large share in improvements in the country, but I have also shown there is still great room for the operation of its skill and energy.

Landlord and Tenant.—My lords and gentlemen,—I have carefully followed the rule which is invariably observed at these meetings—not to allude to any subject of political moment; but I cannot help feeling, when

talking of improvements in agriculture in this country, there comes up to the mind of everybody present a subject now occupying the attention of politicians. I shall not enter on that subject. I feel now the importance of encouraging confidence between landlord and tenant. I will not enter into that difficult subject now, but I think I may be allowed to implore all those who have influence in the country to come forward to meet this difficult subject with fairness, impartiality, and justice. There will be much discussion on what should be done for the settlement of this question, which has been so long agitated in this country. I would implore all who have an interest in it to approach it with impartiality and fairness, and, above all means, to discuss only what is really practicable. If that is done, I look forward to see this difficult question satisfactorily settled. After congratulating those present on the excellence of the harvest, which was about being gathered in, his Excellency resumed his seat amid loud applause.

ROYAL NORTH LANCASHIRE.

THE annual exhibition of the Royal North Lancashire Agricultural Society was held at Burnley last week, in a field belonging to Lieut-General Yorke Scarlett, near the Bank Top Railway Station. The show was held last year at Ulverston, and the total entries this year were, including implements, 2062, against 2063 last year. The stock showed a great improvement on previous years. The entries in cattle were 175, against 162 last year; horses, 173, against 174; sheep, 299, against 285; pigs, 25, against 17; poultry, 53, against 223; roots and seeds, 123, against 101; cheese, 22, against 6; dogs, 306, against 272. At Ulverston, last year, there were 861 entries of implements, against 686 at Burnley this year. The show of cattle was of a first-class character, and many of the animals shown were of far-spread reputation. In the class of aged bulls there were 15 entries.

Mr. Brierley's Bolivar was again successful in this class, closely followed by Lady Pigot's Charles le Beau as 2d, which, although not a prize getter, was highly recommended at the Royal. Messrs. Crawshaw and Blackley's roan bull Prince Leopold, which was at the Royal but got no prize, obtained the 1st prize in the 2-year-old bulls. The class of bull calves produced some good specimens, but the judges had not much difficulty in deciding upon the merits of the prize animals belonging to Colonel Towneley and Mr. William Slye. Perhaps the class which attracted most attention, and in which the competition was very strong, was aged cows. The 1st prize animal at the Royal was not present, but the 2d, Lady Pigot's Queen of Rosales, obtained the 1st here. There was a very close run between Lord Skelmersdale's red and white Cherry and Mr. Adam Dugdale's roan Kent Cherry, but the judges awarded the prize to the last. In this class also was Colonel Towneley's famous cow Duchess of Lancaster.

The agricultural horses were distinguished by very high merit, and the pair of greys shown by Mr. C. W. Brierley were models of symmetry. In the class of brood mares, a fine roan mare, 10 years old, shown by the Rev. J. Pennington, of Whalley, was a finely formed animal, and obtained the 1st prize. The same gentleman also obtained the 2d prize in this class. The class of mares for breeding hunters included some very fine animals, the first honour being awarded to Mr. William Roberts, of Burnley. The class of thorough-bred stallions, although not of average merit, yet produced several first-class specimens. Mr. Roberts, of Burnley, obtained the first honours in the class of yearling colts, but the class of young horses for harness purposes were not of a first-class character. The prizes for yearling colts were not awarded, for want of merit. The young horses for agricultural purposes, as indeed the class of agricultural horses generally, were of high merit.

Sheep were a very meritorious class, and some very fine specimens were exhibited. The Leicesters, although not a numerous class, contained some animals of very high merit. There were some fair specimens of Shropshire Downs, but, generally speaking, the class was not strong. Lonsks showed remarkably well. The silver cup, value 10 gs., given by Mr. R. Shaw, M.P. for Burnley, for the best collection of Lonsk sheep, not less than 20 in number, embracing both sexes, was taken by Mr. Joseph W. Green, Keighley. This gentleman also carried off the silver medal for the best yearling ram of the same breed. There was only a small show of pigs, Mr. Eden, of Salford, being as usual a large and successful exhibitor.

A special prize of 100l., offered by the Earl of Derby, to the town or village in North Lancashire, of 2000 and upwards of population, that shall adopt a similar system of sewerage to that carried on at Wellington College, Sandhurst, found no competitors.

It does.—Implements Messrs. Forrester, Hartley, and Barrows. Cattle—Messrs. Jefferson and Wilson. Horses: Messrs. Angus, Fliswick, and Smith. Sheep, Pigs, Roots, Seeds, &c. Messrs. Baxter, Torr, and Riley. Poultry: Messrs. Hewitt and Teobay. Dogs: Messrs. Fisher and Waller.

The above remarks and the following principal prizes are taken from the *Manchester Examiner*—

CATTLE.—SHORTHORNS.

Best Bull, two years old or upwards.—1st prize and Special Medal.—C. W. Brierley, Rhodes House, Middleton, Manchester, roan, "Bolivar."
 One year old Bull—Crawshaw & Blackley, Headfield Farm, Dewsbury, roan, "Prince Leopold."
 Bull Calf—Colonel Towneley, red, "Baron Collinge."
 Cow or Heifer, above three years old.—Lady Pigot, "Queen of Rosales."
 Two year old Heifer—Rev. L. C. Wood, Singleton Lodge, Wharfedale, white, "Miranda 10th."
 Heifer, not exceeding two years old.—1st prize and Special Medal.—Colonel Towneley, roan, "Oxford Beauty."
 Heifer Calf.—Lady Pigot, white, "Mantelina 2d."

CATTLE OF ANY BREED.

Bull, two years old and upwards.—G. Butler, Preese Hall, Weston, near Kirkham, white, sire "Grand Duke of Lancaster."

Bull, above one and under two years old.—1st prize and Special Medal, R. Thompson, Mythop Lodge, Blackpool, roan, "Prince Thorn," sire "Thornale Grand Duke."
 Bull Calf.—J. Walten, Horncliffe, Rawtenstall.
 Cow in Calf or milk, having had a Calf, and above three years old.—G. Hunt, Frenchwood, Preston, red, "Peereas III."
 Heifer not exceeding three years old.—1st prize and Special Medal, Rev. L. C. Wood, white, "Miranda X." Not exceeding two years old.—J. Milner, Myerscough, near Preston, white, "Princess of Wales."
 Heifer Calf.—J. Farrer, Thorneyholme, Burnley, "Lady Kent."
 New prize—Silver Cup, or 10l., for the best Bill Cow, and Calf, the latter to be the progeny of the two former.—T. Strater, jun., Stand Hall, Whitefield, near Manchester.
 Cup, presented by the secretary, for the best three Short-horns of any age or sex.—Tenant Farmers' prize B. Baxter, Skipton.

HORSES.

Agricultural Stallion.—J. Edmondson, Houghton, Eatwistle, near Burnley, brown, "Young Sampson."
 Brood Mare for Agricultural Purposes.—Rev. J. Pennington, Stonyhurst College, Whalley, roan.
 Pair of Draught or Agricultural Horses, above three years old.—C. W. Brierley, Rhodes House, Middleton.
 Dry or Agricultural Mare or Gelding.—J. and T. Barcroft, Gaghills, Waterfoot, near Manchester, "Smiler," 9 years old.
 Three year-old Gelding or Filly for Agricultural Purposes.—J. Pearson, St. Michael's, Garstang, grey.
 Two year-old Gelding or Filly for Agricultural Purposes.—C. W. Brierley.
 Ditto for Hunting Purposes.—R. Fielden, Walsden, near Todmorden, brown gelding.
 Yearling Colt or Filly for Agricultural Purposes.—R. Harrison, Yorkshire, Burnley, bay.

SHEEP.

Leicester Shearling Ram.—T. H. Hutchison, Manor House, Catterick, Yorkshire.
 Leicester Ram.—T. H. Hutchison.
 White-faced, long woolled, Shearling Ram.—William Norman, Hall Bank, Aspatria, Cumberland.
 Run of the white-faced long-woolled not being of the Leicester breed.—John Pinder, Waddington, near Clitheroe.
 Shearling Ram, Shropshire Down.—J. H. Kearne, Holleth, Lancaster.
 Ram, Shropshire Down.—John Coulthurst, Gargrave House, Skipton, Yorkshire.
 Shearling Ram Wm. Midgeley, Birkett, Newton, near Clitheroe.
 Ram, Lonsk—Wm Midgeley.
 Ram of any other breed, adapted to a mountain district.—George Brown, Windermere, Herdwick.

PIGS.

Best Boar of the large breed, any age.—Peter Eden, Cross Lane, Salford, Manchester, "Gullivar," about three years old.
 Best Boar of the small breed, any age.—Peter Eden, Cross Lane, Salford, Manchester, "Young King."

SCARBOROUGH HAKKNES, AND NORTH AND EAST RIDINGS AGRICULTURAL SHOW.

THIS show was held last week in three fields belonging to Mr. Milhouse, Queen's Hotel, in front of that hotel in North Marine Road, Scarborough. The show was in most respects in advance upon any of the successful exhibitions which have preceded it. The entries were about 150 in excess of those of last year. The total number of entries was 825, including the implement stands. Of this number 50 were of cattle, 51 of sheep (in pens), 47 of pigs, 242 of horses, ponies, and donkeys; and 436 of poultry and miscellaneous entries. Of poultry and pigeons the show was varied, and included some splendid specimens.

The show of cattle embraced some remarkably fine specimens of Durham's famous breed—the Shorthorn. In the catalogue the names of well-known breeders showed themselves, prominent amongst whom was that of the noble owner of Duncombe Park. Singularly enough there was not a single animal shown in the name of the celebrated Booths, though no doubt representatives of the Waraby and Killerby herds were amongst the ranks of competitors. The 1st prize for a bull of any age was awarded to the victor at the Royal show of this year—a splendid roan, the Earl of Derby, belonging to Mr. Wiley, Brand-by, York. The 2d prize winner in the same class is also an animal of unusually fine proportions, belonging to Major Stapylton, of Myton Hall, and bears the appropriate name of Lord Wetherby. In the class of bulls under two years of age Mr. John S. Jordan, Elmsall, Driffield, was successful in carrying off the chief honour with Nestor, whose symmetrical proportions were much admired. This was the second success of the year, the animal having carried off a prize at Bridlington. The bull calf under 12 months which carried off the prize is a beautifully-proportioned animal, such an one as Landseer might love to place on canvass, and belonged to the Earl of Feversham, who also took a 1st for Colonna, a pretty heifer, not exceeding two years old. The prize cow, Lady Valentine—in the class for cows or heifers, above three years, in calf or milk—has been a most successful animal, having taken prizes at Selby, Bridlington, Ripon, and Otley—at the latter place got a silver cup as the best animal on the show ground. She is the property of Mr. Wm. Linton, Sheriff Hutton, York. In the other classes some very fine animals were shown.

The first prize for agricultural stallions was won by Mr. Rd Cole, Gembling, Lowthorpe; and for brood mares with foal at foot, by Mr. C. Leadley, Cloughton, Scarborough. In the special prizes given for the best hunting gelding or mare of any age, Brian Boru, a splendid chestnut horse belonging to Mr. J. B. Booth of Killerby, carried off the silver cup given by the president, Sir Charles Legard, Bart. The silver cup given by Mr. J. Dent Dent, M.P., for the best 5-year-old hunting mare or gelding, was won by Mr. Jas. Darrell, Ayton, Sherburn; that given by Sir Harcourt Johnstone, Bart., M.P., for the best 4-year-old hunting gelding or mare, was carried off by Mr. H. Jewison, of Raisthorpe, York, that given by the vice-presidents of the society, for harness geldings or mares, by Mr. G. Holmes, Bar House, Beverley, and that given by Mr. F. A.

Milbank, M.P., for the best ladies' hackney gelding or mare, by Mr. John Crompton, Thorneholme, Burton Agnes, Hull.

The show of sheep was not large; some very fair animals were amongst those shown. Pigs also were a small but good show. There was a very large show of poultry.

The following is a return of the principal awards:—

CATTLE.—SHORTHORNS.

Bull, any age.—1st, Mr. Wiley, York; 2d, Major Stapylton, Myton Hall.
 Bull, above one and under two years old.—1st, J. S. Jordan, Driffield; 2d, C. Smith, Yarm.
 Bull Calf, under 12 months old.—1st, Earl Feversham, Duncombe Park; 2d, W. Linton, Sheriff Hutton.

SHEEP.—LEICESTERS.

Two-Shear or Aged Rams.—E. Riley, Beverley.
 Shearling Ram.—1st, E. Riley, Beverley; 2d, T. Stampor, Oswaldkirk.
 Pen of 3 Shearling Rams.—1st, E. Riley, Beverley; 2d, J. J. Simpson, Hunmanby.

PIGS.

Boar of large breed.—G. Chapman, Scarborough.
 Sow of large breed, in Milk or Pig.—1st, D. Berryman, Shorburn; 2d, G. Chapman, Scarborough.
 Boar of small breed.—1st, G. Mangles, Ripon; 2d, J. Thompson, Scarborough.
 Sow of small breed, in Pig or Milk.—1st and 2d, G. Chapman, Scarborough.
 Boar of large breed, not exceeding 12 months old.—1st, W. Rudsdale, Yarm; 2d, G. Chapman, Scarborough.
 Sow of large breed, not exceeding 12 months old.—1st and 2d, G. Chapman, Scarborough.
 Boar of small breed, not exceeding 12 months old.—1st, G. Earle, York; 2d, W. Rudsdale, Yarm.
 Sow of small breed, not exceeding 12 months old.—1st and 2d, G. Earle, York.
 Cottager's prize (store pig), the property of a cottager or working man.—1st, G. G. Bilton, Scarborough; 2d, D. Berryman, Shorburn.

HORSES.—AGRICULTURAL.

Stallion.—1st, R. Cole, Lowerthorpe; 2d, W. Simpkin, Burton Agnes.
 Brood Mare, with Foal at her foot.—1st, C. Leadley, Scarborough; 2d, J. Petch, Scarborough.
 Yearling Gelding or Filly.—1st, J. Kirk, York.
 Two year-old Gelding or Filly.—1st, E. Smith, Bridlington; 2d, E. Coltas, Scarborough.
 Three year-old Gelding or Filly.—1st, J. Crompton, Burton Agnes; 2d, Barnett & Robertson, Lowthorpe.
 Pair of Horses.—1st and 2d, J. Simpson, Hunmanby.

JUDGES.—Cattle: Mr. T. P. Outhwaite, Knaresborough; Mr. W. Jobson, Hexham; Mr. P. Knowles, Wetherby; Hunting and Nag Horses: Mr. E. Abraham, Ulceby; Mr. A. Maynard, Saltburn-by-the-Sea; Mr. G. Bolam, Morpeth. Coaching and Agricultural Horses: Mr. W. Wood, Ulceby; Mr. T. Brown, Malton; Mr. R. Robson, York. Implements: Mr. R. Ellerby, Oswaldkirk; Mr. G. Smart, Milford Junction. Poultry, roots, &c.: Mr. J. O. Jolly, York Batter. Mrs. W. Hall, Ganton; Miss Auburn, Scarborough.

MANCHESTER AND LIVERPOOL AGRICULTURAL.

THE CHAIRMAN, in calling attention to the outbreak of pleuro-pneumonia and foot-and-mouth disease, said that the magistrates of Cheshire had determined upon issuing a form of notice for circulation throughout the county, in conformity with the Orders in Council. In the cases of pleuro-pneumonia, the inspector had the power of declaring the farms on which the disease had broken out as infected places; and in cases of foot-and-mouth disease, there was a prohibition against the removal of cattle from the farm on which it occurred. The foot-and-mouth disease had broken out in Tatton Park amongst cattle which had not been in contact with other animals, and he was told that it had also occurred at Lyme, but he had not the slightest idea how it had originated. He had not heard of any case of pleuro in his neighbourhood, but he was told that there was a great number of cases in Broxton Hundred and that part of the county.

The Cultivation of Farms.—Messrs. W. Rothwell and T. Ryby, the inspectors of the farms which had been entered for the Society's premiums and prizes, reported as follows—

"We have pleasure in saying that all the claims submitted to our inspection have been of a very deserving character, but we have had little difficulty in awarding the prizes claimed, as there has been some direction, either as to quality or proportion of work done, specified in the offer of premium which has aided us in arriving at a decision conformably to its intention. Only in one instance have we found much perplexity. Two claimants in the high-lying portion of the district, with farms of a totally different natural character and position, ask for the same premium. Both are large farms, and both are managed with great skill and enterprise, and it has required minute and comprehensive criticism to decide which was best. In awarding the prize as we have done we placed before our minds the standard of excellence to which we conceived it possible for both to attain, and then compared them with this standard. The winner came nearly up to it in all his crops save one, while the other was deficient as we considered, in two points of management, and also in that complete neatness and finish of the whole which should characterize a prize farm. We regret that so few of the prizes for laying down land to Grass have been claimed, as we consider this to be one of the most important points of good husbandry in such a district as that embraced by our society; and we respectfully suggest for your consideration before the annual meeting that it might enlarge the number of claims in future years if a rule were made similar to that applied to farms, prohibiting the winner from competition with the same occupation for three years. A reference to the journal reveals the same names as winners or competitors almost every year in succession, but, while this is creditable to them, it may, and we think does, prevent other farmers outside their circle engaging in the same competition. We regret even more that none of the silver medals offered to owners or occupiers have been claimed; and we would respectfully suggest to such gentlemen that this omission amounts to the neglect of a fine opportunity for stimulating their tenants to better practice in farming. Farmers have a right to their, or in the teachings of such a farmer they may be permitted with the practical appeals to their minds by results they can understand and appreciate; and a farm well tilled and heavily cropped, with good stock upon it, neat, well-kept fences, and good occupation roads, is an argument which speaks, quietly it may be, but constantly and as efficiently as to induce some imitation in almost every neighbour. The best farming in the two counties is found upon our prize farms and in their immediate neighbourhood. Example pro-

vokes emulation. A good farmer and a prize farm are most influential in the district in which they exist; and we think that the agents or bailiffs of landed estates could not better serve their employers than by joining in competition, as we believe that the best stimulus to enterprise and perseverance among the tenantry around. As respects the farming and the crops this year in the district of the Society, we notice a decided improvement annually in the former. Arable land is now kept cleaner when in green crop than formerly. Manure is applied with a more liberal hand and in a more systematic manner. The succession of crops planted is more studied and better known. Improved implements and machinery are pressed into service. Labour is higher, but it is more economical. The push and energy of the business man is being copied by the farmer, and the tenancy of events seems to be bringing successful agricultural practice more and more within the range of thoughtful calculation, liberal outlay, careful living, and persevering application. As regards our farm crops this year in the districts we have visited, we report them a full average generally. Grass has been plentiful, hay crops abundant, Wheat, Oats, Beans, and Barley variable, but an average. Potatoes, Turnips, and Mangels very promising. The best and healthiest crops of all kinds are on the best farmed lands invariably. Dairy stock has milked well, and notwithstanding the prevalence of much unseasonably cold weather, we look forward especially to the ingathering of the harvest of the year.

The following is a list of the principal awards made by the inspectors.—

BEST CULTIVATED FARMS SITUATE IN THE LOW LYING PORTION OF THE SOCIETY'S DISTRICT.

- To the tenant and occupier of not less than 150 acres.—10^l, Mr. W. Johnson, Halebank.
- To the tenant and occupier of not less than 100 acres, and under 150.—8^l, Mr. T. Williamson, Linacre
- To the tenant and occupier of not less than 50 acres, and under 100 acres.—6^l, Mr. J. Clayton, Kirkby.
- To the tenant and occupier for the best managed dairy or grazing farm, of not less than 200 acres.—10^l, Mr. Thomas Kerr, Knotty Ash.
- To the tenant and occupier for the best managed dairy or grazing farm of not less than 100 acres, and under 200.—8^l, Mr. J. Cornes, Hurleston

BEST CULTIVATED FARMS IN THE HIGH LYING PORTION OF THE SOCIETY'S DISTRICT.

- To the tenant and occupier of not less than 150 acres.—10^l, Mr. H. Higson, Pendleton, Manchester. Mr. Lawton, of Culcheth Hill Farm, Warrington, was a claimant for the same premium, and was awarded the Society's medal, and allowed the privilege of competing next year.
- To the tenant and occupier of not less than 100 and under 150 acres.—8^l, Mr. Shuttleworth, Prestwich.

DRAINING, OPEN TO THE WHOLE OF THE SOCIETY'S DISTRICT.

- To the tenant and occupier of not less than 150 acres, who shall drain the greatest quantity.—8^l, Mr. T. Warburton, Bewsey.
- To the tenant and occupier of not less than 100 acres and under 150, who shall drain the greatest quantity.—6^l, Mr. J. Hornby.
- To the tenant and occupier of not less than 70 acres and under 100, who shall drain the greatest quantity.—4^l, Mr. J. Garner, Tattenhall

LAYING DOWN LAND TO GRASS (LOW LYING DISTRICT).

- To the tenant and occupier of a farm of not less than 150 acres, capable of arable cultivation, who shall lay down in the best manner for mowing not less than 15 acres.—5^l, the executors of the late Mr. R. Bond, Stand Farm, Althwaite.
- To the tenant and occupier of not less than 100 acres, and under 150, who shall lay down in the best manner not less than 10 acres for mowing.—4^l, Mr. Gilbert Halsall, Hildon.
- Not less than 7 acres laid down for mowing on a farm of not less than 50 acres and under 100.—3^l, Mr. H. Williamson.

LAYING DOWN LAND TO GRASS (HIGH LYING DISTRICT).

- To the tenant and occupier of a farm of not less than 150 acres, who shall lay down in the best manner for mowing or pasturage not less than 10 acres.—4^l, Mr. H. Nield, the Graze, Worsley.
- Not less than 7 acres, on a farm of not less than 50 acres.—3^l, Mr. W. Carver, Kenyon.

Farm Memoranda.

THE HARVEST IN KENT.—Reports from Boughton Monchelsea state Wheat to be below an average, but secured in fine condition. Where threshing has already taken place, the yield is not up to the estimate. Oats are short; not more than two-thirds of an average. Beans above an average. Peas about an average. Not much Barley grown. The hay crop was very heavy, and got up in good condition, excepting a few stacks of early cutting. The few roots grown are very fair. Hops: some tolerably good, some very bad. According to present appearances, the quality on the clean bine will be very good. Fruit: Apples short, Nuts a pretty good crop.

In the neighbourhood of Dartford the crops generally not very good. Threshing having commenced, it is found that the yield is below the average, and Wheat fully 1 quarter per acre short of previous expectations according to the quantity of straw, in some places not yielding more than 1 quarter of Wheat to one load of straw. Oats and Barley but middling. Peas and Beans a short crop. Tares almost a failure. Swedes and Turnips a fair plant, but now suffering for want of rain. The Hops are a bad crop; there will be some good bright Hops grown, but the average cannot be more than 3 or 4 cwt per acre.

A correspondent from West Farleigh says—From what I have seen and been enabled to collect, I believe the following to be a fair statement of the crops in this neighbourhood:—Hops: very plabby, many grounds severely blighted, others partially so; some a fair crop, but none a full one. As regards the washing of Hops, planters differ much; some have found no benefit, others a little; some, however, speak well of it, as I do. Wheat: the straw mildewed to some extent, and both quality and quantity short of last year, though that was an exceptional one; this year will fall below an average. Oats and Beans partial; not a full crop. Of Barley we have little. Hay an extraordinary crop. Clover a short, poor crop. Apples seem, from the dry weather, small. Filberts a pretty good crop. Potatoes not blighted, and yield well. We have had no trial this year, as blight has ever followed heavy rains when the Potato was ripening. With regard to Turnips, I fear if the dry weather continues they will be a failure; they grew well at first, but are sadly

suffering for want of rain. Mangel is going on pretty well.

THE HARVEST IN SOUTH DURHAM.—The weather continues to be beautifully fine in South Durham and North Yorkshire, and the harvest is becoming very general. A large area of Wheat is ready for cutting, and within the next five days a great amount of work will be done in harvesting. The crops are very excellent, and Wheat seems to be a good average. The Turnip crop is very good.

HOP PROSPECTS.—The following most favourable reports of the Hop prospects appeared in the *Maidstone Journal* of the 30th ult., and are confirmatory of others, which we have not space to give at length. The recent hot weather has exercised a beneficial action upon this crop—

Maidstone and adjoining Parishes, Aug. 30—Since our last report, the Hops have made great progress. The principal gardens will commence picking within a week or 10 days, while those that are slight and bad will not be picked till a month's time.

Aylesford—During the last few days the Hops have come out fast, and are now looking tolerably well. Picking is expected to commence in a fortnight.

Bearsted—Since our last report, the Hops have done exceedingly well, even where not much was expected of them. In this neighbourhood there are some very good pieces, which will produce from 10 cwt. to a ton per acre, but the gross average will be much smaller.

Brasted and Sundridge—The warm weather has caused a few grounds to improve, and these will grow a moderate crop. There is but little mould.

Cranbrook—The weather has been forcing this week, and a general improvement is observable in the Hop grounds, many of which are now in full flower, and look extremely handsome. Our crop will be larger than was at one time thought possible.

Farningham, August 28—In some grounds there is a prospect of a moderate crop. No appearance of mould yet.

Orlestone, Warehorne, and Kennardington—The Hops in these places have done well the last part of the week; average, 3 cwt. per acre. Picking will begin in a fortnight.

Sutton—Since the warm weather set in, the hops are doing better all round. The average growth is expected to be about 4 or 5 cwt. per acre.

Westerham and the Vale of Holmesdale—Since our last report the weather has been more favourable, and in a large number of plantations the burr is turned into Hop, but in others it is at a standstill.

The Poultry Yard.

POULTRY FEEDING.—One of the principal arguments urged against poultry-keeping in general is the expense of keep. It is true where everything has to be purchased for the consumption of the fowls the account-book does, for certain months in the year, show a balance on the wrong side; but then must be remembered the months during which, at the same cost, the birds were valued producers, and eggs and chickens were plentiful. Poultry food has had a very fair trial from the early days of the Cochins China fancy until now. It will be remembered by many that, when in these birds size was fighting against symmetry for the approval of the judges, anything, unwholesome or not, was given to stimulate their growth. Ridiculous, in some cases, were the means employed to induce the already large birds to eat more and grow bigger. We knew of one ardent fancier who hung a bell on to one of the perches on which his Cochins roosted, and was in the habit of going into the poultry-house the last thing at night with a dish of hot food in one hand, and a bull's-eye lantern in the other. Placing the dish on the ground, he used to turn the light on to it and ring the bell. The birds soon got accustomed to it, and without waiting for the bell soon got to know the gleams of the lantern, and when the door was opened one would see all the heads at once stretched out awaiting the dish. By this, and many other contrivances, size was attained, but at the expense of quality, and at the cost of many valuable birds. Dissection told in many a case, where a positive or promising prize-winner had seemed dull for a day, and then died, that meat feeding and spiced stimulants must tell. The gizzard had worked as long as it could, and when the ordinary grit would no longer triturate the unnatural food, the poor bird, in its extremity, had picked up pieces of crockery, iron, glass, &c., to assist. The fanciers and amateurs in that day took the lesson to heart; and if our Cochins are not now as large, they are smarter, more symmetrical, certainly harder, and consequently more useful. There appears now again a tendency towards meat feeding for our poultry. The experience with the Cochins should teach us. Let all poultry food be as good as can be procured, the diet as varied as possible, but varied only in grain, meal, and green-meal. More birds suffer from excessive and irregular feeding than from short rations; and where, from confined space, or other reason, it is necessary or convenient that the fowls be fed from a pan, never let the food stand by them, but as soon as they have tolerably well fed, take the pan away, that they may move, and encourage a healthy and easy digestion, preparatory to the next feeding time. The French, while perfecting the cramming system for their fattening poultry, feed their stock birds very differently, and any one who has attended the principal *concours agricoles* where the best birds meet, may have noticed the attention they receive at the hands of their owner or *bonne*. Differing from our poultry show arrangements, the owners and feeders have constant access to their birds during the shows. Early in the morning they may be seen giving

them a hearty feed of sopped bread or slaked meal; in the course of the forenoon a lettuce, or bunch of cresses, or handful of grass or clover finds its way into the pen. During the afternoon a handful of maize, bran or barley, and possibly a little hempseed is thrown in, and at the close of the day, if there be a little more bread or a little more meal offered, it is daintily picked over by a satisfied bird, who may say with the epicure who feasted on potato salad—

“Fate cannot harm me,
I have dined to-day.”

THE FIRST OF SEPTEMBER.—On Wednesday last, all the topics of the day paled before one—and that one was partridge shooting. With the first day of September comes a very enjoyable season to a great many of us directly, and to many more indirectly. Thousands to whom the moors are as inaccessible as the Antipodes, arrange, and work hard for months, to obtain a few days or sometimes even only a day's partridge shooting. Sons in business in London bring down friends. Men invite down friends of their youth. Some let their shootings and make friends of their lessees. The invalid to whom mutton, chicken and sole, have become distasteful, brightens up at the thought of a partridge for a change; and we wish him a friend to kill one for him, and a good appetite for it when he gets it.

The following answer to “Coney's” inquiry has been received:—Is it not possible your correspondent's rabbits have access to poisonous food? I have known rabbits thrive well when fed on bran, mixed with about one-sixth part of Oats; this was given in the morning, and a meal of sound waste Cabbage leaves in the afternoon. The food was little varied, excepting letting the old rabbits have a little milk to drink occasionally, and they all kept in perfect health, but would gnaw at anything, including painted wood. E. O.

Miscellaneous.

Food of Horses.—Four horses in the south pit at South Hetton Colliery had placed in their respective mangers, 9½ lb of Oats, and 1 lb. of long hay in the cribs by the side of the mangers. Four other horses in the same stable had the same weight of bruised Oats placed in their mangers, mixed with 4 lb. of cut hay. This was done before the horses came into the stables from work, so that each horse commenced eating his food at the same time. The four horses, with the Oats and long hay separate, ate up their food in the following period:—1st horse finished his Oats and long hay in 52 minutes; 2d in 46 minutes, 3d in 61 minutes; 4th in 46 minutes—total 205 minutes. The four horses with bruised Oats and cut hay mixed:—1st horse finished his food in 61 minutes; 2nd in 51 minutes; 3d in 71 minutes; 4th in 59 minutes—total, 245 minutes. In the above experiments, which may be taken as a general average, care being taken to get the animals all under eight years old, all within an inch of the same height, and all with a common average appetite, we see that the difference in the time occupied by four horses eating the same weight of provender is 40 minutes in favour of mixed food. A horse 15 hands 3 inches high secretes from the parotid glands alone, during active mastication, about one gallon of saliva per hour; and from the experiments of physiologists, the other three pairs of salivary glands, and the mucus glands of the mouth, are supposed to secrete nearly four times the quantity, making in all about four gallons of saliva to be mixed with the food of each horse during one hour's active mastication. In 1844, an aged bay horse, 15 hands 3 inches high, had the tubes leading from the parotid glands divided on either side, and so fixed as to throw their contents into vessels held for that purpose; the animal was then fed upon oats. After fasting six hours, the amount of secretion from the two tubes was half a gallon in thirty minutes, the whole of which time the animal was masticating. This physiological fact proves that, by mixing cut hay with the Oats, each animal had, in the before-mentioned experiment, 3½ pints of saliva mixed with the same weight of food more than those which had their oats and hay separated. We consider this to be one of the most important advantages obtained by cutting, bruising, and mixing the provender; for not only is the food threefold more easily digested when so masticated and mixed with saliva, but we think the animal receives a far greater amount of nutriment from the same weight of food. The animal's stomach would labour in vain to digest the food as perfectly, if it were not so well masticated and mixed with the fluids of the mouth, and all provender not thoroughly digested imparts but little of its nutriment to the body. The importance of giving horses a variety of kinds of provender mixed together, cannot be too strongly recommended. I have no doubt that pit horses can be kept in as good a working condition, doing the same amount of labour upon ½ boll (a Newcastle boll = 2 bushels) of Oats, two stones of Beans, one stone of bran, seven stones of hay, and one stone of straw per week, if bruised, cut, and mixed together, as they could be upon 1½ boll of Oats and 10 stones of hay, if given unbruised, uncut, and unmixed, which would stand thus—

2 boll of Oats, at 8s. per boll of 2 bushels	£0 6 0
2 stones of Beans, at 1s. 8s. per stone of 14 lb	0 3 4
1 stone of bran, at 1s. per stone	0 0 9
7 stones of hay, at 9s. per stone	0 4 6
1 stone of straw, at 1s. per stone	0 0 11
	£0 14 10½
Unbruised and Uncut Food	£0 12 6
1½ bolls of Oats, at 8s. per boll	0 6 0
10 stones of hay, at 9s. per stone	0 6 0
	£0 12 6

Supposing the above table to be correct, it would make a difference in favour of the mixed food system at South Hetton and Murton, with the present number of horses, of upwards of 1500*l.* per year. I shall briefly recapitulate some of the principal advantages derived from the plan of feeding, as adopted at South Hetton and Murton Collieries. 1. The animals' provender is better masticated and mixed with the fluids of the mouth, consequently easier and better digested, and more nutriment obtained than when the Oats are given whole, the hay uncut and unmixed; therefore, a less quantity of food is required. 2. The state of the digestive organs of animals so fed is better than when the provender is otherwise given. In an average number of 220 animals, during nearly four years, diseases of the digestive organs were very seldom seen, having only averaged 0.45 per cent., which is nearly twenty times less than what occurred at East Hetton under the old plan of feeding, and which is more than twenty times less than that which takes place in agricultural horses. 3. No hay is spoiled in going down the pits, in the workings, or under the animals' feet at night. 4. Horses do not eat less hay by its being cut; where the advantage is gained is, that the animal is compelled to masticate his other provender much better by being mixed with cut hay than he otherwise would do. The only saving of hay effected by cutting it into chaff is, that which would be wasted in going down the shafts, in the workings, and in the stables under the horses' feet, which we believe would average at least 2 lb. for each horse per day. This waste, in an establishment like South Hetton, would amount to 473 lb. per day, or, taking hay at 6*l.* per ton, to the very large sum of 462*l.* per year. 5. It is of the utmost importance for the general good health of horses in a large establishment to use a variety of kinds of provender. We use at South Hetton Oats, Beans, Peas, bran, Barley, Tares, Luseed, old and new land hay, green Clover and Tares, Turnips, and straw. 6. In an economical point of view, it is very important to regulate the quantity of each kind of provender according to the amount of labour the animals have to undergo. Thus, if the pits are working eleven days per pay, with occasional overtime, leguminous seeds and bran should be largely given, and less Oats and straw; and, *vice versa*, when the pits are working only seven or eight days per pay, the Beans, Peas, Barley, &c. should be decreased, and the Oats, straw, &c. increased; and in all cases where horses and ponies are worked extremely hard, nothing would be more economical than to employ a person to give every animal a feed of corn about the time that the foreshift men are leaving their work.—*Mr. Huntley before the Newcastle Farmers' Club.*

Tenants and Game Preservers.—Recently, at the Leeds Assizes, Mr. Thomas Dickons, a tenant under the Duke of Portland, obtained a verdict for 500*l.* damages on account of a libellous statement which certain parties who rented the game under the Duke had made against him. The game lessees accused Mr. Dickons of disturbing the game by dogs and other means, also of instigating other tenants on the property to do the same. The consequence was a discharge from the Duke's steward, whereupon Mr. Dickons brought an action, and was successful in obtaining a verdict. The libel was in the form of a letter from the associated gentlemen who leased the game to the agent, in which was represented at some length the injury inflicted on the game by Mr. Dickons and his dogs. The defence was principally based on the assumption that the letter was a privileged communication, and the learned judge appeared to lean to the same view. The jury, after two hours' deliberation, came, after some difficulty, to a unanimous decision in favour of the plaintiff.

Maize as Food for Horses.—It appears from the report of the half-yearly meeting of the London General Omnibus Company, that Maize has been used by the company during the last half-year exclusively, instead of Oats. The report states: "The very encouraging results which attended the use of Maize as provender in the previous half-year induced the directors to adopt it still more extensively during the past half-year, and at length to substitute it entirely for Oats. During the summer no other corn had been used for the working studs. The substitution of Maize for Oats effected a saving of 14,172*l.* in the half-year."

Calendar of Operations.

SEPTEMBER.—In our northern counties this is generally counted harvest month. In early seasons much of the crop is cut down in August, but in late ones the work of ingathering extends into October. Harvest operations begin in Sussex about a month or six weeks before they commence in Caithness, there being a difference of rather more than a month between early and late seasons. Hence the bands of Irish reapers, and what make their appearance in the south of England, return home from Scotland. The harvest is also later in elevated districts than in low ones, and the difference in many places is greater than that due to latitude. Thus harvest is earlier along the shores of the Cromarty, Beaulieu, and Moray Friths than in Banff, Aberdeen, Kincardine, and Fife shires, and the more elevated counties of the North of England. Drainage and improved cultivation, including manuring and seeding, have advanced the harvest fully a month in almost every county of the kingdom. The weather, too, although generally good in England, often begins to break and become fickle about this time, so that September is more particularly characterised by the above differences than its predecessor, more especially in late districts where Oats is the principal crop grown, and which in bad seasons is often prematurely ripened by frost. In the late districts of the North the farmer's weather-glass is consulted with an interest not known in the early ones of the South. In the South, again, wet weather in the early

part of the month is sometimes attended with a high temperature, so that the corn is liable to sprout in the stook and heat in the stack. Small sheaves loosely bound is the best protection, being less liable to vegetate, while they are more easily dried for stacking; and the stacks, whether long, on the English plan, or round, on the Scotch, should be built on elevated stands, with open framing, to keep up the centre of the stack and let in air.

Buckwheat, in fine seasons, will be ready for harvesting in the early part of the month, and in late ones towards its close. As the plant flowers and ripens its seed at the same time, the crop should be cut before the first ripened seeds begin to shed. When cut it is left in loose bundles till the green portion is dry, and should be turned gently once or twice, according to the weather, taking care not to shed the seed. The bundles may be bound up and stacked as Turnip seed; but it is more common to thresh out the seed, and stack the straw for litter.

Hop-picking is due this month. When grown on poles, the general practice, the lines are cut about 2 or 3 feet from the ground, which allows the loaded poles to fall over upon a table or "bin." If equally ripened, the Hops may be bagged as one quality; but, if otherwise, they may be divided into three qualities in the picking,—the dark, or over-ripe; the brown, or ripe; and the green. The Hops are next taken to the oast, kiln-dried, and put in pockets when cool. Fine dry weather in picking is essential to success, and any dew in the morning must be off, as the slightest damp injures the flavour or bitter principle, thereby reducing the market value of the crop.

Aftermath-hay, or meadow-hay farms, is made during the month. The practice is similar to that of harvesting the first crop, with two exceptions—the weather and greater succulency of the Grass—and the softness of the hay and increased liability to overheating in the stack. If, however, the weather is fine, the mowing and haymaking machines now in use soon bring the crop into the stackyard. As the Grass may be allowed to grow for a short time without sustaining comparatively any harm from running to seed, the mowing machine should never be yoked in wet or unsettled weather. However, the crop should not be allowed to grow so rank as to become blanched at the bottom. When cut short and green it makes fine forage for soiling milch cows and stock generally; and as much of the aftermath should be consumed this way as practicable, the crop being worth more when green than when made into hay.

Seed Clover is very generally harvested, in early seasons, about the beginning of the month, and the later ones towards its close; the crop having been mown or fed in May or June, insures a greater uniformity of flowering and ripening. The crop may be cut with the mowing machine in preference to the scythe, the former, if sharp and cutting well, effecting less tearing and shedding of the seed than the latter; but the after operations are better done by manual labour than by horse machines. If the mower leaves the Clover in a swathe, then the swathe, when the upper side is dry, should be gently turned as directed in making Clover-hay. In fine dry weather the crop is soon ready for the stack or hay-barn; but in wet unsettled weather the harvesting of seed Clover requires no end of patience, to avoid heating and mouldiness.

Permanent Grass.—Lay down land as soon as crops are removed. This plan is to be preferred to sowing the Grass seeds with the corn crop, as a much closer and better plant of young Grass can be obtained before winter.

Autumn fallows.—The application of steam-power to the cultivation of land in autumn, as soon as the different crops are removed from the ground, is one of the most important of modern improvements in agriculture. The advantage of breaking up stubble-lands early has been known to farmers from time immemorial, but until less or more rain falls horse implements could not be successfully worked on heavy soils. These, too, stand most in need of deep thorough tillage at this season; and it often happens that, when once the weather breaks, too much rain falls before the work can be done by teams. It is otherwise with the steam-plough and cultivator, which can be worked as soon as the crops are off, and the drier the land the better.

Milch Cows, unless on the richest pastures, require a daily supply of green forage of some kind. The produce of irrigated meadows is the best. Tares, Lucerne, and Sainfoin, are grown purposely to afford the daily supply required; but in too many instances cows are hard put to this month. Old cows may be allowed to go dry for fattening.

Farm Horses.—Autumn fallowing, and the practice of taking stolen crops of Turnips have greatly increased the labours of the teams, as compared with the old practice of a short breathing time after the work of ingathering; consequently, they now require to have a full allowance of corn.

Swine.—As last month, keep the piggeries as cool and clean as possible, and avoid food of a heating character. *W. B.*

Notices to Correspondents.

FARM PROFITS: "Half Pay, and his Cows," *G. A. H.* Too late for this week. Why leave a short communication on a current subject till it cannot reach us before Friday?
RAPE CAKE, ITS CHEMICAL COMPOSITION, &c.: *Horticulturalist* writes as follows:—"Having for many years used rape-cake, crushed fine, for top-dressing Wheat, and drilling with Turnip seed with the greatest success (in fine, I consider it the best of artificial manures), I shall be greatly obliged by any of your numerous readers informing me, through the medium of your columns, its constituents, the proportion of phosphates, and ammonia; and also if, for garden purposes, it will answer to use as liquid manure—if so, the quantity, in weight, to 36 gallons of water."

E. T. ARCHER'S "FRIGI DOMO."—Patronised by Her Majesty the Queen, the Duke of Northumberland for Syon House, His Grace the Duke of Devonshire for Chiswick Gardens, Professor Lindley for the Horticultural Society, and Sir Joseph Paxton for the Crystal Palace, Royal Zoological Society, Royal Gardens, Kew, &c.
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 White or Brown, made of prepared Hair and Wool, a perfect non-conductor of heat or cold, keeping a fixed temperature where it is applied. It is adapted for all Horticultural and Floricultural purposes, for

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 Two yards wide 1s. 9d. per yard run.
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 Squares 20 by 12, 20 by 13, 20 by 14, 20 by 15.
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 Stock sizes, 16-oz., in 100 feet boxes, boxes included.
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11 by 9	12 by 9	13 by 9	14 by 9	4ths.	3rds.	2nds.
12 " 10	13 " 10	14 " 10	15 " 10	15 6	15 6	17 6
13 " 11	14 " 11	15 " 11	16 " 11			
14 " 12	15 " 12	16 " 12	17 " 12			
15 " 12	16 " 12	17 " 12	18 " 12			
16 " 13	17 " 13	18 " 13	19 " 13	15 6	16 6	18 6
17 " 13	18 " 13	19 " 13	20 " 13			
18 " 14	19 " 14	20 " 14	21 " 14			
20 " 14						

SMALL SHEET SQUARES.
 In 100 feet Boxes.
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30 by 12	15 oz.	12s. 3d.	15s. 6d.	16s. 9d.
30 by 13	15 oz.	12s. 3d.	15s. 6d.	16s. 9d.
30 by 14	15 oz.	12s. 3d.	15s. 6d.	16s. 9d.
30 by 15	15 oz.	12s. 3d.	15s. 6d.	16s. 9d.
30 by 16	15 oz.	12s. 3d.	15s. 6d.	16s. 9d.

SMALL SHEET SQUARES, 15 oz., per 100 feet.

in. in.	in. in.	in. in.	in. in.	4ths.	3ds.	2nds.	Best.
6 by 4	7 by 5	8 by 6	9 by 7	11s. 3d.	12s. 6d.	14s. 0d.	15s. 6d.
8 by 4	9 by 5	10 by 6	11 by 7				
10 by 8	12 by 9	14 by 10	16 by 11				
10 1/2 by 8 1/2	12 1/2 by 9 1/2	14 1/2 by 10 1/2	16 1/2 by 11 1/2	11s. 9d.	14s. 9d.	15s. 3d.	17s. 6d.
11 by 9	13 by 10	15 by 11	17 by 12				
11 1/2 by 9 1/2	13 1/2 by 10 1/2	15 1/2 by 11 1/2	17 1/2 by 12 1/2				

LARGE SHEET SQUARES, 15 oz., per 100 feet.

in. in.	in. in.	in. in.	in. in.	4ths.	3ds.	2nds.	Best.
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16 by 10	18 by 12	20 by 13	22 by 14				
16 1/2 by 11 1/2	18 1/2 by 12 1/2	20 1/2 by 13 1/2	22 1/2 by 14 1/2	12s. 3d.	15s. 6d.	16s. 9d.	18s. 0d.
17 by 11	19 by 12	21 by 13	23 by 14				
17 1/2 by 11 1/2	19 1/2 by 12 1/2	21 1/2 by 13 1/2	23 1/2 by 14 1/2				
18 by 11	20 by 12	22 by 13	24 by 14				
21 by 11	23 by 12	25 by 13	27 by 14				
23 by 12	25 by 13	27 by 14	29 by 15				

The above Prices are only for the Sizes stated; if a quantity of any other Size be required, a Special Price will be given.

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Per cwt.—s. d. Per gallon.—s. d.
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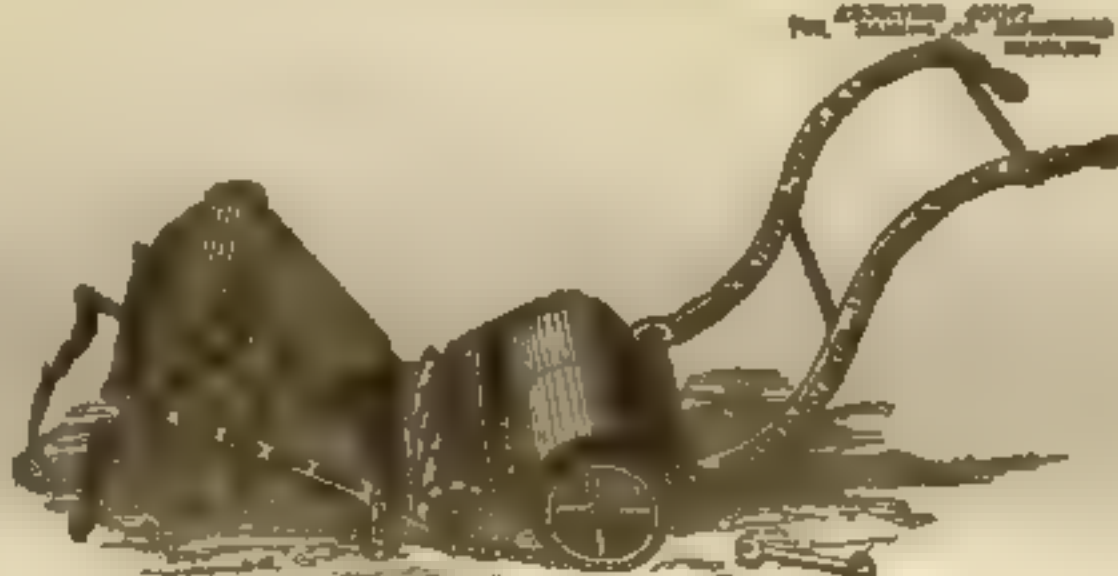
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" 12 "	.. 4 10 0	"
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The above MACHINES are made from the best materials, and of superior workmanship; are delivered Carriage Free to all the principal Railway Stations and Shipping Ports in England, Ireland, and Scotland. HORTICULTURAL and AGRICULTURAL IMPLEMENTS, GARDEN SEATS and CHAIRS, FOUNTAINS, VASES, PLAIN and GALVANISED WIRE NETTING, and ORNAMENTAL WIRE WORK of every description. Having very extensive Premises in London, we are in a position to do all kinds of Repairs there, as well as at our Leeds Establishment.

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Then a minority only of our best cultivators, both North and South, took part, while now, instead of having four or five entries in some of the more important classes, we had from 15 to 24. Then it was only nominally, so to speak, that English growers competed; now the competition was more purely national, for most of the counties had representatives in the various classes of fruit and flowers. In the matter of Pine-apples there is no advance. In Peaches, Apicots, Plums, Apples, and Pears there was a decided falling off in general good quality, which may be attributed to the exceptional season. But the tables of the magnificent hall groaned with a load of the most luscious of fruits—Grapes. The collections of themselves were, taken in the aggregate, worthy of the highest commendation. No less than 12 persons competed for the "16 sorts," and six for "20 sorts." The battle for position was confined to three dukeries and an earldom, represented by the names of STEVENS, of Trentham, JOHNSTONE, of Glamis Castle, THOMSON, of Dalkeith, and INGRAM, of Alnwick; while in the smaller section, MATHIESON, of Tulliallan, LEES, of Tynninghame, and TEMPLE, of Balbirnie, took precedence, being placed in the order in which they are named. The post of honour must, however, be assigned to Mr. GEORGE JOHNSTONE, who won easily the principal Grape prize of the day, and who was 1st in 10 other of the Grape classes, amidst such a host of competitors! Never in the palmiest days of our greatest champions has such a success been achieved! It goes to show what young Vines and well made borders can do under skilful management. In this case they are all aerated on Mr. FOWLER'S principles.

What heightened the effect of the show as a whole, was the admirable manner in which the flowering and decorative plants were arranged in the adjacent hall. Usually in Edinburgh this has been open to hostile criticism, but what with the effective and beautiful plants sent for competition from a variety of districts, and agreeable vistas arranged for and opened up, from the entrance to the orchestra, the *coup d'œil* was picturesque and interesting. Then the new and rare plants sent by the Messrs. VEITCH formed quite a treat of themselves, while the Orchids and Heaths, the one from Dalkeith and the other from Tynninghame, far excelled what is usually seen exhibited north of the Tweed.

SOME time since, when an appointment was made in the BOTANICAL DEPARTMENT of the BRITISH MUSEUM, we were not a little surprised, not to say disgusted, to find that one of the conditions imposed upon the candidate for the office was that he should be subjected to an examination by the Civil Service Commissioners. If this examination had had reference to botanical subjects or museum duties, there would have been no reason for surprise; but to subject a well educated gentleman, a graduate of the University of London, whose examinations are known to be the most searching of all similar ordeals, to a test such as is properly enough imposed on unknown men, or on those whose qualifications have not been tested, was to degrade the candidate, and offer an insult to the University. We are glad to find that Mr. JAMES BRITTON, who has recently been appointed to an office in the Royal Herbarium at Kew, has not had to undergo such a degradation.

A correspondent points out that the CYRTANTHUS M'KENII, referred to at p. 641, is not specifically distinct from the CYRTANTHUS LUTESCENS, figured in the "Botanical Magazine" (t. 5374). However this may be, and there certainly is a very close resemblance in structure between them, the two may be regarded as distinct for all garden purposes, the one being white-flowered, and the other yellow. Both are South African plants.

We have received from Mr. SCOTT, of Merriott, several varieties of Apples, grown on (SCOTT'S)

POMMIER DE PARADIS STOCK, to show how healthy and prolific Apples are, worked on this stock, even in a season like this, in which, we are informed, not a quarter of an inch of rain has fallen at Merriott since May. Amongst them were very fine examples of the Gravenstein, richly flavoured. Another variety, called Lady Derby, which Mr. SCOTT had from Leicester (but little of its history is known), is fine in size, and very firm in texture. Along with them came fruit of the Pommier de Paradis, as grown in his nursery, and which is small, of a yellowish lemon colour; the flesh is tender, brisk, and juicy, with a slight acidity, and bears considerable resemblance to Christie's Pippin.

New Plants.

—DAVALLIA MOOREANA, *Masters, sp. n.**

Fronde ample, quadripartite or decompose, triangular, pale green, chartaceo-membranaceo, or subcoriaceo; pinnae pyramidatè triangulari acuminatè, the lower ones a foot or more in length; primary pinnules much acuminatè; secondary ones ovate or obliquely oblong-ovate blunt, divided into blunt oblong or ovate segments, the larger of which are cut down to the costa into cuneate unequal sided lobes; veins forked, free, club-shaped at the apex, terminating within the margin; sori solitary on and occupying the anterior side of the ultimate segments, very prominent on the upper surface; indusia oblong sub-truncate, scarcely convex, the mouth expanded in age; rhizome stout, creeping, producing fronds at short intervals, and clothed with dark brown lanceolate slightly-toothed scales; stipes and rachides smooth, pallid.

This is one of the most beautiful stove Ferns which have yet been introduced to our gardens, and is



remarkable in its family for its graceful habit, its large size, combined with its small sub-divisions, its pale green colour, its smooth surface, and its bullate sori; the latter are remarkably prominent on the upper surface, very much in the way of those of *Leucostegia immersa*, which species indeed the whole aspect of the plant recalls, though it is totally distinct therefrom in its evergreen habit, its much more ample development, and its differently-formed sori. The plant is a native of Borneo, whence it was introduced by Mr. Lobb to the collection of Messrs. Veitch & Sons, by whom it has been exhibited during the past season, and who have received for it the award of a First-class Certificate. We have specimens of what appears to be the same Fern gathered in the New Hebrides by McGillivray.

The rhizome, which is as stout as one's little finger, is of a less rapidly elongating habit than in many other *Davallias*, and appears to prefer to grow half embedded in the soil; it is clothed with narrow lanceolate dark-brown scales, which are somewhat toothed at the margin. The stipes is about the thickness of a stout straw, from a foot to a foot and a half long, quite smooth and pale-coloured, as are also the somewhat slender rachides. The fronds, independently of the stipites, are from 2 to 3 feet long, and from 1 to 2 feet wide at the base, triangular and pointed, of a graceful arching habit of growth, and most elegantly cut into a multitude of small blunt oblique soriferous segments. Their colour is a pale green, and they are very remarkable for the dotted appearance presented by the upper surface from the prominence of the sori. The obliquely ovate pinnules (secondary) are about an inch long or rather more, the pinnulets (tertiary pin-

nules) from a quarter to half an inch long. The form of these latter is shown in the enlarged separate figure of our cut, while the principal figure gives as good an idea of the general character of the frond as is possible on so limited a scale. The sori have the elongate cup-shaped form of those of the true *Davallias*, but, apparently on account of the bulging in the upper surface, the indusium is almost flat. It should be added, that the plant is quite different from the *D. Moorei* of Hooker. T. M.

THE LATE FREDERICK SCHEER.

ON December 30 last, died at Northfleet, Mr. Frederick Scheer, 76 years of age, a City merchant, whose name is honourably associated with botany and horticulture, and who might have enjoyed a world-wide reputation if his modest and retiring habits would have permitted him to do so, or allowed others to give him due and public credit for what he had done, or caused to be done. Mr. Scheer was the exact antitype of those who judge of the value of every publication by the number of times their names are mentioned, and compliments paid to them. Never mind how great the share which he had in advancing a project or publication, it gave him pain to see his name made public in connection with it.

Mr. Scheer was born in the island of Rügen, where his father was a clergyman; and the first part of his life was spent in Russia in mercantile pursuits. But when still a young man, he took up his residence in England as a City merchant, and for many years lived on Kew Green, where his neat cottage and well-kept garden and greenhouse (the latter full of new plants imported by him) was well known to botanists. The last years of his life he lived at Northfleet, Kent, where he indulged in his favourite pursuits of botany and gardening to the full extent his business occupations would allow.

Mr. Scheer had advanced liberal views on religion, politics, and political economy, and spoke and wrote several languages with force and ease. Nevertheless, he was extremely guarded in what he put on paper (in that respect taking Robert Brown for his pattern); moreover, most of his writings were anonymous. Intimate as I was with him, I often urged him to make a list of at least his pamphlets, or allow me to do so; but to this I could never get him to agree. It was quite satisfactory to him that his ideas should have been promulgated, he caring little for the honour of having conceived them, as perhaps the next minute he would have already originated new ones, which one was welcome to use. *** When, in 1839, the Government thought of doing away with Kew Gardens, he did all he could, through newspapers, and in getting up petitions to Parliament, to avert the calamity, and also came forward with a small, but well-written book, "Kew and its Gardens" (London, 1840, 8vo.).

About this time, Mr. Scheer had one of the largest collections of Cacti in Europe, and was in frequent communication with Pfeiffer, Fred. Otto, and Prince Salm-Dyck, the leading authorities on that subject. His collection was extremely rich in Mexican species, chiefly obtained from Mr. J. Potts. Only a small portion of these were ever described, either by Prince Salm-Dyck or (very reluctantly) by Mr. Scheer himself in Seemann's "Botany of H.M.S. Herald." The greater number, however, were subsequently described during Mr. Scheer's removal from Kew. Several new plants, received from his numerous correspondents abroad, were described and figured by Sir William Hooker, Dr. Lindley and myself. Amongst the Mexican Gesneraceæ I found a new genus (*Scheeria*), which I dedicated to him in the "Botanical Magazine," and of which at present two species, both cultivated as ornamental hothouse plants, are known. After losing the bulk of his Cactea, Mr. Scheer took up Ferns, which he studied attentively, and it was he who suggested to me the plan of the "British Ferns as One View" (Van Voorst). His great power of combination, coupled with his varied and profound knowledge, gave him an almost prophetic insight into the future, and this was much appreciated by great City firms, who frequently asked his advice on momentous questions of the day. In look he much resembled Beethoven, whose compositions he could play exquisitely. He was a man of remarkable energy, who never had any serious illness during the

* I believe I am correct in stating, in parenthesis, that the first note of alarm that Kew Gardens were about to be broken up was given by Mr. John Smith (late Curator of Kew) and Mr. Robert Heward, F.L.S., who concocted a letter which appeared in the *Times*, and led to questions being asked in Parliament.

whole of his life. On the day he died he had been all day in the City, came home, and instead of going after dinner, as usual, to his greenhouse, to look at his plants, he went to bed. An hour afterwards he expired, evidently without pain or suffering. His only son died a few years ago; his wife survives him. He was a high-principled, unselfish man, a warm friend, ardently devoted to science, and an uncompromising opponent of all sham, whether it appeared in a religious, political, or scientific garb. B. Seemann, in "Journal of Botany."

HORTICULTURAL EXHIBITIONS: THEIR INFLUENCE ON GARDENING.

[Abstract of a paper read at the Manchester Congress by Mr. Baines, Summerfield, Bowdon, July 22, 1869.]

THE object of this paper was to note the progress that has been made of late years in horticulture. The progress shows itself in the improvement of flowers and vegetables by selection, cross-breeding, and hybridisation, and in the continuous introduction of new plants from all parts of the world. The causes of this progress were attributed by the author to various sources, such as peace, general prosperity, cheap glass, improvements in hot-water apparatus, discoveries in chemistry, the influence of the press, and specially to horticultural exhibitions. To the Royal Horticultural Society Mr. Baines gives the credit of first placing these exhibitions on a proper footing. He considers such exhibitions as of the utmost importance to horticulture by stimulating and fostering a love of plants, and by affording to gardeners and others opportunities such as could not otherwise be had, to see, observe, and compare. Mr. Baines points out the danger of restricting these exhibitions, so as to make them mere displays of a few specialties—they should, in order to retain their attractiveness, be so comprehensive as to include everything worthy of cultivation.

NATURE'S SCAVENGERS.

[Abstract of a paper read at the Manchester Horticultural Congress, July 21, 1869, by Mr. D. T. Fish, Hardwicke House, Bay St. Edward's.]

OF this lengthy paper, marked by all Mr. Fish's fertility and copiousness of illustration, we can give only a very condensed resumé.

The author sets out by stating that the main sources of pollution are five, viz., death, decomposition, combustion, labour, and life. The agents appointed by Almighty wisdom to remove, and disperse and utilise the effete or noxious matter thus caused, are—the sun, the atmosphere, the sea, rivers, and plants. The mode of action of each of these agents is pointed out by Mr. Fish, and the marvellous interdependence of animal and vegetable life is also adverted to. "Dirt" itself is indestructible, it may be carried away or altered in character but not destroyed. While some things merely transport "dirt" to other localities, others transform it.

The concentration of dirt in a limited space is a great source of danger, but one which is obviated by the transporting agents. Among the transforming agents plants are most important; they rush in between the dead, effete matter and the living organisms, even as the high priests, censers in hand, rushed in between the living and the dead, and the pestilence was stayed. * * * Two cries make themselves heard nowadays, the cry for more coal, and for sweeter air. Plants can furnish the latter now, as they have supplied the former in bygone times. Plants alone restore the disturbed balance, and while converting the carbon of primeval times into modern bread, set free oxygen gas to sweeten, purify, and sustain mankind.

From these considerations Mr. Fish is led, in an eloquent peroration, to advocate strongly the establishment of open spaces, and the planting of trees and shrubs wherever practicable in and around our towns. The author further urges the desirability of extending the home culture of plants.

"None too poor to have a plant, none too rich to enjoy the simple beauty of Buttercup or Daisy. We cannot do without plants. In and by them we live, and move, and have our being. They distil for us the breath of life, they make our food, they provide our clothing, they are our medicine in sickness, our strength in health, our transfigurators at death. They are all ministering spirits, * * * springs of labour and sources of power; they bind together the two great natural divisions of life in bonds closer than those of matrimony, and make all things in earth or in heaven, or in the waters under the earth, subservient to the great purposes of the sustentation and increase of life."

In conclusion, Mr. Fish finds in the reciprocal relations of the three kingdoms of Nature, and their beneficial results, the clearest manifestations of Almighty power, Divine purpose, and Supreme beneficence.

BRITISH ASSOCIATION.

(Continued from p. 942.)

THE following notes are abstracted from the proceedings of the Biological Section:—

The Successful Dredging of H.M.S. 'Porcupine' in from 2435 fathoms, a letter from Professor Wyville Thomson, read by the Rev. A. M. Norman. Mr. Norman preface the letter by a statement of what had been done recently in deep-sea dredging, observing that the work of prosecuting deep-sea researches must be carried on by Government in a very large vessel, armed by the highest skill in navigation on the part of the officers, and very costly apparatus. The late Government had taken up the matter, and dredging expeditions were organised in the Atlantic Ocean, which had been attended with the most important results. The remarkable extension of knowledge in this direction had removed the idea started by the late Professor Forbes, that marine life did not exist at depths beyond 300 fathoms. Some interesting results had been obtained by Professor Purcell Wright off the coast of Spain, and at the instance of the Royal Society H.M.S.

'Lightning' had been sent out to dredge in the sea between the Hebrides and Feroe Islands, and one result was to find that there were two distinct sets of fauna within 500 miles the difference of temperature was probably caused by the return of the waters of the Gulf stream after being cooled at the Pole. The investigations of the 'Lightning' had only been carried to the depth of 65 fathoms, a life being found at that depth. Professor Thomson had, however, dredged in the Bay of Biscay to the depth of 2500 fathoms, and the letter gave an interesting account of the existing of the dredge at that depth. Above 1½ cwt to 2 cwt of ooze was the general result of the cast of the dredge, and the thermometric instruments employed showed the temperature to be about 36.4, and life was distributed over the whole area which had been examined, though the specimens were of a dwarfed character, owing, probably, to the low temperature.—Professor Huxley said he hoped it would not be at once assumed that naturalists had adopted Professor Forbes' inference as to the depth at which life might be expected to exist. No revolution had taken place in science on account of the recent dredgings. Men of science were too well aware of the unsatisfactory nature of mere negative evidence, of which they were always distrustful. The fact was that such statements as that referred to concerning Professor Forbes' theory got into the text-books of science, and were spoken of as scientific conclusions, when, in fact, nine-tenths of the writers of text-books were a sort of chifferons who picked up any kind of rag which they found lying about, and who often stated as the conclusions of men of science what men of science had not, perhaps, ever thought of adopting. He had recently had the opportunity of examining a quantity of soundings sent in by the 'Anatoly', which had been dredged in all parts of the world, and it appeared from these that there was a gigantic band of life encircling the globe at the bottom of the sea. It was extremely interesting to reflect that the sea bottom in which these creatures were found was of the same geological formation as that which was millions of years old, and the forms of life found there also resembled those found in the geological formations called the cretaceous period. It was almost impossible to realise the wonderful antiquity of the forms of life found at these great depths of the sea.—Dr. Hooker also pointed out that Professor Forbes' theory had never been accepted as a scientific deduction, and alluded to the dredgings of Sir James Ross in 1842 at 400 fathoms deep.—The Rev. A. M. Norman, in reply, disclaimed all intention of putting forward the supposition of Professor Forbes as a scientific deduction, and called the attention of the Associate Members at least to the necessity for observing the distinction between soundings and dredgings, as it was the latter which had been of the greatest importance, as they had furnished the materials which had illustrated so many interesting facts of modern science.

"On certain specimens of Fossil Gum, obtained from Zanzibar, Madagascar, Senegal, and other parts of Africa," by A. Brady, Esq. The best gum was, he observed, brought from Zanzibar, where it was found in lumps in the sand. The pieces of gum were dug out of the sand, or found in the beds of rivers. He produced a piece which contained a spider in the act of killing a fly. This showed the common operations of Nature going on at the time the gum was formed, just as we saw them now. The question here suggested was as to the antiquity of the gum. He was informed that in the part of the country where the gum was found there were now no trees existing from which the gum could be derived, from this fact he thought that the gum must have been formed at a time far past. The place from which the gum was taken at Zanzibar was a very fertile one, and the soil was very rich, and the specimens showed that the spider was upon them, from which he inferred it had been at the bottom of the sea, and had been up raised since into dry land. Another piece of gum which he exhibited contained a very beautiful lizard, and he was told by some gentleman of the Section that it was of a modern type; another piece contained a common beetle; another specimen contained hundreds of ants. These specimens were from Zanzibar. Inferior gum was brought from Madagascar, and still more inferior from Senegal, and other places in Western Africa. The inferior sorts were not so hard as that of Zanzibar—in his opinion, from not being so old, or, in other words, not so far advanced towards amber.—Mr. Tristram remarked that if the Zanzibar coast had been depressed, submerged, and elevated, like the Sahara, he was not aware of it. But if so, and if the depression and elevation should have been synchronous it would tend to show that the mountain chain of Africa was from east to west, instead of north to south, as at present considered.—Dr. Sclater doubted if the specimens produced had been under water at all, for trees like those from which the gum was produced, were common still in Senegal.

On the Genus *Beswellia*, with Descriptions and Drawings of three New Species, by Dr. Birdwood. This paper, by some accident, was not in the hands of the Secretary, but Mr. Tristram informed the section that it was an interesting history of the Frankincense Tree. These three species of this tree had been discovered in and near Arabia. Consul Playfair, of Zanzibar, had sent cuttings of the tree to the Botanical Garden at Bombay, where these young trees were thriving, though they had not flowered. This tree had been noticed in Niebuhr's "Arabia," of the last century.

"Initial Life," by Mr. C. S. Wake. This paper related to Infusoria.—M. C. Rabibsch offered some remarks on certain facts which had come under his notice. Pure water having been boiled in a vase of gypsum, the vessel was closed, an iron rod passed through it, and after a time there appeared four specimens of Infusoria. They were all different. The same water was again boiled, and again left to rest for a period as before, when three other species of Infusoria, different from the first, appeared. Another fact he stated as follows.—A lemon was divided, one half was wetted with human saliva, and the other with the saliva of a horse. After a little time the two halves produced creatures, the one different from the other.

From the proceedings in the Mathematical Section, we further select the following:—

"On a New Self-registering Hygrometer," by Mr. F. Vivian, of Turquay. At a former meeting Mr. Vivian exhibited a self-registering instrument on the cumulative principle of recording mean values of the differences between wet and dry bulb thermometers, and a self-registering maximum and minimum hygrometer. He now produced an improved form of the former instrument, with a series of curves showing the comparative results of Leslie's hygrometer, his maximum and minimum differential, and his mean self-registering, which he now offered as the standard. He had used it in recording the aggregated differences of solar heat in the sun and shade, the duration of sun, and the amount of nocturnal radiations, and for many other similar purposes. He now proposed to apply it to recording the actual mean temperature, which would be an important feature, if it could be worked out, as he believed it could, and also to the anemometer. He gave a full description of the instrument and its mode of working.—Mr. Strimes thought the instrument valuable, and said he should like to see such a one at every watering place. He referred to the differences in the meteorological instruments used, and their position in different parts of the country, and said he should like to see every town furnished with a good set of instruments, placed in suitable and open positions.—Mr. Vivian said he should be happy to present one of his instruments to any watering place that would like to possess it. Mr. C. J. Woodward then called attention to a rough model

of a new Anemometer, a machine for recording the velocity of the wind, and printing it with type in figures. A working machine on the principle suggested had not yet been constructed. There appeared to be no doubt that the machine would do its work, and was calculated to be, though not to supplant, the present self-registering anemometers.

Mr. Martin exhibited a Self-registering Aneroid Barometer, and read a paper thereon.—Mr. Strimes called attention to the fact that similar instruments had long been in use by Admiral Fitzroy and others, with the exception that a mercurial column was used instead of the aneroid, the former giving by far the most accurate results. It was, however, pointed out that the new instrument was more portable than the other.

THE BEST OF THE CULTIVATED ANEMONES.

(Continued from p. 920.)

Anemone Pulsatilla (Pasque-flower, or Dane's Blood).—Though sparsely distributed, this fine old border plant is a true native, and when it does occur on a bleak chalk down it is generally freely dotted over it. The position is usually such as to suggest the aptness of the name Wind-flower for the family generally; and there are few sights more interesting to the lover of spring flowers than to see its purple blooms just showing through the hard Grass of the blast-swept down on an early spring day. The plant is much smaller in a wild than in a cultivated state, usually devoting itself to the production of a solitary flower which, while showing through the Grass, seems careful not to rise above it. In the garden it forms rich healthy tufts, and flowers more abundantly and vigorously, the contrasts between the wild and cultivated states of the plants being very marked. There are several varieties, including red, lilac, and white kinds, but these are now rare. There is also a double variety. The plant forms a very appropriate ornament for rockwork and border, and is by no means difficult to grow. It prefers well-drained and light but deep soil. Flowers March, April, May; purplish. Height, 3 to 12 inches. Propagated by division or by seeds.

Anemone ranunculoides (yellow Wood Anemone).—Not unlike the Apennine and the common Wood Anemone in habit, this species is so very distinct in its clear golden flowers, that it is well worthy of cultivation even by the side of the most admired kinds. Indeed, we may consider it an Apennine or a Wood Anemone done in gold. It is a South European species, and apparently is not so free on the generality of our soils as the blue Anemone, but when grown into well-established tufts on a light or warm and well-drained soil, it displays qualities of which those who have merely seen isolated plants or figures of the plant can have no idea. I have not found it do well on clay soil, but on chalky soil it seems to grow as freely as the common Crowfoot. It is quite charming for associating with tufts of the Apennine or the Wood Anemones, the Pasque-flower, any of the varieties of *Anemone Hepatica*, the *Anemone pulsatilla*, and like plants. It will grow well in partial shade, but flourishes to perfection when fully exposed. It comes in among the naturalised group of British plants, and grows in a semi-wild condition at Abbot's Langley in Herts, near Worsop in Notts, and it is also reported to occur in several other counties. It is one of the many beautiful hardy plants that may be freely naturalised in our woods and shrubberies. Flowers the end of March and beginning of April. Height, 4 to 6 inches. Propagated readily by division, and also by seeds.

Anemone stellata (*hortensis*) (starry Wind-flower).—This native of Southern Germany, France, Italy, and Greece, if not so showy, is quite as beautiful as the common garden Anemone. The star-like flowers springing from the much dissected leaves, ruby, rosy purple, rose or whitish, vary in a very charming way, and usually have a large white eye at the base, which contrasts agreeably with the gay or delicate coloration of the rest of the petals, and with the rich brownish violet of the stamens and styles that occupy the centre of the flower. It is not so vigorous in constitution as the common Anemone, and requires a little more care than that, but this will only make it the more interesting to all who love variety in their collections of hardy plants. It likes a sheltered yet warm position, a light sandy well-drained soil, and seems to make little or no progress on heavy clay soils. It is suitable for association with the choicer kinds of Anemone on the rockwork, for the mixed border and the choice spring garden, and should be grown in every garden where choice spring flowers are appreciated. Flowers in May. Height, 10 inches. Propagated by division or by seed.

Anemone sylvestris (Snowdrop Anemone).—This is a free-growing and handsome species, partaking somewhat of the size and vigour of the alpine or Japanese Anemone, and the neatness of habit and dense blooming qualities of the dwarfier kinds. It seems to grow freely on almost any soil, the handsome pure white flowers, as large as a crown piece, being freely produced over a mass of fresh green leaves. A native of Siberia, North Italy, Germany, and France, it is perfectly at home in this country; should be grown everywhere that first-rate border flowers are appreciated: will associate well with the alpine Anemone, and plants of like size, about the lower and flatter parts of the rockwork, and being naturally a native of the grove, will be found perfectly at home along our wood walks and half wild spots, in shrubberies, &c. The aspect of the drooping unopened buds has suggested its English name—the Snowdrop Anemone. Flowers in April and May, pure white. Height, 1 foot, sometimes more. Propagated readily by division of root.

Anemone trifolia (three leaved Anemone).—This is an interesting little species, much like the Wood Anemone, but not so widely distributed. Although found in a wild state in pleasant groves on the woody

hillsides of Piedmont or the Tyrol, it does perfectly well in our climate, and should be everywhere grown for variety sake. It may be readily known from its relative, the Wood Anemone, by its neatly toothed trifoliate leaves, and it seems to be a little smaller and dwarfer in habit. I have, however, never seen them under exactly like conditions. It is well suited for naturalisation along with *A. apennina* and others of the family, and is of course suitable for rockwork or borders. Flowers in April and May; white. Height, 4 to 6 inches. Propagated by division and by seeds.

Anemone vernalis (Shaggy Pasque-flower).—One of the Pasque-flower division of the Anemone family, but very dwarf. The flowers are very large and shaggy, with brownish silky hairs. It is a rare plant, and should be grown on in some select spot on the rockwork, giving it good drainage and deep soil. A native of Norway, Sweden, and extreme northern countries, and also of very elevated positions on the Alps and Pyrenees. This species inhabits very elevated regions, and is rarely seen in good condition, at least not in our day, though Miller speaks of it as sending up a stalk near a foot high, and "naked almost to the top, where comes out a neat hairy involucre, and above that one yellow flower shaped like the perennial yellow Adonis, standing erect." It should as a rule be grown on a level spot on rockwork, in deep free soil, and be abundantly supplied with water in summer. Flowers early in spring; whitish inside. Height, 4 to 8 inches. Propagated by division and by seeds. *W. Robinson.*

DISEASE IN THE SUGAR-CANE IN BAHIA.*

THE Sugar-cane has for some years been affected in Brazil with a disease for which the most contradictory causes have been assigned, and without leading to the discovery of any remedy. Loud complaints have also been made in Cuba on the same subject, and in the province of S. Catharina the cultivation has been abandoned in several places. Von Tschudi advised the colonists in South Brazil to the same effect, and in truth considered the climate as adverse; for, according to observations made from August, 1867, to July, 1868, the mean temperature was 70.7° Fahr.; whereas the Sugar-cane requires a mean temperature of 75.2° Fahr. It could scarcely be expected that so succulent a plant could be subjected, without injury to its organic activity, to so low a temperature as 39.2° Fahr., which occurred on the 23d day of August, 1868, in the province of Blumenau, and which indeed is often registered in the rainy season. The cultivation of sugar, however, is still carried on in that province, and is esteemed profitable; whereas, on the contrary, in the more northerly and hot province of Rio Janeiro and the neighbouring departments, coffee is preferred. In Bahia, the most important part of Brazil as regards sugar, where the occupiers of the coast devote themselves almost exclusively to the cultivation of the Sugar-cane, the disease has appeared for the last six years in the most threatening form. At Nazareth, near the town of Bahia, the harvest for three years has been almost annihilated by the malady, and it has since spread to the northern parts of the province. Repeated inquiries, under the direction of the Government, have at present led to no result. New varieties have indeed been introduced, and amongst them one from Salangore, very rich in juice, which has, however, been by no means entirely exempt from the malady; which, notwithstanding the extraordinary drought (from September, 1833, to the end of January, 1839), begins already to be established.

My observations of this malady were directed especially to the investigation of the insects which live on the Sugar-cane, since certain commissions, and even men of science, have given it as their opinion that it is due to their agency. It was recorded as the result of a commission of inquiry in S. Catharina, that a caterpillar, known under the name of "Borer," was the cause of the disease. I have occasionally found it, as well as its pupa, in the stem of the Cane. The caterpillar eats its way from without into the stem, and forms bores. Large holes also are found in the uppermost joints, by which the vegetation is impeded, which is equally the case when the young Cane is perforated by the insect. The last mentioned cavities are, however, far more rare; and the bores, from about one-eighth to one-sixth of an inch in diameter in nearly mature strong Canes, though frequent enough, do not impede the vegetation; though, through the admission of air, and the consequent oxydation, the surrounding layers of cells become red, and the quality of the sugar-sap is somewhat impaired. In spite of all, the Sugar-cane thus affected yields good sugar, and intelligent cultivators have discovered a very different indication of the disease.

Another insect, which is sometimes found abundantly between the sheaths and the stem, is a female Coccus, whose habits, as far as my observations go, agree with those of its allies. Allowing that it robs both leaves and stem of a quantity of juice, it yet appears that the injury is too slight to prevent the development of sugar; added to which the presence of the Coccus is not the necessary cause of the above-mentioned indications of disease which have been generally recognised for the last three years. I have had occasion to observe plantations much affected with scale, which have yielded good sugar, and in which not a single Cane exhibited the disease in question. No other insect, in spite of repeated investigations, has been discovered to which the malady could be attributed.

A ruddy tint in the woody and cambium tissue in the neighbourhood of the joints is an infallible sign of the malady. As the disease advances this colouring permeates these vessels through the whole of the stem,

whereas the parenchyma at first retains its natural transparency. When the disease is fully established, a thick yellow substance flows from these vessels, which hardens when exposed to air, but dissolves in water, and under high powers of the microscope merely exhibits a granular structure. Minute cells appear, either collected in irregular heaps or disposed in moniliform rows, which, when placed in a solution of sugar, are developed in the course of from six to eight days into a beautiful filiform Alga.* To assure myself that this did not arise from spores derived from the air, I placed repeatedly, and in different places, a solution of sugar under a bellglass, but never obtained the same Alga, while it always occurred in the yellow substance placed in a similar solution. In confirmation of its deleterious influence I have found the Alga itself in diseased Canes; I have observed also its infusoroid spores, and their fermentative action in the manufacture of sugar. Sporangia sown on the sheaths of the Cane generate the Alga in tissues in from one to two days. Hydrogen and carbonic acid are generated with such energy and speed in the juice of the Cane when placed in the cauldron, and acted on by the fermentation produced by the sporangia, especially at the commencement of the development of heat, that the scum runs over the lips of the cauldron in great quantities. The organic acids developed by fermentation in the further process of boiling effect a change into uncrystallisable sugar. The extremely small quantity of crystallisable sugar—it being premised that the disease has not advanced too far—is very dark, and of a very indifferent quality. In the moulds from which the molasses have run, where, as is the custom here, a mixture of clay is used for refinery, the fermentation recommences so energetically that the melted sugar flows over the margin of the mould.

The spore-cells of the Alga are about 1-700th of a millimetre in diameter, while the partly simple, partly branched threads of different lengths vary from 1-200th to 1-500th. I distinguish two forms, which appear almost contemporaneously. In the young state we find mother-cells arranged in a row, filled with a quantity of daughter-cells. These last are elongated into threads, but are still surrounded by the mother-cells. I have not been able to observe the formation of the spore-cells at present, but I think it probable that the distinctly visible cells in the membrane of the mother-cells, after its disappearance, form these masses of spores, which I once found on the walls of a perfectly closed cavity in the stem of a Sugar-cane more than one-third of an inch in diameter. Even in a very small glass tube, closed with a cork, in which I kept the yellow mass of spores, there was in moist weather a coating of white powder, in which I recognised the same spore-cells as in the watery solution. This white powder can be easily dispersed in the air, and can penetrate the pores of insects, or through the root into the body of the Cane. The latter way is so much the easier, as from the practice here of planting eyes (the tips of the stem with the terminal bud) being for a time uncovered or only slightly covered, they remain exposed to air and moisture. That moisture is active in the diffusion of the Alga appears not only from the foregoing observations, but from the fact that the years in which the disease was most prevalent have been remarkably rainy, while in the late abnormally hot year it has almost disappeared. We have, then, every reason to regard this cellular plant as the cause of the disease, especially as at its commencement the Cane vegetates strongly, and decays only at a late period, when the Alga decomposes the sugary juice, and the masses of spores in the vessels hinder the flow of sap, the leaves turn yellow, and the terminal bud rots. As the best remedy I regard a mode of culture in future more consonant with the investigations of science than prevails at present in Brazil—repeated manuring with quicklime, as also the washing with liquid lime (lime-wash) the eyes or truncheons before planting *M. J. B.*

Home Correspondence.

Origanum vulgare.—Three varieties of this plant have been brought to me from near Mertham, in Surrey, one with pink, one with blush, and the third with white flowers. The friend who collected them put a handful of each variety together into one basin of water, and observed on the following day that the leaves of the white-bloomed kind had all, without exception, shrivelled and turned black, while the leaves of the other kinds remained fresh and green for some days. What can be the explanation of this? *W. T.*

Potatoes.—Upon the recommendation of my seedman I was induced to order some Golden Blossom Kidney, Ashtop Flukes, and American Early Rose Potatoes, and having just taken them up I can speak most highly as to the produce and quality, the latter far surpassing in yield anything I ever saw, being over 50 lb from little more than 1 lb. of sets. All equal if not surpass Haigh's or Lapstone Kidneys, which are the same, and free from disease, whereas a tuft of Haigh's growing in the middle of the Early Rose was all bad. The manure used was stable and pig dung, dusted over with Lawes' phosphate of lime. *T. W. Chaloner, Newton Kyme.*

Cutting Down Strawberries.—I was looking out of my window, which commands a view of numerous small gardens above the town of Boulogne, some three or four weeks ago, when the weather was hot and dry, when I perceived a man some distance off vigorously mowing something with a scythe. I mentioned the circumstance to my landlord, who also has a garden, and asked him what his neighbour was about. "Oh! Monsieur, he is cutting down his Strawberry plants." Remembering my friend, the late Dr. Lindley's, stern

* Or rather Fungus; no Alga is ever developed under such circumstances. *Eds.*

denunciation of such an ignorant practice, in which he had, I believe, the support of the leading gardeners. I remarked to my informant, "That it was quite contrary to Nature, that the plant was being deprived of its breathing and feeding apparatus, &c." "Mais, monsieur," replied my landlord, "my neighbour is celebrated for the quantity and goodness of his Strawberries." This was rather a hard thrust, and I had some vague sort of recollection of having severely scolded a rough sort of gardener I once had for having done the same, and being myself punished for it by an unusual supply of good fruit. My landlord said he should treat his the same way, but I begged him to leave some, so he has cut some of his down, and merely removed the runners from others, and now awaits the result. Those that had been mown since the rain we have had are now looking fresh and green and have put out runners. I should say that until the plants began to push, they were covered with the leaves that had been cut off. One of the leading horticulturists here has been condemning the plan, and I reopen the question whether a partial trimming, leaving the crown of the plant intact (even this my neighbour does not do) may not be beneficial? *Querist, Boulogne-sur-Mer, August 23.*

Smoke v. Vegetable Life.—In a recent number of the *Warrington Guardian* a writer, who signs himself "Fair-play," tells us that "the gardener of Warrington Hall (about 10 miles distant) says he considers that his fruit never gets spoiled by the smoke;" and that "the smoke is doing good instead of evil, as it tends greatly to the destruction of insects." I am sorry to say the case is quite opposite in Warrington. "Fair-play" adds "fruit is everywhere cleaned before sent to table, therefore the argument of the gardener of Bank Hall, Warrington, is groundless as to dirty fruit." There is some mistake about this. Gardeners are cautious how they handle fruit, lest they leave finger marks upon it, or wipe off that beautiful substance called "bloom," which gives such an elegant finish to good fruit. We have had red and white Currants so covered with dirt that they could not be cleansed—it would not wash off, nor would the birds eat them. They rotted on the tree, while we purchased what was wanted from the market. No fruit that has to be washed, or even sponged, is fit to compare with that with the bloom upon it. If "Fair-play" or the gardener at Warrington will pay me a visit, I will undertake to show them more gardens in Warrington than that at Bank Hall in which the trees are suffering instead of the insects, and no doubt both will return convinced that I have not stated the worst. One word more. Some manufacturers say smoke cannot be consumed, others not only say that it can, but that they are consuming it to a considerable extent. Surely, then, those who are exerting themselves to remedy this great evil are doing a wrong to no man, but good to us all. *Edward Green, The Gardens, Bank Hall, Warrington.*

Mr. E. Green, in his paper on this subject, read at Manchester, and given at p. 917, states: "When the wind is from the east we do not suffer so much as when it is from the west, for in the former case it is often sharp, and carries away the smoke; but in the latter it is soft, the air heavy and moist, the smoke falls quickly to the ground, hanging among the trees and passing away very slowly, and, therefore, the plants suffer more." In an action against a large coke burner for the destruction of a Larch plantation, the trees of which were about 30 to 40 years of age, and which had only appeared to suffer for the five preceding years, although the manufactory of coke had been in as active progress for about 20 years, it came out that a short period prior to the trees being observed to be affected, a new seam of coal had been employed, although only mixed to the extent of one-half with the seam first used. This latter coal was remarkably free from sulphur, containing about 3 per cent., whilst the new seam had as much as 3 to 3½ per cent.; but the primary point of interest was that, while to the north-east vegetation suffered and was killed, in all other directions the injury was little or none. This the plaintiff's witnesses sought to account for by stating that the south-west winds were the most prevalent ones, and so inhaled much greater and more frequent doses of coke-oven smoke and fumes; and although it was proved that the timber when cut down was greatly deteriorated by the effects of the products issuing from the cooking of the coal, it was not seen how unsustainable that induction was, for obviously to produce such a disparity of results between the south-west and other winds, the amount and duration of south-west winds should have been vastly more. I was led to examine the matter, and from the deterioration of the timber it was evident that the gases or their compounds must have been imbibed. Now, we all know that in southerly winds we have dampness with warmth—two of the greatest incentives to vegetable growth, inducing the stomata to active duty—and probably the moisture in the atmosphere had combined with the sulphuric acid, and thus the trees were under the most favourable conditions to imbibe and be injured and killed; yet, be it remembered, south-west winds are generally brisk, and would not permit the smoke to fall quickly, or to hang among the trees. *W. A. Wooller.*

Primula cortusoides amena.—May I ask through your columns, whether cultivators of this fine plant are quite content to receive it as a mere variety of the old *P. cortusoides*? For my own part I have strong doubts on the subject. That there is a general resemblance between the two plants cannot be denied, but there are far closer resemblances between many other plants which all botanists have agreed to keep apart. The size of flowers and the breadth of foliage I am aware count for nothing, but I think the creeping root, the exclusively vernal habit of the plant, the pseudo-lobed or grooved seed-vessel, and the roundish flattened form of the seed, more especially the two latter features, warrant the belief in its distinctness.

* Translated from a memoir, by F. M. Dänert, in the "Zeitschrift für Parasitenkunde."

I should be glad to learn what the "lumpers" can urge on the other side. For the present, at least so far as this *Primula* is concerned, I must range myself on the side of the "splitters." *W. T. Ipswich.*

Weather Fluctuations.—On Saturday, August 29, the thermometer (in the shade) stood at 90° at 1 P.M., barometer 30.200. On Sunday morning, the 29th, about 1 A.M., we had a sudden change, the wind blowing a gale from north-east by east, which continued throughout the day, and the weather was very cold. The barometer fell to 30.000, the thermometer to 58—a difference of 32. Monday, the 30th, cloudy and cold, with east winds, barometer rose to 30.100, thermometer to 59, evening clear and frosty. Tuesday, the 31st, clear and sharp, barometer up to 30.200, and the thermometer indicated 2° of frost, which has greatly injured the crops. French Beans on open squares are very much blackened, and will not recover. Vegetable Marrows, Gourds, and ridge Cucumbers are nearly all destroyed. Heliotropes and Dahlias are scorched a little, but may yet recover. French Beans growing on south borders do not appear to be injured at all, which says much in favour of cropping borders, where early and late produce are required. *David Lumsden, Bloholm Hall, Sleaford, South Lincolnshire.*

Prunella grandiflora.—In a recent number one of your correspondents made some remarks on *Prunella grandiflora*, recommending it as suitable for some descriptions of edging or ribbon borders, and inviting hints from others. I have long known the plant, and certainly the rich purple tints of its clustered labiate flowers make one wonder that it is not oftener seen in our flower garden. Like all the genus, however, its habit is somewhat too rigid and bare to make it useful where more elegant plants are grown. After flowering the brown scaly calyces are not ornamental, resembling the cones of some Pine, and if these were removed the stems would be too much exposed. It is possible, however, that some mode of cultivation might be adopted to obviate these defects. My experience leads me to think that it will not be very easily propagated, as it produces mature seeds but sparingly, and gives but few offsets. *R. S.*

Testimonial to Mr. James Barnes.—The promoters of the testimonial to Mr. Barnes, in Devonshire, are greatly obliged to Mr. Ayres for his timely letter in your columns last week. The object aimed at is not to obtain a large sum of money, but to elicit from the practical gardeners and horticulturists of the United Kingdom (as well as from Mr. Barnes' personal friends) some genuine mark of their appreciation of one whose labours and writings have been of so much value to many of the fraternity. With this view subscriptions, however small in amount, are solicited, and may be forwarded to the Editors of the *Gardeners' Chronicle*, or to me, at the office of the *Devon Weekly Times*, Exeter. *Elias Tazer.*

The Pine Beetle.—The economy of *Hylurgus picipeda* is well known. In April and May, earlier or later according to climate and season, the beetle which have passed the winter in the perfect state make their galleries of oviposition in the bark of Pine trees of more than 10 years old. In six weeks the young brood is fed up, and the perfect beetles emerge. In England, at any rate, there is only one brood in the year, and these beetles, emerging in June and July, pass the following winter in the crevices of the bark of trees and other suitable localities, but until the period of hibernating arrives, they employ themselves in eating out the interior of the young shoots of living trees, doing great damage even to old trees, but especially to younger ones, by destroying their leading shoots; they do this more for food, and no eggs are ever laid in these shoots. The period to attack the insect, in order to destroy it, is in the spring, whilst ovipositing, and whilst the young brood is feeding up. There is no doubt whatever that the bark preferred by the beetle for oviposition is that of large trunks felled during the preceding winter; and the explanation of the ravages committed by the beetle, in the instances of your correspondents (p. 921), may perhaps be found in such logs, perhaps in quantity, having been left lying about, when, of course, they each sent forth a swarm of beetles in the early summer. While, however, the preference of the beetles for ovipositing is for felled timber, they will also attack growing trees, if they be at all unhealthy, and there is unfortunately sufficient reason to believe that the destruction of the shoots during the previous or several previous summers is a sufficient disease to induce the beetles to form their galleries and deposit their eggs in the bark the following spring. The only remedy that is really useful and practicable is to remove the bark of all dying trees, in which the beetles are ovipositing, and of all logs of felled timber, this should be done about the end of May; and if the bark be burnt, or simply placed under water for a week or two, the beetle larva it contains are effectually destroyed. In any Pine-growing region, this plan, to be effectual, should be carried out throughout the whole district. Any trees that seem likely to die, may be felled during the winter and used as traps for the beetles in spring, as it is difficult, until the mischief is done, and the young brood escaped, to detect their presence in the bark of a standing tree, as the parent beetles make a very inconspicuous entry at the bottom of a crack in the bark, the exit holes of the young brood being obvious enough. To save a valued tree from their attack, several logs laid near it would be useful. When the beetles are engaged in making their galleries of oviposition, they may be detected by the little heap of reddish sawdust they eject. I know of no way of attacking them at this period of the year. *M. D.*

Potatoes.—In the first week of March, 1868, I planted some Potatoes, called Veitch's Prolific, which I think is a first-rate kind, and a large cropper. From one root I gathered 188 tubers and supertubers, large and small, and the weight was 10 lb. I saved them all, and again

planted them in March, 1869, and I have this day (September 1) taken them up, and the produce is 113 lb. weight, all good and sound. *J. Wilson, Gr. to Lord Calthorpe, Elvetham Park, Hants.*

Wellingtonia.—Reading the letter in your number of the 1th September on the Wellingtonia, I beg to state, for the information of your correspondent, that mine are still going on in splendid style. They did not mind the frost two years ago. The only thing about them is that they shed more of their foliage this year, but the new foliage is coming in as fine style as ever. *John Hollingworth, Maidstone.*

What is a Kitchen Garden?—If "Agitator" will be good enough to look over my argument once more he will see that he has sadly perverted my statements. "Let your walls be clothed with choice fruit trees, or covered with glass; if the former, allow the space of a yard to be sacred to the roots, also an alley 18 inches wide. The further extension of the border should be at least 3 yards, which might be devoted to the production of early vegetables without any detriment to the trees on the wall." I thought that it was unnecessary to mention, that, beyond the 4½-yard border, a 6-foot walk should intervene, as I go on to say that, on the side next the main quarters, a row of standard fruit trees might be planted, and an alley should run round behind them, and come out to the main walks at convenient distances. How "Agitator" came to imagine that I meant to plant the standard fruit trees on the border next the wall I know not, because I expressly state the portion which the fruit trees and early vegetables occupy. But suppose for a moment that I had intended to plant a row of standards on that border, they should at least be planted 3 feet from the walk, and there should be the same distance from the alley behind. How much of the border would, under such circumstances, be left for the production of early vegetables? *Andrew Meikle, Read Hall, Whalley, Lancashire.*

The Lady-bird.—Much as I am prepossessed in favour of the bright and cheerful-looking Lady-birds, I have nevertheless a decided complaint to make concerning them. They swarmed upon the Apricots here, consuming the soft pulp with avidity, and so tenaciously did they adhere, that a good filip was necessary to dislodge them. Plums and Pears are alike food for them at this time. Independently of what has already been said regarding their choice of food, so constantly are they aggregated upon the pendent tubes of the flowers of *Tritoma* (*Kniphofia*) *Uvaria*, that I have no doubt but that they feed upon pure nectar itself when within their reach. It would seem that they are provisioned by Nature to undergo long flights, so extended and powerful are their wings, comparatively speaking. *William Eirley, Dyswell.*

Pampas Grass.—"The *Gynerium argenteum* (Pampas Grass) though an inhabitant of the prairie deserts, delights also in root moisture," p. 948. I humbly submit that is a slight error. The *Parana* Reed, commonly called Pampas Grass, grows on the mud banks of the river Parana, which separates Paraguay from Rio Grandé and Paulo above Corrientes—none can possibly grow on a desert. *F. D.*

Hot-house Boilers.—In answer to Mr. Munro's offer of terms, I am authorised to state that the inventor of the Conservative boiler has no intention of giving boilers away for experimental purposes; and while on the subject of boilers I may probably be allowed space for a few lines suggestive of a plan whereby the capabilities of different boilers might be tested on a less expensive scale than that suggested by Mr. Ayres, and quoted by Mr. Fish (p. 922). The plan I suggest is as follows. Let the different inventors put their boilers into competition, all containing an equal quantity of water; let them be set with reverberatory bricks, or in any way peculiar to the taste or fancy of the owners; stop up the return-pipe and leave the flow-pipe open. Let a fire be made under them, and, at the end of a given time, note the quantity of fuel consumed, and also that of the water evaporated; this I merely suggest as being a more simple and less expensive plan than that hitherto proposed. Now, with regard to the reverberatory bricks so much hammered at by your talented correspondent. I am not aware of having said anything of an inventor of such material, but that the Conservative boiler is set in brickwork in such a way as "that the bricks act, not only as non-conductors, but as reverberators of heat; and that they do this in a highly satisfactory manner, I feel sure Mr. Fish will admit when he knows more about the matter. He asks, Are not all bricks enclosing fire reverberatory? To this I answer, they are not; for, by reason of their sunken position, and the usual mode of setting them, in nine cases out of ten they are surrounded by a damp substratum, which acts as a perpetual absorbent of heat. In all such cases, to give and take is the law of their position. Not so with the Conservative boiler, which is furnished all over and on every side with confined air-spaces, repelling with intense force the heat against and under the water space, and, if I may be allowed to use the expression peculiar to Mr. Fish, it enwraps the boiler with a thick greatcoat of dry air, refusing a passage outward for the heat. Hence the caloric becomes conserved to that end, for which combustion has been set up; and by the extent of surface provided and exposed to the action of the fire-stream, this boiler combines all the essentials necessary in the most powerful medium for the communication of heat by hot water, namely, rapid and complete absorption with slow combustion at the will of the stoker. Mr. Fish seems to have a peculiar gift for suiting himself to the requirements of his case, as may be seen by his condemning in one boiler what he extolls and eulogises in another. He condemns my "pet" for having long passages, and praises another for taking the products of combustion a long journey. How to reconcile this I am at a loss. He complains of torturing the products

of combustion. Why not torture or rather starve them to death, if it be possible, as the object aimed at is to get all the heat out that is in them before passing up the chimney? *R. Milne, Vale Royal, September 6.*

—I see that the vexed question as to which is the best hot-house boiler for economy in heating is again undergoing notice in your columns. So many different forms and absurd combinations in boilers have been lately introduced for the patronage of the gardening community, that it is impossible to prophecy when the mania will end. "Punch's" artist, Mr. Du Maurier, might be prevailed upon to give a sketch of a specimen not yet exhibited at South Kensington, or at any of the Royal Horticultural Society's shows. Mr. Milne's new boiler is certainly a move in the right direction, and the saving of from 600 to 800 per cent. in our coal bills is something astounding. If this Conservative boiler had been discovered last year, I have no doubt but that the party which bears that name would have been still in power. They would have kept their opponents in hot-water at such a cheap rate, on all the public questions of the day, that they would have effectually taken the wind out of their sails. I, for one, cordially join with "An Old Gardener with a Heavy Coal Bill," in urging the Horticultural Society to organise means for having one of these boilers at work in their gardens at Chiswick or Kensington, and to report upon it as soon as possible. The coming winter is almost certain to be a severe one, with probably the thermometer at zero; the saving, therefore, in fuel with Mr. Milne's boiler would be something considerable in all large forcing gardens. Mr. Pearson, of Clulwell, in describing the boiler which he has stood godfather for, said "that a hatfull of coals was sufficient to keep the heat up." I should think, however, Mr. Milne's would do with a considerably less quantity—perhaps a gardener could carry as much fuel in his waistcoat pocket, if in a concentrated state, and the boiler a small one, as would answer the same purpose. *Thoth.*

Foliage Bedding Plants.—*Centaurea ragusina* has done remarkably well here this season; it has grown most freely, and the colour of its foliage is as white as driven snow. This is an indispensable plant for flower-garden purposes, but is not available for the million, owing to its difficulty of propagation. *C. gymnocarpa* is easier to manage in all respects, and strikes tolerably freely under the usual treatment required by our ordinary bedding plants, and, when kept dwarf (a poor soil will conduce to this), is equally as beautiful and more graceful than *ragusina*. *Iresine Herbsta* has done well in our flower garden. I am therefore compelled to retract what I stated some three years ago regarding the many bad properties this plant, as a bedder, possessed; though, notwithstanding, I still consider it to be a plant not to be depended upon to a large extent in a precarious season. *Annanthus melancholicus ruber* is better here than I ever saw, if anything mars its beauty, it is its rampant growth, and there is evidently a darker-leaved variety creeping in amongst the original introduction, stronger and coarser growing, but apparently a free seeder. *John Edlington, Wrotham Park.*

Phormium tenax.—Should Mr. J. Hill Dickson's attempt to naturalise *Phormium tenax* prove a failure, or meet with imperfect success, I beg to offer the following suggestions for the improvement of the vigour of the growth of the plant. In Mr. Darwin's work on the "Variation of Animals and Plants under Domestication," it is mentioned that the Orange could not grow to perfection in Italy without much care was taken of it, till after it had been propagated by seed, it having up to that time been propagated only by grafting. If, therefore, *Phormium tenax* were raised from seed to the extent of five or six generations, a more vigorous plant might be expected. Another acknowledged principle for the improvement of vigour of growth is cross-fertilisation, using the flowers of two different plants, and in addition to this, the upper part (to the extent of about one-half) of the spikes of flowers and their branches, all young leafy shoots, should be cut off, so as to produce larger seeds.—an experiment which I have practised on the Hemp plant, and obtained seeds with tricotyledonous embryos. It is stated in the "Treasury of Botany" that one of the varieties of *Phormium tenax* has its leaves only 3 feet in length, and its flower-spikes only 6 feet high, so that the plant in the College Gardens at Galway, which has leaves 6 feet in length, has quite outdone one of the varieties in its native habitat. Would not the tall variety, mentioned by Mr. J. R. Jackson in this Journal, July 3, which will conceal a man on horseback, if acclimatised, serve as a hedge-row plant in some situations? The same remarks will, for the most part, apply to the *Bohmeria*, which, being so near *Urtica*, there may be some hope of acclimatising. It is not the acclimatisation of some introduced plants has too soon relinquished, as suggested by Mr. J. E. Jackson in his remarks on substitutes for the Potato, which appeared in this Journal for August 14? This last spring I raised 36 plants of Six-weeks Indian Corn received from the Continent, some of which are very variable in their appearance and time of flowering; but one of the plants flowered earlier than any of the others, and its seeds are, notwithstanding this very cold summer, now ripened, although not yet entirely hardened. The first cob was produced in the axil of the fourth leaf above the cotyledon, so that it began to form its flowers almost as soon as it was out of the ground. The seed was planted in April, and the indoor protection afforded it was scarcely more than it would receive on the south side of a garden wall in such a locality as Fulham. By annually selecting seed from the earliest flowering plants, I hope in three or four years to obtain a variety which, sown in an open field, will ripen its seeds in our coldest summers. May not the

failure of the attempts to introduce a variety which will ripen its seeds every year be owing to selection not having been practised? It may deserve notice that Indian Corn appears improved by crossing even in the first year, one of my plants being larger, with deep chocolate-coloured petioles, instead of a palish green. *B. Clarke, F.L.S., Mount Vernon, Hampstead, August 28.*

Orchid Diseases.—I have read Mr. Williams' Congress paper, on the cultivation of Orchids, with much interest. It is as suggestive as it is practical, and cannot fail to be useful to all who read and digest it. On cultural topics and on management generally, I would not hesitate to endorse it. What I do take exception to, is that portion of the paper which treats upon spot, its cause and cure. It has long been a difficult subject—difficult for scientific authorities to pronounce with any certainty upon, and equally difficult for practical men to bar the door against, yet Mr. Williams, with a few masterly strokes of his pen, would stamp out the disease with a certain corrective treatment which he propounds. Furthermore, he looks upon spot as the consequence, not the cause of bad health, and does not consider it infectious unless when fellow plants are in a bad plight. To cope with a subject such as this, with any idea of placing it satisfactorily before your readers, would require a somewhat lengthened paper. In the meantime a few words by way of rejoinder will be sufficient to establish a case for continued observation and deduction. In the first place, spot appears in plants generally, and in Orchids particularly, in a variety of forms. The diseases are as diverse in their character as they are destructive in their operation, as witness cases that have been recorded time after time. Therefore a panacea is not likely to be found in adopting a uniform course in the annual calendar of operations. Vegetable pathology does not admit of so easy a solution as all this. Plants, like animals, have varied constitutions, and one bill of fare may predispose certain plants to one kind of disease, and certain others to another, while some may luxuriate in the best style treated to the same articles of diet. Consequently the healing prescriptions will require to be written and applied by discriminative talent. Then as to the so-called disease being entirely due to the inroads and agency of a parasitical Fungus, we have the recorded testimony of the highest authority in that branch of Cryptogamic botany which treats upon mycology (see *Gardeners' Chronicle*, p. 147, 1865) that in many of the forms no fungal cysts can be detected. True, parasitic Fungi do a lot of devastating work in Orchid collections, but there appear to be other causes which our ablest investigators in physiology have been unable to elucidate; and looking to the variety of influences at work in an artificial atmosphere, I very much sympathise with them. I think the question of infection must also remain an open one. The physiological condition of the plant may predispose it to some of the kinds of disease that are hovering about in the atmosphere, but certain varieties of the same species often escape "spot free" when their neighbours become infected—all being similarly situated as to health and growing conditions. Certainly, at all events, spot is not always the result of bad health, as Mr. Williams puts it, for many of the rudest grown plants are visited with the malady. By attending to Mr. Williams' cultural directions, growers may minimise the inroads of several of the forms which attack collections, but to get rid of them altogether is quite another question. *James Anderson, Meadow Bank.* [Several visits have been paid by members of the Scientific Committee to various Orchid-growing establishments, but we do not think at present any information on this subject beyond that already published by "M. J. B." and Mr. Anderson has been gained. Eds.]

The Seed Bill.—I am glad that you have published the *ipsissima verba* of the Act for the prevention of the adulteration of seeds, for a very different version of it appeared in the pages of one of your contemporaries (the *Farmer*, Aug. 11). True, your contemporary guarded his publication by saying, that while he wrote the Bill which he published was not passed, but only awaited the Royal assent to become the law of the land. I am glad that you have published the actual text, because it is always desirable to know the true state of a case; but I grieve to see therefrom that all the principal amendments introduced by the Select Committee of the House of Commons have been struck out at the last moment, and that the Bill has been passed almost in the terms in which it was introduced. In particular, the clause against the fraudulent use of naturally dead seed has been struck out, which was recommended by the Council of the Royal Horticultural Society, whose support of which, and objection to the Bill unless fenced by some such protection, gave rise to hostile comments (in which you are not wholly free from having joined) on their obstructiveness, in opposing a Bill which they themselves had been among the first to call for. As given in the *Farmer* it was in these terms:—"5. Whosoever shall, with intent to defraud, or to enable another to defraud, any person, sell or offer for sale, or cause to be sold or offered for sale, or for the purpose of sale, buy, import, or receive, any seeds with which any killed seeds, or dyed or old seeds, shall have been mixed, shall be guilty," and so on. Now, I should like to know at whose instance and by whose influence this was struck out? I do not think it is difficult to understand. Now, any man intending to act honestly should object to the condemnation of an intention to defraud. I believe that the Bill thus mutilated will be an utter failure, although I do not go the length of some who say that it was never intended to be otherwise. The Bill, as amended by the Select Committee, would have done real good, and if it were not too great an encroachment on your space it would be instructive for the public, although not perhaps agreeable to the mutilators, to see a reprint of the amended Bill, or at

all events of the suppressed passages. C. [We do not know who the "mutilators," as our correspondent calls them, were, but we believe that had the words to which he refers been inserted, the Bill would indeed have been an utter failure, from the impossibility of carrying out its provisions. No Act of Parliament will make men honest, but it will prevent many from being dishonest, and the relief to the would-be respectable trader from the present measure will be great, even though the Bill be defective from a Utopian point of view. Eds.]

Wellingtonia gigantea.—I send you a report, with dimensions of two plants I have under my charge. One, planted in 1860, height when planted 2 feet, is now 16 feet; circumference of branches at the base, 30 feet; diameter of ditto at ditto, 11 feet; circumference of bole, 2 feet 9 inches; growth of leader this season, 1 foot 6 inches. The second plant, planted in March, 1865, height when planted 2 feet, is now 11 feet 6 inches; circumference of branches, 23 feet; diameter at the base, 8 feet 6 inches; circumference of bole, 2 feet 3 inches; the growth of the leader this season was 1 foot 6 inches. It is a beautifully furnished plant. I find it perfectly hardy. The winter of 1866 and 1867, I consider a good test, and I hope we shall not experience such a winter again. The glass here on the 2d and 3d of January, 1867, indicated a temperature of 4° and 9° below zero, which killed our *Deodars*, *Taxodiums*, *Cupresses macrocarpa*, and scarcely left a vestige of life in the *Pampas Grass*. The *Wellingtonia* appears to enjoy the other extreme, for it is growing with undiminished vigour. Give it a good situation and treat it well at the root, and I feel confident it will not lose its popularity. *J. Woodward, The Gardens, Garbrand Hall, Ewell, Surrey.*

Frost in Ireland.—I enclose you a portion of haulm of Potato I gathered between Lisburn and Hillborough two days ago, that you may see the effect the severe frost produced upon the crop of Potatoes in certain spots; some have the tops just cut off, in other fields all the leaves killed, and some killed to the ground with the exception of the little stalk which you will see green. Other fields again are not touched at all; but the great bulk of the fields are injured more or less, and I am afraid in many places the produce will be curtailed; although I do not wish to give a desponding view of the crops generally, as they never looked better, and there is little or no disease that I have seen or heard of either in Antrim, Armagh, or Co. Down. Wheat crops are above the average, and Oats, unless on the light sandy lands, a good crop. *Erin, Sept. 3.*

Truss Pipes and Flexible Joints.—Can you give me any information respecting these, which I have been recommended to use in fitting up a new hot-water apparatus? *W.* [These joints, which are now pretty well known, are extensively used, and, as we believe, with every satisfaction. They have the merits of being neat, of fitting perfectly, and of being easily fixed, or removed and replaced; the latter being no slight recommendation in the case of alterations or repairs. We understand that pipes on this principle are now made up to 4 feet bore. Eds.]

Oxalis corniculata atropurpurea.—Can any of your readers give me any information as to the origin of the above-named plant, which is sometimes termed *O. tropaeoloides*, though I do not know on what authority? I believe nothing is known on that point at Kew, no wild specimen existing in the Herbarium. On the other hand, it is difficult to suppose that it can be a mere seedling from the typical species, for, as far as my observation has gone, it exhibits under cultivation no variation whatever. I have an impression that the plant has been either figured or described in "*Flore des Serres*," but, not having access to that periodical, I venture to ask if I am correct? and, if so, perhaps you will kindly quote M. Van Houtte's history of this little Oxalid. *East Anglian.* [The Oxalis in question is figured in the "*Flore*," vol. xii., t. 1205, under the name of *O. corniculata atropurpurea*, and is stated to have been received, under the provisional name of *O. tropaeoloides*, from M. Schlachter, of Loos, near Lille. No further history is given. Eds.]

Iron Pipes Blocked. (p. 948).—It is one of the peculiarities of the Polyzoa that they only live in dark places. The British species are found either under stones or attached to various materials under bridges and other places where there is little or no light. It therefore occurs to me that if strong glass pipes were laid at the bottom of an open trench we should hear no more of this serious inconvenience. *W. T.*

Foreign Correspondence.

LORD HOWE'S ISLAND.—I have lately had an opportunity of visiting Lord Howe's Island, which lies off our coast (Sydney) some 300 miles. It is small in extent and scarcely known to any but navigators. A few observations relative to the botany of the place, may therefore be interesting to your readers. The island is situated in lat. 31° 35' S., and long. 159° 3' E. It is somewhat semicircular in form, about 4½ miles in length, and 1½ miles at its widest part. On its southern extremity there are two mountains, over 2500 feet high; from the base of these to the northern end, where the ground again rises to an elevation of about 1200 feet, the intervening space is of a low, undulating character. The whole of the island is densely covered with a vegetation mainly consisting of trees, shrubs, and Palms, there being no barren spots upon it, excepting the precipitous cliffs of the mountains and coast. From this description of its size and breadth it will be apparent that the greater part of the island is subject to the effects of the sea breeze, yet, on the southern and most exposed side, Palms and exogenous trees grow down to high-water mark, and, except in being dwarfed, seem to be otherwise entirely unaffected by exposure.

After passing the first belt of trees, a species of Fig (*Ficus*) abounds, and occupies much of the low-lying

grounds. In general appearance it greatly resembles *F. macrophylla* of our eastern coast. It differs, however, from that plant by its smaller fruit and foliage, by the under-part of the leaves being more ferruginous, and by its great tendency to produce adventitious roots from its branches, which, after reaching the ground, become stem-like, so that in many instances it is difficult to determine the original trunk. In this respect it is the most remarkable species of *Ficus* I have met with in this part of the world. The largest tree of the kind which I noticed was, as nearly as possible, about 100 yards from the extremity of the branches on one side to that on the other, and had very numerous root-stems. It was a glorious sight, and one long to be remembered. In two or three instances these trees were found forming, as it were, a circle round an open space. This, it was plain, was caused by the original tree dying off entirely in the centre, and its branches in consequence becoming so many separate individuals. It is called *Banyan* by the settlers, after its great prototype of Indian notoriety. No other species of *Ficus* was observed.

Among these Figs, and in every situation upon the island, whether high or low, to the extent of my investigations, two similar, but very distinct species of *Areca Palm* abound, one of which is called by the settlers the *Cabbage*, or *Thatching Palm*, from the fact of its fronds being the only material used for thatching upon the island. This is managed by the base of the foot-stalk of the frond doubling just below the pinnæ, at which point it is worked on a batten, secured in the roof for this purpose. The stalks are brought rather close together on the inside, forming a row of ribs, which has a somewhat neat appearance, and the feathery spray, or pinnæ, on the outside, become an outer covering, of from 7 to 8 inches in thickness, rendering the interior impervious to wet, and cool and comfortable to the inhabitants; it will last from eight to ten years. The other Palm, equally abundant, and intermixed with the one just noticed, is not used for any special purpose. It is of a more slender habit, having shorter and more arching fronds, with the pinnæ rising from the rachis instead of falling as in the former, giving it a rather peculiar appearance, from which it is called by the settlers the *Curly Palm*. Both of these produce very large quantities of fruit, the drupe being of an ovate form, about 1 inch in length, and both have simple spatules (the latter having the longest), produced from among and below the lower fronds. The seeds of both kinds are eaten with the greatest avidity, and are, indeed, the principal support of the large bodies of settlers' pigs, running in most parts of the island.

At an elevation of about 1500 feet, nearly the limit of the preceding species, another and very beautiful Palm occurs, called the *Umbrella Palm* by the settlers. It has large pinnate fronds, with a branching spadix, bearing a large plum-like fruit, which is of a reddish colour when ripe. This tree is comparatively rare, and is strictly confined to the sides of the high mountains, on the tops of which another and smaller species of Palm than any of the preceding kinds is said to grow in very great abundance, the fruit yielding the chief food of the wild pigs running about in that part. I speak of this Palm only from hearsay, as neither I, nor any of the party who visited the island with me, succeeded in reaching either of the mountains' tops. The settlers, who frequently go there to hunt wild pigs, describe it as comparatively low in stature, and bearing a profusion of roundish-shaped fruit. This island, therefore, though very small in extent, produces four distinct species of Palms, none of which, I think, are described.

Among other endogenous plants, those chiefly remarkable are two species of *Pandanus*; one, found principally near the coast, with a stout, straight stem, bearing from its sides a small number of the usual root-like supports; the other having a much more slender stem, and, from an early stage, supported by other very numerous, slender, stem-like roots, which are borne to a very considerable height, up to a point where the stem branches off. The general appearance of this tree, which frequently attains a height of from 40 to 50 feet, is very singular indeed: the whitish coloured root-like bodies, or forked, adventitious stems, occupying as much space below as the branches do above, and thus making the tree resemble an hour-glass. This is a more inland plant than the former, and grows up to a very considerable elevation.

The next and only plant of this class of any particular interest belongs to *Iridaceæ*, and is found only in two or three parts of the island, and that sparingly. One is puzzled to think how such a plant could be indigenous to this quarter of the world, so far distant as it is from most of its congeners. Seed vessels only were obtained, which resembled those of the genus *Moraea*; the flowers were not seen, but from the description given of them by the settlers, who call them the "wedding flowers," they would be referable to the genus named; the leaves of the highest plant obtained were about 6 feet in length, and 3 inches wide at the broadest part.

Crinum pedunculatum was abundant in many parts of the moist sandy shores; it was the only *Amaryllid* noticed. Orchids were rare, only two kinds being seen, one, a species of *Dendrobium*, grew sparingly upon Figs, and in rocky, shady places; another, a species of *Sarcophilus*, was observed attached to trees high upon the hill sides. The Grasses were equally scarce, only three indigenous kinds being gathered, viz. *Spinifex*, running along the sands of the coast; a *Chloris*, and a *Polypogon*, the two last only in one or two places in the interior. In all the clearances made by the settlers not now in cultivation, our *Couch-grass*, *Cynodon Dactylon*, and our *Tufted Grass*, *Sporobolus elongatus*, both evidently introduced, have taken possession of the ground. A single species of *Carex*, a *Cyperus*, and a *Lamprocarya* are all that represent the

Cyperaceae, while *Juncus maritimus*, *Smilax folia*, and a *Commelynaceae* plant are the only endogenous plants observed.

would occupy too much space, and would be out of place in this sketchy description of the botany of the island, to enumerate all the exogenous plants collected, I shall, therefore, confine myself to those which grow with the greatest abundance and which mainly characterize the vegetation, namely, *Lagunaria Patersoni*, an Australian as well as Norfolk Island plant; an *Chrosia*, remarkable for the abundance of its deep red-colored fruit and bright green foliage; two species of *Crotonia*, *Olea paniculata*, a *Pironia*, allied to *Pironia*, a *Tetrathera*, a *Maba*, a *Myoporium*, *Alphitonia lucida*, and an unknown *Myrsinaceae* tree, bearing large quantities of a small oval, reddish fruit, singular as being the only tree on which was found a very curious parasite *Viscum distichum* (Bauer, lustr.). This grew only on the extremities of the top branches, and had the effect of apparently destroying together some of the trees on which it had fastened itself. These plants, with the *Ficus* referred to in the latter part of this paper, constitute at least three-fourths of the trees and shrubs in the island. The *Myrtaceae*, which might naturally be expected to have been largely represented upon an island so contiguous to the Australian coast, were confined to a small species of *aleuca*, called by the settlers "Kilmoquo," and by them as a substitute for tea; and an arborescent species of *Leptospermum*, very rare indeed, as only one of the kind was found, which was dead, and had its vessels only upon it. *Proteaceae* were altogether wanting, and not a type of the Australian *Leguminosae* found, this order being here confined to *Edwardia*, *Andina*, and *Canavalia*. A single *Epaerid* was noted, and this at a high elevation, being a tree of 10 to 50 feet in height, with a stem 2 feet in diameter at the base, and described to me by my companion, who found it, as very branching in habit, and of a lustrous green, except at its extremities, where the leaves became closely imbricated and bunchy in appearance, surrounding terminal panicles of flowers, giving a resemblance, as he observed, of so many small apple plants. Some of the uncultivated ground, many other waste places, were entirely taken possession of by *Verbena bonariensis*, the *Castor-oil*, the *Gooseberry*, and *Solanum laciniatum*, the garoo-apple of our colonists, all of which may be considered the troublesome weeds of the settlers.

have now only to notice the Ferns, which are confined to the following genera, viz., *Polypodium*, *Pteris*, *Holopis*, *Asplenium*, *Platycerium*, *Litobrochia*, *Chlopteris*, *Diplazium*, *Davallia*, *Trichomanes*, *Sonia*, *Alsophila*, and *Marattia*. Of these, the strictly arborescent kinds were two species of *Phila*—one the well-known *A. excelsa*, the other a slender-stemmed species, which, I think, will be as yet undescribed. The genera *Adiantum*, *Aspidium*, both so general in Australia, Norfolk Island, and New Zealand, were not observed; but *Sipteris*, so nearly allied to Ferns, and common to these countries, was found here in many places. Other branches of Cryptogamic botany I had no time to investigate, but the Mosses and *Jungmannia* comparatively scarce. Lichens, particularly the r kinds, such as *Parmelia* and *Stictis* were very abundant, on both rocks and trees on the higher grounds. Along the coast, and washed ashore, were numerous kinds of Sea-weed, but they appeared to be principally small fucoid forms, intermixed with a few entous kinds.

those acquainted with the botany of Australia adjoining islands, it will be apparent, from the sketch here given, that the plants at this island more nearly resemble those of Norfolk Island, from which it is distant some 500 miles, than those of any other country. The *Leptospermum* and *Melaleuca* are almost the only plants which link its flora with that of Australia, all the other kinds being chiefly types of flora found on Norfolk Island. This resemblance will be more clearly indicated, when, at some future time, I shall give a detailed account of all the plants observed and collected during my three days' sojourn on this interesting little island. C. M., *Botanic Garden, Sydney, June 16, 1869.* [We thank our correspondent most heartily for this communication, one which interests us as regards botanical geography. Eds.]

ALLA LUCIA, VOMERO, NAPLES.—On the 24th, 25th, and 26th of January last we had a frost here, such as is not at respectable authority, "the oldest inhabitant," said never to have experienced in Naples. The thermometer fell to 3° below zero, and we had snow on the ground and ice on the ponds for nearly the whole of the three days. I have a large collection of tropical and sub-tropical trees and plants, some of which were killed terribly, and a few have died in consequence. Two splendid plants of *Furcraea gigantea*, which had just come up, died down at once; also the *Cryptomeria japonica*, *Aralia dactylifolia*, *A. papyrifera*, and *A. solidii* died off to the ground, but have since come up again; *Phyllocladus asplenifolia*, dead; *Melanthus*, *be*, *Dammar Pine*, all suffered greatly, but recovered with care. I will not, however, trouble you more with my losses, but come to the points upon which I wish to ask your opinion. I must tell you, however, that about a month after the frost we had very hot weather, and in the intermediate period very strong northerly winds.

Well, I have here a large and fine collection of *Araucarias*—several *excelsa*, *Cunninghamii*, *Cunninghamii glauca*, *Bidwillii*, *gracilis*, *brasilensis*, and last of all, the *Araucaria Cookii*, which of course you know well. Of these last I had three trees, each about 10 feet high—the most beautiful trees, perhaps, in the Villa. The *Araucarias* suffered, but all have come round again except the *A. Cookii*. One of these died at once, a second within three months, and the third, though

still alive, is in a very miserable state. Is there anything peculiar in this *Araucaria* which has made it suffer so much more than the others? Should a similar case occur this year, how should such trees be treated?—should they be watered, or manured, or the dead branches cut off, or what should be done? A friend of mine here, who has himself a large collection of valuable trees of the same sort, and who suffered in the same way, and who is besides a botanist of some reputation, told me that nothing was to be done, but this is very unsatisfactory. J. H. Y. [We fear nothing can be done with any certainty of good results: watering, manuring, &c., will do no good certainly. If there is remaining vitality, rather take care of this, especially through next winter, by covering the roots and the base of the stem; and then next spring, at the season for vigorous spring growth, bend down the stem, with the view of inducing a strong shoot from the base, as is done sometimes to get a leader from allied plants—e. g., *Cunninghamia sinensis*—when raised from cuttings. Eds.]

Societies.

ROYAL HORTICULTURAL: September 7.—W. W. Saunders, Esq., F.R.S., in the chair. The usual preliminary business of the meeting having been concluded, the Rev. J. Dix announced the awards of the Floral Committee, and afterwards directed attention to some specimens of *Looker's Patent Earthenware Propagating Boxes* (see p. 811), and said that the Committee had expressed a favourable opinion respecting their usefulness for amateurs and others having only small gardens, and had suggested some alterations to be made in them, so as to make them more serviceable to propagators having houses at their command. An example of *Green's Patent Pot-cleaner* was also sent by Mr. W. Green, of Garforth, and, with respect to this invention, the Committee was of opinion that it would demand more labour in washing pots than was incurred under the present simple mode. G. F. Wilson, Esq., having announced the awards of the Fruit Committee, alluded to the fruit of the Mulberry, and stated that the stain left on the fingers, after gathering ripe Mulberries, might be entirely removed by rubbing the stained parts with the juice of the unripe fruit on the same tree. The Chairman then directed attention to a new hybrid Ivy-leaved Pelargonium, raised by Mr. Eckford, which was considered as likely to do good service to the hybridist, as affording a means through which a good purple-flowered hanging variety could be obtained, which would be a great gain to horticulture, as a highly effective decorative plant. Mr. B. S. Williams' fine specimen of *Eucharis* was then commented upon, the Chairman remarking that it was a plant which, if kept in an ordinary warm moist greenhouse, was a continual bloomer through the summer months; and he knew of no plant that better repaid the cultivator for any trouble taken with it than this. Attention was then called to a nicely-flowered specimen of the old purple Cape Lily, *Vallota purpurea*, which was grown by G. E. Blenkins, Esq., in a small greenhouse in Warwick Square, Pimlico, and as the plant was in every way adapted for the decoration of such small structures in towns, the Chairman requested Mr. Blenkins to give some particulars respecting his mode of treatment. In reply to his invitation, Mr. Blenkins stated that the culture was of a very simple nature. He grew the plant from a small bulb, and it was three years before it flowered, when it was freshly potted in a mixture of peat, loam, and silver sand. It had continued to increase in size every year till the present time, though the soil had not since been changed. Mr. Blenkins considered it a very desirable plant for growing in London houses. The Chairman then remarked that this class of plants was very impatient of having their roots interfered with. Messrs. Lee's new Rose, *Clemence Raoux*, was then noticed as being very highly scented, a character which was not considered of any importance by a florist, but which was gradually coming into favour; and he (Mr. Saunders) was glad to see this, as he could not imagine why the sense of smell should not be gratified, as well as that of sight. A collection of South African plants, sent by Mr. Cooper of Reigate (who had been a collector in South Africa for three years), was then alluded to as affording a good illustration of the succulent nature of the flora of that country. In conclusion, it was mentioned that at the next meeting, or the one following, they would try to get together a collection of Funguses, some of which would be cooked for those present to taste.

Floral Committee.—Rev. J. Dix in the chair. This was a small meeting, though for the season it was of average interest. From G. F. Wilson, Esq., East Hill, Wandsworth, came some cut flowers of the true *Lilium speciosum*, a fine old species, which for some time was thought to be lost from our gardens. To Mr. B. S. Williams, a Special Certificate was awarded for an admirably grown example of *Eucharis amazonica*, which had about 3 spikes of blooms in various stages of development. A similar award was also made to a collection of Orchids from the same exhibitor, consisting of *Aerides suavisimum*, a distinct white-flowered species with a blotch of yellow in the centre of the lip; and a pretty variety of this named *delicata*; the handsome *Burlingtonia candida*; the somewhat scarce and beautiful *Miltonia candida* grandiflora, and the white-flowered *Lycaste virginialis*. To Mr. Green, gr. to W. W. Saunders, Esq., a Special Certificate was awarded for a collection of plants, consisting of *Nagellia Lindleyana*, a tall growing variety, with rosy flowers and spotted throat; *N. Madame Van Houtte*, dwarfier, with lighter coloured flowers; *Mandrolia lanata*, light violet blue; *Eucoloropsis negehibides*, rose, with darker spotted throat; *Restrepia antennifera*, a curious little brown-lipped flowered Orchid, with long thread-like petaline segments; *Onchium Linninghoffii*, a small species, with creamy yellow flowers, barred with brown; *Promenaea stapelioides pallida*, with flowers of a light green colour, larkly spotted; the greenish yellow flowered *Hoys campanulata*, and *Rhytidophyllum floribundum*, a free-blooming scarlet-flowered Gesneriad. From Messrs. James Backhouse & Son, York, came a plant shown as *Odontoglossum Bluntii*, with two fine spikes, to which a Special Certificate was awarded; it had, however, though white-

flowered, many of the peculiarities of *O. luteo-purpureum*. A choice collection of Orchids was also furnished from the Society's garden. From Mr. Parsons, Danesbury, came two very curious varieties of *Lactrea Felix-mus* named *ramosissima* and *purpura* to which First-class Certificates were awarded. To Mr. Wm. Bull a Special Certificate was awarded for a flowering specimen of *Lasiandra macrantha*, which was the best specimen that has yet been shown of this handsome new introduction. From Mr. S. Cooper, Holmsdale Road, Wray Park, Reigate, came a collection of small South African Euphorbiaceae plants, many of which were new species. A Special Certificate was awarded for the collection. Messrs. Standish & Co., of Ascot, sent a very good specimen of *Ixora Dixiana*, a good free-blooming variety, with large cymes of deep salmony orange-colored flowers, &c. Amongst florists' flowers the *Dahlia* took the lead. Mr. Turner furnished some grand flowers of old sorts and a few new varieties, among which *Tolson-d'Or*, a very fine flower, of a bright yellow colour, and *Hurford*, of a kind of a lilac rosy hue, a very pleasing colour, and of good form were honoured with First-class Certificates, as also were *Aristidea*, rich dark-shaded crimson-purple, from Mr. G. Rawlings, Romford; *Queen of Yellows*, a large, bright orange-yellow flower, of good substance, from Mr. G. Parker, Maiden Green, Winkfield; and *William Lund*, a dark maroon-colored flower, from Mr. Burgess, Chelsea. To Mr. C. J. Barker, Littlehampton, a Special Certificate was awarded, for a collection of cut flowers of single and double *Petunias*, many of them being of great beauty. From Mr. Eckford, gr. to the Earl of Radnor, Coleshill, came a further collection of *Verbenas*, amongst which *Countess of Radnor*, blue lilac, well marked in the centre with violet, and with lemon eye, was singled out for a First-class Certificate. The same award was also made to a new Ivy-leaved Pelargonium named *Lady Edith*, dark crimson tinged with purple, from the same exhibitor. To Messrs. J. & C. Lee First-class Certificates were awarded, for *Clemence Raoux*, a new autumn flowering Rose, of a pale flesh colour and powerfully scented, and for a very fine new variety of the *Africanum* *Capillus Veneris*, named *magnificum*. From Messrs. Downie, Lurd & Luig came a new Nosegay Pelargonium, named *Lady Kirkland*, rich crimson, and a scarlet flowering zonal variety, named *Sunshine*. Some drawings of various flowers were shown by Mr. J. I. Macfarlane, 17, Spencer Road, Upper Holloway; they were carefully and faithfully executed, but in some measure defective so far as perspective is concerned.

Fruit Committee.—G. F. Wilson, Esq., F.R.S., in the chair. On this occasion there was a fair display of fruit. A grand collection of orchard-house fruit, grown in pots, came from Mr. Lockie, gr. to F. H. Berger, Esq., Court Gardens, Great Marlow, consisting of admirable examples of *Magnum Bonum*, *Pond's Seedling*, *Transparent Gage*, and *Che's Golden Drop* Plums; *Bergamotte d'Esperen*, *Gansel's Bergamot*, *Williams' Bon Chrétien*, *Beurré Superfin Forelle*, &c. *Pears Ribston Pippin*, *Reinette du Canada*, and *Empereur Alexander Apples* and a fine bush of *Barrington Peaches*, all of good size, and in fine condition. A Special Certificate was awarded. The same award was also made to a named collection of autumn and mid-season Apples, grown on small pyramidal trees, sent by Mr. Wm. Paul, of Waltham Cross, and to a choice collection of six varieties of Nuts from Messrs. H. Lane & Sons, Berkhamstead, amongst which was the rather rare purple fruited variety. The Chairman brought richly flavoured examples of *Louise Bonne* of Jersey Pear, grown in pots and turned out-of-doors to ripen. From Mr. Dancer, Little Sutton, Parnham Green, came splendid specimens of *Cox's Pomona* and *Warner's King Apples*, to show their free-bearing qualities. To Messrs. Rivers & Son a Special Certificate was awarded for a collection of six varieties of *Fruitigian Grapes*, consisting of *Early Avernac*, *Early Golden*, *Eugenian*, *Primavia*, *Early Saumur*, and *Tokay*, most of them being of good size. Several Means were shown by Mr. Renbald, gr. to F. H. Berger, Esq., Pimlico, Mr. Frost, Dropmore, Mr. Beach, Kingswood Warren, and Mr. Lockie; but, with one exception, they were over-ripe, and could not be fairly judged. Mr. Walton, gr. to E. Potter, Esq., Camfield Place, Essendon, sent a collection of Potatoes; Messrs. Carter & Co. also sent 50 lb. of the *American Early Rose*, the produce of 1 lb. of sets, grown at Forest Hill; these, with samples of a new *Kidney Bean*, shown by Mr. Turner, were requested to be sent to Chiswick for the Committee to compare with other varieties, at the meeting to be held there on Thursday last.

INTERNATIONAL HORTICULTURAL EXHIBITION AT HAMBURG.—The Congress at Hamburg has, we believe, been a great success in a financial point of view. More than 60,000 persons were in the grounds on Sunday, and about a third of that number at least every other day. The whole disposition of the several parts, and the beauty of the situation itself, could not fail to have its proper effect on every one, but if it were asked, as was indeed the case, What is to be learnt from it? we must confess very little. After the collections of *Linden*, *Verschaffelt*, *Veitch*, and one or two more who constantly contribute the most interesting and novel articles on such occasions, and with the exception of the Museum, which comprised several matters of interest, and one or two objects in the fruit houses, there was little really to command attention. We ought not, however, to omit the specimens of pruning, especially those from France, from which certainly something might be learnt.

Unfortunately, with the exception of the Grapes and Pelargonium, there were no means of comparing the state of cultivation with that of other countries. The Grapes exhibited by Meredith and Thomson were incomparably better than any others, though a great push was made to secure the prize for three very inferior Prussian bunches. We were sorry to hear that the same sharp practices which have been so much complained of at home were revived here, and that cuttings were taken from every one of the beautiful *Tricolor-leaved Pelargoniums*. The *Dahlias*, *Hollyhocks*, *Fuchsias*, &c., among the flowers, and the *Cucumbers* amongst the fruit, would absolutely not be looked at by the Committees at South Kensington. The *Asters* alone seemed superior to those which are seen in England, where they are rarely objects of exhibition in London. In *Cucumbers* especially the sorts seemed very inferior; and, where any size was attained, the specimens were ripe, a state in which a great many *Cucumbers* appear in the market.

Amongst the garden machines there were a few minor things which were interesting. A new system of heating obtained the 1st prize, but we in vain strove to ascertain on what grounds. A clumsy apparatus for lifting and transporting plants, from Peter Smith & Son, of Hamburg, had the 1st prize assigned it, after a very cursory examination, a 2d only being given to Mr. Barron's, of Borrowash, which certainly

surpassed it in every good quality. We cannot help regarding this as a case of gross partiality.

The Congress for the discussion of questions of interest to horticulturists sat for three days, but we cannot find a single point on which any new light was thrown out.

[FROM ANOTHER CORRESPONDENT.]

This great exhibition of Horticulture, which opened on Thursday, September 2, and will continue to be held open until this day, is in many ways a remarkable one. No expense has been spared by the committee to render it attractive, and every inducement has been held out to render it interesting in its character, not only by inviting contributions from our country, but by embracing in its scope every class of plant cultivated in gardens, every variety of produce, and every article or implement used in connection with gardening in any way. That the whole has been accomplished would be, perhaps, saying too much. There is, however, one of the most extensive and varied horticultural exhibitions we have ever seen. Finer shows of plants we have frequently in this country, it is, indeed, difficult to pick out any special features of excellence anywhere, so far as cultivation goes, but having said this, we must admit that the tout ensemble is beautiful and instructive.

The show-ground, which covers between 20 and 30 acres, is beautifully chosen, and splendidly situated on the north bank of the Elbe, in a sort of ravine or valley, in which there is a fine piece of water at the bottom. The ground on both sides is occupied by the show, and the two portions are connected by a light suspension bridge, erected for the occasion. The whole of this pretty valley has been very tastefully laid out with beautiful winding walks, and groups of trees, shrubs, flower-beds, &c., by Herren Jürgens, of Ottensen, with great taste and skill. On this portion are exhibited most of the cultivated plants, and ornamental plants—large houses being erected for the accommodation of those that require it, and others, Conifers, Fuchsias, Pelargoniums, skilfully dispersed and grouped in beds in the open ground; thus giving the appearance of a beautiful garden, rather than of a stiff and formal exhibition. Connected with this ground by a substantial temporary bridge, on the opposite side of the road, is another portion of 4 or 5 acres, devoted to machinery, garden implements, fruits and forest trees, &c., the first part not having been found large enough for the display.

The prize offered by her Majesty the Queen, for the three best bunches of Grapes, in need of some of our champion Grape growers to compete for the purpose of securing it—to wit, Thomson of Dukeith, and Meredith of Garston. The prize, as advertised and announced by the Hamburg committee, was to be given for the three best bunches of Grapes, and on this understanding the fruit was sent to Hamburg and staged; when, to every one's astonishment, it was announced that a telegram had been received from General Grey, from the Queen, to the effect that it was to be given, not for the best specimen of Grapes, but for the best assortment of Grapes. Thus the English exhibitors, who brought their fruit in accordance with the schedule, were placed at a discount by this new arrangement. We are of opinion that however important it may have been to consult the wishes of her Majesty, it should have been done at an earlier date, and that if the matter had been clearly explained to her Majesty no such alteration would have been attempted. We maintain that the committee, having offered the prize for the three best specimens of Grapes, were bound to abide by that decision. Mr. Meredith had the good fortune to bring a splendid collection with him, and so became able to compete in other way, and thus triumphantly secured the great honour; otherwise, there cannot be the slightest doubt about it, the Cup was intended to be awarded to M. Wesselhöft, the German opponent. We cannot too severely censure the authorities for their behaviour in this affair. The more it is inquired into the uglier the matter looks, and the more plainly are the intentions seen. We are pleased to congratulate Mr. Meredith on his success, which adds one more wreath of victory to his already numerous honours as a Grape grower. Mr. Meredith's collection consists of three very large, although not particularly handsome, bunches of Mrs. Pince's Black Muscat, a beautiful set of three bunches of Black Hamburg, perfect in every respect, Muscat of Alexandria, Lady Downe's, Trenton Black Muscat Hamburg, &c., all very excellent examples. Mr. Thomson competed with a very perfect bunch of Chasselas Napoleon, weighing 4 lb.; a very large bunch of Muscat of Alexandria, 5½ lb., somewhat green in appearance; and a Black Hamburg, 3½ lb., not quite up in colour, and with the double misfortune of having been bruised and broken. To these the jury awarded a Gold Medal. M. Wesselhöft exhibits a stand of 12 sorts, of very fair and ordinary quality, to which the jury, for some unknown reason, awarded the Cup of the Duke of Mecklenburg, thus placing them before Mr. Thomson's, which were vastly superior. A Gold Medal was awarded to Mr. Thomson for his new and magnificent Grape, Golden Champion, which by its noble appearance excited the unqualified approbation of everybody. For White Grapes Mr. Meredith was placed 1st with Muscats, and for Black Grapes he was disqualified, on account of having obtained the Queen's Cup—the jury evidently forgetting that the objection was equally valid in the one case as in the other. The 1st prize was given to M. Helmen Huger, a fruiterer in Hamburg, for very poor scribbly stuff, so that it is not necessary here for the exhibitor to be the cultivator. A great quantity of Grapes is exhibited, principally however, from vineyards in the south.

Pink Apples make a very excellent display, the fruit in every instance being large and fine. The varieties are the Ripley Queen, and Prickly Cayenne. One peculiarity which we observed as belonging to all these fruits was their round, full, and plump character, not nearly so tapering as is usual with us. Some exceedingly good examples of fruit trees in pots—Apples and Pears chiefly—are exhibited by the president, Dr. Marek, M. Wesselhöft, and others. These are in small pots. The Apple trees about 2 feet in height, and bearing without exception the finest fruit we have ever seen grown in pots—some of the examples of Calville Blanc and Reine des Canals Apples, and Louise Bonné of Jersey Pears being perfect pictures. The show of Peaches is a very poor one, the best collection coming from M. Lepère of Montreuil; the Peach crop, as with us, having been almost an entire failure. Apples and Pears are contributed largely by the nurserymen—M. Jamin et Duran, of Paris, of Sceaux, Demouilles, Toulouse; Martin Müller of Strasbourg, whose collection, it may be noticed, which contains many English sorts, is very incorrectly named, and many other exhibitors show minor collections. There does not, however, seem to have been any regular competition in the way of specimen fruit, and the great majority of the fruits are of a very inferior description, with numbers of decayed specimens giving the whole a very untidy appearance. Quantity altogether exceeds quality in this section; by reducing the number to one-half, the exhibition would have been much improved.

The trained Faux Treas, which occupy a considerable portion of ground near this, are capitally displayed, and formed a somewhat novel and interesting feature. All the trees having their leaves stripped off them, this quarter had rather a wintry aspect. Samples of all sorts of nursery fruit trees are shown in this department—cordons of all sizes, espaliers of all forms, pyramids, candelabra, goblet, as well as common orchard standards, and that to a great extent. It is impos-

sible to avoid falling in love with some of these pretty trees. The principal exhibitors are Messrs. André and Louis Leroy, of Angers; Croux et Fils, of Sceaux; Jürgens, Nicustadter, Holstein; Müller, Strasbourg; and C. Millien, of Lübeck. The only regret we experience is, that so many pretty trees should have been nearly ruined through having been transplanted at such a season.

In the COPPEROUS classes the competition was pretty keen. It was a good idea of the managers to offer these prizes, as by their means the garden was at once beautifully embellished. We cannot say, however, that we approve of the exhibition in a general sense, excepting it might be in the case of new varieties. Some interesting groups are here contrived, as well as good examples in the classes for single specimens; the chief exhibitors and prizetakers being Messrs. Peter Smith & Co., Hamburg; Barron & Sons, Borrowash, Derby; Jürgens, Nicustadter, Holstein, &c. We cannot here enter into detail as to the merits of the various collections. We must observe, however, that the awards of the jury in many instances seem to us unaccountably strange. In the case of the specimen Abies nobilis, the 1st prize is given to a plant from Peter Smith & Co. not one-half the size of, nor one-half so good as, the one exhibited by Messrs. Barron & Sons. The prize plant, however, is honoured through bearing half a dozen cones, a result arrived at through ill-health; this precocity must have embarrassed the jury very much. The plant is truly a most miserable scrub without a leader, and in the last stage of disease. Again, with the specimen Cedrus Deodara, the 1st prize is awarded to the larger, but very inferior plant, without a leader, which at the time we write is almost dead. Messrs. Barron's pretty, compact, healthy plant being placed 2d. Peter Smith & Co. carry off the great prize for a group of 100 sorts with some large specimens, many of which, we are sorry to see, are now dying. Messrs. Barron & Sons carry off 1st honours for 25 Abies and Picea, 6 varieties of Retinospora, and 3 Thujae—all very excellent specimens. The 1st prize Araucaria imbricata came from J. Verschaffelt, Ghent, a perfect model of a plant, some 12 feet in height. The same, however, cannot be said of the prize Wellingtonia, which is truly a wretched object—now quite dead—and ought to have been disqualified with much greater show of reason than in the case of Messrs. Barron's lot of new varieties of Abies Douglasii, which, although they have obtained numerous 1st class certificates in England, were here entirely passed over as altogether unworthy. We have made these remarks, which we think are in justice due to Messrs. Barron, who have contributed largely to this exhibition, and whose plants have received anything but justice at the hands of the jury.

Very beautiful groups of Roses, standard and others of the free blooming hybrid perpetual and hybrid Tea classes, are shown by Fried. Harms, Hamburg; these, being now in full bloom, have a pretty appearance; one group of about 30 Gloire de Dijon is particularly noticeable. The standard Fuchsia, which comes also from M. Harms, presents one of the best examples of cultivation in the grounds. The prize offered for the best and most effective group of one-forged plants in the open air, brought together a lot of very good plants in themselves. Variety, however, seems to have been more studied than effect, and the whole is a mass of confusion. The same remark will apply to all the attempts in the arrangement of flower beds throughout the entire show—too many varieties of flowers used in one bed, without the slightest harmony of colour or effect.

Messrs. F. & A. Smith, Dulwich, exhibit a fine lot of their tricolor and tricolor variegated Pelargoniums, which are the admiration of every one. There are some good specimens of the double varieties, exhibited from some other growers. The best lot of NEW PLANTS undoubtedly comes from Messrs. Veitch & Sons, Chelsea; these, however, were not entered for competition, and so failed to receive the Gold Medal, which otherwise they would have obtained. They comprise eight beautiful Nepenthes, six new Dracaenas, several Crotons, the new Japanese Amaranthus, a fine new Dieffenbachia Bowmanni, one of the best of its class; some new hybrid Alocasias, &c.

M. Linden, of Brussels, also exhibits a large collection of foreign plants in pots, a fine part of the curious Cacta steala Jacobina, Ficus Lindeni, Cissus Linnæi, the singular-looking Trichostema ferax, Odontoglossum Alexandrinum, Cattleya eldorado, &c. M. Linden's lot is not at all an effective one, the plants being arranged in such a slovenly manner, and the dark and dismal lighting not being calculated to show the plants to much advantage. Indeed, the structures for the display of plants, which must have been erected at an enormous expense, were by no means suitable; they were very dark, rough, and untidy, and the arrangement of the plants in the different classes past understanding. Orchids figured very poorly, only two collections of 12 being staged, the 1st prize going to M. Linden, and the 2d to M. Kramer, gr., Flobeck Park, Holstein. The great prize of 500 thalers, for 50 plants in the highest state of cultivation, of which at least one-half must be in flower, is awarded to M. Kramer, Flobeck. The great majority of the plants in this group are very ordinary material, if we except some pieces of Disa grandiflora, which were truly splendid, and one or two others, there was scarcely a plant which at a London show would have been staged for such a prize. Palms were contributed in careless array, and some very fine examples. Messrs. Linden, J. Verschaffelt, and Laurentius, Leipzig, all contribute large and fine groups, the best, however, comes from Herr Wenzling, The Royal Gardens, Herrnhau, amongst which are some splendid plants of the different Geonoma Warronii, Martiana, sarajewensis, &c., Phormium tenax, and Arca Verschaffeltii. M. J. Verschaffelt exhibits a very fine plant of that beautiful tree Fern, Dicksonia antarctica, over 10 feet in height, which, to bring so far, must have been a work of no little trouble.

In a separate building are exhibited collections of market plants, such as Asclepias, Camellias, Heaths, Ficus, Dracaena, which are uncommonly well done; Primulas, Cyclamens, &c., all very good, but ordinary stuff, such as is to be found in any nursery. An immense collection of cut flowers is exhibited by Messrs. Ernst & Van Spreckelssch. A very great variety of Asters from the different German cultivators, the best examples coming from Dupré Brothers, seedgrowers, Quedlinburg. Finer Asters than these we have never seen. Anemones are also well shown here. Hyacinths and Pansies in large flowers, from Messrs. Downie, Laird & Laing, Stanstead Park; and Colours, Tricolor and Bronze Pelargoniums, from Carter & Co., F. & A. Smith & Co., which latter carry off the 1st prize, and very worthy so.

Bouquets and other flower decorations it was expected would have produced a fine display. On the contrary, however, they were all of the most common description. Here, again, the charm of colour was in most cases overlooked, and a variety of flowers was attempted, which gave them all a very confused and untidy appearance. Better arranged bouquets by far were being sold in the grounds by those strangely-attired Victorian girls; the prettiest bouquet amongst them was of the simplest construction, being entirely composed of sprigs of Green Myrtle dotted over the surface with the pretty White Myrtle flowers. Bridal wreaths, and little white bouquets of the same construction are also very pleasing; so that the more simple they are the more pleasing they become. In contrast to this quiet beauty, some wreaths and bouquets made altogether with the double Pelargonium Gloire de Nancy flowers, mixed with a little Fern, were extremely

pleasing. A little stand with pedestal of the same flowers, drooping racemes at the edges, also attracted our attention. The patience and the perseverance displayed in fixing these flowers singly must have been very considerable. Bouquets of Cycas revoluta were also here shown with a bouquet of white flowers tied up with white satin ribbons. It is a custom peculiar to some parts of Germany, on festival occasions, for the mourners each to carry some of these flowers, and for the lid of the coffin to be similarly arrayed. Hence the reasons for the abundance of these plants in Germany, and the favour they are held in.

From vegetables, which came next, and of which there is great display, but of which we need say nothing here, we pass on to the machinery, tools, and implements. Prizes for the things have been offered in like manner as for produce, but we are unable to say how they have been awarded, excepting one or two cases—the great majority of the articles come from England. W. S. Boutton, of Norwich, exhibits the greatest quantity, such as garden engines, which we can highly recommend, being very powerful, of simple construction, and of easy action. Mr. Boutton also exhibits a rather ingenious garden watering pot engine. Several mowing machines, scythes—Messrs. Ransomes & Sims, Green's, Bolton, and Wild's new patent Archimedeon, which is no doubt a good article. Here, however, there was no one to show off its capabilities, so that its working was not understood. The prize, we believe, went to Messrs. Ransomes & Sims. Messrs. Veitch & Sons exhibit a good assortment of garden tools, lery, seeds, &c.; and a great quantity of American hatchets, hoes, &c., are exhibited by Messrs. Schmidt, Franckes, of Osnabruck and New York.

Messrs. C. Behring & Co., of Hamburg, and Silver Street, London, exhibit samples of their new charcoal flower, which they are attempting to introduce. Charcoal, we believe, is very much liked by the roots of plants; so that we believe if this material can be used and made at a reasonable price will be a great acquisition. There are also slates of the same material, which are intended to be used as a substitute instead of slates, also for lining for walls of houses where Ferns, Orbits, &c., may be grown. A little experience, however, will better test the value of the material.

There are many other interesting articles exhibited, but we are unable to notice here. We cannot, however, omit to refer to the awards made for the best transplanting machines for large trees. Messrs. Barron & Sons, of Borrowash, whom we all know as having more practical knowledge of sort of work than almost any one, entered one of their machines, and came over here to contest the prize in a practical manner with that of Messrs. Peter Smith & Co., of Hamburg, and others. Viewing the machines as they each with its tree one is struck at once with the peculiar clumsy character of that of Messrs. Smith, that, with the other, the tree being somewhat bigger on the one than on the other, must have gained for Messrs. Smith the 1st prize; the award is monstrously unjust no one who has had practical experience of such work would for a moment doubt it. It is a most curious apparatus, that we have ever seen, we feel grave doubts as to whether it can ever be worked at all, we believe it broke down twice in the way which had the plant here. The objections against this machine are that the ball has to be enclosed in a large square wheel about 3 feet in depth, so that for all its roots have to be clean off to the required size, and big and little trees must have the same sized ball; 2d, the ball of earth takes 3 feet deep, is a great deal more than necessary, and the Messrs. Smith's machine, when lifted to its utmost height, cleared the ground by about 3 inches, so that the least unevenness of the roads, even a stone, would impede its progress, the wheels are too high, and too narrow in their girth, that they would very readily sink into the earth, &c. We think that Messrs. Barron have just cause of complaint against the judgment, and that their request for a trial of their respective machines should have been allowed, instead of their having been judged in a hurried manner, as they were, by a jury who in all probability never saw a tree moved in a practical manner.

Of the show on the whole it may be said that it is a splendid success, and a most beautiful sight. We wish, however, that we could with equal satisfaction speak of the merits, and the treatment received by the exhibitors.

ROYAL CALEDONIAN HORTICULTURAL: Sept. 8-9. The general features of the great International Fruit Show in this Society are noticed in another column. Here we propose to give a few of its details. In the collection of 20 sorts, Mr. Stevens, gr. to the Duke of Sutherland, was 1st prize. In this group were good Providence and Pines, very fine Black Hamburg Grapes, excellent Muscat and some others of less note; a beautiful cluster of Bland matured condition, Brown Turkey and Lee's Perpetual, the usual varieties of Peaches and Nectarines, good Pines and Trenton Hybrid Melons, Coe's Golden Drop Plums, park Apricot, Raspberries, Strawberries, and Cherries small fruit was shown in dishes, the large in boxes, and whole was well arranged. The 1st prize was awarded Mr. J. Easton, gr. to the Earl of Strathmore, who had the finest Grapes. Mr. Thomson, Dukeith, was placed 2d, for his very fine arrangement of 12 sorts in a splendid stand, divided into several compartments. It consisted of Queen and P. Cayenne Pines, a pair of Dukeith Park Melons, fruited Golden Champion, in grand order, set from an excellent Alicante, Muscat of Alexandria, Mrs. Pince's, Buckland's water, and Black Hamburg, all very good. In fruit of again were good Victoria and Prince of Wales Plums, garde Peaches in fine style, Pittmaston Oranges Nectarine several of the small fruits, which latter weakened the collection considerably. Mr. Ingram, gr. to the Duke of Northland, Alnwick Castle, was placed 3d, a specimen which rise to some dissent, the general opinion being that the 4th ought to have changed positions, he put up events, a most creditable assortment.

In the collection of 16 sorts, Mr. Mathieson, gr. to the Mrs. Vulliam, Tulliallan, had a very fine assortment, arranged, and shown in chip baskets, suitably grouped, comprised excellent Black Hamburg, Muscat, and Morocco Grapes, set of Green Mosaic, extraordinarily large, and very fine coloured Early Crawford and Peaches; Violet Hâtive and Tawny Nectarines, the last grand colour; Moorpark Apricot, Kirkcaldy Seedling, and Mr. Bonnum Plums. Mr. J. Easton, gr. to the Earl of Strathmore, was placed 2d, for his very fine arrangement of 12 sorts in a splendid stand, divided into several compartments. It consisted of Queen and P. Cayenne Pines, a pair of Dukeith Park Melons, fruited Golden Champion, in grand order, set from an excellent Alicante, Muscat of Alexandria, Mrs. Pince's, Buckland's water, and Black Hamburg, all very good. In fruit of again were good Victoria and Prince of Wales Plums, garde Peaches in fine style, Pittmaston Oranges Nectarine several of the small fruits, which latter weakened the collection considerably. Mr. Ingram, gr. to the Duke of Northland, Alnwick Castle, was placed 3d, a specimen which rise to some dissent, the general opinion being that the 4th ought to have changed positions, he put up events, a most creditable assortment.

Coming now to the collections of Grapes, Mr. J. Easton, gr. to the Earl of Strathmore, was placed 1st with the following sorts—Black Morocco, in full bloom and colour than is generally seen, and, as grows, most desirable-looking Grape; Raisin de Calabre, in fine fruit and of full size; Lady Downe's Seedling, in fine fruit

Duchess of Buccleuch, much smaller than was shown by Mr Fowler some years ago. Black Hamburg, Muscat of Alexandria, Muscat Hamburg and Alicante, in quite marvellous form and beauty of finish, considered by all an advance on former years. Mr Bannerman, gr. to Lord Bagot, was placed 2d, with fair Alicante, Gros Guillaume, Muscat of Alexandria, Lady Downe's, Black Tenerife, a smallish bunch, with medium berries in good finish, very good Mrs Pince's, West's St. Peter's, and Hamburg. Mr Thomas, Dalkeith, had a good mixed assortment comprising Black Hamburg, highly finished Muscat of Alexandria, Mrs. Pince's, imperfectly coloured; Trebbiano, good; Golden Champion, very good indeed; Lady Downe's, White Lady Downe's, and Alicante. Messrs. Lane & Son had also a collection in this class.

In the four-bunch class Mr Wm Bryden gr to Sir William Wallace, Lochrym House, Wigtownshire, had an excellent lot, well in size both of bunch and berry. His Gros Guillaume bunch was quite first-rate, and so was Alicante, with very good Black Muscat and Muscat Hamburg. Mr. M'Connell gr to A. Snellett, Esq., Cameron House, Linlithgowshire, had Black Muscat, Muscat of Alexandria, Black Prince, and Hamburg, very good and uniform. Mr. Wm. Meade, gr. to Messrs. Clark, Esq., Minley Manor, had Muscat Hamburg very good in his group. Mr. Bannerman had Gros Guillaume in 1st order, Mr. Meredith, who was not placed, had Hamburg and Lady Downe's, good, and Mr. Lees, Tynninghame, had also a fair collection. In the two bunch Black Hamburg, two Muscat of Alexandria, one bunch of each of the above named, one Alicante, one Lady Downe's, one flavoured white, one flavoured black, one finest bloom, and a collection of Grapes not included in other classes—in these 14 different classes, wonderful to relate, Mr. Johnstone was 1st. All his Grapes were in the best condition, and he brought them off without destroying the bloom. If there was one bunch more than another that created almost a sensation, it was the Alicante, so finely grown in the first instance as to assume model proportions, and then so densely covered with bloom as if it had been under the influence of a "heavy dew" out-of-doors. In these classes, keeping out the collection of Grapes and the bloom, there were from 17 to 24 entries, showing how well the prizes were contested. Mr. Bryden took 2d prize with good Muscat of Alexandria. Mr. Loudon, gr. to T. Barnes, Esq., Salop, had the best ripened bunches, but the berries were small. Mr. Kirkpatrick, gr. to Lord Abercromby, Airthley Castle, had fine bunches, and so had Mr. Ingram, Alnwick, and Mr. Lees. Mr. Meade and Mr. Ingram had good single bunches of Muscat of Alexandria. Mr. Bannerman had a good 2d lot of Lady Downe's; Mr. Brunton, gr. to Sir D. Kinloch, Gilmerton; Mr. Fraser, Biggar; and Mr. Meredith, also had good dishes. In Black Hamburg Mr. M'Connell had a nicely-formed bunch, which took 2d place; Mr. Jas. Hannah, gr. to John Duncan, Esq., Burnhead; Mr. J. Anderson, gr. to J. F. Webb, Esq., Newstead Abbey, Nottingham, and others, had fine fruit. Mr. Wm. Melville, gr. Glenec, New Galloway, had the 2d prize for Alicante; Mr. George Greig, gr. to Wm. Christie, Esq., Greenbank, Liberton; and Mr. McMillan also showing well. For Hamburgs in pairs there were 23 entries, Mr. Walker Basset, gr. to J. C. Phillips, Esq., Cheadle, running the winner very hard for position, backed up well by Mr. Stevens, Trentham. The finest flavoured Grapes in white and black, out of respectively 19 and 17 entries, were declared to be Duchess of Buccleuch and Muscat Hamburg; Mr. John Brunton taking position after Mr. Johnstone.

The heaviest black Grape came from Mr. Jas. Douglas, gr. to F. Whitbourne, Esq., Loxford Hall, Essex, and Mr. Laing—both Hamburgs; and the heaviest white was a Broddingnagian Syrian, weighing 16½ lb., and in good general order. This came from Mr. Jas. Dickson, gr. to John Jardine, Esq., Askleton. The Messrs. Lane had a wonderfully large bunch of Muscat of Alexandria. Muscat Hamburg was well shown by Mr. David Morrison, Mr. Bryden, and by Mr. Jas. Turner, gr. to Mark Spott, Esq., Riddle. For the best pair of Mrs. Pince's Muscat, Mr. Meredith had extra fine samples, large in size, fine in formation of bunch, and well finished, much better than any exhibited by his competitors. It looks valuable as a variety. Mr. Jas. Douglas and Mr. John M'Donald, gr. to Mrs. Sharp Erskine, Dunmarle Castle, had the other lots.

Mr. Thomson had the best assortment of varieties of Black Hamburgs, comprising the small Vitis, a small but finely hammered berry, and Black a little larger and redder in the tinge, a seedling black, much inclined to shoulder, fine bloom. Champion, smaller than we have seen it, and Dutch. Mr. Johnstone, who had the 3d collection, had the Mild Hill variety, fine in colour, in addition to some of those named above. In the collection of Muscats Mr. Ingram had the largest bunches, and Mr. Thomson the smallest in the ripest condition. The lots comprised Escholata, loosely arranged in bunch; Tottenham Park, Bowood, Candia, Tynninghame, the least ripe of the group, and Canon Hall. Mr. Thomson also exhibited the White Lady Downe's in very promising condition, but unripe. Vines in pots were numerous, some of them layered and taken up for show purposes, Mr. Tinsall, Broomlands, and Mr. McLeod, Newbattle, being most successful.

In Pine-apples there were two superb fruits, especially the Charlotte Rothschild, from Mr. Miles, gr. to Lord Carrington, Wycombe Abbey. Very good Queens came from Mr. Fooks, Fordel, Inverkeithing, and an excellent lot was sent for exhibition, and specially rewarded, from Mr. Carmichael, gr. to H. R. H. the Prince of Wales, Sandringham. Mr. John Fortune, gr. to R. Jardine, Esq., M.P., Castlebank, showed good fruit of Smooth Cayenne, but a little too ripe. There were no fewer than 48 Melons placed out of 80 entries, Mr. Douglas winning in both Scarlet and Green-flesh with Scarlet Gem and Bousie's. Incomparable, Mr. Phillips, Stapleton Park, and Mr. Potble, Woodbridge, Suffolk, having also fine fruit. The best Figs were shown by Mr. Cowe, and the largest and best variety among them was named Luffness, a variety bearing a marked resemblance to Castle Kennedy. Mr. Laing and Mr. Fowler, gr. to the Earl of Harewood, had the 1st prize of fruit. Out of 16 dishes of 12 Peaches, Mr. Campbell, Alva, and Mr. Mathieson had the best, with the usual varieties, and out of 31 dishes of 6, Mr. Loudon, Salop, and Mr. Browe, Kilmarin, were the winners. Nectarines appeared to be scarce, there being but few entries, Mr. Hardie, Springfield House, being 1st. Mr. Ross, gr. St. Martin's, Perth, had the best Apricots, Mr. McIndoe, York, taking 2d place. Mr. Kirkpatrick, Airthley, and Mr. Scrymgeour, Holme Park, Reading, were placed for Plums with such sorts as Golden Drop, Washington, and Victoria.

Both Apples and Pears were only sparingly shown. By far the most attractive were the following kitchen sorts of Apples, from Mr. Scrymgeour, gr. to R. Palmer, Esq., Holme Park, Reading—Rehette de Canada, Emperor Alexander, Dutch Collin, Kentish Filbasket, Yorkshire Greening, and grand Olden. In the matter of both Apples and Pears this exhibitor distanced other competitors. Mr. McKay, gr. to Chas. Tennant, Esq., of The Glen, Peebles, had immense fruit of Pashiera quadrangularis, and some of the lesser sized Passion flowers. Mr. Barron sent a collection of Apples and Pears from the orchards of Middlesex, which were not without interest.

In the adjacent hall there were some extra fine plants, particularly of Tree Ferns and Crotons, from Mr. Sutherland, gr. to Peter Denny, Esq., of Helenslee; and these, with the Dalkeith and Tynninghame flowering plants, had an imposing effect. The orchestra and the tables surrounding the room

were filled with the produce of the various nursery firms in and about the city; and what with the glowing hues of the multicoloured Gladioli, and the splendid spikes of Hollyhocks, in the various classes, the interest of the promenade was kept up to a much more marked degree than heretofore. It is impossible, with the limited space at our disposal, to touch upon the many interesting things, far less to dwell upon the numerous stands of florists' flowers. It was pleasant to see so many well cultivated Heaths; Mr. Thomson's Austiniana, retorta major, and Jackson were large, fresh, and full of bloom; and so were those from Mr. Lees, who had Marnockiana in brighter colour than it is generally seen so brought about by standing the plant out-of-doors. By far the best novelty however, was a seedling, named after the raiser, Turnbull. It is a long tubed, waxy expanded variety, of a good red hue, and some day must take position as a leading autumn-flowering Heath. Mr. Thomson's Vandas, comprising tricolor and suavis, were particularly well done. One of the most striking plants in the hall was a Lapageria rosea, from Andrew James, Esq., Alva. It was grown and trained in seven circular tiers, arranged so that the pendent flowers could be well seen, and it was studded with them. The Messrs. Veitch's table was a great centre of attraction. The Orchids and Nepenthes, a portion of them seedlings of Mr. Dominy, were shown in grand style; and, although they had travelled over 400 miles, looked as fresh as seen in the Victorian stoves. Vanda insignis is a grand acquisition, flowering, as it does, in so dwarf a state, and so full of bloom. The new Cypripedium Harrisonianum is about the most perfect representation of a varnished flower known—superior to the best of the shaggy or hairy Lady Slippers (villosum). Cattleya Mangosii is a fine-tinted mauve, with a labellum beautifully frilled; Miltonia Warscewiczii is a particular little gem, with yellow and bronze sepals and petals, and a broad, almost quadrangular lip of dark and shaded purple, with a broad belt of white at extremity. In Cattleyas there were labata, speciosissima, maxima, and devoniana, all noble varieties; and the charming Dendrobium McArthur and Bensons, looked beautiful among the newer Crotons and Davallias, and the choice and chaste Lapageria alba. The whole was rendered enchanting by the addition of a bevy of Pittier Plants, with their curious appendages suspended in a variety of forms.

We were much struck with the perfection of the Hollyhock spikes of the Messrs. Dawnie & Co., as well as their Dahlia blooms, both showing fancy; and so were we with the collection of Gladioli of Stuart & Meis, Kelso—they were really grand. The cut blooms of Hollyhocks of the Rev. Edward Hawke and Mr. McIndoe were all but faultless; the blooms of Willingham Model and Phyrne, the one a saffron and the other a soft pink, were quite a treat.

The collection of vegetables from Dalkeith, from Tullialan, and from Balfour, were good, especially the lots of Peas, Potatoes, Parsnips, and Onions. Great credit is due to the Secretary and all concerned for the efficient manner in which the whole thing was arranged and perfected; everything was put right for the judges to commence their labours at 6 A.M., thus allowing gardeners, at a nominal fee, to visit the show between 9 and 12, and then a high fee for entrance was charged, to allow patrons and visitors to see the exhibition a little more pleasantly than when gardeners are bustling about inspecting the awards. [This is a capital arrangement. Eds.]

A very large party dined in the evening under the presidency of the Earl of Dalkeith—noblemen and gentlemen, and their gardeners, for once joining in social festivity on the same terms. These things are better managed about the "Modern Athens" than almost anywhere else.

Florists' Flowers.

NEW PICOTEES, &c.—The following new varieties are particularly good, and should be in every collection, as they are adapted for decoration either in pots or in the garden border:—

Picotee: Admiration (Turner), a fine large purple-edged variety; gives a quantity of flowers, and is of very strong compact habit.

Carnation: Prince of Orange (Perkins), the finest orange-yellow tree Carnation that has ever been brought before the public; a free flowerer, and of good constitution. It may be had in flower all the year round.

Olive: Bride (Hodge), pure white, with occasionally a little tint of flesh-colour in it, a large bold flower, particularly free and good; a strong grower, clove-scented, and will force well. W. Howard, Bedford Hill, Balfour, S.W.

The Apiary.

BEE-KEEPING IN SOUTH WALES.—The account I have received of the doings of bees in supers during the past season from various parts of Devon, have not been particularly favourable. One beautiful super, or rather two supers from the same stock, weighing nearly 60 lb. net, of exquisitely fine honey-comb, was brought from North Devon to be shown at our Exeter Horticultural Exhibition on August 20. One or two good supers are reported from Kinsbridge. With these exceptions, I have not heard of anything much worth speaking about. On the whole, therefore, I do not think "A B," of Narberth, has much to complain of in his harvest of 14½ lb. from four stocks. As regards my own apiary, and those of some others who were anxious to obtain honey in supers, I have to report that early in the season the hives showed a strong disposition to swarm, leaving their supers more or less filled with combs and honey, and, in some cases, having been largely bred in by the queen. I have frequently noticed that when a super is made the receptacle of a considerable quantity of brood, a swarm is almost invariably thrown off, although the internal capacity of the combined boxes may be very large, and not fully occupied with combs or bees. I should like to know from some of our Ayrshire friends what is the best treatment to be adopted with such stocks. Probably with their system of hive the proper management would be easily understood, but in the matter of ordinary box-hives with glass supers, it does not seem to be at all easy. Nadirs added to the stock hives do not answer; the brood remains in the super, is hatched out, and the honeycomb spoiled. To place a second super between the first and the stock is also, in such cases, bad practice, though succeeding well when honey only is being stored. To place a super above the one which contains the brood, thus making the first super a part of the stock or breeding

hive, would doubtless be correct, but can rarely be done except with hives worked on the same principle as the Stewarton.

With regard to the driving operations of the clergyman mentioned by "A B," wherein the two hives were conveyed into a darkened coach-house, and the bees drummed or frightened out, and allowed to fly back to their respective stands as best they might, it may at first sight appear strange that the queens should have returned with their subjects to their old localities. But it is not so if we consider that both the queens had most probably been born and reared, and had taken their virgin flights from, where they were located. They were both, to a certain extent, acquainted with the situation of their homes. If the hives had been at some previous time transferred to the stands from a distance, having the same old queens at their head, they would in all probability have failed in reaching their proper stands. A friend of mine had in his apiary a similar instance, in which, after driving a swarm of bees, and failing to discover the queen, which he was desirous of capturing, he at length found that she had, during the operation, taken wing, and had got back to the old stand, uniting with the stragglers, and entering the decoy hive placed there for the purpose of amusing them. She was a young Ligurian, which had only a very short time previously taken her wedding flights from the same spot. However, the plan of driving adopted by the clergyman is by no means to be recommended. Thousands of bees must have been unable to fly, or to reach their companions. The sacrifice of brood also in this case must have been very great. S. Bevan Fox.

Miscellaneous.

Coal Plants.—The substance of the coal, although entirely composed of vegetable matter, seldom contains fragments that can be recognised. These abound in the beds above and below the coal itself. The coal always rests on a bed of fine mud changed into stone, and called shale. This is generally much lighter in colour than the other shales of the series, and it abounds in a fossil named Stigmaria, from the number of dots or pits all over its surface. This very common fossil was long believed to have been a water plant, which, when it died sank down to the mud and was there buried and preserved. It is now known to be the roots of the great trees whose remains have chiefly formed the coal which rests on the shale, in which these roots are still embedded. They were large, fleshy roots, and gave off numerous long cellular rootlets from the pits, with which they are completely covered. The soft structure of the rootlets, and their great number, would enable the trees to withdraw a large amount of moisture from the wet soil in which they grew. The trees to which the Stigmaria belonged had a very singular aspect. They were straight, simple, or branched stems, growing to a height of from 50 to 80 feet, entirely bare throughout the greatest portion of their length, but densely covered on the upper part with very long and slender leaves. The bare portion of the stem was marked with parallel flutings, and the elevated flattened ridges were ornamented with the impressions of the fallen leaves, which, as they were very regular, both in their form and arrangement in each species, gave rise to the name Sigillaria, by which the fossils are known. The trees had an appearance similar to that of the immense leafless Cactuses of America, except that, instead of spines or hairs, the fossil bore true leaves. From this resemblance some naturalists have believed them to have been ancient Cactuses, but the structure of the stem, and especially of the fruit, proves most conclusively that they occupy a much humbler place in the vegetable kingdom, and are true Cryptogams. The fruits which are preserved in the coal measures are very rarely found so connected with plants as to indicate the particular species to which each kind belonged. Only one observer has hitherto detected the fruit of Sigillaria connected with the foliage and stem. He found it to consist of several small roundish cases, borne on the somewhat enlarged bases of the leaves. These cases did not contain seeds, but spores, and the structure and arrangement of the spores show that these remarkable trees are very nearly related to the small creeping plants called Club Mosses, found on our mountains. The Sigillaria lived not only in the clay below the coal, but found also a suitable soil in the increasing mass of decaying vegetable matter which subsequently formed the coal. When, from a change in the level of the surface of the land or other cause, the coal was submerged, and gradually covered with mud or sand, these trees stood erect, and were surrounded by the mud or sand. They withstood decomposition until several feet of the deposit was formed. These short trunks in the roof shale of a coal-mine are a source of serious danger to the miner, for when the coal is removed from below, the bed containing them dries to some extent, and the trunks, sometimes two yards in diameter and several feet high, easily separate from the rock because of the layer of coal which surrounds them, and often fall on the workmen. World of Wonders.

Brier versus Manetti.—Esop told the gardener of his master, Xanthus, that "the earth was a step-mother to those plants which were incorporated into her soil, but a mother to those which are her own free production;" and wherever the Dog Rose flourishes in our hedgerows—now delighting our eyes with its flowers, and now scratching them out with its thorns, should we follow the partridge or the fox too wildly—there the Brier is the stock for the Rose. I know that, despite the dictum of Esop, our soil has been no injurious nurse to that foreign Rose which took the name of Manetti from him who raised it from seed, and which was sent to Mr. Rivers, more than 30 years since, by Signor Orivelli, from Como. I know that the Italian refugee is acclimatised, and that in hundreds of

our gardens he is a welcome and honoured guest. I know that the Manetti will grow luxuriantly where the Brier will not grow at all; that in a toward season it will produce some varieties of the Rose in perfection; that in many cases it causes a larger quantity of wood and bloom; and that it seems to be more enduring than the Brier, because the Brier, being used as a standard, is more exposed to hardships, and because the Rose being budded beneath the soil on the Manetti, establishes itself in most cases upon roots of its own. I know, in fine, that the importation of this stock has been a very gracious boon to those who love the Rose, but I am equally sure that nine-tenths of the most perfect Roses which have been grown and shown have been cut from the British Brier. I have proved this not only from my own experience, having grown the two stocks side by side, in a variety of seasons and soils, and also from inspection and inquiry. Latterly I have made a point of asking at our exhibitions the parentage of Roses which have been admired the most, and the answers have been, 90 per cent. of them, as I foreknew they would be, "The Brier." In Dorsetshire, last summer, two of our best Rosarians "discoursed as they sat on the green," and when they had discoursed, it was written by one of them ("Journal of Horticulture," August 13, 1868), "For general use the Brier is doomed; it is time to think seriously of discarding it." But then he adds, and I pray you to mark the reservation. "Exhibitors will not do so, I believe, for the maiden blooms from a Brier are superior to those from the Manetti." But no earnest lover of the Rose will be satisfied with inferior blooms, having the hope of better; and it should have been stated, accordingly, not that the Brier is doomed for general use, but only with regard to those unhappy localities where it cannot be grown. If your lot is cast therein, my amateur (but do not think so without a trial), you may grow Roses for your own delectation in pots on their own roots, and on the Manetti, but I do not urge you to compete. If the Brier flourishes in your district, order 500. *Rev. S. R. Hole, in "Gardener."*

Garden Operations.

(For the ensuing week.)
PLANT HOUSES

PLANT growers have not had a very favourable season for the cultivation of those subjects which require sunny weather and natural heat to produce well-developed wood. For many weeks after the full summer term had commenced, dull and cold weather prevailed, hence the young growth upon many hard-wooded plants was somewhat drawn. The late few weeks of bright hot weather will have afforded some compensation for this, if, as I suggested should be done, various subjects were introduced into cooler temperatures, viz., greenhouse plants placed in sheltered positions out-of-doors, and stove or exotic plants removed into cool houses, or cool vinerias, and other similar structures. What I wish more particularly to call the cultivator's attention to in connection with the above remarks is, that considering the vicissitudes already experienced, we must carefully guard our plants against any further fluctuations of temperature, by housing them at the earliest possible moment when it appears at all likely that a cold period has arrived, and which may be anticipated during the early autumn. Already we have experienced a few cold nights, especially on the 29th ult., when the thermometer fell very low. Scarlet and other zonal *Pelargoniums*, which are being grown in pots for the decoration of conservatories and greenhouses in the early winter should receive copious waterings with liquid manure now that they are in their flowering pots. With a view to perfect a good growth, let the flowers be pinched off constantly. They will ripen their wood and flower better if it be possible to stage them in a fully exposed, open, airy situation under glass. Other subjects, such as *Heliotropes*, *Ageratums*, *Salvias*, and "tree" or other *Violets*, &c., would also be much benefited if they were treated in a similar manner. *Pinks* and *Carnations* should also be potted into their flowering pots without further delay. These should be placed in a cool, shady aspect for a week or two, where, if occasionally damped overhead, they will not fail to take hold in most instances. Pot off seedling *Primulas* as soon as the late successions are fit to handle, pushing them along in a frame or pit, which can be kept rather close and moist. *Gloxinias* which have done blooming should be placed in a rather exposed and dry situation, so that the bulbs may become thoroughly ripened before storing them away for the winter. The same remarks apply equally to such early grown *Caladiums* as are now showing signs of exhaustion by the production of yellow leaves. Do not, however, permit either to become too dry at the root, or by this or any other means cause them to ripen off too quickly, but secure by means of waterings, which may be gradually decreased in quantity and frequency, a gentle transition into the dormant state.

FORCING HOUSES.

I again suggest the desirability of pruning the earliest *Vines* as soon as the wood is thoroughly matured. After this operation has been performed, immediately remove all decayed leaves and other loose or untidy litter, and give the house a thorough good cleansing. Any alterations or improvements which have been planned, should be thoroughly entered upon and brought to a finish. In late *Vinerias*, which are now ripening their fruit, let a dry atmosphere be maintained; the sooner the colouring process is finished the better. Where shanking occurs the berries should be removed as quickly as they are observed. The only other particular attention requisite, apart from the ordinary routine, is to protect effectually the fruit against

the inroads of wasps and other similar pests, which have suddenly become very numerous. Let the temperature in all *Pine-pits* containing sucker successions which are rooted, and others a stage or two in advance, be slightly lowered now that the days shorten, and less solar heat is obtainable. Those "fruiters" which are likely to show in from one to three months' time, will be better prepared to withstand the adverse weather we may then experience, if the night temperature be also gradually lowered during the first dull period which ensues. This may be reduced with safety down to some 8° to 10° above temperate; or say a mean of 61°. Actual fruiters should have a good brisk heat, both top and bottom, and the other necessary conditions of moisture, and, when practicable, fresh air. It will not be necessary to shade any after this date. I would again draw the reader's attention to the great benefit which accrues to all *Peach* and *Nectarine trees* at this season, by being well washed with a mixture of Gishurst compound (see p. 900). I attach great importance to this operation.

HARDY FLOWER GARDEN.

Those who have given copious waterings to *Trilomas*, will have been amply repaid with abundant spikes of fine bloom. It will be advisable now, however, to withhold water, so as to afford the stools the opportunity to perfect what foliage they have made, and go somewhat to rest before winter becomes too severe. Late growth has more to do with the injury these and similar plants receive from frosts than any other cause. Finish planting all *Pinks* and *Carnations* without further delay. Make the necessary preparations for housing *Auriculas* when needful. Prepare the beds for the reception of *Tulips*; they delight in a good rich fibrous loam of good depth, and with a liberal quantity of thoroughly decomposed manure well incorporated therewith. Attend to the taking up, &c., of all spring-flowering bulbs which still remain in the ground, where necessary, before they commence growing freely.

HARDY FRUIT GARDEN

Remove all lateral and fore shoots which push upon *Peach* or *Nectarine trees*, after this date it will prove beneficial to them if the points of the moderate and weakly-grown shoots are pinched off. Many pests, such as wasps, blue-flies, and indeed, the Lady-bird, are now to be guarded against, for they make sad havoc with the wall-fruit. There are few better preventives in regard to Peaches and the like than cotton-wool, and it may be the more readily used now that such small crops exist. A small portion carefully wrapped round each fruit proves a good preventive, as the pests do not care to come in too close contact therewith. Hasten the removal of all old canes from *Raspberry plantations* which have fruited; they not only impoverish the young growing rods, but also contend for their part share of all light and air besides, to the detriment of the rods. Remove now all overhanging foliage or growth of any kind which shades the fruit upon *Tomatos* from the direct rays of the sun, and so aid the ripening process by every possible means. Should the weather continue as dry and fine as it is at present, a good watering with strong liquid manure will be likely to invite them to this end more quickly. Some few early *Pears* will now need gathering. These should be examined periodically until it is seen that they are fit. To have them remain upon the trees until they become thoroughly so, is to submit them to be punctured and otherwise injured by the many pests already referred to.

KITCHEN GARDEN.

Two or three successional sowings are still necessary in this department. These comprise *Lettuces* for the last time, and *Australian Cress* to stand the winter, and which should be sown upon a warm, sunny aspect. *Onions* should now be drawn; and after being permitted to remain for a few days to dry or ripen off, should be stored for winter. Make the main plantation of *Cabbages*. If these are planted out upon the old Onion-bed aforesaid, with no further preparation than the necessary hoeing and clearing off of weeds from the late crop, they will do much better than when planted into loose, freshly-dug soil. Make the final ingathering of *Camomile flowers*, and immediately the crop has been secured cut away all the blooming branches before winter down to the ground line, that the stools may re-establish themselves. *W. E.*

TOWN GARDENING

Hyacinths and other bulbs are now appearing in the seed shops; therefore purchases should be made at once before all the well matured roots are sold. In selecting the *Hyacinth* see that the bulbs are firm and of good form; and if the skin is split at the base of the root so much the better. It will be as well to put a few in glasses at once for early flowering. The glasses should be filled up to the root with soft water, and placed away in a dark cupboard till the fibrous roots have half-filled the glass, when they should be brought forward to the light; or they may be grown in 48-size pots, filled with two-thirds loam and one rotten dung, with a little sand. The roots should be pressed in till they are about half covered, and placed on slates to keep out the worms, and in some convenient position where they can be buried about 2 inches deep in cocoa-nut fibre or fine ashes till they have grown about 2 inches, when they should be uncovered and brought into the house or frame sheltered from the frost. Where there is room in the Fern-case a few roots may be planted therein; they will flower freely, and do no injury if removed after flowering. The stems of the *Pompon Chrysanthemums* in the front rows of the beds and borders should now be untied, and some of the shoots should be pegged down close to the edge, so that the borders may form a full sloping bank of flower, with foliage to the ground. A good watering of liquid manure, given about twice a week, will be of great service to all *Chrysanthemums*. *J. D.*

STATE OF THE WEATHER AT CHRISWICK, NEAR LONDON, For the Week ending Sept. 8, 1869, as observed at the Horticultural Gardens.

Sept.	Moon's Age	BAROMETER		TEMPERATURE			Wind	Mails.	
		Max	Min	Of the Air		1 foot			2 feet
Thurs	2	29.30	28.25	54	37	50.5	58	N. E.	.00
Friday	3	29.17	28.15	67	52	49.5	56	S. E.	.00
Satur	4	29.57	28.77	75	52	63.5	57	S. E.	.00
Sunday	5	29.67	28.64	79	41	63.0	60	S. E.	.00
Monday	6	29.73	28.73	71	58	64.5	61	S. W.	.33
Tuesd	7	29.81	28.73	75	59	67.0	62	S. W.	.00
Wed	8	29.73	28.73	78	52	65.0	61	S.	.00
Average		29.613	28.634	71.1	45.8	60.7	59.7		0.30

Sept. 2—Fine, cold wind, overcast, clear, starlight
 3—Dense y overcast, cloudy, but fine, fine
 4—Very fine, exceedingly fine, fine, starlight.
 5—Overcast, densely overcast, cloudy, very m. d.
 6—Showery, heavy showers, rain at night.
 7—Cloudy, very fine, densely overcast, very m. d.
 8—Fine, very fine, clear and fine at night.
 Mean temperature of the week, 1.1 deg below the average.

STATE OF THE WEATHER AT CHRISWICK, During the last 43 years, for the ensuing Week, ending Sept. 13, 1869.

Sept.	Average Highest Temp.	Average Lowest Temp.	Mean Temp.	No of Years in which it Rained	Greatest Quantity of Rain	Prevailing Winds.					
						N.	S.	E.	W.		
Sunday	69.1	44.8	57.0	16	0.49 in	4	7	4	2	13	1
Mon.	68.4	43.7	57.0	19	0.42	2	4	6	2	3	11
Tues.	67.0	46.1	56.5	22	0.91	1	5	6	4	3	11
Wed.	67.5	43.9	56.7	15	0.61	4	9	6	1	11	7
Thurs.	68.4	46.3	57.6	16	0.61	3	7	4	10	8	7
Friday	69.9	41.9	56.9	16	0.90	1	7	6	4	13	5
Satur.	68.2	46.5	57.4	19	0.81	3	10	3	3	11	6

The highest temperature during the above period occurred on the 13th, 1865—therm. 88 deg., and the lowest on the 12th, 1863—therm. 28 deg.

Notices to Correspondents.

BOILERS *Messrs. Jones & Sons*. We have referred to your letter, and find that we have not altered a word in it. It was not necessary to express your doubt as to the performance of the Conservative boiler, that was sufficiently expressed by the fact of your challenge.

BOOKS *A Young Gardener* "Kenp's How to Lay Out a Garden," "Louden's edition of Repton's Landscape Gardening," and "Thomson's Flower Garden."

CEPHALOTAXIS *T. W.* The *Cephalotaxis* is closely allied to the *Yew*, and comports itself in every respect like the *Yew*. The habit of all the *Cephalotaxis* is exactly that of the *Yew*. Sometimes a young *Yew* will send up a strong leader, as if it intended to grow into a handsome upright tree, but it ends in sooner or later taking the characteristic *Yew* form. So with the *Cephalotaxis*.

DOUBLE PELARGONIUMS *H. C.* They are fine flowers, but, like too many other English seedlings, wanting in distinctness from the Continental sorts.

FUCHSIAS *H. C.* A good double white, but, as far as the individual flowers go, (and we have not seen the plant), we believe there is a better one in existence.

GARDEN PLANS *Un-Jane J. etc.* We are not aware that any are on view, except in the artists' offices.

GREENHOUSE *G.* A medium sized boiler will suffice for the work you mention. The forcing house should have four rows of 4 inch pipes carried round it, while for the greenhouse, two rows will suffice. Make the stages of slate, and close, so as to hold a layer of gritty sand, or fine spar, which will act as a drainage to the pots in the one case, and will serve to retain moisture for evaporation in the other. A pit for bedding plants might be formed outside these houses if convenient, or you might erect near to them a separate low lean to or span roofed pit, according to the space required. In either case a single pipe, carried round inside, will serve to keep out frost and dry up damp.

INSECTS *J. H. M.* The Fern eating caterpillars escaped in *Arctia*.—*T. S. P.* Your insect, figured, seems to be the female of *Loxota Rosella*.—*D. J.* The larvae which attack your roots of *Lettuce*, *Endive*, and *Violets*, are those of a species of *Agrotis*, a genus of *Noctuid*. They are so subterranean in their habits, even at night rarely coming quite above the surface of the ground, that we know of no remedy better than that you suggest, of "catching them and killing them," if only you can succeed in getting them.

MUSHROOMS *An Old and Constant Sub. Kent.* Mushrooms grown indoors during the summer months are not unfrequently attacked by a very objectionable kind of grub, or maggot, of which our correspondent complains, and which even cause the destruction of "buttons" of moderate size. The only remedy we can suggest is—1st, do not depend upon winter made beds for a summer supply, however slightly they may have been exhausted by bearing previously; 2d, they may be fresh beds made periodically should, however antagonistic to Nature it may seem, be scrupulously excluded from the outer air and, 3d, independently of the occasional soakings which the beds require, the surfaces should be slightly damped over at least two or three times daily whilst in full bearing. Could our correspondent forward examples of the maggot complained of for examination, as we are not certain as to its origin? *W. E.*

NAMES OF PLANTS *A. Witham* *Blitum virgatum*, the Strawberry Blite.—*M. J. A.* *Nicotiana suaveolens*.—*W. F.* Both plants undeterminable.

PASSIFLORAS *R. Carr.* Received with thanks flowers of *Buonapartea Raddiana*, also *kermosina*, and *racemosa*, also *princeps*. The *Stanhopce* we will name shortly.

PELARGONIUM *Lyngbton*. We cannot name these from the leaves. Those sent are remarkable for size only. It is possibly a seedling.

RATS *An Old Subscriber, Co. Meath*. In our volume for 1868, p. 1270, you will find a paragraph relating to the best trap for rats, from which we extract the following—"Place within the reach of the rats some coarse oatmeal mixed with the consistency of thick green m. d. about 2 feet deep. The oatmeal to be 2 inches in depth. The rat ventures to eat his prepared repast, and then endeavours to return, when, to his great surprise, he finds his feet fettered and clogged by his newly-found treasure, and so is unable to take the necessary leap. His fate is sealed. His shrieks bring his friends and relatives, who share the same fate. In this manner I captured nine in one night."

ROSES *New Sub.* The Manetti stock should be budded on the current year's wood, and the young wood shortened the following spring. The Manetti is not a good stock for standard Roses; the Brier or Dog Rose is better. All Roses may be budded from July to September inclusive.

WELLINGTONIA *J. H. C.* The tree is very liable to die off at the tips, as in your specimen. The cause may, perhaps, be Fungus at the roots, as it certainly has been in some similar instances.

COMMUNICATIONS RECEIVED.—A. G.—J. E.—W. S. (Thanks)—C. L.—A. C.—T. W.—R. W.—E. B.—B. & S.—H. Lane & Son.—S. P. H.—E. R. G.—E. G. M.—W. B. P.—C. B.—C. D. & Son.

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LAWES' WHEAT MANURE, for AUTUMN SOWING, now ready for delivery. All other Manures at 1 cask as per Price List, supplied on the lowest terms. Apply for prices, &c., to JOHN HENNETT LAWES, 1, Adelaide Place, London, E.C.; Dublin, and Shrewsbury.

THE LONDON MANURE COMPANY (Established 1840). Have now ready for delivery, in fine condition, CORN MANURE, for Spring Use; DISSOLVED BONES, for Dressing Pasture Lands; SUPERPHOSPHATES of LIME; PREPARED GUANO; MANURE and POTATO MANURES. Also Genuine PERUVIAN GUANO, and NITRATE of SODA ex Dock Warehouse; SULPHATE of AMMONIA, FISHERY SALT, &c. Offices, 116, Fenchurch Street, E.C.

Autumn Sowing. DAMS' NITRO-PHOSPHATE or BLOOD MANURE for WHEAT. This Manure, specially prepared for Autumn Sowing, is rich in Ammonia, Phosphates, and other ingredients required for the healthy growth of Grain Crops. Analysis of Blood and the grain of Wheat show that they are nearly identical in composition, hence the value of Blood as an ingredient in Manure. It may be applied at the rate of from 3 to 4 cwt per acre, according to the condition of the soil, either dried with the seed or sown broadcast, if the latter, it should be well harrowed in. Prepared by the Patent Nitro-Phosphate or Tenant Farmer's Manure Company, whose Members are Cultivators of upwards of 5000 acres of land, which has been for years under management with Manures of their own manufacture; consequently the Consumer has the best guarantee for the genuineness and efficacy of the Manures manufactured by this Company. Particulars will be forwarded upon application to the Secretary, or may be had of the Local Agents, C. T. MACADAM, Sec. Chief Offices, 102, Fenchurch Street, London, E.C.; Western Counties Branch, County Chambers, Exeter; Irish Branch, 40, Westmoreland Street, Dublin.

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FARMING - A Scotch Farmer has an OPENING for a PUPIL on a large Farm, where the old Arable Land is being improved, and a great extent of Natural Pasture reclaimed. The System pursued is combined Sheep, Cattle, and Arable Farming. Draining, Laming, and other extensive improvements going on. Can either work or not, as Friends desire. Good Hunting, Shooting, and Fishing. One hour from Edinburgh. Terms £100 per annum. Address, in first instance, W. S., at C. H. May's, General Advertising Office, 78, Gracechurch Street, London, E.C.

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THE NATIONAL DOG SHOW. - THE TENTH ANNUAL EXHIBITION will be held in CURZON HALL, BIRMINGHAM, on NOVEMBER 29 and 30, and DECEMBER 1 and 2 next. Prize Lists, &c., may be obtained from the Secretary, Mr. G. BEECH, Athenaeum Buildings, 9, Temple Row, Birmingham. A Special Prize (Cup, value £5, given by a Gentleman), will be awarded to the best Fox Terrier, over 6 and under 12 months' old on December 1, that has not been exhibited before. The ENTRIES CLOSE on NOVEMBER 1.

SMITHFIELD CLUB FAT CATTLE SHOW. - THE ANNUAL SHOW of FAT CATTLE, SHEEP, and PIGS, will be held at the AGRICULTURAL HALL, ISLINGTON, on MONDAY afternoon, December 6, at 4 P.M. Intending Exhibitors are requested to apply for Certificate Forms by the reference letters as under: CATTLE. - Form A. For an OX or STEER (in any Class). " B. For a COW or HEIFER (in any Class). " C. For a BEAST in Extra Stock. SHEEP. " D. For a PEN of three WETHERS (in any Class). " E. For a SINGLE SHEEP in Extra Stock. PIGS. " F. For a PEN of three PIGS (in any Class). " G. For a SINGLE PIG in Extra Stock. ENTRIES FOR LIVE STOCK CLOSE NOVEMBER 1. Prize Lists, Forms of Certificates, and all information may be obtained on application to Mr. DAVID PULLEN, Assistant Secretary, at the Office of the Honorary Secretary, corner of Half-Moon Street, Piccadilly, London, W. N.B. All communications respecting the Show must be addressed to the Assistant Secretary, as above, and should bear outside the words "Smithfield Club Show."

SMITHFIELD CLUB IMPLEMENT SHOW. AGRICULTURAL HALL, ISLINGTON, DECEMBER 6 to 10. THE LAST DAY for receiving APPLICATIONS for SPACE for IMPLEMENTS and MACHINERY, &c., is OCTOBER 1. Printed Forms of Application, with Rules and Regulations, may be obtained of Mr. DAVID PULLEN, Assistant Secretary, corner of Half-Moon Street, Piccadilly, London, W. All communications should bear outside the words "Smithfield Club."

The Agricultural Gazette. SATURDAY, SEPTEMBER 11, 1869.

MEETINGS FOR THE ENSUING WEEK. Sept. 14-15 - Warwickshire Agricultural, at Coventry. Huntingdon Agricultural, at Huntingdon. Carmarthenshire Agricultural, at Carmarthen. Derbyshire Agricultural, at Derby.

THE readers of a lately-published pamphlet, on the tenure of land in this and other countries, will recognise much of it as having already appeared in leading articles of this Journal. One of the most valued of our contributors, from the very first year of the Agricultural Gazette till the present time, Mr. HOSKYNs has fought nobly during the past quarter of a century for freedom, large-heartedness, and liberality in all that concerns the relations of those engaged upon the land, whether to one another, or to the subject of their common interest. And in these pages, bristling and blossoming all over with the brightest, aptest illustrations, he has once more returned to his favourite study, presenting to his constituents the argument which circumstances had prevented him from laying before the House of Commons.

MOUTh-AND-FOOT complaint has, during the last four months, extended half over England, and reports from the Continent prove that it exists to an unusual extent among cattle and sheep in various parts of Prussia, Holstein, Schleswig, and also in Switzerland. Several times during the last 30 years cattle, sheep, and pigs in this country have suffered from the ravages of the disease, and the present outbreak promises to take rank with those of 1810, 1845, 1852, 1861, and 1862 - periods which are well remembered, among owners of dairy stock particularly. It is not intended to enter into a scientific disquisition upon the pathology of the disease, nor is it required that we should attempt a minute description of its symptoms, which are sufficiently familiar to most farmers of experience to prevent the possibility of any mistake being made respecting the nature of the illness. The management of the sick animals is to the stock-owner more important than a correct knowledge of the specialities of the malady; and it is this division of the subject which seems to be in the least satisfactory state. Very extraordinary proceedings are sanctioned by custom under the head of remedies, and not one of the alleged specifics which have recently

been made public for the cure of the malady will bear the test of experiment.

Before it can be consistently asserted that any given remedy is a specific for a disease, it must be ascertained what is the ordinary course and termination of the disease when left without remedies, and we cannot help thinking that if farmers had trusted to their own observation in this emergency, rather than blindly adopt the recommendations of ignorant quacks, their animals, if not themselves, would be the better. How often have cattle attacked with foot-and-mouth disease been observed to recover rapidly, without any treatment beyond good nursing? The affection appears among a herd of cows; the animals are at first much dispirited, cease to ruminate, lose their appetites, the supply of milk is diminished, and condition is rapidly lost. In a few days, if they have been well tended, supplied with soft food, and properly sheltered, some improvement is perceptible; in a week the signs of recovery are more decided, and from this time the sick animals gradually regain their wonted health. During the whole time the average loss of milk has perhaps amounted to a third or a little over, sometimes, in the middle period of the disease, very little milk is given; but from first to last, among a number of cows, the estimate which we have given will be found correct. What should be done with the milk which is secreted during the progress of the disease, is a grave question, into which we do not now purpose to enter, beyond stating that from the investigations which have been recently made, it cannot be doubted that its consumption is highly deleterious.

Observation of the natural progress of the disease in animals which are well tended, proves that spontaneous recovery is almost invariable; the affection passes through its stages of incubation, fever, and vesication; and soon after the formation of vesicles convalescence begins.

That a very different result attends the neglect of the early signs of the disease, or the ill-treatment of the animal during its course, no practical man needs to be told; but we are describing the progress and results of the malady under favourable management, irrespective of medicines. Our experience has taught us that the ordinary termination of the disease under a system which may be properly termed hygienic, is a restoration to health in a comparatively short period - which is not, so far as we have observed, rendered shorter by the adoption of medical treatment of an active kind.

Hygienic treatment includes scrupulous cleanliness, daily washing the feet, by simple affusion, with an antiseptic fluid (for example, one part of carbolic acid or chloride of zinc to 50 parts of water), removal of manure, frequent supply of dry litter, proper ventilation, and regulation of diet to suit the condition of the animal: in some instances, from the state of the mouth, nothing but gruel will be taken.

All applications to the mouth are, in the early stage of the disease, more likely to do harm than good, and the administration of medicine by means of the usual horn or bottle is often attended with injury. When the vesicles burst and do not heal afterwards, a little astringent lotion of alum or sulphate of zinc (two drachms of either to a quart of water) may be poured into the mouth and allowed to escape again, but it is only in bad cases that even this is required.

Medical treatment is only called for when the disease takes an unfavourable course, and then it may be accepted as a fact that depletive remedies, bleeding and purgatives, will make matters worse. If the animal suffers from high fever, half a pound of salts may be given in water or gruel; or half an ounce of nitre may be dissolved in half a bucket of water, and placed within the animal's reach; the dose being repeated daily. The feet should be kept clean, and if any signs of separation of the hoof appear, the parts should be dressed with carbolic acid or chloride of zinc.

Tonics and stimulants are required in some few instances when debility of an extreme kind supervenes; but in common cases the animals recover their condition upon liberal diet, without medicine. Our advice to agriculturists is to refrain from "doctoring" their animals when affected with the prevailing epizootic; nurse as carefully as possible, and if the disease does not proceed satisfactorily to its ordinary termination, call in the aid of a competent veterinarian instead of the cow-leech with his "cures." Foot-and-mouth disease, like smallpox, has a

definite course to run, and any attempt to arrest it may be attended with serious consequences; at any rate, experience proves that no advantage is ever gained by the effort.

THE thick and thin seeding question appears to have lost but little, if any, of its interest. Mr. MECHI is literally overflowing with facts to prove his side of the case, while a communication from "B. N. F.," which appeared last week, informs us of a comparative trial between thick and thin sowing carried out by him during the present season. The result, so far as our correspondent and his bailiff can "judge," is not decisive one way or the other, and he cannot come to a conclusion as to which is best. In one case the thin sown (1 bushel to the acre) is as good, and in a second case not quite so good, as where 2 bushels have been used. Such is the so-called result, and we would add that unless this subject is approached in a more scientific spirit, little light can be thrown upon it. Referring once more to an urgent advocate of thin sowing—who is going to believe that because Mr. MECHI finds thin sowing to succeed on his piece of land that therefore we are losing "1 to 3 quarters per acre" all over England by acting contrary to his advice? The letter from Mr. SMITH of Woolston in the Times shows clearly that the best quantity of seed to be sown depends upon a variety of circumstances, and also that Mr. MECHI's explanation of the root-fallen condition of much Wheat this season is unsatisfactory. We happen at present to be interested in experiments, definite, clear, and to the point, upon the subject of thick and thin seeding—not on one farm, but on several in one locality. A few days since two reports reached us, diametrically opposed, regarding the prospects of the thinly planted portions. One gentleman said, "I am afraid the thin sown is going to be by far the worst—it is very blighty;" the other, on the same day, said, "I think that the thin seeding is going to be a good experiment; the corn is cut, and there is more straw, with every prospect of its yielding better than the neighbouring thicker sown corn." What are we to conclude from this and similar contradictions? First, that it is most absurd to lay down a general rule without a sufficient groundwork of facts; second, that as it is evident that thin seeding is beneficial in some cases, and that some soils, on the other hand, require a greater amount of seed, it is extremely unwise to begin a controversy as to whether thick or thin sowing in general is right or wrong. It is something like arguing for or against a certain course of action, which course must be governed by circumstances. Are we to suppose for a moment that Mr. WILSON, of Edington Mains, adopts idly an opposite view to that propounded by the "thin seeders;" or rather that his recommendation of "not less than 2 bushels per acre" is based upon practical experience? We believe Mr. WILSON, and Mr. MECHI also, each in his own sphere of observation, but we blame any agricultural teacher who endeavours to dogmatise and to force his opinion on those who reside in a different part of the country, without making allowance for alterations in climate, soil, and variety of Wheat cultivated. But when we see men, who are in earnest about agricultural progress, writing almost bitterly upon two sides of a subject which argument can never settle, but which readily yields to the test of trial, we can only come to one conclusion, namely, that there is a great difference in the amount of seed which ought to be sown under varying circumstances. If a farmer has not undertaken to find out the right quantity for his own farm, he ought to lose no time in doing so. We would, however, suggest that in attempting to solve this question, he should approach it with the care it deserves. For instance, let him measure off a series of 1-acre plots, or equal areas of less dimension, and apportion to each a certain amount of seed,—to the first 5 pecks, the second 7, and so on down to 3 or 4 pecks to the acre. It would be advisable to repeat each plot at least twice, and at harvest the measured areas should be carefully reaped and threshed. By such careful experiment the best quantity of seed per acre would, after two or three years' repetition of the experiment, be obtained, and the farmer would know for himself the truth in regard to the vexed question of thick versus thin seeding. How different is this to the course usually adopted, of merely judging by the eye. No method could be more open to objec-

tion, because thin sown corn may appear scant on the ground, and yet yield well. No test but that of measure and weight can be accepted in deciding as to the merits of the two systems.

— At Mark Lane the Wheat trade has been influenced by the short yield and light quality of the crop, and a rise of 2s. on Monday has been sustained throughout the week. The Barley trade has scarcely begun, and other grain and pulse were unaltered in value.—A large supply of prime beasts and sheep has caused prices in London to be lower, except for very choice qualities.—The agricultural seed trade is almost at a standstill.

— Last Friday's Gazette publishes an Order in Council declaring that Article 5 of the Contagious Diseases (Animals) Order of August, 1869, shall not apply to any milch cow brought from a port of any of the countries comprised in the schedule to that Order, provided the Commissioners of her Majesty's Customs are, on each occasion of the same being so brought, satisfied that the same has been taken from Great Britain to that port, and has not been landed at that port, or at any other port of any of those countries, and in relation to the landing, on any occasion, of any such milch cow in Great Britain elsewhere than at a port of a port defined as a landing-place for slaughter, the condition secondly stated in Article 6 of the said Order, to the effect that the vessel has not, since taking on board the cattle imported, entered any port of any of the countries aforesaid, shall not operate, provided the Commissioners of her Majesty's Customs are, on each occasion, satisfied as aforesaid, but, subject to the foregoing exception, all the provisions of Articles 6 and 7 of the said Order shall, on each occasion, apply to every such cow and the landing thereof and the vessel bringing the same.

— The second part of the year's volume of the English Agricultural Society's Journal has already appeared, and we shall call attention to its contents next week. Meanwhile we may congratulate Mr. JENKINS, the Secretary and Editor, on the promptitude with which he has managed to place reports of the Society's meeting at Manchester before its members, and on the energy and industry which the editorship of the just-issued part evidently displays.

— A correspondent calls attention to the evil of abortion in dairy stock, which inflicts a frightful loss on localities, and proprietors, and herds, often apparently without explanation. It remains an enigma in many of its occurrences, notwithstanding the great premium which awaits the solution of the problem. Mr. BERKELEY, whose contribution upon this subject appeared last week accidentally in a less prominent part of the Agricultural Gazette than it deserved, has pointed out how in the United States an official commission was appointed for its investigation; and the results of the American inquiry deserve attention in this country. We give our correspondent's letter, however, and gladly join him in the wish that readers who are breeders of Sporthorns may be induced to give him any information that would be useful to him under the following circumstances:—"I keep a herd of about 25 cows, which are all apparently, and have always been, in perfect health. In the spring of this year a favourite cow slipped her calf when about seven and a-half months gone in pregnancy; since then I have had 14 cows and heifers follow suit, and always within two or three days of that period. They do not appear to suffer in health. I have one now which slipped her calf last night, which is lying down, chewing the cud, just as if nothing had happened. I am sure that any remarks of experienced breeders will be thankfully received by many others besides your unfortunate correspondent, 'P.'" Our correspondent adds that since writing the above he has read with much interest the communication signed "M. J. B.," to which we have referred above.

— The following statements from an American paper at least show the importance of accurate observation, and the benefit of giving food in the best state for assimilation:—

"My first experiment was with old Indian Corn, in three forms, viz., shelled and fed whole, ground and made into slop with cold water, and ground and thoroughly cooked—the pigs, five in number, were from the same litter, and were the produce of a good common sow crossed with a Berkshire boar. In each case the food was given them as fast as they could eat, and all possible care taken to avoid any waste or irregularity of feeding. In every case of a change of food three days were allowed before the weighing for the experiment, in order that the effect of a sudden and entire change of diet might not affect the result. I found that 5 bushels, at 60 lb. = 300 lb., of whole corn, made 47½ lb. of pork. Five bushels (less miller's toll) of corn, ground and made into thick slop with cold water, made 54½ lb. of pork. The same amount of meal, well boiled and fed cold, made 84½ lb. of pork. The second experiment was exclusively with new corn, in two forms, viz., in the shelled and ground and fed before boiling, and all each case was varied with a 'redhead' or soft corn. The best of the best of corn was reserved for the pigs and the best fed, in the shelled and fed whole, on the cob, made 29½ lb. of pork, fed in the usual way, in the ground. The same amount shelled, ground by horse power, and well boiled, made 84½ lb. of pork. Of course a portion of that fed on the ear was wasted, but it was the common plan, and forms but a fair test of the comparative merits of cooked food. I have made no experiment with sound new corn, but have a favourable opportunity before the season is past, but would suppose that my experiment with old corn would furnish a good criterion to judge by. You ask for any interesting points which may have been noticed during the experiments. I have found that there is even any in allowing the food to become thoroughly cold before it is fed, that in this state a larger amount will be eaten, with more apparent good appetite, than while scalding is beneficial, though an prolonged cooking under pressure is more economical. In more than one case I fastened the lids of the barrel down until the pressure was as high as 5 lb. per square inch in the barrel and steamer, and an examination into the condition of the food convinced me that its globules were thoroughly burst, and it was all or nearly all rendered available. During a given time, the same pigs will consume

rather more corn cooked than uncooked. Having made various portions of one of the above pigs, fed almost entirely on cooked food (fed cold), and having assisted in killing all of them, I must say that the prevalent idea that the meat of a pig is not as firm as if fed upon cooked food has proven my case erroneous—though I am not prepared to say of the result would have been had the best used whole or hot." Another correspondent of the same paper, in speaking of the value of potatoes which are fed to pigs, says—"I have done a great deal of work with the use of boiled wash (brandy potatoes) with meadow hay, 3 bushels of meal and 7 of potatoes will make 100 lb. of pork. I do not wish to be understood that the best of 1 bushel of corn, 1 extra 22s. lb., but merely to state that under similar circumstances the two combined produced the above result."

Mr. LAWES found farinaceous foods to be more productive as pork producers; also that pigs of about nine months old, consuming from 29 to 30 lb. of meal per head per week, increase in weight at the rate of 21 lb. for every 100 lb. of food consumed. In the above American experiments and estimates, the corn at 60 lb. the bushel, 100 lb. of whole corn produced only 16 lb. of increase; 100 lb. of corn, ground, produced 18 lb. while the same amount ground, boiled, and fed cold made 28 lb. of pork.

— At the annual dinner of the Badminton Farmers' Club on Wednesday, the Duke of Beaufort, who had been announced to preside, was called away on important business, and her Grace the Duchess undertook to supply his place, and when she entered the tent in which the dinner took place she was received with loud and ringing cheers. At the conclusion of the report the Duchess rose to propose the first toast, and she was loudly cheered. She said:—"Ladies and gentlemen, you must not expect from me speeches such as you have been accustomed to hear from this chair, or ably filled as it has been in former years; but I think any one can feel a pride and pleasure in giving the QUEEN'S health, and I give it now—'The QUEEN, God bless her.'" After the other usual toasts the Duchess rose and said "I have one more toast to propose, and then I think the arduous duties of chairman—or shall I say charwoman?—will cease. It is 'Success to the Badminton Farmers' Club.' May it go on and prosper, and be for many years to come a happy gathering of friends and neighbours, a day to be remembered with pleasure and to be looked back upon with satisfaction." Mr. KILMINSTER gave the health of the Duchess, which was drunk with the greatest enthusiasm. Her Grace, in responding, said:—"Again and again I thank you for the kind manner in which you have received the toast which has been proposed by Mr. KILMINSTER. I wish I had the power to say all I feel; but accept my most imperfectly expressed gratitude, and believe that I have never greater pleasure than in being at Badminton, and finding myself surrounded by so many kind and friendly faces." For "the MARQUIS OF WORCESTER and the younger branches of the BEAUFORT family" Lady BLANCHE SOMERSET responded.

— Mr. THOMAS DUCKHAM of Bayham Court, Ross, well known as the Editor of the Hereford Herald-Book, and as the energetic spokesman wherever the interests of the breed, of the county, or of agriculture generally are at all at stake, has announced his intention to publish a "Quarterly Record of Hereford Transactions." Mr. DUCKHAM will also hereafter conduct periodical live stock sales by auction. Mr. DUCKHAM has long been a contributor to our columns, and we cannot doubt that one so well known in the agricultural world will soon have his lands full of the engagements he is about to undertake.

— A correspondent, "T. H.," has described in the Times the miseries of 100 sheep and 100 pigs during a fine-weather passage from Rotterdam to London; and Mr. ODAMS has borne further witness to the fact that their miseries did not cease on disembarking, for that the whole were forwarded, without quarantine, immediately to market. Now, no one will defend the brutality of individuals, or say a word to screen the cruel sailor to whom "T. H." refers from any punishment that he deserves, but it is plain that the miseries of 12 hours at sea are to a great extent unavoidable, and that the criticism in this case has been in great part undeserved. The ladies' cabin is, on shorter passages than that from Rotterdam to London, often in a more frightful plight than the fold on deck—and quadrupeds inevitably suffer just as bipeds do. The authorised treatment has to be arranged for the average circumstances of a voyage, and it is in the interests of the stock themselves that they are somewhat closely packed within their pens. The only thing, excepting individual cruelty, to which "T. H.'s" criticism does with justice indignantly refer, is the cruel roughness of the work of landing the cargo, which certainly might, with a little more patience and consideration, be accomplished much more easily and quickly.

OUR LIVE STOCK.

THE sale of Sir N. W. Throckmorton's Sussex sheep and Berkshire pigs, at Buckland, near Farmington, on Tuesday week, was not remarkably successful. Mr. Colsey, on behalf of Lord Sudeley, purchased some good pens of ewes at from 50s. to 58s. per head, and one pen for 85s. Mr. Neville Grenville also bought a good pen of ewes for 84s. each. The rams met with a slow market, many remaining unsold. Mr. Emery hired a very excellent 1-tooth sheep for 23gs., and Colonel Kingscote gave 30gs. for the loan of the 1st prize sheep at Manchester, and 2d at the Bath and West of England Show at Southampton. The same sum was given by Mr. Colsey for the hire of a shearing ram. Messrs. Waller, Hanbury, and Chapman were also purchasers. The above high prices were exceptional, many rams fetching from 5 to 9 and 10gs., while others remained unsold. The Buckland pigs, although they have a

wide reputation, scarcely met with such a demand as might have been expected. Sows made from 3½ to 6 gs., and exceptionally good ones realised as much as 9 and 10 gs. boars were bought at similar prices.

Great interest will be excited in the Cotswold district on Wednesday next, by the sale of Mr. Wm. Hewer's famous stock of Cotswold sheep at North Leach. A flock bred for upwards of 12 years under the eye of such a master as Mr. Hewer can hardly fail to have arrived at great perfection. We are informed by the sale card that one ram (nameless, which is, we think, to be regretted) was sold in 1854 for 230 gs., an unprecedented price. The stock comprises 500 ewes and theives, all of which will be put up by Mr. Villar in lots of five; there are 50 ram lambs, and a few lots of shearing and older sheep. North Leach is 10 miles from Cirencester, 6 from Bourton-on-the-Water, and 12 from Cheltenham. The sale commences at 2 o'clock.

Mr. Barclay's sale takes place at Keavil, on Tuesday, the 21st inst. The herd is small, comprising only 19 cows and heifers, and eight bulls, most of which are young calves. These represent many excellent strains of blood, mostly of Booth origin, among which may be mentioned the Seraphina, Farewell, and the Lenton Lancaster tribes. An authority, in describing some of the best animals of this herd, says:—"Fan-fan (lot 5) is the daughter of *Ruth*, sold in 1861 at Mr. Sunday's sale for 275 gs. *Anne of Lancaster* (lot 6) is the daughter of the 15 gs. *Lancaster 25th*; and lot 2, *Seraphina 13th* a noble cow per se, and the mother of the prize bull HEIR OF ENGLISHMAN, was a 210 gs. purchase and a lucky one. The bull in most frequent use among Mr. Barclay's Shorthorns is BARON BOOTH (21,212), bred by Mr. Bruere, a member of that gentleman's Vesper tribe, and the son of Mr. Booth's PRINCE GEORGE (13,510), and *Vesper*, by KING ARTHUR. Mr. Barclay gave 200 gs. for him, he is a fine stock-getter, as his heifers will show; he has won several prizes, and is the sire of many prize animals. Among others of note *Star of Brathwaite*, now Mr. Cochran's property, was got by him, and no fewer than 12 of the Keavil herd are his offspring. Six of the cows and heifers are in calf to him; three are breeding to HEIR OF ENGLISHMAN, renowned in many showyards. *Seraphina's* heifers are all good ones. *Booth's Seraphina*, the winner of the 1st prize in a large class of yearling heifers at the Highland Society's meeting at Edinburgh, specially so."

RECENT RAM SALES AND LETTINGS.

Lincolnshires.—The aged and last year's male produce of the old Panton flock were disposed of on Tuesday last, when Messrs. Dudding had the pleasure of entertaining a large company, which included the principal ram breeders in Lincolnshire, and also of receiving prices which up to this time are by far the highest of the year. The first 10 shearlings and four aged sheep were let at the total sum of 267 10s., or an average of 137 2s. There were 80 sheep altogether, and the remaining 68 sold for 1149 10s., or an average of 171 8s. 4d. The 80 sheep thus made 1417 10s., or an average on the whole of 171 14s. Mr. Marshall took two at 30l. and 40l. respectively; Mr. Edward Howard, of Nocton, also took two at 18l. and 25l.; Mr. Gilliat also took two at 22l. and 10l.; Mr. Abraham took one at 36l. Mr. Needham one at 31l., Mr. Fieldsend one at 27l. Mr. Boynton one at 26l., Mr. Hles one at 25l., Mr. Wright one at 21l., Mr. Frankish one at 25l., Mr. Child two at 20l. and 25l., Mr. Cartwright two at 20l. 10s., Mr. Trotter one at 24l., Mr. Bramley four at 18l. 10s., 14l., 21l. and 24l. respectively; Mr. Collingwood one at 21l., and Mr. Bieber one at 26l. As the Messrs. Dudding have withstood the temptation of "going in for wool" during the late high price of that article, we are very glad to see that the fine form of their sheep, which they have made the first consideration, is now appreciated for the purpose of bringing together the flocks of time-serving breeders.

Shropshires.—Mr. W. Baker, of Moor Barns, near Atherstone, held his first annual auction sale of rams and ewes last week. The highest price obtained was 20 gs., for a 3-shear, which Mr. Baker reserved the right to exhibit at several shows in September. The same reservation was made in the case of seven other rams, whereby the average was reduced to 11l. 19s. for 83; four being let at from 9 gs. to 17 gs. each; 45 ewes sold at 68s. 10d. each.—The late Mrs. Baker's Shropshire flock was sold at Grendon, near Atherstone, on Tuesday of last week, when the whole of the rams and the entire flock of ewes were unreservedly sold. No. 2, a 2-shear, was sold to Mr. C. Eaton, of Stamford, at 20 gs.; No. 3 to Mr. Dester, at 16gs.; No. 4 to Mr. J. Bennett, of Leigby, at 18 gs. The shearlings were then brought forward, and No. 5 made 56 gs. to Mr. Keeling, No. 6, 18 gs. to Mr. Hopkins, No. 7, 27 gs. to Mr. Kittow, Cornwall, No. 16, 18 gs. to Lord Combermere; and the remainder 15 gs., 14 gs., 12 gs., down to 6 gs., the average being 14l. 5s. 9d. The prices made for aged ewes were 120s. per head for No. 1 pen to Mr. German; 110s. for No. 3 to Mr. Winterton; 100s. for No. 4 to Mr. Walker, who also took No. 5 at 90s., No. 2 at 77s. 6d., No. 8 at 110s. Mr. Kittow bought two pens at 70s., Mr. Dester and Mr. Lumber one each at 70s. The yearling ewes were of good size, colour, and quality, and sold at from 70s. to 120s. Mr. May gave the highest price for No. 1 pen, and took two other lots at 82s. 6d. and 72s. 6d. Two pens were bought for Mrs. Beach at 110s. and 70s. respectively; average 3l. 16s. 8d. Mr. Masfen's 18th annual sale took place at Pendeford on Tuesday last; No. 1 was sold at 15 gs., Mr. Allsopp, Hindlipp Hall, Worcester, bought one at 46 gs.; Mr. Rogers, of The Holme, one at 40 gs.; Mr. Turner, one at 28 gs.; Mr. Minton, one at 35 gs. Others were sold at 20 gs.,

19 gs., 15 gs., and so on down to 8½ gs. A 3-shear ram was bought by Mr. J. Pritchard, at 15 gs.; a 2-shear, by Mr. J. Evans, at 39 gs., another, by Mr. Hands, at 28 gs. The average price obtained for the stock of rams was 16l. The prices realised for the ewes ranged from 4l. 5s. to 2l. 10s. each.

Hampshire Downs.—On Thursday, Messrs. Ewer & Winstanley, of Salisbury, submitted to public competition the flock of Hampshire Down sheep belonging to Mr. R. Dear, of Durnford, who is about to quit his farm. The sheep numbered altogether 700. The 2-teeth lambs realised from 40s. down to 30s. per head, the 2-teeth ewes from 47s. to 40s., the 4-teeth ewes from 50s. to 41s., the full-mouth ewes from 45s. to 37s. per head, the ram-lambs from 14 gs. to 4 gs., some realising 10½ gs., 9½ gs., 7 gs., and 5 gs.; the four 2-teeth rams, 11 gs., 10½ gs., 8½ gs., and 5 gs.

STORY OF A REAPING MACHINE:

OR THE AUTOBIOGRAPHY OF AN "OLD SCREW."

I WAS born 11 years ago, in Essex. I can just remember being painted "extra smart" and packed off to an agricultural show. I think they called it a Royal meeting, though I saw no Royalty there, but I can well recollect my present master saying that "he had bought me, and he hoped I was worth the very long price he had paid for me."

I was sent down to Norfolk, and set to work at once to cut Wheat. There was a great assemblage of country folk to see me make my start in life. All sorts of unkind things were said of me, but I did not so well, and lay the swathe so evenly, that even the labourers admitted that I might manage a small upstanding crop of Wheat. I did not like to hear these poor fellows say I was come to take their harvest bread out of their mouths. One thin, sallow faced man alone stood up for me, and his praise was not over flattering, for he declared "it would be wus for the hosses than for we." So they tried to make the horses afraid of me, and twisted me round so sharply that they actually wrenched off my land-wheel. And, oh! how they did swear when they had to leave me through the gateways!

I cut a good bit of Wheat that year, and next harvest I had my first trial with Barley. It was soft woolly straw, and I got sadly muddled and bunged up; but my sallow-faced friend had taken quite a fancy to me, and when my master put some thing wrong into his hand (he told the boy it was 6l., as he spit upon it for luck, and put it in his pocket, but I somehow found it looked like gold)—well, no matter what it was—he seemed to like me all the better, for he exclaimed in the vulgar tongue of East Anglia—"Durn your old mawther; I'll make yer go now." I ground and struggled on, and all my driving-bands flew off, till at last they sent for another horse, and then I went off right merrily, and have had three horses yoked to me ever since.

The following season I tried my hand, or rather fingers, upon Beans and Oats, and I thought I cut them fairly well. I did not like the narrow ridges and deep furrows I had to cross. Beyond being terribly shaken no harm happened to me, but the driver complained of the lower part of his back being very sore, and I heard my master say that I was too lumbering a thing to be jostled over rough ground like that.

We had finished harvest a day or two, and I was left to sun myself in the field which I had last cut, when I was startled by a loud snorting noise, and two great steam-engines came rushing past me, pulling a more ungainly-looking implement than I am between them. A saucy lad who drove the first engine lallooed out to me, "We'll cure the furrows for thee, old girl!" and certainly since then I have had nice level ground to work upon. I looked at the new-fangled machine, and wondered if ever I should go by steam. If I were stronger and bigger I should, I think, like it. It must be jollier to run to and fro than to be lugged slowly round and round by horses.

I have worked upon four different farms since I came into Norfolk, but I stick to my old master, and have now completed my eleventh harvest. I have had 14 days of sharp work, and have cut nearly 200 acres of Wheat, Barley, Beans, and Oats. The Wheat was, some of it, 6 feet high, and the winter Beans over my master's head, and although I say it who shouldn't say it, it is all fairly well done. It is no use for my master to blow up for leaving too high a "maue" in a field or two of Barley. If he will set me to work in the dew, and grow so much Clover and crab-grass among his corn, I can't cut it clean, and don't believe any other machine can. I don't wish to boast what I have done in my time, but I have cut upwards of 2000 acres of corn, and I think that is a better testimonial than a whole string of medals and prizes. But I can't do everything, and I don't mean to try.

We have a new hand upon the farm this year. I was charmed to hear him say last night, "that he would never harvest again upon a farm where there was no reaper." He thought "close upon 7l. for 18 sweating days' work was fair pay, and that he shouldn't wonder if he was drunk all next week." "You should marry, and join a club, my boy," said our careful driver; but he simply answered, "Clubs and women be—" I couldn't catch what they were to be done with, but, by his manner, he did not seem to think favourably of either of them.

There are ever so many new reapers close by our farm this year. There is the Excelsior, the Eclipse, and I don't know how many others, and all seem to give good satisfaction. But it was very gratifying to hear my master say—and of course he's seen them all at work, for he is always looking at new things—"that, taking all sorts of crops and all kinds of corn, none of them can do better than my old screw."

I don't know how old anyone should be who attempts to write an autobiography, because I have now penned mine, no one must suppose that I am used up,

or that I at all feel the ill effects of age. It is true I am old, but why should I not live to double my age? My shoe and my fingers are sadly worn, but I can, happily, be renewed, and much cheaper than Madame Baobel would have done it, for I have had ever so many new joints, besides two fresh sets of teeth—knives I think you call them. I gratefully acknowledge the care that has been taken of me, and am proud to say that my body and bolts are as sound as on the day they left Brentwood. After every harvest I am nicely cleaned, oiled, and packed away. Twice I have been painted, and I hear that I am going to have another coat this year. I shall then be stowed aloft in the cart-shed, where I may sleep for 11 months. I don't mind the rats and sparrows, but I do wish the hens would roost somewhere else. I should then look ever so much smarter and younger next August!

I hope, in September, 1860, to finish my story.

THIN SEEDING.

[The following amusing discussion of this subject has appeared in the Times.]

I. WOOLSTON UPON TIPTREE.

MR. MECCHI has recently been talking to us in the weekly papers, as well as in your paper, about thin seeding. Let us look the question fairly in the face.

Mr. Mecchi says that he drills 4 pecks of Wheat per acre, but in some of his fields this season it is far too crowded a crop, consequently some of it is stem-rotten or root-fallen, whereas, where he drilled only 1 peck and 2 pecks per acre, the crops are much better, entirely free from stem-rot or root-falling.

This is good data as far as it goes, but let us look a little further.

I have not seen Mr. Mecchi's farm, but from what he tells us and what I have heard through persons who have seen it, I have every reason to believe that it is a lot of poor land very highly manured; but as he is frequently telling us about picking Docks in the spring and burning Twitch in the autumn, I cannot believe that it is over clean. Hereafter I will show what this has to do upon the seeding question.

In this neighbourhood there is a large quantity of poor land running through this parish on to Bletchley and away on through the county into Oxfordshire. It is generally occupied by tenant-farmers, who pay rent and all other taxes, as well as the labour on their several farms. Therefore they seed and manage their land in a way to enable them to do all this as well as keep themselves. The quantity of seed Wheat generally used on this poor land is about 8 pecks per acre. Under horse culture that was the quantity I used. Our best farmers use that quantity now, and some of our worst farmers use a little more. Before and in harvest, I drove through a considerable part of this poor land without finding a single bit of Wheat too thick. Those on our best farmed land were good full crops, free from root-falling, and ripened well, while on the middlingly-farmed land they were thin on the ground, with a good deal of root-falling among them. This shows plainly that there are more causes than one for root-falling.

After working my farm by steam-power a few years, I found that a less quantity of seed Wheat than 8 pecks to the acre was enough, and for some years past I have seeded it with 4 pecks an acre (that was the quantity used for the crop just harvested, which was a most excellent one). This shows that varying circumstances necessitate a varying quantity of seed on the same character of soil.

Will it answer the purpose of the best farmers in this neighbourhood to adopt Mr. Mecchi's plan of high feeding to enable them to reduce their quantity of seed Wheat to four, or less, pecks per acre?

Mr. Mecchi's balance-sheet, published in the agricultural papers last January, showed that he made a profit of 9½ per cent upon a tenant's capital of 16l. per acre, from which he had to pay rent, interest of money, and pay for himself. After looking this balance-sheet carefully over, I found that he drew 150l. from his tenant's capital, with which he helped to make this 9½ per cent. up, and I also found that he entered his Wheat as sold at 63s. per quarter, whereas the imperial averages from August to December (the period during which he sold his Wheat) showed that the general farmer made only 53s. per quarter. This looked strange to me, so I set to and deducted 10s. a quarter from the price of his Wheat (which I was fully justified in doing, for it was shown that a large percentage of it was Rivetts, the very worst quality of Wheat that is grown, and in a subsequent letter he showed that he did not make so much as 63s. of any of his Wheat), and added it to the 150l. drawn from the tenant's capital, and deducted the lot from his 9½ per cent. This fixed him in a mess, for he had not a penny for his own labour or for interest of his money, and not enough to pay his rent at 34s. per acre. I explained all this (signing myself "A Farmer") in the Agricultural Gazette at the time, without his giving me a word in reply. Thus it is quite clear that it will not do for our best farmers to adopt his plan of high feeding to enable them to reduce their quantity of seed Wheat, for they must pay their rent, &c. Will it answer the farmer's purpose to adopt my plan of reducing the quantity of seed Wheat needed?

In two letters recently published I show that by the aid of steam-power I am now keeping my land clean and making an average seed-bed for 7s. an acre a-year, working the land for Beans 10 inches deep; whereas the cost to our best horse farmers is quite 20s. an acre a-year to work the same kind of land 5 to 6 inches deep; and I also showed that my produce on my heavy land this year would average 40 bushels per acre against a trifle over 23 bushels an acre on our best farmed land on like soil. The only assistance that my land has had beyond the working it deeply by steam-power, is the straw grown upon it converted into manure (without the aid of either cake or corn), assisted by a little super-

phosphate for the last two years only; last year with 2½ cwt. per acre, and the year before with not so much. Now, let us go into the calculation, fixing the price of corn, Wheat, and Beans at 5s. per bushel:—

Horse Farming.			
Produce, 23 bushels at 5s.	£ s. d.	Seed-bed	£ s. d.
	5 15 0	Seed Wheat, 2 bush.	1 0 0
		Gain for rent, &c.	0 10 0
			4 5 0
	£5 15 0		£5 15 0
Steam-power Farming.			
Produce, 40 bushels at 5s.	£ s. d.	Superphosphate	£ s. d.
	10 0 0	Seed bed	0 16 0
		Seed Wheat, 1 bush.	0 7 0
		Gain for rent, &c.	0 5 0
			8 12 0
	£10 0 0		£10 0 0

This shows plainly that a farmer can reduce his seed Wheat better by deeply working his land than he can by deeply manuring the top 5 or 6 inches of it, for in the former case he can live and get well paid for his labour, while in the latter case 4l. 5s. an acre cannot do much for him after paying rent and labour, &c. *William Smith, Woolston, Bletchley Station, Bucks, August 30.*

2. TIPTREE UPON WOOLSTON.

I am a great admirer of Mr. William Smith, of Woolston, for his untiring exertions in behalf of steam culture and deeper cultivation. I am a firm believer in both, and 25 years ago I broke up most of my land with nine horses, three in the first plough, the Deanston subsoil plough following in the same track, drawn by six strong horses. This operation followed thorough draining; the two operations forming a durable base for subsequent profits. No doubt steam ploughing, had it then existed, would have done the work much cheaper.

I am sorry that Mr. Smith has descended to misrepresentation of facts in the rather odd jumble of matters that constitute his letter. When my statements cease to be truthful I shall bid adieu to any influence I have in agriculture.

My published balance sheets are contained in the small volume I send herewith, page 45, and they show the following results:—1865, net profit on tenant's capital, 18 per cent.; 1866, ditto, 10½ per cent.; 1867, ditto, 18 per cent.; 1868, ditto, 9½ per cent., average of four years, 12½ per cent., or 33s. 4d. per acre net profit, after paying every charge and providing 40s. an acre for improved rental. These balance-sheets are not "cooked," but are exact transcripts of the moneys paid and received, and the annual valuation on stock-taking. I treat myself as an outgoing tenant on the 31st of December, and as an incoming tenant on the 1st of January.

As Mr. Smith has never seen my farm (it has always been open to public inspection), his charge of weediness must be at second-hand. Against this imputation I must place the evidence of your two able special commissioners (Mr. James Caird and Mr. J. C. M'Donald), who said, in your columns, in 1850:—

"Having walked over every field on Mr. Mechi's farm, we have no hesitation in saying that for clean cultivation and healthy appearance of Wheat and other crops, it is equal to any, and superior to most farms we have met with in this county (Essex)."

This opinion has been endorsed during the subsequent 19 years by thousands who have recorded their approbation in the bailiff's visitor's book.

Personally, it is of very little importance whether I had failed or succeeded; but on public grounds it is of the highest importance that we should know whether drainage, deep cultivation, steam-power, and other agricultural changes are or are not profitable investments.

I am glad to find that Mr. Smith has at last followed my steps in thin sowing, although he admits it with a bad grace.

As to Mr. Smith's recommendation to avoid high feeding and to depend upon deep cultivation and artificial manures, I would say to young farmers—"Don't be misled by Mr. Smith; cultivate deeply, but manure heavily with that cheapest and best of all manures made by animals fattening on cake and other rich food, such manure being made under cover." Science and practice have proved that dependence on guano and some other artificial manures will ultimately greatly exhaust many soils, while rich cattle manure never fails to maintain fertility.

After the imputation so unjustly cast upon me by Mr. Smith, I must decline any further correspondence with him.

For the information of your correspondent, "A Durham Farmer," I annex the details of my experience in reaping with the machine (back delivery) this harvest. It has cut 65 acres of strong Wheat, besides Barley and Oats, the breakage not exceeding a few shillings. The 12 acres at 6s. 9d. amount to 4l. 1s. Twelve acres of Wheat, cut, tied, stooked, and stubble raked:—

Horse labour, per acre	.. .. .	1s. 0d.
Beer for driver, 6 pints	.. .. .	0 9
Binding, stooking, and stubble raking	.. .. .	5 0
		6 9

Twelve acres a day's work for two pairs of horses and one man, at 6s. 9d., 4l. 1s.

The men find the driver out of the 5s. at about 6d. per acre. Our men earn 5s. per day during the harvest month, besides beer, 9d. per day.

Perhaps your correspondent will give us details of his enormous outlay of 10l. 4s., or 17s. per acre.

My Wheat crops will probably average 44 bushels per acre. My first threshing has yielded within a fraction of 48 bushels per acre of white Wheat, sold at 51s. per qr. *J. J. Mechi, Tiptree Hall, Kelvedon, Essex, Sept. 3.*

THE AGRICULTURAL LABOURER.

The condition of the labourer was the subject of several papers and much discussion before the last meeting of the British Association. The following, in the meantime, is a report of Professor Leone Levi's paper on the subject.

PROFESSOR LEONE LEVI commenced by reading the report of the committee on the "Economic Condition of the Agricultural Labourer in England." The committee reported that they had been obliged to confine their inquiry to such matters concerning the condition of the agricultural labourer as were to be found in existing documents, and their first report embraced only the counties of Norfolk, Suffolk, Essex, Surrey, Gloucester, Northumberland, Durham, Lincoln, Nottingham, Leicester, Cambridge, York, Northampton, Bedford, and Buckinghamshire. In these counties wages were represented to range from 18s. a week in Northumberland and Durham, 17s. in Lincoln and Nottingham, and 11s. in Gloucester, to 11s. or even 10s. in parts of Cambridgeshire. Where the wages were higher the diet was better. Diet and conditions were best in Northumberland and Durham. Except in those two counties the employment of women and children in agriculture was represented as morally bad, and was dying out, in consequence of the growing aversion of the women to the employment. The committee were desirous that the General Committee of the Association should be moved to memorialise Government to make a thorough inquiry into the condition of the agricultural labourer.

It is the rule of the Association that the reports of committees should be received without debate; and therefore, at the request of the President (Sir Stafford Northcote), Professor Levi proceeded to read portions of his own report of facts and observations on Agricultural Economics and Wages. The acreage of the United Kingdom under cultivation was 54 per cent. of the whole area, while 14½ per cent. of the entire population were employed in agriculture. There was an enormous increase in the use of machinery in 20 years. The average wages were about 12s. per week. The number of men engaged in agriculture was far in excess of the requirements. The adult labour needed was about 50 persons per 1000 acres of arable land, and 20 per 1000 acres of pasture, and the actual number according to the last census was nearly double that. Wages varied as much as 6s. per week in different localities. With regard to relative productiveness of different soils, Professor Levi spoke as follows:—

"No data is furnished in the agricultural statistics of the degrees of productiveness of the soil of different counties; but if the presence of Wheat, apart from climate and elevation, be a safe indication of a good soil, we find that the south-western counties have double the quantity of acreage sown in Wheat than the northern counties have. Who, indeed, that has seen both Devonshire and Northumberland can fail to perceive the great advantage of the former over the latter? Yet who at all acquainted with northern and southern farming is not convinced that the northern farmer has made more of his land than the southern? Compare, for instance, Lincoln with Devon. The soil of Devon is new and red sandstone, always productive. Lincoln's soil is nearly all drift, generally considered light and poor, yet what is their relative productiveness? The following is given by the *Farmer* as the result of the harvest of 1867:—

	Estimated Number of Bushels Yielded per Acre				
	Wheat.	Barley.	Oats.	Beans.	Peas.
Devon, Axminster	20	32	38	28	22
Lincoln, Alford	32	40	64	40	40

And what is the reason? In Lincoln everything has been done to remedy the defects of the soil. In Devon Nature has been left unaided. Should we calculate the return of the soil from Grass in both counties the result, perhaps, would be different; but my object is to show what has been achieved in Lincoln, no doubt by the larger investment of capital in land." On the subject of the taxes on land, the Professor expressed a doubt as to whether any undue share of burden is put upon real property; but if such an inequality should be found to exist, it was all important that it should be removed. Professor Levi made a special report upon Devonshire as follows:—"In Devon my first visit was to Halberton, a parish of 7600 acres, half arable and half pasture land. The population of 1861 was about 1600 persons. The cottages have generally thatched roofs, and they are constructed with cob-walls, which is a concrete of mud, straw, and pebble. In many cases, where they are in good repair, they may be warm and comfortable, especially if kept dry at top and bottom. Indeed, a local aphorism says, 'Good cob, a good hat, shoes, and heart, last for ever.' But many cottages were in great want of repair, and with their open roofs they seemed somewhat cheerless. Those I visited generally contained a sitting-room and a small back room on the ground floor, and two bedrooms above. None of them had one bedroom only. In one cottage, the family, consisting of a man and wife and his wife's mother, had two lodgers, who paid 8d. per week each. In another there were a man and his wife and four children. In another a man and his wife, two grown-up sons, and a grandfather. On an average the inmates numbered less than five per cottage. The rent of the cottages was 1s. 4d. to 1s. 6d., but each had a small garden attached, which supplies a good deal of vegetables, and allows facilities for the keeping of pigs. The weekly wages at Halberton were 9s. per week for common labourers, with three pints of cider per day. A carter gets 1s. more, or is allowed his cottage rent free, but he works longer time per day. Sometimes a certain quantity of grist is allowed by the farmer, at 5s. per bushel, but though that makes a better bread, it is not cheaper than what is bought. The ordinary diet appears to be tea or kettle-broth (being bread in water and milk) in the morning, bread and cheese for luncheon and dinner, and a supper consisting of

Potatoes and a piece of bacon. The general appearance of the people seemed healthy. At church on Sunday all were comfortably dressed; the children at the Sunday school seemed as tidy as those in any ordinary school in town, and they looked healthy. There is one day school with 130 or 150 children, which, from the report of the inspector of schools, appears to be in a good state of efficiency.

"From Halberton I went to South Molton. Filleigh, the parish where Castle Hill is situated, has 2000 acres, one-third arable and two-thirds pasture land, and has about 700 inhabitants. The cottages are fair, with larger gardens than at Halberton, and the rent is uniformly 1s. per week. There, too, the wages are 9s. per week; but the forester supplies fire-wood at only 10s. per annum. On Lord Portescue's estate there are on an average, only four persons per cottage. The diet of the people did not differ much from that of Halberton, except that the dinner is the chief meal instead of the supper, and fish comes more in use. There, too, I visited the school, which was well attended. There seems, however, less difficulty in obtaining the children of the labourers than those of small farmers: the latter having to pay 6d. to 7d. per child per week, instead of 1d., as the labourers are too ready to find excuses for keeping the children from school. On my way to Exeter I visited Lord Portsmouth's estate at Eggesford. There also the rent of cottages is 1s. per week, and I understand that the landowner does not allow the farmer to charge higher rent for his cottages. The wages are 9s., but a good deal is given out by piecework. I had also the pleasure of visiting Sir John Kennaway, at E-scot, near Ottery St. Mary. In the adjoining parish of Whimple I found the cottages dearer and not so good; but on the Escot estate, as at other places, I saw how much the condition of the labourers is bettered by the presence of a good landlord. The wages were 9s. and 9s. 6d. per week. An allotment of garden land is also given at a nominal rent, and the information received on the state of education was more cheering. The schoolmaster knew few in the parish who could not read and write. In calculating the income of the agricultural labourers in Devon, it is not sufficient to take the standard weekly wages. Where piecework is given a good deal more is earned, by which the income is often increased to 12s. or 15s. a-week. Extra pay is also given at harvest time and at haymaking, for which some give a sovereign, some 30s., and some other extra allowances. Including piecework and extra earnings at harvest time, the wages cannot be less than 10s. or 12s. per week. A portion of these extras doubtless goes to replace the loss of wages for the days when there is no work; but good labourers do not lose much from that source. To the wages of the men we must add the value of the labour of women and children. Not many women are to be found working in the field in Devonshire, yet they earn a little from other occupations, and thus add to the resources of the family. Isolated cases of extreme penury or comparative comfort are fallacious in such calculations. I saw a case where the husband was the only earner of 9s. per week, and with his 7s. 6d. net (rent deducted), he had to support himself and his wife and five children, or seven persons. But there are cases where the husband and wife, or the father and one or two boys, were all earners. To an agricultural labourer a family of little children is a burden, but a number of boys, up to a certain age, before they leave home, is a mine of wealth. The evil is, that often a youth, earning almost as much as a man, gives only a small weekly sum to his mother for his keep, and wastes great part of the remainder. Taking one with another, I would imagine that we should be safe in estimating the total earnings of a man and boy, or one full wage and a third, as the earnings of a family of five. If that be correct, we have probably 13s. or 14s. per week in money as the average income of a family. I will not say that the whole of this amount is practically devoted to the necessaries of life, but, unfortunately, even if it were, it is hardly sufficient to cover the cost of living."

On the whole he found the condition of the labourer in the parts of Devonshire he visited far from satisfactory, but it was by no means so despairing a character as described by some. In conclusion the Professor said the causes of low wages in agriculture were the prevalence of physical labour and excess of labourers. For the welfare and improvement of the condition of the labourer he recommended elementary education, to enable him to take the position of a skilled labourer, technical education among farmers, liberal remuneration for skill, extension of piecework, greater adoption of machinery, assistance to enable the labourer to remove freely from county to county, emigration, extension of the cultivation of the land, an increase of the commerce and manufactures of the country. He also recommended long leases to occupiers, removal of any inequalities of the burdens of taxation, extension of railway accommodation in agricultural districts, yearly hiring of labourers by means of registry offices, the general discontinuance of payment of wages in kind (especially cider, &c.), better cottage accommodation, cottage gardens or allotments, promotion of savings banks, friendly societies, &c., limiting of public-houses, facilities for the purchase of plots of land, &c. He thought it desirable that to the annual agricultural statistics should be added the number and extent of land proprietors, number and acreage of farm holdings, the wages of agricultural labour, and the produce of the soil. As to the character and habits of agricultural labourers, there were among them fewer births, deaths, and marriages, better education among adults (especially women), less drunkenness, less crime, but more pauperism, and more illegitimacy, than among the rest of the industrial population, while the proportions of children sent to school were nearly equal.

Canon GRADLESTONE said he held an official document in his hand proving beyond dispute that in 1861 the wages of

agricultural labour were lower in Devon than in any other county in England. To give cider was worse than giving nothing. The introduction of machinery tended at present to reduce the amount of harvest wages, and the excess of earnings at that season was neutralised by the seasons when the men were out of work. It was of very doubtful financial advantage to the labourer to keep a pig. Employers professed to give fuel, but it was generally roots, which the labourer had to grub out before he had it. The Rev. Canon protested that he had nothing to gain by the part he took in this movement, but he had gained the sympathy of the country, as well as that of most of the Press and the British Association.

Mr. Neville Grenville, Mr. Webster, Q.C., and Mr. J. H. Kennaway took part in the subsequent discussion, which terminated in a vote of thanks to Professor Levi, and a recommendation that his paper should be printed. Some other contributions bearing on the subject were brought before the section. The President suggested that they should be read in succession, and that in the debate on them Professor Levi's report should be included.

AGRICULTURAL STATISTICS, IRELAND, 1869.

[The following report by Mr. Donnelly to the Lord-Lieutenant, has just been published.]

THE collection of the agricultural statistics was carried out this year as heretofore by about 4000 enumerators, selected from the Royal Irish Constabulary and Metropolitan Police Force, and they have furnished returns of tillage and live stock on nearly 600,000 separate holdings. The inquiries were, as usual, efficiently conducted by the officers and men employed on this duty, which extended over a period of six weeks from its commencement on the 1st of June.

The abstracts are compiled from the summaries of the several districts as made up by the enumerators, and may differ slightly from the revised figures hereafter to be published; but I do not anticipate that any important change will be required.

The total area under all crops in 1869 is **5,575,843** Acres.
The total area under all crops in 1868 was (revised numbers) **5,547,971**

Showing an increase in extent under crops in 1869 of **27,872**

The crops which increased in extent this year are—

Crops.	1865.	1866.	1867.	1868.	1869.
Wheat	266,989	299,190	261,034	235,150	281,117
Oats	1,747,228	1,699,695	1,680,511	1,701,645	1,684,788
Barley	177,102	150,291	171,001	186,318	220,999
Bere and Rye	10,091	10,011	9,602	9,998	11,199
Beans and Peas	16,899	14,834	13,552	9,960	9,057
Potatoes	1,066,260	1,050,353	1,001,781	1,034,681	1,041,837
Turnips	334,212	317,198	335,728	320,094	321,880
Mangel and Beet Root	14,418	20,162	18,797	19,109	21,127
Cabbage	31,622	26,531	24,018	32,875	32,139
Carrots, Parsnips, and other green crops	24,130	26,736	25,516	26,622	26,564
Vetches and Rape	2,466	30,623	26,589	22,943	25,348
Flax	251,433	263,507	253,257	206,483	229,178
Meadow and Clover	1,678,493	1,601,423	1,658,335	1,602,135	1,669,800

Total increase on the foregoing crops **71,801**

The crops which diminished in extent in 1869 are—

Crops.	1865.	1866.	1867.	1868.	1869.
Wheat	266,989	299,190	261,034	235,150	281,117
Oats	1,747,228	1,699,695	1,680,511	1,701,645	1,684,788
Barley	177,102	150,291	171,001	186,318	220,999
Bere and Rye	10,091	10,011	9,602	9,998	11,199
Beans and Peas	16,899	14,834	13,552	9,960	9,057
Potatoes	1,066,260	1,050,353	1,001,781	1,034,681	1,041,837
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Vetches and Rape	2,466	30,623	26,589	22,943	25,348
Flax	251,433	263,507	253,257	206,483	229,178
Meadow and Clover	1,678,493	1,601,423	1,658,335	1,602,135	1,669,800

Total decrease on the foregoing crops **44,922**

Making a net increase in the area under all crops of **27,872**

From the foregoing summaries it will be seen that Wheat decreased by 4,033 acres, Oats by 16,857 acres, and Beans and Peas by 3 acres. Barley increased by 34,591 acres, and Bere and Rye by 1,293 acres. Potatoes increased by 7,156 acres. Turnips by 1,786, Mangel and Beetroot by 2,018, and Vetches and Rape by 2,355 acres. Cabbage decreased by 736 acres, Carrots, Parsnips, and other green crops by 58 acres, and Meadow and Clover by 22,335 acres. Flax increased by 22,695 acres.

ABSTRACT OF CEREAL CROPS.

	1868.	1869.	Increase in 1869.	Decrease in 1869.
Wheat	285,150	281,117	4,033	—
Oats	1,701,645	1,684,788	16,857	—
Barley	186,318	220,999	34,591	—
Bere and Rye	9,998	11,199	1,293	—
Beans and Peas	9,960	9,057	—	3
Total	2,192,079	2,207,970	35,884	20,893

Increase in cereal crops in 1869, **14,991** acres.

ABSTRACT OF GREEN CROPS.

	1868.	1869.	Increase in 1869.	Decrease in 1869.
Potatoes	1,034,681	1,041,837	7,156	—
Turnips	320,094	321,880	1,786	—
Mangel Wurzel and Beetroot	19,109	21,127	2,018	—
Cabbage	32,875	32,139	—	736
Carrots, Parsnips, and other green crops	26,622	26,564	—	58
Vetches and Rape	22,943	25,348	2,355	—
Total	1,466,374	1,468,895	13,315	794

Increase in green crops in 1869, **12,521** acres.

GENERAL SUMMARY OF CEREAL AND GREEN CROPS, &c.

	Acres.	Acres.
Increase in cereal crops in 1869	14,991	50,207
Increase in green crops in 1869	12,521	
Increase in Flax, in 1869	22,695	
Decrease in meadow and Clover in 1869	22,335	23,335
Total increase in extent of land under crops in 1869	27,872	

THE EXTENT UNDER CROPS, GRASS, FALLOW, WOODS AND PLANTATIONS, AND BOG AND WASTE UNOCCUPIED, IN 1865 AND 1869, IS GIVEN BY PROVINCES IN THE FOLLOWING TABLE.

Provinces	Extent under Crops.	Grass.	Fallow	Woods and Plantations.	Bog and Waste Unoccupied.	Total.
Leinster	1868 1,593,477 1869 1,594,794	1868 2,496,415 1869 2,437,072	1868 10,253 1869 9,973	1868 99,522 1869 102,479	1868 638,009 1869 612,758	1868 4,837,676 1869 4,837,676
Munster	1868 1,352,254 1869 1,347,516	1868 3,276,207 1869 3,302,896	1868 3,694 1869 2,713	1868 119,816 1869 167,735	1868 1,191,826 1869 1,173,907	1868 5,934,797 1869 5,934,797
Ulster	1868 1,870,812 1869 1,880,270	1868 2,165,154 1869 2,194,057	1868 5,936 1869 6,572	1868 60,753 1869 58,604	1868 1,211,612 1869 1,165,764	1868 5,314,267 1869 5,314,267
Connaught	1868 731,428 1869 744,263	1868 2,061,617 1869 2,062,252	1868 2,237 1869 1,723	1868 51,167 1869 50,529	1868 1,386,745 1869 1,374,434	1868 4,233,191 1869 4,233,191
Total	1868 5,547,971 1869 5,575,843	1868 9,999,393 1869 10,046,877	1868 22,110 1869 20,981	1868 322,258 1869 319,360	1868 4,428,192 1869 4,356,863	1868 20,319,924 1869 20,319,924

* Exclusive of the larger rivers, lakes, and tideways.

The acreage under the head of "bog and waste unoccupied," had not any live stock on it at the period of the enumeration.

THE AREA UNDER THE SEVERAL CROPS IN EACH YEAR FROM 1865 TO 1869, INCLUSIVE, WAS AS UNDER:—

Crops.	1865.	1866.	1867.	1868.	1869.
Wheat	266,989	299,190	261,034	235,150	281,117
Oats	1,747,228	1,699,695	1,680,511	1,701,645	1,684,788
Barley	177,102	150,291	171,001	186,318	220,999
Bere and Rye	10,091	10,011	9,602	9,998	11,199
Beans and Peas	16,899	14,834	13,552	9,960	9,057
Potatoes	1,066,260	1,050,353	1,001,781	1,034,681	1,041,837
Turnips	334,212	317,198	335,728	320,094	321,880
Mangel and Beet Root	14,418	20,162	18,797	19,109	21,127
Cabbage	31,622	26,531	24,018	32,875	32,139
Carrots, Parsnips, and other green crops	24,130	26,736	25,516	26,622	26,564
Vetches and Rape	2,466	30,623	26,589	22,943	25,348
Flax	251,433	263,507	253,257	206,483	229,178
Meadow and Clover	1,678,493	1,601,423	1,658,335	1,602,135	1,669,800

RETURNS OF LIVE STOCK.

It appears from the following Table that the returns of live stock for 1869 when compared with 1868 show an increase in the number of horses of 2,545; of cattle 80,998; and of pigs 210,215. Sheep exhibit a decrease of 253,338.

THE FOLLOWING ARE THE NUMBERS OF LIVE STOCK FOR EACH YEAR FROM 1865 TO 1869, INCLUSIVE.—

Years.	Number of Horses.	Number of Cattle.	Number of Sheep.	Number of Pigs.
1865	556,287	3,504,490	3,602,342	1,177,605
1866	573,408	3,587,858	3,694,294	918,525
1867	590,782	3,620,554	3,452,252	1,255,186
1868	611,421	3,607,494	3,494,893	1,409,883
1869	624,075	3,815,598	3,592,804	1,285,751
1865	619,511	3,606,374	3,442,380	1,271,072
1866	614,232	3,411,688	3,506,000	1,120,412
1867	602,814	3,744,591	3,456,102	1,154,324
1868	579,478	3,144,541	3,308,294	1,067,458
1869	591,188	3,222,539	3,094,864	1,058,180
1865	42,439	4,000,488	3,694,356	1,305,453
1866	42,439	4,000,488	3,694,356	1,305,453
1867	42,439	4,000,488	3,694,356	1,305,453
1868	42,439	4,000,488	3,694,356	1,305,453
1869	42,439	4,000,488	3,694,356	1,305,453

Difference in Numbers between 1868 and 1869.

Increase.	Increase.	Decrease.	Increase.
2,545	80,998	253,338	210,215

The total estimated value of horses, cattle, sheep, and pigs, this year, is **34,911,360** £; being an increase of **580,944** £ compared with 1868, as appears by the following Table:—

ESTIMATED VALUE OF LIVE STOCK IN IRELAND IN EACH YEAR FROM 1865 TO 1869, calculated according to the rates assumed by the Census Commissioners of 1841, viz.—
For horses, 84. each; cattle, 61. 10s.; sheep, 22s.; and pigs, 25s. each. (These rates have been retained since 1841, in order to facilitate a comparison of the value—one year with another. A percentage may be added on account of the increased value of stock since that period.)

Years.	Horses	Cattle	Sheep.	Pigs.	Total Value.
1865	4,450,296	23,169,000	3,062,576	1,472,006	33,053,478
1866	4,587,364	23,321,077	4,063,723	1,148,156	33,120,220
1867	4,798,256	23,536,201	3,797,477	1,563,062	33,700,916
1868	4,890,569	23,837,376	3,844,492	1,762,354	34,334,890
1869	5,032,609	24,801,387	3,251,684	1,582,181	34,668,259
1865	4,078,488	23,441,431	3,896,388	1,588,810	33,985,047
1866	4,013,868	22,566,422	3,911,675	1,377,552	32,769,035
1867	4,223,152	21,176,784	3,891,745	1,449,905	31,224,587
1868	4,632,824	24,437,501	3,639,024	1,334,322	30,050,671
1869	4,407,264	21,204,911	3,703,635	1,313,160	30,728,910
1865	4,386,712	22,734,062	4,063,792	1,632,441	32,817,007
1866	4,256,392	24,350,300	4,701,710	1,871,503	35,200,715
1867	4,133,440	24,109,712	5,319,071	1,741,889	35,372,219
1868	4,119,624	24,104,124	5,319,071	1,866,071	34,384,416
1869	4,217,988	24,801,387	5,112,184	1,497,711	34,511,269

Difference in Value between 1868 and 1869.

Increase.	Increase.	Decrease.	Increase.	Increase.
£20,360	£258,487	£278,672	£262,769	£530,944

Scutching Mills.—The number of mills for scutching Flax in each province in 1868 was—in Ulster, 1420; Leinster, 47; Munster, 41; Connaught, 34. Making in all, 1542.

Emigration.—In the first seven months of 1869 the returns of emigrants from the several ports of Ireland show that 45,246 persons left this country. In 1868 the number for the same period was 42,607, being in this year an increase of 2639 persons.

Weeds.—On several occasions I have ventured to call attention to the great injury arising from the unchecked growth of weeds, which is unhappily, so apparent throughout the country. On this subject the late Sir John Sinclair has given the following experiments, which prove the almost incredible advantage of carefully weeding cereal crops:—

1. "Seven acres of light gravelly land were fallowed, and sown broadcast with Wheat; 1 acre was measured off, and not

a weed was pulled out of it; the other six were carefully weeded. The unweeded acre produced 18 bushels; the 6 weeded acres 135 bushels, or 22½ per acre, which is 4½ bushels, or a quarter more produce in favour of weeding. 2. A 6-acre field was sown with Barley, in fine tilth, and well manured. The weeding, owing to a great abundance of Charlock, cost 12s. per acre. The produce of an unweeded acre was only 13 bushels; of the weeded, 28. Difference in favour of weeding, 15 bushels per acre, besides the land being so much cleaner for succeeding crops.—6 acres sown with Oats, 1 acre ploughed but once, and unmanured, produced only 17 bushels. Another 6 acres ploughed three times, manured, and weeded, produced 37 bushels. This experiment proves that Oats require good management, and will pay

contributions of their stock, and who are above mere prize temptations. We have observed many animals taking prizes at several successive shows. In the agricultural horse classes we notice Honest Tom, Black Prince, and Prince; in thorough-breds and hunters we have Carbineer, Motley, Dalesman, Laughing Stock, Angelus, Lady Derwent, Don Juan, Premier, Topstall, and others. In the cattle classes it is very similar. In Shorthorns we have, in bulls, Earl of Derby, Edgar, Charles le Beau, Bohvar, Mandarin, Charlie, Commander-in-Chief, Monk, James I., &c.; in cows and heifers, Lady Fragrant, Queen of Rosales, Miss Farewell, Patricia, &c. In Hereford bulls and cows, Sir Hungerford, Stowa, Prince Leopold; Queen of the Lilies, Lady Adforton, &c. In Devons, Master Ellie, Master Arthur, &c.; Actress, Duchess, &c. In sheep the same; animals are frequently victorious show after show. In the list of exhibitors we have the names of Lord Walsingham, Rigden, Heasman, Throokmorton, &c., in South Downs; in Leicesters we have Sanday, Borton, Inge, &c.; in Long-wools, Dudding, Marshall, Cartwright, &c.; in Shropshires, Lord Chesham, Beach, &c. The like in other classes. In pigs we have Duckering, Eden, Howard, &c.

Without in the slightest degree objecting to the prizes being awarded to gentlemen who for years have appeared as our most successful breeders of any class of stock, there is reason to wish for a larger class of competitors and a wider distribution of the prize money of our agricultural societies.

One more question appears to require ventilation: What have velocipedes, and especially what have velocipede races, to do with agriculture? The intrusion of such objects and amusements into exhibitions of farm stock and agricultural machinery is surely to be condemned as inappropriate. We well know that articles of general utility, or interesting to the public, have been introduced into the Royal and other showyards although not directly connected with farming, but the line must be drawn somewhere, and we certainly think if the bicycle is admitted with other carriages the race should most certainly be avoided. If, as we fear, it is a mere subterfuge for drawing shillings, it cannot be too severely deprecated. It would be an easy matter to contrive amusements of even a more exciting kind. We have indeed very recently seen dancing and "kiss in the ring" tolerated within the precincts of a county showyard. Such practices ought to be discouraged by the leaders of agricultural societies, on the ground that the object of the meeting is not trivial amusement, but mutual improvement. We consider that some check upon this growing laxity is requisite. One society copies another, and if the public are taught to look for exciting amusements at one showyard, they will be disappointed at the more business-like sobriety of a second. Hence the evil once admitted is not likely to decrease, and, whether for good or for evil, it is not unlikely that we may yet see the acrobat surrounded by an admiring crowd in the centre of the area devoted to the products of agricultural and mechanical skill. F. Z.

THICK AND THIN SOWING OF GRAIN.

To determine the proper mode of sowing, and the right quantity of seed-grain to be used per acre under the numerous variations we have of situation, climate, and soil, so as to bring about in every individual case the greatest possible results at harvest, is an annually recurring and important matter of discussion for our agriculturists.

There is probably no branch of agricultural practice wherein greater diversity of opinion exists than upon these two points. The advocates of thin seeding recommend as small a quantity as "2 pecks of Wheat per acre, drilled," while in other quarters the employment of less than 3 to 5 bushels per acre would be considered a dangerous experiment. It is possible that neither practice may be far wrong, if all the circumstances are taken into account, but there cannot be a doubt that, all over the country, by the wasteful system of broadcast sowing, and the excess of seed employed in certain districts, there is an annual loss sustained which, if told in the aggregate, would scarcely be credible.

As some correspondence has already taken place in your columns bearing on the mode of sowing, and quantity of seed-grain to be used, I take the liberty of sending you a few suggestions and observations I addressed some time ago to the members of the Fettercairn (Kincardineshire) Farmers' Club, as illustrative of a system of seed distribution and deposition in growing favour with many farmers in the north of Scotland. *George Reid, Burnieboosle, Aberdeenshire.* We have to apologise for the delay of this publication.

ON DRILL-SOWING GRAIN.

A method of seed distribution that will prevent waste, and secure to each grain or pickle a necessary area of ground in which to germinate and thrive, and which will also secure the deposition of such seed or grain in this form at its proper depth, might be termed the nearest approach to the most perfect method of seed sowing. The advocates of broadcast distribution claim that they sow the pickles of seed without crowding, and that their results at harvest are always superior to any method of drill or row sowing. It is true that they disperse or distribute the grain, but it is equally true that no method of broadcasting can be considered as perfect, when it fails to secure uniform deposition of the seed—an essential element in any perfect method. However carefully the land may be ploughed and harrowed under the broadcast system, it is not possible by any method of after sowing to secure deposition at a uniform and proper depth, while it is well known in a general way, that a large percentage of the broadcasted sown grain is wasted both below the furrow sheet and on the surface of the soil.

As there is yet no method known, economical as to time, of dibbling individual pickles of grain to secure the thickness of plants required in our northern climate to bring about early harvesting, but which is to some extent obtained by broadcast sowing at great waste and loss of seed, the nearest approach

in the right direction is probably that of sowing by the 4-inch row drill, now for several years known as the "Aberdeen Corn Drill." In any system of drill sowing one important advantage is gained by the previous preparation of the seed-bed. In broadcast sowing this matter is frequently not attended to, and the result is a still greater waste in the dispersion of the seed. When the land is friable, light, or dry it may be prepared without evil effect some time before sowing, but such, or even heavy land, should be sown if possible with the same attention and alacrity as Turnip seeds are committed to the ground when the drills are formed; and in the case of light land, not subject to drifting by the wind, should be quickly followed by rolling or consolidation, to secure the retention of moisture in the soil in the event of subsequent drought, and for the more rapid germination of the seed.

Now, sowing by the drill secures uniform deposition and equal distribution in lines or rows, but, on the other hand, it fails to give to each pickle of seed a distinct and separate area of soil in which to come to maturity, as every perfect method should do. Still, it must be admitted that by its use the waste and loss by broadcast distribution is prevented. This economy has been computed fairly as 25 per cent. on the value of the seed sown, or in practice, 75 quarters will go as far in drill sowing as 100 quarters sown broadcast. On this ground alone, therefore, drill sowing ought to be preferred, as it secures against the wasteful system of broadcasting. But what to a large extent prevents the system being generally appreciated is, the diversity of opinion that exists about the quantity of seed-grain to be used per acre, and the distances apart to be fixed for the lines or rows. Some enthusiasts, having a fertile soil and propitious climate, contend that the lines should be 8 or 9 inches apart, and others, when weeds are not damaging, claim that the 6 inch distance is the right one. But putting the matter of weeds out of sight, as no good modern farmer would long tolerate even a legacy of them, the two questions, and very important ones they are, for every practical agriculturist to settle for himself are, first—the quantity of seed per acre he should use, under different conditions or circumstances; and second, the true method of its correct distribution and deposition. It is quite possible to judge of these questions relatively, and without experiment. If it be admitted that giving to every separate grain of seed the requisite area of ground capable of carrying its individual stems forward to the fullest stage of maturity is likely to produce the highest results at harvest, then, the nearest approach to a uniform broadcast distribution, on this principle, coupled with accurate deposition, both of which we hold to be given by the 4 inch drill system, is the most desirable method to be employed. And, then, rows of 4 inches to be preferred to rows of 6 inches apart? and are the 6 inch rows to be preferred to those of four? Certainly not. And as this conclusion can be proved to be true relatively, it has also been proved to be true practically. But the further question arises,—why stop at 4 inches? The Aberdeen Corn Drill is presently constructed, is made to dislodge the soil for the falling in and covering of the seed by coulters that penetrate the ground. If these coulters were all fixed in one line, 4 inches apart, the machine would be unworkable on the average of soils, from stones, earth clods, or weeds chalking up the way. Even coulters placed 6 inches apart have been found liable to this objection, and if made in two rows alternating, giving a 3 inch distance on the average, have been found to be impracticable. Besides, two horses on some stiff lands would be unable to draw a drill 8 feet wide to sow 18 to 18 acres per day, if constructed to sow an average distance in rows of 3 inches. This is not the case, however, when the coulters are placed 8 inches apart, in double lines alternating, giving the sowing distance at 4 inches, because it is altogether free from the objection of dragging or clogging, and two horses can with ordinary ease, on almost any kind of soil, sow with it 18 acres per day. By this arrangement of the coulters in the 4 inch drill we get a less crowded

4 inch row system, the same quantity of seed being employed, and certainly with increased beneficial results. If, for example, trials are made of Oats sown, by thinning at the rate of 4 bushels per acre, under similar conditions as to time, situation, soil, climate, seed, &c., at the respective distances apart of 8, 6, and 4 inches, it will not be denied that as the rows 8 inches apart will contain double the number of seeds or grains in the line than what the 4 inch row does, the probability is that when the crop arrives at maturity the crop in the rows 8 inches apart will be found inferior, the circumstances arising from its crowded condition, impoverished nutrition, and stunted growth. Why is it that in many districts of the south of Scotland, early celebrated for its advanced agriculture and the employment of the once-famed Suffolk and Bedford Corn Drills, farmers have now generally disused them, and returned to the broadcast system of sowing grain? The answer exists no doubt in this, that a heavier crop is invariably reaped from broadcasting, notwithstanding its waste of seed, than from 6 or 8 inch drilling, by the seed not being crowded, hence securing more numerous and stronger stems, as well as richer produce in the ear. If in practising the sowing of grain in rows 4 inches apart, the seed bed is suitably prepared beforehand by harrowing and rolling the soil to a fine tilth, then sowing the seed the requisite depth, and afterwards crossing the lines or rows with a deep stroke of the harrows, it will be found that the seed will not only be rightly deposited for its perfect vegetation, but will be distributed to a considerable extent in the interspaces, giving all the advantages claimed for a distribution that will secure a certain space of ground for every individual pickle of seed, with a saving to the sower of fully 25 per cent. over the wasteful system of broadcasting.

In 4 inch drill sowing, the employment of too much seed is strongly to be deprecated, and many beginners injure the system from want of confidence in making their testing experiments complete and exhaustive as between the quantity of seed to be used, and the distance to be employed between the rows. If the advocate of sowing 8 inches apart will sow either 2, 3, or 4 bushels of seed grain per acre, and will carry out a corresponding experiment with similar quantities of grain at the 4 inch distance, we feel assured he will give the preference to the latter mode at harvest time, and will afterwards readily admit that the best returns are only obtained when there is an actual practical approach to the principle of giving to every individual grain of seed its own space of ground to thrive upon.

In judging of the results of drill sowing when experiments may have been conducted under a variety of circumstances, it will be found of importance to take into consideration—

1. *The Time of Sowing*.—Less seed may be used when the land is sown early in the season than when it is sown late in a prospectively late looking season.
2. *Season as Aspect of Soil*.—The exposure of the ground in particular seasons, irrespective of the mode of sowing, will be found to affect the crop when perhaps under the circumstances the mode of sowing may be blamed. And here again the particular climate of a season will differently affect crops under variable situations, and therefore experiments on hilly lands cannot fairly be pitted against experiments on high lying lands, nor between lands at widely differing latitudes.

3. *Condition of Soil*.—It may be good or bad, early or late, and here the question as to quantity of seed to be employed is involved, as good land needs less seed than bad land, and the crop would be affected in results by the different application of manures.

4. *Quality of Soil*.—This has largely to do with the character of crops. If the soil is weak and inferior no proper start is at first made, nor is the after growth properly sustained. Mixed or impure grain as to sort or variety produces irregular growth, and frequently irregular ripening and inferior results.

5. In conducting experiments to bring about conclusions that are to be relied on for future practice, farmers will find great advantage for future comparison in detailing and registering the nature of preparation of the land, mode and time of sowing and reaping, weight and quality of straw per acre, quantity and quality of grain per acre and weight per bushel, and, if by the adoption of the system offered in the foregoing suggestions, the country is saved an annual waste of seed equal to 25 per cent. on the broadcasted outlay, and obtains an increase also on the produce of the cereal crops, it will be a source of gratification to every one concerned.

Home Correspondence.

Farm Profits: "Half Pay" and his Cows.—"Half Pay" is right in thinking that milk cows are the most profitable branch of farming if well managed, but the difficulty is in managing the details, and preventing both waste and robbery. If "Half Pay" were to take a farm and work as he says, he would no doubt make it pay in the end; but I venture to predict he would be at least five years before he could get any ordinary farm into the state he speaks of. If he wants to try dairy farming, he should try on the plan adopted in Dorsetshire, where the farmer very often lets out his dairy at so much per cow, undertaking to supply the cow with plenty of good food. In this way "Half Pay" could begin his dairy at once, without having to get a farm into order to keep it, and he would, moreover, run very little risk of loss. If he be in earnest and really wishes to try it, I make him the following proposal, viz.: To give him a large, new, well-ventilated cow-house for 18 cows, a large dairy with washing-house, butter-room, cheese-room, and dairy maid's house of four rooms, all new and *en suite*, and to keep his 18 cows well supplied with good food, for the sum of 12*l.* per cow per annum. I will also give him a good house to live in, such an one as any half-pay officer need not be ashamed of as country quarters. I do not think "Half Pay" is right in thinking one of the southern counties the place for a dairy. Ayrshire is celebrated everywhere, yet it is far north, and stands cold and wet. Cheshire is also celebrated, and it, too, is cold and wet. In fact, a considerable amount of moisture is wanted for a dairy farm. If "Half Pay" thinks anything of my proposal, will you kindly give him my address? and if he finds it pay, I can give him double the accommodation for cows if wanted, that is, for 36 cows, instead of 18. G. A. H. [Will "Half Pay" forward his address, that we may do as our correspondent desires?]

Misrepresentation by Mr Mechi.—Mr. Mechi says, "A Farmer" says in your columns, that last year I showed by my balance-sheet that I made no profit, and could not pay all my rent. When will people cease to misrepresent?" Mr. Mechi is fully entitled to ask this question, for it was not he who showed, by his balance-sheet, that he could not pay all his rent, &c., but it was I myself, by relying upon his balance-sheet, and showing up its "misrepresentations." This 9*l.* per cent. on his tenant's capital, that he is now talking about, was a misrepresentation, for he had a pull of 150*l.* upon his tenant's capital to help to make it up, and he misrepresented his case when he told us that he made over 63*s.* a qr. of his Wheat, whereby he over-estimated his profit by over 200*l.* as another help to make it up, and afterwards coolly told us that his prices ranged from 48*s.* to 62*s.* a qr. only; and then he talked of his "improved rent," as he does not pay "40*s.* per acre," for when the chapel land is added—5*s.* acres, at 1*l.* an acre—his rent stands at only 3*l.* an acre. It is of no use for you, Mr. Mechi, to try to escape by charging others with misrepresentation, for the facts are dead against you. You need not charge me with "anger," for I only audited your accounts and remarked upon them. You may be "angry" with yourself for putting in print such a sadly incorrect statement (your balance-sheet), to which you have again referred, and called me to a review of it. A Farmer. [This letter has been lost a fortnight.]

Three and Four Feet Drainage.—A "Bewdley Forester" attempted, some time since, in the "Gardener," to prove that it is a mistake to cut 3-foot drains. He states "I had not the remotest idea that, 35 years after date, I should have to describe my experience as an illustration of the uselessness of draining the fourth foot in dense clays, as drains 3 feet deep take away a really superabundant water. The fourth foot of dense clay, as a rule, holds but a small percentage of water even in the winter (its superincumbent load prevents it from holding more); and if it could retain more, this would be of service to vegetation in dry seasons by being drawn up to the surface by the combined force of radiation and capillary attraction." I fancy that those who once considered 3-foot drains deep enough, may be regarded as having been advocates of a great depth. Mr. Bewdley's test of thorough drainage may be repeated in dense or plastic homogeneous clays. "As water should be drawn away at once, not from the surface only, but from the bottom of the active soil, whether that be at the depth of one, two, or more feet; and this must be done in stiff soils by causing it to sink still deeper, not by allowing it to flow through the active soil towards the drains * * *. Some, however, do not hesitate to assert that their draining is perfect, although it falls far short of fulfilling this condition.—Does draining—the basis of all other improvement—does not accomplish this perfectly, it may nearly as well be left undone. * * *. The test of perfection in clay is the ready filtration of all rain-water to a depth of at least 18 inches midway between the drains, and its speedy conveyance from thence." The "Bewdley Forester" stated, "In support of your dogma, so to call it, I may

say that I have done damage by draining grass-land 2 feet 6 inches deep in the furrows, called 3 feet deep from a line across the ridges." It ought to be well known that the aeration of land to the requisite depth by drainage is only a preliminary process, and subsoiling ought to follow the draining. It is generally acknowledged that subsoiling wet land does it a positive injury. Mr. Morton stated, in a paper before the Society of Arts—"It is no part of good agriculture that the produce of the land is to be made out of a particular layer called the soil, which has to be cultivated, turned to and fro, and stirred and mixed upon an impervious floor hardened by a perpetual trampling, below which lies the subsoil. All recent improvements of the soil have proceeded upon the idea that there is no essential or necessary distinction between it and the subsoil. Thorough drainage and deep cultivation both increase fertility, and that existence of anything like a pan within 30 inches of the surface is injurious." A few quotations ought to convince even the "Bewdley Forester" that 48 inches ought to be the minimum depth in dense clays. The *Agricultural Gazette* has repeatedly quoted—"If the land be of very finely-divided material, and very clayey, it will lift or hold the water higher than if it be sandy, so that the water will stand 6 or 12 or 18 inches above the level of the drains when the subsoil below is wet, according to the stiffness of the subsoil." T. W. R.

Tiptree Hall, Sept. 7.—Finished harvest on Saturday, the 4th. All got up in dry order, after four weeks of splendid weather, without even a shower. Twenty-one good hay and corn stacks, besides the great barn full, although when I commenced building the barn, 26 years ago, I was warned by my practical friends that I should never grow enough on this poor farm to fill it. Now for the crops. Beans abundant, and fit to grind. Wheat very dry, and fit for the miller; quality various. White Club-headed Wheat more or less blighted, and shrunk by stem-rotting. On light land sample will be thin. I threshed 7 acres of my best white—yield, a fraction under 6 quarters per acre; weight, nett, 60 lb. per bushel. Last year it weighed 68 lb. It sold for 5s. per quarter before the fall and rise. I hear of one of our extensive millers who will only buy by weight, 63 lb. to the bushel. One farmer who sold to him on these terms had to supply 4½ bushels for each sack, or 9 bushels to the quarter!—at this rate present prices are, as compared with those of last year, nearly equal. I hear of 7 quarters of tail Wheat out of a threshing of 50 quarters. In my case, the tail was 6 per cent. Red Wheats have the best of it, and ours, sown late, promises to be a fine sample. My Rivetts are particularly good, both in sample and quantity. Two fields, after 7 and 8 quarters of white Wheat last year, have been estimated at 7 and 8 quarters per acre, but I shall be satisfied with a quarter less. Our Barley, on light land, after 6 quarters of white Wheat, is very heavy in grain, though rather coarse in quality—estimated at 7 quarters per acre. I have only 6 acres of black Oats (produced by a heavy Tartan crop, followed by Cabbage in the same year). They are heavy in quality, and well corned, but not a good crop; we reckon on 8 quarters per acre. We always sow black Oats. Quantity of seed: Oats, 2 bushels; Wheat, 1 bushel; Barley, 6 pecks per acre. On comparing the 2 pecks per acre with the 4 pecks per acre of white Wheat on the 7-acre field, the result shows a quarter per acre against the 2 pecks. This was contrary to expectation, the general opinion having been in favour of the 2 pecks; and after cutting the thin stubble looked much the strongest, but there were less heads. The sample was finer, weighing 3 lb. more per bushel, and worth 2s. more per quarter, than the thicker sown. We have not yet tried the peck an acre. White Wheat is evidently a more tender Wheat than our red or Rivett. Owing to its having yielded so abundantly in the dry genial season of 1868, rather too great a breadth of it has been sown this year. My 27 acres of Mangel, Kohl Rabi, Cabbage, and white Turnips all promise abundantly, so that we shall be well supplied with cattle food. Hay and straw buyers tell me that although straw is so bulky there will be no more weight of it than last year. Taking weight and quality of Wheat as a standard, it can scarcely, I think, reach an average. Although our first cut of red Clover was thin and overgrown by Oats, the second growth was a very fine even crop, folded off by sheep eating cake and corn. We gave it 10 loads of manure after the cutting for hay. This field will now have to carry a white Wheat crop, a Rivett crop, and then Mangel. That is my course after red Clover, on the heavy land, the Rivett Wheat getting 2 owt. of guano and some salt, the Mangel a heavy dressing of manure, and guano and salt. We are sowing Mustard and Rape on our light land Wheat stubbles, after these fine rains. Our harvest occupied four weeks. One man, with Samuelson's side delivery reaper, cut 65 acres of Wheat, 6 acres of Oats, 6 acres of Barley. Our men earned 5s. per day, or 6l. per four weeks—4s. per acre was allowed by the men for the use of the reaper—so that it earned by the aid of horses 15l. 8s., minus a few shillings for breakages. It economised time, and rendered unnecessary the employment of strangers. J. J. Mechi.

A Scotch Farmer.—[The following letter has been addressed to Mr. Mechi by a Scotch farmer]:—"Ever since the time that I visited Tiptree Hall, in 1864, and experienced so much unalloyed kindness at your hands, we have had a warm corner in our heart towards you, and, consequently, read with much pleasure and profit your several articles as they appear, from time to time, in the *North British Agriculturist* newspaper. So much so, indeed, that often I have intended to write to you to thank you for displaying so much courage in stating facts, however unpalatable, that by-and-by will be recognised as such, notwithstanding the snarling of a few ours. I can truly sympathise, and heartily join you in denouncing the

short-sighted policy of but too many landlords and farmers both in England and Scotland who seem so well content to let matters 'rest' as they are 'and be thankful.' With such a redundancy of capital in our country seeking a profitable outlet, and to see so many of our fields and homesteads so far behind in good cultivation and tidiness, is positively a sin, and well fitted to arouse the honest indignation of anyone having less enthusiasm than yourself, here, in Scotland at least. Hypotheses, and similar antiquated laws, 'block up the way,' and until these are removed such a thing as progress and thorough improvement is out of the question. The landlord's hypothec, covering the rent for two years at least, enables him to accept (as he often does) the one most servile as tenant, caring little whether he possesses sufficient capital or not; and hence men of capital and enterprise have become soured and disgusted, thus causing many such to look around for a more congenial field; such in fact is my own experience for the last 16 years. I have cultivated my small farm with some measure of success, and now that my lease draws to a close, and before it is known whether I intend to offer for it again or not, several parties have been applying for it, and offers made of a rise of 80 per cent. Bear in mind that the offerers are merely men of straw; the landlord, however, as I have stated, being safe as regards the rent, will, unless I bid a sum approximating to them, let me go. I remember well that the first question you asked of me was as follows:—'How many acres do you cultivate? and how many head of cattle do you keep?' In answer, let me again say that my farm consists of less than 120 imperial acres, one half of which is good sharp land, the other half is very poor and thin; the stock comprises the following—viz., three farm horses and one pony, 35 to 40 cattle of all ages, and 90 to 100 high-bred Leicester sheep, and worth, on an average, 5l. to 6l. a head; these animals are all kept on the farm, unless during the summer, when we rent some 30l. of a grass field; and here it is fair to add that the way I manage to keep such a heavy cover is by following some of your own rules, at least in the matter of cake, and from experience I can testify that you are right. Cramped and confined as we are here, by absurd cropping conditions, one positively has no heart to do anything, not overlooking the fact that the better you farm your land the more rent you will have to pay, should you wish a renewal at the end of your lease; the longer I live the more I am convinced of the utility of manuring your land through the stomachs and bowels of your stock, but, as you know, to carry this method out properly capital is needed, and as those would-be successors of my own see only the fruits, without knowing the cost, they may come to find that the 80 per cent. additional rent may be somewhat ill to raise. Let me brush this aside, and conclude by asking if you think it might be possible for me to get a farm in England, under some landlord who would encourage a tenant who truly wished to do well? It strikes me that amongst the many acquaintances you have got one may be found of the sort indicated, and who might feel disposed to give a trial, as tenant, to *A somewhat Enthusiastic Scotoman*."

Essex Crop.—Your circular was sent after me to Liverpool; unfortunately I lost it, but I now report, that, in this neighbourhood, all the crops in the aggregate are a full average. The Barley crops are above an average, and especially where not injured by over-seeding. The Oat crops an average. Farmers had fault with the Wheat crops, and doubtless, where greatly injured by over-seeding some Wheat crops are light, but others are very fine, full eared, and heavy, which I think will bring the whole to a full average. The Mangels and Swede root crops are very fine. I never saw them more promising. The Potatos in this neighbourhood are retubercating in many places, which, of course, will very seriously injure them; but still there are some very excellent crops. Mine are of both kinds. I have several plots, and some are very good; but the greater number are what are called growing again, and consequently such are nearly worthless, but on the whole, comparing one with another, the crops of grain and roots are a full average in this neighbourhood. I have not been able to examine many Bean crops, but where the land was deeply cultivated, or tolerably so, and not over-seeded, I should say these crops are a fair average. Peas with farmers are always a hazardous crop; shallow and imperfect cultivation for them, and ruinously over-seeding, must always be causes to make them so. But this is seldom the case with gardeners, who cultivate deeply and seed sparingly, and, as an example of this, I add that some years since I saw a market gardener putting in his Peas in rows 30 inches apart, and thinly in the rows, whilst farmers put in theirs only 6 or 8 in. asunder, and three times as thickly in those rows that the market gardener did in his; and on my asking the latter why he cultivated so deeply and sowed so thinly, he replied, "Because he gave 4l. an acre for his land, whilst the farmers gave but 30s. or 35s.; and hence," he added, "they could afford to grow little else than light puffy straw, whilst he was obliged to grow corn regardless of the straw; in fact, the less straw he had the better, so that all the seed he put into the ground grew, and which was generally the case." To add to the force of this, to me, sensible reasoning, I inform my readers that I have grown Peas for upwards of half a century, and never had lice upon any of them, which is the malady that the farmers so much complain of; and as this year, from its dryness, has been very favourable for their production and multiplying, I should say that many farmers' crops of Peas this year have been destroyed by them; not that lice have been the cause of the failure, but the effect only, as I have stated, of shallow and imperfect cultivation, and—what shall I say?—insane over-seeding, as the intelligent market-gardener also added. But being on this subject, I will just add further, that the farmers

add, that this year many Wheat crops are full of what they call bladders or smut, and yet they always boast that they have a specific as a preventive of this malady, and which is by steeping the seed Wheat in a poisonous mixture composed of a mineral and water. Now, this year, and every year—for there are bladders more or less every year—the farmers who use this quackery nostrum have just as many bladders as those who use it not, and some of them more than those who use it not; for the latter rely more on cultivation and the *probata* they gave to their plants, than upon this or any other kind of quackery, and hence, as I have often seen, their Wheat crops are comparatively free from bladder or smut, whilst those of the others are often full of them; but still they go on wetting and drying, and still have bladders. But would it not be better and cheaper to employ some venerable gipsy sybil to charm their seed? G. Wilkins, Wis.

Foreign Correspondence.

CHAMOUNI, August 31: *Swiss Agriculture*.—The best crops I have seen anywhere this year are just now being harvested at and below Liddes, in the valley leading up to the Great St. Bernard Pass, at an elevation of between 5000 and 6000 feet above the sea. Nowhere is the Barley of a richer colour or more full of grain—nowhere are the Potatos sounder, healthier, or more productive—nowhere is the Bean crop so full of pod and seed. The valley, which, in its lower range above Martigny, is just a big deep ditch with sides too steep for cultivation, widens out above Orsières, and is a comparatively flat-bottomed groove near Liddes, where for probably a mile or more in width, and up to the very edge of the steep Fir slopes with overhanging rocks, it is fully cultivated—in a patchwork of little plots, each kept up by its retaining terrace wall. These plots are cultivated with a little one-handed pair-mule plough, and with a big hoe for use both in digging the land and in digging up the Potato crop. They are manured by cattle carrying panniers of dung from the stances beneath barns and byres, and dwelling-houses, where it is stored. The whole process is going on just now, and autumn manuring seems to be as well understood and practised in the highest agriculture of the Continent as it is in English lowlands. The Barley is stoked in sheaves, and being carried home to barns. The Potatos are being hoed out and stored in cellars. The Beans, cut green, are being carried tied in sheaves, and hung astride a set of horizontal rods underneath the wide overhanging eaves of the houses, where a perfect wall of grain is gradually drying. I have seen more Beans hanging and drying in this way under the eaves of Swiss cottages than are to be seen all the way through Belgium and Germany on the way hither.

There certainly is a great variety of agricultural experience and management in Switzerland, as, indeed, was to be expected from its varying circumstances. The wonderfully rich and perfect vineyard cultivation of the northern and north-eastern shores of the Lake of Geneva—the smiling English-looking landscapes one has passed through to Lausanne from Berne—the poorer undrained upland pastures between Zurich and Lucerne—the sandy flats on the way from Lake Lemane eastwards up the valley of the Rhone and southwards up the Arve—the hard-won but abundant crops in hillside patches everywhere, all these present as many types of style and management as much larger countries show—types much wider apart than our own exhibits. The first and last of the series named excite one's admiration most, and having mentioned the patchwork culture of the hill sides about Liddes and Orsières with praise, it is impossible to pass, without expressing admiration, the glorious vine-clad slopes between Vevay and Lausanne: nothing can be finer.

Perhaps the leading feature, more especially of the small-farm cultivation of the country, is the value set on liquid manure. The tanks, over which the dung is neatly piled—built up squarely in successive layers—receives the drainage of the house and heap, and its contents are carried out in the universal carrier of the country, on men's backs, and either lifted down and afterwards ladled out, or, as we saw it in wet weather, when the tank fills rapidly, and has to be emptied quickly, swung abroad (without being lifted down) by clever shoulder movements, calculated, in unskilful cases, one would fear, to drench the unlucky carrier himself with the unsavoury load. The work of distribution is, however, fairly done, and the Grass and other crops thus treated are the better for it. The Grass, however, is everywhere a very coarse and leafy mass of weed, containing quantities of Crowfoot and Hawkbit, and comparatively little Grass. The second crop of hay has been industriously harvested during the past week of fine weather. Women mow as commonly as men, and the scanty crop is rapidly got together, and tied up in bundles within nets, to be taken down to the fodder-house or barn. The uplands are scattered with these chalet-like barns. You see them scattered about the hill-side as you look down on Grindelwald from the little Schiedegg Pass; and again, with quite a large population in scattered villages, you see them all over the lower uplands of the Hasli mountain range from the heights over Reichenbach. These alps, or upland pastures, carry a large quantity of the small dairy stock of the country; and the one cheap food of the country is milk.

The low, flat, and often unhealthy valleys, especially those running into the Lake of Geneva, are in every respect miserable, the population are unhealthy, the land appears liable to inundation, the crops are poor, and mixed up with enormous growths of natural Reed and Rush. A good deal of land is perpetually burned in preparation for a Rye crop, and the process is going on now all about Bonville, on the way up to Sallenches from Geneva. Buckwheat is a common crop. This

and Rye, and Potatoes, seem the chief produce of the district. Patches of Hemp are almost universal, and Oats, still green, are common. Here, in a Roman Catholic canton, everyone was at work last Sunday afternoon; men were ploughing, women mowing, and labour going on as usual, in the listless fashion of the place; and a Protestant, in the coupé of the diligence, taking his pleasure on the day of rest, was passing through their midst, and felt that he had no right to cast a stone at them. J. C. M.

Societies.

BATH AND WEST OF ENGLAND.

August 21.—At the meeting of Council reports were brought up from Messrs. Badcock, the Society's treasurers, announcing that the required sum of 900*l.* had been paid to the credit of the Society by the Taunton local authorities; from the stewards of plant, announcing that all the plant of the Society had been removed from Southampton within the specified time, and was now safely stored at Taunton; and from Mr. Knollys, who had been deputed to conclude arrangements with the Taunton authorities, announcing that all matters left in abeyance were now satisfactorily arranged.

A committee having been appointed "to take into consideration the duties and salaries of the Editor and secretary, and the routine of the secretary's office, and to recommend such alterations generally as in their opinion may be desirable," the report was now brought up and ordered to be taken into consideration at the October meeting of Council, after due notice given on the Agenda paper.

PLACE OF MEETING IN 1871.—As the Society's annual meetings are now held alternately in the eastern and western districts, and as the meeting of 1871 would in due course be held in the eastern district (including the counties of Berks, Surrey, &c.), a committee was appointed to consider the subject, to take such steps as they think necessary, and to report to the Council at the October meeting.

Mr. MARGARY, of Plymouth, suggested to the Council the desirability of offering prizes for donkeys, which he considered would be a great boon to the industrious poor. The subject was referred to the Stock Prize Sheet Committee.

Mr. LE CORNI, of Jersey, having expressed a desire to convert the money prizes which he obtained at the Southampton meeting into a piece of plate, asked the sanction of the Council to his engraving the badge of the Society thereon, and the desired permission was granted.

AYRSHIRE

Breeding of Ayrshire Stock.—Mr. Lindsey's remarks on this subject at a recent meeting are as follows.—I would say, take a bull from a stock not connected with your cows—a stock that has been good for generations back. Be sure that the bull's mother is a good strong profitable cow—such a cow, in fact, as you could face a distant market with. Don't at all be guided by the prizes that she may have taken, unless she have a good appearance of milk, and seems likely to be a good fat beast at the end. I have been thus minute about the bull's mother, because I expect from what I have seen that his progeny will probably be more like his mother than himself. I would like both the cows and the bull which judges at a show would perhaps pass when awarding the prize to the animal showing the most breeding. Now, we admit that enough of attention has perhaps not been paid to this matter, but the reason of that is not because the object is not a desirable one, but because breeders generally have hitherto been a little careless of the fact. There are at the same time a great many breeders whose sole desire and aim is to produce animals having their touch and form worthy of as much praise as the quality and purity of their milk.

In the month of May they should be sent to the moors or shut up in a field of the coarsest Grass on the farm for the summer months, but they should be brought home by September 1, and have plenty of Grass down to Martinmas. They should by no means be kept on bare Grass in autumn. They are now six quarters, and this is the best age to bring them to the size you want. They ought to have sliced Turnip or cut hay or straw steamed in the morning, and be turned out to water through the day. If you have not Turnip, the cut hay, with a very little meal, will pay better at this than any other age of the beast. The plan of sending them to the moors is good, but it is quite wrong to allow them to remain on the moors for more than four months. There should be a field cleared a month or six weeks for them, and bring them home to plenty of Grass in the autumn. By no means allow them to be falling off before you take them in. Feed them at once, and keep the flesh on them till February, when they must have a little meal to supply the drain of nourishment that will be caused by the growth of the calf. But it is wrong to feed heavy at this age, as it is apt to bring on too great a flow of milk. It is better to feed moderately till once they are calved, and the swelling has begun to subside, then feed and bring them to their milk. One could scarcely expect that a farmer having good pasture would advocate the following rule of policy. In the district where he lived it was naturally good pasture, and they had no difficulty, if they attended to the cattle in winter, in rearing cows of a fair size. The size that he reckoned best in a good dairy cows was one that when fed would weigh from 26 to 28 stones. Many studied chiefly the bringing out of fine points; but his opinion of a good profitable cow was one that would stand the wear well in a dairy, and then pass off advantageously as beef. In the breeding of young cattle his experience was that the progeny followed the mother's side more than the father's. Of course it

was perfectly right to have the best bull they could get; but if they put the best bull to inferior cows, they would not produce an improved breed that would fill the lugs.

[On this the *Farmer* remarks: This, in our opinion, is quite contrary to facts. The male animal exerts an unmistakable influence upon the form of the progeny; and if the bull is bred from a good milking stock, there is assuredly every chance that the milking qualities will be influenced by him as well. Experience proves this to be the case; and although the mother may have a great deal to do with the quality of the progeny, still a good bull put to an inferior cow has as good a chance to have offspring of fine quality as if the case was otherwise. Upon this subject we are so certain that we would say—make it a point to provide a well-formed animal always.]

We hear a good deal of discussion now-a-days upon some other points in the breeding of stock. For instance, many farmers are at a loss to know whether it is better to have a cow in calf when it is two and rising three years old, or whether it should be left till it is a year older. Both ways have been tried, but generally it has been found better to allow cows to calve as early as possible. They give the most milk, and continue to be the best milkers. The reason of this is thought to be because they become in calf at a time more in accordance with the promptings of Nature, and the milk, therefore, comes sooner, and continues to flow more copiously all their life. Many, it is true, are very averse to this procedure, and a general feeling exists that it is a most hurtful practice to bring cows thus early to milk, but if they are properly grassed on till that time, and properly wintered, the animal's will be as good at that age as they are when sent off to the moors, to get Grass there, besides, calves are more likely to come to a good size when calved early. Many farmers run into a very common mistake with reference to this, with a view to taking prizes at some neighbouring show, or perhaps a leading one. They have their cows too late with calf; the effect of this upon the calves as well as the cow is very bad.]

Reviews.

Notes on the Distribution of Sewage, addressed to the Chairman and Directors of the Metropolis Sewage and Essex Reclamation Company. By H. J. Morgan Metchim & Son, 20, Parliament Street.

"Town sewage is the most fertilising of manures—producing enormous crops of all kinds of succulent growth—bulkier and heavier crops per acre than ordinary agriculture knows anything about"—"Town sewage is the poorest 'tackle' as manure any of us know—not worth 2*d.* a ton."—Both these statements are quite true. We have known much heavier crops produced by dressings of town sewage than Mr. Mechi quoted from Mr. Morton in a paragraph the other day. Sixty tons per acre of Italian Rye-grass in a single summer have been often grown in this way. Incredible crops are actually grown in this way. We were present on the introduction of Farmer A, who uses sewage, to Farmer B, of Colchester, who knows nothing of it, at the Bury Station, when the Agricultural Society met two years ago at that pleasant little Suffolk town. "Oh!" said A, after five minutes' hearty talk as cordial as could be, "I too am an Essex farmer;" and he began to speak of four crops of Grass already cut that season—it was towards the end of July—averaging 9 tons per acre each. The cordiality ceased at once, and B. turned upon his heel, evidently considering A. either knave or fool.—The results of sewage application as related are incredible—excepting always to those who have reaped them, mown them, seen them, weighed them; and now that almost everywhere towns are being driven to the consideration of the sewage nuisance, and sending agents up and down the country in search of sewage farm experience, the number of these is rapidly increasing. Nevertheless, it is quite true, as just said—town-sewage is a very poor manure. If, indeed, it be worth 1*d.* per ton, the Metropolis Sewage Company, to whom Mr. Morgan addresses these notes, have a very handsome property.

The way in which so poor a manure as sewage produces crops unknown to ordinary agriculture is simply by means of the enormous quantities of it which are applied. If 50 tons of Grass per acre are produced by it, it is because 3000 and 4000 tons, perhaps more, are put on every acre of the land; and hence it is that the question of "distribution," which is here discussed by Mr. Morgan, is of the very essence of the question—what is sewage worth? It costs a farmer 1*s.* a ton per mile to load and carry farmyard dung. But here is a manure worth not much more than 1*d.* per ton to begin with, and we want to carry it 15 or 20 or more miles away—at least, London does, which has 300,000 tons daily of it to dispose of, or enough for 300,000 acres of land.

We strongly recommend Mr. Morgan's notes on distribution to all who have sewage to dispose of, and want to make the most of it. It is plain that if they have to carry it, they will make no money of it. It must carry itself—it must distribute itself. And this is the great merit of the manure in question. It is at once fertiliser and carrier of fertilising matter. The matter which it contains is loaded already on a self-acting carriage, and it only needs that the land be laid out properly, and that channels which will not waste the goods committed to them shall be provided, and the manure will take itself not only to the firm—not only to the field—but to every plant upon that field which wants to feed upon it. Mr. Morgan, fully alive to the necessity of economy and care in dealing with so bulky, so dilute a substance—a manure so poor per ton but so valuable per dressing of 300 tons—has here elaborately discussed the various

plans of enabling it to spread itself evenly and satisfactorily, especially over arable land. His experience has now lasted over several years, upon a farm where it has been the aim rather to make the most per ton of the manure than the most per acre of the land. And this experience is here laid before the reader with all the help that well-drawn illustrations can afford. We strongly recommend the book to the attention of sewage farmers, and especially to the notice of town surveyors and of town ratepayers, who want to realise the value of what creates so great a nuisance now by waste.

It is satisfactory to find that the literature of this subject has at length overtaken its early task of proving the value of sewage as manure, and is now engaged in discussing the methods of its most economical distribution. Mr. Morgan has already done good service as a promoter of sound public opinion on what is one of the leading agricultural questions; and the publication of these lessons of his experience upon the Barking farm is a timely and valuable contribution in the same direction.

Farm Memoranda.

WEST GLOUCESTERSHIRE.—The harvest may be said to be general, and the weather all that can be desired for the drying of the grain. A large breadth of Wheat, Barley, and Peas has already been cut and carried; Beans, too, are fast drying off, and will soon be ready for rickling. Should the weather continue fine another week the bulk of the corn in the vale will be pretty well secured. The corn on the hills is later, and much of it is still very green, and will not be ripe for a fortnight or three weeks. Much anxiety is felt as to the probable yield of the Wheat crop; that it is below an average there is no doubt, but the amount of the deficiency we cannot learn at present, as we are all too busy to pay any attention to threshing. The cause of the present deficiency is no doubt attributable to the excessive rain in winter, and the absence of sufficient heat in May and June; the plant lost its vigorous appearance, and became very spindly and rotten at the root just at the time when it most needed strength to withstand any rough winds which might happen to pass, consequently the gale about the middle of July broke down most of the Wheat crops upon the light soils, and thus prevented the grain filling, as it otherwise would have done; fortunately we have not had much rain, so that the laid corn will not be so much damaged in quality as it must have been had it been very wet. The crops upon deep, well farmed clay soils present a promising appearance, but there are many faulty grains in the ears, there will also be a deficiency in the weight per bushel by at least 2*lb.* compared with last year. Barley is very various. The early sown is generally very good, and much better than last year; the late sown is very middling. Oats cannot be said to be an average crop. Peas about an average upon good soils. Winter Beans present more straw than usual, but have not podded so well in consequence. Spring Beans are very promising. The root crop looks about as very good, and the prospect of an abundant supply of winter food for stock most encouraging. Grass keep is getting rather short, as the latter part has not grown so rapidly this year, owing probably to the immense crops of hay which has been cut throughout this district. J. W. [This was dated August 17.]

The Poultry Yard.

THE LEICESTERSHIRE AGRICULTURAL SOCIETY'S POULTRY SHOW.—Ashby de la Zouch will recall to every one Sir Walter Scott and his tournament, but it will also recall now to many good Leicestershire and other shire people the memory of a very pleasant and successful agricultural gathering. The show was held in the grounds belonging to the Royal Hotel. The attendance was excellent.

Dorkings were well represented by Messrs. Warner and Wood, who took the prizes both for adults and chickens. The hens in the 1st prize pen may be looked for again later in the season in a similarly high position, if their owner does them well. Mr. Sharpe, of Kettering, was 1st for old Spanish, and Mr. Stephens, of Walsall, for chickens. The Cochins, as might be expected, were very good. Those who, in the early days of the fancy, remember the birds exhibited and bred by the late Rev. G. Calvert, of Beby, will find them still worthily represented. The birds shown by Mr. Woodcock, of Bearys, and Mrs. Williamson, as also those of Mr. Worthington, were very beautiful. The white chickens shown by Mrs. Williamson were universally admired, and deservedly so.

The quality of the game fowls was good, but hardly as even as we should have expected for Leicestershire. Mr. Warner took 1st for black-breasted and other reds followed by Mr. Clare. This exhibitor swept the board for the chicken prizes. In the other class for game Mr. Everard won both for adults and chickens. In spangled Hamburgs, Mr. Stephens, of Walsall, was 1st for golden, and Lord Ferrers 2d. Mr. E. Warner 1st for silver, and Mr. Faulkner, of Bretby, &c. All who know his birds will be prepared to hear that Mr. Draycott took all the prizes for Bantams, except both 1st and 2d, Lord Mauchline taking the prize for the single cock.

Mr. J. Choyce won 1st and 2d for Aylesbury ducks and 1st for geese. Mr. Worthington for Rouens, and Mr. J. N. Beasley for turkeys.

The pigeons were excellent, and, for a county show, numerous. The arrangements were good, and well carried out. Mr. Hewitt, of Birmingham, was poultry judge.

PARTBIDGE SHOOTING.—The result of the first week's partridge shooting must be a feeling of disappointment, and at the same time it will impress

many who would not accept the fact that nothing is more injurious to the coming season than too heavy a stock of old birds at the end of the present one. Taking the average of the bags, as they have come to hand in the London market up to the present time, we have had as many old as young birds. The latter are small, thin, and weakly. The best birds we have seen were Cornish; they appeared to have been really covies of first hatch, while two-thirds of the birds generally are now but squeakers. The neighbourhood of Thetford has furnished a few good, well grown lots, but the ordinary supply from the eastern counties generally has been woefully bad. The breechloaders tell terrible tales of driving and impatient shooting, and little birds not bigger than thrushes, drilled through and through, with legs and wings broken, lay about on the salesmen's boards until condemned by the inspectors. It would, we think, have been a good plan to have put off shooting until the middle or end of the month, for we have now reached nearly the middle, and many have worked fairly with gun and dog, and have not yet found a young bird as big as it ought to be at this time. Hants and Dorset, both counties from which the birds are generally very good, are badly off, and in Hertfordshire the covies are small and backward. In the lower part of Essex we have some few of good size, but also many barren birds.

DUCKS.—The suggestion of "G. E. O." of Chepstow (*vide p. 933, Aug. 28*), is an excellent one for those who keep ducks in parts of the country where wild ducks abound. We have there known the cross-bred bird very successful, and it stands to reason that the introduction of fresh blood in such a manner does good in every way. You get harder ducklings and quicker growth, and if your young birds be not so large, you have one brood out of the way before the next is ready, and that is a great help. If you had common country ducks, and turned down among them some drakes of the Buenos Ayrean breed, you would find yourself a gainer in every way. The writer once sent a drake and three ducks to a villager's, to "walk them," as they call it in the country. The man lived on a village green, with lots of water ditches and a good pond at hand. The ducks certainly laid, but, as we thought, badly, and the result was, as far as we were concerned, very nearly a barren one; but somehow or other nearly all the villagers whose ducks used the same pond obtained black and black and white ducks, to the great improvement of their stock, to which result we had the satisfaction of knowing that we had unwittingly contributed.

The rabbits whose illness and death "Coney" wrote about are some destined for export to China (we should say were). They are in new hutches, well constructed, and in a well ventilated stable. Their food clean and sweet, not too dry. They are well looked after, and yet the mortality continues. "E. O." is thanked for his information.

Calendar of Operations.

SEPTEMBER: *Bean and Pea stubbles*, if not broken up last month, should be so early in the present. Under proper management, the land will be clean and free from weeds. If so, or but a few annuals be present, it is better to pull and gather these off light land without breaking the surface before the seed-furrow is made, just previous to sowing time. Heavy clay land, however, may be smashed up and left in large clods, so as to be exposed to the sun, night dews, or rains. If ploughed, we have always found it best to plough narrow and deep, which better mixes the previous winter-made staple with the fresh soil brought up, while it breaks down the land sufficiently fine for Wheat, thereby avoiding crossing with the cultivator. There is, however, less objection to crossing with steam than to the tramping of horses in autumn. Much depends upon the state of the land as to moisture; for if rain falls before it is broken up, one operation, whether by the plough or cultivator, will make it sufficiently fine for "weathering" during the remainder of the month. If, on the contrary, the land is full of Couch and surface weeds (mostly annuals), it should be scuffled or broadshared sufficiently deep to bring them to the surface. Some harrow-gather and burn the weeds in small heaps on the land, with the view of getting rid of the seed of weeds. But the practice is questionable, for the harrows and gathering often shed out most of the seed. The more advisable plan is to collect and cart off the weeds, and to convert the hill formed into compost, by mixing lime, or farmyard and liquid manure, or fish, or guano, by this plan the caustic character of the lime, or the fermentation which thus takes place by adding the ammoniacal substances, destroys the vitality of the seeds. There are, no doubt, exceptional cases where, under wretched management, the land is so full of Couch and other weeds that scuffling and stife-burning the sods in large heaps would be preferable to carting off the whole. It must be borne in mind, however, that stife-burning after harvest is only applicable to our southern counties in the generality of seasons.

Clover-leas intended for Wheat should now be got ready for seeding. Some rib or rafter-plough very tenacious clay soils with the view of getting an aerated and mellow seed-bed. If this was done in August, the land may be coup-ribbed by the second week of September, or cross-ploughed or scarified according to the state of the land and weather. And when ploughed the last time an inch of fresh soil is brought up from the bottom to the surface, which forms a clean seed-bed. Others turn the greensward into the bottom of the furrow, under the furrow slice, by means of a skim coulter, thereby leaving the ploughed land ready for the seed drill at one operation.

When Rye-grass and Clover-lea lies one or two years in pasture before it is broken up, the practice is the same, but the greensward is thicker and closer, and more liable to be infested with insects. The best plan of getting rid of these is to adopt means for rotting effectually the greensward in the bottom of the furrow under the furrow slice, so as to deprive the young insects of food in the spring time, when they first make their appearance in the grub form. Insects seldom deposit their ova in healthy pastures, but the presence of much effete matter is to be suspected; and to rot such sufficiently for the safety of Wheat, a top-dressing of lime, liquid manure, or guano, well bush or chain harrowed in just before ploughing, may be useful in setting up the rotting process. Ploughing early and rolling heavily at once, and then harrowing and rolling at intervals of a fortnight, and sowing the Wheat of a field requiring this treatment last of all, is the sure way of securing a plant and getting the Wheat to stand without being "root-fallen" before harvest, as much Wheat was this year.

Wheat and Oat stubbles are autumn fallowed either for Rye or root crops. In either case there is a close similarity of the practice during the month. Broad-sharing is only needed under bad management and the growth of weeds, and the practice required is the same as noted above under Bean and Pea stubble. In addition to what was there directed, if much seed of weeds has been shed, the land should be chain-harrowed, with the view of encouraging germination, so as to get rid of a crop of weeds next year; and, in the absence of a sufficiency of moisture, it may be advisable to allow the land to lie until rain falls before it is ploughed or smashed up. Great caution, no doubt, is necessary in ploughing deeper than usual; the safer plan being to use the cultivator in all cases where the subsoil is unsoond. But if the land has been deeply cultivated hitherto with horses, it may be ploughed to the same depth with steam, and in such cases ploughing down the stubble for the winter furrow, as for Swedes, Turnips, &c., for spring manuring, is preferable to the use of the cultivator. But when the land is to be manured during this and the following month for winter Beans or for Potatos, Carrots, Parsnips, and Mangels, the cultivator may in many cases be preferable to the plough. The practice, therefore, of preparing the land for manure, and of applying the manures, is very diversified, more so perhaps under steam culture than it was under horse culture. In those districts where the harvest is seldom completed before the end of the month, very little manure has hitherto been applied in autumn. But the rapidity with which steam gets over the ground is fast extending the practice northwards of autumn manuring for Potatos, winter Beans, &c., when such crops are largely grown. Some spread farmyard manure on the stubbles, and then plough in on the flat, or smash up with the cultivator, leaving most of the manure roughly on the surface to be washed in by the rain. This latter plan is not to be commended. A third plan is to spread the manure as above, and cover it by forming the land into ridges by ridge-ploughs. A fourth practice is similar to that of spring, the land being ploughed or smashed up deeply, then crossed with the cultivator, set up in drills or ridges, which are split to cover the manure spread between. The land thus lies high and dry throughout the winter months; rough and somewhat cloddy ridges being preferable for autumn, that the frosts may take deep hold and produce a fine mould and seed-bed by the spring.

Breeding Ewes are commonly bought in about this time, either for a single crop of lambs, both ewes and lambs being intended for the shambles next season, or for augmenting the permanent breeding stock. For the latter shearing ewes are generally preferred, as one year given at the beginning puts on two years of strength at the end of their breeding career. Both ewes and rams, young and old, are now got into condition; and the rams are now turned into the pastures with the draft, cast, or crop-ewes intended to lamb about the latter end of January or beginning of February, and with the stock ewes next month. Togs are put up to fatten on Rape, Vetches, Clover, Cabbages, Collards, or Turnips, or rich aftermath—a pound of oilcake or a pint of peas being given per head to force them forward for Christmas. The crop-ewes are usually crossed with a heavier breed, as the Cheviot or blackfaced ewe with the Border Leicester ram, the Southdown with the Cotswold, &c. W. B.

Notices to Correspondents.

ATTENTION.—Will "Half Pay" kindly forward his address: also Mr. H. Grafton, C.E.?

HARVEST MOON: Cor. Harvest moon is the full moon nearest the autumnal Equinox this year, and it occurs about September 13. At this period the moon rises for several evenings at near sunset, and does not, as on other occasions, rise 20 min. after each evening than the last. Refer to "Chambers Cyclopaedia" and Almanacs.

FILARIA. John Fryer writes as follows—"I have 26 beasts, 14 year old, suffering from a sort of short cough, I believe commonly called 'Hoose.' One died to-day, and on opening it we found the trachea and windpipe covered with bunches of thread worms, finer than sewing cotton. The lungs were also full of them. Will any of your correspondents, or can you, suggest a quick remedy? Several more look to be all but in the 'last stage.' Our cow doctor calls it Filaria, [Filaria in the bronchial tubes of cattle, sheep, and pigs exist to a much greater extent than they formerly did, owing to causes which we cannot now consider. The treatment of this disease is generally unsatisfactory, but the most direct remedy is inhalation of the vapour of carbolic acid. Drive the animals into a shed which can be shut up tolerably close, and then pour some carbolic acid on pieces of tile or brick, made sufficiently hot to vapourise the acid, and keep the animals in the vapour for an hour or two, if they do not manifest distress; repeat the inhalation daily for a few times. Liberal feeding is absolutely necessary to enable the beasts to withstand the debilitating effects of the parasites in the lungs. Animals in poor condition should have a drachm of sulphate of iron and half an ounce of gontian put into the food every day.]

The New Forage Grass, Bromus Schröderi, SHOULD BE SOWN IN SEPTEMBER.
SUTTON AND SONS can supply fresh SEED of the above, to produce several cuttings next year. 40lb. required per acre. Lowest prices per cwt. on application.
SUTTON AND SONS, Seedsmen to the Queen, Reading, Berks.

Buttons' Permanent Grass Seeds for All Soils.
SUTTON AND SONS are now prepared to execute orders for their MIXTURES OF PERMANENT PASTURE GRASSES and CLOVERS for AUTUMN SOWING. For prices and particulars apply, stating the nature of the soil to be laid down to **SUTTON AND SONS**, Seedsmen to the Queen, Reading.

E. G. HENDERSON AND SON respectfully announce their DESCRIPTIVE and PRICED CATALOGUE of DUTCH BULBS and FLOWER ROOTS, including the following novelties, now ready for distribution:—

AZALEA INDICA.—The following new Azaleas are offered by E. G. Henderson & Son, as varieties of first-class excellence, and it is with great confidence that they are named as the productions of Mr. Todman, who has originated several of the finest kinds now in cultivation. Many of the Continental varieties are well known as attractive in colour, but greatly defective in the higher properties of outline and substance, therefore but of secondary value for permanent specimens. As English varieties, those now noticed are highly commended as possessing the finest features of interest required for sowing, and also for competition. (A Coloured Illustration of four varieties is published, 1s. 6d.) Plants, 21s. each, the set 54s.

Queen of Scarlets | Queen of Roses | Queen of Double Salmon Queen | Queen of Double Stripes | Whites.

COBEA PENDULIFLORA.—This new and singularly elegant plant is the most graceful and distinct species in its group. The flowers are bell-shaped at the base, and formed upwards into long narrow, drooping, wavy, strap-shaped lobes, from 3 to 4 inches in length, and from the centre of each lobe in the long spreading dark vinous-red filaments, with terminal yellow anthers, present a remarkably rich and unique contrast to the livorse green hue of the plant. 10s. 6d. Smaller, 5s. each.

SPERMATOPHYTES.—*LADY BOVILL*, 21s. each.
VERBENAS.—The following excellent bedding varieties are proposed to be sent out early in autumn, with a view to enable cultivators to prepare a supply for next season's decoration. 6s. each.
 Lady Cowley | Marquis of Bute. | Lord Charles Percy.

NEW EDIBLE FRUIT, MACADAMIA TERNIFOLIA.—This handsome species forms a beautiful evergreen shrub, the leaves are oblong, lanceolate, spinulose margined, evenly expanded, and of a rich green glossy surface, from 3 to 12 inches in length, by 2 to 3 inches in width. In the younger growth the leaves appear opposite and in pairs, but in a more advanced growth they assume a ternate character. The fruit is about the size of a walnut, which at maturity contains a kernel of a remarkably rich and agreeable flavour, resembling, but much superior to, the Filbert. Judging from its native locality, it is fully expected, with slight protection on our walls, to produce its desirable fruit in an English climate; and as an evergreen of fine habit and distinct feature, it will form a valuable and interesting addition to the orchard-house, and also for the cool conservatory border or wall. As a shrub or small tree, it is stated to be an abundant bearer in mature growth. Young Plants, 21s. and 31s. 6d. each; Strong Plants, 63s. each.

CENTAUREA RAGUSINA COMPACTA.—The finest of all varieties for bedding, true from seeds, the present month being the most favourable time to sow for next year's groups. 100 seeds, 6s.

LAFAGERIA ROSEA.—Fresh seed, being just gathered, will grow immediately. 3s. per dozen.

GOLDEN FEATHER PYRETHRUM.—Seed, 6d. and 1s. packet.
CATALOGUES sent post free on application.
 Wellington Nursery, St. John's Wood, London, N.W.


"Every Cottage should be provided with a Water Tank." *Diarist.*

Iron Cisterns.
F. BRABY AND CO. having laid down more extensive and improved Machinery on their Deptford premises (14a Wharf), are prepared to supply WROUGHT-IRON TANKS, GALVANISED or PAINTED, of superior quality, at reduced prices, and at very short notice.

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An Illustrated Price List of Galvanised Iron, and other of BRABY'S special Manufactures, sent on application.
F. BRABY AND CO., Limited, Fitzroy Works, Euston Road, London; or through all respectable Ironmongers.
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COTTAM'S PATENT PORTABLE UNIED COW FITTINGS.



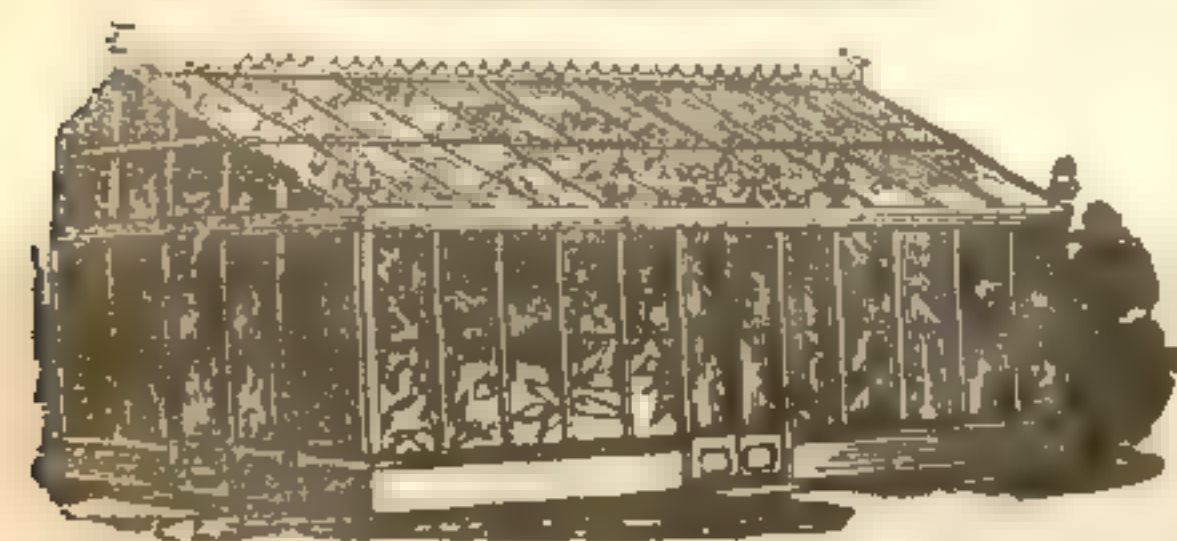
Their advantages are—Portability, not Fixtures, removable at pleasure, no Woodwork or Partitions to impede Ventilation or breed Vermin, Hay Rick dispensed with as unnecessary, increased width and depth of Feeding Troughs, Water-Cistern, and Patent Trap Cover to prevent any working. Cleanly, durable, and impervious to infection, being all of Iron. Prices of Fittings per Cow, 5s. Prospectuses free of **COTTAM AND CO., Iron Works,** 2 Winsley Street (opposite the Pantheon), Oxford Street, London, W., where the above are exhibited, together with several important improvements in Stable Fittings, just secured by Patent.

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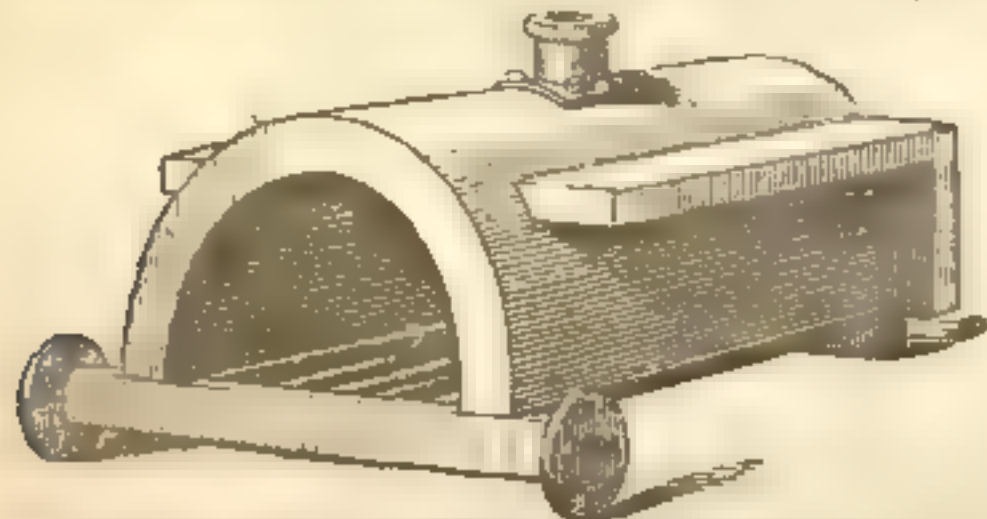
CRANSTON'S PATENT GLASS BUILDINGS for HORTICULTURE. Plans and Estimates free. Just Published, free for 30 stamps, Third Edition, DESCRIPTIVE BOOK, splendidly illustrated from existing Buildings. By the Author and Patentee, JAMES CRANSTON, Architect, Temple Row West, Birmingham. H. J. GROWTAGE, Manager.

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200 CUCUMBER and MELON BOXES and LIGHTS, all sizes, Glazed and Painted complete, read for immediate use, packed and sent to all parts of the Kingdom. Strong ZINC HAND-GLASSES, all sizes. References to the Nobility, Gentry, and Trade in most of the Counties in England.

National Flower Show, Manchester, June, 1867.

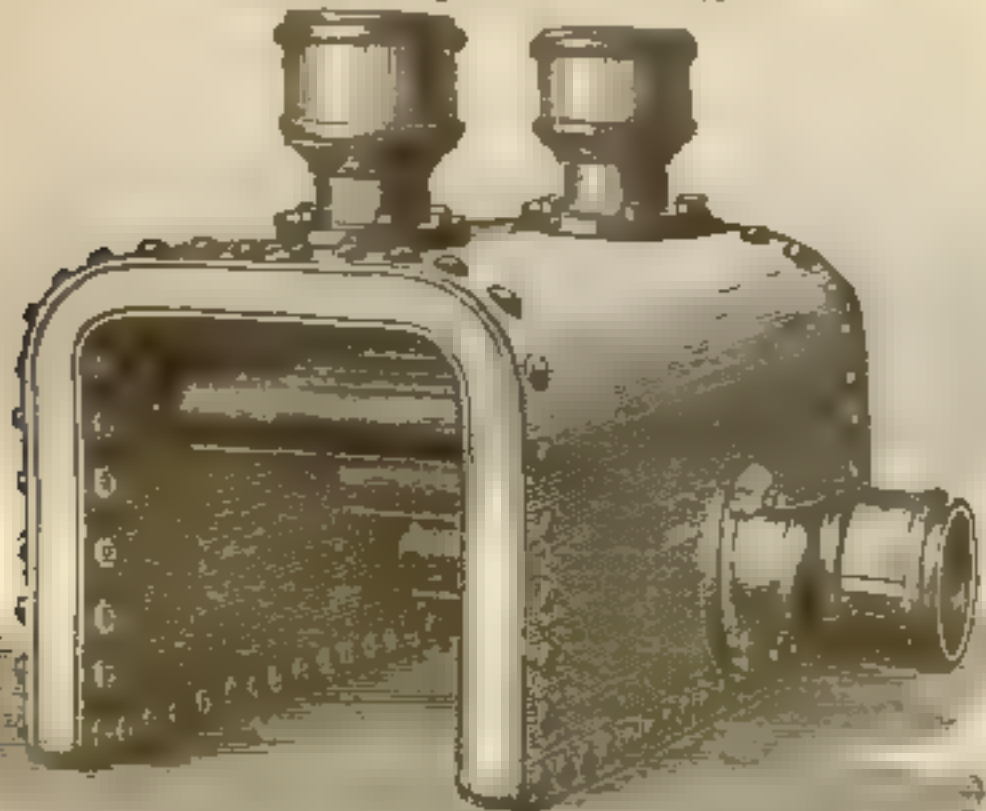


FIRST-CLASS CERTIFICATE AWARDED TO THE PATENT TERMINAL SADDLE BOILER, with the following note:—"The Judges consider this one of the most powerful and useful Boilers for general purposes." See *Gardeners' Chronicle*, December 7, 1867. See *Gardeners' Chronicle*, January 23, 1868. See *Gardeners' Chronicle*, February 1, 1868. See *Gardeners' Chronicle*, February 8, 1868. See *Gardeners' Chronicle*, March 14, 1868. See *Gardeners' Magazine*, June 15, 1867. See *Gardeners' Magazine*, August 24, 1867. J. IRELAND, Edward Street, Broughton Lane, Manchester.

HOT-WATER APPARATUS Erected Complete, or the Materials Supplied for Heating Pell's Conical, GREENHOUSES, Tubular Boiler, HOTHOUSES, CONSERVATORIES, CHURCHES, PUBLIC BUILDINGS, &c. HOT-WATER PIPES at who scale prices, Elbows, T Pieces, Siphons, and every other connection kept in stock. WROUGHT and CAST IRON CONICAL, SADDLE, and IMPROVED PELL'S and ELLIPTIC BOILERS, from 24s. each. IMPROVED and EXTRA STRONG CAST IRON TUBULAR BOILERS, with or without Water Bars, from 52s. 6d. each. CAST and WROUGHT IRON PORTABLE BOILERS on STAND, for use without brickwork, from 60s. each. PATENT and IMPROVED THROTTLE and other VALVES, FURNACE DOORS, BARS, and FURNACE WORK of every description and size.

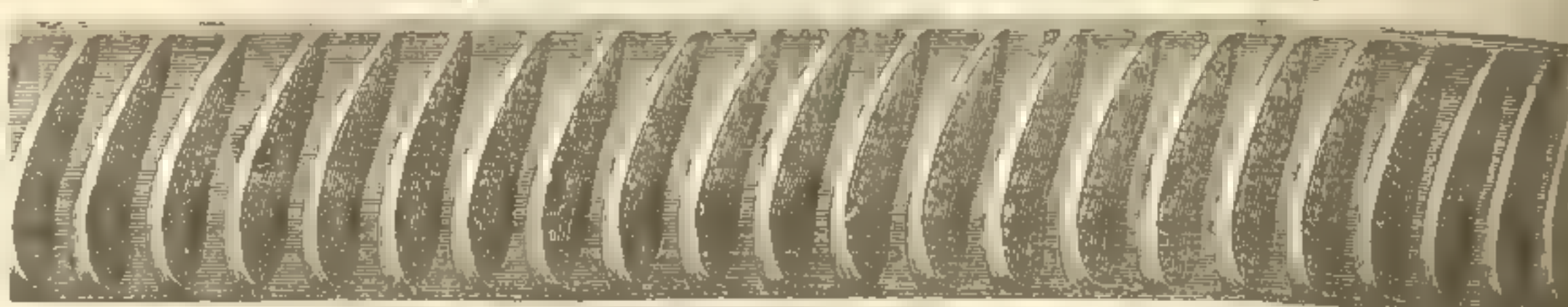
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SHANKS' IMPROVED WROUGHT-IRON BOILER.—This Boiler is made on the principle of the Saddle and Tubular combined. The Pipe, Fire-box, and Shell plates are all of Wrought-iron, and consequently are not liable to break from expansion and contraction of the metal, as Cast-iron Boilers are. The Tubes are placed in the Fire-box, and so arranged as to expose a very large effective heating surface to the direct action of the fire, the advantage of which is obvious. A. S. and SON will be glad to furnish their IMPROVED BOILERS separately, or to furnish Plans and Estimates for Erecting Hot-water Apparatus complete in any part of the country. HORTICULTURAL BUILDINGS in IRON or WOOD. Catalogues, containing Designs of Houses, &c., will be forwarded on application. Special Plans and Estimates for Ranges of Houses to be erected in any part of the country will also be furnished. A. SHANKS and SON, Dens Iron Works, Arbroath, N.B.; and 27, Leadenhall Street, London, E.C.

PORTABLE ENGINES, FROM 4 TO 25-HORSE POWER, THRESHING MACHINES, SINGLE, DOUBLE and TREBLE BLAST, WITH PATENT ROLLED STEEL BEATER PLATES, AND ALL OTHER RECENT IMPROVEMENTS. PATENT ROLLED STEEL BEATER PLATES



CLAYTON and SHUTTLEWORTH, Sole Licensees and Manufacturers. These Plates have been thoroughly tested, and are found to wear more than three times as long as the Malleable Iron Plates hitherto in use. C. & S. are prepared to supply Threshing Machine Owners and the Trade in any quantity.

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CONSERVATORIES and HORTICULTURAL STRUCTURES of every description designed and erected (in Wood or Iron), and Heated on the most approved principles with the

PATENT TUBULAR SADDLE BOILER,

the cheapest and best Boiler constructed.

No. 1 size, to heat 400 feet, 4-inch pipe	£5 10 0	} Including Furnace Doors, Bars, Dead Plates, Damper, Soot Door, and Draw-off Tap.
No. 2 size, to heat 900 feet, 4-inch pipe	.. .. .	10 0 0
No. 3 size, to heat 1600 feet, 4-inch pipe	16 0 0	
No. 4 size, to heat 3600 feet, 4-inch pipe	30 0 0	
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Plans and Estimates free of charge.

GRAY'S OVAL TUBULAR BOILER.

INTERNATIONAL EXHIBITION, CLASS IX., No. 2119.

Mr. GRAY begs to call the attention of the Nobility, Gentry, Nurserymen, Gardeners, &c., to his

NEW OVAL TUBULAR BOILER,

Acknowledged by practical judges to be a great improvement on every form of Tubular Boiler yet introduced. It has proved itself superior to all other Boilers for quickness of action and economy of Fuel, doing its work with one-third less the amount required by any other.

Extract from Report in GARDENERS' CHRONICLE of International Exhibition, May 24, 1882, page 476.

"The upright form of Boiler is usually made on a circular plan, rather than a square, it seems feasible that the Boilers on the oval plan should bring the tubes more completely within range of the burning fuel; and this being so, the change, though a slight one with the fire. The usual form of a furnace being a parallelogram is no doubt an improvement."

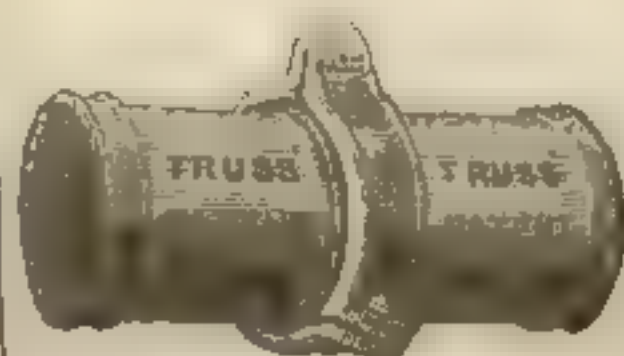
They are made of all sizes, which, with prices, may be had on application.

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PORTABLE AND FIXED HOT-WATER APPARATUS,

FOR HEATING CONSERVATORIES, HOTHOUSES, CHURCHES, PUBLIC BUILDINGS, PRIVATE RESIDENCES, ETC., WITH

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TWO FOUR-INCH PIPES ALONG ONE SIDE AND ONE END OF HOUSE.

Size of House.	Apparatus Complete.	Erection.	Size of House.	Apparatus Complete.	Erection.
20 feet by 10 feet	£9 0 0	£2 0 0	50 feet by 15 feet	£17 10 0	£3 0 0
30 feet by 12 feet	11 15 0	2 10 0	75 feet by 15 feet	20 0 0	3 0 0
40 feet by 15 feet	15 0 0	2 15 0	100 feet by 15 feet	26 0 0	2 5 0

Bath and Gas Work erected in town or country. The Trade Supplied.

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ECONOMY IN THE GARDEN.

CARTER'S

COLLECTIONS OF

HYACINTHS, CROCUS, TULIPS, &c.,

TO PRODUCE A PRETTY AND PERMANENT DISPLAY DURING THE WINTER,

IN DRAWING-ROOM, CONSERVATORY, AND GARDEN.

JAMES CARTER AND CO. strongly recommend the following COLLECTIONS, assorted from the most popular varieties --

No. 1.—COMPLETE COLLECTION for WINDOW or CONSERVATORY DECORATION £4 4 0

CONTAINING

- Hyacinths, 50 in 12 extra fine named sorts
Polyanthus Narcissus, 30 in 12 named varieties
Jonquils, Sweet-scented, 50
Crocus, finest, named, 200
Tulips, extra fine, named, Double, 50
Single, 50
Crocus, pers. chin, 4
D. extra spectabilis, 4
Lilium maculatum, in variety, 4
Scilla sibirica, 30
Snowdrops, extra large, selected, 100

No. 2.—COMPLETE COLLECTION, reduced quantities £3 3 0

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No. 4.—COMPLETE COLLECTION, reduced quantities £1 1 0

No. 5.—COMPLETE COLLECTION for CONSERVATORY and OUTDOOR PLANTING £4 4 0

CONTAINING

- Hyacinths, 36 in 18 extra fine named sorts, for pots or glasses
Narcissus, Double, White, 50
Pocicous or Pheasant-eye, 50
Double Daffodils, 50
Tulips, very fine, named, 50
extra fine mixed Double, 20
Single, 50
Crocus, Blue, 200
Striped, 200
Large Yellow, 200
White, 200
Anemones, extra fine mixed, 100
Gladolus Branchioides, 21
Lilium extra fine mixed Spanish, 50
extra fine mixed Spanish, 50
Jonquils, Campernel, 50
Ranunculus, extra fine mixed, 100
Snowdrops, 120

No. 6.—COMPLETE COLLECTION, reduced quantities £3 3 0

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No. 10.—COMPLETE COLLECTION for OUTDOOR PLANTING £4 4 0

CONTAINING

- Hyacinths, 75 in 3 colours
Narcissus, Double, White, 50
Pocicous or Pheasant-eye, 50
Double Daffodils, 50
Tulips, extra fine mixed, Double, 75
Single, 75
Crocus, Blue, 200
Striped, 200
Large Yellow, 200
White, 200
Anemones, extra fine mixed, 100
Gladolus Branchioides, 21
Iris, extra choice mixed English, 50
extra fine mixed Spanish, 50
Lilium candidum, 5
aurantiacum, 5
martagon rubrum, 5
tigrinum, 5
Ranunculus, extra fine mixed, 100
Snowdrops, 200
Winter Aconites, 100

No. 11.—COMPLETE COLLECTION, reduced quantities £3 3 0

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No charge for packing any of above Collections.

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JAMES CARTER AND CO.,

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IMPORTED FLOWER ROOTS

SUTTON & SONS,

SEEDSMEN TO THE QUEEN,

READING, BERKS,

having received their FIRST CONSIGNMENT of

CHOICEST DUTCH FLOWER ROOTS,

Selected by themselves from the leading Growers in Holland, are now prepared to receive orders for their COMPLETE COLLECTIONS for WINTER and SPRING BLOOMING, either for indoor or outdoor cultivation.

Suttons' £2 2s. Collection of Flower Roots,

For OPEN GROUND, Carriage Free, contains--

- 74 fine mixed Border Hyacinths
12 fine mixed Gladiolus
12 Polyanthus Narcissus
25 Duc Van Thol Tulips
25 Pheasant's Eye Narcissus
12 mixed Single Early Tulips
25 Double White Narcissus
12 fine mixed Double Tulips
50 Double Daffodils
12 Parrot Tulips
12 large Campernelle Jonquils
12 Gazeriana Tulips
100 fine mixed Double Ranunculuses
50 fine mixed Tulips
100 Scarlet Turban Ranunculuses
12 English Iris
25 fine mixed Double Anemones
12 Spanish Iris
25 Single Anemones
6 Lilies, of sorts
300 Crocus, in 6 sorts
6 Ferraria pavonia
100 Snowdrops
12 Dog's Tooth Violets
50 Winter Aconites
6 Crown Imperials

Suttons' £1 1s. Collection of Flower Roots,

For OPEN GROUND, Carriage Free, contains--

- 42 fine mixed Border Hyacinths
6 fine mixed Gladiolus
12 Polyanthus Narcissus
12 Duc Van Thol Tulips
12 Pheasant's Eye Narcissus
6 mixed Single Early Tulips
12 Double White Narcissus
6 fine mixed Double Tulips
25 Double Daffodils
6 Parrot Tulips
6 large Campernelle Jonquils
6 Gazeriana Tulips
50 fine mixed Double Ranunculuses
25 fine mixed Tulips
50 Scarlet Turban Ranunculuses
6 English Iris
12 fine mixed Double Anemones
6 Spanish Iris
12 Single Anemones
3 Lilies, of sorts
150 Crocus, 3 sorts
3 Ferraria pavonia
50 Snowdrops
6 Dog's Tooth Violets
25 Winter Aconites
3 Crown Imperials

Suttons' 10s. 6d. Collection of Flower Roots,

For OPEN GROUND, contains a choice assortment for a Small Garden.

Suttons' £2 2s. Collection of Flower Roots,

For POTS or GLASSES, Carriage Free, contains--

- 24 fine Hyacinths, by name
6 Persian Iris
12 fine Miniature Hyacinths, do.
6 Peacock Iris
12 Polyanthus Narcissus, do.
100 Crocus, by name
12 large Double Jonquils
12 choice Ixias, by name
12 Single Sweet-scented Jonquils
6 choice Sparaxis, by name
12 Scilla precox
1 Cyclamen persicum
12 Single Duc Van Thol Tulips
1 Jacobea Lily
12 Double Tournesol Tulips
2 Lilium lancifolium album
60 Early Tulips, 10 sorts
2 " " rubrum

Suttons' £1 1s. Collection of Flower Roots,

For POTS or GLASSES, Carriage Free, contains--

- 12 fine Hyacinths, by name
3 Persian Iris
6 Miniature Hyacinths, by name
6 Peacock Iris
6 Polyanthus Narcissus, do.
50 fine Crocus, by name
6 large Double Jonquils
6 choice Ixias
6 Single Sweet-scented Jonquils
3 choice Sparaxis
6 Scilla precox
3 choice Ogals
6 Single Duc Van Thol Tulips
1 Jacobea Lily
6 Double Tournesol Tulips
1 Lilium lancifolium album
25 Early Tulips, 5 sorts
1 " " rubrum

Suttons' 10s. 6d. Collection of Flower Roots,

For POTS or GLASSES, contains a choice assortment of most useful and showy kinds.

The best 12 Hyacinths, by Name, for 12s., Extra fine Double and Single varieties.

For further particulars, with complete Cultural Instructions, see

SUTTONS'

AUTUMN CATALOGUE FOR 1869,

Gratis and Post Free on application.

FLOWER ROOTS and SEEDS CARRIAGE FREE, except very small parcels.

Five per cent. allowed for cash payments.

SUTTON AND SONS,

ROYAL BERKS SEED ESTABLISHMENT,

READING.

To the Trade. MRS. PINCE'S MUSCAT VINE, Planting Canes, 6 feet, 42s. per doz. CLEMATIS STANDISHII, very strong, in pots, 75s. per 100. H. P. ROSES, in pots, good sorts, our own selection, 60s. per 100. ROSES, New, of this season, in pots, 18s. per doz. HEDERA MACULATA and H. MACULATA LATIFOLIA, extra strong, in pots, 60s. per 100. CATALOGUES of General Nursery Staff on application to G. BAKER and SON, American Nursery, Epsom, Surrey. Grape, Mrs Pince's Black Muscat. JOSEPH MERDITH, having exhibited the above species 1 variety, &c., &c., successfully in Hamburg and Edinburgh, &c., &c., since that he has distinguished bunches hanging in great perfection, also the finest stock in the kingdom of the above in Fruiting and Planting Cases, as well as every other variety worthy of cultivation. The Vineyard, Garst A., near Liverpool.

CHOICE NEW PLANTS,

in single pots, well established. NEW FUCHSIAS of 1869, 12 of the best and most distinct, 9s & 12s. per dozen. NEW CHRYSANTHEMUMS of 1869, 12 of the best and most distinct, 9s. per dozen; 24 do. do. do. 7s. 6d. per dozen. NEW COLEUS of 1869, 12 of the best and most distinct, 6s. per doz. Beauty of Wilmore, 1s. 6d. each. NEW GERANIUMS, 6 of the most beautiful of the season, all received Certificates, 1s. 6d. each. DOUBLE GERANIUM, Madame Lemoine, 3s. per dozen. NEW DOUBLE GERANIUM, Victor, 30s. per dozen. NEW HELIOTROPES of 1869, 6 of the most distinct, 1s. each. NEW LOBELIAS of 1869, 6 of the most distinct, 1s. each. NEW VERBENAS of 1869, 12 of the best and most distinct, 4s. p. doz. NEW ALTERNANTHERA MAGNIFICA, most beautiful, 1s. each. NEW GOLDEN GRASS, A. speciosus, pinnatus, aereo-variegatus, 6s. 6d. each. NEW HOLIDAY, L. 1s. 6d. each. NEW KESING, 1s. 6d. each. NEW MYOSOTIS DISSEMINATA, true, 6s. per dozen. Post office orders on Cashew Heddingham. For above and CATALOGUES of Fruit, Roses, Primroses, Violets, Polyanthus, and other Hardy Herbaceous and Alpine Plants, &c., apply to WILLIAM DILLISTONE, Nurseryman, Bible Heddingham, Essex.

The Gardeners' Chronicle. SATURDAY, SEPTEMBER 18, 1869.

MEETINGS FOR THE ENSUING WEEK. TUESDAY, Sept. 21. Royal Horticultural (Fruit and Floral Committees), at South Kensington .. 11 A.M. Ditto (General Meeting) 3 P.M.

THE records that we have from time to time published of the proceedings of the SCIENTIFIC COMMITTEE of the Royal Horticultural Society have sufficiently shown that the Committee was not idle during its last session. Of its experiments at Chiswick we have still to get an account, and the results of some of them will no doubt appear in due time in the Society's Journal, but for others we must wait a longer time, inasmuch as they are continued on into another season. Physiological experiments that are to be worth anything cannot be rattled off in a few weeks. They are of the kind that requires long-continued and laborious attention.

We cannot say, therefore, that we are surprised or disappointed at no results having been yet obtained in some of the most interesting of the Society's experiments. We shall have them in good time, and they will be all the more valuable and trustworthy that the Committee are cautious in their proceedings, and insist on eliminating every known source of error before they come to their conclusions. We are led to these remarks by the postponement of the report of the Sub-Committee on the effect of different manures on the growth of plants. We have watched the experiments of this Committee with interest, and anticipate some very interesting conclusions from their labours, but we quite agree with the Committee that the experiment requires to be repeated in another manner before any satisfactory report can be made. The soil in which the experiments were tried appears to have been naturally too rich, the seeds too thickly sown, and the result, in those plots which have thriven, a matted mass of luxuriant vegetation, too crowded to allow any minute discrimination of differences in amount of produce. In another year this will be remedied by using poorer soil, only sowing a definite counted number of seeds, and leaving them plenty of space in which to grow.

Of course the above remark does not apply to those plants which have not thriven. We have the information plain enough there that the manure that has been applied to them has been either inoperative or injurious; and we believe we can draw one very important inference from these, which we may note without anticipating the results of the operations of the Committee--at any rate, more than we are entitled to do, having seen similar results arrived at elsewhere. It is, that the mineral manures alone are apparently wholly inert, and exercise no perceptible influence upon vegetation. The experiments made by Mr. LAWES and Dr. GILBERT at Rothamsted have, we believe, induced those gentlemen to come to the same conclusion--at all events, as regards the direct effect of these manures. We understand, indeed, that it is an open question with them whether, although mineral manures have no direct effect,

they may not have some indirect effect when mixed with other manures by stimulating their action. This is one of the points under the consideration of the Scientific Committee, and we have no wish to prejudge it, but we think it is a most important step to have gained, to have ascertained by actual experiment that purely mineral manures are incapable of being assimilated by organic bodies.

This is quite in accordance with everything else we know of the relations between organic and inorganic bodies. Our readers, although beyond the radius of the hurricane, must have heard the sough of the tempest that has been going on in the Academy of Sciences of Paris, on the subject of spontaneous generation, between Messrs. POUCHET and PASTEUR and their respective partisans. Many people regard that question as the battle-ground of materialism and immaterialism—of secondary laws and direct creative interference; but it does not strike us in that light. The experiments of the advocates of spontaneous generation all go to prove that their kind of spontaneous generation can only be got out of organic substances. Some one, we forget who, maintains that he did on some rare occasion succeed in obtaining some animalcules out of a silicious solution, but this is not generally accepted. It is believed to have been due to insufficient precautions to keep out all organic germs from the materials experimented with, and, like Mr. Cross's *Acarus horridus*, to have been a blunder. As far as reliable facts and experiments have hitherto gone, no animalcule has ever yet been produced from anything absolutely free from organic matter. Therefore, with the advocates of that kind of spontaneous generation, if all their propositions were conceded to them, it would still not be a question of materialism but of mode of development. We do not know enough of development to say that "Omne vivum ex ovo" is an axiom suffering no exception. What the materialist wants is something different; he can trace the course of our earth from the time it was still a gaseous homogeneous part of the sun, when its dimensions stretched beyond the orbit of Neptune, down to the time when life first appeared upon its surface, and requires no other but the known and recognised laws of Nature to account for everything; and he can take it up at the present date and trace the progress of life and all other terrestrial phenomena backwards until he comes again to the origin of life, and account for all in the same way; but at the first appearance of life he is stopped on both routes by a gap. The whole course of the history of our globe from its origin until now is an unbroken easy sequence of events flowing from the natural operation of secondary laws, except alone the origin of life; and his plea is that it is not natural that this should be an exception, but that life, too, must have flowed from the operation of these very laws, probably under conditions of the earth (with regard to temperature, for example) which no longer exist. That these conditions no longer exist—if they ever did exist—seems alike proved by the experiments both of panspermists and heterogenists (as the opponents and advocates of spontaneous generation are respectively called), and by the experiments of Messrs. LAWES and GILBERT, and the Scientific Committee.

The logical deductions from these carry us much further than the mere fact that it is probably a useless expense for the agriculturist to manure his land with mineral manures. The fact rebounds from the vegetable kingdom to the animal kingdom. If vegetable organisms cannot assimilate mineral products, neither probably can animal. Here is scope for a revision of many of the most accepted medical remedies, or at least for a reconsideration of the rationale of their action upon the system. Why should we take iron to strengthen our system if it refuses to enter it? Is arsenic no alterative, and do it and mercury never pass into the blood? How do they get to the liver, where they unquestionably have been found, if they do not? Are all these remedies merely irritant poisons, which only cure on the principle of counter-irritation? These, and many other curious collateral inquiries are involved in the very suggestive experiments of the Scientific Committee, and we look forward with interest to their future evolution.

WE have always been the staunch advocates of INTERNATIONAL HORTICULTURAL EXHIBITIONS. Every argument that can be applied in support of exhibitions of a more restricted character

applies with increased force to these international displays. We have at all times cordially and gratefully acknowledged the courtesy and hospitality which have been paid to our countrymen who, as jurors, exhibitors, or visitors, have attended these réunions; and when, in 1866, the opportunity occurred to us to do somewhat to reciprocate the kindness and good feeling manifested towards us by our Continental brethren, we did all that lay in our power to make our "International" pleasant in all ways to our foreign guests. We advert to these matters now to show that we are not influenced by any unworthy feeling, or by any petty jealousy of our neighbours, when we draw the attention of the managers to the system of judging, and to the occasional grossly unfair character of the awards made at Continental flower shows. Britons in general are notorious for grumbling, and British exhibitors, when they do not get the prize they think themselves entitled to, are sometimes wont to murmur. Nevertheless, however much wounded vanity may smart, we seldom, if ever, hear of any well-founded complaint of want of fairness or competency on the part of the judges in this country. In by far the majority of cases the verdict is accepted as correct, and even where doubts are expressed as to this point, the integrity and competency of the judges are never seriously questioned.

But in the case of the large Continental exhibitions, where our countrymen enter the lists, the case is very different. From Paris, from St. Petersburg, from Hamburg, we have heard the same story of incompetent judging. In the case of the last-mentioned display the complaints have been especially noticeable. They have been made, too, not by exhibitors, but by bystanders, and by persons not in any way commercially interested in the matter. Some of the cases are so gross, that we think it will be the duty of the authorities on any future occasion to say precisely upon what principles the judging is to be done. Can it be that the jurors are directed to award the prize to the worst objects in competition? Can it be that it is all arranged beforehand who is to get certain prizes, and that the jurors act accordingly? Can it be that the jurors surrender their individual judgments to that of one of their number who acts as fag-man for the rest? Can it be that they have no knowledge of what they are called on to judge? Can the different results be the consequences of the different social system under which we and they live? Here we dispense so far as possible with Government aid and supervision; there private enterprise is as nothing compared with bureaucratic supervision.

Whatever be the cause, there is an evil which needs a remedy, and we trust that whenever another International Exhibition may be held, the principles on which the judging is to be effected will be made public beforehand, so that exhibitors from this country, not conversant with Continental customs, may know what to expect. If our friends like to call black white well and good, we have no objection, but let them give us notice beforehand, and by all means let us have a fair field: we want no favour.

— ONCE more the NATURE of the FEMALE FLOWERS of Conifers is the subject of discussion. M. GUSTAV SPEER, in the "Memoirs of the Imperial Academy of Sciences of St. Petersburg," vol. xiii., 1869, has recently published a paper on the theory of Gymnospermy in plants, in which, after an historical introduction and copious references to the labours of his predecessors, he gives the results of his own investigations into the development of the flowers in Conifers and their allies. From these data he draws the following conclusions:—

"From the corroborative results of the researches of several able observers, as well as my own investigations, it appears that the so-called ovule of Gymnosperms is not a true ovule, but an ovary. The development of the ovule of the so-called Gymnosperms corresponds entirely with the growth of the ovary, and not with that of other Phanerogams. The supposed coat of the ovule is formed, contrary to what is the case with a true ovule-coat before the embryo [nucleus], consequently, it proceeds from the receptacle of the flower, and not from the nucleus, which is the case with all true ovule-coats. It is formed of separate carpellary leaves, which sooner or later grow out, an occurrence unknown amongst ovule or seed-coats. The so-called ovule-coat of Gymnosperms develops itself independently of the embryo [nucleus], remains long separated from it, does not closely encircle it, and sometimes there is even a considerable empty space between them all of which is opposed to the ordinary development of an ovule-coat, but is normal for an ovary-wall. The simple structure of the ovary in Gymnosperms (which, however, is not so simple as some believe) is no reason for considering it an ovule-coat, but rather an ovary, because this structure is amply explained by the economy of Nature, and because it harmonises better with the more simple organisation of the other parts of Gymnosperms. The anatomical structure of the presumed testa is too complicated for such an organ; and if we call the ovary of Gymnosperms an ovule, and consequently the fruit a seed, and the pericarp a testa, we admit an exception in Gymnosperms without

parallel in the vegetable kingdom; for so high an organisation does not occur even amongst the most highly developed Phanerogams. The formation of a style and stigma, which are seen in some Conifers, can only arise from an ovary, never from an ovule. Different abnormal formations indicate the leaf-structure of the ovary. Thus, when two ovaries grow together, there is a suture on one side and two ovules at the base. The structure, formation, and development of Gymnosperms are repeated in the Loranthaceae, Arceutaceae, and other families. R. Brown's opinion that the scale surrounding the flower of Gymnosperms must be considered as a carpellary leaf, is refuted by all my observations and comparative investigations."

— Every botanist knows that some thin-walled cells become thick in course of time by deposition of new matter, but it is a novelty to hear of THICK-WALLED CELLS becoming THIN according to the season. Nevertheless, such is stated to be the case in *Panicum vaginatum*, by M. DUVAL JOUVE. We cannot dispute M. DUVAL JOUVE's assertions, but we should suppose that the thickening is due, in this case, to a swelling of the inner lining of the cell, and subsequent contraction, not to the formation of new matter and to its subsequent disappearance.

— It is pretty generally believed in this country that the pulpy portion of the FRUIT of the Yew (*Taxus*) is harmless, while the kernel or seed is poisonous. This is a point on which, strange to say, there has been much diversity of opinion. M. CLOS, the learned Professor of Toulouse, has recently gone into the subject, and has given the results of his labours in the Bulletin of the Botanical Society of France. M. CLOS decides that the Yew berries (including the kernels) are perfectly harmless.

— In the grounds of the Crystal Palace, a flag SPAR of *ABIES DOUGLASSII* (135 feet above the ground) has been erected as a flagstaff adjoining the Tropical Department on the road-front of the Palace; a flag was hoisted upon it for the first time on Wednesday the 8th inst., the "stars and stripes" being appropriately so honoured. The mast was presented to the Company by the late Governor of British Columbia, Frederick Seymour, Esq., through W. H. Grace, Esq., representative of the British Columbia Spar Company.

— We learn with pleasure that Mr. M. C. COOKE is engaged in the preparation of a HANDBOOK of BRITISH FUNGI, which will contain figures illustrating the principal genera, and references to those of the species. Intending subscribers should communicate with Mr. M. C. COOKE, 2, Junction Villas, Upper Holloway, London. The subscription price is half-a-guinea.

— At the meeting of the ROYAL HORTICULTURAL SOCIETY on Tuesday next (Sept. 21), two prizes are offered for competition by H. G. BOHN, Esq., F.R.S., for "Peaches grown on standards out-of-doors not less than eight fruits." We are also informed that Mr. ROBERT FENN, of Woodstock, intends to exhibit his graft hybrid, seedling, and other Potatoes at the same meeting; so that those who are interested in the grafting experiment with the noble tuber will have the opportunity of judging for themselves of its practicability.

New Plants.

— *ORNITHOCERPHALUS OBERONIA*, sp. n. Folia ensatis acutis, racemo elongato densifloro, rhabdo bipila, bracteis triangulis ciliato denticulatis, 3-5 nervis floribus parvis; ovario pedicellatis hispidis, sepalis orbis dorso carinatis, ovatis, extus hispidis aurantiaceis; petalis obovatis apice minute crenulatis, labello basi tumido quadrato, cornu utrinque exserto obovato, apice inflexo semilunato, lamina linearis complicata acuta; columna moldea, rostellis sigmoides.

A very pretty, small-flowered species, with yellow and white flowers. One of the numerous introductions of W. Wilson Saunders, Esq., and grown by the gardener, Mr. Green, at Hillfield House, Reigate. It comes from Trinidad. *H. G. Rehb. fl.*

— *ZYGOSTATES GREENIANA*, sp. n. Pseudobulbis minutissimis subpyriformibus monophyllis folio stipitato stipposito, basi vaginato, folio superposito cuneato ligulato trigono carnosissimo, pedunculo angulato basilari bifloro racemoso; bracteis triangulis brevissimis carinatis; ovario longissimo pedicellato; sepalis oblongis obtusis extus carinatis. petalis majoribus oblongis denticulatis, labello oblongo excavato, margine line denticulato basi infra impresso auleato, calvari compresso clavato ancipiti, ovarium pedicellatum subangulate, calvari supra ostium calcaris ligulato antice bidentato columna protra, androclindo in rostellum lineare extenso, fovea tenui limbo, brachio ligulatis semilunatis carnosis. antheris antice rostrata, pollinibus quaternis in caudicula a basi dilatatis linearis.

This is a very curious plant. It is the first *Zygostates* we have seen with a spur, but still no doubt a genuine *Zygostates*. The minute pseudobulbs bear trigonous ligulate, glaucous leaves, nearly an inch long and one line wide. The small, short peduncles have two remarkably large flowers. The small, very short ovary is white, streaked with green. The sepals are ovate, tooth-like obtuse, keeled outside; the petals are ovate, tooth-like and white; the foveate, rounded up is white, with green streaks before and behind the opening of the clavate ancipitous spur. The roots are very long and woolly. This is, perhaps, the most interesting discovery of the late Mr. Bowman, near Rio. We have dedicated it to Mr. Green, the skilful gardener to W. W. Saunders, Esq., who takes extraordinary care of the small but lovely Saundersian gems. *H. G. Rehb. fl.*

— *MEIRACYLLIUM GEMMA*, sp. n. Folia oblonga elliptica carnosissimo margine cartilagineo, umbroso, racemo unifloro axillari, mento obtusato, sepalis triangulis acuminatis, petalis linearibus acuminatis serratis acuminatis, labello basi columna adnato, gibboso saepe ovato, antice angustato acuminato crispo; androclindo postice non cornuto, rostellis elongato concavo apice bidentato.

A little vegetable gem, with a creeping rhizome.

erect leaves, like those of a *Sophronis cernua*, and beautifully amethyst-coloured flowers, standing singly. It comes from Mexico, and has lately flowered in the Saundersian collection, under the care of Mr. Green. *H. G. Rehb fil.*

PLEUROTHALLIS BOWMANI, sp. n.

(*Apode caspasiae*) caulis tenuissimus abbreviatus, folio oblongo lanceo apice minuto tridentato, pedunculato unguis, mento obtuso, sepalo dorsali triangulo trinervi, sepalo inferiori oblongo lanceolato apice bidentato, connatis, petalis spatulatis untrinervi, apice rotundato, callosis, labello ligulato antice rotundato ampliato calloso, columna utrinque membranaceo dilatata, postice ligulata serrata.

A small-flowered species, discovered in Brazil by Mr. Bowman, and lately developed under Mr. Green's skilful management in Mr. W. Wilson Saunders' garden. *H. G. Rehb fil.*

EPIDENDRUM MELIOSMUM, sp. n.

Pseudobulbo sphaerico, foliis ligulatis acutis; pedunculo ramoso, sepalis lanceis acutis; topalis cuneato spatulatis acutis; labello cuneato trifido, lacinia lateralibus ligulatis obtusis abbreviatis, lacinia media oblonga acuminata crispula, callo in disco rhombeo sulcato; columna clavata paucurata aptera, anthera emarginata.

Introduced from Mexico by W. Wilson Saunders, Esq., and recently flowered by Mr. Green. *H. G. Rehb fil.*

BRITISH ASSOCIATION.

(Continued from p. 965.)

In the Chemical Section the subjects mentioned below were brought forward—

"On some New Substances Extracted from the Walnut," by Dr. T. L. Phipson. Between the shell and the kernel of the Walnut there exists a thin membrane called the epispem, which closely envelopes the cotyledons, and is composed here, as in most other fruits, of a double membrane, the inner one being very thin, quite white, translucent, and perfectly devoid of taste, whilst the external one is much coarser in texture, more or less coloured, has a very bitter, disagreeable taste, and contains certain substances which form the subject of this paper. From this membrane Dr. Phipson had extracted a substance which he called Nuectaminic acid, the most remarkable property of which is that when boiled with dilute hydrochloric acid it splits up into glucose and another new substance called Retic acid.

"On the Amount of Soluble and Insoluble Phosphates in Seeds," by Professor Smith. The results of various experiments he had made was that 100 parts of cotton seed yield, when repeatedly washed with water, a quantity of acid phosphate of magnesia, both bases and seeds also yield certain proportions. The results showed that the phosphates exist in a larger quantity in the seed than in the other parts of the pod. Experiments upon Wheat flour of various kinds showed that whilst the flour contains only a trace of the phosphates, especially soluble ones, the bran contains a large quantity. These facts tend to prove that the phosphates and the mineral matters contained in Wheat are not combined with the organic matter, but are in a free condition. Other investigations go to prove that although habit and price have gradually led us to prefer white bread to brown, yet this is an error when we consider the nutritious properties of Wheat, especially as food for children, phosphates being essential for the formation of bone and blood.

"On the Supposed Action of Light on Combustion," by C. Tomkinson, F.R.S. The popular idea that "light puts out the fire" is so fixed that probably no conclusions drawn even from actual experiment are likely to disturb it, especially if they be adverse to the notion. It is a matter of daily experience, as people say that if a fire is nearly out in a well-lighted room, you have only to draw down the blinds in order to revive the fire. Experiments on the subject are not easily made, in consequence of the many distorting causes; but from some experiments found in an old volume of the "Annals of Philosophy," made upon coloured tapers, the conclusion arrived at was that the solar rays, in proportion to their intensity, have the power of retarding to a considerable extent the process of combustion, but this conclusion is open to objection. From a series of experiments upon candles of different sizes and weights, in dark chambers, and in day and sun light, it was found that the increase of temperature led to increased consumption of material, and vice versa, the whole result being that in any case the difference is so small that it may be referred to accidental circumstances, such as temperature and material—the final conclusion being that the direct light of the sun, or the diffused light of day, has no action on the rate of burning, or in retarding the combustion of an ordinary candle.

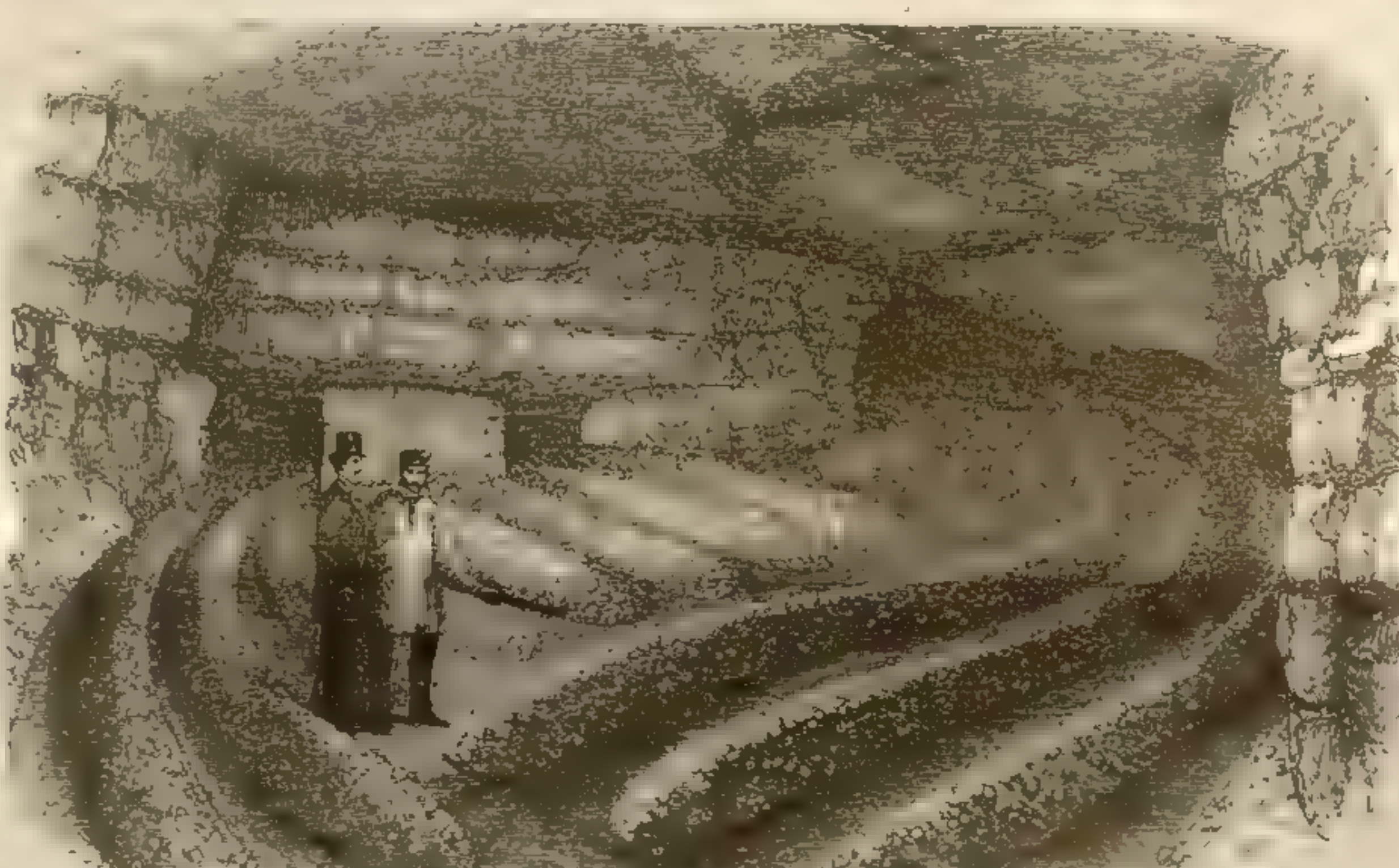
In the Geological Section the following subject was brought forward—

"Report of the Committee for the purpose of Investigating the Veins containing Organic Remains which occur in the Mountain Limestone of the Mendips and elsewhere," by C. Moore, F.G.S. This gentleman has for a long time made the organic remains found in mineral veins his particular study. In his report he referred to the various forms extending to the length of veins. They could not have been formed by sublimation, or the fossils would not be found in them, and he was specially opposed to the doctrine of segregation. Referring to Mr. Wallace's theory, that many of the veins had been filled up by superficial action since the glacial period, he pointed to the age of the fossils as decidedly against it. Mr. Moore's idea was that open fissures communicated with submarine floors, and dwindled down below. The mollusca, &c., of these seas were deposited in the fissures. Three or four things were necessary to the formation of mineral veins—open crevices, the presence of certain minerals in the water of the sea, and

electrical action. The Mendip Hills are intersected with veins, and on their tops some of these are worked. One of them extends for 270 feet downwards, and contains abundant thin fossils, although no massive rocks are nearer than several miles away. This proves how great must have been the denuding force. Mr. Moore has also discovered both land and fresh-water shells in these veins, as well as entomozoa, and seeds of old carboniferous plants. In the mines of North Wales he had found molluscan and fish remains, the latter belonging to no fewer than ten genera intermixed with the contents of some of the mineral veins, the author had found innumerable teeth of fishes, conodonts, nearly all of which were so small that they required optical power to see them. In the lead veins he had met with great quantities of foraminifera, of secondary age. These veins also developed the existence of a fresh-water fauna, of great measure age, having no fewer than nine genera and 127 species. Mr. H. Brady said three well-known genera of foraminifera had been mentioned by Mr. Moore, all of which still existed. One of the most abundant of the foraminifera, *Involutina*, was remarkable for its variety of form. Professor Phillips said Mr. Moore had produced so many new facts that he was entitled to speculate. When he first heard of the discoveries, he was perfectly astonished. What had to be considered in the origin of mineral veins was the altered power of heated water as a solvent, to take up and precipitate mineral matter. Mr. Brady's remarks on the alterations in the type of a certain foraminifer were valuable, for if wide differences could occur in them, why not in animals of a higher organisation, such as lions and tigers? He referred to similar changes in the cephalopoda, and expressed his opinion that the understanding of lower types would make us better acquainted with higher forms.

MUSHROOM CULTURE IN PARIS.

We take the opportunity of displaying to our readers one of the "sensation scenes" in Mr. W. Robinson's recently-published work, "Parks, Promenades, and Gardens of Paris,"* to which we have previously alluded (see pp. 588, 696). The cut represents a Mushroom cave at Montrouge, some 70 or 80 feet



below the earth's surface, and described by Mr. Robinson in our own columns (1868, p. 744). Access to the cave is obtained by means of a rickety apology for a ladder, placed in a well-like shaft. The beds are formed in parallel lines, as shown in the cut. The spawn is introduced in the form of flakes, taken from an old bed, or from a heap of stable manure, which is considered preferable. The beds have a run of 6 or 7 miles in all; each bed is about 20 inches high, and as much wide at the base. The average produce of this particular cave is 300 lb. a day, and this is only one of several similar establishments. The excavations are made originally by the removal of blocks of white stone for building purposes. As we have suitable caverns in various parts of this country, it is to be hoped that some enterprising cultivator will take the hint, and render us independent of France for preserved Mushrooms, of which, according to Mr. Robinson, no less than 11,000 boxes are annually exported by one house alone to this country.

THE LATE ROBERT THOMPSON.

THE late Mr. Thompson, upon whose lamented, though not unexpected, decease we made a few brief remarks last week, was born early in September, 1798, at Echt, in Aberdeenshire, where his father was a small farmer. He received the solid education of his native parochial school, and was afterwards placed under his uncle, who was gardener to Mr. Skene, of Skene, and by whom he was employed in the garden and plantations. From thence he removed for improvement to the gardens of Haddo House, the seat of the Earl of Aberdeen, where he remained till 1820, and then left for the garden at Dunottar Castle, the residence of Lord Kennedy. After remaining there for one year, he removed to the gardens of Robert Ferguson, Esq., of Raith, in Fifeshire, where he was occupied for nearly three years.

In 1824 Mr. Thompson came to London, and went directly to the garden of the Horticultural Society at Chiswick, to which he had been recommended by his late employer's brother, Sir E. Ferguson. The garden

was then nearly completed. The collection of fruit trees had just been planted, and some of them, which were worked on Paradise stocks, were coming into fruit; and the walls which enclose the orchard and kitchen garden had also just been finished. Mr. Thompson was at once placed in the fruit department, then under the superintendence of Mr. Christie, and no time could have been more opportune for his entering on his duties, as from the first he had under his observation the immense collection of fruits which then and subsequently has existed in the gardens. Early initiated by Mr. Knight and Mr. Sabine into a knowledge of the characters and merits of the then existing varieties, Mr. Thompson acquired a taste for the study of fruits and fruit trees which increased with his years, and which he retained to the last. Indeed, during the whole of the 44 years of his active life at Chiswick, he made pomology his special and passionate study, not only as it was exhibited in the immense collection of all kinds of fruit which was by degrees brought together in the garden, and of which for many years he had the superintendence, but also in the literature of the subject, and in the practice thereof as it existed on the Continent. It was this deeply grounded and thorough knowledge of the subject which so well enabled Mr. Thompson to produce that laborious work, the "Catalogue of Fruits cultivated in the garden of the Horticultural Society of London," which has formed the foundation of modern pomological synonymy. No one, except such a person as Mr. Thompson—whose proverbial patience and painstaking, and excessive care and caution, admirably fitted him for such a task, and stamped his labours with an authority which has never been assailed—could have done this work so well. It was not, however, in pomology alone that Mr. Thompson excelled. Every

department of horticulture received from him its due share of attention, and his love of physical science was equalled only by his love of gardening. No better evidence of the combination of these qualities can be given than that which is furnished by that admirable compendium of modern horticulture, "The Gardener's Assistant." Meteorological science is also much indebted to him for the constancy and correctness of the observations he conducted at Chiswick, for a period of 30 years—from 1830 till within a few months of his death. It is a striking fact that, on an average of 30 years' observations—from 1826 to 1855—the difference in the records of mean temperature between Chiswick and Greenwich amounts only to 0.06°—a lasting tribute to the care with which the Chiswick meteorological observations were made.

Mr. Thompson was a voluminous writer, though he does not appear as the author of many works. To the "Transactions of the Horticultural Society," besides the bulky meteorological tables, many valuable papers on horticultural subjects were contributed by him, while, to Loudon's "Gardener's Magazine," the "Gardener's Chronicle," "Edinburgh Philosophical Magazine," and other periodical publications, he was a frequent contributor. In the preparation of most of his great works, Mr. Loudon acknowledges the aid rendered by Mr. Thompson, and especially in the "Encyclopedia of Gardening" and the "Suburban Horticulturist." He contributed also to the "Penny Cyclopædia," to Morton's "Cyclopædia of Agriculture," and to Lindley and Moore's "Treasury of Botany," and, we are told, he was the sole author of the letterpress of the "Pomological Magazine."

From 1824 to the day of his death Mr. Thompson may be said to have been connected with the Horticultural Society, for although his active duties ceased about 18 months ago, when affliction had incapacitated him from further service, the Society, in recognition of his worth, allowed him to retire on full pay. Now, after a life of great activity, this kind-hearted, amiable old man has gone to his rest. There are many who will deeply regret him, both of those, and they are now few, who began life with him, and who shared with him as young men in those early days of Chiswick garden, the pleasures and privileges attendant on the impetus then given to gardening, such as it had never before or since received; and also of that younger and far more numerous class who have sat at his feet, and have drunk in instruction from his words and his writings.

Towards the close of his career a tribute to the services he had rendered to horticulture was paid to Mr. Thompson, by the presentation of a testimonial, amounting to the sum of 100*l.*, raised by public subscription.

[For most of the facts in this short notice of our deceased friend we are indebted to the memoir in the "Journal of Horticulture," written, we have reason to believe, by Mr. Thompson's son. Some of the particulars of his early life have been taken from an account

* London: Murray.

written by Mr. Thompson himself, upon his admission to Chiswick in 1824. It was the custom formerly for young aspirants to write a short account of their lives up to the date of entry. Several autobiographical records of this kind are still preserved at Chiswick, including those of Paxton, Thompson, and many others. It would be well that the practice should be kept up. EDs.]

THE BEST OF THE CULTIVATED ANEMONES.

(Concluded from p. 986.)

Anemone angulosa (large Hepatica).—Everyone who knows the bright flowers of the variously coloured varieties of the common Hepatica, the very bravest of our early spring flowers, will welcome this species, fully twice the size of the common Hepatica in all its parts, with flowers of a fine sky-blue, as large as a crown piece, and distinguished from the common kind by its five lobed and toothed leaves. It is a native of Transylvania, and is hardy everywhere throughout these islands. Obviously, the only thing to determine about such a valuable addition is how to best grow and enjoy it. It is naturally more an inhabitant of the elevated copse than of the crest of the Alps; it is not able to flourish thoroughly exposed to the fiercest blasts like the little alpine plants that cushion down their stout if diminutive leaves, shorter than the very Moss, so that injury from the fiercest gale is out of the question. I have seen it in sandy soil in a thin shrubbery attain a height of more than a foot when not in flower, and the shelter and slight shade received from surrounding objects is decidedly favourable to its development. On all properly formed rockworks, or in their immediate vicinity, it will be possible to give it a suitable position, while in spaces between American plants and choice dwarf shrubs in beds it will succeed to perfection. When plentiful enough it may be used as an edging to beds of choice spring flowering shrubs and for naturalisation in open spots in shrubberies, or in open rather bare and unmown spots along the margins of wood walks.

Anemone Hepatica (Hepatica triloba; common Hepatica).—To add perfume to the Violet, paint the Lily, or tild the yellow Crocus, would seem to be no more wasteful excess than to praise this exquisite little flower. Let Philip Miller speak, and tell us how much esteemed it was in his day—"These plants are some of the greatest beauties of the spring, the flowers are produced in February and March in great plenty before the green leaves appear, and make a very beautiful figure in the borders of the pleasure-garden, especially the double sorts, which commonly continue a fortnight longer than the single kinds, and the flowers are much fairer." And these plants have half disappeared with many others since that time. There is a cheerfulness and a courage about them on warm sunny borders in spring which no other flowers possess, they are hardy everywhere, are not fastidious as to soil, though they love a deep loam and present a charming diversity. The principal varieties are the single blue, double blue, single white, single red, double red, single pink (carnea), single mauve purple (Barlowi), crimson (splendens), and lilacina. Every variety of the common Hepatica is worthy of care and culture. Is it possible to imagine a more beautiful feature than we may produce by planting a mixed edging of the various colours round, say a bed of dwarf American plants, occupying space that perhaps would otherwise be naked? It is but one of many ways in which we may tastefully use them. The plant is a native of many hilly parts of Europe, usually frequenting half shady positions, which will be found to suit it best in a cultivated state also. It is readily increased by division or by seeds, the double kinds by division only.

Anemone thalictroides (Meadow Rue-like Wind-flower).—A delicate, diminutive, and interesting species, with the "habit and frondescence of Isopyrum, the inflorescence of Anemone, and the fruit of Thalicttrum." These qualities, in addition to its dwarf habit, usually only a few inches high, make it worthy of cultivation. The flowers are white, nearly an inch in diameter, open in April and May, the flower stem bearing a few leaves near the summit, so as to form a sort of whorl round the flowers. It is a native of many parts of North America, and is increased by seed or by the division of its tuberous roots. There is a pretty double variety, *A. thalictroides fl.-pl.*, with the flowers somewhat smaller than the single ones, and very neat. Being small and fragile in its parts it requires a little more care than most of its brethren, should have a light peaty and moist soil, in association with other delicate growers or be placed in a position where it is not liable to be overrun by coarse neighbours. It is, perhaps, more correctly known as *Thalicttrum anemoneoides*.

Anemone narcissiflora (Narcissus-flowered Wind-flower).—I did not intend including this species, not thinking it sufficiently ornamental, but Mr. J. Duncan, of the Royal Gardens at Kew, has favoured me with the following note respecting it:—"This is a very striking and handsome sort, and distinct from any of its relatives. In cultivation its average height is about 1 foot. The petals are pure white above, and purple below, but they vary somewhat as regards colour. Proceeding inward, next in order are the yellow anthers which, contrasting with the corolla, justify the specific name. The scape is about twice the length of the foliage, and bears at its summit a considerable tuft of flowers, each of which is about an inch across. The leaves are stalked, and the blades have a soft feel. All the green parts of the plant are hairy. I notice this kind is mentioned in only a single English nurseryman's catalogue, although it deserves more prominence, and is adapted for the rockery, the border, or for pot treatment. It can be increased by division or by seed sown when ripe. It blooms in spring,

and is a native of Germany, and does well in sandy soil."

Apart from the fine *Anemone japonica* and its varieties, there are a few dwarf *Anemones* in the country unworthy of cultivation, insufficiently distinct, difficult to obtain, and of the last probably *Anemone Halleri* is the best. But it is believed that the cream of the known, or obtainable species of the genus, is included in these papers. They may also have served to show how many varied attractions are derivable from one but little grown family of dwarf hardy plants. Wm. Robinson.

THE LATE JAMES VEITCH.

IN the person of Mr. Veitch, whose sudden death it was last week our melancholy duty briefly to announce, we have lost another of the horticultural notabilities of the last two decades; and though placed in a somewhat different sphere of action from such men as Lindley, Paxton, or Thompson, for example, it will be found that James Veitch the younger, as he was till quite recently best known, has left his mark upon the garden history of our time.

James Veitch was born on May the 24th, 1815, in the neighbourhood of Exeter, where his grandfather (of Scotch extraction) and his father were at that time carrying on the business of nurserymen. When about 18 years of age he was sent to London for two years, for the purpose of acquiring that experience which in those days could only be gained in a London establishment. One year of this period was passed in the nursery of Mr. Chandler of Vauxhall, and the other in that of Messrs. Rolliason of Tooting. Returning again to Exeter, and resuming his routine of duties there, he at the same time, impelled by the new ideas and impulses acquired in London, devoted his energies to the gradual extension and improvement of the establishment at Mount Radford, making it eventually one of the first nurseries of the day. All this time he was acquiring the mastery over the mysteries of the nursery trade, in which, first (since 1838) as a partner in the firm of James Veitch & Son, and subsequently on the death of his father, as the head of that of James Veitch & Sons, he was destined to raise himself to one of the very foremost positions. This prominent place amongst his compeers was won not less by his untiring zeal and energy, his keen perception, his clear-headed business habits, and his great personal influence, than by his thorough practical acquaintance with all professional details. It was on his return to Exeter from Tooting that, taking with him a collection of the Orchid gems of those days, he first started in the cultivation of these favourite plants; a taste which he always cultivated with the greatest possible zest, and which came in time to be ministered to by the introductions of his own collectors, and by his intimate personal friendship with men like Mr. G. U. Skinner and Col. Benson, who had made acquaintance with Orchids in their native homes. It should here be stated that Messrs. Rolliason, with whom young Veitch had been placed for the purpose of acquiring a knowledge of his business, declined to receive any adequate remuneration for the benefits conferred by them on their pupil; and the only method of acknowledgment open to the father of the subject of our notice was to commission the son to purchase Orchids from the Messrs. Rolliason. These Orchids became the nucleus of the collection for which Messrs. Veitch are now and have for so long been renowned. It may be interesting to mention, as an instance of versatility, that about the year 1839 Mr. Veitch entered with great spirit upon the growth of Dahlias for competition, the Exeter Dahlia shows, open to all England, furnishing at that period one of the most tempting arenas for the display of horticultural prowess.

In 1853, while still a partner in the nursery business at Exeter, which had then become famous as the first English home of multitudes of new plants, introduced directly by the agency of Messrs. Veitch's collectors—the brothers Lobb, Mr. James Veitch removed to London, and took possession of the once famous establishment of Messrs. Knight & Perry, at Chelsea. Here he was more directly brought into contact with all the leading horticulturists; and his estimable personal qualities, his sound sense, and his energetic manner, soon lifted him into a very influential position in the gardening world, which he maintained for many years, until, as we may suppose, the fore-shadowings of his fatal malady induced him gradually to withdraw from active participation in what may be called public life. All this time, however, the establishment at Chelsea, which still bore the name of the Royal Exotic Nursery, was being remodelled and improved, and a gigantic business, one of the most prominent in England, perhaps in Europe, was being worked up, sufficient of itself to form a striking monument of successful commercial skill and enterprise.

Were we to attempt to show how far our gardens are indebted to the herculean and unflagging labours of Mr. Veitch, we should have to write a history of most of the new plants introduced during the last 30 years; for it was to his active superintendence of their importation, and to his discriminative choice of collectors, that we may largely attribute the success which was realised in this department. The later explorations of Pearce, Hutton, and others, by which also many fine novelties have been acquired, were even more directly under his control; while in order to form some notion of all the services rendered to horticulture by Mr. Veitch in this direction, we must add to the foregoing the results of the two journeys of his eldest son, Mr. John Gould Veitch, to Japan and the South Pacific, which have proved so prolific of first-class novelties. The pages of the garden periodicals bear witness to these facts, in the number of first-class

plants introduced through his intervention, such as *Wellingtonia gigantea*, *Lapageria rosea* and *Alseodaphne*, *Lilium auratum*, *Maranta Veitchii*, *Vandas sumatrana*, *tricolor*, *corulea*, and *insignis*; *Phalænopsis grandiflora*, *Cypripedium caudatum*, *Rhododendron jasmminiflorum*, *Pteroma elegans*, *Nepenthes* (numerous species), *Drosera*, *fontainea spinosa*, *Thuja Lobbi*, *Abies bracteata*, *Begonia Veitchii*, *Masdevallia Veitchiana*, *Tropaeolum azureum* and *speciosum*, *Calanthe vestita*, *Medinilla magnifica*, *Dipladenia splendens*, *Berberis Darwinii*, *cum multis aliis*.

It is, however, not only as an introducer and a dispenser of plants that Mr. Veitch's name must be boldly inscribed in the annals of horticulture, for he occupied a no less worthy position as a cultivator and exhibitor. Indeed Mr. Veitch was a thorough cultivator, as those who have seen the fine specimens sent from Exeter to the Chiswick Shows will acknowledge, when we say that many of them—Heaths and Orchids to wit—were the fruits of his own cultural manipulation, aided by his devoted and faithful servant and friend Domingo. Thus, when he desisted from the laborious task of potting his own plants, few knew better how to direct the action of others. Then, as an exhibitor, Mr. Veitch has had a large share in making our shows the glorious monuments of cultural skill which they really are, despite all the grumbling concerning them. For many years he has been in the constant habit of bringing forward materials, the most excellent in quality, and these have been so abundant in quantity, and arranged with so much skill and taste, that it has been rare indeed to see the name of Veitch either absent from or occupying a secondary place in the award sheets. In all this, as well as in business transactions, he has for the last few years been ably assisted by his sons, Mr. J. G. Veitch, and Mr. H. J. Veitch, who were admitted to partnership in 1865, and by whom the business will now be continued.

We should not omit to state, that Mr. Veitch was one of the best and most hard-working friends of the Royal Gardeners' Benevolent Institution, of which he was also a trustee.

For several years—from 1856 to 1864—Mr. Veitch was a member of the Council of the Royal Horticultural Society, and took a very active part in the administration of its affairs. At his own hospitable house the interests of horticulture were often the subjects of a very free commentary; and many schemes which had been discussed or concocted there, were in due time realised. In particular it may be stated that the idea of the Fruit and Floral Committees of the Royal Horticultural Society had its origin in a happy thought of Mr. Veitch's, which was first broached and talked over even into the small hours, in the parlour at the Royal Exotic Nursery, and at a subsequent gathering of a few kindred spirits was so thoroughly discussed as to smooth away the difficulties which at first seemed to stand in the way of its being realised. On the basis thus obtained a scheme was drawn up, and virtually that adopted by the Council, which has not only worked well, but proved the horticultural mainstay of the Society. In Mr. Veitch's parlour, too, the particular mode in which the Great International Show of 1866 should be presented to the public was agreed to, and action taken thereupon. There had at that period sprung up amongst a small section of horticulturists a most unaccountable feeling antagonistic to the gentleman who afterwards so efficiently filled the office of chairman, and whose loss we have since had to deplore, and this feeling was battled with and overcome chiefly by the influence of Mr. Veitch, and of a few others who supported him. In all movements for the advancement of horticulture he was ready to take the foremost part. Latterly, however, owing to his failing health, he has been less active in matters of this kind, but even so late as the occasion of the organisation of the English Committee of the Hamburg International Show, those who attended the preliminary meetings were assisted by his advice.

Some two years ago, owing to premonitory symptoms of heart disease, which have proved but too well founded, Mr. Veitch ceased to take so active a part as he had been wont, either in horticultural affairs or in matters of business, but latterly he had been in better health and spirits than usual, and even on the day before his decease had greatly enjoyed a visit from his old friend and collector, Thomas Lobb, so that his death on the morning of the 10th inst., at Stanley House, Chelsea, at the age of 51, came suddenly on his family and friends, although, under the circumstances, it can scarcely be said to have been wholly unexpected. His mortal remains have been deposited in the Brompton Cemetery, and there lie peacefully, in the immediate vicinity of the scenes of the most active portion of his life. That he himself was not unprepared for the change that was to befall him is shown by the fact, that only a few days before his death he selected, without the knowledge of any member of his family, a site for a family grave, and in its selection and attendant negotiations manifested those business habits so characteristic of him. Little remains for us to add. We have said enough to show that this was no ordinary man. Zeal and energy pervaded his every action. A quick temper and impatience of opposition were natural adjuncts to such a character, but at the same time it must be added there was thorough commonsensicalness and straightforwardness, a disgust to all semblance even, of meanness or underhandedness, and a warmth of friendly feeling that can be adequately gauged only by those who knew him. T. M.

Home Correspondence.

Grape Soils.—Whatever may be advanced in the future, none of my opponents have as yet produced any substantial objections to the statements contained in my paper read at the Manchester Congress. Not

single conclusion of theirs has been proved; not a point of mine has been shaken. I trust it will be understood that I have not made this assertion in a spirit of mere opposition. A due regard should always be given to the experience of others. Any other mode of action would stifle truth, and check the course of free inquiry. But still, none of us submissively allow ourselves to be deprived of what we have proved to be facts by the mere expressions of those who choose to advance an adverse opinion. I was not unprepared to find that my statements on the subject of Grape soils would meet with opposition, and I possibly by the majority of cultivators, but truth is not the exclusive property of the multitude on all occasions. I have investigated and thought for myself, and fearlessly give publicity to my conclusions, quite regardless of how they may be received. We need hardly be reminded that the Grape Vine grows freely on the limestone in the Continental vineyards. I have never once said that it refuses to do so on that formation. What I did say, and have proved to be the case, is that it grows stronger, is longer lived, and produces a heavier crop of much superior fruit, when planted on the red sandstone. So convinced of that fact was a gentleman in this neighbourhood, whose garden was situated on the limestone, that he had red sandstone soil brought from a long distance to make his Vine borders, but under no persuasion of mine, as we were not then acquainted. The red sandstone soil, which I employ, does not contain more than from 2 to 3 per cent. of lime, a quantity so small as scarcely to be appreciable. We know that excellent Grapes are grown on the Rhine, and also on the banks of the Moselle river, in soil that rests on sandstone rocks, of the same age and composition as that at Tortworth. Some years ago, when on a horticultural tour in the midland counties, I visited several gardens situated on the same formation, and in every case found the Grapes of a first-class character, whether we refer to colour, or the size of the bunches or berries. The subject of soil was then with me an absorbing question, and I took the opportunity of acquiring as much information as I possibly could. All calcareous soil is not carbonaceous to the same extent, so that success or failure will just be in proportion to the amount of carbonates it may contain. Should it reach 40 per cent., cultivators will find themselves in a dilemma; they may exert every contrivance to excel, but every effort made will only multiply their sorrow. Recently I visited a garden situated on the oolite, which contains as much as 80 per cent. of carbonate of lime, little or no siliceous matter, and only a small quantity of alumina. Had those who embrace calcareous soil so strongly, only witnessed the miserable state of the crop, the Vines struggling for little more than mere existence, they must have been induced to alter their opinion. It must not be assumed that these Vines were worn out by age, or that the soil had become effete. Nothing of the kind; the borders had been made on the most approved principles within the last few years; young canes were planted, and these were superintended by an excellent gardener. The soil was chargeable, which proves what I have repeated elsewhere. It is that which equalises ability, and not the application of a few stringent practical rules, as some would have us to believe. Dr. Masters endeavours to solve the problem, by contending that the physical arrangement of the soil is the most active agent, putting aside almost, if not entirely, the office performed by the mineral constituents. On this point I differ as much from him now as during the discussion at Manchester. Would he allow me to ask, Do not these very ingredients give to soil its physical properties? the principal being silica and alumina; and they alone are the substances in varied proportions which produce light and stiff soils, modified to a greater or less extent by the presence of organic matter. No one denies the necessity of physical arrangement in whatever way it may be brought about, but of itself it cannot support life. Particular inorganic substances are necessary for the roots to feed upon, and unless these are present, whether as elements or compounds, the plant cannot long survive; it will either live a languid life or perish altogether. But however complete the physical arrangement may be, we have not the least security that the soil does not contain deleterious substances, some possibly of so poisonous a nature as to destroy life, and yet so subtle as to escape ordinary observation. If such is not the case, how does it happen that the common Brake in one part of our park never extends beyond a certain limit, although it has perfect freedom to do so. The question cannot be answered by saying that it is owing to imperfect physical arrangement, a reply that certainly does not hold water, as within and without the line of growth it is exactly of the same character in that respect. We have, then, no other resource left by which we can detect those substances which are injurious to some plants and beneficial to others, than by an analytical test. However lightly some may undervalue such a mode of searching out truth, they will have a difficulty in substituting another so trustworthy. This is a subject of great breadth, and to treat it fully would carry us through the entire vegetable kingdom, but I have said enough; and if there are those who prefer to assume that my statements are incorrect, well and good, but they must not expect their assumptions to have any force with those who know that the facts of the case are contrary to such opinions. *Alexander Cramb, Tortworth.*

There is abundant evidence to show that the Grape Vine is a most accommodating plant, so far as the chemical nature of the soil is concerned. The facts narrated by Mr Cramb exemplify this. It is then a perfectly legitimate inference to conclude, that the physical properties of the soil its compactness or friability, its power of retaining or transmitting water, of absorbing, retaining, or radiating heat, and so forth, have, under ordinary circumstances, as much or more to do with the well-doing of the plant than the merely

mineral ingredients of the soil have. By all means let us have analyses such as Mr. Cramb advocates, but let them not be confined to the chemical ingredients of the soil only. *Eds.*

Orchid Culture.—Your correspondent "G. H." at p. 640, expressed his surprise at the speed at which Orchids are killed, but I think it cannot be wondered at, when the injudicious treatment which these plants receive, especially in winter, is taken into consideration. In many cases, instead of the maturity of the wood being made the first consideration, every care is taken to keep the plants continually growing. Thus treated, the majority of species cannot possibly ripen their wood thoroughly, and consequently do not flower so freely as they would if treated more naturally, while the more delicate species must soon succumb under this perpetual growing treatment. I have paid a good deal of attention to the habits of Orchids on the Himalayas, and my idea of how such species as *Dendrobium Falconeri* should be treated may not be unacceptable to "G. H." and others. From November to the end of February I would recommend the plants, as well as the atmosphere of the house in which they are placed, to be kept dry. In mild weather the plants should be syringed occasionally, but never watered at the roots. Shading should be entirely dispensed with, and the plants should be as freely exposed to the sun as possible. The minimum temperature should range at night from 42° to 50°, and in the day from 50° to 65°, and allowed to rise with sun-heat to 70° or 75°. In March or April the temperature should be gradually increased, and the plant should be freely syringed overhead, but watered sparingly at the roots. For the following four months the syringe and watering-pot must be freely used, but in September and October gradually withheld. Rain-water, raised to the temperature of the house, should always be used, and, during the growing season, the evaporating pans, as recommended by Mr. Lorimer at page 581, must not be forgotten; the more there are of those the better, where available. I would recommend a long shallow tank under the stage, with the hot-water pipes running through it. From May to the end of August the minimum temperature should not be lower than 65° at night, and in the day not under 70° to 75°, and might be allowed to rise with sun-heat to 85° or 90°, or even higher. For pottings such species as *Dendrobium*, I would recommend Moss that has been growing for years undisturbed on rocks, and got well filled up with decayed vegetable matter; the Moss should be roughly torn up, and particular care taken to retain all the vegetable matter. The pots should be at least three-fourths filled with potsherds and charcoal, and only as much Moss used as is absolutely necessary to cover the roots and hold the plants secure. For most species, I consider February and March to be the best months for this operation. The remarks made by "G. H." at page 530, about "Pine-house treatment," "stimulants," and "tan pits," appear to me to be so sensible and to the point, that I strongly advise all Orchid growers to read them over again, and act by them. I would also advise "G. H." not to be advised into the cool treatment of *Dendrobium Falconeri*, for, with all due deference to the experience of Mr. Anderson, it is a mistake. As a rule Orchids under cultivation get far too much shade. By far the best flowered plants I have ever seen on the Himalayas have been growing on rocks or bare branches of trees where they were fully exposed to the sun and rain; and those plants had such foliage as would satisfy the most fastidious. Mr. Spruce, the botanist, who lived so long in South America, also observed there that Orchids affect light and open situations, for in his "Report on the expedition to procure seeds and plants of *Cinchona succirubra*," to the under Secretary of State for India, dated January 3, 1862, he mentions, in reference to the order Orchidaceae, that "most epiphytal Orchids love light, and in the dense forest they are rarely seen, and often inaccessible, for they grow on the upper branches of large trees, and descend to the lower branches only on the margin of wide streams, where the whole of one side is exposed to the light." No doubt excess of moisture in winter and heavy shading have to answer for the deaths of many Orchids. In your leading article of June 26, you mention that "the season of rest of most of the Orchidæ begins with the wane of the inflorescence." As far as the Himalayan Orchids are concerned this remark does not hold good, for most of them flower before the end of June, and the principal growing season is from June 15 to September 15. In the same article you remark that when the Orchids were in flower they could be moved to another house and relieved by an admixture of suitable Ferns; but why not go further? for, either as regards appearance or the health of the plants, the devoting a house entirely to specimen plants of Orchids, in any stage, appears to me to be a mistake. A house well filled with such plants as *Caladiums*, Ferns, &c., seems to me most suitable for Orchids. The Orchids should be placed so that the surface of their pots may be nearly level with the tops of the other plants. When there is a table between the passage and front of the house soil should be put on and planted with *Selaginellas* before placing the Orchids on it. In houses thus filled, the atmosphere could be kept much moister than in those filled exclusively with Orchids, besides improving the appearance and economising space. Your remark, in the same article, that during the dark days all the light at command is wanted, cannot be too strictly attended to. *J. A. Gamble, Government Cinchona Cultivator, Darjeeling.*

Cedar of Lebanon.—The following are the dimensions of a specimen growing in the garden of F. B. Johns, Esq., at Bishop Stortford.—Height, 70 feet; circumference at 12 inches from the ground, 11 feet 6 inches; and diameter of the spread of its branches,

81 feet. At 12 feet from the ground it breaks out into numerous branches of immense size. It lost its leader some years ago, which has made a great difference to its height. When a boy, I assisted at the planting of it and for a long time after that I used to amuse myself by jumping over it when passing that way. Are there many specimens which, for its age exceeds this in size? *J. Nichol, Bishop Stortford.*—The Cedar of Lebanon flourishes here. One planted by my father in 1816, on the marriage of Prince Leopold with our Princess Charlotte, measured, in 1851, 58 inches in circumference at 3 feet from the ground, in 1859, 93 inches. It has a single stem, branching to the ground in every direction. It is a magnificent young tree, and promises to be of surpassing beauty and size in 100 years to come. *Thos. C. Brown, Further Barton, Cirencester.*

Dwarf Surface-clothing or Edging Plants.—Two plants I have been cultivating this season seem to me likely to prove useful as dwarf edging or border plants. I refer to *Pyrethrum Tchihatchewi* and *Veronica pectinata*. The former is a native of Asia Minor, named after M. Tchihatchewi, author of the "Flora of Asia Minor." Its finely cut leaves, pale green in a young state, spread flatly over the ground, and rapidly cover it. The *Veronica* has numerous branches spreading in a similar manner. Its leaves are somewhat rounded and hairy, crenate at the edges. The shade of colour it presents is that of a hoary grey, such as is presented by some *Salvias*, and is not usually found in the genus. The use of both, however, is the flat spreading habit of the branches. *R. S.*

Yet another Swarm of Insects.—At Beccles last week, for several days, the common was literally swarming with gnats. The air was full, the earth was covered, and the tents of the Rifle corps was filled with them. There was no escape from them anywhere in the neighbourhood. A reporter who uses ink told me he had the greatest difficulty in writing the proceedings, as they crowded into his ink-bottle, a very small pocket one, and spoiled his ink. On the tables, in the beds, over the bodies of men, women, and children, they crawled or alighted. Nothing like such an infliction had ever been seen by the "oldest inhabitant." Since then we have had violent thunderstorms, and torrents of rain, which have, doubtless, dispersed the gnats, and yesterday (Sunday) and to-day we have had hurricanes of wind enough to sweep every flying insect into the sea. It has pretty well swept or torn my fruit off, not only from orchard, but likewise from pyramidal trees, and scattered branches and green leaves over gardens and pleasure grounds by the cartload, torn up my flowers by the root, broken down Hollyhocks and Dahlias, turned vases topsy-turvy, and left a ruined wreck where a few days since all was smiling beauty. I fear we shall not recover this season the beauty we have lost, nor out-grow in any sense the terrible devastation of these torrents of rain and hurricanes of wind. *Observer, East Anglia, Sept 13.*

Trellised Walls.—At p. 941, the Rev. W. F. Radcliffe says, "Peaches, Nectarines and Apricots do not succeed on trellised walls." This statement I can fully confirm. When I once went to see a gentleman in Surrey about a situation, he showed me through the kitchen garden, which was about 4 acres inside the walls, and said "We have had galvanized wires fixed to train the trees to." I said I did not like the plan; of course he asked why; my answer was, I thought there would be a great deal too much draught behind the trees, which very soon proved to be the case. I entered on my new situation in the autumn of 1860. The following summer the young shoots of the Peaches and Nectarines were almost white with mildew, they were very unhealthy, and did not ripen their wood in the autumn. In 1862 there was very little fruit, so that something had to be done. The object of the wires in this case was, that the walls were so rotten, and the mortar was torn out so much from the joints, that the nails would not hold, consequently the whole had to be refaced. Stout galvanized wire pegs, with holes in the ends, were driven in the wall, about 7 inches apart. These stood out from the wall about 5 inches, which was a great deal too much. Smaller wires were then stretched horizontally from end to end. We then wanted to put the wires closer to the wall, for to do without them altogether was almost impossible. To effect this was not so easy, as the pegs would not drive well. I suggested that the pegs should be bent, which was done by bending all the pegs upwards until the wire was within about three-fourths of an inch from the wall. The trees succeeded much better after that, for the remainder of the time I was there. This leads me to mention a different sort of trellis on which we have Vegetable Marrows growing. The roof of a large cart-shed, which covers an area of 1570 square feet, has been trellised over, and on this Vegetable Marrows have been trained. The shoots have already grown about 28 feet in length, and are bearing a large quantity of fruit. I have been told that they are good for crows, but I have never tried them, as my employer would rather give such surplus vegetables to the people in the neighbourhood, who have not gardens of their own. Many a rough and unsightly shed might be advantageously covered in this manner during the summer months, especially in towns, where land is scarce. *T. Whaddon, Bystock.*

The Blood Pine-apple.—This old variety has been condemned by several growers as flavourless and for this reason not worth cultivation. My opinion on this point is quite the reverse—at least when the fruit is well grown and ripened under the treatment usually given to high-flavoured fruit. I eat a fruit the other day and I thought the flavour was most exquisite, it has not that peculiar mucousness which is possessed by a good Queen, but it has a fine sparkling flavour of its own which I consider to be unequalled amongst the varieties of the king of fruits. No collection should be without a few plants of this kind, if for nothing more than for the sake of variety and appearance on the table. Like the *Cayenne*, it is some-

what shy in producing suckers, but frequently forms a tier of gills as large as ordinary crowns: these soon make good plants; its crown is also available. Its fall habit, indeed, renders it necessary for it to be grown where there is plenty of head-room, consequently it is not a very suitable kind for low structures. *John Edlington, Wrotham Park, Barnet.*

The Assessment of Nurseries, &c.—At p. 919 your correspondent states that nurserymen and market gardeners shall be assessed under Schedule B. This I do not read in the Act 5 & 6 Victoria, which says the profits shall be estimated according to the rule contained in Schedule D, and the duty shall be charged at the rate contained in the said schedule (amount of profit), and where the said duty shall be so ascertained it shall be charged under Schedule B, as profits arising from the occupation of lands (2*d*). Your correspondent does not say this, but he says they are assessable under Schedule B, instead of paying under that schedule *H. Lane & Son, The Nurseries, Great Berkhamstead.*

Condition of Fruit in the North—Returning from a short tour I inspected the state of my garden, situated, say 50 miles south of the Border, and 600 feet above sea level, where of course the finer fruit must be grown under glass; thus Apples, Pears, and Plums have the south wall. I was suddenly at fault with the appearance of some Ribston Apples, having upon them brown patches the size of a 5s. piece. The first idea, that it was rot, immediately gave place to the fact that (to the extent named) the Apples were baked, and this was curiously illustrated by the Apples on branches of the same tree not attached to the wall being quite green. Some Pears on the next tree are affected in the same way; this may be not uncommon in the south of England, but in 40 years' experience I have not seen it in the north. The heat on that wall on the 24th ult. was over 130. My Currants are much blighted—the red have lost most of their leaves, and the black are an ugly blotched brown. Can any of your readers advise the best treatment to obtain healthy buds for next year? Is severe pruning desirable? *S. P. H.*

Restio subverticillatus.—Is there any just cause or impediment why this very elegant plant should not take up a position in the subtropical garden? Its cheerful green colour, its Equisetum-like form, and its graceful curves, induce me to think that it would be much appreciated, either in place of, or alternately with, *Humea elegans*. I understand that it may be increased from seed. It is dioecious, it is the male plant which is so elegant, as well as by division of the root. There is a nice plant of it now in the Cactus-house at Kew Gardens *W. T.* [This is the plant grown in some gardens as *Willdenovia teres*. Eds.]

Roses.—I should be glad to see your valued correspondent, the Rev. W. F. Radclyffe, favour us with his further opinion upon the merits of the batch of new Roses sent out this year. I have been given to understand from a reliable source that they are exceptionally good. A really good white hybrid perpetual Rose is still a desideratum; it is sincerely to be hoped one of this class may be forthcoming. A yellow Moss is still in the background, and can only be anticipated in due perspective. We have had already enough and to spare of every shade of crimson-scarlet, crimson-red, and carmine, &c., and it appears impossible to improve upon several of the real gems we possess in this overdone class. The new English-raised Rose, Miss Ingram, is a colour in the right direction, and a really good Rose, but what improvement it is upon a well-grown Madame Rivers or Madame Vidot we are unable to discover, except it may be in its free habit of growth. I hope our great English Rose-growers will persevere in this direction, and by-and-by rival our indefatigable friends across the Channel, who send us over every season hosts of good, bad, and indifferent, the latter generally preponderating over the former. In reply, however, the knowing ones may say—"Ah! but our climate and weeping sky." Well we were pretty nearly roasted lately, even in this locality—the thermometer some 120° in full sun and 80° in the shade. I think a temperature like this, with a further fine autumn, is amply sufficient to ripen the seeds, when the previous operation of crossing has been duly attended to. About six weeks ago the shoots on a Climbing Devonian Rose (grown as a standard on the Dog Rose) were cut back to from 9 to 15 inches. Each shoot thus treated has sent out laterals about 5 inches long, on the extremities of which I this day counted 27 beautifully-developed buds, which in due course will undoubtedly open before the season closes. How far this severe mutilation may react upon the roots it is at present difficult to say, but it has now the appearance of a nice compact standard Rose of moderate growth, so different from its usual straggling habit when budded as a standard. *A. Godwin, The Rosarium, Ashbourne.*

Substitutes for Maiden-hair Fern.—It is not long ago that the claims of *Thalictrum minus* were very strongly urged in this respect, and I have no desire to say a word in its disparagement; but I wish to call attention to a formidable rival in *Bossea cordifolia*, a small, hard-wooded, Australian greenhouse shrub, with reddish stems, and nice little sprays of heart-shaped leaves, reminding me most of that very small-folaged variety of *Adiantum cuneatum*, which is so much grown in the Crystal Palace. *W. T.*

Wellingtonia gigantea.—It may interest some of your readers to know how a seedling planted by my father (the late J. T. Brooks) in these grounds in the year 1857, has fared. The site chosen was a piece of rich sward, near a watercourse. The growth of the tree in symmetry and extent has been uniform to the present time, and neither the dry summers nor cold winters, since it has been left to shift for itself, seem to have in any way affected it. The dimensions of this tree are as follows—Height, 23 feet, circumference of stem, at 1 foot from the ground, 4 feet 8 inches, ditto of branches, 45 feet. *John H. Brooks, Major, Flitwick*

House, Amptill.—The Wellingtonia here was noticed in the Transactions of the Scottish Arboricultural Society in 1865, and afterwards in the magnificent work now publishing by Messrs. Lawson. In 1865 its height was given as 12 feet, and probable age 11 years. This tree is now 25 feet high—diameter of branches, 15 feet 4 inches; circumference of stem, 1 foot from the ground, 4 feet 8 inches; length of leader this season, 1 foot 8 inches. It is perfectly healthy, and of beautiful symmetry; it suffered no injury from the severe winter 1866-1867, or the drought of the two last summers. Of all the new Conifers planted here not one appears to like both soil and climate better than the Wellingtonia. The soil is a deep heavy loam on a limestone gravel. *Robert Moulton, Gr. to Lord Athlumney, Somerville, Navan.*

—A specimen of this tree was obtained from the Royal Nurseries, Slough, and planted on March 10, 1863, the wedding-day of the Prince of Wales. It measured, 2 feet from the ground, in the spring of 1865, 3½ inches in circumference; in 1866, 6 inches; in 1867, 9 inches; in 1868, 12 inches; in 1869, 13 inches; and it has grown in height about 9 feet, being now about 13 feet high. It is perfectly feathered with lateral shoots, forming a pyramid of extreme beauty. It will be seen that its growth was checked by the dry summer of 1868, and probably of this year also, for both months of July were dry, and we believe it will be found that the warm and copious thunder storms so common in that month, and absent last year and this, greatly favoured the growth of many trees. The four-year-old branchlets are dropping off the lateral shoots; whether this is another effect of the drought of 1868, I cannot say, but it does not at all injure the appearance. Two other specimens flourish here, but not equally with this, which had the advantage of being planted in ground trenched for a garden 30 years since, and used as a fruit garden. The soil is oolite, chemically lime and clay, and the elevation about 100 feet above the sea. *Thos. C. Brown, Further Barton, Cirencester.*

Potato Grafting, &c.—I have been waiting to see some results of this practice published in your journal. Being a new idea, many are anxious to hear something more about it. Many doubts have been expressed as to any good coming of it. That is very natural, but too common, with respect to anything new. The results of my experiments of the past season will perhaps enable those interested (and who is not?) to form some conclusion with regard to it. Doubtless it will require considerable practice before any rule can be laid down to gain a certain end. How interesting, for instance, would an account be from one who has "gone into" the practice so far as to see his way clear to "work up" a Potato, to please the eye or the palate of one who is considered a "little" fastidious! I have just dug up a crop from a kidney called the Uxbridge, which I grafted into a Rock Potato. Its tubers are strung together in so very curious a manner, and so different from anything I have before seen, that I am induced to send you a sketch of them. An excessive degree of a common occurrence. The Rock has the peculiarity of having its tubers strung together in some instances, so this is convincing evidence that the characters of the various sorts of Potato can be altered by this operation. The crop consists of 27 tubers, the largest 5 inches long, but not at all improved in shape, and warty. Johnson's Kidney grafted into a Rock has not taken the above peculiarity in so striking a manner, with much better shaped tubers. An Uxbridge in a Dunbar, which is a round Potato, produced a crop also strung together, but with improved tubers in shape; one or two have a young tuber attached to them. A Rock in a Fluke is but very little different; I fancy, however, the eye is not so deep as in the original Potato. But a Fluke in a Dunbar has a crop of the most distorted worthless tubers imaginable. These were all grown in the same soil (good loam, with some washings of a roadway, together with sand), and side by side. Nothing rough could be found to cause any distortion of the above Potato more than the others. There are various opinions as to the mode of planting the Potato, more particularly as to when and how the manure should be applied. The practice of sowing guano on the sets at planting time explains many failures. If the tuber has started into growth, or has a cut or a new bruise, so as to let in the salt, it is almost sure to kill it. Yet this is often done. Some use half-decayed stable manure, putting it on the Potato some inches thick, and then a sprinkle of guano over that. The Potatoes grown in this way are often warty and soapy. There are others, who to my mind are more wise, who manure their ground in the autumn, and otherwise prepare it, and in the spring put in their Potatoes without dung or guano. Others use guano after the plant is above-ground, which no doubt helps the plant if not sufficiently manured at the bottom. I know of small bits of ground on which for a generation the ash-pit has supplied all the manure it has received, and year after year the Potato has been planted without change, and always with good crops. This proves that ashes are suitable for the Potato. Although the natural soil in various places requires different treatment, still it would be interesting and profitable to know the results of the practice of various manures in connection with various soils. There are few plants in which so general an interest is felt as the Potato. *H. M.*

Protection from Frost.—While reading an account of a tribe of northern American Indians, called Crees, I made a note of two materials which they use to keep out the cold of their inclement winters. They make their tents of poles arranged in a conical form, cover them with skins, and line them with sprays of the Balsam Fir, which are from time to time renewed. It is fair to assume that they have some better reason than the smell of *Picea balsamifera* for giving a preference to this species for keeping themselves warm; and as I believe it is easily grown in England, and is not

expensive, it may be worth while to give it a trial in place of matting, for half hardy plants which are to be left out-of-doors during the winter. The other material to which I allude is Sphagnum, in which they wrap the lower extremities of their infants when travelling in the bag-shaped cradles which are suspended on the backs of the Cree mothers. The Sphagnum is said to form "a soft elastic bed, which absorbs moisture very readily, and affords such a protection from the winter cold that its place would be ill supplied by any other material." Possibly a layer of Sphagnum tacked between two sheets of tiffany might form a better protection than matting for covering plants going to flower shows, or for laying over frames in frosty weather. *W. T.*

Hylurgus piniperda.—Your correspondent, "M. D." at p. 967, says that the economy of this insect is well known. I am of the opinion, which Sir John Lubbock well expressed some years since, that "in entomology we have had but two Hubers, nor can we be said yet to understand thoroughly the habits of a single insect." The most patent facts are noticed and repeated by one author after another, and taken on trust by the rest of the world. Let therefore no one be discouraged from observing everything he can regarding the habits of *Hylurgus piniperda* or any other hurtful insect, by the fear that he has nothing new to find out. Your correspondent has obviously himself something to learn upon the subject. Most people are very well aware, although he appears not, that young Pine trees are often attacked by it, although no old Pine trees, either growing or felled, are in the immediate neighbourhood. But I chiefly wish to protest against two of his recommendations—one, that to save a valued tree several logs laid near it would be useful, i.e., to keep away robbers expose a plate chest, trusting to catching the thief afterwards; the other that the proper mode of destroying the insect is to remove the bark of the tree attacked, or to fell the tree—the two modes being, of course, synonymous, i.e., to kill the tree. I remember in my youth being led by the dictum of a great authority to doing something of this kind. I had some large Silver Firs badly attacked by *Adelges Piceæ*; I was told that the only way to save those not attacked was to cut down all the rest. I began to do so, but after I had sacrificed three-fourths of them, I found that if I went on I should soon not have a single one left. I therefore stopped, and in a few years the trees began to recover and the *Adelges* to diminish, and now they are finer than ever, although sadly fewer. It is the same with the *Hylurgus*; I have nowhere seen its ravages so severe as to threaten anything like the death of a tree. It is the attacks on the young shoots which give alarm, but although these destroy many of the shoots, there are plenty left, and another year may be less favourable to the breeding of the insect. Observations as to the character of the seasons in which it flourishes most, the extent of its depredations; the effect which locality, age of tree, exposure to wind, have upon it, when the larva is found in the young shoots, and why; and many other points of inquiry, are not to be found in Rützelburg and the stereotyped textbooks which follow him. I observe that it comparatively rarely attacks the leader. Why? That of two rows of trees planted, one east and west, and the other north and south, one suffers more than the other; that a few years difference in the age of the trees seems to make a difference in the attack. Let us by all means extend our observations, and not rest satisfied with the assurance of any one that everything is known, and that our labour will be cast away. *A. M.*

Fern-eating Caterpillar.—Some years ago there was a question raised in the *Gardeners' Chronicle*, as to whether any kind of caterpillar fed on Ferns. I wrote to say that I had just destroyed one which in a single night had all but eaten up the only Fern I then had. One of your correspondents asked of what species it was, but being no entomologist I could not tell anything more than that it was very active in its habits and of a bright green colour. I have now a greenhouse fitted up with rockwork as a fernery, and am a good deal troubled with slugs, but they seem to confine their depredations to the tender *Adiantums*. During the last few days I have observed that a strong plant of *Pteris longifolia* has been terribly mutilated by some strong-jawed enemy. On turning up the fronds to look for slugs down fell the caterpillar which I now send you, one of the very same species as the one I saw years ago. Since writing the above I have found the leaflets of a *Pteris hastata* hanging in tatters. Having learned what to look for I soon found the enemy most ingeniously concealed by embracing the under side of the stalk of a frond with all his feet, and in a state of wire-drawn attenuation. That is where and how these pests are to be found in the daytime. *T. H. Maw, Brossley.* [The Fern-devouring caterpillar is that of one of our commonest Noctua, *Mamestra brassicae*. It is well-nigh omnivorous, for though occurring on nearly every Cabbage and Cauliflower in the country, it is equally at home on the Pelargoniums of our borders, and I from your experience has also a taste for Ferns. Eds.]

Cutting Down Strawberry Plants.—It is an ignorant and dangerous practice. The leaves are lunge, and unless the new leaves have fairly started, it is injurious. No doubt the Boulogne gardener cut his down after the leaves had started, and in showery weather. In 1860 I mowed off my leaves, as soon as the crops were gathered the severe winter (never to be forgotten) succeeded the summer without an intervening autumn, the plants were ruined for ever, and I had no Strawberries in 1861. My plants are very strong and thickly foliaged to let in light and air to the new comers I have just removed all the drooping leaves round the plants, but none of the crown leaves. The new leaves will soon be at full height then "Stephen" with a pair of scissors will carefully cut out the old leaves to admit light and air to harden the new

crowns and new leaves. The new plantations (planted July 1) and the worked plantations look like beautiful clumps of green Firs. After cropping remove your strings and runners, and copiously and constantly water the plants in torrid weather. For omitting to do this last season, people have had no Strawberries this year. After cropping, an inch or two of loam—I use calcareous clay—spread over the whole surface, is better for the formation of new crowns than rich manures, which will drive the plant into leaves rather than crowns. Put on the stimulating manures, liquid or sold, about February. After cropping, the plants make new roots from their base: the old ones die away wholly or partially; hence it is necessary to coax out new roots, to re-establish the plants before winter sets in. If this is omitted till March—usually the case—the plants have not horizontal and perpendicular roots sufficient to bring the crop of berries to perfection. Hence people exclaim, "I cannot think how it is. I never saw my plants flower so well or set their fruits so well, but they never got bigger than a pea, and came to nothing." *W. F. Radleyffe.*

The Royal Horticultural Society and its intended Shows for 1870.—No one, however conservative his principles in the main, will deny the fact that some change for the better is absolutely needed in regard to the "home shows" of the Royal Horticultural Society. That the Council has, therefore, acted wisely in taking the initiative in regard to its programme for the ensuing year, all must concede. The subject is one beset with no little anxiety, and many difficulties. Some consideration will therefore be accorded to the Council when it is taken into account how many and variable are the interests it has to cater for. To most superficial observers horticulture in its general and broadest sense has but one voice in common. That this is not really so, I need not assert. Individually we have "our hobbies." Hobbyriders become split up into coteries, and each "fancy" thus based upon the surest of all foundations—identity of interests and feelings, has its panacea. Presuming then, that the Council has to contend against an unhealthy state of revenue and expenditure on the one hand, and that it wishes to encourage the legitimate wishes of the florist, the trade, the growers of large specimen plants, the Orchid growers, fruit and vegetable growers, and others, how it is to do this successfully, and to release itself from those embarrassments which stand in its way? Now it seems to me if the Council sees its way to give ample prizes it could not do much better. But the question that will then arise is this—Can such a society as this, by means of small fortnightly shows, do an amount of national good commensurate with what is expected from it? In a word, will the Society be able by such means to uphold its prestige among the leading societies? This is the broad view which we must take of the subject, if we would see the Society prosper and increase in wealth for the future. I am one of those who attach great importance to a healthy state of trade in regard to accessories of the garden. When good or new plants or things are purchased periodically, it is a sure sign that the employer appreciates his gardener's efforts, and enjoys the fruits besides. Now, very frequently a large show—a show which, from the known prestige of a society, is likely to be worth attending—will induce many employers to go, that otherwise would not do so, and this proves a very great incentive to trade. Written reports, however ably given, seldom loosen the purse-strings in the way that the actual "feast of the eyes" does. Now, the question whether these minor fortnightly shows are likely to prove beneficial or otherwise in this sense is well worthy of consideration. If they decrease the interest which the general community takes in exhibitions of this kind, then very much will be lost. The Editors, in referring to this matter a short time ago, spoke of doing away with the "incubus" of the large shows. If our best large exhibitions, our great and glorious International, in fact, were an incubus, I would that such a nightmare had me in frequent possession. But, seriously, the question why large shows do not pay is open to explanation. In a great measure it is due to the want of a more extended system of advertising. Who amongst the millions in the great metropolis, save and except horticulturists or others associated with them, ever knows when there is a show at those gardens? [Hear! hear!] Mr. Fraser at a late meeting of exhibitors, in stating this much, threw out an excellent suggestion, to the effect that clergymen and doctors should be induced to lend a hand in view of disseminating the knowledge that good horticultural exhibitions were held within such easy reach. Could not the metropolitan railway companies, and others with whom they are in direct communication, be induced to lend a hand too? Now that the "Metropolitan" has a station in the immediate vicinity of the gardens, and thus affords direct and constant communication with densely inhabited Westminster itself, the public need but to be informed that such treats, with reasonable charges, a fair attendance would be assured. If you cannot extend the number of days upon which to hold an exhibition, divide the days or the charges therein into two or more parts. Instead of admitting early visitors at 1 o'clock, let it be 12 o'clock. Then 7s 6d or 5s ticket holders may be admitted from 12 or 1 o'clock till 4 o'clock, after which time reduce the price of admission by half or a third of this price; this, whilst it would not clash with any one's interests, might aid the exchequer materially. I cannot leave the subject without a reference to one other fact. If the Council definitively determine upon the whole programme as partly set forth, and determine that such only shall be their campaign, we may hope that what has been asserted again and again, concerning the unfitness of "the arcades" for the display of plants and flowers, may be taken seriously into consideration.

It matters not what skill Mr. Eyles may bring to bear upon their arrangement, it will be perfectly beyond his power to make "an effect" in such a place. The large enclosure, within which stands the council-room has been frequently used. It is fit only for a dry dock however, and for the carrying on of piscatorial operations with immunity from the outer elements! How far superior is a small tent, such as is used at the Botanic, for such displays; and might it not be placed at the back of the wall between the large tent and the arcade, with an entrance near Mr. Fox's office, and from the doorway at the top of the Exhibition Road? A discussion on these matters cannot decrease the popularity of the Royal Horticultural Society; hence I have not hesitated to speak freely. *William Earley, Digswell, Welwyn.* [Our correspondent is not the only one who has jumped to the conclusion that the shows are all to be "minor" fortnightly ones. We are not so informed, and have seen no such announcement. The shows are to be both of a "larger and smaller" type, very much, we presume, as they are now, except that the spring shows will be more distributed over the early meetings, and all will take place on meeting days. There will be a "great" Rhododendron show, a "great" Rose show, and a "great" miscellaneous show, but the principle of restriction rather than of extension will be adopted. That is practically all the change that is to be made, so far as we understand the proposition of the Council. The exact amount of change can only be known when the subject is discussed in detail. Moreover, we cannot allow our correspondent to twist our words into any such statement as that the Great International Show was an "incubus," or that "great shows" are necessarily so. We did not say this; but what we have written we have written. Eds.]

The Early Rose Potato.—I bought 1 lb. of seed of this variety from a London seedsman in February last, and they have produced 142 lb. [Wonderful! Is there no mistake?] They are a fine sample, and when cooked are white and mealy. The following is the manner in which they were treated:—The pound consisted of five tubers of equal size. I put them into a vinery, to enable them to push the eyes, and afterwards cut them up into 62 sets. I manured the ground 2 inches thick with the dung from an old Melon pit, and planted them as I dug the ground, 16 inches apart between the sets, and 30 inches between the rows. *N. Castle, Gr. to the Provost of King's College, Cambridge.*

Our Old Timber.—There lately stood, in St. Peter's Road, Croydon, a fine specimen Beech tree, measuring 11 feet in girth. On Wednesday last, at 2.15 P.M., it was caught by the gale and blown across the road on to the roof of a gentleman's house, carrying slates, glass, iron, bricks before it. On examining this relic of the past, as it was being sawn up, I found it decayed in the centre. In one of the main branches I counted 130 rings, and to outward appearance it was perfectly sound, on looking at the butt, which was 14 feet in diameter, as it laid. My object in writing is that attention may be called to our old trees, especially near roads or houses; and that they may be examined; and if in the state this one was, let them be taken down before some one is killed as they are walking along the road. *D. J. N., Croydon, Sept. 15.*

Pot Vines at the Royal Caledonian Horticultural Society.—Your reporter, in his account of the late Exhibition of the above Society remarks, in reference to pot Vines, "that some of them were layered for show purposes." It was clear to the most inexperienced eye that the pot Vine to which was awarded the 1st prize in its class was nothing but a clumsy subterfuge, such as ought not to be encouraged. I need not say it did not belong to me. My friends North and South know me better than to think that the remark referred to my productions. My Vine, which was placed 2d, was *bona fide* a pot Vine, as also were my others which took the 1st prize. I would add that I was disposed to look charitably on this attempt to put half a vinery in a pot and then into a box, when I learned that my opponent was an amateur, who stood in need of a little practical experience, and a hint as to what is uniformly understood among gardeners as a "pot Vine." I cast no reflection on the judges; evidently they took the same view as I have done, and seemed anxious to reward toil. But is it not desirable that committees, when arranging schedules, should be guarded as to the wording, so as keep the over logical competitor within due bounds? There may not appear to some the same wide difference between a pot Vine and a Vine in a pot, as there is between a Horse Chestnut and a chestnut horse; and most practical gardeners who saw the plants agree that such must have been the case in this instance. *A. M. Leod, Gr. to the Marquis of Lothian, Newbattle Abbey, Dukesburgh.* Such practices as those hinted at by our reporter, and also by Mr. M'Leod, cannot legitimately be called the "pot culture" of Vines. Eds.]

Foreign Correspondence.

A RUN TO MAHABLESHWAR.—It was evening when the buggy was brought to the door; we stepped in, and drove off towards Poonah. The road leads through gently undulating country, with here a temple surrounded by its Banyan trees and *Plumiera acuminata*, and there a well with its sacred *Pepul* trees. Here a garden redolent with the perfume of the Jasmine and the Rose, cultivated for offerings to the Hindoo gods, and there a field of Bajee, offering its golden harvest. We now cross the Moola Moola, a beautiful river, about the size of the Thames at Kew; the Mango (*Mangifera indica*), the Asok (*Jonesia Asoca*), and *Casuarina muricata* fringe its banks. Here is another temple, and as we pass the delicious perfume of the flowers of *Carica Papaya* salutes us. We reached the Post Office, and getting down, we sent the buggy home,

and proceeded to look round the establishment, which is a commonplace looking bungalow with a verandah all round, and a large clock in the centre, which says, with gravity enough, if not wisely, "it is 10 o'clock!" Two mail gigs are in front, a little stronger built perhaps, but on the whole the same two-wheeled, red-painted mail gigs so common at home.

The fellow in the turban has given the order, "Bring forth the horse;" "Horse" we repeat, as four skittish-looking ponies are led up. What are we going to drive tandem? They are only one-horse gigs, but one is put in the shafts, and another on one side. So we say, "O! we are to have three ponies;" but no, we are requested to get up, and on inquiry find we have got our complement of cattle, and that this is the usual way of buckling-to. While wondering what the Post Office authorities meant by such a fancy arrangement, Jehu advises us to look out, the ponies' heads are let go; when the wheeler, rising on his hind legs, springs off, but his outside brother considers there is something wrong, and putting down his head, declines to proceed. After much pushing, coaxing, and whacking, the poor brute starts off. "The post's shrill horn re-echoes through the air," and on we go; the Christians' church, the Hindoos' temple, and Islams' house of prayer, are soon looming in the distance. Again the driver winds his horn, and we pull up at a changing station, after a run of six miles; here fresh ponies are put to.

It is now September, and the native grains may be seen ready for cutting, together with Wheat and gram just coming through the soil. Just as the sun's light tinges the East we stop, and the driver, saying, "Yea kowta hie, sahib," warns us we have reached the foot of the Mahableswhar hills, the principal hill station of the Bombay Presidency, and henceforth we must find some other conveyance. As we had been working all the previous day, and riding all night, we determined to have some rest, and turned towards the travellers' bungalow, an institution of which your stay-at-home readers can have but at least a far-fetched idea. Well, the Government of India, for the benefit of all who require to travel, has built, at a distance of about 20 miles along all the post roads in India, bungalows in which the weary traveller may rest and find protection from the sun's rays. In all the more important ones a messman may be found, who can provide at least the necessaries of life, and sometimes a few of its luxuries, all of which he is obliged to sell according to a list on the wall signed by the magistrate of the district—an arrangement which, I dare say, would find favour with some in more countries than India. We entered the bungalow, and having divested ourselves of our outer garments, and told the messman to inquire after a pony that should be waiting, and to have breakfast ready at 8 o'clock, we went to rest. Rising at the appointed hour, we made a breakfast on tea and fried eggs. By this time a pony was at the door, and we made another start.

As we enter the village of Wye, a few noble Tamarind and soraggy Cocoa-nut trees greet us. Who has ever seen good Cocoa-nut trees away from the sea-coast? At the road-side *Bryophyllum calycinum*, in company with an *Adiantum* and a silvery *Cheilanthes*, give a foretaste of the botanical treasures beyond. We now reached another travellers' bungalow, where we obtained a draught of brandy and soda-water, and a fresh pony. For the last few miles the road has been rising gradually, but now we have reached the hills, and the road winds upwards. Soon we leave the Babul trees (*Acacia arabica*) behind. For a few miles the road winds up the bare hill-side, now and then affording beautiful glimpses of the valley of the Wye. At 10 miles from the foot of the hills we reach Panohgunny. Here Peaches and Strawberries flourish, and we begin to see a few Brackens; soon they become more numerous, and these, with a yellow *Crotalaria* here and there, carry one's mind back to the

"Land of the mountain and the flood,
Land of my sires."

We then passed plantations of Bamboo and *Casuarina muricata*, while a *Curcuma* appeared to enliven the scene with its beautiful white spathes. We are now nearly 1000 feet above the sea, and here is Lingmalla, with the Government Cinchona plantation. It is beautifully situated at the head of a valley down which the small stream flows, and the quinine trees are planted out on small terraces on the hill-sides. Four years ago the plantation was started with 60 plants, and now the number has been increased by propagation to nearly 1000. They are from 12 feet high downwards, and the luxuriant health shown in their fine foliage is delightful to look at, the whole plantation reflects the highest credit on its superintendent, Mr. Gillingwater. The Yeana was then crossed. Its banks are clothed with Bracken, and at the edge of the water beautiful clumps of *Osmunda cinnamomea*, and on the Moss-grown rocks *Cheilanthes tenuifolia* and a small *Asplenium* are seen. We then passed through market gardens, managed by Chinese. Here one fellow has dammed up a small stream and is watering his Potato plot with it. The Potatoes grown here are the finest in India, and are not surpassed by any grown in Europe. Another is planting Strawberries, which yield heavily from February to June; while here is a plot of green Peas in every stage of growth.

These Chinese have been convicts, and are capital garden men—worth two Hindoos. The principal garden tools are a pick, a hoe, and a small weeder, like a miniature reaping-hook if the tool happens to be not quite handy the Chinaman will soon make it so; not so the Hindoo it is a matter of the most profound indifference to him what sort of tool he works with, the oftener the handle of his hoe comes out the better for him, as he can then squat down to replace it. Now we are nearing Mahableswhar, and the scrub, which has lately consisted of a Willow, and stunted *Eugenia*

de Vrij then found that this essence, obtained by distilling the petals of the Shaddock flowers, is identical with the essence of Orange flowers, called Nérol. This conclusion was amply confirmed, when he returned to Europe, by the principal manufacturers of perfumes whom he consulted on this subject, and who declared the essence of Shaddock flowers prepared by him to be identical with the first-rate quality of Nérol. The next question to be solved was, whether the manufacture of Nérol on a large scale in the tropics would be profitable, and he was soon convinced that in Java, where he made his experiments, the local circumstances are such that this manufacture would certainly prove advantageous. Hence it is almost as certain that it could be profitably undertaken in the English colonies where Shaddock trees abound. But besides the essence obtained by distillation of the flowers, there remains in the retort a substance which deserves attention, both from a scientific and practical point of view, especially if Dr. de Vrij's plan of preparing Nérol on a large scale in the tropical colonies should be carried out. If the residue in the still is thrown, while yet boiling, upon a cloth, the clear yellowish liquid which passes through deposits, in the course of a few days, a large amount of yellow crystals. These, on being submitted to various experiments, have turned out to be identical with the substance discovered in 1828, by Lebraton, in unripe bitter Oranges, and called by him hesperidine, the composition of which remains yet unknown. This hesperidine, which Dr. de Vrij has found to be very widely spread in the genus Citrus, is the pure bitter substance contained also in Oranges and Lemons. It can be obtained easily, and in tolerably large quantities, from Shaddock flowers, and appears to be a completely innocent bitter substance, very different from cocculus indicus, picric acid, &c., so that it deserves, perhaps, some attention as a substitute for Hops. In these days, when organic chemistry progresses with such rapid strides, it is not impossible that the substance in question may have been already produced artificially; but this, of course, cannot be ascertained with certainty until its properties and composition shall have been more completely studied. *Scientific Review*

Garden Operations.

(For the ensuing week.)

PLANT HOUSES.

STOVES and all similar structures will now require particular attention in regard to giving air and to keeping off damp; for if the former be not judiciously admitted at this season, both delicate flowers and foliage will damp off in consequence. I have before remarked, that a little heat should always be kept in the pipes during dull periods, more for the purpose of giving greater buoyancy to the air than to afford any additional amount of heat, which will not be required while the average temperature without is not below temperate. The same remarks apply equally to conservatories and greenhouses, &c. Overcrowding of plants should not by any means be permitted, but the air should be allowed free play amongst and throughout all. Those who have hitherto afforded occasional applications of manure-water to *Chrysanthemums* will now do well to withhold it altogether until the flower-buds show prominently, when it may be again be given to them with great advantage. The tying-in of the young shoots of these plants should be proceeded with as frequently as they may require it. The young growths will now become much stiffer, hence a greater amount of caution in tying them will be necessary. Do not crowd specimen plants too closely together, or let them suffer in the least from drought at the roots, otherwise a great portion of the lower leaves will fall off; which not only makes the plants look unsightly, but greatly injures the flowers themselves. Expose such free winter-flowering plants as *Lobelia floribunda* fully to the sun, and give them all the air possible, now that they have made their summer's growth. With the wood thus well ripened they will flower much better a few months hence. Do not pot any after this date. The bright and beautiful Guernsey Lily (*Merine sarniensis*) will now be forming flowers, as also will some few plants at least of *Fallota purpurea*; although its usual flowering period is in May, these will be found very useful for decorative purposes at this season. The former should occasionally receive a slight root watering, so as to somewhat moisten the balls, in which condition the flowers will last much longer. Water should now be partially withheld from such plants of *Gloriosa* as have finished growing and have ceased to flower, with a view to ripening their tubers.

FORCING HOUSES.

Late Fineries, in which Grapes are finally ripening, should have as much air as possible whenever the external atmosphere is dryer than that within the house. A still further reduction of temperature will be advisable in connection with young successional Pines; during cold nights from 65° to 68° will be quite heat enough for them. Continue occasionally to syringe those plants which are swelling fruits in a primary stage with tepid water some 8° or 10° warmer than the temperature of the house itself. Also afford a little air daily if possible. The quantity, which must be moderate at this season, should be judged by the state of the weather without. A mean temperature of about 71° will amply suffice for these by night at this season, the advance by day should be influenced by the warmth of the sun. During moderately warm days it will be possible to admit just a little air, without materially lowering the temperature. This should be given in the front of the house, so as not to create a draught, which would be the case if the back ventilation were opened. By so doing the humidity in the atmosphere and the temperature of the house will be maintained, much to the benefit of

the inmates. Those who depend upon frames or pits, heated by means of fermenting materials, for their supply of Cucumbers, as long as possible into the autumn and early winter months, should now attend strictly to the linings, which will require thoroughly renovating and making up. The plants may be much assisted by giving the soil within the frames a nice surfacing over with finely sifted leaf-mould. Cut away all old and useless stems, and, if needful, give the insides of the frames, and the inner sides of the lights, a thorough good washing, to cleanse them of any filth which may have collected. This will tend to afford the plants more light, which is very essential now that the days decrease so materially. Do not afford air so abundantly; close the lights early in the forenoon, and do not sprinkle the plants so frequently as heretofore. The materials which are collected for Mushroom growing should be placed in a dry open shed, and be made moderately dry by means of fermentation. The beds, which are already made, should be well beaten down, and spawned as soon as a moderate temperature, averaging not more than 75°, can be assured without any danger from fluctuations which are likely to raise it above this. Do not be in too great a hurry to soil the beds over, for if they then fluctuate antagonistically to the well-being of the spawn, there will be less chance for the excessive heat to be given off.

HARDY FLOWER GARDEN.

The seeds of *Ten-week Stocks*, which I recommended to be sown some time since, will now be sufficiently above-ground to be potted off; they might be placed four or five in large 60-sized pots, or pricked off into pans or boxes, as may be convenient. Except during the first few days after transplanting them, when a little shading will be necessary, they are best fully exposed to the outer air and full sun, where they will be imbued with greater hardihood preparatory to withstanding the cold of winter. *Auriculas*, as I have before urged, should be placed under cover of some sort, but even in rainy weather all the air possible should be afforded them. Pot off late struck layers or cuttings of choice *Picotees*, &c.; they will still have time to take root, ready for storing away for winter. Sow seeds of *Lobelia speciosa*, in pans or boxes, to produce young seedling plants, which, being kept through the winter, will afford a better supply of cuttings in the spring than any autumn-struck cuttings are capable of producing. The seeds germinate best when placed out-of-doors beside a north wall, or other similar shady aspect. Sow seeds also of *Intermediate Stocks*, they will then come into flower succeeding those already alluded to.

HARDY FRUIT GARDEN

Strawberry Plantations will still need to be gone over occasionally, with a view of removing all runners which continue to form periodically. This will be found a good time in which to give all established beds of Strawberries a good mulching over with well-decomposed manure. Remove all runners which have become established in pots from off the beds, and in those instances where it is intended to winter them in the pots they are now in, let them, where convenient to do so, be placed forthwith into the frames, pits, or other protection, plunged in some sort of material, the better to protect the roots during sharp weather.

KITCHEN GARDEN.

In hopes that the beautiful showers of rain we have experienced here (in Herts) may have reached far and near, I advise all to proceed with the necessary transplanting of *Lettuces*, *Endive*, *Cauliflower*, and other plants intended to stand the winter. Finally, draw the earth to all plantations of *Broccoli* and *Winter Greens* where not previously done. *Collards* for early winter use would be benefitted by a like operation. Take up and house the main crop of Potatoes where they have become sufficiently ripe for the purpose, choosing a dry, windy day for the process. *Globe Artichokes* should have all old flower-stalks, &c., removed. Where this has not been done, all old stalks should now be cut away at the ground line. This will induce the somewhat exhausted stools or roots to form young growths, which, being perfected before the colds of winter set in, will be able the better to withstand their influence, in fact, entirely dormant stools will not exist through the winter, but will certainly rot away. *H. E.*

TOWN GARDENING.

The *Shrubby Calceolaria* is one of the best bedding plants for towns. It can be easily kept through the winter, and should therefore be propagated at once by means of cuttings. These should be selected from the healthiest plants; only those shoots that now appear without showing flower-buds should be taken. In preparing the cuttings they should be cut off clean at a joint, and be left about 2 inches in length. When thus made they should be dibbled about 1 inch apart in a cold frame, in a compost, consisting of four parts of sandy loam and one of rotten dung. Here they may remain until spring. They should receive as much air as possible consistently with due avoidance of the ill effects of frosts, and have as little water afforded them as is consistent with their requirements. The varieties that have done best with me this summer are *Aurea floribunda*, *Prince of Orange*, and *Compactum*. In the absence of a substantial garden frame they may be kept very well in boxes, about 9 inches in depth and 1 foot in width, filled and planted in a similar manner to the above, as these can be lifted in and out of doors according to the state of the weather. By these means nice little bushy plants may be obtained for next season's planting. It is the wish of most persons who have not a greenhouse or frame, to preserve through the winter those plants which they have grown during the summer. To obtain this various methods are adopted, such as hanging them up by the heels in a dry cellar, keeping them in a dark room, and burying them in sand. All of these methods

I have tried; but the one I have found to succeed best in keeping *Fuchsias* and *Pelargoniums* is to take them up at once out of the borders, and lay them in by the heels in mould in an outhouse. Then leave them until November to gradually dry off. This being done, I cut off all the young shoots and leaves, and bury them in a large wooden chest, in fine ashes that have never been wetted. By these means I find that they retain their vitality much longer, and break into growth quicker when taken out in spring. *J. D.*

STATE OF THE WEATHER AT CHISWICK, NEAR LONDON, For the Week ending Sept. 15, 1869, as observed at the Horticultural Gardens

Sept.	Moon's Age	TEMPERATURE.							Wind	Rain
		BAROMETER.		Of the Air			Of the Earth			
		Max	Min	Max	Min	Mean	1 foot deep.	2 feet deep.		
Thurs. 9	3	29.733	29.734	74	50	65.0	65	39	S	.42
Friday 10	4	29.376	29.369	71	48	58.5	64	39	S	.24
Satur 11	5	29.482	29.073	70	41	60.5	61	38	S	.70
Sunday 12	6	29.538	29.082	68	49	56.0	60	38	W	.14
Monday 13	7	29.740	29.269	68	50	57.5	59	34	W	.24
Tuesd. 14	8	29.793	29.632	68	55	61.0	58	37	S W	.15
Wed 15	9	29.573	29.374	68	52	59.0	61	37	S W	.02
Average.		29.608	29.362	69.1	51.7	59.9	60.8	38.1		1.91

Sept 9—Cloudy; very fine, showery, thunder, lightning, and rain
 10—Showery, stormy and boisterous; densely overcast.
 11—Very fine, cloudy, but fine, boisterous, with rain
 12—Stormy and very boisterous, boisterous and overcast
 13—Boisterous, exceedingly boisterous, heavy rain.
 14—Rain, overcast, slight rain, boisterous
 15—Very fine, cloudy, but fine, clear brisk wind
 Mean temperature of the week, 29 deg above the average.

STATE OF THE WEATHER AT CHISWICK, During the last 43 years, for the ensuing Week, ending Sept. 23, 1869.

Sept.	Average Highest Temp.	Average Lowest Temp.	Mean Temp.	No of Years in which it Rained.	Greatest Quantity of Rain.	Prevailing Winds.							
						N	NE	E	SE	S	SW	W	NW
Sunday 19	67.3	48.3	56.3	21	0.64 in	4	10	5	2	6	9	4	3
Mon	20	68	41	56	0	45	4	5	6	5	9	6	3
Tues.	21	66.4	43.6	50.0	24	0.50	3	6	3	6	11	7	3
Wed	22	66.4	41.7	55.6	21	0.80	6	9	1	11	6	3	3
Thurs.	23	60.3	45.7	55.9	23	1.21	7	8	3	6	11	6	3
Friday	24	64.1	43.5	54.9	19	0.75	3	9	3	8	13	7	3
Satur	25	63.8	47.1	54.4	21	0.30	3	5	4	7	11	6	1

The highest temperature during the above period occurred on the 25th, 1832—therm 83 deg., and the lowest on the 25th, 1863—therm 27 deg.

Notices to Correspondents.

BOOKS: *Novice*, Thompson's "Gardeners' Assistant," CARNATION *C D & Son*. Quite spoiled.
 CONSERVATORY. *T F* We do not recommend corrugated glass. Light shading blinds will be necessary. It is desirable to plant creepers, and train them beneath the roof. It is also generally preferable to have a central bed planted out, which might consist of *Camellias* or *Rhododendrons*, if designed for a cool house, or *Palms* if for a hot-house. Williams' "Select Stove and Greenhouse Plants" is one of the best books to consult.
 CURRANT TOMATO: *H & C*. There are no grounds for supposing that the new Tomato, *Groselle à Grappe* (*Solanum racemigerum*) is poisonous.
 IMPHEE *W M*. A name given to *Sorghum saccharatum*.
 MALFORMED PEAR: *W Smythe*. Such cases are not uncommon, they show that the edible portion of a Pear is a swollen branch. The true fruit, or core, is here absent. Many cases have been figured in previous volumes, and a full account of such growths is given in Dr. Masters' "Vegetable Teratology."
 NAMES OF FRUITS: *Thomas Webb* *Grappa*: Black Morocco.—*D A* Apples: 1, Duchess of Oldenburg, 2, Sturmer Pippin, 3, Robinson's Pippin, 4, Reinette du Canada; 5, not known. Pears: 1, not known, 2, Urbaniste, 3, Bourré Hardy, 4, Summer Franc Real.—*Charles Lawrence*. Pears: 1, could not be recognised, from the small specimens. 2, *Napoléon*; 3, *Beurré Rance*; 4, *Beurré Rance*; 5, *Louise Bonne* of Jersey; 6, *Gloire Morocco*; 7, *Beurré Diel*.—*M. Lemaitre*: Pear: *Ester Beurré*.—*Lingfield* Apple: *Hawthornden*.
 NAMES OF PLANTS: *B & S* A species of *Loasa*, but undeterminable from specimen sent.—*C G M*. *Tradescantia erecta*. *A Watkins*. *Artemisia vulgaris*.—*W M*. *Phyllis cespitosa*. *W D*. *Ecermocarpos scaber*.—*W B Page*. *Fraxinus heterophylla* and *Quercus Mirbeckii*.—*C B*. *Anomatheca cruenta* *Stanhopea*.
 PANSY: *J C & Co*. *Rosy Gem* appears likely to be a showy bedding variety, of a deep reddish violet colour, but the blooms were much damaged before we received them.
 PASSIFLORAS: *B* *Tiscania mollissima*, *P Baonapricea*.
 PEACHES: *J W Waterhouse*. It is really impossible to say what may be the cause of your Peaches dropping at this season in an unripe state, your trees are evidently much out of health. It seems most probable that they have had an insufficiency of water and nourishment. Peaches ripen very well in the natural temperature of August in the open air. You should keep your houses open.
 PINES AND FIRS: *A Young Gardener*. These may be dried in the ordinary manner; those that are likely to shed their leaves (*Abies*) may be dipped into boiling water before drying. *Thuja* will not require this.
 ROOTS IN PIPES: *H*. Probably roots of a tree, but we are unable to say what tree. Iron pipes are preferable to lead pipes.
 SEEDLING APPLES: *T Burnard & Sons*. Your seedling Apple, which in appearance somewhat resembles a small Golden Russet, is of very inferior quality, the flesh being dry, soft, and with little flavour. It tastes more like fruit kept late in the spring than fresh autumn fruit. We do not consider it, either for its size, appearance, or quality, at all worthy of cultivation.
 VINES: *John J*. It will be perfectly practicable for you to take up your vines in October (which is the best month) and form a new border for them. If the roots are, however, so near the surface as you say, why not apply a liberal top-dressing of good soil, and mulch them and water them well during the summer? The roots of the vines will soon come after the good material, and perhaps receive more benefit therefrom than they would in your new border. If the conditions of your border and the drainage are, however, altogether in a bad condition, by all means renew it. We would also recommend more leaf development and attention to their wants.—*John Waterhouse*. We should not recommend you to water your vines when the fruit is ripe. Keep a dry, cool atmosphere in the house, with plenty of air night and day. A little fire may be applied in damp weather, to maintain a dry atmosphere.
 ERRATA.—In the Report of the Royal Caledonian Horticultural Society, p 96, for "Earl of Strathmore" read "Earl of Strathmore."
 COMMUNICATIONS RECEIVED.—*W M*—*J. D.*—*Thoth*—*A. E.*—*C P*—*J. M.*—*H. F. B. R.*—*A Learner* (next week)—*A. B.*—*Stowkley*—*A. W.*—*F. W. B.*—*L. R. G.*—*J. J.*—*D. T. P.*—*J. A.*

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THE AGRICULTURAL GAZETTE.

1869.—GREEN FOOD SEEDS.—

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THE NATIONAL DOG SHOW.—The TENTH ANNUAL EXHIBITION will be held in CURZON HALL, BIRMINGHAM, on NOVEMBER 29 and 30, and DECEMBER 1 and 2 next.

THE BIRMINGHAM CATTLE and POULTRY SHOW.—The TWENTY-FIRST GREAT ANNUAL EXHIBITION OF FAT CATTLE, SHEEP, PIGS, DOMESTIC POULTRY, CORN, ROOTS, and IMPLEMENTS, will be held in BINGLEY HALL, on SATURDAY, MONDAY, TUESDAY, WEDNESDAY, and THURSDAY, November 27, 29, and 30, and December 1 and 2, 1869.

SMITHFIELD CLUB FAT CATTLE SHOW.—The ANNUAL SHOW OF FAT CATTLE, SHEEP, and PIGS, will be held at the AGRICULTURAL HALL, ISLINGTON, on MONDAY afternoon, December 6, and Four following Days.

SMITHFIELD CLUB IMPLEMENT SHOW.—The LAST DAY for receiving APPLICATIONS for SPARE IMPLEMENTS and MACHINERY, &c., is OCTOBER 1.

THE AGRICULTURAL GAZETTE.

SATURDAY, SEPTEMBER 18, 1869.

MEETINGS FOR THE ENSUING WEEK.

Sept 22 Bucks Agricultural, at Aylesbury. Staffordshire Agricultural, at March. Wetherby Agricultural.

ANIMALS during transit by sea and land are of necessity subjected to much suffering.

How far the hardships which they endure are preventable is the question which the "Animals' Transit Committee" will shortly have to consider, and, if possible, determine.

Public attention has been suddenly aroused by a letter from "T. H.," published in the Times, recounting the sufferings of sheep and pigs in the voyage from Rotterdam to London, and the additional unnecessary pains which were inflicted during the process of landing them at Blackwall.

We can understand that the writer, witnessing for the first time the scene which he describes, would feel too indignant at the ill-treatment which the unfortunate dumb creatures were compelled to undergo to examine all the circumstances very closely; if he had done so, it might have occurred to him that most of the cruelties of which he justly complains it is quite within the scope of existing laws to punish, although beyond the power of any Government to avert. Over-crowding and privation from food and water can be remedied; but, short of teaching uneducated men compassion, what can prevent the "ferocious brutality" to which he refers?

All that legislation can do has been done already, and "T. H." or any other passenger, if he had been so minded, might have set the law in action with good effect against the young sailor and his companions in cruelty.

But after all, what avail single efforts directed against the offshoots of a bad system? There is no lack of cases of individual savageness in the treatment of animals, and any benevolent individual might spend his whole life in offering up daily victims to the provisions of "MARTIN'S

Act." We would undertake that he should never want offenders at all hours of the day—in the open streets, on the wharves, and in the London market—to say nothing of the secret horrors which are, with some sense of fitness, enacted in darkness.

If any good might be gained by making the hair of the people stand on end, we could outvie the Ghost in "Hamlet" with an unfolded tale of animal sufferings; it is enough, however, to assert in plain phrase that from the time the beast leaves the pasture or the stall on his road to the shambles, he is called upon to suffer scarcely remittent pain from the cruelty, or the indifference hardly less culpable, of his human persecutors, whom it is his sad fate to requite by furnishing them with their daily food.

Under the clauses 64 and 75 of the Contagious Diseases (Animals) Act, the Privy Council has power to deal with the subject; and it is satisfactory to observe in the circular, which has been forwarded to us by Mr. TENNANT, the secretary to the committee, that it is proposed to consider—how a sufficient supply of food and water may be provided for all animals brought by sea to British ports, and for all animals carried by railway in Great Britain how animals may be protected from unnecessary suffering, whether in consequence of overcrowding, or from other causes, during their sea-passage from ports abroad to ports in Great Britain, from ports in the United Kingdom to ports in Great Britain: also during their landing, and throughout their inland transit.

The committee, consisting of the Clerk of the Council, the Deputy Chairman of the Board of Customs, the Permanent Secretary of the Board of Trade, and the Secretary of the Veterinary Department (with Mr. TENNANT as Secretary), invite the aid of all persons who have special knowledge of the subject; and there is no doubt that a mass of evidence will be obtained, which will be of the greatest assistance to the committee in framing the report, which is promised on or before the 1st November next.

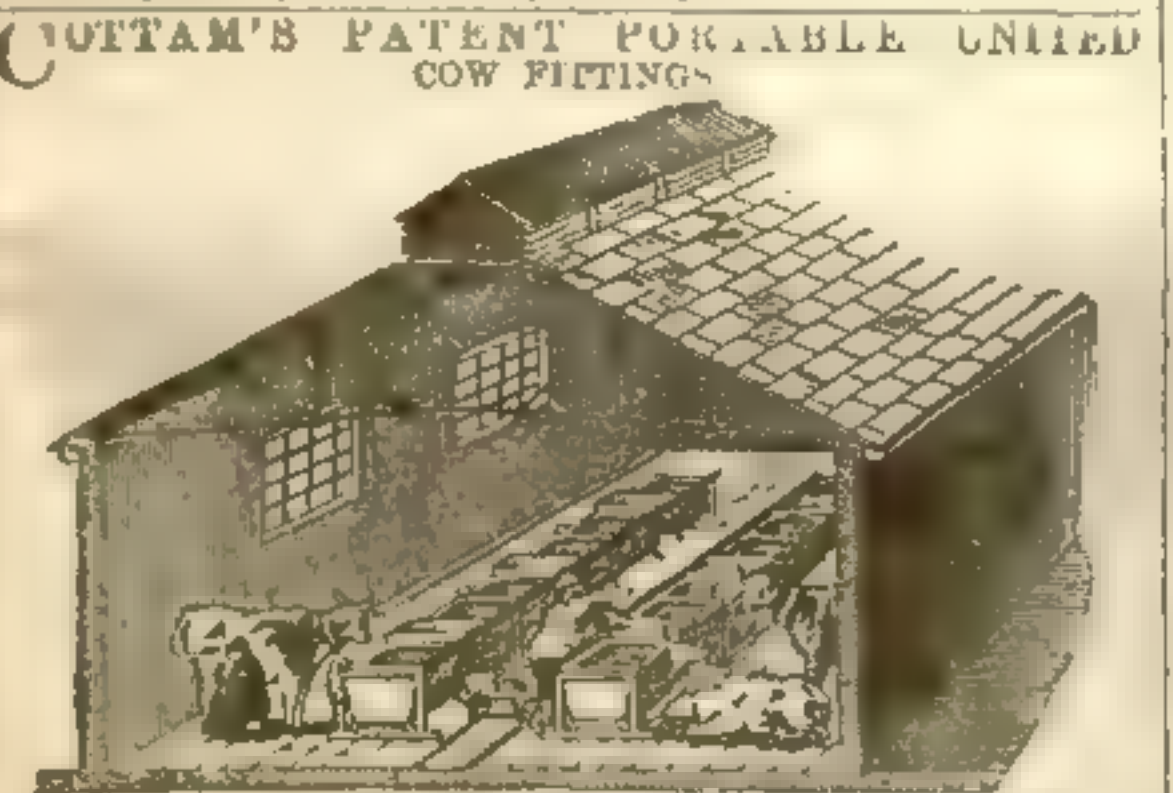
We have no desire to anticipate the conclusions at which the committee may arrive from the evidence submitted to them, but we may be permitted to suggest that no half measures will effect what is desired; to carry out the propositions which are implied in the questions referred to the committee, will necessitate entirely new arrangements for sea transit and considerable modifications in these for conveyance by railway.

Proper accommodation for animals on board ship and in railway trucks, is the first point to be settled; when animals are huddled together in a heap, or tied close to the vessel's side, feeding and watering are impossibilities. There is no very great difficulty in the way of penning sheep, and tying cattle in a truck, or on board a boat, so as to allow them free use of their heads; but the expense will be no trifling matter, because the adoption of such a system means neither more nor less than providing a stall for every two oxen and a pen for every dozen sheep, with appliances for the reception of food and water. This, we apprehend, is an outline of the plan which will have to be carried into effect. The details are of minor consequence. How and when food and water are to be given, are questions which may be definitely answered after a few experiments; but we contend that all such experiments are out of place until means have been devised for placing animals in a position in which they shall be enabled to keep their feet and breathe freely, and shall neither be stewed in their own steam nor alternately scorched in the sun's rays and drenched with the waves. Having provided for the comfortable location of animals during transit, the easiest method of supplying food and water need not require much consideration. In cattle ships, troughs and portable racks of net or wood might readily be arranged round the pens, and at a convenient part of the stalls; in reference to railway trucks the plan of hanging on troughs when the train is stationary at a siding seems to be more convenient than the employment of troughs attached to the trucks; food on railway journeys is of less consequence than water, but there would be no difficulty in supplying hay to those animals which might require it at the same time.

Infliction of unnecessary pain, in wantonness or ignorance, cannot, we repeat, be provided against by Privy Council Orders, and if their lordships succeed in providing comfortable quarters for animals in transit by sea and land,



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we must be content to leave the rest to the advance of that liberal education which we are told "softens manners and suffers them not to be fierce."

THE great advantage arising from REAPING CORN by MACHINERY appears now to be universally admitted. The rather light crop of straw of the present year has been favourable to cutting by applied horse-power, and the practice has been nearly universal. In every field, on large farms and on small, where harvest was progressing, the familiar "rattle and ring" of the back or side-delivery machines has been heard. "Where on earth have all the machines come from?" is a question that at once springs to the lips.

We are old enough to have seen many changes. We have lived through the several ages of the sickle, the scythe, and the reaper. Our earliest memories are associated with tales of shearing contests—stories of "land and band" struggles between man and man, when master and dame, man and maid, son and daughter, went out cheerily every morning to face the "stubborn glebe;" yet with every exertion it took a month to get at the "mell sheaf"—to cut the last white corn. Then came the scythe, with which the top-men did their 2 acres each per day; and by its aid we were enabled to finish cutting in three weeks in favourable seasons. And to "disestablish" this implement has taken years of labour and mountains of capital, which have been required to produce the modern reaper—light, durable, and effective. It has been done, however; and there is scarcely a farm in the best farmed districts of England and Scotland without a reaper, although ten years ago our own simple and efficient Cuthbert was the first to invade the territory in which our own farming interests lie.

Although, however, practice has accepted and fully endorsed the doctrine of the supremacy of reaping by machinery, and the question may be fairly said to be removed from the debatable ground of experiment into that of general experience, still we find it very difficult to get at correct figures as to the actual cost of the operation, much less at the comparative cost of different modes.

The farmer knows that the reaper secures to him many advantages—despatch in the operation, shorter period of harvest, less waste in the tail and the sheaf, less waste on the ground, less rakings, a sheaf straight in the straw, but capable of drying sooner than if strewn, and not so liable to sprout in the tail in wet weather as mown corn; and he has also no doubt—he is, in fact, pretty well certain—that it costs less; but how much he can't exactly tell.

This statement of cost depends so much upon circumstances, exceptional and peculiar to localities and individuals, that he will seldom try to disentangle the account, and ascertain the real cost of his harvest operations by machinery.

As Miss MARTINEAU's model farmer's wife—manager irreproachable, and pattern in most things as she was—could never be coaxed into giving her town catechist a precise statement as to the *modus operandi* of butter making, and the "reason why," because, said she, "it depends"—depends truly upon the 101 incidental circumstances and contingencies which affected the result, and which she knew must be met and dealt with by the hand of experience as they arose—so, in the case of reaping, weather may be uncertain, and time thus lost; the hands may on some days be partially employed at other work; there may be servant boys, servant men, servant maids belonging to the house, who are fed there, and have no harvest wages; there may be also work done by members of the family; there may be men hired into the house and men hired out of the house, and some with rations and some without; there are also in some instances bread and cheese and beer allowed, and in others none, and in some beer without bread: so that the question of actual cost becomes, in most instances, one of calculation rather than of fact; and, therefore, the practical farmer seldom ventures, either in print or conversation, to state the positive cost of reaping by machinery.

Now, it fortunately happens that none of these exceptional circumstances occur in our experience this year. Our whole harvest has been cut by the reaper, and every man, woman, and child has been paid money wages weekly. There have been no men hired with rations, and no yearly servants employed; and no extras have

been given but one pint of beer, and beer only, to each person twice a-day. We are, therefore, in a position to answer the question, What is the actual cost of reaping by machinery? precisely and positively; and that, not for one field, or plot of work, but for the whole crops of an extensive farm, the reaping of which was carried on consecutively through the whole period of harvest. This statement of cost and experience we purpose giving in full detail next week; and we shall be very glad if any of our numerous readers will be good enough to furnish us with their practical experience also. What we want are "facts" illustrative of the subject, and not opinions. Opinion, as we have shown, has given its verdict; and by facts and figures we hope to be able to show that the opinion is correct, and to what extent in the £ s. d. point of view it is so. Our correspondents, therefore, will please to state precisely all the following particulars:—1, The kind of reaper used; 2, Number of days at work; 3, Acreage of crops cut, and what sort; 4, Character of crops, whether light, average, or heavy; 5, Number of men, women, and children employed; 6, Rates per day, and wages paid to each; 7, Total amount paid in wages; 8, Amount paid for ale, repairs, and other incidental matters; 9, Total amount paid for reaping, tying, stooking, and raking the gross acreage; 10, The average cost per acre of the same.

The correspondence which has taken place on this subject between Mr. MECHI and a "Durham Farmer" points clearly to the necessity which exists for ventilating this subject. A friend of Mr. MECHI, writing from Yorkshire, states that he has cut, tied, and stoked, and stubble raked, 12 acres of white Wheat, about 34 bushels per acre, for 51s. The "Durham Farmer" says that it has cost him 107. 4s. to cut, tie, and stook, and stubble rake 12 acres of Wheat, about 40 bushels per acre; and Mr. MECHI, in rejoinder, fixes the cost of reaping the acreage of Wheat upon his farm at 6s. 9d. per acre!

That three practical men should gravely state the cost of a simple operation in the art which they profess to practise, at 4s. 4d., 17s., and 6s. 9d. per acre respectively, seems extraordinary. To adopt these figures as facts, to say that the varying surrounding circumstances produced the difference in result, would be to accept a glaring paradox; one, or other, or all of these figures, are erroneous. The real cost and the operation of reaping, measured by the amount of physical power expended in the operation, and not by the money paid by contract, which may vary greatly, is pretty nearly alike in all districts. It may, owing to the co-existent influencing circumstances, as we have already shown, be difficult in many instances to arrive at the correct figure absolutely, but still it may be done actually in some cases, and approximately in others.

Anyhow, though we do not hope to be able to reconcile the anomalous results alleged above, we trust to be able to state such facts regarding the actual cost of reaping by machinery that it shall no longer be left in doubt.

— THE Corn trade throughout the country has been in a state of inactivity during the week, at no appreciable alteration in previous prices.—Over 5000 beasts on Monday lowered prices, except for very choice qualities; and all other kinds of animals, and the supplies at the meat market, participated in the reduction. A slight recovery took place on Thursday.

— Mr. W. BRIDGES ADAMS has published a suggestive and instructive letter on cattle sea transit. His remedy for all the evils connected with it, which are not absolutely wilful, is to get rid of sea-sickness; and the following is his plan:—

"There is a process for getting rid of sea-sickness, and only one that we as yet know of—namely, overpowering great waves by a larger structure. The Great Eastern does not pitch in consequence of her great length, but she does so in virtue of her unsustained centre, and this, which we may call 'thwartship pitching,' is the cause of sea-sickness. We want, then, for Channel transit, a vessel, with considerably more breadth of beam, and a keel, with a larger displacement and a reduced draught of water, and high enough out of the water to allow the waves to roll along her sides without breaking in board. Her great breadth preserving vertical steadiness, her sides parallel throughout, and the bottom rising at the ends to skid the water; and her mode of propulsion, whether fast or slow, must be different from anything that has yet obtained. To the water level, her sides and bottom should be cellular in a triple thickness like a beehive, the outer cells packed solidly with tenacious cement, and the whole structure up to the water line a closed air case similar to a life-boat, rendering her perfectly unsinkable, as she would be incombustible by reason of her metallic structure. Above the enclosed water line she would be divided vertically into four decks with open space throughout, giving perfect ventilation from end to end. The lower deck would belong wholly to the engineer and his assistants at 1 fuel, with a strong current of air keeping it perfectly cool and carrying off the waste gases, making it as comfortable as wholesome as a wide city street. The two next decks would serve for sheep and cattle, and the upper decks for passengers, fruit, and

vegetables. The whole of the decks would be accessible from either end without ladders, stairs, or ladders, by floating landing stages corresponding to the decks. There is no difficulty in the matter. It is simply the Bermuda Dock enlarged into a more convenient form, and made self-moving, and capable of bringing 10,000 head of cattle, or a London weekly supply, in a single trip, walking out at one end from the Continent, and walking out at the other end at Thames Haven, on a moving bridge or ferry.

"With such an arrangement," he adds, "a new class of commerce would grow up. Farmers and gardeners and small traders would ship and receive by their own commodities, giving no trouble to the shipowner, and with out in any way interfering with the comfort of the pleasure passengers, and at a minimum rate of cost in transit. Cattle would come in any quantity, and with as little fatigue or deterioration as walking about a farmstead, with no loading or unloading save that supplied by their own limbs, and with water and food, keeping them in the condition fit for slaughter on the landing. If it can pay to bring live cattle from Buenos Ayres in sea-sickness vessels, with risk of loss by storms, the saving must be enormous in bringing them without sea-sickness and with no risk from storms. Passengers are, after all, a limited quantity, but cattle, to these islands of limited space and constantly increasing population, are an unlimited quantity, and they seem to be producible in the north of Europe in unlimited quantities. Bringing them hither without sea-sickness solves the problem of their transport. I want distances this steam transport may extend to is a pretty speculation we do not yet know. It is a great, and a difficult storage, a problem we have not yet solved, and the size of the vessel gives a multiplied capacity for fuel. The large vessel can carry a multiplied proportion as compared with the smaller one. A cattle trade in non-sea-sickness vessels from the Elbe to the Thames, the Severn, and the Mersey, would put an end to our meat famine and it is quite possible, as certain as in the case of human beings—that the cattle would improve and get into better condition on the voyage, by better shelter, perfect ventilation, and regular food and water, even though in smaller quantities than their appetites. The vessel would easily carry 1,000 head of cattle. Our possible consumption of beef would exceed two millions of tons per annum, if we could get it, equal to some five millions of oxen. Ten vessels constantly occupied would bring us the whole supply from a distance of 500 to 1000 miles of sea transit. Supposing the cost of each vessel half a million, 20 per cent. interest would be 50,000 per annum. Half a million cattle at 6s. per head freight would give us this three times over, or 75 per cent. from which to deduct working expenses and profits. What, then, are the risks? Not of fire, for the whole is iron-plated, not of rot, for it is to be punched in the bottom of such a vessel, not of sinking, for she would be under command, and be raised by discharging her water ballast, not of breaking up, as vessels of inferior construction do in Dandrum Bay, not of increasing her capacity by taking on she would be absolutely tight, or of shifting her cargo for she would be absolutely steady; and, as to wear, she would probably last 10 years, or till set aside by new improvements and raised again as a donation. There would be no Act of Parliament needed for her construction, and she would not be confined to specific termini like a railway. Her cargoes she could procure from several river ports on the Continent, and she would bring them notably to the Thames. London alone would consume upwards of 500,000 oxen per annum, 1370 per diem."

— Cruelty to animals is just now a prominent public question. For several days the subject has been well ventilated in the newspapers, and many suggestions have been made both in regard to prevention and remedy. Miss BENTLEY COTTIS among others, has not overlooked the objections which have been made, and the discussion, which has ensued, nor has she turned her thoughts idly away; but this noble-hearted lady has added another to the noble efforts which she has made to do good both to mankind and the dumb creatures which are his servants. Miss COTTIS inclines to the advantages of early training in the right way, and she accordingly writes to the *Times* as follows:—"The hideous revelations of your correspondents as to the extent and depth of depravity practised in the foreign cattle trade require something more than superficial remedies. I therefore feel it a duty to entreat public attention to a systematic training among all classes both in principles of humanity towards animals, and in a knowledge of the proper treatment of creatures that we are dependent upon for sustenance and other comforts of life." Miss COTTIS then discusses the importance and interest it is to us to treat the gifts of the Creator with a merciful consideration for their feelings, and concludes with the following suggestions, as being the more likely to lead to a remedy for the evils now so common:—"Such considerations suggest whether a systematic teaching of the absolute duty of man towards the lower animals should not enter into the practical education of all classes. An American gentleman, Mr. Angell, who has done much in this direction in his own country, earnestly pressed upon me to try to form a society somewhat similar to one established in Massachusetts under the name of the 'Ladies' Humane Society.' I promised to do all I could to promote a good object through the only public channel I could hope to influence—that of national school education. But as the present exposure of a serious evil has arisen in your pages, I think I best redeem my promise to Mr. Angell by suggesting through you to all persons engaged in teaching, in whatever rank of life, the President of the Committee of Council for Education, and to the National Society's Board of Education, that some plan should be adopted for inculcating, in a definite manner, principles of humanity towards animals, and a knowledge of their structure, treatment, and value to man. I cannot conclude this, I fear, feebly expressed advocacy of an important object without expressing my surprise that the Society for the Prevention of Cruelty to Animals does not prosecute the offenders on the evidence of the shocking state which foreign cattle present on landing. These must be touching our soil be under the protection of English law, and those who maltreat them fully amenable to the penalties." These views will be endorsed by every well-regulated mind. And now we are on this subject we are pleased at being able to add that notice to receiving the attention which is suggested by Miss COTTIS. Steps have been taken at Leicester by the secretary to the above-mentioned Society, the result of which is, the proper mode of showing fowls in baskets

has been adopted. This is so far satisfactory, and we trust that the barbarous practice now in vogue in bringing fowls from Ireland and Holland will be dealt with as its cruelty deserves and the law already directs.

OUR LIVE STOCK.

Mr. STRAFFORD announces that the Farnley Hall sale is postponed from October 11 until next spring.

A few well-bred Shorthorns, of the Craggs and Lizzy Kirklevington families, will be sold by Mr. Thornton on the 29th inst., at Brockley Farm, Lewis-ham, Kent.

Our readers will scarcely need reminding that the Farnborough sale takes place on Tuesday, when Mr. Stratford will dispose of a large and excellent assortment of Bates' Shorthorns by 11TH DUKE OF OXFORD and other noted sires. The name of the Rev. C. W. Holbech is sufficient guarantee of the excellence of the stock. Farnborough is six miles from Banbury and two miles from Fenny Compton stations.

Last week we gave a brief notice of the Keavil herd. Annie Laurie, by KALAFAT (13,101), a 10-year-old cow, and standing first on the list, was purchased by Mr. Bury from Messrs. Dadding, of Panton, the breeder of her mother, Athess by LAMBERTON (927). She is the ancestress of four heifers and two bulls, by the well-bred Booth sires, BARON BOOTH, HEIR OF ENGLISHMAN, and ENGLISHMAN. Lot 2, Seraphim 13th, by JOHN O'GAUNT, the mother of HEIR OF ENGLISHMAN, was a 240 gs. purchase from Mr. Lawford, of Southcott, and is the mother of two very excellent heifers and a bull calf, PRINCE GEORGE, all by BARON BOOTH HEIR OF ENGLISHMAN is also included in the catalogue. Fan-fan (lot 5) we mentioned last week as a daughter of Faith, sold at Mr. Sanday's sale in 1861 for 255 gs., a yearling bull from this cow, and by BARON BOOTH, will be offered for sale. Anne of Lancaster, a member of the well-known Lenton tribe, is the mother of Booth's Lancaster, by BARON BOOTH and KNIGHT OF LANCASTER, by the same bull. Miss Matchless, by ENGLISHMAN, is a grand-daughter of Mr. Cruikshanks' Matchless 2d, by MATADORE, and the mother of two promising heifers. The last tribe to be noticed is represented by White Nuptial, by ENGLISHMAN, English Heiress, and Booth's Nuptial, all descended from Sittytton stock. The Keavil herd will be sold next Tuesday.

Mr. Thornton has advertised an interesting sale for October 1. The stock will comprise about 30 head of Shorthorns, the property of E. J. Scholuck, Esq. The herd consists of representatives of the Rev. J. Benson's Winifred tribe and the Ulverstone Cressida family. CAMBRIDGE BARRINGTON 1ST (1123) was used for five seasons, and afterwards CROFT (1115), bred by Mr. Peel, of Knowlton were Bulls of the Cressida tribe have lately been in service.

Mr. W. J. October 8, is fixed for the sale of the late Mr. Benjamin Wilson's stock at Brawith. The catalogue includes a list of 20 cows and heifers and four bulls, all of which will be brought to the hammer by Mr. Wetherell at 1 o'clock on the day specified. After a few prefatory remarks upon the high character of the herd, follows the usual list of names and pedigrees, the whole of which may be referred to four families as follows—Vesta 2d, by YOUNG EMPEROR, comes of a tribe long bred at Brawith. She is the ancestress of four well-bred and good heifers. Lot 2, Miss Milward, by FRANK MILWARD (16,079), was bred by Earl Cathcart, and is the mother of three heifers, Blooming Rose and White Rose, both by GLACU, come of stock bred by Sir S. Crompton, Wood End, and have added several females to the herd. Lastly, we find several representatives of Mr. Wilson's Certainty family, descended from a cow by Mr. Crofton's SIR WALTER (2039). After the sale of the Brawith stock, three well-bred Booth bulls, belonging to Mr. Alfred Stable, will be disposed of. These animals are respectively by RAVENSHORN, WINDSOR-FITZ-WINDSOR, and ROSOLIO, and from cows of good pedigrees.

The catalogue of the Shouldham Thorp herd is before us. Mr. Gamble has bred his stock carefully for many years, and has adhered to three or four excellent strains of blood. On looking over the list of animals to be disposed of upon October 6 by the Messrs. Wetherell, we notice Charmer by GOLDFINDER (14,630), and from Certainty 4th, bred by Mr. Wilson, of Brawith. This cow, now 11 years old, is the mother or grandmother of seven females, whose names appear in the list. Next we have a famous old tribe, descended from ORONTES (4623), ROMAN (2561), TRUNNEL (55), and FAVOURITE 252, represented by no less than 11 females and 4 bulls. The Tetura by ORONTES tribe, are also present, boasting a splendid pedigree, beginning with 2D DUKE OF THORNDALE, and extending back to ORONTES, ST. ALBAN'S, SIR OLIVER, TRUNNEL, and previously to two crosses of FAVOURITE (252). This family is represented by Fame by 2D DUKE OF THORNDALE, and her daughters Faintail by FELIX (19,734), bred by Mr. Gamble, and Fairstar by ZEALOT, also bred at Shouldham Thorp. FRAMMALE is his brother to the last named heifer, and is now about seven months old.

We notice, as an addenda to the weekly SHORTHORN INTELLIGENCE in the current week's Bell's Weekly Messenger, a heading entitled HEREFORD NEWS, in which a favourable report is given of the Adforton herd. Why Shorthorns should enjoy such a monopoly of attention has always appeared strange to us, and it is a matter for congratulation that the Hereford men are showing symptoms of greater activity in this particular. It appears that the Earl of Southesk is establishing a herd of the "white faces"

at Kinnaird Castle, and among the animals there assembled will be found Mr. Judge's Diadem, the 1st prize heifer among the 2-year-olds at Manchester.

An exceedingly well got up catalogue has recently been issued by Mr. Thornton, in which the history and pedigrees of Mr. Cochrane's unrivalled stock at Compton, Montreal, Canada, are very concisely given. When we remember the English origin of the stock, and are informed that the 22 Shorthorns have cost Mr. Cochrane on an average 200 gs. each, including expenses, we doubt not that much interest will be excited among the lovers of both Bates and Booth blood. We have duly reported in this column the exportation of the various animals now collected at Hillhurst, Compton, and more than our allotted space would be occupied in attempting to give half the interesting information contained in the 15 pages of the publication before us. Our readers should at once procure for themselves the entire account of Mr. Cochrane's famous herd, by obtaining a copy of this most excellent Shorthorn catalogue. The cattle were selected from Aylesby Manor, Wetherby Grange, Walton-on-the-Hill, Braithwaite Hall, Branches Park, Keavil, Beeston, West Deerham, Butley Abbey, Mr. Barnes' herd at Westland, and Mr. Chaloner's herd at King's Fort, Ireland, and are all singularly well bred and perfect in form. Mr. Cochrane has patronised both the leading strains of Shorthorn blood, and in his herd are to be seen representatives of the Danness, Wild Eyes, Moss Rose, Anna (by Peter), Waterloo, Medora, Frail, Gatter, Silence, and Vesper tribes, &c. We could have wished for a preface, however short, informing us of the general features of the locality, the established breeds of cattle in the surrounding district, and some points regarding Mr. Cochrane's career as an agriculturist, which, we are sure, would have been most interesting. Mr. Thornton has, however, contented himself by sending out, without introduction, his valuable contribution to Shorthorn literature, trusting to it to win its way by its intrinsic merit.

RECENT RAM SALES AND LETTINGS.

Lincolnshires. — Messrs. Salter's annual sale and letting of long-woolled rams and ram lambs took place on Thursday, at Attleborough Hall Farm, Norfolk. The great improvement which had taken place in the flock, and more particularly in the lambs, was a matter of general remark, and was alluded to in pointed terms by several speakers at the luncheon. The shearlings made from 6d. 10s. to 35s., which sum was given for lot 18 by H. Webb, Esq., Cambridgeshire. The average price was 5l. 5s. The lambs realised 5l. 10s., the highest price given being 15l.—The Peterborough New Ram Fair for the sale of Lincolnshire sheep took place on Saturday last. The rams sent numbered, altogether, 474, or upwards of 200 less than last year, and but few more than half the supply two or three years ago. The result was, all the sheep were sold, which was not the case on previous seasons. Mr. H. Cartwright, of Dunstan Pillar, sent 42 rams, the average price of which was the highest on the ground—viz., 16l. 15s. Mr. Looker, of Whitton Manor, Huntingdon, bought a useful sheep for 29l., the highest price given; Mr. Gilbert, of Blankney, one at 26l.; Mr. Willingham two, one at 20l. and the other at 21l.; Mr. Smith, one at 22l. 10s.; Mr. Giles, one at 23l.; Mr. Edward Howard bought a compact good sheep at 22l.; Mr. Wincup, one at 21l.; Mr. Bearcroft, one at 16l.; and Mr. Leeds, two for breeding stores, one at 13l. and the other at 15l. Mr. John Henry Casswell, of Laughton, sent 50, as usual. His sheep, however, were not equal to the weight in a compact form, and the fine condition in which we have previously seen the Laughton sheep. This arose principally from the fact of Mr. Casswell's heavy land and ten farms having suffered extremely from the long drought and succession of heavy rains which have occurred periodically during the last 15 months. The fine quality and form of the Laughton sheep were, however, conspicuous, but this the public will not believe in, unless these conditions are accompanied with upstanding appearance and well-grown greasy fleeces. Last year Mr. Casswell's average for the same number was 17l. 12s. 6d.; the loss which the late extraordinary seasons have caused will therefore be partly understood when we say his average this year was only 11l. 10s. One was let for 21l. to Mr. March, another for 19l. to Mr. Burdett; Mr. W. Wright bought one for 21l. 10s., Mr. T. Wright and Mr. Wyman one each for 15l. 10s., Mr. Wisman one for 17l., Mr. Silverworth one for 17l., Mr. Cooper two, one at 16l. and the other at 17l., and Mr. Rankin bought two for Australia, one at 16l. 10s., and the other at 20l.—Mr. T. Casswell, of Penton, which is in the same district as Laughton, also suffered considerably from the past seasons, and his sheep did not come in their usual size and commanding appearance. Last year the Penton flock averaged upwards of 17l. This year the average is only 13l. 8s. There were the usual number of 50 rams. Mr. Tyrrell, of Eglinton, bought one at 23 gs.; Mr. Rooke, of Wilbourne, one at 31 gs.; Sir Thomas Wichote, of Aswarby, one at 18 1/2 gs.; Mr. Everington, of East Dereham, one at 17 gs.; Mr. Walesby, of Ranby, one at 18 gs.; Mr. Willingham, Norfolk, one at 20 gs.; and Mr. C. Clarke, of Ashby, one at 23 gs.—Mr. J. R. Kirkham, of Audley Villa, had 40 rams, one of which Mr. Griffin bought at 29l.; Mr. Bradfield one at 27l.; Mr. Needham, of Huttoft, one at 34l.; Mr. Nidd one at 15l., and Mr. Vergette one at 13l.—Mr. S. E. Dean, of Dowsby, here made his first appearance in public, the number he brought being 33. One of these was let for 10l. The remainder were sold at prices ranging between 17l. 5s., at which price Mr. Swingle bought a good sheep, and 7l. 15s., the average being the respectable one for a beginning of about 9 gs. The remaining exhibitors sold their lots at prices running up from 5l., the upset price, to 9l. each, for common store purposes.

THE AGRICULTURAL LABOURER.

The following is an abstract of Mr. Botley's paper, read before the British Association at its Exeter meeting.

He said, Whether we take the statistics of Mr. Bailey Denton, Mr. Corrance, or Canon Gardlestone, the conclusion forces itself upon us that the status of the agricultural labourer needs and calls for amendment. Mr. Botley then proceeded to give, from personal observation, his ideas as to remedies, both direct and indirect. Speaking of education, he said that where so many prejudices and conflicting interests unite in opposing education, the State should step in and assert its right of guardianship. He was continually reminded of the necessity of compulsory education. In the matter of education, Scotland was better off than England; and while only one-third in the English army could read and write—99 in Prussia could do so, 100 in 200 in Saxony, and all in Switzerland. The three days per week system appeared to him, by rest, which he had witnessed in the North Surrey and other industrial schools, to possess considerable merit. America, Switzerland, and Prussia, were, he said, examples of the advantages of the compulsory system, and that without those drawbacks which opponents urge against it. He thought it would not be going a step too far were the Legislature to compel landed proprietors in rural districts to build or provide the requisite number of decent cottages and garden ground for the labourers required to work the farm. His advice to landed proprietors was, if they had not the means to build, to raise the money in the same way as, under Act of Parliament, they did for drainage and farm buildings. Coming to the earnings of labourers, Mr. Botley said, "The average of day labourers throughout England is said to be 12s. 6d. per week. To this must be added, in the case of carters and shepherds, the cottage and garden free; but piece-work, such as Wheat hoeing, Grass mowing, sheep shearing, &c., taking the mean at 15s., and add 20 per cent. as the earnings of his wife and children, the gross will be 18s. per week for a man, wife, and three children, to pay rent, buy fuel, food, and clothing. We who know what daily expenses are, may well wonder how, with the most rigid economy, they subsist at all."

Piece-work (continued Mr. Botley) is adopted by the most advanced agriculturists when practicable, stimulating the men to exertion, and inducing a better class of labour; the mind must be brought to bear upon the work—the head going before the hand. Education will tend thereto if it is what it invariably should be—industrial. Speaking of emigration, he said, had the present liberal system in grants of land been adopted years ago, tens of thousands who emigrated to the United States would have gone to Canada instead, and would thus have enriched the territory under the British crown some hundreds of millions. Although not a warm advocate of emigration, he considered it a great boon to many who might suffer here before landed proprietors were convinced of the profitable investment of reclamation, draining, and improving their lands by the well-directed application of labour.

Provident societies and cottage garden exhibitions were advocated by Mr. Botley. With regard to co-operative societies, he thought, if the agricultural labourer could be educated up to provident habits and economy, there would be no lack of respectable tradesmen to ensure the ready-money customer good value for his money. Coming to the second part of his subject, drainage, reclamation of waste lands, higher cultivation, game laws and leases, Mr. Botley pointed out the advantage of drainage, both on account of its sanitary benefit and increased production. The tenant should stipulate as to the game, hedgerows, &c., also as to the lease. As regards the game laws, he said—"So demoralising has their operation been on the agricultural labourer, that they are all but universally condemned, to say nothing of the thousands of acres of corn devastated, and whereon the mower filleteth not his hand, neither he that bindeth up his sheaves his bosom." He had seen a 20-acre field of Wheat so eaten up and poisoned by rabbits and hares, that the yield was scarcely 8 bushels per acre, when, from the excellent cultivation, it ought to have yielded 40. What farmer could stand against such results as these? he asked. With respect to leases, he had never yet heard or read any argument to alter or qualify his opinion in favour of a lease. The law should compel proprietors who objected to let on lease to do what equity and political economy require, and recoup the outgoing tenant for all unexhausted improvements, to be arranged by valuation. In conclusion he said he believed there was an abundance of facts to warrant the conclusion that the agricultural labourer's condition is to be advanced by the more liberal management of landed property. Mr. Botley thus summarised his ideas of improving the condition of the agricultural labourer.—1st. By an industrial education producing temperance, prudent forethought, and economy. 2d. By every estate having a sufficient number of substantial cottages thereon, with land adjoining, to grow plenty of vegetables for a family. 3d. Farms to let on long leases with very few restrictions, and containing a compensation clause for all unexhausted improvements. 4th. All wet strong land to be thoroughly drained. 5th. The immoderate preservation of game to be discontinued, and cumbersome hedgerows grubbed. 6th. Tenants to be selected, not on account of their politics, but as men of skill, capital, and enterprise. 7th. Piece-work, where possible, instead of day-work, the utmost employment given by the farmer, who knows that judicious outlay in labour brings a sure return, realising the desired ultimate—a fair day's pay for a good day's work.

Amongst the remarks made in the debate which follows, Mr. James Bellie rebutted the statement of Canon Gardlestone that the labourers received only 9s. a week, and pointed out that there were extras which raised the sum to more than

15s. He also took exception to some statements made by Professor Levi.

Professor THOROLD ROGERS said that to doubt that the wages of the agricultural labourer had fallen within the last 20 or 30 years would be to fly in the face of facts. In considering this question of wages it was important to take into account the power possessed by the agricultural labourer of purchasing the secondary necessities of life—such as butter, bacon, and cheese. This power had, he held, considerably diminished within the last 20 years. He would put this question, Why is butter 1s. 6d. per pound? Twenty years ago butter in summer was 9d. or 10d. per pound. In towns the prices for these secondary necessities were more uniform than in the country, and in this respect the agricultural labourers suffered. Coming to the question of improving the condition of the agricultural labourer, he touched first on the proposal to encourage emigration. He must confess that he had looked with regret on the fact that an exodus had been going on in England, not amongst the poorer classes, but amongst the most enterprising. Long ago he ventured to predict that the emigration system prevalent in Ireland would be extended to England; but he did not think that the remedy of emigration was likely to meet the case. He thought that farmers would find it advantageous to give their labourers better wages—the latter would then have better food and grow stronger, and consequently be able to do more work.

The Rev. Prebendary SAUNDERS confined his attention to the state of education in the county as shown by the reports of the Diocesan Inspectors. These reports showed that there were 49 parishes and districts in this county, and that out of these 49 there were only 2 which had no schools. There were less than 100 inhabitants each, 25 less than 200 each, and 4 just over 200 each. There were 29 parishes with 11,144 inhabitants which had no schools, or had Sunday schools only, and that represented the neglected districts in this county. He would leave them to draw what inference they liked from that. There was no account of Nonconformist schools. The Rev. Prebendary believed the agricultural labourers were, as a rule, anxious to avail themselves of the means of education placed within their reach. He also dwelt on the importance of diffusing knowledge in order to raise the labourer from his present condition.

Mr. JOHN DAW submitted that agricultural labourers received in the present day wages much higher than those given formerly. He denied Professor Rogers' statement that the wages had fallen. He also questioned the accuracy of the Professor's assertion that there was a decrease in the purchasing power of those necessities—why, the average price of butter was 1s. 6d., and in summer it was 1s. Tea could now be had for 3s. 6d. per pound, and lump sugar, formerly 1s. 6d. per pound, was now sold at 5d. In the price of clothes there had been a similar reduction. Mr. Daw had heard some most astounding statements in this section. For instance, a Professor had stated that there were too many labourers, whereas the real fact was that you could not get sufficient labour. The other day a labourer died in his parish, and he could not supply his place. Then as to yearly hiring, that was quite unnecessary—a good labourer never left if treated properly. Canon Girdlestone lived in an unfortunate part of the county. As to teaching, it was no use shouting above the heads of the people—if the labourers were taught at all, let them be taught "the three Rs," and the fact that there was a parish out of their own division. As to making landowners build cottages, give higher wages, and so on, compulsion would not answer—it must be shown that it was their interest to do so. As for game, he thought it would be well to get Parliament to interfere; the simple remedy would be to make a law that no lease should contain the restriction of not killing rabbits. He certainly did not assent to all that Canon Girdlestone had said, nor yet to all that Professor Levi had said.

The PRESIDENT offered a few observations in closing the debate. He pointed out that it did not follow that because labour was low-priced therefore it was cheap. He advised agriculturists generally to be self-dependent, and not trust too much to legislation. He hoped that inquiry into the question which had been so ably debated would be continued.

SOME REMARKS ON THE ADULTERATION OF SEEDS ACT, 1869.

THE Adulteration of Seeds Act is a short statute of ten clauses, enacted as an auxiliary to existing laws which have failed to control certain evil tendencies of the seed trade.

The following is a summary of the ten clauses referred to:—(1.) The designation by which the Act may be cited, viz., The Adulteration of Seeds Act, 1869. (2.) The interpretation of the terms "to kill seeds," i.e., "destroy by artificial means the vitality or germinating power of seeds;" and "to dye seeds," i.e., "to give to seeds, by any process of colouring, dyeing, sulphur-smoking, or other artificial means, the appearances of seeds of another kind." (3.) "Offences in relation to seeds," viz., "Every person, who with intent to defraud or to enable another person to defraud, does any of the following things—that is to say, kills, or causes to be killed any seeds, or dyes or causes to be dyed any seeds, or sells, or causes to be sold, any killed or dyed seeds, shall for the first offence be liable to a penalty not exceeding 5l., and for the second or any subsequent offence, he shall be liable to pay a penalty not exceeding 50l., and to have his name and residence published in the newspapers." (4.) Any forfeiture or penalty under the Act may be recovered, enforced, and applied in certain ways fully described. (5.) Intent to defraud particular persons need not be alleged, so long as the general intent to defraud is maintained. (6.) Appeal from summary conviction in the English, Scotch, and Irish courts is allowed. (7.) Limits time for proceedings under this Act to 21 days from the time of the commission of the offence. (8.) Court may order prosecutor to pay costs of unreasonable prosecution. (9.) Other remedies not to be affected, i.e., under existing statutes. (10.) Act begins to take effect on the first day of May next.

We are somewhat apprehensive that the lion's share of the good promised will be consumed in the law courts, although the contrary is contemplated by the statute. No doubt under clauses 4, 6, and 8 farmers ought to be able to take care of themselves; but there will be some difficulty experienced in practically complying with the provisions of the 2d, 3d, 7th, and 9th clauses, relative to killing and dyeing seeds, and the commerce of killed and dyed seeds, while the limited time for summary proceedings, and the ambiguous character of existing statutes which the ninth clause enact, shall remain in force.

To destroy by artificial means the vitality and germinating power of seeds is an indefinite expression,

although it obviously refers to the practice of purposely killing, to prevent seed of another kind brairding, such as Charlock seed for mixing with Turnip seed. All the Brassica and Trefoil seeds are liable to be thus adulterated, and the extremes to which the notorious practice of purposely killing is carried has for a long time imperatively demanded the interference of the Legislature. But farmers are familiar with other artificial means by which the germinating powers of seeds are partially or wholly destroyed than those used in this modern practice, such as heating in the stack or granary, kiln-drying, destruction by minute and obscure animals and vegetables; and such seeds may be scoured by mechanical, and dyed by chemical means, and then "be mixed with sound seed, so as to give rise to very great difficulty in carrying into effect the Adulteration of Seeds Act; the seeds so killed, scoured, and dyed being of the same kind, and not "seed of another kind" as designated by the second clause. No doubt the third clause enacts that to sell artificially killed or dyed seeds is a punishable offence, subject to the penalty of 5l. or 50l., but practically such, we are apprehensive, will make the matter rather worse than better. In short, this notorious modern practice of killing and dyeing seeds should have been technically designated by the statute, and an example quoted for practical illustration.

The above remarks apply chiefly to small seeds, such as Clover and Turnip; but it is a well-known fact that the larger seeds, as Wheat, Barley, and Oats, are killed, dyed, and "doctored," in various ways, not only by corn merchants, but by farmers themselves. Kiln-drying, scouring, sulphur smoking and chimney smoking, may be quoted as familiar examples. Now, it is only when these processes are carried to too great a length that harm is done. On the contrary, when kept within proper bounds they often do good; hence the practice is advocated by many. Some kiln-dry only, others scour, a third sulphur-smokes and kiln-dries at one operation; while a fourth smokes in the kitchen chimney, &c.

But this is not all that requires to be said under doctoring. The vitality of both the larger and smaller seeds of the farm may be injured or destroyed by bad weather at the time of flowering; or rather, seeds may never have possessed germinating powers, or vitality may be so weak as easily to be destroyed in the stack, granary, or by the artificial modes of drying now coming into use; or the seed may be perfect, but stacked or threshed out and put into granary too damp, or even into a damp granary or store, and when heating sets in, or moulding, it may then be put through a drying or scouring machine and brightened in the colour by sulphuring, or by some other means, not objectionable, and yet discovered, and sold and bought, not for seed or malting, but for grinding, and yet ultimately fall into the hands of some farmer or seed-merchant who will have seed for little money; or too much heat may be accidentally used in the drying, not intentionally to defraud, and so on. In this way adulteration may be carried on to a very large extent without coming within the provisions of the statute.

It will be found equally difficult to reconcile with the requirements of farm practice as at present carried out in most English, Irish, and Scotch counties, the seventh clause, relative to the limited time allowed for summary proceedings. The clause runs thus:—"Every complaint under this Act, against any person in respect of selling, or causing to be sold, any killed or dyed seeds, shall be commenced within 21 days from the time of the commission of the offence complained of." That something of this sort is needed for the protection of trade may be taken for granted, both as regards the seller and buyer—but selling, or causing to be sold, is one thing, and the delivery and receipt of the seed sold and purchased another, and a very different thing, good seed being often sold, but bad delivered and received. We are somewhat apprehensive, the statute does not make suitable provision for the difference. Those farmers, for example, who are in the habit of buying their seeds, often do so long before the time of sowing, when they are delivered, and if there are more than 21 days between sale and delivery, how is the farmer to know in time to lodge his complaint in court for redress? In this respect the position of the small retail trader is perhaps worse than that of the farmer. Many wholesale seedsmen clear off remainders annually at any price they will bring, in preference to mixing them with the new stocks of the ensuing season. These are purchased by retailers. A portion may be sold that season, but the bulk goes on to the next for mixing or adulteration. It is sometimes smoked and dyed, not by sulphur, but in the kitchen chimney, from whence it comes out brighter and of a richer colour than the new seed with which it is mixed. Hence, instead of stacking the new Turnip seed in August, it is threshed out, mixed with the remainders of the last crop, or two or three crops, as the case may be, and the whole stock well smoked and dyed, in small bags, in the chimney. But much of the old seed, although it looks equally fresh with the new, is killed as well as dyed, and therefore this old practice, which has been followed by farmers and small traders from time immemorial, has become a modern offence, punishable with 5l. or 50l., as the case may be. Must it therefore be given up? Many will answer, "Impossible." True, the seed thus killed and dyed has not the appearance of that of another kind, as meant by the second clause of the statute, but it nevertheless is the seed of one season sold for that of another, and obviously falls under the third clause. Hence a difficulty may arise, more especially should it turn out that the retail trader has unintentionally purchased killed and dyed seed of another kind. We repeat, to meet such practical complications in the seed trade, the second and third clauses ought to have been much more cautiously worded.

There is another kind of adulteration, often worse

than any of the above, that requires notice, viz., the sale and delivery of seed full of the seeds of weeds, so much so, that numerically the latter greatly predominate. It follows that good seed is sold and purchased, but weeds are delivered and sown—alas for the land!—neither killed nor dyed, although in their growth they kill the crop with which they grow. Cases of this kind, we presume, fall under the ninth clause—the law of the past. There are, however, exceptions to the general rule, for many samples of this kind are sulphur-smoked and artificially dyed, &c., so as to bring them within the second and third clauses, and the summary proceedings under the fourth and other clauses of the Act. The sequel need not be told, for the amount of litigation to which such cases may give rise is incalculable.

The conclusion of the whole matter is manifestly this. The above Act to prevent the adulteration of seeds is an important instalment in the right direction, and therefore we accept it thankfully. Good seed is no secondary question in successful farm practice, and the best advice we can give our readers is to grow their own seed—if the land will produce it of the proper quality—and when otherwise situated, to make their purchases subject to common sense and the microscope, in preference to Statute Law—The Adulteration of Seeds Act, 1869, not excepted W. B.

RECENT FOOD ANALYSES.

It has been suggested to us that it would be of considerable service to publish the results continuously being made by our analytical chemist, Dr. Benjamin H. Paul, of 1, Victoria Street, Westminster. These analyses, being made for our own guidance in contracting and purchasing on behalf of our members, are very carefully and scrupulously performed. How far the information they contain is likely to be of public utility, you will be able to judge by this week's report.

No. 1 sample (sent to you herewith) is an article known as decorticated ground-nut cake. It is London made, and the entire production is at present taken by oil crushers for "mixing" (i.e. adulterating) linseed-cakes. The selling price is 7l. to 8l. per ton, so that farmers by buying the article and mixing it themselves can evidently effect a considerable saving over the present plan of buying it as an ingredient in oilcake, sold at 11l. 10s. to 12l. per ton.

It will be seen by the analysis that the cake is very rich in flesh-forming constituents, being one per cent. higher in nitrogen than the best pure Linseed. It is also tolerably rich in starch, and is very clean, containing only 5.30 parts of ash (mineral matter).

On the other hand it is low in oil (fatty matter), and like all nut cakes and nut meals, heavy in woody (indigestible) fibre. The following is the analysis:—

Table with 2 columns: Component and Value. Series B.—No. 2. Fat 7.84, Albuminous material 38.95, Starch, gum, &c. 25.24, Moisture 9.07, Ash 5.30, Woody fibre and husk 13.99. Total of feeding constituents 72.03, Total of other constituents 25.97. Nitrogen per cent. 5.9.

The second sample sent you is a new make of decorticated cotton-cake, just now being introduced from the United States. You will see that it is of an unusually bright yellow colour, and remarkably clean. It is selling at 7s. 6d. to 10s. per ton more than the best makes hitherto known here, and the following analysis would seem to show that the actual value is even greater than the market price (at present 8l. 5s. to 8l. 15s. per ton):—

Table with 2 columns: Component and Value. Analysis of a sample of Decorticated Cotton-cake. Series A.—No. 6. Fat 16.48, Albuminous material 46.80, Starch, gum, &c. 18.12, Moisture 8.47, Ash 8.13, Woody fibre and husk 2.11. Proportion of feeding constituents 81.40, Total of other constituents 18.60. Nitrogen per cent. 7.20.

For purposes of comparison we add Professor Voelcker's analyses for us, last season, of the best decorticated cotton-cakes we could then obtain, and also his analysis of the best pure linseed-cake. We understand that the American farmer eagerly buy up decorticated cotton-cake in preference to the best linseed-cake, and that that is the reason why we receive from the United States so short a supply of the former as compared with the abundant supplies we receive of the latter.

Table with 4 columns: Component, Thick, Thin, and Best pure Linseed-cake. Professor Voelcker's Analyses of year of Decorticated Cotton-cake. Moisture 7.8, Oil 16.26, Albuminous compounds 38.87, Mucilage, sugar, and indigestible fibre 2.81, Woody fibre (cellulose) 9.03, Mineral matter (ash) 7.90. Best pure Linseed-cake 14.4, 11.7, 33.8, 2.8, 8.5, 8.16, 100.00, 100.00, 7.09.

The third sample sent you is a pure American linseed-cake, imported into Liverpool. It is a large thin, flat cake, packed in bags—one of the kind known in America as a "special make" of "city bags." It seems to be almost the only American city-cake now coming into the Liverpool market, and none of the same make comes into the London market. Except that it is pressed too hard, and therefore deficient in oil, it is of rare excellence, being evidently made of the very best Linseed, and so carefully screened before manufactured as to leave less than 5 per cent. of

mineral matter in the cake. The present market value in Liverpool is 11l. to 11. 5s. per ton. I annex analysis:—

Analysis of a sample of American Linseed cake. Series A.—No. 5 (Linseed). Fat .. 10.00, Albuminous material .. 38.93, Starch, gum, &c. .. 26.87, Moisture .. 9.93, Ash .. 4.77, Woody fibre and husk .. 10.00. Nitrogen per cent. .. 6.00

The fourth sample I send you is a London made Palm-nut cake. It will be seen that it is not comparable to Smith's Palm-nut meal in fatty matter; but the latter can only be bought in London at a cost of 4l. per ton (less trade allowance), and as this London made Palm-nut cake can be sold at from 5l. 15s. to 6l. per ton here, it ought in all fairness to be allowed to find its way to the agricultural public instead of the rashy foreign meals, which are the only ones usually in our market.

For purposes of comparison, I annex Professor Voelcker's analysis of Smith's Palm-nut meal.

Analysis.—Series A.—No. 7. Fat .. 9.00, Albuminous material .. 14.70, Starch, gum, &c. .. 36.03, Moisture .. 9.40, Ash .. 3.37, Woody fibre and husk .. 17.00. Nitrogen per cent. .. 3.8

Should you consider these inquiries of public value, I will continue to send them to you from time to time. Edward Owen Greening, Managing Director, Agricultural and Horticultural Co-operative Association, 29, Parliament Street, Westminster.

RELATIONS OF LANDLORD AND TENANT (TIPPERARY).

I HAVE to present a picture of varied outline, complicated in its lights and shadows, difficult to comprehend and interpret. Materially, I have reason to believe the condition of the mass of the tenant-farmers corresponds with that of the country around, which, though not cultivated or improved to anything like a high point, wears, on the whole, a look of prosperity. In this, as in other parts of Ireland, the land 25 years ago was engrossed to a great extent by masses of cottiers, whose intense competition caused rents in many cases to be extravagantly high, and also considerably diminished the proper area of legitimate and remunerative husbandry.

As for the rate of rent, I do not think it high, considering the admirable quality of the land, and its proximity to several excellent markets; and though I have heard some complaints of rack-rents, these instances, I am convinced, are exceptional, and rents are generally paid without difficulty. From a comparison, moreover, of different periods, I am satisfied that the burden of rent on the tenant has been steadily diminishing; and though rents have been gradually rising, I do not think, as a general rule, they are as high as might have been expected.

barrier is raised between the classes connected with the soil, and the natural relations between landlord and tenant are occasionally marred by hardship and wrong. With some not inconsiderable exceptions, and those chiefly of modern date, all that has been done here for the improvement of the land, the draining, enclosing, and building of farmsteads, has been the work of the occupiers, not of the owners; and though the occupiers, during their tenancies, have, of course, received the accruing benefit, they complain that, as a general rule, they have obtained no allowance or compensation. They say, moreover, that in some instances their rents have been actually enhanced in consequence of what they have thus done, and that they are discouraged from improving by a general apprehension of such a result; and though I have not been able to find out well-authenticated cases of such injustice, I have little doubt that some might be discovered.

Home Correspondence.

Steam Cultivation.—In the Agricultural Gazette of December 19, 1868, p. 1326, I made some observations on the above subject, and concluded as follows:—"There is so much that I may be allowed to call a step in the right direction in a traction-engine, that the following questions may not be out of place:—Can a traction-engine be made available for draft purposes? Is it possible to have our waggons or trucks made so as to be drawn by the traction-engine, now picking up the corn sheaves, now carrying out the real 'muck,' made under properly protected yards? Indeed, why should I not be able to call on my friend Hodge, and offer him a lift, both for himself and his 10 quarters of corn?"

"HARVEST CARTING BY STEAM.—During this week a novel use has been made of steam-power on the farms of Messrs. Howard, at Bedford. A steam ploughing engine, which is also used for traction purposes, is now employed in drawing waggon trains of corn. Many farmers who use steam-power for cultivating the land, have thought that if the dormant power in the engine could be used during harvest to facilitate the operations in fine weather, they would be able to reduce the stud of horses at the year round, and thus save their keep, amounting to from 20 to 25 a horse per annum, besides their first cost. It has now been proved satisfactorily that not only the breaking up of the land, but the seeding or drilling can be done most expeditiously and economically by steam.

Is this the first instance in which a traction-engine has been used for harvesting corn? Are you able to tell me? West Indian.

Woolston v. Tiptree.—"A Farmer" in last week's Agricultural Gazette, which nom de plume Mr. Smith of Woolston acknowledges in the Times of the 2d inst., has again brought forward his charge of misrepresentation against Mr. Mechi, in his published accounts, regarding the average price of his W heats sold in the year 1868. Perhaps it is Mr. Smith's impulsiveness of character that prevents his looking calmly and correctly at Mr. Mechi's balance-sheets. Mr. Mechi gives the average price of his Wheat for the year, that is, from January 1, 1868, to December 31, 1868. Now, is it at all surprising that the W heats averaged 63s. 9d. ?—when I find in the London markets quoted in the Field of January 4, that the highest price was 75s., March 28, Essex, Kent, and Suffolk, 66s. to 78s. new, 70s. to 81s. old, June 27, 66s. to 73s. new, 72s. to 74s. old, and the highest on December 19 was 58s. Now, how much of this corn that was on the farm on January 1, 1868, valued at 55s. 6d., fetched these prices?—that it was not all Wheat I am aware, for the balance-sheet says, hay, corn, &c., unsold. Let Mr. Smith again read Mr. Mechi's communication as it appeared in the Agricultural Gazette of February 20, p. 202; he will observe that the W heats there spoken of as selling from 48s. to 62s. were W heats of harvest 1868, and sold between the close of the harvest and the date of his communication in February, 1869. Whatever W heats were sold after January 1, 1869, will be accounted for, in the usual yearly balance-sheet, in,

let us hope, the Agricultural Gazette of 1870. Perhaps Mr. Smith may have found out his error before he showed it, but waited patiently for correction. Another Farmer.

Misrepresentation of Mr. Mechi.—Mr. Mechi says "that Mr. Smith has descended to misrepresentation of facts in the rather odd jumble of matters that constitute his letter." Now, if you will refer to your Paper of Feb. 20, 1869, p. 204, you will find that I supplied to you (under the signature of "A Farmer") the data taken from his balance-sheet, proving that he drew 150l. 6s. 8d. from his tenants' capital, and that the sum of 201l. 16s. represented the sum at which he entered his Wheat as sold at, over the imperial averages at the same period, and that when these two sums were deducted from his gross profit there only remained 218l. 10s. 10d., not enough to pay his rent on the 177 acres, the total of his occupation, at 34s. an acre, by 82l. 9s. 2d. Therefore there cannot be any misrepresentation on my side. Mr. Mechi's 63s. 9d. a quarter for Wheat would not have been the road to the big loaf. The general farmers' 53s. 4d., according to the imperial average from August to December, 1868, is a much nearer approach to it. William Smith, Woolston, Bletchley Station, Bucks, Sept. 13.

Reduced Superphosphates.—As one of the principal chemists in the case referred to in your last, viz., "Bradburn v. Stevens," and the one commissioned by the plaintiff to attend at his place of business to open and divide the noted sample in the presence of his solicitor, I trust you will allow me to append to your able article the following notes:—1st. The distinction you mention between soluble and precipitated phosphates—viz., that the latter is inferior to the former by having lost its power of diffusibility in the soil, but is in other respects equally available as plant food—was pointed out by me at the time in my explanation of the nature of the reduced phosphates, and had not been previously dwelt on. 2d. That for more than 12 months past I have adopted the oxalate of ammonia process in a large number of analyses, as a means of separately stating the precipitated part from the ordinary undecomposed phosphate, and have found the process perfectly satisfactory when employed in the manner fully explained by me in the current number of the Chemical News, Alfred Sibson, 11, Eaton Terrace, St. John's Wood, N.W.

The Farmers' Capital must ever Vary.—I am led to this remark by an unjust charge, that I take from my capital to make up my profits. If this were true, I ought, when my capital is in excess, to add the increase to my profit. But the fact is, that in taking stock (which is the farmer's capital) it must be valued at the then market price for which it could be bought or sold, and this price may vary 100 per cent. or more from the preceding annual valuation. I remember selling my first stack of Wheat after harvest at 44s. per qr., and my last stack (both within the 12 months) at 104s. per qr. At other times the difference has been almost as great. So it is, in degree, with live stock. Lambs and cattle during the drought of 1866 were a drug sacrificed at wretched prices, owing to the absence of food on the 22½ millions of acres of permanent pasture and the deficiency on 10 millions of acres of root and green crops. Therefore the stock-taking is a question affecting capital, and not annual profits. I have heard observing farmers say, Note the various prices at which you sell your Wheat for seven years, and in another column put 50s. annually, and you will find the totals agree. The history of agricultural produce has been, for ages, variability, and so it will continue to the end of time. A farmer is lucky who goes out of his farm when everything is dear, and can afford to wait for another when everything is cheap. He must, however, in the intermediate time live upon his capital, or employ it in some other business, or invest it in funded or other securities. The amount of tillages is also affected by the price of labour and the vicissitudes of weather. J. J. Mechi, Sept. 14.

Game Laws in Scotland.—Any change in the law which should authorise and induce tenant-farmers, generally, to become, in their own persons, killers of rabbits, hares, and other game, as a necessary occupation for their own protection on the farms they occupy, would lead to a very undesirable change in their habits and pursuits, most disadvantageous to themselves. In the same way, any change in the law which should authorise them to appoint other persons to do this duty for them, would lead to unpleasant feelings and differences, and misunderstandings with their landlord without end. It would be easy to enlarge on, explain, and illustrate this part of the subject, especially as regards the innumerable evils certain to be engendered by servants killing game on the land rented by their masters. A landlord would naturally and inevitably dislike to see men with guns and dogs roaming over his estate, while he himself might have abstained from doing so; and even if doing no wrong act, such persons would inevitably raise a belief that they were doing what they ought not to do, and this it would be most difficult to disprove. Such would be the evil effects of any of the changes in the law which were proposed in the last session of Parliament. It is conceived that a different system and scheme would be much preferable, as an abatement of the intolerable nuisance and grievance to which very many, but by no means all, tenant-farmers are now subjected, of which they most justly complain, and for which a remedy must be found. Let the Sheriff in each county in Scotland be ordained by law to select within his county a sufficient small number of discreet and sensible persons, whom he shall denominate game inspectors, or by some better name. Let him be directed and required by law, whenever a case of injury from excess of game and consequent complaint shall be brought before him, to call upon any two of such persons to inspect any farm on which it shall be alleged that an excessive and injurious quantity of game (or rabbits and hares, alone)

For the best Cart Gelding, above 4 years old, that has been regularly worked.—St. R. Robbins, Stoneleigh.

For the best Cart Mare, above 4 years old, that has been regularly worked.—St. J. Tysoe, Rumer Hall.

For the best Stallion best adapted for hunting purposes.—1st, R. C. Naylor, Redmarsh Hall, Northamptonshire, for The Hawk, by Faugh-a-Ballagh, Jam Alhoi Brose, by Orlan to.

For the best Hunter that has been ridden in the past season with the Warwickshire, North Warwickshire, Atherstone, Pychley, Bicester, South Staffordshire, and Quorn Hunts.—1st, J. E. Bennett, H. Bosworth Grange, 2d, St. E. Knott, Fenny Compton.

For the best Hunter, 4 years old and upwards (to be jumped on the ground).—1st, 1st, J. King, Quarry Farm, Rowington, 2d, 5d, S. Cattermole, Buley.

For the best 4 years old Gelding or Filly adapted for hunting purposes, the property of a tenant farmer, farming not less than 100 acres of land, and residing within the limits of the Warwickshire and North Warwickshire Hunts, and to have been in his possession not less than 12 months.—Two entries, on 1st, 2d, prize 10l., withheld.

To the Owner of the best half bred 2 years-old Colt or Filly, the property of, and bred by, a member.—St. J. G. Ledsam, Griffins Brook.

For Mare with Foal at her foot, the property of a tenant-farmer (a member of the Society), best calculated to breed Hunters, the foal to be got by a thorough-bred horse.—St. J. G. Ledsam, Griffins Brook.

For the best Hackney, exceeding 15 hands high.—1st, J. H. Griffin, Barcha Bassett.

For the best Hackney not exceeding 15 hands high.—1st, John Robbins, Warwick.

For the best Pony, above 13 and not exceeding 14 hands high.—St. Edward Petre, Wootton Bassett.

For the best Pony, above 12 and not exceeding 13 hands high.—St. J. Beale, Wolvey Grange.

For the best Bar Pig, of the large breed (except Berk hire), under 18 months' old.—1st, 3l., John Wheeler, Long Compton. Only one shown.

For the best Boar Pig, of the large breed (except Berkshire), above 18 months old.—1st, 3l., A. Umbers, Weston Hall. Only one shown.

For the best Boar Pig, of the small breed, under 18 months' old.—1st, 3l., J. Wheeler, Long Compton, 2d, 2l., R. K. Bassett, Whitley Abbey Farm.

For the best Boar Pig, of the small breed, above 18 months old.—1st, 3l., John Wheeler, Long Compton. Only one shown.

For the best Boar Pig, of the Berkshire breed, under 18 months old.—1st, 3l., J. Spencer, Viller's Hill, 2d, 2s., ditto.

For the best Boar Pig, of the Berkshire breed, above 18 months old.—1st, 3l., John Stanley, Leamington, 2d, 2s., Joseph Smith, Henley in Arden.

For the best Breeding Sow, suckling pigs of her own farrow, and in milk at the time of show, of the large breed (except Berkshire). The pigs to be exhibited with the Sow.—1st, 3l., F. Spencer, Wootton, 2d, 2s., John Wheeler, Long Compton.

For the best Breeding Sow, of the small breed, suckling pigs of her own farrow, and in milk at the time of show. The pigs to be exhibited with the Sow.—1st, 3l., R. K. Bassett, Whitley Abbey Farm; 2d, 2s., Sir J. W. C. Hartopp, Bart., Sutton Coldfield.

For the best Berkshire Sow, suckling pigs of her own farrow, and in milk at the time of show. The pigs to be exhibited with the Sow.—1st, 3l., Sir J. W. C. Hartopp, Bart., Sutton Coldfield.

For the three best Breeding Pigs, of one farrow of 1869, of large breed.—2l., John Wheeler, Long Compton.

For the three best Breeding Pigs, of one farrow of 1869, of small breed.—2l., R. K. Bassett, Whitley Abbey Farm.

For the three best Breeding Pigs, of one farrow of 1869, of Berkshire breed.—2l., Joseph Smith, Henley in Arden.

For the best Sow, of any breed, suckling pigs of her own farrow, and in milk at the time of show.—1st, 2l., John Spencer, Viller's Hill. One entry.

For the best Agricultural Horses.—Mr. J. W. Larkin, Lutter with, Mr. R. J. Newton, Campfield, Woodstock, Huntingdonshire, Mr. H. J. Thurnall, Royston, Mr. L. Percival, Walsingham, Mr. Matthew Savidge, Sarsden, Mr. I. D. Kirkham, Bayswater Court, Ross, Sheep and Pigs Mr. G. A. May, Eford Park, Tamworth; Mr. C. Howard, Bedford, Implements.—Mr. J. Hickon, Dunchurch, Mr. Thos. Johnson, Leicester.

There were several classes of extra stock, cheese, &c., but these were only of local interest.

ROYAL DUBLIN SHEEP SHOW.

AGRICULTURAL meetings of different kinds appear to be becoming as frequent in Ireland as they now are in this country. Their importance, too, is also increasing, for not only do Irish breeders bring larger numbers of improved home-bred stock to compete with each other, but old-established English and Scotch breeders respond to the demand in Ireland for improved animals by taking over specimens of their flocks to exhibit side by side with Irish-bred ones. This rivalry, and the intercommunication which takes place between the authorities and members of societies there and the exhibitors and judges who go from this side the Irish Channel, cannot fail to produce a desirable extension of good-fellowship, as well as increase the business profits and material prosperity of every one concerned. The Dublin Society's Sheep Show, which was held with great success last week, is one of the meetings which is helping to do the good work to which we have briefly referred. The following list of prize-takers will show how honours are now divided between previous purchasers of British stock and the present owners of the flocks from which they sprung:—

LONG WOOLLED SHEEP.

CLASS I.—LEICESTERS. One shear Ram.—1st, Thomas Marris, The Chase, Uxoby, Leicestershire, 3d, same 4th, Wm. Owen, Blisnton. Rams of any other age.—1st, T. Marris, 3d, Seymour Mowbray, Mountrath, 3d, W. R. Meade, Killymarino, Ballinhasang. Three 1-shear Rams, not competing in the foregoing sections.—1st, J. and A. E. Gould, 2d, T. Marris, 3d, W. R. Meade. Five 1-shear Ewes.—1st, J. and A. E. Gould, Poltimore, Devonshire, 2d, T. Marris, 3d, S. Mowbray. Five Ewes, any other age, having reared lambs in 1869.—1st, S. Mowbray, 2d, D. Hewatson, 3d, T. Marris.

CLASS II.—BORDER LEICESTER SHEEP.

One shear Ram.—1st, Robert G. Cosby, Strathally Hall, Queen's County, 2d, L. H. Bland, Q.C., Blandford, Queens County, 3d, same. Rams of any other age.—1st, L. H. Bland, Q.C.; 2d, same, 3d, R. G. Cosby. Three 1-shear Rams, not competing in the foregoing section.—1st, L. H. Bland, Q.C.; 2d, J. & G. Laing, Cornhill, Northumberland; 3d, same.

Five 1-shear Ewes.—1st, L. H. Bland, Q.C.; 2d, J. T. Riddell. Five Ewes, any other age, having reared lambs in 1869.—1st, L. H. Bland, Q.C.

CLASS III.—LINCOLN SHEEP.

One shear Ram.—Caleb Goug, Traverston, Nenagh, 2d, same; 3d, same. Rams of any other age.—C. Goug; 2d, same; 3d, same. Three 1-shear Rams, not competing in the foregoing section.—C. Goug. Five 1-shear Ewes.—C. Goug. Five Ewes, any other age, having reared lambs in 1869.—C. Goug.

CLASS IV.—LONG WOOLLED SHEEP.

(Not qualified to compete in the foregoing classes). One shear Ram.—1st, Thos. Roberts, Barn, Strakestown, 2d, R. Coffy, Newcastle, Killiam, 3d, T. Roberts. Rams of any other age.—1st, T. Roberts, 2d, same, 3d, same. Three 1-shear Rams, not competing in foregoing section.—1st, W. Cotton, 2d, R. Coffy, 3d, T. Roberts. Five 1-shear Ewes.—1st, W. Cotton; 2d, C. Cotton. Five Ewes, any other age, having reared lambs in 1869.—1st, R. Flynn, Tuisk; 2d, W. Cotton; 3d, R. Flynn.

SHORT WOOLLED SHEEP.

CLASS V.—SHROPSHIRE SHEEP.

One-shear Ram.—1st, C. W. Hamilton, Hamwood, County Meath, 2d, same; 3d, T. Marris. Rams of any other age.—1st, T. Marris, 2d, C. W. Hamilton. Silver Medal to the Executors of the late J. Richardson, Silverdale, Leicestershire. Three 1-shear Rams, not competing in the foregoing section.—1st, C. W. Hamilton; 2d, same; 3d, the Executors of the late J. Richardson. Five 1-shear Ewes.—1st, the Executors of the late J. Richardson, 2d, same. Five Ewes, any other age, having reared lambs in 1869. The Executors of the late J. Richardson.

INVERURIE.

Breeding and Rearing of Sheep.—A practical and seasonable paper was recently read on the above subject by Mr. BRUCE of Lightfoot, before the Inverurie Agricultural Association. Owing to the great length of the paper we can only give the following extracts, which will no doubt be interesting to English and Irish as well as Scotch farmers:—

Although my experience has been confined to the pure Leicester, I believe that, whatever may be applicable to this breed will hold good in the case of all the others. Blackfaced Highlanders are altogether out of place on our enclosed farms. Accustomed to seek their food over a wide range of country, their instincts lead them to be always on the move; and whenever cribbed and confined they waste nearly as much Grass with their feet as they eat, especially in wet weather, to say nothing of the difficulty of keeping them from breaking the fences. These I would discard, as being unprofitable to the farmers in this district, unless when eating Turnips on the land, enclosed in nets. In this case, you all know, they are first-rate fertilisers on their soils. Although unwilling to give an opinion, still if the question was directly put, "Which of the several breeds do you consider best adapted for our purpose?" my answer would be, a well-bred animal. Considering the value and beauty of well-kept fences, the annoyance and loss that fence-breakers are to the farmer of tidy habits, the well-bred animal will be found the most profitable in every respect. Being of milder disposition, they are seldom fence-leapers; if properly trained, they don't consume any more food, if even so much, nor do they trample the Grass one-half so bad as their more restless brethren, while you have a larger carcass, earlier maturity, more and finer wool, the most prolific, and, in general, the best of mothers.

Preparation of Ewes.—The condition in which the ewe ought to be before and while going with the ram, is of much importance, for let me say that you have the matter pretty much in your own hand, whether your succeeding crop of lambs are to be many or few. Bear in mind, however, that the best treatment for the ewe is not the most suitable for the gimmer; for instance, a ewe, if very fat, if she breed at all, will seldom produce more than one lamb, and often proves a sorry nurse besides, whereas a gimmer in first-rate condition will not only breed more readily, but, in general, will be more prolific, and a good nurse as well, while a gimmer in low condition and badly wintered, in most cases, will produce but one sickly lamb, and that seldom will be found a paying animal. The ewe at this season should neither be fat nor too lean, but simply in a thriving condition, and nothing conduces so much to this as a run of nice sweet Grass, in a field where no sheep have been during the season. When this is not available, a few Turnips or Cabbages, or even Turnip-tops, scattered daily over the field, will have a similarly good effect.

On Rams.—Here let me say that now-a-days one does not so often come across the mongrel that was but too commonly met with some time ago—the brute with the big, ugly head, long slender neck, narrow chest and loins, flat ribs, hard bare back, with the twist culminating at the tail, standing on long, bare, bent legs, and carrying a light fleece of inferior wool. The produce of such an animal will invariably prove a nondescript, and but rarely a first-class butcher lamb. The male in every case ought to be superior to the female. What, then, are some of the leading points needed to constitute a good ram? The following, in my opinion, are a few of them. First, purity of blood, fine head, clean jaws, large bright eye, and thin ears, well set on muscular neck, not too long or too short; broad shoulders, and placed so as to allow the head to be carried as it ought to be, and to walk properly; wide, capacious chest, with a breast like a swan, ribs round as a barrel, broad loins, straight and mellow-handling back, square, and plenty of mutton above the tail, twist down to the hock, long carcase, and clad in a mantle of pearly, lustrous wool, reaching down to the knees. The progeny of a ram having these characteristics, and a well-bred equal lot of ewes, ought, with proper management, to turn out what (in shepherd

phraseology) is called a lot of tops. During the time that the ram is amongst the ewes they should be looked through once at least every day, by this means you are enabled to note the several ewes as they run.

Before Lambing.—After the ram has been removed, the ewes, unless there are too many of them on the land (and it is always more profitable to have ten too few than five too many), will require nothing in open weather but what they pick up, farther than being shifted from one field to another now and then, until within two or three weeks of lambing. Should, however, bare hard frost or snow intervene at any time, in that case hand-feeding of some sort must be resorted to, else dire results will follow. Now, I have observed that the custom, too much in vogue at a season of this kind, is somewhat after this fashion: a wisp of straw is laid on the ground, or else stuck in a heck, and a lot of Turnips spread on the field. Now, gentlemen, I consider this both a wasteful and cruel practice. The straw on the ground, or in the heck, very often with a ricketty covering, gets soaked through with the very first shower of sleet or snow, and in this state they positively will not eat it, unless compelled through sheer hunger. Again, when Turnips are spread on the ground when it is covered with frost or snow, they soon become, if not so before, like lumps of ice; so hard, indeed, that young sheep shedding their teeth, or old ones with few or any, can no more penetrate them than they could a stone. Now, if this be a true picture, let me ask what effects a two or three weeks' dietary of this kind would likely have on the two classes mentioned? There can be but one answer, and that a most unsatisfactory one.

Economical Feeding.—Our practice hitherto has been (and we don't mean to change it), whenever hard frost sets in, or a fall of snow, to have a lot of short wide troughs looked out, and these are placed one here and one there in a small well-sheltered field near to the steading, in which stands a roomy well-aired shed, and here the ewes are brought at once, whenever a change in the weather takes place. I have said that our troughs are short and broad, and that they are placed pretty wide apart from each other. You will have noticed that, whenever a lot of ewes are feeding out of a long trough together, they press and push against each other, so that any one heavy in lamb is very apt to be injured. A short trough entirely prevents this. By having to feed standing as it were in a circle, they cannot press one another unless it may be at the shoulders, while the wideness at the trough prevents the food being pushed over the side and wasted. The troughs being set pretty wide apart, there is less crowding, and by being shifted every second day poaching is prevented, and droppings spread more equally over the land. Having experienced long ago that Turnips, more especially if given *ad libitum*, is the worst food possible for pregnant ewes, we have used the following mixture instead, viz., Oat chaff and cut hay or straw, adding a few light Oats at the rate of 1/2 lb. to each, or, better still, a similar quantity of cotton or rape-cake dust, and slightly damping the whole. This mixture, given without stint, straw in a heck under cover, a lump or two of rock salt to lick, and access to water, will keep ewes in first-rate condition without any Turnips up to within two or three weeks of lambing. The chaff ought to be damped for the following reasons—If dry, it tickles the nose and throat, and causes coughing, and when cake dust is used, it falls to the bottom of the trough, and the mixture on that account is not so readily eaten, while the cut hay, by acting on the muscles of the stomach, enables the oily chaff to be more easily cudded. The following is a very good method for preparing the mixture for those who have not a cake-bruiser.—Get a water-tight barrel, of a size suited to the number of your ewes. Suppose that there are 50 ewes, and that each is to get 1 lb. of cake a-day, in that case weigh 50 lb. of cake, and break it as small as possible with a hammer; put it into the barrel, and then pour over it four or five pailsful of water, if hot so much the better; then stir it up with a stick, and let it stand until next day, by which time it will form into a nice sweet gruel; put your cut hay and chaff on a wooden floor, and pour the gruel over it, mixing it thoroughly with a fork, giving one-half of the mixture in the morning, and the balance at night. Should any one remark, however, that this would be an expensive and troublesome process, such will please bear in mind that this mixture is only given at a time when the ground is covered with frost or snow. With rape and cotton cakes, at 7l. per ton, 1 lb. a-day to each ewe amounts to 5s. a head per week—no great outlay surely, to say nothing about the land being enriched at the same time, as it always is when sheep are fed on cake. A week or two before the first lambs are expected to drop, those ewes marked to lamb first are withdrawn from the others, and placed in a small field beside the bught, and into which they are put every night. To these we give a few out Turnips, gradually increasing the quantity, along with cut hay and a little cake, until the lambs are dropt. By this means they become accustomed to the change of food, which increases the flow of milk, and get familiar with the person going amongst them; and as the average time that the ewe carries the lamb is 145 days, counting on this, and noting other indications, coupled with the payment of a 6d. to the attendant for every living lamb, such a thing as a dead one is rare indeed. When the ewe is lambing, pray don't hurry matters.

After Lambing.—I would strongly recommend keeping the whole of the ewes that may be lambing in a roomy place by themselves for some time, as, when they are allowed to mix with the flock, the lambs are very apt to be trod upon, and seriously injured. Be very careful, however, not to nuzzle too many together, as they get overheated, causing the wool to shed, besides disposing the ewe to catch cold, or inflammation of the udder. Those who breed butcher lambs,

and who may wish to dispose of them early, should give them a little oilcake. If finely ground down, they will begin to eat it when only a few weeks old. To prevent the ewes eating the cake, put up four or more flakes in the field, forming a square, leaving one or more openings of sufficient size to admit the lambs only inside the flakes. Place whatever troughs you may require, these, however, must be covered so as to keep out wet. As the lambs won't eat the cake if it be the least damp, give them very little at first, increasing the quantity to $\frac{1}{2}$ lb a day each—with this little extra, good Grass, and clean skins, they will thrive amazingly. Should it be intended, however, to keep the lambs on through the winter, and sell them fat after being clipped in the spring, the little cake given through the summer will be of immense advantage; in the first place, it will enable them to tide over the weaning period nicely, and, by giving them a good start, will facilitate the fattening process very much afterwards; and here allow me to make a few remarks as to what I consider is the best method of carrying on the feeding operation during the autumn and winter. Say your lambs have been getting a $\frac{1}{2}$ lb. of cake a-day each from 1st of May to 1st of August, at which date they ought to be weaned, this gives 13 weeks exactly; during this time each will have consumed 21 lb. of cake, which, at 11 $\frac{1}{2}$ 10s. per ton, will amount to 2s. 6d. a head. Speaking from experience, I would debit the land with one-fifth of this sum, so that the net outlay per head for three months would amount to 2s. The lambs being weaned they should get a bite of nice Grass, and, if possible, in a field where no old sheep have been during the season, and the cake continued; and once the fields are cleared, let them get a run of the stubbles. Whenever the Grass is gone and the weather breaks, have them put under cover, so as not to allow them to retrograde in the least. By putting them under cover, I don't mean that they should be closed up like cattle; all that is needed is simply a wooden erection in the most sheltered corner of some grass-field; and provided the roof be kept water-tight, anything will answer for lining up the sides.

(To be Continued.)

Reviews.

The Journal of the Royal Agricultural Society of England. 2d Series, Vol. V., Part II. John Murray.

The Part just issued by Mr. Jenkins has for its leading feature a considerable number of very well-written reports of noteworthy farms. Agricultural readers are best taught, and most likely to be satisfied, when the practical farmer is their teacher; and a fairly drawn picture of successful farm practice is the best sort of agricultural lesson. There are a number of capital lessons of this kind in the present volume. Some of the most energetic and best-known agriculturists of the day are thus pressed into the service of the Society, and their practice and experience plainly and simply described by Mr. Dixon and Mr. Jenkins with no doubt pique many a student into rivalry and effort. Some of these pictures of English farm practice we may from time to time transfer to our columns. Dr. Voelcker presents us with an exhaustive treatise on Beet-sugar and the cultivation of the Sugar-Beet. Mr. Evershed writes a report on the agriculture of Staffordshire. Papers on the improvement of grass-lands—on the retention of moisture in arable land, and on the production of successive green crops, are contributed by three practical men—Mr. Cadle, of Gloucester; Mr. Vallentine, of Leighton; and Mr. Chambers, of Derbyshire. There is a portion of the annual report to the Veterinary College by Prof. Simonds, and there are reports of the Implement and Cattle Show at Manchester. The whole makes a capital volume, containing more than the usual proportion of good practical information.

Of the Manchester reports it must be said that the account given of the live-stock is, as usual, very meagre, and that of the different classes of implements exhibited and tried is, as usual, very detailed and explicit. Mr. Wells has done his best to supplement the account given by the judges in the former department, and Sir E. C. Kerrison introduces to the reader the elaborate reports of the implement judges. We are glad to see that Mr. Wells condemns the exhibition of horse-jumping, as proper to the work rather of a circus than of an agricultural society. We observe, in the report of the judges on systems and machines for drying hay and corn in wet weather, that the prize given by the Society of Arts was not awarded for the machine described in Mr. Gibbs' essay, but for the principle on which it was founded. This is a mistake. The prize was given to Mr. Gibbs simply as the author of the best essay on Harvest Work. No doubt the judges were influenced by the fact that the essay contained a very detailed account of his own efforts to bring artificial heat to bear economically on harvest work—but the prize which they awarded certainly was not won by Mr. Gibbs' machine either for its practical efficiency, or, as the report in the volume before us suggests, for its principle. It may be good in either or both of these respects, but on this the judges of the Society of Arts never expressed an opinion. The statistics of the recent meetings of the Society, with which the volume concludes, are an instructive commentary on the policy of holding meetings in populous localities. Upwards of 18,000 were received by the Society at Manchester.

On the Nature and Treatment of Milk Fever in Cows. By Day, Sons, and Hewitt. London: 22, Dorset Street, Baker Street.

This pamphlet has one merit, and as it is a solitary one it may as well be brought prominently forward at once—it is short; but for all the information which the 15 pages of clear type contain, they might have

been indefinitely condensed without any loss being thereby inflicted upon veterinary literature. It will not be denied that any one has the absolute right to publish a book upon any subject under the sun, or for that matter above it, but in common fairness the writer should make sure that he knows something of the subject on which he intends to expatiate.

The authors of the pamphlet inform us, on page 2, that their attention has been directed to a discussion on "milk fever in cows, which has recently appeared in *Bell's Weekly Messenger*," and then they confess their "inadequacy to grapple with a question so subtle and perplexing." This they need not have done, because it is all through the book apparent. Then they plunge into a chaos of speculations about blood poisoning and puerperal fever in ewes spreading through the flock; and specific ferments in the blood producing decomposition or change in its constituents. And then at p. 6, emerging for a moment, they thus state their views of the pathology of milk-fever, by which we presume is meant the common disease, "dropping after calving":—

"This brings us to the more immediate subject of our paper, that of milk fever. From all that is known of this terrible disease, we have it on the authority of the best observers that milk fever is a blood disease, caused by the entrance into the circulation of a specific and destructive poison, in the same way that glanders, hydrophobia, rinderpest, and small-pox are produced."

This is the philosophical view of a fatal congestive disease which occurs only under the one essential condition—parturition; and is no more frequent in the dirtiest and most crowded of cowsheds than it is in the healthiest localities; but our authors' love of the mysterious is not satiated by the mere acceptance of the idea of a specific poison; at p. 8 we have a more explicit doctrine propounded:—

"There may be—indeed there probably are—germs of disease constantly floating in the atmosphere, ready to seize on any animal which is lowered in health by accidental or natural causes. What so likely, then, that a cow which has recently calved should fall a victim to the disease? It is well-known that parturition renders every animal liable to be assailed by any disease that may be epidemic or prevailing at the time. Who would expose a cow that has recently calved to the infection of murrain or the cattle plague? There may be no actual communication between the two animals, and yet the healthy animal is attacked. How then can this possibly be, except through the medium of the atmosphere, or by contact or communication, or in some other way not capable of demonstration?"

Fancy the germs of milk fever floating about in the air ready to pounce upon an unhappy cow as soon as she becomes a mother! But we presume we have quoted enough to show the character of the logic which distinguishes the authors' reasoning upon the nature and causes of disease; and to indicate how far they are competent to deal with the subject of milk fever in cows—a misnomer, by-the-by, as the disease is essentially congestive, and totally distinct from milk fever of the human subject.

Letts' Game Book is a convenient form of memorandum book for the sportsman, containing in each folio ample space on one page for remarks, and on the other a series of columns in which can be entered the head of game of various kinds shot during the day.

Farm Memoranda.

NORTH RIDING OF YORKSHIRE.—On Sunday the 4th inst. the weather broke, and we had on that day nearly 1 inch of rainfall. On the 5th and 6th we had moderately fine weather, and on the latter day some corn was secured. Since then we have had rain, more or less, almost every day, putting a complete stop to harvest operations. As we write the rain falls in torrents, and all the corn remaining in the fields is perfectly saturated. About half of the grain, or perhaps more, is yet unsecured in this district, so that a lengthened continuance of such weather will prove disastrous. So far the temperature has been low, and the dry intervals, accompanied with strong winds, which, while partially drying the grain, have also prevented germination.

With the better opportunity afforded by cutting, we see no reason to materially modify the opinion given last month as to the probable bulk and yield of the crops. Wheat we yet consider to be nearly, if not quite, an average, in bulk, and although many reports from other districts of this county concur in stating the ears as badly filled, yet all we have seen in this district justify us in hesitating to endorse a similar report, and we believe the yield will prove little under an average. The bulk of the crop, even if now secured in good order, cannot, however, be fit to use until spring. Oats are a very short crop, and much under an average. Barley is very good, and a full average. Beans are short, thin, and poorly podded, and decidedly under an average crop.

The rain came opportunely for the Turnips and pastures, both being at a standstill. Turnips as a whole show a small bulb for the time of year, though with warm weather and an open autumn we may fairly expect them to increase much. Swedes promise better than white Turnips. The latter in many places are going off with grub.

Potatoes are reported an indifferent crop, but as yet healthy. *W. J. M., September 15.*

HALE GATE, IN THE TOWNSHIP OF HALE. The farm contains 245 acres. In pasture, 32 acres; Clover seeds, and meadow mown, 124 acres; Wheat after Potatoes, 21 acres, Oats, 37 acres; Beans, 12 acres, Vetches and Oats for soiling, 1 acre, Potatoes, 13 acres, Swedes, 1 acre; Mangel, 1 acre; orchards, gardens, homestead, rick-yard, roads, &c., 3 acres. Customary

rotation—1st, Oats; 2d, Potatoes; 3d, Wheat, with 10 or 12 seven horses, four dairy cows, four heifers, and many pigs; total 23. I have drained 65 acres with pipe in the ditches with large tiles on soles, and drawn Mr. Johnson's finding tiles and soles. I have filled up six pits at my own expense, and planted 3,200 yards of new fence on the roadsides. I have made 1,000 yards of new fields through the farm for convenience of approach to the fields. Laid the foundation with slag, and put on the implement shed of 15 feet by 15 feet. *Willie B. Johnson, July 30.*

Inspector's Remarks.—This farm lies on the banks of the estuary of the Mersey, and not many feet above high water, in short, 32 acres are under the influence of high tides. The surface of the high land is nearly level. Has a little inclination to the south. The soil is stiff clay loam, on a stiff clay subsoil. The corn crops are all the Clover and seeds are sown on land without furrows or grips, so that all the mowing and reaping can be done by machinery without any impediment, except what arises from the weight of the crops. The absence of furrows and grips, and the nature of the soil and subsoil, and the weight and equality of the crop is a proof that the drainage of this farm is perfect far as the upland. The Wheat was in two fields, but heavy clean crops, equal in weight over the whole healthy, and well fed. Oats the same, in three fields, 29 acres sown with Clover and Grass seeds which come well. The Beans were sown in drills, 30 inches apart, affording room for perfect tilage and early growth of the crop, which was perfectly clean and promising for heavy produce. Potatoes in drills, perfect clean and healthy. Mangel and Swedes not promising but sufficient plants, so that the late rains will bring them up, as they were quite rent, and the land well followed. Head-ricks and cops ad right, seven very long haystacks, some of them being 20 yards and upwards in length and 6 broad, with height corresponding, proving a weight of the hay crops. The weather had been dry for the aftermath or second crops to come forward. The quality of the herbage very good. Hay stacks well and neatly thatched. The new wire fence through the farm in proper condition, as well as all the fine wire protection had to be put up to prevent rascally rabbits destroying them, as these vermin have an antipathy to new fences, for they afford them a shelter. Mr. Johnson has a good assortment of implements, and has everything in good order about his house, yard, and homestead. No great quantity of stork is kept on this farm. Most of the produce goes to Liverpool, and manure is brought back in return, and the weight of produce on the farm is a proof that there is a sufficient supply of this necessary article. Inspected July 29th, 1859.

Mr. Johnson had one very powerful opponent. The farm is a large one, and under his management but the corn crops not quite so equal in weight as Swedes and Mangel superior, Potatoes and Beans so vigorous, but equally clean. Soil and subsoil the same in texture, but at a rather higher elevation though nearer to Liverpool. This claimant had another profitable business besides farming. *From Report of Manchester and Liverpool Society's Inspectors of Farms.*

The Poultry Yard.

The poultry shows now come on us thick and fast and the question we have many times asked is now again mooted—Why have we no poultry show in London? We should be very glad to hear that there was any chance of one.

The Birmingham prize sheet is anxiously looked for. A very good poultry show was held on the 8th inst. at Whitby, in conjunction with the Whitby Agricultural Society's thirty-fifth annual meeting. Messrs. Dixon and Adams were the judges. Mr. H. Smith took first prize, and Mr. Bearpark second for adult Dorkings; Mr. Wormald first, and the Rev. G. Husker second for chickens. The quality of the birds was hardly up to the average. Exhibitors cannot be too careful in selecting their chickens for exhibition. The one which is looked on as a mere trifle, which the bird will grow out of in the yard at home, becomes a fatal defect in the showyard. This was the case with a pen of Dorking chickens at Whitby. In Spanish, the prizes for old birds were taken by Messrs. Holmes and Pjard, and in chickens by Messrs. Burn and Stephenson. The first prize game fowls, belonging to Mr. Julian, were deservedly much noticed. The chickens of Mr. Pounder were very good. The second prizes were taken by Messrs. Walker and Blackburn. The district does not stand high for buff Cochins or indeed Cochins of any kind. Mr. Readman took three out of the four prizes with birds of average quality. The dark variety of Brahma held their own against the light variety in Yorkshire and here Mr. Leech won the first prize. Messrs. Walker and Layland taking second and third. Houdans were preferred to Crevecoeurs. As might be expected, the Hamburgs were among the principal attractions of the show. A Yorkshireman has an innate fancy for the breed, which is strong within him. Certainly the birds justify it, for there are few prettier or more blood-like birds. Mr. Holmes took the first prizes for all the adults except for golden pencilled where he ran second to Mr. Walker.

The hardy little favourites, the game bantams, were good. The first prize was taken by a well-known breeder of them, Mr. Eatwistle. Mr. Burn, of Whitby, took a first and second prize for black East Indian ducks, Mr. Leech first, and Mr. Stonehouse second, and a commendation for Aylesburys. The principal competition in the duck classes was among the Rouens.

where Mr. Garbrett may be really proud of his first in the class for any other variety of duck, Mr Walker won with a pair of Carolinas. The Rev. G. Hustler and Mr O A Young won the first prizes for geese: the latter gentleman taking also one first for turkeys—Mr Prews the other.

The pigeons were very good, and the greater number of the prizes remained in the county.

The arrangements were very good, and the attendance larger than usual.

Calendar of Operations.

SEPTEMBER Lining the land in autumn for winter Beans and Vetches is preferable to liming it after these crops are harvested for winter Wheat next season. But to be successfully applied it must be thoroughly incorporated with the surface soil, and kept as near the surface as practicable, as it has a natural tendency to sink to the subsoil. The practice of autumn manuring the soil, therefore, that best adapted for liming, the lime being applied and well harrowed into the land before it is set up into ridges, as directed under the practice of liming for Turnips in spring time. Lime may also be applied before setting up the ridges for Potatoes, Carrots, Mangels, &c.; or to these crops it may be applied, and horse and hand hoed in during spring. We have also thus applied lime in the spring time successfully to Beans, a slight dusting doing comparatively little or no harm in dry weather to the young plants, as it is soon shaken off or washed off by a shower of rain. Land deficient of lime is not adapted for successful Bean husbandry. If applied on any of the other three plans, the lime should be spread upon the stubbles, and well harrowed in before the manure is applied, or if the land requires broadsharing, or scuffling, it should be applied after the weeds have been removed. Lime may likewise be successfully applied to grass-land, either by itself or in the form of lime compost. The Clovers are all great consumers of lime, and in laying down land at this season to permanent pasture, it should be well limed before the seeds are sown. The quantity depends upon the nature of the land and the length of time between the applications, some preferring frequent limings, as once every four years, so that one-fourth of the land has to be limed annually; others every alternate rotation, or every third one.

Permanent Grass.—Land may be laid down more profitably during the whole of this month than in spring in most counties. Grass-land, whether for meadow or pasture, cannot be too rich, and therefore, whatever crop it follows, the land should be liberally manured on the flat, lightly ploughed in. If the land is deficient of lime, then lime on the surface, and at the rate of from 100 to 200 bushels of shells per acre. Some sow the seeds on the lime, but it is better to harrow in the latter, taking care to tear up as little of the manure as possible. This makes a fine seed-bed for the seeds, which may be covered with a chain-harrow. A very fine mould is not desirable at this season—a small cloddy roughness standing the winter frosts better than a smooth surface.

Rye-grass for early spring feeding is sown from the middle of August to the latter end of the current month on all sorts of land. But it grows freely on poor sandy soils, on which Vetches and Trifolium will not pay the seed. Wheat and Oat stubbles are scarified and any weeds gathered off. Farmyard manure is then applied and ploughed in on the flat, and the land sown with about 3 bushels of seed per acre. Or, instead of farmyard manure, the seed may be drilled in with about 3 cwt. of guano. If there is a command of town sewage, and the land is light, fill the newly scarified land with it, or with farm sewage, or the 3 cwt. of guano may be applied with water.

Winter Vetches are sown for spring feed during August, September, and October. The crop, like other spring forage crops, follows Wheat and Oats, and, in our southern counties, it is off the land in time for sowing Turnips. The cultivation should generally be a single thin furrow, as Tares require a firm seed-bed, about 3 bushels of seed being sown per acre. Vetches will grow on all comparatively rich and fertile soils, but this crop is better adapted for the heavier clays, which can be worked advantageously at this season, while the crop next May can either be eaten off by sheep or mown for soiling other stock. Some mix a bushel of Oats or Rye with 2½ bushels of Tares for sowing, per acre, purposely to prevent the Tares kneeing and rotting in the ground, which they are liable to do when the crop is luxuriant, as it generally is under ordinary good management.

Trifolium incarnatum is commonly sown during August and the first half of September, for soiling or hay next May and June. It prefers a rich but rather firm soil, so that the land should neither be ploughed nor smashed up. It may therefore follow Wheat, Barley, or Oats, or any of the root crops that were richly manured. It is sown by chain-harrowing in about 20 lb. of clean seed, or 4 bushels of the rough seed in the huck, per acre; or, if the land requires manure, top-dressing or artificial manure may be applied with a broadcast distributing-machine, and bush-harrowed in along with the seed. The cultivation of the crop is exceedingly simple.

Winter Beans may be grown on lands of a lighter texture than that which is usually termed a Bean-soil. But, whatever be the nature of the soil, light or heavy, the land is ploughed or smashed up, crossed and manured, as already directed, and about 2 bushels of the small winter Beans drilled in per acre, the coulter being set from 18 inches to 2 feet apart, with a sufficient lever pressure to put in the seed to the proper depth. A stroke of the seed harrows completes the operation. The land should be drilled due south and north, or, as is sometimes technically termed, "12 o'clock" (A.M.). Some think the morning sun

more powerful than the afternoon sun, but the difference, if any, on an average, is not great. More perhaps depends upon the exposure of the lands. But for all differences of this kind, due provision should always be made in the cultivation of Beans.

Renovating Grass-lands should be done about this time. Tussock and other inferior Grasses should be dug out, and when weeds and everything of this sort are removed, a heavy top-dressing should be applied and well harrowed in before the seed is sown, and the seed may, lastly, be covered by bush or light chain harrows. The carting and other operations are much more easily done at this season than in early spring, and with infinitely less harm to the land, and the young Grasses will be well established before the winter frosts set in. Stock should not be admitted, but in growing seasons the young Grasses may require to be either eaten off or mown by the middle of November, so as to prevent rotting during winter. Sheep are prone to pull up the finer Grasses, and black cattle to do harm both with their feet and mouths. If mown the Grass should not be cut too close, and a mowing machine and horse rake will go over a large breadth in a day, the rake teeth being set high; and the green cuttings may be given to stock, as sheep in the adjoining pastures, or to cattle of all sorts at the home-stead. In renovating grass-lands at this season, and indeed in spring also, the common mistake fallen into is an insufficient supply of manure to rot the effete vegetable matter of the old Grasses, and to force up a rapid growth of fresh Grass, the renovating work being thereby only half done. But as the young Grasses can be utilised as above, the richer and more abundant the top-dressing the better; and, therefore, it is more advantageous to do half the land well, so much annually, than to half do the whole field in a hurry this year and nothing next.

Milch Cows closely resemble fattening bullocks as to dietary, but it is seldom advisable to house them permanently so early as this, unless there is a plentiful supply of green forage for soiling. On such food, however, they will now do better indoors than in the pastures during the day, and over-night they should be permanently housed, by the beginning of the month in the southern counties, and a full month earlier in the north. The Clovers, including Lucerne, Sanfoin, Vetches, Cabbages, and sewage Grasses make the best forage for cows at this season. Rape and Turnips produce inferior milk for the dairy. Cows will do well soiled on any of the above forage plants after they have become accustomed to them. But it is a well-authenticated fact that a mixed dietary is preferable, so that when this cannot be complied with, an allowance of rough oatmeal, barley meal, or pea or bean meal should be given daily; and mixtures of this kind are more needed for soil now than earlier in the season. From time immemorial dairymen have been familiar with the beneficial effects produced by shifting their milch cows two or three times daily at this season, so as to give them a mixed dietary, hence the practical conclusion.

The Dairy.—September is a good dairy month, both for butter and cheese, if the milch cows are properly attended to, the natural temperature of the atmosphere being that suited to the throwing up of cream and the drying of cheese in southern counties. Northwards it is, on the winter side, too cold and moist. But to both there are many exceptions, while early calved cows are liable to fall off in the quantity of milk, and to give more cheese than butter in what they yield, as compared with the early part of the season. Practically, therefore, the work of the dairy will readily be anticipated. There is not much to be dreaded from solar heat, either in the milk-room or cheese-room, in fine dry open weather in the south, but it is otherwise in close muggy days, everything becoming more and more artificial heat may be needed to keep things dry, whatever may be the temperature of the atmosphere; and it is a wise maxim to kindle the fire in time, as very little heat will then keep everything "sweet," whereas, on the contrary, the extra heat needed one way may do harm another.

Calves, if neglected in their proper food and shelter, are liable to be infected with worms in the windpipe "hoose" or "hask"), and lice on the skin. Our improved breeds are more liable to be thus affected than the old hardier races. The lice are easily seen behind the ears, and along the neck and back. Harsh, frequent, dry husky coughing indicates worms in the air passages—and derangement of the bowels the state of the intestines. The newly weaned calves "have got a set," as it is termed in some districts. About the middle of August they were growing rapidly, but the milk being taken from them without any adequate supply being made in its place in the dietary, they cease to grow for a time, and so on. Prevention is simple, thus,—attend to food and shelter, and as to cure, apply to your veterinary surgeon. *W. B.*

Notices to Correspondents.

BEARDED WHEAT B.C. Too late for this week.

HALF-PAY T.S.P. Thanks for your note. We asked for the address of a correspondent who had written under the signature "Half Pay."

RAINS—WATER BY A WAT—WHEEL An Old Subscriber. Your questions would take quite half a day to work out, and as you cannot do this for yourself, the probability is that your figures, as regards the force of the stream, and so on, are not accurate. The whole of this great labour would, therefore, be useless, letting alone the probability that you might be induced to incur an expense that would end in being too great or too little. Preliminary calculations of the kind you name, to be of any value, should be based on measurements of the greatest engineering accuracy. Your more judicious plan is, to begin the undertaking you are contemplating by consulting in the first instance a trustworthy practical engineer. As you omitted to add your address, we cannot further advise you.

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in 10	4ths.	3rds.	2nds.	Best.
20 by 12	15 oz	12s 6d	15s 6d	18s 6d
20 by 13	15 oz	12s 6d	15s 6d	18s 6d
20 by 14	15 oz	12s 6d	15s 6d	18s 6d
20 by 15	15 oz	12s 6d	15s 6d	18s 6d
20 by 16	15 oz	12s 6d	15s 6d	18s 6d

SMALL SHEET SQUARES, 15 oz., per 100 feet.

in.	in.	in.	in.	in.	4ths.	3ds.	2nds.	Best.
8 by 4	7 by 4	6 by 4	5 by 4	4 by 4	11s 3d	12s 6d	14s 6d	16s 6d
10 by 5	12 by 5	14 by 5	16 by 5	18 by 5	11s 9d	14s 9d	15s 3d	17s 6d

LARGE SHEET SQUARES, 15 oz., per 100 feet.

n	in	in	in	in	in	4ths.	3ds.	2nds.	Best.
14	by	10	14	by	12	22	by	16	
16	by	10	14	by	12	17	by	13	24
14	by	11	15	by	12	23	by	13	20
15	by	11	15	by	12	18	by	14	24
14	by	11	15	by	12	22	by	14	24
16	by	11	15	by	12	24	by	14	20
21	by	11	17	by	12	22	by	15	22
13	by	12	18	by	12	24	by	15	24

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 In Sheets for Cutting up, averaging from 6 to 9 feet square.

4ths quality, 1 per 30-foot case, 34s	4ths quality, per 200 feet case, 34s
3ds "	3ds "
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SHEET GLASS is made of the following substances, 15 oz. 21 oz. 22 oz. 23 oz. 24 oz. 25 oz. 26 oz. 27 oz. 28 oz. 29 oz. 30 oz. 31 oz. 32 oz. 33 oz. 34 oz. 35 oz. 36 oz. 37 oz. 38 oz. 39 oz. 40 oz.

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GROUND PATENT DRY-LEAD 3d 1/2 per lb.
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LINSEED OIL, 2s. 9
BOILED OIL, 3s. 2
JURPENTINE, 2s. 0
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FINE OAK VARNISH, 10s. to 12 0
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 As supplied by them to Mr. Rivers, to the Royal Horticultural Society, and to most of the Nobility, Clergy, and Gentlemen of the United Kingdom.

Each Box contains 100 feet. The prices only apply to the sizes stated.

Squares 20 by 12, 20 by 13, 20 by 14, 20 by 15.	18 oz. to the foot.	21 oz.
Fourth quality	15s. 6d.	17s. 6d.
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13 " 11	14 " 11	15 " 11	16 " 11	13 6	15 8	17 6
14 " 12	15 " 12	16 " 12	17 " 12			
15 " 13	16 " 13	17 " 13	18 " 13	15 0	16 0	18 6
16 " 14	17 " 14	18 " 14	19 " 14	16 0	17 0	19 6

SMALL SHEET SQUARES.
 in 100 feet Boxes.

6 by 4	8 by 4	7 by 5	7 1/2 by 5 1/2	12s. 6d.
8 by 8	8 1/2 by 8 1/2	9 by 7	9 1/2 by 7 1/2	13s. 6d.
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Boxes 2s. each returnable at full price.

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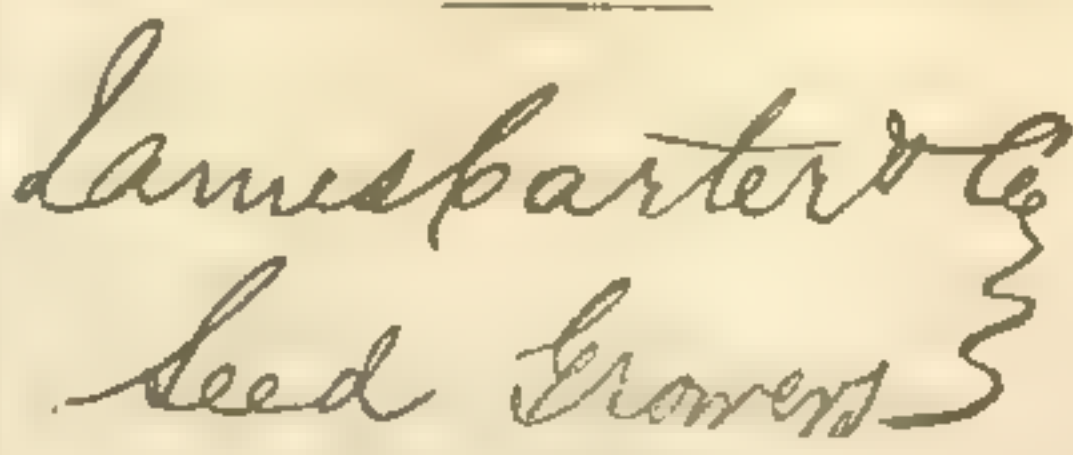
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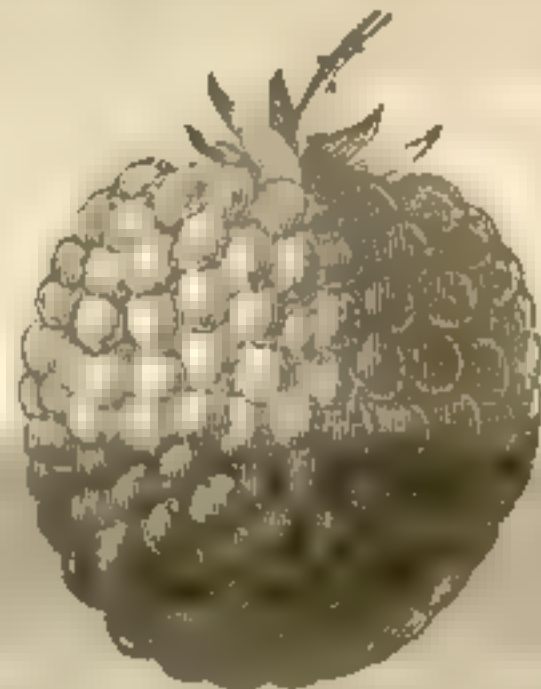
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The Gardeners' Chronicle. SATURDAY, SEPTEMBER 25, 1869.

BEYOND all descriptions, to say nothing of Hibernians, feel an intense interest in all that concerns the culture or the improvement of the POTATO. We are, therefore, sorry that comparatively few had the opportunity of witnessing the results of Mr. FENN's experiments, as displayed at the Royal Horticultural Society's rooms on Tuesday last. The object of Mr. FENN's display was threefold: to show the effect of grafting an "eye" of one form into the tuber of another; to exhibit the produce derived from cross fertilisation of different varieties carried out in the ordinary manner; and to exhibit a series of those varieties which had proved, in Mr. FENN's experience, to be the best adapted for garden or field culture. Referring our readers to another column for the details of this interesting exhibition, we venture in this place to make a few comments of a general character on the results of Mr. FENN's experiments. And first, as to the results of grafting. When this matter was first broached it was received with incredulity and ridicule. The incredulity was natural, the ridicule was not wholly undeserved, owing to the manifest want of caution on the part of some of the experimenters, and the very high jumps they made to their conclusions. Then came the remarkable evidence published in our columns some time ago (p. 270)—evidence given, not by enthusiastic amateurs, or as the result of crude and untrustworthy scientific experiments, but testimony furnished by hard-headed, observant men, with no theory to bolster up, and no physiological problem to solve, no scientific assertion to prove or disprove; but given by men whose aim and objects were wholly and solely practical. Our readers had that evidence before them, and drew their own conclusions.

Now we have got a stage further; a well-known Potato-grower exhibits publicly the results of his experiments in the matter of Potato grafting; and here we may add, that we had the opportunity of satisfying ourselves that there was boni fide adhesion of scion to stock in some of the samples submitted for our inspection by Mr. FENN, some months since. Now what are the results? Where are the graft-hybrids? Of the illustrations furnished by Mr. FENN, on Tuesday, all save two were purely negative; no change was visible in the new tubers. But

the two in which a change had been effected are amply worth notice.

In the one case, where "Fenn's Onwards" had been grafted into "Yorkshire Hero," there was, according to Mr. FENN, some difference in the appearance of the shoots and haulm. As we had no opportunity of forming our own conclusions on that matter we pass that by without further comment. In the other case an eye of "Wheeler's Milky White" had been grafted into the old Fluke as a stock, all the eyes save those of the scion having been carefully removed. The result was a crop of tubers from the scion possessing, obviously enough, the characteristics of the Fluke and of Milky White. Samples of both parents were placed side by side with the hybrid, so that every one might have the opportunity of testing the matter for himself. Mr. FENN's label, attached to his graft-hybrid, said, in one sense truly enough, "character of Potato quite spoilt." In another sense Mr. FENN might fairly have written "great success," for he has demonstrated the practicability of the process, and has exhibited the results in a form, as it appears, almost beyond doubt. The *cui bono* man will probably sneer when he sees the unpromising looking progeny raised by Mr. FENN, and learns that the majority of that gentleman's experiments have been without results. On *cui bono* principles, however, we should have remained stationary, we should have had few or no improved races of plants or animals; as every experimenter knows he achieves success, in most cases, after numberless failures. Again, our *cui bono* friend may console himself with the remembrance of the fact that some very excellent Potatoes are asserted, on good evidence, to have been raised in this manner.

In ordinary grafting, in which the tissue of the scion adheres to that of the stock, when growth takes place, in by far the majority of cases no alteration in the character either of the stock or of the scion takes place. Reservoir is added to reservoir, conduit to conduit, or, to speak more precisely, cell is developed from cell; and as the cells of the stock repeat themselves so also those of the scion develop new ones. In both cases the new cells are uninfluenced in form and appearance by the contact of stock and scion, even though the nutriment of the latter is pumped up through the tissues of the former. Growth, whether of scion or stock, thus appears to be mere augmentation of old material, so far at least as the framework is concerned. But inasmuch as the scion has to get its nourishment through the stock, we are not surprised to see the changes that are produced in habit, vigour, flavour, and the like, as a result of grafting. The little alteration that takes place in appearance may, perhaps, be accounted for on the supposition that the stock, rooted as it is in the ground, and producing no leaves of its own, acts merely as a channel of communication between the soil and the scion. This would open up that other question as to whether stems can grow without leaves, and if they cannot do so, how it is that the stock is not affected by the scion more often than we know it to be. But these questions we cannot now enter upon. *Reverens a nos pennis de terre.* The Potato stock, deprived of its eyes or buds, emits no roots, but becomes decomposed; its insoluble matters are changed into soluble ones, which serve to feed the growing shoot, so that when the old tuber or stock is dug up it is found by Mr. FENN to be, as it were, an empty bag. Where no union takes place the Potato stock remains as plump as it was on the day it was operated on; hence the Potato stock supplies nutriment from its own resources to the graft, and if so, there is little room for wonder at the production of graft-hybrids: but, on the contrary, there is reason for surprise that they do not occur more frequently.

Here we leave the subject for the present, with the intention of shortly reverting to it and to the other experiments on cross fertilisation carried out by Mr. FENN, and which have resulted, *inter alia*, in the production of a tuber said to be identical with wild tubers obtained direct from Peru. In the interim, we tender to Mr. FENN on behalf of all Potato lovers—and that love has many phases—cordial thanks for the opportunity of inspecting his productions; and we earnestly beg him to stick perseveringly to his motto, "Onwards;" and to prove that there may be "Heroes" in Oxfordshire as well as in Yorkshire.

At the recent meeting of the British Association, Miss BECKER is reported to have read a

paper on a PECULIAR FORM of the common LYCHNIS DIOICA, in which stamens and pistil were present in the same flower, contrary to what happens usually in that particular species. Furthermore it is stated that the anthers were filled with spores of a smut-like Fungus, no doubt of the same description as that brought under the notice of the Scientific Committee during the past session (see p. 503). Miss BECKER, it is said, brought forward two modes of accounting for the peculiarity, viz., that it was due to a reversion to the primitive form wholly independent of the Fungus, the other that the change in question was really due to the presence of the Fungus. We have only seen a condensed report of what Miss BECKER really did say, and hence we may possibly be misrepresenting her views; if so, we are open to correction. Such cases as that recorded by this lady are not without their interest for horticulturists, who sometimes find a difficulty in getting Cucumbers or certain varieties of Vine to "set" properly, and therefore a few remarks may not be out of place. Let us look at the facts:—This particular Lychnis is commonly found with flowers of one sex only—stamens on one plant, pistils on another. In Miss BECKER's instance the flowers were hermaphrodite, and were further affected with a parasitic Fungus. Now, most of the allies of Lychnis are hermaphrodite, but a very considerable number are unisexual. In the ordinary Lychnis dioica there is usually a trace at least of the missing organs; hence it is allowable to surmise that their absence in a perfect condition is due to an arrest of development. What the cause of that arrest may be we cannot undertake to decide. It may be due to existing external causes, though this seems hardly likely; it may be due to that tendency to a subdivision of labour, which we see as fully exemplified in Nature's workshops as in man's factories; or it may be, and probably is, associated with that increased fecundity which results from crossed fertilisation.

And then as to Miss BECKER's plant, where the flower was structurally perfect, who can say what were the causes of the change? The authoress herself discards the reversion theory, on the grounds, we suppose, that no one knows what the primitive state of things was, and that there is no distinct evidence of any such reversion having taken place. We suppose it might be said that the flower was originally hermaphrodite, but by natural selection became unisexual, because, from causes previously stated, it was to the advantage of the flower to be so; and if so, Miss BECKER's instance may be one of reversion, but, as before stated, there is no evidence to show what the original state of things was. At the same time as a theory this view of the matter seems to us more plausible than the notion which Miss BECKER upheld, that the Fungus was the cause of the change. We are at a loss to see how the parasite could have brought about the change from an unisexual to a bisexual condition. It would, in our opinion, be more likely to induce an arrest rather than an excess of development.

— THE French correspondent of the *Lancet* sends to that Journal the following account of AN ANTIDOTE TO NICOTINE.—"A bit of news which will be welcome to hygienists and smokers! M. ARMAND, a French savant, has stated to the Academy of Sciences that he has discovered a sure antidote to nicotine. Success has thus crowned the efforts which he has been making for the last few years. The antidote is nothing less than common Watercress. It destroys the poisonous effects of nicotine, and yet does not alter the aroma of tobacco. A solution of Watercress may, therefore, be employed for steeping the leaves of tobacco, and would thus effectually divest them of their noxious properties; moreover, a draught of the same will act as a sure antidote to nicotine."

— While referring to POTATOS, we may cite an interesting fact, recorded in a letter addressed to Mr. PATERSON, a well-known raiser of new POTATOS, and by him obligingly forwarded to us. "A circumstance has come under my notice to-day, from an old Potato grower, respecting your Victoria. You are aware that it blooms and fruits heavily. This person pinched out the bloom of one portion of his crop as soon as fully formed. The other he allowed to bloom and fruit, and the crop he allowed to bloom was not more than half the crop. The other was not only a double crop, but the Potatos were much finer and cleaner skinned."

— We are informed that the widow of Mr. HENRY C. OGLE, who for many years filled the position of head gardener at Eridge Castle, and whose contributions to horticultural literature are well known, is, from causes entirely beyond her own control, in greatly reduced circumstances; and, unless a sum of 100*l.* can be almost immediately forthcoming,

she will be compelled to part with her only means of obtaining a living for the future. Mr. COX, of Red-leaf, has permitted his name to be used as a guarantee of these facts; and for the relief of Mrs. OGLE contributions are solicited from the affluent and the generous. Remittances may be made to Messrs. WHITFIELD & CO, Bankers, Tunbridge Wells; or to Mr. THOMAS READ, Parade, Tunbridge Wells.

— Londoners with botanical proclivities will be glad to learn that the long promised FLORA OF MIDDLESEX,* by Dr. TRIMEN and Mr. THISELTON DYER, is at length issued. We shall advert to this exhaustive work on a future occasion.

New Plants.

PASSIFLORA (SQRANADILLA) MACROCARPA, Masl., sp. n.

P. ramis quadrangularibus ad angulos profunde alatis; foliis late ovatis vel sub-orbicularibus abrupte acuminatis, petiolo perunquo 6 glandulis; stipulis vestimentosis pollicaribus et ultra basi late ovato lanceolatis; pedunculis teretibus, bracteis sub-orbicularibus acutis serrulatis flava tubum amplexantibus, tubo basi intruso, sepalis corollatis petalis superantibus, corolla faucibus seriebus 5 quarum duas exteriores filamentose filis distinctis patentibus crasse violaceo-fasciatis petalis superantibus, duabus intermediis filamentose, filis quam precedentes 5-6 plo brevioribus, distinctis, vel plus minus connatis, intimis vel supra medianam filis coherentibus inflexis sistente; corona media e medio tubi emergente membranacea horizontali ad marginem ciliata gynandrophorum reflexa ibique leviter bifurcata, coronam internam annulosa carnosa; gynandrophoro crasso brevibus basin versus processu crasso trochleariformi notato orbem oblongo obtuso, stylis majusculis clavatis stigmatibus maximis trilobis, fructu maximo oblongo obtuso basi apiceque umbilicato longitudinaliter sulcato.—*Passiflora macrocarpa*, Hort. Linden.

Critics recommend would-be poets to keep the effusions of their muse under lock and key for a lengthened period, at the expiration of which time, if the production appear satisfactory, it may be permitted to undergo the test of public criticism. Artists are, for similar reasons, recommended occasionally to lay aside their paintings and also to turn their pictures upside down, the more readily to detect any error of drawing. We have followed these directions in spirit, nay almost in letter, with regard to the big-fruited Passion-flower above described; and at length, after repeated comparative examination of living and dried specimens, native and cultivated, have satisfied ourselves that the plant in question is deserving of specific honours; that is to say, it is at least as much so as the majority of so-called species, even in a purely botanical sense; while for garden purposes, as we shall presently endeavour to show, there are ample reasons for keeping it distinct from its allies. While thus expressing our belief in the expediency of keeping the present form distinct from its near ally, *P. quadrangularis*, we may nevertheless express as confident an opinion as can be pronounced on matters where there is no direct evidence, that both forms, as well as *P. alata*, sprung originally from a common source. Before, however, treating of these matters, and before giving the history of the Pumpkin-fruited Passion-flower, we must give the description of the main features of the plant in the vulgar tongue.

In habit and general appearance the plant is almost identical with *P. quadrangularis*; so much so, in fact, that in the early stages of growth it is impossible to distinguish the two plants, even when grown side by side as they are in the Palm-stove at Kew. In the adult state of the plant, however, the leaves of *P. macrocarpa* are of a more rounded outline, and are usually somewhat smaller than those of *P. quadrangularis*; the stipules, too, on the fully developed plant are much larger than those of *P. quadrangularis*, and taper at the base into a broad stalk. No reliance can be placed on the number of glands on the leaf-stalk: the petiole is cylindrical above the bracts and somewhat above. The bracts are very large in comparison with those in the nearly allied kinds, cordate to reniform acute serrulate. The tube of the flower is concealed by the bracts, and is shallow, fleshy, smooth, and intruded at the insertion of the flower-stalk. The sepals are four or five times longer than the tube, leathery, greenish externally, whitish within, oblong obtuse, somewhat concave towards the apex, destitute of nerve. The petals are fleshy, broad at the base, oblong obtuse, about the same length as the sepals, and of a violet colour. The corolla consists of seven series of rays, four (facial rays) inserte at the mouth of the tube, one (supra median) immediately below it, one (median) emerging from the centre of the tube, and one (infra median) midway between the latter and the base. Of the four facial rows the two outermost consist of separate, spreading, thick violet-spotted threads, exceeding the petals in length; the two succeeding rows also consist of threads, but very much shorter than the preceding, and bent inwards; the supra-median corona (or fifth facial row) is membranous, bent horizontally inward, and evidently consists of a number of threads imperfectly separated from each other (i. e., partially coherent). The median corona, corresponding to what by some authors is called the operculum, is also membranous, it emerges from the centre of the tube in a horizontal direction, reaches the column, and is then bent upwards, its free edge showing a tendency to split into two lamelle. The infra-median corona is a thick fleshy rim enclosing the interior of the tube (a ring) between the preceding and the base. The column (gynandrophore) is short and very thick, protruding at the base with a very large pulley-shaped process, the upper portion of which is divided into five or six lobes. The filaments are broad and spotted with red, the anthers oblong. The ovary is oblong obtuse, obscurely three-lobed, and surmounted by three thick, club-shaped whitish styles. The stigmas are very large, 3-lobed, brownish. The fruit is large, oblong obtuse, depressed at both ends and longitudinaliter sulcato.

Contrasted with *P. quadrangularis*, in addition to what has been previously stated as to the foliage and stipules, *P. macrocarpa* has rounder, larger, more serrated bracts; a shorter, shallower calyx tube, the petals, which are violet (not pink), do not exceed the sepals in length; the outer rays of the corona exceed the petals considerably in *P. macrocarpa*, and but little or not at all in *P. quadrangularis*. The succeeding coronal rays are filamentous in *macrocarpa*, while they

* London: Hardwicke.

are shorter and tooth-like in quadrangularis. There is only one supra-median corona in *P. macrocarpa*, but there are two in *P. quadrangularis*. The column of *P. macrocarpa* is relatively shorter and stouter, and the pulley-like process is thicker and larger than in *P. quadrangularis*. The ovary in *P. macrocarpa* is oblong or obovoid, not ovoid; the styles very thick, and the stigmas much larger than in any other species of Passion-flower with which we are acquainted. Lastly, the fruit of *P. macrocarpa* is much larger than that of *P. quadrangularis*, and of a different shape, the true *P. quadrangularis* having an ovoid fruit of the size of a swan's egg, and it is ordinarily not depressed at the apex at least, nor furrowed.

P. alata can hardly be confounded with *P. macrocarpa*, as its stems are much less deeply winged, its bracts are much smaller, its coronal rays fewer and simpler, its fruit pyriform, &c.

Almost the first notice which we got of this Pumpkin-fruited Passion-flower, was from the Munchausen-like epistles of the notorious Hullett; and when specimens of the Hullettian plant, obtained direct from the Museum Hullettianum, were seen to be in stem and foliage indistinguishable from the old *P. quadrangularis*, was it not pardonable to suppose that the plant in question was nothing more than a Hullettian form of that well-known species? There was the more reason for this, as Jacquin, many years ago, described a large-fruited form of *P. quadrangularis* as common to the West Indian islands and to the mainland of South America. However, a more trustworthy account was given in the catalogue of M. Linden, and by-and-by specimens of the fruit made their appearance on our exhibition tables.

Still there was the doubt as to whether this fruit was the produce of a variety of *P. quadrangularis* or of a new species. There was this point in favour of its being only a variety of *P. quadrangularis*, viz., that Jacquin, in his original description of the last-named species, mentions also a variety with large fruit "transversely" sulcated. In order to ascertain the true state of the case we put ourselves in communication with M. Linden, Mr. Spruce, and with other gentlemen who grew the plant, or who were presumed to be acquainted with it in its native habitats. To these gentlemen our best thanks are due for their kindness in forwarding information and specimens. The information received from them is so valuable in clearing up the history of the plant that no apology will be needed for introducing the substance of their remarks here. M. Linden, to whom we owe the introduction of this Passion-flower to European gardens, thus speaks of it in a letter dated January, 1867:—

"This Passion-flower was discovered by my collector, M. Wallis, on the banks of the Rio Negro, between Manaus and San Bartolome, about three, or it may be, four years ago. At that time M. Wallis wrote that the species acquired unusual dimensions, and that the fruits, which were highly esteemed in the country, attained a weight of 8 lb."

M. Linden adds, and the testimony is all the more valuable as coming from one who knows the old *P. quadrangularis* in its tropical home, that the species is evidently allied to *P. quadrangularis*, but is quite distinct from it, in flower, fruit, and leaf. So much for the testimony of MM. Linden and Wallis.

Finding in the Kew Herbarium specimens of our plant gathered in Peru by the famous traveller Dr. Spruce, we next applied to that gentleman for information. Dr. Spruce, in reply, expressed some doubt as to whether *P. macrocarpa* was really wild in the locality indicated by M. Wallis.

"If," says Dr. Spruce, "M. Linden's collector sent from the Rio Negro a large-fruited Passiflora, I should say it had certainly been raised there from seeds brought from Peru. No such Passiflora either wild or cultivated, was known in that region at my time. But since steamers have run up to the very roots of the Andes, I learn that the Brazilians have got from Peru the Bamboosage, or Puna-mat Plant (Cordia alliodora), and many others. In the lower eastern Andes a large-fruited Passiflora is commonly cultivated under the name of 'Pambo,' and the same species is still more largely grown on the western side of the Andes, in what is called the 'coast region' of Peru. At Guayaquil, what seems the same kind is called 'Badesa,' but it may be distinct from the 'Pambo.' These Passifloras have a fruit 9, or even 12, inches long, very like that of the common Papaw, but blunter at each end, and very much heavier, bulk for bulk. There is a variety with very unusually sulcated fruit. I suppose it may be the same as the Peruvian *P. quadrangularis*, var. *sulcata*, fructu transversim sulcato, wherein the 'transversim' is to be taken *sensu* *synonymo*, as M. Linden, who calls the longest diameter of an ellipse the transverse, for the fruit of this Passiflora is somewhat elliptical. Not only are the seeds, enveloped in sweet mucilage, eaten, as they are in the common Granadilla, but the thick fleshy part, after the manner of Melons and Papaws, to both of which its flavour slightly resembles it, although it used to remind me more of a soft sweet Apple. In Peru the 'Pambo' is commonly trained over a horizontal trellis-work, raised high enough to allow of a man walking under it erect, but sometimes much higher, and only accessible by means of a ladder. The finest plants and the best tasted fruits I have seen, were grown on the river Chira, in lat. 5° south. The priest of Amotape—a small village on that river—had a plant that must have covered 50 square yards. I have several times reposed in my hammock under its shade, and regaled on its fruit. That was in 1853, when I was invalided, and had given up collecting. Even had I been still vigorous, I should, perhaps, not have preserved specimens of it, under the impression that it must already be well known in Europe. Its cultivation in Peru has existed probably for many centuries, there is no tradition of its introduction, and it is nowhere known wild."

Hence, then, we have evidence that the *P. macrocarpa* of our gardens is distinct from *P. quadrangularis* in many points, that it is cultivated in Peru, and has probably been introduced thence into the Amazon district. We have seen imperfect specimens from Venezuela, and from Central America, that we refer with some hesitation to this form.

The question remains, is this the big-fruited Granadilla of the West Indies, with transversely sulcated fruit, of which Jacquin speaks? This question we cannot answer positively. All the West Indian specimens we have seen belong to quadrangularis. Among them we

have seen some with fruit larger than usual, but yet not much more than half the size of that of *P. macrocarpa*, and truly egg-shaped.

As to the value of the fruit for the table we have the testimony of Messrs. Spruce and Wallis that it is highly esteemed in tropical South America. The fruit grown in this country is, to our thinking, more watery and less richly perfumed than that of the old quadrangularis. On a trial made of some conserve, prepared from the fruits of the two species for comparison, decided preference was given to that made from the *P. quadrangularis*. And here we may be allowed to express our surprise that, commonly as *P. quadrangularis* is grown, its fruit is so seldom seen on the dessert table in the form of jam. We know of few confections of that nature of a richer flavour, and warmly recommend growers of *P. quadrangularis* or *P. macrocarpa*, to avail themselves of the fruit. For this purpose the following directions to the cook may be serviceable:—Cut the ripe fruit into slices, crush the pulp surrounding the seeds with a spoon, so as to extract the juice, remove the seeds, boil the slices till tender, and pass them through a sieve, mix the juice with the pulp, and add white sugar in the proportion of half a pound to a pound of pulp or thereabouts, and boil down to a proper consistence. * M. T. M.

"ABOUT TOWN."

ON September 2 I took a run through two of the London parks—Hyde Park and Battersea, the gardens of the Royal Horticultural Society, South Kensington, and the Crystal Palace. Upon entering Hyde Park at the Marble Arch, "too late" dropped instinctively from my lips. The plants exhibited signals of frost-distress, and showed unmistakable signs of autumnal exhaustion. They looked as if it were the latter end of October instead of the day after St. Partridge's Day. The beds were nearly flowerless, the leaves weather-beaten and autumn-stained, and the general effect was wintry and bleak. It needed not the presence of a band of men snatching cuttings by the donkey load to remind one that danger seemed near. It seemed as if the August frost had expended all its power to destroy this floral fringe of Park Lane, and had succeeded in almost wholly stripping these beds, which had evidently been very beautiful earlier in the season, and its force seemed to have been felt all the way down alike. I was glad to observe that a suggestion made in your columns last year had been attended to all the plants were legibly and correctly named. Had it not been so, no one could have recognised many of the varieties of Pelargonium. Such grand trussers as Amy Hogg especially were reduced to the puniest dimensions. And here, in most cases, misfortune did not come single-handed. Preceding, or on the heels of the frost, caterpillars had been riddling the leaves, and the very Grass between the beds looked languid and killed.

It will be remembered that towards the corner of Hyde Park there is a piece of private ground belonging to the houses in Piccadilly. The angular portion between Park Lane and the park is well furnished with shrubs. Near the centre of the angle there is a circular group of beds. These were flowering away in the utmost profusion, and in the heyday of health and strength. There are also some beds near the park rails within this enclosure. These were intermediate in beauty between the round groups, and those extending all the way down from the Marble Arch to Stanhope Gate and Cumberland Gate. They were well protected by the shrubs from the Park Lane side and pretty freely exposed to the park, hence their intermediate condition. It is impossible to see within a comparatively short distance in the same locality the effects of shelter upon half hardy plants more vividly illustrated.

The same lesson is taught in the subtropical department of Hyde Park. This is confined to comparatively narrow strips on the Knightsbridge side. On the highest ground round the open park the subtropical portion is shut in as it were by a thick mass of shrubbery. Broadly stated, then, this shrubbery forms one wind-break, Knightsbridge and the trees inside the park another; the angular shrubbery, though at some distance, closes up one end, and the artificial mounds, rockwork, trees, &c., the other: thus at all points the force of the wind is broken, and as a rule it might be observed, that where the shelter was most complete, the subtropical subjects seemed most at home.

Proceeding from Hyde Park to Kensington the same truth was further enforced; though here the question of shelter became further complicated by the relative merits of trees or shrubs or dead walls as sheltering agents. A living screen that sifts the air through it, thus breaking its force into fragments, is much more effective as a protector than a dead wall that simply turns it aside. The chances are that in the latter case the wind will vault over the barrier, and form a fresh eddy or current inside of it, and prove perhaps as destructive afterwards as it would have been had it not been interrupted. On the contrary, the living screen disintegrates the force of air in motion, and scatters it utterly, like water spout on the ground that cannot be gathered up again. The subtropical department at South Kensington has the benefit of both kinds of protection. It nestles beneath the high walls of the picture gallery on one side, and is sheltered on the other with a double line of white Poplars. With the double protection the plants were doing well, although hardly so strong as they were last year. The other portions of this garden are pretty well protected by lines of trees, masses of shrubs, and inequalities of surface, while a good deal of heat must be radiated at night from the walls, corridors, &c., and the broad expanses of gravel. The consequences are, that the flowers here suffered but little from the cold. Another circumstance

* Our chef says a compôte would be still better.

doubtless helped to ward off the frost. On the late Prince Consort's birthday free admission is given to the gardens, and this year over 60 000 persons availed themselves of the privilege. Such vast numbers stamped off most of the Grass, and thus checked the loss of heat. The central panel, and nearly the whole of the bedding, was fresh and green, just as if there had been no frost.

From Kensington I proceeded to Battersea. Here is seen a most effective illustration of the protective power of shelter, skilfully disposed. The locality is by no means favourable. The contiguity of the Thames might rather tend to draw than ward off frost; though a body of water is often a useful preventive against extreme and sudden cold early in the autumn, it does not part with its heat so suddenly as the plant-clothed earth. In this way the river might assist the park beside it to resist the cold. It would act as a moderator of the severity of sudden change. But doubtless the form and planting of the ground have more to do with it. The change from Hyde Park to Battersea was like leaping back from the end of October into the middle of July. The subtropicals seemed to be all thoroughly at home in their cosy nooks and warm corners, with massive banks of richly clothed earth behind them, and glowing beds of richest colouring keeping their feet warm. No proof of weakness, no sign of decay, no strain of trying endurance, were visible. Health, strength, freshness and beauty, were inscribed on every group.

I believe the difference between the two parks is mostly, if not wholly, one of shelter. The bedding plants in Hyde Park are set, as it were, in the teeth of the wind. They have a wide road on each side of them, a walk running down between them, and a broad park beyond. And the beds, as well as their windy surroundings are straight, hence the air sweeps along without let or hindrance; the dividing Holly fence even has been removed; there is no wind-break anywhere. At every yard of its progress the breeze gains fresh momentum: it sweeps the whole line of the narrow beds like a hurricane. Were it broken here and there, or turned out of its course by living screens, its force would be weakened, its momentum lessened, as it is, the flower-beds are exposed to its full energy.

In Battersea Park all these unfavourable conditions are reversed. Every expedient has been adopted to shut out the wind from the plants, to turn it aside, or send it scampering off into the air high over their heads. The massive mounds of earth likewise absorb much heat during the day, and give it up again to temper the cold of the night. The energy of radiation is checked by the discharge of this high-level heat, and the plants in the thus sheltered valley preserved in safety. Whether this explanation be accepted or not, the fact remains that while the bedding plants seemed paralysed with cold in Hyde Park they were fresh and beautiful at Battersea.

Proceeding from thence to the Crystal Palace, the bedding plants were found in equal perfection. At the Palace this can hardly be the result of shelter, for the grounds are somewhat bleak and freely exposed. Possibly the plants owe their immunity from early frosts at the Palace to the site and soil: the former is somewhat elevated, the latter dry and apparently poor. The growth of the plants seems sturdy and short, their texture firm, and they thus offer but little frost-hold for the cold. But subtropical gardening is not attempted here, and would possibly prove a failure if it were.

These different states of vegetation within such a limited area appear to illustrate the importance of altitude and shelter as means of combating frost. The latter especially is of the utmost importance.

Dr. Bennet has very clearly shown in his instructive letters on the vegetation of southern Europe that a very slight amount of shelter may often prove of greater value to tender vegetation than several degrees of latitude. The same lesson may also be learned nearer home. The writer has seen the British Queen Strawberry in high perfection on the sunny side of a snow-clad mountain pass in Inverness-shire, while it was perishing from cold in the east and north of England.

In forming gardens for tender plants situations should as much as possible be chosen where it has been observed that common things, such as Potatoes, French Beans, or Dablias, escape the frost till late in the season. If greater care were exercised in the choice of a site, and moderate shelter provided, no one would have to lament the loss of their flower garden in the latter end of August, or dread stern winter treading upon the flowery toes of summer, as it has done in Hyde Park this year. *A Country Chiel takin' Notes about London.*

GRAPE GROWING AT BISHOP STORTFORD.

FOR a full quarter of a century this little town has been famous for Grapes. In the year 1843 (see *Gardeners' Chronicle*, 1847, p. 683) Jones Nash, Esq., planted a large vineyard, for the time, with Hamburgh Vines, and another with Muscat of Alexandria. For many years these Vines and their produce were famed throughout the land; they were well nigh perfect. Pilgrimages were made to the Bishop Stortford vineyards to learn the great art of Grape growing. Berry, bunch, colour, and flavour were all that could be desired. The plants grew like Willows in softness, like gnarled Oaks in robust strength. The produce of each year eclipsed that of the preceding, and hands were uplifted and eyes opened in wondering admiration. But the zenith seems to have been reached years ago, and now the glory has departed from them. A few weeks since I stood in sadness beneath these grand old Vines, gazing upon the wreck of their greatness. Shanking had done its work, and left the crop reduced to the mere shadowy ghost of the olden times. And yet it can hardly be that either age or weakness had

opened up the citadel of life to the cruel havoc of the shank fiend. Twenty-nine years are but a day to the longevity of the Grape Vine, and these grand old rods, measuring from 8 to 12 inches in girth, are still strong, and put forth fine leaves and fair sized wood. The border is likewise wide—about 2½ feet, and well raised above the surrounding surface. And yet on the spot the cause of failure was attributed to the probability of the roots having run clean through and out of the border, and got (as the old gardener who had planted them expressed it) "no one knows where." Their whereabouts, however, will probably be discovered this autumn, as it is in contemplation to clear out those mammoth rods and make another start with new borders and fresh plants. It seems almost like sacrilege to destroy such Vines, and it is to be hoped that a few of them may be lifted into a new root medium, and have one more chance; and that the remainder may be sent up to the arcades at Kensington, to show young and old that the Grape Vine may be grown into a respectable timber tree in the course of a century or so.

But from the setting we turn to the rising sun—from the old Vines of Jones Nash, Esq., to the new ones of Thomas N. Miller, Esq. Five years ago the site occupied by these was a meadow. It is now converted into a kitchen garden, and furnished with some of the largest and best vinerias in the kingdom. One house is 130 feet long and 16 feet wide, in two divisions, one being devoted to Muscats, and the other to Hamburgs. Another is 100 feet by 13 feet, in three divisions—one with an inside border devoted to early Grapes of several varieties, and the other two, one to Muscats, and the other to Hamburgs. The length of rafter in the first house is about 19 feet, and in the second of these houses about 15 feet. But the grandest vinery is a noble span-roofed house, 200 feet long, and 30 feet wide; the side walls are about 2 feet 6 inches high, surmounted by a 2 feet sash leading up to the roof, and the centre of the house is about 15 feet high, which is likewise about the length of rafter on each side. This house is divided into three divisions, one devoted almost wholly to Lady Downe's Seedling, another to Hamburgs, and a third to Muscat of Alexandria. These Vines were planted about 4 feet apart, within about 1 foot of the side walls, only four years ago, and this is the first season that they had been permitted to bear a full crop, right up to the top of the house.

Along the middle of these vinerias a 4-foot pathway, formed of wooden splints, which are about to be replaced by a neat iron grating, is laid, on the top of the border. On each side of this path, at a distance from it of 2 feet on each side, standard or pyramidal Vines 6 feet high are placed, 8 feet asunder; they thus stand 8 feet by 8 feet, and being laden with fruit from top to bottom, have a fine effect. With these exceptions, the entire floor of these houses is clear, and the effect is magnificent. The whole of the Vines, from wallplate to apex, are laden with Grapes, of excellent quality, colour, and size, while both foliage and wood may be said to be as perfect as possible.

The chief feature of the whole of the Vines to be seen at Mr. Miller's is their uniform and general excellence. Mr. Ward, his talented gardener, does not affect sensation bubbles, neither masters nor piecemeal have place within either of these vinerias; each bunch throughout the houses is as like every other bunch as may be; and the same may be said of the produce of each Vine. This uniform and unerring excellence, while it reflects the highest credit upon Mr. Ward, tells against him as an exhibitor. Many, whose Grapes are far below his high average quality, might cut two or three heavier bunches, but with the exception of a small house of Muscats, grown by an amateur under Mr. Wm. Thomson's instructions at Dulwich, I have never seen any Muscats to equal Mr. Miller's. The Hamburgs are also very fine—good in bunch and berry, and as black as sloes. The first two vinerias are bearing their third crop, the span-roofed house, which was only planted four years ago, its first full crop. The bunches on each rod average about 20, and the weight in the different houses will range from 30 to 50 lb. per rafter. The outside borders have asphalted bottoms, are well drained with rubble, and the water is discharged into a passage that skirts their front. The depth of the borders is 30 inches against the vinerias, 2 feet at the walks; their width is 20 feet. They are formed of turfy loam, with a liberal addition of crushed bones and lime rubbish. They have been watered twice this season. Before winter a layer of stubble, about a foot thick, is put on to exclude frost; this is again covered over with tarpauling, to throw off the water. The early Vine border is formed, piecemeal, of turfy loam and broken bones, inside the house, and it was found to be a tangled mass of thick spongioles, ramifying in all directions towards the surface. No drainage was provided nor special preparation made for the borders in the span-roofed vinery. A little loam mixed with crushed bones was placed upon the surface of the original earth—so I understood it—and the Vines were inserted in the usual manner. No Vines could have done better, they are the perfection of robust health, and models of fertility.

Next to the health or excellence of all the Vines, and the uniform quality of their produce, was the spotless cleanliness, size, and gradual and late ripening of the foliage. On the early Vines, with the wood as hard as buckhorn, the leaves were still treasuring up more power for next season's exigencies. The chief peculiarity of culture observed was, that the houses were wholly devoted to the Vines. Neither pot nor plant was seen throughout the whole of the vinerias. This adds immensely to their dignity and grandeur, and probably contributes considerably to the high degree of success realized. Another peculiarity, that of allowing the leading shoots to run on without stopping, has been already adverted to in your columns. Mr. Ward attributes great importance to this, as

likewise to allowing a second shoot to run out from the base of the Vine near the wallplate. With these two growths acting as root stimulators or sap pullers, he practises pretty close stopping of the laterals, so as to allow the sun to develop that golden tint on Muscats which is alike proof and cause of the highest excellence. This theory of open mains is, however, not generally applied to Hamburgs. Each side shoot in their case is left to cater for itself. The advocates of bottom-heat for Vines may fairly claim Mr. Ward as with them. True, he does not heat his main borders from below, but then with his stubble and tarpauling he stores up as much heat as possible. If he directly puts no heat in, he is very careful to let but little out. The borders, again, of his large span-roof house are heated by the surface air from above, while the early vinery border is placed so close to the hot-water pipes, as to be heated, I should suppose, considerably beyond the surface temperature. Be this as it may, all plants that have their roots placed in the same temperature as their tops are grown in bottom-heat.

Further, Mr. Ward raises a good many young Vines annually, and these are grown to great perfection directly over his linen pipes that warm a large span-roofed Pinery. An open grating is placed as a shelf within a few inches of these pipes, where the young Vines remain from early spring until they finish their growth in autumn. At the time of my visit this house had been shut up for the night with a sun-heat of 100°, and of course the pots, brimful of roots, were enjoying the same temperature. During cold nights these pot Vines must have often endured a much higher degree of heat, and yet no plants could have looked better. Even the early Vines are subjected to a high temperature to finish their growth, Mr. Ward remarking that he does not believe in cold as a wood ripener.

Mr. Ward is equally and perhaps more famous as a Pine than a Grape grower. This season he has taken six or eight prizes, last year as many as a dozen; and it will be recollected that he created quite a sensation at the Regent's Park by showing a first-rate Queen over 7 lb. in weight, and 12 others weighing together 63 lb. At the present time he has some fine Charlotte Rothschilds, Queens, Smooth-leaved Cayennes, &c., swelling off, from 6 lb. to 10 lb. in weight. The Pines, like the Grapes, may be said to be all good alike; they are the most regular and sturdy robust lot of plants that can be imagined. About 150 plants are grown, and 70 fruited annually. In from 10 to 18 months the fruit is generally cut. The sorts grown are mostly Queen, Charlotte Rothschild, Smooth-leaved Cayenne—a good many, Prickly Cayenne, Black Jamaica, Black Prince, and the Blood Pine, of which I saw a splendid fruit nearly 6 lb. in weight. They are grown in two houses, one a lean-to, over 100 feet long, and 12 feet wide, in three divisions—one of them being mostly used for fruiting plants, and the other two for successional ones. Three pipes are used for bottom-heat, and the pots are plunged in tan, the plants being kept up close to the glass. The other house is span-roofed, 75 feet long, 25 feet wide, 11 feet high at the sides, 2½ being of brick wall, in which the ventilators are placed, and 2 feet of glass,—and about 10 feet high in the centre. Six hot-water pipes, three deep, in double tile, are carried all around by the side of the wall. Then follows a path all round, and a wide flat bed for the Pines in the centre of the house. Five pipes are carried through this bed for bottom-heat; then a layer of brickbats, followed by the tan as a plunging material. Five rows of plants are fruited in this house. The greater portion of them had been cut, but enough remained to show the high standard of Pine growing at Bishop Stortford. In a few weeks the succession plants will be moved into this house, and a fresh start made. The top of the centre bed is about level with the shelf over the pipes. The plants are therefore a long way from the glass, but the house is light, and the foundations of a sturdy habit have been so well and surely laid in the lean-to house, that the plants retain it to the end of their lives; in fact, this central force, concentrating itself into fruit many pips deep, the spotless cleanliness of the plants, without scale, or bug, or any such thing, and the shortness of the time between the start into growth and the husked fruit, are the chief characteristics of Mr. Ward's Pine growing.

I observed a good many Cucumber cuttings striking in this Pine-house, and I learned that it was a long sort, a yard in length, which refuses to seed, and is grown in quantities from cuttings every winter, and fruited in pots placed on the coping of the retaining wall of the plunging bed, the branches being trained to the roof over the path. In winter and early spring the shelf over the pipes, occupied by the Vines in pots in summer, is devoted to the forcing of Kidney Beans—Fulmer's Early Forcing being found the best for providing a daily supply. Everything seen here betokens attention and skill, and at all points we see proofs of their legitimate reward—success. *David Tallant*

INDIAN FORESTS.

I wish to make a few remarks on the present condition of the Indian forests—as every one who knows anything at all on that subject knows that the condition of a very large portion of them is already so wretched that further neglect could not possibly make them worse—but, on the chief causes that have so ruinously wrought together in making them what they now are. First in order comes the contract system of cutting and selling timber, next clearing, with the view of extending cultivation, and then cattle grazing and its inevitable attendant forest-destroying first, the contract system as I understand it, for a stipulated sum on some particular tract, and within a certain number of months, or as much timber as he liked, besides having unlimited liberty to kill as many young and old trees as he pleased to any extent that either caprice or avarice might dictate. The latter most generally was his regulating motive. If within easy distance of a market where the demand for small poles for roofing and other purposes was great, on the expiry of the lease there might hardly be a

Sal sapling left standing that would make a respectable broom-handle. The only things left were a few stumps that would not repay the labour of cutting; perhaps, also, a few hollow or gnarled specimens of Terminalia, Bigonia, Somercarpus, Ficus, &c., the wood of which is worthless even for the purpose of burning. After clearing away the heavy timber, those rank growing grasses that don't flourish where there is much shade, begin to grow most vigorously; also patches of scrub, for instance, *Ruellia P. sequaria*, *Carissa*, *Zizyphus*, &c., which were carefully preserved for the reason that the market for such species of forest produce is generally very dull, about ahead much more vigorously than before; and seedlings by millions—the legitimate descendants of the fallen great—wield from their vigorous appearance it might be fairly expected would soon become fine healthy trees. But in accordance with the usual custom, the tract must get burnt to improve the pasture for the village cattle; and very few of the seedlings, now apparently so vigorous and healthy, will survive that ordeal. Perhaps the year following, the process may be repeated, and so on every second or third year at the longest, so long as there are cattle and herdsmen in the neighbourhood. After the second or third burning at the most the seedlings will have been completely destroyed and with them a good many of the unsound and worthless trees left at the general clearing. Some of the more vigorous stumps may for many years continue to throw out a few sickly shoots, which can never come to anything, as every successive fire destroys exactly what they have grown upon the preceding one. In time they assume precisely the appearance of worn-out Willow stools; then, disgusted with such treatment, and tired of life, they depart one by one, and the only mementos left of what was once a magnificent piece of forest are a few charred rotten stumps.

Could burning have been prevented, in the course of a short time the tract would again have been covered with healthy saplings, the thinnings of which would have been worth a good sum annually, not to speak of advantages both official and commercial that would have resulted from such a state of things, whereas, as this tract now lies they are entirely unproductive, at least they produce nothing so valuable as the Spear grass, *Carissa*, and *Zizyphus* bushes, about which the best that can be said is, that they are intolerable pests to man and beast. Repeated burning of the jungle seems to impoverish the land so much, that even these pests in the look stunted and sickly, and seem as if they might ultimately die from sheer starvation.

If instead of annually reducing the grass to ashes it is been left to decay where it grew, in the course of time there would have accumulated a fine layer of vegetable mould—a much ready-made food for roots to draw from. But, if the view be objected to, still it would have been of great value keeping the soil moist, as drought perhaps even more the poverty may be the cause of the sterility that follows in the wake of these clearings, which unfits them for the production of one thing or other that can be of much use to either man or beast. A camel or even a goat would in many places find difficulty in picking up a living off an area as large as a good sized farm.

The Indian Government seems always to have been ready recognising, and liberal in rewarding, merit in its servants whether military or civil—in many instances as reward (jagheers) large tracts of land, either virgin forest or partially cleared, of an extent such as few of the little German monarchs could afford to give. Private individuals also often applied for and received extensive tracts at a merely nominal price—a few shillings per acre, with the view of clearing and cultivating. The clearing of these tracts was a very difficult matter but not so the cultivating of parts of them. In many places where that has been tried, after raising two or three crops the land is again thrown out of cultivation. In some cases because of the want of water for irrigating purposes, and in others, because of the excessively dry, gravelly soil. In some districts extensive tracts of that description have been cleared—while through avarice or ignorance matters little, as there has been an injury done to the country at large, and the district particular, that will cost money and time to repair. In clearing and partial cultivating improve the land for grazing purposes, but little could be said against the practice, as such a plea cannot be urged in defence of the system as the very opposite of that is the case. Neither can it be said with truth that the clearing was permitted or sanctioned with a view of improving the health of some sickly district, as such tracts as these have spoken of do not supply the requisite conditions for the production of miasma.

The present system of allowing cattle, for a very trifling sum per head, to graze in reserved forest tracts, has been an still is another fertile source of injury. That arrangement does not expressly stipulate that these tracts are to be burnt every year or second year at the longest, still it is perfectly well understood that such will be the case—that it seems to be implied—unless the grass be so thin that it would occasion the poor wallah (herdsman) a good deal of trouble to burn it. If that were the case portions might escape for more than a period of two years, but on no other condition. When seedlings and saplings perish by the million from that cause, the system that not only tolerates but fosters it for a paltry sum that might perhaps barely supply stationary—red tape included—for the year's consumption in the district office, can hardly be characterised as anything else than blindly ignorant or avariciously greedy. Until that system be entirely done away with, it matters little what other reforms be recommended or sanctioned; at best they can be only palliatives—only another instance of a Mrs. Partington keeping out the sea with a besom.

The Supreme Government must all along have been cognizant of the existence of such a state of things, as well as the results that it would ultimately lead to; but the least this-to-my-successor policy, or absolute indifference to the requirements of the future, seems to have been consistent sufficient excuse for the then present neglect. Report after report was written, pointing out the ruinous tendency of the system, or systems in operation, but only to be glanced at, docketed, and shoved into a pigeon hole with the view of further reference, when time and inclination permitted accidents which have been long in the air. An article after article has also appeared in the newspapers on the same subject, but the result of the current literature on the present day, though not more abundant after they were read. On in particular, in the *Times*, probably about 1846 or 1847, bearing on the contract system of wholesale denudation, after briefly reviewing that, with a foregone conclusion prophetic sketches in a short but most laudable manner the present state of the Indian forests, and the present scarcity of timber, an accurate in its general bearings as it had been written only six months ago. Still one and all of these reported articles have met with the same treatment—short contempt or scornful indifference to the warnings given by such and in different must have made the position of the forests of the forest department a peculiar and in many respects a most anomalous one—consulted on subjects and their opinions treated with the utmost indifference—superintendents of a system that was steadily yet rapidly bringing the forests to ruin. Their case was only another good illustration of the old story of a brick without straw, with this difference, that I have heard of an instance in which their taskmasters treated them with severity for the nonperformance of impossibilities.

Now that stern necessity, the hardest of masters, has succeeded in arousing the Indian Government out of that state

of torpor in which it has lain so long, brought it to recognise the utility of a better system of forest conservancy than has hitherto prevailed, will it rest satisfied with merely an attempt at improving what is already partially wooded? Or, will it take a broader and more liberal view of the question, not rest satisfied until an effort has been made to again cover these now useless and unproductive wastes with sal and other useful trees? Then arises the question, What are to be the means employed in bringing about this great reform? Looked at from this point of view, there seems to be but two modes by which that can be accomplished. Regarding the advantages or disadvantages, as well as the difficulties that may attend the working out of either, it is unnecessary to make any remarks, as my object is merely to show what may be the character of some of the duties that Indian forest officers will be called on to perform, from whom we may be better able to judge of the education that will best fit them for the performance of these duties. Whatever the plan be that is adopted for the filling up of these wastes, the difficulties that will attend the carrying it out are neither few nor insignificant, and will certainly test severely the skill, patience, and perseverance of those to whom the work is intrusted. As workmen they will have a lot of scheming, lazy, careless scoundrels, an excessively dry and poverty-stricken soil, a burning sun, and hot winds that will make even a Mammillaria shrivel, and periodical fires which may at any instant destroy the most promising of experiments. These are a few of the difficulties that the forest officer will have to encounter and overcome in the discharge of his duties. And how far a knowledge of the habits of Indian trees compared with English ones, and the various methods of raising, &c., will assist him in overcoming these, and others of a similar kind that may from time to time crop up, perhaps your learned correspondence can tell us.

It seems to be thought by some that a reverse of study in Germany is all but indispensable for those intending to become forest officers. If for the efficient management of a natural forest it required talent of an altogether different and of a far higher kind than for the management of plantations formed by art, it would be easy to see wherein lay the advantages of a German training. Or, if British foresters did not understand how to turn grass, brushwood, &c., to account when there existed a ready market for such like articles, it would certainly be an advantage both to them and their employers to have them taught. But in India, as in Britain and everywhere else where no market exists for such chips and straws upon which such a high value has been set by some, they must either be left to rot where they lie, or if it be resolved to turn them to some account, it is not possible that it may cost twopence for collecting and bringing into market an article that may barely realise a penny when there? In a district where the population is both scanty and poor, of course the demand for such articles as "minor forest products" cannot be very brisk—in short, where the distance from a good market is really so great the receipts would not cover the expenses incurred for transit alone. It is not to me clear that a German training, or even a German himself, could make much more out of these chips and straws than a man with only a British training could. Further, neither is it very flattering to the dignity or self-respect of the man who, after months or years of hard grinding to qualify himself for becoming a forest officer, finds that, when the desired goal has been reached, the most laborious and tiring part of his duties is not the superintendence of forest operations proper, but to superintend the cutting of a little grass for stumps, the thinning, &c., or the collecting of a few rotten branches for cooking chupatties for the inhabitants of a few wretched villages in the immediate vicinity—miserable trifles that in many instances might barely pay for the postage, far less the labor of the collector.

Not having traveled so far as Germany, I cannot from personal knowledge offer an opinion on the system of foresting practised there. Still to me it seems that the very grounds on which its advocates praise it are exactly those on which some would condemn it. It is said that there is no planting out done there—they trust entirely to self-sowing, in other words, assistant, to fill up any vacancies that may occur. Where land is of so little value that they can afford to wait for that, clearly in that respect there is contrast; but no comparison can be made between that and the British system. British land proprietors cannot afford to wait till accidents fill up vacancies in their plantations. The fact of the Germans being able to afford to wait on such a precarious mode of filling up vacancies merely shows that the value of land there is much less than it is in this country. Still I fail to see in that any proof of superior management; the generality of British foresters would feel inclined to characterise the system as lazy and slovenly. The mere fact of their being able to collect straws and chips simply shows that labor is cheap and coal and iron dear while the very reverse of that is true of this country—another indubitable proof of the superiority of the German system over the British one. On that subject a great deal more might be said, but I will not enlarge further on it.

Now that the Indian Government recognises the necessity for filling up those wastes already spoken of with something more valuable than Spear-grass and Zizyphus bushes, will it trust to accident, birds, and the wind, or to science and intelligence? If to the latter, which seems the most feasible, whether will the man who has been accustomed to seed sowing and transplanting young forest trees, or the one who has had a German training, make the most intelligent and efficient forest officer? It seems to be somewhat gratifying, I think, to find that the British system, with its system of planting out, is not only shown to be really the superior one, but that a few here and there but in the same breath, they really say that they are capable of doing more. If it were only ten nations would be more efficient, given equal circumstances, than the British forester is supposed not to do. If by the German system a greater amount of timber of better quality can be grown on a given area in a shorter time, and at a less cost than by any other, by all means let British foresters take a lesson from them, but if it shows them nothing more valuable than how to collect and prepare grass and brushwood for the market, that is hardly worth taking notice of. It seems that the market there for such like articles is consider-

ably better—from whatever cause—than it is in either Britain or India.

Seeing that the German system has been paraded on so many occasions lately, and in so conspicuous a manner, I shall take the liberty of mentioning a fact which has some indirect connection with that, that its promoters seem never to have heard of, or else have entirely forgotten Numbers of German horticulturalists at one time used to come here, with the view of studying the system practised in British gardens, perhaps because they considered it inferior to their own, and the fact of their coming here at all was merely to get a comparative knowledge of the two systems. A few still come, but with what object I cannot guess, if it be not with the view of making themselves better acquainted with some important principle or practice than they have the means of doing at home. *Scopolia japonica*.

(To be Continued.)

REVIEW OF THE GENUS NARCISSUS—IV.

(Continued from p. 87.)

Group III.—PARVICORNATÆ: crown less than half as long as the divisions of the perianth.

Of this group we may define 11 leading types, as follows:—

- Limb of the flower horizontal, or nearly so, when expanded; anthers sessile, or very nearly so.
- Flowering in spring.
- Crown cup-shaped, 2-4 lines deep.
- Leaves glaucous, flatish, 1-2 lines broad.
- Leaves striate, green.
- Flowers 1-2, usually white, with a tube 12-14 lines long.
- Flowers 3-6, yellow, with a tube 8-9 lines long.
- Crown obconical, uniform, not more than a line deep.
- Flowers white, leaves flatish, glaucous, 3-4 lines broad.
- Flowers bright yellow, leaves terete, bright green.
- Crown obconical, 1-1½ line deep, the edge different in texture to the rest, and much crisped and crenulate.
- Flowers in pairs; crown with a yellow rim.
- Flowers solitary; crown with a scarlet rim.
- Flowering in autumn.
- Leaves contortaneous with the flowers.
- Divisions of the flowers greenish.
- Divisions of the flower white.
- Leaves produced after the flower.
- Form of the flower campanulate.
- Crown nearly obsolete; anthers shorter than their filaments.

11. TAZETTA. 12. GRACILIS. 13. INTERMEDIUS. 14. PACHYBOLUS. 15. JONQUILLA. 16. BIFLORUS. 17. POETICUS. 18. VIRIDIFLORUS. 19. KLEBANS. 20. SEROTINUS. 21. BRODSKONETH.

The above description applies to a plant which is very common in cultivation, and extends in a wild state from the south of Europe, through Syria, Cashmere, and the north of India, to China and Japan. There is a very large number of forms wild in the South of Europe, and known in cultivation, which do not differ from it in any important characters, and which appear to slide into one another so gradually, that it is impossible to individualise them, or characterise them in any definite manner. Of those known in our gardens 30 years ago, 45 are briefly described in Haworth's Monograph under specific names, and recently 26 of the wild ones have been fully described by Professor Parlatores ("Flora Italica," vol. 3, p. 125-156), and 14 of them have been beautifully figured in Jordan and Fourreau's "Icones Floræ Europæ." To these works we refer any of our readers who wish to study out the subject in full detail. All that we propose to attempt here is to characterise a few of the most striking of these various forms, and to enumerate under each of them the most important or best known figures and synonyms.

Var. 1, *lacticolor*.—The typical plant, as just described, of which good figures will be found in Sibthorp and Smith's "Flora Græca," t. 358, and Moggridge's "Montone," t. 23. *Hermione brevistylis* and *H. tazetta*, ex parte, Herbert and Kunth; *H. formosa*, Jordan, t. 189, *discolor*, Jordan, t. 183, and *pratensis*, Jordan, t. 187; *H. freyana*, Sweet, ser. 2, t. 118, *Jord. Ic. t. 189* (a large form, common in cultivation, with flowers nearly 2 inches across), *H. formosa*, Haw. Mon. p. 11, *Jord. Ic. t. 181* (large), *N. Cypri*, Sweet, ser. 2, t. 2; *H. Cypri*, Haw. Mon. p. 11, *Jord. Ic. t. 190* (a large flowered form, with adpressed, crisped corona, 1½ line broad at the mouth), *H. Cypri* and *andriana*, Haw. Mon. p. 11, and *N. Cypri*, Bot. Mag. t. 94 (nearly of the same size as the last), *N. Cypri*, Journ. Bot. Soc. Lond. t. 2, p. 27, the same as *H. Cypri*, Haw. Mon. p. 11, *Kunth, 5, p. 77* (a small form, with the expanded lower petal 4 lines across, tube 2 lines long, leaves 3-4 lines broad).

Var. 2, *intermedius*.—Differs from the last by the narrower divisions of the flower which are not more than a quarter of an inch broad, but it is well imbricated, in the same length and out at the point. *H. intermedius*, Jord. t. 185, *H. intermedius*, Haw. Mon. p. 11, *Kunth, 5, p. 77* (a small form, with the expanded lower petal 4 lines across, tube 2 lines long, leaves 3-4 lines broad).

Var. 3, *polyanthus*.—Flowers 8-20, 12-15 lines across when fully expanded. Divisions pure white, 4-5 lines broad,

imbricated, bluish or cuspidate, equalling or shorter than the tube. Corona about a third as long as the divisions, at first a very pale yellow, finally becoming nearly the same color as the divisions, slightly pleated, the edge serrate. *N. polyanthus*, Lois. Fl. Gall. 1, p. 236, DC. Fl. Franc. p. 23, *Reich. Ic. t. 377, H. Cypri*, Haw. Mon. p. 11, *Kunth, 5, p. 77*.

Var. 4, *intermedius*.—Leaves glaucous, 1-2 lines broad; stem upright, expanded lower petal 12-14 lines across, the divisions pure white, 4-5 lines broad, generally narrowed gradually to a point, and minutely imbricated. Crown 2-3 lines deep, with a crenulate edge, just the same colour as the divisions. *N. papyraceus*, Gawl. Bot. Mag. t. 947 (1806), *Moggridge, Cont. Ment. t. 70, Parl. Fl. Ital. 3, p. 126; Hermione papyracea*, Haworth, Herb. Kunth, *N. unicolor*, Vent. Hort. Malm. t. 26; *N. unicolor*, Tinore, Fl. Neap. 1, p. 144, t. 26, *N. niveus*, Lois. Narciss. p. 37 (1810), *Gren. and Godr. Fl. Franc. 3, p. 280, Reich. Ic. t. 815*.

Var. 5, *intermedius*.—Leaves glaucous, 1-2 lines broad; stem upright, expanded lower petal 12-14 lines across, the divisions pure white, 4-5 lines broad, generally narrowed gradually to a point, and minutely imbricated. Crown 2-3 lines deep, with a crenulate edge, just the same colour as the divisions. *N. papyraceus*, Gawl. Bot. Mag. t. 947 (1806), *Moggridge, Cont. Ment. t. 70, Parl. Fl. Ital. 3, p. 126; Hermione papyracea*, Haworth, Herb. Kunth, *N. unicolor*, Vent. Hort. Malm. t. 26; *N. unicolor*, Tinore, Fl. Neap. 1, p. 144, t. 26, *N. niveus*, Lois. Narciss. p. 37 (1810), *Gren. and Godr. Fl. Franc. 3, p. 280, Reich. Ic. t. 815*.

Var. 6, *intermedius*.—Leaves glaucous, 1-2 lines broad; stem upright, expanded lower petal 12-14 lines across, the divisions pure white, 4-5 lines broad, generally narrowed gradually to a point, and minutely imbricated. Crown 2-3 lines deep, with a crenulate edge, just the same colour as the divisions. *N. papyraceus*, Gawl. Bot. Mag. t. 947 (1806), *Moggridge, Cont. Ment. t. 70, Parl. Fl. Ital. 3, p. 126; Hermione papyracea*, Haworth, Herb. Kunth, *N. unicolor*, Vent. Hort. Malm. t. 26; *N. unicolor*, Tinore, Fl. Neap. 1, p. 144, t. 26, *N. niveus*, Lois. Narciss. p. 37 (1810), *Gren. and Godr. Fl. Franc. 3, p. 280, Reich. Ic. t. 815*.

Var. 7, *intermedius*.—Leaves glaucous, 1-2 lines broad; stem upright, expanded lower petal 12-14 lines across, the divisions pure white, 4-5 lines broad, generally narrowed gradually to a point, and minutely imbricated. Crown 2-3 lines deep, with a crenulate edge, just the same colour as the divisions. *N. papyraceus*, Gawl. Bot. Mag. t. 947 (1806), *Moggridge, Cont. Ment. t. 70, Parl. Fl. Ital. 3, p. 126; Hermione papyracea*, Haworth, Herb. Kunth, *N. unicolor*, Vent. Hort. Malm. t. 26; *N. unicolor*, Tinore, Fl. Neap. 1, p. 144, t. 26, *N. niveus*, Lois. Narciss. p. 37 (1810), *Gren. and Godr. Fl. Franc. 3, p. 280, Reich. Ic. t. 815*.

Parlatores's two other species of this series, *N. Barla* and *N. Gennari*, we have not seen.

Var. 8, *intermedius*.—Leaves glaucous, 1-2 lines broad; stem upright, expanded lower petal 12-14 lines across, the divisions pure white, 4-5 lines broad, generally narrowed gradually to a point, and minutely imbricated. Crown 2-3 lines deep, with a crenulate edge, just the same colour as the divisions. *N. papyraceus*, Gawl. Bot. Mag. t. 947 (1806), *Moggridge, Cont. Ment. t. 70, Parl. Fl. Ital. 3, p. 126; Hermione papyracea*, Haworth, Herb. Kunth, *N. unicolor*, Vent. Hort. Malm. t. 26; *N. unicolor*, Tinore, Fl. Neap. 1, p. 144, t. 26, *N. niveus*, Lois. Narciss. p. 37 (1810), *Gren. and Godr. Fl. Franc. 3, p. 280, Reich. Ic. t. 815*.

Var. 9, *intermedius*.—Leaves glaucous, 1-2 lines broad; stem upright, expanded lower petal 12-14 lines across, the divisions pure white, 4-5 lines broad, generally narrowed gradually to a point, and minutely imbricated. Crown 2-3 lines deep, with a crenulate edge, just the same colour as the divisions. *N. papyraceus*, Gawl. Bot. Mag. t. 947 (1806), *Moggridge, Cont. Ment. t. 70, Parl. Fl. Ital. 3, p. 126; Hermione papyracea*, Haworth, Herb. Kunth, *N. unicolor*, Vent. Hort. Malm. t. 26; *N. unicolor*, Tinore, Fl. Neap. 1, p. 144, t. 26, *N. niveus*, Lois. Narciss. p. 37 (1810), *Gren. and Godr. Fl. Franc. 3, p. 280, Reich. Ic. t. 815*.

Var. 10, *intermedius*.—Leaves glaucous, 1-2 lines broad; stem upright, expanded lower petal 12-14 lines across, the divisions pure white, 4-5 lines broad, generally narrowed gradually to a point, and minutely imbricated. Crown 2-3 lines deep, with a crenulate edge, just the same colour as the divisions. *N. papyraceus*, Gawl. Bot. Mag. t. 947 (1806), *Moggridge, Cont. Ment. t. 70, Parl. Fl. Ital. 3, p. 126; Hermione papyracea*, Haworth, Herb. Kunth, *N. unicolor*, Vent. Hort. Malm. t. 26; *N. unicolor*, Tinore, Fl. Neap. 1, p. 144, t. 26, *N. niveus*, Lois. Narciss. p. 37 (1810), *Gren. and Godr. Fl. Franc. 3, p. 280, Reich. Ic. t. 815*.

Var. 11, *intermedius*.—Leaves glaucous, 1-2 lines broad; stem upright, expanded lower petal 12-14 lines across, the divisions pure white, 4-5 lines broad, generally narrowed gradually to a point, and minutely imbricated. Crown 2-3 lines deep, with a crenulate edge, just the same colour as the divisions. *N. papyraceus*, Gawl. Bot. Mag. t. 947 (1806), *Moggridge, Cont. Ment. t. 70, Parl. Fl. Ital. 3, p. 126; Hermione papyracea*, Haworth, Herb. Kunth, *N. unicolor*, Vent. Hort. Malm. t. 26; *N. unicolor*, Tinore, Fl. Neap. 1, p. 144, t. 26, *N. niveus*, Lois. Narciss. p. 37 (1810), *Gren. and Godr. Fl. Franc. 3, p. 280, Reich. Ic. t. 815*.

A crowd of Haworth's species (as *H. subulnea*, *perlutea*, *flaveola*, *dellexcaus*, and *triloba*) appear from the descriptions to range between our varieties 8 and 9. *N. tazetta*, then, in the broad sense of the term, as here defined, includes all the Narcissi with broad glaucous leaves, and a cup-shaped crown, from a quarter to half as long as the divisions of the perianth.

Well-known in cultivation but never matched with any wild plant. Probably a hybrid between some of the varieties of *Tazetta* and *poeticus*. It has the leaves and general habit of *N. poeticus* var. *radiflorus*, but the flower is different. It may be the *N. angustifolius* of Willdenow, and if so that is its oldest name, but it is not the plant figured under that name by Curtis.

Var. 12, *intermedius*.—Leaves glaucous, 1-2 lines broad; stem upright, expanded lower petal 12-14 lines across, the divisions pure white, 4-5 lines broad, generally narrowed gradually to a point, and minutely imbricated. Crown 2-3 lines deep, with a crenulate edge, just the same colour as the divisions. *N. papyraceus*, Gawl. Bot. Mag. t. 947 (1806), *Moggridge, Cont. Ment. t. 70, Parl. Fl. Ital. 3, p. 126; Hermione papyracea*, Haworth, Herb. Kunth, *N. unicolor*, Vent. Hort. Malm. t. 26; *N. unicolor*, Tinore, Fl. Neap. 1, p. 144, t. 26, *N. niveus*, Lois. Narciss. p. 37 (1810), *Gren. and Godr. Fl. Franc. 3, p. 280, Reich. Ic. t. 815*.

A native of Spain, the South of France, and the Balearic Islands. Intermediate between *Tazetta* and the *Jonquilla*, but both this and the last, though easy to know, when living by their leaves and general habit, are scarcely to be distinguished from *Tazetta* in dried specimens. The three taken together may be known from all other Narcissi by the cup-shaped crowns, from a quarter to a third, or in extreme cases nearly half, as long as the divisions of the limb of the flower. *J. G. Baker*.

Home Correspondence.

The Hamburg International Exhibition. — It is gratifying to me, as one of the victims of those who projected the above exhibition, to observe that their conduct has come under the lash of the Gardeners' Chronicle in last Saturday's publication, and in corroboration of what is there hinted at, allow me to give as an instance of the unfair treatment foreign exhibitors received, some account of my own case, which will perhaps be better explained by the publication of the copy of a letter I addressed to them through their Secretary, but of which, up to this date, they have taken no notice:—

"The Gardens, Dalkeith Park, September 2, 1866. Sir,—I sent my son to your exhibition with the three bunches of Grapes I entered for the cup offered by the Queen of England, and I have just received the following telegram from him:—'Meredith 1st; been disqualified; prize altered from three bunches to a collection.' Now, if I understand this right, it means that you have given the cup to a large collection of Grapes instead of to three bunches, and in the name of all that is fair and honest, I protest against such a change, and claim the cup, if my three bunches were the best that were exhibited, and properly entered as three bunches for the cup in question. The Gardeners' Chronicle has been the English organ of the exhibition, and on July 17 the following paragraph appeared in it:—'We learn officially from Hamburg that the Queen's Silver Cup is to be given to the best three bunches of Grapes.' On the faith of this announcement I wrote, and entered three bunches for the cup, and added, that if I were wrong in supposing it was to be given for three bunches, I begged to be corrected. The only reply I got was a certificate that I had entered them, and a card to place on them, which was an acknowledgment that I was right, and I sent three bunches of Grapes, weighing over 13 lb., at great expense to myself, and I now demand an explanation of what appears to me to be a bit of none, except that of keeping faith with me, or any one else more deserving, and who may have complied with your terms. In conclusion, I beg to say that I will accept of no other prize for my Grapes from you, except that for which they were entered. Waiting your reply. I am, &c.,

"Dr. Gotze, Secy." "W. THOMSON." I may as well state here, that in the printed schedule of the prizes, the cup was offered for three bunches of Grapes in three varieties; and of the whole exhibitors I alone complied with this rule, which would have been binding on any set of judges in Britain, where men have respect for truth and honour—matters that are at a discount amongst those who conduct such exhibitions as that under consideration. For the information of all who may venture across the Channel as exhibitors on any future occasion, I may state that my son left his box of Grapes, on the evening before the first day of the exhibition, locked in in a building on the exhibition ground, along with those of other exhibitors; and when he returned to set them up next morning he found the other exhibitors arranging their Grapes, and his removed from the place where he left them to another part of the building. He looked at the fruit on the evening of their arrival, and found them as sound as when packed, but when he opened them on the morning, a limb was broken off one bunch, and more than a score of berries torn out of the others, the box bearing evidence that it had been repeatedly lifted and dashed on the ground to destroy the Grapes—a proceeding too contemptible to be characterised in the English language. Wm. Thomson, Dalkeith Park, Sept. 20. [Mr. Thomson writes under a feeling of great irritation, as well he may, for, whatever answer may be made to some of his allegations, it is abundantly evident that he has been badly treated. We understand that a deputation of the British exhibitors waited on the President of the exhibition to solicit an explanation of the alteration from "the best specimen" to "the best assortment." The answer given, as we learn, was this, that the cup was to have been for the best specimen, but on the receipt of the cup from England it was found to have engraved upon it, "for the best assortment." The Queen was communicated with by telegraph, and is stated to have replied that she decided for an "assortment." Now, it is clear that the matter was never properly represented to her Majesty. Her name and character have been most improperly traded upon. She would, we are convinced, never have consented to any alteration in the schedule made at the last moment. Moreover, as we further learn, the statement that the cup bore the inscription "for the best assortment" is a—well—a mistake; the words on the cup, as seen after the awards had been made, were "for the best specimen." We do not go so far as some of the exhibitors do, and make a charge of intentional unfairness on the part of Continental judges at these international exhibitions; we simply say, that they sometimes manifest a perfectly childish view of the nature and objects of a free open competition, more nearly akin to the absurd farce enacted at some infant schools in this country, where every little dear gets a prize, and the next stupid one gets the "good conduct" prize! If by some accident, impecuniosity of the mistress, or what not, some Young Hopeful fails to get a prize, he or she is encouraged with the promise of one next time if he or she be good. We believe, odd as it may seem, that the freedom of our political system, as compared with the more despotic bureaucratic Government under which our foreign friends live, has much to do with the complaints that have reached us from almost all the international exhibitors. We ought to add that our former remarks were written before we had any direct communication with any exhibitor, and were suggested by the reports of our correspondents Eds.]

Cedars of Lebanon.—There is a good number of very fine specimens of this Cedar growing in the park and grounds here, although none with a bole so large as some already described in your columns. There are several that girth from 12 to 17 feet, with branches extending over an area of 250 feet, and from 70 to 85 feet in height; most of them are of a beautiful symmetrical growth. One specimen that measures

14 feet at 1 foot from the ground, has a clean stock to 20 feet high, and at 35 feet it girths 6 feet 6 inches. Many who have seen it consider it to be the finest piece of Cedar wood in this country. Fourteen, however, of the largest and handsomest ever grown on this place were laid low by the fearful gales that swept over the west of England and did so much damage on January 10—11, 1866. Most of the above specimens, as nearly as I can ascertain, were planted from 90 to 100 years ago. Will you allow me to ask to what age the Cedar of Lebanon is likely to maintain its health and vigour in this country? From the appearance of many of the majestic specimens growing here, I fear they will soon pass away. Many of them have assumed a sickly appearance during the last four seasons; how long they had previously worn that garb I cannot say. I have particularly noticed this unhealthy look on a specimen at the back part of the kitchen garden. With a bole 12 feet 9 inches in circumference, at 10 feet from the ground it threw up several branches almost perpendicularly, each, comparatively speaking, a good sized tree in itself. Last April the wind broke off two of these monster branches, at the axils of which a large number of rootlets had formed and descended far into the stock of the tree, where there is not the slightest trace of decay; the remaining part has since been thrown, and the same rooting process prevails throughout the whole stock. The young rootlets appear as if they were feeding greedily on the parent stem. Have any of your numerous correspondents noticed similar instances elsewhere? The soil in which they are growing is a good, rich, moderately stiff, loam, resting on a light gravelly subsoil, which, I am inclined to think, contains a large percentage of iron. The locality is considerably elevated above the sea level, the bracing air of which the Cedar of Lebanon appears thoroughly to enjoy in the young stages of its growth. T. Foote, Gr., Haldon House, near Exeter.

Iris (Viennensis) Pavonia.—Can any of your correspondents give me any information as to the cultivation of Iris Pavonia? I have grown it both out-of-doors and in pots in a cold greenhouse, but cannot get it to flower; it throws up its leaves only. A. W. [A beautiful old neglected flower. Eds.]

The Holme Park Lettuce.—In your remarks, p. 947, on Messrs. Sutton & Sons' seed establishment, it is therein stated that "a new Lettuce, named Holme Park Green Cos, is a large serviceable-looking variety, not yet sent out." We think it but justice to ourselves to state that we had the pleasure of distributing seed of this valuable Lettuce for the first time in the spring of 1866, and advertised it largely, so that it cannot now be called a "new variety," or that it is "not yet sent out." It is now pretty well known, although the seed has never been plentiful, owing to the difficulty of getting it to run to seed. We have had it very fine in our trial grounds for some weeks past. Before we sent this Lettuce out we sent it to Mr. Fairbairn, of Lion House, to Mr. Rose, now of Frogmore, and to Mr. Thomson, of Archerfield, for their opinion of its merits. Mr. Thomson described the Holme Park in the "Scottish Gardener" as follows:—"Last summer amongst other varieties, such as the Alma, Moore Park, Neapolitan, and several others, I grew the Holme Park, and found it the very best for a hot season, as it stood far longer than any of the others before it ran to seed; and in other respects it is first-rate, being large, crisp, and sweet, and does not require tying up, but forms itself into a compact-hearted Lettuce, something in shape like the Barrack Cabbage. I can strongly recommend this variety to all who esteem fine Lettuces in the heat of summer." It is, like Rowden's (not Bowden's) Brown Cos, black seeded, and not white seeded, as described in last week's Gardeners' Chronicle, see p. 995. Stuart & Mein, Kelso, N.B.

Black Currant Mite.—I perceive that Mr. Andrew Murray (p. 921) has suggested that this little insect should have a scientific name attached to it, and has proposed for it the name of Acarus Ribes. It is quite true that, as our knowledge of the creature is at present very incomplete, especially with reference to its supposed perfect condition, I hesitated to give it a name; but as a specific one would certainly be convenient, and as it is usual to form the specific names of insects attached to special plants by the genitive case of the latter, the name of Acarus (?) Ribis-nigri may be given to the insect in question, the generic name being provisional. I. O. W.

The Lady-birds.—So much has been written of late respecting these beautiful little insects, that it is quite natural that the rising generation should be inquisitive, and require to know something of their mission, business, and habits, and where they and their friends the aphides really spring from. There are many people who go up and down the world in their several ways without greatly troubling themselves as to how it is made up or inhabited, or without observing for themselves Nature's various, curious, and wonderful ways, until they are tickled all at once by something wonderful in vegetable, insect, or animal life. The habits and mission of the Lady-bird have possibly been quite as well known to some, for ages past, as they are now. When a boy I have heard my father, as well as older men with whom I worked, talk about the good they did in destroying the greenfly, and was always desired not to kill them. The beetle has been accused by some of eating fruit; that, too, was observed in olden times. When their insect mission was over, at the end of the season, they have been observed creeping into holes that had previously been made by birds, wasps, flies, or earwigs, in soft, ripe fruit, both on the trees and on the ground. This does not really constitute them fruit-devouring insects, any more than it does the bold and enterprising sparrow. This bird has lately been accused by the Secretary of the Australian Naturalisation Society of devouring the fruit. I have no doubt

but that this bird occasionally likes the taste of fruit when insects are scarce. I have seen sparrows eat ripe cherries near towns; they will also eat corn, and green Peas, and will nip off any kind of green stuff that may spring out of the soil in spring, but that does not constitute them wholly vegetarians. The immense amount of good they do in destroying insects, in the season, is well known. James Barnes.

Blackberries and Barberries, if mixed in a similar manner to Currants and Raspberries for pies, puddings, tarts, &c., will be found to be quite as good as the latter. The Barberry entirely rectifies the faint mawkish taste of the Blackberry, and imparts to it a very rich flavour, much resembling Cherries. Whoever tries it will never more neglect the Blackberry and the Barberry. They may be considered the most abundant native fruits we have, and if used in this manner there is no reason why the dish should not become more popular. C. S. W., Alton. [A capital suggestion. Eds.]

Sambucus racemosa.—How is it that this beautiful shrub, the scarlet-berried Elder, is not cultivated in England to a great extent? Its appearance at this time of the year is most brilliant, and although described as a native of the middle and south of Europe we have lately seen it growing in the greatest luxuriance in Denmark, Sweden, Finland, and Russia, in plantations and gardens, the most beautiful specimens having been noticed at Abo, on the Gulf of Finland, (growing to the height of 10 or 12 feet, and forming a thick bush. In its leaves and general habit it is quite like the common Elder, but its panicles of fruit, resembling miniature bunches of Grapes, of intense scarlet, render it the most beautiful wild fruit we have ever seen. I. O. W.

Alicante Grapes.—At the cottagers' show held at Latimer on the 14th inst., two bunches of Alicante Grapes were exhibited by Mr. Clements, gr. to G. G. Hill, Esq., Blackwell Hall, Chesham, that weighed a little over 11 lb. They were the finest bunches of the sort that I have ever seen. A. Donaldson, Latimer, Chesham, Bucks.

Chocolate Cake.—Will any of your correspondents be good enough to inform us what is the amount of nutriment in the constituents of chocolate, in comparison, say, with cheese, and whether it is pronounced to be less digestible or otherwise? Pater. [Chocolate, according to "Watt's Dictionary of Chemistry" contains large quantities of fatty matter and vegetable albumen, and about 2 per cent. of theobromine, which resembles caffeine. The ash is very rich in phosphoric acid; Payen's analysis of cocoa beans gives 52 per cent. fatty matter, 20 albumen and fibrine, 2 of theobromine, 10 starch, and other matters. The same author's analysis of Cheshire cheese gives 25—36 per cent. of fatty matter and 5—8 per cent. of nitrogen. Weight for weight, we suspect cheese would contain more nutriment than cocoa, but with the majority of people it is not so easy of digestion. Eds.]

Cinchonas at St. Helena.—The following extract from a letter from Mr. Chalmers, the Government gardener at St. Helena, on the present state and future prospects of the Cinchonas in that island, may not be without interest to the readers of the Gardeners' Chronicle as a continuation of notes on the same subject, published in this Journal a few weeks back. The letter is under date of the 11th of August last, and Mr. Chalmers states that by the end of last month he expected to have 500 plants permanently planted out which would conclude the planting out for the present season. The weather after September till about April, being drier, is less suitable for the operation and therefore that time will be taken up in propagating and preparing nurseries, and in getting the ground in order for future planting when the rainy season sets in again. The plants are all in excellent health and have a fine green vigorous appearance. The tallest, a Cinchona officinalis, which was raised from seed, is nearly 3 feet high, and promises to do well. A plant of C. succirubra growing in the propagation house measures 20 inches in height, with a circumference of 2 inches round the stem, at a foot from the ground; its largest leaf is 16 inches long by 12 inches broad. This plant was raised from seed, and is not more than nine months old. A plant of C. officinalis of the same age, and growing in the same house, is 24 inches high, and is much branched and very healthy, but it has smaller leaves. The other young plants not yet planted out are chiefly in boxes, and will be transferred to the nursery beds as soon as they are large enough to bear exposure to the open air. They number about 4000. Mr. Chalmers states that he has not thought it necessary to increase the stock to a greater number than it is likely will be wanted for planting out in the island; but should it be found necessary at any time so to increase it, he believes that in a short time sufficient quantity might be raised to meet all reasonable demands. In the introduction of other plants such as fruit and timber trees, much has been done from seeds sent from Kew. Mr. Chalmers says as many as 15 new species of Coniferous timber trees will be added to the island. It seems, however, difficult to make the people appreciate such things, their aim being the introduction of edibles or such plants as will yield a quick return. J. R. Jackson, Kew.

Variogated-leaved Orchid.—On looking over collection of Orchids imported from Guatemala in the spring, and now growing strongly, I noticed one small plant with very prettily striped leaves, in the colouring of which yellow predominated over the usual green, and the green was in longitudinal stripes. Is this common amongst Orchids? W. T.

Wellingtonia gigantea.—A beautiful specimen of this ornamental tree is thriving amazingly on the estate; the situation is moist and rather shady, at the bottom of a high sloping hill, and close to a Water-cress bed, which is supplied with water from numerous springs gushing out of the hill-side. The dimensions of this gem, which is unrivalled for beauty and un-

passed for hardness, is as follows:—Height, 28 feet, circumference of stem, 1 foot from base, 3 feet 1 inch; ditto, 4 feet from the base, 3 feet; ditto of branches, 4 feet. It was planted about eight years ago, and was then about 4 feet high. *George Berry, Loneleaf, Wilts.*
 —Al the specimens of Wellingtonia gigantea in this quarter, by which I mean within a circuit of ten miles or more of Dublin, are progressing in the most satisfactory manner, and as a consequence the interest in the tree remains unabated. I have quite recently had opportunities of seeing many, and from inquiries on the spot learned that neither the cold of winters nor the drought of the two last summers has at all affected them, the trees themselves bear evidence to this, although planted in various soils and positions. It is very gratifying to have to record these facts. Our oldest specimen here was planted in the spring of 1856, and its height, when measured in the month of March last, just previous to its commencing growth for the present year, was 26 feet 4 inches, and I cannot add that either soil or situation are particularly favourable. It may interest some, in the future, to record here that this plant is one of the original batch raised and distributed by the Messrs. Veitch, of Chelsea. Permit me also to record that a cutting taken off this plant in 1857 is now a well-formed specimen, 12 or 14 feet high, and growing in the grounds of the Viceregal gardens. There is a slight difference of character amongst them—some grow tall and tapering, and keep very pyramidal, others are dense and extend laterally more in proportion to the height. I may also add that, in the adjoining county of Wicklow, Viscount Powerscourt has had considerable numbers planted, with a view to test their value as forest trees; and I have heard that they are all thriving well. *D. Pressley, Knockmaroon, near Dublin.*

Mushroom Culture.—How much we are indebted to Mr. Robinson for the information which he has brought to light from the deep Mushroom caves of France, time alone will tell. But this much may be said, that the battle of the cordon can be scarcely fought over in the Mushroom, unless it be to bury Monsieur in his own cave by joining with him in the enterprise. That one house out of the many should export to this country no less than 14,000 boxes of these *bonnes bouches*, is sufficient of itself to lead us on to battle. And when it is true that various branches of English industry have sailed away from us in all directions, it is but reasonable that we should look out for and probe the vulnerable parts of the commerce of other nations, and help ourselves, that the balance may be properly adjusted. The enterprise would have to be entered into largely before one could fully ascertain how far the culture of the Mushroom might become subservient to that purpose, entailing considerable foresight on the parties who would make the venture. The question is not one of cultural ability, but more of capability. We can grow the Mushroom as well as our neighbours across the Channel, but we cannot grow it like them. Down in their capacious caves they grow them by the hundredweight daily; whilst here, if the beds produce a basketful of pottles in the same time, the cultivator is in mighty strength. Therefore the gist of the question would lie in the suitability of sites for operations, not only for the culture of the Mushroom, but also as affording ready means for the transportation of material. There are plenty of caverns and other waste places in which Mushrooms might be grown with advantage, but the object of this paper is not so much to examine their capabilities as it is to bring before the notice of intending operators a material which would be found as good, if not more so, for the production of Mushrooms, than that which is at present employed, and that is no less than the accumulated street sweepings of our large towns. Thousands of tons of this material must be swept up weekly, and if it be examined in the aggregate, it will be found admirably adapted for the culture of Mushrooms. The particles being composed of the very essence of the substance most desired by horticulturists, and fit for immediate use, do not constitute its chief merits; it also would be found cheaper than the material at present used, which, according to Mr. Robinson's account, takes several weeks in preparation before the beds can be formed. Now, street-sweepings can be bought for a third of the price which has to be given for horse-manure, and at the same time goes further, retains a sweeter heat longer, and is less liable to decay than the manure brought from the mews; important advantages, which must not be lost sight of by the cultivator. Of course it must be strictly understood, that what is meant by street sweepings is not the heavy, wet clots of the roads, or the mud out of the sewers, but simply the dry sweepings of the traffic of the streets, stored up in the depots of nearly all our towns. Seeing what a great quantity of sweepings are changed into Napoleons over those delicate morsels, the enterprise whereby we could make that quantity less by putting them in our own pockets is certainly worthy of a trial. And if our caverns and exhausted mines have never produced gold nor silver in the nugget, we might be able to make them continue to produce that which has value in the coin. The silver mines in the cold regions of Siberia are the great depots for receiving Russian law-breakers, and it is questionable whether it would not repay the Government of this country to transport some of our finely-nursed convicts to the caves under the bleak hills of Derbyshire and elsewhere, to prepare the way for the future development of *Agaricus campestris*. Forced to keep our convicts at home, prisons, which have no terror for offenders, and which soon will be inadequate, have been erected at great cost to the country. And why build more prisons while those caverns remain unoccupied. Parliament can possess itself of nearly anything; and why not possess itself of caverns for the lodgment of offenders? And if more offenders could be made to add to the wealth of the

country by growing Mushrooms for the million, so much the better. It would take nothing away from the flavour of the Mushroom, and probably it would give the poor as well as the rich the satisfaction of knowing that they were consuming something produced by those who were paying the just penalty of their crimes. *Andrew Meikle, Road Hill, Whalley.*

Pot Vines at the Royal Caledonian Horticultural Society.—In your issue of last week, Mr. M'Leod says "that it was clear to the most inexperienced that the pot Vine to which was awarded the 1st prize in its class, was nothing but a clumsy subterfuge, such as ought not to be encouraged, &c." As I happen to be the winner of the prize alluded to, I must say that, had Mr. M'Leod taken a little trouble to inquire into the case before rushing into print with his supposed grievances, it would have saved him a vast amount of trouble. With your permission, I will briefly state how my Vine was grown.—It was planted in 1867, and grown in the same pot till the day it was exhibited at the International Flower Show in Edinburgh. It stood in a flat at the top of the hot-water pipes the whole of the time, and derived no nourishment whatever from any source but what was supplied in the pot and the saucer or flat. Now this I consider a pot Vine in every sense of the word, but if I am mistaken, Mr. M'Leod will perhaps kindly undertake to give "a hint as to what is uniformly understood amongst gardeners as a pot Vine." I may mention that I had not the slightest intention of exhibiting my Vine at any horticultural meeting till August 5, when Mr. P. S. Robertson, nurseryman, Edinburgh, called, and, on going through the vineries, told me if I took it to Edinburgh it would take 1st prize. I took it there, gained the 1st prize, and I leave it to the public if it was not honestly won. If this statement of facts does not satisfy Mr. M'Leod, I shall be most happy to refer him to different gardeners who have seen the Vine in its different stages of growth. *Andrew Turnbull, Gr. to James Brunton, Esq., Broomlands, Kelso, N.B.* [We have received other letters in corroboration of the above. *EDS.*]

Foreign Correspondence.

CENTRAL PARK, NEW YORK.—When the late Mr. Downing visited England nearly 20 years ago, he was struck with the size and dignity, so to speak, of our public parks, more especially Hyde Park, and said that they had nothing like them in America. On his return, therefore, his first object was to impress upon his countrymen the importance of having parks for public recreation in all respects worthy of his native land, to the improvement of which he was so much devoted, and owing to his acknowledged good taste in all matters connected with rural embellishment, his pleadings in behalf of having parks comparable with those of what is termed "the old country" were listened to with attention. The result has been the possession by nearly every town in America of a public park commensurate with its individual requirements. Until a comparatively recent period New York itself could boast of no park worthy of such an appellation, but now it has its Central Park, which may be safely said to equal anything of the kind in any other country.

Some 10 or 12 years ago a prize of 2000 dollars was offered for the best plan for this park, the lucky recipients of which were F. L. Olmsted, Vaux & Co., a firm which, it must be owned, has done ample justice to the confidence reposed in it. The Central Park is about two and a-half miles long and half a mile wide, bounded on the sides by straight parallel avenues, and at the ends by streets crossing these at right angles. It is enclosed by a rough dry stone wall 4½ feet high, in which there are to be park gates at convenient intervals. There are also several stiles for the admission of visitors on foot. The area enclosed is about 768 acres, of which 136 acres are occupied by reservoirs, from which the city of New York is supplied with water; of these reservoirs one is square, the other irregular in outline, the latter covering about 106 acres. Unfortunately these reservoirs are not under the control of the garden architect, but under that of the park commissioners. Owing to this cause, they are too much elevated for the water within them to give the best effect in the landscape. They, however, practically divide the park into two portions, the northern, or upper park, containing 160 acres, and the lower park containing 331 acres, while the connecting grounds, lying on both sides of the reservoirs, comprise 135 acres.

It is then subdivided by four thoroughfares, one crossing it between the reservoirs, one at each end of them, and the remaining one near the middle of the lower park. These are so constructed, by means of tunnels and other contrivances, as not to obstruct the view, or practically effect any division of the park; and they furnish the means of direct transit across the park for business purposes, without causing any inconvenience to its visitors. In the lower park large tracts formerly covered with stagnant water have been drained; and 10,000 loads of stones have been conveyed to the borders of the park, furnishing materials for the construction of the present enclosing wall. The site for this portion of the park was very rocky, there being, with few exceptions, scarcely an acre in which the great underlying ledge of gneiss did not thrust itself above the surface.

Some might be apt to think the selection of the site just described an unfortunate one; and it was so as far as heavy expenditure is concerned; but the artistic effect is much finer than could possibly have been obtained upon a tract of the richest and most easily worked land, the natural outlines of which are tame and without character. Grass and shrubbery can be formed anywhere, but great rocks and those forms of earth's surface which are only found in Nature where rock exists, can seldom be imitated on a large scale

with perfect success. By taking advantage of the features just indicated this portion of the park has been made to resemble a charming bit of rural landscape, such as is seldom if ever found within the limits of a large town.

Breadth was, however, wanted, and to obtain this, three considerable pieces of ground have been cleared of all obstructions, and brought to a comparatively level surface. One of these, near the centre of the lower park, presents about 30 acres of level surface or slightly undulated ground, forming a reach of turf, about a quarter of a mile across, unbroken by a single road or footpath. This, upon special occasions, is used for military displays; ordinarily, however, it is like a large country green or open common, a place where children may run about and play until they are tired and without danger of being run over or injured if they fall. This green is bounded on the north-east by a rocky ridge, which has been reduced by blasting 16 feet, thus throwing open from opposite points the two finest views in the park.

The rock and earth removed from the ridge, together with that taken from a low hill some distance to the southward, have been used to fill a swamp lying east of the green, and this being further covered with earth to the depth of 4 feet, an additional level space has been obtained of about 80 rods in length and 12 in breadth, only separated from the green by a slight depression of the surface, through which passes a carriage road. This spot is planted with four rows of American Elms, forming a broad promenade or mall, with a fountain at either end, seats for visitors, and accommodation for an orchestra. At its southern extremity gentle slopes of turf, and little broken rocks and planted banks, conduct to a lawn-like surface, called the eastern plateau. Views of an open and pastoral character are thus obtained for a quarter of a mile in either direction, terminating in a forest-like background, having from its ruggedness a peculiar picturesqueness of effect.

Valleys occur in the southern portion of the park, and in its centre the middle portion of the western part of the central valley has been made more spacious by the removal of the smaller rocks and the earth that surrounded the larger ones, so as to form a shallow basin of irregular outline. This basin is almost entirely occupied by a lake nearly 20 acres in extent. The view across this from the most favourable point is of considerable breadth, and is entirely unbroken for upwards of a quarter of a mile. This lake is used as a skating lake in the winter, and for which purpose it has been specially prepared—a small portion at the upper end being separately dammed, in order that water may be kept in it some 12 feet higher than the intended winter level of the remainder of the pond, to be used for flooding the ice when rendered unsuitable for skating by snow and other causes.

The whole breadth of the park is brought into this landscape the foreground of which is enriched with architectural decorations and a fountain, the middle distance composed of rocks, with evergreens and masses of dark shrubs interspersed among them, reflected in the lake; and the distance extended into intricate obscurity by carefully planted shrubs of lighter and more indistinct foliage disposed among and above the grey rock of the background. This hill-side, being isolated in position, is crossed by no road, but is entirely laid out with secluded walks bordered by shrubberies. The bell-tower at the summit offers the best position from which to obtain a bird's-eye view of the whole park, and which at the same time serves as a means for the overseers to transmit by signal orders to the workmen at a distance. Thus much for the lower park. The natural surface of the upper one is much more homogeneous, and it has been treated in a correspondingly simple manner. About midway between the east and west boundaries are two connecting plateaux of turf, amounting to about 18 acres, and these take up nearly all the space for ornamental purposes which the rocky ledges leave available. As regards roads and walks the sunken and tunneled thoroughfares across the park render pedestrians safe from all danger of being injured by horsemen or carriages. Several miles of broad gravel walks have also been carried under arched passages beneath the drives, by means of which all parts of the park may be traversed on foot without encountering a single carriage or horseman. The rides are everywhere distinct from the drives, but horsemen can enter the carriageway if they choose. Footpaths also generally accompany the drives on one or both sides, within convenient conversing distance. An arboretum of about 40 acres has been planted in as natural a manner as possible, consistently with convenience for study, it is intended to contain specimens of every tree and shrub native to the North American continent that will live in the park in the open air. Scattered throughout the park are also some good examples of trees and shrubs introduced from other countries; but some account of these and other matters of special interest connected with this park must form the subject of another letter. *Joseph Newton.*

SOUTH AMBOY, NEW JERSEY, UNITED STATES: Sept. 5.—The fruit crop, with the exception of small fruits, seems to be a general failure in Europe. It is, however, fully balanced by the abundance here. The small fruit crop has been extra good. On one day there were 100,000 quarts of Strawberries sent to New York. Now the Peach crop is in; it commenced, in quantity, about six weeks ago, and will probably last five or six weeks longer. The Peach is everybody's fruit here. I saw it hawked about the streets by waggonloads at 5 cents, or 2/ a quart, and the fruit was quite equal to the best outside Peaches in England; very fine fruit sold for about 2s. 6d. the half bushel basket. One railway brought into New York 110 cars of Peaches one morning each car brings 500 baskets—and some of the Delaware growers have their own steamboats for conveying, so that you may imagine

the extent of the trade, when other cities are supplied after the same rate. Tomatoes are plentiful, and worth about 30 cents a bushel; in some places they are feeding cows with them, for which they are said to be good. Potatoes are a good crop, as you may judge when I state that it is difficult to obtain 3s. per barrel for prime samples. A large grower told me a few days ago that he only received, in New York, 17 cents per barrel, or not quite 7d. English, for a lot, after deducting expenses of barrels, freight, &c. They are now bringing over fruit from California, and wonderfully fine it is; but the Grapes, so far, have been knocked about too much on the road. The Lemons are as large as good Shaddocks, and the Pears much like the Channel Islands fruit, but of better flavour.

We have had long-continued dry weather here, although in some parts it has been quite a wet summer. The season has, however, been cold for this country; on many nights the temperature has been below 75°, and rarely up to 80°. It was very cold for several nights, and days too, last week, the thermometer being down to 12° on the morning of September 1. At New York there was a slight sleet shower; near Boston 4° of frost, ice 2 inches thick on the telegraph wires, and ice on the ponds, but it is warmer now, 86° in the shade to-day. James Taplin.

Societies.

ROYAL HORTICULTURAL: Sept. 21.—J. Russell Reeves, Esq., F.R.S., in the chair. The usual preliminary business of the meeting being concluded, the Rev. J. Dix announced the awards of the Floral Committee, and took occasion to allude to the great loss which Horticulture had sustained in the death of Mr. James Veitch, whose name, he said, had seldom been missed, until that day, from these exhibitions; and of Mr. Robert Thompson, of Chiswick, whose valuable services to Horticulture, and in particular to the sciences of pomology and meteorology, could not be too highly appreciated. G. F. Wilson, Esq., after announcing the awards of the Fruit Committee, said that a dish of Nuts had been exhibited, with a view of creating a discussion as to the cause of the holes bored in them. They were generally supposed to have been made by a small bird (the cole tit), but Mr. Earley mentioned that he had seen the small field mice hanging from the branches of Nut trees; which he, Mr. Wilson, thought to be the most likely explanation of the two as to how the holes in question were produced.

The Rev. M. J. Berkeley then alluded to some cone-bearing specimens of Conifers exhibited by Mr. Cox, and said that he was doubtful if the one marked *Picea cephalonica* was rightly so named, as it was rarely seen in fruit. The reason why many of the choicer Conifers flowered this summer was, no doubt, dependent on the fact that the wood was well ripened by the hot weather of last season. A Fungus, of extraordinary form, obtained from a sewer, was next shown to the meeting. He (Mr. Berkeley) had tested it, and had no doubt that it was merely an abnormal form of *Agaricus ostreatus*. With regard to the show of Fungi which had been announced, Mr. Berkeley said that October 5 was the day now appointed, and he trusted that as the weather was favourable to the production of Fungi, there would be a good display. In conclusion Mr. Berkeley briefly alluded to the samples of Potatoes from Mr. Fenn, whose experiments, he said, were of great importance, and then read the following paper on the subject from Mr. Fenn.

I grafted this year Red Ashleaf on Dickson's Premier, Paterson's Scotch Blue on Royal Albert, and vice versa. I have been unfortunate this season in regard to the "taking" of the grafts. I planted and kept the grafted sets in 6-inch pots, contrary to my later practice of planting them in the open ground when the shoots in the pots have pushed 5 or 6 inches out of the soil. This may have tended to cause non-success as regards the cicatrization of the skins; nevertheless, sufficient results have been arrived at to afford conclusive evidence as to the possibility of grafting the Potato with the eye of another. On July 14 I examined two sets, an eye of Royal Albert on a hardy tuber, white Potato, grafted on Paterson's Scotch Blue. The eye had held perfectly fast to the tuber, thereby giving the impression of being grafted between the stock and the graft. I had the graft set as perfectly as possible into the white tuber, placed it vertically in the tuber, but at the base of the graft and swelled out of its first position, though not sufficiently so to disintegrate itself from the cicatrix of its union with the stock in any case. I gave several sets of this graft, but all failed to hold fast, and I sent it to Dr. Masters to verify this result. Dr. Masters wrote me in answer, "in one case the cohesion was evident, but I do not see that the new tuber or haulm is at all affected by the grafting process. We must have more conclusive evidence than that. I see the union is not merely along the rind, but in the cellular mass of the Potato as well. I have forwarded the tubers to Chiswick. The whole subject is very interesting."

The other sort sent to Dr. Masters was the eye of a Paterson's Scotch Blue grafted on Royal Albert; no cicatrix, or union of the skins, had formed, but some of the young tubers were half-coloured, others less coloured, and one was perfectly white, none of them showing blue all over, like the grafted sort. I asked Dr. Masters to forward them to Mr. Barron, and request him to plant them, and note whether the colouring was permanent.

Now for "more conclusive evidence." I wrote on July 14 that I durst not then meddle with the roots of my last year's grafted Potatoes. Their appearance I noted thus:—Fenn's Onwards on Almond's Yorkshire Hero: an Onwards plant, but earlier, and very diminutive in comparison. Hero on Onwards: I can perceive no difference in the haulm as to part with the Onwards, except perhaps that the foliage of the grafted sets is of a more glazed green. Yorkshire Hero on Fluke: haulm looking like that of the true Yorkshire Hero, with not a symptom of the dark green tinge of the Fluke foliage. Milky White on Yorkshire Hero: haulm like that of a diminutive Milky White, quite ripening off, whilst its namesake by its side was in full vigour of leaf. Milky White grafted on Fluke: (as I did by mistake; I intended to have grafted the Milky White on itself, to try what would be the effect, if any) haulm showing quite a different character from that of Milky White, being not so branching, and of a darker, more upright, and more robust habit. All the above examples in 1888 united at the rinds more or less completely soon after they were planted out—a fact which I proved by inspection. I planted the above named Potatoes on April 15th, when the

graft of Onwards on Hero showed sprouts decidedly greener than those of the true Onwards; and when I dug them up, on August 9, their haulm was not nearly so ripe as that of the latter, and their produce generally, for form, proved rounder than Onwards. The Milky White grafted on the Fluke is the only other decided "conclusive evidence," and that is conclusive enough in the wrong direction; the character, as well as the Potato, being quite spoilt. In short, I may have gained (but I must wait another year to prove it) an improvement by grafting the Onwards on Yorkshire Hero, and that I fear will prove at the most but a mere pennyworth of Potato to a sack of trouble, though I shall be well content if, by the experiment, I have added my mite to the science of horticulture.

Floral Committee.—Rev. J. Dix in the chair. This was a small and comparatively unimportant meeting. From Messrs. Cripps & Son, Tunbridge Wells, came examples of *Codrus atantica*, *Luzula cornuta*, *Deodarea verticillata*, *glaucia*, a silvery-foliaged variety, and a hardy Japanese Hydrangea, named *pauciflora graciliora*, a dwarf free-flowering plant, with large panicles of greenish white flowers. To the latter a First-class Certificate was awarded. The same award was also made to a new Seedling Veronica, named Blue Gem, from Mr. H. W. Warren, nurseryman, Salisbury. This is a fine acquisition, in habit it is dwarf and compact, and it produces an abundance of rich blue flowers. To Mr. J. Salter, Versailles Nursery, Hammersmith, a Special Certificate was awarded for a fine collection of ornamental plants, and to Mr. J. Salter a class Certificate for a fine collection of silver-veined bedding plants. From Mr. J. W. Wainwright, Ashburnham Park Nursery, came flowering examples of the new hybrid Ivy-leave Pelargoniums *Willson* and *Willson*, to the former of which a First-class Certificate was awarded. The same award was also made to *Agave pectinata*, a curious Mexican species, with dark green fleshy leaves beset with whitish spines on the margins. The plant was exhibited by Mr. Green, gr. to W. W. Saunders, Esq. Along with this came a scarlet-flowered Gesnera from Jamaica, and three flowers of *Hemanthus coccineus*. From Messrs. W. Cutbush & Son, Highgate, came two remarkably large and handsome specimens of *Cockscombs*; they were quite 2 feet over the head, and received a Special Certificate for their good cultivation. A very fine collection of Orchids came from the Society's own garden, and to these a similar award was made. From Mr. J. Jobson, Rotherfield Park Gardens, Alton, Hants, came a good new deep blue, free-flowering bedding Pansy, named *Viola Perfection*, to which a First-class Certificate was given. A Special Certificate was awarded to Mr. Cox, gr. to W. W. Saunders, Esq., for a choice collection of cone-bearing sprays of Conifers, comprising branches of *Picea cephalonica*, *P. Webbiana*, *P. Nordmanniana*, *P. Pinsapo*, *Abies Morinda*, and the common Silver Fir. From Messrs. J. & C. Lee, Hammersmith, came small specimens of a dwarf compact-growing Thuja named *Tom Thumb*, and *Cupressus alba-apica*, a fine silvery-foliaged plant, which was regarded as a variegated form of *Thujaopsis borealis*, and to which a First-class Certificate was given. Dahlias were again shown in full force by Mr. Turner, who received a Special Certificate for a fine collection of cut blooms; a First-class Certificate for a new variety named *Provost*, rich crimson; and one of the Second-class to *Alice Gair*, pale bluish, with crimson edges. From Mr. G. Rawlings, Romford, came blooms of *Royalty*, orange-yellow, with faintly tinted crimson edges. This is one of the most beautifully formed flowers that has probably ever been shown at these meetings. A First-class Certificate was awarded. From Mr. G. Wheeler, of Warminster, came a new variety named *Lord Weymouth*, lemon ground, with crimson tinted edges; a showy flower, though in form not quite up to the florists' standard; it was, however, thought to be a good border-flower, and received a Second-class Certificate on that account. A fine box of beautifully coloured Petunias, and some new varieties of Pelargoniums, came from Messrs. Bell & Thorpe, Stratford-on-Avon, and from Mr. J. George, Putney Heath, came a collection of the latter, including a seedling double-flowered variety named *Miss Evelyn*, with dark pinkish flowers.

Fruit Committee.—G. F. Wilson, Esq., in the chair. In consequence of the unfavourable nature of the season, the prizes offered on this occasion by H. G. Bohn, Esq., for Peaches grown in open situations, were not competed for. The meeting, however, was above the average in point of interest, partly on account of Mr. Fenn's very suggestive and instructive exhibition of Potatoes. Some of these consisted of the produce of cross-fertilisation, which in one case was remarkably curious. Early Emperor, a large red kind, was the male, and Fenn's Onwards, white, the female parent. A cross between these produced two distinct varieties of the most diverse description, the most curious of which was described as being very late, the top not appearing till June, and the tubers of which had degenerated to a small round mottled form, and were not distinguishable from those of a wild sort received by the Society from Peru. The produce of another cross between *Hager's Early Goldstream*, male, and *Shedford Seedling Kidney*, female, consisted of 24 varieties of *mandarins* and *kiwano's*. The most curious illustration of the effects of grafting one kind into another was a case in which Milky White had been grafted into the Fluke, and the Fluke had been grafted into the Milky White, and that the Fluke had the appearance of the skin that is peculiar to the old Fluke. The other illustrations of grafting were of *Onwards* into *Hero*, of which it was noted that the colour of the young shoots showed a difference from that of either parent. In the following cases the results had been stated to be grafting, or rather the produce showed a difference:—Royal Albert into Scotch Blue, Premier into Red Ashleaf, Hero into Onwards, Milky White into Hero. Some remarks on these Potatoes are given elsewhere. A Special Certificate was awarded to the collection. A new variety was also shown by Mr. Fenn, named *Hector of Woodstock*. This when cooked was found to be a very finely flavoured kind, and was honoured with a First-class Certificate. From the same exhibitor also came an example of a very neat breakfast honey-glass, by which the honey can be removed from the hive direct to the table. Several samples of three kinds of home-made wines from Grapes ripened in this country. One sample, made from the Royal Muscadine, was especially fine in flavour, and was duly favoured with a First-class Certificate. A large collection of Onions was exhibited by Messrs. Barr & Sugden, of King Street, Covent Garden, who were requested to show them again at the next meeting, when the subject will be more fully gone into. Several examples from Chiswick, and from Mr. William Paul, of Waltham Cross, were also requested to be sent again at the same time. From Messrs. Holloway, 7, Jeffrey Square, came a very large example of the "Nero-midion" (*Pumpkin Vegetable Marrow*); from Mr. Fryer, gr. to F. Fryer, Esq., Digswell, fruit of a hybrid Tomato between Orange-flesh and the old large red variety; and from Messrs. Carter & Co. examples of their Champion Runner Beans. Messrs. J. & C. Lee, Hammersmith, exhibited the purple *Pedicularis*, *Harriet*, *Harriet*, *Harriet*, and Mr. W. Wainwright, Ashburnham Park Nursery, exhibited a new variety of green *Peas*, which was requested to be sent again to the next meeting, when they will be compared with other varieties from this week. Mr. Gilbert, gr. to the Marquis of Exeter, sent a new seedling green fleshed Melon, a cross between *Pink Beauty* and *Victory of Bath*, which was very fine in flavour. A First-class Certificate was awarded, and the variety was named by the Committee the *Burghley Green Flesh*. From Mr. O. Goldsmith, Polesden Lacy, came the scarlet-fleshed Windsor

Prize Melon. The same kind, sent as a seedling, was also shown by Mr. Stacey, South Bank, Egbaston, Birmingham, neither sample being particularly good. The Chairman showed a fine dish of Transparent Greengage Plums, grown in an orchard house; and Mr. R. Fairbairn, gr. to W. Death, Esq., South Lodge, Bishop Stortford, a good example of the Blood Pine, about 6 lb. in weight, to which a Special Certificate was awarded.

GLASGOW AND WEST OF SCOTLAND HORTICULTURAL: Sept. 18.—This was the concluding exhibition of the season, and was held in the City Hall and adjacent rooms. The principal hall looked exceedingly well. What with the ornamental leaved Pelargoniums in beautiful pyramids, the array of Tree Ferns, Palms, and Japanese Lilies, and some good specimens of *Ixoras* and *Heaths*, there was a very striking general aspect. The fine batches of golden and silver-leaved Pelargoniums from Mr. Campbell, Castlemilk; Mr. Ingram, Aitkenhead; and Mr. Boyd, Easterhill, formed quite an exhibition of themselves; but many others came from Messrs. Dreghorn & Aitken, Mr. Paul, Mr. P. McKenzie, and Messrs. Smith & Simons, Messrs. J. & R. Thyne's collection of stove and greenhouse rarities may be noted for its general excellence, it comprised *Crotons*, with their beautiful green and golden foliage, mixed with orange-scarlet *Ixoras*, metallic *Echeverias*, noble-looking *Screw Pines*, and light and airy Ferns. The rare and dwarf Palms, put up by Mr. McKay, gr. to Mr. Reid, Woodburn, and the flowering specimens of *Ixoras* and *Heaths* from Mr. T. Hagg, gr. to Mr. D. Tod, Partick; and from Mr. Boyd, gr. to Mr. Finlay, Easterhill, were remarkably effective. That fine dwarf Fan Palm *Livistona altissima*, the equally interesting *Cladium Getah*, with its stems bristling with spines, and the *Thief Palm*, all plants of very decided character for conservatory decoration, came in well among the miscellaneous flowering plants, as they do at all shows. The variegated *Viola cornuta* from Mr. Lewin, Drumpellier, was an acquisition; and the *Coleus*, named *Sir Peter Coats*, shown by Mr. McKenzie, a good seedling after the order of Queen Victoria, both plants being quite noteworthy as novelties. The saloon, however, was the great centre of attraction, for here the collection that took front-rank position at the International Show in Edinburgh was exhibited, having been secured by Messrs. J. & R. Thyne, who well merited the special award given to them. The collection included grand *Hamburgs*, *Alcanta*, and *Muscat Grapes*. Mr. Smith, gr. to the Duchesse de Coigny, Bargany; Mr. Campbell, gr. to Mr. Geo. Aitken, Craighead; Mr. Crosbie, gr. to Sir Jas. Colquhoun, Luss, and Mr. Paterson, Balgray, all had good Grapes. The Apples from *Rothesay* and *Combs Esq.* were particularly good. What interested the display of fruit were the *tableaux* and *tableaux* of table bouquets. The market gallery was devoted to Dahlias and other outflowers, and to a large display of first-rate vegetables, among which Peas, Leeks, Carrots, and Onions were particularly fine. The extraordinary quantity of vegetables that have in recent years been shown in the West of Scotland, have been matters of general observation throughout the country.

Notices of Books.

The Polar World: a Popular Description of Man and Nature in the Arctic and Antarctic Regions of the Globe. By Dr. G. Hartwig. 8vo, pp. 548. London: Longmans, 1889.

If the natural history of our planet be divided into three great groups, according to temperature, it will readily be allowed that we know most about the objects that occur in the temperate zones, that we have much less still to discover in the tropics, and that our knowledge of the fauna and flora of the polar regions is, in proportion to the limited extent of its species, in many respects deficient. The number of travellers who venture amongst icebergs and snow-clad mountains forms but a small proportion of those who risk their lives in "parts unknown," and the only wonder is that in such inclement climates and in such almost uninhabitable regions every particle of scientific energy is not frozen to the core.

When we regard the relative disposition of land and water upon the surface of our globe, and see how greatly the former preponderates in the northern hemisphere, it is not surprising that our acquaintance with the natural history of the arctic world is more extensive than with that of the antarctic regions.

The Cape of Good Hope, Sydney, and Buenos Ayres all lie about 35° south of the equator; and we know that, with the trifling exceptions of Tasmania, New Zealand, and Patagonia, there is no land at all until we come to the antarctic circle. Compare this with what occurs at the opposite pole; 35° north latitude runs through the Mediterranean Sea, Persia, Thibet, China, California, and the United States; and from thence to the arctic circle there must be at least four times as much land as sea. Spitzbergen is about 13° only from the North Pole, which has been approached both from that island and from Baffin's Bay, until a very few degrees intervened between the hardy travellers and the goal they tried to reach. But it is far otherwise with our knowledge of the South Pole. Land has been discovered below Cape Horn, and opposite the whole of the south coast of Australia, at about 25° from the South Pole; and in one place, opposite New Zealand, ships have penetrated to within 12°, and have seen an active volcano; but in all other directions the ice has prevented any nearer approach to this pole.

It is not therefore surprising that in the work now before us 460 pages are devoted to a description of the northern polar world, while 60 pages suffice for an account of all that is known of the antarctic regions.

We have, on a previous occasion, had reason to speak in high terms of Dr. Hartwig's ability in popularising subjects connected with the natural sciences, and the present volume is in no respect inferior to his earlier compilations. While he makes no allusion to having visited any of the frozen regions, his writings present that natural and easy flow of language which make one imagine that he must be describing scenery with which he has been personally acquainted.

After giving a general account of arctic lands, with their climate, their zoology, their botany, their paleontology, he treats similarly of the arctic seas; and, having thus introduced the subject, he commences at Iceland, and takes the reader eastward with him along the northern parts of Europe, Asia, and America, calling on the road at Spitzbergen and Novaya Zemlya, and leaving him finally on the shores of Greenland. The journey is a

most interesting one. The discovery of each part is carefully recorded, together with the history of the people where the region is inhabited. Thus the habits, customs, and peculiarities of the Icelanders, the Lapps, the Samojedes, the Ostjaks, the Tungusi, the Kampt-schatkans, the Tchutchi, the Aleuts, the northern American Indians, the Esquimaux, and the Greenlanders are in turn fully described. So also is the early conquest by the Russians of the vast extent of Siberia, its gold diggings, its most important fur trade, and its gradual development, to which the extension of its railways is still slowly contributing. The fur trade of the Hindon's Bay territories is explained at some length, together with the habits and mode of capture of all the animals whose skins are of value; of these the principal are the black, brown, and grisly bears; the red, black, and silver foxes; the raccoon, glutton, marten, skunk, mink, beaver, and musk rat.

The accounts of the early attempts to find a north-east passage by sea to India, first through the Baltic, and subsequently round the North Cape, are very amusing to us, with our present geographical knowledge. But perhaps the most interesting part of the work is the able *resumé* of all the attempts which have been made to discover a north-west passage from the Atlantic to the Pacific Ocean.

Our limited space prevents reference to many other subjects to which we would have wished to allude as being admirably described in this book, and we therefore content ourselves with the cordial recommendation of it to our readers.

Florists' Flowers.

It can scarcely be said that seedling DAHLIAS have been produced so plentifully this season as during the few past seasons; and it is a somewhat singular fact that Mr Keynes, of Salisbury, has not produced even one new flower at any of the meetings of the Floral Committee during the present month. No doubt the late and inclement spring had its influence on the blooming of the seedling flowers, and there is reason to believe that, not only are they late in blooming, but imperfect in development. Notwithstanding the paucity with which new varieties have been produced, yet some very fine flowers have come to the fore, combining with the fine properties of the florist much novelty of colour. Five of these flowers stand out prominently, and each has received the highest award it is in the power of the Floral Committee to bestow, namely, a First-class Certificate of Merit. The premier flower is unquestionably Royalty, from that well-known raiser, Mr. George Rawlings, Romford. It was well described by the chairman of the Floral Committee as one of the most beautiful and perfect flowers ever brought before that body: it has a bright golden ground colour, the centre tipped with brown, and some of the surrounding petals slightly *shaded*, the petals open boldly, and form uniformly laid circular *rows* giving the flower a grand outline of perfect shape, the centre is full, close, and high, it looks like a variety that will want some close shading to bring it to perfection, and then it will be as near perfection as any Dahlia that has yet been obtained. Aristides (Rawlings) is another first-class flower, of fine shape and substance, and of a crimson-purple hue, shaded on the tips of the petals at centre with glossy dark. Toison d'Or (C. Turner) is a glorious yellow self, of a deep bright golden hue, and exquisite shape, medium sized, and very pure; if it should prove constant it must be a telling exhibition flower. Harvard (Fellowes), exhibited by Mr. Turner, is a most pleasing flower, of a soft and yet bright hue of lilac-rose, the petals finely formed and regular, giving a fine outline, medium size, and close high centre. Queen of Yellows, the last of the five above referred to, appears to have been exhibited by a new raiser or exhibitor, Mr. G. Parker, Maidens' Green, Winkfield. This is a fine bold bright orange-yellow self, of full substance, and looking as if it would be a constant and reliable flower.

All these, except Aristides and Queen of Yellows, were represented at the meeting of the Floral Committee on September 21. In addition there were Alice Gair (Turner), blush, heavily tipped and dashed with bright rosy purple, and yet, though belonging to a numerous type of flowers, with much novelty of character, of medium size, and very promising, though not shown on this occasion in the best condition. Lord Weymouth (Wheeler), half golden ground, heavily tipped with lake, a pretty and pleasing flower, rather coarse and quilled as shown and somewhat flat, but with good outline, and promising to be finer when well grown. Both these were awarded Second-class Certificates. A First-class Certificate was also awarded to Mr. C. Turner, for Provost, an orange-red flower, the base of the petals paler, distinct in colour, and of good substance and outline, though as shown requiring more finish. In addition there were Sarah Maris (Wheeler), in colour a pale lilac self, the base of the petals flaked with deep rose, but inferior in outline and finish to Harvard, which it somewhat resembles. Edith (Turner), pale ground, tipped with a paler bright purple than Alice Gair, was represented by three blooms all more or less distinct in character: it must be seen in a much improved state to receive an award. Enchantress (Parker), pale ground, slightly suffused and tipped with purple, small, but promising; and Mr. Parker (Parker), pale fleshy buff tipped with purple, not so good as the last named, must also be considerably improved ere they can compare with some flowers already in cultivation.

Mr. Turner staged a collection of 72 blooms of show and fancy Dahlias; of the former the following were very good:—Memorial, Miss Henshaw, Purple King, Edward Spary, Vice-President, Charles Turner, Chairman, Buttercup, Valentine, Miss Roberts, Cynet, Lord Derby, Leah, The Hon. Mrs. G. Wellesley,

High Sheriff (very dark), Mrs. Dorling, Paradise Williams, and James Hunter. Of fancies, the following were well worthy notice.—Queen Mab, Viceroy, Fairy Sturt, Annie, Attraction, Fair Imogene, Sparkler, and Pauline. B. D.

The Apiary.

QUALITY OF HONEY.—Those who have partaken of the honey from my supers have invariably asked me, "What is the reason your honeycomb is so superior to that carried about by the peasantry for sale?"—Theirs is strongly flavoured, while yours is the reverse." The peasantry are in the habit of taking, whenever possible, the swarms of the year, and offering for sale in a neighbouring watering place, all the comb filled with honey, which is of a good colour, i. e., that has not been bred in. I at first answered the question by saying that my honey was made chiefly from white Clover, which gives the honey with the most delicate flavour, while most of the cottagers near the watering place in question were in the neighbourhood of heath, which does just the reverse. Having, however, taken one or two straw vats of my own since my attention was drawn to the subject, I have come to a different conclusion. The honeycomb from these vats was strongly flavoured, and different from that in the supers of the depriving hives beside them. Upon examination it appeared that all the comb in the neighbourhood of the part used for breeding was of a deep yellow colour; that a little further removed was a lighter yellow, and only a comparatively small portion, at the very top of the hives, was of the same colour as the comb in supers. Now, just as the colour deepened so did the flavour; and that, when strong, was so like pollen, that it appeared to me that it was the carrying of this food to the young bees that imparted it. All the comb in the immediate neighbourhood of the place where breeding was carried on would have had pollen carried over it, while the honey was in a warm state, and therefore easily flavoured; and for the same reason it appears probable that the aromatic bitter of pollen would impregnate honey with which it did not come into actual contact. The odour of Oranges has been known to flavour and spoil tea kept in the same warehouse. The warmer the atmosphere the more likely such transmissions of flavour to take place, and the heat of the interior of a hive is well known. Whether this explanation of the cause may be correct or not, it appears to be the case that breeding in a hive injures the flavour of all the comb in its neighbourhood. A. B., *Narberth*.

Garden Memoranda.

GOOD SAMPLES OF BEDDING-OUT.—The garden and pleasure-grounds of Provost Russel, Mayfield, Falkirk, are always objects of attraction to horticulturists from all parts of the country, and a cordial welcome is extended to all by the generous proprietor. The collection of *Cornus* is a mark-a feature in the place, from the extent and variety of the various species, and the excellent condition that characterises the whole. When we add to that, some fine samples of bedding-out flower-gardening, with the suitable adjuncts of lawn and gravel in seemly proportions, the reader will be all the better prepared for appreciating the details of the following picture of quiet loveliness.

Given a straight gravel walk, running about 300 yards first down an incline of about 1 in 8, and then along a level, with parallel borders about 7 feet wide on either side, the borders planted thus—back line of Gladiolus and Christine Pelargoniums, then ovals slightly raised of Pelargoniums Flower of Spring, Golden Chain, and Cloth of Gold alternately, tied together as it were with mass plants of Centaurea ragusina, the ovals edged or garnished with Perlas, and set in a groundwork of the grey coloured and rapid growing Artemisia Stelleriana, with a broad front line or band of Golden Feverfew.

There was a charm about the arrangement peculiarly captivating; the harshness of contrasting primary colours was avoided, and the skill of the gardening artist was tacitly proclaimed. What with the grey decided groundwork, the golden and silver ovals set in purple embroidery, and relieved at intervals with the hoary coloured and runcinate leaves of the Centaurea, and then the golden individual tree-like masses of the Pyrethrum next to a 12-inch margin of Grass—the whole thing was so simple and so effective as to be worthy of imitation. Of course place and position rendered the effect more striking, for on the one hand there is a screen of deciduous trees and shrubs and evergreens of the Irish Yew and Coniferous sections, and on the other is a portion of the Pincium, and an artificial lake which produces a portion of the picture in its waters like a mirror.

Example No. 2 stands at right angles with the borders described, running along the foot of a grass terraced bank in front of the mansion, and is of a more elaborate character in its details, but wrought out with the same masterly hand. The border is about 10 feet wide, backed up with several fine plants of the Lawson Cypress, the Irish Yew, and Thujaopsis borealis. Confronting these are grafted Yews, forming heads like golden balls on sombre green stems, intermixed with neat portable plants of the variegated Acer Negundo, the groundwork among these is Pelargonium Stella. Confronting the back arrangement is a broad line of P. Bijou, then a grey hoary groundwork is provided in Gnaphalium lunatum, with very decided diamonds of P. Mrs. Pollock, garnished with the dark crimson purple hue of Iresine Herbstein, relieved at the junctions with the beautiful Centaurea; and the whole is finished up with three narrow lines of Arabis lucida variegata, Alternanthera spathulata, and Sedum alzoideum variegatum—the dark-leaved plant blending in evident harmony with two of the

most beautiful and striking variegated plants in cultivation.

With the exception of the flowers of Pelargonium Stella there was nothing but foliage to provide the colour here, and the effect was significant, and above all things suggestive to all who have an uncertain climate as to drought and moisture to war against. The fine sweeping bend towards the extremity heightened the effect and led the promenade into a seclusion where the rarities of the garden were under trial. Prominent among these were some of the succulents, such as, for instance, E. beveria metallica in both its forms of dark and greyish dark leaves; E. secunda glauca, with fine *filices*, in autumn having additional beauty in its tinging orange-scarlet inflorescence; Alternanthera amabilis and Iresine Lindeni, both a shade more hardy than their more common fellows, as proved by the weather of the early part of September.

A capital wrinkle is in store for your experimental readers, and one that can be put into form next season, viz., encircling the base of such things, for instance, as Dracena australis, Aralia papyrifera, and such-like gallant growing things, with circles of about 2 feet diameter of the densely-tufted Sedum lividum (?). Here it was quite first-rate, beating, for colour and density, the best attempts of Spergula pilifera that have been ever tried. There are many other succulents of a hardy nature which may be turned to good account in planting the flower-garden. Quietly take the hint, gentle readers, for to many of you at least it will be invaluable information. To Mr. Sorley, the gardener, no small praise is due for making "tracks" for himself, as the Americans call it, in the carrying out of parterre flower-gardening. A.

Miscellaneous.

Limits of Pines.—The road passed Las Tablas, where for the first time we found ourselves in a most delightfully cool temperature, and in a forest of Fir trees (Pinus tenuifolia, Benth., known by the name of "Ocoté," a corruption of the Aztec (Mexican) "Ocotl"). I may, however, add that this is not the most southern limit of the Pines on the Pacific side of America, but that it is, as far as at present ascertained, in latitude 12° 40' north, on the Volcan Viejo, near Chinandega, at an elevation of 5000 feet above the sea-level, whilst the most northern limit, as I have shown in my Flora of Eskimoland, is on the banks of the river Noatak, in latitude 66° 44' north, where Captain Bedford Pim found a regular forest composed of a species (Abies arctica, A. Murr.) closely allied to the white Pine. We did not long remain in this delightfully cool atmosphere, but were compelled again to descend into the hot valleys, passing the village of San Juan de la Maya. Dr. Seemann's "Dottings in Nicaragua."

Coal Plants.—Stigmaria or Sigillaria, together with Lepidodendron and Calamites, formed the principal trees of the coal period. The dense damp forests in which they flourished had a very different aspect from anything to be seen on the earth at the present day. But the plants themselves have very near allies, from which they differ chiefly in the great size to which they attained, and the necessarily more highly organised stems they possessed. Ferns are the only Cryptogams which reach the size of trees at the present day; but it is remarkable that the Ferns which abounded in the coal period were generally humble plants, only in one or two cases having a stem of any length, while on the other hand the small Club-Mosses and Horsetails of our day attained at that early period a size that equals or even surpasses the trees of our forests. World of Wonders.

How to Grow Gooseberries for Cooking.—Many years ago my father planted a hedge of Gooseberry bushes to prevent a neighbour from encroaching, and he put in a lot of spare bushes and a great many cuttings of full length, just as they were pruned from the Gooseberry bushes, and a matted thicket was the consequence, very prolific indeed of spines; but a very unlooked-for result was obtained, for after all other Gooseberries had got large and sweet, these were small and sour, and made excellent tarts. Any quantity of Gooseberry cuttings can be got in winter, and, if they are carefully put in the ground they will all strike root, and make good plants in the course of a short time. If any one possessed of a stock of plants will keep the pruning knife away from them, and get them into hedgerow fashion, he will soon get a weight of small fruit off them, for the plant is a sure cropper, and its forte lies in the multitude of spines and small sour berries that it can produce. It seems quite at home at this kind of work, and can act untraced by high cultivation. The price of green Gooseberries is extravagantly high, yet it is quite astonishing to see the quantities sold, and the large size they are. A tart Gooseberry should not be larger than a Hazel nut, but these I allude to are as big as Walnuts, and need to be sliced like Cucumbers before going into the pie-dish. As the fruit is only grown to half its natural size for tarts, and only occupies about half the time upon the bush that the ripe fruit does, it does not exhaust the plant; and if the caterpillar can be kept down the plants will go on fruiting for a great many years, for the Gooseberry plant is long-lived, and remains a stunted shrub, although never pruned. It is less than the Currant in size, and considerably longer lived. It seems as if it could not aspire like the smooth-barked Currant, having to guard itself with pointed armour, which it has to manufacture as it goes on. The subject only wants to be named, and the line of distinction drawn between the culture for ripe fruit and the culture for green, and the work will get forward in due time. It is sound practical advice, and no one will be disappointed that gives the thing a fair and honest trial. A. Forsyth, in "Florist and Pomologist."

Garden Operations.

(For the ensuing week.)

PLANT HOUSES.

MANY climbing plants, such as Dipladenias, Clerodendrons, Stephanotis, Combretums, Jasminum ligustrifolium, &c., among stove plants, and Rhynchospermums, Solanum jasminoides, Sollyas, and the like, amongst greenhouse plants, will now need very little root moisture when grown in pots, sufficient only, in fact, to keep them from showing any symptoms of flagging.

FORCING HOUSES.

The outdoor borders of those Vineries which are intended for early forcing should now, if not already done, be covered over without further delay, for the purpose of warding off superficial rains.

HARDY FRUIT GARDEN.

The ingathering of all choice varieties of Apples and Pears should now be commenced, and carefully conducted. Perhaps the best or safest test is to gather them at the time when they will part from the trees readily.

HARDY FLOWER GARDEN.

Finish pricking out all seedling Garden Primroses, Polyanthus, &c., at the earliest possible moment, otherwise these will not have time to become established before winter.

young shoots to establish themselves before winter sets in. These may likewise now be propagated by means of some of the younger shoots, which have eyes at the base of the leaves, where, in fact, no flower has been formed.

KITCHEN GARDEN.

Continue tying up Endive and Lettuces upon dry favourable occasions, a few at a time, and often. These blanch more slowly at this time, and are more likely to rot during the process, hence the need of proceeding as above.

TOWN GARDENING.

THE Chrysanthemums should now be attended to, if it be wished that they should make a pleasing feature when in flower. The plants can now be trained to almost any required shape, and will right themselves in time for flowering.

STATE OF THE WEATHER AT CHISWICK, NEAR LONDON, For the Week ending Sept. 22, 1869, as observed at the Horticultural Gardens.

Table with columns for Sept., Moon's Age, BAROMETER (Max, Min), TEMPERATURE (Of the Air: Max, Min, Mean; Of the Earth: 1 foot, 2 feet, deep), Wind, Rain.

Sept 16 - Cloudy, but fine, cloudy, densely overcast, rain. 17 - Showery, a ght rain, showerly at night.

STATE OF THE WEATHER AT CHISWICK. During the last 43 years, for the ensuing Week, ending Oct. 2, 1869. Table with columns for Sept and Oct, Average Highest Temp, Average Lowest Temp, Mean Temp, No of Years in which it Rained, Greatest Quantity of Rain, Prevailing Winds.

The highest temperature during the above period occurred on the 27th and 29th, 1832—therm 79 deg, and the lowest on the 25th and 30th, 1833, and 29th, 1843—therm 23 deg.

Notices to Correspondents.

** The Editors request those who forward fruit to be named to select specimens that fairly represent their average character—not exceptionally fine fruit, nor miserable scribbles, as is frequently the case, for these it is impossible to recognise.

GARDENER'S EXAMINATIONS: M L. Dalziel. Apply to James Richards, Esq., Assistant Secretary, Royal Horticultural Society, South Kensington, W.

INSECTS: W A W. Your very young caterpillar arrived so smashed and shrivelled as to be unrecognisable. We believe it, however, to be that of the Golden-tail Moth, W.

MUSHROOMS: A Constant Subscriber. We could wish for no better material than that you refer to for the formation of a bed, and the certainty of a crop.

NAMES OF PLANTS: P Jenkins. Apples 1, Marks Codlin, 2, Keswick Codlin; 5, Hawthornden; 6, Cox's Orange; 7, Sturmer Pippin, 8, Nonsuch, 10, Blenheim Orange, 11, Tower's Glory; 12, Bridgewater Pippin. Pears 13 and 14, Passo Colmar, 20, Winter Nellis, 21, Marie Louise. Plums 16, Dunmore; 22, apparently the same; 17, Yellow Imperatrice. The others could not be determined with any degree of certainty, many of the specimens being so very small, and out of all character.

NAMES OF PLANTS: Steukler. Clematis Flammula, Jasminum officinale, Rhododendron ferrugineum—S E A Metrosideros floribunda.—H F B R. The Lucerne Dodder, Cuscuta haasiaca, Koch. Please say where found—W M. Pylagellus capensis, Vx. 12 and Vx. 7; Cephalotaxus Fortunei, Vx. 11, 1, 2, 5, and 6; Cephalotaxus drupacea; Torreyia japonica; 4, probably the same, a stunted specimen.—K Carr. The Stanhopca appears to be an intermediate form between S. oculata and S. Warlit. Twenty years ago, it might have been accounted a distinct species.—An old Subscriber.

PASSION FLOWERS: W Earley, and H M. S. Penna. P hybrida floribunda, of gardens, probably a hybrid between P. curulea and P. haidiana alias Kerresina, a very desirable variety for cultivation.

PEAR INSECTS: Anon. The insects on your Pear leaves are the slimy larvae of a black-winged sawfly, Selantria Ethiops, which is produced in the perfect state during the summer. The grubs are easily destroyed with lime water, or by sprinkling the leaves with powdered lime, W.

PREPARING HOME-GROWN TOBACCO FOR FUMIGATING: A Learner. Gather the full grown leaves on a fine day, lay them on each other in a dry, sunny place, about 1 foot thick, constantly turning them every day, and as they get dry, keep putting them a little thicker until quite dry; then put them in a basket or box, pressed quite tight, pick off the best leaves and hang up the stalks. Let them gradually dry, and then chop them up and make use of them. In drying, pick out the leaves as they get brown, and put them by themselves, i.e., after the sap is exhausted, keeping them packed away.

SEEDLING MELON: R Gilbert. The fruit sent was cut too soon, and was, consequently, not quite ripe; it is, no doubt, a good variety. The fruit sent to the Fruit Committee on Tuesday last, was first rate.

THE PINE BEETLE: S W. The Pine destroying beetle, Hylurgus piniperda, see pp. 967 and 992. The following cut we reproduce from p. 740 of our volume for 1846. Fig. 1 shows a round hole through the bark and wood. Fig. 2 shows where

the beetle has eaten the pith upwards, and made its exit at the extremity (b). Fig. 3 represents the natural size of the insect, and Fig. 4 shows the beetle greatly magnified. The mouth is well adapted for gouging out wood, as may be seen at c, which exhibit the two strong jaws, g represent the hairy maxilla, and stout feelers, j being the chain, with similar palpi.

THE LATE MR. THOMPSON. Mr C N. Thompson writes to say that he was not the writer of the notices to which we alluded last week.

COMMUNICATIONS RECEIVED.—Sub.—J. N.—Constant Subscriber.—W. J.—W. C.—W. C. T.—R. A. P.—H. M.—J. R.—A. H.—D. J. N. (next week).—W. S. B.—C. D.—H. M., Enys (we will try it).—R. F.—W. T. (Dalkeith)—A.—C. McD.

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DAMS'S NITRO-PHOSPHATE or BLOOD MANURE for WHEAT. This Manure, specially prepared for autumn sowing, is rich in Ammonia, Phosphates, and other ingredients required for the healthy growth of Grain Crops. Analysis of Blood and the grain of Wheat show that they are nearly identical in composition.

Wheat Sowing. Smut in Wheat, and the Ravages of the Slug, Grub, and Wireworm. A 6d packet is sufficient for Six Bushels of Seed Wheat.

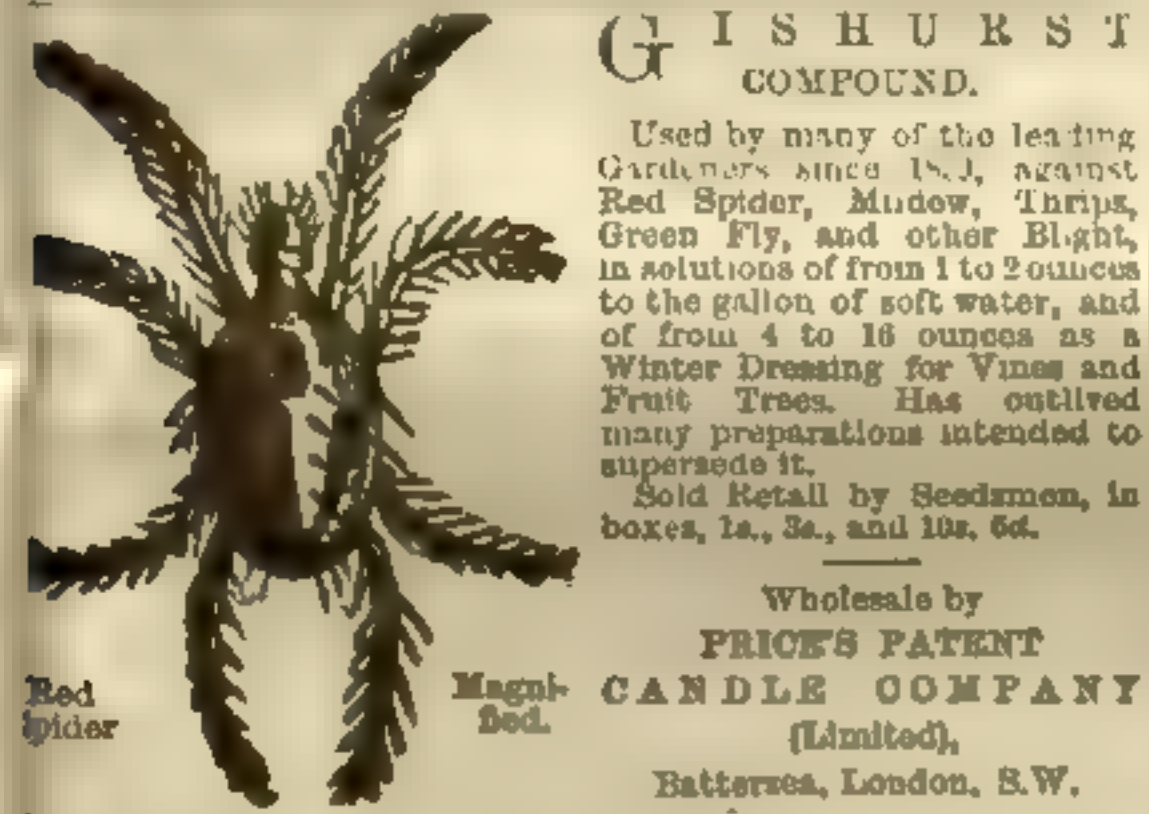
DOWN'S FARMER'S FRIEND for Preventing the Smut in Wheat, and the Ravages of the Slug, Grub, and Wireworm. A 6d packet is sufficient for Six Bushels of Seed Wheat.

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DOOLEY'S TOBACCO POWDER, for the Prevention and Destruction of Blight and other Diseases in Plants. Sold by Nurserymen, Seedsmen, and Florists.

GENUINE TOBACCO PAPER, of the finest quality, 10d. per lb., or 8d. per cwt. WILLIAM RUSHFORTH, Nurseryman and Seed Merchant, Leeds.

GISHURST COMPOUND. Used by many of the leading Gardeners since 1833, against Red Spider, Midge, Thrips, Green Fly, and other Blight, in solutions of from 1 to 2 ounces to the gallon of soft water.



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WARNER'S SILICATE of IRON PAINT. A certain PREVENTION against DAMP WALLS, Effectually PRESERVES IRON and WOOD, Is unaffected by extreme HEAT and AMMONIA.

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The Company advance money, unlimited in amount, for all purposes of Agricultural Improvement, including the erection of Cottages and Farm Buildings, to the Owners of settled and other Estates, and to the Clergy in respect of their Globe Lands.

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THE BIRMINGHAM CATTLE and POULTRY SHOW.

The TWENTY-FIRST GREAT ANNUAL EXHIBITION OF FAT CATTLE, SHEEP, PIGS, DOMESTIC POULTRY, CORN, ROOTS, and IMPLEMENTS, will be held in BINGLEY HALL, on SATURDAY, MONDAY, TUESDAY, WEDNESDAY, and THURSDAY, November 27, 28, 29, and 30, and December 1 and 2, 1869.

SMITHFIELD CLUB FAT CATTLE SHOW. The ANNUAL SHOW of FAT CATTLE, SHEEP, and PIGS, will be held at the AGRICULTURAL HALL, ISLINGTON, on MONDAY afternoon, December 6, and Four following Days.

SMITHFIELD CLUB IMPLEMENT SHOW. AGRICULTURAL HALL, ISLINGTON, DECEMBER 6 to 10. The LAST DAY for receiving APPLICATIONS for SPACE for IMPLEMENTS and MACHINERY, &c., is OCTOBER 1.

MEETINGS FOR THE ENSUING WEEK. Sept. 29: Trial of Steam Ploughs and Cultivators at Peterborough; 30: Northampton Agricultural Show; October 1: Bedfordshire Agricultural Show.

The Agricultural Gazette.

SATURDAY, SEPTEMBER 25, 1869.

MEETINGS FOR THE ENSUING WEEK. Sept. 29: Trial of Steam Ploughs and Cultivators at Peterborough; 30: Northampton Agricultural Show; October 1: Bedfordshire Agricultural Show.

FOOT-AND-MOUTH complaint has not yet exhausted its virulence; on the contrary, it seems to gather fresh force as it advances; the ratio of fatal cases has increased, and the number of severe attacks is enormously in excess of those which occur in the ordinary course of the disease in this country.

There is something yet to be discovered respecting the mode of propagation of epizootic affections. With the cattle plague it was all plain sailing, wherever infected animals or materials which had been in contact with them entered, there the malady appeared, and absolute security was always attained when complete isolation was enforced.

Ten days ago foot-and-mouth disease was reported to exist in nearly 800 places; last week the number was over 1000, and this week it has reached nearly 2000. The following list of infected counties will serve to convey an idea of the extent of surface over which the affection has spread:—

ENGLAND.—Metropolis, Berks, Bucks, Cambridge, Cheshire, Cumberland, Derby, Durham, Essex, Hants, Herts, Kent, Lancashire, Lincoln (Lindsey), Middlesex, Norfolk, Northampton, Northumberland, Nottingham, Oxford, Salop, Stafford, Suffolk, Surrey,

Sussex, Warwick, Worcester, and the East, West, and North Ridings of Yorkshire, SCOTLAND.—Argyll, Berwick, Clackmannan, Edinburgh, Haddington, Lanark.

On the Continent the state of affairs is not more satisfactory; from the Black Sea to the Atlantic foot-and-mouth disease prevails among cattle, sheep, and pigs, and cargoes of infected animals are day by day landed in this country.

Sheep suffering from the disease have been detained at Newcastle and other outports, and on Tuesday last a cargo of nearly 100 sheep arrived in London from Hamburg, and on inspection it was found that 45 of the animals were affected with foot-and-mouth disease; they were accordingly detained; the remainder of the cargo, however, being apparently healthy, was sent to the metropolitan market to be distributed over the country, and add to the already numerous centres of infection.

The same course has been adopted at other ports, with the natural result of spreading the disease; but for the future the danger will be effectually met by the detention of the entire cargo of sheep in every instance when any of them are affected with oozema.

This arrangement is imperatively called for under the present circumstances, and its adoption at all the ports may be expected to produce good results. Under the provisions of the Contagious Diseases (Animals) Act, and the General Order of August 10, cargoes of cattle must be dealt with in an equally summary manner in the event of any of them being affected with a contagious disease; it may, therefore, be presumed that no more infected foreign animals will be allowed to pass inland.

More stringent measures are, in the next place, required in this country before we shall succeed in arresting the disease which has advanced up to the present moment almost without let or hindrance. We do not advocate a recourse to the severity of the cattle plague orders; but strict isolation, and a free use of disinfectants, are essential parts of an effective system of prevention.

It cannot be assumed with any show of reason that the restrictions at present in force are sufficient to meet the emergency; with hundreds of diseased cattle grazing in commons, and in practically open pastures, it is impossible to arrest the spread of infection, and even when the disease is known to exist among cattle on a farm, there is no provision which empowers the local authority to prevent the removal of the apparently healthy animals from the premises to a neighbouring fair or market.

The disease, both in reference to its severity and extent exists in an exceptional form, and special provisions are needed for its eradication. Authorities charged with the carrying out of the Act, working in earnest, will find that they have no light labour to perform, and when they manifest an intention to act vigorously it is beyond everything desirable that they should not be crippled by want of power to meet every difficulty as it arises.

THERE is a peculiar district on the mountain limestone formation, in Staffordshire and Derbyshire, which is too elevated for corn or arable cultivation in general. The smooth outline of the hills, with their grass-covered surface, gives them a strong resemblance to the downs in the south of England. But the limestone soil is much richer than the thin covering of the chalk downs, the climate is cooler, and the rainfall is 50 per cent. greater. We have been much struck with the comparative character and quality of the herbage on the two sites. The natural poverty of the one and richness of the other are not more remarkable than the fact that the Grass of the latter, under exhaustive treatment, assumes the same character as that which covers the former. Most of our readers are familiar with the look of the herbage common to the tract referred to—the Epsom and Brighton Downs, and to the North and South Downs generally. It is sweet herbage for sheep, and is as unproductive as it looks, nor can it be made otherwise by any system of cultivation ever yet attempted. But the better soils of the limestone are clothed with rich Grass, that feeds heavy Shorthorned cattle, whose bulky frames, seen on the horizon, have a singular appearance when the animals stand on the topmost edge of the great round hills to catch the air in hot weather. The few sheep which accompany the cattle in this rich but elevated district are, like them, natives of the plain. The condition of this pasturage is easily

maintained by restoring to the soil the elements removed in the cheese, butter, bone and flesh which are yearly sold to the more populous districts which require them: but, as we said before, the condition is lost when this restoration is neglected,—the pasturage then becomes poor, the best Grasses disappear, and the land, instead of retaining the succulent early and cultivated varieties which had been sown, is taken possession of by plants peculiar to the chalk and limestone, several of which are not Grasses, and are a month later in spring than those commonly cultivated.

It is observed that pastures from which hay is sold lose their herbage first; the process is much slower on the cheese farms, because pigs are kept to eat the whey, and a partial restoration takes place in the corn purchased to fatten them. The hill farms are occasionally farmed, or *spoiled*, by those who occupy land elsewhere, and hire for their convenience several "gates" of hill pasturage,—a "gate," being summer grazing for one ox, or for six sheep. There are, in short, many examples of farms where no proper or complete system is carried out, and the exhaustion of the soil, as shown by the injury done to the herbage, is found to be in exact relation to the management. Exhaustion, sooner or later, is inevitable, except under very high farming, which includes generally cattle feeding with cake and corn, and large purchases of manures. But the period is, of course, dependent also on the original quality of the land and subsoil.

We have often been struck by the appearance of two adjoining pastures, presenting the greatest possible contrast, though on land of similar original quality. Yet it seems that the Clovers, &c., are not banished from the exhausted soil, nor are they destroyed; they exist, though without vigour, and are present, though in portions too minute to be observed; and they can be made to appear suddenly (that is, in a single season), by sowing bones. Seed alone would be thrown away, because the conditions of growth are wanting, but the constituents contained in bones supply those conditions; and the plant, which had never been quite destroyed, immediately becomes luxuriant.

Bones have been systematically used in English farming for half a century, and the singular phenomenon described is familiar to agriculturists, but the lesson taught by it has yet to be made familiar, for the practice of modern farming has perhaps led us astray from simple truths; we are apt to overlook the fact that modern farming takes from the soil more rapidly than farming did of old, and that it only restores to the soil, clumsily and inadequately, by force of purchase.

Our great crops are obtained at great cost; we work the land harder than we once did; we plough it deeper and crop it faster—and we feed it better. Unless it be so fed, our deep cultivation and other operations do not pay. Even the richest land does not long bear our rotations of crops, without being fed by manures obtained directly or indirectly, outside the farm. The German Professor was not far wrong when he said to his pupils "manure is the soul of agriculture." It is almost the one thing needful to the English farmer: all his other processes would fail without it.

Some persons have declared that the earth is inexhaustible. Let them attempt to farm without manures; meaning thereby all the fertilisers. The truth is, plants appropriate the substance of the soil, which is removed with them. The land has no power of continual self-restoration, and therefore, farm it as we will, by plough or by spade, we must constantly manure it. The expenditure for manures is an enormous and apparently an increasing item in English farming. Their cost controls the cost of food. If guano, superphosphates, and cakes were one-half their present price, there would shortly be more English and less foreign Wheat at market. For whether our fields may be properly called exhausted or not, there is no question of the effect of the extra feeding they would get. Need we point out that manures are more wanted because the land is less idle, and they get scarce because they are wasted? Plants are grown for man and stock; man is the great appropriator. Where does that portion of the substance of the earth which is consumed by man go to?

How to rouse the farmers of England to a sense of their wants, their privileges, and their true position, is a problem of no small difficulty. Isolated as they of necessity must be, it is by no

means easy for them to assemble for mutual counsel: and it has been hitherto impossible to reach them through books or the Press. The great body of farmers know and care little for those questions which are discussed by its leaders, although these topics have a vital interest to every occupier of land. This inertness is being gradually broken down by education and the extension of agricultural associations, but it is still to be regarded as one of the greatest impediments to their progress. It is in fostering brotherly feeling or the sense of professional kinship that Chambers of Agriculture should find their greatest work. In this the usefulness of professional associations in a great measure lies, the body caring for, and, if necessary, protecting its members. This element of usefulness should be kept steadily in view by our Chambers of Agriculture, and as the season for their meetings advances it is advisable to call attention to the value of *united action*. When an important subject is discussed, agriculturists should endeavour to be present, on the principle that the larger the meeting the more influential will it prove. Too often have we heard a farmer say that he could read all about the meeting afterwards in the newspapers, forgetting that his personal influence in backing up the opinions of the Chamber was thereby sacrificed. To say that as much is learnt by perusing the report of the speeches at home as by hearing them delivered, indicates a want of appreciation of the main object of a public meeting. Why, we would ask, is so little progress made in the direction of secure tenure for the occupier of land? How is it that the question of game preserving continues in so unsatisfactory a condition, and why is not the necessity of better cottage accommodation more prominently brought before landowners? Free discussion, and the expression of definite opinions, supported by weighty arguments, would do much towards the settlement of these and other important topics, and we long for the day when tenant-farmers will interest themselves in the endeavours which are being made in other localities besides their own, for the advancement of a common interest. Agriculture has advanced, but until more attention is bestowed by farmers themselves on such subjects as have been named, our present knowledge cannot be fully developed.

With reference to the first question—the tenure of land—how is it possible that the resources of the soil can be fully brought out by yearly tenancies? It is not in the nature of things that it should. Further, when we remember the monopoly of land which exists it is at once clear that the landlord has the advantage in what is so often incorrectly stated to be "an equal contract between man and man." Let the tenant-farmers of England, however, awake from their stupor, and demand a better, a more secure, tenure; a tenure which will enable them to do justice to themselves and their country by raising produce under the most favourable circumstances. Then they will be backed by a strong public opinion, and the landlords will give way in a matter which can be shown to be for their own advantage. Our system of large estates becomes absolutely vicious when it acts as a drag upon the production of food for the people, and the only means of making it consistent with modern notions is to secure the tenant in quiet possession. It is positively sad to find the yearly tenancy and "good feeling" theory maintained by men of agricultural position; and we hold that it is simply absurd to talk of improving land as it ought to be improved, without the inducement of a long lease and security for capital invested. When will the majority of farmers see this question in the same liberal light in which it has been regarded and presented by, let us say, JOHN GREY and WREN HOSKYN'S?—to choose our representative men from at once the living and the dead. It may be long before the views of such men are generally adopted, but they are the growing opinions of the day. The goal of the many, not the pleasure of the few—this is the invincible weapon to be used. In conclusion, we once more lament the want of that lively interest in these matters on the part of farmers themselves. Their contentment, instead of being looked upon as indicative of a low state of vitality, is used as evidence that no reform is required. Farming associations are yet young, and if their active members can succeed in showing their less enlightened and worse educated brethren the importance of personal attendance at, if not of

actual participation in, agricultural discussions, much good will be effected.

—The price of Wheat has declined at Market and generally throughout the country, from 1s. 6d. per quarter during the week. Barley, excepting malting qualities, and other spring grain and pulses, also slightly lower. Maize, however, on which horses are now largely fed, is 1s per quarter dearer. 51s. per quarter is the highest price quoted for new English Wheat, and 56s. per quarter for foreign. —The beef trade has not recovered recent small decline in price, except for very choice English qualities; but prime mutton is now at 5s. 10d. per 8lb. —The agricultural seed trade has been almost limited to Trifolium, Rye-grass, and Tares, for which there has been a somewhat demand. —The English wool trade has changed little, and inferior foreign is no dearer; but qualities of Australian and New Zealand grown Merino have advanced 1d. to 1½d. per lb., in consequence Messrs. BRADBURY & COOK say, of the manufacturers becoming "keen competitors."

—The returns of acreage of our various crops, sent in to the statistical department of Board of Trade, have just been published. It has been practicable to obtain from all parts of England and Wales the information necessary for their completion for this year until the present date. With a view of making known as early as possible the results exhibited by the returns, the following particulars are furnished in anticipation of the return in detail:—

EXTENT (IN ACRES) OF LAND IN GREAT BRITAIN USED FOR THE CULTIVATION OF THE FOLLOWING CROPS IN 1867, COMPARED WITH THE EXTENT IN 1866 AND 1865.				
Year	Wheat	Barley	Oats	Per cent.
1867	3,357,876	2,251,164	1,100,487	80
1866	3,652,125	2,151,114	2,757,673	80
1865	3,696,030	2,256,177	2,785,054	80
INCREASE (+) OR DECREASE (-).				
1867 over 1866	+42,905	+104,853	+23,001	+1
1866 over 1865	-12 per cent.	-10 per cent.	-10 per cent.	-10
1867 over 1865	+327,144	-205,013	+31,527	+1
1867 over 1866	-97 per cent.	-01 per cent.	-13 per cent.	-19
TOTAL NUMBER OF LIVE STOCK IN GREAT BRITAIN ON JUNE 25, 1867, COMPARED WITH THE NUMBER ON JUNE 25, 1866 AND JUNE 25, 1865.				
Year	Cattle	Sheep	Pigs	Per cent.
1867	4,913,934	23,911,111	2,000,000	20
1866	5,123,981	23,711,316	2,000,000	20
1865	5,313,788	23,589,954	2,000,000	20
INCREASE (+) OR DECREASE (-).				
1867 over 1866	-107,047	-1,137,412	-	-3
1866 over 1865	-200,000	-370,000	-	-10
1867 over 1865	+323,554	+601,853	-	+10
1867 over 1866	6.5 per cent.	2.9 per cent.	-	34

The acreage of land in Great Britain under the various crops in 1867, against 64,433 in 1866, and 65,187 in 1865. There is this year a considerable increase in the acreage of all the corn crops over 1866; but a considerable and surprising decrease in the number of live stock—107,047 cattle, 1,130,412 sheep, and 2,000,000 pigs fewer, in 1867, than in the previous year.

—The Leeds Mercury publishes the reports of a large number of its Yorkshire correspondents on the character of the past harvest, and comes to the conclusion that notwithstanding the variety of soil and cultivation, all accounts agree, not only that the crop is not equal to an average of the last four or five years, but that it is likely to be much below an unusually favourable yield of last year. Whilst it is an average crop, Oats are a deficient yield. The weather has been favourable for the root crops, there is every reason to anticipate an abundant food and fodder for cattle.

—The Contagious Diseases (Animals) Act is perfectly understood, at present, by many persons owners of stock throughout the country. One of the provisions in the Act requires that any farmer or owner of stock shall give notice of the existence of any contagious disease in his flock or herd to the officers appointed by the proper local authorities. A case was brought before the magistrates at Oldham, on Monday, when a farmer was convicted for not giving notice of an outbreak of foot-and-mouth disease among his cows. The magistrates, however, only inflicted a nominal fine, as this was the first case which had been brought before them. The full penalty is 20l.

—A passenger by the boat from Bremen to London via the Thames on Tuesday afternoon, after a most uncomfortable and stormy passage, lasting more than four days, was that of over 30 or 40 beasts and 100 sheep. Bremen 8 or 10 oxen and 30 sheep died during the passage, and were thrown overboard. The water, food, and shelter killed so many, that probably 30 to 50 per cent. of the value of the animals was lost. The steamer had left in a storm, and the officers were as malignant as the passengers in their inevitable cruelty to which the shipping of such animals thus consigned them.

—The Bingley Hall Company have issued a prize list for the next Birmingham show of live stock, and roots, from Nov. 27 to Dec. 2, 1867. The prizes are: The Earl of Coventry, 25l. cup; the Earl of Aylesford, 15l. cup; the Mayor of Birmingham, 10l. cup; the Hotel and Innkeepers, 25 guineas. There are, besides, four extra prizes and two gold medals for the best male, the other for the best female, in the cattle classes. The money prizes consist of 120l. for each of the three English breeds of cattle, viz., Herefords, Shorthorns, and Devons. Longhorns are honoured with 30l. in four prizes; Scots, seven prizes; Welsh, 20l. in two prizes; other breeds and cross-bred animals, 60l. in six prizes, extra classes, 10l. in two prizes. For sheep the Linen and Woollen Drapers' four extra prizes

107. each—10 gs. by Mr. Bromley-Davenport, M.P.; 10 gs. by Mr. Newdegate, M.P.; and 10 gs. by Messrs. Mapplebeck and Lowe. The money prizes are 30l., in three prizes, for each of the six recognised breeds, viz., Leicesters, Lincolns, Cotswolds, Southdowns, Shropshire, and Oxfordshires. Fat pigs and breeding pigs have also several appropriate prizes besides silver medals. Full particulars, however, may be had by applying to the Secretary, Mr. Lytball, New Street. The entries for stock close Nov. 1, and for implements, &c., before Nov. 11.

The Staffordshire Agricultural Society held its annual meeting at Burton-on-Trent on Thursday last, and, under the good management of its secretary and active authorities, the show was in every way successful. There has been some discussion of late about the desirability of a county show having two days for stock. When, however, the expense of shedding and horse-boxes is considered, it is doubtful whether it is advisable to incur it. This matter is just a question of the cost being recouped by the attendance of visitors. So far as agricultural instruction goes, one day is just as good for farmers to make comparisons as 20 days would be. Staffordshire has only one day for stock, while Warwickshire has two days, yet the Staffordshire show is by far the more instructive exhibition of the two. The question, however, now is, whether both of them, and several others in the midland counties, are now required. Would it not be better for them to amalgamate, and form an influential Midland Counties Association, and hold a week's show at each principal town once in ten years? If provincial agricultural shows are now required, it is obvious that this plan would be more in accordance with the spirit of the present time. Why not form a Midland Counties Agricultural Association, in imitation of the Bath and West of England and Southern Counties Society? Staffordshire, Warwickshire, Worcestershire, Leicestershire, Derbyshire, Shropshire, and Cheshire, would form a field for working in that would be able to yield an exhibition worthy of the Midland Counties, with Birmingham as its centre, as well as one worth going to see by any agriculturist in the county. At present, however, these shows are too numerous to do much good to their own county, and there is nothing for strangers to see when they go. There have been about a dozen of these shows this week and last, the prize animals at many of which have been the same. The Staffordshire meeting, however, has been successful, as county shows now go. The cattle, we learn, from a report in the *Lirmingham Gazette*, were good.

The Shorthorn bulls include some well bred and useful animals, the 1st prize being awarded to a roan, 2 years and 9 months old, bred by Mr. E. Lytball. The 2d prize animal, "Theodore," the property of Mr. Speed, although seven months younger than his more successful rival, possesses great frame, and all the attributes of a Shorthorn male. The Duke of Devonshire obtains a high commendation for a fine roan, of immense substance, which is scarcely inferior to his two successful rivals. In this class, Mr. Hardy, of Dunstall Hall, Burton, exhibited a well-grown animal, of great size, but somewhat unshapely. A roan bull, the property of the Marquis of Annesley, although passed over by the judges, excited the attention of the practical farmers. The yearling bulls were of a serviceable character—Mr. Willoughby Wood's roan, which took the 1st prize, showing good breeding; Mr. Hill, of Wilm Hall, deservedly received a high commendation for a rich roan of great promise. The bull calves were of a variable character. Mr. Willoughby Wood's 1st prize animal being closely run by Mr. Hildon's "Nimrod," but as there was four months' difference in the age, it must remain for next year to decide which is the better of the two. In this class there are two fine roans, one the property of Lady Des Vaux, and the other of Mr. Wakefield, which are promising animals, and will doubtless be heard of on some future occasion. The ewe classes were good; indeed, it would be almost impossible to get together a collection of every stock in any county in England which could be shown at Burton. They were all in store condition, the ewe classes were of the highest quality, and the Shorthorn element was the predominant feature. There were only five entries in the class for fat cattle. There was but a single show of sheep, but, as usual, the Shropshires pre-eminently. Mr. Keeling, although coming off with a second award, showing some fine animals. In the long-wooled class, Mr. J. Busnack took the 1st prize with an improved Lincoln, in the old and shagging classes, and his pen of shagging ewes, of the same breed, were very fine. Indeed, all the 1st prizes in the long-wooled classes were taken by Mr. Johnson. As to the pigs, all that can be said is that they were of the porcine race, and the 1st and 2d prizes for pigs of a small breed were awarded to two of the largest animals in the yard. In contrast to this objectionable practice, a diminutive little bear, 10 months old, was exhibited in the class for boars of a large breed by Mr. Bantock, of Wolverhampton. The majority of the pigs were white, and Tamworth, only two or three were of Berkshire, and these of inferior quality. The ewes were of not more than 100 lbs. weight, and the weighing was anything but satisfactory.

Stearns ploughs and cultivators are to have an important trial at Peterborough, on Wednesday and Thursday next. We are informed that large and small sets will be put in competition, and also that Messrs. AMES & BARFORD will exhibit a new self-moving anchor, which is described as a great advantage in working the well-known round-about system of Mr. SMITH, Woolston.

The Canbridgeshire Society held its annual meeting on Wednesday and Thursday, this being the first time of its show extending beyond one day. In a brief report the *Stamford Mercury* says:—"All the classes of the horse show were well supported, and whether for agricultural, hunting, or road purposes, the animals exhibited were, on the whole, of a high character. Cattle were a good display, although numerically we have seen better shows in the Eastern Counties. Sheep were not very numerous, and pigs were decidedly, as regards numbers, at a discount." The first prize for Shorthorn bulls over two years was awarded to Mr. Pawlett, 2nd to Lady Pigot; under two years old—1st, ditto; 2nd, Mr. J. How. In heifers Lady Pigot took the first prize.

OUR LIVE STOCK.

MR. THORNTON has given notice that the sale of Mr. E. J. Schollick's Shorthorns will take place on October 5, instead of the 1st, as previously advertised.

An important sale is announced by Mr. Stafford to take place on October 19, at the Prebendal Farms, Aylesbury. Mr. J. K. Fowler has long been known as a breeder of excellent stock, and we have every hope that his coming sale will be well attended, and that the quality of the 40 Shorthorns offered for sale will be appreciated by the public. Catalogues are not yet issued. We may, however, state that the stock is of Fawsley origin, with Kirklevington crosses, and that amongst them will be found some very good ones descended from *Catalpa, Chamer, Cold Cream, Walnut, Fantail, Seraphina*, and other favourite sorts. The sire now in use is *MARDICANTE*, bred by Mr. Adkins, of Milcote.

Mr. Duckham will hold his first sale of purchased Hereford cattle on October 21, the day after the show of the Herefordshire Agricultural Society and Great October Fair. The event is looked forward to with interest, and we are glad to learn that the entry is already exceedingly satisfactory. One eminent breeder has pledged 10 head of cattle at Mr. Duckham's disposal for his first periodical sale.

The herd of Mr. G. R. Barclay was sold at Keavil, Dunfermline, on Tuesday last, by Mr. Thornton. The result was, on the whole, satisfactory, although on account of the advanced age of some of the cows they brought less money than was originally given for them. Thus, *Seraphina 13th*, purchased at one time for 240 gs., only realised 110 gs., and *Anne of Lancaster*, once sold for 150 gs., was bought for 54 gs. *Fan-fan*, a daughter of *Kath* and *SIR JAMES*, became the property of Mr. Whyte, of Clinterty, for 166 gs. Lord Sudeley was the purchaser of *Seraphina 13th*, and her two daughters, *Seraphina Carissima*, and *Booth's Seraphina*. Nineteen cows and heifers realised an average of 59l. 6s., and eight bulls made 57l. 15s. each. The average of the 27 head disposed of was 58l. 10s. 9d. A large number of cattle breeders and farmers were present from all parts of the kingdom, and the whole of the stock was disposed of without reserve, Mr. Barclay having sold his estate. The following is a list of the names of the animals sold, of the purchasers, and the prices made:—

Table with columns: Name of Animal, Price, Name of Purchaser. Includes entries for Cows and Heifers (e.g., Annie Laurie, Seraphina 13th) and Bulls (e.g., Baron Booth, Heifer of Englefield).

Sheep.—At Derby, in the Shropshire Sheep Class, Mr. Willoughby Wood secured the 1st place for rams, in competition with Mr. Baker's 2-shear sheep, which has been so frequently victorious this season. In the shearing class Mr. Baker was 1st, and Mr. Wood was 2d. In the ewe class Mr. Rose took the 1st prize, with a pen of very fat sheep, thought by some judges deficient in "character," and not quite so good as Mr. Baker's sheep, which were placed 2d. Mr. Wood's ewes were scarcely fat enough to attract the judge's eye, and this partiality for fat in judging a class of animals intended for breeding purposes gave rise to some little discontent. Everyone speaks or writes against this tendency to award prizes for obesity, and yet the evil does not decrease, and hence many of our best breeders will not exhibit. A well-known sheep-breeder writes to us as follows:—"I consider it buying a prize too dear to spoil one's best breeding animals to obtain it."

While speaking of Shropshire successes, we may mention that Lord Chesham took the 1st prize for yearling rams and for yearling ewes at the International Exhibition at Altona, Königstrasse. His lordship sold one ram for 40 gs., and three ewes for 10 gs. each during the show. This is very satisfactory, especially when it is remembered that the Latimer flock has been established but a comparatively short time.

RECENT RAM SALES AND LETTINGS.

Leicesters.—Mr. W. Torr, of Aylesby Manor, held his annual meeting on September 1, according to custom. This has usually been a private letting, but on this occasion some of Mr. Torr's views and the prices he made have been promulgated. We accordingly learn that—"Mr. Torr had reduced the number of his rams to accommodate the lessening demand for pure blood, but out of the 60 shown 25 or 30 finer specimens of Leicester sheep were never exhibited, and

these were let at remunerative prices. Some of those shown were the progenitors of successful competitors at various exhibitions of agricultural societies, and one of them, Quid, was the sire of the winner at Manchester. Major Taylor took one sheep at 20 gs. and another at 10 gs. One was let by auction (by Mr. Thornton) to Mr. Maw at 20 gs., the opponent being Mr. Harrison, who then hired one at 12 gs. The highest price made was 35 gs., and the lowest letting was at 10 gs. The average [of seven was 20 gs., and the general average was about 14 gs. The total number let on the day was 29, and there were also applications by letter."—The large sales in Scotland took place last week. At Edinburgh on Thursday week there was a good show. The highest price obtained during the day was 33l., for the animal belonging to Mr. Simson, Blainslie, which was commended at the show on Wednesday. The purchase was made for Mr. Balfour, of Whittingham. The ram, also belonging to Mr. Simson, placed 1st on Wednesday, and 1st at the Highland Society's show as a Border Leicester shearing tup, was purchased by Mr. Hunter, Dipple, for 36l.; 35l. was given for a ram belonging to Mr. Smith, Castlemains. The Glasgow prize ram of Mr. Smith, Stevenson Mains, was sold for 20l. Mr. Watson, Asperton, sent 50 the highest price made was 19l., and the average 7l. 16s. The Duke of Buccleuch sent 30 the highest price was 22l., and the average 7l. 10s. Mr. Smith, Castlemains, sent 38, and, with the price above named, his average was 8l. 15s. Mr. Smith, of Stevenson Mains, sent 70, and averaged 6l. 8s. 3d.—Mr. Sanson sent 38, and averaged 8l. 3s. 6d.—At Kelso last week the great annual sale of Leicester and half-bred rams, under the auspices of the Border Union Society, commenced in the Inch Park. There was a large attendance, including proprietors and flockmasters from distant parts of the United Kingdom, and also from Canada and Australia. There were four rings placed at various points in the park, three being for the sale of Leicester sheep, and one for the sale of half-bred rams. There were in all 51 lots entered for sale—54 of Leicesters, and 10 of half-breds—representing a grand total of 1735, last year the number was 1813, so that there has been a decrease this year of 48. The following are the principal prices made:—The lot belonging to Mr. Foster, Ellingham, sold well. One was sold at 50l. to Mr. Calder, Oxenrig; one at 40l. to Mr. Simson, Blainslie; one at 37l. to Mr. Smith, Stephouse; and one at 26l. to Mr. Angus, Whitefield. Mr. Robertson sold the ram that was highly commended at the show at Coldstream on the previous day at 24l., while the tup that got the 2d prize, which belonged to another party, only brought 11l. The highest-priced ram in the lot of Mr. Bell, Linton, was purchased by Mr. Bell, Fans, at 20l. Mr. Dunlop, Nilston Ridge, sold his highest-priced ram to Mr. Lumsden, Northumberland, at 31l.; and another to Mr. Foster, Curradon, at 24l. In the Rev. Mr. Bosanquet's lot, the ram which brought the highest price was sold to Lord Penrhyn at 30l.; another was sold to Mr. Robeson, Springwell, at 26l. Mr. Wood, Thornborough, bought the highest-priced animal in the lot of Messrs. Black, Coldstream, at 22l. Mr. Torrance, Sisterpath, sold his highest to Mr. Inglis, Logan Bank, at 41l.; and one to the Marquis of Tweeddale at 30l. The Mellenden sheep, which have long held a leading place at this sale, came on for auction about six o'clock, when the ring was surrounded by a large company. The highest price obtained was 109l., one of the highest figures ever obtained at this sale. It was purchased by Mr. Collingwood, Lincolnshire. Mr. Bruce, Aberdeen, purchased one at 40l.; Mr. Robertson, Harperton, one at 36l.; Mr. Torrance, Sisterpath, one at 31l.; Mr. Foster, Ellingham, one at 26l., and one at 21l. The average was the highest obtained at this sale. Lord Polworth's are generally regarded with great interest by flockmasters, and the ring is generally crowded when the sale is going on. On this occasion, however, they were about the last on the list, when a great number of farmers had left, and hence the average and highest price were not so high as last year. The top price was 42l., purchased by Mr. Elliot, Hollybush; Mr. Borthwick, Gowbog, purchased one at 33l.; Mr. Scott, Buckholm, one at 31l.; and Mr. Thomson, Rutherford, one at 20l. The following is a list of some of the highest and average prices obtained:—

Table with columns: Lots, Owners, Highest, Average. Lists various lots and owners such as Messrs. Dinning, Nilston Ridge; Mr. Hunter, Ellingham; Mr. Bosanquet, Rock, etc.

Border Leicesters.—At Mr. Barclay's sale, at Keavil, on Tuesday, some of his sheep were disposed of. The tups and tup lambs met with a ready sale, at from 53s. to 80s. each, and two were sold to Mr. Featherington for 52 10s. each. The females made, the ewes, from 63s. to 78s., and 17 gimmers (theaves) became the property of the Hon. D. B. Ogilvy, at from 52. to 82 5s. each. Southdowns.—Lord Sondes' fourth annual sale took

place on Wednesday, September 8, at Elmham Park, Norfolk. 16 shearing rams averaged 15*l.* 1*s.* 3*d.*, six 2-shear ditto averaged 16*l.* 9*s.* The highest shearing ram was let to J. J. Colman, Esq., for 36*g.*s.; highest 2 shear to Colonel Tomline, M.P., 33*g.*s. Some ewes and wether lambs were also let, 110 shearing ewes, 37*l.* 7*s.* 7*d.*, average 16*s.* 6*d.*, 50 full-mouthed ewes, 113*l.*, average 57*s.* 3*d.*; 90 ewe lambs, 116*l.* 15*s.*, average 32*s.* 7*d.*, 150 wether lambs, 257*l.* 5*s.*, average 34*s.* 3*d.* The highest pen of shearing ewes realised 6*l.* 16*s.* 6*d.*; ditto, full-mouthed ewes, 3*l.* 12*s.*; ditto, ditto, ewe lambs, 1*l.* 13*s.* 6*d.*; ditto, wether lambs, 1*l.* 18*s.*

Shropshires—Mr. Charles Byrd, of Littlewood, near Stafford, head, on Monday (Sept. 6), a sale of the produce of his flock, which was started from good stock about 15 years ago. Amongst the prices given for rams were the following:—No. 1, Mr. Branburne, 60*g.*s.; No. 2, Mr. Henry Smith, 44*g.*s.; No. 3, Mr. Matthews, 35*g.*s.; No. 6, Mr. Fetherstone, 42*g.*s.; No. 7 (to let), Mr. Ford, 20*g.*s.; the others ranged from 7 to 12*g.*s. each. The ewes were low in condition, and realised from 16*s.* to 51*s.* each.—Mr. Walker, of Odstone, Leicestershire, has been working up a flock of this breed for about 20 years, and he recently held his first annual sale. Young Duke, a 4-shear, by Duke of Kent, which was let till November 1, with the right of sending 10 ewes, for Earl Howe, at 18*l.* 10*s.* Then followed 16 shearlings, all by Young Duke, with many good strains on the dam's side. Mr. Swann, Odstone, gave 17*g.*s. for one; Earl Howe, 16*g.*s.; Mr. T. Drackley, 15*g.*s.; Mr. J. Bonnett, Ratby, 14*g.*s.; Mr. M. Drufford, 17*g.*s.; Mr. T. Earrp, 12*g.*s.; Mr. Neal, Bilston, 10*g.*s.; the lowest price being 8*g.*s.; the average of the 16 shearlings was within a fraction of 12*l.* each.—At Shrewsbury, on Thursday week, Mr. Preece held his second large sale. Amongst the lots were 40 belonging to Messrs. Crane, one of which was let at 51*g.*s., another at 30*g.*s., three others at 20*g.*s. each, and several sold at 15*g.*s.—Mrs. P. W. Bowen's rams ranged from 9 to 23*g.*s. each.—A shearing of Mr. Mansell's was sold to Lord Penrhyn for 30*g.*s.; and several of Lord W. de Bruce's ran from 9 to 16*g.*s. each.—Mr. Henry Smith showed 20 sheep, some of which were let at 20*g.*s.—Mr. T. Horton exhibited very successfully, No. 1 being let at 20*g.*s., No. 3 at 19*g.*s., No. 4 at 24*g.*s., No. 5 at 24*g.*s., and the others making from 17 down to 12*g.*s. each.—Mr. Joseph Crane's 14 rams made an average of about 13*g.*s. each.

Coltsvolds—Mr. W. Hower had a sale last week, in consequence of his retiring from business. There were 1 aged rams which sold as follows—24*g.*s., purchased by Mr. Smith; 25*g.*s., purchased by Mr. Swanneck; 12*g.*s., by Mr. Holt; and 11*g.*s., by Mr. B. Browne, being an average of 17*l.* 4*s.* 7*d.* The ram lambs were next offered, and prices ranging from 25*g.*s. down to 4*l.* 10*s.* were realised, Mr. Timms purchasing the highest priced animal. The average was 5*l.* 10*s.* 5*d.* Mr. Canning, of the firm of Canning & Russell, attended, and purchased 10 of the highest priced theaves, at 6*l.* 10*s.* each, for exportation to New Zealand; and Mr. Guerrier, of London, purchased 15 ewes for Prussia. Some ewes were also sold at high prices. They were in lots of five each. The first lot produced 6*l.* per head, and other lots realised from 5*l.* 15*s.* to 2*l.* 12*s.* 6*d.*, which was the lowest. The first pen of theaves brought 6*l.* 10*s.* each, and some ranging down to 2*l.* 10*s.* The average price for ewes was 3*l.* 12*s.* 6*d.*, and for theaves 3*l.* 16*s.* 9*d.*

Lincolns—Mr. J. W. Kirkham held his annual sale at Cadsby Hall on Thursday week. The rams are descended from the Biscathorpe and old Hagnaby flocks. The 31 rams realised 115*l.* 5*s.* 6*d.*, being an average of 13*l.* 8*s.* each. Nos. 1, 2, 4, and 8 fetched the highest prices, and were bought as follows—No. 1, by Mr. Wright, of Wold Newton, 21*l.*; No. 2, Mr. Williams, of Ashby, 22*l.* 1*s.*; No. 4, Mr. Kirkham, Hundleby, 21*l.*; No. 8, Mr. Kirby, Marsh Chaysal, 19*l.* 19*s.*—Mr. Hles, of Wold Newton, had 24 sold at Causton last week. No. 4 was bought by Mr. C. Nainby at 13*l.*; No. 5 by Mr. Empson at 20*l.* Mr. C. Wood bought No. 6 at 10*l.* 10*s.*, and No. 12 at 11*l.* 10*s.* Mr. W. Hudson bought No. 14 at 15*l.*, and No. 19 at 17*l.* 10*s.* No. 15 was bought by Mr. Gooseman at 15*l.*; No. 18 by Mr. Rannard at 12*l.* 10*s.*, and No. 13 by Mr. Dixon at 10*l.* 10*s.* The average of the 24 rams was 10*l.* 12*s.* 6*d.*—At Partney Fair on Saturday the usual important sales of rams took place. There were sheep from seven different flocks, comprising about 200 very superior rams, nearly all shearlings. The Langton Grange rams, the property of Mr. Harwood Mackinder, were offered by Messrs. Briggs. The 31 rams realised an average of about 11*l.* 15*s.* The Huttoft rams, consisting of 33 shearlings, the property of Mr. J. L. Needham, averaged 10*l.* 7*s.* 6*d.* The Thurlby rams, belonging to Mr. Kemp, were 37 in number, the average for which was 11*l.* 12*s.* The Caventhorpe rams were disposed of by Mr. Law. There were 55. Mr. Palethorpe bought one at 16*g.*s., Mr. Pilkington one at 34*l.* 2*s.* 6*d.*, Mr. Marriot one at 19*g.*s., Mr. Downing one at 15*l.* 1*s.* 6*d.*, and Mr. Sanderson another at the same price. The 55 rams realised 559*l.* 2*s.* 6*d.*, being an average of 10*l.* 3*s.*

AGRICULTURAL MEMORANDA.

1. *The Harvest.*—I have been absent for two months in Hungary, and was therefore too late to reply to your circular as to the crops. From what I now learn, the deficiency in Wheat will be very great. Well-farmed lands of good quality and thoroughly drained may produce 4 quarters to the acre instead of 5½ quarters of average years; but many acres, where 4 quarters are usually reaped, will not this year exceed 2 quarters, and when cold and wet, the yield will be still smaller. Winter Beans and Oats are a good crop, and early sown spring Beans are fair, the later sown Peas have suffered from smother-fly.

The extreme heat and drought of August have

checked the Mangel and Cabbage, which in July were most promising. This injury is much smaller where the subsoil plough has prepared the arable land to retain its moisture; and there, too, the Swede Turnips have escaped mildew, and may yet make a fair average crop.

Dairy produce was good to the end of July, but the dry weather since has checked the supply of milk.

All other stock, whether feeding or store, has done well.

2. *Drainage.*—In a paper read by Mr. John Shuker, which in your leader you deservedly praised, the author recommends 4-foot drains under almost all circumstances, when laid in an open measure, and 3 feet with an impervious subsoil. I believe that the Enclosure Commissioners are influenced by a preference for drains 4 feet deep in all cases, in their consideration of applications for loans for the improvement of land. I was quite familiar with deep as well as shallow draining 50 years ago, and I am satisfied that in most cases in which the drains are required to be as near as 20 feet from each other, the subsoil is so impervious to water that a drain of 3 feet is as effective as one of 4 feet, and much less costly. I have watched drains made in 1824, of 4 feet and 2 feet 6 inches, in the same field, and I have never seen any advantage there in the deeper drain.

Then as to drains deeper than 4 feet, I was aware that drains of 5 or 6 feet drew the water from greater distances than 4 feet drains in case the measure into which they were laid was open, but for some years I thought that 4 feet drains, with 40 feet intervals, were sufficient and the cheapest. Having 200 acres of meadow to drain and irrigate at a time when I was unable to superintend it myself, I engaged an engineer to undertake the work. He obtained a depth of from 6 to 8 feet on a considerable area, and on this part he placed his drains 240 feet apart. The cost was at least 200*l.* less than the 4-foot drain would have required, and the work is so effectual that the land is perfectly dry in 24 hours after a flood has run off it.

I have also only one-sixth of the length of drain to keep in order, and I think at that depth, having a stream of water through them for more than 40 weeks in the year, they are less liable to be injured by animals getting into them.

The paper to which I allude speaks also of necessary air holes for drains, now, wherever water can go air can penetrate, at least 100 times as fast, so that no air holes can be necessary and may be mischievous, as encouraging the use of the drain by vermin.

3. *Lucerne.*—The best crop of Wheat I have seen this year is grown upon land which was occupied by Lucerne for 11 years previous to 1858. In the tenth year it was as productive as in any preceding year, but the extreme wet of 1857 decayed the roots, and I was obliged to plough it up. It gave me 5½ quarters of winter Beans to the acre last year, and a very heavy crop of Wheat this. The Lucerne was drilled at 18-inch intervals. The soil was ploughed between the rows twice in the winter each year, and kept clean by the horse-hoe between the rows after each mowing. We mow usually three times, a hot year gives four mowings. I am about to try it upon clayey land, where Grass does not grow very readily. I may here manage to keep a plant with 18-inch intervals, but I have failed to do this upon a free Turnip soil, and had given up Lucerne-growing until I learned that they succeeded well in Lincolnshire with 18-inch intervals. I followed these examples in 1852, and have never been without a good piece of Lucerne since. I find the best manure is nightsoil and ashes, of which I give 12 tons per acre, and it leaves the land in splendid condition. *Charles Paget, Ruddington Grange, Nottingham.*

AGRICULTURAL PROGRESS.

OUR text naturally turns attention to the cultivation of land by steam-power—the mowing and reaping machine in our hay and corn harvest—sewage farming, with the other leading and great advances of the day. But there are little things that should not be overlooked, and it is these latter which we propose for discussion at this time, i.e. the little improvements that follow in the wake of the big ones. For example, will steam culture and the sowing of sound seed, free from weeds, render the hand-hoeing of corn crops unnecessary, thereby effecting a saving of from 3*s.* 6*d.* to 5*s.* per acre? In this county (Surrey) we went early last June over three Wheat fields, two of which were not hoed; the other was, and the former were by far the best crops. They belong to three different farmers. The two unhoed fields exemplified the benefits arising from deep tillage and pure seed in a very striking manner, while the other illustrated the old plan of shallow tillage, weeds, and hoeing, and we quote the three examples for several reasons—1st, because all were horse-tilled, and on what is here termed light land, in contrast with the heavy clay soils of the district; 2d, not one of the fields was rolled for the reaping-machine—the practice in harvest being to cut low with the bugging-hook, the straw being sold in the metropolis. And, 3d, when we remarked that this practice was exceptional, and did not apply generally, and the practical question arose as to the propriety of rolling such land in springs like the past, we were met with the reply:—“Put my teams in this ’ore field in April? Not for the life of me,” which is plain English, and yet something must be done. As for rolling the other after hoeing, that was thrown aside as hopeless, even by steam, in the majority of seasons. On a similar quality of land, cultivated by steam, the secondary or resultant improvements, as they may be termed, are still more favourable, but not so great as on clay soils whose tenacious and binding character is gradually becoming changed by the improved drainage, aeration, and action of manures, and also by the greater diversity of crops grown, so that in cases of this kind the resultants which we have got to consider, are not one, but many.

Mowing and reaping-machines are changing greatly

the details of practice in hay and corn harvest, which sewage farming is also producing fruits far beyond the limits of town sewage application.

“A penny saved is twopence gained,” says the proverb, and if farmers can save the expense of horse and hand-hoeing their corn crops by steam tillage and the sowing of clean seed, they will doubtless realize the truth of the proverb in harvest. To sow weed and then hoe them at an expense of 5*s.* per acre is an old practice, which bespeaks its own short-sighted economy, and that land can be cultivated by steam as to meet all the requirements of cultivated crop when grown without weeds, is a proposition which may safely be granted. When land is only cultivated to the depth of 6 inches—4 inches being no uncommon depth of plough furrow on some unadorned old clay under the old practice—the roots of the crops were obliged to search for their food laterally, on the surface, consequently hoeing the land between the drills became essentially necessary to promote the lateral ramification of the roots. But naturally of corn crops, as Wheat, Barley, and Oats, with Peas and Beans, strike their roots downwards to a great depth, as may be seen exemplified in all deep rich soils in which their rootlets can safely penetrate in search of food; and this is just what they do when land is deep cultivated by steam, for the broken-up subsoil purified by drainage and aeration, and fertilised by application of manure and the decomposition of roots, when they have fulfilled their function to the growing plants. By such means the roots penetrate and obtain food far below the share of the steam-drawn implement, as may be seen by carefully digging down with a spade. The advantages thus gained will be more readily appreciated if contrasted with what was formerly experienced when the roots were confined to a few inches on the surface over what may be termed a poisoned subsoil. The seeds of weeds must of course be sown before they can vegetate on such land; but there is no difficulty in explaining how the weeds are propagated. It is not quite so easy to account satisfactorily in every part for the rapid manner deep steam tillage is now getting rid of them on soils where they previously grew in great abundance. The fact itself however, is acknowledged by all who have reported the experience of steam culture, and the fact is all that we have to deal with on the present occasion.

The improvement of land by steam tillage is a work of progress, and as it advances many weeds gradually disappear, so that if weeds are not sown they cease to grow, and the fact is an all-important one to the steam tillage farmer.

In Scotland there is hardly such a thing as a hoed cornfield, weeds being kept under by deep tillage and hand-weeding, and the proper manuring and seeding of the land. There are no doubt exceptions to this general conclusion, many cornfields being still overgrown with Thistles, Twitch, Knot-grass, and Charlock; but the area of land thus infested is annually becoming less with the progress of drainage, deep tillage, manuring, and seeding. So long as the land was improperly drained, the practice of deep ploughing in autumn was not attended with that success in getting rid of weeds which has been experienced since thorough drainage and subsoil ploughing has become general; and there is yet much clay land, in the north as in the south, very imperfectly drained, but, relieved from the trampling of the horses' feet by the substitution of steam drainage, is being greatly improved.

The next question is the rolling of corn crops for the reaping-machine. In the north, where hoed crops never stands in the way, and when the hoed crop is vest, and hence the time for rolling, is considerably later, little or no difficulty is experienced. At the same time, the trampling of the horses' feet and the “pitting,” or footprints of their feet in the land in dry weather, and on clay land in wet, has long furnished matter for loud complaint, so that the advantages of a steam-hauled roller call for consideration even in the north. In the southern counties of England, where the reaping-machine is not unfrequently in the field before the roller is out of the way, in some parts of Scotland, things are widely different. Where hoeing is the practice, as it must continue to be so long as weeds grow and the land is not ploughed some 5 or 6 inches deep, the work, if practicable, should be done earlier than it generally is. Some farmers, who mowed short with the scythe for the sake of the straw, before the reaping-machine was introduced (we ourselves did so), always studied to get through with their hoeing in time for rolling. When spring-sown corn there was seldom much difficulty attending the work, as such farmers grew comparatively no weeds; but with autumn-sown Wheat it was often otherwise in seasons like the past, the horses' feet and roller both do less or more harm to the land and young plants at the time. But were hoeing wholly done away, the period of rolling would be extended over a longer time, so that the work could then be done as soon as the land is sufficiently dry to carry the horses' feet. Under the old practice the roller was put over “crusty clays” to make them hoed. But steam culture is doing away with this crusty state of winter Wheat lands, by changing their tenacious and binding character to that of friable loams by the admixture of vegetable matter and oxidation of mineral; so that the passing of the roller over the land leaves it in a sufficiently pulverised state to meet the requirements of the young plants.

Let no one run away with the untimely notion that one year's successful steam culture, or even half-a-dozen years, will effect such changes in stubborn clay soils which carry the horses' feet like a barn floor often in the month of March, for every successive year goes adding to the change until it is completely effected. It may be one rotation in some soils, two in others, and three may be required to subdue the more tenacious

and binding clays of our southern counties; but change the land must when continuously stirred up by steam-power to the weather, the water being removed from below by efficient drainage.

The greater efficacy of manures is perhaps not wholly a resultant of steam culture, but the difference in the quality of the manure required is; and both merit special attention. So long as the land was only cultivated a few inches in depth, the manure, from its being so near the surface, and a noxious bottom to which it was liable to sink may not inaptly be said to have been situated as the poet describes, with

"Death 't the front, damnation in the rear,"

the waste from both causes being great; but the greater depth of cultivation and the purification of the soil to nearly the depth of the drains, not only obviate waste but affords a wider field for action. And besides this there are chemical changes otherwise effected by deep tillage and drainage in favour of economy: something like half the advantages as to efficacy of manure resulting from proper steam tillage will in theory remain a secret, although in practice it is realised.

Steam tillage produces from one to two quarters more corn per acre, with a finer quality of corn and straw. Roots and forage plants are being successfully grown on land which did not produce them profitably before the adoption of steam, so that what our forefathers termed "corn farms" are now stock farms also. It would take more space than we have at disposal to enumerate all the advantages under this head, owing to the common belief that stock do not pay for their keep, but whether we adopt the hypothesis that the farmer loses or gains by keeping stock, the balance nevertheless turns in favour of steam tillage with the other improvements at issue, owing to the richer manure produced by the growth of roots and forage plants. But, exclusive of the manure, we have always made money by stock, i.e., procured the full market value of the produce the cattle consumed. Many others do so, and therefore we disclaim the old theory that bullocks and sheep are only at the best "muck-making machines to the farmer." At the present time, at all events, they are more than this (so say butchers and the consumers of beef and mutton), and the general conclusion to which attention requires to be called is that steam culture is sending more beef and mutton to market than was done under horse culture, other things being the same. Other things, however, are not exactly the same—on many farms, at least, owing to the effects produced by the late murrain in black cattle; but such does not lessen the force of the argument one iota, but the contrary, for the improvements in tillage and produce are greatly in favour of the health of live stock, and hence in warding off contagious disease by, in some measure, removing or reducing the action of the predisposing cause.

We now come to notice the change in the details of hay-making produced by the mowing machine, hay-tedder, and horse-rake, where a considerable saving of manual labour is effected, besides securing a better quality of hay in less time. In this case the advantages arising from the control which the farmer has over his crop is greater than the mere saving of money in making from 2 to 3 acres of hay instead of one, with the old number of hands. In fine haymaking weather more than this can be done by the hands, so that in a heavy crop of meadow grass the carrying, if care is not taken, is liable to fall behind the mowing. The tedding-machines and horse-rakes are also liable to fall behind the mower. To time the several machines to each other and to the weather is often no easy task, so as to produce the finest possible quality of hay, and effect at the same time the greatest economy in labour of hands and horses. In making Rye-grass and Clover-hay, or Clover-hay alone, the tedding machine is not used while the hay, as it is made, is put up into small cocks, where it can remain until the whole field is secured. It is more easy, in this case, to proportion the different branches of the work to each other, but in scorching weather both the Clover and Rye-grass are liable to "roast" or "burn," as it is variously termed, so that a greater proportion of the hands are required to turn over, or half over, the broad, flat swathes left behind the mowing-machine. As a 'prentice fee has to be paid in learning any branch of farming, so at the present time not a few farmers are serving an apprenticeship in the hay field. But as practice is the best teacher, so progress is fast being made, and a higher degree of perfection being attained every successive year. Farmers, therefore, require to be closely present all day long in the hay harvest field, for the best of servants are not likely to arrive too soon at perfection in the working of new machines, more especially as to the economy of time and labour which should be effected.

The reaping-machine is also giving farmers the power of cutting down their crops in time in corn harvest. But two things require to be attended to in order to reap the greatest success; viz., 1st, a little fore-thought in seed time, so that all the fields shall not be ripe at one and the same time; and, 2d, the necessary means for carrying as fast as the corn is ready for stacking. On both these points of modern harvest practice the schoolmaster is unquestionably abroad. In point of fact, the latter may be said to be a corollary to the former, for as the fields ripen they must be cut, and are cut down in rapid succession with the reaping-machine, and when once cut stacking follows. No doubt, in fine weather the sheaves will not suffer much harm from being an extra day or two in the stook, but such is a very unwise expedient, and should never be trusted. Nor is it necessary that it should be so as a rule, for in seed-time it is easy to make the necessary provision for harvest in the different kinds of corn and times of sowing. In point of fact, it has long been done by those who do the whole work of harvest with the regular staff of hands on the farm, and it is

done without sustaining any loss whatever, the balance in every case being in favour of the increased value of the crop as compared with the opposite practice, where corn that ripens generally a week later than another sort is actually sown a week earlier, in order, as it were, that both should ripen together H. B.

THE TRANSIT OF STOCK BY SEA.

THE evils which afflict the various classes of stock during transit by sea are manifold. To begin with the deck, the first serious evil that presents itself is the almost total want of shelter. During two or three months in summer, when the weather is warm and fine, the want of this may not be much felt; but let anyone observe the appearance of animals as they are taken into the vessel, and watch the progress of the effects of exposure (intensified undoubtedly by the want of food and water); see how they first begin to look cold, and their coats stare; gradually their backs begin to arch, and continue to rise, while their bellies are tucked up until their natural shape is almost lost; their feet and legs become numbed; and, after two days of it perhaps, a more complete picture of misery it would be difficult to find; while the discharge of mucus from the nose tells of mischief within which may, an hour or two later, lead to fatal consequences. Be it remembered that these animals are exposed to all kinds of weather, wind, and rain, frost and snow, and what is often worse than all, the lash of the spray in stormy weather. I have stood on the bridge of a steamer and watched how, even in a small storm, each wave as it was met sent a shower of spray over the vessel from stem to stern, and with a force which only those who have experienced it can fully appreciate; and the condition of the stock exposed to it was pitiable indeed. This state of things may not occur in every voyage, but it does occur sufficiently often to call for application of everything that can be done to increase shelter; and the following suggestions would perhaps help somewhat towards so desirable an end. 1st. Let the pens have light corrugated iron (galvanised) roofs thrown over them, slightly arched in the middle. The standards at present used for the boarding would be quite sufficient to carry them, if made of a suitable height, and a top-rail added to receive it. 2d. In windy or cold weather it is essential to protect the animals from the sweep of the blast, and this might readily be done by tying a tarpaulin along the side of the pen exposed to the wind.

Along the bulwarks a light roof, as suggested for the pens, might be erected by increasing the height of the standards into which the planks already alluded to are fixed, keeping the inside higher considerably than the top-rail of the bulwarks, to allow water to run off. Then, instead of a division plank, a light close-boarded partition might be inserted. These would break the force of the wind to the animals and also keep them tolerably dry, and thereby greatly increase their comfort, and as they might be constructed to be readily erected and taken down, there does not appear to be any very serious objection to their use.

In the hold, the first, and perhaps the greatest, evil to the stock is exactly the reverse of what occurs on deck; fresh air is the great desideratum. The want of ventilation in the hold, and consequent foul air, heat, and stench, produce results more disastrous than even the exposure of the deck, rapidly producing low typhoid fever, which it is to be feared more frequently ends in pleuro-pneumonia than is generally supposed.

The condition of a hold filled with cattle or sheep, a few hours after they have been put in, must be actually examined to be fully appreciated; and the visitor must not be content with going merely down to the foot of the ladder, or even taking two or three steps towards the interior of the hold, as the stifling sensation experienced naturally suggests, but let him grope his way to the back corners, where nothing can be seen, but where the ventilation is worst, and where the quick breathing and constant moaning of the unhappy beasts only too truly indicate their sufferings, and we believe he will turn away sick at heart, and astonished that the animals can endure it. Then when a storm comes, and the hatches have occasionally to be closed, for however short a time, these evils are a thousandfold intensified.

The hatchway, and the sheet for increasing its ventilating power, have already been noticed; and, while these must be used to their utmost capacity, some other arrangements must be devised to bring these holds up to even a moderate state of ventilation, the absolute necessity of which is now recognised on all hands. The following method is suggested—Holds sufficiently raised above the water-line to be fitted with windows similar to those used in ordinary passenger cabins. These might be made sufficiently numerous to thoroughly ventilate a hold, with the help of one or two openings through the deck, for the escape of foul air. Such an arrangement, in smooth water, would be very effectual; but, of course, the windows could only be used in comparatively smooth water, and therefore some arrangement to effect ventilation in all weathers, in these upper holds as well as in the holds which are below the water-line, must also be found; and for this purpose there appears nothing so good as the multiplication of air-pipes, similar to those now used to ventilate the engine-room of a steamer. These pipes are about 12 inches in diameter, are raised about 10 feet high from the deck and have bell-shaped mouths, which are curved forward so as to face the direction in which the vessel is sailing, thus meeting the current caused by its passage through the air, intercepting it, and conveying it downwards. A row of these might be placed along the sides of the vessel, a sufficient number of which could be carried down to the lower holds by means of light wooden movable tubes, or gutta-percha ones, which, when not in use, would occupy very little space; then, along the centre line of the hold, another row of

similar pipes would be required to carry off the foul air; these would be in shape precisely the same as the others, but the bell-shaped mouth would be curved in the reverse direction, so that the action of the external air on them would be to quicken the discharge of air from them. Movable connecting tubes might be used to carry the foul air from the lower holds through the upper ones, without any risk of increasing the contamination of the air in the latter. The effect of this arrangement would be, that a current of pure air would enter at the sides, and as the temperature of the air in the hold would nearly always be higher than that of the external air, this current would naturally sink to the lowest parts, and would pass from the sides to the centre, from which it would be discharged by the foul-air pipes. This circulation would be established, and all that would remain to be ascertained would be the capacity of the tubes required for a given number of cattle or sheep, to effect thorough ventilation. This latter question would soon be settled by practical experience; but, in the meantime, we suggest the down-pipe of 12 inches in diameter, and one up-pipe of similar capacity, for every five cattle or fifteen sheep; and we further suggest that the mouths of both sets of pipes be made movable, so that they can be faced to, or from, the direction in which the current of external air is moving most strongly. By this means, and with ample capacity of tubes, the ventilation of the holds could at all times be completely regulated. The next evils to be noticed affect both the stock on deck and in the hold—viz., the want of food and water. For stock that are only to be on board the steamer for not more than eight or 10 hours, the want of food is not of very much consequence, unless accompanied with severe exposure to cold or wet, and therefore the following remarks are intended to apply rather to stock which are to be a longer time on shipboard; water, however, we are inclined to insist on for all stock on board a steamer at least once in every six hours. The consideration of how these are best to be supplied brings up again what has been already alluded to—the usual method of securing the animals, cattle and horses, by tying their heads as closely as possible to a ring in the side of the vessel, and by placing them so closely together that access to their heads is almost impossible. If such is to continue to be the arrangement of these animals on board a steamer, the supply of the necessaries of life to them will continue, as it hitherto has been, practically impossible; but we believe the absolute necessity of supplying these will compel a change of arrangement, and therefore, as a preliminary to the main question, we suggest a method of effecting this. For the cattle on deck, let the standards and planks now placed along the buttocks of the animals be made a little stronger, and more securely fixed than they are at present, and the animal's position may be reversed, and its head tied to a ring in the plank, instead of to one in the bulwarks. For the cattle in the hold a similar erection might be used—such, indeed, as is at present used—to accommodate more animals than are now tied to the sides of the vessel. This arrangement would bring every animal's head within the most convenient reach of the cattleman that is possible, so that both food and water could be supplied with ease.

As to the kind of food to be supplied, there may be differences of opinion, but for general stock nothing appears to be better than hay, the natural food (dried) of horses, cattle, and sheep, and which, to the recommendations of being cheap and easily obtained in most places, adds this property—that its nature fits it for being supplied to the animals by an extremely simple means, viz., a net made of tarred cord, and for cattle and horses in the form of a bag containing 5 lb. or 6 lb. of hay. For ponies or sheep in a pen or hold, the net would require to be made oblong, of sufficient length to stretch across, secured at the ends to the sides of the pen or hold, and supported by light stakes when necessary. For horses and cattle, a bag-net should be suspended alongside of each animal's head; or, if made a little larger, one between each pair of animals might be found sufficient. The use of nets in the feeding of animals with hay is, perhaps, less known on the north side of the Tweed than on the south side; but from personal observation and experience every confidence is felt that the net, in one form or other, is capable of being adapted for the purpose in view, and that it offers greater facilities, when the requirements of a steamer are considered, than any other apparatus yet tried. Its chief advantages are these—it is portable and very cheap; the hay, once in it, is secure from the effects of wind, so that it forms the best vehicle for conveying hay in a steamer from the store to the stock (hay might be put into the nets before shipment), and for preserving it when placed before them, it occupies the least possible room when not in use, it won't become sour or injuriously dirty, and it will allow the animals to consume the food with less waste than an ordinary rack, while its use, as suggested, would place the supplies within the reach of each animal; and we therefore, without hesitation, suggest it as the best apparatus for supplying food to stock on board steamers.

The supply of water, fortunately, presents much greater facilities than food, and, bearing in mind the reversal of the animal's position, already suggested as a *sine qua non*, we offer the following arrangement—Let a small service-tank be erected on some elevated portion of the steamer (such as the small portion of deck usually built over the bowsprit), if possible, sufficiently high to send water by gravitation along the deck, the supply of which alone requires the elevation of this tank above the main deck. This service-tank may be supplied from the general tanks (probably themselves requiring enlargement, by help of the engine at any time, and from it let pipes be laid along the deck, near to the line of the heads of the animals arranged along the bulwarks and sides of the holds, having taps at intervals of 20 feet or so, to which a

gutta-percha pipe can be screwed. One set of pipes would supply both the deck and upper hold, the lower hold being supplied by a set of pipes laid in the floor above it. With such an arrangement as this, the watering of the stock would be made comparatively easy. To effect it, the cattlemen, keeping up the service-tank supplies, and having screwed on the gutta-percha pipe 10 or 15 feet long, would take it in one hand, and with a pail in the other (light movable wooden troughs being used for sheep), would pass from beast to beast, supplying each in turn in probably not more, on an average, than one minute each, and this would be quick enough for all practical purposes.

The only objection to this system that occurs as likely to be made is on the score of expense; but even although it entailed increased storage tank-room, the whole apparatus for a large steamer could not cost a larger sum than would be repaid tenfold by the benefit to the stock; and when it is further considered that water might thus be supplied without interfering with almost any of the existing arrangements of a steamer, and that quickly and conveniently too, the matter of expense becomes very small, and does not appear as a very great objection to such a mode of supply, and we therefore suggest it as the best arrangement possible in the circumstances.

The only other evil of this mode of transit to which we can allude here, is the knocking about, the falls, and consequent trampling, suffocation, and strangulation, to which cattle and sheep are especially liable during rough weather, and which appears to be simply, as to the last-named results, the effect of over-crowding. The animals are packed together as closely as they will stand, and when an ox falls, through its feet slipping on the slimy boards, the chances are very great that the animals next to it on both sides will be thrown down on the top of it. This is easily understood, when it is remembered that the animals standing together in a row press mutually against each other, the moment, however, a vacancy is made by the fall of one, this pressure tends to fill up the space left, by pushing the adjoining beasts until they meet over the fallen one, which then has scarcely a chance to regain its feet, even when these don't fall over it, but when this happens, and in a storm, the confusion becomes inextricable, and the lives of three or four animals are lost through such a small accident as the slipping down of one beast. So much is this felt, that almost the whole vigilance of the cattleman is directed, during the voyage, to the one object of keeping the beasts on their feet, and the difficulties of achieving it can only be fully realised by those who have witnessed the effects of a storm on the occupants of the hold. As a remedy for this great evil, we suggest that, instead of a division plank to every tenth beast as is now usually allowed, a similar plank shall be fixed between each animal. The advantages of this would be very considerable; if a beast did get down it would prevent its being either trampled or strangled to death by its neighbours before it had a chance to get up again, while the support these planks would give to all would relieve the individuals from the swaying and crushing effect now experienced in the rolling of the vessel, and which is productive of much mischief to all except the strongest animals. It may be thought a disadvantage to the introduction of these planks, that such a system would fix the limits of the space allowed to each beast, and that a large animal and a small one would have precisely the same accommodation, further, that these animals would occupy space which might be better employed. To the first of these it may be replied, that as nearly all steamers are built with a view to the requirements of the particular station on which they are to be employed, the descriptions and average sizes of the stock usually conveyed could be known, and suitable grades of space provided accordingly, and that as the fixing of the spaces would prevent overcrowding and all its attendant evils, a great advantage would thereby be gained; while the greater comfort and security of the animals would more than repay for the extra space occupied, and which, after all, would be comparatively trifling, only an addition of 3 inches (the thickness of the plank) for each beast, while its cost would be very trifling. Mr George Menzies, in the "Transactions of the Highland and Agricultural Society of Scotland."

Home Correspondence.

Dairy Farming.—1. If a farmer gets 12l. per annum, besides the whey and manure, for the keep of a cow, it will pay him well enough to provide good food—say in winter, Oat straw cut into chaff, with plenty of roots; in spring, green Rye, Oats, and Vetches; and in summer good Grass. Such food will keep a dairy in full profit, if the cows are managed so as to calve in March and April. 2. A good ordinary cow will give 3000 quarts of milk during nine months, and will be dry for three months. Now, 12 quarts of milk will produce 1 lb. of butter and the skim-milk will produce 3 lb. of cheese. Therefore, 3000 quarts of milk will give 250 lb. of butter and 750 lb. of cheese. If we value the butter at 1s. per lb., and the cheese at 5d. per lb., then a single cow would produce in a year,

Table with 2 columns: Item, Value. 250 lb. of butter at 1s. = £12 10 0, 750 lb. of cheese at 5d. = 17 12 6

yearly from each cow. 3. A dairy of 100 cows could be managed by three men and three women, and, supposing the men to be paid 13s. per week, and the women 9s. per week, they would cost in a year as follows:—

Table with 2 columns: Item, Value. Three men, 52 weeks, at 39s. = £111 9 0, Three women, 52 weeks, at 27s. = 76 12 0, Total wages = £187 12 0

4. In a dairy of 100 cows we must reckon two cows

dying in the year, worth say 15l. each, or 30l. the pair. 5. There will be no loss on selling the cows when worn out, for as every cow is dry for three months she can be fattened off and sold to the butcher without loss. 6. There will be 100 calves, but these ought to be sold off at three days old, and will not do much more than pay for the bull. 7. The capital requisite to carry on a dairy of 100 cows may be put down at 1600l., the interest on which, at 5 per cent., will be 80l. per annum. 8. Supposing, then, that any one with 1600l. and a taste for dairy farming could arrange with a farmer to keep 100 cows for 12l. per head per annum, the farmer getting the manure and the whey, then his dairy would cost him as follows:—

Table with 2 columns: Item, Value. 100 cows kept, at 12l. each = £1200 0 0, Wages, three men and three women = 171 12 0, Deaths of two cows = 30 0 0, Interest on 1600l. at 5 per cent. = 80 0 0, Allow for petty expenses = 30 18 0

9. But each cow ought to produce 28l. 2s. 6d., therefore the annual produce would be:—

Table with 2 columns: Item, Value. 100 cows, at 28l. 2s. 6d. = £2812 11 0, Deduct expenditure = 1112 10 0

Net profit = £1700 0 0

to pay for careful supervision, or 13l. per cow per annum. These figures, no doubt, are a little surprising, nevertheless all the data I have assumed are well founded, and can be proved in many ways. The real fact is, that the success of a dairy depends wholly on careful attention to details, and it is the want of that care which makes many persons fail in carrying them on. If cows are not thoroughly milked, if milk is allowed to go sour, if butter is allowed to get bad, if curds are allowed to spoil, or if cheese is injured by bad making, all these things tend to bring down the profit at the year's end; but, if a dairy is properly superintended, there is no doubt of its being the most profitable branch of farming. G. A. H. Your figures are wrong under No. 2. It is only an extraordinary cow that yields 3000 quarts of milk per annum, and no man ever yet owned 100 extraordinary cows.

Filaria.—I have now 57 cattle suffering from "filaria" in the throat and lungs. The application of fumes of carbolic acid on hot bricks I find is a very difficult operation. In the first place, my medical man tells me, pure carbolic acid is rather costly, and then I fail to find a suitable hovel or barn in which to apply the remedy to 57 head of cattle. If all the needful requirements were obtained, I learn that the application needs the nicest management to prevent suffocation of the cattle. The medicine we are now using is 1 pint turpentine and 1 pint linseed oil mixed in 1 pint of water, and given to each bullock every morning. The cough is becoming less husky, and the skins are beginning to shine a little. I therefore decide to continue the dose until I hear of a better remedy. John Fryer, Manor House, Chatteris, Isle of Ely, Sept. 16.

Period of Cutting Corn.—I never before observed such a striking difference as in the year in the practice of farmers as to the time of cutting their corn crops, especially Wheat. Could you lay down some rules for guidance on this matter or refer to some reliable work on the subject? A tenant farmer, whose land is, of course, his own reaping just twelve days after me. Who is right? This is only an example of the wide difference which prevails in practice. As to Oats, the same diversity is observable; but not so much in Barley. It seems to be generally admitted that Barley ought to be quite ripe before it is cut, and that this ripeness is indicated by its becoming "goose necked." B. N. P. You will find Mr Hannan's observations and experiments on the best period of ripening quoted in most works of agriculture. Wheat may be cut when you cannot squeeze any milk out of the grain. Oats should be cut while still greenish. Barley should be cut when all of one ripeness, and therefore not till all dead ripe.

Harvesting Corn by Machinery.—In reply to your inquiry as to the cost of cutting, stooking, and raking, I beg to furnish an account of the expense incurred on the Earl of Zetland's farm at Aske during the late harvest. The reaper has been used on the farm for several years, has back-delivery action, and was manufactured by a local implement maker. The whole quantity cut was 80 acres—25 Wheat, average crop; 9 Barley, full average; and the rest Oats, light, with the exception of 10 acres, fair average crop. The whole was cut in nine days. The cost per day was 2l. 12s., as under:—

Table with 2 columns: Item, Value. Nine women binding, at 2s. per day = £18 0 0, Two men binding, at 2s. 6d. per day = 0 5 0, Three men stooking, at 2s. 6d. per day = 0 7 6, One man raking by hand, at 2s. 6d. per day = 0 2 6, Two men with machine, at 2s. 6d. per day = 0 5 0, Allowance of 8 men instead of beer, at 6d. do. = 0 4 0, Two horses, at 3s. 6d. per day = 0 7 0, Wear and tear, &c. = 1 1 0

Nine days, at 52s. per day, 23l. 8s., the cost of the 80 acres, averages 5s. 10d. per acre. Four horses were employed for the reaper, each pair working half a day, and being employed in other work the remaining half. The hours of labour on this farm are—for men, from 7 A.M. to 5 P.M., with one hour for dinner; for women, from 8 A.M. to 5 P.M., with one hour for dinner. The three men were not actually stooking all day, but were engaged in removing the corn in front of the reaper before the arrival of the women in the morning, all of which corn had to be bound as well as stooked afterwards. R. H. King, Oliver, Richmond, York, Sept. 21.

The Yield of Tiptree Hall Crops.—A correspondent, "Inquirer," in the Times, recently asked Mr. Mechi "to corroborate the statement as to this large yield of Wheat by giving the name of the field and its acreage on which the crop was grown, with a certificate from the corn merchant, who purchased the grain, of the quantity delivered, the bailiff attesting to the amount

being the produce of the field specified. To this request "Inquirer" added,—"A confirmation would disarm multitude of sceptics, and be an answer to the deposition who on visiting the Tiptree farm on the eve harvest reported their estimate of the Wheat crop irrespective of the Rivett's Wheat, at 31 bushels per acre." To this letter Mr. Mechi replied as follows:—

I thank your correspondent "Inquirer" for his desire to convince certain agricultural writers that I do not mean to decline to employ myself, my bailiff, and the people who buy my corn, in making all sorts of declarations as to the truth of my statements, in order to convince those who do not desire to be convinced, and who will not believe anything but what they see. For 25 years my farm has been open to public inspection, and men who understand their business as farmers can see well the produce of the field of the crops as they are my bailiff; and, although I was assured (when I began improvements) by practical men that I should never get enough on this poor farm to fill the great barn I had completed, yet the barn was filled this harvest, and, addition, 21 good corn and haystacks show their proportions. Such facts as these are worth more than the most elaborate and elaborate. No doubt these untruthful farmers who are still shut up in their houses with their heads in the clouds, their feet on the ground, and their hands in their pockets, and who will not believe anything but what they see, can hardly reduce the advantages arising from totally different state of things. Am I to be blamed for raising for and practically advocating such improvements as benefit both landlord and tenant and increase and cheapen the food of the people? I know that I have the sympathy, support, and approbation of those whose good opinion is worth having, and I therefore can afford to pass by good humouredly the attacks of either ignorances or prejudice. J. J. Mechi, Tiptree Hall, Kelvedon, Essex, Sept. 16.

Corn Reports, 1869.—In an article under the heading in your last issue, and signed John Fox, Merton Hall, Warwick, I am represented as having stated in my harvest report, "that the Wheat crop 1869 would prove very little inferior to that of 1868." I have made no such statement. Indeed, what I did state was as different from the above as possibly can be, viz, that the Wheat crop of this year would produce 10 bushels per acre, or 28 per cent, under last year's crop. The other assertions—I cannot say criticisms respecting my harvest reports, coming as they do from so unscrupulous a writer, are not worthy of notice. James Sanderson, 11, Pall Mall East, Sept. 23.

Foreign Correspondence.

NEW ZEALAND.—Mr. Nairn's Bearded Wheat.—I have further examined the specimen of bearded Wheat sent from Pourere, Hawke's Bay, New Zealand, by Mr Henry Nairn—a notice of which appeared in your journal for June 26, p. 698,—and find that it is a Wheat, and as perfectly smooth as red Wheat is, rather lighter in colour than red Wheat usually, and differs only in having a beard about one-third the length of Rivett's, which is, however, considerably stouter, and so gives the ear a somewhat prickly appearance. In the lowermost spikelets the beard is very short, and it then scarcely differs from red Wheat, which is not infrequently slightly bearded in its uppermost spikelets. Although this Wheat was raised from a single plant in New Zealand, which had varied in some or nearly the same kind, as far as regards the beard, appears to have originated elsewhere, as Mr. Clarke informs us that "some of the spring Wheat grown in Devonshire have a beard somewhat like Rivett's," and that when he resided in America 30 years since, "nearly all the Wheat grown in Westchester county, New York, was bearded red Wheat, the beard being two-thirds the length of Rivett's, but it was not a Rivett, and I considered it to be the same kind as our spring Wheat." This Wheat, however, he informs us, was not very remarkable for its productiveness, 5 quarters per acre being considered a good yield. I therefore consider that the most remarkable character of this Wheat is the increased number of spikelets, one of the ears sent having 32, which is the most part are four-set, 24 being a high number for red Wheat, although I have seen 26 and even 30; the latter instance a few of the uppermost being barren, which is not the case in this Wheat. But although the ear contains so many spikelets, it is not elongated as ear of red or white Wheat with four or five spikelets less would be; for it is only 4 inches long, and in form of a square dense mass. On this account it appears the more likely to be a really new variety, its grain it is decidedly a red Wheat, the colour being deep as any red Wheat we have seen. Mr. Nairn states that "it is a very heavy cropping kind, for with a bad farming it has produced 75 bushels of 62 lb. weight from 1 acre." It may be hoped therefore that it is an increased vigour of growth, and would stand against mildew and red rust better than ordinary kinds, the latter being the cause of the extensive destruction of the Wheat crop in South Australia, and also that it would be less subject to "root falling" or "rotting," which is said to have destroyed the crops to the extent of 2 qrs. per acre.

It is stated in a letter to Dr. Hooker from a New Zealand correspondent in the "Proc. Linn. Soc." (about three years since) that certain British plants being introduced into that country grow with more vigour than in England. Watercress, for instance, nearly covers some of the streams, so as to become a serious impediment, and a Compositae (Daisy tribe) has become so prolific as to prove destructive to a great extent to the Grasses of some pastures. It is not thus the case with Wheat—and, if so, the extraordinary produce of this bearded Wheat would be accounted for. Not improbably it was grown on fresh broken-up ground, or land recently in cultivation for the first time, but even then the yield would be extraordinary. I hope Mr. N. will supply us with further information, and it would be interesting to know whether this Wheat is less liable to mildew than other kinds. A.

Societies.

LEICESTERSHIRE

The Agricultural Labourer.—Mr. PELL, M.P., said:—As regarded the condition of the agricultural labourer a variety of broad assertions had been made, rather loose in character; among others he noticed the other day the absurd statement that when winter came round the labourers who were employed on farms in a certain county as a rule retired into the workhouse. With regard to education, Professor Leon Levi, in a remarkable paper he read at a recent meeting of the British Association, pointed out that the condition of the agricultural labourers in this respect was not so bad as some of our manufacturing districts. They did not lag in the rear in point of education as was generally supposed. This extraordinary paper of Professor Leon Levi, which was shortly to be published, stated that out of every hundred women married in the county of Rutland, which was altogether an agricultural county, no less than 84 were able to write their names, whilst in Lancashire—the manufacturing county—only 51 signed the register: an advantage of 30 in favour of the county where old and primitive institutions in rural districts were maintained in a rough and antiquated way, but they secured advantages to the people, specially the women, in education, which were lost to the working people of Lancashire. He did not wish to say this as a reproach to Lancashire it was their misfortune. He could go further, and say—having carried out the figures beyond those of Professor Levi—he found, making use of the same basis (the Registrar General's return) that the advance was now more rapid in Lancashire than in Rutland. He was quite aware, no man more so, of the enormous difficulty there existed in keeping up the old relationship between employer and employed, where thousands were engaged, as compared with that where they had to deal with scores; but still agriculturists might rest contented that when the comparison was made, the condition of those they employed showed to their advantage. One word more. It would be a great blessing if our people were better educated, but they must bear this in mind, they, in the House of Commons, as well as those in the Upper House, must be practical as well as theoretical, and consequently could only attempt what they knew they could carry out to some practical end. He denied that landlords and farmers were the opponents of education, and pointed to Professor Levi's figures as irresistably proving the contrary. What was it that the farmers wanted now? They were not so far advanced in the application of machinery to agricultural pursuits as the manufacturers were to the goods they made, but there was a great difference between the circumstances of the two. On land they had to pass the implement over the surface of the ground, which might be irregular; they had also the condition of the atmosphere to contend with, difficulties which the manufacturer had not to combat. His machinery was steady and fixed, its condition of working less variable. He could introduce an artificial atmosphere, if it was necessary, into his factory. What the agriculturist still had to rely on to a great extent, was the physical strength of his men. There was an amount of hard work to be done in connection with farming that could not be better done by the book; there was an immense amount of work, which if they put a highly-educated man, and a fine strong physical man to do, there was no question which of the two would do the work the better. The times, no doubt, would change. There was a tendency to employ machinery wherever it could possibly be brought into use; the employment of it was intended to relieve mankind of the drudgery of work, and many a piece of machinery had been invented with that object. Now, when this machinery came to be further—as he hoped it would be—applied to agriculture, then the men of sheer animal strength will be less wanted, and better educated men, able to take charge of machinery and to attend to minor details, will find employment. Then the educated labourer will be more needed than he now was.

INVERURIE

[The following are Mr. BRUCE's concluding remarks, continued from p. 1003, on "The Breeding and Rearing of Sheep."]

Sheep are profitable.—In proof that sheep stock will pay if properly cared for, allow me to read the following extract from a letter I received from a friend who sold 200 fat wethers this spring. Two hundred wethers, bred and fed on the farm until 1 year and 9 months old. Breed—Cheviot ewe and Leicester tup. Keep when weaned—kept on Grass on cultivated land until March 10, Turnips until middle of April, link pasture until middle of October, Grass on cultivated land until 20th November, yellow Turnips eaten on the land until middle of February, when they were finished off on Swedish Turnips on a grass-field, with 1 lb. mixture of Peas and bruised Oats for about a month, when the whole were sent to London. Average price netted, 55s; weight, about 70 lb. The clip at one year old averaged 6½ lb., and sold at 1s 6d per lb. On making a calculation, I find between wool and mutton 175s. 10d. to be the average, and realising on the gross 65d. 8d., not taking into account the enriching of the land when eating the yellow Turnips, and the superior top-dressing the Grass must have got when consuming the Swedes, Oats, and Peas.

Diseases of Sheep.—Inflammation of the womb is but too well known. A day or two after lambing the ewe will be found straining very much, the parts swollen and of a livid colour, showing that severe inflammation has taken place. Now I am almost certain that this dangerous complaint arises from one of two causes. Either the ewe has had access to too

many Turnips, with little or any dry food during winter, thereby causing the fetas to become overgrown, and thus injuring the ewe; or else rough handling at the time of lambing. When we commenced keeping sheep, we gave little else than Grass and Turnips in winter, and suffered accordingly; but from the time we discarded the Turnips and adopted the dry food, we have not had a single case. When a ewe is down in this complaint, I would recommend the following treatment—Give 2 table-spoonfuls of treacle, 1½ oz. of common salt and 1½ oz. of salts, 2 tea-spoonfuls of sweet spirits of nitre, 2 tea-spoonfuls of laudanum, and as much ground ginger as will lay on a halfpenny, bathe the eye frequently with warm water, and use, as injections, a plentiful supply of Driffield oil, mixed with an ounce of laudanum, keeping her raised a little behind, perfectly quiet, and drawing the teats often.

Garget, or inflammation of the udder, I have always found a most unmanageable complaint, owing, no doubt, to the fact that it had generally proceeded too far before being observed. Having, unfortunately, lost several valuable ewes, one time or another, by this trouble, and aware that it must have arisen from mismanagement of some sort, made me anxious to find out where the error existed. After pondering over the matter, I have arrived at the conclusion that these ewes were lost, not from want of, but by having got too much attention, through our anxiety about the comfort of the new-born lamb. I fear we had coddled the ewe too much up. I mean, that we had kept her too warm, and when sent out to the field, the cold frosty winds, common in spring, by chilling the udder, had caused the mischief. I am the more convinced that this had been the exciting cause, from the fact that, formerly, when allowing our ewes to rough it more than we do now, while then we had ailments of which the udders going wrong. While it is right that every attention should be paid to the comfort of the lamb (and it is astonishing how much cold a lamb will stand, provided it is getting plenty of milk, and the weather dry) my experience is against overdoing the thing by too much kindness, "prevention being always better than cure." I would recommend that the ewes should be looked carefully through every day for some time, see if the lambs be all sucking, and none of the udders too full. Owing to the tits being kept continually wet with the lamb sucking, they are very apt to get chapped with the cold winds, and being very sore, the ewe will refuse to let the lamb suck, consequently the udder soon becomes overgrown with milk, and unless promptly attended to, serious mischief will follow. The only plan in a case of this sort is to take the ewe home and confine her for some days, and rub the sore tits as often as possible with an ointment composed of equal parts fresh butter and bee's-wax melted together, and before applying the ointment hold the ewe until the lamb suck, and bathe with a weak solution of sugar of lead and zinc, and very soon all will be right. Garget or inflammation is quite another thing. In this case the udder becomes very much swollen on one or both sides, showing a sharp, well-defined edge where it connects with the rim of the belly, has a dead, dull feel, and if pressed with the finger leaves a mark like putty, the udder is discoloured, and covered with a clammy sort of perspiration. In every case of this nature I lost the ewe, arising, no doubt, from having proceeded too far before being observed. If taken in time, I would recommend the following treatment—Turn the ewe and bleed from the vein that runs along the belly immediately before the udder, closing the wound with a pin and a little lint, giving the same purge prescribed for inflammation of the womb, with the addition of 3 or 4 drops of the "tincture of acetate," to allay the fever. Should the fever continue, give at the end of every two or three hours, for some time, say 3 drops of the acetate amongst a little water. Be careful, however, not to exceed 3 or 4 drops at a time, as acetate is a most deadly poison, and keep the udder constantly covered up with cloths wrung out of cold water, piled above to induce heat, and emptying the udder of any milk as often as possible.

Stomach Stagers, or founder, is caused by giving too much food, especially of an uncuttable nature, when newly lambed, or else by the Grass becoming too dry and little or any water in the field. I remember being advised at one time to give my ewes at the time of lambing some boiled Barley. I did so to two of them, and next morning neither of them could rise, and even when lifted up they couldn't stand. We gave a smart dose of medicine, but it was two days before either of them could rise; the boiled Barley, being of too short and sloppy a nature, had prevented the muscles of the stomach from throwing it up to be cuded, and thereby had become paralysed. Stagers, however, is most common on the Grass at the time when it becomes too dry, and when the Rye-grass is running to seed, and, as I said before, when water is deficient, a sheep suffering from stagers will be found very dull, and generally standing by itself at the dykeside, and showing a good many of the symptoms of sturdy. If sought to be driven about, it will often appear as if blind in one or both eyes, and should the stomach be very much impacted, it will at all times become quite wild and furious, and throw itself into the most fantastic attitudes. Some years ago we had a very bad case of this nature, and not knowing at that time the exact whereabouts of the eye-vein, I bled from the ears severely, gave a smart purge, along with injections, and as the animal was quite wild, two strong men had to keep it from hurting itself for an hour or so, by which time it became quieter, and by morning it was all right. It was brought on by being turned the same day into a field of rich rank Grass. Several jumps of rock-salt, placed in the field along with an abundant supply of pure water, is the best preventive in this case.

Sturdy.—The only cure in this complaint (the flesh being perfectly wholesome) is the knife. I tried the Ettrick Shepherd's cure on one or two occasions, but in no case could I ever get the wire far enough up; and, suppose I had, how could I have been sure of the exact spot? It proceeds, I think there can be no doubt, from a small worm of some sort getting up the nostril, and by this means reaching the brain.

Foot-rot, although not a deadly ailment, is often a very troublesome one if allowed to spread, and being extremely infectious the wise course is to always check it in good time, as the longer it is allowed to continue among a flock the more virulent it becomes, and ending, as I have known it to do, in the mouth becoming affected as well. Sheep wandering on mountains, or those feeding on dry, sharp soils, and having to travel for their food, are seldom troubled with sore feet. Foot-rot chiefly attacks those grazing on rich old pastures, the Grass on which being soft and spongy, the hoof is not worn down nearly so fast as it grows. Another fruitful source of foot-rot is in allowing the bught to get damp and dirty, and by folding too many together. The following lotion will be found a specific if used in time.—1 oz. of nitric acid, mixed with 3 oz. of rain-water; the hoof to be carefully pared, and every vestige of the dark stringy roots that will be seen cut away, and then apply the lotion with a feather, holding the animal on a dry place for a little. Should the disease have run on for a time, and become festered above the hoof, in that case it should be poulticed for a day or two, and then washed with some weak caustic solution—such, for instance, as a little bluestone melted in warm water, inserting the foot amongst it while hot. There is another kind of sore feet that sheep are often bothered with, and which appears to pain them very much. The skin between the hoof becomes cracked and festered, and when not attended to the foot soon gets very much inflamed and swollen, causing the hoofs to stand widely apart. When the crack is not very deep, nor the foot much swollen, a very good plan is to get some one to hold the foot, while another rubs a bit of an old guano bag gently backward and forward between the hoofs, and then apply a little of the foot-rot lotion. Should the crack be very deep, however, and the foot much swelled and inflamed, in that case the foot should be poulticed for a day or two, until the swelling and inflammation be removed, and then bathe with a weak solution of sugar of lead and zinc.

Reviews.

The Cornell University Register. Ithaca, U.S. 1869.

The Cornell University has perhaps excited the interest of English people more than any other of the remarkable institutions for education which have been lately established in different parts of the United States. The novelty of the system by which students are directly possessed of technical knowledge in the shape of a trade have been able to support themselves while following other kinds of study—a system so liberally cutting away the class restrictions which limit the usefulness of many of our own places of education—has no doubt been one cause of this interest; another has certainly been the attachment to the new university of so notable a man as Mr. Goldwin Smith, formerly Professor of Modern History at Oxford.

The older universities of America were founded more or less completely after the pattern of those in England. The new foundations are to be directed more distinctly to the material development of the country, without, however, neglecting the benefits derivable from the widest kinds of general education. In 1862 Congress passed an Act granting public lands to these States and territories which would provide colleges "for the benefit of agriculture and the mechanic arts." The share of the State of New York amounted to 200,000 acres, and the revenue arising from this or from its sale was the fund available for educational purposes. This fund was eventually appropriated to the university founded by Ezra Cornell, at Ithaca, on certain conditions, the most important being his endowing it with 500,000 dollars, and the free education of a certain number of students, one from each district of the State. The object of the university was defined to be the teaching of such branches of learning as would promote the liberal and practical education of the industrial classes. Other branches of knowledge might, however, be included in the plan, and this has since been done. Special provisions were also made to prevent any religious body obtaining the management of the university, and no religious disqualification can interfere either with students or teachers.

The university was formally opened on October 7, 1868, nearly 500 students applying for admission. The number at present on the books is 112; the difference is no doubt to be attributed to failure in the entrance examination, which, however, only consists in English grammar, geography, arithmetic, and elementary algebra. Three of the students apparently come from England, and there is no restriction as to nationality.

The course of study is somewhat complicated in its arrangements, but probably works simply in practice. There are three general courses, extending each over four years, in science, philosophy, and art. The encyclopaedic character of these is rather overpowering. The arts or classical course, for example, includes English, Latin, Greek, physiology, botany, chemistry, physics, philosophy, political and rural economy, two modern languages, and a good many other subjects too numerous to mention. It is intimated, however, that if this is not enough students may take extra subjects as well.

There are also optional courses, in which, subject to certain restrictions, the student is allowed to choose his own lectures, and special courses for students

taking up only a single branch of science; each of these is carried out by a separate faculty or college. First on the list is the College of Agriculture, which has a farm of 200 acres. "Laboratory and field practice are combined with the usual lecture-room work to the utmost extent possible; to this end laboratories, live stock, tools, models, and apparatus are supplied." The subjects taught are agricultural chemistry and geology, mechanics, botany, zoology, and the economics of agriculture, or as we should say, agriculture proper. But the complete course leading to the degree of Bachelor of Science includes all these subjects, and a good many others, and requires four years. There are, however, abridged courses of three and two years. Students are also allowed by special permission to attend some only of the courses, and to spend the rest of their time in farm or garden work.

The other special faculties are equally elaborate in their arrangements, some of them being even divided into subsidiary "schools," each with its prescribed course of study. The advantage of this system is that the waste of power which attaches to isolated places of special education is avoided. Besides teaching its own special pupils, each faculty is available for giving a general knowledge of its subjects to students with less restricted studies. All these departments, moreover, do not seem to be in any sense merely paper schemes. The museums and collections belonging to them are already extensive, and there is a library of 25,000 volumes common to the whole university.

Considering the short space of time in which all this has been initiated, it is not a little astonishing how much progress has been made. The dependence of future material prosperity upon the capacity in the industrial classes to apply and utilise knowledge has been thoroughly recognised and acted upon. The work to be done, says the Register, "is to aid earnest, determined, manly young men in obtaining the best education which their talents allow." This language is, perhaps, a little more gushing than is usual with us in such books, but the very simplicity of purpose from which it arises is in itself characteristic. The university is definitely meant for work, and is incompatible with idleness, and hence "whenever a young man is pursuing such a course as to render his stay not conducive to his own interests," he is at once removed as a discordant element.

"Professors," again, "have been sought whose methods of teaching are such as to awaken enthusiasm." There is, therefore, no marking system. The whole account of these arrangements reads, to those who are acquainted with education in this country, like a Utopian dream. However that may be, they already seem in the first year of their existence to have gone a long way towards realising the wish of the founder to "found an institution where any person can find instruction in any study."

The fees are very moderate. About 300 students can live in the university buildings. Their total expense of maintenance is 232.40 dollars a year, the university fees are 30 dollars more, making a total of 262.40 dollars, or less than 5*l.* a year. Other students have to live in the university town, which is probably rather more costly.

The programme of the studies for the four years' agricultural course is worth quoting. The range and variety of the kinds of learning which enter into it would probably surprise even those who are devoted amongst us to the cause of agricultural education.

"THE FOUR COURSES OF 12 THIRTY-TWO, OR FOUR YEARS."

"*First Year*—Fall Trimester: Algebra, English language and vocal culture, French, and human and comparative physiology. Winter Trimester: English language and vocal culture, French, geometry, history, and zoology. Spring Trimester: Botany, embryology, English language and vocal culture, French, and rhetoric.

"*Second Year*—Fall Trimester: Chemistry, English literature and rhetoric, experimental physics, German, psychology, and vegetable physiology. Winter Trimester: Chemistry, elementary geology, English literature and rhetoric, German, public speaking, and physics. Spring Trimester: Acoustics and optics, chemistry, book-keeping (for laboratory practice), German, and physics.

"*Third Year*—Fall Trimester: Agricultural and economic botany, agricultural chemistry, English literature and rhetoric, and veterinary anatomy and physiology. Winter Trimester: Agricultural chemistry, agricultural and economic botany, English literature and rhetoric, horticulture, and veterinary medicine and surgery. Spring Trimester: Agricultural chemistry, arboriculture, English literature and rhetoric, landscape gardening, and veterinary medicine and surgery.

"*Fourth Year*—Fall Trimester: Agricultural chemistry, agricultural geology, astronomy (or comparative anatomy and history), practical agriculture, and rhetoric and oratory. Winter Trimester: Agricultural architecture, agricultural technology, practical agriculture, moral philosophy and political economy, and rhetoric and oratory. Spring Trimester: Agricultural mechanics, architecture and rural economy, practical agriculture, international and constitutional law, and meteorology."

The Farm Well Managed, or a Treatise on Green-feeding and Wheat-growing. Showing how double the quantity of Wheat can be grown per Acre, and as many Cows of the largest breed well fed the whole year round as there are Acres on the Farm. By a Man of Forty Years' Experience. With a useful Appendix. J. Heywood, H. Deansgate, Manchester.

Here is a whimsical bit of authorship. In the first place, what is the writer's "acre?" But, indeed, one need not trouble himself much with the inquiry. It is quite possible for the tenant of ordinarily good land to keep a cow even on the imperial acre, and there are a good many hints in this little tract which will assist him. It is, however, out of the odd individuality of the writer, which is displayed obtrusively, that the reader of this little publication will extract his chief amusement. From the introduction, where it is grotesquely enough exhibited, we extract the following passage:—

"The writer has done business for his parent, a gentleman once holding 1900 acres of land, about

300 acres of which he cultivated; and used to have, in one season, 50 acres of Turnips and upwards of 200 acres of Wheat. It would require 120 sheep-shearers to shear his sheep, as he had 3000. He fattened 100 oxen annually; he had in Smithfield every market day (Thursday), from the 1st November till the 1st of May following, fat stock on sale. He kept a small dairy of 10 milch cows; none of the milk was sold, being used in rearing calves, lambs, and pigs, and also in the larder, and any remaining was given to tenants and the poor. It generally took six men daily to prepare corn for the market; he employed daily 30 or 60 men, besides lads and women; he kept 25 horses and beasts at work. I have seen in his stackyard Wheat three years old. I never saw his desk without money in it, and he had also much money out at interest, beside having landed property for ever. He had a nice Swiss carriage, and on the sideboard, in the parlour, was paraded a quantity of silver plate. He kept a splendid table (mostly from the produce of his own farms), at which the best crusted old port wine and several other liquors daily appeared. He brewed every month for family use, and made his own cider. There were fat hocks killed occasionally, as required, and a sheep every Monday morning, besides, at other times, lamb, veal, kid, and lots of poultry. The roasting-jack was daily in requisition; he never allowed a goose to be killed singly, there should be three at one time, as he said the giblets of one goose made but a poor dish. When our hung-beef and bacon was put in chaff, during hot weather, to preserve it, every crook in the kitchen loft, where it had been suspended, was re-occupied by a loaf of sugar, to be kept dry, so that the kitchen resembled a grocer's shop. He had a stand, with 12 moulds, and he borrowed two more stands from his neighbours, Captain Berry, of Eghish Castle, and Captain Drought, of Whigsboro, with whom he was on visiting terms many years. With these 36 moulds, by wicking and filling one by one, the first was fit to draw by the time the last was filled. By this means the housekeeper was enabled to make as many candles in two October days as was sufficient for the household consumption for 12 months; they were then hung up in the larder, in bunches, to bleach. A large number was required, as there were never less than two lights in the parlour and four in the drawing-room at one time without taking into account the number required for the six bed-chambers, the other apartments were well supplied with dips, as were also the stables for the hunters and cart-horses, and the coach-house. In the larder stood a large deep crock filled with sweetmeat, consisting of stoned raisins, currants, suet, sugar, whisky, and lemon-peel, always ready whenever a plum-pudding or a mince pie was ordered. The minister of the parish, if unmarried, boarded and lodged with us, and a single old gentleman, the father of Sir John Kingston James, Lord Mayor of Dublin, not liking the din and noise of a city, likewise boarded and lodged with us many years. Those gentlemen knew well they would have a well-supplied sumptuous table, and the opportunity of intermingling with genteel society. My parent was a sheer industrious man, and understood his business well, having a set day for beginning and finishing all farm operations, and deferred nothing. He made an usel servant man by the breakfast table in the parlour every night before he retired to bed, and for 20 successive winters all the members of his own household ate their breakfast by candle-light. There was a horse saddled, ready for his own use, from an early hour in the morning till late in the evening, and a land steward assisted him and his two sons to conduct the business, besides righthand men residing on his distant farms, which were visited daily in turn, by his sons, mounted on horseback, to see if all was right; still it did not debar his sons or himself of taking their share of recreation in the way of fox hunting, they being well experienced and courageous horsemen, and well mounted, having often returned with three fox-brushes in the bridle head-stall as trophies. He had his business on all his farms well executed and timely, without any tyranny, and died prosperous, wealthy and respected. He made a fair will, dividing his property among 22 legatees. His funeral was numerously attended by relatives and acquaintances, out of the latter were taken 12 bearers, all gentlemen of respectability, some of whom were magistrates and grand jurors. A hearse and horses carried, in an oak and deal coffin, his remains, now entombed."

Farm Memoranda.

WEST SUSSEX.—Harvest is all over, and everything has been secured in good order, except where some were rather too quick from having been frightened at the commencement, as the weather then was rather unsettled, and weather prophets told us sad things about Saturday moons and such like. Though we pretend not to believe these forecasts, yet they sometimes make us feel a little timid. But we don't intend to trust to anybody's prognostications any more. We shall take the weather as it comes, and make the best of it; that is, if our faith don't give way again. However, we have got together a fair crop, but we are now getting the thatch blown off at a rapid rate. There is hardly a whole roof on any rick in the parish, and in many cases they are nearly stripped and the sheaves blowing off. The wind has been terrific since Saturday night, and at present no signs of abating, but we have had some nice showers which have got to ploughing depth. They were much wanted, for pastures are very bare, and stock are on short allowance. The Turnip crop will not be so good as we expected, especially the latter sown. Manure has not done so well, the summer, on the whole, having been too cold, though for three weeks of harvest it was excessively hot. There has not been quite so much threshing as is usually done up to this time—the price being on the whole low,

and having fluctuated so much, and in such unexpected ways. Upon the whole the crop appears to be about an average, and the sample of Wheat is not far behind that of last year, Barley is a good crop, and of good quality, Oats are of good quality, but can hardly be a full crop, Peas are good, and have been well secured. Our markets are well supplied with both fat and lean stock, but the sale is rather slow; stock sheep will rather drop in value, on account of the root crops. There has been a little of the Potato disease, but not to a great extent, and the crop upon the whole is good. Getting ready for the sowing will now be our chief work, and as the weather will work up easily, should the weather be favourable we may get well forward. Cattle will soon have to some indoor food, as the nights will get cold, and pasture bare. They have been more annoyed by flies this summer than usual, and we have been obliged to put them in the sheds by day to protect them; still they have done very well, and there is likely to be a fair supply of beef during the early part of winter, but it is likely to fall off at a later period. Foot-and-mouth disease is reported to be not far off us—around Arundel; and unless timely precautions are taken it will soon spread. People will be rather cautious in sending stock to market for a fortnight. G. S., Sept. 13.

The Poultry Yard.

THE BIRMINGHAM PRIZE LIST.—"Long look for come at last." Heartily welcome, but rather with an alloy of grumbling caused by the line of print that says, "The entries close on Monday, the 1st of November."

Everyone expects great things from Bingley Hill, and he will be hard to please who is not satisfied with the prize-list for 1890. A show that runs into hundreds of classes, with some of them six prizes to a class, is of magnitude to command entries, and that it does so is proved by the numbers that are rejected year after year by the committee because they are one or two posts late, ostensibly, but equally for want of colour. Coloured Dorkings head the list, and have four classes allotted to them, including in their prizes an extra amount of 2*l.* from a railway fund, and two cups, each of the value of 5*l.*—one for the best cockerel, and the other for the two best pullets. We have already this year seen wonderful Dorking chickens, pullets especially, but, with such incentives, breeders will spare no pains, and we may expect to record a great advance on the Silver-greys are allotted two classes, and we think over-liberal allowance of prizes (time in number). White Dorkings are fighting hard to improve their position, and to make a reputation, they are making way, although but slowly. Their admirers will thank the encouragement held out to them a slight one, but they find they have but two classes, and that the best compete irrespective of age. It is a breed the value of which do not supplement the ordinary prize-money, and we suppose the amount allotted is proportionate to the number of entries hitherto received. Four classes for half Cochins, each one headed by a silver cup, value 5*l.*; two of them are offered by Mr. Mapplebeck, a supporter of the Birmingham show from its commencement. The brown and partridge-feathered, and white Cochins are well provided for by eight classes between them.

We may fairly expect the Brahma Poutras this year to be among the most prominent features of the show, and many and close will the comparisons be between the pencilled and the light varieties. There are people who say that the value of the prize has no weight with the real amateur, but what brought out the best Brahmans but the judicious distribution of a few handsome and heavy prizes at the principal shows? I wish well to the light birds, but think they are to be pencilled ones what the Harvard crew was to that of Oxford, they may, and we hope they will, get better each year, but the position, we think, will remain unchanged. The pencilled Brahmans this year have a stimulus of two silver cups in addition to the money prizes.

We do not say that every one will be surprised, but we think, nine amateurs out of ten will be when they see that the breeders of Malays are awaking from years of lethargy, and that the prize-sheet contains an announcement, under the head of the Malay class, that, "by the donations of a few amateurs the committee are enabled to increase the prizes for Malay." The committee and the amateurs are equally to be congratulated, and we hope the entries will spring in proportion. The Malay fowl has not nearly earned credit for its many good qualities, and deserves a much better character than is generally given to it. We may fairly hope that this is a fresh start for the breed, and that we may see it take the position it held in poultry shows, as we understand them, were tried of The Crevecours, Houdans, and La Flotte, in two classes each, and a very close rivalry and competition may be looked for therein. Spanish, in three classes, with a silver cup for the best cockerel. We can readily endorse the allotment of two classes, black Hamburgs, and think they will make a fine way. Golden and silver pencilled and spangled are as heretofore, in the prize-sheet, and may be expected in great force in the pens. If Polish fowls make progress, they try hard to hold their ground, and in three classes.

The inducement to introduce new varieties is so extravagant, the class allotted to them being one of the poorest, if not the poorest, of the whole list.

Sixteen classes, with three prizes of plate and a railway prize, are allotted to the game fowls. Those who know the Birmingham show, know what the game fowls are there; those who don't know it, should go and see them.

The Bantams are wisely to be shown in pens of a

and two hens. The black-breasted reds are to have a silver cup, value 5*l.*, for their 1st prize. The principal varieties of ducks have a class each; the Rouens and the Bucnos Ayrean, or black East Indian, have each an extra prize. We think the geese of all ages might compete together, but cordially approve the separation of the turkeys. The pigeon list must be reserved for next week.

Miscellaneous.

Foot-and-Mouth Disease is a light matter among turks and lean cattle—they will be little, if any, the worse of it; but it is very serious amongst heavy-feeding cattle and milch cows. If fat cattle are attacked, they should have their Turnips sliced, with crushed oilcake and meal. There is no treatment of any avail in the fever stages. When the fever is gone, there will be a beast or two out of a lot whose feet will require attention. The horn of the hoof gets loosened from the flesh. The animals may require to be thrown, and the dead horn cut away. It must be remembered that it will never attach itself again. The veterinary surgeon should generally perform the operation, unless the owner is skilful himself. Cows require great attention. The disease seats itself in their udders, and unless they are most carefully milked out they may be rendered useless as milkers—losing one, two, or even all the quarters of the udder. The foot-and-mouth disease is very infectious. I recollect having carried it home from a neighbouring farm, by merely handling a bull which was down with the disease. I came straight home, and handled the first beast opposite the door in one of my own byres; in three days he was seized with the complaint; and in two or three days thereafter nearly every beast through the steading was down in it. Out of 40 fat cattle, 38 had it, only two escaping. Upon inquiry I found that one of them had had it before. I lost from 1*l.* to 5*l.* of condition on an average off every one of the 38. From the same farm, and at the same time, a veterinary surgeon had been called in. He went straight to another farm, six miles distant, and in a few days every animal there was seized with the same complaint. It is the general belief that an animal will not take the foot-and-mouth disease twice. This is a mistake. I have a cow that took it twice, but there were seven years between the attacks. *Cattle and Cattle Breeders, by W. M'Combie, M.P.*

Calendar of Operations.

SEPTEMBER: Wheat Seed-time.—The sowing of Wheat commences about the close of the month. It used to be the busiest season of the year on what were termed Wheat and Bean farms, but the increased breadth of root crops grown on soils of this kind has extended the period of sowing over the next three months. Still, during the current month and early in October, everything is got ready for preparing and sowing the land intended for winter Wheat.

Seed Wheat newly threshed is to be preferred, provided the crop has been stacked in thorough good order, and care is generally taken that this shall be the case. Nothing pays better than the selection during harvest time of the best Wheat for seed. Clean flinty straw, and crisp plump corn only should be stacked for this purpose. Great improvements have recently been made in the scouring of Wheat, so as to remove by mechanical means the germs of animal and vegetable life, and all such improvements are highly to be commended. But they should not be wholly trusted to, and it is just as imprudent to trust alone to the process of pickling. Both processes should be carried out with equal care. Besides, those who cannot grow good sound seed Wheat for themselves, should purchase of others who can. Some soils and climates are defective some way or other in the growth of Wheat, so that annually losses of quality and vigour occur, according to the season. We need hardly add that for such farms seed Wheat should always be bought, for the simple reasons that it is worth more money than the home-grown, and that the difference of value in favour of the change of seed is greater than generally credited. Some only change every second or third year, but unless under exceptionally fine years, when there is no falling off in the quality, the practice is wrong. The more advisable rule is to change your seed when you do not grow it up to the proper standard, and this is easily known in good time to purchase.

Pickling Wheat.—Some use blue vitriol (sulphate of copper) dissolved in warm water, half a pound or so to a sack of Wheat, using no more water than will wet the surface of the grains when rapidly turned over on the barn floor. For clean fine white Wheats, which have few spines for holding the germ of smut, a quarter of a pound of this mineral to a bucket (two gallons) of water is enough, as for this thin-skinned Wheat a stronger solution is dangerous to the vitality of many of its grains. With Rivetts and other coarse Wheats, with their long spines or hairy end, the half pound per bucket of water may be used, while the Wheat should be immersed in a tub, well stirred for a few minutes, and all floating grains, whether wrapped in chaff or not, skimmed off. The moisture is soon absorbed, so that in a few hours the Wheat is ready for the drill. No more should be dressed at a time than is required for immediate sowing. Others wash the Wheat in brine of a sufficient strength to carry an egg or Potato, and then dry it by sifting hot lime over it on the floor, mixing the two rapidly together until the surface of the grains is covered. No more should be washed than is required for sowing at the time, and any remainder left in the drill or sack should be spread out thin upon a dry floor, otherwise its vitality will be injured, and it may be wholly destroyed, thereby rendering it unfit for seed. The washing over-night should therefore be sown the next day, or, if wet

prevent, the spreading out thinly should be adopted for the whole batch.

Kind of Seed.—Soil, climate, and the like must be considered before it can be determined which is the best sort of seed to sow. The different varieties are very generally known under local names, derived from the persons who selected them as Hallett's Pedigree Wheats; or the district in which they were first grown, as Essex Wheat. Red and White Wheats form another distinction. Some are more hardy than others, and better adapted for this or that kind of soil, climate, and management; so that small trials should be carefully made before extensive changes are carried out.

Thick and thin sowing is a controversy of long standing; much depends upon the weather and state of the land. Some soils tiller abundantly, others sparingly and unequally, when sown thin, the result being more green ears than ripe ones in harvest. The latter soils, however, are capable of much improvement. In the one case from 2 pecks to a bushel per acre is considered more profitable than a thicker seeding. According to other opinions, from 2 to 3 bushels per acre are not found too thick a seeding; but the 3 bushels are generally sown broadcast upon a rough seed furrow, so that much of it is buried too deep and rots. The probability, therefore, is that, on an average, not much over 2 bushels braird and tiller under the thick broadcasting plan.

Wheat sowing is now chiefly done by seed-drills, the coulters being from 8 to 12 inches asunder, and each coulters kept down to a regulated depth by a weighted leverage. The seed is thus put in to a uniform depth, comparatively speaking, so that if sown the whole of it brairds and tillers. The latter, however, only follows when the land is in good condition, and no harm is done by the frosts of winter and spring or from other causes. On some soils, and in some exposed places, less or more loss is generally sustained during winter, so that due provision must be made for such thinnings in the plants. It is hardly possible to estimate, without local experience, the difference between soils and places in this respect.

Potato harvesting commences about the end of the month. The digging is done by hand, by the common plough, or double-mouldboard plough, and by the Potato digger. When dug with a three-pronged fork one man will keep two women or boys gathering with baskets. When turned up by the common, or double-mouldboard plough, one man will shake out to six or eight gatherers. The Potato digger turns up and shakes out at the same time, thus dispensing with hands to shake out. A cart follows the gatherers, into which the potato-baskets are emptied, and the loaded carts are backed into the pit-bottom, generally made about the breadth between the wheels out to the Potatoes being raised as high as possible. They are first covered with straw, and a slight covering of earth, not quite up to the top, and ultimately with a foot to 1½ inches of earth, with straw vents at short intervals along the ridge. Some extensive growers sort their Potatoes in the gathering into three lots—the large for marketing immediately, the next for seed, and the remainder for pigs; the latter two sorts only being stored. But the more common practice is to pit the whole sound crop as above, and, when sold, to sort them by means of potato-riddles, or sieves, the width of the mesh being a matter of agreement.

Housing stock at night takes place about the latter end of the month. The working horses, milch cows, and fattening bullocks are taken up earlier, as previously noticed. Foals, young colts, and idle horses should either have a dry bed in a hovel to go to, or else be taken home to the stable or strawyard; young cattle suffer much from lying over-night on a wet cold bed, and the finer the breed and the higher the condition the greater the loss. Even the hardy Highland cattle in their native glens look out for shelter over-night, or, if the weather is open, they choose a thick comparatively dry bed of long heath. But our lowland herds have no such choice.

Stock sheep require to be provided for in various ways. On some Highland sheep walks, in bad seasons, the shepherds and their flocks have to begin by the end of September, moving towards the lowlands for their winter quarters. In other walks further south, in the border counties of England and Scotland, while lowland farmers are finishing corn harvests, the shepherds are finishing theirs, by the stacking of hay for the winter months beside the stalls or sheep-pens, some of it having to be carted from the tramp-cocks, where it grew, several miles distant, over rough mountain roads. About 2 stones per month or so is provided for every sheep, assuming that something can be scraped from under the snow; and those who do not grow hay themselves purchase. *W. B.*

Notices to Correspondents.

GRASSES: Briton. For permanent Pasture on heavy soils, to be sown without a crop, put in about 50 lb of seeds per acre, including 2 or 3 lb. of each of the usual Fescues except *F. rubra*, a large quantity of *F. lolacea*, 3 lb. each of Timothy, Cockstoot and Foxtail Grass, 5 lb. each of Perennial and Italian Ryegrass, 3 lb. each of *Poa trivialis* and *P. nemoralis*, and 5 lb. each of red and white Clovers. Sow them, without a crop.

RAISING WATER, &c., BY WHEEL: J. B. M. says:—If the "Old Subscriber" who wanted information on this subject can come to me at Reading, I can show him a wheel I put up nearly 20 years ago which has threshed and cut chaff, ground, and pumped for me ever since, without stopping the floods or interfering with the rights of the millers. [We can give an "Old Subscriber" our correspondent's address.]

TO LAY DOWN SANDY WASTE TO GRASS: T. S. B. You are right in getting rid of root and brush by burning. The ashes, however, are not a sufficient manuring. You had better put in a dressing of bones early in spring, before you sow Grass seeds. The better plan indeed would be to burn, and then bone heavily; then grow Turnips; then feed them off with cake-fed sheep; and then sow your Grass seeds.

Seeds Direct from the Growers, the most Effectual Means of Preventing Disappointment.

SUTTON AND SONS, SEED GROWERS, deliver their Home-grown Seeds, Genuine as Harvested, to all parts of the kingdom. Carriage free (except very small parcels).—Prices and full particulars on application. **SUTTON AND SONS, Seed Growers, Reading.**

To Market Gardeners.

TWO HUNDRED THOUSAND extra strong plants (now ready for planting out) of **JENKINSON'S DEFIANCE FARLY CABBAGE**, which is unquestionably the finest early Cabbage in cultivation, being very early, hard, and suitable to run. The stock is specially selected. Price, put out here, 5*s.* per 1000, or 10,000 for 40*s.* Also, about 30 lb of SEED of the above superior Cabbage, of this year's growth; price 6*s.* per lb. **GEORGE T. FOX, The Nurseries, Wexley Rocks, near Leek, Staffordshire** (Post office orders payable at Leek).

SPECIMEN ORCHIDS,

to be sold a bargain, viz.—
AERIDES ODORATUM, extra fine, 3 by 2 feet, 2*l.*
CATLEYA CRISPA, extra fine, 60 pseudobulbs, 4*l.*
MOSSIAE, extra fine, 60 pseudobulbs, 43 10*s.*
ZYGOPETALUM MACKAYI, extra fine, 30 pseudobulbs, 43 10 pseudobulbs, 4*l.*
MILTONIA CANDIDA, extra fine, 18 pseudobulbs, 43 10*s.*
LALIA ANCEPS, 10 pseudobulbs, 41 10*s.*
DENDROBIUM KINGIANUM, 50 pseudobulbs, 42
STANHOPEA INSIGNIS, 30 pseudobulbs, 41 10*s.*
TIGRINA, 20 pseudobulbs, 41 10*s.*
 Or the 10 fine specimens for 40*l.*
 W. R. J. also offers, in good small plants, 5*s.* to 10*s.* each, or the following:—*Maxillaria granulifolia*, *Cypripedium insigne*, *C. barbatum*, *Isotria medeolae*, *V. lutea*.
W. B. DERRICHS, Nurseryman, Ipswich.

First Prizes for Pomology and Arboriculture

At the INTERNATIONAL EXHIBITION, 1867
F. MOREL, Rue du Souvenir, Vaise, Lyons, France, offers the following:—
New SEEDLING PEAR, PROFESSOR HORTOLES, vigorous growth on Quince or Pear, very abundant bearer. Fruit average size, and first quality. Ripens in October. Obtained First Prize. Price, 6 francs each, or 12 for 60 francs.
New PEAR, SOUVENIR DU CONGRES, 2 francs.
DE PONTRIANT PLUM, the best of large Plums, very juicy. It bears August 10 to 20. Dwarf, 1 franc each; standard, 2 francs each.
 Choice Collections, as adopted by the Pomological Congress of France, of PEACHES, NECTARINES, PEARS, APPLES, CHERRIES, and APRICOTS.
 Fifty varieties of TREE PEONY, 2 50 francs each.

TO THE TRADE.—The Undergnod solicits orders for the following:

- | | |
|---------------------------------|----------------------------------|
| Dwarf Maiden Peaches | Arbutus, twice and thrice trans- |
| " Nectarines | 1 and 2 |
| " Cherries | Sweet Bays, 1 <i>s.</i> |
| " Pears and Apples | Isotria medeolae, do. |
| " Plums | Laurea, C. minor, do. |
| " trained of all the above | Portulaca, do. |
| Standards and Pyramids do.— | Pinus austriaca, 2 feet |
| strong clean stuff, and of the | Arbor-vitae, American |
| most approved kinds | Chinese |
| Fruit Tree Stocks, of all sorts | Berberis Darwini |
| Roses, Standards, strong | " aquifolia |
| " Dwarf, worked, do. | Acacia, 1 foot |
| " own roots, do. | Cupressus Lawsoniana |
| Manetti Rose Stocks, do. | Cedrus atlantica |
| | Phillyrea, sizes |
- Most of these articles can be supplied by the 1000, at very reasonable prices, on application to
G. H. AY AND SON, Nurserymen, Brox, Chertsey, Surrey.

Must be Sold, for want of room.

NEW GOLD and BRONZE ZONAL PELAR-

GERANIUMS.—Large plants of the following kinds taken up from the beds, affording lots of cuttings, are offered cheap, viz.—
BICOLORS.—Amber Witch, Anroum, Beauty of Oulton, Bronze Belt, Bronze Shield, Crocus, Eclipse, Jason, Mrs. C. Barry, Pet of the Parterre, Richelleu and Sol.
MARBLE-SHADED FOLIAGED VARIETIES, very strong plants—John Gibson, Lord Lyon, Lucy, Mutabilis, Penelope, Rosette, Rustic, Vanguard, Wonderful.
ZONAL PELARGONIUMS.—Gaiety, F & A Smith's Mon. Acant, F & A S's Scarlet Dwarf, F & A S's Perfection, F & A S's Comte de Moray, Waltham, Zebra, &c. Crystals Palace Gem, great improvement on Cloth of Gold and Gold Chain. A lot of per dozen.
JAPANESE CHRYSANTHEMUMS.—12 varieties of these new novel and beautiful flowers, in pots, to bloom this season. 6*s.* the set; sent out last year at 7*s.* 6*d.* each. See Catalogues.
SWEET WILLIAM, 6 distinct varieties, viz.—Auricula Eyed, Scarlet, Hunt's Perfection, Crimson, mixed, double, and striped, at 6*s.* per dozen.
 A liberal number of plants thrown in against carriage.
DESCRIPTIVE CATALOGUES free on application. 6*s.* per cent. allowed to the Trade.
 Apply to **T. L. MAYOS, Seedman, &c., Lugwardine, Hereford.**

CHOICE NEW PLANTS,

in single pots, well established.
NEW FUCHSIAS of 1869, 12 of the best and most distinct, 9*s.* & 12*s.* per dozen.
NEW CHRYSANTHEMUMS of 1869, 12 of the best and most distinct, 9*s.* per dozen; 24 do. do. do., 7*s.* 6*d.* per dozen.
NEW COLEUS of 1869, 12 of the best and most distinct, 6*s.* per doz. Beauty of Widmore, 1*s.* 6*d.* each.
NEW GERANIUMS, 6 of the most beautiful of the season, all received Certificates, 1*s.* 6*d.* each.
DOUBLE GERANIUM, Madame Lemoine, 9*s.* per dozen.
NEW DOUBLE GERANIUM, Victor, 30*s.* per dozen.
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NEW ALTERNANTHERA MAGNIFICA, most beautiful, 1*s.* each.
NEW GOLDEN GRASS, *Alopecurus pratensis aureo-variegatus*, 2*s.* 6*d.* each.
NEW HOLCUS, *Lanatus albo-variegatus*, 2*s.* 6*d.* each.
NEW IRESINE, *Acuminata*, 1*s.* 6*d.* each.
NEW MYOSOTIS (SUN-FLOWER), 6*s.* per dozen.
 Post free orders to T. L. MAYOS, Seedman, &c., Lugwardine, Hereford.
 For above and CATALOGUE of Nurbs, Roses, Primroses, Violets, Po santus, and other Hardy Herbaceous and Alpine Plants, &c., apply to
WILLIAM DILLISTONE, Nurseryman, Sibbald Hedingham, Essex.

Fine New Hardy Clematises.

GEORGE JACKMAN AND SON are now sending out their two following NEW CLEMATISES, that they can warrant as distinct, vigorous, and abundant flowering as those varieties which have already obtained such general approbation.
CLEMATIS LADY BOVILL (First-class Certificate Royal Horticultural Society).—"Width of the petal is greater than its length, which causes it to be very slightly cupped, resembling a somewhat expanded Tulip, while its colour (a greyish blue) marks its distinctness."—*Floral Magazine*.
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 A Coloured Drawing (by Andrews) of C. Lady Bovill can be had by enclosing 12 stamps, or Circular, giving "Opinions of the Press," with engraving, for one stamp.
 The usual allowance to the Trade.
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HOT-WATER APPARATUS of every description, fixed complete in any part of the country, for Warming Greenhouses, Conservatories, Forcing Pits, &c.

Plans and Estimates on application.
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200 CUCUMBER and MELON BOXES and **LIGHTS**, all sizes, Glazed and Painted complete, read for immediate use, packed and sent to all parts of the Kingdom. Strong **ZINC HAND-GLASSES**, all sizes. References to the Nobility, Gentry, and Trade in most of the Counties in England.

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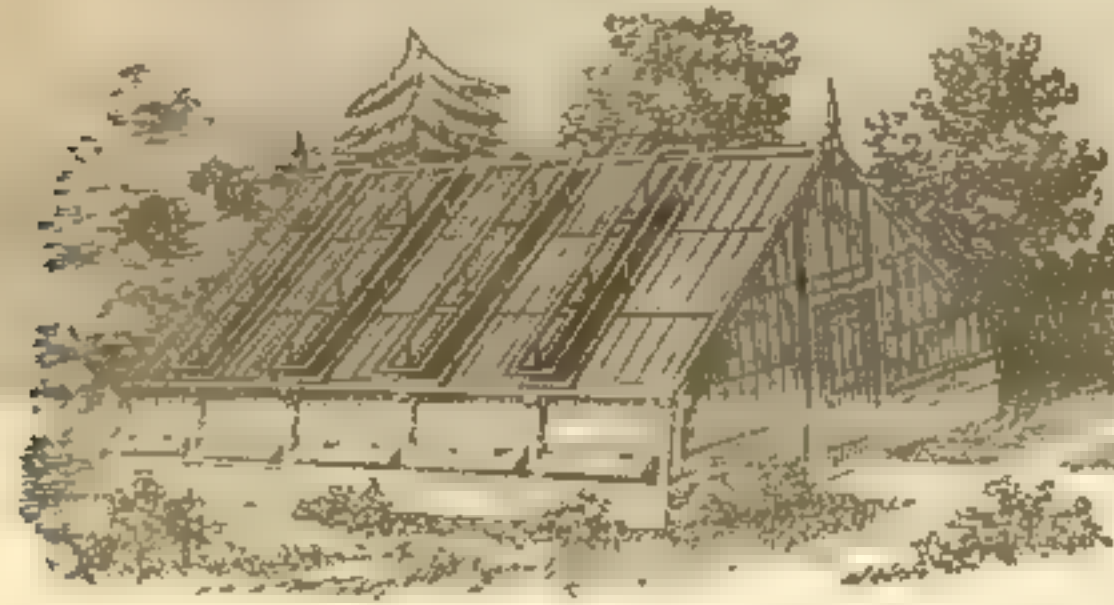
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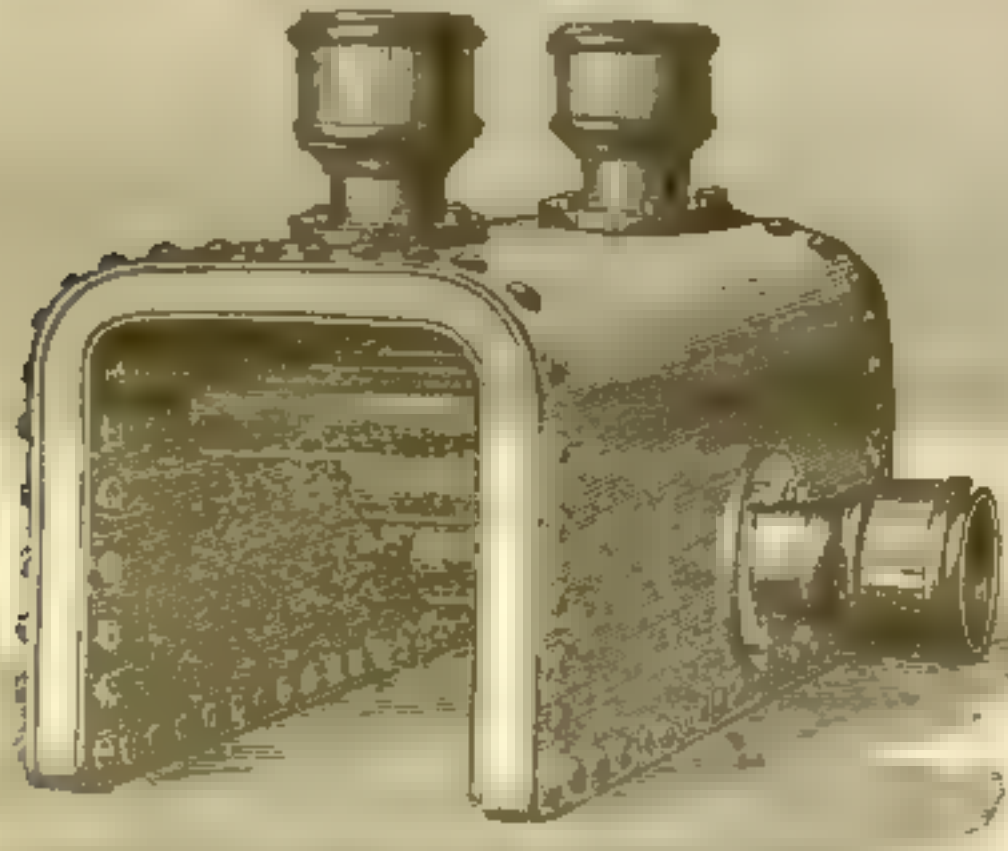
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Catalogues, containing Designs of Houses, &c., will be forwarded on application. Special Plans and Estimates for Ranges of Houses to be erected in any part of the country will also be furnished. A. SHANKS AND SON, Deans Iron Works, Arbroath, N.B.; and 27, Leadenhall Street, London, E.C.



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ECONOMY IN THE GARDEN.

James Carter & Co. Seed Growers

COLLECTIONS OF HYACINTHS, CROCUS, TULIPS, &c.,

TO PRODUCE A PRETTY AND PERMANENT DISPLAY DURING WINTER AND SPRING.

JAMES CARTER AND CO. strongly recommend the following COLLECTIONS, assorted from the most popular varieties -

No. 1.-CARTER'S COLLECTION for WINDOW or CONSERVATORY DECORATION £4 4 0

CONTAINING:

- Hyacinths, 50 in 25 extra fine named sorts
Tulips, extra fine, named, Double, 60
Polyanthus Narcissus, 36 in 12 Do. do. do. Single, 50
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Lilium speciosum, in variety, 4
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Scilla sibirica, 36
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McLAREN'S PROLIFIC RASPBERRY.

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Gardener's Chronicle Sept. 13.

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- 6 Strong Canes, 7s. 6d. | 25 Strong Canes, 20s.
12 Strong Canes, 12s. | 100 Strong Canes, 60s.

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CONTAINING:

- Hyacinths, 75 in 3 colours
Narcissus, Double, White, 50
Poeticus or Pheasant-eye, 50
Double Daffodils, 50
Tulips, extra fine mixed, Double, 75
Crocus, B. n. c. 200
Striped, 200
Large Yellow, 200
White, 200
Anemones, extra fine mixed, 100
Gladolus Brenchleyensis, 24
Iris, ex choice mixed English, 50
Lilium candidum, 6
aurantiacum, 6
margarita rubrum, 6
Lilium, 6
Ranunculus, extra fine mixed, 100
Snowdrops, 400
Winter Aconites, 100

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No charge for packing any of above Collections.

For the fullest information to ensure successful cultivation and particulars of the above Assortments, send for

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SUTTONS'



IMPORTED FLOWER ROOTS

SUTTON & SONS, SEEDSMEN TO THE QUEEN, READING, BERKS,

having received their FIRST CONSIGNMENT OF CHOICEST DUTCH FLOWER ROOTS.

Selected by themselves from the leading Growers in Holland, are now prepared to receive orders for their COMPLETE COLLECTIONS for WINTER and SPRING BLOOMING, either for indoor or outdoor cultivation.

Suttons' £2 2s. Collection of Flower Roots,

For OPEN GROUND, Carriage Free, contains-

- 24 fine mixed Border Hyacinths
12 fine mixed Gladioli
12 Duc Van Thol Tulips
25 Pheasant's Eye Narcissus
12 mixed Single Early Tulips
25 Double White Narcissus
12 fine mixed Double Tulips
50 Double Daffodils
12 Parrot Tulips
12 large Campernelle Jonquils
12 Gesneriana Tulips
100 fine mixed Double Ranunculus
60 fine mixed Tulips
100 Scarlet Turban Ranunculus
12 English Iris
25 fine mixed Double Anemones
12 Spanish Iris
25 Single Anemones
6 Lilica, of sorts
300 Crocus, in 6 sorts
6 Ferraria pavonia
100 Snowdrops
12 Dog's Tooth Violets
50 Winter Aconites
6 Crown Imperials

Suttons' £1 1s. Collection of Flower Roots,

For OPEN GROUND, Carriage Free, contains-

- 12 fine mixed Border Hyacinths
6 Polyanthus Narcissus
12 Pheasant's Eye Narcissus
6 mixed Single Early Tulips
12 Double White Narcissus
6 fine mixed Double Tulips
25 Double Daffodils
6 Parrot Tulips
6 large Campernelle Jonquils
6 Gesneriana Tulips
60 fine mixed Double Ranunculus
25 fine mixed Tulips
50 Scarlet Turban Ranunculus
6 English Iris
12 fine mixed Double Anemones
6 Spanish Iris
12 Single Anemones
3 Lilica, of sorts
50 Crocus, 3 sorts
3 Ferraria pavonia
50 Snowdrops
6 Dog's-Tooth Violets
25 Winter Aconites
3 Crown Imperials

Suttons' 10s. 6d. Collection of Flower Roots,

For OPEN GROUND, contains a choice assortment for a Small Garden.

Suttons' £2 2s. Collection of Flower Roots,

For POTS or GLASSES, Carriage Free, contains-

- 24 fine Hyacinths, by name
6 Persian Iris
12 fine Miniature Hyacinths, do.
6 Peacock Iris
12 Polyanthus Narcissus, do.
100 Crocus, by name
12 large Double Jonquils
12 choice Lilies, by name
12 Single Sweet-scented Jonquils
6 choice Sparaxis, by name
12 Single Duc Van Thol Tulips
1 Cyclamen persicum
12 Double Tournesol Tulips
1 Jacobea Lily
60 Early Tulips, 10 sorts
2 Lilium lanceifolium album
2 " " rubrum

Suttons' £1 1s. Collection of Flower Roots,

For POTS or GLASSES, Carriage Free, contains-

- 12 fine Hyacinths, by name
3 Persian Iris
6 Miniature Hyacinths, by name
3 Peacock Iris
6 Polyanthus Narcissus, do.
50 fine Crocus, by name
6 Large Double Jonquils
6 choice Lilies
6 Single Sweet-scented Jonquils
3 choice Sparaxis
6 Scilla picea
3 choice Oxalis
6 Single Duc Van Thol Tulips
1 Jacobea Lily
6 Double Tournesol Tulips
1 Lilium lanceifolium album
25 Early Tulips, 5 sorts
1 " " rubrum

Suttons' 10s. 6d. Collection of Flower Roots,

For POTS or GLASSES, contains a choice assortment of most useful and showy kinds.

The best 12 Hyacinths, by Name, for 12s., Extra fine Double and Single varieties.

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J. SCOTT, The Nurseries, Merritt, Somerset, has now in his fruit room about 500 sorts of PEARS, which he offers, in named collections, at 1s. per dozen sorts. Cash with order; small sums in stamps. Orders for FRUIT TREES will be carefully attended to. 1000 sorts of Pears, 700 of Apples, 170 of Plums, 150 of Cherries, and other kinds in proportion. These are grown as Standards, 6 to 7 feet, Pyramids, 6 to 7 feet; and Bushes, 3 to 4 feet high; also Dwarf-trained fine healthy plants, and are described in the "Orchardist," the best work on Fruits in England, price 1s. 6d. A printed List or Index sent gratis.

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C. TYSO, Florist, &c., Wallingford, Berks, is offering these beautiful hardy flowers, in great variety of colour, at reduced prices, as under. They can be forwarded safely by post. RANUNCULUSES, fine mixed, Double, 10 to 5s. per dozen. ANEMONES, fine mixed, Single, 10 to 5s. per dozen. TULIPS, fine mixed, Single, 10 to 5s. per dozen. good Double do., named, 3s. to 4s. per dozen. RANUNCULUS and ANEMONE SEED, 2s. 6d. per packet. Treatise on Ranunculus, 7 stamps; Treatise on Anemone, 4 stamps. CATALOGUES free for one stamp.

The Gardeners' Chronicle.

SATURDAY, OCTOBER 2, 1869.

MEETINGS FOR THE ENSUING WEEK.

Royal Horticultural (Fruit and Floral Committees), at South Kensington .. 11 A.M.
Tuesday, October 5
Ditto (General Meeting) 3 P.M.

WHAT decision the ROYAL HORTICULTURAL SOCIETY may have come to as to its future operations in the matter of PROVINCIAL SHOWS we know not indeed we are ignorant whether any decision at all has yet been arrived at. In any case we imagine that there is still ample time for outside discussion, and we believe it would be very much to the interests of the Society and of horticulture generally, did such discussion take place. We take it for granted that the balance of evidence would be in favour of continuing these provincial trysts. Assuming that this postulate is granted, these questions then arise—Is it desirable that the Society's exhibition be held, as heretofore, at the same time and place as that of the Royal Agricultural Society, or is it not preferable, with last year's experience in view, that the two exhibitions should be dissociated? In the latter case, where should the place of meeting be? We do not wish to obtrude any opinion of our own—we merely invite discussion, and in so doing we may state one or two facts which must be duly considered, in order to arrive at a satisfactory solution. Fact number one is, that the meeting of the Royal Agricultural Society for the ensuing year is to be held at Oxford, than which few towns can be better placed in regard to accessibility and convenience of visitors, while certainly no city can surpass it in interest. On the other hand, Oxford is not a horticultural centre in the same sense as Manchester or Glasgow are, and whether, with the manifold attractions of the old university town, superadded to the "bovine furor," poor Flora would not pine neglected in "Port Meadow," "Jericho," "Paradise," or some other locality known to old

Oxonians but little likely to be explored by visitors, is one of the questions we should like to see discussed.

Fact number two is, that Dublin holds out the hand of fellowship. From across St. George's Channel a suggestion is wafted which assuredly merits attention. It is this, that the Royal Horticultural Societies of London and Dublin respectively should unite their forces, and hold a grand horticultural meeting in the Irish metropolis. The proposal is made in the current number of the *Gardeners' Record*, and the project, if carried out in the same spirited manner as that in which it is conceived, must of necessity prove successful. The success or failure of such gatherings depends in great measure, we may say almost entirely, upon the efficiency and completeness of the local arrangements. Exhibitors may fill the allotted space to overflowing with the products of their skill and industry—prize lists may be ample, crowds of visitors even may be forthcoming, but if the local arrangements be badly planned or imperfectly carried out, and specially if there be not harmonious co-operation between the local and the central authorities, the result is sure to be unsatisfactory, and in all probability will be discredit to all concerned. It is very significant that in the very same number of the *Record* is a report of a meeting held in Dublin for the purpose of considering the propriety of establishing a horticultural club. This proposal, it appears, was well received, and is likely to be carried into effect. We infer from this that the prospects in Dublin of united action in matters horticultural are favourable. Every one knows the *expressément* with which our Irish brethren take up a cause dear to them, and hence if it should be decided to listen to the persuasive tones of Erin, and hold a grand show in her metropolis, we shall have no cause to dread any lukewarmness in the matter. We shall revert to these subjects on a future occasion, and in the meanwhile we should be glad, in the interests of horticulture, to see the subject discussed in a manner commensurate with its importance.

WE are informed that at the MEETING of the ROYAL HORTICULTURAL SOCIETY to be held on October 5 the following prizes will be offered, viz.:

- By W. WILSON SAUNDERS, Esq., V.P.R.H.S.—Collection of Edible and Poisonous Fungi, 2l., 3l., 2l. These should be tastefully set up, and, as far as possible, correctly described and named.
- By Messrs. J. A. J. & Co., FRUITERS—Best three bunches of Madresfield Court Black Muscat Grapes, 5s.
- By the same—(Grapes) three bunches of Chasselas Muscat (open), 1l., 10s.; three bunches of Muscat Hambourg (open), 1l., 10s.; three bunches of Frankenthal or Hambourg (open), 1l., 10s.; three bunches of White Muscat of Alexandria (open), 1l., 10s.; three bunches of Alicante (open), 1l., 10s.; three bunches of any new or recent variety (open), 1l., 10s.; the best collection, named (open), 2l., 10s.

At the meeting of the Royal Horticultural Society on Tuesday next we are informed that Mr. HOOLEY, of Wollaton, near Nottingham, intends to exhibit some specimens of his CONQUEROR PRIZE CELERY, a variety which is said to be superior to all others. As the seed was not sown until the first week in April, and as the specimens to be exhibited are expected to weigh from 6 lb. to 7 lb. each, it may be fairly inferred that the variety is of quick growth as well as large size. After the exhibition at Kensington the specimens may be seen at the establishment of Messrs. BARR & SUGDEN.

A paragraph appeared at p. 993 relating to the fall of a large BEECH TREE, in which accidentally nothing was said as to the condition of the roots. We have now examined them carefully, and we find on the larger fragments abundant white spawn which undoubtedly belongs to some Polyporus, and possibly to *P. adustus*, though that is not the only species which affects the Beech. On the smaller portions there is a granular brownish mass, the nature of which is very uncertain; it is also doubtful whether this is due to the exusion of sap from the decaying roots, or whether it is wholly extraneous. The question before us at present is, how shall we ascertain or even suspect that the roots are in an unsound condition, and so prevent the possibility of accident by timely removal? In general something wrong may be anticipated if the foliage assumes an unhealthy appearance, or if some of the branches perish, or if the trees become stag-headed. But this is not always an indication of total decay, and in the latter case it is the primary root which is the only one which is in general affected. We have seen many trees which have fallen in high winds from the roots being decayed either from the natural effects of old age or from the attack of Fungi, of which there was a remarkable instance a short time since in a fine Elm in the pleasure-ground at Kew. A few years since specimens, according very closely with those now before us, were forwarded by the late Sir W. MIDDLETON, who was anxious, if possible, to save some fine Beech trees which had assumed an unhealthy condition. We recommended then a close examination of the roots, and the removal of every one which was attacked by Fungus. We never heard what was the result of the examination and the supply of fresh compost, but if there were any sound superficial roots of sufficient size

we have little doubt that the treatment would have been effectual.* M. J. B.

The LUCERNE DODDER, *Cuscuta lassica*, seems to be spreading here. We have heard of it in Cambridgeshire and elsewhere, and recently a correspondent forwarded us specimens from Adwell, in Oxfordshire. No doubt it has been introduced with foreign seed. Its clear orange stems, abundant pure white and exquisitely-scented flowers, make us, from our point of view, regard it as anything but a weed, though the farmer would no doubt join issue with us in this matter.

The following letters appeared in the *Standard* of the 18th ult. The EFFECTS OF THE STORM described in the latter one are singularly similar to the effects of heat mentioned by a correspondent, writing from Penge, three weeks previously (p. 915).—"In reply to the correspondent in your journal of to-day, the Elm, Chestnut, Apple, Filbert, and many other trees and bushes in this neighbourhood, are all in the same state, the leaves on the western side of the trees are shrivelled, and quite brown and black speckled; on the other parts quite fresh and green. This is 30 miles from the nearest point of the sea. JOHN HILL, Westbury, Wilts, Sept. 16.—"The same extraordinary effects of the late gale as reported by your correspondent from Winterbourne, near Bristol, were very strongly marked here; though, as we are situated quite 45 miles from the nearest seashore, I cannot suppose the phenomena to be caused by the sea water, as he imagines. In my garden, on the W.S.W., or weather side, the trees and tall shrubs, particularly the Horse Chestnut and Damsons, are scorched and withered, exactly as though fire had passed over them, whilst on the opposite side they are still as green as ever. But the most remarkable feature in the matter is that though these trees and shrubs are standing on very high ground in my garden, and were fully and completely exposed to the fury of the gale, they are only thus withered and seared in the upper branches, and in no case are they injured within 9 or 10 feet of the ground; the lower branches of the Damsons and shrubs being still as green as ever. A. SHIRLEY, Chisleton, near Swindon, Wilts, Sept. 17."

A correspondent sends us the following interesting communication relating to the production of COLOUR IN LEAVES of the IVY-LEAVED PELARGONIUM, by simply bending the leaf stalk:—"L'Éléante, the Ivy-leaved Pelargonium, makes a very nice cover for a pillar, or for a trellis. If, when it is 4 or 5 feet high, a leaf-stalk here and there be bent, so as not to impede the circulation entirely, the effect, after a few days, will be very good. The leaves on the injured footstalks become beautifully coloured with shades from pink to purple, and afford a fine contrast to the clear creamy white colour of the natural leaf. A. B." No doubt some of our readers will try this simple experiment, and if so they will be doing good service by communicating the results.

In addition to the British exhibitors at the INTERNATIONAL HORTICULTURAL EXHIBITION at HAMBURG, to whom we have before referred, we may state that Mr. W. S. BOLLTON, of Norwich, succeeded in carrying off no less than four prizes for garden implements and furniture, such as lawnmowing machines, water barrows, engines, and chairs. Mr. BOLLTON has also taken a Silver Medal for the best collection of horticultural implements, &c., shown by him at the International Industrial and Agricultural Exhibition now being held at Altona, in Sleswig-Holstein.

Intending visitors to Chiswick will be glad to learn that the LARGE VINERY is now in fine condition. The Vines are in excellent health, and have produced this season about 4000 bunches, of a good average description. We understand that a photograph of the interior has recently been taken.

Our funny friend, that is to say "FUN," has been perpetrating a piece of mischief at our expense. He has administered a playful whack with his staff and bladder on our shoulders—all for fun of course, and so we will not be such ill-conditioned curmudgeons as to grumble at him, particularly as his assertions, like idle dreams, should be taken *contrarywise*; and we are far too fond of fun to grumble at it, even when it is Puckish. Here is what "FUN" says:—

"The 'Gardeners Magazine' holds too high a position to be suspected of ulterior motives, when it condones the Horticultural Society for making the *Gardeners' Chronicle* its exclusive and favoured organ. If the Society possessed a Journal of its own no one would complain, but that it should thus favour—if [oh! the power of 'if'] such questionable practice does favour—the *Chronicle* is disgraceful to the Society and the periodical alike. It is as if the Agricultural Society, for instance, compelled its members to take in the *Daily Telegraph* by giving its reports to that journal. The Horticultural Society ought to be re-named. It is a *club* for the management. It is a *Dike* and *Sea* tural Society, and solely intended to promote the interests of agriculture, and periodically of members of the *hip*, on 'er another somebody to relieve the other poor of London—poor science, poor agriculture." If he would buy up 5000 Kensington, the garden, and the Museum, and convert them into a wilderness, he would not only avert disgrace from England, but give some chance of a regeneration in horticulture, science, and art."

Well, certainly this is about as funny a tissue of misunderstandings and misstatements as could well be woven, even by ATROLYCUS or MR. PARINGTON. We leave the Society, the *Telegraph*, the Museum to take care of themselves, but as to our not over courteous garden contemporary, we are not disposed, at his bidding, to take part in the revival of the Pickwickian farce of the "rival editors;" we would simply, in all good fellowship, ask him to make sure of his facts

* We suppose that our correspondent in stating the butt was 14 feet in diameter, included the soil which was torn up with it. We conclude that this must have been the case, as the tree is described as 11 feet in girth.

before he launches a diatribe against us. As it entirely deny his allegation, and we do him a hourly turn—at least, we hope so—by telling him that the same sources of information are open him as to us, that is, provided he be a Fellow of Society, and avail himself of the privileges of Fellowship by obtaining as we did, the sheets of supposed defunct Journal in the manner provided the regulations of the Society for that purpose enact. For the sake of "Fun," who does not appear to over well posted in matters horticultural, we append the following:—

Three journals, in three different ages born,
The spacious world of gardening to adorn.
Its even way the *Chronicle* pursues,
Promptly the "Journal" doth record the news;
The "Magazine"—the others doth abuse.
Add Ireland's "Gardeners' Record" for a fourth;
A "Farmer" and a "Gardener" in the north
And in the south, besides the "Florist,"
The "Field" for garden, farm, or forest.
Good luck to all the eight! Should there be more,
Here's to them all! an' a "Gard'ning to the fore!"

New Plants.

MORMODES VARIABILIS, sp. n.

Sepals late ligulatis acutis, petalis striatis, albis; lobis brevi unguiculato hastato triangulo apiculato revolutis, ciliolato velde piloso; flore aurantiaco (= aurantiacum) atropurpureo (= atropurpureum).

A many-flowered species, like *Mormodes Carlina* introduced first by Messrs. Backhouse, no doubt from Western South America, and afterwards by W. Saunders, Esq. (= atropurpureum), and Director (= aurantiacum). The purplish variety is nicely spotted with darker spots on the lip.

CYPRIPEDIUM NIVEUM, sp. n.

Aff. *Cypripedium concolor*: sepalis dorsali transverso ovato apiculato, sepalis inferiori ovato triangulo orbello bene breviter petalis ovatis apice lobis emarginatis; labello orbato saccato lobis imbricatis obtusangulis, staminibus oblongis basi breviter articulis trilobis, foliis obscure viridibus, albis striatulis.—*Cypripedium* (L.) Sw., var. *noveboracense*, Hook. & Arn. in litt.

This is quite a little gem, having flowers like those of *Scelopodium Schlimii*, white, with delicate violet spots and a deep yellow blotch on the staminal. The question, whether it is a variety of *Cypripedium concolor* cannot now well be decided. The leaves are mottled in a very different way, there being distant white stripes, on the dark green surface. The shape of the sepals is very different—and I remember how constant it is in *Cypripedium purpuratum*. The petals are much broader, shorter, and emarginate; the lip is rounder and shorter. We believe that ochre-coloured Orchids have little tendency to be white flowers. Whatever may be the final decision to the position of the plant, it is no doubt total distinct for amateurs, who will certainly like it. It comes from India, having been the last Orchid to puzzle our much-lamented correspondent, Jam. Veitch.

POLYCYCNIS LEPIDA, Lindl. et Rehb. fl.

Racemis nutante pluribus; rachis velutina. Bracteis lanceolatis acuminatis, lobis scaberrimis, ovata velutina, non attingentibus; sepalis ligulatis acutis, lobis linearibus lanceolatis, lobis acutis in basi linearibus acutis callo interposito, lacinis posticis triangulis obtusis, acutis non angulatis, callo linearis acutis angulatis, acuminatis in disco, lacinis anterioribus obtusangulis delatatis triangulo extensa, apiculata puberula, coloris filiformis apice dilatato, in trochilo postico obtusangulo.

A very interesting addition to the genus *Polycynis*. For a long time we knew it only from the inspection of some shrivelled flowers, and we hesitated to judge it fully. Having, however, lately had the opportunity of seeing the plant at the Hamburg show, as having seen in an adjacent room the true *P. barbata* (all represented in Bot. Mag. as to the base of the lip from Frau Senatorin Jenisch's garden, where it was grown by M. Kramer, we were able to see the scientific distinction of what the amateur sees immediately is different, without understanding what peculiarities of the flower are to be looked at in order to get characters. The flowers are very much like those of *Polycynis muscifera* in colour and shape, but a little larger and nearly as numerous. The auricles at the base of the lip are far more developed than in *P. barbata*, but straight, not curved, as in *muscifera*. The lip itself, however, is more like that of *P. barbata*, since there are no anterior angles to the side lacinae. The sepals of the old *barbata* are hairy outside, here they are glabrous. One might say it is *Polycynis* with the nodding raceme of *barbata*, but with the flowers of *muscifera*. Yet it should be added that if much like these in the less elegant colours, they are a little larger, and have the side lacinae of the lip as in *P. barbata*. It is one of the interesting of the Granadan discoveries, for which M. Linden has to thank M. Gustav Wallis. H. G. R.

HYPOCAUST HEATING.

SOME years ago an article appeared in the *Gardeners' Chronicle*, describing at some length a new mode of applying heat to glass structures, as well as to open spaces not always covered with glass. The plan in question is the invention of Mr. C. W. MARTIN, M.P., of Leeds Castle, Kent, and has been by him applied to the heating a range of houses in the gardens there, as well as to give warmth to a large piece of ground devoted to the growth of early vegetables, and such other things as will bear exposure to the open air, when the coldness of mid-winter is past. Mr. Martin, who is an ardent antiquarian, acknowledges taking the hint he has so successfully carried out from works of a

* We must apologise if, from the exigencies of our meter, we have omitted to specify any other of our friends. Perhaps "Fun" will oblige us with the loan of a poet.

somewhat similar kind which the Romans adopted in domestic matters; in other words, from researches he has made, he has discovered that the mode the Romans adopted in warming their dwellings in winter, was by so constructing the lower floor as to have a fire underneath it, warming it and the enclosed space above. The ascent of heated air was thus known to that enterprising people, who availed themselves of this property in their "hypocausts," a term by which Mr. Martin also designates the mode he has adopted of heating horticultural buildings. The simplicity and non-liability to get out of order of such an arrangement would seem to recommend it for more extensive use than it has yet been put to.

The glasshouses so heated were ordinary lean-to's, resting against a brick wall, as is usually the case, but instead of the floor being of earth, it has the appearance of being covered with York pavings, which, however, are not of stone; in fact the whole floor of one of the houses was composed in the same way that, I believe, large breadths of the floors of London houses are made—that is to say, by three or more flat tiles being cemented together to form a sort of slab about 3 inches thick, 9 inches wide; piers a yard apart support this floor; the chamber below might be about 2 feet high, and it is simply in this that a fire is kept, with whatever rubbish comes to hand. A proper fireplace is formed, large enough to receive anything that one or two men can lift, and an outer door encloses the whole, while a chimney at one corner allows of the escape of smoke; but this is checked by a damper, so as not to allow the escape of heat in any way if possible; by attention to this, combustion is retarded, and nothing is lost—and as the whole of the floor of each house is so acted upon, the area of heated space exceeds that of any other known mode of heating. In one of the houses even more than this was accomplished, for the front wall was on pillars, or arches, and the border in front, to the width of 6 feet or more, was also heated in a similar way; and early vegetables, and such-like things, seemed to succeed admirably. The heat imparted to the houses and their contents being akin to that furnished by the flues of old, the plants were healthy and in good condition, and as a proof that sufficient heat was at command for most ordinary purposes, I may mention that on the floor of one of the houses, a bed of soil was formed by an artificial stone kerbing, upwards of a foot high. Pines were planted out in this, and had made stout, stubby, healthy growth, which indicated that they relished their quarters, although they would not have objected to some additional heat, as the cubic area to be heated occasioned great waste of heating power, but they were then furnishing suckers in abundance, and very fair fruit had been cut at times. In the other houses, where Grapes and plants were grown, the heat at command seemed ample.

The success attending the heating of the houses above described induced Mr. Martin, a few years ago, to try its effects in another place and on a piece of ground adjoining the kitchen garden a slight excavation was made, and a series of brick piers, 9 inches square, and about 2 feet high, were made, enclosed by a 9-inch brick wall. A flooring of the same description as that of the house above alluded to was made, resting on those brick piers, which were about a yard apart, and the side walls were carried up about a foot higher all round, forming a sort of edging to keep in the soil by which the whole was covered after the flooring became sufficiently dry and hard to bear it, which was not long, as it was made of Portland cement between three layers of flat tiles, scarcely 3 inches in all. At one corner, where the fire was, the excavation was a trifle deeper, to allow head room, and a capacious fireplace, large enough to receive the stump of a tolerably sized tree, was formed; the whole was closed in by an outer door, shutting in the whole of the heat created by the combustion. A chimney at one corner formed an exit for what little smoke was allowed to escape, but the interposition of a damper reduced this to the smallest possible quantity, Mr. Martin's intention being as far as possible to economise all the heat he could command. The flooring above the fireplace was, I believe, somewhat thicker than the remaining portion, but in other respects it was all alike, and the heat had the means of playing through the whole chamber. A trap-door or two around the sides, more for the purpose of showing its action than for any other purpose, proved how well it worked. The space so heated was a square of some 50 feet or thereabouts, and I am told early vegetables of sundry kinds have been raised every year, and a cheap description of protection afforded them, by wooden shutters resting on a sort of framework of simple construction, but the heating had been so satisfactory that Mr. Martin had built an ordinary lean-to pit, covered with glass lights. Upon one side of this heated bed, at the time of my visit, Pines were planted out in one of the compartments, and appeared to be doing well, a portion of the flooring in the front of this pit not being covered, so as to command top-heat. I forget what the other compartments contained, but the main bed was thickly cropped with French Beans, Salads, young Onions, and other things useful for late autumn supplies, the whole being in a healthy and promising condition. I was told that a succession of useful crops had preceded the one I then saw. Its uses being most important in late autumn and early spring, in summer the fires are not kept on, and I believe in future some means will be taken to confine the heat in a great measure to heating the pits the Pines are growing in, excepting when the state of the weather or other circumstances renders it advisable to heat the other also, but at all times the waste heat will pass under it, after having expended much of its warmth in supporting the more tropical vegetation it is called on to assist; but early Potatoes, Radishes, and the like will not be forgotten, and they

will receive the advantage of this new mode of applying bottom-heat at the time it is most wanted.

Leeds Castle is one of the few feudal residences that have passed down to the present day in a habitable condition, without having been spoiled by the ravages of turbulent times or the equally mischievous effects of architectural alterations, which during the last century destroyed so many other places of interest. A bold Norman tower, surrounded by water many feet deep, and to which there is access only by one bridge, formerly a drawbridge, it must have presented an impregnable appearance during the middle ages, when the modes of attack were less formidable than now. To make its defence more sure, a series of outworks seem to have flanked the gateway, while the inner citadel was divided into two parts, which would have to be won, one after the other,—a narrow passage now uniting the two where a second drawbridge once existed, while the stern solidity of the whole gives it a charm which the most careless observer cannot but admire. J. R. [The hypocaust system of heating, as carried out by Mr. Martin, has been frequently alluded to in our columns and elsewhere. It is very satisfactory to find its success so well assured. Eds.]

INDIAN FORESTS.

(Concluded from p. 1015.)

It is thought by some—and they seem to have at least plausible reasons for so thinking—that horticulture and arboriculture are not two different arts, but that the latter is merely a minor branch of the former, although not by any means an unimportant one. Still I think few will deny that it does not require the same lengthened experience, nice tact, and scientific knowledge to make an accomplished arboriculturist that it does to make an accomplished horticulturist; no principles are adopted by the former that are not greatly amplified and extended by the latter. Is British horticultural skill on the wane, or has that of Germany quite outstripped it? Men from Germany come over here to study the higher branches of an art, and, by way of mutual compliment, I suppose, others from this country must go there to study the minor. "Oh! but in Germany they learn organization, which they have not the means of doing in Britain." To finally dispose of that objection, those who in the Indian Forest Department must organise a working system for themselves, as the climate they have got to work in, and the men—shall I call them?—they have got to work with, will make that a necessity. "Oh! but why is it, if there be so much rare talent in this country, that it is not forthcoming at the India House?" or how is it that much of what does come is rejected, simply because it does not come up to our standard of ability? The tests are simply no tests whatever of a man's ability as a forester, although they may be of his ability as a surveyor and a chemist, or a mathematician, and a great many other things besides these. Those who could overstep the barrier that this standard has created across the entrance into the Indian Forest Department will hardly try it, as the prospects held out on the other side are not sufficient to induce them to make the attempt, while some of those who do try it fail—not in forestry, but in other subjects that have nothing whatever to do with it. By that standard they no doubt get men, whom if tried by another, a little more utilitarian, might be found wanting. As the term educated may have more than one meaning, to prevent misconception I shall give the sense in which I use it. The training, whether limited or extended, that best qualifies a man for the performance of the duties and responsibilities of that particular station that he may be called on to fill, is certainly superior to that which, so far as regards the proper performance of a certain class of duties, if a novice before, leaves him not less one still. The education that best fits a man for the profession of a gentleman, and that which would best fit him for the profession of a forester, are widely different in character; of necessity, they must be, as the ends to be attained are in themselves widely different. This leads one to ask the question, is there not a little too much of the genteel and pseudo-scientific, and a very great deal too little of the practical and thoroughly scientific, in the training that the present class of forest officers have to undergo? It strikes me that it fits them equally as well for a dozen other professions, as it does for that of a forester. If I am not greatly mistaken, it seems well calculated to make a man a smatterer—teaches him a little about everything, and nothing particular about anything. Men are not all heaven-born geniuses, as those who had the fixing of that standard would seem to suppose; some men are, but a great many more are not, and unless they can thoroughly digest and assimilate that strong stimulating food that they are compelled to cram themselves with, they would certainly thrive better on something plainer. Indeed, unless they can do so, such a heterogeneous mass of things, all valuable in their way, leaves their intellects as disorderly as a broker's shop, the contents of which have no value to the owner whatever, beyond their money value to others. Neither was the great mass of what they are required to cram themselves with—to the individual—beyond its utility in procuring for him an appointment that brings him a definite sum monthly, or annually.

If they are still determined on keeping up this high educational standard, about which so much has been said, in addition to the subjects already included, I would suggest, in hopes of their being found useful, that astrology, mediæval theology, music and dancing, French, and particularly German waltzes, ought to be allowed a high number of marks. In including so many other studies highly valuable because of their greater utility to the drawing-room forester, such omissions as I have attempted to supply were most serious. If rumour is to be credited—which I leave an open question—some of these model foresters have already been weighed in the balance and found wanting in what, above all other accomplishments, was the most needful for them to have; that is, a thorough practical knowledge of the duties of a forest officer. Instead of cramming the men they now propose sending out with a variety of subjects that have no direct bearing whatever on the art of forestry—in addition to the education that a man intending to fill such a situation may be supposed to have had—they should insist upon his being well grounded in systematic botany, morphology, physiology, and something of terminology and geology, some thing more than a mere smattering would be extremely useful; and though last mentioned, not the least useful, would be a good knowledge of the theory and practice of horticulture. And if the examiners would be at some pains to ascertain that the candidates had in them as much of what vulgar folks call common sense as would enable them to apply the teachings of these subjects to the art of forestry—or, what would perhaps be a more correct way of putting it, out of the teachings of those construct a system suited to the surrounding circumstances, which, call it what you please, no matter whether British, Indian, or German, would be a successful one. It would also be needful, on the part of the examiners, to ascertain that the candidates knew something more about the uses of the implements employed in forestry than can be learned from any handbook of popular knowledge,

as they will be expected to teach the natives how to use them properly; if deficient in that themselves, then success in imparting to them instruction will not be so great as it otherwise would. To be able, not only to tell a Hindu how a piece of work ought to be done, but to be able to show him how to do it, is by far the best plan of instructing him that you are not to be done by any of his careless, lazy, roquish practices so easily as he may feel disposed to think, and that you know the difference between a piece of work that ought to occupy him a day, and that which might scarcely occupy him an hour.

The foregoing remarks apply only to the class of men which I suppose may occupy the lower ranks of the Indian forest ladder. Regarding the education of those that are to occupy the upper, I shall not presume to speak, farther than that it is not with minor details regarding seed-sowing, transplanting, or thinning, that they can be expected to occupy themselves, but with general questions of far greater importance; indeed, they who would venture to do so are unfit for such a position. Such trifling details may be safely left to subordinates to work out; if they fail in doing so to the satisfaction of their superior and to their own credit, the inevitable conclusion is that they are unfit for such a position, because of their ignorance, or else because they are not conscientious workmen.

An article in the *Pall Mall Gazette* of August 14 reminds me, that in speaking of the different causes that have wrought so energetically and steadily, hand in hand, in ruining the Indian forests, there are yet one or two others that I have omitted to mention. Some may, however, look upon those now to be alluded to as too insignificant and trivial for particular notice. But on that point, as well as on others connected with the same subject, opinions may differ. The subjects omitted are, 1st, wounding, as a means of making the trees produce gum (an article for which there is considerable demand all over India), next, destroying the bark for drugs, dyes, &c. I have also heard that decortication and charring the decorticated surface for the purpose of making it exude resin, is extensively practised in the hill districts.

The excessive exudation of gum from the stems and branches of some kinds of fruit trees is often spoken of as being the cause of bad health and untimely death, but perhaps oftener only an evidence of bad health rather than the cause. Any explanation that satisfactorily answers that question might, perhaps, do something towards clearing up some others that naturally arise out of the subjects above introduced. These are, will systematic wounding—hacking and hacking—with the view to induce gumming (with the practice undoubtedly does), ultimately lead to bad health and unsoundness in the timber? or will decortication lead to the same result, viz., bad health and unsoundness? That decortication and charring certainly will, there cannot be a doubt. Whether these practices be mere, or less, injurious to the forests than others that have been spoken about, is nothing to the purpose. Are such practices beneficial, or are they injurious to the production of clean grown sound timber? No doubt, enormous numbers of those gnarled stumps that rank as trees in some portions of the Indian forests are fit for little else, decortication, scoring, and notching the stems, to facilitate the ascent and descent of the gum ducts, when following their lawful calling, can scarcely make them more worthless than they are. Still, it might be highly interesting on the part of those who give their sanction to these practices to ascertain whether their further extension or restriction would, in the end, prove the most profitable. Resin-collecting evidently has not improved the condition of some of the French forests, neither has it improved the condition of some of the hill ones in India, if report speaks the truth. Yet resin-collecting, and the mode of producing it, will, I have no doubt, be one of the arts taught the British ignoramus in the schools of France and Germany. Scots Bengalee

Home Correspondence.

Grafted Potatoes.—The experiments on Potato grafting, so ably advocated by your correspondent, Mr. Fenn, I fear will hardly be worth the trouble and time he has bestowed upon this valuable root. My experience with regard to procuring new varieties is decidedly against the practice. It is true my experiments have been very limited, for want of faith in the method. I have been a very successful exhibitor and grower of the Potato for several years, and during the time I lived with the late Sir Osley Wakeman, Bart., Pridiswell Hall, Worcester, I grew a great many varieties—indeed, all I could meet with, as the back volumes of the *Gardeners' Chronicle* testify. Indeed, I was at one time quite as enthusiastic in the culture of the Potato and its different varieties as your correspondent, Mr. Fenn. During the time I grew so many varieties, I had many curious sports or freaks; such as round Potatoes turning to kidneys, and *vice versa*, red Potatoes turning to white, and so forth; the same thing occurred in the gardens of Mr. Berkeley, Cotheridge, near Worcester, where Mr. Marshall, gr., planted a row of Potatoes that entirely changed colour (see also p. 602 of the *Gardeners' Chronicle*, 1857). Now, had these been grafted sets, I should have concluded I had worked a wonderful change, and that it was the result of grafting; but at that time I believe that method was not in practice; but if grafting the Potato should change its shape, size, and colour, why should not the colour change in other root-grafted plants, and other things. We all know that a white Grape grafted on a black stock will not alter in colour from white to black, but such things have been known as for a black variety occasionally to produce a white bunch. The same with other fruits and flowers, and it is frequently the case with the Potato. This, it may be said, has nothing to do with Potato grafting. True; but I will come nearer to the point, and unfold a little secret that perhaps was only known to the late eminent florist, Mr. Gaines, and myself. Many of your readers will no doubt remember a Dahlia, named Princess Radziwill, raised in 1844 by me, at the time I had charge of the florists' department under Mr. Gaines. It being one of the very best light Dahlias of that time, it will no doubt easily be called to mind. The seedling plant, when taken up, was put in a pot to be kept during the winter. When starting time came, the root was turned out of the pot, and examined by myself and my employer, and we discovered that it fortunately had a double crown. My employer at once spoke of dividing it, but I objected for fear of losing it. But he said a "faint heart never won a fair lady;" and accordingly divided the root into two parts before it was set to work. It so happened that in dividing the root two pieces were cut off with eyes attached to

them; and as I had orders to make all the stock I could, I grafted them, in order to keep them plump, into another root, without the least idea of their uniting, but singular to say they both grew. All the eyes of the other variety, Burnham Hero, were carefully rubbed off, and finally the root was divided. I need hardly state that this, being a novel experiment, was watched with much eagerness, but not one bit of difference was visible, either in colour or shape. The varieties were very different in shape and in colour, Princess Radziwill being a light flower with a reflexed petal, the other a large dark maroon with cupped petals. Surely if Potatoes change colour and shape in grafting, we might reasonably expect the same change in the Dahlia. That Potatoes grow from grafted sets I fully acknowledge, but the change from rounds to kidneys, and *vice versa*, and from red to white, I am at present not able to comprehend. I can quite understand that a red Potato grafted into a white one will produce red Potatoes, and a white grafted into a red will produce white Potatoes; that is, if all the other eyes are destroyed (not otherwise), or that there will be a mixture of colours. It may not be generally known that Potatoes will even grow without eyes. One square inch of the substance of the inside of a tuber will grow—this becomes the difficulty of experimental grafting—and further, the young tubers will vary in shape. *Edward Bennett, Gr. to G. S. Foljambe, Esq., Osberton Hall, Worksop.*

Special Pelargonium Show.—It has this season been very generally remarked by lovers of the flower-garden, that their Pelargoniums have flowered particularly well; indeed, I never remember to have seen them look better. The only drawback has been the frequent slight frosts which have from time to time caused the flowers to appear variegated by turning the petals whitish. The Pelargonium is doubtless the most effective and important plant that we possess for the flower-garden, taking all its various classes into consideration. I think therefore that too much encouragement can hardly be given to it by the Royal Horticultural Society, the more particularly as regards the introduction of new and improved varieties. I have heard of a double white one; I have also seen a nice striped flower, others nearly purple, some approaching to yellow. When we look back at the extraordinary changes that have been wrought in this family during the last few years, one cannot help thinking that the popularity of the plant must be very great; and I think I may venture to say with safety that quite 75 per cent. of gardeners and amateurs have a batch of seedlings, many of them, I know, feeling convinced that if they only had the opportunity to compete with their neighbours, they could achieve an easy victory. Again, as to the double varieties—many of our best florists declared only two or three years ago, that they would neither take the florists' taste nor the public fancy, but even the staunch and veteran florist, Mr. Banks, of Deal, on seeing a fine plant of Marie Lemoine the other day, exclaimed "This is a grand object! I have been well satisfied with Madame Lemoine this season, and I intend going extensively into this class." I think all who have seen a good and well-grown collection of the doubles, will admit that a wonderful improvement has been made in a very short time. In fact, in every class a rapid progress is being made, and I much question if ever there was a more bountiful season than the present for really good varieties, whether tri-colors or bicolors. Therefore the importance of holding a special Pelargonium show every season can scarcely be over-estimated either by societies or the public. I, for one, should be glad to continue my subscription towards such a show, and to learn the views of others on this subject. If the show is to be continued, the time should be announced, and the schedule prepared speedily. Every class of Pelargonium should be encouraged, and, moreover, the voice of the smaller growers should be allowed to be heard, so that all may have an equal chance of success, for nothing can be more glaringly wrong than to see the first prize in almost every class carried off by large plants of new varieties, some of which have only a few days before been distributed to the public at a high price. I am also disposed, from the knowledge I gained from the last essays, to continue my subscription towards a prize for another next season, on the condition that the same person is not allowed to win twice. *H. Cannell, Woolwich.* [The above suggestion, which has emanated from a grower, is one which the growers must decide on for themselves. If the general feeling should be to repeat the exhibition, our services may be commanded, as on previous occasions. But the expression of opinion should be prompt. Eds.]

Iris (Vioussenzia) Pavonia.—Your correspondent "A. W." complains in last week's number of your *Journal* (p. 1016), of his want of success in the cultivation of this very pretty bulbous-rooted plant. Mons. Van Houtte was so charmed with it, that he described it, by saying "s'il y a une plante celeste, c'est elle;" and I quite concur with the opinion so well expressed. It is most easy of culture, either in pots or the open air, when protection can be afforded it from severe frost during the period of growth. Perhaps pot culture would suit "A. W." best, and I will describe it for his benefit and that of your readers generally. Select good sound roots, plant six in a 18-size pot, one-fourth filled with potsherds, over which place a little moss or similar material to perfect the drainage; fill the pots with well prepared loam, i.e., loam which has been turned over two or three times and well aired previous to using. Press the roots in the mould half an inch deep, and smooth over the surface. Plunge these pots in coal ashes, in a cold pit or frame; water very sparingly until the growth is an inch or two high, and carefully afterwards. Give abundance of air in fine weather, by drawing the lights off; the more air in light the better. The bulbs will fill the pots with roots, and a second potting in March will cause them

to throw up their pretty spathes of bloom freely. I generally use a little decomposed manure over the potsherds at this potting, and 32-sized pots, replunging them. Should it be desirable to have the flowering out-of-doors, the pots may be plunged in the open borders as soon as the spathes are 6 or 8 inches high. I am confident success will attend "A. W.'s" operations if he follows these instructions. Leaves only are produced, when the roots are weak or the planting is neglected until spring. *Charles B. Saunders, Cesarean Nurseries, St. Saviour's, Jersey.*

Packing Fruit for Transmission Abroad.—I am about to send to Jamaica a quantity of Pears and Apples, in an unripe state of course, and they will be about 22 days on the way. The time is not long, but the heat will be great, and the knocking about greater still, in fact, this is the principal danger. Damp, though, may perhaps be also a danger to be guarded against. It has been suggested that chopped straw would be a good thing, or perhaps bran, as neither of these would impart a taste to the fruit. I should like to elicit the opinions of some of your readers, as there may be some who have had experience in this matter, and by publishing their experience they will be doing others a service as well as myself. *John Kirby* [Cork dust, Cocoa-nut fibre, or charcoal, have been recommended. Eds.]

Hothouse Boilers.—Much has been written and said about the various boilers now before the public. Can anything be done to have a just trial of their powers in a fair field, and no favour? Suppose, for instance, that, say 2000 feet of piping be put together, and a fire-hole got ready, say 7 feet deep, in a field near to some central railway station, some time next summer; then let there be an opportunity given for any one who chooses to try a boiler of a fixed price, and with a certain weight of fuel. Let the test be—which boiler heats the whole of the piping soonest to the highest degree of heat, and retains the heat the longest with the allowed fuel. This trial might continue as long as comers brought their boilers, and a fee of 10s. might be paid to cover the expenses of fixing, piping, &c.; each competitor to fix his own boiler, at his own expense, and remove it the day after his trial. Three days—one for setting, one for trial, and one for removal—will be quite enough for each competition. I think we shall find, if such a trial takes place, it will bring out a boiler better than any at present in use, and I, for one, shall try one of my own invention, or, rather, an improvement on one already in use, which, set on my principle, will take a deal of beating. *A Nurseryman.*

The Lady-bird.—I was somewhat surprised to observe, in last week's *Gardeners' Chronicle*, that such an acute observer as our worthy friend, Mr. James Barnes, expressed a doubt about the fruit-consuming propensities of the Lady-bird. There is no doubt that they not only hide in, but rapidly devour fruit. They likewise go to it for the express purpose of eating it. There is but little hiding place in a Peach or Apricot, an Apple, or Pear, or a Plum half eaten by birds; and I have seen such raw, tender, and fully exposed surfaces again and again covered with nibbling Lady-birds hard at work, making a hearty meal of such matters. This very day I observed a Bergamot Pear with half of it picked off by birds; what was somewhat unusual, the birds had carried off the peel somewhat beyond the level of the mellow pulp, and on this projecting mass of sweetness, fully exposed, without a cavity that would have hidden a midge, I counted 12 Lady-birds hard at work, filling themselves. I moved them several times, but they were most tenacious over their dinner. They shifted unwillingly, as a dog does from a bone, and seized the fruit with greater intensity from being moved. They seemed even to look up angrily at being disturbed, and could one have heard it, doubtless they either buzzed defiance at or expressed hatred of the intruder upon their feast. On another Pear a score of ants were feeding quietly beside and among eight Lady-birds. On another six Lady-birds were employed in enlarging a cavity which looked as if it had been entirely made by themselves. I saw some of them bite off bits of the rind, while those who were in took good care to keep the others out. The law seemed to be that each must dig through its own crust before being permitted to luxuriate on the soft crumb. The quarrying in through the rind seemed a slow process, but when it was accomplished, how their mandibles did flutter, and their greedy delight seemed unbounded. Doubtless, like woodlice and earwigs, the Lady-birds do creep into holes in fruit for shelter; but, like them also, the more they like the sheltering material the shorter is its duration. Their house of to-day fills their stomach to-morrow; and though they are unable, like some other insects, to carry their houses on their backs, they have a more convenient mode of imparting to it rapid locomotion, by giving to it wings, and flying away with it. I have at times suffered so much from the ravages of Lady-birds among Apricots, that their golden coat of mail has often reminded me of my lost fruit, and though I have never mustered courage enough to kill them in any quantity, I cannot pretend to any compunction when I see them drowned in wasps' bottles, or hear that ants can tickle them to death. *D. T. Fish.*

A Monster Melon.—Mr. Paterson, head gardener at Pontypool Park, Monmouthshire, has succeeded in producing a monster Melon, of the superb Rock variety. Its weight was 21 lb., and it measured 12 inches in circumference by 8 inches deep. A photograph of it has been taken. *Reporter.*

The Royal Vineyard Grape.—Will any of your readers, who have grown or are growing this Grape, say how it does with them? I have had one for several years, but the bunches have only produced a few large berries with a great many little ones about the size of Peas. Is it considered a good variety? *M. Greenock.* [The Royal Vineyard Grape is not a first-

class sort as regards flavour. Its remarkably keeping properties render it valuable, however. I have never experienced any difficulty in its cultivation. Mr. Stevens, of Trentham, grows it remarkably well along with Black Hamburgs, and recommends it highly as one of the best late white Grapes in cultivation. It looks well. *B.*]

Orchid Culture.—The two following anhorisms, favourite stock phrases—"In the multitude of counsellors there is wisdom," and "Too many cooks spoil the broth." Every partisan holding a brief on either, and use it as an axiom against the opposite party. As it is with some things bearing more weight upon the comforts and well-being of mankind, so it has always been with the treatment of the poor Orchid that has been forced from its proper home, and compelled to live under a variety of cultural treatments. It is pronounced either to be too hot or too cold, too dry or too wet, too far from or too near to the sun, its artificial home, too copiously or too sparingly supplied with root *pabulum*, placed under the influence of too much light or too much darkness. The more discussion we have the more puzzling and perplexing must it be for all who read with the view of profiting, and little is it to be wondered at that not a few, from an attempt to digest the pith of opposing opinions, with disgust if not contempt. I have been led to this sort of reverie by the utterances of Mr. G. (see p. 991) concerning the amount of light Himalayan Orchids should be exposed to. The growers are at all times exceedingly indebted to gentlemen who give information concerning their habits. As affording data for founding a list of cultural treatment upon, such information is of the highest consequence, but to imitate these conditions would be attendant with the worst possible effects. Gamble in substance says now what has been said before by "R. H." at p. 1061, 1864, and by Mr. G. both very careful observers of the native habits of Orchids—the latter gentleman in a valuable issue (see p. 1109, 1864). Speaking of *Dendrobium* generally, and of Falconeri in particular, after detailing the proper season of rest, Mr. Gamble says "shading should be entirely dispensed with, and that the plants should be as freely exposed to the sun as possible." Inconsiderate advice, indeed, if compared with that gentleman's recommendation of a growing temperature, sufficient to maintain, if not to heat all the tender *Dendrobiums* ever imported and grown under the best sheet-glass that was ever made. But the partial shade of the trees on the wrong side of the sun has its influence in mitigating the severity of its burning rays, and then the dispersion of the rays and the moisture with which air, earth, and trees are loaded, give of their abundance to keep these epiphytes in a state of life and health. I say, with the exception of trials in a variety of ways with most of the *Orchidaceae* that have been imported from all countries, beware of imitating to a nicety all natural conditions in an artificial home. I endeavoured to reply at the time to the observations of both your able correspondents "R. H." and Mr. Gosse; and as since then my opinions in that particular remain unchanged, I reproduce a portion of the remarks bearing most directly upon the points at issue. Readers will find them in *extenso* at p. 76, 1865:—"All exotic *Orchids*, whether epiphytal or terrestrial, when caged up in an artificial structure, and subject to an atmosphere somewhat foreign to their nature, even when best imitated, require more or less shade from a scorching sun. The very plants that will thrive under a variety of circumstances in the countries where they are indigenous, might succumb to similar treatment here. It is well enough to know—indeed, such information is most valuable—the range of temperature, the degree of moisture, the exposure, whether shady or open, of the plants under cultivation, but it is not so desirable to have growers to imitate to the very letter the peculiar habitat. . . . There are some epiphytes which, doubtless, are growing in their native country pretty much exposed to sun-heat, as witness, for example, 'R. H.'s allusion (1864, p. 1061) to *Broussonetia sanguinea*, and some other species not named, which grow in 'Jamaica, exposed to the light and heat of the sun.' Bring these home, however, tie them upon blocks, get them as well established as possible, before you suspend them close to the glass in the face of a full meridian sun in the months of June, July, and August, and what is the consequence? Evaporation goes on so rapidly from the leaves and pseudobulbs that your artificial climate fails to provide the necessary food for assimilation, the leaves get scorched, and if not the chlorophyll is all but burned out of them, the plant sickens, and, unless remedial measures be resorted to, may die. Most epiphytal *Orchids* do require light, and light in abundance; but some slight shade must intervene between the sun and the plants that are grown under a glass covering; the reason for which must be obvious to the merest tyro in horticultural art." Just so; the intense light and heat of a meridian sun must be obviated in every glasshouse, but so soon as it begins to wane, and when a number of the species are ripening off their pseudobulbs, dispense with your canvas, and clear away all obstruction to the action of diminished light. I have said before, and now reiterate, that more *Orchids* are killed with burning summer treatment in a stifling atmosphere, accompanied with painful aridity, than have ever been killed by any stupid winter treatment to which they may have been subjected. I have seen evidences of that times without number, and I am exceedingly unwilling that the error should be aggravated by the *Orchid grower* dispensing with his blinds. *James Anderson.*

Cedar of Lebanon.—In the letter I sent respecting the specimen of this tree in the grounds of F. B. Johns, Esq., at Bishop Stortford (p. 991), the age of the tree is omitted. It was planted in 1821.

being then about 2 feet in height, and having been grown in a small pot. *J. Nicholls, Windhill, Bishop Stortford.*

Tenure of Nursery Grounds.—I have had a nursery for 22 years, and have paid my rent quarterly. Now, my landlord has given me notice to quit next March, or else to pay double rent. I am told he cannot get me out under three years except by paying me for stock, will you please inform me if this is so. *Constant Reader.* We think it clear that the tenancy referred to in the above letter is a yearly tenancy, and, in the absence of any special agreement (which, so far as the letter shows, does not exist in the present case), we believe the law in such cases is that the tenancy is determinable by six months' notice, expiring at the expiration of any current year of the tenancy. If, therefore, the tenant in the present case commenced holding at Lady-day, the notice given is good, but if he commenced holding (say) at Christmas, the notice would not be good, and he could not in that case be removed until Christmas, 1870, it being too late now to give notice for Christmas next. We think it clear that he cannot claim to be paid for his stock. There are sometimes local customs which have the effect of laws, and which would be known to local land-agents; but there cannot, we think, be any local custom such as he mentions. Our correspondent should consult his solicitor in the matter. *Ebs.*

Picea cephalonica.—I see the Rev M. J. Berkeley observes that the cones of *Picea cephalonica* are very rarely to be seen (see p. 1018). The tree here has produced cones for several years in succession, and I have raised plants from them, this year there are a great quantity. *Picea Pinsapo* has produced a cone this season for the first time; it is quite distinct from *cephalonica*, as the scales are smooth, like the Norway Spruce, but the cones of *cephalonica*, from the base to the apex, have loose ovate acuminate scales, and which spread nearly horizontally, very differently from any cones I have seen. *Abies Smithiana* and *Picea Nordmanniana* have many cones this year, and, if desirable, I will take some specimens to the meeting at South Kensington ere long. *Philip Frost, Dropmore, Pray do Ebs.*

The Royal Horticultural Society's Floral Committee.—From the remarks of your correspondent "R. D." I learn that it is a matter of surprise that I have not exhibited seedlings at the Horticultural Society this year. It is not because I could not have done so. The fact is I do not approve of the way in which the Horticultural Society dismisses members of the committee. For more than 30 years I have never, until this season, ceased to be a member of the Floral Committee in London. My dismissal was very trite, merely stating that my name had been erased from the list, and thanking me for my services. I have since found that the reason assigned is that I had not attended a sufficient number of times to admit my retention on the list. Had I been aware that it required any given number of attendances to continue a member, I should not have transgressed now. I do not write this so much in regard to myself as others. I live about 100 miles from London, and many others, who live a long distance off, are first-rate judges in the department they are constituted to judge, and generally attend when the flowers or plants they cultivate are before the committee; but if this rule is to be carried out, all the judges will soon come from the vicinity of London alone. Now this should not be, and I feel persuaded that the efficiency of the Horticultural Society will be best secured by selecting the best men from any distance that will attend, and that will allow no influence to interfere with their judgment. I write this without prejudice. I shall never again sit on this committee, but I should not like to see other old friends dismissed, like myself, without warning. *John Keynes, Salisbury.* There is much force in what Mr. Keynes urges, and it is well worth consideration, whether the rule adopted should not be relaxed in certain cases. As an old member of the committee, however, Mr. Keynes must surely know that it has been customary—and we think it is a proper custom—to make a slight change annually, and so as to admit some three or four new members, and in order that this may be done without injustice or invidiousness, we believe the plan of selection has been adopted to strike off those whose attendances have been fewest during the year. We suppose that at the last revision Mr. Keynes came under the operation of this law. Next year some one else will doubtless have to be made way for Mr. Keynes. *Ebs.*

Foreign Correspondence.

TIFLIS, PERSIA.—Whilst the north and south of Europe as well as the empire of Russia have suffered from an unexampled hot and dry summer, the south, and particularly the trans-Caucasian provinces, have, contrary to the usual course of Nature, enjoyed such an uninterrupted temperate heat and such a degree of moisture, as may be reckoned amongst the things of extraordinary occurrence.

This year might do much for the enrichment of meteorological science, were it possible to determine the boundary line through Europe at which this strikingly remarkable depression of atmosphere ceased, and by a comparison of the prevalent winds to find a means of explaining this remarkable phenomenon. It is perfectly clear that the abnormal weather would also occasion irregular appearances in the vegetable kingdom. Before proceeding to an enumeration of them, a *resumé* of the state of the weather of winter and spring may not be out of place, especially as many appearances in the growth of plants in summer will be the easier of explanation. The dry autumn of the previous year was succeeded by a very dry winter, which awakened the most lively fears for the condition of the corn crops. It was only at the end of the winter,

in February, when usually the first buds of spring appear, that rain and snow fell in the mountains, and still more at Tiflis. It is worthy of remark that the high mountains, the principal chain of the Caucasus, as well as the higher of the less important ones, and the mountains on the Turkish boundaries were covered with unusual, and towards spring time with extraordinarily heaped, masses of snow, so that postal traffic met with constant interruptions, and had to contend with the greatest difficulties. Whilst, then, in the mountains almost uninterrupted evaporation threw itself off in fabulous masses of snow, the flat country was almost dried up. March and part of April again were dry, though not so warm as usual. In April followed a kind of rupture of the clouds—the first continuous refreshing of the earth in this year, to which a few heavy showers in May and June, though weaker, bore most resemblance. Between times, however, it was again hot, and during the whole year prevailing weak east winds only increased the effect of the sun. In the low country, as well as upon the slopes of the mountains, both the hay and corn harvests were under the average in quantity; and, as the farmer says, nothing will grow this year. In spite of the moderate heat, and the though rare yet plentiful rain, we scarcely remember to have seen such a miserable crop either of hay or corn. But as if to spite the rapidly passing season, which is here usually distinguished for its excessive droughts, the east and south winds continued, and brought such a thick mass of clouds, that from the middle of July until the end of August clear sunny days were rare, and frequent heavy showers of rain caused continuous moisture of the atmosphere, to which the neighbourhood of Tiflis is otherwise quite unaccustomed. From August 19 until about September 10 there was a pause in which the whole fierceness of the Asiatic sun again raised the temperature considerably; then it rained again almost every day, and after a few clear warm days, on the evening of September 21, a perfectly tropical thunderstorm broke forth, and for three hours one did not know which to admire most, the never-ceasing glitter of the lightning, or the unceasing roar of the thunder, or the rushing masses of water, which threatened to destroy everything. Since that day we have again the healthy refreshing north-west wind, which, like a true angel of heaven, purifies the stagnant oppressive atmosphere, the result of the damp east and south-east winds, and makes it enjoyable. The cool of the evening only made itself felt in contrast to the temperature during the day about September 10, on the 16th there was a slight hoar frost, but otherwise only a heavy fall of dew.

It has already been said that the cereals, as a rule, were not favoured by the weather, their harvest and the setting in of the rain coming in at the same, in consequence of which the harvest was not only hindered, but much grain was left growing in the fields, owing to the want of storage, and the threshed corn was kept in underground cellars, into which the floods of rain often forced their way, and the saved provision was lost. The Vine promised a harvest rich beyond all precedent; whole rows of Vines were to be seen in the vineyards, each bearing not under 10 bunches of Grapes, and many having above 20. During the blossom, however, rain fell, mildew followed irregularly, in the month of July, *Oidium* succeeded, and though arrested by violent rains, it afterwards spread in a way never before observed. Until then the Muscatelles, Isabellas, Labruscas, or some similar kinds had been quite, or at any rate in a great degree, free from the disease: now there is no difference to be seen, the most tender Grapes, whose place of origin is popularly believed to be the East Indies, as well as the strongest, are all and equally ill. Here, too, it is to be noticed that the stagnant, almost windless, atmosphere favoured the disease, particularly in those districts which were open to the south and south-east winds, whilst other places only 60 versts from Tiflis were spared, and without any artificial protection bore a good harvest. Only those who have regularly smoked their Grapes with brimstone can show good ones. It is asserted that in and near Erivan, &c, where, on account of the winter cold, the Vine is kept covered with earth, and where for want of wooden supports it is made to creep along the ground, the Vine disease is an unknown thing. I, myself, have tried this method in a garden where the Vine had suffered from the disease for six years, and, with the assistance of sulphur, have had a good result. An old white, small-berried Vine, called *Portala*, which had remained unclipped as an experiment, as well as a black one, which had trailed itself up a tree, and was also unclipped, were quite passed over by the disease. I emphasize these observations particularly, and add that another experiment of clipping a Vine short, after the French fashion, was quite a failure, in the same way that a French gardener in the neighbourhood has destroyed a Peach and Apricot plantation in two years, through the short French cut, as he himself confesses, and says that the trees have died from the loss of sap.

The abnormal activity of the atmosphere has shown itself not only in the cultivated plants, but also in the forest trees. I give a few proofs, which will speak for themselves. It has been much noticed that the second shoots, or so-called August shoots, were much stronger than the early shoots; for instance, in the Oak (*Quercus*) they were very remarkable. Others, like many *Robinia Pseud-Acacia*, *Tilia*, *Acer obtusatum*, *Rosa hybrida bifera* of various kinds, &c, lost their leaves in the beginning of August, suddenly threw out new leaves, and immediately after short, weak side shoots, others remained quite bare, and mostly the totally yellow foliage dried up on the tree. Most of the evergreens have an exuberant green, such as one very seldom sees in Tiflis, and more particularly all *Coniferæ* distinguish themselves by their enor-

mous growth; and I have never seen a single example out of many hundreds which in the least degree showed signs of disturbed growth. As far as I know, the following trees have blossomed twice—*Cereis Siliqua-trium* and *Syringa persiana* full foliage, *Corylus Avelana*, male and female catkins shortly before opening, this usually blossoms in January, *Glycine sinensis*, *Cytisus Laburnum*, *Spartothamnus junceus*. The sameness in number of these species is remarkable, as usually after a dry summer and moist autumn this appearance occurs much more frequently. Apparently, this year was missed the period of repose occasioned by the drought of the summer, so that the growth was not interrupted. As a sign that the moisture of the spring and even winter has more influence upon the flowering of the perennial plants, especially upon trees, the following observations may find a place. Such newly-bedded plants as were not well watered in the spring gave unsatisfactory results, and also in the well-watered plantings the growth of wood, &c, was very unequal, weak, and unfavourable. It was only in the second shoots in August that a stronger growth was noticeable. In most cases, too, the second hay harvest was better than the first. The green of the steppes has only given place to the withered yellow of winter towards the end of September, instead of, as usual, in May. The perennial Grasses have also bloomed in September, and the stalks of hay are very tall. An ornamental and ornamental plants in gardens have a striking richness in growth. Up to now, the end of October 1868, most frosts have not been noticed, and the garden flowers still in the full beauty of foliage and flowers. A few flowers have suffered through the depression of the atmosphere—*Balsams* and *Petunias* have decayed at once, *Verbenas* flowered late, *Heliotropes* turned yellow and died off, *Remontante* Roses have run extraordinarily to wood, without giving a single flower, *Fuchsias*, as usual in July, leafless. All so-called foreign plants—*Aroids*, *Musci*, *Draenas*, *Bezonias*, &c, have thriven excellently.

The quality of fruits, the Vine included, is under the average. The best winter fruit, carefully plucked, does not keep, but decays in masses in the store-rooms. Even the trees, particularly the Apples and Piums, are clothed in the same ugly grey garment, as the sick Vines, the fruits fall off before they are ripe, and are uneatable. The Peaches lost their foliage as early as August, and with it their fruits, which were excessively watery and tasteless. It might be worth while to find out whether these appearances were caused by a Fungus allied to the *Oidium*, as even forest trees suffered in numbers from Fungus-like formations, lost their leaves, and produced but stinky after-shoots.

In gardens in the town of Elisabethpol 200 versts distant the Vine disease made great ravages, but I noticed that, contrary to the state of things in Tiflis, the driest vineyards suffered most, whilst those in marshy ground were but slightly affected or, indeed, quite healthy. *M. Scharrer, in Bulletin of the Imperial Society of Naturalists of Moscow.*

Notices of Books.

The Malay Archipelago. By A. R. Wallace. 2 vols. 8vo, Cuts. London: Macmillan. 1869.

It is well known to the scientific world that Mr. Wallace, almost simultaneously with Mr. Darwin, arrived at similar conclusions respecting the origin of species, and that from the distant shores of the Malay Archipelago he communicated these conclusions to Mr. Darwin, at the very time when the latter was about to give to the world what is now known as the Darwinian theory.

Wandering amongst semi-civilised nations, closely noting their types, manners, and languages, making large collections of the hitherto almost unknown birds and insects of these regions, and recording their habits and geographical distribution, he accumulated during the space of eight years a vast number of observations bearing especially on the latter question, and, as such, of enormous value towards the elucidation of the difficult question of the former distribution of land and water over the surface of the globe. To obtain evidence bearing on this point, and on that of the origin of species, was Mr. Wallace's great aim, to which even the collecting of birds and insects was secondary: and while the "125,000 specimens of natural history," recorded in his preface, show his energy and industry in the latter department, the almost as numerous facts and observations gathered by him on physical subjects, and the correctness and accuracy with which he has arranged and named them, equally testify to a mind capable not only of seeing and accumulating the various points which bear upon his subject, but of so placing them before his readers as to bring irresistible conviction to their minds.

Knowing Mr. Wallace's high standing as a scientific collector and observer, and occasionally receiving instalments of his results in the shape of short papers in various periodicals, naturalists waited impatiently for a fuller account of his expedition; but unlike those travellers who rush into print immediately on their return home, simply publishing their journals as written, and consequently issuing bulky and but partially interesting volumes, Mr. Wallace waited six years before giving us, in two small volumes, the desired book of travels. The consequence is that he has digested and arranged his materials in such a way as to produce, not only a highly interesting, but a most valuable addition to our knowledge of that portion of the world in which he lived and worked so long.

He has followed a somewhat peculiar plan in his book; the best idea of which may perhaps be given by calling it a physico-geographical arrangement. Each group of islands, closely connected by its fauna and human inhabitants, is taken separately; his differ-

journeys and collections in each island are first described, and a chapter is then devoted to the natural history of the group in general. The book thus naturally divides itself into five portions. Of course Mr. Wallace's various expeditions did not correspond with this division; but he has wisely thought that it is less instructive to his readers to ascertain the precise order in which he visited the different islands, than to obtain a clear and connected idea of each.

The first chapter is devoted to the physical geography of the entire region, which Mr. Wallace divides into two portions, easily traceable on his physical map by the shallow sea which on the one hand connects Sumatra, Java, and Borneo with the Asiatic continent, and a similar shallow sea which connects New Guinea and some of the adjacent islands with Australia. "We have here a clue to the most radical contrast in the Archipelago, and by following it out in detail I have arrived at the conclusion that we can draw a line among the islands, which shall so divide them that one-half shall truly belong to Asia, while the other shall no less certainly be allied to Australia. I term these respectively the Indo-Malayan and the Austro-Malayan divisions of the Archipelago." (I, 13.)

This division is completely supported by an examination of the animal productions of the various islands (though not to the same extent by the plants), and

"The general result therefore at which we arrive is, that the great islands of Java, Sumatra, and Borneo resemble in their natural productions the adjacent parts of the continent, almost as much as such widely separated districts could be expected to do even if they still formed a part of Asia, and this close resemblance, joined with the fact of the wide extent of sea which separates them being so uniformly and remarkably shallow, and lastly, the existence of the extensive range of volcanoes in Sumatra and Java, which have poured out vast quantities of subterranean matter and have built up extensive plateaux and lofty mountain ranges, thus furnishing a barrier for a parallel line of subsidence, all lead irresistibly to the conclusion that at a very recent geological epoch the continent of Asia extended far beyond its present limits in a south-easterly direction, including the islands of Java, Sumatra, and Borneo, and probably reaching as far as the present 100 fathom line of soundings." (I, 19.)

And further—
"The whole of the islands eastward beyond Java and Borneo are essentially fragments of a former Australian or Pacific continent, although some of them may never have been actually joined to it. This continent must have been broken up not only before the Western Islands were separated from Asia, but probably before the extreme south-eastern portion of Asia was raised above the waters of the ocean, for a great part of the land of Borneo and Java is known to be geologically of quite recent formation, while the very great difference of species, and in many cases of genera also, between the productions of the Eastern Malay Islands and Australia, as well as the great length of the sea now separating them, all point to a comparatively long period of isolation." (I, 22.)

These two main divisions are then subdivided into the five districts already mentioned; comprising the Indo-Malay, Timor, Celebes, Moluccan and Papuan groups; and in his account of each, Mr. Wallace not only gives a vivid picture of the ways and customs of its inhabitants, and describes the gorgeous birds and butterflies he was fortunate enough to discover, but keeping his natural object in view, he shows throughout how the differences in the various natives, the mammals, the birds and the insects, all bear evidence in favour of his theory, and in short, how the singular and unexpected facts of their distribution can be accounted for in no other way. Well may he conclude his sketch of the physical geography by saying—

"From this outline of the subject it will be evident how important an adjunct natural history is to geology, not only in interpreting the fragments of extinct animals found in the earth's crust, but in determining past changes in the surface, which have left no geological record. It is certainly a wonderful and unexpected fact that an accurate knowledge of the distribution of birds and insects should enable us to map out lands and continents which disappeared beneath the ocean long before the first traditions of the human race. When the geologist explores the earth's surface, he can readily interpret the past by observing the approximate position of ancient continents and seas, and the sea level, but when he explores the sea, he can determine the past position of the land, and the land level, by the light of the waters. Hence the naturalist's pen and pencil can fill up this great gap in the past history of the earth." (I, 23.)

In forming his collection, Mr. Wallace mainly devoted himself to birds and insects, he did not, however, neglect the curious mammalia, &c., which came in his way, but preserved skins and skeletons whenever it was practicable. For instance, while in Borneo he took some pains to procure specimens of the large Orang-utan, or Mias, as it is called by the natives, and also as much information as possible respecting its habits. He also obtained a young one, which he kept for three months; and the account of this little creature forms an amusing episode, which is, however, too long to extract. Altogether he killed 16 of these animals, for which he was looked upon by the Dyaks as a benefactor, these animals being great nuisances from the havoc they committed on the Durian trees, especially as they waste and destroy a great deal more of the fruit than they eat.

Of the difficulties to be encountered we have many graphic instances, and it seems perfectly marvellous how well he succeeded, considering the means at his disposal. His plan on arriving at a fresh locality was to search for a place where insects were likely to abound, namely, a clearing in a forest, and to establish himself for some weeks as near to this as he could; hiring a house when one was to be had, and building one when there was none. And what houses they were! Here is the description of one—

"From what I have seen of a large house built on a plot of Yams and Plantains, and a small hut, which the natives might have the use of, if it would suit me. It was quite a dwarf's house, just 8 feet square, raised on posts, so that the floor was 4 feet above the ground, and the highest part of the ridge only 6 feet above the floor. As I am 6 feet tall, and an inch high in my stockings, I looked at this with some dismay, but finding that the other houses were much further from water, were immediately dirty, and were crowded with people, I at

once accepted the little one, and determined to make the best of it. At first I thought of taking out the floor, which would leave it high enough to walk in and out without stooping, but then there would not be room enough, so I left it just as it was, had it thoroughly cleaned out, and brought up my baggage. The upper storey I used for sleeping in, and for a store-room; in the lower part (which was quite open all round) I fixed up a small table, arranged my boxes, put up hanging shelves, had a mat on the ground, with my wicker chair upon it, hung up another mat on the windward side, and then fastened that, by being holed and carefully creeping in, I could sit on my chair with my head just clear of the ceiling. Here I lived pretty comfortably for six weeks, taking all my meals and doing all my work at my little table, to and from which I had to creep in a semi-horizontal position a dozen times a day, and after a few severe knocks on the head by suddenly rising from my chair, I learnt to accommodate myself to circumstances. We put up a little sloping cooking hut outside, a bench on which my lads could skin their birds. At night I went up to my little loft; they spread their mats on the floor below, and we none of us grumbled at our lodgings." (II, 359.)

Amongst the miseries incident to collecting in a tropical country, insect plagues must certainly stand foremost. More than once Mr. Wallace was confined to his house for weeks by ulcerated feet, brought on by the attacks of mosquitos, sandflies, &c., and he speaks very piteously of the interruption thus caused to his work—

"The stings and bites and ceaseless irritation caused by these pests of the tropical forests, would be borne uncomplainingly; but to be kept prisoner by them in so rich and unexplored a country, where rare and beautiful creatures are to be met with in every forest ramble—a country reached by such a long and tedious voyage, and which might not in the present century be again visited for the same purpose—is a punishment too severe for a naturalist to pass over in silence." (II, 251.)

Moreover, his birds and insects, when once caught, prepared, and added to his collection, still required the utmost watchfulness and care to prevent their being destroyed by ravenous creatures.—

"The lean and hungry dogs before mentioned were my greatest enemies, and kept me constantly on the watch. If my boys left the bird they were skinning for an instant, it was sure to be carried off. Everything outside had to be hung up to the roof, to be out of their reach. At last just finished skinning a fine King Bird of Paradise one day, when he dropped the skin. Before he could stoop to pick it up, one of this famished race had seized upon it, and he only succeeded in rescuing it from its fangs after it was torn to tatters. Two skins of the large Paradise, which were quite dry and ready to pack away, were on the table in my tent for the night, wrapped up in paper. The next morning they were gone, and only a few scattered feathers indicated their fate. My baggage-stuff was out of their reach, but having stupidly left a box which served as a step, a full-plumaged Paradise bird was next morning missing and long below the house was to be seen still uttering over the fence, with the two golden plumes all tremble in the air. Every night, in so soon as I was in bed, I could hear them searching about for what they could devour under my table, and all about my boxes and baskets, keeping me in a state of suspense till morning, lest something of value might incautiously have been left within their reach. They would drink the oil of my floating lamp and eat the wick, and upset and break my crockery if my lazy boys had neglected to wash away even the smell of anything eatable. Bed, I say, as they are here they were worse in a Dyak's house. In Borneo where I was staying, I had a large piece of a Dyak's house, and besides wearing a pattern of my aspect certain." (II, 359.)

Ants, of course, were ubiquitous, and it must have been a work of no small difficulty to circumvent them.—"They swarmed on my table as I was at work, setting out my insects, carrying them off from under my very nose, and even tearing them from the very cards on which they were gummed, if I left them for an instant." (II, 328.)

In spite of all these troubles, in spite of occasional fevers, bad food, voyages in native boats against contrary winds, when he seems to have been invariably sea-sick—difficulties thrown in his way by the indolence or suspicion of the natives, Mr. Wallace worked steadily on, collecting, observing, and noting, and apparently on the whole thoroughly enjoying his nomadic existence.

"It sometimes amuses me to observe how, a few days after I have taken possession of it, a native hut seems quite a comfortable home. My house at Wuyopi was a bare mat, with a large bamboo platform at one side. At one end of this platform, which was elevated about 3 feet from the ground, I placed a mat, and partly enclosed it with large Scotch plaid, making a comfortable little sleeping apartment. I put up a rude table on legs buried in the earthen floor, and had my mat and the plaid clear for a seat. A line across one corner carried my daily wash, cotton clothing, and on a bamboo shelf was arranged my small stock of crockery and hardware. Boxes were ranged against the thatch walls, and hanging shelves, to preserve my collection from ants while drying, were suspended both without and within the house. On my table lay books, penknives, scissors, pliers, and pins, with insect and bird labels, all of which were unsolved mysteries to the native mind." (II, 133.)

"Then what delightful hours I passed wandering up and down the dry river courses, full of water-holes and rocks and fallen trees and overgrown by magnificent vegetation. I soon got to know every creek and rock and fern and insect up to the water's edge, and better yet to see what treasures they would yield. At one place I walked for a long way, following the banks of a river, and saw many things which I had never seen before. I might expect to find a small dragonfly, a damselfly, and an easy prey. At certain rotten trunks I was sure to get the curious little tiger beetle, *Diaperis divinatoris*. In the denser thickets I would capture the small antlion, the water bug (*Amphipoda*) sitting on the leaves, as well as some rare and beautiful leaf beetles of the families *Hispidae* and *Cyberomelidae*." (I, 265.)

Occasionally Mr. Wallace notices a beautiful flower, but it is not often. The reason for this is not, however, that he was so engrossed by his own special pursuits as to overlook them, but that in tropical forests bright coloured flowers really play a subordinate part in the aspect of Nature. The following extract may serve to dispel illusions on this subject, which may be entertained by those who have never visited the tropics:—

"The reader, who is familiar with tropical nature only through the medium of books and botanical gardens, will

picture to himself in such a spot many other natural beauties. He will think that I have unaccountably forgotten to mention the brilliant flowers, which, in gorgeous masses of crimson, gold, or azure, most sparingly these verdant precipices, hang over the cascade and form the margin of the mountain stream. But what is the reality? In vain did I gaze over these vast wilds and verdure among the pendant creepers and heavy masses, all around the ascent, on the river's bank, or in the deep caverns and gullies, and see not one single spot of bright colour, which I saw not in a single tree, or bush, or crevice, bore a flower so brightly except in a few ferns, or objects in the landscape. In every direction the eye rested on green foliage and mottled rock. There was infinite variety in the colour and aspect of the foliage, there was grandeur in the rocky masses, and in the exuberant luxuriance of the vegetation, but there was no brilliancy of colour, none of the bright flowers and gorgeous masses of blossom, so generally considered to be everywhere present in the tropics. During 12 years spent amid the grandest tropical vegetation I have seen nothing comparable to the effect produced on a landscape by Gorse, Broom, Heather, and wild Hyacinth, Hawthorn, purple Orchises, and Buttercups." (I, 371.)

The number and variety of the topics discussed in these two volumes cannot be even touched on within the limits of a review, all bears evidence of careful observation and thought, and deserve study and consideration. Mr. Wallace's work is by no means to be classed merely as an interesting book of travels; it will take its place on our library shelves, and will be referred to, as a standard authority regarding the countries it has so carefully studied, and so ably described.

Florists' Flowers.

ANY notice of the new show PELARGONIUMS of the present year would be incomplete without mention of the honoured name of Beck. That name—so high up in the annals of floriculture—has been so long and so honourably and successfully associated with the production of new Pelargoniums, that were it to be struck out of our modern records, it would be like the snapping of one of the strongest bonds binding together much of pleasant reminiscence of the past with much of success in the present, and hope in the future of floriculture. When, a few years ago, Mr. E. Beck "shuffled off this mortal coil," the work of Pelargonium raising was continued by his son, Mr. Wiggins, who for the past 25 years has borne an important part in all that has been so worthily achieved at Worton Cottage.

The fact that Mr. Wiggins has not published his seedling Pelargoniums this season is least not owing to the fact that he has none to show, as it will be remembered that, both at the June and July meetings of the Royal Botanic Society in 1878, Mr. Wiggins exhibited some very promising yearling flowers. In the improvement of the large-flowered Pelargonium, Mr. Beck had his particular line of procedure. Those who were readers of the early volumes of the "Florist" will remember the lofty ideal Mr. Beck had before him, and to the attainment of which he unceasingly laboured. One of his requisites was a habit moderately dwarf, with stiff foliage, and short stalks to the leaves, so as to form a compact bushy plant. Perhaps it may be said that a large degree Mr. Beck associated this habit with new varieties, and one has only to inspect the varieties of the past three years at Worton Cottage to see how much this has been fulfilled in the later form of the new kinds. Form was another leading feature of Mr. Beck's ideal; and though it was always his firm opinion that what was necessary to form a first-rate flower was to a great extent attained by high cultivation, and that alone, he yet firmly believed that the coveted breadth of petals, and consequent roundness and fullness of flower, were obtained by the judicious cultivating and crossing of different flowers. It is also true that form is a less characteristic of the Isleworth flowers, down to the present time. In further working out his improvements, it would seem that Mr. Beck placed form of very much higher elevation in the category of desired improvements than size; while some of our raisers endeavoured to get size, with a view of attaining form at a later date, Mr. Beck, it would appear, inverted this process—a process still continued at Worton Cottage. I think every impartial observer must have been driven to admit, that during the six or eight years at least the new flowers raised by Mr. Wiggins have been inferior in point of size to those shown by Messrs. Foster and Hoyle; but that they had qualities of form and habit commensurate with their size will perhaps be as freely admitted. Still, in point of size, Mr. Wiggins shows a marked advance in his flowers he intends to distribute in the coming autumn. I had an opportunity to inspect these a few weeks ago, under circumstances favourable to arriving at a just conclusion as to their merits; they were removed from the taint of dressing or the wrappings of "floricultural mythology," sometimes pretty thick, spread about new things on particular occasions. Of these flowers seemed to stand out boldly as acquisitions, viz. *Bacchus*, rose ground lower petals, heavily painted with dark maroon top petals, with regular pink margin, and white throat; flowers large, bold, of fine shape. *Dove*, a large pure white flower, of fine shape and substance; large dark blotch on petals, lit up with fine carmine, and edged with pink. *Firefly*, bright red, having a dark spot in each petal, dark top petals, fine shape, and remarkably early blooming. *Hebe*, lower petals pink, spotted with chocolate, dark top petals, margined with pink, flowers large and bold. *Rosea floribunda*, rose lower petals with large white throat, large dark blotch on top petals, margined with lively rose, flower large in size, and good shape; and *Victoria*, a fine and striking flower, salmon-rose lower petals, large white throat, dark petals, lit up with vermilion, and edged with deep red.

The others forming Mr. Wiggins' batch of flowers for this year are—*Bouquet*, pure salmon lower petals with slight pink spots, white throat, dark top petals.

margined with rosy salmon, flowers large and free-blooming Cardinal, bright maroon lower petals, painted with dark, dark top petals; a flower of good shape. Corporal, a bright crimson-scarlet flower, with dark top petals lit up with vermilion, and margined with deep rose. Flora, a large white flower, with dark top petals; an abundant bloomer. Florence, lilac lower petals, pencilled with rose, dark maroon top petals. Garland, a rich-looking flower, in the way of Diadem; large white throat, dark top petals, a bold and showy flower. Modesty, a pretty lilac flower, with dark top petals, margined with pale pink. Multiflora, lower petals pale rose, white throat dark maroon top petals, with broad margin of rose. Pluto, another large dark painted flower, with rich shaded dark top petals margined with lively crimson. Prince of Wales, lower petals pure white, dark maroon top petals, with broad pale margin. Rosy Circle, warm rose lower petals, pure white throat, dark blotch on top petals, and broad margin of rose; flowers large and stout. Sultana, rich rosy salmon lower petals, fine dark maroon top petals, margined with rosy salmon; free, and of fine shape. Salamander, lower petals warm orange-rose, with large dark maroon top petals, and broad rosy margin; and Snowflake, pure white lower petals, the upper petals having large purple blotches and edging of white.

There is therefore no lack of new large-flowering Pelargoniums for the present autumn, as the foregoing, combined with what Mr. Turner has to distribute of Messrs. Foster and Hoyle's flowers, will give Pelargonium fanciers abundant material to select from.

As a general rule the exhibitors of large-flowering and fancy Pelargoniums both, the former especially, should, and really ought to raise a little the standard of quality in the flowers they exhibit at provincial shows. Both at the Whitsun exhibition of the Manchester Horticultural Society, and at the great show of the Royal Horticultural Society, the large-flowering Pelargoniums were not of so high an order as might be looked for in such a plant-growing district. Leeds and York, and Oxford, are no doubt exceptions, but the exceptions are very few comparatively. Very often different varieties are seen well grown—cultivated in a manner worthy of better sorts to operate upon; and while it is the continuous aim of raisers to produce new and improved varieties, it should also be the endeavour of exhibitors to keep pace to some extent with the raisers, and so strengthen their hands and crown with success their praiseworthy efforts. R. D.

Mr. Wimsitt has issued coloured illustrations of Mr. Willis' new Ivy-leaved Hybrid Pelargoniums, named Willis and Willis roses, both of which were shown nicely in bloom at the last Floral meeting. They are evident crosses between the lateripes and scarlet or inquinans sections, have the flowers of two pretty and distinct shades of rose colour. We have also a plant of Variegated and Variegated Zonal varieties issued by Mr. B. Baker, of A. A. very, which, if correct as to colouring, is a most lovely, the zone in the case of one, named Frans de Beucker, being well defined and of a pale orange-buff tint. Another, named Silverwitje, seems to be a good silver-edged sort, with broad, well-defined white margins.

We have just received from Mr. Cannell a series of blossoms of some of Mr. Banks' new FUCHSIAS, which are of remarkable size and beauty. One is quite a monster in size, the corolla being fully 3 inches in expansion, the individual petals an inch and a-half long, and an inch and five-eighths broad. Another more refined flower of the expanded class measures fully 2½ inches across the corolla. Both the foregoing are of a reddish violet; while another of the same form, and nearly equal in size, has the colour of a rosy lilac hue. There are besides many fine acquisitions of other types amongst them; but as the blooms are not named, we cannot refer to them more particularly.

The Apiary.

THE "LONG ECONOMIC BEE HIVE."—We extract the following from "The American Bee Journal" for September.

"I wish for the benefit, if it may be, of all the readers of the Journal, to speak again of the convenience of something like the 'long economic hive' described in the May number, for keeping up a supply of celled queens. It will be remembered that, in this hive, the frames are inserted crosswise, with two entrances on the sunny side, one near either end. Let such a hive, full and in good order, contain the choicest queen. Then, at the proper season of the year, or when it is desired to raise queens, lift out a frame near the middle, and insert a closely fitting division board at its place, thus making for the time two hives of the same size, with a separate honey-board for each part. The queen being in one part of the hive, the bees in the other part will, from her eggs, proceed to construct queen cells, which, after nine days, may be carefully cut off and removed to other hives, or to queen-rearing boxes, and the queen, with due precaution, changed to that end of the hive, when the unqueened part will, in turn, proceed to construct queen cells, and so on alternately. The advantages of this method are—

- 1. Its convenience in having steadily, through the season, a supply of maturing cells.
- 2. Its safety. The bees in both parts having the same mother smell alike, and like her, on which account she is not likely to be injured.
- 3. Its utility. The bees not being much disturbed in the change, nor removed from their stand, are not in so much haste, and consequently commence with younger grubs, or with eggs; and the stock being stronger than a small nucleus, keeps up a more equable temperature and a better supply of food, producing more perfect queens for future mothers.
- 4. Its certainty. By this process one is sure of cells

at the time, and as there is supposed to be nothing impure about the hive, there can be no mistake about the queen as raised, unless spoiled or injured in the process of fertilisation afterwards. I continually use three of my best queens in this way, and so have every three or four days a fresh supply of cells, to be made use of according to circumstances, in the yard, or otherwise, to mature for market. I have as yet lost no queen by the frequent change, and like the method much better than any that I have seen described. J. W. Truesdell.

The Editor of the "Bee Journal" remarks on the foregoing paper, that the hive alluded to and described by the Rev. Mr. Truesdell in a former number, seems to be substantially a more convenient form of the Dzierzon twin hive—that is, a hive that may be used, at pleasure, for the multiplication of stocks and the storage of honey; or with due alternation, as a nucleus hive for rearing queens, or supplying queen cells continuously."

Garden Memoranda.

LEA BRIDGE ROAD NURSERIES, LETTON, ESSEX. —This old establishment has been long and favourably known for its Heaths, Azaleas, and Camellias, which are grown in large quantities. The cultivation of this class of plants may be said to be the leading feature of the place, but other subjects are also done well here, as a visit in the months of August and September will prove to any one who has the slightest fancy for the many kinds of the ever popular "florists' flowers."

The principal attractions at so advanced a period are, of course, the plants grown outside, nevertheless we may notice a few things in the houses. In the show-house, which had contained a fine display of Lilium auratum, were some small nicely-furnished plants, in 18-sized pots, of that elegant scarlet-flowered succulent the *Rochea falcata*—this, when well grown, makes one of the handsomest autumn-blooming plants for indoor decoration. The *Campanula fragilis*, a free-growing trailing variety, with grey-blue flowers, and admirably adapted for hanging in baskets, was also very effective. Another plant that has flowered well this summer, and is remarkable for the sweetness and delicacy of its flowers, is *Nerium album*, sometimes called the White Oleander. This plant belongs to a beautiful though very much neglected class of evergreen shrubs, which are easily grown, and flower freely in a stove for the greater portion of the year. In a small stove were some dwarf bushy plants of *Ixoras*, which Mr. Fraser informed us were seedlings, about one year old; they seem to flower very freely, and produce many quite new tints of colour. Another remarkable character in them is that no two flowers come exactly alike in colour. This method of growing dwarf bushy free-flowering examples of the lovely *Ixora* must be something new in cultivation, and is at any rate worthy of adoption in establishments where plants of this kind are always in demand or for growing largely for market purposes. Some specimens of the rather new and magnificent *Atamandea nobilis* were flowering very freely; this is a fine yellow-flowered robust growing kind, worthy of a place in every stove. *Lapageria rosea* was growing in great luxuriance, trained to the roof of a cool house. In this position it flowers well up to Christmas: it is a fine flower for a lady's head-dress. The beautiful *Gnaphalium eximium* is one of the old favourites that used to appear at exhibitions in years gone by, but is now seldom seen. Its flowers, which are produced in clusters, are of a beautiful coral-red colour, and have a considerable resemblance to a Strawberry. A more useful class of plants there cannot be, as when they have done growing the flowers can be cut, and in most cases they retain their colour, and are well suited for filling vases in winter. Of Clematises, two varieties were growing out-of-doors which deserve a word of commendation, *C. candida*, white, one of the best and freest bloomers; and *lanuginosa nivea*, pale blue, a good flower and a continuous bloomer.

A bed of Verbenas here was very showy, all the varieties contained in it being in fine condition, notwithstanding the unfavourable season for this class of plants. On remarking the fine appearance of the bed, we were told by Mr. Fraser that it contained only those kinds which had been tried by time, and had proved to his satisfaction to be first-rate for general bedding-out. As it may be of some service to know what are really good, we give the following list of varieties, which are so highly esteemed by Mr. Fraser, and are honoured with a place in the "extra selected" bed—*Reine des Roses*, rose, lemon eye. Moonlight, white. *Amelvement*, deep rose. *Exhilarer*, scarlet. *Amber*, pink and white striped. *Blue King*, light purplish blue. *Princess of Wales*, white. *Eden*, pale pink. *King* (garning), bright orange-rose, with lemon eye; *Grand Duchess*, white, with lilac-crimson centre; *Crimson King*, crimson-scarlet, with lemon eye; *Snowball*, white; *Mademoiselle Marie Rendatler*, purple, lemon eye; *Delicata*, rosy crimson, pale lemon eye; *Dante*, scarlet; *Ariosto Improved*, rich purplish maroon; *Mrs. Holford*, white, and last, though not least, *Purple King*. These are all first-rate, and can be depended upon for a display of bloom. Amongst new kinds sent out this season, *Lady Folkestone*, rosy crimson. *Caroline Smith*, rosy pink, very free bloomer. *Fanny Martin*, of a lighter shade than the former, and equally as free a bloomer, and *Coleridge*, a rich dark scarlet, of good substance, all appear to be very promising varieties.

The Zonal Pelargonium receives great attention here. Mr. Fraser being one of our most able cultivators of this class of plants, as is evinced by the fact of his specimens nearly always taking first honours at the various metropolitan exhibitions. Amongst nosegays, *Monseigneur Dupanloup*, creamy white, an immense trusser, is a fine bedder; *Cham*, very fine, deep scarlet,

with large white centre, is first-rate; *Mlle. Nilsson*, pink, a large trusser and free bloomer, is one of the best of the pink bedding nosegays, and a great acquisition. *Docteur Legrand*, carmine-purple, large and compact truss, and free flowering, is a good variety for pot culture as well as bedding; *Lucas*, cerise-scarlet, is very fine for the latter purpose. In the variegated section, *Princess Alexandra*, bright green foliage, with a broad margin of pure white, is an excellent bedding kind. Amongst the double-flowered varieties, the best for bedding purposes appeared to be *Madame Lemoine*, very fine pink, and dwarf in habit, and *Imperatrice Eugenie*, with fine flowers, of a brighter shade of colour than the former, and with little or no zone in the leaf. These, however, always appears to greater advantage grown in pots under glass, under which treatment they are very handsome.

Of herbaceous Phloxes Mr. Fraser has a fine collection; indeed the cultivation of this flower is one of the specialties of the establishment, and the collection when in flower offers a very pretty sight. The later blooming kinds, which are derived from *Phlox decussata*, are the most grown here, Mr. Fraser decidedly preferring them to the *P. suffruticosa*, or the early flowering section. Amongst the newer Continental varieties are several very desirable acquisitions, inasmuch as they are of fine form, and in various colours, approaching to scarlet, from which we hope to see a good scarlet flowering variety raised. Of the recent introductions of this character, the following are specially fine—*Monsieur Paulmier*, rich salmon-rose; *Gloire de Neuilly*, deep rosy scarlet with crimson centre, very fine; *Roi des Roses*, rose suffused with salmon, afterwards becoming more rosy; *Aurantiaca superba*, rich orange-red with fine crimson centre, a fine flower; *L'Aveur*, fine bright crimson, of good form; *Monsieur de Lannay*, brilliant rosy red; *Professor Koch*, brilliant rose suffused with salmon; and *Dr. Parrot*, pale orange-rose. These are all very fine flowers, and worthy of recommendation. Amongst whites,—*Czarina*, dwarf and good; *Boule de Neige*, a little taller grower, *Madame la Comtesse de Turenne*, very clear, with pale violet eye, *Madame Domage*, splendid white with large violet-crimson eye; and *Comtesse de Malart*, suffused white with large rich crimson centre, first rate, are first-class kinds. *Monsieur Malet*, delicate lilac, is quite distinct, blooms freely, and very dwarf, not growing much more than 12 inches in height; *Madame Lemort*, bright rose with large crimson centre; *Madame Godefroy*, rosy purple, very fine; *Souvenir de M. Pirole*, brilliant reddish crimson, very distinct, *Soulouque*, purplish lilac, and *Comte Lambertye*, rich glowing crimson, are all very fine flowers, bloom freely, and are very distinct.

Another plant that is grown here as an article of trade is the Pentstemon, a flower that has lately undergone considerable improvement at the hands of the florist. Amongst a lot of fine new sorts the following appear to be the best—*Richard Linnour*, lilac-purple, beautifully pencilled throat; *George Brant*, white, suffused with lilac; *Surpasse Victor Hugo*, scarlet, with conspicuous white throat; *Pauline Dumont*, pale rosy lilac throat, beautifully pencilled; *Indispensable*, rose, rich crimson pencilled throat; *Bons Villageys*, dark red, throat white, faintly pencilled; *Grinchu*, purplish lilac, white pencilled throat, large, and very distinct; *Leon la Prevoste*, crimson; *Grande Conde*, deep crimson, conspicuous white throat; *Josephine Dumont*, a lighter shaded crimson, with a richly marked throat; and *Richard Gutterman*, scarlet, very showy, and one of the best. In addition to the above, there are several varieties that are remarkable for their dwarfness of growth, and compact free-flowering habit. The following may be mentioned as being the best amongst this very pretty and useful class:—*Emile Chate*, crimson, pencilled throat; *Mohere*, of a pale lilac tint, with deeper marked throat; *Apollon*, scarlet, white throat, large and fine; *Duo Job*, rosy red, deep crimson throat; *Maria Heed*, pale lilac, pure white throat, and *Henry Berson*, rosy scarlet, with white, faintly-lined throat.

Amongst other kinds of bedding plants were several varieties of Lobelias, of which *L. pumila grandiflora*, blue, was the best of the compact-growing section. Most of the new hybrid Coleuses have been tried here, *Princess Royal*, in Mr. Fraser's estimation, being the best for general cultivation. This nursery is one of the principal emporiums for Heaths, and a healthier lot of dwarf bushy plants, which consist of over 30,000, principally winter-blooming kinds, is seldom seen. The other parts of the grounds, which are about 100 acres in extent, are well stocked with the usual description of shrubs, Roses, fruit trees, &c. This brief notice of the place would be incomplete if we did not refer to a specimen of the original *Martiney Rose*, growing against the end of Mr. Fraser's residence. The flowers are large, white, with bold yellow centre, and are produced up to the end of November in favourable seasons. The plant is evergreen, and is a fine subject for similar positions.

Obituary.

ARBOICULTURE has lost one of its most enthusiastic supporters in the person of GEORGE PATTON, Esq., Lord Justice Clerk of Scotland, whose melancholy and for a while mysterious, fate, has lately created so much sympathetic interest. Mr. Patton, who was born in 1803, was called to the bar in 1823, was appointed Solicitor-General in 1852, and Lord Advocate in 1856, and, in March, 1857, succeeded to the Lord Justice Clerkship. He took a great interest in gardening, and especially in arboriculture, the Conifers being his favourite study. Much of his vacation was spent in planting and beautifying his estate of the Carnies, and his brother's estate of Glenalmond, to which latter he succeeded only three weeks ago. As the originator and

Chairman of the Oregon Botanical Association, he was instrumental in introducing many valuable new hardy trees to our collections, Cupressus Lawsoniana amongst the number, and one of the novelties thus introduced was named after him, Abies Pattoniana. It appears that his lordship, in a fit of temporary insanity, left his house on the morning of September 20, and proceeded to the bank of a deep pool in the river Almond, in Perthshire, where he committed suicide—a tragic end, which has excited in the community a deep feeling of sorrow, and awakened much sympathy for his surviving relatives.

Miscellaneous.

To Render Timber Incombustible.—Herr Reinsch concludes, as the result of his experiments as to the best means of preventing timber bursting into flame, that impregnating timber with a concentrated solution of rock-salt is as good, if not better, preservative against its bursting into flame as water-glass (silicate of soda), while the price of the former salt is, of course, only a mere trifle; moreover, rock-salt thus applied to timber is a preservative against dry rot and noxious insects. He recommends the use of salt water, that is to say, a solution of rock-salt of moderate strength for the use of fire-engines during a fire, as by far more effective than water; but in order that the salt should not injure the working parts of the engines, they will immediately afterwards have to be played with fresh water. Builder.

Garden Operations.

(For the ensuing week.)

PLANT HOUSES.

THE lovely Eucharis amazonica, with liberal treatment, may be induced to form flowering spikes at this time, which will come into bloom and prove very useful at or about Christmas. A nice amount of bottom-heat, and full exposure to the sun, from this time onwards, will materially influence them in this direction. Few plants delight more in a plentiful supply of moisture than do these. When the leaves are frequently sponged over, they thrive much better than when a quantity of dirty particles are permitted to accumulate on them. The free-flowering and useful Tritonia aurea will now, in most instances, have done flowering, and the leaves will have become more or less yellow. At such a time it is customary with most cultivators to lay the pots upon their sides, so as to dry both the soil and bulbs. This treatment, however, is antagonistic to the real requirements of the plant; for immediately they cease to flower, and the surface-growth begins to ripen off, certain offsets, which spring from the old bulbs, at the base of the current season's growth, will commence to grow fast, winding their roots around the inner sides of the pots in dense masses. Therefore, to dry the bulbs off at such a juncture, is neither more nor less than to starve these new roots to death; a very injurious procedure when it is remembered that they alone produce really fine flower-spikes, and, indeed, are often double the size of those produced by old bulbs, which have been prematurely forced to rest. To grow this plant successfully it is necessary to treat it precisely in the same way as evergreens; in fact, never to let it be entirely at rest. Those varieties of British Ferns which have been grown in pots for conservatory or similar decorative purposes, and especially those which are deciduous in their nature, should now be somewhat dried off, preparatory to resting them for the winter, after which they may, if not unduly pushed on at this time, be plunged into a sheltered position out-of-doors until the ensuing spring. The beautiful Ipomoea Bona nox, which is now becoming somewhat exhausted by flowering, may be greatly assisted by the application of a little weak manure water. The richly barred white flowers of this plant, the Midnight Lily or Moon-flower of the native Indians, open only in the evening, diffusing perfume all around. It should be grown more generally, as it does well in a cool stove, and is an annual, or at least does best with me treated as such.

FORCING HOUSES.

The weather whilst I write is all that can be desired for the final ripening of Late Grapes. Where any do not ripen properly, have a tolerably free resort to artificial heat in the early part of the day, with as plentiful a supply of fresh air as is convenient at all times. Without the latter, artificial warmth is of but questionable utility. The present fine weather will in like manner assist Pines which are flowering to set their fruit well, a fact of no little importance when it is taken into consideration what unfavourable weather is often experienced during some part of this month. Let all good varieties which are now pushing up their flowering spikes be removed into as light and warm a structure as it is possible to afford them, where they may receive a routine of treatment peculiarly adapted to themselves, irrespectively of what other plants in the same house may require, as no makeshift practices will suffice for them at this time. I scarcely need say that these remarks do not apply to those varieties which adapt themselves to the exigencies of such a period, such as the Black Jamaica, the St. Vincent, &c. In regard to Vineries, of course it will be necessary to expose fully to the outer air all those which have become denuded of their crop of fruit as quickly as possible after the last bunch has been removed. This applies equally to the small vinery of the amateur. No artificial means will ripen off the wood so well as a nice dry air of moderate warmth. Afford a nightly covering, as by throwing a mat over all late frame Cucumbers or Melons, so as to maintain a moderate warmth by night to the last. The nights are now beginning to be much cooler; hence the need of attention in this respect. The early Mushroom-beds, which were soiled

over some two or three weeks since, and the surface of which show symptoms of cracking, should be occasionally sprinkled over with clear tepid water from a fine-rosed watering-pot. Continue to collect materials for other successional beds, now that the weather is dry, and the droppings may be obtained in the best possible condition.

HARDY FRUIT GARDEN.

The crop of Peaches or Nectarines not having been heavy this season, it may be well to remove entirely those shoots which have borne fruit. This will allow the air to pass more freely around those which remain, and tend to ripen the young wood better. It has been demonstrated beyond doubt that cutting the large leaves in two, across the midrib, conduces greatly to the formation of flower-buds; hence, as much gross wood exists this season, it may be well to resort to this system of restricting the cruder sap. Persist in pinching back all young growths which form after this date, and by these means endeavour to force the trees to rest as early as possible.

HARDY FLOWER GARDEN.

Those cuttings of Pelargoniums and other tender subjects which are used for summer decorative purposes, such as Maurandias, Heliotropes, Iresines, Coleus, &c., and which have already been struck and become well-established, should now be removed under the shelter of a frame. We may now anticipate a slight frost at any moment, this caution is therefore the more necessary. Dahlias often suffer greatly from early frosts: I have, doubtless in common with some of your readers, known the earlier autumnal frosts to be so severe as to injure the tubers which are in the soil. I do not hesitate therefore to advise all who place a value upon their stock, to draw a little additional soil up around the base of each forthwith. Verbena cuttings must now be got in where the operation has been delayed. They strike best placed into a cold frame, kept rather close, and shaded during bright sunshine. A general survey should now be made of all choice Perennials, Biennials, &c., and any which it is intended to increase or secure, by means of cuttings, such as Antirrhinums, Pentstemons, &c., the latter, against the severity of the winter, had better be placed into pots or boxes in the form of cuttings; they can then be properly cared for. Secure the necessary seeds of Phlox Drummondii; when choice is made from amongst those grown at home, save only the very choicest. Sow a pan of Nemophila insignis: these will come in for blooming in pots or baskets in the early spring months.

KITCHEN GARDEN.

Choose now a dry day for the purpose of clearing the late Celery of all useless leaves, minor side-shoots, &c., and so aid it in establishing a robust framework, preliminary to the first earthing-up. The early-sown crop of Carrots may be taken up and properly stored away in some convenient place for first use. Remove the larger, finer Endive and Lettuces, which have been grown on for planting, into cold frames, orchard-houses, or other similar make-shift places, giving all a good watering immediately they are transplanted, first treading in the soil firmly around each. Keep a watchful eye upon the weather, and should symptoms of coming frost occur, remove the whole stock of Tomatos into a warm, dry place, to forward the ripening process. W. E.

TOWN GARDENING.

Grass Plots and verges should now be well rolled, preparatory to the last mowing. The edgings should also be trimmed with the edging-iron before digging the borders, which will give them a neat appearance. The beds intended for Hyacinths and other bulbs should now be cleared. A good dressing of leaf-mould and sand should be dug in, and left rough to sweeten till the latter end of the month, when they should be levelled down, and the bulbs planted. Pits and Frames should now be got ready for the reception of plants, putting in 3 inches of fine ashes to stand the pots on, and to keep down the worms. The plants should be moved into them as soon as possible, so that they can be protected from excessive rains. Early Tulips which are suitable for window culture, should be at once planted, three in a 48-size pot, about an inch below the surface, in two-thirds of sandy loam, and one of leaf-mould. I believe there are no better varieties for this purpose than the red, white, scarlet, and yellow Duo Van Thol. Crocuses should also be potted, putting five in a pot, four round the edge, and one in the centre; also Narcissi, putting only one bulb in a pot, about an inch below the surface. The pots should be placed out-of-doors on fine ashes, and be covered with Cocoa-nut fibre, till they have made plenty of roots, when they should be removed into the house at different times, so as to keep up a succession. Aucubas, Lilacs, Box, Bladder Senna, Viburnum Lantana, &c., may now be transplanted. In planting them, see that the holes are made large enough for the roots to be spread out. The earth should be well shaken in among the roots, and be trodden in firmly all round the balls. If the surface is afterwards covered with short litter, it will be of great benefit to them. J. D.

STATE OF THE WEATHER AT CHISWICK.

During the last 43 years, for the ensuing Week, ending Oct. 9, 1889.

Table with columns: Date, Average Highest Temp., Average Lowest Temp., Mean Temp., No of Years in which it Rained, Greatest Quantity of Rain, Prevailing Winds.

The highest temperature during the above period occurred on the 5th, 1831—therm. 80 deg.; and the lowest on the 5th, 1853—therm. 23 deg.

STATE OF THE WEATHER AT CHISWICK, NEAR LONDON, For the Week ending Sept. 29, 1889, as observed at the Horticultural Gardens.

Table with columns: Date, Moon's Age, Barometer (Max, Min), Temperature (Of the Air: Max, Min, Mean; Of the Earth: 1 foot deep, 2 feet deep), Wind.

Sept. 27—Overcast, cold wind; fine, densely overcast. 28—Slight rain, cloudy, but fine, densely overcast. 29—Very fine, exceedingly fine, clear and fine. 30—Very fine, fine and warm, clear, starlight. 1—Cloudy, but fine, densely overcast, cloudy. 2—Very fine, cloudy, but fine, clear and fine. 3—Fine, very mild, very fine, densely overcast. Mean temperature of the week, 53.5 deg. above the average.

Notices to Correspondents.

BOOKS: I. K. The "Gardeners' Dictionary" (Bell & Daldy) will suit you. True Bacc. Bradbury, Evans & Co. Bouverie Street, E.C., price 25s.—D. K. A new French work on the Rose is advertised as about to be published by the "Librairie de la Maison Rustique, Rue Jacob, Paris." The author is M. Lacharme, and the price little more than a shilling. This will probably meet your requirement of a "little French book on Roses." Should you wish an English work we advise you to get O. Fisher's "Notes on Rose Growing," price 6d (Bradbury, Evans & Co.), or Rev. S. R. Hole's forthcoming work on the Rose Lemaire's work, to which you allude, can be had from the Maison Rustique above cited, or through Messrs. W. & Norgate, Henrietta Street, Covent Garden.

GRAPE SOIL: Constant Subscriber. In reply to your inquiry, Mr. Cramb kindly answers that the red sandstone employed by him is that kind which overlies rocks of a particular geological formation, and is not derived from "Subscriber" impurities, from pounds of pulverised rock. The colouring matter that gives the designation "red" has no doubt been furnished by the decomposition of hematite, or mica, which contain larger or smaller portions of oxide of iron. Its porosity or tenacity will just be in proportion to the amount of silica or alumina it may contain, and its fertility is according to the quantity of organic matter. Mr. Cramb uses it without any mixture whatever, and feeds with liquid manure. As to the failures in the growth of one Vine, and the success of the others, several causes could be adduced, but without fuller particulars we could not advise you.

GRAVELLING PATHS: T Floyd. We cannot say the probable cost of regravelling your paths, all depends upon the prices of gravel, and labour, in your district.

MISTLE: B. D. This will not do out-of-doors without protection in your locality.

NAMES OF FRUITS: T. A. S., Tenby. Pear Sanguinole.—W. D. G. N., and J. Innes, as soon as possible.

NAMES OF PLANTS: W. J., Graham's Town, South Africa. You don't tell us what the habit of your plant is, but from the flowers we should suppose it to be Lissocilus (Eulophia streptopetalus, or it may be Eulophia platyptala, but as the specimen sent was so much crushed we cannot fully determine. Send a better one.—T. S. S., Thrusk. Your plant is Phytolacca decandra: the fruit is not poisonous. The others were badly packed, we will name shortly.—W. C. Lagerströmia indica.—C. D. 1, Hypolepis tenuifolia; 2, Pleopeltis Blandfordii. We cannot name Begonias from crushed and withered leaves—probably yours is B. Griffithii.—R. A. P. 1, not recognised; 2, Asplenium obtusolobum, a pretty little basket fern.—H. Moore. 1, Hypolepis tenuifolia; 2, Lastrea teneroides, often known as Polypodium trichodes.—An Old Subscriber, Gannera scabra.—C. Quaint. Pardonius chinensis.—W. T. Aster cyneus.—Constant Reader. 1, 2, 3, and 4, Athyrium Filix femina, the two first tasselled forms; 5, Lastrea Fulx-mas.—A. B. 1, Aster Novae Belgii; 2, may probably be a leaf of the Longan (Nephelium Longan); 3, Phymatodes lineare.—K. A. P. Alstromera (or Bonmaria) edulis.—T. Rescaen. The common Hornbeam, Carpinus Betulus.—B. Anthemisia tinctoria.—B. Dujill. 1, Platycladus rotundifolium; 2, Gasteria verrucosa; 3, A Sedum, past recognition; 4, Cotoneaster microphylla.—Anon. 1, Carica Papaya, the Papaw; 2, 3, 4, We cannot undertake to name plants from leaves only.

PINE APPLE POTATO.—Can any of our readers say where this curious variety of Potato may be obtained?

STENOGRAPHY: Inquirer. Pitman's.

STRAWBERRY CULTURE: Deoniensis. The Strawberry will grow in any good garden soil. A rich loam, not too light in texture, that will retain moisture, but not too much, suits it well. The ground should be prepared at once, by giving it a good coating of well decomposed manure, such as that of exhausted cucumber beds, &c., with rotten leaves and leaf mould, if either of the latter be obtainable. The ground should then be trenched, mixing the manure well with the soil when digging it in. If your beds are old, or the surface consist of old garden soil, this will be essentially necessary. The best time for planting is early this month, whilst the ground is warm enough to encourage the plants to make a healthy root growth before winter. The sorts best adapted for cultivation greatly depend upon your requirements. Say what you wish in this respect, and we will endeavour to furnish you with the desired information.

THE LATE JAMES VEITCH: A. B. As you rightly say, the Arca caria avenue at Bilton forms a living monument to this lamented gentleman. The glories of Bilton have recently been amply portrayed in our columns.

THOMPSON TESTAMENT: Subscriber. In answer to several subscribers, we may state on authority that Mr. Thompson received the greater part of the money subscribed for his benefit during his lifetime, in periodical instalments. The balance of the fund will be applied in accordance with the directions made in his will. The Royal Horticultural Society continued to give Mr. Thompson his full salary up to the time of his decease.

VINES: A. B. Narberth. The statement in "Pearson's Vine Culture," respecting the Trentham Black Grape, is quite correct, and the other statement you mention is wrong. It must be cut as soon as ripe, in fact before the Black Hamburgh, if both grow in the same house. We will look up the other information you require.—B. Dujill. The cause of your Vine leaves dropping off is attributable to damp. Give more air. This accident was very prevalent in the early part of the season.

ERRATUM.—The double-flowered Pelargonium Mrs Evelyn, noticed at p. 1018, was shown by Messrs. Bell & Thorpe, and not by Mr. George, as there stated.

COMMUNICATIONS RECEIVED.—G. E. L.—R. W.—H. V.—H. B. (next week).—R. B. (with thanks).—C. W.—J. E.—T. L.—G. T. (with thanks).—A. B.—J. S.—C. P.—A Subscriber.—W. E.—G. E. L. (insects not arrived).—R. W.—C. Moll.—H. C.

LAWES' WHEAT MANURE, for AUTUMN SOWING, now ready for delivery
All other Manures and Cakes as per Price List, supplied on the lowest terms. Apply for prices, &c., to JOHN BENNETT LAWES, 40, Mark Lane, London, E.C.; Dublin, and Shrewsbury.

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ODAM'S NITRO-PHOSPHATE or BLOOD MANURE for WHEAT—This Manure, specially prepared for Autumn Sowing, is rich in Ammonia, Phosphates, and other ingredients required for the healthy growth of Grain Crops. Analyses of Blood and the grain of Wheat show that they are nearly identical in composition, hence the value of Blood as an ingredient in Manure. It may be applied at the rate of from 3 to 4 cwt. per acre, according to the condition of the soil, either drilled with the seed or sown broadcast, if the latter, it should be well harrowed in. Prepared by the Patent Nitro-Phosphate or Tenant-Farmer's Manure Company, whose Members are Cultivators of upwards of 50,000 acres of land, which has been for years under management with Manures of their own manufacture, consequently the Consumer has the best guaranteed for the genuineness and efficacy of the Manure manufactured by this Company.
Particulars will be forwarded upon application to the Secretary, or may be had of the Local Agents.
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Wheat Sowing.

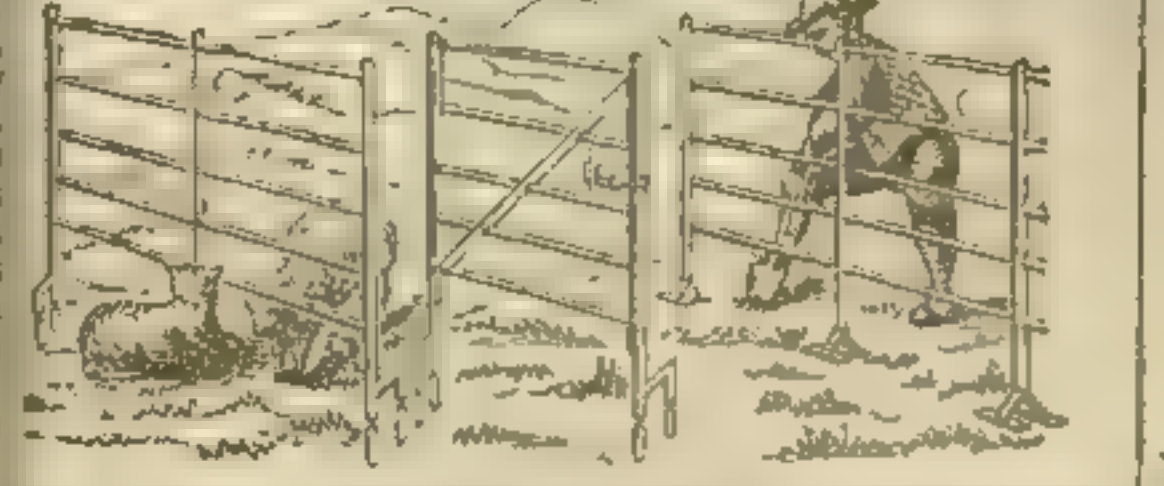
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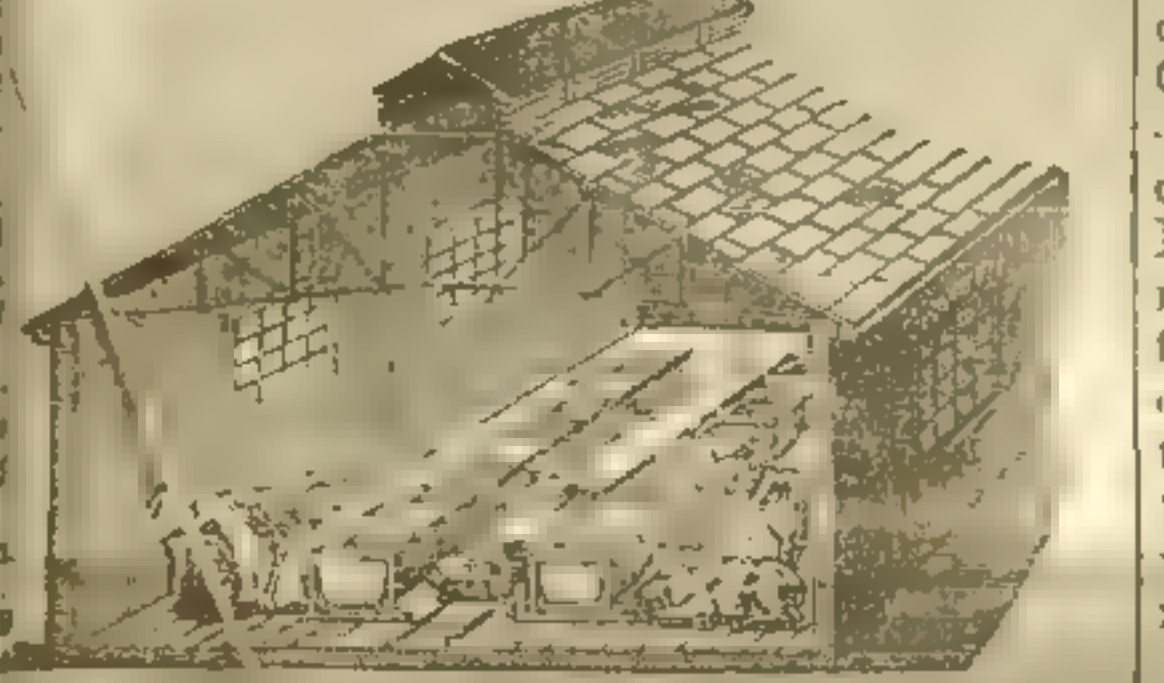
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B. & C. ought to have to caution Gardeners and others, but are impelled to do so, in consequence of an imitation, of common metal, having been sold for the genuine one, and which has caused many complaints to be made to them of Knives which were not of our make, all of which are warranted both by Sellers and Makers.
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THE BIRMINGHAM CATTLE and POULTRY SHOW.

—THE TWENTY-FIRST GREAT ANNUAL EXHIBITION OF FAT CATTLE, SHEEP, PIGS, DOMESTIC FOWL, CORN, ROOTS, and IMPLEMENTS, will be held in BINGLEY HALL, on SATURDAY, MONDAY, TUESDAY, WEDNESDAY, and THURSDAY, November 27, 29, and 30, and December 1 and 2, 1869, when PRIZES to the amount of nearly £2100 will be awarded on the following Divisions, viz—
FAT CATTLE .. £507 13 0 BREEDING PIGS .. £77 2 0
FAT SHEEP .. 310 8 0 ROYSTERS and CORN .. 7 16 0
FAT PIGS .. 59 11 0 POULTRY and IMPLEMENTS .. 747 14 0
Prize Lists, Certificates of Entry, and every information may be obtained from the Secretary.
The ENTRIES CLOSE on MONDAY, November 1
JOHN B. LYTHALL, Secretary.
Offices, 39, New Street, Birmingham.

SMITHFIELD CLUB FAT CATTLE SHOW.

The ANNUAL SHOW OF FAT CATTLE, SHEEP, and PIGS, will be held at the AGRICULTURAL HALL, ISLINGTON, on MONDAY afternoon, December 6, and 1 Four following Days.
Intending Exhibitors are requested to apply for Certificates of Entry by the reference letters as under—
CATTLE.—Form A. For an OX or STEER (any Class)
" B. For a COW or HEIFER (any Class)
" C. For a BEAST in Extra Class
SHEEP .. D. For a PEN of four CATTLE (any Class)
" E. For a SINGLE SHEEP (any Class)
PIGS .. F. For a PEN of four PIGS (any Class)
" G. For a SINGLE PIG in Extra Class
ENTRIES for LIVE STOCK CLOSE NOVEMBER 1
Prize Lists, Forms of Certificates, and all that may be obtained on application to Mr. DAVID L. ELLEN, Assistant Secretary, at the Office of the Honorary Secretary, corner of Beef-Moon Street, Finsbury, London, E.
N.B. All communications respecting the Show must be addressed to the Assistant Secretary, as above, and should bear outside the words "Smithfield Club Show."

The Agricultural Gazette.
SATURDAY, OCTOBER 2, 1869.

MEETINGS FOR THE ENSUING WEEK.
October 4 Committee of Central Farmers' Club (Special), at the Salisbury Hotel.
5 Central Chamber of Agriculture, ditto.
6 East Bucks Agricultural, at Henley.
7 South Bucks Agricultural, at Stoke Poges.
8 Devon Chamber of Agriculture, at Exeter.

WE recur to the subject of the actual cost of REAPING by MACHINERY, as illustrated by our practical experience during the past season.

The extent to which we shall refer comprised 54½ acres of Wheat, 54½ acres of Barley, 18½ acres of Oats, and 18½ acres of Beans, being a total of 146 acres. The Wheat was a fair average crop of straw, and not at all broken down or twisted. One half the Barley was a light crop—about 4 quarters per acre, and the other a full heavy crop of 5½ quarters per acre. The Oats and Beans were an average. On the whole, the crops must be considered to have been favourable for the use of the reaper. There were no patches of corn prematurely down, and grown through; the Clover in the seeds was not too high, and there were no weeds. The weight of straw, too, was such as to be quite within the power of the man upon the machine.

For the sake of an actual standard of comparison, 9 acres of Wheat were let off by contract to a scytheman to mow, bind, stook, and rake at 10s. per acre, leaving 137 acres to be cut by machinery.

The machine we used was a combined mower and reaper, back manual delivery, with tilting rails in the place of board; and our experience of it may be fairly put alongside the story of "an old screw," given so cleverly in our columns the other day. The reaper in question we have found to work where the ground was soft and wet. In the wet harvest of 1867 we cut all our corn with it when no other machine in the district was worked at all. And on many occasions it acted efficiently even where the ground was so soft and

sticky that the wheels gathered dirt, so that the whole machine ultimately became one solid mass of clay and soil, from which it took several hours to clean it before further progress could be made. With wet corn, and wet soil, it did its work when no reaper proper could get on, owing to its single wheel sinking into the ground. In this experiment on a large scale we deemed it best to adopt the combined machine, which, with its two wheels, we could depend upon to complete the harvest, should wet weather occur.

The labourers engaged for the work and reaping with the machine were, a foreman at 5s. per day; a boy to ride on the reaper and drive, at 2s. per day; five men, averaging 1s. 3d. each per day, to make bands and tie the sheaves; four women, at 2s. per day each, and one man at 3s. 6d., to "make up" or gather the sheaves, and put them into the bands. One or two of the binders were higher priced than the others, as they were wanted for superior work when stacking came on. These constituted the full personal staff of the machine, their gross wages amounting to 39s. 9d. per day. To complete the force, we also put on two good men to open out the fields at the corners with the scythe, and to stook the sheaves, and a boy to drive the horse-rake, and heap the rakings, &c. These men were paid 4s. 6d. per day each, and the boy 2s. The amount of 11s. per day, added to 39s. 9d., the cost already stated of the hands engaged directly with the reaper, made a gross expenditure in manual labour of 50s. 9d. per day. To this we may add the cost of 16 pints of beer twice a day, at 1s. per gallon, 1s., making a total of 54s. 9d., as the total daily cost of "manning" the machine. This beer was supplied to the men direct from the brewery, so that the cost is exact. Incidental expenses must also be added, after the work is done, as it is only then that they can be ascertained; as the term implies, they fall as a charge upon the work at irregular periods, and in variable amounts.

On August 16 we began harvest work, and at noon on the 19th we had completed 36 acres 2 roods of Wheat. On the same day the Oats were begun, and finished on the following day. A delay of three hours occurred during the time this was under the process of cutting, or the work would have been completed a little sooner. The Barley was begun on Saturday, August 21, and finished on Thursday, August 26, 5½ acres being completed in five days. The Beans (18½ acres), and the spring Wheat (9 acres), were completed in two and a half days, and the whole of the crops were down at noon on Monday, August 30—the entire period which the reaper was at work was 12½ days, from Monday, August 16, to Monday the 30th. During this time there was only one compulsory stoppage from an accident, and this only for a few hours: not a single shower or damp morning intervened to delay the progress of the work. We would observe that no attempt was made to hurry the work, or even to push it. It would have been easy to have done at least 2 acres per day more than was done. We may also note here that one of the two good men at 4s. 6d. per day, engaged to stook the corn and open out fields, was taken away to cart and stack Wheat, after the reaper had been at work six days, three additional men and two boys being engaged at this time to make up a set for carting and stacking. We were enabled thus to remove one of the stokers, as it was necessary that the Barley should lie in sheaf unstooked for a day or two, to kill the Clover tied up in the sheaf: so that, when the stoker required help, the men attached to the machine were able to assist in the evening, and early in the morning, before the dew or moisture was out of the Clover, and the Barley fit for cutting. This was an important point to attend to, and it can be as easily attended to with a reaper as with a scythe. To cut Barley with Clover in it, before it is dry, and to tie up and stook immediately, causes much delay in the crop being fit for carting; and should rain occur, before the sheaves are quite dry after cutting, the Barley is very liable to sprout. It may be asked why we have four women and a lad as "takers-up" after the machine? Why not have five women? Our reason was, that when the crop happened to be light of straw, eight hands were able to follow the reaper instead of ten. The two men forming one set were then taken to stooking, &c. Had we employed five men and five women to follow the reaper, when it was necessary to call off two men, there would have been left three men and five women; so that one woman would have

been compelled to bind the sheaves work which women most properly object to, and which is unsuitable for them.

The actual cost of reaping will, therefore, stand thus:—

Table with 2 columns: Item and Price. Items include Manual labour as follows, per day, 1 foreman, at 5s per day, 1 boy to drive, at 2s ditto, etc.

Amounting, for 12½ days, for the gross cost and manual labour in reaping 137 acres, to £34 4 4½

To this we have to add for incidentals paid by foreman—Repairs, 3s. 6d.; oil, 1s. 6d.; and files, 2s.; and to deduct for wages of the man who was taken off after six days' work, viz., 6½ days at 4s. 6d. = 1l. 9s. 3d. So that the total amount will stand as follows:—

Table with 2 columns: Item and Price. Items include Cost of 12½ days' manual labour, Less for 6½ days as above.

Incidentals as above £32 5 1½

Total £32 12 1½

—being the actual cost of reaping 137 acres of corn by machinery, or 4s. 9d. per acre, exclusive of horse and machine power. If to this, then, we add 1s. per acre for the horses, and 6d. per acre for the wear and tear of machine (a liberal allowance), we have the result of 6s. 3d. per acre for the actual cost of manual labour, machine, and horse-power, as nearly as it can be ascertained by actual experience.

The sum of 4s. 9d. per acre represents the actual payment for the manual labour and incidentals in harvesting in this manner, and it represents to a fraction our payments for the 12½ days that it took us to cut, tie, stook, and rake 137 acres of an average crop of corn.

Into this account no element of mere estimate enters; the figures represent the amount of physical power employed absolutely in the work accomplished—in days' work; these days' work being paid for at the full prices of the district. They fully substantiate the assertions of Mr. MECHI and his correspondents as to the cost of this new common operation. Mr. MECHI's Yorkshire correspondent, in his estimate of 1s. 4d. per acre, most probably took no account of horse-power or depreciation of machinery; if so, nothing can be much nearer than his payment to ours. And in reference to our own experience as now detailed, we have only to say that, though in recording it we give a leaf out of the ordinary farm practice, it is no less an experiment, designed to ask a question and to obtain a correct answer, and its results are as trustworthy as they could possibly have been had they arisen from a trial on an experimental plot however carefully conducted.

Experience, indeed, is at all times an experiment; but it is only when all the attendant circumstances can be fully ascertained, as in this instance, that the information obtained therefrom is precise enough to be valuable.

We are in possession of the figures and facts connected with the cost of reaping by machinery as practised upon two other large farms with which we are connected, and where the work is conducted in a manner totally distinct and different from each other and from that which we have now detailed. We reserve these particulars for another occasion.

— At Mark Lane yesterday, the decline of 1s. to 2s. per quarter, which has been general since Monday, was more than acquiesced in, and something lower was obliged to be taken to effect sales. The meat trade is very dull, and top quotations for beef have again touched 5s., while prime mutton has fallen to 5s. 4d. per stone. Common beasts are 2s. 8d. to 3s. 1d. per stone, and sheep, 1s. to 1s. 6d.

— The Contagious Diseases (Animals) Act is now attracting much attention and discussion in most of the cities and boroughs in the kingdom. At the Michaelmas Quarter Sessions the Act will be a prominent subject for consideration, it is therefore advisable that any information and decisions that may transpire should be disseminated. At Norwich last week a committee for carrying out the Act was proposed and agreed to unanimously by the Town Council. In proposing the committee Mr Taylor said—

One thing he would mention, and that was that the appointment of this committee would not entail any serious expense on the Council; the only thing that would have to be provided was a proper place to which to send infected animals, and they must look out for a proper spot for that purpose. He would remind gentlemen that it had been necessary to take proceedings before the magistrates in the case of some animals suffering from the foot-and-mouth disease. The

owner was proceeded against, and a penalty, altogether with costs, amounting to 25l., was recovered. But he (Mr. TAYLOR) wished he could say the matter ended there, but unfortunately they had two bullocks sent to their market at 2 o'clock one morning, which animals had been seized, and the matter would again come before the magistrates on Thursday.

The case to which Mr. TAYLOR referred was sufficiently complex to show that much consideration must be given to it before the provisions and working of the Act can be thoroughly understood even by magistrates and their legal advisers. The case in question was as follows:—

THOMAS FISHER, of Ber Street, Litcher, was summoned for wilfully knowing and allowing to be driven, on the 17th, on a certain highway called Magdalen Road, two steers which were infected with a contagious and infectious disease called pleuro-pneumonia. Mr. I. O. H. TAYLOR supported the information, and Mr. LINAY appeared for the defendant. Mr. TAYLOR asked the permission of the Bench to withdraw the case against the driver, THOMAS HALL, as they had now the right person before them. Mr. SMITH described the disease as so positively manifest that no person could fail to see it. The cattle, it appeared, have been slaughtered under the joint consent of defendant and Mr. BENJAMIN LEE, of whom he bought them. Mr. SMITH said the lungs of one weighed 19 lb., and of the other 10 lb. In answer to Mr. LINAY, Mr. SMITH said that he could not tell what had become of the carcasses. He knew that under the 54th section of the Act, a declaration ought to be sent to the Privy Council. He had not done that yet, but it would be done by next Saturday. He (Mr. SMITH) was appointed inspector by the Corporation of Norwich. Mr. LINAY, on behalf of the defendant, raised as a point of law that the case must fall through on the ground that the Act of Parliament had not been properly published or made public. The real charge against the defendant was that he did knowingly and wilfully allow these cattle to be driven on the highway suffering from a contagious disease. The defendant did not, nor did Mr. LEE, the cattle dealer, of whom he bought the two steers, know that anything was the matter with the beasts, with the exception of one of them, which had a slight sore throat. Mr. LEE was a man through whose hands thousands of cattle were going, and he would tell the Bench that he did not know that these animals were diseased. Mr. LEE was called, and gave evidence to that effect. He said that one of the animals was quite sound, and the other had a tumour inside its throat. The cattle had been slaughtered, and the carcasses had been sent up to London and passed as good meat. The defendant was fined 10l., and the costs 5l. 10s. 6d. Mr. LINAY applied for a case, on the ground that the regulations of the Act had not been properly applied to the city. The Bench granted him a case.

The appointment of Mr. SMITH, "at so much per annum for his services," was carried unanimously by the Town Council. Some other cities and boroughs have adopted the same means. At the petty sessions at Bearstead, in Kent, Mr. GOULD did not see the necessity of appointing a professional inspector, and therefore moved that the superintendent of police be appointed, at a remuneration to be fixed by the committee in accordance with the amount of service performed. This was seconded by Mr. TAYLOR, and carried unanimously. Upon the suggestion of the Clerk, it was also moved by Mr. JEWELL, seconded by Mr. WARD, and carried nem. dis., "That every police constable shall be an officer for putting in force the provisions of the Act."

An account of the first series of experiments made on the banks of the Seine in the direct application and decomposition of the sewage of Paris was given in the Agricultural Gazette of July 17 in the present year, and mention was then made of the experiments commenced on an increased scale in another place, the second series has now been carried on for several months, and a general statement respecting them is now before us. The plot of ground selected for the experiments is on the plain of Genevilliers, adjoining Asnières, and opposite to the hamlet of Clichy, where the former trials took place. At the mouth of the great collector-sewer at Clichy are established steam pumps which convey about one-tenth of the whole sewage of Paris across the river through cast iron pipes 18 inches in diameter; these pipes are placed along a new bridge which crosses two islands and connects the two banks of the river. The pipes end in large reservoirs on the Genevilliers side, placed on the highest point of the plain, and thence the sewage is conveyed by means of a brick conduit 2 feet in diameter, which embraces a piece of land about 25 acres in extent, and returns to the Seine at some distance down stream. This canal is above the level of the surrounding soil, and at various places the sewage runs off into lateral canals and trenches, so as to feed all the lands under the experiment, the supply is shut off from the small trenches, when necessary, by simply damming their mouths with turf or mould. Near the spot where the sewage re-enters the Seine are three large basins about 6 feet deep, in which the surplus liquid is received and purified by means of sulphate of alumina, in the proportion of 6½ oz. to a ton of the liquid sewage; after purification the water is turned into the Seine, and the precipitate is collected to be used as manure. The soil of the plain of Genevilliers is anything but promising—it is sandy, and at no part many inches deep, and beneath this is a thick stratum of flints. In consequence of its unproductiveness it has not, like the other outskirts of Paris, been converted into market gardens, and a more wretched plain could scarcely be found. The city of Paris rented 25 acres of this land, which was parcelled out amongst a number of farmers and gardeners, and this, as well as the surrounding lands, are supplied with sewage without any charge. It is now eight months since this experimental ground was inaugurated, and almost every variety of crop has been raised— forage plants, cereals, vegetables and flowers, and all exhibit remarkable vigour, especially when compared with like crops produced in the immediate vicinity without the aid of sewage—the Maize, Beetroot and Cabbages, are magnificent. Of course there is nothing remarkable in such a result, it has been produced in 20, perhaps 100 places in England, but the arrangements are excellent, and, above all, economic, and the experimental ground attracts great attention, the Emperor having been amongst the visitors. The

main, or rather the direct object, is to show to tourists and market gardeners the actual value of sewage, and thus to create a demand for it, if it succeeds in that object it will have done a service. Those who may visit Paris this autumn only to take the Clichy omnibus, cross the new bridge and study the matter for themselves.

— The old controversy on the relative merits of large and small farms has broken out again, and Mark Lane Express pours out its sarcasm in advocates of petite culture. We fear but little can be done by advocating either view. The events will not be affected in the slightest degree by any such discussion. Farms inevitably increase in size as successive generations of their tenants pass on, and that is the very satisfactory explanation of the of the largest holdings in this country. We indeed quote Mr. HOSKINS himself, whose letter the Times has excited this discussion, in most of illustration of its powerlessness to do either good. In the course of an argument representing views of the whole subject of land tenure, in a strongly held position is most ably defended, with trace of that ill-conditioned personality which times disfigures controversy, Mr. HOSKINS exclaims:—

"Never do folks talk wisely, and in the street, vein of more presumptuous folly on landed topics, they argue preferentially for 'large' or 'small' 'grande culture' or 'peasant proprietorship'—the simple rule is—Free the Land, let it grow its own natural equilibrium of ownership, and tenants, holdings, and small. Must we have King Canute, and reverse his chair, and his lesson, in order to the land is governed by its own eternal and irrevocable law as well as the sea? and that nothing but the courtier skulls, and the narrowness of eye that would essay or propose to wield with human hands the sceptre—'So far shalt thou go, and no farther!'"

— Corn Averages and Michaelmas Rentals with in a concise and intelligible manner by MONTGUE MARRIOFF, editor of "WILKIE'S Commutation Tables," who forwards the communication on these subjects, in connection the quantity and value of Wheat and Barley reported:—

"At the close of the agricultural year I beg to inform of your readers, and especially those who have adopted the system of corn rents, a statement of average prices of British corn, furnished on the return sheet weekly in the Journal of the Royal Agricultural Society, 1860—Wheat, 40s. 8d. per imperial bushel, 41s. 6d. do. Oats, 27s. 2d. do. The figures in price during the same time are as follows—

Table with 4 columns: Highest price, Lowest price, Difference, and Date. Rows include Wheat 1868 Oct 3, 54 4, 1869 May 8, 44 4, Barley 1869 Jan 25, 49 7, Oats 1868 Dec 5, 29 8.

The net imports during the year (the exports have been subtracted) have been—

Table with 2 columns: Wheat and Wheat Flour. Values are given in £ and s.

The net imports for the year ending Michaelmas, 1868, were, Wheat, 5,190,422 qrs. Wheat flour, 3,046,654 cwts. value, 3,700,000.

— Foreign competition in Hop growing presents a vexed question among Kentish and Sussex planters. The following pertinent letter to Standard is therefore too good to be hid and bushel. If it be not exceptional, it is conclusive, if it be exceptional, an equally pertinent reply to be provoked:—

"Seeing a correspondence in your paper respecting duty, and being one of those foolish planters, as your correspondents would have the public believe, who cut their throats by clamouring for a repeal of the duty, I herewith a statement of the prices at which I have sold Hops for the last 14 years. I think you will then see that Hop planters have not much cause to complain of freedom of trade."

Table with 4 columns: Year, Price, and Average. Rows include 1877, 1876, 1875, 1874, 1873, 1872, 1871, and Average.

Showing that we get a better price without the duty with it on, besides saving nearly 1l. per cwt., or 15% on the value."

Does "A Hop Planter" give an ordinary quality Hops? Or, does he grow the fine pale ale for which there is a greater demand than supply, which therefore do not come into competition with the common Continental produce?

OUR LIVE STOCK.

A LARGE company met at Brailes House, 17th ult. to witness the sale of a selection of Shorthorns from Mr. Sheldon's admirable herd. Cattle were brought out in good order, but the competition was not brisk, although the result was whole, satisfactory. The fair average of 16l. for 37 head was obtained, and good prices were for several animals. Surmise 2d, by MAY DUNFORD from Mr. Tanqueray's Surmise by DUKE OF CESTER (11,382), although nine years old, attracted some attention, and was purchased by Mr. Charles 67 gs. Johanna Southcott, by JOHN O'GAUGHAN bought for 73 gs. by Mr. Cheney, and her Jaughton of Arc, by DUKE OF BRAILES, went into the same lot at 41 gs. Fenelia, by Duke of Brailes' dam, Hope by ESOP, and previously descended from the OF DUBLIN, JANIZARY, SNOWBALL, LITTLE CALIPH, and finally from the Fawsley cow, the yearling heifer, plain in colour, but of great substance, She, after some competition, was sold to the

Leney for 130 gs., but has since, we hear, been resold at a profit, to Mr. Dangar, for Australia. The highest price was given for *Lady Ellen Barrington*, of the Bates Barrington tribe, who was bought by Mr. Drewry, or the Duke of Devonshire at 157 gs. DUCE OF BRATTLE (23,724), a capital sire, got by 1TH DUKE OF THORNDALE, and of the *Acorn* family on the maternal side, was reserved at 200 gs., and the highest price for bulls was given by Mr. Ladds, who purchased EARL OF BARRINGTON 2D, a two months' old calf, for 55 gs.

No great prices were realised at Farnborough on Tuesday, the 21st ult. Unfortunately, the Kewill and Farnborough sales were fixed for the same day, and most Shorthorn breeders were drawn away by the greater attraction in Fifehire. The 33 cows and heifers were sold for an average of 26*l.* 15*s.* 10*d.*, while the 14 bulls only made 23*l.* 15*s.* 9*d.* each.

Our readers are reminded of two important sales which will be held during the coming week. The first is that of Mr. Gamble, of Shouldham Thorp, on Wednesday, when some good cattle, of Brawith extraction, will be offered. The second, on Friday, when the late Mr. Benjamin Wilson's stock will be disposed of. In our impression of the 18th ult. we gave some particulars regarding the origin and condition of these herds.

Mr. Thornton has issued a catalogue of the Aldingham Hall Shorthorns, the property of E. J. Schofield, Esq. The sale takes place next Tuesday, when 27 very well bred cattle will be offered to the public. The herd consists of three families, two of which were obtained from the late Mr. W. F. D. Dickinson about 12 years ago. Of these, one traces to the Rev. J. Benson's noted Winifred tribe, and the other is full of Colling blood. The third tribe was bought at the Ulverston sale, on the death of Mr. Dickinson in 1836; this was the celebrated Cressida family, of which there are several representatives in the catalogue. The first bull used was CAMBRIDGE BARRINGTON 1ST (14,233), of Bates blood, bred by the Duke of Devonshire; he was succeeded by Mr. Peel's CERDIC (19,115), of the Warlaby Blass or Broughton tribe. Of late years sires of the Cressida family have been used. A contemporary, looked upon as an oracle in matters relating to Shorthorns, speaks very decidedly to the merits of the Cressida tribe. The four lots, *Andromache*, *Cressida 6th*, *Macco*, and *Maia*, "are worthy, as regards the composition of their lineage, to go into any herd; and we shall be surprised if they do not provoke the competition of men who know the value of the blood they inherit." The stock is reported to be in good condition, and will be sold without reserve. Aldingham Hall is 5½ miles from Ulverston, on the Lancaster, Furness, and Whitehaven Railway.

The same auctioneer has published a catalogue of Mr. P. J. Kearney's entire herd of Shorthorns, which will be brought to the hammer on Wednesday, the 13th inst. This is an Irish herd, situated at Miltown House, Clonmellon, county Meath, and is principally of Booth and Mason blood. Two-thirds of the number trace directly to animals purchased at the great Chilton Sale, county Durham, in 1829. KEARNEY'S BULL (1141), although without a pedigree, was well known to be of this stock, and his fame brought purchasers to Chilton across the Channel. Mr. Latouche gave 270 gs. for MONARCH (2324), and Mr. Robert Holmes, of county Meath, raised his best tribes from lots 1 and 8. Sixteen cows and heifers, and two bulls trace back to *Brianna*, by MONARCH, daughter of lot 8, 13 cows and heifers are descended from lot 2, *Portia* by CATO (119), whose portrait may be seen in the third volume of the Herd Book. There are also four members of the Bates Waterloo family, and the pedigrees of the remaining animals are very excellent, as for instance that of *Victoria Alba*, bred by Lady Pigot, by PRINCE ALFRED (11,394), and from a daughter of Mr. Barnes' *Victoria*, sold in 1840 for 500 gs. Booth bulls have been recently used. MONA (11,824) and RAVENSPUR (20,628), were hired from Warlaby; DR. McHALE (15,887), DUKE OF CORNWALL (21,578), and DUKE OF YORK, were all bred by Mr. Barnes, of Westland, from his Mantalini family; and PRINCE BERTRAM, the sire of all the young calves, was bred by Lady Pigot, and is of the Broughton tribe, to which the famous cow, *Lady Fragrant*, also belongs. There is a railway to Kells, from Dublin, and cars can be obtained at Kells for Miltown House, which is five miles distant.

STEAM PLOUGHING AND CULTIVATING TRIALS.

ONE of the most successful meetings of this character that we have ever attended was carried out on Wednesday and Thursday last, on the farm of Mr. Becroft, at Eye, about three miles north-east from Peterborough. This display of steam-power and its accompanying machinery was organised by Mr. Barford, of the firm of Messrs. Amies & Barford. The leading motive for calling together the public, and that part of the business people of this country who are more directly interested in cultivating the soil at the cheapest possible cost, was to introduce a new self-acting anchor, which was invented by Mr. Campion, a practical farmer, near Spalding, the patent of which Messrs. Amies & Barford have purchased. To make the performance more attractive and instructive, however, the makers of other systems were invited to join in displaying their engines and tackle, according as they may think their system is more practicable and economical. Messrs. Fowler & Co., of Leeds, under the energetic direction of Mr. Greig, made a strong response to Mr. Barford's suggestion or invitation. The performances of the two firms we will take separately.

Messrs. Amies & Barford advocate the round-about

system, as originally supplied by Mr. Smith, of Woolston, but with modern improvements, and particularly with the use of their new self-acting anchor. This anchor is like every other valuable application, it is of the most simple character. It is an addition to, and a self-evident improvement of, the original disc anchor, to recall the form of which we need only say that steel or iron discs revolve on an axis and cut their way along the headland, the "stay" or the implement depending on the depth to which the said discs cut into the soil. In many cases these discs were not found to be sufficient to accomplish the resistance required when a plough or cultivator was being drawn up to this form of anchor. This would be the case even when the draught of the engine was direct abroadside or at a right angle with the line in which the discs were cutting. To increase the "staying" capacity something therefore was required beyond merely loading the frame with earth or anything heavy that might be at hand. This fact every one saw, and Mr. Campion has cleverly overcome the difficulty.

The manner of accomplishing this object is simply to put a strong revolving bar of iron where the cross or end bar of the old frame was fixed. On this bar there are eight or 12 tines fixed, according as the soil may be soft or hard, and the length for grappling is also regulated according to the hardness or softness of the soil. There are two or three tines clasped to each side of this iron bar. The object of these several sets of two or three tines is that the anchor may advance when required, by setting free the tumbling apparatus, and a fresh set of tines act as grappels when the anchor has moved as far as the work done, or to be done, requires. This performance is accomplished by the simple possible means. On one end of the bar which carries the tines is a ratchet with four catches, into which falls a notched lever. When this lever is left to itself, or is in position, the grappel tines are held in a rigid position, and they then hold fast to the soil. And when it is necessary for the anchor to advance, the lever is raised from one catch, which allows the tumbler to revolve, and the next set of tines to work down or forward, and so come in contact with the soil as to enter it, and again bring the anchor to a dead stop.

The efficiency of this anchor, according to its apparent strength and weight, is something extraordinary at first sight. The resisting power acquired by its use is, however, easily apprehended; for by the use of it with the round-about system, the draught is equally divided between the grappling tines described and the discs. This will be understood by recollecting that there is a forward motion, which acts on the grappels, and a side motion, which acts on the discs. As the rope runs round a block in the centre of the anchor-frame, the draught is equally divided, the one part being towards the scratch-block, to which the anchor is working, and the other to the implement which is being drawn through the soil.

Into the work done we need not enter. For it is the same with steam ploughs and cultivators as it is with reaping and mowing machines. The operation is, for all practical purposes, sufficiently perfected. And the only question left in either case is, how can the operation be executed at the least cost of power and wear and tear of machinery. For the small farm and fields, where the round-about system is more suitable, we believe this self-acting anchor is destined to net as the finishing touch to the economy of the system. In saying this we are not disparaging the large sets, to which we have shortly to refer as being adapted for large occupations and fields, and for letting out, for there is ample room for both systems in this country, and, while one is suitable in its own particular way, so is the other. In connection with the round-about system, however, Messrs. Amies & Barford are now sending out complete sets for using with an 8 or 10-horse engine, at the small cost of 25*l.* This set includes windlass to be driven with tumble shaft or band, snatch-blocks and anchors as ordinarily sent out, and 1600 yards of ¾-inch steel rope. The patent self-acting anchors are an additional cost of 50*l.* the pair. But as these anchors save the labour of two men, and three men and two boys can now do the work as easily and efficiently as seven pairs of hands could do it with the original claw anchors for drawing the implement to, it is a fair conclusion that this 50*l.* is well spent. Messrs. Amies & Barford are evidently of this opinion, for they would not have invested in purchasing this invention of a practical farmer unless they had taken every means to assure themselves of its value. And as Mr. Campion has worked 500 acres of land with one which he had made in his own blacksmith's shop, there is strong evidence that its character is not over-rated. Its performance was seen at various times by the Peterborough firm, and in some cases it had a strain upon it of 20-horse power without once turning over or giving way, while in no case were there more than the three men and two boys mentioned employed in doing the work in connection with which this self-acting anchor was so conspicuous a figure.

Messrs. Fowler & Co.'s engines and machines, and the work they did, need but little description. They worked two 10-horse traction engines, one at each end of the field, the draught thereby being direct. The implement they used was a cultivator, which was turned at the ends in the most perfect manner that we have ever seen anything done in connection with so important an agricultural operation. When the cultivator has advanced close up to the engine the slack rope is brought into play, in doing which an arm is caught, and the rope is conducted to a lever, which is fixed just above the frame of the cultivator. Thus, while the machine is being turned—or, rather, as a preliminary process to its being turned round—the pressure by the tightening rope raises the tines of the implement well clear of the ground, whereby that great resistance, which would otherwise necessarily happen, is simply reduced to the mere weight of the implement

riding on its three wheels. In short, it is the principle which has been practised by hand of raising the tines of horse-cultivators clear of the soil at the ends; but in this case the action is entirely mechanical.

As we have said, the work done need not be discussed. But we may mention that 18 acres were thus cultivated 10 inches deep between 7 o'clock A.M. on Wednesday morning and 2.30 P.M.

In connection with this steam cultivation, we cannot, however, omit saying that some astounding facts are accumulating under another order of practice. The two 30-horse power engines, which we saw at the Royal meeting at Manchester, have been worked since harvest by Mr. Campbell, of Buscote Park, Berks, for whom they were specially made. Between two and 3000 acres have been done during the last two months at the rate of 36 acres average per day, the depth being 10 inches, and the soil "the strongest in England." The actual cost of this work is 2*s.* 6*d.* per acre. And so satisfied are Mr. Campbell and the Messrs. Fowler with the performance of these heavy engines, that they intend to try what a pair of 50-horse power engines will do; and from the lesser coal and oil per acre required with this greater power of the 30-horse engines, and the reduction of wear and tear, they are assured, from the calculations they have made, that the work can be even more efficiently done at 1*s.* 0*d.*, or even 1*s.* per acre. We adopt the term "more efficiently," since it is clear that the more rapidly a cultivator is drawn through the soil, the more it becomes shattered or disintegrated for the action upon it of air and water.

The cost of these 30-horse engines is 1100*l.* each; of the implements and 800 yards of rope, 400*l.*; or, in all, 2600*l.* The cultivator used with these carries 21 tines, 9 inches apart. But the first time, if the soil be very crude, only 13 tines are used. Last year Mr. Campbell used two 20-horse engines, and did from 20 to 25 acres a day. The rate at which the present implement is now driven is three and a-half to four miles an hour. The greater effect this pace has on the soil, with the increased amount of 10 to 15 acres per day of work done, not forgetting the lesser coal, and oil, and wear and tear, make this performance a stride in steam cultivation which no one has hitherto mastered at one venture.

Mr. Prie's two-furrow and three-wheel plough, which is carried bodily, and without sliding on any part while at work, was used close by, and doing some of the best work we ever saw. This plough is growing rapidly into public favour for preparing land for sowing with grain. Several farmers on the ground ordered one, two, or three of them, as they were readily convinced that the three horses and one man could do more and better work with it than four horses and two men could with the ordinary plough. Messrs. Fowler & Co., who are the makers of these ploughs, have increased their plant for this purpose, till they can turn out 50 per week, when they have done during the last six months. But their orders are accumulating so rapidly that they will have to double and triple their force in this department, if they would respond to the demands of their customers.

THE CONTAGIOUS DISEASES (ANIMALS) ACT, 1869.

(32 AND 33 VICT. CHAP. 70.)

QUOTING the long title, this is "An Act to consolidate, amend, and make perpetual the Acts for preventing the introduction or spreading of contagious or infectious diseases among cattle and other animals in Great Britain." It consists of 126 sections or clauses, and nine schedules, the whole being the reverse of *multum in parvo*. The Act is framed, as the preamble declares, "to confer on her Majesty's Most Honourable Privy Council power to take such measures as may appear from time to time necessary," and so on. We may conclude, but solely on the grounds that one less defective statute is better than the eight more defective ones which it repeals, that the Act may be received as an improvement and step in advance. As to its working, we need hardly tell our readers that this will depend mainly upon the practical judgment and fidelity of local authorities, committees, inspectors, and other officers. The orders of the Privy Council of August 10 are rather ominous than promising, and will soon require to be supplemented; but it will be high time to pass sentence on practical merits when good or bad work, as the case may be, is done. In this paper I confine my observations to the statute itself.

The Act makes provisions both for the commerce of home and foreign live stock, and also for the management of live stock at home in times of contagious disease with a view to prevent its spread. It extends to England and Scotland, but not to Ireland; and it is not very clearly defined whether Irish stock are to be considered foreign or home. The Act is subdivided into ten parts.

Part I. Preliminary, gives the definition of terms, titles, old Acts repealed, &c. It includes what is meant by contagious or infectious disease, as cattle plague, pleuro-pneumonia, foot-and-mouth disease, sheep pox, scab, glanders, and any other disease the Privy Council may declare infectious or contagious. Part II. is on local authorities in England, and provides how they are to be appointed. Part III. Foreign animals, provides chiefly for the foreign trade, and includes the new market about to be erected by the Corporation of London. Part IV. Discovery and prevention of disease, sec. 31-64, charts out rather dimly how the Privy Council are to carry out the more important division of the work within the districts of the different local authorities and inspectors. It extends to the home and foreign trade, and to live stock generally when infected, and to carriers of disease. Part V. Slaughter in cattle plague and compensation. Part VI.

Orders of Council and local authorities—points out how the Privy Council and local authorities are to frame their orders—publications, and how the expenses of the same are to be covered. Part VII. Land-grants powers to local authorities to rent or purchase land for the purposes of the Act, as for wharves, lair-sheds, and markets. Part VIII. Expenses of local authorities, such as compensation for slaughtered cattle, general expenses, and borrowing powers—as to how the money is to be raised. Part IX. Offences and legal proceedings. Part X. Scotland—how the Act is to be applied by providing for the difference of the laws and execution from those of England. Such is a cursory notice of the sections. The first schedule names the Acts repealed; the 2d, the local authorities of England; 3d, regulations respecting committees and sub-committees; 4th, regulations that may be applied to landing, movement, and disposal of foreign animals; 5th, maximum tolls, dues, and payments in the metropolitan market after opening of foreign cattle market; 6th, rules with respect to infected places, including cattle and sheep-pox; 7th, pleuro-pneumonia rules; 8th, forms for use of inspector; 9th, local authorities in Scotland. The schedules form part of the Act. They contain some 40 sections, and form perhaps the best half, so to speak, of the statute.

We shall now proceed to discuss the application of the Act under the three heads—of (1) foreign trade, (2) home trade, and (3) home management of live stock. And before entering upon each separately we may observe that the practical question is not so much what the Act provides as what the Privy Council and local authorities are empowered to do—not only by this statute but others relating to the subject. This is obviously the view the Privy Council take in their recent Order, when they say—"In exercise of the powers in them vested under the Act of 1869, and of every other power enabling them in this behalf." It follows that farmers and the public generally will require to look sharply after their respective interests, otherwise they may be taken advantage of by municipal corporations, as the Corporation of London, who may acquire an adverse monopolising interest, with the view of keeping up the consumer's price to a maximum, but the farmer's or producer's price down to a minimum, the difference being of course their profit. In short, the bearing of the Act is too much in favour of monopolies of this kind, hence its working will require to be watched, more especially by the agricultural interest, home and foreign.

The Foreign Trade Abroad.—A healthy state of this trade is evidently the grand object of the statute, and foreign farmers and the consumers of foreign meat in this country are more deeply interested in preserving the health of foreign stock in the different countries where they are produced than the English farmer, however great may be his loss when cattle plague and other diseases are introduced from abroad. This arises from three causes—1st, the rapid manner disease abroad thins the herds and flocks from which England has her supplies of foreign meat; 2d, the impetus which this and the improvement of agricultural implements and machinery is giving to the growth of corn in those countries of the Continent from which we used to get our chief supplies of foreign stock; and 3d, the rapid increase of the manufacturing population on the Continent, and hence the greater consumption of farm produce which naturally follows. The effects of the last outbreak of cattle plague in those countries were such that they find it more profitable to increase the breadth of corn and reduce the weight of stock in proportion thereto, than to produce animal food exclusively for England in the present unhealthy state of the trade. The decreasing supplies from those countries are facts which speak for themselves. What else could be expected from the existing unhealthy state of trade? For, ever since railway communication was extended to Russia, almost to her steppes, when some consider the birthplace and natural breeding ground of rinderpest, the farmers of countries which used to supply us have been compelled by the losses sustained to shape their practice to the exigencies of the case, and at the present time are holding fair to outlive us in manufacturing and commercial industry, and the consumption of animal food. Prior to the last outbreak of cattle plague they were good customers at our annual sales of improved breeding stock, but since then they look upon upon England just with as much suspicion as upon Russia. What surplus stock they have they continue to send us so long as we are free from disease, but the less they have to do with us the better, so long as we import increased supplies from Russia, Hungary, and the other places seldom free from cattle plague. To overlook such facts is to lose sight of the foundation upon which the Contagious Diseases Act is based, and upon which it must be worked; for our foreign supplies now come from a foul stable naturally, and the British farmer and consumer must trace their action accordingly.

The foreign trade includes, according to the Act of 1869, and powers vested in the Privy Council and local authorities by virtue of it and other statutes, and the freedom of trade generally, not only the exporting of sheep, beasts, calves and pigs to Britain, but also horses, dogs, dead meat, including rabbits, poultry, game, raw hides, wool, and all products, dead or alive, which may be termed "carriers of disease." At present the Order of the Privy Council applies the regulations of the fourth schedule of the Act to—1, The dominions of the Emperor of Russia; 2, The Austro-Hungarian Empire; 3, The States of the North German Confederation; 4, The dominions of the Sultan; 5, The dominions of the King of Italy; 6, The Papal States; 7, Belgium; 8, The Netherlands; 9, The dominions of the King of the Hellenes. This is rather a sweeping territory to begin with, but not an inch more than the present state of trade on the Continent demands. And the duty of the local autho-

rities, &c., in this country, is to see that disease is not imported with any of the above products or carriers of disease from any of the above States. Some of them can send us large supplies for a long time to come, double and quadruple what they now do, if rinderpest &c. could be stamped out. A healthy state of the trade abroad, therefore, is just as much in favour of their producers as it is in favour of the British farmer and consumer. In point of fact it is more in favour of the foreign producer and home consumer than the home farmer, although too many of our large towns view the facts of the case in a different but distorted light.

The trade in foreign stock, and products termed carriers of disease, in the metropolis and other places, has acquired a magnitude sufficient to require statute law and an executive exclusively for itself. At the present time it can neither be said to be in a healthy nor stationary state, more especially in the capital. For the former (health) the Act of 1869 provides, but it makes no satisfactory provision for the rapid manner the trade in foreign live stock is being converted into that of dead meat, and the way the trade in foreign live stock is leaving the capital for other places to supply the capital with dead meat. Foreign beasts and sheep yield a better quality of meat than outward appearances indicate. This has given an increased stimulus to the intermediate jobbing between the live and dead meat markets so much complained of—a pernicious system, which has been slowly working its own ruin, not only in the foreign trade, but home trade also. Hence the increasing supplies of dead meat from the country. On August 13 we left London per Great Northern Railway for the Highlands of Scotland. In the same carriage a Sussex auctioneer, well acquainted with stock sales, and a gentleman from Berwick, were fellow-travellers, and during the conversation we were informed by the latter that one butcher in Berwick now slaughtered upwards of a thousand sheep weekly for London, &c. At Leith and Aberdeen we were informed that the prime dead meat that comes up from the North is not all the produce of Scotland. In short, the objectionable manner the trade in foreign live stock has hitherto been carried on is fast rectifying itself by the natural laws of commerce, so that ultimately the demand for foreign beasts and sheep would, there is every reason to believe, give rise to markets and abattoirs exclusively for foreign stock to supply this demand.

We now come to the practical question—What provision does the Act of 1869 make for the renovation and improvement in the trade in foreign live stock and dead meat? And the obvious answer will readily be anticipated. The monopoly conferred on the Corporation of London is against the freedom of trade thus to rectify itself. True, there is nothing in the statute to prevent the foreign trader from erecting abattoirs in more favourable situations than the polluted atmosphere of the capital, and from these consign his hind-quarters and forequarters to the best markets in a much more superior way than is now done, provided the Privy Council and the local authorities do their duty. But as we said before, the foreign trader and his customers will require to look sharply after their respective interests, otherwise the freedom of trade will be thwarted by monopolising corporations and others, to whom the Act gives too much encouragement.

There remains for consideration the importation and spread of disease. However carefully the foreign trade is conducted abroad, in compliance with the spirit of the Act and powers vested in the Privy Council, it may be taken for granted that disease will be imported to Britain either in live stock or the carriers of disease. If it breaks out in live stock on their passage across the Channel it may be stamped out by the inspectors, so as to prevent its spread, if they are vigilant, but if landed in the incubatory state in live stock, or a live form in the carriers of disease, an exclusive foreign market, as provided for the capital, and the immediate slaughtering of stock, form together but a very poor safeguard against contagion and infection, as the seeds of disease may be spread by the dead meat and hides, by drovers and their dogs, butchers' horses and dogs, by coming in contact with those of farmers and dairymen, and by cattle salesmen who live and farm in the provinces, and by none more readily than the "between jobbers" in the market, who do not shift their dirty clothes before they return home. And in large towns like the metropolis disease is more liable to be spread than in isolated places in a purer atmosphere and under a separate jurisdiction of its own, where live stock, dead meat, carriers of disease, and traders themselves could be disinfected before leaving the market, or abattoir. In short, it is possible to erect establishments, public and private, in certain places under the Act and powers vested in the Privy Council, in which foreign trade can be carried on to any extent with comparative safety as to the spread of disease. And although we do not deny the application of this to the capital, yet it is manifest the Corporation of London will have to act differently from what they have hitherto done, or it will be otherwise, &c., the metropolis will continue to prove itself not only the "plague spot" of Britain, but also of Western Europe, as it has hitherto done.

Of the trade in home stock, dead meat, &c., little requires to be said, as much of the foregoing on foreign applies to it. Improved railway conveyance is much needed, the present practice being barbarous in the extreme and out of all date. The idea of cattle being 30 consecutive hours, or even 12 hours, according to the 6th section of the Act, without food and water, is not easily reconciled with the successful conveyance of fat stock either by road or rail. Live stock when travelling drink more frequently than when at home, and a railway cattle truck that does not provide food and water for stock when they like to eat and drink ought not to be. The quantity of water at starting need not be

large, and the supply required on the way will be when the troughs are empty, which, from our experience, might be about once in five hours. The Act, however, provides that stock shall be watered as agreed upon by farmers and graziers with railway and steamboat companies. It is only when they do so that railway companies can water stock at the farmer's expense, and if they also fail to do so for 12 hours, if so ordered by the Privy Council, I am well borne guilty of an offence against the Act. For, as who send their stock by railway will therefore bear this in mind, for the penalty due to the offence will be greater than the expense of food and water. The Act makes 20s., or 5s. per head, or three months imprisonment with hard labour, the maximum, born in the Privy Council and the local authorities determine the law on such points, so that farmers and graziers will have to make themselves acquainted with what is law in their own localities, which they may obtain free of charge. As to how stock are watered and fed no provision, of course, is made, but it is likely to be made, by the Privy Council, &c. To be returned, with suggestions how it may be done, &c. As to the cleaning and disinfecting of cattle pens, &c., the 21st section of the Order of the Privy Council, August 10, provides how this is to be done by railway and steamboat companies; so that all farmers and inspectors have to do is to see that trucks, &c., are disinfected before stock are put on them. Any attempt to put a diseased animal on a truck or on board a steamboat is punishable with imprisonment, in addition to the loss of the animal, which will be slaughtered and buried or sent to a knacker's, at the owner's expense, without question. Diseased animals on board ship will be thrown into the deep sea.

When stock at the homestead or in the pastime of the farmer are seized with any complaint of a suspicious character, it is the duty of the owner, according to the Act, to call in either the inspector of the district or his own veterinary surgeon; otherwise should foot-and-mouth disease, cattle plague, &c., break out, the consequences may be serious, within the limits of the statute, in the absence of the laws of the local authorities, are sweeping, consequently, in the spirit of the statute, are vested with powers to enforce laws sufficiently stringent either to check the spread of disease, or ruin the unprincipled grazer or drover who attempts to override the law. To this indirect antiquated mode of statute law for farmers we have already objected, on the twofold grounds—first, that the Act leans too much in favour of municipal authorities, and second, that powers are vested in the Privy Council, &c., which, although once vested in the sovereign, now exclusively belong to Parliament. Nevertheless, if the local authorities and committees are selected, the liberal working of details may compensate in a great measure for the sacrifice of constitutional principle. But we aver that farmers will find it an easy matter to maintain their rights in this respect with municipal corporations, owing to the short-sighted notions so generally entertained by consumers, viz., the stringent laws required by farmers to prevent the spread of disease, unjustly interfere with trade. If consumers would only make themselves practically acquainted with the fact, how fast the foot-and-mouth disease, &c., eat the meat off the bones, and that foot-and-mouth disease at the time we write is actually consuming more meat daily, at home and abroad, all the foreign meat imported into England, they would see the propriety of joining farmers in the enactment of stringent laws possible for preventing the introduction and spread of contagious and infectious diseases. This is not all that consumers have to weigh in the balance for when herds and flocks at home and abroad are decimated by disease, they experience two losses—first, easily estimated; but the price of meat rises far above its normal level, at which it remains for a length of time; and second, a vast amount of diseased and wholesome meat is sent into the market. If there were consumers cannot view with an impartial eye the losses of producers, they ought, at least, to be able, by the time, to calculate their own losses since 1866, and on, for the future. W. B.

Home Correspondence.

Harvesting Corn in Wet Weather.—I must take exception to the statement of your reviewer in the last *Agricultural Gazette*, that the award of the Society of Arts is not to be considered as an approving recognition of the principle upon which the Gibbs' system of drying wet corn in sheaves and stacks was based. If the Society's prize was not given in that sense, for what was it given? Surely not for reiterating the advantages of saving corn and weeds at wet harvests, which the Society itself had so substantially asserted to be an important national object, offering the extraordinary prize of a £1000 Medal, or 50 guineas, nor for a mere exposition of methods, had been practised in other countries, without being deemed worthy of adoption here, nor for any general treatment of an object which every farmer admitted was desirable, but which no one had been able to satisfactorily (profitably) accomplish at large. As I was on the Council of the Society of Arts at the time the prize was given, I was one of the special committee appointed to deal with the matter (though I did not act as a judge). I say that my own impression and that of others whom I spoke was that the intention of the Society was to elicit, by a distinctive and valuable prize, means of carrying into practice an object so generally admitted to be desirable. Anything short of accomplishing this purpose would, in my experience, have been simply throwing the medal and money away. Had I thought that Mr. Gibbs would have received the

Gelding or Mares, in pairs.—1st, 10*l.*, M. T. Bass, M.P., 2*d.*, 6*l.*, W. Worthington, Burton.
 Mare and Foal.—1st, 8*l.*, J. Hawksworth; 2*d.*, 5*l.*, D. Walker.
 Two-year-old Geldings or Fillies.—1st, 5*l.*, J. Skermor, Burton; 2*d.*, 3*l.*, Stonetrough Colliery Company.
 Yearling Geldings or Fillies.—1st, 5*l.*, W. S. Tavernor, Stoke, 2*d.*, 3*l.*, S. Bacon, Athorstone.

PIGS.

Boar of a Large Breed.—1st, 4*l.*, and Silver Medal, W. Smith, Rangemore; 2*d.*, 2*l.*, H. Tomlinson, Bradley.
 Breeding Sow of a Large Breed.—1st, 4*l.*, M. Walker; 2*d.*, 2*l.*, T. Bantock, Wolverhampton.
 Boar of Small Breed.—1st, 4*l.*, and Silver Medal, H. Wardle; 2*d.*, 2*l.*, M. Walker.
 Breeding Sow of a Small Breed.—1st, 4*l.*, M. Walker; 2*d.*, 2*l.*, J. Faulkner, Bretby.
 Pigs in Pens.—1st, 4*l.*, Earl Shrovsbury, Ingestre, 2*d.*, 2*l.*, W. Smith.
 Small Breed.—1st, 4*l.*, M. Walker; 2*d.*, 2*l.*, R. Wyatt, Acton Hill, Stafford.

JUDGES—Dairy Cattle and Leicester Sheep: T. Brough, Alsop-in-the-Dale, Ashbourn, and W. Tomlinson, Bradley Pastures, Ashbourn Shropshire Sheep and Pigs: T. Mansell, Freall Park, Wellington, and J. Evans, Uffington, Shrewsbury. Shorthorns and Fat Stock: G. H. Sanday, Holmepierre point, Nottingham; and J. Woods, Clipstone Park, Mansfield Agricultural Horses: R. Swala, Suredon, Wolverhampton; and R. Warner, Weston Hill, Nuneaton. Hunting Horses and Brood Mares: J. E. Bennett, Bosworth Grange, Rugby; and H. J. Cartwright, Wolverhampton.

Farmers' Clubs.

KILKENNY.

Hints on Horse-breeding.—In a paper by Mr. J. PALLIN on this subject, lately read before this club, are the following passages:—The first object of every horse-breeder should be profit, with the view of producing a saleable, marketable article, exactly the same as you do your crops. To do so requires a fair knowledge of the subject, and a sufficient amount of care, patience, and intelligence. We have two kinds of breeders—namely, those who breed by chance, and those who go systematically about it. Of the former we have the most frequent instances. A gentleman or farmer happens to have a mare which has carried him safely and comfortably for years on the road or in the hunting-field, or has been his trusty slave in harness; and for either a kindness for past services, or some other cause, he wishes to have a foal from his favourite, feeling quite happy to have so good an animal to breed from. No further consideration is bestowed; her shape, temper, constitution, and action may be all good for a hunter or roadster; still she may not be suited at all for a brood mare.

Again, a person may have a mare which he intends to make a brood mare, which has not any of the qualities possessed by the other. She may be old, badly shaped, bad tempered, broken down, or of a washy constitution, blind, spavined, or curdy hocked; still she is used as a brood mare, simply because she is on the farm. Now, can anything be more foolish than to expect success in breeding in such a way? And as it is by far the most common practice, can it be wondered at that so many farmers complain that horse-breeding is unprofitable? Disappointment and pecuniary loss must accrue to the breeder, and a great injury is done to the country at large. I am willing to allow that a good foal may be produced from such a mare as described, but in 99 cases out of every hundred a useless brute is the result.

Choice of Sire.—Again, how does the chance breeder proceed in the choice of his sire? Does he look for one which has all the points and parts of perfection in which his mare is defective?—one which resembles her in size and form, but superior in breeding? If he did, half the evils might be avoided; but chance is again trusted to, and all the anxiety he evinces in the matter is the cost of his horse's services; while, in other cases, it is the one which passes the gate, or is close at hand, or perhaps the property of a neighbour or a friend, who is glad to give the service for other compliments. He may have every defect to which horse-flesh is liable; but this is no matter to the chance breeder: a foal is all he seems to desire. He never pictures to himself the cost of rearing it up to three or four years old, and bringing it to a fair, when, if he is sold, and comes under the eye of a veterinary surgeon, he has the unpleasant task of informing him that his horse is a roarer, or has a pair of diseased hocks; he is taken home, sold for a trifle, or put to work on his master's farm, which, in a short time, reduces him, by more fully developing the diseases, to a cripple, and he drags out his weary existence in misery. The systematic breeder never allows any chance work to creep into his concerns. Whether he breeds racers, hunters, carriage, saddle, or cart-horses, he selects with deep anxiety his breeding mares, and those which he can trace back to blood of unquestionable family in their class. They select the best sires, and scrutinise their performance, pedigree, and shapes, and, in all probability, breed from those which have been already tried and found to produce animals of the right stamp. Any defects in his mares he endeavours to correct in his foals by having the sire super-excellent in those points, so that, by close attention to those matters, he can almost calculate with certainty what sort of animal he will have to dispose of at a certain age, the market for him, and what in all probability he will be worth. Breeders of this description are yet not numerous in those counties. There is, however, nothing to prevent them becoming so, and they will generally succeed best by confining themselves to breeding the one class of horses. I will boldly assert that horse-breeding will pay the Irish tenant-farmer who breeds systematically and knows its management. We know how difficult it is to succeed in any undertaking when we do not understand it; and the same difficulty exists in horse-breeding. The demand for some years has rapidly increased, from the fact of foreign dealers purchasing a large number of our best colts and fillies.

The fame of our Irish horses has extended far and wide; and the further we go away from home, the more are prized our "Irish nags." I can only account for it by the fact that they must have that great recommendation, which is an inheritance, not alone of Irishmen, but Irish horses—namely, pluck, stamina, and hardihood. The French and Austrian soldiers are now carried by Irish horses; and if it were not that some striking peculiarity existed, they would certainly find remounts in their own country.

Choice of Dams.—In selecting the second part of my subject, I take the mare, as on her, I consider, depends three-fourths of the importance in, I may say, any breeding, but especially in horses. I have scarcely ever seen a bad horse of any class out of a good mare; and there is scarcely an instance of extraordinary horses but the prevailing point of excellence could be traced in some way to the dam. At the same time, we must not throw over the consideration of the stallion's properties. In racing, I could give you several instances where the same mare, with different sires, produced almost every year a horse of character, such as the dam of Stockwell, which has been justly styled the Emperor of Stallions, from the number of winners he has produced. Pocahontas, his dam, almost to her last foal, transmitted to each that peculiar gift of speed which makes a race-horse; and at present there are no less than six of her sons at the stud, and each of these has, to a greater or less extent, the same peculiar power. Rataplan, although an own brother to Stockwell, and said to have been a gamer race-horse, has not been so successful, but still was above the average with several sons at the stud—good horses, from their power and stoutness—one, I may add, in this county, which will, I am confident, be of service to the country in getting good half-bred stock. Amongst our home-blood we have the great Birdcatcher, whose dam, old Guiccioli, with almost any sire, produced running horses, she being also the dam of Faugh-a-ballagh, which went to France, and whose progeny are now the cream of the French studs. I only bring forward these few instances to illustrate the fact I have found must be first looked to—namely, the dams. In breeding hunters, carriage, or farm horses, you will find it equally marked, and at present I know of a farmer who has a mare up to last year which produced nine or ten foals, and he never got less than from 70*l.* to 100*l.* for them at four years old; while every year she got different horses. Temper, power, endurance, spirit, I think, generally follow the dam; form, action, &c., the sire. In selecting your mares, the following particulars should be inquired into:—True blood, soundness, shape, action, age, height, and temper. As I do not intend to particularise any class of horse, the remarks I offer are applicable to all. Of course, each has its peculiarities. For instance, a thorough-bred shoulder is a bad one to put to a collar, and thorough-bred action would not answer in a four-horse plough. General rules I can only give you, and you can apply them to all classes of horses. It is not my intention to enter into the due observance of the crossing of different and peculiar strains of blood to produce a first-class racer, nor shall I dwell on the breeding of thorough-bred stock. The horses bred by us are of a lower class, and to those I will direct your attention. The pedigree of a hunter does not require that nicety of selection as in blood stock; still, I consider it almost indispensable to have at least a couple of crosses of the thorough-bred. There are certain breeds which are peculiar for the natural qualities of jumping, and mares from such strains should have a preference. Wexford has long been famous for its hunters, and I think it has been due principally to that famous sire Elvas, who I may say stocked the country with his progeny for many years. They were all peculiarly made, long, low, strong horses, with shapes eminently suited for the hunting field, besides being natural fencers. Some of the sons and daughters of the famous Irish Birdcatcher have given us splendid natural hunters. In Carlow we had two of his sons—The Trapper and The Bird—which have produced nice stock, while in Kilkenny, Doctor O'Toole has not disgraced his sire's name. In Kilkenny and Tipperary, the Welcomes and Greathearts were well-known hunting blood, and some of the mares from them in the country still are breeding well.

Hunters, Hacks, and Ponies.—Without losing sight of size and power, for they are often called on to perform extraordinary acts of gameness, and from the thorough-bred blood comes all the pluck and courage to stay a distance, and by their blood-like action to give their riders a comfortable seat in their saddles. In a hunting-field the blood will always tell, and although I have sometimes seen true-made hunters to look at got by a cart-horse, I have scarcely ever seen one of them reach the end of a run with a moderate pack of foxhounds. It is not necessary for a brood mare to produce hunters to have been a performer herself, but there are a few points indispensable, namely, a fine, well-laid shoulder, depth of girth, short cannon bones, with size, a good back, plenty of rib, big quarters, thighs, and hocks, with her hind-legs in the proper position under her. In the breeding of carriage horses, pedigree is not of great importance; but without a dash of thorough-bred blood in her veins, it is impossible to have them step well.

Mares to breed a carriage horse may be of a plainer kind than hunting brood mares, but they must bend the knee, and have plenty of quality about their head, neck, and shoulders. Some years ago there was a class of clean-legged Irish draught horses in the country that could pull their 30 cwt. in a cart, or trot their master to market 10 miles an hour. They were bays, blacks, or chestnuts, of no particular breed. They stood on short sinewy legs, with long bodies, flat off their ribs, and generally high-hipped; long thin heads, with hairy rough muzzles, but with a good prominent eye, which denoted determination. Such a class of

horses has now nearly vanished from our country, those which are still left are producing the best and harness horses I meet. At present I know of a mare of the kind, 25 years of age, which has produced 15 or 16 live foals, with a small loss in the county Carlow. She has been almost his principal support, and with different sires, her colts all brought a uniform price of from 70*l.* to 60*l.* at 2 years old in the halter, and, as the old man told me, a veterinary surgeon has never had the fortune to put his hand over one of her progeny. Fortunately for his profession to which I belong, such a breed has disappeared for disease was almost unknown amongst them in form; but unfortunate to the tenant-farmers of the country at large, for we shall never see their like again, besides being a class of animals well suited to what wants, they were easily kept in condition, and at maturity at an early age. Some of the best I have seen have been the produce of our Connemara pony and a good thorough-bred horse, when they be had large enough; besides, they generally wonderful durability, and a snare of quality. Shoulders and legs should be the principal parts to in the mare, as without they are well formed, an animal cannot be a good hack. Thick shoulders are almost worse in this class of horse than any other, as they seldom can exist in any horse out his having a tendency to stumble and trip up less. Good legs and feet are indispensable to a road, and to produce which the dams should have them well shaped, and in the proper position.

Draught-horses.—There are, perhaps, no equine species which will bear so much of the Connemara pony, and they were well suited to the wants of the small tenant-farmer of half a county. There is no part of my subject which will interest as a body of advanced practical farmers, as remarks on what we want to constitute a good brood mare—a breed which, I have come to the conclusion, even with the the number of horses of the kind which have been imported into the country of late years, has not improved proportionally. Clydesdales have, for years past, been looked upon as the most desirable breed to introduce into the country, but I must say, in my short experience, I do not think so, as I do not consider them, in general, to the wants of our ordinary tenant-farmers. I no doubt that they are fine, powerful animals, and draw enormous burthens; but in our land, as we have here in this county, such an amount of horse power is seldom required, besides, where is the farmer who has 20 or 30 acres of land could feed a pair of them year, to keep them in proper condition (which amount to fat)? Their action is slow, and until they are aged, they are generally what may be termed "soft" with clean legs, compact make, that can bend the knee, and don't dish in their trotting action, well with a thorough-bred horse; but for such the breeder should always select a sire who will give well laid back shoulder, and light head and neck. It is in those points that Clydesdale mares are rully at fault. For draught purposes, the straight-shouldered, wide-chested horses are best with such a conformation they must have a corresponding want of pace, which invariably, if not acted in the opposite sex, will come out in the form of a good draught mare should stand from 15 to 16 hands high, and need only exert in walking, she should do light and freely, placing her feet on a flat on the ground. Her head should be round, but well-shaped, with round, plump, and new shoulders, strong, muscular, and fully developed. I have said, standing upright more than oblique, being strong and thick, as from this formation the weight is thrown into the collar than if the neck were light, with oblique shoulder; leg should not be too short for the weight of the body, and should be lengthy; pasterns strong and short, well rounded, well-formed feet, which should be furnished with dark-coloured hoofs, loins and haunches inter-fused, with plenty of breadth, which assist also in carrying weight into the collar. Any one who has had a steady puller under a heavy load must have kept how the animal lowers the head, bends the knee, and digs the hind toe into the ground. Some of the best and Cleveland bays which have been imported into this country, and crossed with our Irish mares, produced the most useful class of draught horses I met; they have all the spirit and quickness of our Irish horse, and, at the same time, the weight of the Suffolk. Some of the best of the dale bred in the same way are good farm-horses when not too tall suit our wants admirably. I have seen some animals got by a Norfolk horse, which in this county some time since, which were perfectly serviceable animals. I would strongly recommend such a class of horses to you; but it is difficult to get a sire of the actual stamp, much looked for both for the country and for exportation.

Soundness.—The all-important point of soundness now to be considered. It is the essential element in brood mare for all purposes. It is a notorious fact there are certain diseases of which the parents are subjects, and which will descend to the progeny, prevent such results, which I think cause much pointment, we should be particular in the examination of our mares required for the stud. In many cases, a mare is never put to the stud until she is fit for anything else, but let me impress on you that when you have a mare fit for nothing else, consign her to the stud rather than encumber yourself with her useless progeny for such they must be. It is often difficult to draw a line between hereditary diseases and those of accident. In general, those which are hereditary defective conformation, such as spavin, splint, ringbones, sandcrack—all diseases affecting

Blindness and navicular disease come under the former class, although they may be the result at any time of the latter also. Spavin and curbs, although distinct diseases, and depending on different causes, are found in the produce of horses which have badly-formed hocks, although both diseases may be the result of accident. With curbs, if I found a mare with what is termed round or bent hocks, with a small os calcis or point I would not breed from her, as it is almost certain to come out in her progeny. On the contrary, if you had a straight, well-formed hock, and only a curb on one leg, I would not consider it of any consequence. Spasm, ringbones, and sidebones, I consider, are hereditary in almost any form. Indeed, ringbones will come out in generations, and I consider these hereditary dispositions depend on peculiar weak formation of the large and small pastern bones; or at other times, where the legs are so shaped as the centre of gravity comes over the top of the hoof, Nature throws out an ossification as a strengthener to the parts. Another hereditary disease I consider of much importance is blindness dependent on disease of the eyes—specific ophthalmia, a special disease of horses, which is certain to follow breeds, and on no account would I recommend breeding from either sex affected with it. A mare may lose an eye or become blind of both from an accident, but in any case it renders them more or less unfit as a brood mare to fill that office which Nature has destined her to protect and shield from injury her offspring. Diseases of the respiratory organs, as roaring, whistling, broken wind, thick wind, &c., I consider hereditary diseases. Roaring, dependent on imperfect formation of the throat,—horses with thick, hairy jaws, thick at their angles, and badly set on, large heads, all have a tendency to this disease, while I have sometimes found it in horses with long thin necks. Diseases in the feet in most cases are hereditary, navicular disease particularly so. Mares with narrow, mulish-looking hoofs, contracted at their heels, are invariably bad to breed roadsters, especially if this be accompanied by short pasterns, which make them more liable to the result of concussion. Sandcracks I have seen follow in families, and as it depends on a certain want of the connecting materials between the fibres of the hoof, and will often render a horse useless, it is certainly imprudent to use animals so affected for breeding, particularly if it is accompanied by flat feet, which is generally the case. In concluding my remarks on soundness, I may add that it is most important to have both horse and mare in a healthy condition, as the progeny of sickly or emaciated parents must inherit some of the debilities, besides having a tendency in any case to materially retard and interfere with the healthy development of the foal during gestation. Perfect conformation and soundness in both male and female is of the greatest importance, and he who breeds from either in an unhealthy or diseased state must feel assured that he cannot expect his progeny to be otherwise; as the old adage says, "like produces like."

Farm Memoranda.

LODGE FARM, CASTLE ACRE, NORFOLK.—This farm consists of 997 acres of land, and was taken by Mr. Hudson in the year 1822, together with an adjoining farm of 500 acres, which now forms part of the occupation of his son, Mr. Thomas Moore Hudson. The two farms had been refused by three persons before Mr. Hudson took them. They were both poor and foul, and the outgoing crop, which was carried by the new occupier, amounted to 20 bushels of Wheat and 21 bushels of Barley per acre, while the roots did not enable him to winter more than 10 bullocks. After being cleaned and fertilised by the liberal use of rape-cake, the land gradually improved, and now, after the expenditure for the last 30 years of between 2500*l.* and 3000*l.* per annum in oilcakes and other feeding stuffs, shows well as from 800*l.* to 1100*l.* per annum in artificial manures, according to their price, the 1000 acres will now winter from 100 to 140 steers, according to the root crop.

Grass Land.—The grass-land consists of about 200 acres, all of which is pasture, and fed principally by hay. From 10 to 50 acres of it are irrigated, but even the hay, although very good as feeding land, is useless for mowing. Irrigating is begun in November, after the Grass has been eaten off, and the water is shifted in succession from one part to another, after having remained a few days on each, until the beginning of March. The cost of cleaning out drains, the river, and so forth, is about 10*s.* per acre annually. Sheep are put on the irrigated pastures by day as soon as there is good feed for them—generally about the end of March or the beginning of April.

Arable Land.—Five-and-twenty years ago, when the Society offered a prize for the best essay on the Agriculture of Norfolk, Mr. Hudson farmed on the digenous four-field system, and his *modus operandi* is described in some detail by Mr. Barugh Almack in his commended essay, published in the fifth volume of the Journal. For some years past Mr. Hudson has farmed on the five-course system, getting some catch crops in addition, as follows:—1, Wheat; 2, Barley, followed by (a) Tares and winter Oats, (b) early Peas, or Rye for feeding; 3, Turnips, 4, Barley; and, 5, seeds. At present, however, Mr. Hudson is gradually getting shift back to the ordinary four-course system, as, on the whole, he considers it better adapted to the West Norfolk land. This is particularly worthy of mention, because about 11 or 12 years ago the five-course system—taking, however, Oats after Wheat instead of Barley, and no "catch crops"—appeared to be undervalued in the eyes of the Norfolk farmers.

Wheat.—The Clover ley is manured with 10 loads of farmyard manure as soon as possible after the Cow-

grass has been mown, or the Trefoil and white Dutch have been fed off. The manuring is generally done in July, August, and September. The land is then ploughed to a depth of 5 inches, heavily rolled, sometimes with a Cambridge roller, and harrowed four times; and afterwards drilled with from 8 pecks of Spalding Wheat at the commencement of the season, to 10 pecks at the end of the year, the drills being 7 inches apart. It is then harrowed twice, and rolled with a Cambridge roller. In either February or March the Wheat is hoed either by horse or by hand, and is top-dressed with 2 cwt. of guano per acre.

Wheat is cut with a Burgess & Key's reaping machine just before it is ripe, it is headed by men and women at 3*s.* per acre, and is shocked by odd hands, the fields being gone over afterwards with wood-tined horse-rakes. The sheaves stand about a week on the shock, and are then put into long stacks on the field where the crop has been grown. This system of stacking is pursued with every kind of crop, and thus the necessity of stackyards is entirely done away with. The stacks are generally 13 yards long and 7 yards wide, and the distance from the eaves to the ridge is about 15 feet. The thatching is done at 5*d.* per yard run at the eaves, which is equal to about 1*d.* per square yard. Round stacks of 9 feet diameter at the base were formerly very much in vogue, but they are, comparatively speaking, rarely made now—certainly by no means so frequently as in former years. Threshing is done partly by fixed and partly by portable steam-threshing machines, and the corn is dressed by hand finishing and winnowing machines. Previous to sowing the Wheat is dressed with Down's Farmer's Friend.

2. Barley.—After the Wheat is harvested the stubbles are forked over by hand, at a cost of from 6*d.* to 1*s.* per acre, so as to thoroughly clean it and get rid of Twitch. The land remains thus until February, when it is ploughed to a depth of about 4½ inches, and dressed with 2 cwt. of guano per acre, by means of Chambers' manure distributor, drawn by two horses. It is then immediately harrowed again, and drilled with 3 bushels per acre of Golden Melon Barley. Sowing commences about the middle of February, and is finished as soon as possible. After sowing, the land is harrowed twice over, but seeds are not sown on the Barley in this course. Barley is weeded in June by women at from 4*d.* to 5*d.* per acre.

The crop is mowed with a Burgess & Key's machine; it is collected with gathering forks, the land being raked between the heaps, and the corn is afterwards pitched, loaded, and stacked, Barley being neither sheafed nor shocked.

Harvesting white crops is generally done by gangs of men, who engage for the harvest. Mr. Hudson hires 27 men annually to harvest the white crops, on a farm comprising about 800 acres of arable land. These men are divided into three companies of nine men each, namely, two loaders, two rakes, and five at the stacks. These men get about 6*l.* 10*s.* each for about three weeks' harvest work, including trimming the stacks, putting up the implements, and clearing up generally.

Oats are seldom or never grown as a white crop, but their place in the rotation would be instead of Barley in the course just described.

3. Roots.—The 100 acres devoted to this course are generally subdivided as follows.—15 acres white Tankard Turnips, 10 acres Swedes, 15 acres green round Turnips, and 20 acres Mangels.

(a) **Turnips and Swedes.**—The Barley stubble is forked over in the same manner as already described in the case of Wheat stubble. After Wheat sowing is finished it is ploughed 6 inches deep, it lies all the winter, and as soon as Barley sowing is finished it is again ploughed—across the previous furrows. Subsequently it is scarified and harrowed, as may be required. In May the land is ploughed again, and ridged in the beginning of June, eight loads of farmyard manure per acre being put in the ridges. Just before sowing, a dressing of 3½ cwt. of superphosphate, and 1½ cwt. of ground rape-cake, mixed together, is drilled on the ridges, and immediately upon this 1 lb. per acre of Turnip seed is drilled with a small seed drill. All the Turnip seed is sown on the ridge, except a small quantity in the autumn, which is sown on the flat.

White Tankard Turnips are sown for September and October feeding, Hudson's Swede (a kind of Purple-top) for winter use, and green round Turnips are sown in autumn after Tares (which are sown on Barley stubble after Wheat) for use in the spring.

As the Turnips come up they are first horse-hoed, then cut out to 11 inches apart, at a cost of 2*s.* per acre, being singled by a gang of women at 1*s.* 6*d.* per acre. After singling, they are horse-hoed again, and finally each plant is hoed round—an operation which is locally termed "scouring."

The Swedes are pulled when ready, and six drills of them are placed together in a row; a furrow is then ploughed on each side, so as nearly to cover the roots with earth, and thus protect them from frost, &c. The white Tankards are first fed off, being generally consumed before the hard weather commences. They are pulled and sliced for the sheep, to which they are given in troughs, with an allowance of cut hay, and about half a pound of linseed-cake each per diem. After these are finished the Swedes are topped and tailed, and thrown into heaps, from which they are sliced and given to the sheep. The green round Turnips are fed off by ewes and lambs in March and the beginning of April, and the land is immediately afterwards sown with Barley.

(b) **Catch Crops.**—The 15 acres intended for green round Turnips perform another duty previous to being devoted to that crop, being sown with either Tares and winter Oats, or early Peas. Rye for feeding is also grown as a catch crop before green round Turnips.

In the first case, after the Barley stubble has been forked over to get out Twitch, it is manured with ten three-horse loads of farmyard manure per acre, which

is ploughed in 5 inches deep, and the land is immediately drilled with 2½ bushels of Tares and half a bushel of winter Oats per acre. This crop is generally fit to mow for the horses about the middle of May, and the land is immediately afterwards ploughed and cleaned, and soon after the middle of July sown with green round Turnips.

Early Peas are sometimes sown on Barley stubble instead of Tares. The land having been forked as before, it is manured with eight three-horse loads per acre; this is ploughed in 5 inches deep, and 3½ bushels of early Peas per acre are drilled in about the end of November or early in December, the rows being 9 inches apart. When well up, they are hand-hoed at 2*s.* per acre. Harvesting is done the third week in July, the whole strength of the farm being employed in cutting and carrying as quickly as possible. The Peas are cut with hooks, and are immediately carted on to a piece of seeds or hay stubble to ripen. They are laid out in beds with paths between them, so that they may be easily and frequently turned until ripe.

As soon as the Peas are carted away the land is cleaned, ploughed, and drilled with green round Turnips, and a dressing of 3½ cwt. of superphosphate and 1½ cwt. of rape-cake per acre.

For Rye the land receives the same preparation, except that no manure is applied, and it is sown in September or October, with 3 bushels of Giant Rye per acre. This crop comes in for spring food for the ewes and lambs in April. After the Rye is fed off, the land is ploughed 6 inches deep, rolled with a three-horse roller, and then harrowed. After this treatment it lies for three weeks, when it is again ploughed, and afterwards sown with green round Turnips, and treated as ordinary Turnip land.

(c) **Mangels.**—The 30 or 40 acres of Mangels usually grown are sown on the strongest and best land available in the shift. The land is ploughed and otherwise prepared in the winter, and ridged about the middle of April, when ten three-horse loads of manure per acre are put in the ridges, and covered with from 2 to 3 cwt. per acre of guano; the ridges are afterwards closed up by a double-breast plough, and drilled with 7 lb. per acre, generally of Long Yellow and Long Red, Globe Mangels being grown only on the very best land. Since steam cultivation has been adopted the land for Mangels has been tilled in the autumn to the depth of 8 or 9 inches, and the seed has generally been got in earlier than formerly, from which great benefit has been derived.

The plants are first horse-hoed, then cut out with a 14-inch hoe, at a cost of 2*s.* per acre, and singled, in the same manner as Turnips, for 1*s.* 6*d.* per acre, after which they are horse-hoed again.

The Mangels are taken up the last week of October or the first week in November, topped, but not tailed, and put into "clamps" 6 feet wide at the bottom, and coming to a ridge at a height of 4 feet from the base. They are covered with a thick gavel of straw, and afterwards with about 4 inches of mould; the ridge is left open for about a fortnight, after which it is entirely closed. Pulling, topping, loading, and stacking cost altogether from 6*s.* 6*d.* to 7*s.* per acre, according to the crop. Mangels are chiefly given to the feeding beasts in the foldyards, commencing in January or February, these also getting from 10 to 12 lb. of cake per day, with cut hay or straw, and a few are also used in the spring for fat sheep after the Swedes are finished. Mangels are always sliced with the Turnip-cutter.

4. Barley.—After the Turnips are fed off, the land is ploughed, and then allowed to remain untouched until the middle of February, when it is harrowed, ploughed again, and drilled with 3 bushels per acre of Golden Melon Barley; it is then laid down with 20 lb. per acre of small seeds. The harvesting and other operations connected with Barley have already been described in treating of Barley after Wheat.

5. Seeds.—Half the Barley of the above course is laid down with 14 lb. of Trefoil and 6 lb. of white Dutch per acre for summer feeding, and the other half with 20 lb. of Cow-grass per acre for mowing. After sowing, the land is harrowed, and as soon as the Barley is sufficiently strong it is gone over with a one-horse roller.

The Cow-grass, of which there would be about 80 acres, is mown with a Burgess & Key's Grass-mowing machine, and the labour is paid for as day-work. The stacks are about 5 yards wide, and as long as necessity requires. As soon as the hay is off, the land is manured for Wheat, as already described. The remaining half of this course is fed off by sheep during the summer, and then manured as soon as possible. Mr. H. M. Jenkins, in "Royal Agricultural Society's Journal."

The Poultry Yard.

THE COMING BIRMINGHAM SHOW (Continued from last week).—The pigeon classes at Bingley Hall are always well worthy of notice, and although the classification does not always meet the approval of those who are disposed to make one breed of birds their especial favourites, to the prejudice of others, yet we think that the committee shows its anxiety to make progress by constantly adding new classes, and extending its already lengthy list.

Pigeon fanciers, while spirited in carrying out and developing the birds to which they are most attached, regard the other classes with an apathy that is discouraging. Some go so far as to count only carriers, pouters, and tumblers as worthy of classification, and dismiss the other varieties as "toys." We think that the progress made in the last few years in some other breeds will lead to a more general acknowledgment of the merits and beauties of other kinds of pigeons. Almond tumblers head the Birmingham list, with a class giving them three prizes. Carriers follow, with half a dozen classes, each furnishing two prizes.

See Mr. Clara Sowell Read's Essay on "Recent Improvements in Norfolk," in the 19th volume of this Journal, 284 and 285.

more greedy are the pouters, monopolising ten classes. We think they might be curtailed with advantage. It is true the birds are very handsome, but why should not the tried birds compete one against the other?

The favourites of London fanciers of past generations, the little baldheads and beards, come next; we hope they may muster well. Tamblers follow, with two classes, which we suppose are intended to take all varieties except almonds. The improvement that has been noticeable in the runts exhibited during the last few years, is this year to be still further encouraged by a five-guinea cup, offered as first prize by Messrs. Baily & Son, of London. The birds now exhibited are heavier by more than a pound per pair than were the winners a few years since; and when it is considered that a pair of ordinary young pigeons weigh about 20 ounces, while we now see runts that pull down four and a half pounds per pair, it is worth while to try to what extent this growth can be developed. We are aware that the comparison of the runt with the almond tumbler or carrier is not to the advantage of the former as regards appearance; but we may recall the Dorkings of years ago with those we now see, and see the beauty and symmetry to which careful breeding has brought a breed formerly called "dunghill" and "barndoor." The same result might be looked for to a certain extent with pigeons; and that which seems a great weight to us now for a pair may be only an average in a few years' time.

Jacobins come next on the list, and few prettier pigeons are seen in the pens. Fantails have two classes—we should like to have seen a third for, so-called, Indian fantails. We get from them a perfection in points hardly ever attained by the larger and coarser English birds. Trumpeters are rising in importance as a class, and are now showing what may be done by the introduction of fresh blood. Two classes are allotted for owls—one for the foreign and one for the English variety, one class of three prizes for nuns of all colours. Owls and nuns rank among the first favourites in small pigeons, followed in estimation, as in position, at Birmingham, by the turbits.

Barbes, a very important breed of pigeons, and one that takes a high standing with amateurs in all parts of the world, have two classes; one for blacks, and one for birds of any other colour. That three classes should be allotted to dragons will excite surprise everywhere but in the town where the show is held. No one will grudge the class apportioned to the pretty little magpies; and we hope that the two classes following, which are to be filled with Antwerps, may bring both judges and breeders to one opinion as to what the real Antwerp should be. Archangels and swallows close the list of classes for single varieties. Following them comes the class which is the nursery of all new varieties, in which six prizes are given. We omitted to notice earlier that Mr. W. R. Rose offers a cup, value three guineas, for the best pouter in the show. There are 12 classes for pigeons, and as in some cases the competition is so close as to involve the close handling and examination of many birds, we would suggest an increase in the number of the pigeon judges.

WE are afraid that goose-eating at Michaelmas is going out of fashion. Certain it is that seldom has the demand been so small and the supply so indifferent as this year; and we think hardly ever has the weather been so much against the feeders. On Saturday last there was a good demand for geese, and but very few at market. On Monday—the first real Michaelmas market—very few geese, and nearly all of those spoiled by the closeness of the weather, and from having been killed when full of food in order to increase their weight. On Tuesday the supply was good as regards number, but the geese generally were very small. There were one or two lots which showed the cross of the large Toulouse birds, and they sold well; others again showed the head and stripped neck of the Chinese, and were avoided. The Essex geese were many of them small geese, that had been imported from Holland and Ireland when goslings and turned down to fatten at the feeders' in England. They hardly ever attain any size, and are seldom good eating. The best geese that come are those fed by the Norfolk and Cambridgeshire farmers. They make up full of meat, of good quality; and where attention is paid to the breed, so that good size is coupled with quality, they sell very well. The Irish and French geese were below the average, both in number and quality; and those from southern England had, as a rule, been but poorly fed.

— We are of course unable to report any general result of the bags made yesterday; but we think it will be found that in the west and southern parts of the country the first hatch of pheasants was not so bad as has been imagined. The reports from the eastern counties up to the present are not encouraging.

Calendar of Operations.

OCTOBER. Harvest in late districts of the North is seldom finished before the beginning of the month, and in late seasons much corn is often abroad in the North towards its close. But unless the wet is accompanied with a high temperature, there is not that tendency to sprouting which exists in the early and wet harvests of the South. In cold weather small loosely bound sheaves and well set stocks stand a good deal of water without sustaining much harm, the straw often suffering more than the corn. This is especially the case with Oats, the straw of which is chiefly consumed as fodder by cattle. Fine Oat straw is highly prized as feeding material, and hence to get a good crop of Oats, and that crop safely harvested, is no secondary question in the North.

Michaelmas Entries to Farms.—New servants, where changes take place, and the balancing of the books, &c., engross attention in our southern counties at the commencement of the month, as the

farmer's year very generally commences with October. In the olden time it was common for the incoming tenant to purchase out his predecessor for a "lump" sum, as agreed upon, the former taking everything on the farm, including hired servants. But owing to the great improvements which have recently taken place in live and dead stock, old-fashioned farmers who have fallen behind in the march of improvement cannot thus be purchased out when they give up their farms. For, at the present time, very great circumspection and skill are required by the incoming tenant in the selection of live stock and implements at his entry. No doubt cheap entries suit men with limited capital at the present day, as they always have done hitherto. But tenants who enter with limited capital will find it better to hire steam ploughs, cultivators, and other implements of tillage, threshing machines, &c., than to start on the old plan with an extra strength of inferior working horses and ineffective implements; and the same principle applies to live stock, i.e., if the incoming tenant cannot consume the whole of the root crops, hay, &c., with a paying stock, it is better to let part to some other person, than to attempt to consume the whole with a worthless stock that will not pay. It is not necessary that the live stock should be expensive thorough-breeds. Indeed, this should rather be avoided; but the live stock should be a paying stock; and for a similar reason it is not necessary that the working cattle and implements should be all new, and of the most expensive sort. Such are the contracts which, in the case of limited capital, should be carefully avoided. But the teams should be fit for their work, and the implements, &c., although not new, should be of the best make, and thus capable of making good work. It is by attention to such practical data that some intelligent farmers start successfully with about half the capital which others find a losing concern, or else experience very great difficulty in keeping their own.

Wheat Seed-time extends over a greater portion of the autumn months than formerly. This arises from the reduced breadth of naked fallows, and the greater area of land under root and green crops now followed by Wheat. When to have summer following of what was then termed Wheat soils was the common practice. Wheat-sowing about the beginning or first week of October was the general rule, South and North; and so closely was this rule adhered to, that many farmers were of opinion that later seeding of the land was attended with less promise, and no doubt it was on undrained tenacious clay soils. But improvements in drainage, cultivation, and manuring, enable farmers to get a fine seed-bed for Wheat after mangels and Swedes are removed from the land in November, the young Wheat plants, too, having time to be thoroughly established before the winter sets in. Indeed, in our southern counties some degree of caution is necessary in mild seasons in sowing early, otherwise the Wheat will be "winter proud." To obviate this "sow thin," say the advocates of thin seeding. In the North, where winter sets in earlier, there is less liability to harm, but even in our northern counties, as Fister Ross, early sown Wheat in mild seasons is liable to be "winter proud," more especially when sown thick. But when the autumn is cold, the winter early, and the spring late, thin sowing in the North is attended with a deficiency of plant, but not to the extent formerly experienced before the land was thorough drained. More seed is thus required in the North than in the South, generally speaking; and in each case less seed is required in mild seasons than in cold ones, and with early sowing than late sowing.

Live Stock.—The comparative question resulting from improved agriculture in the management of our herds and flocks is the reverse of that of Wheat, given above. Thus the stock that used to be starving at our hedge sides in November and December under the old practice, is now improved and put up to fatten in September and October of the previous season, so to speak, as we now have an abundance of feeding materials outdoors and indoors with which to force them forward to early maturity and the shambles. Thus in our southern counties, as Surrey, Hants, Dorset, and Devon, the horned Dorset ewes begin to lamb and are put upon the young Clover seeds and Italian Rye-grass and Turnips, whereby both are sometimes ripe together for the shambles by Christmas, without either cake or corn. In other cases cake, corn, &c., are needed. Over the greater breadth of the southern and midland counties the rams are put to the breeding ewes with a view to lambing the last week in February or first week in March. The fattening sheep are put upon Rape or Coleseed, or Turnips; sometimes the wether hogs are treated in the same way, or the latter may be folded during the day and turned back into the pastures over-night. The practice is very diversified, much depending upon the weather, the state of the pastures, and the crop that is to succeed the Rape and Turnips. If Wheat, and the land be heavy clay, it may be advisable to feed off as early as possible, or before the weather breaks, with the view of getting in the Wheat in a proper seed-bed.

Notices to Correspondents.

FARM ACCOUNTS. Bath. You might adopt Mr Jemmett's system as developed in his books for the farmer's use. His address is Muswell Hill Farm, near Reading. WHEELS. M. W. In pastures weeds are discouraged by drainage, close pasturage, and artificial top dressings, and by perseverance in spudding or pulling large plants at all seasons of the year, especially in the spring and summer, and before their seed time. If these means will not avail, the land must be ploughed up, well fallowed, and laid down again. COMMUNICATIONS RECEIVED (Too late for this week).—"The Crops of 1869" (J. B. Lawes and Henry Watkins); "How much Milk and Butter will a Cow give" (G. A. H.); "Recent Analyses" (E. O. Greening); "The Potato Crop of 1869" (W. Paterson); "Half-inch Bones for Meadow-land" (T. B. F.). Next week.

E. T. ARCHER'S "FRIGI DOMO" Patent. Patented by Her Majesty the Queen, the Duke of Devonshire for Chiswick Gardens, Professor Lindley for Horticultural Society, and Sir Joseph Paxton for the Palace, Royal Zoological Society, Royal Gardens, &c. The best Shading is "Frigi Domo" Netting. White or Brown, made of prepared Hair and Wool, a perfect conductor of heat or cold, keeping a fixed temperature when applied. It is adapted for all Horticultural and Florist purposes, for PROTECTION from the COLD WINDS and MORNING FROST. "FRIGI DOMO" NETTING, 2 yards wide, 1s. 6d. per yard. "FRIGI DOMO" CANVAS. Two yards wide ... 1s. 9d. per yard. Four yards wide ... 3s. 6d. per yard. An improved make, 2 yards wide ... 1s. 6d. per yard. An improved make, 3 yards wide ... 2s. 8d. per yard. "Sir,—Will you be good enough to send me 60 yards of Frigi Domo, 2 yards wide, of your improved make, 1s. 6d. per yard. You can forward it per London, Tilbury, and Southend Railway had some of you several years since, but have not found a substitute so good for Greenhouse and Stove Shadings.—I am, Sir, respectfully, "Glenwood Wood (Solicitor, Reading)." Mr. E. T. Archer, 7, Great Trinity Lane, Cannon Street, E.LISHA THOMAS ARCHER, Wholesale and Sole Manufacturer, 7, Great Trinity Lane, Cannon Street, City, E.C., and of all Men and Seedsmen throughout the Kingdom.

Horticultural Glass Warehouse. THOMAS MILLINGTON AND NEW LIST FOR ORCHARD-HOUSE GLASS as supplied to Her Majesty, the Nobility, Gentry, Mr. Rivers, and the leading Cultivators of the United Kingdom. ORCHARD-HOUSE SIZES. In. in. 4lbs. 3lbs. 2lbs. 1lb. 20 by 12 ... 15 oz. 12s 3d 15s 6d 16s 9d 17s 6d 20 by 14 ... 21 oz. 18s 0d 20s 0d 22s 0d 23s 6d 20 by 15 ... 21 oz. 18s 0d 20s 0d 22s 0d 23s 6d 20 by 16 ... 21 oz. 18s 0d 20s 0d 22s 0d 23s 6d SMALL SHEET SQUARES, 15 oz., per 100 feet. In. in. in. in. in. in. in. in. 8 by 4 ... 7 by 5 ... 8 by 6 ... 9 by 7 ... 10 by 8 ... 11 by 9 ... 12 by 10 ... 13 by 11 ... 14 by 12 ... 15 by 13 ... 16 by 14 ... 17 by 15 ... 18 by 16 ... 19 by 17 ... 20 by 18 ... 21 by 19 ... 22 by 20 ... 23 by 21 ... 24 by 22 ... 25 by 23 ... 26 by 24 ... 27 by 25 ... 28 by 26 ... 29 by 27 ... 30 by 28 ... 31 by 29 ... 32 by 30 ... 33 by 31 ... 34 by 32 ... 35 by 33 ... 36 by 34 ... 37 by 35 ... 38 by 36 ... 39 by 37 ... 40 by 38 ... 41 by 39 ... 42 by 40 ... 43 by 41 ... 44 by 42 ... 45 by 43 ... 46 by 44 ... 47 by 45 ... 48 by 46 ... 49 by 47 ... 50 by 48 ... 51 by 49 ... 52 by 50 ... 53 by 51 ... 54 by 52 ... 55 by 53 ... 56 by 54 ... 57 by 55 ... 58 by 56 ... 59 by 57 ... 60 by 58 ... 61 by 59 ... 62 by 60 ... 63 by 61 ... 64 by 62 ... 65 by 63 ... 66 by 64 ... 67 by 65 ... 68 by 66 ... 69 by 67 ... 70 by 68 ... 71 by 69 ... 72 by 70 ... 73 by 71 ... 74 by 72 ... 75 by 73 ... 76 by 74 ... 77 by 75 ... 78 by 76 ... 79 by 77 ... 80 by 78 ... 81 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SUTTONS' FRESH IMPORTED FLOWER ROOTS FOR WINTER AND SPRING BLOOMING.



Messrs. SUTTONS' FLOWER ROOTS Have been selected from the principal Growers in Holland.

Messrs. SUTTON DELIVER ALL FLOWER ROOTS, Except very small parcels, Carriage Free by Rail.

Special Estimates for large quantities on application

Suttons' Complete £1 1s. Collection, For Cultivation in Pots and GLASSES, Carriage Free.

- 12 fine Hyacinths, by name
6 Miniature Hyacinths, by name
6 Polyanthus Narcissus, do.
4 Large Double Jonquils
4 Single Sweet Jonquils
6 Single Sweet Tulips
6 Double Tournefort Tulips
25 Early Tulips, 5 sorts
3 Persian Iris
3 Peacock Iris
60 fine Crocus, by name
6 choice Lisias
3 choice Sparaxis
3 choice Oxalis
1 Jacobean Lily
1 Lilium lancifolium album
1 " rubrum

Suttons' Fine New Crocus for Pots.

- 1000 splendid named, in 25 vars. £1 15 0
500 do. do. in 25 vars. 0 18 0
250 do. do. in 25 vars. 0 9 0
100 splendid named, in 10 vars. £1 4 0
50 do. do. in 10 vars. 0 2 0
25 do. do. in 5 vars. 0 1 0

Suttons' Dutch Crocus for Open Ground.

- 100 in 10 vars. £0 18 6
500 in 10 vars. 0 10 0
Large Blue per 100 £0 1 0
White " 0 1 0
Purple " 0 2 6
Common Yellow " 0 1 0
Large Mixed per 100 £0 1 0
250 in 5 vars. £0 5 0
100 in 5 vars. 0 2 3
Large Yellow per 100 £0 1 0
Largest Yellow " 0 2 6
Cloth of Silver " 0 2 0
Cloth of Gold " 0 2 0

Suttons' Choice Polyanthus Narcissus, For POTS, GLASSES, or OPEN GROUND.

- 100 in 20 choice sorts £1 5 0
50 in 10 choice sorts 0 14 0
25 in 12 choice sorts 0 7 6
12 in 12 choice sorts 0 2 0
100 in 20 choice sorts £0 18 0
50 in 10 choice sorts 0 8 0
25 in 10 choice sorts 0 4 0
12 in 4 choice sorts 2s.

Suttons' Early and Large Double Tulips, Early Varieties.

- 100 in 20 choice vars. £0 18 0
50 in 10 choice vars. 0 8 0
25 in 10 choice vars. 0 4 0
12 in 4 choice vars. 2s.
Double Tournefort, p. 100 £0 12 6
Roses Duc Van Thol, p. 100 £0 14 0
Duc Van Thol " 0 7 8
Scarlet " 0 18 0
Single Duc Van Thol " 0 5 0
Yellow " 1 0 0
Choice named varieties, separate, 1s. to 12s. per dozen.

- 100 in 10 choice sorts £0 17 6
50 in 10 choice sorts 0 10 0
25 in 5 choice sorts 0 5 0
12 in 4 choice sorts 0 2 6

For COMPLETE LIST of BEDDING TULIPS (with an original article on Cultivation), showing the date of blooming, height, size of flowers, and colours of the varieties most worthy of cultivating, see SUTTONS' AUTUMN CATALOGUE for 1869, gratis and post free on application.

SUTTONS' SUPERB DUTCH HYACINTHS FOR CULTIVATION IN POTS OR GLASSES.

The best 12 HYACINTHS for 12s. Messrs. SUTTONS' COLLECTION of HYACINTHS consists of more than 200 varieties, a PRICED and DESCRIPTIVE LIST of which may be had on application.

Suttons' Collections of Named Hyacinths.

- 100 HYACINTHS in 100 very choice sorts £4 4 0
100 " 50 very choice sorts 2 10 0
50 " 25 very choice sorts 1 15 0
50 " 25 very choice sorts 1 15 0
25 " 12 extra fine sorts 0 12 0
12 " 12 choice sorts 0 9 0
12 " 12 good sorts 0 6 0

The order should specify whether they are intended to be grown in water or earth, as all kinds are not equally suited to both purposes. It should also be stated whether single or double blossomed kinds are preferred, otherwise we usually supply about two-thirds double and one-third single. The single varieties generally thrive best in water, but their merits are never apparent until the flowers are fully expanded.

SUTTONS' MIXED HYACINTHS for Beds or Open Borders.—Double, Single, and various colours, 2s. 6d. per doz., 17s. 6d. per 100. SUTTONS' HYACINTHS in DISTINCT COLOURS for Massing, Bedding, Ribbon Gardening, &c.—Double and Single, various shades, separate, 4s. per dozen, 30s. per 100.

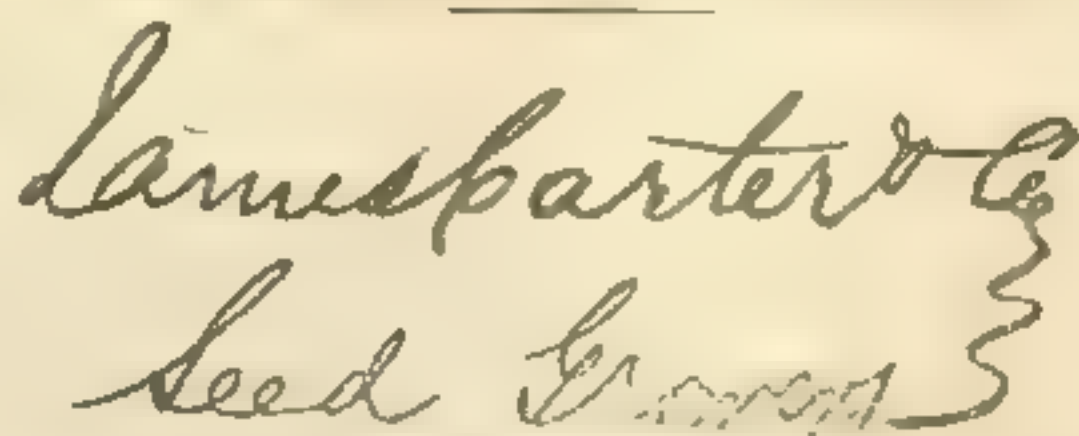
Suttons' Complete £1 1s. Collection For OPEN GROUND CULTIVATION, Carriage Free.

- 16 fine mixed Border Hyacinths
6 Polyanthus Narcissus
12 Pheasant's Eye Narcissus
12 Double White Narcissus
25 Double Daffodils
6 Large Campanella Jonquils
6 Large mixed Double Tulips
6 Sweet Arabis Ranunculus
18 fine mixed Double Anemones
12 Single Anemones
6 fine mixed Gladiolus
12 Duc Van Thol Tulips
6 mixed Single Early Tulips
6 mixed Double Tulips
6 Parrot Tulips
6 German Tulips
25 fine mixed Tulips
6 English Iris
6 Spanish Iris
1 Lilies, of sorts
1 Ferraria pavonia
6 Dog's-Tooth Violets
3 Crown Imperials

For further particulars and Prices of GLADIOLUS, RANUNCULUS, ANEMONES, &c., see SUTTONS' AUTUMN CATALOGUE, gratis and post free on application.

SUTTON AND SONS, SEEDSMEN TO THE QUEEN, READING, BERKS

ECONOMY IN THE GARDEN.



COLLECTIONS OF HYACINTHS, CROCUS, TULIPS, &c., TO PRODUCE A PRETTY AND PERMANENT DISPLAY DURING WINTER AND SPRING.

JAMES CARTER AND CO. strongly recommend the following COLLECTIONS, assorted from the most popular varieties:—

No. 1.—CARTER'S COLLECTION for WINDOW or CONSERVATORY DECORATION £4 4 0

- CONTAINING: Hyacinths, 50 in 25 extra fine named sorts
Polyanthus Narcissus, 30 in 12 named varieties
Jonquils, Sweet-scented, 50
Crocus, finest, named, 200
Cyclamen persicum, 4
Tulips, extra fine, named, Double, 50
Do. do. do. Single, 50
Dielysia spectabilis, 4
Lilium speciosum, in variety, 4
Scilla sibirica, 36
Snowdrops, extra large, selected, 100

No. 2.—CARTER'S COLLECTION, reduced quantities £3 3 0

No. 3.—CARTER'S COLLECTION, reduced quantities £2 2 0

No. 4.—CARTER'S COLLECTION, reduced quantities £1 1 0

No. 5.—CARTER'S COLLECTION for CONSERVATORY and OUTDOOR PLANTING £4 4 0

McLAREN'S PROLIFIC RASPBERRY.



For full description, see page 98, 111

Gardener's Chronicle Sept. 18

AWARDED A FIRST-CLASS CERTIFICATE.

JAMES CARTER AND CO. are now booking orders for the above valuable fruit, to be supplied this autumn at the following prices:—

- 6 Strong Canes, 7s. 6d. | 25 Strong Canes, 20s.
12 Strong Canes, 12s. | 100 Strong Canes, 60s.

No. 6.—CARTER'S COLLECTION of BULBS for CONSERVATORY and OUTDOOR PLANTING £3 3 0

No. 7.—CARTER'S COLLECTION, reduced quantities £2 2 0

No. 8.—CARTER'S COLLECTION, reduced quantities £1 10 0

No. 9.—CARTER'S COLLECTION, reduced quantities £0 15 0

No. 10.—CARTER'S COLLECTION for OUTDOOR PLANTING £4 4 0

- CONTAINING: Hyacinths, 75 in 3 colours
Narcissus, Double, White, 50
Poeticus or Pheasant-eye, 50
Double Daffodils, 50
Tulips, extra fine mixed, Double, 75
Single, 75
Crocus, Blue, 200
Striped, 200
Large Yellow, 200
White, 200
Anemones, extra fine mixed, 100
Gladious Brechtleyer, 4
Iris, ex. choice mixed English, 50
extra fine mixed Spanish, 50
Lilium candidum, 5
" aurantiacum, 6
" martagon rubrum, 6
" tigrinum, 6
Ranunculus, extra fine mixed, 100
Snowdrops, 400
Winter Aconites, 100

No. 11.—CARTER'S COLLECTION, reduced quantities £3 3 0

No. 12.—CARTER'S COLLECTION, reduced quantities £2 2 0

No. 13.—CARTER'S COLLECTION, reduced quantities £1 1 0

No charge for packing any of above Collections.

For the fullest information to ensure successful cultivation and particulars of the above Assortments, send for

CARTER'S ILLUSTRATED LIST of BULBS, &c., Forwarded Gratis and Post Free.

JAMES CARTER AND CO., THE ROYAL SEEDSMEN, 287 AND 238, HIGH HOLBORN, LONDON, W.C.

Rhododendrons, As EXHIBITED in the ROYAL HORTICULTURAL SOCIETY'S GARDENS, SOUTH KENSINGTON. ANTHONY WATERER has a pleasure in announcing that his PRICED and DESCRIPTIVE CATALOGUE for the present season is now ready, and will be forwarded on application. It fully describes the kinds most worthy of cultivation, as well as a general summary of his extensive general stock. Knap Hill Nursery, Woking, Surrey.

Rhododendrons.—To the Trade. J. MATTHEWS has a collection of 4-yr RHODODENDRONS, 6s. per 100, 12s. per 50, 18s. per 30, 24s. per 20, 30s. per 15, 36s. per 10, 42s. per 8, 48s. per 6, 54s. per 5, 60s. per 4, 66s. per 3, 72s. per 2, 78s. per 1. SPRUCE FIR, 1 1/2 to 2 feet, 20s. per 100, and 2 1/2 to 3 feet, 30s. per 100. PRIVET EVERGREEN, 2 1/2 to 3 feet, 12s. per 100, 3 to 4 feet, 16s. OAKS, 3-yr. budded, 1 to 1 1/2 feet, 12s. per 100. Milton Nursery, St. Leonards-on-Sea, East Sussex.

Splendid New Rhododendron, BARONESS LIONEL ROTHSCHILD. JOHN WATERER AND SONS are now prepared to execute orders for the above new SEEDLING RHODODENDRON; in colour it is a clear bright crimson, the margin of the bloom of a fiery scarlet, of fine handsome form, and remains a great length of time in bloom. Price 21s. each. The usual Trade Allowance. The American Nursery, Bagshot, Surrey.

THE GARDENERS' ROYAL BENEVOLENT INSTITUTION. Notice is hereby given that an ADDITION to the LIST of PERSONS who will be made in January next. All Persons desirous of becoming CANDIDATES are required to send in their Papers and Testimonials to the Committee on or before MONDAY, November 8 next, after which day they will not be received. Preference will be given to those Persons who may have been subscribers for 15 Years and upwards. Should there not be sufficient number of that class, then the claims of those who have not subscribed so long, or not at all, will be considered. By order, EDWARD R. CUTLER, Secretary, October 6, 14, Tavistock Row, Covent Garden, W.C. P.S.—Printed Forms may be had upon application to the Secretary.

The Gardeners' Chronicle. SATURDAY, OCTOBER 9, 1869.

THE FUNGUS MEETING at the Royal Horticultural Society passed off successfully on Tuesday last. There was a decided improvement in the mode of displaying these productions as compared with that adopted last year, though there is still room for further improvement in this respect. The edible Fungi also require to be distinctly set apart from those which are known to produce injurious effects, and from those which are not worth cooking. In an educational point of view, too much stress can hardly be laid upon this point, the more so as, to the unpractised eye, the difference between noxious and harmless varieties is sometimes very slight, especially in the case of the Boleti. Mr. WORTHINGTON SMITH's excellent charts might well have been suspended in the room, to have facilitated the recognition of Apician dainties from others only fit for MEDEA'S cauldron. The species exhibited were naturally pretty much the same as those shown last year, and the comments made on them contained little novelty, if we except the interesting communication from Dr. CURTIS to Mr. BERKELEY, and for permission to make use of which we have to thank the latter gentleman. For figures and descriptions of the principal edible and noxious varieties, we may refer our readers to our last year's volume, pp. 1064, 1091. The Council of the Society very properly caused some of the species exhibited on this occasion to be cooked, and equally properly set a good example by themselves partaking of the dainty fare. We may, however, suggest to the cook that moderation in the use of butter would be a virtue, and the heating of plates a still greater one.

The species most relished were the Fairy-ring Champignon, Marasmius Oreades, broiled; the Vegetable Sweetbread, Agaricus prunulus, stewed in white sauce; the Parasol Agaric, A. procerus, broiled; the Giant Puff-ball, cut in slices, dipped in the white of egg, and fried; and the maned Agaric, Coprinus comatus, broiled. The only fungus exhibited that was new to our lists was the true Cantharellus carbonarius, of Albertini and Schweinitz, sent by the Rev. W. HOUGHTON, from charcoal heaps in the woods round the Wrekin, in Shropshire. The same species was found on burnt earth by Mr. W. G. SMITH and others, on Saturday, Sept. 25 last, during the excursion of the Reigate Natural History Society, under the presidency of Mr. W. WILSON SAUNDERS. It here occurred in some plenty on burnt earth and charcoal near the Fir woods about Gomshall. Mr. HOUGHTON also sent fine specimens of Lactarius controversus, Pers., and Geaster rufescens, P.: the former species appears to be now cropping up in various places, but invariably under Poplars. The specimens exhibited by Mr. SMITH, together with Boletus cyanescens, Bull. came from Staplehurst, Kent. Mr. ENGLISH had some grand plants of Agaricus Cœclæ, Berk. and Br., from Epping Forest, where it is common. Many of the edible varieties are undoubtedly

excellent, and it is a matter for regret that, while so many thousands of our poorer countrymen hardly taste fresh meat from one year's end to the other, vast quantities of wholesome and nutritious Fungi are allowed to rot ungathered. A good deal may be done to promote a knowledge of the good sorts, and a taste for them by such exhibitions as that at Kensington, and by the local naturalist clubs, of which that at Woolhope (to whose volume of "Proceedings" we shall have shortly to allude) may be mentioned as in the van of progress in this matter. Nevertheless, we can scarcely believe that edible Fungi will ever take any important place among articles of food for general consumption till they can be cultivated, and a regular supply in due season counted on with something like certainty. We would then urge those who have this matter at heart to try what they can do in the way of culture. Already, we suspect, some trials are being made in this direction, for we notice that Messrs. CARTER pretty frequently exhibit specimens of the Giant Puff-ball, one of the very best of the sorts for culinary purposes. When we hear of armies being fed for months on Fungi, it is surely time to begin to utilise our resources.

— WE have received from Mr. McDONALD, of Woodstock Park, Ireland, as well as from several other gardeners, letters advocating the propriety of taking some steps to perpetuate the memory of the late Mr JAMES VEITCH. The suggestion has been spontaneously and independently made, and has met with approval in various quarters, and we gladly give publicity to it, believing that Mr. VEITCH has done more than almost any other man in modern times for the advancement of gardeners and gardening, not only by his direct example in regard to cultivation and the introduction of novelties, but by the tact and ability displayed in placing intelligent men in positions calculated to develop their capabilities. We would suggest that a committee should be at once formed, with a view to give effect to this proposal; and we shall ourselves be happy to receive the names of persons willing to act on the committee, and also to take steps to convene an early meeting.

— Connected with the subject of GRAPE-GROWING IN POTS, which is now exciting some little discussion, we have been favoured with a photograph of a house of pot Vines now growing at Newstead Abbey, near Nottingham; and if the crop is not the finest we ever saw, it is certainly such an one as is rarely seen, and is well worthy of description. There are two houses filled with pot Vines, both of the same size, and both containing the same number of plants. That of which the photograph is taken is filled with the Black Hamburg exclusively, the other containing a variety of kinds, with a good sprinkling of the Mrs. Pince's and Alexandrian Muscats. The houses are span-roofed, and each is about 30 feet long by 14 feet wide. A walk runs through the centre, and on either side there is a bed, with a bottom of strong slate slabs, the latter resting upon pillars of dry brickwork, so that they may be raised or lowered, as no bed of soil, or a deep one, may be required by the exigencies of cultivation. The whole of the heating pipes are placed under the bed, and the heat is admitted to the atmosphere of the house through valves in the side walls, thus securing a constant circulation, as the cold air from its natural gravity sinks into the path, passes under the bed among the heated pipes, and forward up the valves to the atmosphere of the house. Into this bed, which last year was used for the growth of Melons and Cucumbers, pots containing strong, well-ripened Vines, were partly plunged about the time in the spring the buds began to break naturally, the object being to have the crop ripe at the commencement of the shooting season. Each house contained 34 Vines, 17 in either bed. The Hamburg house was the most uniform in the crop, and contained upwards of 300 bunches, many of them being more than 2 lb. in weight, few less than half a pound; indeed a fruiterer from a neighbouring town said he would purchase the crop at 250 lb., which would be nearly 8 lb. to each Vine. The berries were of good size and well coloured, and the roof of the house looked a mass of Grapes. The mixed house was not quite so well filled; the Muscats, both Mrs. Pince's and White, not being so well set or swelled as the other varieties. Mrs. Pince's Grape, as seen here, is certainly not a suitable Vine for pot cultivation, whatever it may be for other purposes, the bunches being thin and the leaves wanting in vigour. The crop of the two houses, taken altogether, was such as is rarely seen in any place; and as we have given the weight, say 500 lb., in the two houses, it will be easy for any person to calculate what such a crop would be worth in June or July, when Grapes such as these are worth from 5s. to 15s. per lb.; and when they have done so they will find that pot Grapes would be found a very remunerative crop. It is, however, only fair to say that these Vines were allowed to root into the border of plunging material, and that they there received every assistance in the way of liquid manure and other aids to good growth. The crop, and the style in which it was finished, reflected the greatest credit upon Mr JOHN ANDERSON, the intelligent gardener at Newstead, whose permanent Vines, now carrying their first crop, can scarcely be surpassed by any Vines of the same age in the country.

— We are glad to hear that next year it is proposed to bring out a new illustrated work on British Hymenopterous Insecta, from the pens of

W. WILSON SAUNDERS, F.R.S., and WORTHINGTON G. SMITH, F.L.S. It will consist of descriptions and figures of some 200 or 300 species of such Fungi as are new, rare, or such as have been unsatisfactorily figured before. One hundred coloured plates (super-royal) are being drawn on stone by Mr. SMITH, partly from drawings by Mr. SAUNDERS, and partly from his own sketches. The book will appear in four parts, each part containing 25 plates, price 10s., the parts to appear on the 1st of January, April, July, and October. Any rare species our subscribers may meet with in their walks will be thankfully received by Mr. W. G. SMITH, 12, North Grove West, Mildmay Park. Subscribers can send their names to Mr. VAN VOORST, Paternoster Row.

— We have received for publication the following circular relating to SCIENCE INSTRUCTION for WOMEN:—An important experiment is about to be tried at the South Kensington Museum, to promote the instruction of women in science. By permission of the Lord President, Professors HUXLEY, GUTHRIE, and OLIVER are about to commence a course of lectures on Natural Science, beginning in November. The fees will not exceed a shilling a lecture, with voluntary examinations, and the terms will even be lower to schools and governesses. The Duchess of ST. ALBAN'S, MARY, Marchioness of SALISBURY, the Countesses of TANKERVILLE, DE GREY, and GRANVILLE, Lady NORTHCOTE, and many other ladies, have expressed their willingness to assist in carrying out this experiment. The Hon. and Rev. F. BYNG, of Onslow Gardens, London, S.W., is the Treasurer and Secretary.

— Messrs. MOSES & Sons, and similar firms, are no longer to monopolise the services of the Muses in the ADVERTISEMENT of their wares. Most fitting is it that they wait on Flora; so thinks the writer of the subjoined advertisement, taken from the columns of a suburban journal *verbatim et literatim*:—

A GARDENER, of his employment bereft,
When death's early hand removed,
Experienced great loss when so painfully left,
For he has for many years been approved,
Now seeks a new service, and where there is wanted
Skill, diligence, merit's best face,
Assured when he finds himself fairly transplanted,
He's the right Gardener in the right place.

— We are informed by Messrs. BARR & SUGDEN that any one desirous of trying the FRENCH MUSHROOM SPAWN can have a few flakes gratis for that purpose. Since this article was noticed in the *Field*, inquiries have been very numerous, and as Messrs. BARR & SUGDEN know nothing of it practically, they have thought it best to make the above offer.

— We learn that we were mistaken in our statement that Mr. BRITTON was appointed to an ASSISTANTSHIP in the Kew Herbarium without an examination, inasmuch as that gentleman had to submit to the ordeal prescribed by the Civil Service Commissioners, although he had already satisfactorily passed an Arts examination. Our statement was copied from the *Pall Mall Gazette*.

FERN CULTURE.

FERNS are the plants of the million. They are not confined to any particular country: they have a wide geographical distribution. Indigenous Ferns provide a treat of no common character to all who choose to collect them, and tend them with care afterwards, a much greater one than any other tribe of native plants, barring, of course, a few of the choicer alpine. Beautiful as the majority of our native plants are, and particularly suited for artificial cairns of rock-work, collectors and growers generally who have means at their disposal cannot rest contented with the possession of them alone. The love of plants and flowers in some natures is true and deep. Once the affection is grounded, its extension laterally follows intuitively, and the Fern collector, after he has explored and secured all that are good in the British Islands, longs to accommodate the more beautiful and interesting of the exotic species. The mason, the carpenter, the glazier, and the engineer are all consulted, and the upshot is that the house is reared—probably the beginning of a collection hereafter to be famous, possibly the whole thing ending in defeat. Unfortunately some people are defeated by having or allowing things of first importance to be done upon a wrong principle; and it is because of this, and because we occasionally see a good principle carried out, and corresponding success following it, that I beg to trouble your readers, as a matter of interest to them, with the following line of success in a remarkably short period of time.

A very enthusiastic admirer of trees and plants, and one holding a fine collection of Coniferae, of Roses, of Rhododendrons, of Hollies, and of border florist-flower plants generally, latterly took to Ferns. He had, after battling a little with indigenous plants—having, with the aid of an excellent wife and growing-up family, collected much with his own hands—indulged in the very praiseworthy idea of having a house, not of the princely Mendelian character, which can only be imitated by the few, but of such a kind as thousands can well afford to rear. It was a simple span-roof, so erected as that the plants could never be more than a yard from the glass. This could not be filled at once with fine species, for it would be a too extravagant entrenchment upon the nice little sums that are apportioned out of a year's income for detached projects outside the household concerns altogether. It was made to do duty, therefore, for a collection of Coleuses, some Dracenas, and such-like plants, that put in a respectable appearance, and are come-at-able at a small figure. The one side was reserved for Ferns, and by extraordinary attention they have grown up wonder-

fully fine, getting up in the space of 18 months from the common nursery stock to be nice half specimens of plants.

The house is 40 feet long, and about 12 feet wide with a path up the centre. It is heated by water-pipe. On either side the path is a brick partition about 1 foot high. Within this enclosure is a bed of Cocoa-nut fibre, which forms capital groundwork for the plants to rest upon, the finer particles at the top being especially fitted for rearing the thousands of spores that are shed indiscriminately over the surface. The heating is effected by hot water, a flow and return pipe round the house being sufficient to provide heat at all times. The atmosphere, nicely modulated in point of heat and moisture, is striking to the senses at the entrance; and the health of the collection amply testifies to the good and simple mode planned and carried out for the successful cultivation of a tribe that is wondrously beautiful at all times.

Prominent among the lot stood out *Adiantum farleyense*, than which a more beautiful species does not exist, especially seen under the influence of the light which might be called the semi-Wardian case culture, as described by Mr. Gair and his gardener, Mr. Crombie, in the suburbs of Falkirk. It evidently delights at being bathed in a profusion of atmospheric moisture, the quadripinnate fronds, that are handsome in themselves, seem to grow with exuberance in a climate of the kind. The grand pendulous fronds in particular, varying shades of green, and the elegant pinnate habit with which they are invested, single them out as a plant suitable to be placed in company with the most choice of Flora's subjects. Without the case, in the atmosphere of the house, the following kinds were particularly noteworthy:—The superb forms of *Gramma Laucheana*, and the more beautiful *Parsonsii*, as if dipped in gold, contrast well with the tassel-like silvery *G. Wattenhalliana*; that *Pearcei* has very fine pinnae, so multitudinous and nicely cut as to look more beautiful in its relation to work of Nature, than the finest piece of lace as a work of art.

Then the Maiden-hairs (*Adiantum*) are quite a variety, and have probably more admirers than any other races put together. Their fitness for mixing with a variety of flowering plants is beyond question, and the wonder is why this sort of finishing is not more common. *A. concinnum* grown on cleverly, is a grand form, and well adapted for liberal treatment. *A. curvatum*, a plant not often in good condition, is unusually promising, and decidedly beautiful, from the form and curvature of its pinnae and generally good looking fronds. *glaucophyllum* is an acquisition to the dwarfed species of the family. *A. pubescens* is another fine species, the fronds growing closely together, the pinnules and pinnae being invested with white from the distinct pink tinge that adorns the normal green. *A. cardiochilana* is a noble-looking plant among some of its tiny compeers, and stands here in fine style; the pinnae lie very flat, and look very lustrous. *A. cristatum* and *A. velutinum* were both noticeable species in the collection, and well done.

Among other genera are *Phegopteris* (*Polypodium sancta*), like a dwarf *Trichomanes*, elegant among ferns and well adapted for a choice position. *Polypodium appendiculatum* had long and depending fronds of a brown and crimson tinge and rachis, and contrasted well with the dark green pinnae, being a capital plant for *Acrophorus chærophyllus*, at all events as seen in the collection in question, the light green fronds reaching to a good size, and the colour fine toned in portion. *Davallia aculeata* is one of the most interesting Ferns for contrasting with its fellows, the rachis adorned with prickles, and the pinnae of a brilliant green. *Pteris ternifolia* has fine fronds with a superficial observer. Others too numerous to particularise are doing equally well in the low house at an intermediate temperature. The beauty of the ferns is very much enhanced by a proper system of culture at work, and they all provide a treat to every one, no matter what his plant proclivities may be. After this the no very great cost incurred from beamstays, and the wonder is why their cultivation is not more general. A real enjoyable hour could be spent daily amongst them, and the writer is indebted to Mr. Gair for giving him an opportunity of seeing so many upon so small and economical a scale. After all, it is some virtue yet in Cocoa-nut refuse, all other conditions being equal. The field of seedlings was recently a fruitful one, for it yielded enough for forcing "our own collection," and supplying some to friends and acquaintances to try their "product" upon. A.

OUR FRUIT FAILURE AND ITS LESSON.

It has often been said, with much truth, that we learn as much or more from our failures as from our successes. Be this as it may, I take it that the lesson taught us by the loss of our superior stone this year is the necessity or desirability of having a Glass. No skill in culture, no training, no other means of protection will enable us to baffle such frosts as we have had this season. They went into some tender fruit, and become like the kernel of a lancet. Like that bright morsel of steel, they make light of such flimsy thatches as mere mats, or feathery boughs. The frost passes right through such weak lines of so-called defence, and the fruit beyond them withers, dead, and rotting. The risk of such catastrophes is seen yearly, though it is only now and then that such ruin and havoc are wrought. But the uncertainty of our autumnal desserts will suggest an inquiry into the wisdom of running such annual risks.

of failure, which may end any season, as they have done this, in sweeping the whole of our superior stone fruits off our walls. The loss in actual pleasure is great; in the artistic setting-out of dinner tables it is perhaps greater still. What fruit can equal in beauty the luscious Nectarine? or in soft, downy charms, the handsome Peach? Why should these be sacrificed? and at what shrine are they offered up? Is our loss inevitable? or who or what is responsible for it? It arises chiefly from three mistaken notions: that our climate may be trusted; that the ordinary means of protection can master it; and that the natural constitutions of trees can be hardened by skilful cultivation.

It is unnecessary to discuss the question of the trustworthiness of our climate. It is fickleness, caprice, and hypocrisy, in their most subtle and destructive forms. It cannot be relied on for a single hour, far less a night, a week, a month, or the whole danger period of flowering trees and embryo fruit. *Woe, woe* be to the British gardener that puts faith in the climate! But, then, may we not fall back on the ordinary means of protection? We might possibly, if these were again protected from the rain and the dew. Dry protectors have a great power of resisting the ingress of heat or the ingress of cold; but when saturated with water they become active coolers in themselves, and draw away heat from the trees when they need it most. And then, what does the biting Nor'-easter reck of porous canvas, overhanging branches, rough-spun strawbands, or flapping mats? Why, it laughs their opposition to scorn, and even uses them as so many flappers, to impart greater subtlety and force to its scathing wings.

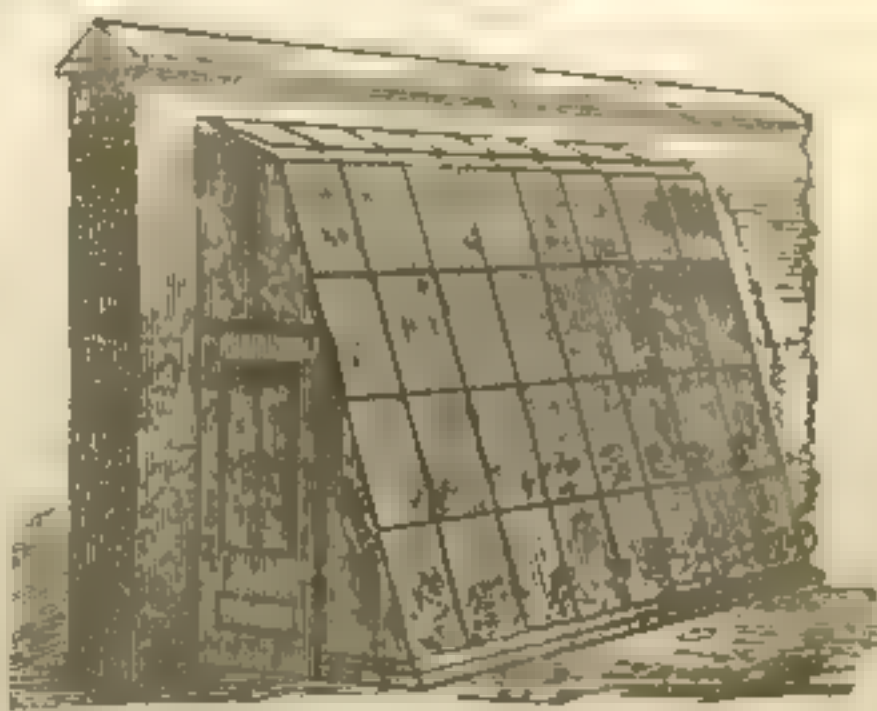
But what have we left to oppose to these two terrible foes—the frost and the wind—that so far have haughtily worked their destructive will among our fruits? How is skill to meet these enemies? It cannot change the climate, at least not to any great extent. It cannot alter the natural forces of hoar or back frost, far less can it chain, though it may to some extent shut out, the terrible east wind. It can, but it is only expected to operate upon the subjects exposed to the climate, and materials employed to protect them. Doubtless, within this narrow range, skill may accomplish much. The trees may be planted on well-drained land, they may be preserved from overgrowing, overfruiting, and other debilitating influences, and their growth may be kept clean and early matured. They may be kept dormant as late as possible in the spring, and the protection may be skilfully regulated in regard to time, quality, and quantity. But beyond this we can scarcely go, once the floodgates of a new and tender life are opened by the gentle touch of spring, and flowers, and leaves, and young fruit spring forth joyously at her bidding. What amount of skill can, under such circumstances, and with such appliances, protect these children of the following summer from the ravenous mouth of devouring winter when he angrily returns to us amid all this splendour, beauty, and glory, and mows it all down with his ten-pounders—ten-degree-of-frost artillery! The skill of the cultivator, however great, is no match for such an antagonist, armed with such piercing projectiles as these. Are we then to give up the contest? Far from it. Let us try other means of defence, and especially glass, for glass never wears nor rusts out, while canvas and all such material is always on the road to rot and ruin.

But doubtless I shall be told that the testimony of this season is against the efficacy of glass. Alone and itself it seems to have failed. There is almost as can be seen in unheated orchard-houses as on open walls. But this state of things is exceptional. It is the first season in their history that unheated orchard-houses have failed. And they have not wholly failed this year. Further, the fact of their failing does not prove the inefficacy of glass protection under the best conditions; it only shows that sometimes, and under extraordinary pressure, it may give way. Neither in an orchard-house, especially if span-roofed, be cited the good examples of the resistance offered by glass to the roads of cold. Many of such houses are openly constructed and glazed. They permit a tolerably free interchange of air between the outside and the in. In most of them, too, a maximum amount of radiating surface is associated with a minimum of heat-absorbing power. The earth is covered over with trees, and there but little brick or other solid work to act as absorbents and husbanders of heat. Supposing we reverse the conditions by providing a maximum area of radiators, and covering these with a minimum of glass, be more felt and the results obtained more satisfactory. The chief fault of most unheated glass structures is that they are too large in proportion to their heat-storing capacity. The great superiority of one over all other protectors, is that it is water-proof and air-tight. It prevents the heat from being swept or washed out with a rush; but it does not hinder its passage through. Heat is too subtle to be thus shut in. The transparency of glass shields becomes in one sense their weakness. They radiate heat from within to without with much greater energy than more porous but opaque barriers. Unlike the latter, also, the anti-radiating power of glass can hardly be affirmed to be in the direct ratio of its thickness. It is, in fact, rather doubtful to what extent the thickening of glass affects its radiating force, though doubtless, upon other grounds, thick glass proves a more efficient protector than thin. The thick barrier is a greater obstacle to the direct loss of heat by conduction. For this reason no lighter glass should be used for screens than from 20 to 30 oz. to the foot.

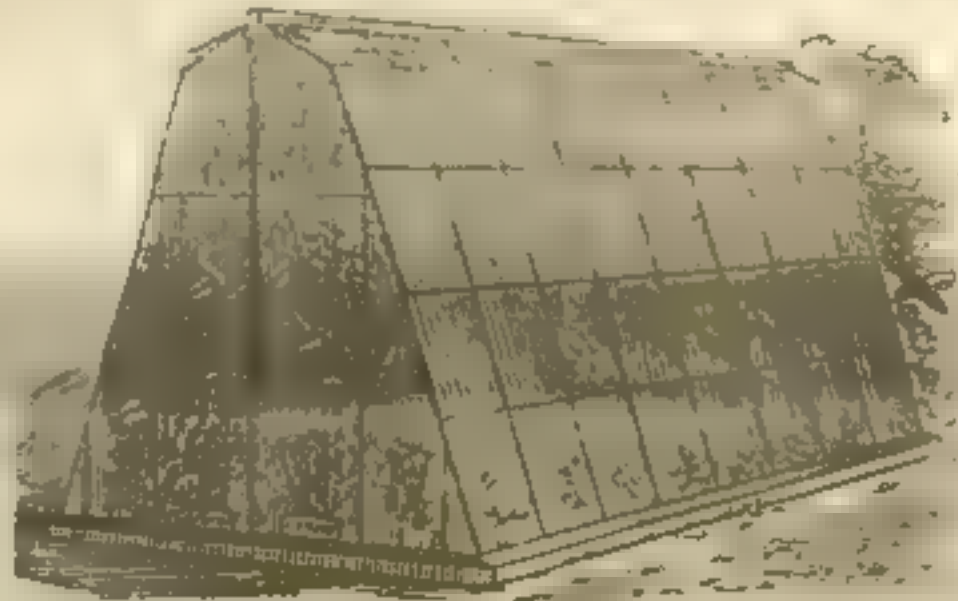
But the efficiency of all glass protectors depends greatly upon the absorbent properties of the enclosed area. We must make hay—that is, lay up caloric—when the sun shines; and this heat will battle and triumph over the climate, while the frost comes unbidden and stalks with silent and nimble feet over our glass pro-

teectors while we sleep. To derive the maximum amount of protection from glass covering, then, I think the glass should somewhat closely hug the walls rather than be spread out into wide-bottomed houses. We want portable glass screens more than lofty, wide, or expensive permanent structures.

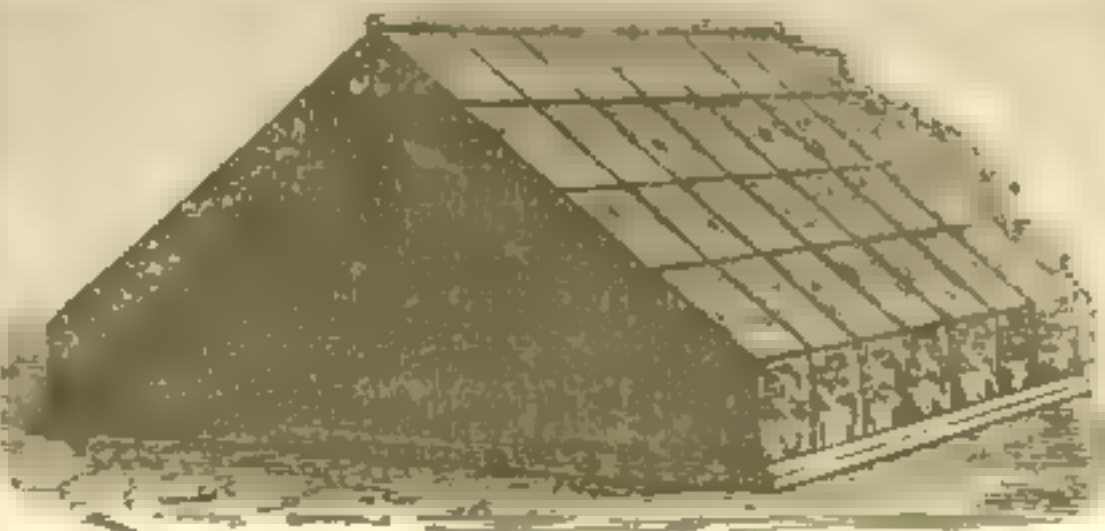
The glass coverings at Welbeck, so admirably described at the Manchester Congress by Mr. Tillery (see p. 597), partake of the latter character. No one can question their usefulness for all the purposes named—in fact, they constitute a magnificent range of fruit houses. They are just too good to be generally come-at-able. What is needed for universal use is a simple, portable, efficient glass screen that any one with a head on his shoulders can put up for himself, and as readily take down and devote to other purposes when it is no longer needed to screen the heat in or the cold out. By the employment of such screens the wall trees will continue to be in the open air unless at the critical and dangerous orises of flowering and setting. In the North, again, where the autumn is cold and sunless, the screens might be called into



requisition to finish the fruit. When not in use for these purposes they could be converted into coverings for pits or frames used as ground vinerias, or to finish choice Pears; placed over Strawberries or early Peas in the open ground—converted into late vinerias, Melon, Cucumber, or plant houses, either as lean-to's or narrow spans, by being placed back to back. To give the easiest possible portability to, and endow with the utmost range of convertibility, such screens, they must be readily dis-integrated into their primary elements and re-formed.



The best screens for protective purposes that I have seen are those that have been designed by Mr. Beard, of Bury St. Edmund's, during this summer. It will be remembered that this gentleman is the patentee of a new mode of glazing, that dispenses with the use of putty or other adhesive substance, and that he uses a remarkably light T-shaped metallic sash-bar, a padding of felt forming the buffer at all points between the iron and glass; and the whole being firmly knit together by a few bolts and nuts. By withdrawing these the entire screen or house can be instantly



resolved into a package of glass, a bundle of iron, and a roll of felt. Hence the screen of to-day may be a Melon, Cucumber, or plant-house to-morrow. Another great advantage of these malleable iron bars is that they can be bent out from the wall at the top, thus giving more space where it is most needed, and yet be brought closer to the wall at the bottom than any other description of rafter. Most protecting screens are made too wide, owing to the non-pliability of ordinary bars, unless a short span is formed at the top, which adds immensely to the expense, or a dangerously acute angle is formed at the upper portion of the wall. Width at bottom is a structural necessity with most glass screens; but unless such screens are to be used as at Welbeck, and orchard-house trees are grown in front,—a practice which can hardly fail to injure the bottom of the wall trees,—it is much better to keep the screens as close as possible to the wall from top to bottom. The whole wall is then equally exposed to light and air, and can hardly fail to exhibit that great charm so rarely met with, equality of vigour and of fruitfulness from topping copstone to nethermost base. The pliability of these rafters affords every facility for such furnishing of walls. The above sketches will give greater force to these remarks, and reveal the merits of Beard's bar for screening purposes better than any mere description. The upper cut shows the screen in use, and reveals the merits of

the bent bar, which enables the screen to be placed close to the wall without either sprawling out at the bottom or forming a dangerously acute angle at the top. Mr. Tillery prevents this by raising the front of the structure, which adds greatly to the expense, and in fact converts it into a house, to the endangering of the trees on the bottom of the wall. The ready convertibility of the screens into houses may be seen in the middle and lower cuts, the former shows a useful house for a late Vinery, formed by simply placing two bars top to top. In the lower cut the bars are reversed and are made to form a span-roofed house with front lights. A capping to make the whole water-tight, and a few bolts, are all that are needed to effect the conversion. Ventilation can be provided for at the top by leaving a small space between the two screens and covering it with wool or glass.

The position of the screen made with two bent bars seems also the best possible for reducing the radiation of heat from its surface. The open sky is the most powerful radiator. The bent bar turns the larger portion of its face away from this greedy devourer of heat, and looks toward surrounding objects to get back from them possibly as much warmth as it gives. The limited direct sky line may readily receive light and covering, or it may be occupied wholly with an anti-radiator, such as a shutter of wood, in all localities where severe frosts are anticipated. This would probably increase fourfold the protective power of the screen.

Again, this bending of the bar affords rare facilities for ventilation. In Mr. Beard's glass screens the entire upper portion is converted into ventilators, to be opened or shut to any extent at pleasure. The mode of erecting the screens is extremely simple. An iron-plate is laid down on the ground, or placed upon bricks or wooden posts at any desired distance from the wall, say at 4 feet, the distance of course determining the bottom width of the screen. Cast on this plate are raised lugs at intervals of 20 inches, for the reception of the rafter or bar. The ground end of the rafter is dropped into these double lugs and made fast with an iron pin, the upper and bent end being placed against the wall just under the coping. The under side of the rafter is pierced at the upper end, and likewise in the middle of the space between the ground line and the bond. Through these holes iron bars of convenient length are passed. These rods are connected with coupling screws, which bind them tight, and make the rods continuous bars with out break for any distance. Between each rafter and upon these rods pipes, in length the exact width of the glass, are placed. These butt up against each bar and keep them in exact position, acting as immovable side braces. The upper rod that runs along the wall under the coping is kept in its place by a few staples or eyes, driven into or passed through the wall. These arrangements make the entire framework quite fast to the wall, rendering the slim rafters stiff as pokers and as tight as drums. The felt is then rolled on, followed by the glass, and another layer of felt, succeeded by the covering bars in convenient lengths, with their fixing screws, and the screen is completed in less time than is needed to describe the operation. Every extension of it is but a repetition of the preceding. The ends are made to fit anywhere. The glass may run on for a mile, or be cut off at any point, at the end of a 20-inch square, with the same facility, as every two rafters are complete in themselves. The glass is laid end to end, or butted, and the square that fills the upper or ventilating portion is carried beyond the end, to throw the drip clean over on to the glass below. The glass used is 30 inches by 30. The bent portion of the bar may run in width from 12 inches to 24, or even more if desired, and for walls 10 feet high, screens 4 feet wide at the bottom would be sufficient, though of course they are made to any width and any height of wall. With such ample ventilation at the top, it would seldom be necessary to provide bottom ventilation, and on excessively hot days one or both ends might be thrown open.

One great means of increasing the efficiency of such protectors is to shut up a good houseful of heat early in the afternoon. This reserve of heat, supplemented by the liberation during the night of that hidden away in the brickwork, &c., in the day, would generally prove sufficient to resist the frost. Another caution is needful: glass protectors should not be used until the flower is ready to expand. If erected too early, they would prematurely force the flowers into blossom, at a time when the frost would prove more than a match for the screens. This late application of the needed shelter is a strong point in favour of their portability. Our chances of success in mastering the severities of the climate are largely determined by the time we begin the contest. These portable glass screens will, to a considerable extent, give us our own choice of time. They also enable us to choose our ground and position, and put under us efficient agents. With a skilful handling of these strong, elegant, efficient glass screens for walls, we may reasonably expect to see them in the far North or in the sunny South, covered with luscious wall fruit. *D. T. Fish.*

Home Correspondence.

Duke of Cornwall and other Melons. — This Melon deserves to be extensively grown. I saw it exhibited last year, and being much struck with its large and handsome appearance I determined to give it a trial this season, to see if its flavour was equal to its other good qualities. The result has been very satisfactory. All the fruits have been of an unusual size, the last one but weighed 9 lb., and was of a delicious flavour. The fruit is oval-shaped, of a rich yellow colour, flesh green, and very deep. I have tried Queen Emma, Golden Queen, and others that have recently been sent out with high characters, but have found none of them equal to the Duke and another variety which I have grown here,

almost exclusively, for the last five years, under the name of Austin's Incomparable, — a green-fleshed variety, fruit large, round, yellow skinned, and finely netted. I got it originally from Dalkeith, where, I believe, it is still grown by Mr. Thomson, and is a favourite of his. The Duke of Cornwall is a very late variety, and a good keeper, but requires a high temperature to ripen it properly. J. Simpson, Wortley Hall Gardens.

Wellingtonia gigantea.—There are two specimens of this noble tree growing in the grounds at Lamorbey Park, near Bexley, Kent, the seat of R. Bousfield, Esq., of which the following are the dimensions:—No. 1 was planted in 1854, and has attained the height of 29 feet 10 inches; circumference of bole, one foot from the ground, 6 feet 9 inches; and the diameter of the branches 19 feet. No. 2 was planted in 1856, and is now 25 feet 2 inches in height; circumference of bole, at the same height as the former, 5 feet 8 inches; and the diameter of branches 14 feet 8 inches. They were not injured during the severe winter of 1866-7, nor have the dry summers of 1868 and 1869 interfered with their growth. Alex. Baxter, Gr.

Roses.—I was very much gratified to read Mr. A. Godwin's letter on Roses, and as a grower of this justly called queen of flowers, have been anxiously looking out for the Rev. W. F. Badclyffe's annual comments on the Roses of 1868. Florists in this part of Ireland have few opportunities of seeing the novelties yearly introduced, so that we are principally guided in ordering by the notes of such men as the "Rose-grower of Okeford Fitzpaine." I can cordially endorse all that "A. G." says, with reference to the way we are fleeced by our Continental friends, who yearly send us such quantities of worthless varieties. For years past I have bought all the new Roses as they were offered, and of course "paid for my whistle." Last year I had about 40, and of this lot I only intend growing the following, which have done very well with me, and which will be found in list No. 1. These are all good growers, and I believe improvements on existing sorts:—Abbe Verniere, Baron Haussmann, Baroness Rothschild, Boule de Neige, Duke of Edinburgh, Elie Morell, François Fontaine, Impératrice Charlotte, La France, Madame Christine Nilsson, President Villermoz, Vicomtesse des Vezins. The following are varieties which I purpose growing a second season before discarding:—Baron de Beauverger, Coquette des Alpes, Curé de Charentay, Duchesse d'Aoste, Enfant d'Ancugny, Madame Alice Dureau, Madame Noman, Madame Grondier, *Madame Rolland, *Merveille d'Anjou, Reine du Midi, Souvenir du François Ponsard, Tournefort, Charles Turner, Pitord, Prince Humbert, *Miss Ingram, *General Barral. The following is a list of varieties which have flowered here, and which I consider positively worthless:—Barillet-Deschamps, Ernest Boncenne, Jean Brosse, Lisette de Beranger, Souvenir de Madame de Corval, Souvenir du Ponsard, Jules Bourgeois, Comtesse de Palloux, Comte de Raimond. Now has I had a rather hard matter, that as the case stands at present I could only recommend, "if referred to," about 12 varieties out of my 40. I will conclude by saying, that in the second list there are some varieties which have not flowered with me; these I have marked with an asterisk, and trust, if I am spared to see them flower, that I may be able to add them to list No. 1. *Hibernicus.*

The Royal Horticultural Society's Floral Committee.—As Mr. Keynes has detailed his experience of the Floral Committee, I will add mine. I should have done this before, but I understood that "the clique" had been broken up, and that better things might be expected. As it does not seem to be so, my experience may be useful to those who, like myself (once) may think it a pleasure to belong to it; but to these one's advice must be that of "Punch" "to young gentlemen about to marry, 'don't.'" I am one of the earliest members of the Committee, and although attendance on it involved every time a journey of upwards of 200 miles, and an expenditure of between 2*l.* and 3*l.*, I managed to attend pretty often. After, I think, two or three years of office, the annual displacement and election of three members took place; three names were struck out, and we were requested to name three, which we did. What was my surprise, then, to receive a curt note, a week or two after, saying my name had been struck out by the Council. This was bad enough, but worse followed. I have many friends—personal friends—on the Floral Committee, and the following year they replaced my name, and sent it in to the Council, with two others; mine was again cut out, and some stranger substituted. Without vanity, I suppose I may say I do know something of florists' flowers, and am pretty well known in the horticultural world. Since then I have, of course, not attempted, nor encouraged my friends to attempt, to have my name restored. One kind and influential friend offered to do so this year, but as Mr. Keynes' letter shows that the same leaven is at work, I decline the honour (?). I know perfectly well how all this was brought about, but there is one fatal error at the bottom of the Council's proceedings—they imagine that they are conferring an honour and favour on all whom they admit to have anything to do with them. Go ahead of the clique, and ask anyone who has had anything to do with the Society, "Have you any confidence in it?" and, a "guinea to a ducat," I know what the reply will be. It is a thousand pities; the Royal Horticultural Society has missed a grand opportunity. It might have been a noble institution, it is now the greatest *fiasco* I know. *D. Deal.*

The Royal Horticultural Society's Provincial Show.—You state truly that no town is more accessible or more interesting to visitors than Oxford. It is also true to a certain extent that Oxford is not, in the strict sense of the term, a horticultural centre; but in my opinion that matter should have but little weight with the Council in their decision, as the great desideratum

seems to me to be the convenience of bringing exhibitors and their products together, and the general public to view them. Setting aside minor considerations, there can scarcely be a doubt of the successful issue of the affair, if the Society succeed in obtaining a good locality for the show; and in my opinion the best place, if obtainable, would be either the Parks or Christchurch Meadows. The Parks doubtless would be preferable, as that is a fine open space, and near to the centre of the town, besides being a very favourite resort; but, if neither of the above-named places can be obtained, I say emphatically to the Royal Horticultural Society, do not go to Oxford; for if they are compelled to go to any such out-of-the-way place as Port Meadow, I am sadly afraid the result in a pecuniary sense would be a failure. The general attractions of Oxford must bring great numbers of visitors to the town. There are also some well-kept gardens in the neighbourhood, such as Blenheim and Nuneham, which would doubtless be thrown open on such an occasion, and which would add to the pleasure of all lovers of gardening. *H. B.*

Vine Roots.—Do Vines make roots without the action of leaves and branches? I have made some observations as to this point for myself, and will give your readers the result of my experience. In May last I planted a Vine—the Muscat of Alexandria—in a good border; I then inarched it on the Royal Vineyard (that being, in my opinion, a worthless variety). It grew well, and made a fine cane. But what about the roots? I examined them at different times, and to my surprise the newly-planted Vine has not made a single root that I can find. I have also tried the application of bottom-heat to the Vine roots for two years past, beginning the first day of the new year. I put good stable-dung on one-half of the border, and kept up a nice gentle warmth until April, the other half remaining cold through the winter. I could see no difference in either part of the house throughout the seasons of both years. We have had fine Grapes ripe in May in both parts alike. *F. Gill, Plymouth Nursery.*

Packing Fruit for Transmission Abroad.—The following communication from R. Halburton, Esq., Halifax, in *Gardeners' Chronicle*, 1863, p. 100, describing the packing of the Nova Scotia Apples sent to the Great Exhibition of 1862, may not have been noticed by Mr. Kirby, and may prove useful to him:—"A wooden box filled with trays, each 2 feet long, 18 inches wide, and 5 inches deep, divided by partitions into spaces 4 inches wide. These trays had a layer of dry ground plaster of Paris strewed over the bottom, on this a layer of Apples was placed in a single row; more plaster was carefully filled in between the Apples, and the whole was covered with about an inch of plaster, well shaken down, so that the fruit became immovable. Packed in Halifax on January 9, the box arrived on January 25." *S. M. O.*

Cedar of Lebanon.—A fine specimen of this tree at Mount Elzeumbe Park, near Plymouth, was roughly measured by me the other day, with the following results—Trunk (1 foot above soil), 12 feet round; from trunk to the tip of branches on one side, 18 feet; the man who showed me it said it was 423 years old. There were also many other smaller but still fine trees. A Cork tree measured 9 feet. There are also some fine Orange trees here, some 20 feet high, pictures of health; one Mandarin Orange had 1513 ripe Oranges upon it, besides hundreds of green ones. A fine Citron was noticed, with fine fruit, growing against a wall without any protection. The Oranges referred to are taken into a house in winter. *H. M., Hartley, Oct. 4.*

Liliums.—I differ from "J. D." (p. 1020) in the advice he gives with regard to the bulbs of these plants. Experience has taught me to newly pot them, if they require it, as soon as the stem is dead; then keep them dry through the winter, they will begin to make roots before spring. To take away all the small bulbs and to shift the larger ones without disturbing them is still better; to thin out the bulbs, letting those left remain in the pots without disturbance for three seasons at least, and giving nutriment in the water when growing, is the best plan of all. This practice will be found to answer in respect to all Lilies. *M.*

Pelargonium Show.—You remark, in your foot-note to Mr. Cannell's letter upon the subject of the continuance of the Special Pelargonium Show by the Royal Horticultural Society, that the speedy expression of public opinion would be desirable. It appears to me that the numerous attendance at last year's show was sufficient evidence to the Society of its popularity. The Pelargonium, too, has been the adopted child of the Society; it would never do to cast it adrift now that it is showing itself worthy of the attention and care bestowed upon it, by the wonderful progress it is making both as regards foliage and flower. I anticipate that next year's exhibitions will display some startling improvements upon the tricolors of last. In the flower, also, the progress is wonderful, both as regards form and colour. I do not despair of seeing, ere long, every colour that our Flora possesses produced on the Pelargonium of the scarlet section, not even blue and yellow excepted. The bare idea of the Horticultural Society abandoning such a promising child seems to me impossible. I would rather suggest the setting apart two days for its exhibition than giving up the one. I agree with Mr. Cannell that greater encouragement should be offered to the small growers and amateurs. Let not our great growers and florists be too greedy in wishing to usurp to themselves the credit for the production of new varieties, or appropriate to one another the award of all the prizes. I am certain they would find it far more to their interest as well as credit to encourage in every possible way the amateur, which means the general public, or, in other words, the million, to grow, to produce, and to compete at our floricultural exhibitions, especially in new varieties. By so doing an amount of enthusiasm would result, more telling upon our horti-

cultural societies' and florists' annual balance than has yet been dreamt of. Let us have free trade in the production of all florists' flowers—free trade and fair play in judging of their merits in the award of some mark of distinction to the producer—and I maintain that such a state of things would enlist the interest of the million; that where there are now 50 buyers and visitors to our florists' establishments there would be thousands. It is the great mistake to imagine (as I know some florists do) that it is to the interest of the florist to keep the public ignorant of the cultivation and the production of florists' flowers; it is the old and exploded principle of monopoly, which in the long run does not pay. Pelargonium offers an enticing field for the amateur because it is easy of management, easily hybridized, but there are many other florists' flowers equally capable of improvement, and their beauty, would equally repay for time and attention. For instance, what can be more beautiful than the Cyclamen? I know of no flower more beautiful and I believe it to be capable of immense improvement. What more lovely sight could be imagined than a special exhibition of Cyclamens? One might imagine upon the subject of the number and beauty of florists' flowers that I would encourage the amateur until I occupied the entire space of your paper; therefore I must conclude by saying, that I think will be found appealing to you for space to the Horticultural Society the desirableness of having its special Pelargonium show. *An Amateur.*

International Exhibitions.—I am glad to have at last given expression to what are the feelings of many correspondents and exhibitors as to the state of these affairs on the Continent. I am still pleased to think that you have done so in a way which should not offend our friends across the Channel, have made from time to time the acquaintance of those for whom I have great respect, and I am sorry if any of them felt hurt at a little plain speaking on our side of the water. You have stated the cause of their not seeing as we see, viz, that they are under different forms of political government to we do. But how shall we account for the managers of the St. Petersburg show issuing printed papers, and that any one sending plants by rail should have passes given them for the return journey, and when application was made, and the railway company refused, these same managers admitted they could compel them? Were not the exhibitors at St. Petersburg by—well, if not a fraud, by some very much like deception? This show, more was held (so it was stated in print) under the highest patronage. I have attended the St. Petersburg Internationals, and in all, save London judging, in my opinion, has been altogether an-archical principle; the wonder, therefore, is that the complaints are not more numerous. The system is one that causes numerous errors, even supposing that no change is taken of the great facilities for packing, and reversing their decisions afterwards, in a way no one can understand. *Robert Warner, Bromley.*

Lilium auratum.—The following are the particulars of a plant of this grand Lily, which has been growing in the conservatory of James Bland, Esq., Quarry Hill, Allerton, near Liverpool, and of which a photograph was exhibited at South Kensington, at the meeting of the Floral Committee, on September 7. The plant is the produce of a single bulb from the year 1850, at present time. On August 25 it had 140 blooms expanded; eight had fallen from the lower stem in addition there remained 53 blooms nearly expanded, making a total of 193 blooms. On August 164 blooms had expanded, out of which 153 remained perfect, which was the greatest number borne at any one time. The first flower opened on August 10, and on September 4 one flower remained open. My experience with the auratum varieties leads me to conclude that their average duration is nine days, but in this instance I have kept some flowers in perfection for 13, which is the longest I have ever known them to keep. I invariably find blooms to expand during the night. Having great interest in this class of plants, and tried various ways of growing them, I will give the history of the progress of the plant in question from the year 1850 to the present time. The soil I find most suitable for the growth of this Lily, and which I have used for the above referred to, consists of good turfy loam, decayed cow manure, a little peat, and silver sand incorporated, care being taken to secure good drainage and to water freely during the growing season. In 1855 a single bulb was potted in a 7-inch pot, placed in a cool greenhouse, where it remained until it flowered and produced three flowers. In 1856 the plant was repotted in a 9-inch pot, and received the same treatment, the produce being 17 flowers. In 1857 the bulb was repotted in an 11-inch pot, and produced three strong flowering stems and three small ones producing in the whole 53 blooms. In 1858 the plant was transferred to a 16-inch pot, and placed in a temperature of 45° to 50° in the month of June, where it remained until the stems were about 18 inches length; it was then taken to a cool greenhouse, where it remained till it flowered. The bulb then produced strong flowering stems and seven smaller ones producing in the whole 100 flowers. In 1859 the plant was turned out of the pot, and a small portion of the soil was taken away from the ball, it was then repotted in a 17-inch pot, and treated as before. The plant produced up 39 flowering stems, ranging from 2 to 9 feet in height from the top of the pot, and producing in the whole 193 blooms, many of which measured from 12 inches across. After the plants have done flowering I set them out on a sunny border to ripen them, when they are out down, and stored away until the season arrives to start them into growth. *J. Smith.*

to James Bland, Esq., Quarry Bank, Allerton, near Liverpool. [This was a splendid specimen, very similar in its general aspect to the plant from Melchet Court, but having a larger number of blossoms. Eds.]

Potato Grafting.—Mr. Bennett, of Osberton, my valued friend, and indeed principal tutor, is a well-known practical gardener, and a particularly good Potato grower; and I should not have the slightest hesitation in accepting his teaching on any subject connected with the Potato, excepting the question at issue: but on this little matter I must beg to differ slightly with him. About a fortnight ago I was down at Osberton, and was talking the matter over with him, but he could not recognise that the stock had any influence on the scion. Now, it is a well-known fact that the Potato is self-supporting, therefore if the stock and scion have no influence on each other, then Potato grafting must fall to the ground. Mr. Bennett, too (see p. 1079), in endeavouring to substantiate his argument, adduces some striking illustrations of the liability of the Potato to sport, and, indeed, to entirely change colour; and probably this circumstance may be attributed to a great change of soil, as from limestone to clay soils, or vice versa. Now, in the face of all this, it is not surprising that Mr. Bennett should be incredulous in the matter of Potato grafting; and it would be well if other growers would record their experience in this matter, that the world may know what the Potato is capable of doing of itself, without any interference beyond planting. In continuation of stock and scion, Mr. Taylor, of Bedale, has done good service in this matter (see p. 220, 221), as also has Mr. Fenn; indeed the latter gentleman has done more service in this cause than any other man, by publicly exhibiting the results of his practice, and I, for one, most heartily endorse the sentiments expressed by the Editors of this paper in commendation of Mr. Fenn's practice. This, together with my own experience, which I hereunder adduce, is, I think, sufficient to prove the fact that the stock influences the scion. This year I had the misfortune to get all my grafted Potatoes cut off by frost; some of them were entirely killed, and what did survive are very small indeed. It may be remembered that in my letter to the *Gardeners' Chronicle* on this subject (see p. 250) I signified my intention of grafting the Potato into the Jerusalem Artichoke, and vice versa, which statement created a little "wit" and ridicule at my expense. However, as an experimentalist, I did not allow that to daunt me, and thinking the Editors might possibly know no more about the matter than myself, I resolved at all hazards to gratify my inclination, and accordingly put my idea into practice; and I am now happy to be able to state that the Artichoke grafted into the Potato has produced the most wonderful cross of any of my experiments! The Potatoes grafted into the Artichokes were each killed by frost. Now, if need be, I am prepared to make oath and say, that the following is a correct statement of facts, viz.—No. 1, Artichoke grafted on Fluke, produced a round pinkish tuber; No. 2, Ashleaf grafted on Daintree's Seedling, produced both round and kidney-shaped tubers, resembling both stocks; No. 3, Ashleaf grafted on Red Regent, produced a light pink round Potato, much the same as No. 1; No. 4, Daintree's Seedling grafted on Fluke, produced tubers much the same as the stock. No. 5, Artichoke grafted on Daintree's Seedling, result similar to No. 4; No. 6, Ashleaf grafted on Fluke, produced a coarse skinned kidney Potato, rather pink; Nos. 7, 8, 9, 10, 11, and 12 killed by frost. Certain of the men in the garden can testify to the above statement, and any person may see for himself on paying me a visit, and presenting me with his name and address. More I cannot say. Now in connection with this subject, the question that occurs to me is, "Is it possible to effect any improvement in the Potato by grafting?" My answer is, "I am doubtful;" for after three years' experience and careful observation, I cannot truthfully state that I have effected the slightest improvement by the grafting process, on the contrary the produce has invariably been most ugly—some of the tubers real "mongrels," which has almost killed my interest, for I am a poor fisherman if without luck. I shall however continue to watch with much interest my Artichoke produce, and shall hope to again communicate to you the result, after another year's trial with it on its own roots. Thomas Simpson, The Gardens, Bromfield Lodge, near Chelmsford. [Our correspondent must excuse us if we put a very different interpretation upon his Jerusalem Artichoke experiment from what he does. He has not yet got his sunbeams from Cucumbers. Eds.]

Sambucus racemosa.—The reason why that beautiful shrub, the scarlet-berried Elder, is not cultivated to a greater extent in England, may be that it does not succeed in the vast majority of English gardens, in which the few plants I have seen were not worth looking at. The plant seems to require for its development, perhaps for its continued existence in a locality, either a considerable elevation above the sea level, or a north latitude higher than that of England. The luxuriant specimens seen by "I. O. W." in Sweden, Finland, &c., were under the latter favourable condition. In the middle and the south of Europe, it is only met with under the former. The first time I saw it in its beauty, it was straggling over a garden wall in Pontarlier, one of the most elevated, if not the most elevated town in France (2716 above the sea-level) close to the Swiss frontier, just before the railway takes the grand plunge down to the lake of Neuchâtel. Both the Jura range and the Alps are adorned by the scarlet-berried Elder. At my first visit to the Pyrenees I looked out for it in the valleys about Eauz Chaudes. Not finding it, I hastily guessed that it might not be a Pyrenean plant; but taking a walk into higher regions, in the direction of the Pic du Midi d'Ossau, I reached the level above which it becomes abundant, but below which it is not to be found. In my own garden, a few

yards above the sea level, not far from the Channel coast, a *Sambucus racemosa* grew rapidly to a considerable size. Every year it flowered abundantly, but as soon as the berries were as big as a half-grown currant, they dropped off till the ground was covered with them. A very few remained a little longer and grew a little bigger; but during the whole period of its existence the tree never gave me a single scarlet berry. A year or two ago it died, whether from a lingering consumption caught in the winter of '60, or from a summer sunstroke, I cannot say. I hesitate to plant another, unless some of your correspondents will give me hopes of obtaining, down on the plain, not only its vigorous branches but its panicles of fruit, which, as "I. O. W." truly states, "resembling miniature bunches of Grapes, of intense scarlet, render it the most beautiful wild fruit we have ever seen." I should be more sanguine as to the result of a trial of its aptitude for Highland shrubberies. E. S. D.

New Method of Fruit-growing.—Finding your columns so liberally open to the gardening fraternity of all denominations, to enable them to lay before the public the result of their labours, I hope to be allowed to make a few remarks on my new method of growing fruit, being especially desirous of calling the attention of the public to the new house erected for the purpose in Chiswick Gardens. Seeing this will enable any whose attention may have been called to the subject, to judge of the process by its own merits, and save me much trouble in explanation. You invited the public last week to take a peep at the magnificent vinery at Chiswick; to see which is alone worth a pilgrimage to any lover of fruit-growing under glass. If any one can condescend to look at my humble house, after viewing such a noble structure as the large vinery certainly is, I will try and raise my head, and say something about it. Though in a small way, I have great pretensions, and profess to grow Grapes, and stone-fruit, and what not besides, in this same house. And it certainly can be done to the greatest perfection, both as to the size and flavour of the fruit. I venture to think (*en passant*) that this latter quality of flavour is not sufficiently considered in the general way. It is satisfactory, however, to see that the judges at our fruit shows are beginning to appreciate it more and more in their estimate of the different fruits that are submitted to their approval. I ordered the fruit here to be retarded as much as possible, in order to keep it for show on the trees. The result is, that I have still a few Peaches and Nectarines left. Some of the latter, gathered yesterday, were as delicious in flavour as I ever tasted them in August, in spite of having been kept back so long, and the weather during the last fortnight having, moreover, been sunless, and otherwise unfavourable for the ripening process. The Plums left are Transparent Gage, which is now softening, very large in size, as are also Jodogne and Brahy's Plums. The crop of Peaches and Nectarines was below an average in quantity; Plums very good; Pears small, and below average. But this has been a sad year for fruit everywhere; and when we hear of such men as Mr. Rivers, of Sawbridgeworth, and Mr. Pearson, of Chilwell, failing, who are never in the habit of disappointing their visitors, I may, on the whole, congratulate myself upon having made a pretty good fight of it. John Fountaine, Southacre Rectory, Brandon, Oct. 5.

The Troubles of the English Exhibitor.—A good deal of justifiable grumbling has lately been manifested in your columns concerning the strange ways of foreign committees, and the extraordinary decisions of foreign jurors; and we have plumed ourselves that their ways were not our ways, and that, moreover, our ways were so much better than theirs. Well, certainly; and yet there are exceptions, as the following tale will tell:—About three weeks ago there was a great fruit tournament northwards. Growers from all nations were invited. The names of the jurors were exhibited beforehand, and displayed to the full in broad-sheets to inspire confidence; and everything that the experience of the learned and the wisdom of the wise could do to ensure success, and to give satisfaction was done. And yet here is the experience of a southern exhibitor. The great tilt of fruits took place on September 8 and 9. Our exhibitor entered in good time in class 3, for two Pines of any variety. On September 6 the fruits were sent off by mail, correctly addressed, to the secretary. A letter was posted at the same time, giving notice of the fact, and it was further notified that a Royal gardener would call for the Pines, pay the carriage, and stage the fruit. Another letter was despatched by the same post to the latter, who received it all right on the following morning at 7 A.M. This sent the Royal gardener Pine hunting on that day, and the two next, without finding them, however. Nothing more was heard of them until Saturday the 11th, when the *Gardeners' Chronicle* was eagerly opened as the Book of Fate. No notice, however, of the Pines. The exhibitor concluded that he had been beaten, and philosophically chewed the cud of disappointment by reflecting that they must have been good specimens to beat them. He then waited patiently, hoping that his Pines would appear; but no Pines came home. On the 11th, the secretary as custodian of all fruit, beaten or not, was written to. Another silence of four days. No answer. On the 18th the exhibitor's temper became somewhat like a Pine-leaf rubbed against the grain, and he wrote again, stating that he had heard through his friend, the Royal gardener, that his fruit had not arrived during the show, and begging an answer, stating the time of their arrival, as he was only waiting for this information before making a claim on the Great Northern Railway for non-delivery. The secretary broke silence—a silence of over 13 days' duration he it noted by all fervent exhibitors—on the 20th, telling our exhibitor, for his soothement, that his Pines had arrived all right, that they were seized on by a third party, and exhibited

as grown by a gardener to a noble lord, and awarded the 1st prize (see p. 971, first sentence of fourth paragraph from the top, col. a). After the show, one of the fruit had been sold, and the other was returned to the secretary as soon as the mistake was discovered; sorrow was also expressed for the mishap. Two days more passed: our exhibitor's impatience reached a white heat, that found expression in a telegram on the 23d. A reply is written on the same day, stating that the prize Pine had rotted on their hands, that it was not delivered to them till 10 days after the show, and regretting that it had not been eaten for dinner rather than spoiled. On the 25th another letter arrived, enclosing the prize-money and price of Pine, minus the cost of the post-office order—a piece of sharpness, under the circumstances, worthy of the canniest Scot in a' that braw country. The northern worthies have also promised to have the name altered in the "*Gardener*;" but, to an appeal to alter it officially in the *Gardeners' Chronicle*, they have remained dumb. To add to the zest of the disappointment, the proprietor of the Pines had the satisfaction of hearing of them being praised by a duke as wonderful examples of high cultivation, most creditable to the gardener of the noble lord in whose name they were exhibited. On reading this "over true tale" one hardly knows what most to wonder at—the long silence of the secretary for more than a week, his carelessness in allowing fruit addressed to himself to be removed by any one besides the gentleman specified in the letter of advice, the dumbness of the nobleman's gardener under honours which he must have known for many days to be undeserved, and what has become of his Pines, as also that the officers of such an old society as the Royal Caledonian Horticultural and its experienced secretary, Mr. Stewart, should have made such a blunder. This fact ought to make us charitable to our bungling friends over the water. "Let him that is without sin (fault) throw the first stone." Possibly, however, our northern friends will think they have had pelting enough. So, requesting your readers to turn to the page and paragraph already adverted to, instead of "In Pine-apples there were two superb fruits, especially the Charlotte Rothschild from Mr. Miles, gr. to Lord Carrington, Wycombe Abbey," read "from Mr. Ward, gr. to Thomas N. Miller, Esq., Bishop Stortford, Herts." *Observer*.

Conifers.—We have a number of very handsome trees of *Picea cephalonica*, varying from 30 to 40 feet high, that are this year bearing cones freely. With this I send you some specimens gathered from two separate trees, and you will observe that they are very dissimilar, leading me to suppose that we have two varieties of this most beautiful Conifer. Please say if it is so. I may just add that the finest specimens of the above are growing on a well sheltered westerly slope, quite out of reach of the early morning sun. The soil is a loose grey sandy loam, in which they appear to revel. *Picea Pissapo*, growing in a similar soil, has over 200 cones, specimens of which I send you. This tree is about 50 feet high, and the whole of the cones are on about 10 feet of the top. *Picea Webbiana* has six of its dark singular-looking cones. This, I fear, is too tender to be of value for extensive planting; it grows too early, and suffers much from frosts, and the soft fleshy buds got destroyed in the winter. *Abies Douglasii*, *Morinda*, and most of the Conifers are coming very freely this season, probably owing to the tropical heat of last summer. *Abies Douglasii* grows here almost as freely as the Larch, and as the timber is likely to be of great value it should be planted extensively. The inflorescence of the *Althea frutex* is very great this year. Several plants here are literally loaded with bloom. This lovely shrub is deserving of more extended cultivation. J. Sheppard, Gr. to J. Berners, Esq., Woolverstone Park. [The varieties of *P. cephalonica* are different, the one has shorter, blunter leaves, smaller and more deeply coloured cones than the other, and more prominent bracts. Eds.]

Societies.

ROYAL HORTICULTURAL: Oct. 5.—James Bateman, Esq., F.R.S., in the chair. The preliminary business of the meeting being concluded, the Rev. J. Dix and G. F. Wilson, Esq., announced the awards, and commented upon the products brought before the Fruit and Floral Committees. The Rev. M. J. Berkeley then addressed the meeting, first stating that the pretty Epidendrum, shown at the last meeting by Dr. Rogers, was found to be *E. glumaceum*. With respect to the doubt respecting the correctness of the name of Mr. Cox's specimen of *Picea cephalonica*, expressed at the last meeting, Mr Berkeley said that on examining some specimens sent by Mr. Frost, he found that the cones of *P. Pissapo* were quite different from those of *P. cephalonica*, the latter having projecting and pointed bracts, which was not the case with the cones of *P. Pissapo*. Mr Berkeley then proceeded to notice the Fungi, and referred to the interesting lecture delivered by Dr. Bull at the exhibition last year. Shortly afterwards Mr Berkeley received a letter from Dr. Curtis, stating that during the latter part of the American war, Fungi formed the principal food of the Southern army. The speaker then announced the names of the winners of the prizes offered, and referring to Mr. English's collection, called attention to the excellence of the preserved specimens, which looked like models, but which were in reality the Fungi themselves, prepared by a process the nature of which had not yet been made known. *Boletus edulis* was then alluded to, as one of the best of the edible Fungi, though not well known. It was a species of which Dr. Badham, a great authority on such matters, had said that it was good when cooked in any way. It was recognisable from other *Boleti* by a fine whitish network on the stipes, and occurred in abundance in the pleasure grounds at Kew. Mr.

Berkeley, whilst in Hanover a few weeks back, went into the markets there, and saw bags full of slices of this species, which was greatly appreciated on the Continent. He also saw in the same market another species which he had not seen before, *Clavaria rufescens*. The genus *Boletus*, said Mr. Berkeley, had been often described as gall tasting, but this remark did not apply to all the species, as he exhibited a specimen of *B. castaneus*, which was no doubt eatable. *B. luridus* possesses the singular property of being, when first broken, quite yellow, and then immediately turning blue. *Agaricus orcella*, a species not often found in this country, was then said to be one of the best, as also was *A. nebularis*. *A. Oreades*, the Champignon, of which there were several specimens, was then alluded to, as being one of the very best. In reply to a question often asked, Mr. Berkeley stated that there was no absolute distinction between harmless and noxious Fungi. Observation and experience furnished the only safe guide. This applied equally to other plants, as the Wild Celery might be mistaken for Water-cress. Illustrations were given of the noxious effects of some species, and the intoxicating powers of others; and in conclusion Mr. Berkeley read the following communication from Dr. Curtis, of South Carolina:—

"You have asked me to give you my experience with the eatable Mushrooms of America. This will be most satisfactorily done, I presume, in pretty much the same style in which I would narrate it to you at your own fireside. My experience runs back only about 12 or 15 years. You may remember that, previous to this period, I expressed a fear of these edibles, as I had grown up with the common prejudices against them, entertained by most people in this country. Having occasionally read of fearful accidents from their use, and there being abundance of other and wholesome food obtainable, I felt no inclination to run any risks in needlessly enlarging my bill of fare. Thus I had passed middle life without having once even tasted a Mushroom.

"But as under your guidance and assistance my knowledge of Fungi increased, a confidence in my ability to discriminate species grew up with it, and a curiosity to test the qualities of these much lauded articles got the better of timidity; and now, I suppose, I can safely say that I have eaten a greater variety of Mushrooms than anyone on the American continent. I have even introduced several species before untried and unknown. From the beginning of my experiments, however, I have exercised great caution, even with species long recognised as safe and wholesome. In every case I began with only a single mouthful. No ill effect following, I made a second essay upon two or three mouthfuls, and so on gradually until I made a full meal of them. Fortunately, I have never blundered upon any kind that was mischievous, although I have eaten freely of forty species. This is due, perhaps, to my general acquaintance with species which have been long used in Europe, and hence I have made no experiments upon new species which had not some affinity or analogy with them.

"For instance, *A. campestris* and *arvensis* being wholesome, I did not doubt but that *A. amygdalinus* (a new species closely allied to *A. arvensis*), might be safely attempted, as it has proved equally safe and palatable. Indeed, this may be regarded as the safest of all species for gathering, as it can be discriminated from all others, even by a child or a blind person. Its taste and odour are so very like those of Peach kernels or Bitter Almonds, that almost invariably the resemblance is immediately mentioned by those who taste it crude for the first time. This flavour is lost by cooking, unless the Mushroom be untried. When thoroughly cooked I cannot myself distinguish it from *A. campestris*. One or two persons have expressed the opinion that they can distinguish it, and that it is not quite so good. Others, again, are equally positive that it is better. In the crude state I deem it the most palatable of all Mushrooms, as it leaves a very grateful after-taste upon the palate, fully equal to that of Almonds. This is the thing I sent you some years ago for cultivation, but which failed to grow. I very much wish it might be propagated in England, so that we might ascertain whether it would undergo any change of qualities in a different soil and climate. I have for some time been entertaining the suspicion that such is the case with many of our species. Thus, in European books the Morel is described as possessing a peculiar flavour, that has given its name to the Morello Cherry. I can detect nothing of the sort in our Morel. You speak of *A. caesareus* (in *Introd. Crypt. Bot.*) as being 'perhaps the most delicious of all Fungi.' This grows in great quantities in our thick forests, and may be obtained by the cartload in its season, but to my taste, and that of all my family, it is the most unpalatable of all our Fungi. I can find many of our most passionate mycophagists who will avow that they like it. I have tried it in almost every possible mode of cookery, but without success. There is a disagreeable saline flavour that we cannot remove nor over-ride.

"In the *Tricholoma* section, in which are several species long known as edible, I did not hesitate to experiment upon any that had the odour and taste of fresh flour. I began with *A. frumentaceum* not learning from books whether it had been eaten in Europe. To this I subsequently added three new American species belonging to the same group. All are excellent when stewed, and are especially valuable for their appearance in late autumn, even during hard frosts, when other *Agarics* are mostly out of season.

"Again, there seemed such a similarity of texture and habit between *A. caespitosus* (*lentiginus*, Berk.) and *A. melleus*, although the former belongs to *Clitocybe*, that the temptation to a trial of it was irresistible. As it is found here in enormous quantities, and a single cluster often contains 50 to 100 stems, it might well be deemed a valuable species in a time of scarcity. It would not be highly esteemed where other and better sorts can be had; but it is generally preferred to *A. melleus*. I have found this species very suitable for drying for winter use.

"Among *Boletii* I ventured, in ignorance if it had ever been eaten, to try *B. Collinitus*, on account of its close relationship with *B. flavus*. I am not particularly fond of *Boletes*, but this species has been pronounced delicious by some to whom I have sent it.

"So among the *Polypores*, I had no fear of harm from the use of a new American species (*P. poripes*, Fr.), on account of its relation to *P. ovinus*, of its texture and its flavour. The taste of the crude specimen is like that of the best Chestnuts or Filberts. It has been compared even with the Cocoa nut, and is certainly of very agreeable flavour. It does not, however, make a superior dish for the table, being rather too dry, but it is innocent and probably nutritious.

"Of the *Merisma* group of *Polypores*, having already tried *P. frondosus*, *confluens*, and *sulphureus*, I ventured, after some hesitation, and with more than usual caution, to test the virtues of a new American species (*P. Berkeleyi*, Fr.), notwithstanding the intense pungency of the raw material, which bites as fiercely as *Lactarius piperatus*. When young, and before the pores are visible, the substance is quite crisp and brittle, and in this state I have eaten it with impunity and with satisfaction, its pungency being all dissipated by stewing. I do not, however, deem it comparable

with *P. confluens*, which is rather a favourite with me, as it is with some others to whom I have introduced it. *P. sulphureus* is just tolerable; safe, but not to be coveted when one can get better. When I say safe, I mean not poisonous. I cannot recommend it as a diet for weak stomachs, which should be said of some other Fungi of similar texture. I am here reminded of an experience I had three or four years ago with this species, which would have greatly alarmed me had it happened at an early date in my experiments, and which would, probably, have deterred any one unused to this kind of diet from ever indulging in it again. I had a sumptuous dish of it on my supper table, of which most of my family, as well as a guest staying with us, partook very freely. During the night I became exceedingly sick, and was not relieved until relieved of my supper. My first thought on the accession of the illness was of *Polyporus sulphureus*; but as I remembered that inflammation was one of the symptoms of Fungus-poisoning, and I could detect no indications of this in my case, I soon dismissed the rising fear, did not send for the doctor, nor take any remedy. Others, who had partaken of the Fungus more freely than myself, were not at all affected; and I presume my sickness was no more induced by the *Polyporus* than by the bread and butter I had eaten. And yet, had I alone partaken of the dish, or had one or two others been affected in like manner, doubtless the night attack would have been very confidently attributed by some to the Mushroom, or had this been my first trial of that article, possibly I might ever after have regarded it with suspicion. I learned a few days afterwards, from one of our physicians, that this kind of sickness was then somewhat prevalent in the community, and could be attributed to no known cause. For the credit of this species, therefore, we were fortunately able to distinguish the *post hoc* from the *propter hoc*.

"There are families in America that for generations have freely and annually eaten Mushrooms, preserving a habit brought from Europe by their ancestors. In no case have I heard of an accident among them. I have known no instance of Mushroom-poisoning in this country, except where the victims rashly ventured upon the experiment without knowing one species from another. Among the families above mentioned, I have not met with any whose knowledge of Mushrooms extended beyond the common species (*A. campestris*) called Pink Gill in this country. Several such families live near me, but not one of them was aware, until I informed them, that there are other edible kinds. Everything but the Pink Gill, which had the form of a Mushroom, was to them a Toadstool, and poisonous. When I first sent my son with a fine basket of Imperials (*A. caesareus*), to an intelligent physician, who was extravagantly fond of the common Mushroom, the lad was greeted with the indignant exclamation, 'Boy, I wouldn't eat one of those things to save your father's head!' When told that they were eaten at my table, he accepted them, ate them, and has eaten many a one since, with all safety and with no little relish. Since that time our mycophagists eat whatever I send them, without fear or suspicion.

"I have interested myself to extend the knowledge of these things among the lovers of Mushrooms, and also their use among those who have not before tried them. In the latter work I am not always successful, on account of a strong prejudice against vegetables with such contemptible names, and an unconquerable fear of accidents. Yet, as in my own case, curiosity often conquers these errors. When away from home I have frequently obtained ready permission from a kind hostess to have cooked a dish of Mushrooms that I have found on her premises. It has rarely occurred in such cases that the dish, then tasted for the first time, was not declared to be delicious, or the best thing ever put in the mouth. This latter phrase was once used in reference to so indifferent an article as *A. salignus*. Indeed, I have found several persons who class this among the most palatable species. To such persons a dish of fresh Mushrooms need seldom be wanting, as this one can be had every month of the year in this latitude. I am inclined to believe that the quality of this species varies with the kind of wood it grows from, and that it is better flavoured when gathered from the Mulberry, and especially from the Hickory, than when taken from most other trees. Its fitness for the table seems also to depend much upon the rapidity of its growth; those which grow slowly, as is the case with some of our garden vegetables, being of tougher texture and of less delicate flavour. A warm sun after heavy rains brings them out in greatest perfection.

"I have several times been asked by persons eating Mushrooms for the first time, whether these things belong to the vegetable or animal kingdom. There is certainly a very noticeable resemblance in the flavour of some of them to that of flesh, fish, or mollusc, so that the question, as founded merely on taste, is not an unnatural one. But I was much struck with its propriety when reading an article in *Priser's Magazine*, a few years since, written by the late Mr. Broderick, wherein it says that Mushrooms contain osmazone. If this be so, it accounts both for their flavour and for their value as food. Of this latter quality I had become so well convinced that, during our late war, I sometimes averred, and I doubt if there was much, if any, exaggeration in the assertion, that in some parts of the country I could maintain a regiment of soldiers five months of the year upon Mushrooms alone.

"This leads to a remark which should not be overlooked, upon the great abundance of eatable Mushrooms in the United States. I think it is Dr. Bidham who boasts of their unusual number in Great Britain, stating that there are 20 edible species in that kingdom. I cannot help thinking that this is an under estimate. But if the doctor is correct, there is no comparison between the number in your country and this. I have collected and eaten 40 species found within 2 miles of my house. There are some others within this limit which I have not yet eaten. In the catalogue of the plants of North Carolina, you will notice that I have indicated one hundred and eleven species of edible Fungi known to inhabit this State. I have no doubt there are 40 or 50 more, as the alpine portion of the State, which is very extensive and varied, has been very little explored in search of Fungi.

"In October, 1836, while on the Cumberland Mountains in Tennessee, a plateau less than 1000 feet above the valleys below, although with little leisure for examination during the two days spent there, I counted 18 species of edible Fungi. Of the four or five species which I collected there for the table, all who partook of them, none of whom had ever eaten Mushrooms, declared them most emphatically delicious. On my return homeward, while stopping for a few hours at a station in Virginia, I gathered eight good species within a few hundred yards of the depot. And so it seems to be throughout the country. Hill and plain, mountain and valley, woods, fields, and pastures, swarm with a profusion of good nutritious Fungi, which are allowed to decay where they spring up, because people do not know how or are afraid to use them. By those of us who know their use their value was appreciated as never before during our late war, when other food, especially meat, was scarce and dear. Then such persons as I have heard express a preference for Mushrooms over meat had generally no need to lack grateful food, as it was easily had for the gathering, and within easy distance of their homes if living in the country. Such was not always the case, however. I remember on one occasion during the gloomy period, when there had been a protracted drought, and fleshy Fungi few to be found only in damp shaded woods, and but few even there, I was unable to find enough of any one species for a meal; so, gathering of every kind, I brought home 18 different kinds, had them all cooked together in one

grand *pot-pourri*, and made an excellent supper. Among them was the *Chantarelle*, upon which I would say a few words in confirmation of what I have already said upon the various qualities of Mushrooms in different regions and localities. I found some where written of this Mushroom as being so deliciously esteemed a delicacy, that it is much sought for when a dish of state is given in London. Can this be the same as that (for nothing common and easily obtained is so delicate, I believe), or because you have it of finer flavour in England? Here, where it abounds, no one seems to care at all for it. The same would I regard Mushrooms entirely rather than eat them. It certainly varies much in quality, as I have occasion to find it quite palatable, and again, though cooked in the same mode, very indifferent. I have been unable to ascertain whether this difference is due to locality, exposure, soil, moisture, or temperature. That soil has much to do with the flavour of some species of Mushrooms I am well convinced. In a parcel of Pink Gills I have sometimes found one or two specimens, though perfectly sound, of such unpleasant taste and taste as would spoil a whole dish. So also with the *Spizella* (*A. arvensis*), of which I annually find a few beautiful specimens growing near my residence, upon a grassy turf that covers a pile of trash made up of decomposed sticks, and scrapings from the adjoining soil. Their taste and odour is perfectly detestable. I had one specimen cooked, and an amount of seasoning could abate the offensiveness of this odious thing; yet within 100 yards of these I gathered specimens of the same identical species, which are of fine quality equal to that of the best Mushrooms. As I have before mentioned the varying flavour of Mushrooms growing on different kinds of wood, so here I suppose the unpleasant quality of some specimens of these two well-known and common species may be owing to something in the soil which they grow which they cannot assimilate, and so render a palatable and wholesome species totally unfit for the table. Such specimens, if eaten, would be poisonous or unwholesome. I do not feel any temptation to prove. It is not probable that they will ever do any mischief, for it is more than probable that a human being should so pervert his instincts as to swallow a villainous concoction.

"Experience and observations like these would seem to justify the inference that an innocent species may become deleterious, on account of its taking up some bad qualities from the soil. But as I have never known a case of poisoning in families that are well acquainted with the common Mushroom or Pink Gill, that gather the specimens for themselves, and have used this article of food annually for many years, I cannot agree with a suggestion somewhere made, that you, that perhaps all Mushrooms contain a poisonous element, but some of them in such small quantity as to have no perceptible effect. Now, had you seen the quantities of collected Mushrooms swallowed at a single meal which I have seen several destroyed, and with no more harm than from the same amount of oyster or turtle soup, I think you would be forced to the conclusion that such an amount, even of poisonous Indian meals, must have had some very unpleasant manifestations. It also be a very innocent diet.

"It is said that the sale of the Pink Gill (*A. campestris*) is forbidden in the Italian markets, because that species is often proved to be poisonous. May not this have been done by ignorant and careless collectors or by worthless inspectors? To us in America, who use this species so freely and fearlessly, the Italian's curse, 'May he die of a Prick' would have no more terror than 'May he die of a rotten toe.'

"Our best and standard Mushrooms are the Pink Gill (*A. campestris*), Snowball (*A. arvensis*), Peach Kernel (*A. amygdalinus*), Nut (*A. procerus*), French (*A. prunulus*), *M. (M. oculata)*; Coral (*Clavaria*); and *Omelette* (*Lycopodium giganteum*). These are almost universally in high esteem. Yet tastes differ on these things as on fruits and vegetables, some putting one, some another, at the head of the list, though fond of all and ever ready to use either of them. I have known a person prefer a Peach to a fresh Apple. There are some among us who regard *A. procerus* as fully equal to the *Tricholoma*, and I am almost of the same opinion. Whether broiled or fried it truly makes a luscious morsel. I mention in this connection, that this species has been named of Nut Mushroom, from a quality that I do not mention in the books which describe it. The stem of the fresh and young has a sweet nutty flavour, very similar to that of the Hazel Nut. Is this the case with you? Its flavour is agreeable that I am fond of chewing the fresh stems. This peculiarity in connection with its agreeable ring and colours, I deem it a perfectly safe species to recommend for collecting. We have no species likely to be mistaken for it, except *A. rachodes*, and I fully tested the innocence of the latter before commending the first to others. This has been expected by some, but I have found it harmless. Though well flavoured, it is not comparable with *A. procerus*, and its flesh is so thin and spongy that it is not worth the trouble of those of more compact texture are to be had. A specimen of the same group, is a much preferable species.

"The Morel is one of my greatest favourites, but this I find in quantity except in calcareous districts. A few since (April 21) I had a dozen for supper, the largest number ever had at one time.

"The *Lyoperion giganteum* is also a great favourite with me, as it is, indeed, with all my acquaintances who have known it. It has not the high aroma of some others, but the delicacy of flavour that makes it superior to any other that I have ever eaten. It seems, furthermore, to be so digestible that it adapts it to the most delicate stomachs. This is the habit of Down of Mushrooms.

"In this latitude (about 36°) we can find good Mushrooms for the table during nine or ten months of the year. *A. salignus*, which some are quite fond of, we can have in every month, as this species comes out during any part of the year. *A. campestris* makes its appearance in the early part of March, but is not in full crop until September. An excellent species of the *Tricholoma* group do not appear until after frost sets in, and continue into December, the case too with *Boletus Collinitus*, which sometimes comes from the earth frozen solid.

"These observations and experiences are confined to the Carolinas; though, I presume, from casual observation elsewhere, and from information derived from other parts of the country, that, making some allowance for difference of climate and length of seasons, what I have said is applicable to the whole country. M. A. Curtis

Mr. Saunders then stated his intention of offering a prize again next season, and suggested that to the edible species better known, they should be separated from the poisonous ones, and be labelled so as to direct more attention to those which were useful to man.

The Chairman having adverted to a few subjects, said that many years ago the late Sir John Banks had predicted that the fruit of the Mangosteen would be exposed for sale in Covent Garden Market, though he might not live to see it; and he (Mr. Bateman) was happy to see that that prophecy had been partly fulfilled, a few days previously he had bought fruit from the Mango in Covent Garden, which were obtained from Madeira. The Mango had fruited at Chelsea

constant communication from one side to the other, and in spite of identity of soil.

The botany of railway banks and railway stations indeed is a subject well worth the attention of botanists, and in these days of junction stations and consequent delays, not the most unpleasant mode of whiling away the time is to note the "aliens" and "strangers" that make their appearance in such localities.

Our notice has extended to such length that we can only mention without further comment the sketch of the progress of botany in Middlesex from the time of Mr. Turner, the first part of whose "Herball" was printed in 1551, to that of Mr. Melville, whose "Harrow Flora" bears date 1864.

So many tastes and interests are catered for in this volume that our authors are sure to get full meed of praise and thanks from all sorts and descriptions of plant-lovers, and we too are happy to aid in the general chorus.

The Aptary.

BEE NOTES: SUPERS.—I have seen two very beautifully worked boxes of honeycombs lately, and was induced to take notice of the manner in which the bars were arranged. The boxes were perhaps 13 inches square, by 7 inches in depth below the bars.

I have hitherto been particular in constructing my supers of the proper dimensions for taking the same bars as are in use in the frames of my stock-boxes, only placing them rather further apart. Though this method possesses many undoubted advantages, yet, as my bars are very narrow, being only 1/2 inch in width, I have found that they were hardly capable of supporting very wide and heavy combs, and have, therefore, refrained from placing them so widely asunder as I otherwise should have done.

Garden Operations.

(For the ensuing week.)

PLANT HOUSES

THE species of Eranthemum, considering their usefulness and the variety in their forms, are not met with in collections of stove plants nearly so frequently as they should be.

minimum to be arrived at during the middle of winter should be from 48° to 50°. Place them after this date into as light and airy a position as is practicable. The above remarks apply equally to Sonerilas, regarding which I may state that even greater care is necessary not to have the balls containing the roots at all sodden after this time, otherwise the loss of the plants will assuredly be the consequence.

FORCING HOUSES.

Where Vines are forced early no further delay should take place in pruning them, if this be not already done. If the least symptom of bleeding occurs let white lead be immediately placed over the wounds, or use other methods, of which there are several, to prevent it.

HARDY FRUIT GARDEN.

The advent of foggy or drizzling weather, some of which we have already experienced, will make the ingathering of all fruits a matter of more care should bright clear days not ensue. Boverly particular not to pick any until it has become thoroughly dried.

HARDY FLOWER GARDEN.

Well-kept walks, without which a garden at this season loses that nice neat tone which is so desirable, will now need all our attention to keep them in thorough order. They must be constantly swept and rolled over—as often, in fact, as leaves and other litter accumulate.

KITCHEN GARDEN.

In this department the chief work will be to manure all vacant ground at the earliest possible moment, after the removal of the crop which may have been upon it, and to well dig or trench it over.

good coating of coarsely sifted leaf-mould and loam placed amongst the stools or crowns of the sorts. This, whilst it tends to ward off the winter, aids the roots besides by affording additional nutriment to the soil and to themselves when the growing period arrives.

TOWN GARDENING.

THE Ivy is a most valuable plant for town walls, and the present is a good time to plant it, so as to be ready to twine round wirework to form beds, which make a pretty feature, and are very good for growing early bulbs in.

STATE OF THE WEATHER AT CHISWICK, NEAR LONDON. For the Week ending Oct. 6, 1869, as observed at the Horticultural Gardens.

Table with columns: Day, Moon's Age, Barometer (Max, Min), Temperature of the Air (Max, Min, Mean), and Temperature of the Earth (1 foot, 2 feet deep).

Sept. 30—Overcast, cloudy, very close, heavy showers at night. Oct. 1—Showery, cloudy, but fine, clear and fine. 2—Overcast, slight rain, densely overcast; showery.

STATE OF THE WEATHER AT CHISWICK, DURING THE LAST 43 YEARS, FOR THE CORRESPONDING WEEK ENDING OCT. 9, 1869.

Table with columns: Day, Average Highest Temp., Average Lowest Temp., Mean Temp., No. of Years in which it Rained, Greatest Quantity of Rain, and Prevailing Wind.

The highest temperature during the above period occurred on the 14th, 1881—therm 90 deg., and the lowest on the 13th, 1880—24 deg.

Notices to Correspondents.

GRASS DISEASE. We never before heard of any such Grass diseases. INDIAN FORESTS: A Young Gardener. Apply at the Office, Westminster. MEDLARS: An Amateur. These should be allowed to the trees as long as they will, or until they begin to of themselves: a slight frost will do them little harm, however, in no way beneficial.

THE LANDS IMPROVEMENT COMPANY.— (Incorporated by Special Acts of Parliament.)

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Frederick L. ... Kirtlington Park, Oxford.
Messrs. ... (Messrs. Harris, Farquhar & Co.), 18, St. James Street, S.W.
Messrs. ... Eaton Square, S.W., and Galloway House, Westchester, N.B.
John ... Esq., 1, King's Bench Walk, Temple, E.C.
Messrs. ... (Managing Director), 2, Princes Terrace, Hyde Park, S.W.
Messrs. ... Esq., 4, Park Street, Westminster, Hyde Park, S.W.
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For Forms and further information apply to GRANVILLE R. ...

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PEDIGREE HUNTERS WHITE WHEAT.

Also the ORIGINAL RED.

Price, including bags, Five Guineas per Quarter, by the Quarter or Half-Quarter, One Guinea per Bushel for less than a Half-Quarter.

Delivered at the Brighton Station, in bags sewed up, sealed, and containing printed directions for planting, upon receipt of Cheque or Post Office Order, without which it will not be sent to unknown Correspondents. Less than a bushel not supplied.

Apply to Captain HALLETT, F.R.S., The Manor House, Brighton.

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ADAMS'S NITRO-PHOSPHATE or BLOOD MANURE for WHEAT.—This Manure, specially prepared for Autumn Sowing, is rich in Ammonia, Phosphate, and other ingredients required for the healthy growth of Grain Crops.
Particulars will be forwarded upon application to the Secretary, or may be had of the Local Agents. C. T. MACALDAM, Secy. Chief Offices, 115, Fenchurch Street, London, E.C. Western Counties Branch, County Chambers, Exeter, Irish Branch, 45, Westmoreland Street, Dublin.

THE LONDON MANURE COMPANY

Have now ready for delivery, in fine condition, COGNAC MANURE, for Spring Use. DISSOLVED BONES, for Dressing Pasture Lands. SUPERPHOSPHATES OF LIME. PREPARED GUANO. MANGEL and POTATO MANURES. Also Genuine PERUVIAN GUANO, and NITRATE of SODA. ex Dock Warehouse, SULPHATE of AMMONIA, FISHERY SALT, &c.
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All other Manures and Cakes as per Price List, supplied on the most liberal terms. Apply to JOHN BENNETT LAWES, Esq., Mark Lane, London, E.C. Dublin, and Shrewsbury.

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ROSE and CO'S Biphosphated Peruvian Guano Company (Limited), 1, King's Bench Walk, London, E.C.

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DOWN'S FARMER'S FRIEND for Preventing the Smut in Wheat, and the Ravages of the Bug, Grub, and Wire-worm.

A 9d packet is sufficient for Six Bushels of Seed Wheat, which can be dressed and sown in a quarter of an hour.
Testimonials from the largest Wheat Growers in the Kingdom, bearing testimony to its great power and efficacy, may be had of Agents, who are appointed for every district.
Full directions for use are given with each packet.
Prepared at the Manufactory, Woburn, Beds.
CAUTION.—To guard against fraudulent imitation and consequent disappointment, see that the signature of HENRY DOWN is on the label.
Agents in every Town throughout England, Scotland, and Ireland.

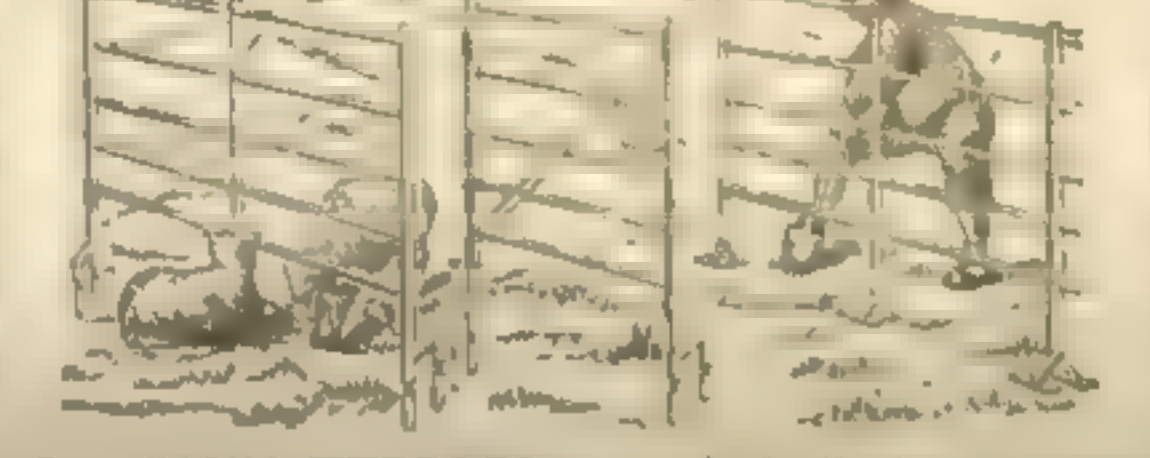
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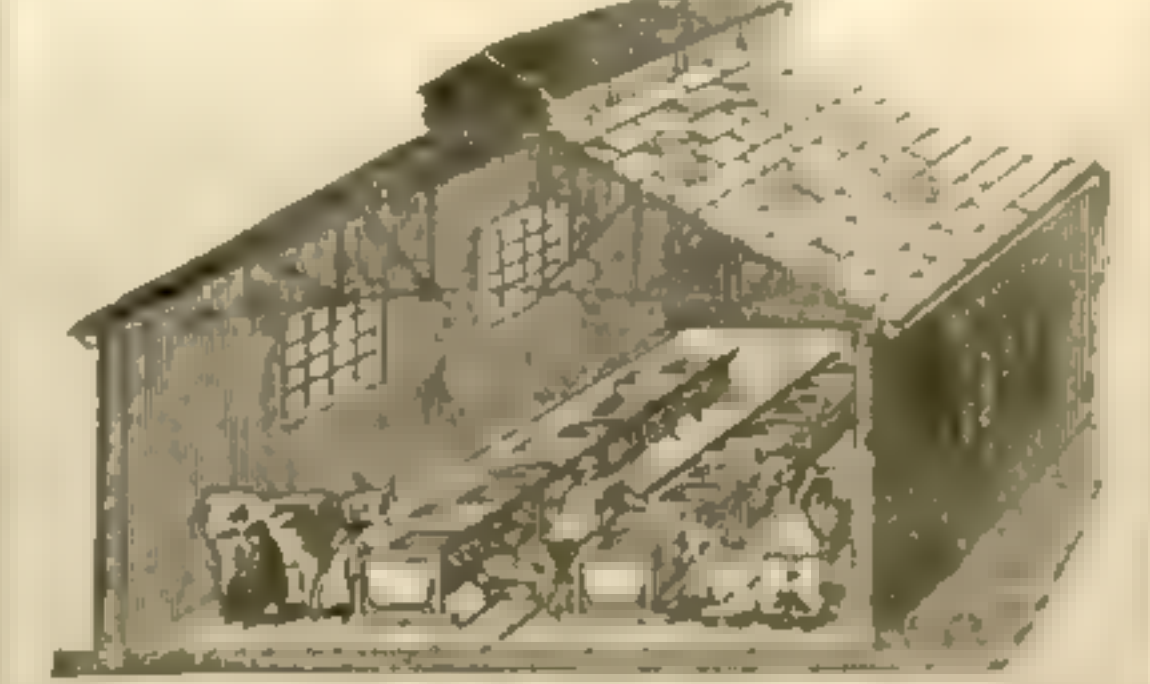
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PRIME STRAP and SOLE BUTTS.
Price Lists sent free by post.
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Cottam's Iron Hurdles, Fencing, and Gates.



COTTAM'S HURDLES are made in the best manner, of superior Wrought Iron, by an improved method. Illustrated Price List on application to COTTAM and CO., Iron Works, 2, Wincor Street, Dalby Street, London, W.

COTTAM'S PATENT PORTABLE UNITED COW FITTINGS



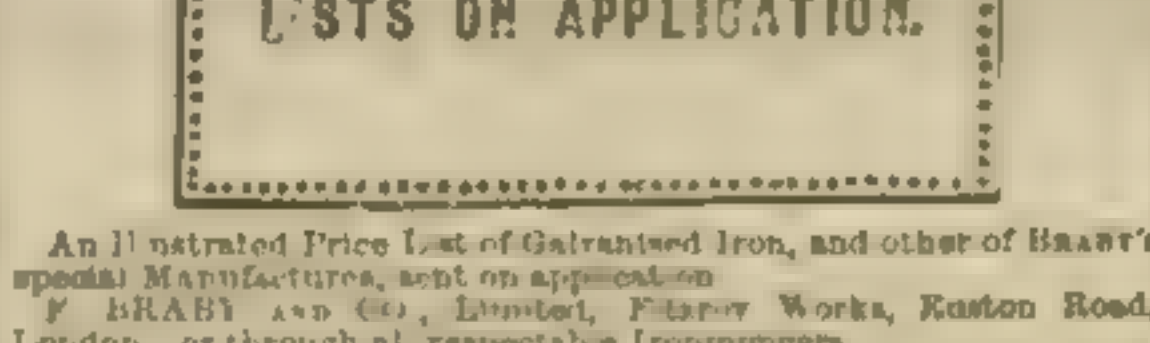
Their advantages are: Portability, not fixed; removable at pleasure; ...
Prospectuses free from COTTAM and CO., Iron Works, 2, Wincor Street (opposite the Post Office), Oxford Street, London, W., where the above are exhibited, together with several important improvements in Stable Fittings just secured by Patent.

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Will find the greatest advantage in Paving the Floors of Stables and Kennels with PYRIMONT SEYSEL ASPHALTE.

Thirty years' experience of the durability of this material, for the above and many other purposes, testifies to its value. A List of all such and other works can be had on application to J. FARRELL, Secretary, 5, Parliament Street, S.W.

Rosher's Garden Edging Tiles.



THE above and many other PATTERNS are made in the most durable manner, and of great durability. The pattern sorts are ...
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as cheap and durable as Stone, in blue, red, and buff colours, and capable of forming a variety of designs. Likewise more elaborate designs. Pattern Sheets of Pavements with prices, forwarded free on application.
WHITE GLAZED TILES, for Lining Walls of Dishes, Larders, Kitchen Ranges, Bains, &c. (Imitation and other Stone) Paving Beliefs of great durability, Dutch and Amsterdam Chinkers, Wall Copings, Bell and Stoneware Drain Pipes, Slates, Cements, &c. To be obtained of F. & G. ROSHER, at the addresses as above.

SILVER SAND (REIGATE), at the above addresses—

14s. per Ton, 1s. 2d. per Bushel; 2s. per Ton extra for delivery within three miles, and to any London Railway. What Quantities of 4 Tons, 1s. per Ton less. A coarser grained sand 4s. per ton more. Samples of Sand by post on receipt of stamp.
FLINTS and BRICK BURLS for Hotbeds or Ferneries. KENT PEAT and LOAM supplied at lowest rates.
F. & G. ROSHER.—Addresses see above.
N.B. Orders promptly executed by Railway or Vessel. A liberal discount to the Trade.

SMITHFIELD CLUB FAT CATTLE SHOW.—

The ANNUAL SHOW of FAT CATTLE, SHEEP, and PIGS, will be held at the AGRICULTURAL HALL, ISLINGTON, on MONDAY afternoon, December 6, and Four following Days.
Interested Exhibitors are requested to apply for Certificates of Form to the reference letters as follows:—
CATTLE: Fat Cattle, Fat Oxen, Fat Steers (in any Class); Fat Bulls, Fat Heifers (in any Class); Fat Sheep: Fat Rams, Fat Wethers (in any Class); Fat Pigs: Fat Single Pigs, Fat Pairs (in any Class); Fat Triplets (in any Class); Fat Sows (in any Class); Fat Piglets (in any Class).
ENTRIES FOR THE SHOW CLOSE ON NOVEMBER 1.
Price Lists, Forms of Certificates, and all information may be obtained on application to Messrs. J. ALLEN, Assistant Secretary, at the Office of the Secretary, corner of Half Moon Street, Piccadilly, London, W.
N.B. All communications respecting the Show must be addressed to the Assistant Secretary, as above, and must first state to the Secretary, Smithfield Club, S.W.

THE BIRMINGHAM CAT, PIGEON, and POULTRY SHOW.

The TWENTY-FIRST GREAT ANNUAL EXHIBITION of FAT CATS, SHEEP, PIGS, DOMESTIC POULTRY, CORN, ROOTS, and IMPLEMENTS, will be held at BINGLEY HALL, on SATURDAY, MONDAY, TUESDAY, WEDNESDAY, and THURSDAY, November 27, 28, 29, and 30, and December 1 and 2, 1869, when PRIZES to the amount of nearly £2000 will be awarded in the following Divisions, viz.:—
FAT CATTLE £200 10 0, SHEEP 100 0 0, PIGS 50 0 0, FAT SHEEP 200 0 0, ROOTS and CORN 70 0 0, FAT PIGS 50 0 0, POULTRY and PIGEONS 747 10 0.
Price Lists, Certificates of Entry, and every information may be obtained from the Secretary.
THE EXHIBITION CLOSES on MONDAY, November 1.
JOHN A. LYTHALL, Secretary.
Office, 20, New Street, Birmingham.

The Agricultural Gazette. SATURDAY, OCTOBER 9, 1869.

MEETING FOR THE ENSUING WEEK. October 12—Bisford Agricultural Society, at Bisford.

STEAM-POWER is, no doubt, the parent of modern enterprise, and the life and source of our industrial system. It has reformed—or, rather, transformed—every branch of industry in turn. Whatever new kinds of labour it may have created—and some of them are hard enough—it has in general lightened toil and superseded brute drudgery. It is said that steam is to effect equal changes in agriculture—that it is to lessen its labour and expedite its processes. As the shuttle passes through the warp in the power-loom, so the plough and the drill and the instruments of husbandry are to pass through the soil, steam-driven. The whistle of the plough-boy is to be replaced by that of steam, and "Gee-wo!" or "Come hither!" are to be heard no more in our arable fields. Agriculture has always been a handicraft; it is to be enabled, and to become a manufacture.

We hardly know with what feelings to anticipate these changes; and, whether they shall be ultimately realised or not, we must confess we do not think them imminent. It is said that the mode of culture affects flavour in certain vegetables, but we cannot yet detect a smack of steam in agricultural produce. There are no factory flavours in our bread at present, on the contrary we fancy it has a beyond-sea taste; at least a third of the Wheat consumed has a character of rude foreign farming about it. And if bullocks were as portable as corn, there is no doubt that Bison beef would soon compete with the joints of our domestic breeds. Much as we should like to see this foreign help supplanted by self-help, it seems to us a mistake to rely solely upon steam.

The largest cotton mill in England has six immense floors, which we ascended by a steam hoist. An engine of 300-horse power drives the vast and complicated machinery of the establishment. The representative busts of great mechanics and economists adorn the handsome engine-room. In one immense apartment 1200 power-looms weave threads into fabrics. In this mill we heard more noise, and smelt more oil, than in all our showyard practice combined. Steam is here supreme, for without the concentrated power that drives them, those myriad wheels and spindles would stop at once, and the industry of Lancashire, and all kindred labours, would come to an end. Steam is essential to our railways, to the rapid ocean-traffic, and to many of our grandest undertakings; but there is no indispensable relation between steam and progress in agriculture. English farming might be deprived of steam, and nevertheless be made much more productive than it is now. Our trade and manufactures are sustained by steam, and would collapse without it, but it is not even the foster-parent of our agriculture. While we talk of its mighty power and of the revolution it will accomplish in farming, we become daily less dependent on it. We will not say as the satirist said of virtue—laudatur et aliquid—but at any rate this country depends more and more for its food-supply on the ruder farming of distant countries, where

labour is cheap and the soil unexhausted. And it must be so while we continue to rely on mechanics, and neglect to repair those broken links in the chain of natural causes. We cannot expel "Nature" by steam-power.

No doubt clay soils will yield a certain crop of Wheat, year after year, without manure. Mr. LAWES still gets about one-third of a crop on his strong land. We quote that single fact in his valuable experiments to illustrate what mechanics alone can do for agriculture; they can enable us to farm with economy as to labour, but they will never supply us with a system of agriculture. It used to be thought otherwise. JETHRO TULL maintained that minute subdivision would obviate the use of manure, believing that the plant fed on the finely divided particles of earth. When the true theory of the nutrition of plants was little understood, there was a current saying, "mechanics for the clays, chemistry for the light lands"—we have learned that chemistry is necessary for clays also; in fact, we apply more chemistry to clays than to light land, in the removal of the stagnant water by draining, and in the liberation of the locked-up "inorganics" by burning. We must not, however, be too critical on a mere saying which, like many common sayings, has a foundation in only partial truth. But let the cost of tillage be reduced to the standard of that gallant pioneer—Mr. SMITH, of Woolston—and allow for a considerable saving to be effected in some unforeseen way in the cost of harvesting and preparing for market, still the main items—including that heavy one, manure—must remain untouched.

Agriculture is too big to be moved much by any number of steam tugs. We must rely on the laws of Nature, not on any mistaken expectations of the power of mechanics.

We are glad to observe that one leading question, in which the continued prosperity of agriculture is involved, was handled before the British Association at Exeter, where two papers were read on the liquid and dry earth schemes of dealing with house waste.

At Mark Lane and throughout the country Wheat has declined in price 1s. to 2s. per quarter. Fine malting Barley has been actively inquired after, and made full prices. Old and new Oats are both cheaper, the former 1s., and the latter 2s. per quarter. The live stock and meat trades have been brisk for all good qualities, beef having risen to 5s. 6d. per stone, and mutton to 5s. 8d.—The seed trade is nearly confined to winter Tares—English wool more freely inquired after, but there has been no advance in prices.

The Peterborough Ploughing and Draining Matches took place on Wednesday last, when the interest displayed in reference to them was even greater than has been shown for several years past. There were 50 entries, and 48 teams came to the fields, which were provided by Mr. Wagstaff, on his Woodstone Farm, a mile or so from the town. The teams were divided into seven classes. The champion class included eleven competitors, whose work was extraordinary for straightness and uniformity. But the 1st prize was won under protest, as STEPHEN BLUNT, to whom it was awarded, and who was recommended by Mr. LOVELL, secretary to the Northamptonshire Society, had for some months been occupied as a butcher, and therefore had departed from, or risen above, the character of a labourer. This prize is therefore left to the consideration of the committee. The competition among farmers' sons or pupils under 21 years of age, and over that time of life, is a very interesting part of the contest. By the interest taken in these trials, too, it is clear the farmers of the Peterborough district do not reckon that horse-ploughing will be entirely superseded by steam-power during the next generation. In the older class Mr. JAMES NEALE not only beat Mr. GOODYEAR, who had been a successful ploughman for years, but the judges awarded him Messrs. HOWARDS' plough, offered as a special prize for the "best work in any of the classes (implement makers excepted)." The younger hands also did excellent work, the 5th cup going to Mr. TEMPLEMAN, jun. The work in the class of men who had not taken a 1st prize was but little inferior to the champion's performance, which foreshadows the keenness of the trials in this class in future years. The boys under 18 years of age did work that was highly creditable both to them and their masters. Three men were recommended by implement makers to compete for the 5th cup offered. The well-known JAMES BARKER, and the equally well-known GEORGE BROWN, here came together—the former for Messrs. RANSOME, SIMS & HEAD, and the latter for Messrs. COOKE & CO. JAMES BARKER won the prize. Messrs. FOWLER & Co.'s Pirie's Plough was used by one of Mr. WAGSTAFF'S men, who had never held one before that day, and although he had not got quite into the way of steering its wheels as straight as a line, it did some efficient work; the stubble being well buried, and the soil left in an admirable condition for aeration. The drainers did some wonderful work. There were three classes, including 19 competitors. The young hands did their work well,

but the drains out by the experienced men were, in several instances, only 6 to 8 inches wide at the top, although they were 4 feet deep. JOHN NICKERSON, sent by Mr. WHITTON; and WILLIAM WOODS, sent by Mr. CHENEY—each of whom took 1st prize in his class—were worthy of particular praise, for the drains were almost as straight and smooth as if they had been sawn out. It ought to be said, however, that these men were fortunate in their ground; the soil was not uniform enough to give each man the same chance, for when gravel and water were come upon, there being no outlet for the water, the sides dropped in, and the work, however skilled, was spoiled in appearance.

At a special meeting of the committee of the Central Farmers' Club, held last Monday, the circular letter from the Privy Council Office on the transit of animals came under consideration, and the following answer was agreed to:—The committee of the Club would in the outset impress the great importance of the more speedy transit and delivery of animals carried by railway; while it would further recommend:—That all trucks for the conveyance of animals upon railways should be fitted with spring buffers. That, in order to prevent the injurious effects upon the animals by the shunting of the trains and from other causes, the trucks should be divisible into compartments. That it is undesirable to unload animals during transit by railway. That animals should not be upon a railway for more than 12 hours without water; and that railway companies should be compelled to provide means for the proper watering of cattle before loading.—That any appliances for the watering of animals should be attached either to the carriages, or troughs should be so placed at the stations that animals travelling for more than 12 consecutive hours can drink from such troughs without being removed from the trucks.—With respect to the feeding of cattle, the committee is of opinion that there are great difficulties in the adoption of any plan, and is not sure that the feeding is necessary or desirable.—That all vessels for the conveyance of cattle should be licensed for the purpose, and that the number of animals such vessels should be laden with be defined, on the same principle as is adopted with emigrant ships.—That the vessels should be divided or divisible into compartments in the same way the committee has recommended for railway trucks.—That pleuro-pneumonia and other diseases are no doubt engendered by the exposure to which animals are subjected on landing, and that shelter and accommodation should be provided on their disembarking.—The reply of the committee concludes with a reference to the fact that the course of circumstances has amply justified their memorial presented to the Lords of the Privy Council from the Club in March, 1868, and wherein the chief point dwelt upon was the establishment of a foreign market, as the only means by which the stock of this country can be defended from the importation of cattle plague and other foreign diseases.

At the Council Meeting of the Central Chamber of Agriculture held last Tuesday, the questions for discussion related to the Privy Council inquiry about the transit of animals. Professor BROWN attended the meeting for the Committee of Privy Council, and stated that the Committee was most anxious to have from that Chamber suggestions of a practical character, not only as to what was the best thing to do, but also the best way in which to do it. The Privy Council had nearly absolute power in making regulations. It was absolutely necessary that the suggestions made for its guidance should be such as could without very serious expense be carried into effect, but if there was a large increase in the cost of transit it would not be liked either by the farmers or the importers. A good deal of discussion ensued upon Professor BROWN'S address, and ultimately the following resolutions were unanimously agreed to:—

- 1. That, in the opinion of this Council, animals travelling by railway ought to have the opportunity of drinking at intervals of time not exceeding 12 hours. 2. That a supply of water should be accessible to animals at all loading places of railway stations. 3. That railway companies should publish time-tables of their trains carrying live stock, and that each lot of animals travelling by railway should be accompanied by a waybill, showing the times of arrival and departure, and the causes of detention, if any. 4. That railway wagons for the conveyance of cattle should be constructed with spring buffers and spring couplings, roofed over, and divisible into compartments, and that freedom from overcrowding, and a proper cleanliness of wagons and loading places, should be enforced. 5. That ships and steam-vessels carrying animals should be licensed, and placed under a thorough system of inspection.

In his monthly report to the vestry of Marylebone, Dr. Whitmore, the medical officer of health, refers to the extent to which the foot-and-mouth disease among cattle is prevailing, and its effect upon the food of the people. He finds the number of cows now kept in Marylebone to be 461, and of these 310 have been attacked by the disease, to which may be added some 35 or 40 others that were removed either on the first appearance of symptoms or soon after recovery. It causes serious loss, owing to the great diminution of milk. Cows which, before the disease, gave 15 and 20 quarts of milk per day, give only 8 or 12 quarts two months after apparent recovery. The secretion of milk does not stop altogether, except in the most severe cases during the disease, and most cowkeepers frankly admit that this milk is mixed with that from healthy cows and sold to their customers; the probability, therefore, is that the inhabitants not only of Marylebone, but of all other districts of London, have been drinking milk from infected animals for some time past, but as the weekly return of sickness from charitable institutions shows no appearance of disease among children, such as the drinking of milk from animals suffering from an eruption of vesicles on the feet and in the mouth would be likely to produce, the doctor comes to the conclusion that the risk or

danger of drinking such milk is very small, although it is impossible for him to say that there is not a taint of disease. The cowkeepers are of opinion that milk is not deteriorated by the disease, and freely to their own children, who are healthy. However, states it as his duty to urge the wisdom of policy of always throwing away the milk of infected animals, and that the cowkeepers have fully promised to do in future.

OUR LIVE STOCK.

The catalogue of the entire herd of pure-bred Aylesbury, the property of Mr. Fowler, Prebendary of Aylesbury, is now before us. The high character of this stock is sure to attract a large number of horns breeders on Monday the 19th inst., the day for the sale, and we fully expect to see a very keen competition. Fawsley, Tortworth, and Kirklevington all sound well, especially to the lovers of Bates' stock, and the 37 cattle all trace to one or other of these stockers. Mr Fowler will place a moderate reserve on one cow, and with this exception the lots will be sold at the highest bidder. First on the catalogue we find *cess Royal*, by DUKE OF BOLTON, a 12-year-old from Sir Charles Knightley's *London Pride*, by Bolden's JANIZARY (8175), and previously tracing to *Alone* by that excellent sire SNOWBALL, by CALIPH, Walnut by WHITEBOY (1540), and to Mr. Charge's stock. Of this good old strain is *White Princess*, by 3D GRAND DUKE, and *Princess*, by HARDICANUTE (22,537), (lot 1), daughters of the first-named cow; *Lady* by HARDICANUTE, and two bulls both by 2D CLARO, named respectively GRAND DUKE OF and ROYAL CLARO. Occupying the next in the list is *Sunrise*, by Sir Charles Knightley's LUKE, and from *Sweetheart 3d*, of Milcombe traction. The name of *Charmer*, by LITTLE and *Sylph*, by SIR WALTER, will remove a doubt as to the excellence of this pedigree. The same well known family belong *Seraph*, by DONPERRY (13,169); *Sunbeam*, by HARDICANUTE and from *Sunrise*, and among the bulls, *Fawn Royal*, by PRINCE CHRISTIAN (22,532), *Fanta 3d*, by VICEROY (17,181), was purchased for at the last Didmarton sale; her mother was *Flea*, Mr. Sunbury's CUPID, and her great-grandmother was *Flourish*, by the 100 G. USURER, the cow in which Mr. Rich raised his celebrated *L'orient*. When to this excellent history is added the fact that she is due to calve in November to 2D DUKE OF LINGHAM, she may be expected to bring a high price. We may as well mention at this point *Ursula 28th*, 13TH GRAND DUKE, another Didmarton heifer, bought as a calf at the first sale for 61 gs. *Verbena*, by M. QUITO (11,964), was bred by Captain Blathway, and also her dam, *Victory 2d* by 4TH DUKE OF OXFORD and her grandmother *Victory*, by 1 SUREE, was bred the late Earl Ducie. She is full of York and Oxford blood. *Seraphina 18th* (lot 7) by IMPERIAL OXFORD was bred by Mr. Lawford, of Southcott, and is sprung from a well-known Seraphina tribe. Immediate descendants from her we find *Princess Seraph* and *Imperial Seraphina*, both by PRINCE CHRISTIAN, two young heifer calves by HARDICANUTE, and a yearling bull by 8TH BARON WETHERBY, who is son of the 7TH DUKE OF YORK *Naiphala*, by BULL RUN, is the oldest representative of a very pure Knightley family. *Sue* was bred at Fawsley, as was also her sire, who traces back to JANIZARY, LITTLE JOHN and CALIPH. Her mother *Sylphide*, was another Fawsley cow, by SARAH, also bred by Sir Charles Knightley, this most excellent pedigree finds its limit in FAVORITE (252), and STUBBLE BULL (627). *Pipalee*, by BULLS, possesses an identical pedigree with *Naiphala*, *Edith of Fawsley*, and *Knightley Princess*, by PRINCE CHRISTIAN, *Knightley Grand Duchess*, by 4TH GRAND DUKE, *Fawsley Queen*, by HARDICANUTE, and 1ST BARON FAWSELEY, by 8TH BARON WETHERBY, all immediate descendants of these two cows. *Tail 2d*, by Mr. Graham's COSTA (21,487), and *Fantail* by BARRYCORN, sold at the last Killohore is a well-bred Shorthorn. Her sire was of good known stock, and on the mother's side she is thorough Bates, as the three consecutive sires, 5TH DUKE OF YORK, 4TH DUKE OF NORTHUMBERLAND, and SHEPHERD TAIL satisfactorily show. One heifer calf of this and a young bull, MARQUIS OF AYLESBURY, will be offered. To trace the pedigree of every animal in the catalogue would occupy too much space, and we will close this sketch by a reference to the bulls lately in the herd. These are PRINCE CHRISTIAN (22,537) bred by Mr. Graham, of Yardley; 8TH BARON WETHERBY, bred by Mr. Bowley, of Siddington, thorough well-bred Bates bull, full of York and Oxford blood; and HARDICANUTE, by POTENTATE CHAMBER (19,423), dam *Harmony*, by CHERRY GRAND DUKE 3D (15,764).

Two bulls of first rate descent, bred by and property of Lord Braybrooke, will be sold with Fowler's stock. Both are by 4TH DUKE OF GENEVA a bull by DUKE OF GENEVA (19,614), and of the Cherry Duchess tribe. The first, GENEVA DUKER out of *Haydon Rose*, a daughter of ENGLISH (19,701), and *The Beauty*, by PURITAN (9523); and second, CHERRY DUKE, is from *Christina Rose*, daughter of 4TH DUKE OF THORNDIKE, and of the Cambridge Rose tribe, so long bred by Mr. Bates of Kirklevington. We are reminded in the catalogue that 10 animals of this family sold at the Preston sale in 1867 for an average of 214l. 18s. 8d.

Bride of the Vale, the 1000 guineas heifer, purchased of Mr. Booth, of Wariaby, a few months ago by Mr. Gibson for Messrs. Walcott & Campbell, *State of*

New York, has unfortunately cast her calf during her upward passage. She was heavy in calf to COMMANDER-IN-CHIEF, the 1st prize bull at Leicester last year.

A large and carefully bred stock, comprising swarms of 17 head of Shorthorns and a flock of Leicester sheep, were dispersed at Cotham, near Newark, on Monday, the 27th ult. Mr. Booth has long been known as a breeder of stock, and a considerable company assembled to witness the sale. The cattle are of nice colour, full of hair, somewhat deficient in character, and low in condition. It was also the opinion many who attended the sale that the contagious disease now so prevalent exerted a depressing effect on buyers. The 12 Shorthorns realised 957*l.*, or an average of 1*l.* 12*s.* 9*d.* No high prices were given, but among the highest may be noticed 17*g.* for a bull calf scarcely six months old, and 32*g.* for a cow.

PETERBOROUGH GREAT FAIR.

THIS meeting for the sale of cattle, horses, wool, and other articles, took place on Saturday. It seems to be general opinion that the last day of the week is a very inconvenient one for so large and important a meeting, and particularly as Peterborough market is on a Saturday. In connection with this opinion has been suggested that the first Wednesday, or Thursday, or Friday in October would be a far more convenient arrangement for all parties than for it to be regulated by the day of the month, and it is probable that steps will be taken to effect this alteration. It happens that great fear and difficulty now exist respect to the foot-and-mouth disease, an increased amount of inconvenience, and expense too, occurred Saturday; for every distant purchaser was anxious to get the 10, 20, 30 or more beasts which he had bought, off by railway at once, lest they should, after enduring a public fair, fall down with the disease before they got home, and be stopped on the way by the authorities. How this was managed we cannot say; but from the crush at the stations on Saturday evening, we should say that the leading of cattle ran into Sunday, or many lots had to be kept in the town or neighbourhood over Sunday, which might naturally increase their own danger, and probable injury to others. For these several reasons, it seems clear that so great a meeting as this might be advantageously diverted from falling on a Saturday.

Of the animals there is but little to say. As there is no regular tolls paid for exposing them in the fairs, no comparative statistics of the number "putched" from year to year can be ascertained. But, far as we could estimate them, there was a far greater number of cattle on Saturday than we have met at any previous fair during the several years we have been present. The condition of the stock, too, have never been better. As regards the trade there were far more beasts, both large and small, than we were accustomed to see, and that many were in better hands for tramping the country to stand other fairs or markets. Prices were also considerably lower, may be judged. From this, however, an exception must be taken, for the high price of meat would insure for the oxen in forward condition a brisk demand at high figures. This was the case. The drovers were early in the field for the good beasts put in their yards for the great Metropolitan Christmas market-day. The animals made from 24*l.* 30*s.* a head, according to their size, quantity, and condition.

The Irish beasts were the most numerous, and the best in quality and condition, that we have ever seen. The present the Irish herds at home are said to be free from disease; and as this is attributable to the isolation of Ireland, and to its being an exporting country, a strong case is here made out for the benevolence of the present disease in England existing in the landing and circulating foreign cargoes of animals. Many of these Irish beasts were four years old, some of them were as well-bred as any one need look at, and the whole of them were in either a forward or sleek growing condition. Now, therefore, that the Irish herds have attained this character, surely the best thing which Irishmen could be engaged in at this time would be to improve their traffic in animals, and thereby redeem the character they bear for sort-righted barbarous treatment of their stock, whereby the value of them in this country is lowered a times more than it would cost to treat them in a civilized way.

There were only a few hundred Devons, and they were apparently but little sought after. Of Herefords there were but two or three small lots. All, however, were in fair condition. As regards disease, we are pleased to be able to say there was not the slightest sign of the foot-and-mouth complaint to be seen. We trust, that the mixture of many together, some of which may have had the disease in an incipient form, will not result in making general in the districts over which they will be distributed.

Some few of the remnants of recent long-woolled rams were offered by Mr. Law and Mr. Briggs, jun., and the price—these inferior sheep made were equal to one of the averages of the best of flocks. The averages were 10*l.* and 11*l.* a-head.

The horse fair was confined principally to the trade in young Irish horses and Welsh ponies. The barter which the men commit who "snow off" these animals are as great as ever. Many a young animal was no doubt named for life by the manner in which it was rashed and pulled about. Good colts and cart-horses were scarce and dear. A cart foal, we were informed, was sold for 24*l.* In the nag and saddle-horse department there was nothing but screws, or shapeless animals at are of but little use; for the trade in sound and

stout animals is now so good that dealers and their agents look them up at home, and it is an exception if they ever appear in a market or a fair at all.

AGRICULTURAL COUNTY SHOWS.

THE suggestion in your last number (p. 1023) with regard to amalgamating the shows of the separate midland counties into one association, with Birmingham for its centre, deserves serious consideration. At present I am scarcely prepared to assent to the proposal without further inquiry. The reasons you have adduced in its favour are weighty, but something may be said on the other side. A too limited area is certainly to be deprecated, and the tendency of such associations has of late been to amalgamation. Thus our society, which was once confined to North Staffordshire, now embraces the entire county. In like manner the Sparkenhoe Club has expanded into the Leicestershire Society. No one can deny that in both these instances the amalgamated societies have gained in influence and prestige. But if you make the area of a Society embrace something like the third or fourth of England, you totally change its character. We have already, in addition to the Royal Agricultural Society, our great meetings, such as the Yorkshire, the Bath and West of England, &c., and with gatherings they are. But the bulk of the exhibitors at county shows would never venture to meet the competitors when they would have to encounter in such an arena. Virtually its shows would be open to the kingdom, and heading the prize lists would be found the old familiar names of Booth, Fawkes, Foljambé, Laly Pigot, &c. The emulation of ordinary breeders, which it is so difficult yet so desirable to excite, would run much risk of being completely extinguished by encountering antagonists like these. We want to rouse ordinary farmers to emulation among themselves, instead of gazing passively at high-bred stock as they might at the beasts in a menagerie. Local shows have materially assisted in the diffusion of superior animals, and nowhere are they more numerous than in Yorkshire, where, during the summer months, there appears to be a show once a week. Men may have extremely well-bred stock, the diffusion of which would much conduce to the general improvement of dairy or grazing herds, who would not care to meet the picked animals of the kingdom. It is well that farmers should have an opportunity of inspecting these, and thus form an idea where, for example, they may best supply themselves with a bull, without going to the price expected by Captain Gunter or Mr. Booth.

With regard to the duration of the show, I agree with you that one day is sufficient for those carried on on the present plan. For one on a larger scale a week might be requisite, but there ought to be some great benefit to compensate for the risk and suffering involved in confining animals so long under unnatural conditions. For my own part I would, if it were possible, rather shorten the show of the Royal Society than lengthen any others. The real benefit of such exhibitions is to farmers, to whom they afford an important means of instruction. It is very well for the inhabitants of towns to amuse themselves by inspecting the stock, but I see no adequate good to be derived from detaining the poor creatures longer than necessary from home for the mere amusement of factory operatives and children.

If, however, agricultural exhibitions are to fulfil their highest purpose, as means of educating the public mind, there must be more confidence felt in the decisions of the judges than is the case at present. As one means of attaining this, might it not be possible at the larger meetings to allow the judges an opportunity of revising first impressions, by going a second time over their work? One of the most eminent judges of poultry mentioned to me that he had on one occasion reversed his first decision, by being accidentally allowed a second glance at two pens of birds, and that he had thus escaped committing a serious error. Again, there is a tendency on all such occasions, unconscious it may be, to give the preference to size, fat, and flourishing condition, over those less showy indications of high breeding which at home could not fail to press themselves on the private observer. On this ground I sympathise with Mr. Ellman in his protest on the decision in the Southdown classes, and that quite independently of the merit of the pens in question. Mr. Ellman deserves the thanks of breeders for his moral courage in upholding the true character of a breed against more showy claims. There is another point worthy of consideration. At present the judges have only the appearance of the animal to guide them. Who would buy a Shorthorn or a race-horse in this manner? Is breeding worth more or is it not, than the mere appearance which happens to impress on the individual animal? Of course it is worth money, or else we should not see one colt knocked down for 50*l.*, while the next, which is no better looking, fetches 1000*l.* The judges therefore ought, in common fairness, to be allowed to possess this necessary element in arriving at a correct decision. Men who were fit to hold that responsible office, would allow it due weight and no more. If it be objected that such information might induce partisanship, I reply that in numerous cases the judges employed at the Royal and other great shows, not only know the blood, but are perfectly familiar with the animals themselves. So far from any party feeling influencing the awards, they are, as a rule, far more satisfactory than at smaller meetings. Of course I allude to the preference which may be entertained for one strain of blood over another, for no one would for a moment impute the suspicion of personal partiality to any gentleman filling such an office. As an illustration of the confidence placed in them, Mr. Wilson mentions that at the great Hamburg International exhibition, the judges were furnished with the name of each exhibitor, a piece of information

which is perfectly useless. On the other hand, it is a matter of everyday observation, that at provincial shows, animals win prizes, as Shorthorns, which are not only less well-bred than others in the same class, but which are not even qualified to be in the Herd Book. Nay, on one occasion I remember seeing a cow take a 1st prize, of which the pedigree and the breeder were alike unknown. With fat stock the best animal ought to have the prize with breeding stock the pedigree cannot with safety be left out of the account. It may even be that a reference to pedigree would in many cases assist the judges at provincial shows, in placing the best animal in his rightful position. For instance, a person not accustomed to first-class Shorthorns, might easily, among a lot of young bulls, prefer one shape like a prize bullock to another having the proper type of a male animal not yet arrived at maturity. A reference to the respective parentage of the two might possibly induce a doubt as to the correctness of the standard which the judge had hitherto held. As a first step in the right direction, I would press on local societies to adopt the rule carried out in the catalogue of the Royal Society, where the name and Herd Book number of the sire, and that of the dam with her sire and number, are appended to every animal exhibited. If it is thought by any one that I lay too much stress on pedigree, I advise his careful study of Mr. Darwin's great work on the "Variations of Animals and Plants under Domestication," a work which ought to be in the hands of every breeder who desires to possess more than an artificial knowledge of his art. For patient research, extensive reading, and generalisation alike cautious and profound, it is not approached by any book on the subject. Willoughby Wood, Burton-on-Trent.

THE WHEAT CROP OF 1869.

IN the *Agricultural Gazette* of September 18, your correspondent, Mr. Ford, of Merton Hall, Warwickshire, gives it as his opinion that the statements which I have put forward with regard to the yield of the Wheat crop of 1869 are "most erroneous," and, indeed, that my estimate of the smallness of the deficiency compared with the average, is "perfectly ridiculous." Mr. Ford says, that on July 17 he reported his belief that the Wheat crop of this year would fall short of that of 1868 by at least 2 quarters per acre, that since that time there occurred some fine hot foreign weather, which materially improved the Wheat crop; that still he is of opinion that the yield will be nearly 2 quarters per acre less than last year. The material improvement which he admits thus only reduced his estimate of the deficiency compared with last year from "at least" to "nearly" 2 quarters per acre. I freely grant that, in the early part of July, the Wheat crop was in a very critical condition, but I am disposed to attribute a far more improving effect to the splendid weather which followed than that which your correspondent assigns to it.

The following facts in addition to those I have before adduced in reference to the Wheat crop of the harvest just passed, have a considerable independent value; but they will, perhaps, also aid your readers in forming their own conclusions among the conflicting opinions which have been published on the subject. In a field of 30 acres which has now yielded 9 grain crops during the last 14 years, Clover was grown in 1858, and this was followed by Wheat of various descriptions, the land being equally dressed with artificial manure for all when the seed was sown. The results were as follows:—

Table with 3 columns: Description of Wheat, Bushels per acre, Weight per bush. Rows include Burwell, Bristol Red, Red Langham, Red Wonder, White Chaffin, Woolly Ear, Nursery, Rostock, Niagara, Golden Drop, and Mean.

Thus the average yield in these 10 experiments with as many different descriptions of Wheat, is over 30 bushels per acre; and I have probably 60 acres on my farm which will yield an average of 6 quarters per acre. It will not be doubted that an equally large produce has been obtained by many others; whilst, on the other hand, on my farm, as on many others, some of the Wheat was thin and root-fallen. I cannot, however, suppose that, in a season which, side by side with failures, is capable of affording such large produce, the crop of the country generally can be so deficient as it is represented by some. Your correspondent does not say what he estimates the average produce of the country to have been last year; so that his estimate that the yield is 2 quarters per acre less this year does not clearly indicate his figure for the present year.

I estimate the produce of 1868 to average, over the United Kingdom, 31 bushels per acre. This, at the time, was considered to be rather high; and the imports of Wheat during the succeeding 12 months would seem to indicate that it was at any rate not too low. If, however, we take 31 bushels per acre as the yield of 1868, and deduct from this 2 quarters per acre, we should have only 18 bushels as the average yield for 1869. The price of Wheat at the present time certainly affords no indication of any such deficient yield, and I leave your readers to judge of the validity of such an estimate. J. B. Lawes, Rothamsted, Sept. 23.

P.S. Since writing the above, I have seen Mr. Kains-Jackson's letter, quoted in the Money Article of the

Times of Sept. 25. He there sums up the various estimates of the Wheat crop of 1869, as under:—

J. B. Lawes, from experiment	.. million qrs.	12½
A Buckinghamshire Farmer, average, from threshing	..	13
Mr. Sanderson, 26 bushels per acre	..	12
"Floating Cargoes List," Sept. 3	..	11
Agricultural Gazette, say	..	11
"Chamber of Agriculture Journal," say	..	11
Mr. Mechi, an average	..	13
His (Mr K. J.'s) own observation and advices, short average	..	12½

ON THE TECHNICAL EDUCATION OF THE AGRICULTURAL LABOURER.

By J. BAILEY DENTON, C.E., F.G.S.

[The following paper was read at the meeting of the British Association at Exeter.]

WITH the general interest felt in the condition of the agricultural labourer, and the promise held out by the Government of measures for the education of the people during the next session of Parliament, it may not be inopportune to address a few observations to the Association on those points, by attention to which it is hoped the promised mode of education may take a form which, at no distant period, may have the effect of instructing rural labourers of coming generations how to earn higher wages, and thereby obtain more and better food, and increased social comforts.

It is not to be doubted that the prevailing absence of education is the cause of the depressed and inferior condition of rural compared with urban labourers, which renders them the worst paid class of the community, and that the first step to be taken is the establishment of a system of primary education, which can only be successfully carried out at school. The object of the writer is not in any way to interfere with this elementary school teaching; it is rather to show, while the subject is under public consideration, that it should be associated with technical information, whereby the labourer may make his work more valuable and better appreciated by his employer, and thus secure more money in return.

Up to the present time the country at large has laboured under the mistaken opinion that the operations of the farm require no initiation, that physical health and strength alone are required to make the farming labourer all that he need be. Gradually, however, the business of the farm in its several branches is becoming more like other businesses, and elementary education and technical knowledge are admitted to be as essential to the full return from agricultural as from manufacturing labour, with this difference only, that, the work of the farm being dependent on more subtle influence than those of trade, the technical knowledge required to bring each operation to the most profitable bearing is wider than that which is required in perhaps any other calling in which manual labour is the chief active power. Yet no special learning in any branch of farming is imparted to the young agricultural labourer, although there is not a trade which does not require its working members to undergo apprenticeship before they can take part in a trades' union, showing distinctly how the more intelligent appreciate apprenticeship as a means of becoming skilled workmen. Any mechanic, following a trade involving only a monotonous repetition of the same work, is not considered qualified for the privileges of combination, unless he has gone through the form of apprenticeship. It is upon this ground, and this ground only, that in all the better trade societies the first rule is, that no one shall be admitted "unless he possesses good abilities as a workman," in which case "he shall not work for less than the average rate of wages paid to members in the same branch of trade in which he is employed." The act of apprenticeship is, in fact, the very basis of trades unions. It is very different with the farm labourer, though if, for instance, he would thoroughly succeed as a horse-keeper, a herdsman, or a shepherd, and obtain full wages, he must not only do his routine work with industry and care, but, to do it perfectly, must understand the nature of the animal with which he has to deal, and how best to maintain its health and productiveness, knowledge which is not to be gained in the ordinary course of the farm labourer's life, though it may be quickly acquired by special servitude and technical teaching. So with the ploughman, the drillman, the hedger and the ditcher, if either would do his work thoroughly he must not only understand the nature of the seed he may have to sow, and the plants he may have to raise, but he must be conversant with the influence of seasons upon their growth, and upon the soil in which they grow. This quality of knowledge is now gained by a few only, who are observant, and teach themselves. Speaking generally, it is the imperfect way in which the manual work of the farm is done, which for the most part keeps down the price of agricultural labour; yet there is not a farmer of any intelligence in the country who will not readily pay 2s. to 3s. a-week more for an adept in any branch of duty than for a casual hand who, being put to every kind of work, is master of none.

It has been advanced that the simple payment of higher weekly wages to agricultural labourers, without seeking to make them more skilful in their duties, would be generally beneficial. This, however, is opposed to the first principles of economy, as such a system could only be maintained by impoverishing the farmer without increasing the produce of the soil. If, on the contrary, the work of the labourer is made more productive, not only will the farmer be rendered better able to pay higher wages, but the soil, by yielding more, will better support increasing population, and so add to the wealth of the nation. The first proposition is advanced on the ground that, by raising the wages of agricultural labourers, they will be immediately enabled, by the purchase and consumption of more food, to put forth greater strength, and be able to endure more. To prove that this is well founded reference has

been made to their casual employment in railway, draining, and other public works, and the better wages they then get. It has been further supported by the statement that when farm labourers from Dorsetshire, Somersetshire and Cornwall, earning from 7s. to 12s. a week, have migrated into the higher priced counties of the North, they have directly received the prevailing higher wages of the district, and have become as valuable to their new employer as native men. The experience and observations of the writer—who, for the last 20 years, has had the conduct of works of land improvements in nearly every county in England and Wales, and generally has under his control from 1500 to 2000 agricultural labourers—do not confirm this view of the question. He has found that the quality of labour varies in different counties or districts, distinguishing one from another as distinctly as any other characteristic feature, and that the value of the work performed in the low-waged districts is very much less than that of districts where wages are higher, although there are some special works which are even better performed on the low-waged than in the high-waged districts. If every instance of migrated labour which has afforded satisfaction could be investigated, it would be found that although the want of hands may have raised the wages given beyond what immigrant labourers may have received at home, it has only been when they have become skilful in their new duties by practice that they have risen to the level of superior native men.

In spite of the fact that the agricultural labouring population has decreased, it is not to be denied that in some rural districts there is still an excess which has the effect of keeping down the price of labour below what it ought to be, while there is a scarcity in other districts which has necessarily the contrary effect of raising local wages above the average amount, though the scarcity may not extend to the whole of the year. Neither can it be denied that where this seasonal scarcity of hands exists it has been caused in most instances by the same species of migration as that by which it is very properly desired to counteract this unequal state of things.

In 30 out of the 42 counties in England, reckoning the ridings of Yorkshire as counties, Mr. Thornhill Harrison shows (see "Fraser's Magazine" of April last), that there has been a gradual decrease in the number of persons employed in agriculture, the reduction being traceable to the migration of the young and active men from the country to towns, and from agricultural to manufacturing pursuits. He says—"Not only was the number of agricultural labourers fewer in 1861 than in 1851, but the quality of the labour was seriously deteriorated. No doubt fewer women were employed in the fields, but the proportion of boys and old men to full-grown men in the prime of life was much increased, as appears from the following table:—

LABOURERS EMPLOYED IN AGRICULTURE.

	1851.	1861.
Under 15	105,700	119,000
Above 40	393,500	427,500
	499,200	546,500
Able-bodied	78,400	60,000
	1,280,000	1,260,000

Thus, if we compare 1861 with 1851, we find that the total number employed in agriculture in the former year included 73,700 fewer who were able-bodied, and 47,300 more who were either lads under 15 or men over 40."

The progress of agriculture, nevertheless, has been so remarkable and rapid within the last 30 years, that, notwithstanding the increasing application of steam machinery and horse labour to objects in which manual labour alone a few years back was the only means of production, the actual demand for men has increased, and is still increasing, particularly in those parts of the country where arable prevails over pasture culture. But as long as the fallacious opinion rules, that physical power without the exercise of mental ability is the measure of the value of manual labour, so long will the farmer treat his labourers with the same consideration as he does a threshing-machine, or a steam-plough, which is only set in motion when circumstances call for its use, to be put away again when its work has been performed, whereas, if the head more frequently directed the hands of the farm labourer, this casual description of employment would give place to constant engagement. The farmer would, in fact, find that the return on his capital would be in proportion to the intelligence of his workmen and the extent to which he employed them.

At the present moment, no sooner is the boy sent by his parents to earn a shilling or two a-week on the farm, than he commences a career of empty thought; the little exercise of the child's mind, which had been exerted in reading, or in writing, or in doing a sum of addition or subtraction when at school, ceases. He is made a bird-keeper, or a crow-clapper, or a ploughboy, or a pig-driver, or anything else which can be performed without mental effort. No one takes the least trouble to teach him his duty. If he does contrary to what he has been told to do, he may receive a blow from his master or from the man he is working with, and if he is considered to be doing too little for the 2d. or 3d. a day which is paid him, he is sent home to his mother to find another master, from whom he will receive similar treatment.

The age usually devoted in all trades and occupations of life to apprenticeship is thus wasted, and the time when the human mind is most susceptible of beneficial impressions lost. At the same time the worst habits incident to agricultural life are imbibed, and the pernicious influences of beer and cider take effect. The wretched compounds sold as beer and cider, which create thirst when taken to allay it, soon tell their tale in habitual drunkenness and enfeebled health.

It is striking to observe how closely the habit of

drinking is associated with low wages and early in the age of the agricultural labourer the influence of beer and cider take effect and prevent improvement in labour. There are not any statistics we can ascertain the quantity of beer sold in England, but we find by the returns of Dorsetshire—a county famous for the wages, and in which much cider is privately supplied by the farmers to their labourers—a number of agricultural labourers in 1861 while the number of beer and cider sellers showing a proportion of 33 labourers to one. In Lincolnshire—where the average wages are cent. higher than in the south-western counties no cider is made, and where beer only is a number of agricultural labourers in 1861 and the number of publicans 1317, which proportion of 40 labourers to one publican, acquainted with the value of labour in any specimen districts will confirm the statement of higher wages of the Lincolnshire labourer profit to the employer than those of the southern counties.

Having laid so much stress upon technical education as a means, when associated with practical, of improving the condition of the labourer, I would point out the means by which it should be gained. At school the child should be read, if only in monosyllables, of the common the farm, and children's books might be prepared for this use. Children of rural districts known to take great interest in the animals and crops of the farm, and they would retain further details conveyed in an instructive and pleasing form. Thus, primary and technical education might proceed together. These books would be useful to the children of the labourer and children of the farmer too, and, if prepared at different ages, would command a very large sale. The teacher at the school, too, should be qualified to lead the children to think on matters connected with their future occupations.

As soon as a child is considered old enough to school and take part in farming duties, he should be placed under a leading man of a particular department on the farm,—not treated as he now is by being sent one day to one thing and the next another,—to gain under the shepherd, or the housekeeper, the cowkeeper, or the engineer, or the hedger and ditcher, or the thatcher, or the drainer, that special knowledge which would qualify him to earn higher wages than otherwise could. There could not be any difficulty in carrying out this plan, particularly if farmers generally would take an interest in seeing the sons of their labourers were placed where they would obtain the most useful information. By this means, a boy employed on the farm would be apprenticed in one department until he had acquired a thorough knowledge of it, and then might pass to another. In order to encourage master-labourers to impart such information as they possess a small prize should be given to those who produce the best work while competition for prizes might be organized amongst the scholars themselves.

THE PETERBOROUGH TRIALS.

Messrs. AMES & BARFORD, the enterprising Peterborough, have this week given to steam ploughmen, and all farmers who take an interest in the great treat. They did on their own account believe, hitherto was supposed to be only the province of the agriculturists in their locality to judge for themselves which might be the best tackle for their own circumstances, and certainly a better opportunity was offered for that object. You have, no doubt, here expatiate upon the fine weather for the very numerous company, the magnificent welcome lunch, and the discussion after luncheon intention is, by argument, to examine which is the best way of making steam cultivation more and in what way the implements at the Peterborough exhibition contribute to that end.

First of all, I will analyse Campaign's invention, movable anchor, which, according to the programme is to dispense with the anchor-men. There is least doubt that when I saw the apparatus there were no anchor-men required, and the boys, who have nothing to do but raise the alloy the anchor to travel forward, were such perform that duty. As regards the novel invention, I am quite certain it exists only in ingenious arrangement of the revolving chain and end of the travelling anchor. But the anchors were made by John Fowler & Co. to 1862; they had not the revolving claw, travel was regulated by a chain and in my soils such as we saw at Peterborough, still light sands and upon rocky soils the chain is p. But John Fowler & Co. abandoned the revolving system, and with it the travelling anchor; I believe, because it did not admit of steam-plough on a large scale, which means, saving in labour time, and saving in all working expenses. Travelling anchor of Mr. Campaign might, I do not easily meet with situations in which it would be at all. In irregularly-shaped fields it would be more than 90°, even 150° and 160°. In that case much question whether the anchor would "move" without help. Then there is this further disadvantage in Mr. Campaign's, as in any other, travelling anchor that when the work in a field has been completed, to be fixed upon travelling wheels to remove it; the

earth-box, carrying the dead-weight, has to be emptied, horse is wanted to transport it into another field; when arrived there, the travelling wheels must be taken off again, and the earth-box refilled. All this means labour, means time, and requires skill. It is a matter of calculation whether the two half-crowns saved daily in the wages of two anchor-men will pay for the extra outlay over the snatchblock, for the labour and time expended in removing and refixing the travelling-anchor.

Mr. Campan's anchor, although highly ingenious, only adds to the complication of the system without adequate saving. In my opinion, Buistrode's patent snatch-block-sling is a much more serviceable addition to a roundabout tackle. There was nothing new in any other part of the roundabout tackle exhibited. The whole apparatus was manufactured by Fowler & Co., and their windlass, with its compensating brake, and their blocks, as well as the portable engine, were constructed with that due regard for strength which characterises all the machinery made at their works.

The other tackle exhibited was one of Fowler's double-engine tackle, of 12-horse power, working a turning cultivator with nine tines, each 10 inches apart. The work it performed was well done the circumstances were very favourable, and from 7 o'clock in the morning until 2 P.M. 18 acres were "got over," at a depth of about 8 inches. There was a novelty in the gear of the engines: the horizontal shaft, which communicates the power to the winding-drum and all its bearings and bevil-wheels, have been entirely dispensed with, so that the whole design now is a model of simplicity. During the discussion, it was clear, a great interest was evinced in the question—Which is the best tackle to suit the men who farm from 200 to 400 acres? The custom of small fields, crooked hedges and hedgerow timber, was again denounced as one of the elementary hindrances to successful steam culture.

Although Mr. Smith, of Woolston, came in for a large share of sentimental eulogium, every whit of which he deserves, still it was evident that the practical agriculturists then present did not consider the roundabout tackle, even with Mr. Campan's anchor, as sufficiently meeting their wants. The roundabout system has, since it was originated, remained the same. Most of the attempts to improve it have only added to its complication. I have upon former occasions expressed my belief in the hiring system being the best mode of making steam cultivation more general, and bringing it within the reach of every farmer; and, in my opinion, the latest and most improvements of Messrs. John Fowler & Co. in their hiring-out tackle are unquestionably confirming my opinion. I am alluding to their new 20 and 30-horse power tackle. I consider the best steam-plough to be the one which can do the greatest number of acres per day. At one time the outcry against the double-engine tackle was, that "the engines were too heavy." We now have practical proof that heavier engines than formerly in existence can be moved about with the greatest facility. We (the North Lincolnshire Steam Cultivating Company) have two 20-horse power engines, which we purchased at the Manchester Show. The whole of the gear and the fittings of the engines are of steel. The weight of the engine is about 4 tons in excess of our old 14-horse power engines, but the power is almost doubled, so that, when travelling, the power they exert "beats" their weight, and these heavier engines move with facility upon ground where our old engines would be in difficulties.

Now for the economy of working a large power tackle in preference to one of small power. One man is necessary to drive even the smallest engine, and one man suits to drive a 20 or 30-horse power engine. One man is necessary to steer Mr. Smith's 3-tined cultivator, taking one yard in width, and one man, with the same ease, steers Fowler's widest cultivator, 18 feet wide. Clearly there must be economy in the large power tackle, at least as regards labour. But, I believe, there is a great economy, in every respect, with the more powerful and simple tackle. I am under the mark when I state that, on an average, one 20-horse double tackle can do as much work as four sets of the roundabout tackle. The cost of four roundabout tackle is considerably above 2000*l.*, which is the cost of a 20-horse power Fowler tackle. Non-steam ploughmen might say, why not put a 20 or 30-horse power engine to the roundabout tackle? Practical steam ploughmen will agree with me, that more than 10-horse power are not suitable for a roundabout tackle.

The hiring-out tackle will, I believe, always have a great share of public patronage. It is so convenient to farmers. Without one farthing in outlay, nay at a saving of working capital to them, for they are enabled to dispense with some of their horses and implements, and it necessitates no knowledge of the management of a steam-plough to the employer, the hiring tackle does its work, even when farmers pay dearly for this convenience, at a cost less than that of their own horse-labour. Of course the hiring system, in its present stage, is most unsatisfactory. Disappointment to customers is of daily occurrence now in our business. Few are fortunate enough to get the use of an apparatus during this season; but then surely that is not the fault of the hiring system; on the contrary, it is an argument in favour of it, for it shows a great demand, which will in time be met by a proportionate supply. Precisely as there are now steam threshing machines enough let out for hire for the demand, so there will be steam ploughs enough for the work to be done. My advice to the agriculturists desiring to obtain each on their farms cheap steam cultivation, is this, that two, three, or four neighbours, according to the size of their farms, should join and buy a steam cultivating tackle of at least 20-horse power, with double engine (the less number of partners the better), or to encourage and assist some industrious working man in their parish, who has a knowledge of machinery, in

purchasing a tackle of the most powerful description to let it out on hire in their locality. *Richard Toepfer, North Lincolnshire Steam Cultivating Company.*

Home Correspondence.

How much Milk and Butter will a Cow give?—In the *Agricultural Gazette* for Feb. 8, 1868, p. 134, you will find one of your correspondents gives his experience of dairy farming. He says, "I consider 720 gallons (2880 quarts) a fair return in a year for a cow, and this quantity of milk, if the food do not contain more than 80 per cent. of moisture, will produce from 230 to 290 lb of butter." This same writer says that 25½ lb. of milk, or about 10 quarts, will make 1 lb. of butter. He also states that 5 gallons, or 20 quarts, was the highest daily yield of one cow. He was evidently a practical man, for he actually kept 48 cows. He states that 17 cows actually gave throughout the year an average of 84 gallons daily, or 84 x 365 = 30,660 gallons, or 122,640 quarts in one year, from 47 cows, or 2610 quarts from each cow, and if 10 quarts produced 1 lb. of butter, that would be 261 lb. of butter yearly from each cow, as the average from 47 cows in one year. Again, in the "Farmers' Almanac" for 1868, I find it stated that a Holderness cow gave 20 quarts daily, yielding a pound of butter from each 12 quarts. An Ayrshire cow gave 20 quarts daily, yielding a pound of butter from 9½ quarts; an Alderney cow gave 19 quarts, yielding a pound of butter from 12 quarts; and a Devon cow gave 17 quarts, yielding a pound of butter from 9½ quarts. Of course these last are exceptional cases, but your own correspondent gave his actual experience of one year of a dairy of 47 cows. Now I reckoned on 3000 quarts, but I allowed 12 quarts to produce a pound of butter, which gave 250 lb. in a year instead of 261. I do not think that I have greatly over-estimated the produce of a cow. Moreover, in Dorsetshire, it is by no means uncommon for a farmer to let out his dairy to a dairyman at 15*l.* and even 18*l.* per cow per annum, and that dairyman makes a profit out of it. *G. A. H.*

Poultry and Pasture—I have always found my best corn within 30 feet of the fowl-house, although the poultry have free access to the field. Many of my brother farmers come to a different conclusion, and say that their fowls eat off the young Wheat, and Mangel, and other plants. On inquiring as to the cause of this discrepancy I soon discovered it. Poultry are as fond of grazing as either sheep or cattle. Near my hen-house I have a small pasture, not so those who suffer by poultry, and as they cannot get Grass they eat the young Wheat and other plants. There should always be pasture land near the hen-house. I am more and more convinced that poultry are profitable and pay better than either sheep or bullocks. Compare the live weight of both, and you will find that while you sell the former at 1*d.* per lb. live weight (5*s.* per stone of 8 lb. net dead weight) you get from 9*d.* to 14*d.* per lb. live weight for your poultry. I speak, of course, of well-bred poultry properly fattened. Experience has convinced me that birds, poultry, and winged game are the farmer's best friends, and that without them his crops would suffer great damage. *J. J. Mechi, Tiptree, October 4.*

The Crops of 1869.—I was very glad to see that Mr Ford, of Morton Hall, had exposed the fallacies of such writers as Mr Saunderson, who are always writing and praising up the crops every year, in order, I suppose, to please the landlord, for what other purpose can it be? He says he has been in this county and in that, and then hazards a conjecture as to the yield. How is it possible for him to arrive at that while rushing along in a train? No wonder, then, his predictions are always falsified. Everywhere he is set down as a false prophet, on whom no one can place any reliance. He appears somewhat nettled at Mr. Ford's remarks, but Mr. Ford is quite right—"No practical man believes what Mr. Saunderson says, or credits his opinions." But there is no doubt the yield of the Wheat crop is very indifferent, and is at least 15 bushels per acre short of last year; indeed, the crop is very much under an average. It is of no use, besides, for Mr. Lawes to say the contrary. *Henry Watkins, Whilam, near Birmingham.*

The Potato Crop of 1869 at different periods was almost threatened with a total failure in the early part of the year. In west Devonshire and in several other counties it was so much affected with disease, that growers sent their crops to market and sold them for what they would make. The very dry weather followed the disease, and the crop of early Potatoes was very poor nearly all over Britain. The cold weather and frosts in Scotland did much harm in the month of August, but the weather in September has been all that could be desired for maturing the later kinds of Potato for winter consumption, and it is the opinion of practical men that the crop of 1869 will be the heaviest crop and best quality that we have had for years. The London market was never better supplied at this season, and the price has seldom been so low. The Potato crop on the Continent is very heavy, and in an advanced state of maturity. *Wm. Paterson, 1, Union Street, Dundee.*

Emigration to the Southern States.—May I request a small space in your columns for an extract from a letter received from a friend residing in the North of England. It bears upon a subject of very considerable importance in the present day, and will probably be read with much interest by your agricultural readers.—

"A friend of mine, a farmer in this neighbourhood (Durham), has been to South Carolina with a view of buying land. He has returned, having purchased an estate of 4000 acres, 2000 of which are as fine land as can be bought, and capable, with capital and good cultivation, of producing a bale of cotton (50 lb) per acre, the present value of which is from 1*l.* to 2*l.* per bale. The cost price of the land (freehold) is considerably under 1*l.* per acre. What say you to this? It beats even Norfolk farming. The other 2000 acres

are virgin forests of Oak, Maple, Walnut, &c.—I imagine, worth but little, but capable of feeding cattle from the undergrowth of Grass, and pigs from the Peaches, Walnuts, and other fruits which fall from the trees. The estate is near to Sumpterville, within three miles of a railway station, and 60 miles from Charlestown (the great Cotton market), and the river which runs through the estate is navigated considerably above that town by steamers. Negro labour is plentiful, but not very cheap; the negroes get 1*s.* 6*d.* per day, nearly as much as our labourers. This contrasts with the slow, uphill work of English farming. To tell the truth, if I were a farmer I would go at once, but am not satisfied that it would be prudent without some knowledge of the business. I ought to tell you that the Southern planters (the old slave-owners) have been utterly ruined by the war, and have nothing left to work their farms, hence the great depreciation of land, and the opportunity for English farmers with capital. The hatred against the Northerners is so intense, that they dare not buy land. Nor will the Southerners sell to them. This is one reason for its being so cheap. I think this emigration of capital and skill in the hands of Englishmen to the very centre of the old slave trade is one of the most remarkable and hopeful signs of the times. My friend met with an English gentleman—a young man who had been nearly all round the world—in America, for several months looking for a place to settle down upon. He had gone into most of the Northern and Western States, and said he saw no such chance as in the Southern States, and thus have gone into the matter as joint spec."

The foregoing would seem highly coloured, but it comes from a reliable source. The subject is one, as I before stated, of deep interest to the younger farmers of the present day, believing, as I do, that ere this generation passes, such will be the competition for land in this country as to render farming a most unsatisfactory and unremunerative business. I almost feel as my friend, and wish that I were a younger man, and had such an opportunity before me. Surely it would be wise for young men (who have sufficient spirit of enterprise) before entering upon poor and dear farms in this country, with the certain prospect of losing their capital, to take a trip to the Southern States of America, and judge for themselves. It has long been my opinion, that since the war a good opportunity was there offered to English farmers. This letter seems to conform to that impression. Nor is the social and political state of the question, to which my friend alludes, of less interest; it plainly shows how, under the hands of an all-wise Providence, events are working for the general good of this great human family. *William Cubitt, Bacton Abbey, Norfolk.* [The above letter of our correspondent Mr. Cubitt is taken from the *Norwich Mercury*.]

Thin Seeding.—I send you the results of the comparative quantities of Wheat sown in 1868. In both cases the 1 pecks per acre beat the 2 pecks and 1 peck per acre by about 1 quarter per acre. The yield of each field was 47 bushels and 48 bushels per acre of White Club-headed Rough Chaff. Only half an acre in each field was sown with the 1 and 2 pecks. The general seeding of my 65 acres of Wheat was with 1 pecks per acre (my usual quantity). The thin sown Wheats were finer in sample and 3 lb. heavier per bushel, and worth 2*s.* per quarter more than the thicker sown. The general opinion was in favour of the thinner sown before harvest, but the 4 pecks carried the day. In two former years the 1 peck per acre produced my largest crop, 57 and 58 bushels per acre, but on the heavy land I look upon 4 pecks per acre as the safe quantity, and on the light land, when sown late in the season, 5 pecks to 5½ pecks per acre. Each farmer should judge for himself by comparative trials, for soils and climates vary; the crop is also influenced by season, and especially by high or low farming. Eight pecks per acre I have always found diminished the yield by nearly 6 bushels per acre. I generally sow from the middle of October to Christmas. The following statement may probably remove many doubts and dispel many quibbles. It is copied from my book (*Routledge & Sons*), pp. 43 and 45.—

TIPTREE HALL FARM (WITH CHAPEL LAND), 178 ACRES.—NET SURPLUS IN HARD CASH AVAILABLE FOR RENT AND PROFIT AFTER PAYING EVERY EXPENSE.

	Farmers' Capital.	
1865	£543 7 4	£2165 0 0
1866	573 11 6	2503 0 0
1867	773 5 10	2571 0 0
1868	572 13 6	2833 0 0
	£2462 18 2	
	Annual average, 615 <i>l.</i> 13 <i>s.</i> 3 <i>d.</i>	

I must decline any further correspondence on the subject. *J. J. Mechi, Tiptree Hall, Essex, Oct. 4.*

Milk of Diseased Animals.—When we had the cattle plague in our herd, a scientific gentleman wished to have some milk from a cow suffering from the disease. We had at that time three animals in our hospital suffering intensely. Our bailiff managed to get out of the three cows about a pint of milk, which he put down on the ground whilst readjusting their clothing. A greyhound dog, a great favourite, followed me unobserved to the shed, and whilst our attention was concentrated on the poor sufferers, I suddenly observed the dog had lapped up all the milk. We all thought the dog had mischief to the dog must follow, but we never could discover any difference in him whatever, and, if I remember rightly, he ran two or three courses the next day. I mention this to allay the fears some persons seem to have of being injuriously affected by the milk of cows affected with foot-and-mouth disease. As a fact, too, the milk ceases, or nearly so, when the animal is attacked. *B. M. F.*

Foreign Correspondence.

PARIS: The Periods of Assimilation of the Principal Elements of Plants.—M Isidore Pierre, Professor of Chemistry in the Faculty of Sciences of Caen, has given much time and labour to the very important question, At what period of their growth do plants assimilate the various elements of their composition? and he has recently given the results to the world. The determination of this question has an obvious

and very important practical result, namely, that of enabling the cultivator to supply those elements which are under his control, with nearly the same regularity that the farmer deals out food to his cattle and poultry.

The Professor confines his remarks at first to Wheat, and afterwards proceeds to the consideration of other plants. His plan consists in noting the variations which a plant undergoes at different periods of its development in its weight and chemical composition, thus ascertaining the periodic increase of its organic matter and of each of its mineral elements, when it is at its height, and when it begins to decline.

The first experiments were made in 1862: on April 19 the stems of the Wheat began to elongate; on May 16, on unrolling carefully the upper leaves, it was difficult to find and remove the ear; on June 13 the ear began to show itself; on the 29th of the same month the flowering was entirely completed; on July 13 the greater portion of the ears had commenced to turn yellow; and, lastly, on the 30th of the same month the Wheat was out. The results obtained from the experiments made at the dates above given were, per hectare, as follows:—

Table with 7 columns: April 19, May 16, June 13, June 29, July 13, July 30. Rows include Organic matter, Nitrogen, Silica, Oxide of iron, Phosphoric acid, Lime, Magnesia, Potash, Soda, and Totals.

The second series of experiments was made in 1861. On May 11, before the ears were formed, the Wheat was a little more forward than that of May 16, 1862; on June 3 the formation of the ears was rather more advanced than on June 13, 1862; on June 22, when the flowering was over, the Wheat was in about the same state as on June 29, 1862, if anything rather behind than otherwise; on July 6 the grains were still easily crushed; on July 25 the corn was reaped. The plants not containing always the same amount of moisture, the Professor reduced all the samples experimented on to complete dryness.

The results of the second series of experiments were as follow:—

Table with 5 columns: May 11, June 3, June 22, July 6, July 25. Rows include Organic matter, Nitrogen, Silica, Oxide of iron, Phosphoric acid, Lime, Magnesia, Potash, Soda, and Totals.

The two crops were grown upon different fields. The last dressing of the former crop consisted of what is called terreau, earth mixed with manure; that of the second crop consisted of street refuse, containing a great deal more salt. These facts explain, no doubt, in a certain measure, the great difference which exists in the relative proportions of soda which is always found in the slightly salted soil in the neighbourhood of Caen.

The two Tables of results show that when the flowering is over the plants have acquired nearly all their weight, but, especially, that they have taken up all the mineral substances which enter into their composition. It has been found also, by other experiments, that the most rapid daily increase takes place a little previous to that period, and that not only as regards the whole plant, but also with respect to each of the most important constituents—nitrogen, phosphoric acid, potash, magnesia, and lime. One of two things, then, is certain, either that the plant, by a continual interchange between the elements absorbed and those expelled, remains in a state of equilibrium, or that it ceases to borrow from the soil, and to absorb new elements, and digests as it were those which it had previously taken up, causing them to take that form which fits their special nature and destination. If, as everything tends to prove, the second hypothesis is the least distant from the truth, the active intervention of manures and of the elements of the soil is reduced to a minimum if it does not cease entirely. From this period, then, any new addition of manure can have little effect upon the crop. In other words, after the flowering is completed, from the moment when the grain is formed, all addition of manure is either superfluous or injurious. Experience has in fact taught the farmer that it is of no use adding manure after this period, with the hope of improving the existing crop.

The next question is, whether these facts are equally true of other crops besides Wheat. We possess few data respecting the composition of plants at various stages of their life and development. M. Pierre then gives a series of observations made on a crop of Colza.

The first experiment was made on March 22, when

the plants were 20 inches high, and nearly on the point of flowering; the second on April 2, the plants being 36 to 37 inches high, and in flower; the third on May 6, the plants having attained an average height of 4 feet, and the flowering completely over; the fourth on June 6, the plants being full 6 feet high, and the seed far advanced; and the fifth on June 20,—at the time the crop was out—all the leaves having fallen and the stems turning yellow.

The results obtained from the whole plant, roots excepted, after being thoroughly dried, were, per hectare, as follow:—

Table with 5 columns: Mar. 22, April 2, May 6, June 6, June 20. Rows include Crop entire, Mineral matters, Nitrogen, Phosphoric acid, Lime, Magnesia and alkaline salts.

Thus, as in the case of Wheat, we find that when the flowering is completely finished, nearly the whole of the organic matter and the whole of the nitrogenous and mineral substances had been taken up by the plant. If we consider that these two plants not only belong to different species, but to botanic families wide apart from each other (Graminacea and Crucifera), it is fair to assume that the facts indicated have a certain generality.

The inferences, therefore, are, that up to the moment of the formation of the head, and even until the flowering, the influence of manure may still make itself felt in an energetic manner, but that after that period, when the seed is formed, the effect of manure, whether old or new, has little or no influence on the plant. These experiments and inferences are derived from large crops; it remains to be seen whether plants grown under glass or in pots yield the same result.

The Professor concludes with the following observations:—Amongst the practical consequences arising out of the above results is, that a plant has exercised its exhaustive action in the soil long before it has come to maturity; but it results also from the same data, that the organic matter properly so called, the carbonaceous matter, has not acquired its full limit when the provision of mineral matter is already, apparently, complete.

As regards the ulterior accumulation of carbon, two distinct sources may contribute. 1. The soil, furnishing free carbonic acid in solution in the sap, or humid matter soluble in the sap; 2. The atmosphere, bringing carbonic acid to be decomposed by the leaves of the plants. The assimilation of carbon by the roots, during the last period in the life of plants, seems to be improbable in any form, for in the state of carbonic acid in aqueous solution it would take up with it a certain quantity of mineral substances, and the weight of the latter would be increased in the plant, whereas we find it is actually diminished. The same remark will apply to the absorption of humid matter in whatever state of solution, because they always contain a notable proportion of mineral substances.

It remains, then, only to consider the carbonic acid of the atmosphere, of which a portion may be given out of the soil in which the plants are vegetating. Supposing that the active portion of the crop averages at the period in question 20 inches in height, corresponding to a layer of air amounting to 5 tons, that the said air contains only the average proportion of 1/1000 of its volume of carbonic acid, and that only half the latter be taken up for the benefit of the crop,—the carbonic acid decomposed would represent about 5 lb. in weight, and, supposing the air to be renewed only 20 times a day, there would be a fixation of the carbon contained in about 100 lb. of carbonic acid, or in round numbers about 29 lb. of carbon.

If it be remembered that the carbon does not equal half the weight of the organic matter, there would, according to the above hypothesis, be a daily production of at least 58 lb. of organic matter, or for the 15 days following the flowering of the Wheat about 870 kilogs. per hectare, which is in fact the actual increase at that period. As regards the Colza, by the same calculation, the production of organic matter during the month following the flowering would reach about 800 kilogs., which is rather more than is found to be the actual increase. G. W. Y.

Farmers' Clubs.

WEST CUMBERLAND.

Are not our Root Crops and Cereals Cultivated beyond their Natural Powers of Production?—At a recent meeting of this club, Mr. Ross, of Ravensglass, read the following paper:—I ask your attention to this preliminary question,—Has Nature set limits to the productions of animal and vegetable life? In other words, in the case of animals, does Nature supply a certain and limited force to all and every organ of the body, enabling each to perform its proper function, necessary to healthy existence and the generation of its species? and in the case of plants—is there a limit to the force which Nature supplies for their perfect health, enabling them to yield sound fruit to the cultivator, and leave in his hands sound and healthy seed to reproduce their kind? I presume to say that so it is, and I think none present will question it. These remarks lead me to the subject for to-day—Are not our root crops and cereals cultivated beyond their natural powers of production?

Turnips—And, first, let me notice the latest crop put in—Turnips. Is it not a mistake, too often committed by the grower, to have all his thoughts and efforts directed exclusively to the capability of the soil,

and none towards the nature and powers of those which he has planted? It is with him, however, weight per acre can I raise, and not how I can stimulate the plant, consistent with a moderate healthy crop—a portion to be used as food for cattle and sheep; and a portion to be transplanted in order to supply seed for future crops. Considers he tries to grow 20 or 30 tons per acre; if he only 10 or even 50 tons that would be still better. Any one for a moment at his operations. He procures manure probably from some cottager who grows stems in quantity regularly, and who has the good sense of selecting his seed roots to take only the best. Turnips of about 9 to 12 inches in circumference of farmer plants this seed in well prepared manure, applies the most approved and most powerful stimulants. He gives rather an extra space between the drills, weeds out his plants, and the result is a very heavy crop of very large Turnips. He may win a prize from some enclosure; and it may be either for the field as a whole, or for roots selected. Out of this prize lot either one or one else must secure some roots for seed. The crop is removed to store. As an extra crop, he can afford to give an extra supply to his stock this way the winter passes over and a cold winter succeeds; at such a time you all know that crops are invaluable; but what does the farmer do now? Even this, that what remains of the Turnips are either rotten or rotting fast. The skin (that is, the skin) seems whole, but when it is broken he finds contents already pulped to his hand. About a neighbour may hear him remark, that this is a bad year for keeping Turnips. But the farmer yet. Some time about Michaelmas he may again remarking that the young cattle, which so largely with his fine large Turnips, had not well at Grass as others which he knew to be smaller Turnips and much less in quantity.

Seed Turnips—Now let us look after the seed for seed. They have been planted in some corner, and anon they grow, showing fine and fat stems; but long ere this the bulbs have become shells, the seed stalks are solely supported by the skin, with a thin coating of the heart adhered to them. They do come to maturity, and the seeds are prepared for use in the following year. Then what they go? He who rears them probably needs them, and he who grew the parent bulbs must have a supply so they fall into new hands. Their new owners admit them to land well prepared as he thinks, turning up the soil in drills to facilitate evaporation, again splitting these drills with the dried manure inwards, including a due allowance of stimulant before. Some of the seeds sprout in due course, others are very lazy about it, and some never do it at all. Hence the field is blank, but having some modern healthy-looking Turnips and a great many fine roots; and some tiny worm holes with some which weather gets the whole blime of the matter.

Cause of Degeneration.—How or why we have so soon from a crop of giants to one of dwarfs we admit to the fullest extent the influence of weather upon crops, both as to quantity and quality. It is often seen results whose causes must be something as I think in this case I think that the first crop is the result of forcing the plant beyond its natural limits, and the second is the result of the waste of that forcing. Much as was overdrawn by the first. Suppose that you get a post horse whose natural force is equal to 20 lbs. per day, and if I urge him on to 60, which may be, and if one of you get the same horse next day, not knowing what was done with him the day before, to do the same, I think you will not succeed. In most, a sixth of the distance; and why? because I overdraw by two days his natural power. Of course if you had known what I did you would not have had him. Ay, there's the rub! paid as much and lost as much time over your horse as I did over my 60. I think that this may be illustrated by the practice of some at the present time. We have a few fast farmers, in the north, and really they do get on wonderfully, always having the best of the horse, leaving others to fight with Nature as best they can. The only pity is that other fast men are not compelled to use seed from their overforced crops; then their race would not be so fast and long.

I have one word more to say about Turnips. I do not think, as many do, that a farmer is so very dependent upon them for wintering his cattle. Few of good quality would serve his purpose better. You will find that the crop which yields the largest quantity of skin in proportion to heart are the best feeders, and give the whole of the skin and a part of the heart to one, and only heart to the other, and with progress, you will seek no further proof. There would single a crop of Turnips, so that the largest would measure from 15 to 17 inches round. To get a Turnip, whose diameter is 4 inches, to have about 50 superficial inches of skin to the heart is 8 inches; on it the skin will be only four times as much as that of the former, but you will get nine times the quantity of heart; that is, assuming that the Turnips are of the same shape, but they are often more conical than globular. Therefore I think that growing very large Turnips is unprofitable.

Potatoes—What I have said of Turnips applies to Potatoes. By undue forcing beyond their natural powers they have been reduced to the condition of a very sickly family whose members can only go on a very fine season. They are constitutionally predisposed to disease, and any sudden change of atmosphere may develop it. Various theories, and as many

do anything else that may be required for the 300 sheep. These cost, therefore, for attendance, a little more than 1s. per score per week.

When the ewes and lambs are together these arrangements are supplemented by a wooden "lift-hurdle" or lamb-gate, which enables the lambs to run out of the pens and get the best of the feed on the next day's fold before the ewes are put on it, as well as their rations of cake and lentils. This lift-hurdle is about 7 feet long, and the usual height; it is divided into two portions by a horizontal bar midway between the ground and the top rail, and the lower half is subdivided by rolling upright bars 10 inches apart, just wide enough to allow the lambs to get through. The upper half has a sufficient number of uprights to give the whole the requisite strength.

Horses—From 26 to 28 horses, of the Norfolk and Suffolk breeds, are kept to work 800 acres of tillage, being considerably more than three horses to every 100 acres of arable land.

Fourteen of these horses are kept in boxes; the remainder are fed in stalls and turned into the horse-yards at night. From the beginning of harvest through the winter they get a peck and a quarter of crushed oats, and a quarter of a peck of crushed beans; also 1 bushel of hay, wheat or barley-straw, both cut into chaff. This food is continued until the middle of May; they then get as much Tares and winter Oats as they can eat, leaving off the corn and chaff after they have had green food about a week. In this way they are kept as long as the Tares last, generally until the middle of July, when the Cow-grass is mown, after which they are turned into the pastures and remain there until harvest begins, when corn and chaff are given to them, and their winter treatment recommences.

Horses are occasionally bred to replace some of those that go off, but not otherwise; and as a general rule they are bought as 2-year-old colts, in preference to breeding for home use. Hitherto the number of horses employed has not been reduced by steam cultivation.

The delivery waggons are drawn by four horses in two pairs, and take 25 sacks of Wheat or 30 of Barley. With this exception all the yoking is in a line, the carts being three-horse tumbrils, and the harvest waggons drawn in the same manner by three horses in a line.

Labour.—After the elaborate and, we may almost say, paternal methods pursued in the north, the Norfolk system of labour is not very attractive. There is no such thing as a yearly labourer, no boarding paid for by the farmer, and, in short, no connection between master and man except work on the one hand and payment on the other. The bailiff gets a guinea per week, the yardman 14s. 6d., the engine-driver 3s. per day, and the ordinary farm labourers from 10s. to 12s. per week. Lads are paid from 8s. to 9s. per week, and boys from 4s. 6d. to 5s., while women get from 10d. to 1s. per day. All the payments are made in money, there being no privileges in addition to the wages. Cottages, with gardens, are paid for by the men at the rate of from 1s. 3d. to 1s. 6d. per week; they are tolerably good, and the labourers do not often take lodgers.

A considerable amount of field work is paid for by the piece, as has already been described; but much of it is done under a system of "gangs," one or more of which can usually be got at short notice. These gangs are composed either of men or women, according to the nature of the work. Women generally do the weeding and other light work.

A wheelwright, a carpenter, and a blacksmith, are kept on the farm, and all the carts and waggons, as well as the harrows, are home made.

The labour account, including the wages of the bailiff, blacksmith, carpenter, amounted last year (1863) to nearly 2000l., or very nearly 2l. per acre on 1000 acres of land, about 200 of which are in Grass.

Steam Cultivation.—For the last three years Mr. Hudson has had steam cultivating machinery on Fowler's single-engine direct anchor system; the engine is a double cylinder of 10-horse power, and is also used for the threshing machine and other purposes. The chief benefit hitherto derived from steam cultivating is in the root crops, and more particularly in the crop of Mangels, as previously mentioned. The use of steam has also tended to the substitution of cultivating under certain circumstances; for instance, Wheat stubbles are now cultivated twice and ploughed once, instead of being ploughed three times.

Before Mr. Hudson bought this set he was in the habit of hiring steam tackle, and paid 8s. per acre for cultivating from 9 to 10 inches deep, besides the cost of coal and of carting water, ploughing was done under the same arrangement as to coal and water, at 7s. 6d. per acre. Mr. H. M. Jenkins, in the "Royal Agricultural Society's Journal."

WEST GLOUCESTERSHIRE: Oct. 1, 1869.—Although the stormy weather of the last three weeks has somewhat hindered us from getting on with our autumn sowing, it has nevertheless been more favourable than otherwise for ploughing up the land for Wheat. This, by the way, had got rather behindhand, owing to the harvest being later than usual, and the continuance of the drought; but now that the horse-power of the farm has been more concentrated, the ploughing has been got well forward, and Wheat sowing has begun on the hills, and will soon be begun hereabouts.

As there is now so much talk about thick and thin seeding, and as the opinions of many practical farmers are so conflicting and unsatisfactory, it would, perhaps, be as well to let the matter drop for the present, and let those who feel inclined to differ from Mr. Mechi's views upon the subject try a few plots of ground in the same field, with different quantities of seed; and then bring the whole produce, straw and grain, to the

weights and scales, for there is no other means whereby the question can be correctly tested. So far as we are concerned we agree with neither too thick nor too thin seeding; our practice for years has been to drill from 5 to 6 pecks per acre, according to the time of year and the condition of the soil. We think that every farmer should be able to judge for himself what quantity of seed his land requires; but sometimes custom gets the upper hand of his judgment, and he sows 2 bushels, or sometimes 2½, where 1½ bushel would do, simply because it is his wont. No doubt 2 or 3 pecks of seed would be sufficient upon some rich or maiden soils, but upon our old arables, and these not of the best quality, we must draw a line, and seed according to our experience. It is reasonable enough to argue, that if the land cannot support one plant, it certainly cannot support two, but upon our cold clays some allowance must be made for loss of plant. In a wet winter, wherever there should happen to be a low place in the land, or horses' footmarks, they fill full of water, and there it remains till the sun and wind dry it up; the consequence is that the plant perishes. This often happens upon well farmed and thoroughly drained land. In this neighbourhood the harvest was secured in the best possible condition, and in most cases thatched before the rain set in. The deficiency in the yield is greater than was at one time anticipated, and the quality very middling, especially when the Wheat was badly laid. A considerable amount of threshing has been done in the neighbourhood, and the results are from 5 to 6 sacks per acre, and the weight 58 to 60 lb. per bushel. Very little Barley or Oats have yet been threshed. The Mangel and Swedes sustained a severe check during the drought, but have somewhat recovered since the rain. Late Turnips are growing rapidly; there is every prospect of an average crop. The early sown are being fed off, in order to get the land sown with Wheat. The Potato crop is good hereabouts; no disease has appeared here at present, growers are busily engaged digging them up. The sowing of Rye, Vetches, and Winter Oats for spring feed is now pretty well completed.

Stock of every description is healthy, good stores are selling better since the rain set in, there being a prospect of autumn Grass, sheep are also rather dearer, stock ewes selling from 10s., and good lambs from 24s. to 30s. per head. Pigs are still very dear. J. W.

The Poultry Yard.

"THE Poultry" in the City is quoted as an obstruction; although why Temple Bar should stand and the Poultry be pulled down, few who dwell *extra muros* and the privileges thereof would be able to say. The only way in which the poultry of which we treat can be an obstruction is, when the supply exceeds the demand, and such is our present case.

Much has been written and said about the superiority of the French poultry and its cheapness, compared with our own. We think the only point on which we suffer is our cookery and management of the bird after the purchase of it. It is very difficult to say at what price a couple of fowls is really cheap to a middle-class man, when purchased by his good-wife to form the staple of the mid-day meal for his growing, numerous, and thriving family. With the decision arrived at, when breakfast is finished, commence the troubles. Mama, when she goes out, orders the fowls. She knows her maid can't or won't truss them, and therefore they are sent home ready for cooking, by which arrangement a very valuable addition to the family stock-pot is lost. The importance of the giblets or *abattis* would be so great in a Frenchwoman's eyes that she would carry home, pick, singe, and draw the fowls herself, rather than lose the smallest portion of them. Were the same thing attempted in English town homes, we should be inclined to ask at what time the dinner might be expected? Not that our English maid-servants would not do more for their employers than perhaps those of any other nation; but that, in the present instance, they don't know how.

The temptation to run into a discursive, roundabout story as to the proper education for girls intended for the kitchen is here very great, more especially when one has just read the telling and home-hitting addresses of such men as Professors Kingsley and Maurice at the Social Science Congress. It would be delightful to train a batch of really good cook-maids. The difficulty is in doing it. It has been, and is, we think, fairly tried in nearly all parts. In "Tom Brown's School-days" Mr. Hughes gives Mrs. Brown the credit of doing much for the rising generation; but when Tom is at Oxford the nursing the old villagers get (as described) at the hands of their dames is not of the first order. Kitchens have been established by pun-taking ladies, model markets started by sanguine traders, all to tempt our mechanics, artisans, and lower middle-class to improve, or at least change, their mode of providing for their daily meals; but while we know of more than one failure, we doubt if the successful cases are numerous. It may be that our natural taste leads to the rejection of those dishes which our forbears called "kickshaws," but we think the old saying that "Heaven sent the food and the Devil the cook" would be leading to the root of our objection as a nation to make dishes (as we make them) They manage those things better abroad. We constantly say so; but except that their trams keep better time than ours, we confess those things are hard to find. On one other point we think, however, we must yield,—they cook their poultry better. From the time the unlucky chicken draws his last breath he is the object of constant attention. To begin with: All his feathers are carefully saved. We will suppose he is killed in the summer, and therefore, like the featherless bipeds in the same country (France) he is not left long. His comb, feet, head, and trimmings furnish the principal part of a *ragout*, which figures at breakfast,

and gives the intending diners an inkling of the store for them later. Two medium-sized *pensionnat* in France serve for the *roûti* for more people. They are skilfully carved into smaller pieces than we should cut, and can come be much more equally divided. Handed over to crosses, they are appreciated, but we serve the one or more vegetables, bread sauce, gravy, &c. two fowls are nearly always deemed unpalatable unless flanked by a ham or piece of pork. We say we know that our poultry is inferior, but we add all sorts of things to it, and eat all sorts with it to conceal its real flavour. Restoring starting point, we repeat with sadness that the supply of poultry exceeds the demand, but we must not be misunderstood. The chicken retains its price, the supply and demand being balanced. But it is the common kinds, the chickens, and farmyard ducks which fail in sale at any price. The Emerald Isle—although not at present in her good graces—overwhelms mongrel brood geese, chickens, and ducks, and dying. Many of them never find a market, the greatest wonder is, how the producer can get when the chicken passes through the hands of the railway agent, salesman, and eating-house figures on the placard in the window of the "Chicken, with gravy and bread sauce, &c."

Roup in Fowls.—Roup is a somewhat general for most diseases, but is most properly applied to cold. The fowl becomes drooping, food running from the nostrils, swollen eyes, and derided excrement. The symptoms most peculiar to roup are difficult and noisy breathing, or of rattling in the throat, beginning with generally termed grapes. The head becomes and much swollen, and the eyelids livid, with slight, and even total blindness. There is an discharge from the nostrils, and even from the of foetid matter, at the commencement thin, but afterwards becoming thick and purulent, offensive. As secondary symptoms, the appetite but gone, except for drink; the crop feels hot to touch, and the feathers are staring, ruffled, and a healthy gloss. The fowl sits moping and in corners, always apparently in great pain. In the of the disease it is supposed to be infectious whether so or not it is certainly proper, for the sake, if nothing else, to separate the diseased from healthy ones, to prevent the disease from spreading. They should, above all, be kept warm and have of pure water. **Treatment**: In general we would the killing of a rousy fowl at once, unless it be as the risk of its contaminating the whole flock. At all events, let it be removed from the yard as discovered. Warm, dry bedding and nutritious are the first essentials to recovery; in addition frequent removal of the dried discharge from the eyes and nose by warm bathing the nostrils with Castile soap-suds as often as necessary, and the eyes with warm milk and water. In the way of remedies, we find that nearly equal numbers under various modes of treatment. "For grouse affected by the roup," says Mowbray, "warm is necessary, and even the indulgence of the fire or the bake-house. Wash the nostrils with soap-suds as often as is necessary, and the swab with warm milk and water." We have the following remedies, viz. a peppercorn in a pill the three following days the patient being much Afterwards bathe the swollen parts with camphor spirits or alcohol and water. As a finish to give sulphur in the drink, or a small pinch of roup and all putrid affections, I confidently the following, and consider it the only true remedy. Take finely pulverised fresh-burnt charcoal yeast, of each three parts; flour of sulphur, 10 flour, one part, water, quantity sufficient, and make into boluses of the size of a hazel give one three times a day. Cleanliness is necessary than warmth, and it will seem desirable to bathe the eyes and nostrils with milk and water, or suds, as convenient." Giles says, "As soon as the disease is discovered in warm weather, remove the infected ones to a place; then give a dessert spoonful of castor their heads with warm Castile soap-suds, and remain until the next morning fasting; scald Indian meal, adding 2½ ounces Epsom salt hens, or in proportion for a less or greater give it warm, and repeat the dose in a day they do not recover." *Albany Cultivator*.

Calendar of Operations

Threshing seed Wheat is generally best at the stook; but in early seasons in our southern it may often be stacked without harm. On the other hand, nothing is more ruinous to seed than the stacking of it in a damp state, or in a state such cases it is better to thresh out of the stook, then spread the grain thin upon the ground required for sowing. Newly threshed Wheat is always to be preferred to that which has been the granary for only a month or six weeks. north of Ireland some of the small farmers call their Wheat, "as they term it, handful and over a barrel or tub, and when lashed seed, they sometimes only lash out the of the grain for this purpose, by turning round lashing out the inferior into a different the best quality being the more easily separated from the straw. They also pick the smutty ears out of the handfuls before they begin to lash, in way very fine seed is obtained, which is the

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For full description, see page 986, in

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Splendid New Rhododendron, BEAUFESS LIONEL ROTHSCHILD. JOHN WATERER AND SONS are now prepared to execute orders for the above new SEEDLING RHODODENDRON, an excellent specimen, the margin of the bloom of a fiery scarlet, of the handsome form and retaining a great length of time in bloom. Price 10s. each. Trade and Wholesale The Amsterdam Nursery, England.

Rhododendrons To the Trade. J. MATTHEWS has a large stock of 4-yr. RHODODENDRONS, 4s. per 1000; 3-yr. (1-yr. transplanted), 10s. per 1000; 1 to 1 1/2 foot, bushy, 15s. per 100; 1 1/2 to 2 feet, 40s. per 100. Granddium, white Rhododendron, budded, 1 1/2 foot, 10s. per dozen. Cornelia picta, 1 1/2 foot, 12s. per dozen. SPRUCE FIR, 1 1/2 to 2 feet, 20s. per 1000; and 2 to 3 feet, 30s. per 1000. PRIVET EVERGREEN, 2 to 3 feet, 16s. per 1000; 3 to 4 feet, 20s. OAKS, 3-yr. budded, 1 to 1 1/2 foot, 5s. per 1000. Milton Nursery, Stoke-on-Trent, Staffordshire Potteries.

RHODODENDRON MULTIFLORUM. A most beautiful and desirable variety, which has never been seen in this country. It is a new and beautiful variety, which has never been seen in this country. It is a new and beautiful variety, which has never been seen in this country.

Camellias, Azaleas, and Lpaeris. HENRY WALTON, having a large stock of the above, finest plants possible, will sell with care, being a home worker, and with confidence recommend them. AZALEAS, 4s. 6d. per doz. CAMELLIAS, 4s. 6d. per doz. LPAERIS, 4s. 6d. per doz. Have several hundred of the above, from 2 to 4 feet, fine for exhibition purposes, also the best and finest and specimen came in, and for use each - this is a favourable opportunity for getting them for your houses or improving your grounds. The above are now dealt with. CATALOGUE, sent free on application. Edge Field, Milton, and the Lancashire.

Echeverias. H. CANNELL has the finest and largest blooming lot of Echeverias in the Kingdom, varying in size from seedlings to plants 4 feet high; and H. C. has at hand no other expense for putting together a large quantity of seed to perfect a fine lot of Echeverias, and if sown at once, will make splendid little plants for next season. One pod, just ripe, sent free for 18 stamps. H. C. has also a fine lot of the three Echeverias, including kinds: SPONDA, SPONDA GLAZIA, and JEMMA. A packet of either of these sent free for 18 stamps. Plants of all the above from 6s. per dozen to 20s. per plant. New Floral Flower and Flower Seed Merchant, Woolwich.

New Plant. WILLIAM BULL is now sending out the beautiful LANSIANDRA MACRANTHA, which can be easily cultivated in an ordinary Garden. Price, 7s. 6d. and 10s. 6d. each. The flowers of this plant are truly marvellous, 14 feet in circumference; are produced nearly throughout the year, and on plants when only an inch or two high. Some blooms of it were sent last Christmas to the Editor of the Gardener's Chronicle, and the following remarks were made in the columns of that Journal, January 2, 1869: "We have before us a fine specimen of the noble Lansiaandra macrantha, sent us by Mr. B. Bull, which we will be glad to see in the garden of any of our readers, which we will be glad to see in the garden of any of our readers, which we will be glad to see in the garden of any of our readers." A DESCRIPTIVE CATALOGUE of other NEW PLANTS, just published, may be had on application. Establishment for New and Rare Plants, Kings Road, Chelsea, London, S.W.

The Gardeners' Chronicle. SATURDAY, OCTOBER 16, 1869.

MEETINGS FOR THE ENSUING WEEK. (Royal Horticultural) Fruit and Floral Tuesday, Oct. 19. Committee at South Kensington .. 11 A.M. Ditto General Meeting 3 P.M.

A GREAT deal has been said and written on the subject of SEWAGE, both as to its qualities as a manure, and as to the most effectual mode of disposing of it in cases where it has been collected by drainage. As any facts bearing upon these important subjects are valuable, we need make no excuse for citing the experience of one of our veteran horticulturists, Mr. MASTERS, of Canterbury, as to the application of sewage to ordinary nursery stock. We may premise that the Vauxhall Nurseries, where the experiments we are about to call attention to have been carried on, have been used for the growth of trees for upwards of a century; consequently, without the application of manure many crops would be so weakened, from the impoverishment of the soil, as to be unfit for market. The subsoil of the establishment in question consists of brick-earth and valley drift, over which lies a few spades' depth of a stiffer clay, which is the part requiring manure, and for which purpose heaps of town rubbish and various animal manures were employed till, remembering how the Chinese utilised their fecal matters, Mr. MASTERS caused a large tank to be constructed for the reception of the manure from the

adjacent barrack-yards. This is conveyed into the tank by pipes, and yields a large supply, which is rendered available by first filtering the watery particles through a filtering screen, and returning the semi-fluid to the mass in the tank. Preparations of zinc and charcoal were at one time applied as deodorants, but latterly an easier and better process has been adopted. In a nursery of large extent there must be great accumulations of weeds and refuse; these, instead of being dug in, are collected together, and with the clay are burnt in large heaps. The dry earth and vegetable ash act at once as a deodorant and as a manure. Then the tanks are emptied into an area of 2 feet depth; the surface is covered with the burnt earth, which destroys bad odours, and is in time incorporated into a compost fitting a nurseryman's purposes. It seems applicable to all sorts of evergreens and shrubs, which attest, by the rapid growth they make, and the colour of their foliage, how congenial the manure is to their natures. Fruit trees seem especially to relish it, as the growth of Apples, Pears, Cherries, Plums, of Peaches and Nectarines, is beyond average, and the trees show unusual vigour of constitution. That these good effects are brought about by this manure is shown by the striking difference in the growth of the trees and shrubs on a portion of the ground which has not been so treated. Roses, either upon the Manetti or the Dog Rose stocks, thrive remarkably, and produce flowers in abundance and for long continuance.

But it is not to nursery plants alone that this matter is valuable, for it is equally beneficial to all the Brassica family in the kitchen garden. Potatoes thrive with an application of it amazingly, though unfortunately it does not prevent the prevailing disease.

It appears to us that the above system is as nearly perfect in theory, as it is excellent in practice. We have here a manure rich in all the elements that plants require, applied in a way that enables them to avail themselves of it readily, and which must materially improve the mechanical texture of the soil to which it is added.

When we remember how many nurseries there are in the country to which the application of sewage manure in a similar manner would be an easy matter, we can but recommend the extensive adoption of the practice. It seems to us, in its degree, to solve the two questions we alluded to at the outset, as to the value of the sewage matter, as a manure, and as to the mode of dealing with it without annoyance to others. The plan is doubtless not so applicable in all instances as in the case of large towns, and even for smaller ones it would be an expensive matter to get a series of such tanks as above described into working order, but the money would not be thrown away, as they would become the means of enriching the respective neighbourhoods by affording a continual supply of what is equally essential to purposes of horticulture and of agriculture.

— We have received numerous letters from gardeners in all parts of the country, expressing, in the warmest manner, approval of the proposal made in our last number, that the memory of the late Mr. JAMES VEITCH should be perpetuated amongst horticulturists, for whom he did so much, by some fitting MEMORIAL. It is proposed to form an unlimited General Committee, of which the London members would form a central or managing body, and the country members would act as collectors in their several districts. There should also be a committee for Scotland, and another for Ireland. Those who are desirous or willing to render aid are requested to send in their names, in order that early action may be taken. As to the nature of the memorial, which must be a matter for the determination of the General Committee, and in which determination the wishes of Mr. VEITCH's family must be consulted, we may quote the following passage from a letter addressed to us by Mr. W. THOMSON, of Dalkeith, which contains a suggestion well worthy of consideration—"One gardener of first-class position and judgment suggests a monument. To my own mind the choice lies between that, and the institution of a fund, the interest of which should be given as a 'Veitch Prize' or 'Veitch Medal,' to be awarded in all time coming, to the man who during the year shall make the most important additions to our garden productions, whether by importation or hybridisation." For the present we merely add, that as Mr. VEITCH was a man who never did things by halves, so neither should this memorial question be left half worked out, either by those—gardeners—whose interests he has in so many ways advanced, or by those—employers—to whose pleasures and gratifications, in a gardening point of view, he has in so many ways, and in so large a degree, contributed.

— Mr. MARTIN MÜLLER, of Strasbourgh, issues with his catalogue a coloured drawing of three NEW

GRAPES which were sent from the Crimea by MARÉCHAL PELLISSIER, Duc de Malakoff, to his friend M. RUDLER, from whom M. MÜLLER has obtained them. One, named Ribier du Maroc, has large roundish black berries, not unlike a Hamburg, and is said to be good. Another, called Malakoff usum, has large clusters and remarkably long and large rose-coloured berries (four weighed 54 grammes: 1 gramme = 15½ grs. nearly). This must at least be a very handsome Grape, with something the colour of the Ahbee, but of a deeper tint. The third is the Tschalousch sofa usum, a large oblong yellowish white sort, described as being of very good quality and magnificent. This, from its appearance, may possibly be the Chaouch or Chavoush, already known amongst us. A Chasselas de Husseren, also announced as new, is described as having the quality of the Chasselas de Fontainebleau, but with berries twice as large, and ripening earlier.

— Visitors to the late INTERNATIONAL EXHIBITION AT ST. PETERSBURG will be glad to know that the Federation of the Belgian Horticultural Societies has just issued a report of the proceedings on that memorable occasion, illustrated with portraits of General GREIG, Dr. REGEL, and others who worked so hard to ensure the pleasure of their guests. The report in question will form an acceptable souvenir.

— The following inscription to the memory of the late Professor DAUBENY has been placed in the chapel of Magdalen College, Oxford:—

AD GLORIAM DEI
 ET IN MEMORIAM
 CAROLI JESIDII BRIDLE DAUBENY M D
 ANNO S LI HUIUSCE COLL SOCI
 LITERARUM HUMANIORUM EXIMIE DOCTUS
 ORNILE BOTANICÆ GEOLOGICÆ
 SCIENTIÆ INSIGNIS
 AMICIS AMICISSIMUS
 TAM ACADEMIÆ QUAM COLLEGIË DEVINCTUS
 DEUM TOTA MENTE COLUIT
 IN CHRISTO MEMORAVIT
 DIE MENSIS DECEMBRIS XIII
 A S MDCCCLXII
 ETATIS LXXIII
 AVE ANIMA SIMPLEX PIA DESIDERATISSIMA

VINE GROWING AT TRENTHAM.

VINES, Grapes—Grapes and Vines—one or other of the words are hardly ever absent from your columns, their praises are ever being sung, and their glories ever chronicled. To some no doubt, perhaps to many, of your readers, there may be just a little too much of this Vine or wine glorification; and to tell the truth, I think there is, so that I owe your readers an apology for meddling with the subject. I would just beg to remind them, however, that a great deal of the matter brought before them is unfermented, so that although they may partake pretty freely, it can do them little harm—or good. Haven't we during the past 12 months or so been treated to all the extremes of opinion in regard to the necessity or absurdity of bottom-heat, and the merits and demerits of early forced and late kept Grapes?—each party maintaining that, except by the adoption of their particular practice, nothing satisfactory could be attained; and have we not more recently been told by one who ought to know, from his lengthened experience, that by the admixture of calcareous matter in the soil of our Vine borders, we do a very foolish thing? Calcareous matter forsooth! the very thing which we nearly all have been so anxious to obtain for our Vines, and in which we believed they loved to dwell—but which Mr. Cramb tells us is the most injurious matter we can use. Facts, however, will hardly bear out Mr. Cramb's assumptions, and his protest falls unheeded. The plain truth is, that all these extreme doctrines, opinions, and practices, require a good deal of the fermentation of common sense. Major Clarke very aptly observed at the Manchester Congress, that tact or ability to take advantage of, and turn to the best account, existing materials or conditions was the main thing wanted to ensure success; that he believed it was possible to produce good Grapes with bottom-heat, though another person could produce equally as good without it; and that good Grapes can be grown in land charged with calcareous matter, as well as in soils from which it is totally absent. All or nearly all depends upon the skill of the cultivator and his adaptation, of his means to the end.

That some soils and situations are much more favourable for Vine cultivation and gardening operations generally than others, there is little doubt, and when these exist naturally the skill of the cultivator is but little tried. There is, in my opinion, a great deal of nonsense written about the composition of soils for our Vine borders. The Vine, after all, is not so very hard to please in that respect. There is more to contend with as regards locality and situations. In low, damp localities, with cold watery sub-soils, such as at Trentham and some other places I could name, it is a ten times more difficult matter to produce Grapes than on some high-lying, warm-subsoiled situations. The treatment required in the two instances is as opposite as the two poles, and when success equal or superior to that in the favourable situation is achieved in the adverse the credit due is all the greater.

Given, one of the coldest and most unfavourable localities in this country for Grapes, Trentham—the noble but badly situated seat of one of our noblest Dukes—the Duke of Sutherland,—I say that the condition of the Grapes there, as well as that of every other department, reflects the very highest credit on Mr. Stevens, the Duke's able gardener. Sensation houses may for a time be here and there found to outvie anything at Trentham, and this may sound rather paradoxical, Trentham having been so long under the great Mr.

Fleming, the seat of sensational gardening. Now or ever, under the régime of practical Stevens, has changed; and we find instead good sound practical gardening carried on in every part of this extensive establishment, and that too, in a modest and unpretentious manner. Not to do one whit from the credit due to the great originator of this place, I can without the slightest hesitation say that the Trentham of to-day exhibits more good practical gardening than ever did Trentham in the past. But, lest I be taunted with these assertions no proof, I simply say, go and see.

To give a lengthened and detailed account of what Mr. Stevens has done since his transshipment to Mr. Veitch's big Azaleas at Chelsea, to Trentham six years ago, is not within the meaning of this article. But when it is told that every fruit tree, Apples, Plums, Cherries, &c., and nearly every Vine, in "almost miles" of houses and "Trentham" have been removed, and new soil, new borders for each, some idea may be gained of the work involved. Those who can cast their eyes back to the fine fruit exhibited by Mr. Stevens when in the zenith of his glory, and the poor produce of the same a little later on, and can compare that now produced by Mr. Stevens, as shown by him at the Manchester show, will know that the resuscitation has been; and all practical gardeners are also well aware how much more difficult it is to resuscitate an old place, keeping up at the same time the regular supply to the family, than to start an entirely new affair, when nothing is expected of it, actually there.

To the Vines, however; and in the first place I am afraid to say how many houses of Vines there are. All of the Vines, old and young, when I saw them, not long since, looking remarkably well, and making strong, robust wood, ripening gloriously. The shoots are kept thin on the Vine, that all the leaves have abundance of space to do themselves. And such leaves!—of a deep healthy green, large, and in substance like Laurel, clean and perfectly clear of insects. And here one word as to the importance of the proper leaf cultivation of the Vine. Just according to the amount of foliage properly developed, will be, not only the root action, but the quality of the crop affected, as every particle of sap drawn up by the roots must be elaborated through the agency of the leaves. It would be a very important matter for our learned physiologists to determine how much leaf surface, or what amount of respiratory or other organs, is required by a Vine to produce a certain amount of Grapes. I hope some day that some one may be able to grapple with a question like this. We assume certain proportions in our own rough way, and practically we may not be far wrong. It is, however, all a matter of guesswork, but Mr. Stevens appears to guess pretty near the mark, for although the bunches were not enormously large—some 5 or 6 lb., nor the crop extraordinarily heavy, the berries were of the largest size, and the most beautifully coloured I ever saw. I was so captivated with some *Black Hamburgs* in one house that I must needs taste them, when my intense astonishment they were only half ripe then Mr. Stevens assured me they had been in the house within little more than a fortnight, and every one knows it takes generally a month to do this part of the business.

The soil at Mr. Stevens' command is naturally a red one. It is of the new red sandstone, somewhat close and adhesive for Vines, so to improve it in this respect and to render it more porous, Mr. Stevens has it cleaned, i. e., half burnt, and so it becomes all that can be desired. Very little organic matter, or other material, if I understood Mr. Stevens properly, is added to the soil, and certainly no Vines could seem to be happier. The gardens at Trentham lie low, very nearly on a level with that sluggish river the Trent, and many of the Vine-borders are close on the water stratum, and are therefore naturally extremely low in temperature. To prove this, registers were kept last March, and it was found that while the average temperature of the outside borders in the garden was 33°, that half a mile distant on the side of the neighbouring hill was 42° difference of 9° in the two instances. Can it then be wondered at that Mr. Stevens, in his low, cold, and damp locality, is a great believer in the beneficial effect of bottom-heat for his Vine roots? No; with him it is almost a matter of necessity. It was from Trentham a long time ago, that I heard the first of the concrete of the Vine border, and at Trentham it is still practised and with advantage. The surface of the concrete is 5 feet below the level of the border, then there is a lot of rubble, through which are placed, at every 2 yards or so, open drain tiles across the border, communicating with an open chamber in front, in which are situated the hot-water pipes. The plan is simple, easy of application, and satisfactory. One capital instance of its effectiveness is thus afforded. A large house Muscats with full-grown rods some eight years old, in its turn to be supplied with a new border, last autumn so to make short work of it, instead of tracing out the roots, they were more than the half of them chopped clean off, &c. Then in spring the Vines were started as usual, with the advantage of the application of bottom-heat, and the result is a really splendid crop of fruit, equally good as if their roots had never been disturbed. The wood for next season is also in splendid condition. Now this is a very unusual success, and is entirely attributed to the fact of the roots having been in such a comfortable medium, and their action having begun so early by the assistance of the bottom-heat applied.

Vines in pots are only cultivated at Trentham to fill up an occasional gap—their fitting purpose. At Trentham, as in all well conducted places, houses are devoted to the cultivation of one sort or another—Muscats by themselves, Hamburgs and late sorts by

5. Red Onions.—These were exhibited under their various names of Blood-red, Dark Blood-red, Very Dark Blood-red, and Very Deep Blood-red. Blood-red was the largest and Very Dark Blood-red the finest coloured.

6. White or silver-skinned Onions.—These were exhibited under a great many names, such as Very Early Silver-skinned, Early Silver-skinned, Very Early Paris Silver-skinned, Early Paris Silver-skinned, Large Early Paris Silver-skinned, Early Nocera Silver-skinned, Extra Early Nocera Silver-skinned, White Tripoli, White Valontia, Silver Keeping, and White Lisbon. The differences seemed but trifling. White Lisbon appeared the coarsest, and White Tripoli from imported seed were the finest.

7. Two-bladed Onion.—This is a pretty little variety, much prized for pickling.

8. Potato, or Underground Onion.—This is a large and mild-flavoured variety, not usually produced from seed. There were, however, specimens from Mr Gilbert, of Bursley Park Gardens, the produce of roots, and Messrs. Barr & Sugden showed specimens from seed.

The Tree or Bulb-bearing Onion, sometimes called the Rocambole Onion.—This variety produces small bulbs on the stalk instead of flowers, and these are considered the most valuable of all Onions for pickling.

The collection, as exhibited before the Fruit Committee, is on view at Messrs. Barr and Sugden's warehouse, King Street, Covent Garden.

Home Correspondence.

Potato Grafting.—Our good cousins over the water would probably observe "A pretty considerable f—l you are for your pains." Well, be it so. I speak personally as to this observation, for I know that, whether by grafting or by any other means, the raising of new varieties of Potatoes can never, in a monetary point of view, compensate me for "the trouble and time I have bestowed upon this valuable root." But what of that? It has been to me a wonderful study during a period of 30 years, whilst laying hands upon every variety which crossed my path; and what by selection, then by crossing the best sorts, and of late years by practising the grafting process, an insight into Nature's workings has been gained sufficient to convince me that a Potato is a Potato, that it always was and ever will remain a Potato. In my most recent crosses with the Potato this season I can distinguish in the 60 specimens I took to South Kensington, blended in colours, and in form and flavour, every sort that I have operated upon, from the two first parents of my original cross, and more—even retrograding—by the production of one which, in habit of growth and appearance of tuber, is like the wild esculent as it was received this season by the Royal Horticultural Society from Peru, when I saw growing in the gardens of Caswick. I will defy anyone to prove the Potato capable of retaining its name, or to add to the species any other form or colour further than those exhibited by me, because I have produced them from black, and going through intermediate colours and spottings to white, and of every intervening shape from round to kidney. I own it is a most difficult matter to improve upon the species, as in all my previous workings, excepting my last early and late batches of crosses, out of hundreds of new seedlings I have not been able to succeed in raising a new variety coming up to the standard of what I consider a Potato should be in quality, coupled with good bearing properties and habit of growth. It is yet capable of great improvement even on my last essays, and is the race of man at a standstill, when by striving to improve our lowly, though important esculent, as being a part of our means of subsistence, I have been taught by the simple yet wonderful workings of Nature, to consider about the origin of existence? I trust your old and most worthy correspondent, Mr. Edward Bennett, will allow me to warn him never to prostrate his abilities entirely to a consideration of profit. I have been compelled to know the importance of monetary matters as much as any man—carking cares have caused "the grey sorrow to flow o'er my head" before its time—but it is not good always to allow "enthusiasm" to become cooled by placing the idea of £ s. d. before our eyes. "Want of faith" in the practice of grafting the Potato may fairly be excused, still I have succeeded in gaining a hybrid cross; and if the result is in a wrong direction, let us hope for better luck next time. Personally, I do not consider the subject sufficiently exhausted, either in a practical or scientific point of view, to induce me to give it up; so along with cross-breeding I propose to "drag my weary staff, though slow," in the matter of grafting. Mr. Bennett may thank himself for the notice, as it was, I believe, the very experiment of his in the grafting of the Dahlia (p. 1039) which gave me confidence to stand out, and confront the disbelief in the possibility of gaining a cross through grafting the eye of one variety of Potato into the tuber of another. I have never been able to gain an infusion of colour through grafting the eye of a white sort on a coloured kind, though that has been stated to have been achieved. In the instance of Paterson's Scotch Blue, grafted on to the Royal Albert (white), which I sent to Dr. Masters, the divergence of colour seen in the immature tuber could not have been caused by the grafting process, because the skins of the graft and the stock had never united, or the tissue either; therefore that instance of variegation of colour must be attributed either to the immaturity of the tubers or to a changing in the colour, similar to that which Mr. Bennett speaks of as having occurred both with himself and in the garden of Mr Berkeley, near Worcester. The case of the bunch of white grapes on a black Vine is not quite so familiar for analogy as is that of

the blue racemes of flowers occurring on the yellow Laburnum, &c. I cannot quite understand the two last paragraphs of Mr. Bennett's paper. All the eyes, from the tuber to be grafted on, are, or should be, scooped or quite cut out, otherwise, of whatever colour they may be, they would produce their kind from the eyes left in, and if the uniting of either skins or pulp does not take place in the graft stock, the eye or graft will independently and simultaneously produce Potatoes of its kind, though in the cases of perfect or partial cicatrization, resulting in my practice, as above stated, I have never yet been able to achieve a "mixture of colours" in the hybrid. The circumstance of "one square inch of the substance of the inside of a tuber" being able to "grow," viz, I suppose, to produce shoots, foliage, and tubers, without a pang or symptom of an eye in its composition, is something quite beyond my experience, the mere mention of which has caused Mr. Bennett to send me on another tack. I fear I shall have more difficulty to "weather that point" than I had in making "port grafting." If a square inch of the inside of a tuber will grow, why will not a whole tuber do so when deprived of all its eyes? In the latter case I almost invariably find my tubers, when the grafts do not "take," to remain plump and inert in the soil, unless they become devoured by ground grubs, they are generally highly approved of by that family as the choicest of victuals. Robt. Fenn, Woodstock.—Upon what principle a Potato can be called a stock I am utterly at a loss to conceive. It may be sheer ignorance on my part, but I cannot understand how the simple insertion of a piece of one tuber into another can in any way affect its character or change its constitution. In days gone by, when all sorts of unavailing remedies were propounded for extinguishing the Potato disease, one was not only recommended but put to the test that has some similarity to the idea of grafting. This was to scoop out a small hole in the tuber when being planted, and insert therein a Pea, which said Pea was to grow, and in its growth absorb from the tuber all its tenacity to disease. Of course when planted the Pea grew, but the expected result did not follow, neither did I ever hear that on any occasion the experimental cultivator was astounded by shelling out from the produce young Potatoes instead of green Peas. I may be told that this incident is utterly beside the question at issue, but I think it is not, although the two vegetables mentioned are so widely divergent in character. I should just as soon expect, were I to scoop out a hole in a cricket ball, and insert the eye of a Potato, and then plant it, that its produce would be "leathery," as I expect to find that the same experiment, carried out with Potato tubers only, can be productive of change. The fact is (and here is the fallacy that runs through the whole of these experiments), a Potato tuber is not—cannot be—a stock at all. What is a stock in the sense in which the word is here used? A rooted tuber. Is there any known stock in the horticultural vocabulary that is not a rooted or rooting medium? But who ever saw a rooted Potato? Let there be no misapprehension of my meaning when I say this. A Potato is so utterly dissimilar to other tuberous or bulbous roots in this respect, that it has no capacity to emit roots from itself in any way. [There are exceptions, Eds.] In this respect how much does it differ from the Jerusalem Artichoke, or the Dahlia, or such roots as the Parsnip, Carrot, or Turnip. If anyone were to scoop out the head of a Parsnip, and insert therein the crown of a Carrot, that would be grafting in reality, as, in the event of growth, all root action must come from the former, and the flow of sap would be through it into the latter. But how different with the Potato, for here it may be said its tail comes out of its head; instead of roots, a shoot is first emitted, and this puts forth the rootlets that are its feeders, consequently, there is no passage or flow of sap through the tuber into the haulm, but from the roots into the haulm direct, and thus as a result the so-called stock can have no active connection with the graft or its produce. It is rather a nice point to determine as to how long a period during growth the original set continues to influence the haulm. If some of those enthusiastic gentlemen who have devoted their energies to the grafting mania would try by experiment to elucidate this idea, they may possibly perform for horticultural science some service. Is it possible to plant a small number of equal sized Potatoes of the same variety, and then without disturbing the roots, and at various stages of growth, sever the connection between the old and new? We are told by Vine growers that if the roots that are so often emitted from the branches of a Vine are supplied with the elements of nutrition, the action of the ordinary roots will be checked, does this fact apply to the Potato to this extent that when roots are formed at the base of the shoot and furnish food to it, its connection with the tuber ceases? If so, it but furnishes another proof that the practice of grafting Potatoes, so-called, is just so much labour lost. To work out this suggestion may after all be productive of but little gain, but I may venture to assert that its result will not be a crop of mongrels. Alex. Dean. The above remarks are suggestive of grafting together the young sprouts of such varieties of Potatoes as it may be thought desirable to intermix. As to the "stock" we refer our correspondent to our last issue p. 1012. We shall have more to say by and by. Eds.]

Roses.—"Hibernicus" is a bold man. Forty new Roses at 3s. each amount to £12. For a trade more I can buy 200 plants of C. Leschvre, which will take half a century to beat. I used to buy "whistles," but I have got more prudent. I know but little of the Roses of 1868-9, but, as far as I can read and learn, I think he would be right to buy the Tea Roses Adrienne Christophe and Marie Sisley, and the H. P.'s

Charles Lee, Marquise de Montemart, Duke of... burch, Madame Creyton Milane Jacquier, Souvenir de Poiteau. M. Eugene Verdier has his list of new Roses for 1869-70. As he has not the raisers' names, I shall only refer to those sent by himself. Of his seedlings these are the best: "Auguste Neumann (E. V.), vigorous, large, full form, good habit, magnificent colour, brilliant shaded fiery red and violet, often mottled white, a remarkable variety." "Ferdinand de Lesseps" very vigorous, large, full, fine form, purple violet, very fine." I have bought in dormancy which I prefer to plants ready made, plants of the Edinburgh and Charles Lee, &c. each. Mr. Bedford's foreman told me C. Lee was very good. I shall buy Marquise de Montemart, Souvenir de Poitou, Marie Sisley, and Mons. E. Verdier. He hopes the "whistle" will be cheap. Madame Dureau is first-rate, and Reine du Midi blooming freely. Neither bloomed freely during the fore part of the season. W. F. Radcliffe.

Destroying Wasps' Nests.—I have succeeded in taking wasps' nest and two hornets' nests with chloroform, that I think it a public duty to give the information in your journal. Dr. Owen in his dear little book, advises the covering the face and head with crape, and tying the hands and ankles, &c., but I go to work, without of failure, without any change of usual attire. I wait till two hours after dark, when pretty well the wasps are in their nest for the night; no stars are about, as is the case with hornets. I take a bundle of straw, some matches, a lantern, tow, and a pint of chloroform about 6 oz. I may say that wasps prefer taking a rat's hole for breeding, and generally in some bank (I found only one in flat ground). Having ascertained the direction of the passage, I then would some tow be sewed round the stick, pouring half the chloroform over it, thrust the hole in the direction of the nest. To make perfectly sure of success this may be with drawn, and the stick with tow and chloroform inserted, the first, ever, always served my purpose. The fall effect obtained in five minutes if the operation is well formed, and the nest may be dug out, even had with naked hands, and if perfect may be placed on a wire cover, or, if mutilated, burnt at once on lighted straw. There are many females in each, and these are the founders of future nests, so it is most desirable to destroy them. The taking hornets' nests is a more formidable undertaking, the hornet does not sleep in good hours as the wasp; he comes home all hours of the night and sometimes don't come home till morning. Let them three hours after dark to gettle down, and then proceeded to take the first nest. It must be remembered that I had already taken a wasps' nest, and I would recommend others to try their hand on wasps, and gain some experience in the way of managing the operation before they attempt hornets. Seeing that I could take a wasp's nest easily, and with perfect safety, I went to work with more self-possession on this terrible insect, the hornet. The nest was built above an opening in the side of a wood barn where a board had come off and it was necessary to fill up the space between the hanging board and outer boards with some cloths tucked in behind where the hornets entered; this was done on a previous night. On the night we took the nest my man and myself laid tow on this ledge, poured a quarter of a pint of chloroform on it, nailed a sack over the opening then going into the barn, we made holes with a stick on either side of the nest, and I squirted chloroform into it, in five minutes the sack was removed, and the hornets—about 200—lay quite motionless. Stragglers kept coming home; some were caught in a net on which the light of a bull's eye lantern was thrown and some would settle on the barn, and when light was fully cast upon them they were easily caught by a stick. I clothed my man with netting, shoes, head and gloves on his hands, but I made no difference in my ordinary dress, and we escaped being stung. I may state that my man afterwards took another hornet's nest in the thatched roof of a cottage in the neighbourhood, described for taking a wasp's nest with chloroform. On examining what might perhaps be called the "cell," i.e., the aggregation of cells, there were five tiers of boards what I take to be the commencement of a series; it was in an oval form on one side, the other on the oval side were cells deep in the middle, shallower by degrees as the edges were approached they were very beautifully formed hexagonal cells, at first sight appeared empty, but a close inspection revealed white grubs attached to the bottom of a cell, from the eighth of the size of a full grown fly down to the size of the smallest pin's head, showing the progress from the egg to the pupae. On examining the pupae in the large pieces of comb I found of four or rather maggots, in different stages and sizes; I found when the maggot began to change into the insect, a very tough membrane, resembling parchment, sealed the cell until the fully perfect insect was strong enough to burst its way through. There was lying in the wood yard a tree with a hole in it; this tree was decayed in the centre, hornet's passage in and out this tree gave rise to the belief that there was a second nest, but when they continued their visits, it was evident they went only for material to make paper. The cells and corners of the parts not wedged by the sides of the board were so regularly marked in deep and light fawn-coloured striae, that one might imagine they had worked concert for artistic effect. I placed masses of tow under a wire meat cover, and extracted the whole

papillæ of resin around the entries of their burrows, and yet the beetles persevered, and the young broods emerged abundantly, the tree being quite dead next season. *M. D.*

Boilers.—Your space has been a good deal occupied with the question of hothouse boilers and stoves for the generation of steam, a question of no small importance to the nurseryman. A dweller in town, I have not much right to ask you to let me obtrude my views into the discussion, but I should like to point out how I believe more economy might be obtained than has yet occurred to those professionals concerned in this question, and what means I should take to obtain the greatest amount of heating power with the smallest cost. From a commercial point of view I should ask, if something might not be done to utilise the waste steam generated in the kitchen of the nurseryman? I believe a great deal might be accomplished in this direction, and which would at the same time tend to economise the domestic arrangements of his household. In my kitchen I have a stove which, with a small amount of fuel, is capable of generating any quantity of steam. This stove, the invention of Capt. Warren, is manufactured by Messrs. Adams & Son, of Marshall Street, in an hour after the fire is lighted, the steam is up, and goes on generating with a small fire throughout the day. The whole of my work is done by the action of steam, but for domestic purposes this steam is only required for a few hours, and then comes the time when it might at a very small cost be conveyed to the hothouse, and it would not be difficult to keep the fire going throughout the greater part of a long night at any time it may be required. In this way the air of the dwelling-house would also be rendered more healthy and constantly warm. The stove offers a very economical and superior mode of cooking, this being accomplished entirely by using hot-air, which, while it in nowise deprives the meat of its juices, retains the greatest amount of phosphates in both animal and vegetable food. Ignorance of the great importance of this cooking, constitutes one of the main causes of the great national deficiencies in respect of food, and the bad uses which our working classes make of such elements of food as lie within their grasp. *W. C.*

Packing Fruit for Transmission Abroad.—Your correspondent, Mr. John Kirby (p. 1049), may possibly find the following plan worthy of consideration. When I lived at Stanton Lacey, near Ludlow, 30 years ago, in default of a proper fruit room I used to adopt the following plan, viz., collect some ripe Fern, allow it to become thoroughly dry, strip off the fronds from the stalks, and place each fruit singly in a handful of these leaves, packing them away in hampers, boxes, or any other convenient receptacle. Those fruits which may become rotten, will not easily contaminate their neighbours; and a surprising quantity can thus be stored away in a small space, by allowing one hamper to stand upon the top of another, and so on. I should continue this practice in preference to any other that I know, but there is a difficulty here in procuring the Fern. Let me advise your correspondent not to use "chopped straw," or straw in any shape, as the fruit would be almost certainly ruined, and an unpleasant odour from it. I really do think that for his purpose thoroughly dried Fern fronds would be "the thing." *Robert Fenn, Woodstock.*

Flight of Greenflies and Lady-birds.—In the morning of July 21 I observed my young Peas covered with innumerable greenflies, and slight observation led me to consider them as a new enemy. They had large brownish wings, well adapted for flight. Since then I learned that the same kind of aphid appeared about the same time in various parts in this quarter, as Bury St. Edmund's, Thetford, and Norwich. The flies were somewhat like those of their family which attack Plum trees, except their mealy powder that resists water. In my haste to destroy the green pests I regret not having preserved some of them, so that their history might be better known, but I trust others have done so. I syringed them with lime-water, and though they were easily washed down they were as soon up again, and the Pea stalks were green during their ascent. Afterwards I shook them into watering-pots amongst greasy lime-water, and destroyed those on the ground with a spade. Repeating the operation I stopped the plague, but not before the crops were destroyed, for the insects had sucked the juice from the tender tops, which soon withered in the hot sunshine. I have said that the aphides came suddenly, meaning that they were not bred near or upon the plants, on which they alight like others of the family. Besides, the insects seemed to disappear as mysteriously as they came, at least, from other plants where they were not disturbed. Now, if these greenflies left eggs as other aphides do, they may reappear in such numbers that no amount of Lady-birds can keep them down. I mention this because the latter insects were so abundant this season that some were led to consider that they followed the greenflies to devour them. However this may be, Lady-birds are also fond of soft fruit, on which I have seen them in twos and threes, in company with wasps, where no common fly would dare venture. Perhaps their shell-like covering is too hard for wasps. The Lady-bird is called also Lady-cow. The Linnæan name is *Coccinella septempunctata*. By the children in Norfolk it is called Bishy Bar-na-bee. It may be seen nearly at all seasons, and early in the spring during a glimpse of sunshine, when other insects are torpid, or inclosed in chrysalids. The above was written before I had seen T. Southwell's remarks on this subject in "Science Gossip." He mentions that on July 21 a "yacht belonging to Mr. Creswell, of Lynn, sailing off Hunstanton, passed through a mass of dead Lady-birds, accumulated on the surface of the water, about 10 feet broad, and extending for 2 or 3 miles." The same writer also notices Mr. Cordeaux's note on greenflies in the "Zoologist," and who says, "On July 21,

the same day above referred to, about 13 miles from the Lincolnshire coast, his cutter ran through numerous belts of water, from a few yards to some hundreds in breadth, and extending both to port and starboard as far as the eye could reach, so full of myriads of green winged aphides as to present a thick pea-soup-like appearance." It is rather remarkable for the insects to have been seen in so many different parts on the same day; they were noticed in Norwich on the 23d or previous day. *J. Wighton, Cossey Park.*

Cockchafer.—I herewith send you some grubs which have been a source of great annoyance to me during the present season. About the middle of June they attacked a bed of dwarf Roses, eating the roots to such an extent that the leaves soon became yellow. I tried lime and soot, which seemed to check them for a time, but never fairly routed them, and I have this day taken up some of the plants which have not sufficient roots left to keep them alive, the fibrous ones being all gone, and the larger ones have the bark peeled off entirely. Could you inform me of a remedy for getting rid of them without transplanting the Roses, as some of them have only been budded this summer. *T. V., October 6.* [The grubs sent with the preceding note proved to be nearly full-grown larvae of the cockchafer—*Melolontha vulgaris*. They must have been very short of more succulent food to have attacked the rootlets of the Roses. We know of no application which would drive them away from the roots, but they might be attracted from them by burying slices of Turnips or Potatoes about the roots, which might be examined once a week. Cockchafer would not be so numerous, and their larva so injurious, if the rooks were not so unmercifully shot. *I. O. W.*]

Yellow Bedding Pansies.—Of late years the Calceolaria has proved very uncertain in many localities, and the question is, What shall we get for a substitute? The yellow-leaved Pelargoniums have in some measure come to the rescue, the golden Pyrethrum has also proved very useful, but, although these give us colour through the foliage, a plant with yellow flowers is more attractive and more appreciated. During a late tour in Yorkshire and Nottinghamshire I saw the yellow Pansy used with very good effect; indeed it has quite superseded the Calceolaria in one or two large establishments which I visited. At Sandbeck, the seat of the Earl of Scarborough, about 6000 plants of it are in use, scarcely a plant of the Calceolaria being grown. This Pansy is certainly one of the best-formed yellow bedding varieties I have seen. The flower is stiff and well-formed, with a neat eye, which makes it additionally attractive, and it is moreover a very free bloomer. I have forwarded you a few flowers so that you may see that it is distinct from the Cliveden variety, which is so extensively used at Thoresby, where it graces the matchless panel borders in the kitchen garden. But for profusion of blossoms the kind in use at Rufford, the residence of Captain Saville, carries off the palm; it is called the Pride of Rufford, and I can assure your readers it was with joy that I beheld it. It is used in lines, in diamonds, and in panel works, indeed, Mr. Holah, the gardener, uses it by the thousand as freely as some people use the *Christum Vult lutea* is also very extensively used, and is here well grown. But enough of yellows, for after all there is nothing like a true blue, and here it is to be found in a blue seedling Pansy with a velvety texture and a dark eye: a small bed of this was very telling, and promises to be quite an acquisition amongst bedding Pansies. I cannot conclude these few remarks without referring to the ribbon border (112 feet long) which I saw at Rufford, and which was exceedingly well done, beautifully arranged, and kept as even as though it had been cut with a scythe. It was composed as follows—1st row *Cerastium*, 2d *Lobelia speciosa*, 3d *Pelargonium Harry Hieover*, 4th *Yellow Pansy*, 5th *Pelargonium Brillant*, 6th *Centaurea candidissima*, 7th *Perilla*, 8th *Centaurea candidissima*, 9th *Pelargonium Stella*, 10th *Zelinda Dahlia*, 11th mixed Dahlias. I also saw some grand beds of *Verbena venosa*, but not a single Calceolaria was visible in the principal flower garden. *Edward Bennett, Osberton, Worksop.* [See note at p. 1092 *Eds.*]

A Monster Potato.—During my recent visit to Scotland, on the occasion of the International Fruit Show in Edinburgh, I called at Dunnikeir, the seat of Captain Oswald, near Kirkcaldy, Fifeshire. Mr. Dewar, the gardener there, showed me a "pet Potato" he had growing in a cosy corner, the tuber of which he selected from a crop grown on the home farm there last year. He could give me no name for it, but he described it as "a long red Potato, with deep-set eyes." This tuber being planted, sent up some 10 or 12 shoots, these formed laterals, which, as they grew, Mr. Dewar kept staked and trained; the whole forming what one would call a beautifully furnished plant, which when I saw it (September 10) measured 7 feet in height and 24 feet in circumference. I think this is something out of the common in Potato culture. What the produce of this enormous top may be remains yet to be seen, but Mr. Dewar promised to let me know the weight of tubers when taken up, which might be interesting to the readers of the *Gardeners' Chronicle*. Have any of your correspondents ever seen a Potato plant grown to such gigantic dimensions? *George Grievie, Mount Stewart, Newtownards, Co. Down, Ireland.*

Wellingtonia gigantea.—The following is a description of a fine specimen which is under my charge, and which I believe to be one of the first batch that was sent out. The plant in question was purchased from Messrs. Rollison, and was planted out early in the spring of 1859, in unprepared ground, the subsoil being a very strong clay. The height when planted was about 15 inches, the present dimensions are as follows:—height, 27 feet; circumference of bole, 1 foot from the ground, 4 feet 10 inches; ditto at 3 feet, 3 feet 6 inches; circumference of branches, 11 feet. It has withstood

the extremes of temperature that we have experienced during the last few years without any check to the growth. *James Wood, Gr. to E. R. Northey, Esq., Epsom House, Epsom.*

The Weather on the West Coast of Scotland.—The weather, which had been exceedingly dry, suddenly on Sept. 5th to be very wet. Since that time rain has fallen every day during the month, the amount of 7.73 inches, being 3.11 inches in excess of the average of the last 10 years. The barometer was very unsteady, and fell to 28.96 on the 23d, and had 1.39 inch of rain in 16 hours, accompanied by a strong gale, which suddenly changed the appearance of many beds in the flower garden, and some of the plants in the borders. Still we congratulated ourselves as we (on the banks of the salt-water Clyde) were parched up for months, and were visited with the or Lady-bird, as in the south-east and midland counties (p. 945). We began planting out Calceolarias, Pott & Co., on May 11, and finished with Mrs. Pollock's Calceolaria, Perilla, Amaranthus, and *Coleus* &c. We had several frosty nights in May, the thermometer indicated 28° after the Calceolaria was put out, and 30° in June, after several hundred Pelargoniums were bedded out, without being hurt. Pelargoniums are struck in the open border in June and August, and kept in a dry airy pit during the winter so that they are strong and hardy when planted out. We for many years put in cuttings of Calceolaria in cold pits; they are kept there through the winter and we have never experienced a deficiency for a year out. The monthly fall of rain here during the last 10 years was—May, 9.49 inch; June, 2.71 inch; July, 4.01 inches; August, 1.18 inch, which suits us; more than the average fall. We never had bedding plants so gay before. Pelargoniums in particular flowered very profusely. Vegetables were everywhere abundant and good. We have still plenty about Laxton's Prolific and Prizetaker are fine; Chancrow England did well in summer, but has failed in the 10th; also plenty of Kidney Beans and Cambridge Hollyhocks and Gladiolus were fine, but are all done. Dahlias, being well set with buds during the dry sunny weather, are now covered with large flowers, and seem to be enjoying the wet; *Hesperis*, *Heliotropes*, and *Ageratum* also stand it well. As for the more hardy plants that have stood the wet value, *Pentstemons*, and a dwarf scarlet seedling *Calceolaria* in the way of Lang's Ambassador, but which stands it better. The latter continued in flower until the last winter after the new year. *J. McIntosh, Gey Toward, Sept. 30.*

Our Fruit Failure and its Lessons.—There can be no doubt of the season of 1890 being well and long remembered. After the hot season of 1888, so much adapted for the full ripening of the wood of all fruit trees, much fruit was naturally expected this year. In the spring the shoots literally teemed with fruit buds. We had hopes were entertained and joy experienced at such an abundant show of bloom! But the trying ordeal of a drifting sheet and piercing cold, damp and dreary days, had to be endured, and in the end the fruit shown in every garden by the scanty supply of access to the fruits, whilst in some it has proved a total failure. This is an exceptional season, we know. Still, I doubt if it will prove a serviceable one, by inducing all gardeners to calculate their resources should another such season be experienced by them. So many plans have been tried, and all having failed, one and all are brouched to the same inquiry—Which is the most efficient method of our obtaining superior stone fruit in all seasons? Mr. Fish has done well to call attention to this subject, as it requires the immediate attention of all concerned. Hitherto, whilst ordinary means of protection have secured in many places an abundant supply of fruit, others the results have not always been so satisfactory. This has given rise to the more extensive use of glass coverings, their superior advantages over ordinary methods being so decidedly apparent. Then again, the successful career of glass coverings for many years instilled in the minds of many the idea of their being vulnerable. At length, however, we find their capacity of resistance is limited, and this year's experience "shows that sometimes, and under extraordinary pressure, they may give way." This is an admission Mr. Fish is constrained to admit by the almost unanimous testimony of this year's failure. But to prevent this defeat, Mr. Fish complains of "many houses being openly constructed and glazed." With such an argument so far stands good. But what of the failure of closely glazed and properly constructed houses? We have an unheated Peach-house here, covering 10 feet length of wall; height at back, 10 feet, width at front 2 feet high; each of these lights, as well as top lights, open for ventilation. Figs in pots are grown along the front. This house is flanked at each end by walls, running north and south, so that it may be perceived this house is greatly sheltered from east or west gales. Notwithstanding which, I have secured only three dozen fruits, Peaches and Nectarines from this house. The trees are very healthy, and the wood was studded with bloom buds, very few of which, however, did fully expand. They did not want to water, neither were they saturated with wet. But the continued damp, dark, and bitter weather lapped up the heat from within, and left the bloom equally parched with those on trees out-of-doors, merely covered with Spruce boughs, and their results are about equal. I maintain, therefore, that to ensure the crops we may insure the houses, by having sufficient amount of piping to defy the ingress of paralyzing weather, and keep the enclosed air constantly in motion. Mr. Fish gives some excellent designs of glass screens, which I think are all that can be wished for; but I know of a house almost identical in design to the lean-to shown in the wall being 18 feet or 20 feet high; the front railing

in the development of gardening resources of what might yet become, under happier auspices, truly the "Emerald Isle." I believe, however, it would be a mistake were the Royal Horticultural Society of England to quit its legitimate field of operations and try its fortunes across the Channel, while it has so much comparatively unexplored territory at home in which to ruralise, and, it is to be hoped, reap some tangible results. The best way to meet the suggestion of our friends in Dublin would be to hold in that capital next year a duplicate of the great International Fruit Show so recently held in Edinburgh; and that it might become truly international, another should be held the succeeding year in London, so that each of the capitals of the three kingdoms might have in perpetuity its great triennial fruit show. Can the Irish Society undertake to get up a great fruit show next autumn, and to do it as well as the Caledonian Society does it. Let them try. If they will submit a liberal schedule of prizes, and get first-class judges, there will be no lack of competitors; and having done it well, the credit will be all their own. As far as London is concerned, that can give a good account of itself when the time comes to need it. A. D. [Not a bad suggestion. Eds.]

Foreign Correspondence.

THE BOTANIC GARDEN, PADUA.—The Botanic Garden at Padua possesses unusual interest from being the oldest in Europe, having been founded in 1545. Here is one of the finest collections of trees on the Continent. In a large conservatory raised on a terrace there is a splendid Norfolk Island Pine, some 35 feet high, and very thickly clothed with branches; a large specimen of the *Todea africana*, from the Cape of Good Hope; and a very fine *Ficus stipulata*, covering the walls of the house. In various parts of the garden are some unusually large plants of rare trees; among these may be specially noticed the *Magnolia grandiflora*, which were raised from seed by Farsetti, the director of the garden in 1742. Some of these trees have trunks 4 feet in diameter, and over 60 feet in height, and are thickly clothed with leaves and branches. When in flower they must be a magnificent sight. The *Acacias* are also very fine plants. The *A. Farnesiana* is between 60 and 70 feet high, and *A. Julibrissin* about the same height. Of other large trees there are *Gymnocladus canadensis*, *Diospyros virginiana*; *Vitex Agnus-Castus*, 160 years planted, 40 feet high; *Chamerops humilis*, 25 feet; *Sterculia platanifolia*, 30 feet; *Lycium japonicum*, 80 feet. *Araba sp. nosa*, nearly 30 feet; *Smlax Sarsaparilla*, from 60 to 70 feet; and many others of a size and growth only to be met with in such a favourable climate. There is also a wonderful *Platanus orientalis*, planted the year the garden was formed, with a remarkably knotted stem which is quite hollow in the lower part. The shape of this tree is very singular, having a long trunk without any branches, and forming a spreading and umbrella-like head.*

The garden is divided in one part by a lofty ornamental wall, in which are two gateways with high and bold pillars at the sides. These pillars in April were covered with glorious masses of the *Wistaria* in full bloom, and were a lovely sight. The plan of training the *Wistaria* as a standard, with a broad-spreading head, was also most successfully carried out, there being a very fine specimen in a prominent position, with a stem of some 10 feet in height. Dr. Visiani, the resident director of these gardens, has evidently taken great care and pains to bring them into their present condition, everything being in the most perfect order; and a visit to the gardens at any time of the year would be a source of the greatest pleasure to the horticulturist or lover of nature.

The library and herbarium are both extensive. The latter contains about 6000 specimens. The collection of fossils (comprising some magnificent examples of Palms and Ferns) is of rather recent formation, and is one of the finest in existence. Most of the specimens were brought from Monte Berico, in the neighbourhood of Vicenza.

In the library are some very beautifully executed water-colour drawings by a Venetian artist, taken from different points in the garden. One is a general view of the garden, in which the remarkable church of St. Antonio, with its seven domes, is introduced. A second shows one of the principal fountains in the garden, with the church of S. Giustina in the background, and the last is a most careful and correct portrait of the remarkable old Plane tree previously alluded to. J. W. C.

Notices of Books.

A Book about Roses: How to Grow and Show them. By S. Reynolds Hole. Blackwood & Sons. Square 8vo, pp. 277.

If there be still on this earth a lineal descendant of the flowers that bloomed in Eden, that one is assuredly the Rose. Other flowers are as beautiful; some, like the Lily, are as chaste; the Camellia more nearly realises the ideal of the florist; Orchids are more surprising; many plants exhibit grander foliage or greater range of colour in their flowers; but, taken for all in all, the Rose shows a more perfect harmony, both in form and colour—a more refined perfume, a more fitting association of leaf and flower, than any other plant; and hence it has long held, and long will hold, undisputed sway as *regina florum*—the queen of flowers.

Volumes have been written, replete with lore and legends, concerning the history and origin of the Rose. Poets major and poets minor, in all ages and in all tongues, have hymned her praises; and yet more remains to be sung. No one has done full justice to the theme, and as the "new Roses" make their appearance "new poets" must invent new "conceits" to account for their origin; for instance, it is very pretty to read that the rosy tint is due to transfusion, as

* The fine tree in the Chelsea garden is of much the same form. Eds.

doctors would say, from the veins of the queen of beauty herself.

"Alba fui quondam rubri qua causa coloris
Me proprio tinxit sanguine pulchra Venus."

But how about Maréchal Niel or Gloire de Dijon? Could Venus have had the jaundice? The thought is too dreadful. It must have been jealous Juno in one of her wrathful moods, who gave origin to the yellow Rose; or was it Minerva, "sicklied o'er with the pale cast of thought"? We leave the question for Mr. Hole's decision, and in the meantime commend his book to general attention. It is not at all necessary that the reader should be a rosarian to appreciate this volume; should he be one, he will like it all the more; should he be contemplating entering the ranks of the floral sybarites, he will, from a study of Mr. Hole's pages, learn how to do it, and how not to do it;—how, when, and where the Rose should be planted, and budded, and pruned; what it should eat, drink, and avoid—as the title says, how it should be grown, and how shown. Should our imaginary reader, however, be reading for reading's sake, he will enjoy the genial fun and playfulness, the wit, the easy flow of language, and the pleasant spice of scholarship that pervades "A Book about Roses." From this point of view—and the same remark applies in a cultural sense—the chief defect of the book is, that it is written too much "de l'abondance du cœur," as the author has it; it is too cloying. It is like a feast where sparkling wines are served with every dish, and where *entrées* of sweetmeats and crackers are handed round between each course. Such diet is likely enough to engender a fit of indigestion, and the reader of Mr. Hole's pages is likely to throw down the book after a short time—assuredly, however, to take it up again after no long interval. In the monthly instalments in which it was first issued through the pages of the "Gardener," this mental indigestion was not felt, as the conditions of the publication provided wholesome seasons of rest between the courses. But the rosarian—he who has graduated and gone out in honours—well, it would be a matter of inexorable necessity for him to procure the volume, were it written in the dullest, prosiest vein that ever sickened a reader, for it is the production of a man who boasts of thirty "all England" cups, whose Roses are always looked for anxiously at flower shows, who took the lion's share in originating the first Rose Show *par et simple*, whose assistance as judge or *amicus curiæ* is always courted at such exhibitions. Such a man "ought to have something to say worth hearing to those who love the Rose," and he has said it. Having written so much, we may well conclude our notice by bidding our readers "go and hear;" in other words, read the book, not forgetting the two appendices, which are about the most useful chapters in the volume.

Florists' Flowers.

It was stated not long since, in one of the monthly gardening publications, that "the day for named POLYANTHUSES has passed away." To that remark exception was taken by one of those fine old amateur cultivators of the Auricula and Polyanthus who helped to make the annals of floriculture illustrious 20 years ago, and who still lives to link that renowned past with the less glorious (in a certain sense) but not less active present, in these words—"I am loth to admit this, as I cannot see why it should be, any more than with the Pink, the Auricula, or any other florists' flowers. Types of these may be and are raised from seed, and if superior in any point to the original are deserving of a name. But these types are the result of self-fertilisation; and if florists would only take the Polyanthus into their especial care, as is the case with the Auricula, the effect of careful crossing would soon be manifest by the appearance of different and improved varieties. For example, take Buck's George IV., give it the tube of Tantarara and the refinement of Saunders' Cheshire Favourite, and you have a model flower to work upon for further operations." Alas! that's the floricultural rub. With rueful face and sinking heart the desponding florist inquires, "Where are these three flowers to be obtained for purposes of comparison?" and the light-hearted mocking Echo replies "Where?" Probably from no single grower for sale can a set or any of the named Polyanthuses that figured at exhibitions and in lists 10 or 15 years ago be obtained. Of recent years, and dating back to 1856-7, a kind of disease ravaged the beds of many a cultivator of the Polyanthus. Some subtle influence, never satisfactorily accounted for (unless it was a kind of inevitable deterioration, resulting from high breeding), committed sad havoc, and the "rude slayer, death," seized "the flowerets gay." The late Mr. James Woods, of Harwich, a noted Polyanthus grower in his day, once complained of all his best show varieties having been attacked and almost annihilated, and one variety he was just on the point of sending out was reduced from 60 to six plants. Singularly enough, the losses Mr. Woods sustained were but the counterpart of those of others, and in all cases the common border varieties were untouched. Two years later Mr. Woods had to record the same baleful experience, and with similar aggravating results, for on this occasion he lost the whole of the stock of two new varieties, one of which, named Star of the West, must indeed have been a star of some magnitude, for it is recorded of this flower that it was exhibited at Ipswich with "nearly 90 perfect pips, and rounded like a ball." The restoration of such a magnificent variety as that is an aim well worthy the enterprising florist, and he who succeeds in producing it will deserve well of floriculture.

The ordinary type of the garden Polyanthus is still very popular with many. It is one of those charming spring-flowering plants no lover of flowers would willingly let die. It is pleasant to know it is still

popular, and it deserves to be well regarded, valued more as a decorative plant for the garden than as a pot-plant, and the nearer the florist's ideal of perfection the more they esteemed; and this is proper, for it is the achievements of floriculture that the highest can attain to becomes gradually translated into an index of the popular taste, though, at best, the outcome of approximate perfection is but a shadow of what can yet be reached.

As far as the London district is concerned, the improvement of the Polyanthus appears to be almost wholly in the hands of Mr. Wiggins, of Cottage, Isleworth. Not but what other growers are similarly engaged, but the type of Mr. Wiggins' flowers mark an advance nearer towards the ideal than those of his contemporaries. It is that Mr. Turner has a lot of fine things, but which something will no doubt be done to improve. There is an arbitrariness about the shape of the sharply defined, and hedged round by the variations. In the improvement of most of the variation of colour is held to be a desideratum. The points being in a properly adjusted position. It is laid down that the centre of the Polyanthus shall be yellow, the edge the colour exactly as the centre, and the ground rich dark crimson. This appears very good, and some raisers, craving for novelty, have we should not have scarlet as well as crimson, and the bright and brilliant intermediate each colour, with a blue ground for the white edges; and so with black and gold, gold, or even blue and silver, black and gold. But the answer has come back, distinct andatory:—"That the eye and lacing should be shade of yellow is a property not to be given the vagaries of any mottled or spotted spots of seedlings;" and so a rapid collapse of "novelty" ensued. Strange as it may appear—but it is nevertheless true—old-fashioned laws was, perhaps is still, the flower should die well." Some have pronounced as "perfectly contemptible," and yet it has illustrated some time since by Mr. Read, of Rasen, in "Gossip of the Garden," who follows:—"I have this season had outdoor real practical knowledge of the framers of the in two seedling Polyanthuses, the one an example of their existence. In its decline, one colour and marking until fairly decayed, the other, the eye of which assumed a deeper shade, seemed to drain the colour from the leaves, bleached to a dirty white; and here at the their existence all comparison ceased, and I never struck with the force of perhaps similar to that which guide the framers of the code of

Coming now to matters relating to the culture of the Polyanthus, it may be said that as named (of any pretensions to quality at least) can be obtained the grower must depend on seed, and of getting something that will repay the expense. Seed can be sown at any time during the summer, the seed pan or pot should be drained with "corks" or coal-cinders, and can be placed a layer of Moss. Good watering is very essential, as it is often found that the watering of the seed pan for the length of time before the seed begins to germinate causes an immoderate amount of moss on the surface through which will not penetrate. After filling the pan, and seed, plunge the pot up to the rim in a shallow tub, through the top soil; then let it stand and cover the surface lightly with a few sprays of Moss, over this place a square of glass, and pan in a cold frame in ashes or sawdust, only get the morning sun. It will suffice to pan under a wall or in the shade, but so many are possible that it would be well to provide a frame. Here it can remain, and will require attention for a fortnight; after that time may be given, and in four or five weeks will be making their appearance. After the may be removed by degrees, the glass tilted, air, and finally removed altogether; but must be well shaded from a southern sun. seedlings use a soil composed of sand, loam, and mould in about equal proportions. When are large enough to handle, they can be into boxes, or to an intermediate bed to can be given, placing the plants pretty close. When sufficiently established, the next be to transfer the plants to their permanent Here an important consideration presents of aspect. "The north or east of a wall is temporary shade, where they will get only sun, is the aspect most favourable for the Second, suitable soil. Good loam from will grow good. Wheat, well sweetened by frost, sun, and air, or good turfy loam one-third of either two-year-old well- horse-dung, well sweetened by exposure, turning over about 9 inches deep of soil, the Polyanthus healthy and well. opinion of one of the foremost amateur the Polyanthus in the present day. The rarity is emphatic in a degree rising to a point that should never be overlooked. "But the great secret of success lies in In making the hole ready for the reception (which ought to have its roots washed and to see that they are all healthy and vigorous, decaying parts removed), raise it up in the form of a cone. Spread out the roots, gather the foliage erect, and fill up to above the collar of the plant. The advantage

deep planting is, that the best rootlets growing from the top part of the tap-root derive more nourishment from the soil, and are more secure from drought in summer and frosts in winter. It is also necessary that they should have regular attention by frequent stirring, top-dressing with fresh soil, and watering when necessary, and as soon as the truss makes its appearance, cover it over with a square of glass firmly fixed on a short stake: this will be a sufficient protection to keep off wet and insects which injure the bloom. These simple attentions will insure a bloom which might prove a what gratification to the most fastidious florist. Shallow planting is a prolific cause of destruction among Polyanthus, especially when dry weather sets in. In cases where it is sometimes difficult to get a shady spot for them, the plants are so much the more open to the injurious influences of drought. To screen them from the drying effects of the hot sun, it is well to shake some fine soil about the plants, and then give the bed thorough watering through a coarse rose watering pot. Then some dry stable manure, or any short litter can be shaken over the plants, so as to almost entirely hide them from view. As a matter of course, when wet weather sets in, the litter should be removed. Generally, growers recommend that the plants capable of being divided should have that operation performed on them soon after blooming time. Perhaps it would be best, however, to defer this till the young growth that invariably follows the period of bloom has fully developed itself. Plants cultivated in pots can be divided earlier than those growing in the open ground. When dividing the roots, take away only those pieces that have rootlets attaching to them. There is always some trouble in inducing unrooted pieces to throw out the fibres, unless very carefully tended to. The plants obtained by division would succeed best planted out in an open border on the north-north-east side of a wall or hedge, but not too near where they can get plenty of air, little sun, and no drip, and beware of snails and slugs.

Those growers who cultivate for exhibition purposes, and those who make a leading speciality of the Polyanthus, generally cultivate all their best flowers in pots. The cultivators of the Polyanthus in the northern districts always recommended an inch of pebbles for drainage, and over these the same thickness of dried rushes. In regard to soil, one grower of the note always recommended a soil composed of two parts decayed Potato haulm, not above one year old, and one part rotten horse-dung and cow-dung (about equal parts of each), and a little river sand. The plants should be potted in August, and during this operation it is of the first importance to see that the tap-root is sound at the bottom, otherwise the plant will never do well. When potted, the plants should be placed in a shady situation for about two or three weeks, and if dry weather sets in they should be gently watered once or twice a week, but never be allowed to receive any splashing rain. The latter part of September they should be moved into their winter quarters (a common garden or a facing the south), and, when needed, well protected from frost, by covering the lights with mats, yet so as to allow of a run on all favourable occasions to prevent the possibility of their drawing. In February about the middle of the old surface soil may be removed, but in doing this be careful not to disturb the roots. Then fill with a richer compost than the preceding—say, half marden loam, and half well decomposed horse and cow-dung. Finally, to ensure a good bloom, keep the plants in a sheltered position, and, to possess none of the richness of the Polyanthus, but will be small and of a dull red colour. Old times Hogg, in his treatise of nearly 50 years ago, thus writes regarding the Polyanthus—"Let it be remembered, that these flowers, if planted in the grounds, and which indeed is the only successful way of growing them, will be in a situation exposed to the morning rays of the sun, and excluded from them the rest of the day. It is a waste both of time and plants, to keep them all the year round in pots, especially in the neighbourhood of London: I have found it so: others may be successful. I admit it is convenient to have them in pots in the spring, both for exhibition and sale; in this case, the moment the pips begin to turn them into the ground, and let them remain there till near Michaelmas, when they may be placed in their pots. Keep slugs and snails off them. The Polyanthus, in coming into flower, should be set under a hand-glass raised upon bricks, shaded constant exposure to the air soon tans the eye and lacerates the eye and lacerates the eye." Hogg also enumerates the named varieties of the Polyanthus. It is to be seen from the foregoing how little we have modified the routine of cultivation laid down by this old florist, even after an interval of 50 years. There is no lack of named Polyanthus at the present time, but there is a great want of worthiness about them. Early this last spring I received five named plants from a grower; on their reaching me I inspected their quality from the names they bore, and their blooming I found them to be much inferior to flowers in my seedling bed. Intending purchasers should therefore proceed with caution. From a bed of fine seedling plants, Mr. Wiggins has this season selected and named about 20 kinds. I had an opportunity to inspect these on two or three occasions, and the following appeared to be the very cream of them: Princess Alice, the Premier and Prince of Wales, a very fine, President, Golden Cluster, a finely flowered Vanguard, the facing very dark. Bracelet, Golden Champion, rather small, but promising seedling well; Nonsuch, Beadsman, Florence, and the Acre. Even should these prove to be inferior to the named flowers of 15 years ago—now, it is to be said, almost wholly lost to us—we have here something good to work with; and, combined with so much

quality, there appears to be much vigour of constitution. The Isleworth flowers were, no doubt, seen at a disadvantage, as they were all blooming in the open ground, affected by cold winds, occasionally alternated by hot sunny days.

Mr. John Read, of Market Rasen, has left on record some capital suggestions for fertilising, or, as he terms it, hybridising the Polyanthus, with a view of obtaining finer kinds, that are well worthy of being reproduced here. He starts by stating that if size be wanted a large flower should be selected as the seed-bearing parent, suppressing other good qualities within a commensurate degree, if refinement be wanted, then select as the seed-bearing parent a flower having this in the largest degree likewise, and impregnate them with the pollen from a flower containing such properties, in colour or marking, as it may be sought to impart. The *modus operandi* is as follows—Take a strong truss of the variety selected for the purpose, remove the small pips, leaving five or six to be operated upon, take out the anthers with a pair of small forceps or tweezers as each pip opens. When fully expanded, collect the pollen from the best pips of the variety selected as the pollen parent with a camel's-hair pencil, that will not scatter it; introduce it into the tube, and forcibly turn it round upon the stamens of the removed anthers. Repeat this process several times, and afterwards cover over the truss with a piece of glass, to keep wet or insects from injuring the fertile pips, and Nature will work her own way. When the seed-pods are turned brown, and just about to open, gather them, and store them in a dry place till sowing time—the best time for this is probably in February. Fill some boxes, pans, or shallow pots to within 1 inch of the top with rich garden mould, then sift or rub half an inch of very fine soil, and sow the seed; only just cover it with fine sifted soil, water with a small-rose pot, and take care never to let the seeds get dry after they begin to germinate. When the seedlings are large enough to handle, transplant them on a shady border, free from drip, about 8 inches apart; attend to watering and top-dressing, and in due time this labour will be rewarded by the appearance of some "gems of purest ray serene." R. D.

Garden Memoranda.

MOUNT MERRION, the seat of the Earl of Pembroke, from its fine position and the lovely scenery which it commands, has always been considered attractive. Lately, however, through the able management of Mr. Welsh, his lordship's gardener and steward, the establishment has become famous for the perfection to which bedding-out gardening has been brought, a condition which has caused a visit to Mount Merrion to be considered a great treat by the thousands who are favoured with permission to enjoy it. The principal entrance is at the top of Merrion Avenue, which is situated about one mile from the Blackrock station of the Dublin and Kingstown Railway. This noble avenue, which is about 500 yards long, leads in a straight line to the mansion, and is bordered on each side with forest trees from 50 to 60 feet high. Between the trees and the walk is a broad margin of grass, which is kept mown. The walk is of ample width, and the effect of the view from the entrance gate is very fine.

Entering the bedding-out garden from the lower gate, a splendid mass of colouring is seen on the right and left borders. The one to the left is about 100 yards long and 4 yards broad, with beds of circular form alternating with oblong squares. The front and back of the borders is beautifully margined with *Cerastium*, very pure in colour, the angles defining the beds are filled with *Lobelia speciosa* (from cuttings). The beds are principally filled with zonal Pelargoniums, the centre of each circular bed has a pyramidal plant of *Acer Negundo variegatum*, which gives a graceful appearance to the border and relieves it from flatness. Two beds next the entrance-gate at once claim attention—a circular one of *Cybister*, literally loaded with its immense scarlet trusses, the square bed next it being a complete contrast in its chaste colouring, viz., a square centre of *Perilla* (four lines), surrounded with *Centaurea candidissima*. This bed, which is placed between one of *Christine* on one side, and one of *Cybister* on the other, and set off with blue *Lobelia* in the spaces, is a gem in its way. Of the other beds the most noticeable are those filled with *Amy Hogg*, *Rival Nosegay*, *Cirelet* (very distinct), *Madame Rudersdorf*, *Pauline*, and *Stella*. Facing the entrance-gate and filling the end view, is a raised mound, with a clump of *Centaurea zymosarpha* in the centre, the remainder is filled with *Scarlet Pelargonium*, which surround very large single plants of *Centaurea*, about a yard apart, this is very effective in the distance.

The right-hand border (from the entrance-gate) is 200 yards long, and is a very effective piece of bedding, being remarkable for its beautifully-toned colouring, and the clever manner in which the flatness of the border is relieved by raised beds or clumps about 20 feet apart, which are filled with the quiet colours of *Acer Negundo variegatum* and *Centaurea candidissima*. About 100 yards of this border is planted with seven lines, running parallel with the walk—the centre line is *Pelargonium Christine*, pink; those on each side are planted with *Miss Kingsbury*, very pure silver edge; then two lines of *Iresine Herbstii*, the line next the walk is composed of *Lady Cullum*, and the back row strong plants of *Mrs. Pollock*. The effect of the variegated Pelargoniums is greatly enhanced by Mr. Welsh's practice of keeping one-half the flowers pulled off, thus allowing the foliage to come out distinctly in the design. This border is broken by a second entrance-gate, and the remainder of the border is planted with circles and squares of bedding, much in the style of the first-mentioned border, except that it

is margined back and front with *Flower of Spring* variegated *Pelargonium* instead of *Cerastium*. In this border Mr. Welsh, feeling the necessity for relief to the eye from the vast mass of colouring, has planted entire beds with *Centaurea*, *Cerastium*, and silver variegated *Pelargoniums*. The east border at the top of the garden is about 30 yards long, and is continued with bedding of the same class here *Indian Yellow Pelargonium*, planted in a very dry soil, comes out very well, as also a bed next it of the golden variegated *Sophie Dumaresque*, which for strong growth and bright colouring is much before *Lady Cullum* in effect. To the left of the border are two square grass plots with circular and oval beds planted with the choicest of zonal and variegated *Pelargoniums* and *Verbenas*. Particularly noticeable are grand beds of *Amy Hogg*, *Waltham Seedling*, *Rabens Improved*, and *Violet Hill Nosegay*, *Waltham Lass*, *Mechanic Rudersdorf*, and *Rose Rudersdorf*, these are all that can be desired for grand masses of bloom and habit. *Duchess of Sutherland* and *Lady Constance Grosvenor* are both good, but the former is not so fine as *Amy Hogg*, neither does the latter surpass *Cybister*, except in the dwarf habit, which is an improvement. The two centre beds in these plots are filled, the one with *Lady Cullum* (60 plants), the other with *Sunset*. *Lady Cullum* is disappointing at present, the habit is free and strong, but there is a dulness in the colouring, it wants more yellow and less black in the leaf. In comparison *Sophie Dumaresque* is much more effective. *Sunset* is a failure for bedding, the foliage being too crumpled out-of-doors. The oval beds are filled with *Verbenas*, of which *Firefly* (scarlet) and *No Plus Ultra* (pink) are much the best bedders. Passing down from this bright spot, which is divided from the under portion by a thick Beech hedge, we come to an intermediate piece of grass, in the centre of which stand two splendid *Mulberry* trees, with seats underneath. Under these trees are three large beds filled with *Centaurea candidissima* lit up with *Christine* and *Dr. Hogg Pelargoniums* planted through them sparingly, and at the opposite side by the wall (which divides this portion from the kitchen garden) runs a line of *Viola cornuta* in full bloom. Taking a seat under the *Mulberry* trees, we enjoy a view of Mr. Welsh's grand effort, and which alone would make him famous as a colourist in bedding out. No art could paint the lines of colour so effectively as it is portrayed in these perfect ribbon borders, which are about 70 yards long, by 12 feet broad, bordered with eight lines of bedding plants, viz., the back row of silver and green colours (variegated *Acer* and *Hollyhocks*), 2, scarlet (*Excellent*, zonal *Pelargonium*), 3, silver grey (*Centaurea*), 4, magenta-rose (*Amy Hogg*), 5, Purple King *Verbena*, 6, silver variegated *Pelargonium*, *Flower of Spring*, 7, crimson (*Iresine*), 8, gold and red (*Mrs. Pollock*). At the end of these ribbon borders, three beds come in with very good effect, a centre square bed of *Pelargonium* *Cirelet*, and the two side beds alike of *Perilla* and *Centaurea*. The perfection of this piece of bedding may be estimated by the fact that every plant in it is so well grown as to be fit to put on an exhibition table. Turning to the right we come to an enclosure near the greenhouses, the circular beds in which are filled with a mixture of plants such as *Arundo variegata*, *Cannas*, *Aloes*, *Bambusa variegata*, *Brugmansias*, variegated *Pampas Grass*, *Echeveria metalica* and *glauca*, &c.; an edging of *Polemonium variegatum* is very good in the centre beds. In front of these a bed of *Pelargonium*, *Beauty of Calderdale*, is perhaps the most recherche in the whole place. There is also a bed filled with the new variegated zonal *Pelargoniums*, and another with the new bicolors, far more effective for bedding purposes than the tricolors, the latter being wanting in the distinctness of colouring which marks the former.

Amongst the new tricolors were noticeable, *Louisa Smith* (very fine), *Mrs. Dix*, *Countess of Craven*, *Mrs. Watson*, *Queen Victoria*, *Princess Silverwings* (very crumpled), and *Glen Eyre Beauty*, whilst in the new bicolors we noticed the *Queen* (with white flowers and fine foliage), *Egyptian Queen*, *Artemus Ward* (very distinct), *Earl of Dublin*, and *Model* (very neat foliage). *Perilla* is very coarse, though effective, but of all, *Beauty of Calderdale* comes out here far ahead, the colour is grand and well defined, and the foliage of the largest size and smooth. Among other plants, the *Golden Feather Pyrethrum* (seedling) was very good, but we cannot say as much of *Fuchsia Golden Fleece*, which seemed a complete failure.

When it is considered that this bedding ground is surrounded by a wall 8 feet high, it will be understood at once that there is great difficulty in making a successful bedding display, far more than when there are shrubberies and lawns as adjuncts.

In the square of grass behind the two ribbon borders are some fine plants of various choice *Conifers*, about 10 or 12 feet high, such as *Araucaria*, *Cedrus*, *Cupressus*, *Pinus*, &c., which serve greatly to improve the appearance of this portion of the grounds.

Mr. Welsh must feel well repaid by the large amount of success which has attended his labours since undertaking the management of this property, and also by the pleasure which his grand display affords to numerous visitors through the season, and the emulation which he excites in the gardening community to imitate or approach him in success. *Alexander Campbell, Jun., Dublin.*

[The publication of this communication has been unavoidably delayed. Eds.]

Obituary.

In the death of Dr. MACLEAN, of Colchester, horticulture loses one of that small band of practical experimentalists whose labours are so valuable. For many years Dr. MACLEAN practised as a physician in Colchester; but his leisure hours were devoted to

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SMITHFIELD CLUB FAT CATTLE SHOW.

The ANNUAL SHOW of FAT CATTLE, SHEEP, and PIGS, will be held at the AGRICULTURAL HALL, ISLINGTON, on MONDAY afternoon, December 6, and Four following Days. Intending Exhibitors are requested to apply for Certificate Forms by the reference letters as under.

CATTLE.—Form A. For an OX or STEER (in any Class). " B. For a COW or HEIFER (in any Class). " C. For a BEAST in Extra Stock. SHEEP. " D. For a PEN of three WETHERS (in any Class). " E. For a SINGLE SHEEP in Extra Stock. PIGS. " F. For a PEN of three PIGS (in any Class). " G. For a SINGLE PIG in Extra Stock.

ENTRIES for LIVE STOCK CLOSE NOVEMBER 1. Prize Lists, Forms of Certificates, and all information may be obtained on application to Mr. DAVID PULLEN, Assistant Secretary, at the Office of the Honorary Secretary, corner of Half-Moon Street, Piccadilly, London, W.

MEETINGS FOR THE ENSUING WEEK. October 19, 20—Herefordshire Agricultural, at Hereford. 21—Ayrshire, at Kilmarnock.

The Agricultural Gazette.

SATURDAY, OCTOBER 16, 1869.

THIS, upon the whole, has been a pretty fair season for green crops. Turnips, Mangels, Swedes, as a rule, look well; most of them are uncommonly late; nearly all have more top than usual. Many green crops also manifest an unusual tendency to run to seed; this has been especially the case with Sugar-Beet.

The middle of April is time enough to sow the crop. Every day the seed is put in before the 16th increases the risk of runaways. The Lavenham crops this year have been sown from the end of March to the end of April, and with the exception of one crop, which we believe was put in in May, they are all run more or less, and most of them in almost equal proportion.

Deep culture, by providing a well-filled cellar all around and beneath the roots for them to draw upon during drought, must likewise prove useful as a means of preventing "bolting." The irregular feeding of plants—gorging to-day, and starving to-morrow—is one of the surest means of sending them into seed, and such irregularities are much more common on shallow than on deep tilths.

But probably the surest remedy against bolting consists in a careful selection and storage of the seed sown. It is, however, a singular fact, that the seed of last year and of this is the same; it is a year older, and that is all! We can hardly suppose that another 12 months having passed over the seed, could develop the greater energy seedward.

We have often heard aged gardeners say that the older the Cucumber and Melon seed the more freely the plants would bear fruit. If so, old seed of other plants, such as Beet, might readily manifest the same peculiarity. Have our readers observed any unusual tendency to run away in old Mangel seed? We hope some of them may record their experience on this head, as the point is important.

Sugar-Beet from forming a larger top than most of the Mangels, might possibly manifest this seedward tendency, if such exists in plants raised from old seed, in an exaggerated form. Another season or two's experience will set this matter at rest. Most of the growers are saving next year's seed from a careful selection of their best roots; and next year's produce will be the offspring, not only of new seed, but of that grown under their own eyes and garnered by their own hands. It cannot be denied that, although this season common Mangels and early Swedes and Turnips manifest

an unusual elongation of top and tendency to bolt, yet the Sugar-Beet has done so much more than others. The fault, therefore, must either be in the seed, the skies, or the constitution of the plant. It would be folly, as well as directly opposed to many years' experience, to look for it in any constitutional bias, while either the changeable weather or the age or quality of the seed might account for it. The weather alone has been enough to make any susceptible crop take a wrong turn. Biting frosts and burning heats, delugings of cold rain succeeded by the most withering droughts, have succeeded each other in rapid succession, like the combinations in a kaleidoscope. Hence, possibly, the large percentage of runaways. They are probably merely the abnormal products of an exceptional season. Next to the runaways the wireworm and grub have been the greatest foes to the crops. A great many fields are blank; in fact there is scarcely one with a full regular crop. We were told that the seed came up well, but the plants in a young state were attacked by wireworm and ruthlessly destroyed thereby. The best remedy for this scourge was found to be a roll, to crush down the plants, and compress the earth so firmly together as to present a mechanical barrier to the devastations of these pests. It seems doubtful whether the rolling killed the worms or merely shut them in; the point of most moment is, that it is asserted to have saved the crop. In fact, amongst the best growers strong opinions were held in favour of a solid seed-bed and a firm surface for the young plants. A deep, well-worked, richly-manured tilth, and then solid rolling before sowing and after the plants appeared, was the panacea advanced against blanks; and those who had practised it had the most regular plant.

But it must not be inferred that these drawbacks have spoiled the crops. A sweepstakes had been entered upon by the growers for the best crop of three acres, to be judged by Sept. 20, and on that day the crops were examined. Several of the gentlemen, from irregularity of plant, &c., withdrew from the competition; but the crops of most of them were looked at, and five of the best were judged and weighed. It should be noted that the plants are still in full growth, making rapid progress in size and weight. In fact, with fine weather, there is every prospect of another fourth being added to the gross yield within the next month.

Yet on September 20 this year the maximum weight is greater than that reached a month later last year, that is, over 21 tons per acre. Another grower has reached 19 tons, a third 15, a fourth 14½, and a fifth 13½. Had there been a regular plant, the average would have been about 18 or 20 tons per acre.

The common Mangel crop will not greatly exceed this average this season. As a means of comparing the respective weights of the two crops, a portion of one of the best fields of Mangel in the whole district was examined and weighed. It was a model crop of a choice variety of Tankards. The soil was naturally good, and it had had a heavy dressing of farmyard manure. The crop had been skilfully cultivated and scrupulously cleaned. The plant was regular, at distances of 32 inches between the rows, and about 18 inches asunder in the rows. This gave 7 rows to 6 yards in width. The yield was 30 tons gross weight—that is, 24 tons of roots and 6 tons of tops per acre. The following tabular statement will exhibit at a glance the respective weights of each grower, and the difference between the Sugar-Beet and the best crop of Mangel:—

Table with 4 columns: Grower, Gross Weight, Roots Weight, Leaves Weight, Roots per Rod. Rows include Common Mangel-Grown by Mr. Allen, Lavenham; Sugar-Beet-Grown by Mr. Hitchcock, Lavenham; Mr. Robert Edgar, Cuckfield; Mr. G. S. Mumford, Lavenham; Mr. Robert Hawkins, Milden—first field; Ditto—second field; Mr. William Biddell, Lavenham.

Stones per Rod, or Tons per Acre.

The results are given in tons per acre, as a stone per rod may be so stated. By multiplying the number of roots per rod by 160, the number per acre is found. This tabular statement conclusively shows that as much gross weight of Sugar-Beet may be

grown as of Mangel. An excess of top will, however, be noticed. This will probably be corrected to a great extent by a careful selection of seed. It is, however, a lesser evil than may be imagined, as sheep, cows, and bullocks are passionately fond of the tops, and they form a sweet succulent article of food, either neat or cut up with dry chaff. It has been proposed by some to consume the tops with sheep before the roots are harvested, in order that they may be consumed in a clean state. This would, of course, make the harvesting more difficult, though it could hardly injure roots for sugar-making, as it will be remembered that, for this purpose, the crown is dispensed with. Attention will doubtless, however, be directed to the growth of heavier roots and less tops. It will be observed, that the best grower this season has reduced the percentage of top to root considerably below all the others.

Another fact rendered patent by this tabular statement of results, is the light average weight of the roots—the prize Beet only exceeded by a fraction $1\frac{1}{2}$ lb. a-piece; while the others descend gradually down to a pound per root. There is no reason, in the nature of the Sugar-Beet, why 2 or even 3 lb. per root should not be reached. It is in this direction that a maximum weight must be looked for. Mr. ALLEN's weight of Tankards has only to be given to the Sugar-Beet, and his number of roots doubled, and then no crop could for a moment compete for profit with Beet-sugar. Such results seem quite within the range of possibility, for we observed little difference in the size of the Sugar-Beet when, either from accident or design, the roots were placed wide asunder. Most of the growers, for convenience of cleaning, had five rows on the three yards stretch, one or two had six, and one had less than five. The roots in the six rows were equal in size to the five, and the thinner plants were among the lightest seen. Two hundred plants to the rod should be about the average, and these, developed pretty well, would give a splendid return. It is astonishing how irregularity of size and a loss of a few ounces on each root brings down the gross yield. Blanks, again, play havoc with final results. There was not a single field with a uniformly perfect plant. Wireworm and grub must be vigorously fought against and extirpated to enable farmers to make a full return from this new money-maker. These pests seem to enjoy the sweets as much as ourselves, but, of course, what they win we lose, and unfortunately their pound of sweet food may deprive us of tons of roots.

By growing a full plant, economising the leaves, and making beef out of the pulp, there is no doubt but that Sugar-Beet growing will prove profitable to the British farmer and useful to the nation. It puts money into the farmer's pocket, and finds employment for his workmen at a season when both are likely to be scarce.

A SUBJECT of especial agricultural interest at this season of the year, and well worth examination at any time, has been mooted in a recent communication from Mr. C. PAGET, of Ruddington Grange, near Nottingham. The proper depth of drains, more especially in the case of pasture land, has long been a question on which great difference of opinion has existed; and the discussion is one which may be usefully revived just before the winter's drainage works begin. Mr. PAGET on page 1024, and Mr. WILLOUGHBY Wood on page 878, have contended for 3 feet, as being generally a sufficient depth for the drainage of grass-lands; and in both cases instances are described in which this opinion had been amply confirmed by experience. On the other hand, one does not see why, if the use and fertilisation of an additional foot of subsoil by the deeper drain is good for the crops proper to plough-land, it should not be equally serviceable for many of the Grass plants and the Clovers of green fields. In the former case, indeed, we can by deep and thorough tillage let down the surface water almost half way to the deeper drain at once. but, in the long run, old grass-lands whose subsoil it is not possible to stir, will let the rain-water percolate throughout their subsoil to a pipe laid 4 feet deep, and, that being proved by the activity of 4-foot draining soon after rainfall, it is hard to doubt that the crops of Grass sown on land thus fertilised must be better than those which are fed from a shallower, and therefore less abundant, store of food. We

have also the experience of many drainage engineers, which can be quoted to the effect that whatever may be the immediate result upon grass-lands, the deeper draining ultimately tells to the advantage of the crops they yield, just as it does upon the produce of the Wheat and roots and Clover crops of arable farming. On the whole, therefore, we believe it is a fortunate thing that the Enclosure Commissioners stand committed to the general adoption of the deeper drain, alike on grass-lands and on plough-lands. We shall be glad, however, to hear from any correspondent on this subject any statement of experience on which his own opinion may be founded.

— THE price of Wheat lowered from 1s. to 2s. a quarter at Mark Lane on Monday, and trade has been dull throughout the country at that decline. Other grain and feeding stuff have been without much alteration.—The live stock and meat trades have again been in an active state for fine qualities, 5s. 6d. being the highest quotation for beef, and 5s. 11d. for mutton.—The agricultural seed trade is still nominal in amount.—English wool is in better demand, but dearer.

— At the Educational Congress held during the past week at Birmingham, Mr. PAGET, of Ruddington Grange, Nottingham, thus referred to his experience on half-time labour for boys upon the farm:—"He had been alluded to as an employer of agricultural labour who had for many years insisted upon the education of his farm boys, that they should spend some days in the schools as well as at work, and what was the result of that system? In the first place it had been in operation 16 years; and, although the experience of one farmer could not cover a great extent of ground, the results had been so uniformly alike, and so successful, that he had no hesitation in saying the system was a decided success. Upon his farm he had 34 boys employed, upon the condition that they spent the alternate days of the week in school. He had done this without any sacrifice on his own part, because he felt at the outset that it must be a business success; and it had proved, commercially speaking, successful. He had, too, been better served under the system than before its introduction. His system was this:—He received the boys at nine years of age, on condition that they were able to read decently, and at the annual examination of his school it was proved that his boys fully maintained their own with the boys of those persons who sent their children to school in the regular way. At 13 they were examined, and those who could write accurately from dictation, read correctly, and do the first four rules in arithmetic received from him a prize. He had written to the employers of some of the children who had been taught under his system, and the uniform reply of the masters was that they were perfectly satisfied with their servants, and the servants themselves had written to him letters of the most creditable kind. That was a proof that after leaving his farm they continued their education. After they left his farm they had no difficulty whatever in obtaining situations, because they were better servants than the majority of their class. To obtain admission to his farm, the children of the locality attended the village school to learn to read, a proof that in education they saw promotion in the distance. As to the general question of how far education should be compulsory, he had contended for many years, while member for Nottingham, that as society was bound to provide for the poor and criminal classes it was bound to see that the poor were brought up in such a manner that there should be the least probability of their becoming paupers or criminals."

— A very important and urgent question is mooted by an "Inquirer" in the following note—Being resident in a neighbourhood where straw costs 70s. per ton, I desire to elicit from any of your readers a method whereby one can obtain a substitute for straw, either by the use of boarded floors, sawdust, or any other means to save expense. I have heard that in the large cowhouses in London, coir-mats are sometimes used—are they efficient? Would they answer for horses as well as cows? Any information would be thankfully received. I remember reading of a farm where sand was used for animals to lie on—has experience shown that system to answer? To all which questions we direct the attention of our correspondents.

— A police report of Tuesday last throws some light on the London milk manufacture. A dairyman and cowkeeper, of Green Lanes, Stoke Newington, employed a cowman and his wife, who resided in a cottage near the sheds, where he keeps about 60 cows. These people have been charged before the Clerkenwell magistrates with stealing milk. At their cottage the prosecutor retains milk, which it was the prisoner's duty to sell, receive the money, and hand it over to the prosecutor's clerk. The male prisoner had left for a week's holiday, and the prosecutor having made certain discoveries, went to the cottage, and, on measuring the milk for sale, found 12 quarts, being 5 quarts more than had been supplied that day from the house. In the 12 quarts that he took there were only 7 quarts of milk, the rest had been made up with water. On cross-examination he declared that he never added cochineal, salt, or other deleterious matter to the milk he sold. He never adulterated his milk. The male prisoner held up a large bottle containing a nasty-looking brownish liquid, and said that was what was put into the milk to make it look rich. Ultimately Mr. BARKER committed the prisoners to the Middlesex Sessions for trial, when possibly further details may be forthcoming.

— At the Great Braxted meeting, last week, Rev. J. BRANSTON, vicar of Witham, called attention of the employers of agricultural labour to the need of conciliating and retaining the labouring men on their farms. Employed during the sunny days of the year, they are not certain of employment the whole year round, and so they look for other employment. They go to a town or turing district, or to some railway, and find employment where they shall be sure of work the whole of the winter; and in consequence they are lost to the farming interest, as it having once tasted the sweets of higher wages they received at home, they never return to employment. This is one cause why labour is becoming more and more scarce, and will prove a detriment to the employers, unless they look to it well, and see to their young men a remedy suggested by Mr. BRANSTON—the maintenance of friendly personal relations with the lads of the farm—will no doubt exert some influence of the kind he anticipates; but the idea that they are to be thus kept in ignorance of the higher wages is ludicrous. The competition for employments for the services of the labourer is not to be deprecated as unwholesome or unbecoming by any class of employers. Let every master, according to work, and boys and young men have no ground for dissatisfaction. Provisions would do more than all the petting world to satisfy young men. (This, with that personal consideration which is always due to "bours," whether they be masters or men, and they be young or old, would go farther to retaining lads upon the farm than any special course a particular end in view.

— The reviewer of the new number of the Agricultural Society's Journal in our columns some weeks ago, to its statement that the award of the Society of Arts' prize to Mr GIBBS, for his drying damp agricultural produce, implied that the judges, who had been unanimous in their verdict, thereby necessarily sanctioned and affirmed the principle of Mr. GIBBS' invention. Mr. DENTON has taken exception to this statement, (p. 1048) that the decision must be considered an award, as he had stated it to be, not indeed a machine described in the essay, but for the purpose on which it was founded. The terms in which the offer of the prize was announced should terminate discussion. The gold medal of the Society and a sum of 50 guineas were offered "for the best essay on harvesting of corn in wet seasons."

The first part of such an essay—after noticing the systems at present adopted in damp climates for counteracting the effects of moisture upon corn in the field, and avoiding such exposure in wet seasons by peculiar harvesting processes—should furnish a practical and analytical exposition of the best available means.

- "1. Whereby cut corn may be protected from rain in the field.
- "2. Whereby standing corn may be dried in wet seasons, and thereby be fit for use by actual process.
- "3. Whereby cut corn may be dried, or may be ventilated, but air, or other methods, with a view to its being fit for the store, both in the ear and after threshing.
- "4. Whereby cut, sprouted, or otherwise injured corn, wet, may be best treated for grinding or for other purposes.

The whole to be supplemented by a statement of the results, and actual cost of each system described, authenticated estimates of any process proposed for adoption based upon existing but incomplete experiments. The above requisitions are given suggestively; and the writer to the editor or to the treatment of the subject, provided it be kept within the scope of the rules, and within the limits of the prize, may be as liberal as he thinks fit. It is probable, as a matter of fact, that the gentlemen who undertook the award of the prize "the best essay" as aforesaid, may have seen approved of the principle involved in Mr. GIBBS' invention, and even of the actual machine which he described in his essay, but we have the best reason for believing that neither the principle involved nor the machine described was made the subject of discussion by them. They probably concluded that their duty was performed when they had carefully considered the relative merits of the essays before them, and certify that the one which they had selected "furnish a practical and analytical exposition of the best available means, &c." And we do not think the award need have been dissented from by any even though the machine, one of many means described, had not commended itself to their judgment as upon a good or satisfactory principle. In any case, if the judges, if they had been canvassed on the machine was sound, but the Society of Arts' award, we think, committed by their judges to that assertion.

— The Rev. F. O. MORRIS writes to the editor of the Agricultural Labourer in regard to a remark of Mr. WARD at the Berkshire agricultural meeting—"All I can say is that a labouring man with tolerable prudence enjoys good health, may enjoy life a good deal more than the hard-working mechanics in our towns." He says—
"I was sitting yesterday in one of our cottages when I saw the wife of our largest farmer, who lives a mile and a half from here, at the top of our hill, the highest ground, I believe, in the East Riding of Yorkshire. He farms about 200 acres of land, which is not large compared with some of the West farms. I went out to speak to her for a moment, but it ended in a talk, chiefly about a late farm servant of theirs, who had buried about ten days before, and whom I had attended for the last seven days of his illness, which only a fortnight from the day he was first taken ill, and a day of his funeral. I had some further conversation afterwards, when she came down to decorate the coffin."

meeting, but... ham, called... natural labour... during the... not certain... so they look... a town or... way, and by... e sure of w... in consequ... interest, as i... of higher r... ever return... use why... and will... employers, w... of young... N-STON—the... with the... exert some... the idea... of the labour... of the labour... some or wh... every master... and young... ion. Piece... the peckin... always due... or men, and... arther to re... special cond...

The Yorkshire agricultural labourer is no doubt better off than the labourer in Devonshire, and that is the very fact on which, no doubt, Canon GIRDLESTONE relies as the explanation and justification of his efforts. In two instances lately tenant-farmers have been punished—the sentence on one, a man of wealth and position, near Trug, Hertfordshire, having been three months' imprisonment with hard labour—for cruelty to their cattle. The prosecution in the latter case was instituted by the Society for Preventing Cruelty to Animals. Horses on the farm of Mr. GINGER, of Boxted, Hemel Hempstead, having long been in a state of great suffering and utterly unfit for work, and the evidence proving that Mr. GINGER knew of their state, and that they were worked by his authority, he was sentenced to be imprisoned for three months, with hard labour, in the House of Correction at Hertford. In passing this sentence the Chairman remarked that it would be a farce to impose a fine in such a case upon a man who farmed 500 acres of land, and had private property besides. ROBERT SHARPE, Mr. GINGER's foreman, was sentenced to be imprisoned for six weeks, and the ploughmen who were with the horses were fined 11s. each, including costs. It should be stated that Mr. GINGER and his foreman had been previously convicted, and fined for a similar offence.

Leases, and their advantages to both landlords and tenants, were recently treated of in the following conclusive and encouraging manner by Lord PORTSMOUTH:— "Since 1822 the experiment of 31 years' leases, with free liberty to the tenant, and practically vesting all buildings in the tenant, has been tried on my estates in the county of Wexford, and has proved highly successful. Badly cultivated patches of land, with wretched houses on them, have been changed into well-cultivated farms, with first-rate homesteads. The rental has been more than doubled, is punctually paid instead of irregularly paid. Discontent and misery exist no longer. With such results, are not landlords blind to their own interests who refuse to their tenants the common justice of leases with equitable conditions? By what law of right can buildings which a tenant built and paid for belong to his landlord? If it be decided on a final day, simple justice—which as the rule in the land law for English tenant-farmers have received from the Statute of 1831—will work a vast and beneficial revolution in the rural districts of Ireland."

OUR LIVE STOCK.

WE beg to remind our readers of Mr. Fowler's sale next Tuesday. The Prebendal Farms are within a very short distance of the Great Western and London and North-Western railway stations at Aylesbury. A review of the catalogue of this herd will be found in our issue of last week.

Mr. Duckham's first periodical sale of pure-bred Hereford cattle will take place next Thursday, when 100 head of first-class stock from the herds of many of the best known breeders will be offered. The sale will be held in the showyard at Hereford, the day after the county Agricultural Meeting.

Mr. Thornton will sell the entire herd of Short-horn belonging to Henry Emson, Esq., of West Ravendale, near Grimsby, on Wednesday, 20th inst. We are informed in the preface of the catalogue that "this is one of those old-fashioned herds for which the county of Lincoln has long been celebrated." Sires from Messrs. Torr, Dudding, Lawrie, and Cartwright having been used, which is a good guarantee of purity of blood. The pedigrees, however, are very short, usually registering two or three crosses of pure blood only. We do not include *Fannal* in this statement, a well-bred young bull (lot 73), from Aylesbury, by Lord BULLOCK (22126), and of the *Flower* tribe. Mr. Thornton speaks of the cattle as very uniform in character, and recommends them as "admirably adapted for the foundation of a future herd."

The Aylmham Hall sale came off on Tuesday, the 5th inst. The respectable average of 301 15s. 3d. was realised over the whole of the 27 animals offered, while the cows and heifers brought 32l. 1s. 5d. each. The highest prices were given for the four females of the *Cressida* tribe, a most excellent strain, as we pointed out last week. The first of these, *Andromache*, became the property of Mr. J. P. Foster, at 60 gs.;

Cressida 6th was bought for 62 gs. by Mr. Jefferson; *Maece*, by PARIS (20,409), and a daughter of *Andromache*, was sold to Mr. W. Ashbourne for 28 gs.; while *Maria*, by GRAND DUKE 10TH, and also a daughter of *Andromache*, became the property of Mr. Foster at 40 gs., and goes with her mother to Kalthow. The highest figure for bulls, 37 gs., was given by Mr. Carard, for *MACAR*, also of the *Cressida* tribe. *Lalida*, by CAMBRIDGE BARRINGTON 1ST, proved the ancestress of some of the highest priced stock, her daughters *Leona* and *Leda* making respectively 32 and 38 gs., and her grand-daughters, *Godtha* and *Libya*, 39 gs. each. *Irz*, by CERDIC, and of the *Winifred* family, was sold for 39 gs., and *Juanta*, a six-months-old calf of the same strain, was bought for 21 gs. by Mr. J. Bowness. The remainder of the herd brought little over ordinary prices for cattle of similar age.

A month ago we gave some account of the late Mr. Benjamin Wilson's stock at Brawith, near Thirsk, in Yorkshire. The herd consisted of four families, two of which, the *Vesta* and *Certainty* strains, were long bred at Brawith. *Miss Milward* is of a good sort, bred by Earl Cathcart, and several animals are descended from the stock of Sir R. Crompton, Wood End. The sale of this herd took place on Friday, the 5th inst., the Messrs. Wetherell, of Richmond, acting as auctioneers. A large local company assembled, and although no extraordinary prices were given, the good average of 23l. 6s. 9d. was obtained over 24 animals disposed of. The three heifers of the *Certainty* tribe brought an average of 38l. 6s. 8d. each. The first of these, *Beauty of Brawith*, by YOUNG EMPEROR, was bought by Mr. Atkinson for 28 gs. *Certainty 12th*, by EARL OF BRAWITH, of the same strain, and out of *Beauty of Brawith*, became Mr. Metcalfe's property for 56 gs.; and *Certainty 13th*, full sister to the last-named lot, was secured by Mr. David Neasham for 25 gs. Among other fair prices may be mentioned 33 gs. for *Vesta 2d*, a 9-year-old cow, the oldest representative of the *Vesta* tribe, and now the property of Mr. Mason, of Skelton. *Venus*, by EARL OF BRAWITH, was purchased by Mr. Swaine for 34 gs.; and *Vesta 5th*, by the same sire, was knocked down to Mr. Barby for 35 gs.

One of the largest and most important Short-horn sales of the present season took place at Shouldham Thorpe, Downham Market, on Wednesday, the 6th inst., when the Messrs. Wetherell, of Richmond, disposed of 14 cows and heifers and 6 bulls, bred by and the property of Mr. Gamble. On the 18th ult. we gave some account of the origin of this herd, and mentioned particularly several members of the Brawith *Certainty* tribe, and of the famous *Telluria* sorts. Mr. Gamble may be congratulated upon the result of his sale, as the 50 animals offered brought the famous average of 19l. 2s. 4d. each: the female portion, comprising 14 head, averaged 47l. 11s. 7d., and the 6 bulls brought 17l. 19s. 6d. each. Mr. Aylmer secured the 11-year-old cow *Charme*, by GOLDFINDER, bred by Mr. Benjamin Wilson, for 25 gs., and this was looked upon as a good beginning. Lot 1, *Fairwater*, by PLATO (18,552), was bought by Mr. Micklethwaite for 70 gs.; and Mr. John Aylmer took the next lot, *Fame*, by 3D DUKE OF THORNDALE, and of the *Telluria* family, at 60 gs. Next came a daughter of *Fairwater* (lot 4), a nice roan heifer, which was purchased by Mr. Durrant for 73 gs. *Friendly* (lot 7), half-sister of lot 4, was bought by Mr. Micklethwaite for 60 gs. Mr. Barclay, who could not leave *Pearl*, by THE SKIFFER, finally bought her for 90 gs., and the same spirited breeder bought *Charafel*, by FELIX, of the *Certainty* tribe, for 100 gs. Another *Certainty* heifer, *Conquest*, by ZEALOT, was purchased by Mr. Micklethwaite for 56 gs., and the same gentleman secured *Flawless*, a daughter of ZEALOT and *Fairwater*, for 60 gs., and ZEALOT (20,480), the sire already mentioned, for 53 gs. We have not space to give a full list of the prices obtained at this remarkable sale; but we may mention that the eight numbers of the *Certainty* family brought on an average 47l. 12s. 9d. each, that the 18 representatives of the *Zinc* and *Zeal* tribes made 42l. 17s.; and that the 17 descendants of *Fuchsia*, by THE CAPTAIN, made 43l. 12s. each.

The prize list of the Staffordshire Agricultural Society, at their recent meeting at Burton-on-Trent, as published in p. 1049, contains an error, which, though not likely to mislead, ought to be corrected. The "William Wood" to whom the 1st prizes in the classes for yearling bulls and bull calves, and the 2d prize for yearling heifers, were awarded, is, of course, Mr. Willoughby Wood, of Holly Bank, Burton-on-Trent.

SMITHFIELD CLUB FAT CATTLE SHOW.

I BELIEVE no one can fail of seeing that the rules and regulations as respects exhibitors at the Smithfield Club Cattle Show at Islington are increasing in number and complexity year after year. In fact, in a short time the committee will require a pamphlet to embody their endless regulations; however, if it pleases these gentlemen, perhaps the exhibitors have no particular objection as long as the regulations (however numerous) are of an innocent character, but this year the committee have introduced what I am sure will be considered a very whimsical idea, I should almost be tempted to believe it is a little bit of fun on their part, did I not feel assured that such steady men as the committee of the Smithfield Club never could condescend to be playful.

In the printed document that is forwarded to intending exhibitors with the form of application for space, I find in the second column the following queer announcement:—"It is contemplated that in the year 1870 all the signboards shall be uniform in size, colour, and lettering;" and they kindly add, "This notice is given for the information of exhibitors, so as to prevent their unnecessarily ordering new signs, which may not come within the regulation." Good gracious, sir! are

all our present signboards to be thrown overboard? Is this levelling up or levelling down? The latter it must surely be, for how could A, B, with a 4-foot frontage have a signboard as long as C, D with his 20 yards of space? Let us put it clearer. We know that Messrs. Gibbs and some of the other large seed growers have a space of about 50 or 60 feet frontage. Now, I want to know how their signboard can be reduced, or whether they will be willing to have a signboard of the same size, for example, of that of Mr. Free, the cattle quage man, whose stand is about 4 or 5 feet frontage. You see the less must govern the greater, for how could a 4 or 5-foot space man contrive to put up a signboard of the length of Messrs. Gibbs' 60-foot signboard? You well know the signboards generally run the whole length of the space each exhibitor occupies, the 60-foot space man, or even a 20-foot exhibitor, would be compelled to have a zigzag, roundabout, up-and-down or spiral line, if his avocation is to be compressed into a board 4 or 6 feet long only.

But leaving the size of the signboards, let us speak of the insisting on all the signs being the same colour. What tint it is to be they do not say (rose-pink I stick to); and all the same lettering—Old English, German text, Roman, Italic—none is named; this is left, I suppose, for another committee meeting. That which they have already announced may be considered sufficient information for our little minds to take in for a time; we shall be enlightened further in the course. Only imagine the state of anxiety Mr. Thorley would have been in had such an idea occurred in his day! I recollect at Battersen he had a splendid signboard, the king of placards it might have been called. It was about the size of the side of a small house (though it did not exceed the space he paid for). This board, if I recollect rightly, had a bull or two in one corner, a lot of sheep in another, a true Suffolk Punch and colt in the third, and some beautiful fat pigs and poultry in the fourth corner; the whole board was emblazoned with splendid gold letters. Why, sir, that signboard alone drew a crowd of people round it, the country fellows and town folk stood gazing at it all day long. The very look at it, even without swallowing any of the celebrated spice, made the sightseers sleek upon the spot.

It is really melancholy to think that in 1870 all our present signboards will be disestablished, and woe to the painters and writers of that period—all private judgment and taste will be obliterated from the Agricultural Hall. If the regulation should be carried out, what a miserably dull place the Hall would be. Variety is pleasing—it matters not what colour the committee adopt—pea-green, drab, sky-blue, yellow, black and tan, mauve, or brickdust. If all the boards are to be the same, our eyes will sicken at the sight, ladies and gentlemen of the slightest artistic taste will flee from us. Surely some deep plot must underlie this contemplated regulation. Some poor painter—perhaps a relative has to be provided for, he is to be the appointed agent to whom we are all to go, when we ask the momentous questions—What size? What colour? What lettering is our signboard to be? In fact, there is really no time to be lost; two or three hundred new signboards cannot be manufactured in a day.

Now, if this new regulation is really to come into operation in 1870, the committee will be bound not to stop at mere signboards. The next order will be, that all the exhibitors are to dress alike, and all the men to be of the same size. A quage will have to be put up; we shall have to be weighed, perhaps. If 5 feet 10 inches is to be the height, I am a doomed man, and even though height be not insisted on, yet I never look well in green. And should there be no restrictions about the cattle? Should not they also be the same size, colour, &c.? though for the matter of tint, the bullocks could easily be painted. If white is the order of the day, what a commotion would be raised should it be discovered that the prize pig had some black on his ear or tail! Now, though some of your readers may say this is all a joke, yet, believe me, it really is no fun, when the order, or rule, or regulation is there to be seen in black and white. Pray think over the matter, and favour the numerous exhibitors with your views on this subject. True Blue.

RECENT ANALYSES.

THE sample sent herewith, marked No. 5, is a German phosphate, with an appearance remarkably like solidified guano. Dr. Benjamin H. Paul's report upon it is follows:—"I have examined the sample of guano, or mineral phosphate, sent to me by Mr. E. O. Greening, and find that it contains 69 per cent of insoluble phosphate of lime, but neither ammonia nor organic substance."

In North Germany and France these phosphates are generally applied as manure after simple crushing, without manufacture into superphosphate. The French and German farmers have great faith in this plan, and a member of our governing Council who has tried the experiment upon a small farm this year reports satisfactory results. I ought, however, to add that Professor Voelcker, in one of his reports, does not express approval of the plan, but otherwise; and it is for English agriculturists to decide how far the common practice of France and Germany renders the experiment worth further trial in this country in the face of this adverse scientific opinion. As compared with English coprolites, the German phosphate I send you is very cheap. I am told it can be extracted, washed, and crushed at a cost, including royalty and all expenses, of 30s. per ton, and that the selling price in Prussia is about as follows:—

- 45 per cent. of soluble, 20s. per ton.
- 50 per cent. of soluble, 25s. per ton.
- 55 per cent. of soluble, 30s. per ton.
- 60 per cent. of soluble, 40s. per ton.
- 65 per cent. of soluble, 45s. per ton.

There are, it is said, millions of tons awaiting extra-

tion, and one enterprising English firm has already established works upon the spot, utilising the cheap labour of the country and sending superphosphates to England at a good profit to themselves. For purposes of comparison I quote the present prices of English coprolites. Whole Cambridge coprolites, as raised, containing 57 to 60 per cent. phosphate, are worth about 52s. 6d. to 55s. per ton, and if ground, about 65s. per ton. Brown Cambridge coprolites, containing 47 to 50 per cent. of phosphate, are worth about 35s. per ton, and if ground, about 45s. to 47s. 6d. Suffolk coprolites, containing 53 to 55 per cent. of phosphates, are worth 45s. whole, and about 52s. 6d. ground, per ton. It is very evident from these figures that the German agriculturists have a considerable advantage over British farmers in the cost of phosphatic manures.

Sample No. 6 is the celebrated Driffield Company's pure cake. Dr. Paul's recent analysis of it is as follows:—

Oil	9.95
*Albuminous compounds	32.63
Mucilage, &c.	33.18
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Total of feeding parts	75.77
Moisture	10.32
Woody fibre	7.77
Ash	6.14

100.00
*Nitrogen, per cent. 5.02

The company are now charging 11l. 10s. per ton for their cake at the works, making a small allowance to the trade and to co-operative associations like our own.

Sample No. 7 is "pure" English linseed-cake, made for us under contract at a present cost of 10l. 10s. per ton. Its analysis by Dr. Paul is as follows:—

Oil	10.82
*Albuminous compounds	31.46
Mucilage, &c.	36.64
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Total of feeding parts	78.92
Moisture	19.19
Woody fibre	4.11
Ash	6.78

100.00
*Nitrogen, per cent. 4.84

We sell this cake to our members at 11l. 5s. per ton present price, and as our working expenses absorb about one-half the gross profits, there is the return of the other half to be reckoned as a deduction from the cost.

Sample No. 8 is a Liverpool-made pure cake, standing very high in the locality, and well spoken of by practical farmers.

As will be seen by Dr. Paul's analysis, it does not compare in percentage of nitrogen with the "Driffield," or the Association's oilcake, and is somewhat high in woody fibre and mineral matter. This illustrates the necessity of testing by analysis even the best oilcakes, to know their comparative money value in purchasing:

ANALYSIS OF LIVERPOOL PURE CAKE.

Oil	10.04
*Albuminous compounds	24.25
Mucilage, &c.	35.75
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Total of feeding parts	70.04
Moisture	16.45
Woody fibre	5.77
Ash	7.70

100.00
*Nitrogen per cent. 3.73

Edward Owen Greening, Managing Director, Agricultural and Horticultural Co-operative Association, 29, Parliament Street, Westminster.—P.S. Since the above letter was written there has been an advance in the price of English cakes of 5s. to 10s. per ton, and in American cakes of about 7s. 6d. I may add, for the information of your readers, that the Peruvian Government have just advanced the price of guano another 10s. per ton. As the higher the value, the greater the temptation to adulterate, farmers cannot now be too careful in giving their orders for guano.

THE PLACE OF PEDIGREE IN AN ESTIMATE OF LIVE STOCK.

On the Necessity of Furnishing Judges at Shows with Pedigrees.—It is sometimes asked what is the value of pedigree if it does not produce animals probably superior to those which are less well bred? In answer to this it may be replied that, as a rule, the most highly bred animals are intrinsically the best. But the tokens of this superiority are sometimes so minute as to escape the notice of all except the most practical and accurate of observers. Two yearling heifers, for example, may resemble each other so closely in form and size that it would be difficult to give precedence to either, unless the hand, coming to the assistance of the eye, was able to detect a softness of touch (certain indication of high breeding) in the one which was wanting in the other. Or, if there is a difference of form, it may be in some part which may appear insignificant to those who are solely guided by considerations of marketable value; as, for example, a well-shaped head, with tapering muzzle, and a mild prominent eye. And yet so important were the indications of the head held by no less a judge than Mr. Bates, that he was accustomed to say (with exaggeration of course) that he would buy a bull by seeing his head looking out of a window. It is probable that some persons may regard these minutiae of touch, shape of the head, &c., as mere matters of fancy, devoid of practical importance. I warn any breeder who buys a bull whose touch is deficient in mellowness, whose head is coarse, and whose eyes are small and sunken, that he will have to exercise abundant patience before the stock of that animal are ready for market. Surely the time which bullocks take to feed, and the amount they consume before they become fat, are no matters of fancy, but of

pounds, shillings, and pence, of profit or of loss. It is fortunate that observations have been made which place the effects of even a remote cross beyond dispute. "The most remarkable statement which I have met with," says Mr. Darwin, "of the persistent endurance of a single cross is given by Fleischman, who, in reference to German sheep, says that the original coarse sheep have 5500 fibres of wool on a square inch; grades of the third or fourth Merino cross produced about 8000, the twentieth cross 27,000, the perfect pure Merino blood 40,000 to 48,000. So that in this case common German sheep crossed 20 times successively with Merinos, have not by any means acquired wool as fine as that of the pure breed." Admitting with Mr. Darwin that the above is an extreme instance, and to be accounted for by peculiar circumstances, we have here positive proof of the necessity for pedigree in forming a correct conclusion of the value of breeding stock. We can well imagine, supposing the cross-bred and pure Merino sheep in question had been exhibited, that if an ordinary farmer had been the judge, he would have given the prize to the sheep with the 20 Merino descents, instead of to the pure Merino, in case the former had been larger or fatter than the latter. But a reference to their respective pedigrees would have reversed the decision, as far as their value for breeding was concerned.

To apply the foregoing reasoning to Shorthorns, I can conceive it quite possible to produce a bull with only three or four descents of pure blood, and whose g.g.g. dam was either a cross-bred cow or a Highlander, should be equal in outward appearance to one of the largest and purest Herd Book descent. To withhold from the judges their respective pedigrees, would in this case be to incur the risk of placing the g.g.g. son of a mongrel before the descendants of Bates' Duchess or Booth's Bracelet family. At county shows especially, it is a matter of everyday occurrence for animals of inferior pedigree to win prizes over the heads of those better bred than themselves. I would expressly guard against its being supposed that I advocate giving a prize to an intrinsically inferior animal on account of his pedigree. All I desire is that this should be taken into account, in weighing his claims to that distinction. And I believe that the admission of the evidence of descent would not unfrequently (especially at provincial shows) have the effect of calling the attention of the judges to the merits of animals which they might otherwise have overlooked.

It is difficult to overrate the importance of sound decisions at our agricultural meetings. When a prize is given to an underbred animal, simply because his condition has been made up regardless of expense, it is equivalent to giving a fictitious value to his blood, while better bred animals are placed below their rightful position. Whenever showy mediocrity is thus held up to public admiration, while the claims of pure blood are ignored, the effect is to put those who desire to improve their stock upon a false scent, and to convert what ought to be a valuable lesson into a delusion all the more mischievous because it is backed by authority. But, until authentic evidence of pedigree is placed before the judges, it is difficult for them always to do strict justice. *Willoughby Wood, Holly Bank, Burton-on-Trent.*

Home Correspondence.

The Potato Disease has come at last, with more than its usual virulence. About five weeks ago black specks fell down upon the haulm; they looked like round blemishes that might have been made by hailstones. These round dots gradually expanded into black rings of rotteness, giving forth the unmistakable smell of the Potato plague. The gangrene then run down the stems, and now almost every tuber is unsound. My practice for years has been to grow chiefly early Potatoes, and take them all up and store them in earth before or immediately after a speck of disease appears. The Potatoes will thus keep sound, but once the virus has gangrened the stems many of the tubers will rot though taken up apparently sound. The seeds of the malady has reached them, and it bears fruit into rotteness afterwards. Till the middle of September I do not think there was one unsound tuber to be found. But one short month, and there is scarcely a sound one. Potatoes do not keep well if taken up green and stored in the usual manner, but stored in earth, they keep sweet and sound, tasting, when used, like fresh-raised Potatoes. But it is difficult to impress the importance of early harvesting of Potatoes on farmers and labourers generally. It seems they would rather lose the crop than lift them before Michaelmas; and I am sorry to say that many of them will lose almost the entire bulk this season. It will be a sad loss to the poor, and it is all the worse to bear from the fact that it might have been prevented. I have no panacea to offer against the disease; but by early planting and early harvesting we may have our crops safely stored before it comes. By having the crops in the ground we only invite the disease down the useless stems to the sound tubers; and the result is rotteness and destruction of thousands of tons of the best Potatoes. *D. T. Fish, Bury St. Edmund's.*

The Potato Crop of 1869.—I cannot allow the letter of your correspondent (Mr. Paterson, of Dundee), in regard to this crop, to pass unchallenged. He says, in your last week's issue, that "It is the opinion of practical men that the crop of 1869 will be the heaviest crop, and the best quality, that we have had for years." Now, with all deference to his opinion, I must, as a practical man and a grower of Potatoes, take exception to this statement, for unfortunately, in this neighbourhood, where there are many thousands of acres grown

this year, the crop is, to say the least, anything but heavy one; and, as for the quality, all the farmers in the district complain that they have many—some say, that others a third, and some unhappy few on doing it, already diseased, and probably many more will be so for market if kept any length of time in the ground. Doubtless your correspondent has reliable information with regard to the district from which he writes for me. I must protest against his *ipse dixit* being taken as conclusive evidence of the state of the entire potato crop of the present year. *A Subscriber, Bury St. Edmund's, October 11.*

Steam Cultivation; the Peterborough trials in connection with this subject there appeared in the last impression a lengthy exposition of the only patent Mr. Toepffer, of the North Lincolnshire Ploughing Co., and we commend the temperance and fairness in which he treats the subject; but we feel that it ought not to allow some of his statements to go unchallenged. Your readers will remember that we have on several occasions, and no one can have forgotten our thorough belief he has in the superiority of the economy as the only profitable and practicable method of cultivating land by steam power; but nearly at the close of his lengthy letter is devoted to the disparaging of the "roundabout" system as originated by the late Mr. Woolston, and to Mr. Campaign's new system in particular. We feel bound, therefore, as the author of that patent, to offer some remarks in its defence. Mr. Toepffer candidly admits that the anchors used well at the trials, and that the two men who were saved were not required and were actually saved with; and this establishes all that the patentee claims. And yet while thus acknowledging that two men are positively saved by their use, he goes on to state that the "roundabout" system is still in vogue in the state, and that most attempts to improve it have failed to its complication, without any real advantage. "Also, that while the anchors are well on the Peterborough soil, they would prove on very light sand or upon rocky soils," and these are conditions so strange and so exceptional, that no practical farmer will heed them for a moment. Facts are stubborn things, and we are prepared to state that Mr. Campaign has, during 1868 and 1869, saved over 500 acres with the aid of his patent anchors upon his own premises, with a working staff of three men and two boys, and without any other machinery; the anchors have never once failed to hold, upon land varying from light fen to strong clay. Again, Mr. Toepffer suggests that in fields with irregular boundaries the anchors may be used to require help to move them on; but here he is wrong as upon one of Mr. Campaign's farms there is a straight headland, and yet the difficulty he invented never occurred. We hope to convince Mr. Toepffer that his theory is beaten by practical results; and that there are other points in his arguments that may readily be dispersed if he will pay Mr. Campaign a friendly visit, and see the tackle working upon his own farm. *Bayer's letter now has run to a considerable length, and would only further remark that we appreciate the advantages of the double engine system, than ourselves, and it is clearly the only one that will develop the letting-out system which Mr. Toepffer so ably advocates; but he is, in our opinion, decidedly wrong in supposing that it will meet the wants of thousands of British farmers, who (in the great majority especially) want their work done at the same time and it is well known that there are many who have the ability, the means, and the desire too, to do their work within themselves, and thus utilise the steam power already in their possession. And there is abundant proof that this is being accomplished at a small cost, and both profitably and well. *Amies, Barford, Peterborough, Oct. 14.**

Cost of Steam Cultivation.—So Mr. Toepffer's article turned up from the Peterborough trials, and after a friendly talk, and then some running down of the roundabout tackle, as well as puffing up the double engine sets upon the contract plan, he winds up with some advice to the agriculturists desiring to obtain correct information as to their farms cheap steam cultivation is this:—"If you have three, or four neighbours, according to the size of his farms, should join and buy a steam-cultivator, or a number of at least 20-horse power with double engine (the more the better), or to encourage some industrious working man in the neighbourhood to assist you in purchasing one, or to encourage some one of the most powerful descriptions, to let it out to you in their locality." Now, this is blind advice, and a farmer who is to use this tackle is not to be told that he is to pay per acre for its use, neither does Mr. Toepffer tell these men who are to find the money, that they are to get as well as pay for its use, yet he leads to the conclusion that an industrious working man may be found in their parish who has a knowledge of the machinery. Let him do as I do—give quantities of manure, and particulars—and we shall be getting on very well in the matter, without which his statement is of no value. His costs (this year) per acre stand thus:—Manure, 10s. 6d.; men, coal, water, and oil, 3s. 2d.; interest on machinery and tear, 1s. 6d.; total, 1s. 8d.; then add 1s. for scuffling with horses, this brings my total cost of the bed for Wheat up to 6s. 8d. Ridging and sowing—a man, coal, water, and oil, 5s. 1d.; interest on machinery, 1s. 6d.; total, 6s. 7d.—the actual cost of a set for roots or Beans. That is the stuff that Mr. Toepffer should get to guide the more ignorant farmer. Yes; and it is stuff that will make the horse farmer look hard at, and say, "I may, for it is a fact that I can stand by." I occupy my 109 acres of work just done to be looked upon by the horse farmer cannot equal at any cost, and Mr. Toepffer can do with his latest improved double engine set. The last evidence that we have of this point is from Mr. Charles Bates. He told

* Variation of Animals and Plants, Vol. II., p. 88.

all the farmers... that he paid 15s an acre for the engines; that they used four horses to fetch water at a cost of 40s. With such figures as these before us it is no wonder that Mr. Toepffer to talk of "economy," and now he is taking upon that point he does not talk for he must have two engine-men to a set of his machinery, and the wide cultivator that he talks of is a thoroughbred Smith, the one I found and used at Leicester Show, without which he cannot do his wide work at all. Let him give over talking of what he can do, and instead tell us what he does do. He ought to be in a position, as the manager of a large agricultural company, to give us the work done with a set of implements, with all the particulars. That is the only way to get a fair estimate. We do not want his empty statements. In doing my 100 acres we consumed 8 tons of coal, or an average of 1 cwt. 2 qrs. 17 lb per acre. That tells you that we did not need four horses to fetch water as well as men to go with them. The "economy" is all on my side, let him say what he may; let him bring his data to prove it. He can talk of doing as much work as four sets of roundabout machinery. Yes, anybody can talk; let him do his 30 acres a day if he can, and tell us all about it. He can run two engines, one at work and the other at rest, that we know all about; but whether he can do his work with 1 cwt. 2 qrs. 17 lb. per acre, we know nothing about, yet we want to know all about it. Mr. Toepffer has told us a bit; if Mr. Toepffer can do better than I do, let us have the particulars. *William Smith, Woolston, Bletchley Station, Bucks, Oct. 11.*

The Crops of 1869.—If I have misrepresented Mr. Anderson, I am quite ready to apologise; but really many exaggerated statements he makes are so prejudicial to the agriculturist, that I trust he will be careful for the future. His sayings may be read with interest by his employers, but they are of no practical value, for it is impossible for him to arrive at an accurate idea of the crops while rushing through rural counties in a day, quietly sitting in a railway carriage. With respect to Mr. Lawes, I must say at once, I have no doubt he fully believes in his experiments, and in the result of them. Now, I candidly place no reliance upon them whatever, any more than I did in the experiment he conducted some years ago of feeding animals on malt. Surely there was a more one-sided affair than that! What is the value of Mr. Lawes' experiments of growing Wheat on artificial manure? My theory is this—that the soil upon which Wheat is planted or sown should be in a proper condition for growing a crop without the aid of any artificial manure at all; that it is wrong in principle to make any such application, and certainly not to be done with no profitable results. In an experience of more than 20 years I have only twice tried the effect of artificial manures for Wheat, and each time with an unsatisfactory result. I have often seen my neighbours try the same thing, but without any benefit whatever. I would, therefore, urge others to be careful in their application of artificial manures for the Wheat crop. Mr. Lawes, in your impression of the crop of 1869, says—"The Wheat crop of 1869 is slightly below the average in quantity, and that it will be also deficient in quality, as estimated by the weight per bushel. An average crop is represented by a proper bushel of 2½ bushels, weighing 61 lb. per bushel, I am disposed to fix the present crop as equal to 27 bushels of the same weight." Does the experience of the threshing machine verify Mr. Lawes' conclusions derived from the results of his experiments? I say it does not. On every side one hears of the disastrous yield of the year. In some cases so low as 12 bushels per acre, and in others 16, but the generality 23 or 24 bushels. What is the price of Wheat at the present time certainly no indication of any such deficient yield? Mr. Toepffer's arithmetic is very ingenious and clever, but "artificial." He assumes the crop of 1868 at 27 bushels per acre, which I question. He deducts 10 bushels per acre as my alleged deficiency, which is correct, and he arrives at the wonderful conclusion that "we have only 18 bushels as the average for 1869." He evidently seems surprised at the result of his own calculations, and well he may be when he tells us, "I have probably 60 acres on my farm which will yield an average of six quarters per acre. Can the farmers of England be doing so? Surely they must be asleep." I will now give Mr. Lawes my own of the Harvests of 1868 and 1869. The yield of 1868 was very abundant, being one of the best I have ever known. I estimate the average at 27 bushels per acre. That of 1869 I believe will be very deficient both in quantity and quality. I estimate the yield at 24 bushels per acre, or 12 bushels per quarter. Mr. Lawes estimates the deficiency at 10 bushels per acre. I will leave your readers to judge which opinion is the most correct. *John Ford, Hall, Warwick, October 12.*

Farmers' Present Prospects.—There is something very discouraging in the farmers' present prospects. Their corn crops are bad. The Wheat crop in particular yields badly, and the quality is light and inferior. Moreover the price has fallen some 20 per cent. since the commencement of harvest. This is an extremely light crop and defective yield used to command high prices. Imports have been liberal, but not in accordance with our requirements, and by no means commensurate with the nation's ultimate wants. Barley is all probability the only remunerative crop, and is only cultivated in Barley districts. In many parts of the country it is not grown. The Beans and Peas, which have been very extensively planted, and which have been harvested, are proving one of the worst crops ever grown. The disease on all strong lands has destroyed the crop, and on mild soils they are

very bad. To add to the farmer's catalogue of discouragements, the foot-and-mouth disease amongst farm stock is very prevalent, cattle, sheep, and pigs alike being affected seriously by it. Verily, we say, the farmer's prospects are very discouraging. Well, it may be said, surely his sales of fat stock are satisfactory—the price of meat is exorbitantly dear. So it is; and the very cause of that is, that the farmer has so little to sell. The summer of 1868 proved disastrous in so many ways. A vast percentage of stock was necessarily slaughtered because in consequence of the drought they had nothing to eat. These animals, for the most part being in little better than store condition, did not greatly enhance the market supplies. Pigs being so cheap, owing to the cost of food, were so neglected that piglings were not deemed worth the raising. The drought and heat also influenced the generative power of breeding sows, so that at the present time the stock of pigs is unusually small, and the price of pork unusually dear. The farmer then is no great gainer by the high price of meat. The only satisfactory and encouraging thing is the beautiful season through which he is passing, and the kindly growth of his green food and winter crops. Mangels, Turnips, Coleseed, are all progressing admirably, and his grazing fields present a luxuriant pasture for the stock upon which he depends. This is some consolation, but how is the farmer to work through these discouragements? Well, advice is easily offered, but not often of great worth, nor can it always be taken. My first point is to thresh as sparingly as possible. The present supplies will speedily be dispersed. Imports will fall off as winter approaches. Seeding is at hand, and less corn will be shown in the market. This will cause a reaction in price, and as the fact of deficient produce will soon be universally acknowledged, the price will in all probability be increased, and grain become dearer throughout the year. My next point is the adoption and practice of every economy in farm practice consistent with good management both indoors and out. I would next say that the chief hope of recouping this state of things during the winter must be in attention to the farm stock. The fattening of the stock of the farm will be of immense importance to every farmer in the ensuing winter. The price of meat must be high, and stock will no doubt well repay any reasonable outlay to promote their progress. Every attention then must be given, nor must the farmer object to fatten animals he would at other times class as stores. These, in times of high prices, will generally prove profitable graziers. Pigs are remarkably dear, but in the Potato districts, where "blights" are so sadly plentiful, they will best pay as consumers, and these "blights," aided by Indian corn at present prices, will speedily fatten them and prove an advantageous investment. Indian corn, either steeped or ground, has in the past year proved a very serviceable and adventitious aid in the fattening of all kinds of stock, and, if the price is satisfactory during the forthcoming winter, it may and will be the great resort of graziers. Cakes are so abominably adulterated as to become unpopular as feeding stuff, hence resort is more had to meal and corn. Mangels and Swedes, if liberally supplied to cattle in cold weather, should be supplemented by cotton-cake or Indian corn. It prevents scouring or looseness of body in a great measure, in fact it permits the free use of such watery roots, and aids in the more profitable wintering of cattle by acting as a "corrective" against a too abundant ration. *A. J.*

Thin Seeding.—The evidence upon the seedling point is conclusive that the farmer must judge for himself as to the best quantity of seed needed, according to the quality and condition of the soil on which he works, and that seasons may upset the best judgment. See Mr. Mechi upon this point:—"Each farmer should judge for himself by comparative trials, for soils and climates vary, the crop is also influenced by season, and especially by high or low farming." I am glad to find that Mr. Mechi has yielded to reason. Mr. Mechi has made an extract from his book, and it reads thus—"Tiptree Hall Farm (with chapel land) 178 acres." In the *Times* he quoted thus from his book: "Tiptree Hall Farm (with chapel land), 170 acres," and now I will quote from his balance-sheet: "Tiptree Hall Farm, Total landlord's measure, 177 acres," (see *Agricultural Gazette*, January 23, 1869). This proves that his statements are not to be relied upon, and the "doubts" about his 6 quarters of Wheat per acre on 78 acres in 1868, his 63s. 9d. per quarter for Wheat sold in 1868, with his valuation for corn, hay, &c., 379l. on Jan. 1, 1869, are not "dispelled," not even by his statement about "hard cash available." He must dispel them by positive proof, or they will hang on for ever. *William Smith, Woolston, Bletchley Station, Bucks, Oct. 11.*

Mr. Mechi's Balance-Sheet.—I fear Mr. Smith, as also myself, must be satisfied with our own opinions regarding Mr. Mechi's balance-sheet. He asserts that I have "shoved in figures as a mere makeshift to confound the whole thing;" at the same time informs us that corn, hay, &c., unsold, means corn, hay, cake, bran, and all feeding stuff on the farm. I am not aware that farmers purchase cake, bran, and feeding stuff to sell again. What quantity of Wheat was included in the 558l. 6s. on Jan. 1, 1868, we have no means of knowing; but looking at the amounts received in 1867 and 1868 for Barley, Peas, and Beans sold at market, hay sold, corn and hay sold to live stock, Oats, Beans, and hay sold to horses, and bearing in mind the land on which these items were grown, there could not be any large quantity included in the valuation of 1867 or 1868. He is in error in his assumed remnant of 237l. 12s. when he says, "Then look at his Wheat: it shows at 63s. 9d. for 1868, and, when asked, he would not tell me how much of it was grown in 1867; the remnant of 237l. 12s. proves that there could not have been much." This sum he gets by subtracting 84l., the value of 30 quarters, at 56s., sold on Feb. 12, 1869, from valuation of corn and hay unsold on Jan. 1, 1869, viz., 379l., forgetting that the higher-priced Wheat, to which he says I am

"looking for help," was in valuation of 1867, which amounted to 558l. 6s., not 379l. The Rivetts must, on the whole, have sold for a higher price than 47s.; for Mr. Mechi says (February 20, 1869), "My 78 acres of Wheat have thus yielded an average of over 6 quarters per acre—20 acres, which were of Rivett Wheat after white Wheat, did not yield so well as the white Wheat, nor did the red Wheat," the white yielding 72 quarters and 8 quarters, as mentioned (at least off two fields); the 20 acres of Rivetts could not have produced 133 quarters—a trifle over 6½ quarters per acre, but if we assume some Rivetts were included in valuation of 1867, and selling for a higher price, a difference of at least 10s. per quarter, we can at once account for the 310l. 2s. 6d. amount of Rivetts sold in 1868. The red Wheat could not have been grown largely, as quantity sold in 1868 realised but 157l. 8s. 6d. thus we might infer that 45 acres were in white Wheats, the higher priced corn: still, as the valuation does not specify each kind of corn, we must take the accounts as correct, and I see no reason to doubt them; and until a better and more systematic form of farm accounts be introduced, much must be left to conjecture. *Another Farmer.*

Societies.

GREAT BRITAIN.

"Prosperity to Agriculture"—At the late annual meeting of this Society, Colonel Brise proposed, and Mr. Mechi acknowledged this toast.

Colonel Brise said—He hardly knew what the position of this country was at the present moment so far as the late harvest was concerned. They had hardly yet had sufficient information to enable them to form any decided opinion upon the yield of the harvest, but as far as they had been able to gather they found that the Wheat crop was a deficiency. With that exception he believed agriculturists had not very much to complain of. He must say, however, that they had had cause for complaint and alarm at the virulent epidemics that had lately overtaken their herds in this country. Very few farms in their own and other counties had escaped—the foot-and-mouth disease had been prevalent in almost every hole and corner of the county; he had been visited by it himself, and although he did not look upon it as a very serious epidemic, or as anything like the cattle plague they had in the country a year or two ago, yet it was very disagreeable and inconvenient, and, moreover, was attended with loss to those engaged in farming. It was unfortunate that this epidemic should have come upon them at the present time, for an Act of Parliament was passed during last session which some people thought would have had a very great effect in stopping the spread of this disorder, but that Act did not come into force quite soon enough to test its effect. He believed that the disease was in a great measure atmospheric, and that it had been here for some years, although no doubt it originally came from abroad. He could only tell them that in his own case he had a considerable herd of Shorthorns; no animals being affected with the complaint had been within some miles of them, and yet it broke out among them, thus showing that if the Act had been put in force it would not altogether have remedied the evil. They had this year, however, passed a Contagious Diseases (Animals) Act, which appeared to give great satisfaction to a great many of their fellow countrymen, but he confessed he was not satisfied with it, and never had been. He contended against the principle of the measure in the House of Commons and elsewhere on every occasion on which he had the opportunity. However, he thought every credit was due to Mr. Forster, the Vice-President of the Privy Council, for no man could have given more diligent attention to the subject than he had, and he believed that he really and earnestly had the desire to satisfy the agricultural community as far as he could, but circumstances were against him, other pressure was put upon him from different quarters, and among others from the commercial interest—those men who were so blinded that they would not see that the interests of the consumer and the producer were identical on this subject. But he must say that he did not consider it right that a matter of such serious importance as the health of their cattle should be left to the will of any single individual, whoever he might be, or of any Privy Council. There was one other subject connected with their interest as agriculturists to which some attention had been given in the last session, and that was the adulteration of seeds. When the Bill on that subject was first introduced into the House of Commons he did not think it would be of any value to the agricultural community—he thought it would be very difficult to find out whether the seed had been heated in the rick, in the hold of a ship, or in the factory; and he thought it was one of those things in which the intelligence of the agriculturists and the good feeling of the seedsmen would find out in the end that honesty was the best policy. However, he was glad the Bill went on, for they had a select committee upon it, and the evidence that came out was most valuable to all connected with the agricultural interest. It came out before the committee that out of every 100 lb. of Turnip seed that the agriculturists had been sowing on their farms, 25 lb. of it was dead or crushed seed. It was extraordinary that the wholesale seedsmen, high-minded and honourable as men in other businesses, had not thought it wrong, or they had seen no harm, in selling this adulterated seed to the retail seedsmen, the latter having a thorough knowledge of the fact, but the poor farmer knowing nothing whatever about it. This had not been the case with the Turnip seed only, for other seeds had been similarly adulterated; and it had had this bad effect, that when a seedsmen had had any really first-

rate seed to sell in the market he had been obliged to compete with this adulterated seed of which he was altogether ignorant. The gallant colonel remarked that the wholesale seedsmen had been conscience-stricken at the imposition they had practised upon the farmer, and they had come forward in the most honourable way and given evidence before the committee. The toast he had to propose was "Prosperity to Agriculture." He would rather not give them any advice upon agricultural matters, as they understood them better than he did, but if he must do so it would be this, to continue and progress in the old beaten track, at the same time taking advantage of all the modern appliances and improvements of the day, cultivating deeply and manuring highly—[Mr. MECHI. Hear, hear—at the same time not to be led away by any ideas of the very large fortune and successful issue of those who experimentalised, but to examine carefully all those experiments and to form their own opinions upon them. This was one way of farming. Another way was to farm very highly, to experimentalise, to write letters to the *Times*, to tell everybody how much they grew and how much they ought to grow. He thought some of his friends would agree with him that it was a capital plan to farm like that if they had any other business to depend upon; but at any rate they were under deep obligations to those gentlemen who did experimentalise and gave them the benefit of their experience. He did not know one subject on which those gentlemen had advised them, and on which they had profited more than thin seeding. This had been a capital year for those who had adopted thin seeding. He did not imagine that any season had been more suitable for it; and having himself experimented in some measure, he must fairly and honestly state that, although this year it had been successful, he had lost more money by thin seeding than he ever did by thick. He believed that for thin sowing they must adhere to conditions—deep cultivation, well manuring, &c., and they must be free from insects, slugs, wireworms, rooks, and rabbits—(applause, and a Voice, "Game")—and they were ever dependent upon atmospheric influences. If they steered clear of all this he believed thin sowing would be successful. Many people formed their ideas of the value of land from large crops that were grown upon it, and they heard a good deal about this in certain localities. Now he thought those who formed their opinion in this way were very often misled. He wanted to know whether they were to form their idea of the value of land from the extent of the crops grown upon it, or whether—which he contended was the right way—from the rent the farmer or occupier could afford to pay for it to get a fair living out of it. If a farmer wanted to hire a farm he calculated what the land would produce. If he found that by the ordinary way of farming it would produce 4 quarters per acre he made his offer for the land on that basis, and that, he maintained, was the value of the land. If the farmer chose to invest another 1000*l.* of his capital on that land he might grow 5 or 6 quarters per acre, but that was merely a speculative business—it was lucrative sometimes, but it was speculative, and did not increase the value of the land—it was merely a matter for the farmer and his own business—he risked his money, improved the land, and produced a greater crop. He did not think but there was plenty of intelligence, ability, and enterprise among the farmers of this country, and he did not think there was any deficiency of capital where the farmers thought that capital could be employed with any certainty—but a man was not always inclined to speculate and risk his capital. Farming differed very much from other businesses, for if a trader went into the market he could obtain any money he might require, on certain securities, to enable him to carry on his business; but if a farmer went into the money market the capitalist looked askew at him—he did not consider his security of tenure good enough, and he was too dependent on the seasons—he was not therefore inclined to advance his money on speculative and high farming. He did not think it was to the interest of the landlord to throw two or three holdings into one, to square all his fields, pull down his trees and fences, and to build factories and cottages here and there over his estate; and if he wanted any evidence to still further confirm him in this opinion which he had always held, he had only to turn to a recent letter in the *Times* from a commissioner in Ireland. That gentleman told them that a certain Mr. Allen Pollock purchased an enormous estate in Ireland, got rid of the fences, squared the fields, built immense factories on the estate, drained the land, reclaimed all the uneven land, and did everything that an improver could do. Why, what was the result? The Marquis of Clanricarde's estate, which runs into the estate of Mr. Pollock, had been carried on under the old system for many years, and his tenants could afford to give nearly as much rent as could the tenants of Mr. Pollock, although the latter had spent on the land more than the fee simple of the estate. In connection with the toast he had been asked to propose, he should couple the name of his old friend Mr. Mechi, assuring him that in any remarks he had made in the course of his speech he did not mean anything personal—[Mr. MECHI. Hear, hear.—and that he always entertained a hearty cordial feeling towards him, and hoped that for many years to come he would give them his advice and be their agricultural Mentor.

Mr. MECHI rose amidst plaudits, and said he thanked Colonel Brise and the company for wishing him good health. He believed they and many of the farmers of England wished him good health, but he could not conceal from himself that there were a few, and he hoped only a misled few, who would wish to see Mr. Mechi swept from the face of the agricultural world. [Laughter, and "No, no."] They were there that evening to speak the truth, and he assured them that he could forgive those who happened to have such a feeling towards him. He congratulated the company

present and the district generally on the success of the gathering that day and on the general growth of the Society. Most of them recollected that this Society had grown out of and was founded upon the ashes of a once excellent institution at Waltham, and he felt sure that the good sense and greater intelligence of modern times would prevent the good ship from being wrecked, like its predecessor, by reason of the personal attacks and abuse of a few ill regulated persons who were the means of its destruction. However, that had all passed away, and he rejoiced in the regeneration of the Society. He believed that they were one and all—landlords, tenants, and the public at large—agreed in wishing prosperity to agriculture, and they asked, as a natural consequence, how that prosperity was to come. It was quite clear that it had not always prospered to the full extent of their wishes, for while his friend Colonel Brise had been censuring the squaring of fields, cutting down of fences, and doing away with small farms, &c., he had told them that the poor little farmer was working as hard as two labourers, and yet only living as well as one. He could not see the consistency of those two remarks. He would tell them where the small farmer was suffering—it was from being shut up by trees and hedgerows, small, bad, muddy roads, &c., and having to compete with men who were working on an improved and more intelligent principle. The little farmer naturally gave way in the unequal contest. Were they, then, satisfied with agriculture as it was? Then they agreed with him that they ought to do all they could to progress. He did not consider that progression was to be the mere act of the tenant: he believed that agricultural progress, to be complete, must be by joint action of landlord and tenant. Steam power was multiplying, and, as the population also increased, the demand for food was greater, and the manufacturing people, who were their customers, demanded that they (the agriculturists) should no longer muddle along in the old track, which Colonel Brise so strongly recommended, but that they should get out of that deep and uncomfortable rut by improved education, enlarged views on the subject of landlord and tenant, and, by the use of steam and other machinery, go on progressing. Colonel Brise told them that the banker would not advance money to the farmer in consequence of the insecurity of his tenure and the uncertainty of the seasons, but he omitted to tell them that if the farmer had a 21 years' lease, and if he had the power to transfer that lease, the banker would take a very different view of his customer; but so long as the agriculturist remained in the uncertain position of annual tenure, he was placed in a disadvantageous position compared with traders in towns. Did they suppose that a trader should invest large amounts on premises which belonged to another man, and of which he had only an annual tenure, without any security that those expenses would be returned to him? Certainly not—and therefore he said agriculture was in an anomalous position, a position which should not exist in these days of improvement. While he said this he did not believe that the landlords had not the welfare of their tenants deeply at heart. He believed that the landlords of this country were desirous that agriculture should prosper, and he thought it only required a little thought and consideration of what was now going on in the country to cause a great change in their opinions. There had already been a great change in their opinions as to trees and fences, and he believed the time was approaching that while the tenant would be bound, as every tenant ought to be, on a fair and just condition, he would be no longer restricted by those antiquated practices suited to another period—instead of keeping in the old and uncomfortable rut, they would adapt themselves to the greater intelligence and necessities of the age they lived in. He daily received communications from agriculturists from all parts of the world, and probably, therefore, no man had a better opportunity than he had of judging what was going on, not only in British, but also in foreign agriculture, and to what conclusion did it lead him? First, on the subject of education. The very style of the writing in the letters he received from different counties, and in his visitors' book, was almost an indication of the style of education in the different parts of the country; and he could not agree with his friend Mr. Carter, that the education of Essex was satisfactory. Why, without blaming any one, the best man he had at work for him, and who had been on his farm 25 years, could neither read nor write.

Mr. CARTER—I referred to the young people—to the children.

Mr. MECHI agreed that there had been an improvement in the education of the children, and there was plenty of room for it. He was of opinion that they were backward in the education of their labouring people, and although he did not go so far as to advocate compulsory education—he would have a compulsory education rate. [Cries of "No, no" and "Yes, yes." Did they approve of a compulsory rate for mending the roads? ["No."] Well, what sort of roads would they have if they had not a compulsory rate? A Voice, "As good as now," and "No, no." Why, 20 years ago Arthur Young told them they could not drive a coach through the country, but Macadam and compulsory rates had enabled them to improve their roads; and he asserted without fear of just contradiction, that leaving the education of the people to mere benevolence was an injustice and imperfect mode of action. In the parish of Tollesbury, with 5000 acres there was at one time only a small dame school with 12 children stifled together in a room. This state of things had been partially altered by the benevolence of friends like Mr. Du Cane, but at the same time he had known men, with 700 or 800 acres of land, who considered that education spoiled their best labourers, and would not, therefore, contribute a shilling. He maintained that such people ought to be compelled by a rate to do that which

was admitted as a necessity by the Government for the public at large. He knew this was a matter they were here to speak the truth.

He would now change the subject, and a matter mentioned in the afternoon by the Chairman, namely, the housing of the agricultural labourer. Could they wonder at Ireland being mentioned when recent statistics showed that there were one-roomed cottages, each occupied by a family who huddled and slept together? It was a condition that this should be so. Now, the condition of their own labourers, the Chairman that, taking the agricultural counties of Essex and many other counties, the condition of the labourer was quite equal to that of the mechanic, the carpenter, the magistrate of the city of London, he told him all the circumstances and conditions of the working classes in times of distress and dearth—he knew that where an agricultural labourer had a decent cottage with two or three rooms, a garden for 1*s.* 6*d.* or 2*s.* a week, the town was packed in two rooms at 1*s.* 6*d.* and very often in one room at 1*s.* [Hear, hear, and a Voice: "This is a fair comparison with farming."] Yes, it had to do with the labourer, and they ought rather to be satisfied with his remarks than otherwise, because it was the farmers were grinding their own necks, whereas he did not admit anything of the kind of a labourer who earned on an average 1*s.* 6*d.* a week, whole year round—was quite as well off as the labourer in the town who had 1*s.* or 1*s.* 6*d.* per week.

Now they came to the question of poultry, and gentlemen laughed at Mr. Watson's remarks on poultry keeping, but he was inclined to think that many of them knew very little about it. He had a flock of 400 fowls, which he sold at 2*d.* a pound, while he sold his bullocks and sheep at 1*s.* 6*d.* The poultry sold for double the price of the meat without costing a penny extra, but he was less per pound than the meat. If he had not been considered anything, he did not project the show, and he urged upon the farmers not to be especially of partridges, and remarked that he went about the farm just as they liked, within 30 feet of the hen-house always, and his largest crops of straw and corn from 100 to 150 per acre. And this result was obtained by giving that the fowls had free access to the land within a week of sowing. If they were to have plenty of insects to eat, they would have plenty of eggs. Alluding to the progress being made in the present day, Mr. Mechi mentioned that he had been expending 10,000*l.* on machinery for the purpose of converting Beet into sugar; and he then advocated the use of machinery of recent now implements, including the drying apparatus, and expressed his intention of giving a prize to the labourer who best carried out an earth closet system in his cottages.

Mr. HERBERT LEIGH proposed the "Judges" coupling with the toast the name of C. Hall.

Mr. HALL, in responding, referred to the fact that he had given the labourers upon the way to their work, as previously alluded to, and he noticed great improvements in the work in that neighbourhood since the formation of the society. He had been a practical farmer for 40 years, and he noticed that the soil was growing one-third more corn upon the same land than they were formerly.

Reviews.

Practice with Science: a Series of Agricultural Papers. Vol. II. Longman, Green & Co. Farming professors and lecturers of the Royal Agricultural College is here presented to the reader in a series of papers on Real Property, Reports of Experiments on Barley, Cattle Grazing, Farm Accounts, Stock Feeding, Rural Education, &c. These papers, in Ireland, and other topics of agricultural interest, have been very ably discussed, and the public will be the means of making generally known the and substantial character of the teaching at Cirencester College. We extract from Mr. Edwards' capital paper on Stock Feeding, proper to the time of year.—

"What should guide our choice of Stock for feeding?—I would first of all select those which are the most profitable, and which they are either profitable, and which are not do justice to the food they eat, or which, in case of sheep, they have received a large amount of food, so surely as they begin to thrive, instance that I am not alone in this, I have known the case of an eminent grazier, who, chasing his different lots of graziers, and looking over them, and picked out those considered as not likely to fatten well, and sold them to a dealer at the best price. It may be asked who is to fatten the animals? I will answer that the farmer will discount, the more careful will be to improve their stock; and so on, until they find which graziers dislike to buy, and points to guide a grazier in the purchase of a well-formed head, with a large eye, and a good ear. We generally find in all animals if we

...the Government... this was a...
 ...subject, and...
 ...agricultural...
 ...being...
 ...occupied by...
 ...It was a...
 ...Now, let...
 ...Hence, when...
 ...the agricultural...
 ...of the body, and...
 ...of respiration and...
 ...chest, well-formed...
 ...and...
 ...Small and short...
 ...three roomy...
 ...week, the...
 ...at 5...
 ...This...
 ...to do with...
 ...rather to be...
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 ...ing their...
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 ...12 lbs. per...
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 ...read...
 ...Farmers...
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 ...discuss...
 ...form...
 ...to agricultural...
 ...we hope...
 ...Calendar of Operations.

...straw and any Potatoes turned up gathered. If...
 ...for winter Wheat, the land may be scarified...
 ...the Wheat drilled in. If for spring Barley...
 ...it should be ploughed, and a well...
 ...put a layer after each plough to break up any Potatoes, or...
 ...the Potatoes that left may be given to some of the...
 ...who have sown for the gathering. In...
 ...Land, where the Potatoes are grown in lazy-beds, the...
 ...tops are pulled by the hand and removed, the Wheat...
 ...is then sown, and covered by the operation of digging...
 ...The straw generally comes up well, but there is a...
 ...considerable sacrifice of seed, so that for the small...
 ...holdings dibbling in the Wheat after the digging...
 ...would be preferable.

Carrots are dug with a spade, two roots at a time, if...
 ...the soil has been properly put in at the side. The...
 ...spade should not touch the Carrot. If the roots are...
 ...very long it may be necessary to lay hold on the top...
 ...with one hand while the other presses down the...
 ...handle of the spade. But it does not take much to...
 ...loosen a Carrot in the soil in which they are grown, and...
 ...an active man will loosen as fast as a boy or woman...
 ...can top the roots into a basket, the tops being left on...
 ...the ground. The basket is then carried into a cart...
 ...Carrots are stored in a shed or barn, and are...
 ...used as a substitute for...
 ...Carrots, and they are the best way of...
 ...before they are roasted, the other...
 ...The crop, however, may, in the first place, be stored in...
 ...sand, like Carrots, and the scraping, washing, spitting, and...
 ...drying deferred until the time of sale. But the...
 ...sooner the kind-drying takes place after the crop is...
 ...lifted the better, and there is some art in kind-drying...
 ...so as to retain the bitter and aromatic properties of the...
 ...root. Hence some manufacturers prefer buying the...
 ...fresh roots when dry.

Chicory is also grown as a forage plant for soil...
 ...and it yields four or five cuttings, the last about...
 ...time. It is best adapted for mixing with other...
 ...forage plants as hay, given to stock when on Vetches...
 ...and Globe Turnips, both fattening sheep and neat...
 ...cattle, and also for young stock of every kind, at this...
 ...peculiar season of the year, when the heath is...
 ...able to get into an abnormal state. When milk cows are...
 ...exclusively fed upon Chicory it affects the milk, but a...
 ...small quantity mixed with sowage Grass, Vetches, or...
 ...Globe Turnips, will improve both the health of the...
 ...cows and the quality of their milk.

Steam Culture—Large areas of land are cultivated...
 ...by steam during this month, and those who have to...
 ...be employed will prefer to do so for, although...
 ...the land becomes...
 ...is...
 ...when dry...
 ...the wet...
 ...is to cultivate...
 ...and this applies...
 ...not only to stubble, but also to lea. True, so long as...
 ...cattle are out at grass on farms where there is no...
 ...natural meadow and pastures, lea cannot be ploughed...
 ...until the water are finally housed for the winter. But...
 ...the months the arable pastures are cleared of stock, these...
 ...who have to fire to burn should embrace the first...
 ...opportunity, a very great advantage of dry weather...
 ...is possible. Those who have taken of their own...
 ...experience go on with the keeping pace with the...
 ...season, but those who have to hire must wait their turn.

Spring Beans, winter late, are frequently abroad in...
 ...the north at the middle of the month, and, when this...
 ...is the case, the crop is sometimes sown on the...
 ...pastures and oat stubble, so as to get the land...
 ...ploughed and sown with Wheat. Steam is of inestimable...
 ...value in such cases, as the land may be ploughed...
 ...and sown as fast as it is cleared of the bean crop.

Winter Beans—Sowing continues to be success-...
 ...fully applied during this month, not only to Italian...
 ...Rye-grass, for sowing, but also to land from which corn...
 ...and root crops have been removed, and Cabbages...
 ...planted. A fresh break of Italian Rye-grass may yet...
 ...be laid down, and the old broken up.

Water Meadows should now be ready, as the first...
 ...floods are the richest.

Sundries.—Paint and put past implements as they...
 ...are done with for the season. Keep the stackyard...
 ...clean and neat. Finish cutting and plashing fences. Clean...
 ...ditches, catch in. Lame roads repair, so that...
 ...no water shall stand in pools during winter. "October...
 ...ale," brew from the best quality of malt only.

Live Stock.—Horses require particular attention, both...
 ...as to feed and grooming, when mending their...
 ...summer coats and putting on their winter clothing; they...
 ...also experience the change from green to dry food; the...
 ...work is likewise heavy. And thus they have to...
 ...endure at a period when their physical energies are...
 ...naturally in a lax state. The change from green to dry...
 ...food should be by degrees, but hardly any rule can be...
 ...laid down to meet all the exigencies of the stable in...
 ...different localities at this season. The grand relief is...
 ...the extension of steam tillage and steam power to do...
 ...all the heavy work of the farm in cultivating and...
 ...threshing. Other stock also require peculiar attention...
 ...at this season, for many of the maladies experienced by...
 ...lambs, calves, yearlings, and other stock, are less or...
 ...more due to an oversight of their natural requirements...
 ...at this season. It should always be borne in mind...
 ...that the farther and faster we advance in improved...
 ...agriculture, the more artificial is the state of live stock, and...
 ...the greater the care they consequently require...
 ...artificially. W. B.

New Hardy Trees
PAUL AND SON will be pleased to receive Orders, which will be executed to the best advantage for the following NEW HARDY TREES and SHRUBS:
 (1) **PAULSONIANA** (A NEW SPECIES)
 (2) **WATERBURY** (A NEW SPECIES)
 (3) **WATERBURY** (A NEW SPECIES)
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 (100) **WATERBURY** (A NEW SPECIES)

Large Evergreens and Forest Trees
MESSRS. PAM. LAIN AND SON have a large quantity of the following trees and shrubs, part of which are for sale at the following prices:
 Cedar, 1 to 2 feet, 10 to 15 feet
 Cedrus Libani, 6 to 15 feet
 Aconitum, 2 to 6 feet
 Portugal Laurus, 2 to 6 feet
 Chinese Arbor Vitae, 5 to 12 feet
 American, 5 to 10 feet
 Thuja aurea, 1 to 4 feet
 Green Box, 1 to 6 feet
 Sarcocolla, 2 to 4 feet
 Box, 1 to 2 feet
 Yew, 1 to 2 feet
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W. H. LASCELLES' MACHINE-MADE MELON LIGHTS. Each.

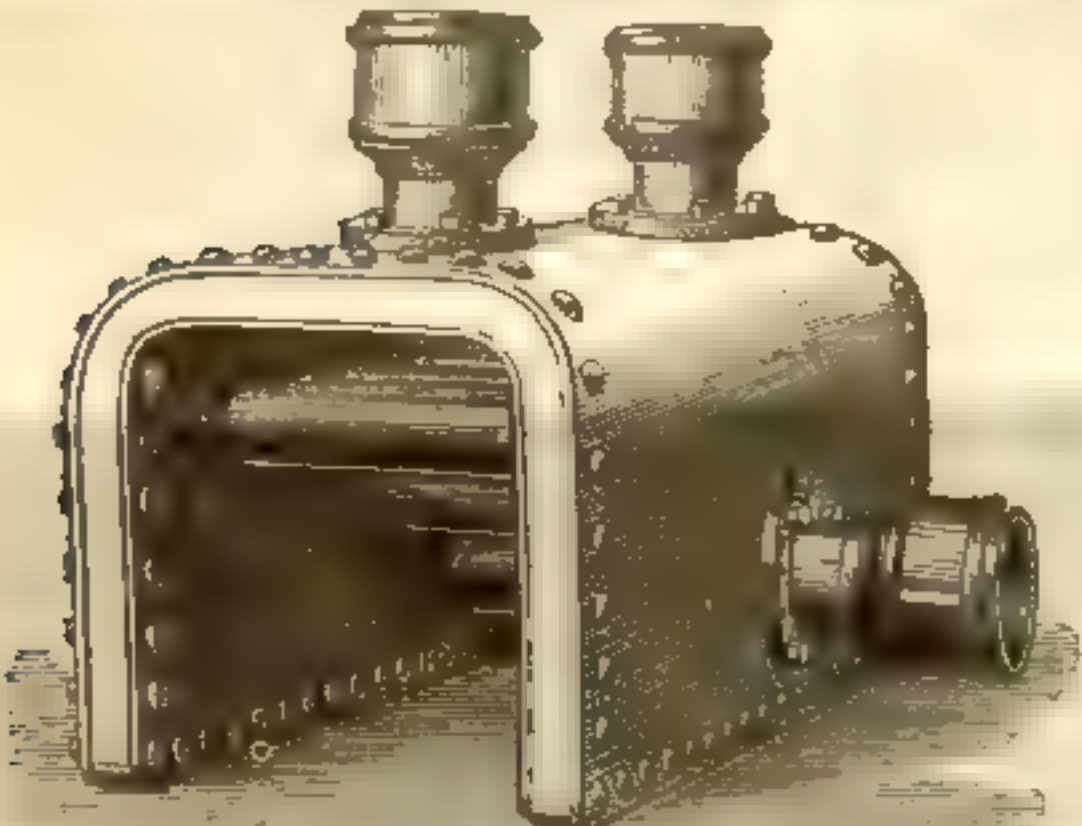
6 ft. by 4 ft. Lights, 2 ins. thick, unglazed	£0 5 0
" " Primed and Glazed with 10 oz. Sheet	0 11 0
" " with stout Portable Box, not Painted	1 3 0
" " Painted four coats, and Handles on	1 8 0
" " Packed and Delivered in Railway Van	1 10 0
6 ft. by 8 ft., Double Lights, do.	2 15 0

GREENHOUSES. Per ft. super

Woodwork only Prepared and Fitted	0 0 6
" Primed and Glazed with 16 oz. Sheet	0 0 9
" Delivered, and Fixed with Ironwork	0 1 4
" Painted four coats, two sides, ready for use	0 1 3

Finsbury Steam Joinery Works, 121, Bunhill Row, E.C.

Heating by Hot-water.



SHANKS' IMPROVED WROUGHT-IRON BOILER.
This Boiler is made on the principle of the Saddle and Tubular combined. The Tubes, Fire-box, and Shell-plates are all of Wrought-iron, and consequently are not liable to break from expansion and contraction of the metal, as Cast-iron Boilers are. The Tubes are placed in the Fire-box, and so arranged as to expose a very large effective heating surface to the direct action of the fire, the advantage of which is obvious.

A. S. and SON will be glad to furnish their IMPROVED BOILERS separately, or to furnish Plans and Estimates for Erecting Hot-water Apparatus complete in any part of the country.

HORTICULTURAL BUILDINGS in IRON or WOOD.
Catalogues, containing Designs of Houses, &c., will be forwarded on application. Special Plans and Estimates for Ranges of Houses to be erected in any part of the country will also be furnished.

A. SHANKS and SON, Deas Iron Works, Arbroath, N.B.; and 27, Leadenhall Street, London, E.C.

IRON GREENHOUSES CHEAPER THAN WOOD.
Beard's Patent Non-conducting and Ventilating Metallic Glass Houses.
Victoria Works, Bury St. Edmund's.



MANUFACTURED BY
CHARLES BEARD,
Senior Partner in the late Firm of Sanders, Frewer & Co., which Firm was dissolved by mutual consent.
The Patentee wishes to observe his Patent Houses obtained the First and only Prize at the Royal Horticultural Congress, South Kensington, 1865;
The First-class Certificate at the Grand Manchester Horticultural Show, 1867;
The Three First-class Certificates at the Royal Horticultural Show, at Bury St. Edmund's, 1867, viz.:—One Prize for Patent Glazing without Putty; One Prize for Best System of Patent Ventilation; One Prize for S. F. & Co.'s Improved Flower Standa.
These much-approved Patent Systems of Glazing and Ventilation are also extensively adapted for all Agricultural Buildings, Public Halls, Churches, Factories, Railway Stations, &c. &c.
Full particulars and Prices of the Patent Houses, glazed with 28 oz. Sheet Glass from 1s 6d per foot super and upwards. As also Illustrated Catalogues for 12 postage stamps, may be obtained on application to CHARLES BEARD, Victoria Horticultural Works, Bury St. Edmund's.
PATENT GLAZING BARS, to screw on wood, may be had separately. Full particulars for stamped envelope.

T. G. MESSENGER,
MIDLAND STEAM POWER HORTICULTURAL WORKS,
HOT-WATER APPARATUS, VALVE MANUFACTURER,
LOUGHBOROUGH.



Honourable Mention awarded at the International Exhibition, 1862, and at the Dublin Exhibition, 1865; also a First-class Certificate by the Royal Horticultural Society.

T. G. Messengers, Patentee of many important improvements in Buildings and Implements connected with Horticulture, and which meet with unqualified approbation, is prepared to give reference to hundreds of works entrusted to him and pre-eminently answering the purpose for which they were constructed.

Any House Glazed, single or double, with or without putty. The mode adopted by T. G. Messengers for Heating and Ventilating Forcing Houses is particularly successful, drip being entirely prevented.

Houses can be constructed on his Patent Ventilating principle to open the whole of roof and sides as though the glass were entirely removed, at once placing the plants in the external atmosphere.

T. G. Messengers's Boiler possesses all the advantages of the Tubular and Saddle combined, has hollow furnace bars, requires but a shallow stokehole, exposes as much surface to the direct action of the fire as can possibly be obtained, the whole of which can be easily cleaned, and it is an important fact, that out of upwards of 600 now at work made upon the improved principle not one has cracked.

T. G. Messengers's Valve (single or double) is effective, simple, easy to work, and as durable as the pipe to which it is attached.

Designs and estimates supplied for all kinds of Horticultural Work, and guaranteed to answer the purpose for which they may be intended. A richly Illustrated Catalogue, with descriptions, forwarded post free on receipt of 33 stamps.

CRANSTON'S PATENT GLASS BUILDINGS for HORTICULTURE. Plans and Estimates free.
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200 CUCUMBER and MELON BOXES and LIGHTS, all sizes, Glazed and Painted complete, ready for immediate use, packed and sent to all parts of the Kingdom.

Strong ZINC HAND-GLASSES, all sizes.

References to the Nobility, Gentry, and Trade in most of the Counties in England.

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G. SHREWSBURY'S NONPAREIL
for Heating Conservatories, Propagating Cases, Coach Houses, Halls, Public Buildings, &c., from a stamp.
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HOT-WATER APPARATUS
Erected Complete, or the Materials Supplied.
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HOT-WATER PIPES of all sizes, at the lowest prices, Elbows, Tees, Pieces, Syphons, and every other connection kept in stock.
WROUGHT and CAST IRON CONICAL, SADDLE, and IMPROVED PEILL'S and ELLIPTIC BOILERS.
IMPROVED and EXTRA STRONG CAST IRON BOILERS, with or without Water Bars, from 60 to 100 H.P.
CAST and WROUGHT IRON PORTABLE STAND, for use without brickwork, from 60 to 100 H.P.
PATENT and IMPROVED THROTTLE and FURNACE DOORS, BARS, and FURNACE FITTINGS of every description and size.
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Old Barge Iron Wharf, Upper Ground Street, Surrey side Blackfriars Bridge.
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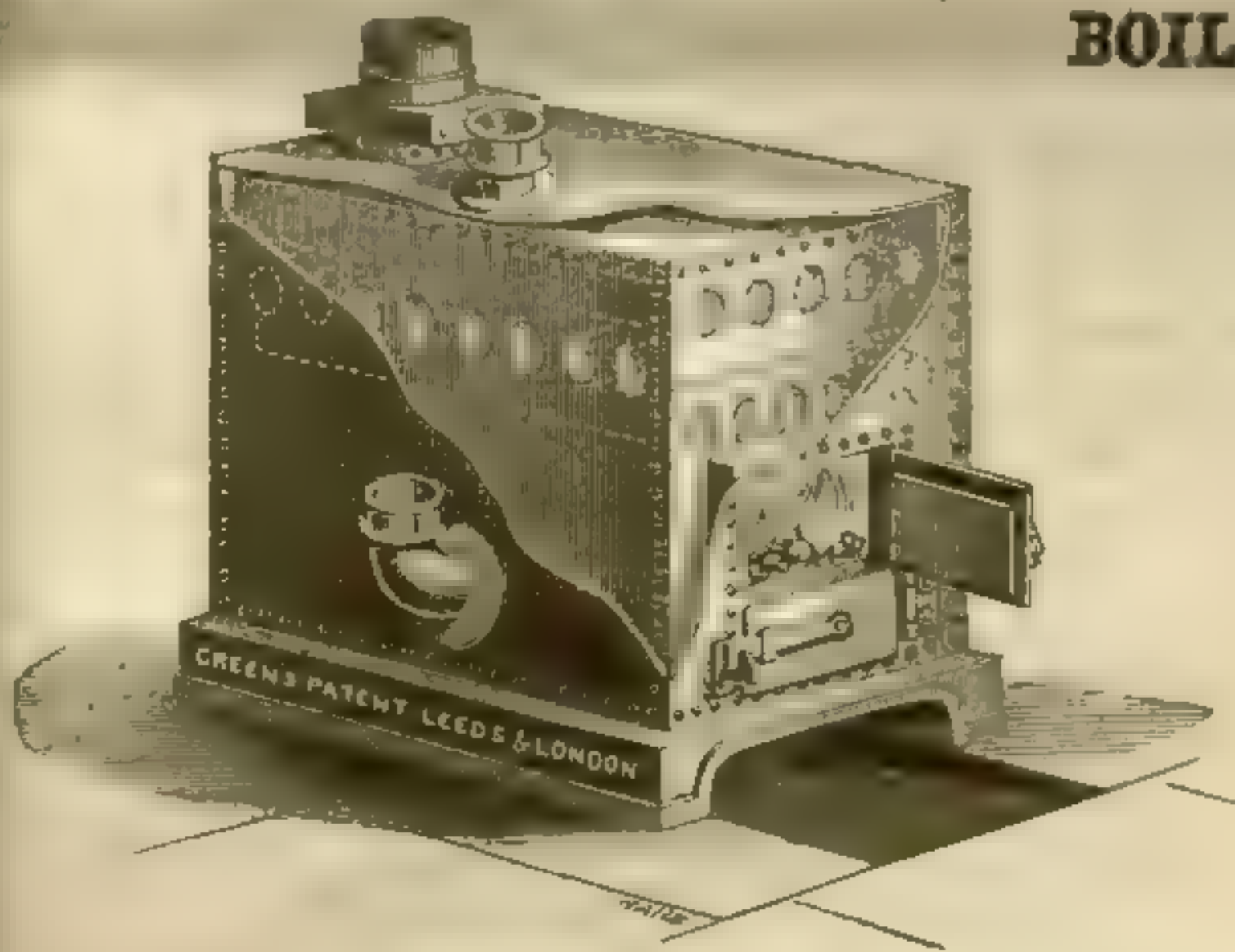
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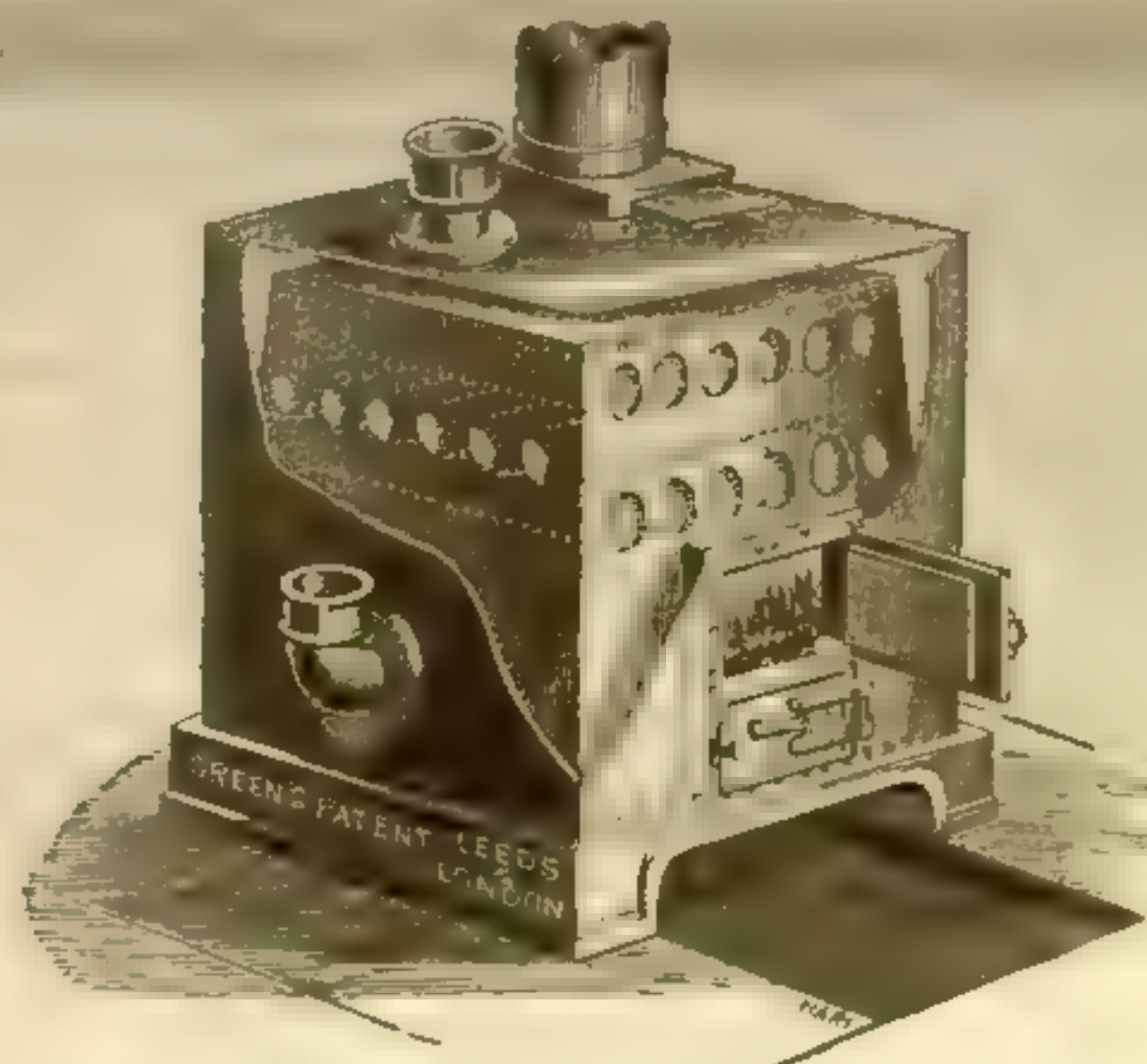
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OBLONG BOILER.



SQUARE BOILER.

THE ABOVE BOILERS ARE

THE MOST EFFECTIVE AND DURABLE EVER INVENTED.

can be set to work at a nominal cost, inasmuch as no brickwork is required; as will be seen from the above drawing, they are placed upon a Cast-Iron Sole-plate, which serves the purpose of Foundation and Ashpit.

In the peculiar and substantial manner in which these Boilers are made, they are warranted to last for years without getting out of order; in fact, we guarantee them for years, but feel convinced that they will serve all the purposes for which they are intended for a much longer period.

They are specially adapted for Heating Greenhouses, Churches, Chapels, Schools, Public Buildings, Entrance Halls, Warehouses, Workshops, &c.

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- 3rd, They take up little room, and can be put in places inaccessible to other Boilers.
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These Stoves burn without attention or replenishing 12 to 24 hours. From 12s. 6d. to Six Guineas. PATENT FUEL, 4s. 6d. per bag.
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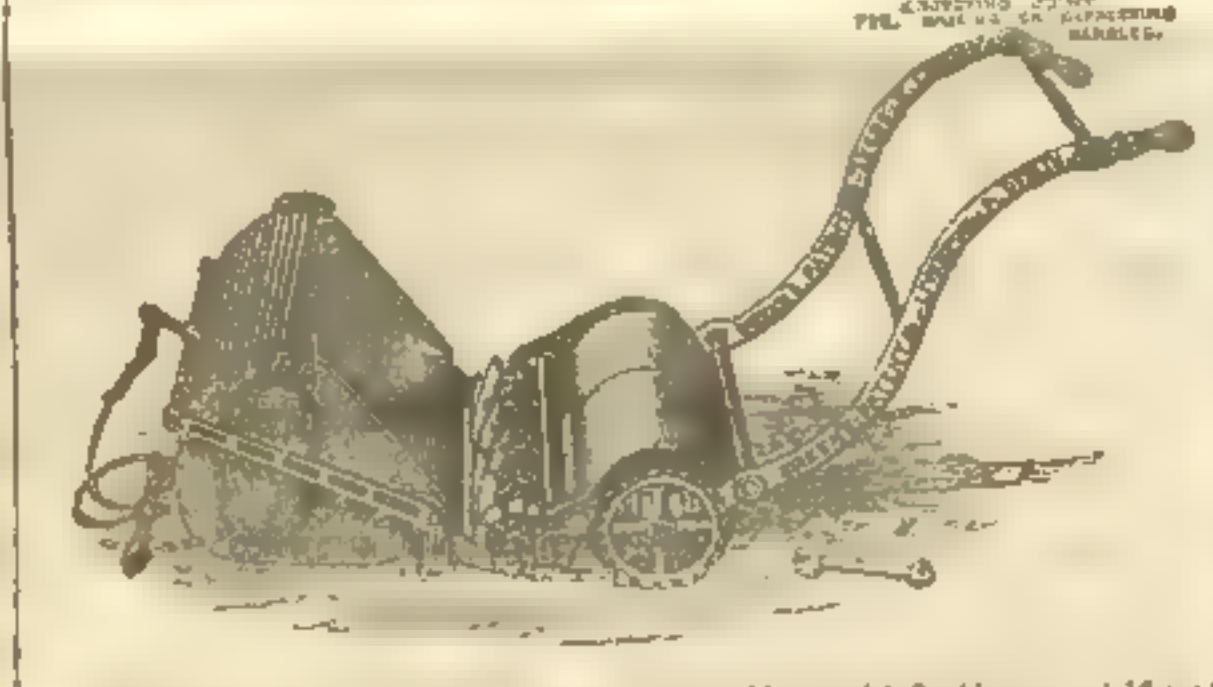
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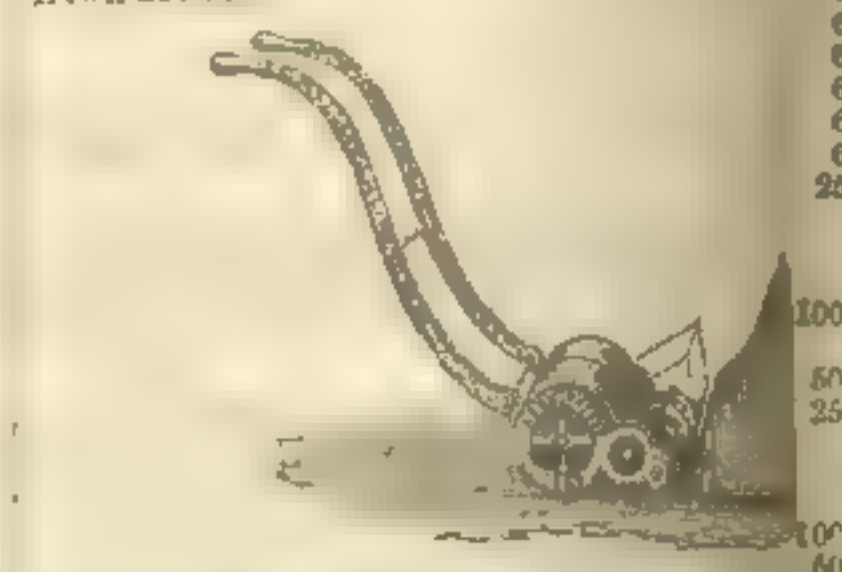
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Several important advantages possessed by the PATENT DOUBLE-EDGED SOLE-PLATE, which The unprecedented Sale for 1888, notwithstanding the Season, forms the best testimony that the advantages have been appreciated.
ALEXANDER SHANKS & SON beg to intimate to Exhibitors of Lawn Mowers at the Paris Exhibition that their Firm's Mowers were the only ones which the Jury awarded a Medal, and which also had the highest Prize ever given to Lawn Mowers.



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A NEW ERA IN THE HORTICULTURAL WORLD.
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Have succeeded in producing a really good, strong, and useful Building for less than 25s. construction that any ordinary mechanic can fix it with ease, thereby doing away with the expense of mechanics' time and travelling fares.



LEAN-TO, with Front Lights to Open (Class B.)
Suitable for Cucumber or Melon Houses, Stoves or General Forcing Houses, Peach-houses, &c. They are made only of the following external widths, with two glass panes including 16-oz. Horticultural Glass, cut up, and one priming coat of paint on the wood framing.

Width	Height to Eaves	Height to Ridge	Length 6 feet 4 1/2 inches	For every additional 6 feet, add	For glass panes and door, add	If doors at both ends, add	
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6 3/4	5 0	8 1 1/2	2 6 9	2 14 3	1 9 3	0 5 3	
			12ft 1 1/2 in.				
7 2 1/2	5 0	8 7	3 16 0	2 17 6	1 13 9	0 5 3	
8 1	5 0	9 0	4 9 15 2	3 3 0	1 17 9	0 5 3	
10 0	5 0	10 0	6 12 10 3	3 16 9	2 11 6	0 5 3	
12 0	5 0	11 0	8 14 6 9	4 7 0	3 3 0	0 5 3	

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Messrs. SUTTONS' FLOWER ROOTS Have been selected from the principal Growers in Holland.



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Suttons' Fine New Crocus for Pots. 1000 splendid named, in 24 vars. £1 15 0 100 splendid named, in 10 vars. £0 4 0 500 do do, in 25 vars. 0 18 0 50 do do, in 10 vars. 0 2 0 250 do do, in 25 vars. 0 9 0 25 do do, in 5 vars. 0 1 0

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The best 12 HYACINTHS for 12s. Messrs. SUTTONS' COLLECTION of HYACINTHS consists of more than 200 varieties, a PRICED and DESCRIPTIVE LIST of which may be had on application. Suttons' Collections of Named Hyacinths. 100 HYACINTHS in 100 very choice sorts £4 4 0 100 " 50 very choice sorts 3 10 0 50 " 50 very choice sorts 2 2 0 50 " 25 very choice sorts 1 15 0 25 " 25 very choice sorts 1 1 0 12 " 12 extra fine sorts 0 12 0 12 " 12 choice sorts 0 9 0 12 " 12 good sorts 0 6 0

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VARIEGATED ARABIS, for Edging.—Good strong Cuttings, 4s. per 100, or 600 for £1, cash. MADRESFIELD COURT VINE.—Strong Canes, 10s. 6d. and 15s. each. Eyes or Grafts, 6d. each. MRS. PINCE'S BLACK MUSCAT.—Strong Canes, 5s. 7s. 6d., and 10s. 6d. each. Eyes or Grafts, 3d. each. J. HOUSE, Eastgate Nursery, Peterborough.

NEW CATALOGUE of choice AZALEAS (Indian and Hardy), CAMELLIAS, RHODODENDRONS, ORCHIDS, LILiums, &c., offered by LOUIS VAN HOUTE Copies of the above may be had direct from Ghent, or from L. V. H's Agents, R. SILBERRAD AND SON, 6, Harp Lane, Great Tower Street, London, E.C. Royal Nursery, Ghent, Belgium

Gladiolus.—ROSES. M. CH. VERDIER fils (late Firm of Victor Verdier, Paris, and Ch. Verdier, fils, Nurseryman, 12, Rue Dumeril, Paris, has just published his new CATALOGUE OF GLADIOLUS, containing the names of the varieties of the season, which may be had free on application to his London Agents, Messrs. SILBERRAD AND SON, 6, Harp Lane, Great Tower Street, E.C. N.B.—A CATALOGUE OF NEW ROSES (which will be sent out next season) is also ready, and can be had on application to the above.

SPRING BEDDING PLANTS.—Large Surplus Stock, consisting of the most approved varieties for Ribbons, Beds, &c., as DAISIES (White, Red, Pink); PANSIES, perpetual blooming for both seasons, as Blue and Yellow of various shades, Purple, Black, White—very few of the new bred, with other popular Spring Bedding Plants. Lists of application to JOHN FLEMING, Chesham, Maidenhead.

Polyanthus. STEPHEN BROWN offers splendid Mixed POLYANTHUS, beautiful variety, grown from seed saved from his first-class Salisbury Collection. First quality, 3s. per doz., 2s. per 100, 160s. per 1000. Second quality, 2s. per doz., 15s. per 100, 120s. per 1000. 1s. each, discount to the Trade. STEPHEN BROWN, Seedsman and Florist, Weston-super-Mare, Somerset.

THE GARDENERS' ROYAL BENEVOLENT INSTITUTION. Notice is hereby given that an ADDITION to the LIST of PENSIONERS will be made in January next. All Persons a series of beneficial CANDIDATES are required to send in their Papers and Testimonies to the Committee on or before MONDAY, November 5 next, after which day they will not be received. Preference will be given to those Persons who may have been subscribers for 15 Years and upwards. Should there not be a sufficient number of that class, then the names of those who have not subscribed so long, or not at all, will be considered. October 14, 1889. EDWARD B. UTTLER, Secretary, 14, Coventry Row, Covent Garden, W.C. P.S.—Printed Forms may be had of the Secretary on application to the Secretary.

The Gardeners' Chronicle. SATURDAY, OCTOBER 23, 1889.

AMONG the many HORTICULTURAL EXHIBITIONS that have taken place during the past summer, that held at LISBON seems worthy of special remark, from the rarity of such events in the South of Europe, and in the Iberian peninsula in particular.

From a report lying before us, signed by BERNARDINO ANTONIO GOMEZ, it appears that the exhibition originated under the auspices of the Real Associação Central da Agricultura Portuguesa, and was mainly supported by private persons, though the Municipal Council of Lisbon contributed largely to its enrichment by sending their large collections. The Duke of CADAVAL's park was the site selected, and in it a glass house was specially erected for the reception of the more tender subjects. This structure was designed and executed by M. STREET DE ARRIAGA E CUNHA, and for elegance and judicious arrangement was well adapted for the purpose in view. From the enumeration of the plants—which, however, is chiefly restricted to generic names—it would appear that the same preference for ornamental foliage plants, so prevalent in North and Central Europe, has at length manifested itself in the South. A magnificent group of Cactuses and Begonia, belonging to José MARQUÊS FERREIRA DE LUENA, remarkable alike for variety and luxuriance of growth, formed the chief point of attraction in the exhibition. The numerous ornamental forms of Eranthemum, Alocasia, Ecbites, Coleus, Achyranthus, and others, were likewise conspicuous, associated with Pelargoniums, Fuchsias, Potunias, Rhododendrons and Azaleas, together with Dracenas, Gloxinias, Cinerarias, and Bonapartes. Two splendid specimens of Latania Commersoni excited universal admiration, as also did fine examples of Clerodendron Thomsonae, Theophrasta imperialis, Pandanus javanicus, and various species of Magnolia, Erythrina, Metrosideros, Aucuba, &c. The exhibition was further enriched by several species of well-cultivated Cycads and Palms, and the Tree Ferns were particularly attractive. A numerous and well-grown collection of Coniferae excited equal interest, notably some fine specimens of Thuja Loblii, Thuja sp. dolabrata, and Scindapsus verticillata. Forming a surprising contrast with the foregoing were some good

of all commercial men Cotton, wool, grain have their prices and demands according to demand or supply, and so do various other species of plants. The Orchid market, although the articles to be disposed of are purely luxuries to the eye, fluctuates about as much as any of the markets where the necessities of life are to be disposed of.

The Orchid family at the outset was limited, in these days it appears to have multiplied far beyond anticipation and the cry is "still they come." Many are the acquisitions from an eye-sweet point of view, that have been obtained time after time, but nothing more lovely than the white Moth Orchids—nothing so exquisitely beautiful, not a single individual that can lay claim to the same pure chasteness of colour, and to a form that can leave nothing to be desired. The date of their introduction to the plant-houses of our country is coincident with the beginning of Orchid cultivation, and their career, under the care of our cultivators, is somewhat uneventful. At times they are seen in great beauty, both of foliage and inflorescence—not a speck to mar the fine circling flower panicles, nor a blotch of disease upon their broadly ovate succulent leaves. At other times their foliage is seen loathsome with disease, their very substance being extracted, leaving wrinkles and blotches, thickly set together, even apparently having a decided centre, but all ultimately broken together, and betokening eventual decay and death. Following the inevitable natural law of the family, the greater the signs of debility shown the greater the disposition to get into a state of inflorescence, and, although the gardener in charge may pinch the coming flower stem as a corrective measure, with the view of saving his plant, it either in course of time breaks away again from the top eye remaining, or starts afresh from the base of the foliage. The flowers, if allowed to form, often prove equally beautiful with those on unexceptionably healthy plants, and contrast ill with the diseased foliage, looking as if they ought to be in better company. Some, by careful watching and under the influence of remedial treatment, do survive and start away on their own accord from the fleshy-looking crown—indeed, the tendency is to reproduction by lateral extension, but it is the reproduction of deterioration induced by an unimpeded obstruction; and although we have experienced it going on, two and three times removed, it eventually ends in death.

But the wearing-out process asserts its prerogative even among healthy plants—plants that have been so long-lived that have lived a life where admiration was never once withdrawn. There has been abundant evidence to collocate, showing that the *Phalaenopsis* *amabilis* and *grandiflora*—species which have been nearly 30 years under cultivation in this country—can be grown a certain time, say for a dozen years, with uninterrupted success, and then the deteriorating tendency of the nature of the plants themselves, clearly shows itself. Many orchid-lovers who dispute the validity of this theory, but let them study the history of the genus, and then report. The strongest argument I have heard in defence, is to this effect—that granted *P. amabilis* or *P. grandiflora* will lose their vigour in course of time, and as a consequence lose the principal leaves, and probably their whole foliage, yet they easily break away again, and the living plant only requires to be sustained, and nursed and treated properly, to keep up unimpaired interest in the beauty of its foliage, and the plenteousness of its flowers. All I have to say is, follow out the life history of the plant, and the grower or owner will see that by no process can the same vigour be infused, nor the same dimensions attained, proving conclusively that dissolution is only a matter of time. In good hands, the lives of plants can be prolonged like the lives of individuals, if not subjected either to fast living, to injudicious checks in the shape of food or water supply, to improper aeration, or to extremes of heat or cold. Many growers can rear first-rate specimens of the plants in question, by refusing to allow them to flower, and by so doing add to the years of their life. But what is gained by this is lost in the want of the same quantity of flowers during the lifetime of the plant. It may be good enough practice for a great spurt to astonish and electrify the sightseer by the hugeness of the specimen (comparatively speaking) and the quantity of flowers produced, but to the real Orchid lover this is but a questionable return. Moreover, plants grown in this plethoric condition—for the predisposition is in that direction, if you stay the process which Nature assigns—are apt to become diseased. The least injudicious management will induce that dire plague—rust spot, and once into the system of a *Phalaenopsis*, it is not up to the present time, has been found able to resist for its eradication. It is so thoroughly mixed up with the system, that the usual recipes which may stay its inroads, are futile to coax away or dispel it. Indeed, this part of vegetable pathology is but imperfectly understood, as a variety of causes may operate to produce the same disease.

But the plant is popular. It must be grown, can be grown, for years, but what about the supply? It is one of the most difficult of plants to import. The two most common, *P. amabilis* and *P. grandiflora*, notwithstanding the attractions of other-known to science or cultivation, are the most beautiful, and therefore the best. In recent years we have had new fields to replenish our stores. In addition to the old district, we have Borneo and Pulo Penang, which have supplied quantities of the *P. amabilis* variety, and many excellent forms have been a ready proof. The constitution and the appearance of the plants from the three different districts vary so much that a skilful grower, or a careful observer, will be able to separate them all. Looking, however, to the increased demand, which is steadily going on, increasing still, notwithstanding the fluctuations and depression of trade, we apprehend there will be some difficulty in maintaining an adequate supply. At the

present time the two species named above cost as much gold to secure in this country as ever they did, and the market is rising. All those who hold stock have nothing to fear so long as they keep them free from spot, in fair healthy condition. As an instance of how importers of the greatest experience in the country are affected by circumstances over which they have no control, I append a passage from a letter of Mr Stuart Low, received in August last, which I trust he will excuse my publishing, in support of the plea I have propounded as to difficulty in importation and consequent losses incurred—"We have recently had one or two hard hits on theory of importation. Just recently we have had what, when packed, was perhaps the most valuable lot ever sent us—a grand lot of *A. l.* species, and bulk was great also, but losses about total—so much so that out of this, and previous lots, we have not offered a single plant to any one, only a few odds and ends being saved from the wreck. Add to these two lots a third of *Phalaenopsis*, of which out of 480 we saved one, and you will agree with me that results are not brilliant." Here is an instance of the enterprise of that firm, with returns absolutely nil. Had these 480 *Phalaenopsis* come to this country alive, they were worth, in round numbers, 1000*l.*, and would have exercised very little effect upon the market so far there are to offer at anything like tempting prices. Native localities got cleared out of such valuable marketable commodities, and unless the collectors stumble upon new districts we have need to be watchful over the stock now in the country. Reproduction by seed is a slow process, taking years to make plants fit to send home. Then all our efforts at rearing the genus from seed have failed. There is no difficulty in hybridising the species and getting seed capsules, and quite as little difficulty in crossing varieties—the great matter is to get the seed to germinate. I effected an excellent cross between *P. amabilis* and *P. Schilleriana*, and was all excitement for years, hoping against hope that the seed would germinate; but, like many others in rearing *Phalaenopsis*, I was doomed to disappointment. J. Anderson.

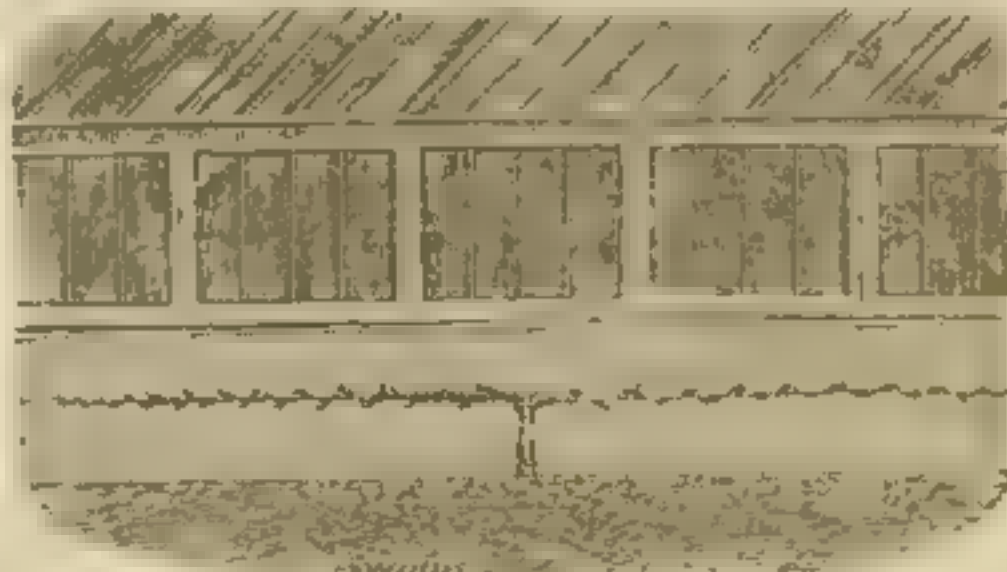
(To be Continued.)

THE CLOCHE AND THE CORDON.

We are enabled, with Mr. Robinson's permission, to avail ourselves of two cuts from his "Parks, Promenades, and Gardens of Paris," illustrating these two



subjects, concerning which not a little has been already said in our columns. No one will deny the handiness of the cloche for winter salad growing, raising seedlings, striking cuttings, protecting winter



flowers, and the like. In France the cost of these cloches is about a franc a-piece, and they may now be obtained in this country at as cheap a rate.

Our second cut shows the way in which the cordon may be advantageously used to fill vacancies at the bottom of walls, the front of pits or plant-houses, or any low naked wall with a warm exposure. In small establishments, or in the hands of amateurs, this method of fruit growing has its advantages.

Home Correspondence.

Acalypha tricolor—It appears singular to me that this plant has not been exhibited worthily of special comment at any of the principal exhibitions this season. I cannot account for it, as it is one of the finest variegated foliage plants I am acquainted with. The specimen which I exhibited at Worksop on Sept. 2 was the most admired plant in my group, and for contrast of colour in a collection of variegated foliage plants it has no equal, the colour being so varied; indeed, it may be termed a plant of many colours. I have one specimen that measures more than 6 feet by 6 feet, which is truly fine, and pronounced by competent judges and visitors to be the finest plant in England. I had the same in grand condition last season, but for want of room in the winter I cut it down close, just as I would a *Pelargonium*. I shall be compelled to do the same thing again this winter, otherwise I shall not be able to remove it out of the house, in consequence of the enormous size it will attain. This I much regret, as I find the plant improves in size of foliage and colour with age. Would Mr Veitch kindly inform your readers what size it attains in its native country (Fiji Islands), its height, size of foliage, and appearance? I should imagine it to be one of the most beautiful foliage plants imaginable in its wild state. I find no difficulty

in its culture, plenty of water being the only secret. I have sent some of the foliage for your inspection. Edward Bennett, Gr to G. S. Foljomb, Esq., Osberton, B'k'ng'p. Very large and extremely handsome. The plant is described and figured in Dr Seemann's "Viti Flora," from which we will shortly extract an account. Eds.

International Fruit Show, Edinburgh.—My attention has been called to a letter in the *Gardeners' Chronicle* of the 9th inst, signed "Observer," and headed "The Troubles of the English Exhibitor," reflecting on my conduct, as secretary of the Royal Caledonian Horticultural Society, at the International Fruit and Flower Show held here last month, in regard to two Pines which were sent by Mr Ward for competition in class 3, and I shall be obliged by your inserting the following statement in answer. On September 7 a box was delivered at the Music Hall, and opened by Mr. Young, assistant secretary, who found it contained two Pines, the one a Charlotte Rothschild, the other a Blood, but no card was inclosed stating from whom they came, nor was there any marking on the address to lead to it. The box was therefore laid aside, and in the course of the day Mr. John Methven, gardener, Blythwood, applied to Mr Young to know if a box with two Pines had arrived, and he produced a letter from Mr Miles, instructing him to get the Pines staged and disposed of after the show. Mr Young accordingly delivered the box to Mr Methven, who took charge of staging the fruit and disposing of it afterwards. The letter, which is said to have been addressed to me by Mr. Ward, when the box was sent away, was never received; and I did not see Mr. Carmichael, the Royal gardener alluded to, till the morning of the 8th, when he came to act as a judge. In the course of the forenoon, Mr. Carmichael asked me if I had received a box with two Pines and a letter regarding them, when I informed him I had not, and in the evening he again asked if the box had cast up, and showed me Mr. Ward's letter to himself of the 6th, wherein he asked Mr. Carmichael to desire me to have the Pines returned to Mr. W. after the show, which I agreed to do if the box came; but as I did not know the address, I asked him to give me the letter, which he did, and the same is now in my possession. On Saturday the 11th I left town, and did not return till Monday the 20th, when I found a letter had been delivered at my house that morning from Mr. Ward, addressed thus: "Mr John Stewart, St. George's Hall, Edinburgh," being the letter of the 18th referred to, and the only one I have received from him, his two former letters never having reached me, and no wonder, if they were addressed the same as his letter of the 18th. How that one should have been delivered at my house I cannot understand. As I saw from that letter that the box had never cast up, I called on Mr. Young to know if he had heard anything of it, and shown me the letter, which explained to him the mystery about these Pines, and he then informed me for the first time that the box had been delivered to Mr. John Methven (as detailed above), that the Pines having gained the 1st prize, Mr. M. had written Mr. Miles, informing him of his success, and that he had sold the Rothschild, but could not get a purchaser for the other, that Mr. Miles had written to Mr. Methven in answer that there must be some mistake, as after having written to him to take charge of the Pines, he had changed his mind, and not sent any, and on this being communicated to him (Mr. Young), he had written Mr. Ward, who had entered for the same class, to know if the Pines were his, but had not received an answer, which he supposed was owing to his letter being addressed to Stortford in place of Bishop Stortford. He, therefore, agreed that he would write him again, explaining everything, which he did, and I afterwards understood that Mr. Ward had expressed himself as satisfied with the explanation he had received. In the prize list, published in the "Gardener," the error was corrected, and an advertisement was sent by Mr. Young to the "Journal of Horticulture" and the *Gardeners' Chronicle*, correcting the same. [Not received.] The above are the exact circumstances connected with the mistake about Mr. Ward's Pines, and I must express my surprise that, after the explanation given to him by Mr. Young, he should either have written the letter signed "Observer," or given the information to enable another to write it. The mistake did not occur through any of the officials of the Society, it was caused solely by Mr. Ward himself,—first, by his not putting a card into his box stating from whom the fruit came, and, secondly, by his putting a wrong address on his letter of advice to me, in consequence of which it has never reached me. John Stewart, Secy, G. A. S. Hort. Exhib., Oct. 13.

Victory of Bath Melon—I think it would be a great boon to the gardening public to be in possession of a really first-rate Melon. According to my judgment no Melon comes up to Victory of Bath, considering all its merits. The plant is very hardy, that is, will bear treatment that would kill such sorts as Golden Perfection, and sets abundantly without artificial impregnation: in fact, I have this season gathered three crops from the same plants, and was obliged to pull them up to make room for winter Cucumbers, or I believe they would have ripened a few more. The fruit is beautifully netted, of a fine golden yellow colour; the flesh, which is green, may be eaten to the rind. It is of most exquisite flavour, and may be eaten like a Jargonelle Pear. An average fruit weighs about 3 lb., quite large enough for a gentleman's table. I have not seen any other sort this season, hence I may presume my stock pure. I shall feel pleasure in giving a few seeds for trial upon receipt of a stamped directed envelope. A. S. Kemp, Haxthorn, Sharncliffe, S't'p.

Special Pelargonium Show—If the question were asked as to which is the most popular plant at the present time, the Rose or the Pelargonium, it would, I think, be a somewhat difficult matter with many to

decide, and there would be found numbers who would say the Pelargonium; and certainly, whether we glance at the garden of the cottager or the peer, we shall find them both very extensively cultivated, and perhaps the latter will be found in more places than the former. This being the case I, with many others, think that if the Rose is of sufficient importance to have a special day set apart for a show, the Pelargonium is equally entitled to the same honour; and as during the last three seasons it has been thus favoured, it is highly desirable, considering the prominent part it plays in the decoration of our flower gardens and conservatories—and in view, too, of the improvements continually being effected in the various sections of this popular plant—that a special show should still be held, either apart from or in conjunction with one of the other shows. Your correspondent Mr. Cannell, a few weeks back, touched upon one or two points, about which I think there would be found some difference of opinion, but if the former subscribers to this special show were to meet, I think it probable that some alterations might with advantage be made in the schedule; but, as you remarked then, there is no time to lose. I hope that those principally interested will take the matter up, and if so, from the amount of interest displayed in the past, I feel sure that the movement would be attended with the same success which rewarded those who organised the show of the past season, there being numbers of amateurs and others who attend these shows, for whom the large shows possess little or no attraction *Philos.*

Cantharellus carbonarius.—Will you allow me to correct an error in your leading article at p. 1061. The *Cantharellus carbonarius* found by me about a fortnight ago was not found on charcoal heaps in the woods around the Wrekin, but in the Duke of Sutherland's wood at Lilleshall. I have carefully examined several charcoal heaps in the Wrekin woods, but hitherto have failed to detect a single specimen of this Fungus. Yesterday I went again to the Lilleshall woods, and examined some eight or ten charcoal heaps of different ages; but, with the exception of one heap, where I found three specimens, I could discover no additional heaps that afforded the *Cantharellus*. From the heap where I had previously found this Fungus I gathered about 40 specimens, most of which I have this day forwarded to Mr. Broome. Should I discover more in the course of a week or ten days, I shall be happy to send specimens to mycologists who wish to make drawings of the *Charcoal Chanterelle*. *W. Houghton, Preston Rectory, Wellington, Salop, October 15.*

Shanking of Grapes.—"Twenty sovereigns would I give, if I had as much," said a veteran horticulturist the other day, "if I could only find out to my satisfaction the real cause of that evil. Thrips, red spider, and mildew I can form some conception of, but this shanking beats me." There is much truth in this; it beats a good many besides my friend. I have seen more of it this year than I ever remember before, and all who have to contend with it assign some reason of their own for its presence. Bad borders and overcropping are frequently mentioned, and, no doubt, are likely to bring it about. Spider and thrip attacking the foliage may be added. I venture to suggest another cause, which I have never seen hinted at before: it is this—an excessive reduction of the amount of atmospheric moisture at the time the Grapes begin to colour. This, I should say, hastens the maturing of the wood before the Grapes are supplied with the necessary amount of organisable matter to perfect themselves. To give any more physiological reasons in support of this hypothesis I will not attempt; but I should like the contrary to be proved, *i.e.*, that the proper balancing of atmospheric moisture has not much to do with shanking and deficiency of colour in Grapes. We have here a viney which three years ago was infested with all the known diseases and pests. Last year we reduced them to three, *viz.*, shanking, spider, and thrip; this year to two—shanking with slight appearance of the return of mildew. The latter we mastered in three weeks; this I think is the worst of all—it spreads so rapidly, and leaves traces of its stealthy steps on the berries to the last. To inquire the cause of shanking in such a case as that would be absurd. There is enough visible at once, without having to pry into the earth beneath. The fact of the Vines having been infested with spider for a dozen years would be sufficient in itself; but when it occurs on apparently clean healthy young Vines, growing in borders of modern construction, and managed by man whose skill one can scarcely doubt, one cannot help being possessed of the feelings of my friend with his 20l. *W. P. R., Oct. 12.*

Destroying Wasps' Nests.—The public is indebted to Mr. Squire for his information on destroying hornets' nests with chloroform, but that portion relating to wasps must be received with caution. For instance, wasps are always found at night guarding the entrance to their nests, and a very slight disturbance will put them on the *qui vive*, even a light thrown on them from a lantern will often do it, so that to put a stick or one's finger into the hole to ascertain its direction, would be to destroy all chances of killing the whole of the wasps. I have destroyed in one season upwards of 100 nests, and without being once stung (using the old-fashioned squib), my first care always being not to disturb the doorkeepers. I never felt the slightest fear, but was never courageous enough to put my finger into the hole. There are many queer places I would put my finger into rather than into a wasps' nest. Nor do I think we must take it as a general rule that wasps use rats' holes, or even a bank. I have found more nests on an average in flat ground, and with one small entrance hole made by the wasps themselves. But this, I think, depends in a great measure on the locality and the season, for when dry they prefer the flat ground. When living in Scotland, on the banks of the Clyde, a proverbially wet part, I destroyed in one season 14 nests, all of them hanging to branches

of trees. This I attributed to the dampness. On closely watching a wasp's nest, it will be observed that they come out as well as go in loaded, the load out being the earth they remove in making room for their nest and its passages, which load they drop soon after taking wing. *A. M., High Trees, Red Hill.*

The Veitch Memorial.—Though believing firmly that the genius, enterprise, and unconquerable energy of the late Mr. James Veitch will ever remain his most fitting memorial, it is yet natural and proper that his contemporaries should do something worthy of themselves, and, if possible, of him, in testimony of their esteem and regard for his memory. I wish to share, however humbly, in this good work, and to join with you in urging that what is done may be done, not only thoroughly, but promptly and spontaneously. Respect for the dead, and a sensitive regard for the deepest feelings of the living, suggest the propriety of pushing the good work through to completion with the least possible delay. While the matter is undecided, permit me to offer the following suggestions as aids to determining the character and form of the testimonial. It must, as you observe, be agreeable to the family, and it ought to be appropriate to the man and his works. Now, whatever else Mr. James Veitch was, he was pre-eminently a horticulturist. He had a large hand in making horticulture what it is to-day; and that work, steady, progressing, absorbing, largely moulded, may we not almost say, made the man. Would he have cared for a monument? I think not. Mr. Thomson's suggestion of a Veitch Prize or Medal is much more appropriate, and would be serviceable to horticulture for all time coming. If it were practicable, a Veitch Club in London, forming a rendezvous for gardeners in the capital, for social recreation, the reuniting of old ties and the formation of new, a bond of union among gardeners, and a centre of intellectual culture and professional instruction, would be a grand memento of the dead, and might become a tower of strength and a source of blessing to the living. Such an institution is one of the horticultural wants of the age. A Veitch Horticultural Library, on the circulating plan, open to all gardeners on paying a nominal subscription, could be easily established, and would bind up the name of our lamented friend with the sweets of knowledge and the pleasures of our higher literature. There is another thing which ought certainly to be done, that is, to have a portrait painted by a good artist and placed in the council chamber of the Royal Horticultural Society at South Kensington. This, with either the Veitch Library, Club, or special prize projects, would make the name of the deceased still a quickening power in horticulture. A word upon the last point, and I have done. The memorial should be a measure, as far as such things can be made so, of the width and depth of our esteem and regard. All that can should have a hand in it. Money will be needed, but money is not the chief thing. As much love and sympathy can be given with a shilling as with a guinea, and there is no fear of our esteem being measured out by such base standards. By all means let the men with guineas to spare place them at the disposal of the committee; but let not these guineas stay the flow of shillings and pence in the same direction, if these are the promptings of a true regard. Let every gardener but determine to have a hand in the Veitch Memorial, and the work is done, and what we do, let us do quickly. *D. T. Fish.*

The Royal Horticultural Society.—I naturally expected to get some hard hits in answer to what I wrote about the Royal Horticultural Society. It is always so easy to "abuse the opposite counsel," and I was, of course, so executed by "malice, hatred, envy, and all uncharitableness," that to hear only of mortified pride, disappointed ambition, and interested motives, is quite a relief. If my friends had said I wanted to get on to the committee to "rob the till," that would have been something. But I did not expect that any one who took the trouble to read my note could have taken the view that Messrs. Cannell and "Veritas" have done. If I had been excluded from the committee for non-attendance, I should have said nothing, but at the meeting to which I alluded the three names had already been struck out, and not only was mine not among them, but I believe I had attended much oftener than many of the others who were left on. No; my name was struck out by the Council in direct opposition to the rule they profess to be guided by, and so far from attending only when certain flowers were before the committee, I tried to attend whenever I could. Did I say a word against the Floral Committee, as Mr. Cannell seems to infer I did? Where? let me ask. I should be, indeed, ungrateful to do so, for I have ever experienced from its members, with but one or two exceptions, the utmost kindness; and I admire them for their patient endurance of much which nothing but their love of floriculture would lead them to submit to. The fruit is higher up, and until we see an infusion of fresh blood into the Council—not gentlemen of fortune or chief gardeners—I fear much we shall see no improvement. Let Mr. Cannell agitate for this, and he will do good service. I have too great a love for flowers to wish ill to any institution connected with gardening. I have written what I know are the opinions of a large number of persons in every branch of horticulture. *D. Deal.*—As political chiefs have brought peace to their bosoms, and benefits to the State, by inviting into office representative men, and have found in fierce and restless adversaries their wise and steadfast friends, so I believe would the Council of the Royal Horticultural Society do well at this time to recognise a feeling prevalent among its fellows, that the legislature might be enlarged to the advantage of the Society. There are many of us who, highly esteeming the active members of the Council,

would like to see their number increased by admission of practical horticulturists, forming a communicating link between the wealthier and poorer members of our gardeners' guild, between employers and the employed, as well as between the city and country contingents, mixing freely with each other and visitors, hearing and reporting any just criticism or any sagacious hint. We would have the expenses of travelling and attendance paid, and there might be no jealousies, a fresh election at intervals. We want these men to bring us into closer harmony and union, by bridging over the gulf separates at present two sections of the Royal Horticultural Society. Why should not the names of men as Veitch and Turner, Lee, Henderson, Williams, and 50 others in their turn, be found on the Council list? There need be no alterations, but merely additions. We all of us esteem gratefully our officials, and we only ask the Council to increase their popularity by increasing a power, which comes in at this crisis most precious—the power to add to numbers. *S. R. H.*

Potato Grafting.—Mr. Simpson states, at p. 1061, that I do not recognise that the stock has any influence on the scion. I did not assert this, but I assert that the stock has no influence in changing colour from white to red, &c. It is a well-known fact that the Potato is self-supporting, and in this respect not to be distinguished from the stock and scion of the tree. I have any influence on each other, and even if the produce would most likely be deformed and less. In September, 1853, Dr. Maclean, of Chester, whose death has lately been recorded, a young plant of the white Silesian Beet was grafted of Red Beet, and *vice versa*—see *Gardener's Chronicle*, 1855, p. 29. At the time of the experiment the plants were each about as thick as a straw. A junction was effected, and when in 1854 the plants were grafted on Red was taken out of the ground there was seen a slight contraction at the junction, much like that formed by "choke" in a rocket case. Above the line of contraction the stock was absolutely white, below it was absolutely red, not a trace of blending the two colours could be observed. By similar experiments on other vegetables and plants Dr. Maclean had so far assured himself of the perfect independence of scion and stock, and he acquires the belief that neither the colouring matter of the specific characters of the one or the other could be altered by the union. The results of the trial wholly confirmed that view, and demonstrated that the White Beet adhered to the Red Beet by a junction of cellular matter, and also that the Red Beet stock thus held together in the first instance, and afterwards produced its own colouring matter in its own new cells as they formed superaciously, the red adhering to the white cells while in the nascent state, but retaining each the peculiarity belonging to it, without any interchange of contents through the junction of the cells in contact. This is entirely consistent with all that has been discovered by modern physiology, and who have applied themselves to a study of the principles of the individual cells of which plants consist. In the cells of the Red Beet resides a power of forming colouring matter, and in those of the White Silesian Beet a power of forming yellow, and this peculiarity is not altered by the one growing into the other; red-forming cells produce their like, and yellow-forming cells produce their like, and the limit between the scion and its stock is unmistakably traceable, and notwithstanding the combination of the two sorts in one, each preserves that which is natural to it. What is true of the Beet is quite true of other plants, and, as I have stated, I am not able to comprehend the change of colour that has been stated to have been effected through grafting. Nothing can possibly be gained by grafting Artichokes into Potatoes, unless it is to have both. That Artichokes grafted into Potatoes will, I have no doubt, but I am not prepared to acknowledge that they will cross; but "nothing venture, nothing win," seems to be Mr. Simpson's motto, and I would advise him to follow, as he is very intelligent and persevering. He, however, says that after years' trial he cannot truthfully state that he effected the slightest improvement by the practice; on the contrary, the produce has been invariably been most ugly. This one point he has not to me, which is one of the points in my communication, my statement being, "Potato grafting, I fear, will be worth the trouble and time bestowed upon it only in experience with regard to procuring new varieties." I decidedly against the practice. I trust we shall satisfactorily settle this question ere we see the *Osberton Hall, Worksop.*—Since writing the above communication on the 11th inst., I see your correspondent, Mr. Fenn, has replied to my letter, and concludes his remarks by stating that he cannot quite understand the two last paragraphs of my former letter, therefore I will quote a portion of my remarks again, and endeavor to be more explicit. "That Potatoes grow worth grafting sets I fully acknowledge, but the change from white to kidneys, and *vice versa*, and from modern white, I am at present not able to comprehend. I quite understand that a red Potato grafted into a white one will produce red Potatoes, and a white grafted into a red will produce white Potatoes, that is, if all the eyes are destroyed (not otherwise), or there will be a mixture of colours—that is to say, both the stock and the scion will produce Potatoes of their respective colours and shapes." Grafting, as stated in the above communication, will not alter the colour, and I do not see the possibility of its altering the shape; indeed, to produce true hybrids by grafting appears to me to be a very able, and I believe Mr. Fenn's success in obtaining two new varieties may be accounted for in some way than by grafting, although I am quite convinced

Mr Fenn believes they were obtained by that process, and he certainly ought to know more about them than any other person. We all know that in digging up a crop of Potatoes the tubers are found to vary. The other day I was at Handsworth Nursery, where they were engaged in digging Paterson's Zebra Potato. Here were to be seen purple, white, striped and mottled, all from one variety. Thus we see the peculiarities of the class, and also the difficulties of coming to a just conclusion with regard to the grafting process, which may prove in the end a delusion, although it may appear at the time quite conclusive. In the second paragraph alluded to, I stated "it may not be generally known that Potatoes will even grow without eyes—one square inch of the substance of the inside of a tuber will grow." This appears incredible to Mr. Fenn, who states it is something beyond his experience, the mere mention of which will send him on another track. I hope he will give us the benefit, should any occur, in his next experiments. I again assert such will grow, make naulm, and form tubers, without a fang or symptom of an eye in its composition. The young tubers will vary in shape and be small. I do not assert every piece will grow; probably some may rot, while others will grow. Even a much smaller piece than what I have stated will grow. Indeed I assert the Potato is vital to the core, in this lies the difficulty of experimental grafting, for if all the eyes were removed from the stock it would not prevent it (at times) from throwing up haulm and forming tubers. I state "at times," because every tuber may not start into growth. *Edward Bennett, Osherton Hall, Worksop.*

Is not the tuber-grafting of Potatoes sheer humbug? and are not the so-called results mere accidents? I knew a gardener who took the 1st prize for round and kidney Potatoes for years from the self-same stock of Ashleaf Kidneys. *Paddy.*—[From an article in a *Forbes* paper we learn that Dr Innes, of that town, has been experimenting on the subject of Potato grafting. "The Doctor, last spring, took black kidney Potatoes and cut out the eyes by a wedge-like notch. Into the cavity thus made, in one set, he inserted the eye of a Regent Potato, and into the cavity of another the eye of a Fortyfold. The sets, it will be observed, were black kidneys, and the inserted eyes were (white) Regents and Fortyfolds. The product is a mongrel group of large, pink, round-shaped Potatoes, intermixed with white, round, and pink and black kidney-shaped ones. It is clear that the graft between the black kidney and the white round Regents and Fortyfolds produced a hybrid of a round kind modified in colour. Potatoes, white and round, were also got from the same stem, as well as pink and black kidneys."]

Radiation.—Here is a question for the wise men of the *Gardeners' Chronicle*—What is the difference in instance, the amount of heat lost by radiation through glass of different thickness or weight per foot, such as 16-oz., 26-oz., &c. *Enquirer.*

Boilers.—I would like to know how much good is to result from the projected trial of boilers. It seems to me almost an infatuation which the trade in hot-house boilers is drifting to, and only to be productive of uncertain good to the buying community. Upon the principle of "little good little harm," it may be tolerated; but what about the economy of the boiler itself, even supposing makers and patent holders were to have trials to their hearts' satisfaction? Heating is a simple question of calculation, and gives forth no uncertain sound to those who care to investigate properly, and take action accordingly. It is not a matter of heavy or lighter draught, requiring the dynamometer to test, as in the various implements used in field operations, or in having furrows set up with the nicest cut and the greatest mathematical precision; it is simply a question of what kind of fuel is to be consumed, and what amount of work is expected to be done with the selected article. There is an idea abroad, that the more turnings and windings you have in a boiler, so that the flame can play hide-and-seek in various storeys of metal, the more powerful it is, and the more eligible for general work. False impression indeed! The supporters of this theory forget that a portion of their vaunted boiler is nothing else than a smoke flue, which the tongues of flame possibly never touch, and the coating of soot that gathers on the metal is about the best non-conductor known. One might ply the office of chimney sweep every day to a boiler of this description, and the amount of heat utilised in the passage through it is inappreciable. What should be studied, therefore, is how shall we present a surface that radiant heat shall most efficiently impinge upon? If it be in a locality where dress or small coal is cheap, I should say that some form or another of the saddle is decidedly the most economical, as it is most durable. If it be wanted transversely to catch the action of the flame in its passage over the boiler sides, so much the better. The best coats that have ever been quarried will not give out beyond a limited number of yards of flame, and therefore some limit to multitudinous passages is desirable, for it is perfectly clear that what the smoke disperses in heat it nullifies with its gathering sooty covering; and for people to propound that they can utilise all the caloric in their favourite boilers, and ultimately send forth the smoke cool from the top of the chimney, is simply an impossibility. I opine, that in all the modern and ancient systems the water in the bothy kettle must yet be boiled at the top of the respective chimneys, serving to show that under the best system so much heat is bound to be lost. Given a cold frosty night and several thousand feet of piping to heat properly, and I would like to see the nurseryman or gardener, or anybody else, who would tell his stoker to be cautious, in order to economise the heat in the desired quarter, and if you fire vigorously a certain quantity will vault up the chimney and disperse in pe; indeed, smoke. If coke be about as cheap as coal, as it generally is at certain distances outside of the coal

country, I have no objection to some or other of the forms of tubular boilers, with their network of piping, which carry heat more generally and more expeditiously than any of the forms of saddle; but to attempt to use common coal with such a boiler, would be futile and uneconomical. But withal, I have a decided partiality for the horizontal form of boiler, which lies better to the fire. If proof were wanted, from a scientific point of view, we need only point to the Cornish boiler, as used and recommended by the foremost engineers of the age as the one best suited for purpose and economy, and bear in mind that the Cornish boiler presents the saddle outline to the fire when the bars are placed in position. In point of durability, even makers themselves are bound to admit that a properly made saddle has no equal. We have four of them occasionally at work at Meadow Bank, two kept as emergency boilers, which enables one to sleep quietly at all times. In times of a spurt—as witness 1860-61, the thermometer being 13° below zero—we can keep out the enemy without hard working, which is more due, however, to the arrangement and sufficiency of the pipes placed, than probably to boiler power; but we have both as vouchers. I was going to say, however, that I have wrought one of these cast-iron saddles 15 years, and it is as efficient now as ever it was, and likely from the uniformity of the play of the fire, to last quite as many years more. I would not vouch so much for the best made of the tubulars, from the different junctions of metal, and from the partial action of the fire. The proper arrangement of the pipes, so as to present a minimum friction to the circulation of the water, is of first import, meriting far more attention than it receives. Let the water have an unimpeded passage, and it will flow upwards, and onwards, and backwards, in such a style, that it must be a very badly set boiler, and a very bad boiler to boot, that will not do its duty. I like, amongst the many forms I have seen, that of the "concentric saddle boiler," advertised in your columns, as likely to be powerful, economical, and good. If it had a transverse wing at the back end of the fire, it would, in my opinion, be about the best form practicable for utilising heat, and sending the water forth in rapid and constant circulation. *James Anderson* [Such a boiler has lately been fixed to heat the herbarium and library at Kew. We may hereafter be able to report on its performance. Eds.]

The Royal Vineyard and other Vines.—My experience with this Grape is that it does best grafted or inarched on some other variety; I have not yet seen it do well on its own roots. It is planted in a house at this place, on its own roots, with Lady Downe's, Trentham Black, and Black Hamburgh. Compared with the others it is the weakest grower; the berries are not large, and they are unequal on the bunches, which are also small; none of them ever weighed over 1 lb, while Black Hamburghs, in the same house, have had bunches weighing over 6 lb, Trentham Black and Lady Downe's from 2 to 3 lb. In other gardens where I have seen Royal Vineyard growing on its own roots the results have been similar. At one place celebrated for good gardening the gardener told me he did not thin-out the berries at all, and yet the Vine was making strong shoots. I fancy the bunches which were exhibited of it before the Vine was sent out were from inarched or grafted Vines. I have seen it growing in a Muscat-house, inarched on another variety, with bunches of from 3 to 4 lb, the berries large and equal in size, but the gardener told me it did not keep well; it hangs late here, up to February, with care. Is it possible that grafting, so as to increase the size of bunch and berry, deteriorates the quality of the fruit? Be that as it may, in the case of the variety in question the results which have been arrived at by grafting one variety of Grape Vine upon another are most remarkable. Graftings such weak-growing and difficult-to-manage varieties as Grizzly Frontignan and Chasselas Musqué on the Black Hamburgh is said to improve those sorts, and yet I have seen both sorts grafted on the Hamburgh without any improvement. On the other hand, a house of Black Hamburghs with which I am acquainted, in a retrograding condition, was resuscitated by being grafted with Canon Hall Muscat, and produces far superior Grapes as Muscats, to the Hamburghs. Again, the Muscat Hamburgh, on its own roots, is seldom seen with well-set bunches, but grafted on the Hamburgh the bunches are large, and well set with berries equal in size. That new variety, Mrs. Pince's Black Muscat, I have not yet found to be improved by grafting. It has succeeded best on its own roots, both in regard to colour and flavour, grafted on Lady Downe's the berries are larger, but colour and flavour are very much deficient. Royal Ascutt is a very inferior Grape grafted on the Black Hamburgh, the bunches are meagre-sized, the flavour and texture of the flesh not unlike that of Gros Guillaume. They both fruited in the same house, and some persons thought the Gros Guillaume the better flavoured of the two. Muscat Champion and Buckland Sweetwater are improved by being grafted on Black Hamburgh. The first named is a new Grape, with a decided Muscat flavour, and that is more than I can say of Mrs. Pince's as yet. It is always deficient in colour, and is not a free bearing variety, but is one of the finest flavoured of Grapes, new or old. Buckland Sweetwater is perhaps not improved in flavour by being grafted, but the berries are firmer in the flesh, and consequently keep better. Much more may be written on this subject, but these few notes may be useful to some of your readers, and may perhaps be the means of inducing others who have had more experience than I have, to state their views on the subject. While writing about Grapes, I observe the account of the awards at the meeting of the Fruit Committee of October 5. In class 2 there was no competition, and in the others but little. If, instead of the best three bunches of Chasselas Musqué, it had been for three bunches of white Grapes, any variety

except White Muscat of Alexandria, there might have been a good competition. There might have been a class of the same sort among the black Grapes—three bunches of any variety of black Grapes exclusive of Black Hamburgh. I make these suggestions because I think there would be a better competition, and a more interesting one. *J. Douglas Esq., Loxford Hall, Ipsford.*

Orchid Culture.—Mr Gammie's letter at p 991 of your *Journal* appeared while I was having a holiday in Switzerland, or I should have noticed it and thanked him for his observations, before Mr. Anderson seemed to think I had no proper right to question the treatment he advised for *Dendrobium Falconeri*, but that I have been the means of drawing out such a letter from Mr. Gammie—which, I hope, is only one of a series—abundantly satisfies me of the advantage of ventilating in your pages questions upon which information is wanted. At that time I had just purchased a plant of *Falconeri*; previously I had only had three very small plants; but since then I have also bought some of the newly-imported pieces, and I now feel, from closely observing them all, more at my ease in the matter. I shall not try the cool treatment to my Orchids yet, and particularly to this one; for I find what upon a Vine would be called air-roots upon most of these newly imported pieces. This tendency in *Dendrobiums* I hold to be the best proof that they are doing well,—during their season of growth, I mean, though they should not lose them when resting. I want Mr. Gammie, if he will be so kind, to tell me if he has seen *Falconeri* growing what is called *in situ*; and can he confirm my opinion, from its drooping habit, and tendency to root and propagate from its bulbs, if it is, so to speak, the Ivy among Orchids? Mr. Gammie is fortunate in his position among the Himalayas, and we must picture him rich indeed in Orchids; but I am yet of the opinion, judging from the imported pieces, that our well-grown plants far surpass anything that is purely wild there; but if he has any under his own cultivation and care, I should like to know the size of the bulbs. Mr. Anderson took offence at this question—why, I do not know, but I trust Mr. Gammie will not, for what other test have we? Do we not read that So-and-so showed bunches of Grapes, or a Pine, of such-and-such a weight? or Mr. So-and-so sent *Palargoniums* a mass of bloom, the plants being of such a diameter? the canes in such a vinery were a model of growth, being the extraordinary thickness of blank, though they have only been planted two years, &c. &c. Therefore, I entirely disclaim want of courtesy in such questions. *Dendrobiums* are, I think, the most valuable class of Orchids, and the most easily grown and propagated; with this valuable merit, that you can, I believe, force or retard them all, and the flowers of nearly all stand, when cut, to perfection. I sent last winter to a lady five flowers of *D. heterocarpum* and four of *D. moniliforme*, and she told me they served her three successive nights. She added no forcing, and had the pleasure of being envied by all the ladies who saw them. I have a *D. nobile* now in flower, and shall try to keep going as nearly as I can till next June; and live in hope that when I have more plants of what I should call the noble section, that we may have some of them every week the year through. I will, therefore, put it to all gardeners who have to supply their employers with flowers, are they not worthy of more attention than any other class of plants they can grow? I have read Mr. Gammie's advice as to temperature and light, and quite agree with him, as also upon watering. Nature has provided two distinct seasons, the growing season and the resting season, and we must provide two distinct treatments. As to atmospheric moisture, and the mode of feeding and stimulating them during growth by that means, I have already said what I can. During the resting season, the temperature being lower, makes the air dryer, and diminishing the watering does all the rest. As regards shading, my gardener says that our nobles flowered much better when they were not shaded, and, he thinks, made better bulbs, and he is anxious to try all strong-growing sorts so again; we are therefore going to feel our way in this matter next summer. The shading we have used has been the thinnest tiffany, which lets the house feel the sun, though it prevents burning. I find I have omitted to ask, Is not *Falconeri* one of the deciduous class? We grow all *Dendrobiums* we have room for in baskets suspended from the roof; they are "potted," if I may use the term, in crocks and Moss; but the whole class prefer to have their roots outside, and as soon as time becomes an object, the syringe is found to be the best watering-pot. *G. H.*

A Monster Potato.—I believe the monster Potato (p 1088) that Mr. Grieve saw at Daneker, in Fife-shire, is a variety which I have grown for the last nine or ten years. I had it under the name of Mallet's Manifold, and it came, I believe, originally from Ireland. It is an enormously strong grower, the stems as thick as a good sized walking-stick, and nearly as hard in texture. The tubers are kidney-shaped, and some merely oblong, of a large size, with deep eyes, and the skin of a leathery deep red, almost like red Beet when rubbed off. In the years when the Potato disease was very virulent it never attacked this variety, either in the stems or tubers; and when all other varieties were leafless, this kept quite green till the frosts blackened it. I grow them in rows, 4 feet wide, from their length of stem, and I have no doubt if grown in rich soil, and trained upwards, they would form monster specimens as at Daneker. It is only a field or cattle Potato, but in June or July it is not bad for eating when boiled or roasted. A few years ago I gave some to a friend to set, and he took the 1st prize for kidney field Potatoes with them, at the Birmingham great root show that year, exhibiting them, however, under a new name, namely, *Tillery's Goldfinders*. *William Tillery.*

Sambucus racemosa (pp. 1016, 1035) —By way of encouraging your correspondent "E. S. D." to renew

at length supplant the original form; so that we now find in *Geonoma* an effete ovary in the male flowers, a castrated stamen-tube in the female flowers—neither of the two of any actual use, but remnants of a structure which combined active organs of both sexes in the same flower. Some eastern Palms, especially among the *Spathelliflorae*, are said to have at this day truly hermaphrodite flowers. Among American Palms one finds in some species an occasional bi-sexual flower with all the organs perfect, but it is a case of extreme rarity. Even in Mauritia, where stamens are certainly present in the female flower, they have always seemed to me emasculated. *Journal of the Linnean Society.*

Cocoa-nut.—The cultivation of the Cocoa-nut is limited to the regions bordering the Atlantic and Pacific Oceans. As we ascend the Amazon it gradually becomes sterile. At Manaos, 800 miles up, the fruits appear fully formed externally, but are invariably empty. At San Carlos del Rio Negro, almost exactly midway between the two oceans, there were, in 1854, two well grown Coco Palms which had never even flowered. *Journal of the Linnean Society.*

Garden Operations.

(For the ensuing week.)

PLANT HOUSES.

GREENHOUSE or tuberous-rooted *Tropaeolums* will have generally commenced growing freely by this time, and will therefore need particular attention. Where any have not yet received the necessary shift into the blooming pots, they should be attended to forthwith. For the rest, as soon as the young rambling shoots have become sufficiently long to require support, this must be afforded them. The full-sized trellis or other support intended to be covered should be placed in the pots at once, and a judicious and artistic system of training be entered upon. The first or primary shoots generally grow pretty freely before there are any symptoms of lateral shoots being likely to follow. If the former are trained in the best manner possible across the whole support, it must follow that the minor shoots which will follow will better aid in filling in all immediate spaces. Where this is not studied, the whole growth will quickly establish itself at the apex, leaving the lower space more or less unoccupied. They like abundance of fresh air and light, and are not fond of too damp an atmosphere. *Blandfordias* may now be shifted into fresh soil. Equal parts of loam, sand, and peat, will suit them well, with a good sprinkling of silver sand. Great care should be taken not to make them too wet at the root during the incoming winter months. They will then make fresh roots early in the spring, and push up robust flower spikes, which are very telling in comparison with their narrow grass-like foliage. Afford the early or winter blooming strain of *Pelargoniums*, such as *Rubens*, *Gauntlet*, &c., a nice warm, light, and airy situation, with a moderate supply of root moisture, and give them an occasional damping overhead. These, as I have before intimated, should now be shifted finally into their blooming pots, which it is essential should be small in size compared with the extent of the plants themselves. Those plants which are now about to show flower, such as the many beautiful varieties of *Epiphyllum truncatum*, *Gesnera Cooperi*—an old but very beautiful species, various *Orchids*, such as certain *Cattleyas* and *Dendrobiums*, and the beautiful and free-flowering *Calanthe vestita*, with its three or more varieties, should be all brought to the fore, and receive that amount of attention which they deserve. In instances where it is not advisable to afford water to the roots of any, no little aid may be afforded them by simply sponging over the leaves with fresh tepid water, as by simply increasing the surface-absorbing capacity, increased aid is insured, to compensate for the strain placed upon plants in the act of blooming.

FORCING HOUSES.

I can add little this week to my reiterated advice regarding *Vinerias*, which at this season require but little direct attention, though thoughtfulness should always be observed until the last bunch of Grapes has been cut. The chief point to be attended to in reference to late Grapes arises from the necessity of keeping them back as much as possible as soon as they are sufficiently ripened. The weather we have experienced has assisted us in that respect, when a moderate dry atmosphere prevailed. The *Pines* in various stages of growth should now, as I have more than once suggested, be all nicely housed for the early winter campaign. Plants on which are ripe fruits not required for a few days, may be taken, pot and all, into the snugest corner of the latestinery. Here the fruits will keep longer than when severed from the parent plant, and be fresher when required than when hung up under the roof of a fruit room or other similar situation. Those which are swelling freely in a primary stage, immediately succeeding the blooming period, may be excited advantageously by affording a stimulant to the roots in the form of manure water. Keep up a moderate amount of atmospheric moisture constantly, especially in fine bright weather. This should at all times be diminished or increased in conjunction with the external atmosphere. Considering that young *Cucumber plants* have now made a fair start in those houses intended to furnish the mid-winter supply, and that the roots of such plants have begun to extend and ramify throughout the soil, it will be advisable to choose a bright warm sunny day upon which to give them a slight root-watering. First afford an increase of bottom-heat, and having soft tepid water to hand, when it may be freely applied. As they continue to grow, do not omit to pinch out all such tendrils as may form as soon as they appear, as they rob the plants of what they require for ulterior uses. A successional sowing of *French Beans* (dwarf) should also be made, to

succeed those already placed in the fruiting pots. Prepare the necessary fermenting materials for the early beds of the necessary *Asparagus*, and if not previously attended to, see that the surface growth has been removed from such as is intended to be forced, that at least a little rest may be afforded it.

HARDY FRUIT GARDEN.

Persist in brushing the leaves off wall-fruit trees, for the sooner those upon *Peaches* and *Neectarines* are removed the better. These cling very tenaciously to the parent stems this season, and should a sharp frost occur before the wood has had an opportunity of becoming somewhat hardened by exposure to the air, after the leaves have fallen, no little risk of injury will be encountered. The sooner we can get them off without undue violence the better. Give to the *Fruit Room* abundance of fresh air until after the primary sweating of the fruit is completed.

HARDY FLOWER GARDEN.

Those who value present appearances more than the absolute security of many scarce plants, or their gardener's peace of mind, and have still all their bedding stuff fully exposed and not potted up, should at least have all the more important things taken up, and laid in a closed shed, or so, until it is possible to finish all, immediately succeeding the first frost we may experience; for the season wears, and it may not be wise to run any risk beyond what is unavoidable. Plants taken up late should have many of the grosser, more sappy leaves removed; and should dull, November-like fogs prevail, a little fire should be kept slightly going in connection with all structures containing such plants. Give a surface dressing of finely sifted leaf mould or other rich material to beds containing old plants of *Polyanthuses*, and to all plantations of *Pansies*, double *Violets*, &c. This will not only tend to ward off frosts, but will materially assist the roots.

KITCHEN GARDEN.

The old, and now decaying, stems of *Asparagus* should be at once cut off at the ground line and cleared away, and along with them any weeds which may be on the ground. At the earliest opportunity afterwards 2 or 3 inches of well decomposed manure should be spread all over the beds and alleys, if any. It is customary to advise digging the beds over; this I object to, as the *Asparagus* is a surface-rooting plant. The abundant supply of manure we so constantly afford will keep the ground well open, however tenacious the soil may be originally; besides, the roots delight in firmness. This more immediately in relation to large flat beds, not constructed with mid-alleys. The latter will require some of the soil out of the alleys to be placed upon them, in thickness according to the shallowness of the soil, or upon or over the surface of the crowns, for, under any circumstances, the frost must be kept from these latter. Where beds are formed separately, as intimated, a neat workman-like finish should be given to the whole by running a line along the edges, and packing them up straight and neatly therewith. Remove all the lower leaves which part readily from *Brussels Sprouts*, and clear them off. This will admit the air more freely into and around them, and, irrespective of a neat and tidy appearance, will tend to harden them more fully, preparatory to the severe period we may anticipate. *W. E.*

TOWN GARDENING.

Chrysanthemums, both large-flowered and *Pompons*, are fast coming into flower. They should be housed, and allowed all the air possible consistent with avoidance of wind, rain, and frost. They should be watered as they may require, with soft water. Waterings of liquid manure should now be discontinued altogether. Where there is not the convenience of a house, a canvas tent will do equally well. This should be so made that the sides can be drawn up during fine weather. Look to the *Hyacinths* that were put aside in glasses in the dark last month. Some of the earliest may be brought to the light; if any of the roots are diseased at the base, and not started, take them out, well wipe them, and replace them in soft water with a small lump of charcoal. By this means I have seen roots recover and flower well, but late. More bulbs should be put in pots and glasses as directed last month, to follow in succession. The beds and borders intended for bulbs should be at once forked over and levelled, and the roots planted. *Tulips* should now be planted about 6 inches apart, and the same distance from row to row diagonally, and about 3 inches deep from the upper side of the root. Each hole should be made with a trowel, and a little silver sand put in; the bulb should be placed in the hole and covered with a little more sand, the earth should be then levelled over and gently patted down with the spade. The following varieties are very distinct, and flower well in town:—Double *Tournesol*, yellow and red; double *Yellow Rose*, and double *Rex Rubrorum*, scarlet; single *Prince*, white; *Hyacinths* should now be planted in the same manner as the *Tulips*, and when the planting is complete, the beds should be hooped over so as to protect them from excessive rains and severe frost. The following varieties are all single, but they are the choicest, and the best adapted for bedding:—*Amy*, bright crimson; *Robert Steiger*, crimson; *Grand Vaicqueur*, pure white; *Voltaire*, waxy white; *Charles Dickens*, pale blue; *William I.*, purple. The following varieties of *Crocus* are all fine flowers and free bloomers, and make a nice edging round the margins of the beds, planted 2 inches deep, and 2 inches apart, or in patches of five, 2 inches apart, in separate colours:—*Queen Victoria*, pure white; *Sir Walter Scott*, lilac purple; *David Rizzio*, deep purple; *Ne Plus Ultra*, light blue, tipped with white; *Proserpine*, fine lilac; and *Large Yellow*, *J. D.*

STATE OF THE WEATHER AT CHISWICK, NEAR LONDON.

For the Week ending Oct. 20, 1859, as observed at the Horticultural Gardens, Chiswick.

October	Moon & Age	BAROMETER.		TEMPERATURE				
		Max	Min	Of the Air.		Of the Earth.	1 foot 2 feet deep.	
Thurs. 14	9	30.056	30.005	57	43	50.0	55	54
Friday 15	10	29.783	29.518	59	50	54.5	53	51
Satur. 16	11	29.831	29.248	68	39	44.0	55	51
Sunday 17	12	29.821	29.641	60	30	41.0	53	42
Mon. 18	13	29.498	29.289	49	32	39.5	50	52
Tuesd. 19	14	29.862	29.482	47	26	36.5	50	51
Wed. 20	0	30.121	30.028	51	36	43.5	47	50
Average		29.785	29.611	53.0	35.0	44.0	52.1	51.5

Oct. 14—Very fine, clear, sun, dense overcast.
 15—Dense, overcast, overcast and cold, cloudy.
 16—Bright rain, showery, clear and very boisterous.
 17—Very fine, clear and fine, overcast.
 18—Heavy rain, heavy showers, clear and fine.
 19—Overcast, dense overcast, clear and fine.
 20—Fine and frosty, very fine, overcast and cold.
 Mean temperature of the week, 59.16 deg below the zero.

STATE OF THE WEATHER AT CHISWICK.

During the last 43 years, for the ensuing Week, ending Oct. 20, 1859.

October	Average Highest Temp.	Average Lowest Temp.	Mean Temp.	No of Years in which it Rained.	Greatest Quantity of Rain.	Prevailing Wind.
Sunday	58.3	30.6	47.9	20	0.89 [in.]	1
Mon	55.9	33.5	47.2	21	0.80	1
Tues.	55.6	38.4	46.1	18	0.72	1
Wed.	55.1	38.4	46.7	27	0.82	1
Thurs.	54.5	35.9	45.1	27	1.03	1
Friday	54.0	35.7	44.8	20	0.63	1
Satur.	51.9	36.3	46.6	22	0.68	1

The highest temperature during the above period occurred on the 25th, 1837, and 30th, 1833, 26th, 1853—therm. 67 deg., and the lowest on the 29th, 1836—therm. 22 deg.

Notices to Correspondents.

CONSERVATORY PLANTS. P. M. The plants in a conservatory with the glass left "muffled" through the winter, we presume, constantly covered up, would be in a sorry condition by the return of spring. As a rule, the exceptions are very limited, they require all that our climate affords at that season. In any severe weather covering might be retained for a few days without damage, but the sooner it is removed the better. The ingress of frost must be prevented by artificial means.

DISEASED CUCUMBERS. J. L. C. Your Cucumbers are diseased with that disease which is peculiar to them, and which is inexplicable in its causes and remedies as that of the We think chills, cold water at the root, or unwarmed temperature may have something to do with its cure, have, however, never practically had to contend against it, although frequently it has come under our observation.

EXAMINATIONS. G. asks if an examination will be made of it were self examination and the examiner were present of common sense.

FERNS. *Constant Reader.* *Lomaria gibbata* is described by Martens who have seen it in its native habitat to be an annual fern species, with a stem from 2 to 3 feet high. It is, therefore, quite permissible to class it as a Tree fern.

FOREIGN FRUIT. R. J. Yours is a knotty point, the determination of which will turn on the wording of the Act. Taking the broad view of the question, fruit from the Channel Islands ought not to be shown at an English exhibition as English produce, or put on equal terms with the grown in the climate of England. The reason is obvious—the more favored climate of the islands in question. As yet, the Channel Islands are not included in a English county of Hauts, it is difficult to find any legal ground of exclusion.

FUNGUS. G. R. *Reverend.* Your large Fungus is *Agaricus pustulosus*, an uncommon species, the smaller one *Agaricus sonatus*; both are edible, but the latter is not held in esteem, and but little is known of the former from its comparative rarity neither are in any way related to the *Cantharellus*—*Mushrooms*, *Gloster*. Your Fungus is the *Cantharellus*, *Fairy ring*, *Champignon*, &c. Cook it as you do the *Mushroom*—G. M. The Pear leaf Fungus, *Restelia cancellata*, has been reported at the Horticultural Gardens.

HEATING CONSERVATORY. A. Rost. Trotman's hot-water stove proves, we believe, very efficient for heating conservatories such as yours. We cannot recommend ordinary stoves for the purpose.

NAMES OF FRUITS. T. S. M. Pears: 1, *Fandante d'Inde*; 2, *Passe O'Imar*; 3, *Barré Bosc*;—G. N. Pears: 1, *Bosc*; 2, *Comte de Luny*; 3, *Cham Montel*; 4, *Figuette*; 5, *Naples*; 6, *Verulam*; 7, *Cham Montel*; 8, *rotten*; 9, *Barré d'Amans*; 11, *Eastern Pear*; 13, *Doyenne gris*, others unknown.—*Rev. W. M.* *Apple*: 1, *Christien*; 2, *Louise Bonne of Jersey*; 3, *Flemish*; 4, unknown; 5, *Glen Moreau*; 6, *Barré Del*; 7, *Dict. 10*, *Shroton Court*; 11, *Vicar of Winkfield*; 12, *Morcan*; 13, *Williams Bon Christien*, others unknown.

NAMES OF PLANTS. *Strelitzia*: 1, *Pyris pinnatifida*; 2, *Strelitzia pinnata*; 3, *Berberis* (*Mahonia Aquifolium*);—A. D. R. *Lupinus arboreus*, a very old kind, not seen for 20 years, and not worth reintroducing.—*R. G. L.* *Calceolaria parviflora*, introduced from Mexico some years ago, and now spreading widely in market gardens in the London.

NOT: W. J. Epps. *Corylus Colurna*, the Constantinople Walnut, for Hot Water Pipes. A. D. Use the black coats of manganese.

SUMMER VINE BODDING: Will "J. S." oblige us with his address, and further state where and when he commenced summer Vine budding for seven years?

THE EARLY SANDRINGHAM KIDNEY POTATO: D. W. asks if the Potato advertised under this name was raised at Sandringham, and whether it is really good for anything. It is very satisfactory to our correspondent and others that this Potato may be tempted to purchase the vegetable raised at Sandringham, believing that it would not detract its being introduced into the public unless it were really good. We learn from Carmichael that the Potato was not raised at Sandringham, and that he did not know anything about it until he saw it advertised.

TEMPERATURE. *Essex Gardener* will find the culture of plants fully explained in our last year's volume, p. 100. The soil should be a very rich loam.

T. P. T. H. C. This tree ripens its seed occasionally in England, and generally in France. It is, however, that these seeds do not germinate so freely as those imported from America.

ERRATA.—In Mr. Bennett's remarks on the ribbon border, Rufford, at p. 1088 col. 4, read 12 yards instead of 10. P. 1089, in Mr. Sage's letter, for 15 feet read 160 feet.

COMMUNICATIONS RECEIVED.—Vilmorin & Co.—J. J.—W. C. (thanks).—T. J.—D. M.—J. Y.—W. W.—H. E.—J. M.—M. A.—A. S.—F. W. B.

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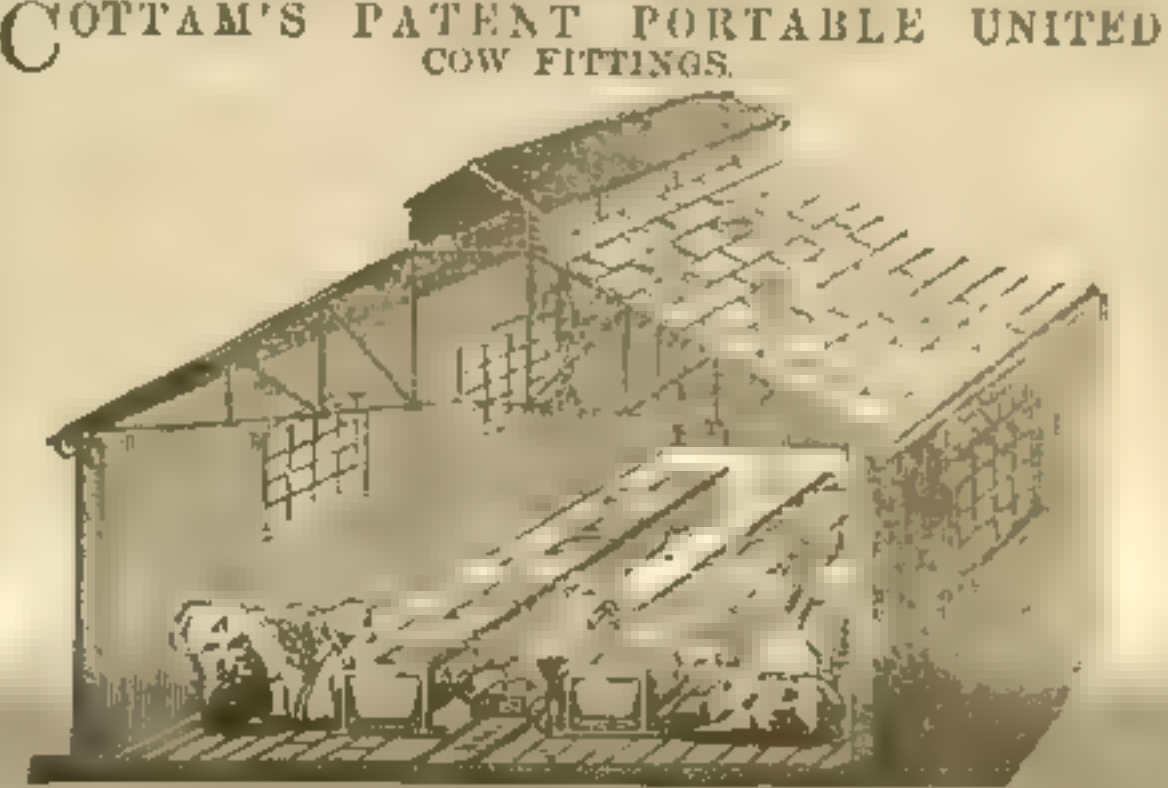
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MANGELS 25
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FAT CATTLE £77 2 0
FAT SHEEP 30 8 0
FAT PIGS 6 11 0
DOMESTIC POULTRY and PIGEONS 74 14 0
Prize Lists, Certificates of Entry, and every information may be obtained from the Secretary.
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JOHN B. LETHALL, Secretary.
Offices, 39, New Street, Birmingham.

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" B. For a COW or HEIFER (in any Class).
" C. For a BEAST in Extra Stock.
SHEEP. " D. For a PEN of three WETHERS (in any Class).
" E. For a SINGLE SHEEP (in Extra Stock).
PIGS. " F. For a PEN of three PIGS (in any Class).
" G. For a SINGLE PIG (in Extra Stock).
ENTRIES for LIVE STOCK CLOSE NOVEMBER 1.
Prize Lists, Forms of Certificates, and all information may be obtained on application to Mr. DAVID PULLEN, Assistant Secretary, at the Office of the Honorary Secretary, corner of Half Moon Street, Piccadilly, London, W.
N.B. All communications respecting the Show must be addressed to the Assistant Secretary, as above, and should bear outside the words "Smithfield Club Show."

The Agricultural Gazette.
SATURDAY, OCTOBER 23, 1869.

WILLIAM it be the best "steam tackle," or the best invention of any other kind that is desired, there are at least two ways in which the truth upon the subject may be sought for. One very easy method is that the public should simply pin their faith to official judgment. The other is that they should trust themselves; using all the opportunities for self instruction with which the energy of rival salesmen, rival manufacturers, rival advertisers if you will, is certain to supply them. In considering the relative merits of these two methods, we may in the first place readily admit that it is a very fortunate thing for the efficiency of each that the other is in full swing of influence and operation alongside of it. It is well that National Agricultural Societies should organise public trials of competing implements, and issue reports of them drawn up by men specially selected as trustworthy. Their awards cannot fail of being among the most weighty of the particulars by which the private judgment of a purchaser will be influenced. But it is very fortunate for him and for the "public"—which is only another word for him—that such official trials are not satisfactory. Not that that word does not generally apply with a certain degree of fitness; but that, as a matter of fact, such trials do not satisfy. It is only the First Prize man who is satisfied, and he not always. Everybody else, from the *Mark Lane Express* downwards, is "never loath to bring these authorities to book."
We quote our contemporary as thus inevitably agreeing with us that, after all, private judgment is the better and the higher court by which the question of merit has finally to be determined, notwithstanding that the general tone of its remarks upon the recent steam cultivation trials at Peterborough is calculated to discourage any other assistance to private judgment than the official programme offers. The *Mark Lane Express* does not indeed object to the farmers present at these trials having had the opportunity given them of judging for themselves; but understanding beforehand about the proposed meeting that "the proceedings are mainly advertisements," it resolved not to send a reporter. But this seems to us to be abdicating

the position of a journalist altogether. In the first place — Why should a newspaper object to advertisements? And, in the second place, what purpose does an agricultural journal serve if it will not work for the information of those farmers who cannot be present. We do not see that the writer justifies himself by the explanation which he offers: —

“Let us still more thoroughly illustrate this,” he says, “by assuming that we had deputed some one to attend at Peterborough; and gentlemen who occasionally favour us with reports often act as judges themselves. To have made, then, his account worth anything, our representative would have had to speak out, to give a preference to, or to declare against some particular performance, or some particular implement; and so surely as he did so would somebody straightway write to correct any such an impression.”

Well, but surely this is exactly what, in the interests of truth, we all desire! For ourselves, we believe that our columns are the most serviceable, not when the Editors have them nearly all to themselves, but when correspondents, differing possibly as black and white, are in full tide of discussion.

We cordially welcomed Mr. TOEFFER on one view of the Peterborough results, and Mr. SMITH upon the other. Our readers thank us for the picture which has thus been given of both sides of the shield. And so may the readers of the *Mark Lane Express*: for the interest of its article on the Peterborough meeting rests very much upon the extracts which it gives from papers which, it seems, we had unwittingly accepted after it had refused to publish them.

One other extract, however, we must give, which is original. The contrast which our contemporary asserts to exist between the official judgment and that of any independent person, whether its own reporter or not, is very amusingly put. —

“When judges are appointed it is a very different matter; we are then quite willing to give the lucky recipient all the benefit of the decree in his favour, although if the judges should have made a mistake our readers will allow that we have never been loath to bring these authorities to book.”

Of course! Everybody knows the perfect independence and straightforwardness of the *Mark Lane Express*. We say so with the most cordial admiration of it. All we contend for is that our contemporary is not very logical in refusing to give, publish, or promote a private discussion, decision, or award, on account of objections, to which, on its own showing, it appears that the official reports, which it allows, are equally obnoxious.

THAT part of the CONTAGIOUS DISEASES (ANIMALS) ACT, which relates to the management of live stock when attacked by contagious or infectious diseases, has excited a good deal of interest during the past fortnight.

At the Michaelmas Sessions, special, general, or quarterly, which have been held throughout the kingdom, the question—how to carry out the Act—has come under consideration. In most instances the magistrates have delegated their powers to a general committee, who in turn have appointed local committees of magistrates and farmers, whom they have designated as the local authority to put the Act in force.

In most of our cities and boroughs, also, the municipal authorities have nominated committees to carry out the details of the enactment, so that the measure, as it affects our home stock under disease, may be stated to be now in general operation throughout the country.

The first part of it, which has been in operation some time, has been already fully discussed. The regulations affecting the home transit of cattle have not yet, however, been definitely settled; and instead of acting hastily and inefficiently, the Lords of the Privy Council have, as our readers are aware, appointed a special committee to consider the whole subject. And they, with equally commendable prudence, have issued circular letters, asking for information and suggestions for their guidance from various agricultural authorities.

Many of these suggestions have been published. It is for the committee to winnow and sift the several proposals, after which the Privy Council may issue its Orders, so as to complete and perfect this part of the Act.

It is to the third division of the subject—the management of our home-fed stock when affected by contagious or infectious disease—that we refer especially, when we speak of the adoption of the Act by the several Michaelmas Quarter Sessions now being held in England

and by the municipal authorities of our cities and boroughs. And we ask, What is the reason of the extraordinary delay which has taken place in carrying into effect this portion of the Act?

Six weeks ago we wrote, “the question is simply this—unless the powers of the Act are put in force at once in every district where there is a local bench of magistrates, the inquiry will not be, Where is the disease? but, Where is it not? The loss on the live cattle of England, should the disease continue to progress at the rate it is now spreading, will in a month amount to as much as would buy a small principality.”

This was not done; and hence, no doubt, in great part the news of foot-and-mouth disease which we receive from every part of the kingdom. After a delay, during which the disease has had time to spread without hindrance, it will be a much more costly and laborious work to wield the powers of the Act over so wide an area as now requires their operation.

Permissive legislation is at all times unsatisfactory; and to make regulations which have an important influence over our foreign and home trade in live stock, and to leave the agency by which they have to be carried out to be appointed by an authority which is not bound to act for two or three months is a grave mistake, unjust to the measure itself, by not giving it a fair chance, and injurious to the public interest.

The Orders issued by the Privy Council should have been not only imperative, as the term implies, but also immediate in operation. If this had been the case we should not have seen the authorities deliberating in October on the best mode of working an Act and Orders published two months ago. At the West Riding of Yorkshire Sessions, Mr. J. D. DENT, M.P., in introducing the subject alluded to this delay, and said, “It would have been a good thing if the Act had been earlier put in force:” and we are surprised that there has not been more general surprise expressed that a measure which was deemed urgent in July has not been called into operation, in one of its most important sections, till now, three months later.

All the powers of that section of the Act which relates to the foreign trade were put in exercise at once. Another equally important section has been left inoperative for ten weeks, and has passed almost unnoticed. The results are before us in the presence of pleuro-pneumonia, totally in many localities, and in the almost universal spread of foot-and-mouth disease throughout Great Britain. It has entered nearly every feeding house and dairy, destroying tons of beef, and reducing the value of thousands of store stock from 2/ to 5/ each. The capital of the farmer has been wasted, and the food of the consumer has been destroyed. To the working man, who without meat cannot work, and to his children, who ought to have milk, the scarcity which has been thus created is a visitation of consequence, beyond money estimate.

A TURN in the downward prices of Wheat has at length taken place, and throughout the country the rise of 1s to 2s. at Mark Lane has been fully sustained. Oats are 1s., and Maize 6d per quarter dearer. Fine malting Barley is actively inquired after, at extreme rates. —The trade in British animals and meat is good, but an unusually large supply on Thursday caused prices to fall to 5s 6d per 8 lb for beasts. Prices for prime sheep touched 6s. per 8 lb —The seed trade is limited; winter Tares and Rye are both cheaper. —In wool a steady business has been done, but not at higher prices.

We have received just as we are going to press the following letter on the foot-and-mouth disease and on the Act of last session, from Mr. C. RANDALL, of Chadbury:—“While acting under the recent Order in Council in carrying out the provisions of the Cattle Diseases Act, 1869, with the view of checking the spread of foot-and-mouth disease, it has appeared to me most desirable that we should know what we are to do, when, in spite of all precautions, it attacks our flocks and herds. I have asked one of the highest veterinary authorities we have to tell me, for the benefit of others as well as on my own account, what course to pursue, and I feel sure you will willingly make known the advice which he kindly allows me to publish. He says, Simple remedies are much to be preferred, and in very many cases nitrate of potash thrown into the drinking water, at about the rate of half an ounce to a gallon, is all that is required. It is, however, better that nitrate of potash be alternated with the sulphate of soda, given in the same quantity and in the same manner. The feet should be kept as clean as possible, and only the detached horn removed with the knife. I believe also that a solution of the nitrate of potash, 4 ounces to a pint of water, is as good an agent as can be used in the early stages of the disease; diluted carbolic acid on the other hand, may be required later on. Nothing but strict isolation is likely to succeed as a preventative. When the disease exists in a district,

farmers ought to use means equally as adopted for the sequestration of their animals, and time of cattle plague. As a rule, sheep suffer from cattle, excepting in their feet. Local authorities, therefore, all that will be required, is the same as used to the feet of cattle.

We direct attention to the annual show of the Smithfield Club. The special prizes for the year include 100/ for the best beast; 50/ for the best pen of sheep, 10/ for the best sheep, and the above are in addition to the 100/ Plate and 10/ Cup, the money for the 100/ Plate and 10/ Cup, the money for the class, and a Gold Medal to the breeder. The entries will close on Monday, November 1. 0 g

Cattle diseases were reported at DUNNE, chief constable of Cumberland moreland, to the Quarter Sessions, on Wednesday. He gave details of several cases of pneumonia and foot-and-mouth disease which appears to have been introduced into the county by the cattle sold at Appleby on the 24th of August last by Mr. AINSWORTH, of Spittal, Stainmore, accordingly been summoned before the Sessions on Tuesday, a return of animals of the foot-and-mouth disease was presented by the Clerk of the Peace. Since September it first broke out, 2565 cattle have been which 1859 recovered, 60 died, two were 644 remain under treatment. Only two divisions are entirely free from the disease, most prevalent at Coleshill, Atherstone, and worth, Warwick, and Brailes. A committee of each petty sessional division was created to strictly enforce the provisions of the Diseases Act in the county.

The Herefordshire Society held a show at Hereford, on Tuesday last, when 26 classes of sheep, horses, and pigs were exhibited. Mr. A. ROBINSON, of Leominster, was awarded the 1st prize, and Mr. J. HAMPTON, of Leominster, the 2d. Mr. J. JUN., of Swanstone, was 1st in yearling prizes of M. BIDDULPH, Esq., M.P., 100/ for the best lot of beasts, irrespective of age the highest prize was awarded to Mr. JUN., of Dilwyn. For yearling heifers, Mr. M.P., offered prizes, the 1st of which was Mr. HARDING, and the 2d to Mr. FENY, a sub-Sir H. G. COTTRELL, Bart., offered prizes for old heifers, the 1st going to Mr. TUDOR, and Mr. WILLIAMS. J. KING, Esq., offered prizes of young steers, but there were no competitors. CROFT, Bart., M.P., and O. W. ROSS, Esq., offered prizes for pairs of older steers, but were of local importance only. Thus it is conceived that the Herefordshire Society has fortune to find its funds and prize lists augmented by the public spirit of gentlemen of the county. Many of the prizes for other animals are awarded the same way. Mr. TANNER, of Dornicote, was lead in Shropshire sheep, Mr. DAVIS, of Warcolms being a good 2d. The pigs and horses of local interest. With two entries of horses the prize of 10/ was awarded to Mr. J. LULLOW. The cart stallion prize was given to Mr. WRIGHT, Esq. (10/), there were only two entries.

Competition in fertilisers is, it is largely added to the present elements between this country and the Continent. According to the *Economist* —

“The arrangement which the Peruvian Government entered into, with a combination of French houses, for the sale to them of a large quantity of guano, to meet the necessity of dry guano, is a very important one, and will have a great effect on all the guano trade, and the proceeds of it, and also on all the guano in Peru. In return, we suppose for the guano, the Peruvian Government is to receive the guano in return, until the payment of the guano is altogether paid, and it is a very important circumstance that the guano is to be mortgaged, and that the proceeds of the sale of the guano under existing contracts of 1873. The combination will certainly be powerful, though they will not exactly control all the guano world; and though it is also stated as coming into more and more formidable competition with natural guano.”

OUR LIVE STOCK.

THE sale of Mr. Kearney's Shorthorn Kells, Ireland, came off on the 13th of the month, and the animals trace directly back to the great Chilton sale, in the year 1839. Sixteen of the cows and two bulls are descendants of *Britannicus* (lot 8, Chilton sale), and 18 females are the offspring of *Portia*, by CATO (119) (lot 3, Chilton sale). The cattle were poor and low in condition, the heifers, the company was not large, two or three exceptions the prices were high. The 51 cows and heifers averaged 25/ 1s 6d each—the five bulls 25/ 1s 6d each—the 56 animals being 26/ 9s. 10/ d., and the

quality as... sheep... Local... red... cattle... The first four lots sold at prices... Waterloo 23d, one of the... Water to tribe, must have been cheap at 25 gs.,... by REX 16,830, was bought by Mr... by Lady Pizot. When she... a considerable excitement ensued... not cease till she was knocked... to Mr. How, of Broughton... from 20 to 30 gs., until... was put up, and sold at 41 gs. to... by DR McHALE was bought... for 44 gs., Louise 7th foaled... to King's Fort, and Louise Belle, by... to Mr. G. Atkinson, of Sea-... for 50 gs. The bulls brought a higher average... PRINCE BERTRAM, by PRINCE... of the well-known Bonnet and Bliss... purchased by Mr Garnett for 50 gs.; and... a son of Belligerent (23,491) and... (lot 9), became the property of Mr... Woodroffe for 40 gs. The remaining bulls were... and brought respectively 7, 8, and 17 gs.

Mr Horton announces a sale of pure-bred... the property of... at... near Bamford. The sale will take... November 9, and will afford an... opportunity for obtaining animals which will... for dairy purposes. The cattle are... thoroughly accustomed, of dark fawn... of large size, and accustomed... all the winter.

Fifteen cows and heifers and five bulls, all pure-bred... are to be offered for sale, near the... station at Kendal, on Monday, November 1. These cattle are the property of the Rev. Thos. Stanforth, and will be sold by Mr. Wm. Kirby, of Windermere, auctioneer. Five of the lots are served by the well-known PEER OF THE REALM, one is served by HANDA (23,877), a Crossbred bull bred by A. ROBERTSON, of Ulverston, and another is in calf to Mr. GRENADIER (21,576), bred by Mr. Stanforth, and the 2d horse of the *Favourite* by MARLBORO' (11,811). The females, writes a contemporary, "which will commend themselves most directly to the Shorthorn public, are probably *Minstrel 3d*, *Georgie*, *Grace*, *Red-and-White*, and a 3-year-old heifer of the same name. The first of these, *Minstrel 3d*, by 10TH DUKE (17,739), from the Holkar sale of 1861, is a breeder when bought, she has produced five calves since then, and is now in calf to PEER OF THE REALM (21,576). *Georgie* is of the same family as *Grenadier*, and is by Mr. Richard Booth's ELFIN KING. *Grace* springs from *Medora* by AMBO, with subsequent crosses of Farnley and Springfield bulls; and the two lots named *Red-and-White* are both of the *Togas* and *Foggathorpe* line—the latter (lot 10) doubly so, *GRENADIER* being her sire.

The seventh volume of the Hereford Herd Book appeared at the commencement of the present year. The list of bulls ends with No. 2636, and the volume is pretty equally divided between bulls and cows. Mr. De laune, in his preface, speaks of the increasing number of his supporters in carrying on this important work, but expresses his regret that owing to the difficulty of obtaining the necessary information from breeders, the publication of the present volume has been delayed for some months. Excellent photographs of no fewer than 12 famous Herefords have been given the pages of the volume. At the conclusion of the long list of cows and the usual index of names of breeders and animals, is the appendix promised in the sixth volume, showing the prizes won at agricultural shows by animals entered in the preceding pages. It is to be regretted that in this valuable addition the indexing should be so imperfect. In attempting to look up the pedigree of prize animals mentioned in this list, we were frequently unable to find it on the page to which we were referred. Thus, the pedigree of *Duchess of Gloucester*, first at Birmingham and Smithfield in 1864, is said in the appendix to be on p. 3, the portion devoted to bulls, and he who seeks for the pedigree of *Ostrich*, first at Manchester last summer, is referred to p. 328, devoted to cows. We should not have mentioned this had not similar errors occurred throughout the appendix. The able lecture read by Mr. Duckham before the Breconshire Chamber of Agriculture, upon Hereford cattle, last January, forms a very readable and instructive termination to this volume.

representative one: it is not large numerically, but for quality, size, wool, and character, the sheep composing it will give place to few. There are 93 ewes, and these last season produced 154 lambs, counting all dead and alive. This is only additional evidence as to the unwonted largeness of the fall of lambs last spring. The rams let and sold remarkably well, several lots going into France, in some cases accompanied by ewes, others went to Denmark, and the general demand was above the average. Mr. Crosswell has somewhat reluctantly shipped some of the present year's lambs into France. The flock has not been so fortunate as usual in taking showyard honours, but in spite of this drawback the demand for rams has been larger than in any past year.

THE AGRICULTURAL LABOURER.

[The following letter on this subject appeared in yesterday's *Times*.]

IN the *Times* of Friday, Oct. 15, there appeared a letter from the Rev. F. O. Morris, which gave an account of the condition and prospects of the agricultural labourer on the Yorkshire Wolds, and which showed that with care and prudence, and if blessed by health, he is by no means so destitute of present comfort, or so unable to make provision for the future, as some of our agricultural friends and others holding similar opinions represent him to be.

I believe that in the agricultural districts of the West Riding of York our labourers are quite as well off as in the East Riding. Wages range from 13s. to 15s. per week, and at the harvest time, when men are engaged by the day, they receive from 18s. to 20s. per week for four or five weeks, as well as their meat. At the same time many married men take harvest work by piece, and with their wives and children follow the reaper, taking up, binding, and setting up the corn, and the wages which they earn are certainly equal to those of the single men. As an instance of what may be done at these times, I can mention a boy of 12 years of age, who earned, in 1868, 20s. and his meat, and in 1869, 25s. and his meat at harvest work during his Midsummer holidays, 17 17s. 6d. of which I am happy to say he has invested in the savings' bank.

In this neighbourhood a portion of land sufficient to keep a cow is attached to many cottages, and if no garden be contiguous to the house, there is generally an allotment of a rood of land in the garden field. A cottage with a rood of land lets for 3l. to 4l. a year. The parish in which I reside contains about 600 inhabitants, and is purely agricultural. We have in it 25 holdings, containing from 3 to 8 acres of Grass each, which, together with the cottage, cow-house, &c., are let at rents varying from 10l. to 20l. per annum. Of these 20 are occupied by men who are either at present agricultural labourers or have been so for the greater portion of their lives; and who have made what money they possess by one industry, and good management as agricultural labourers. Several own a couple of cows, and probably winter three or four ewes. One of these small takes I saw 12 ewes this autumn, the property of a man working as an agricultural labourer, but whose wife and daughters make something by taking in washing. In several of these cases the occupiers would gladly take more land; indeed, one of them has recently taken 16 acres of arable land in addition to his Grass, but I am rather afraid he may have undertaken more than he can manage.

The Claro Savings Bank, which has branches at Knaresborough, Wetherby, and Pateley Bridge, numbers among its depositors a very large proportion of agricultural labourers of both sexes. Our single men and women are usually hired for farm service from year to year at the statutes at Martinmas. For many years I attended as one of the managers of the savings' bank on the market-day in November after the yearly wages are paid, and I can, therefore, speak from personal experience of the number of male and female agricultural servants who came at that time to deposit a portion of their wages in the bank. They often commence as mere boys and girls with a sovereign, and increase the deposit each year, until by the time they are one or two and twenty young men will have sums varying from 30l. to 40l., and women from 20l. to 30l. Some, indeed, who are careful, industrious, and have got situations as foremen or shepherds, will have very much larger sums; and, with reasonable care and health, no young couple in this neighbourhood who wait to marry until 25 should have less than 50l. to 60l. with which to start in the world. Unfortunately very many, probably the greater number of them, do not save. Dress with the girls, drink and careless love of pleasure and company with the lads, sometimes the want of prudent parents, take away their earnings, and if they marry at one or two and twenty they have to take any not a few they can get, and are hardly tried to bring up in decency the large families which usually follow such early marriages.

Much may be done by the clergyman or schoolmaster in the way of inculcating the habit of saving. At the last Martinmas my brother, who has charge of this parish, received for investment in the savings' bank 102l. from 14 young men and women, all in agricultural service, who had been educated at the National School, and several others invested their wages themselves.

I can also corroborate Mr. Morris's statements as to the kindness and sympathy generally shown by farmers to their servants and daughters. There is among some of them a carelessness with their huts in their houses, and a want of kindly superintention, which I fear is not peculiar to them, but is shared by many in higher ranks. But to the old and sick poor their ready help and sympathy are seldom wanting, and many are the regular dinners sent from the farmhouse, together with other comforts, if there be sickness or distress in the labourer's cottage.

At the same time I must confess that there are

many cottages here and in this neighbourhood which are deficient in sleeping accommodation and in sanitary arrangements. Very much wants doing, and the difficulty is to find the means to do it, and to secure a fair return for the money laid out. Many landowners have this will but not the means to put their cottages into thorough order, for there is not merely the outlay upon new cottages to be considered, but also the loss of rent, on those which ought to be pulled down. If the Government would advance money for cottage building, as was formerly done for draining, I believe many landowners would welcome it as a great boon.

There is another point, too, in which I think we have, perhaps, gone too far, viz. in throwing together farms and doing away with small occupations. We have been trying to get men of larger capital, with improved implements, and a wider field for agricultural science, and have overlooked the incentive to industry which the hope of a small farm held out to many a provident labourer. Too often a small man of that class has embarked in an undertaking beyond his means, and has failed; but to compensate for this there are many who have started as agricultural labourers, and by their own industry alone have raised themselves to the class of comfortable farmers. I must apologise for the length of the letter, but I believe it is a fair statement of the condition of many of our labourers. John Dent Dent, Ribston Hall, Wetherby, October 18.

THE STEAM CULTIVATION CONTROVERSY.

THE steam-ploughing and steam-cultivating controversy does not appear to be in a happy state, viewing it sentimentally, nor in a satisfactory condition, if we apply to it either a logical or commercial test. The points in dispute are those which belong to the less expensive roundabout system and the details of the direct method of draught. The one need not be described, but the other is composed of its two traction engines of 10 to 20, 30, or 50-horse power, with weight and first cost in proportion—the former (weight) varying from 15 to 40 tons per engine, and the latter (cost) from 1500l. to 4000l. at one blow.

Each of these two systems has its vigorous champion. On the one side we have our old friend Mr. Smith, of Woolston, and on the other Mr. Toepffer, of the North Lincolnshire Steam Ploughing Company. Into the merits of steam-power for cultivating the land we need not now enter, for cultivators are like reaping and mowing machines—there is no difficulty about getting a variety to do the work equally well, and therefore the whole matter resolves itself into a question of wear and tear, and the surrounding costs which form items in the balance-sheet.

Mr. Smith adheres to the outlay of 450l., and the performance of work at the rate of 6 to 10 acres per day, the cost being only 4s. 8d. to 6s. per acre, according to the depth and character and condition of the soil. Mr. Toepffer, on the other hand, attempts to reduce the roundabout system, and all other light forms of engines, tackle, or general first cost. Mr. Toepffer, however, studiously avoids any statement in regard to the actual cost per acre at which land can be cultivated by the expensive appliances which he advocates. He does not, indeed, tell us what he, as the representative of a company for letting out tackle, charges per acre for the work he does for the Lincolnshire farmers. As matters now stand, therefore, we cannot do less than admit that Mr. Smith has the best of it, both logically and practically. In regard to the latter, Mr. Smith has far the best of the argument. Mr. Toepffer, and the other advocates of the heavy and expensive system, make it a part of the conditions of their ultimate success that small farms must be absorbed into large occupations, and occupied by men of capital, while the "useless fences" of small fields must be so levelled as to be more profitable in themselves, at the same time that an open farm is created for the application of the ponderous engines and tackle which Mr. Toepffer says constitute the only correct and profitable method.

Thus, it will be perceived, while Mr. Smith takes all things in connection with farms and farmers as they are, calculating on the small fields and abrupt undulating valleys as they exist in many parts of this country, and the limited amount of capital which farmers can command to invest in auxiliary machinery, Mr. Toepffer dwells on the condition in which Nature ought to have constructed, and our forefathers to have mapped out and fenced, the land.

By this line of argument Mr. Toepffer raises all the questions which are now being so anxiously discussed in regard to small farms and large farms, or a mixture of both, and the advisability or not of dividing some of our present large occupations into small holdings, so that men with small capital, and good judgment and moral character, may have a chance of rising from their humble position as peasants or 2-horse farmers. Into these questions of social and political economy, it is not our purpose or duty on this occasion to enter at length. But Mr. Toepffer inadvertently raises these questions, although his "arguments" mainly consist of bare statements. Is Mr. Toepffer prepared to prove the following points—That it is necessary for a small farmer to have the portion of his land to be fallowed ploughed at the rate of 30 or 36 acres a day? That the wholesale work he advocates is better adapted for small undulating valleys, with their small fields and tortuous water-courses, than is a lighter, albeit a slower, system of work? To it the saving of labour, as he puts it, is good either for the farmer or the country, thickly populated as it is? That it is a mistake for each small farmer to have a set of the low-priced tackle, or for three or four small farmers to join and have one of them, drawing lots for the first turn? That it is more economical in the present embarrassed state of the labour market for large numbers

of men to be engaged for a few weeks in wholesale cultivation after harvest, with the certainty of being left to their own resources, or having to flee to towns for employment during the winter? There are many other questions which suggest themselves in this place, but is Mr. Toepffer prepared to answer these and work them out, with their usual surroundings, to their logical conclusion?

Without desiring to complicate this subject further, we should like to know whether the farm labour question has not been reduced to this condition—that farmers now have to look upon their men, not only as to how much they are worth per week during spring hoeing, hay time, and harvest, but how much they can afford to pay them per annum so as to be able to keep them all the year round. It is rapidly coming to this position. If, therefore, farmers would have the services of their men in the busy season, they must find employment for them in October, November, December, January, and February. If this view be not taken and acted upon, there are many agricultural districts in this country where there will be no skilled labourers at busy seasons of the year to work the few machines we already have. Horses, too, must be kept to the extent of a certain number. On both the grounds, therefore, of horse labour and manual labour, it is a serious question whether more than half the land of this country could not be more economically cultivated with a small portable engine, and the roundabout tackle and cultivators, than it could with traction engines and tackle which could do from 20 to 36 acres per day. What farmer of 100, 200, 300, or 400 acres wants his work done at the latter rate?

In conclusion, we may give this illustration:—If there had never been any coasting vessels, there would never have been any three-masted ships for crossing the seas; and if there had never been any river steamers, there never would have been the magnificent Cunard and Peninsular and Oriental lines of steam packets. Mr. Toepffer, in those interests which he professes to advocate, may take a lesson from these data. If steam cultivation be economical and profitable, and at the same time farmers are timid in investing their money in the system, the very best thing Mr. Toepffer and his friends can do is to promote as far as possible the small and inexpensive system of doing the work; for what they want is, for the farmers of every corner of this country to be shown the effect of steam cultivation. Thus, the smaller and cheaper sets will be a "roundabout" system of advertisement for the larger or the "Great Eastern" character of performance. This is not a matter of feeling or sentiment, or friendship, or anything of that sort; but it is a question of expenditure and return of money on the outlay. If, therefore, Mr. Toepffer and his friends would cultivate the large open fields of this country, as the wolds of Lincolnshire and Yorkshire, and the heavy clays of other counties, they will do well not to divide the manufacturing interest, but to look upon the roundabout system as a pilot which, if steam cultivation be right, cannot fail to lead the way to the direct, and, as it is characterised, more perfect and expeditious method. W. W. G.

TRANSIT OF ANIMALS.

The committee of the Scottish Chamber of Agriculture having considered the communication from the Privy Council on this subject, have agreed, for the approval of the directors, to report, in answer to the question—

I. How a Sufficient Supply of Food and Water may be Provided for Animals brought by Sea to British Ports.

1. In voyages not exceeding five days and five nights, a supply of food, equal to 1 lb. per day, of good wholesome Oatmeal, draked in water, seems sufficient, and very suitable for horned cattle; a less supply—say 1 lb. per day—would suffice for sheep. In voyages exceeding five days, cut hay, in addition, seems requisite,—the all wance not being less than 1 stone hay and 4 lb. meal per 24 hours. Where Hay is given, it might be moistened with molasses and water, to sweeten it; and even when the water may be had through keeping, the molasses will remove the bad smell, and sweeten it to the taste, and cattle will eat it readily. Each large animal should have two gallons of water each 12 hours, and smaller animals in proportion.

2. It should be compulsory on all owners of animal carrying vessels to have on board, and to supply to each animal daily, a sufficient all wance of food and water, as above specified. Oatmeal could be carried in no great bulk, and with no risk from fire, and cut hay, closely pressed, could be put up in convenient parcels for using, and could be stored apart from risk of danger by fire, while fresh water might be carried in tanks down the ship's sides, without interfering materially with cargo room. A vessel constructed in every way suitable for cattle traffic has yet to be built.

II. How a Sufficient Supply of Food and Water may be provided for all Animals carried by Railway in Great Britain.

1. It should be made compulsory on every railway company to provide ample drinking-troughs, abundantly supplied with pure water, at all the principal loading and unloading stations in Great Britain.

2. It should be compulsory on railway companies to expedite the speed of animal trains. In case should they be permitted to run animal trains slower than 18 miles an hour, stoppages should be limited.

3. When Nos. 1 and 2 enforced, very little food or water would be required for animals in transit in Great Britain, but if the time of transit exceeds 12 hours, it should be compulsory on all railway companies to supply water at the end of the first 12 hours after receiving them at the station of loading, and food and water on the elapse of every 12 hours thereafter they are in charge of the railway company.

4. The best and most convenient food for both railway companies, and cattle owners, and stock, seems to be Oatmeal draked with pure water when in drink. The all wance should be not less than 1 lb. per head of horned cattle, 1 lb. per head of sheep, each feeding time. Such food is easily carried—not bulky, nor liable to accident by fire, and is more suitable for animals in transit than hard hay or softer food.

5. The only means of supplying animals with food and water on transit in the present truck is by pails and men, or by troughs in the trucks. Water could be run into the trough by means of the water-nozzle shown by Mr. Reid, without causing disturbance to the animals, or much delay at the drinking stations; and Mr. Reid's truck, which the com-

mittee understand has been under the notice of the Privy Council officials, might suggest a mode of watering and feeding animals on long journeys.

III. How Animals may be Protected from Unnecessary Suffering by Overcrowding or other Causes during—(1) Sea Passage, (2) from Foreign to Home Ports, (3) from Ports in United Kingdom to Ports in Great Britain; (4) on Landing, and during Inland Transit.

1. DEPARTURE FROM SEA PORTS.

1. All vessels carrying animals should, on inspection, be licensed to carry only a given number of stock, regulated by the size of the animal and the vessel's cubic space.

2. The present system of packing animals in vessels as deck load causes them much suffering by exposure to weather, and want of means of supplying them with food and water. To prevent, so far, diseases, the animals when so carried should be so arranged on deck as that their heads are to the centre of the vessel, and their bodies protected from spray and seas that may be shipped during the voyage. A protection on deck, formed of galvanised sheet iron, sprung from the bulwarks of the ship on either side, extending towards the centre of the deck, leaving sufficient room for supplying food and water, and behind each row for cleaning, would be no appreciable hindrance to sailing and working, and would protect deck animals from starvation, spray and seas often shipped, and the injuries they sustain by sliding on their own damp and dung. When carried as below, vessels might be ventilated by removing a plank on each side of the upper deck above where animals are. The open space might be protected by louvre boarding to keep out the sea, and upright iron ventilators, fore and aft, to create a current when the hatches are down, and ample room should be given for supplying food and water. Such changes, made under practical builders, in the construction of cattle-carrying vessels, would remove the cause of most of the unnecessary sufferings animals endure in transit by vessel.

3. The committee are of opinion—

(a) Passages from Foreign to Home Ports.

(1) That all foreign going vessels should be subjected to the closest inspection, and thoroughly cleansed and disinfected, before being permitted to take animals on board. (2) That animals only should be taken on board after a strict veterinary inspection, and none but sound animals, which had not come into contact with animals labouring under contagious disease, be permitted to be taken on board or carried. (3) That a log of animal health and casualties during the voyage be kept by the captain, in which every illness and death experienced shall be entered, along with the times at which they are fed and watered, and mucked during the voyage. (4) That such log should be exhibited to the inspector at the port of landing, and similar inspection should be made by him at that port, and in animals labouring, or which had laboured, under contagious or infectious disease, or which had come in contact with such diseased animals, be permitted to be landed in life. (5) Vessels only should be permitted to carry animals which had been specially fitted for the purpose, with sufficient standing and breathing room, properly ventilated, and having the means of supplying the animals carried regularly with food and water.

(b) Passages from ports in the United Kingdom.

As the committee believe that much of the pleuro experienced in Great Britain is brought by animals from Ireland, the same rules as to cleansing and disinfecting and ventilating vessels is necessary, so is a similar inspection at the port of embarkation and debarkation, and the same consequences for disregard thereof ought to ensue. They also believe that other lung diseases may be induced or hastened by overcrowding and exposure to weather, and, in consequence, the same rules as to the construction of vessel, mode of placing and protecting the animals in it, and supplying them with food and water, as suggested in foreign-going vessels, should be observed and strictly enforced.

2. WAGGON TRAFFIC.

1. Waggon carrying animals should all have sprung buffers, and be built same as passenger trains, and should be constructed so as to form a protection against weather and shut out draughts, and at the same time leave abundance of air. The trucks should in every case be roofed, and should be thoroughly cleansed and disinfected, and none but healthy animals permitted to be trucked.

2. Animal traffic ought to take precedence of all other save passenger, and if cattle cannot be sent by special train, they should, if possible, be sent by fast goods train, and in animal traffic, all railways should be viewed and treated as one company, and engine drivers ought to be put under the same regulations as to stopping, starting, and shunting animal trains as in passenger trains; and a way bill ought to be kept of every lot, containing the time and every incident of the journey.

3. All animals should be watered at the end of the first 12 hours from the time of loading, and fed and watered every 12 hours thereafter; and they should have water offered to them before being allowed to quit the station of their destination.

N.B.—During the years 1868-69 the directors made an investigation into the diseases which are believed to be imported into Great Britain, or to be induced in animals through sufferings endured during transit by sea and land, and more especially in reference to the disease of pleuropneumonia, and they take the liberty of annexing their report, and the veterinary opinions on which it was in part founded.

The report is to be submitted to a general meeting of the Chamber on November 9.

Home Correspondence.

Mr. Patrick Shirreff, of East Lothian.—I would ask the attention of your readers, in the words of the North British Agriculturist, to the claims of Mr. Patrick Shirreff for a substantial token of their appreciation of his great merits as a propagator of several distinct varieties of Wheat and Oats. Some months ago the idea of presenting him with a testimonial was taken up, but the sum hitherto subscribed does not exceed 200l., notwithstanding that in the list of subscribers there are the names of several eminent agriculturists connected with the Lothians and Berwickshire. Few persons resident in other districts of the United Kingdom have contributed; and it is intended to close the subscription in a short time. Landed proprietors and farmers should therefore hasten to subscribe, and thereby bear their testimony to the meritorious efforts of so devoted a labourer in the field of improving the cultivated cereals. Some of your readers may not know the services which have been rendered by this gentleman in the prosecution of agricultural progress. Mr. Patrick Shirreff has spent the greatest portion of a long life in the endeavour to promote the interests of agriculture by raising new and superior kinds of Wheat and Oats. One who has laboured so assiduously and devotedly in the behalf

of those directly dependent upon the sale of the farm, should be acknowledged as a J. C. M.

Last Words on the Tiptree Balance.—I have just received from Mr. Mechi kept "cake, bran, and feeding" sale. Mr. Mechi has frequently told us about his feeding stuff, therefore whatever there was of that kind of stuff upon the farm on January 1, 1868, should have been included in the valuation of 373l. 10s. 6d. of hay, &c.; and there must have been some 300 quarters of Act ought to have been brought to bear upon the balance for starting his cattle. We have nothing to do with the will hereafter show) with the balance of 373l. 10s. 6d. on January 1, 1868, for the balance on January 1, 1868, ought to have been big enough to have made a balance of 73 acres of 18/8 Wheat, at 6 quarters per acre, an average standing at 63s. 9d.; but to make the balance clear to "Another Farmer" I will go over the balance again.—The total of 1235l. 5s. 9d. for Wheat in 1868 represents 387½ quarters at 63s. 9d. per quarter. Now we must make the 73 acres up to 100 acres, and the 387½ quarters represented by the 1235l. 5s. 9d. The value of these 50½ quarters stands at 3240l. 15s. 6d. Mr. Mechi's sale of 30 quarters of it at 56s. 6d. per quarter. Now we must look to the Rivetts. The Rivetts' 310l. 2s. 6d. and Mr. Mechi tells us that he has 100 quarters of them. Therefore I fix the price at 31s. 6d. it is of no use "Another Farmer" quibbling about a trifle about that point—a penny or so per quarter is Mr. Mechi alone who can put us right on that point. This 310l. 2s. 6d. represents 132 quarters of wheat per quarter, and we must fetch them up to 100 quarters. To do this 132, at 16s. 9d. are needed, gives a total of 110l. 11s.; to do this we need a lot of 1867 Wheat, and as I fixed the price at 78s. per quarter, I shall take 132 quarters of 78s. per quarter is 11s. 3d. over the average, therefore we must divide the 110l. 11s. by 11s. 3d. which shows that 155 quarters of 1867 Wheat are needed to make the Rivetts' area up to 100 quarters. The total value of the 155 quarters is 12075l. 7s. 6d. Now, let me look at the white Wheat Rivetts have 767l. 11s. 9d., and Mr. Mechi tells us that he has 100 quarters from 56s. to 62s. per quarter of it. I shall take an average here as I did in my last letter, and set the price at 59s per quarter. The 767l. 11s. 9d. represents 260 quarters; this needs 100 quarters to make it up from 59s. to 63s. 9d. per quarter, the total of which is 617l. 15s. Now, we must set a lot of 1867 Wickets to make this up, and as I set the price at 78s. per quarter, to do this, 86 quarters are needed; adding this to the 100 quarters of 1867 Wheat, which is 335l. 8s.—Now I will fix a price upon the Red Wheat by striking an average between the Rivetts' at 47s., and the White Wheat, at 59s. The average is 53s. per quarter. The 157l. 8s. 6d. and 100 quarters they stand represents, at 53s. per quarter, 59 quarters to make them up to 63s. 9d. per quarter, 59 quarters are needed. The total of this is 3137l. 15s. 6d. I will fix a price on the hay, straw, bran, &c., other than Wheat, &c., on the farm on January 1, 1868. I will fix it at 100l. Mr. Mechi can correct me if I am wrong; "Another Farmer" cannot. Mr. Mechi will go in and strike the balance:—

Table with columns for Valuation Jan. 1, 1868, Corn and hay, &c. (unsold), Balance—"over the left", and a list of quantities of wheat and other crops with their respective prices and values.

"Another Farmer's" balance of 558l. 6s., 1868, is of no use against this balance of 373l. 10s. 6d. The balance of 1032l. 8s. to loss will show to "Another Farmer" that Mr. Mechi's balance-sheet was a most seasoned dish, spiced well up with 1867 Wheat to the average up to 63s. 9d. You tell us that you said at Great Braxted—"He believed they would convince the farmers of England wished him good, but he could not conceal from himself that they would see Mr. Mechi swept from the face of the agricultural world." Now I take it that this might apply to your case, for I will not be "misled" by it, and I do not think I can prevent others. Yet I have no doubt that "Mr. Mechi swept off the face of the agricultural world," but I do hope that his balance-sheet will stand upon every point (if questioned) by some better proof. If they cannot stand that, I will not better never publish another. William Smith, Agricultural Editor, Bletchley Station, Bucks, Oct. 18.

Steam Cultivation.—In your impression of this subject, you kindly granted me space to make a few lines on this subject. I then alluded to a correspondence in Bell's Weekly Messenger, signing himself "the boy," having closed his correspondence on steam cultivation, expressing a hope that he would be filled up the space kindly offered by the editor of Bell's Weekly Messenger, in these words—"I will send us the history of a steam cultivation where the cost of cultivation is as low as that of Mr. Smith's, we will gladly give it a place in our columns." I also wished to know if the article quoted by Mr. Smith, of Woolston, taken from the Agricultural Gazette, January 20, 1866, was correct. His reply to me was unsatisfactory (see Agricultural Gazette, January 30, 1869), and as I then remarked

yet remains to be accomplished. In fruits and vegetables, including field root crops, the display was really magnificent, and in some respects, particularly in fruits, actually surpassed any previous occasion. I doubt whether this department of the show has ever been exceeded, as a whole, on this continent. The extensive display of Apples, Pears, Peaches, &c., would have astonished a stranger accustomed to associate only frost and snow with the climate of Canada. Outdoor Grapes, which are now cultivated extensively in some places, will not generally ripen well this season, but those of indoor growth on exhibition were not only numerous, but of great size and of superior quality.

During the two principal days of the show week, upwards of 70,000 people entered the grounds, which, with the extensive buildings they contain, were densely and inconveniently crowded. The presence of his Royal Highness Prince Arthur, and his Excellency Sir John Young, Governor-General of the Dominion of Canada, and our Lieutenant-Governor, tended, no doubt, to increase the number of visitors, for Canadians are proud of British connection, and are always ready to show their attachment to their sovereign by a hearty and loyal welcome to any of her representatives that may come among them. The wise liberality of the Legislature, seconded by the voluntary aid of the people, enables the directors of the Association to offer prizes, both in value and number, that will always command an extensive competition—the whole list amounting to 12,000 or 14,000 dollars, or nearly 30,000 sterling; and while of late years the progress of the Society may be said to have been rapid, its growth has been healthy and enduring. To old-country people, who have had no personal experience or observation of the rapid development of new settlements, it would appear marvellous, bordering on the incredulous, to be told that the pretty and thriving city of our London, surrounded by a rich and extensive farming country, was 40 years ago an unbroken wilderness, and that there were several persons at the recent exhibition held in the "Forest City," who assisted in making the first clearances! Truly this is an age, in more senses than one, of transformation and rapid progress, of which this new world on the western side of the Atlantic affords very many striking exemplifications. *Geo. Buckland, Bureau of Agriculture, Toronto, October 2.*

of all descriptions so plentifully and well for 6d. per week, as the cottager in our rural districts can from his own garden, and this, added to the above 6d. worth of firing, and to the 12s. 1d. will make 13s. 1d. per week. Then there is the difference in the rental of the cottages in town and country to be compared, and here we shall find an important difference in favour of our rural and agricultural men, in our country parishes they vary from 1s. to 1s. 6d. per week, or from 2l. 12s. to 4l. per annum, whilst those of the urban class will range from 1s. 11d. to 2s. 7d. per week, or from 5l. to 6l. 15s. per year, which in the agricultural class will give an average of 3l. 5s. and of 5l. 17s. 6d. for the town classes, or an advantage of 1s. per week in favour of our country friends, which will raise the 13s. 1d. to 14s. 1d. per week. Now, in striking a balance between the two sides of the question, the calculations as above will stand thus:—

Country Class.		£	s.	d.	
Forty-eight weeks at 10s. per week	..	24	0	0	
Four ditto, harvest	..	6	10	0	
Gleaning, 3 bushels, at 48s. per quarter	..	0	18	0	
Rough fuel, wood, roots, &c., worth 6d. per week	..	1	6	0	
Vegetables, worth 9d. to 1s. per week, say 6d.	..	1	6	0	
1s. per week less rent	..	2	12	0	
		£	5	12	0

Town Class.		£	s.	d.
Fifty-two weeks, at 14s. per week	..	36	8	0
Balance in favour of country class	..	20	4	0

But, to make it quite clear, I will take the above in another way. The farm labourer will get nearly all the wood fuel he requires, and he will only spend 6d. per week for coals against the town labourer who will have to buy all his fuel, which cannot cost less than 1s. per week for kindling, coals, and so forth. The difference between the two classes will then stand thus:—

Country Class.		£	s.	d.	
Agricultural labourer, 48 weeks at 10s. per week	..	24	0	0	
Harvest, &c., 4 weeks	..	6	10	0	
Gleaning corn, 3 bushels, at 48s. per quarter	..	0	18	0	
Deduct—					
Fifty-two weeks' fuel at 6d.	..	1	6	0	
Rent	..	3	5	0	
		4	11	0	
		£	26	17	0

Town Class.		£	s.	d.	
Fifty-two weeks at 14s. per week	..	36	8	0	
Deduct—					
Fifty-two weeks' fuel at 1s. per week	..	22	12	0	
Vegetables, 6d. per week	..	1	6	0	
Rent	..	5	17	6	
		9	15	6	
		£	26	12	6
Balance in favour of the country labourer	..	0	4	6	
		£	26	17	0

Now, thus far, it is quite obvious, comparing the two classes side by side, that our agricultural labouring friends need not feel at all humiliated in comparison with their town compatriots, for the purchasing power of our country class, even taking them at the average wage of 10s. per week, is quite equal, if not superior to that of their competitors. But if we take our horse-men, who, as many well know, earn from 1s. to 1s. 6d. and 2s. per week above the other men, the comparison is even yet more on the side of the rural class. Besides, many of the men spend more time in the year at piece-work than by the day, and many thus, with threshing, draining, and haysel taken into account, earn from 2l. 10s. to 4l. in addition to what I have calculated, and which would increase the balance in favour of our country friends by that amount.

We will just look at the physical and moral condition of the two classes, which may be very well taken into account; and I do not think our agricultural labourers ought to be stigmatised as a helpless race, when we can see with regret that their fellow labouring classes, and the poor in the large towns, are, in too many cases, in a dreadful state of poverty, squalor, and wretchedness. By their overcrowding they become a debilitated and degenerated race, a state of things which happily amongst the rural classes has no parallel. From what is stated by an able writer, Dr. Stallard, while writing of pauperism and the poor and labouring classes in London—which town he looks upon as "a magnified representation of all large towns,"—it would seem that the helpless dependence of these classes is so great that one-sixth of the population in the first half of 1863 received parochial relief. Speaking of the Holborn Union, Dr. Stallard says the physical condition of the labouring classes has undoubtedly degenerated; of Bethnal Green he says the same. "I venture to assert," he says, "without fear of contradiction, that there is scarcely a native male adult in Bethnal Green who is fit for military service; nowhere is the standard of comfort so low." A very large proportion of the "debility, deformity, disease, and premature deaths" amongst the London poor, as well as the want of stamina in after life, is owing to insufficient, irregular, and unwholesome feeding during the period of growth. The late Mr. Bryson, the town surveyor of Newcastle, strongly laments the want of good accommodation for the working classes. Mr. Errington, the registrar, writes that many of the houses in the overcrowded parts of Newcastle are wholly unfit for human beings. This is a representation of the state of our large urban labouring classes, who are often huddled together as closely as pigs, without any regard to sex. With reference to education, the rural labouring classes in some of our most purely agricultural counties are proved, by the Registrar-General's report, not at all behind some of the great manufacturing and mining centres; for instance, in Westmoreland, out of those married, the men signed their names in the proportion of 84.1, and the women 85.2 per 100. The proportion in Rutland was 79.0 and 87.4 per 100 respectively; while in manufacturing Lancashire the proportion was

Foreign Correspondence.

ONTARIO (UPPER CANADA): The Provincial Exhibition.—From the returns made to this department the average of farm crops in this province appears to be considerably greater than for some years past. There are a few sections of the country, not of the Rindge area, in which the midge (Wheat-fly) and rust quarters have been very destructive, and in other places their Wheat. Insects have been felt, but in a much inferior degree. I shall state, and in large districts it may now be regarded as almost entirely gone. The yield of Wheat, in the 11s. 9d. unaffected districts, will vary from 18 to 30 bushels per acre, the latter being occasionally exceeded in cases of superior cultivation. Oats in general are a heavy crop, say from 40 to 60 or 70 bushels an acre. Barley has been given. The culture of the latter is this season increasing, a large portion of the crop being a market in the States. Notwithstanding the fact that a price duty of the American tariff, Canadian Wheat, from its good malting quality, is regarded by the Americans as a necessity, and the same remark applies to the finer varieties of Peas, which are a heavy crop this year, and in general of excellent quality. Indian Corn is in most places very inferior, the summer temperature having fallen below requirements of that crop, and the unusual character of the season has also, to some extent, been prejudicial, as likewise in the case of Melons, Tomatoes, &c., grown in the open air. Pastures have maintained a beautiful green through summer, a phenomenon quite rare in this climate. Keep for stock has consequently been abundant, and hay has yielded from 1s. to 3 tons per acre; the quality in some instances is more or less inferior in the making. Haymaking with us is generally very simple and rapid process, and when a rainy season comes on our farmers, from inexperience, work to advantage or rather don't work enough, and the hay frequently unnecessarily suffers. Potatoes are a heavy crop, but some varieties on wet land are suffering badly in the rot. Root crops of all kinds will be generally abundant. The cultivation of Turnips, Carrots, and Mangels is, in the better favoured districts of the province, steadily, if not rapidly, increasing; and I have seen as heavy crops, and of equal quality, grown in Canada, as are usually to be met with under a thorough and expensive cultivation in England. Although the average of our cereal and root crops per acre must be regarded as comparatively low, owing to the rough state of newly but imperfectly cleared land, and often very superficial preparation, I am convinced that a large portion of the arable soils of the province would produce even less, certainly no more, if subjected to similar treatment. On the whole, Canadian farmers have every reason to feel satisfied and thankful for a bountiful harvest; and, although prices may look a little lower than what we have been accustomed to of late, the greatly increased growth of the present year will more than compensate for any diminution of prices we are likely to experience.

The 24th annual exhibition of the Agricultural and Horticultural Association of Ontario was held last week at London, and proved a great success. The entries in various departments, comprising live stock, agricultural and horticultural products, implements and machines, manufactures and fine arts, amounted to upwards of 7000, being equal to, if not greater than, previous occasions. The horses and finer breeds of cattle and sheep were not in number, and in some instances, perhaps in quality, quite equal to what I have seen on similar occasions in older and more advanced parts of the province; but the display of pure-bred stock of the principal breeds that are to be found in the mother country, from which we are frequently having importations, are certainly highly creditable. The skin and energy of our farmers. The display of grain and dairy products was remarkably good; and the various implements, machines, carriages, &c., the skill of our mechanics in adapting his productions specially to the wants was strikingly manifest. In a country where labour is scarce and consequently dear, we have seen to agricultural mechanics mainly for improving and cheapening cultivation, and in this respect much

Farmers' Clubs.

LAVENHAM.
The Agricultural and Town Labourer.—At the last meeting of this club Mr. BAKER read the following paper:—I think I may say this subject would not have been thought of had not a stigma been cast upon the agricultural labourers, by some members of a conference held in London, at Willis's Rooms, to consider their position. It is not to be wondered at that the town labourer should be considered the better off when many talk, as though the country labourer belonged to a race of some inferior beings, when at a conference they were spoken of as "helpless and down-trodden and depressed," and as much too "helpless" to help themselves, or possess any independence, on account of the aforesaid ignorance and helplessness. These are some of the epithets indulged in by some of the speakers at the above Willis's Rooms conference, who, if they had taken the trouble to extend their vision, would have found such language not any more deserved by our rural than our urban population.

We will now come to the question of wages at the present time, and in doing so I shall only draw a comparison between the agricultural labourer and the unskilled labouring classes in our towns, and shall deal, as a rule, only in general terms, and approximate as near as I can to a fair view of the two sides. I find that in 1837 our country weekly labour wage was 11s. per week; in 1868, 10s., in 1869, 10s. 9d.; so we may fairly, at the least, take the average at 10s. per week for the last three years, and the unskilled labour in our town populations from 12s. 6d. to 15s. per week, or say an average of 14s. per week; and, whether the country wage is 9s. or 11s., and the town labour 13s. or 15s., it will not materially affect their comparative or relative positions to each other. I contend, and I think I shall be able to show, that although our rural classes, as farm labourers, do not receive so much in a weekly money wage as town labourers, yet with their harvest and other advantages, they more than equal those in the town. Amongst these advantages is that of having a cottage garden, in which, as a rule, he can grow all his vegetables for his daily use, in addition, there are great numbers who have allotments likewise, and many get sufficient hedge stuff with wood, roots, &c., as rough firing, to carry them through the year—all of which the town labouring classes have to pay for in hard cash, and to this we may add the little item of gleaning corn to the country labourer's advantage and account. We will not say anything about piece-work, and the additional earnings made thereby, with the exception of harvest, which is a material addition to the weekly income. Take a harvest at 6l. 5s. to 6l. 15s., for four weeks per man, it will add 4l. 10s. to the 10s. per week, or make an addition to the 10s. of 1s. 8½d. per week, or 11s. 8½d. per week through the year. Gleaning, which I have spoken of, and which is not to be picked up in the streets of our towns, is a nice little adjunct in aid of the necessaries and comfort of our rural cottages of homes, and I think, when we have heard of from 2 to 4 bushels per cottage being gleaned, we may fairly assume 8 bushels to be about an average, and, by taking Wheat at 48s. per quarter, this will be 18s., or say about 4½d. per week added to the 11s. 8½d. which will make 12s. 1d. per week; the wood, scrap faggots, and rough stuff that arise through the winter months are frequently enough to be worth in many cases 6d. per week through the year; nor can the urban labourers and cottagers supply themselves with vegetables, &c.,

influence upon agricultural progress it will materially help to maintain. The labours of Mr. W. Smith, of Wotton as the pioneer of steam cultivation, have been the subject of discussion and recognition. The subject was discussed by M. Dumas, the distinguished French chemist, in his country, and notably to the experimental farm of Mr. Lawes, at Rothamsted, and to the sewage farm at Park Farm, which deserves a record for the attention which has been directed by it at once to the long-continued and valuable labours of our great agricultural chemists, Messrs. Lawes and Gilbert, in the domain of agricultural theory, and to the leading question in the domain of agricultural practice, which is receiving so satisfactory a solution in the hands of the Metropolitan Sewage Company."

Handbook of Hereford Cattle. Vol. VII. (Hereford: Messrs. W. & A. G. Walling, Printed at the Times Steam Printing Offices, Maynard Street.)

Thomas Duckham has issued another volume of his Handbook of Hereford Cattle. It contains under the pedigrees of 731 bulls, from No. 2906 to No. 3636, of about the same number of cows; and about 300 of the best herds and breeders are referred to in its pages. The book is illustrated with lithographs of several of the most noteworthy animals, and there is an appendix containing the prize lists since the last issue; and a report on a lecture on the breed, given by Mr. Duckham before the Brecon Agricultural Society.

We may add to our notice of this book some reference to Mr. Duckham's quarterly record of Hereford Cattle—a pamphlet which he circulates among the breeders and sellers of Hereford stock in promotion of his business as an auctioneer in connection with the breed. The present number contains some interesting memoranda as to the fortunes of the breed in other countries, and we quote the following notice of how the Herefords are liked in Michigan. Governor Crapo, of Flint, writes thus of them:—

The Herefords have done extremely well; in fact, they could hardly have done better. They have had no more than ordinary fair keeping, and yet they are in the same condition, and their coats are very fine. I have no doubt that the Herefords will yet be the stock of Michigan. They are docile and hardy, besides being easy keepers; and I have no doubt will stand a severe winter, and come out ahead of the Short-horns in the spring, on two-thirds the cost of keeping. I have raised with them, and shall increase the number of my herd as rapidly as possible, being confident that as soon as their merits are known they will be appreciated. There is now almost a mania through the country in favour of the Shorthorns, which I am to admit are a noble and valuable breed of cattle; they are adapted to the luxuriant pastures and the climate of Kentucky, rather than to Michigan. I have seen my Hereford bull VELVET JACKET, my Shorthorn bull LUCIFER, both about the same age, and I am obliged to feed the Shorthorn on nearly twice the grain, &c., that I do the Hereford, to keep him in equally good condition. Shorthorns are undoubtedly a valuable breed from which to procure grades by crossing with our native or common stock, where meat is the object; but for a rough-bred race of cattle I have no doubt that, in Michigan, the Herefords will prove unrivalled. I intend, however, to give the Herefords, Shorthorns, and Devons a fair trial, both as full-bloods and grades, and my health will permit me to carry out my original intention.

Farm Memoranda.

LANSHIRE, BOYNE DISTRICT: Oct. 18.—A long and tedious harvest is all but completed; a few fields remain out yet, but the crop was generally in about 10 days ago. The harvest in this quarter was cut about September 1, and quick work was made in cutting down of it—cutting with machines being the rule, and the scythe the exception. Every kind of corn is being tried, but the manual delivery by Brigden & Bickerton, Berwick, seems to be most in favour, and some excellent work has been made; I suppose no one could tell how much it has cost them here, but as much as 12 acres a day has been cut by some of them. It was mostly all cut before the weather broke, but very little was carried, so that the corn was stacked in bad condition, and a good deal was sprouted in the stook before it could be put in condition for carrying. Some of the stooks stood more than a month, so that very few fine samples will be found in this quarter, but all acknowledge to being a better crop than last year, although scarcely worth an average, and to go through the country a person could form little estimate of the bulk of the stacks, as the stacks are built in all sizes and shapes, and mostly all have wood in the inside of them. A great deal of it has been heated, and some, we believe, from steam thrashing-machine and threshed out a great deal of it and sent it to the market, which has taken the price down considerably. The rain, which did so much harm to the grain crop, has been very beneficial for the Turnips, and a bad crop of this year is scarcely to be seen. Very few of the Turnip crops are taken up yet, but they appear to be doing well. Our stock in this quarter are all very healthy, and very few cases of foot-and-mouth disease are in the country. However, we are well prepared to deal with it as all the machinery of the Contagious Diseases Act has been set in motion, while stock are mostly all in fat stock. A good few bullocks are being sent to the Christmas shows, and we have no doubt that Banffshire will stand its ground manfully as before. The plough is at work on most farms, turning over

the stubble fields intended for Turnips; the wet weather is keeping back the Wheat sowing; clay-land is very wet. Saturday the 16th was the worst day we have had for many years, and, in consequence, low-lying fields are standing in pools.

When the weather clears up, Potato-lifting and Wheat-sowing will be the pressing operations of the farm here, but until the land is in better condition we must work and wait. W. J.

The Poultry Yard.

We recollect, many years since, when geese were supposed to belong to Lincolnshire, the fenny parts of Cambridgeshire, and places where there were extensive commons, that it was said nothing would eat after a goose. We believe the first who said so was a wag, and belonged to the society where they said that in an adjoining parish only one bell was rung at a wedding, but all were tolled at a funeral (there was but one). That at another place you must be careful not to tie your horse to a tree, because it involves a fine of 100l. (The place is on the seashore, and there is not a tree.) So the goose; it is not that nothing will eat after it, but if it be Grass, the truth is the goose leaves nothing to eat. The sharp sides of their bills cut it off close to the ground. We said a short time since, when speaking of Michaelmas, that geese seemed to be out of season at that time, there being little or no demand. The quarrel is not, however, with the bird, but with the season. Where one goose was eaten at Christmas 40 years ago, 100 are eaten now, and they make good prices, provided they are large. Poultry in general is, however, fast becoming a trade. The geese that used to remain the property of the breeder till the Barley stubbles were ready for them, are now sold when a few weeks old to a travelling collector. Such men go about the country where there are commons; they go to Ireland, France, and Belgium. They collect all the geese they can, and bring them to England. Stratford enjoyed almost a monopoly of goose-feeding for many years. A tale is told that when Oats were very dear, there was a meeting of coach proprietors at Romford to consider the price. When they had hailed all their acquaintances, there still remained a man in the room whom no one knew. They looked at him and at each other, they coughed significantly; at last they begged him to leave. He said he thought it was a meeting to consider the price of Oats. "So it was. Who was he?" "A goose feeder." The announcement was received with shouts of laughter. This soon ceased when he showed he consumed many more Oats than the largest coach proprietor in the room. Those days are gone; the coaches are become things of the past, and the goose-feeders have gone to Lincolnshire and Cambridgeshire. Railways have rendered carriage easy and cheap. Contiguity to London is no longer an essential. When all was brought to London in cart or waggon, every mile was of importance, on account of cost and time. Now the "iron horse" snorts his way, heedless of weight or speed.

We suppose it is natural for men to grumble. It prevents fits of ill temper. There are those who say the milk that travels up 100 miles, and is then dispensed by unquestionable cockneys, clad for the occasion in white smock frocks, is not so good as that which used to be carried by the strapping milkmaids, wearing their shiny leather ankle-boots, and notorious for their gaily-coloured cotton kerchiefs. And Strawberries are now brought to town in long skeleton carts, while many can recollect, during the Strawberry season, a line of fast-walking and gaily-dressed young women, each carrying a large round basket on her head, filled with Strawberries. These came about every two hours, and supplied the principal dealers. People say they were better than now. All this is to end by saying that in our fast-living days a man can hardly allow himself to wait till September to sell the bird he hatched in March or April, he therefore sells his gosling to the "feeder."

Many years ago the distinction was so marked, that in the market they were known as "country" and "feeder's" geese. There is now little need of any distinction—all are "feeder's." But we mourn over the legitimate farmer's goose—the stubble goose. No other bird of the tribe is as good; no other feeding made so good meat. What a depth of breast, of rich, juicy, tender, succulent meat! What flavour! Such an one, eaten with Apple sauce as brown as itself, and leaving the question of stuffing an open one, would go far to make us wish there were at least one Michaelmas Day every week, and that, eschewing the modern style, we had an old-fashioned stubble goose to keep it upon.

Poultry Keeping.—[The following is the advice of the Rev. F. Watson at the late meeting of the Great Braxted Labourers' Friend Society:—The first question was, Does poultry-keeping pay? Perhaps just now, when pigs are selling at very high prices, it may be more profitable to give the dross corn to them; but, generally speaking, he was sure poultry did pay. Mr. Fowler, of Aylesbury, who is celebrated for his poultry, says that his poultry-yard has yielded him a return of 500l. per annum for many years past, and the profit varies from 60l. to 80l. He is very successful in prize taking; he cannot expect every one to be so, but he feels sure a profit of 10l. per 100 acres on all farms ought to be made from poultry alone. In Norfolk there are market people who make a good livelihood by their trade in poultry. Their custom is to purchase the poultry and eggs from the farmers in their neighbourhood, and take them to Norwich market. Every Saturday the large space opposite the Town Hall is filled with them; these are the persons who purchase young turkeys of the farmers every autumn, and fatten them for the London market at Christmas. If poultry-keeping does not pay, it ought to do so, when

the London public are content to pay 7s. and 8s. for a pair of spring chickens about the size of partridges, and 2d. for eggs called English new-laid. The best kinds of Poultry are the Dorkings and the Bramsh Peckers; the largest dead chickens Mr. Watson ever saw were a cross between these breeds. At Cucknashford show last year Mr. Dowsett carried off both prizes for chickens, with two pairs which weighed respectively 16 lb. 14 oz., and 16 lb. 9 oz. But if people were satisfied with plump, rich-flavoured chickens, weighing about 3½ lb. each, they could not do better than keep game fowls. With regard to ducks, the Aylesbury were the best. Mr. Fowler has exhibited some weighing 18 lb. per couple. The best food for fowls is Barley and Wheat, barley-meal and oatmeal; and for ducks the best food is tallow greaves, soaked or boiled in hot water, and then barley-meal and bran mixed with them in the liquor altogether. Grains mixed with barley-meal are very good, all whole corn given to ducks should be thrown into water. Oats thrown into a pan of water whole are the best for geese.

Miscellaneous.

Death of Mr. H. Stratford, Jan.—We very much regret to see the announcement of an inquest at Camboise, Northumberland, before Mr. Lonsdale M. Cokeroff, on the body of a young gentleman named Henry Stratford, of the Civil Service, who died on the preceding Saturday from injuries received in a coal mine. From the evidence it appeared that the deceased, together with his friend, Mr. F. Vine Bainsford, a Swedish engineer, and the chief viewer's son, under the care of four colliery employes, made a descent down the West Sleekburn Pit, when a roof stone, coming away, struck his back, broke his thigh-bone and foot, besides causing other injuries. Mr. Stratford made great progress towards recovery for the first week, but then a change for the worse set in, and the unfortunate gentleman expired on Saturday, October 2, at Camboise Vicarage, where he and his friend were on a visit. Verdict, "Accidental Death." He was the only son of Mr. H. Stratford, of Euston Square, the Shorthorn auctioneer, and was a well known member of the London Athletic Club.

The Earl of Rosslyn and his Tenantry.—On Saturday evening the Earl and Countess of Rosslyn entertained their tenantry at Dysart, on the occasion of the birth of an heir to the estates. The noble earl, in proposing "The Dysart Tenantry," said that they were second to none in Scotland in point of the antiquity of their holdings, as well as second to none in prosperity. That was owing, he would say without hesitation, to a good understanding between the landlord and tenants. It was owing to the fact that the landlord and tenants on the estate, if they had any differences and difficulties, had come together. The landlord had always been accessible to the tenant, and the tenant ready to hear what the landlord had to say, and between them, without any recourse to third parties, they settled matters amicably and pulled together well. They heard in the newspapers of large estates well managed, and yet the tenants were not contented. They heard of the law of hypothec on one side, and the game damages on the other, and 50,000 things rising to distract the amicable relations between landlord and tenant. As to the law of hypothec, it was so simple, and entirely a matter between man and man, that he could not understand any party trying to make it a political question at all. It had nothing to do with politics. It was a law which gave the landlord the first claim on his farm. At this moment the question was complicated with a great cry about tenant-right in Ireland, and the great cry about that at this moment was simply because the Irish had never had leases. They had had holdings of lands without leases, and if a tenant spent any money upon his farm he might be turned off, especially by a capricious landlord, without getting compensation. Nothing could be more unjust or unfair. If it had been carried out in this country we should have had a rebellion long ago. In this country, however, it had always been the custom to have leases, and he hoped it would continue. He did not want the landlord to have an unjust and undue power, but merely that he should have a security for that back rent which it was the custom to have in Scotland, and which enabled men who might not have an accumulation of capital to enter farms which otherwise they would be unable to stock. As to the game question, he was quite satisfied of this, that if there was an undue proportion of game on a farm doing damage to a crop the landlord must be a knave or a fool who did not remedy it. How could a man maintain a farm and be expected to keep a large amount of game? He could not understand that for a moment. He, for one, declared that he would destroy every single head of ground game, if necessary, rather than that his tenants should suffer from their ravages. But he was sure there was not a man present but would be sorry if his landlord wanted a day's shooting and could not get a shot at a rabbit or a hare. Common sense and fair play was what should prevail in a matter of this kind between landlord and tenant. For himself he proposed after this term to give his tenants the right of killing their own rabbits.

Calendar of Operations.

OCTOBER *Manuel harvest* generally takes place about the end of October. The crop should be pulled and stored before frost sets in, otherwise it is liable to rot in the pits or barn. In tailing no more should be removed than the small rootlets and earth, and the tops should be twisted and not cut off the bulb. The roots are generally stored in pits and barns like Potatoes and Carrots, but in some cases in narrow bins between hurdles stuffed with straw. The Mangels in the bins above the hurdles are raised in the form of a roof, and

thickly thatched with straw, and the bins are placed alongside each other sufficiently close to keep out frost, while they let steam out and air in. The tops are generally ploughed in for manure. Dry settled weather should be selected for the work.

Autumn manuring for Spring Beans.—The operation is similar to that for winter Beans. During this month farmyard manure can be carted on to the land without doing comparatively any harm in dry seasons, and in wet ones what little harm is done is greatly rectified by the winter frost. It is otherwise in early spring, and besides the carting, when the manure is applied at this season, the drills are in a better and more forward state to receive the seed in spring by dibbling in on the winter made staple, which forms a fine seed-bed for this crop—much better than when the land is newly cultivated.

Parsnips require to be early sown in spring, by the middle of February, and as the land can be more easily manured at this season, it should be done. But, apart from this, the Parsnip is a plant that requires the manure to be thoroughly incorporated with the land before the seed is sown. The land should be a fine deep, dry, friable or sandy loam, deeply cultivated, and in a high state of fertility. The land requires to be deeply ploughed, then smashed across. It is then drilled and dunged in the usual way, and in covering the manure the drills should be well ridged up to the winter frost; or if the intention is to sow on the flat, which is generally the preferable plan, the manure should be carefully covered 4 to 6 inches deep.

Carrots.—The Belgian and common field Carrot require the land to be cultivated, manured, and prepared for them at this season as above described for Parsnips. The former is grown on a greater variety of soils, and the latter on sandy soils, of a less fertile description naturally; but they both grow more freely on land that has been manured the previous autumn.

Potatoes.—Many manure the land at this season purposely to improve the quality of the crop, likewise for getting the earlier varieties planted in time in spring. Cultivation and manuring similar to that for Carrots.

Mangel Wurzel.—Some apply farmyard manure at this season, either on the flat or in drills, and then artificial manures at the time of sowing. Manuring at this season is a great relief to spring work cultivation.

Steam Ridging and subsoiling. In all the above examples of autumn manuring for Beans, Carrots, Parsnips, Potatoes and Mangels, the ploughing, smashing, ridging and covering the manure is best done by steam, and where land requires it, it may be subsoiled at the same time. After the land has been cultivated for a length of time by steam to the depth of 12 and 14 inches, it may then be turned up to this depth, placing the furrow slice upside down. But at the commencement of steam tillage, when the land previously has only been ploughed to the depth of from 6 to 7 inches by horse teams, subsoiling for a few years is preferable to turning up the land to twice the old depth with the plough. It may be smashed up to twice the depth without danger, but it is seldom advisable to plough deeper than the old furrow. But after the subsoil has been thoroughly loosened and aerated, and noxious salts either oxidised or washed into the subsoil or through drains, the land may then be ploughed to the proper depth at this season. Over a large area of Scotland and the north of England all the stubble lands for the ensuing green crops are ploughed to the depth of 12 or 14 inches at this season by four-horse teams, and we have followed the same practice in Huntingdonshire with equal success. But, at the commencement, the land must either be subsoiled for a few years, or the work of deepening done by degrees, not more than 2 inches of the subsoil being brought to the surface at a time. By steam, however, the work of deepening may be done much more advantageously by a subsoiler below the common plough or ridge plough. Thus, in opening the ridge furrows for the manure, the ground on which the manure is to fall is subsoiled; and, in covering the manure by splitting the ridges, the open furrows are subsoiled, leaving it in the best possible condition for the successful winter drainage of the land.

Live Stock.—Brood mares require double attention at this season, for independently of their physical condition naturally, the foetus now begins to draw heavily upon the daily sustenance of the body, more especially if only recently separated from their foals. The diet should be nourishing, cooling, and slightly laxative. Foals, whether newly or recently weaned, also require special care, otherwise their growth will be checked, and their symmetry, beauty, and usefulness impaired. The old saying, "Starve a foal at this season, and twice the food saved will not recover the loss sustained," is a true one. After this season, what they gather in the pastures is unfit to support them. Outdoor exercise is needed, but the essentials of the dietary must now be supplied indoors; and whatever the dietary is, they should have been taught to eat it before they were weaned.

Milch cows should now have plenty of green food indoors, as sewage Grasses, where they can be got, and Vetches, Cabbages, and Turnips. In our southern counties they may gather something daily in rich pastures—in the north, very little; and with such soft food hay, chaff, and meal mixed should be given. In short, milch cows are now gradually put upon their winter keep. The old practice of not housing at night before November, when the fires are lighted, is out of date; for although the nights during October are often free from frost in our southern districts, the ground is wet, and nothing is more injurious to a milch cow than a wet, cold bed.

The Dairy during October can seldom be kept sufficiently dry, and at the proper temperature, without artificial heat, and no greater mistake can be made

than to allow the milk room and other departments to become damp and mouldy at this season. Always kindle the fires in time, for "it is easier to keep out than to put out." If this is done, very fine butter and cheese may be made throughout the month, for the milk, although less in quantity, is rich in quality when the cows are properly fed, groomed, and attended to. When fed on Turnips the tops should be given to store cattle. Many farmers prefer ploughing down the green-tops for manure, estimating them at more value for this purpose than for feeding material, owing to the large percentage of the tops being in a rotten and unwholesome state. But, even when all green and fresh, the tops should not be given to milch cows, as they disagreeably flavour the milk. W. B.

Notices to Correspondents.

AGRICULTURAL IMPORTS DURING 8 MONTHS, 1868 AND 1869: R.

Table with columns: Articles, 1868, 1869. Rows include Oxen, Bulls, and Cows; Sheep; Corn—Wheat, from Russia; Barley; Oats; Beans; Indian Corn, or Maize; Wheatmeal and Flour; Hops; Oil Seed Cakes; Potatoes; Provisions—Butter; Cheese; Eggs; Fish, cured or salted; Lard; Meat, fresh or slightly salted; Meat, salted—Bacon and Hams; Seeds—Clover; Flaxseed and Linseed; Rape; Wool, Sheep and Lambs; Yeast, dried.

BLACK LEG H. H. When young animals are progressing too rapidly upon rich food, a condition of things which commonly precedes "black leg," astons may help to lower the plethora of the system, and thus do some little good: but they certainly have no specific influence, and in practice they constantly fail to prevent the disease.

Books: There is no manual of agriculture of much service at "about 2s 6d to 5s in value." You had better apply to Mr Allnut, at the Agricultural Library, No. 200, Fleet Street, for his list and advice.

CLOVER DODDER H. A. Your plant is Clover Dodder. Clover is to be threshed out of the rick, and if not by a special Clover seed machine, it must be passed through the threshing machine two or three times. It is cleaned by fan and "resing" sieve.

THE PRIZE PLOUGH: H. Naim. It is a two-horse iron-framed plough, for horse-work, made by Fowler & Co., Steam Plough Works, Leeds.

W.M. WOOD AND SON have to offer... STOCK of the following: Sycamores, 7 to 8 feet; variegated, 5 to 6 feet; Horse Chestnuts, 8 to 10 feet; Catalpa syriaca, 7 to 8 feet; Laburnums, 4 to 6 feet; Weeping Ash, ex fine, 7 to 8 feet; Ash-leaved Maple, 7 to 8 feet.

Messrs. PAMPIN AND SON have a large stock of the following, and offer them at low prices: Cedar of Lebanon, 10 to 12 feet; Cedrus Deodara, 6 to 15 feet; Aucuba japonica, 2 to 6 feet; Portugal Laurels, 2 to 6 feet; Chinese Arbor-vitae, 5 to 12 feet; American Arbor-vitae, 5 to 10 feet; Thuja aurea, 1 to 4 feet; Green Box, 1 to 6 feet; Striped ditto, 2 to 4 feet; Evergreen Oak, 7 to 10 feet; Yew, Common, 4 to 10 feet; Irish Yew, 3 to 5 feet; Laurel, 2 to 6 feet; Araucaria imbricata, 10 feet; Green Hollies, 1 to 12 feet; Weymouth Fir, 3 to 6 feet; Spruce ditto, 2 to 4 feet; Birch, 14 feet.

Special Offer of New Potatoes. THOMAS PIERPOINT, Warrington. POTATOS introduced by him in 1863... Harry, Kidney, combines in an exceptionally fine quality with elegance of appearance and heavy yield.

LEAF MOULD WANTED.—Any person who has an article to dispose of may apply to J. KENNARD, Swan Place, Old Kent Road, E.

SILVER SAND and PEAT, from Bedfordshire. Quantity. This Sand is acknowledged by Florists as the best yet obtained. Price lists on application to J. ARNOLD, Builder, 29, Clarendon Square, St. Pancras, W.

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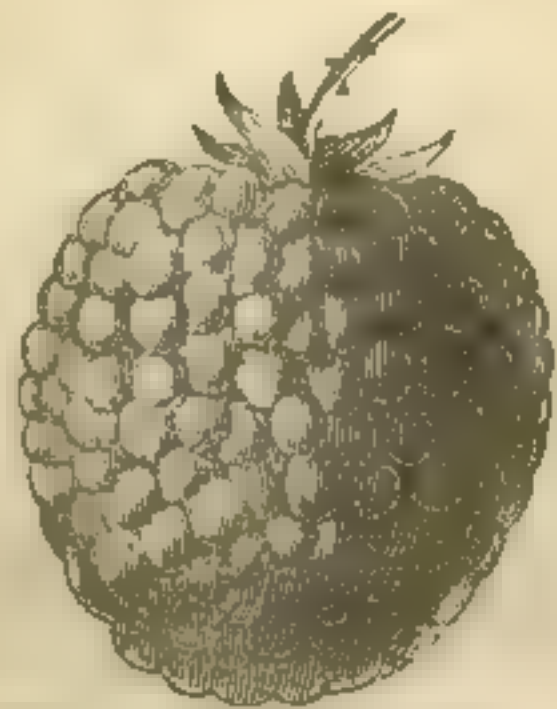
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Subject to variation as the season advances.

McLAREN'S PROLIFIC RASPBERRY. SPECIAL NOTICE.



For full description, see page 989, ii.

Gardeners' Chronicle, Sept. 18.

JAMES CARTER AND CO. beg to state that in consequence of the rapid demand for this valuable novelty...

The entire stock will be held next season by J. C. & Co., and orders are now booked to be supplied in rotation...

As the supply next year will be limited, early orders are recommended.

6 Strong Canes, 7s. 6d. | 25 Strong Canes, 20s. | 12 Strong Canes, 12s. | 100 Strong Canes, 60s.

PARISIAN MUSHROOM SPAWN.

J. C. AND CO. are prepared to supply French Spawn, which is said to be a great improvement upon the ordinary Spawn...

Price 6s. 6d. per Box (sufficient to spawn a moderate sized Bed); Half Boxes, 4s.

Decoration of the Drawing-room.

JAMES CARTER AND CO. offer for this purpose their choice Selections of HYACINTHS as below, including Glasses.

12 choice Hyacinths and 12 new-shaped Glasses .. 21s. 6d. | 12 fine " and 12 new-shaped Glasses .. 19s. 6d. | 12 good " and 12 new-shaped Glasses .. 18s. 6d.

Carter's Collection of Bulbs, for Outdoor Planting only, price 21s.

- List of bulbs including Hyacinths, Narcissus, Tulips, etc.

For full instructions for cultivation, and particulars of the above Assortments, see

CARTER'S

ILLUSTRATED BULB CATALOGUE

For 1869, Gratis and Post Free.

JAMES CARTER AND CO., THE ROYAL SEEDSMEN, 237 AND 238, HIGH HOLBORN, LONDON, W.C.

SUTTONS' FRESH IMPORTED FLOWER ROOTS FOR WINTER AND SPRING BLOOMING.



Messrs. Suttons' FLOWER ROOTS

Have been selected from the principal Growers in Holland.

MESSRS. SUTTON DELIVER ALL

FLOWER ROOTS, Except very small parcels, Carriage Free by Rail

Special Estimates for large quantities on application.

Suttons' Complete £1 1s. Collection,

For Cultivation in Pots and Glasses, Carriage Free

- List of plants in the £1 1s. collection including Hyacinths, Narcissus, Tulips, etc.

Suttons' Fine New Crocus for Pots.

- 1000 splendid named, in 25 vars. £1 15 0 | 500 do. do. in 25 vars. 0 15 0 | 250 do. do. in 25 vars. 0 9 0

Suttons' Dutch Crocus for Open Ground.

- 1000 in 10 vars. £0 14 6 | 500 in 10 vars. 0 10 0 | Large Blue per 100 £0 1 0 | White " " 0 1 0 | Purple " " 0 2 6 | Common Yellow " " 0 1 0

Suttons' Choice Polyanthus Narcissus,

- 100 in 20 choice sorts £1 5 0 | 50 in 10 choice sorts 0 14 0 | 25 in 12 choice sorts 0 7 0 | Garden Narcissus, finest mixed, 7s 6d per 100.

Suttons' Early and Large Double Tulips,

- 100 in 20 choice vars. £0 15 0 | 50 in 10 choice vars. 0 10 0 | Double Tournesol, p. 100 £0 12 8 | Rose Due Van Thol, p. 100 £0 14 0 | Single Due Van Thol " 0 3 8 | Choice named varieties, separate, 1s. to 12s. per dozen.

Suttons' SUPERB DUTCH HYACINTHS FOR CULTIVATION IN POTS OR GLASSES.

The best 12 HYACINTHS for 12s. Messrs. SUTTONS' COLLECTION of HYACINTHS consists of more than 200 varieties...

Suttons' Collections of Named Hyacinths.

- 100 HYACINTHS in 100 very choice sorts £4 4 0 | 100 " 50 very choice sorts 3 10 0 | 60 " 50 very choice sorts 2 2 0 | 50 " 25 very choice sorts 1 15 0 | 25 " 25 very choice sorts 1 1 0 | 12 " 12 extra fine sorts 0 12 0 | 12 " 12 choice sorts 0 9 0 | 12 " 12 good sorts 0 6 0

The order should specify whether they are intended to be grown in water or earth, as all kinds are not equally suited to both purposes.

Suttons' MIXED HYACINTHS for Beds or Open Borders.

Double, Single, and various colours, 2s 6d per doz., 17s 6d per 100.

Suttons' HYACINTHS in DISTINCT COLOURS for Massing Bedding, Ribbon Gardening, &c.

Double and Single, various shades, separate, 4s. per dozen, 31s. per 100.

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For OPEN GROUND CULTIVATION, Carriage Free.

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For further particulars and Prices of GLADIOLUS, RANUNCULUS, ANEMONES, &c., see SUTTONS' AUTUMN CATALOGUE, gratis and post free on application.

SUTTON AND SONS, SEEDSMEN TO THE QUEEN, READING, BERKS.

VEITCH MEMORIAL.

At a MEETING held in the Council Room of the ROYAL HORTICULTURAL SOCIETY, on WEDNESDAY, October 27, in furtherance of the Proposal to establish a MEMORIAL of the late Mr. JAMES VEITCH, James Bateman, Esq., F.R.S., in the Chair, the following RESOLUTIONS were adopted:—

Proposed by G. F. Wilson, Esq., F.R.S., seconded by Mr. Gibson:— 1. "That, as a desire has been expressed by many gardeners, both in private letters and through the public journals, that the memory of the late Mr. James Veitch, and of the many benefits conferred by him on gardeners and gardening, by the impulse given to horticultural pursuits through his enterprise, influence and example, should be perpetuated by some fitting Memorial, this meeting, fully appreciating Mr. Veitch's claims on the grateful remembrance of horticulturists and the loss which his family and horticulturists generally have sustained by his early demise, determines that effect shall be given to the desire thus expressed."

Proposed by Dr. Masters, seconded by Mr. Standish:— 2. "That a General Committee, consisting of the following gentlemen, who have signified their approval of a 'Veitch Memorial,' is hereby constituted for the purpose of carrying out the foregoing Resolution—

- GENERAL COMMITTEE. Mr. J. Anderson, Mead-walk Bank; Mr. James Barnes, Exmouth; Mr. W. Barnes, Camberwell; Mr. A. F. Barron, Chislewick; Mr. R. Bebble, Bleton; Mr. T. Blair, Shrubland; Mr. J. H. Brookes, Carsbalton; Mr. E. Hudd, late of Cobham Hall; Mr. R. Bullen, Glasgow Botanic Garden; Mr. W. Carmichael, Sandringham; Mr. W. Coleman, Eastnor Castle; Mr. T. R. Cox, Clonville, East, Worcester; Mr. J. Cox, Kettle; Mr. A. Cross, Tortworth; Mr. J. Cross, Rendcomb; Mr. W. C. Verwall, Thorpe Parrow; Mr. F. R. Cutler, London; Mr. T. Davis, Bures, Colchester; Mr. W. Dean, London; Mr. W. Dodds, Bower Ashton; Mr. J. Douglas, Loxford Hill; Mr. J. Douglas, K. K. K.; Mr. Downie, Edinburgh; Mr. Drummond, Edinburgh; Mr. M. Dunn, Powerscourt; Mr. W. Earley, Digswell; Mr. G. Kyles, South Kensington; Mr. D. T. Fish, Hurdwicke; Mr. J. Fleming, Clivedon; Mr. W. G. Gaiger, Burton Close, Bakewell; Mr. W. Gardner, Weston; Mr. J. Gibson, Battersea Park; Mr. A. Graham, Tedworth; Mr. H. Hepburn, Searesbrick; Dr. Hogg, London; Mr. A. Ingram, Alnwick; Mr. D. James, Carton Park; Mr. Johnston, Glamis Castle; Mr. T. Jones, Petworth; Mr. J. Knight, Floors Castle; Mr. Lamb, Colston Bassett; Mr. W. B. Latham, Birmingham; Botan. Gardens; Mr. T. Lees, Tynningham; Dr. Masters, London; Mr. D. Matheson, Tulichallan Castle; Mr. C. McDonald, Woodstock Park; Mr. J. McPherson, Osborne; Mr. A. McKensie, Alexandra Park; Mr. J. McNab, Edinburgh; Mr. T. Methven, Edinburgh; Mr. M. Methven, Blythwood; Mr. D. Methven, Edinburgh; Mr. W. Miller, Combe Abbey; Mr. J. Moore, Potter's Bar; Dr. Moore, Glasgow; Mr. J. Moore, Chelsea (Hall); Mr. C. W. Monro, Morston; Mr. J. Pearson, Rangemore; Mr. J. R. Petch, Masley Hall; Mr. T. Rabona, Alton Towers; Mr. A. J. Ramsay, Castleboro'; Mr. T. Record, Lillesden; Mr. J. Robertson, Dublin; Mr. W. Robinson, London; Mr. J. Rust, Bridge Castle; Mr. J. Rutherford, Dublin; Mr. T. Rutland, Benthley Priory; Mr. W. Smythe, Emsley Hall; Mr. Z. Stevens, Trenham; Mr. J. G. Temple, Packington; Mr. W. Thomson, Dalkeith; Mr. D. Thomson, Drumlanrig; Mr. G. B. Tillyard, Brooklesby Park; Mr. A. Toward, Osborne; Mr. E. Welsh, Armagh Palace; Mr. C. West, Carton; Mr. E. Westcott, Raby; Mr. G. Westland, Witley Court; Mr. W. Wright, Plas Newydd; Mr. J. Young, Wentworth.

And that the following Members of this Society—namely, Messrs. Gibson, Eyles, Fleming, Hogg, Masters, McKensie, Moore, W. Dean, and Penny, form a Central London Committee; the following—namely, Messrs. W. Thomson, Anderson, Downie, Drummond, Johnston, Knight, Lee, Matheson, McNab, Methven, Methven (Blythwood), Mitchell, Syme, Bullen, and D. Thomson, act as a Committee for Scotland; and the following—namely, Messrs. McDonald, Dr. Moore, Douglas, Dunn, Robertson, Welsh, West, and Rutherford, act as a Committee for Ireland, with power to add to their numbers."

Proposed by Mr. W. Dean, seconded by Mr. Rus:— "That the various Members of the Committee be authorised to obtain subscriptions in aid of the Veitch Memorial, in their several districts, and that Mr. W. F. Wilson be appointed Treasurer to the Fund thus obtained."

Proposed by Mr. Standish, seconded by Mr. Gibson:— 3. "That Mr. Moore be requested to act as Secretary." 4. "That the Subscription List be closed at Lady Day." 5. "That these Resolutions be advertised in the Gardening Periodicals."

Subscriptions may be sent to G. F. WILSON, Esq., Treasurer of "Veitch Memorial Fund," care of Mr. RICHARDS, Royal Horticultural Society, South Kensington, London, W.

Post Office Orders to be made payable at Kensington High Street. Cheques crossed London and County Bank.

The Gardeners' Chronicle.

SATURDAY, OCTOBER 30, 1869.

MEETING FOR THE ENSUING WEEK. THURSDAY, NOV. 4, LINCOLN 6 P.M.

In a recent number of the "Bulletin of the Botanical Society of France," M. ALPHONSE DE CANDOLLE replies to much of the criticism evoked by the publication of his LAWS OF BOTANICAL NOMENCLATURE, and by the discussion on them at the Paris Congress. We need not enter into the strictly botanical part of the subject, but we may set before our readers the gist of M. DE CANDOLLE's remarks on the nomenclature of cultivated plants. The laws laid down by the learned Professor, and recommended for adoption by the Congress, were given in our columns, 1868, p. 405. M. DE CANDOLLE gathers from what has been said in this and other journals, that horticulturists are not altogether satisfied with the regulations sought to be established. The dissatisfaction arises, in M. DE CANDOLLE's opinion, not so much from any absolute defect in the code, as it does from the want of sufficient knowledge on the part of those who have to apply it. In many cases the necessary data for the application of an exact name are not forthcoming, a state of things unhappily too common, but one not fairly chargeable to any defect in nomenclature. To make his meaning more clear, M. DE CANDOLLE gives by way of illustration the case of a person entering a crowded drawing-room. It may happen that he does not know the name of anybody in the room, or he may mistake one person for another. This is sufficiently annoying, but it furnishes no reasonable ground of complaint against the laws or customs of the country, because every individual in the room has his family and baptismal

names duly registered somewhere or other. The essential thing is to know the persons, or, failing such knowledge, to be able to acquire the desired information. But some persons may have changed their name. True; nevertheless the change is not effected without public notice being in some way or another given of the fact. So in the case of plants; it is not the nomenclature which is at fault. The inconvenience arises from the difficulty which the gardener experiences in carrying out his researches among the botanical records. Ordinary gardeners are not sufficiently instructed to make use of botanical treatises, while more highly educated horticulturists often experience a difficulty from the absence of libraries or herbaria. There are many cities of horticultural note wherein, from the reasons just cited, it would be next to impossible for the inquirer to determine the name of a plant with certainty.

M. DE CANDOLLE then proceeds to express himself in favourable terms as to the establishment of the Scientific Committee, which he calls *parfaitement composé*, and urges the adoption in catalogues of certain signs to indicate seedlings or sports (see p. 492, 1868). These signs are only to be used in cases where the origin of the plant is known with certainty, and where there can therefore be no hesitation as to the proper use of the symbol.

M. DE CANDOLLE, as it appears to us, has omitted one great source of inconvenience in plant nomenclature, and that is the use, or rather misuse, by gardeners and others not acquainted with the laws of botanical terminology, of scientific expressions and denominations. We, of course, acknowledge the right of any gardener or raiser to give names to those productions in whose origination he has had so great a share: what we object to is the application, to such hybrids or sports, of names which in form are identical with those applied by botanists to species. If, for instance, a new seedling Phlox be christened Phlox Fraseri, any botanical reader would infer that a new species was intended; but if it were named Phlox John Fraser, no mistake could possibly occur. The botanist would know that he had to deal with a garden variety, and the horticulturist would in his turn be the gainer, because he would know immediately that he was not talking of a newly-imported or little-known species. The signs proposed by M. DE CANDOLLE for garden varieties might still be attached in catalogues, though they could not be made use of colloquially. This last circumstance affords additional reason for preferring vernacular designations for the quasi-artificial productions generally classed under the head of "garden varieties." Another difficulty in nomenclature arises from the practice some nurserymen have, though we are glad to say this is much on the decline, of naming their newly-imported plants at once on their own authority, without waiting to ascertain from some competent botanist whether the name be properly applicable or not. This of course arises from the necessity, for commercial purposes, of attaching some name to the plant. In catalogues such appellations should be distinctly given as provisional only, and have the word *Hort.* after them. But even in such cases it would be desirable that, pending the registration of the plant in due form, some appellation different in construction from the recognised scientific epithets should be applied, so as to avoid all risk of error, and obviate the dreadful incubus of synonym on synonym.

THE VEITCH MEMORIAL scheme is now fairly launched, and we wish it God-speed. The meeting on Wednesday, over which Mr. BATEMAN presided, was unanimous in its favour, and since some 80 committeemen have signified their intention to work heartily to give it effect, there need now be no fear that it will not be brought to a speedy and successful issue.

The fact that the movement is a spontaneous outpouring of the feelings of gardeners towards one who ever befriended their class, is extremely gratifying, and the sympathy which finds its expression in this graceful public act will no doubt be fully appreciated by Mr. VEITCH's family. To some extent, doubtless, the moving cause is that of gratitude to a benefactor for personal favours, or of affectionate remembrance of a valued friend, but now that a commencement has been made, the sympathies of a more numerous class may be enlisted in giving effect to the scheme, as a mark of sympathy with

a bereaved family sorrowing for the loss of its head.

The many suggestions which have been made as to the form which the memorial should take—all good in their way, but not all equally practicable—and which were brought under the notice of the meeting in the various letters of those who had signified their approval of the movement, naturally elicited some discussion, but it was agreed that nothing definite could as yet be determined, since the result must be governed by the amount subscribed. Instead, therefore, of attempting to solve this point, the meeting was content to affirm generally its preference for a portrait rather than a monument, supplementing this by one or more Veitch Prizes—annual, biennial, or triennial, according to the means at the disposal of the committee—a conclusion which we are able to state will be acceptable to Mr. VEITCH's family, by whom a preference has been expressed for a monument or a portrait, either with or without the suggested prizes or medals as might be found practicable.

The sense of the meeting was taken as to some other subsidiary points, in order to facilitate the working out of the scheme. Thus, though it was felt that the action should be prompt, and the decision as speedy as possible, it was not considered wise to close the subscription list before next Lady-day. The opinion of those who were present was in favour of limiting gardener's subscriptions generally to a guinea, not of course to the exclusion of smaller offerings—the shillings and pence, as Mr. FISH puts it—of under-gardeners and others, while of course the larger offerings of the wealthy will be made at the option of the donors. As regards the prizes, should it be found practicable to establish them, the meeting unanimously decided against adopting the form of a medal, and in favour of a Veitch Prize, to be awarded in money or otherwise, as may hereafter be decided. The prizes, it was understood, should be offered for competition amongst gardeners only; and, whatever number might be forthcoming, it was considered that they should be given to reward the meritorious cultivation of plants and fruits alternately, rather than for novelties, and that they should be distributed in rotation at one or other of the principal exhibitions in London, Edinburgh, or Dublin respectively. The difficulties likely to arise in carrying out the otherwise unobjectionable proposals of a club and a library, were considered fatal to the adoption of these proposals, and much the same difficulty would attend that of the education of orphan children of gardeners, or that of Dr. MOORE's, read to the meeting, to establish a fund for supporting disabled collectors, or their too-often bereaved survivors. The suggestion to add a Veitch Pensioner to the roll of the Royal Gardeners' Benevolent Institution met with greater favour, though, judging from the opinions expressed, the Prize and the Portrait seem to be the forms most likely to be eventually adopted.

We understand that the mode of working out the scheme will be, to consider the members of the General Committee, scattered as they are throughout the United Kingdom, as Local Secretaries and Collectors in their respective neighbourhoods. In this way many hands will make light labour; while as all these gentlemen have come forward spontaneously, we can but conclude that such duties will be to them a labour of love.

— WE extract the following remarks on the management of LAKES and PONDS from the pages of the *Medical Times*:—"Common water exposed to the atmosphere soon becomes mixed with organic matter, from the droppings of birds and beasts and the decayed leaves and other vegetable matter washed into it. What next happens depends on the fact whether the water is in motion or at rest. If in motion, as in a rapid river or a lake, the bottom may be swept clean, for a lake, be it observed, is a body of living moving water—an expansion in the course of a river, not a mere motionless pond. If at rest, the organic matter sinks and accumulates, and undergoes changes when may be detrimental to the health of the neighbourhood. Then the question comes—What is the scientific mode of treatment?—bearing in mind that some ponds, like the London Serpentine, require not only to be made free from noxious emanations, but to be safe means for bathing and skating. One summary mode was adopted with the ornamental water in St. James's Park. It was made universally shallow, with an impervious bottom, so that it may be at times emptied and cleansed. The results are not good. The colour is frightful, the water offensive, and the bottom becomes covered with black mud. The eye gets none of the natural gratification and repose which it expects, the water is shallow and therefore heated, and the accumulation of organic debris considerable. In the Serpentine the colour was

better, the water full of minute green confervæ. On keeping a jar of water from the Serpentine, and one from St. James's Park, in the shade for many months, the former yielded abundant oxygen in the sunshine, and no unpleasant odour; the fact remains that, in this and all other cases, no outlet, organic matter accumulates, and the successive crop of organisms falls to the bottom, dies, and forms mud; for the true mud of ponds is clay or common m.c., but the accumulation of vegetable matter. Even when the Serpentine is remodelled, this will require some provision to prevent its accumulation. Our plan would encourage the growth in it of plants which, by their "previous sewage contamination," and which all the microscopic confervæ, can be themselves removed. Such a plant is the *Anacharis*, which grows greedily using up all impurity, and converts it into oxygen-breathing vegetable tissue, and of being fished out easily once a year, thus leaving a certain quantity of organic impurity from the water. The edges of the Serpentine in Kensington Gardens—should be fringed with those most beautiful of English plants which grow on our rivers—the showy *Caltha palustris*, the trifoliate, *Butomus umbellatus*, the *Epilobium*, *Salicaria*, the *Sagittaria*, *Nymphaea*, *Najas*, like—so that the crowds who hunt the banks for a glimpse of Nature, however slight."

— In a recent article in the "Revue de M. DUBREUIL, speaking of the one of the UNILATERAL CORDON (one-sided) for the Apple, commends an edging for fruit gardens, on the ground that it serves to fill a space which it would be difficult to occupy advantageously. At this M. DUBREUIL cautions growers against two errors in this mode of culture, and which are serviceable to our readers to point out. The first consists in attaching to the wire support the bud which is to prolong the cordon. The error is that the current of sap is impeded, so that the buds receive an undue quantity, and hence the shoots instead of fruit-spurs. To correct this M. DUBREUIL recommends that the terminal bud be allowed to take its natural upward direction, and develop itself freely during the period of growth. The time of winter pruning the branch is to be towards an inclined horizontal to the wire, except 6 or 8 inches at the extremity, which may be to ascend obliquely, so as to favour the development of the new bud which is to prolong the branch. Through the lengthening of the cordons, the buds of adjacent trees join, the ordinary practice being to inarch the extremity of one cordon into the branch of its neighbour at the point where it branches. A continuous current is established between all the branches forming the cordon. This process, says M. DUBREUIL, entails the serious objection that it deprives of their vigorous terminal bud, the development of which induces the formation of new vessels in the cordon of the sap, and favours the development of new roots, which may seek nutriment in so much more rapidly by the growth of preceding years. Moreover, the lateral buds, from the "pinching" of the roots, hence M. DUBREUIL recommends that the terminal process to be discontinued, and that the terminal bud of each cordon be allowed to develop itself freely into a branch. When pruned, the bud may be cut away near its base, above a vigorous bud destined to form a new and vigorous shoot. The consequence of these repeated pruning operations effected nearly at the same point, a gony shoot is formed, hindering the proper flow of the sap to the bud, it is advisable to preserve another bud, and to cut down, so as to secure the formation of a shoot next season. The extremity of the old branch may be cut away immediately above the point of attachment of the new shoot, which latter at the winter pruning should be shortened to 3 or 4 inches. Successive shoots should be pruned, and so on year after year, the main object being attended to being the prevention of the consequences of any swelling that may be formed, and securing every year a vigorous bud at the extremity of the branch, to promote the flow of the sap.

POTATOS.

I AM grieved to hear on all sides of the account of Potatos. Here they are excellent, and from disease. They were dug up by August and not one has decayed in store. Mr. Knox, Leach, the gardeners respectively, of Mr. Fox and Lord Portman, called here this week. Mr. Knox stated that he had 20 sacks (!) of diseased Potatos from his garden. On this occasion Mr. Leach, according to his usual habit, brought me some noble tubers—I never saw any so uniform in shape, well formed, clean in the eye, and perfectly level on the surface. He raised them last year, but never "sent it out." I have not time to report on it, if permitted, next year. The shape of shape is desirable; but, from unprudent selection or grafting, we have got into kidney-shaped Potatos. The Potato is round at one end and kidney-shaped at the other. Rounds should be crossed with kidney-shaped Potatos with kidneys. Strawberry raisers must not be mistaken. Thus we see on the same plant round, conical, and round berries. M. de Jonghe, and M. de Jonghe, late of Frogmore, understand formation of berries. The berries of La Constante, Lucas, and B. Fenby by M. De Jonghe, and of Frogmore Pine by Mr. Powell, raised by Mr. Ingram, both first-class, are my assertion. Be it however observed, that the Potatos and Strawberries, too, are much affected

Very strong rich soil will often force a Strawberry into a cockscomb, and a level Potato into a deep-eyed coarse one. Miss Burt, of Clendon, won the 1st prizes at Blandford with the Silver-skin and Early Blues. I never saw more beautiful Potatoes. Here the Silver-skins were so scurfy, and the Early Blues so deep-eyed and coarse, that I lotted them to the pigs. I sent to the same show a Lapstone, given to me by Mr. Turner, and Cobbler's Lapstone, given to me by Mr. Fenn, and they won some high honours. They were very good indeed. Not thinking of exhibiting, I gave away to a poor man, Bere Regis, from six to twelve each of the best, and what of all my Potatoes. As I was driving along he ran across the field and 'fed my vanity!' saying, 'I read your noble articles on 'taters.' Could you give me

know it to be a very good early sort. As Hero and Taylor's Hybrid are much alike in appearance and identical in flavour and quality, observe the former has short haulm and a white flower, and the latter rather longer and stronger haulm and a pale blue flower. Both are said to have been raised by grafting, the former by Mr. Almond, of Little Fencote, Bedale, Yorkshire, and the latter by Mr. Taylor, of Great Fencote. I know nothing of grafting myself, but I never read greater marvels than were in Mr. Taylor's grafting notes, written five years before he sent them to me, and which, on permission, I forwarded to Mr. Fenn, who has them still. 'Natur,' said Squeers, 'is a rum 'un,' so we must not decide too quickly. Mr. Fenn will do all that can be done in the matter. I think if a weak-growing kidney was inserted into a strong-constitutioned one, constitution might be imparted. At present I must rest here. We want to know, as Mr. Dean says, when the new roots become independent of the tuber. I imagine they draw from it a very long time, because, if you cut a piece off a tuber it will rot, and the crop will ripen some days before it will ripen from an uncut tuber. So say the shrewd Yorkshiremen. Mind the words—'Early ripeners and late keepers.' I am safe till next June. It is fair to say the Cobbler's Lapstone and Pebble White do not ripen quite so early as the above; and when supertuberation sets in early, none will grow out more quickly than the Cobbler's Lapstone. It is the King! W. F. Radcliffe.

NEW STRAWBERRIES.

WE are indebted to Messrs. Vilmorin-Andrieux & Co., for the following descriptions and engravings of eight new varieties of Strawberries raised by the late Dr. Nicaise, whose fame as a successful raiser and grower has long been favourably known.

Perfection (fig. 1).—Fruit large, conical, and pretty regularly formed; seeds prominent and regularly disposed, of a lively reddish colour, contrasting with that of the skin, which is of a dark red, merging into a deeper tint; flesh dark red, juicy, sweet, and fine flavoured. The aroma somewhat resembles that of Brune de Gilbert. The plant is a strong grower and hardy, resembling Marguerite (Lebreton) in the disposition of the foliage and in the form of the fruit. It is very prolific, and appears to be exceptional in quality.

Passe-Partout (fig. 5).—Fruit very large, the first crop producing broad and flat specimens, after which they come of a more elongated form; seeds almost black, slightly prominent, and widely separate; skin of a deep



FIG. 1.

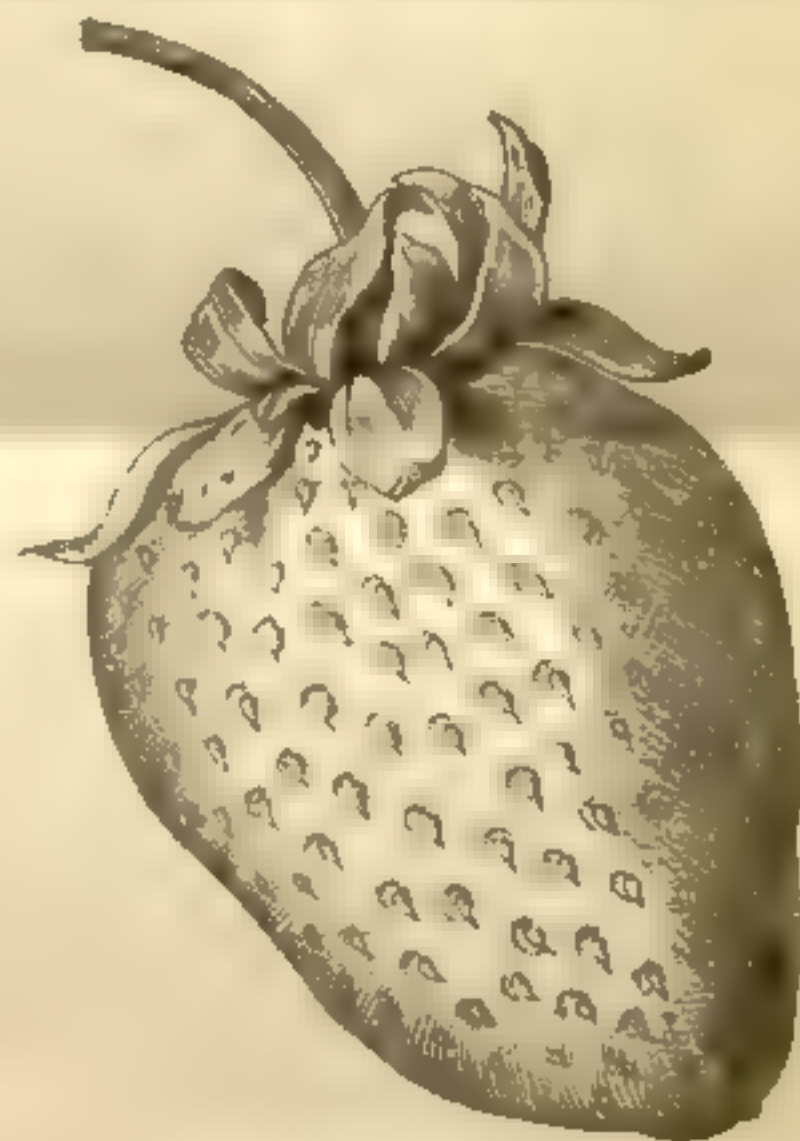


FIG. 6.



FIG. 2.



FIG. 4.



FIG. 7.

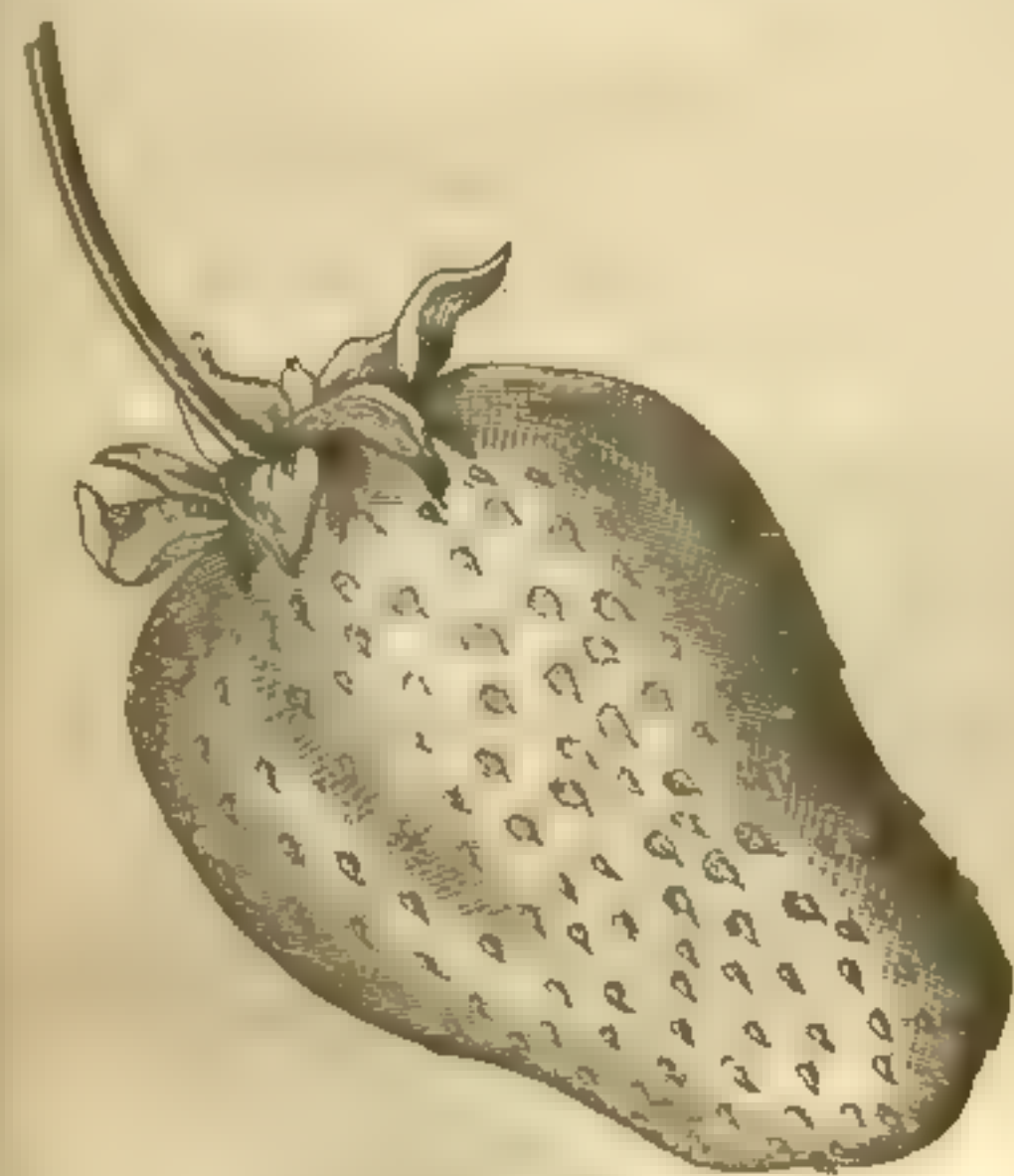


FIG. 3.

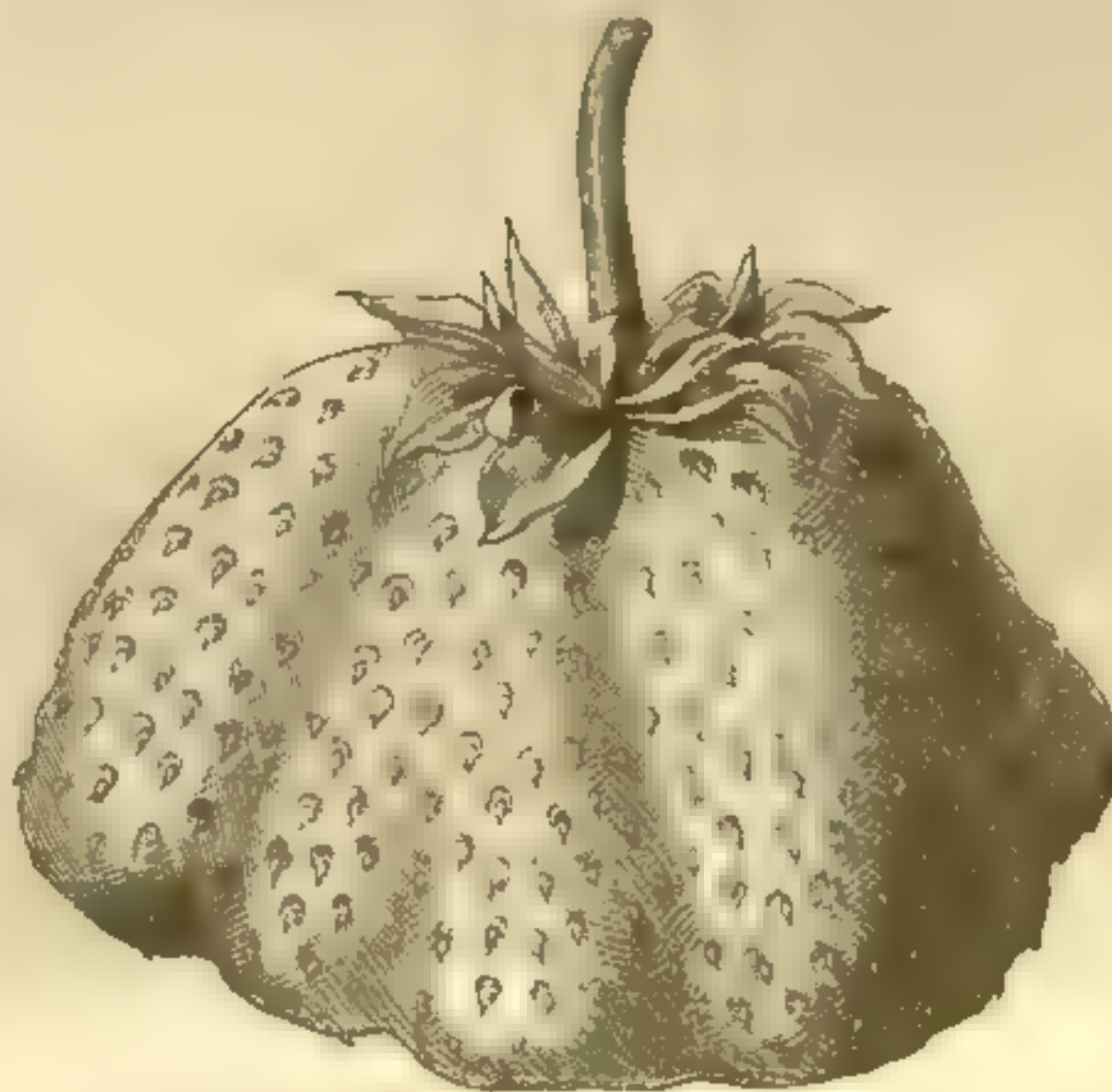


FIG. 5.



glossy red colour; flesh red, streaked with white, sweet, slightly acidulated, and aromatic. The plant is of medium height, with very dark green leaves and hairy leaflets; it is a vigorous grower, and late.

Abd-el-Kader (fig. 6).—Fruit very large, sometimes enormous, usually elongated, but often roundish; seeds prominent; skin of a bright vermilion-red colour; flesh dark salmon-coloured; sweet, slightly acidulous, aromatic, and highly flavoured. The plant is dwarf, but vigorous, in growth, having small leaves, with elongated leaflets supported on smooth slender stalks. A pretty variety, of a peculiar structure, which would make a fine contrast in a collection.

Gabrielle (fig. 7).—Fruit medium-sized, round; seeds not very prominent; skin of a rather dark shining red, flesh red, firm, very juicy, sweet, and exquisitely flavoured. The leaves of the plant are strong and straight, with nearly round leaflets on long smooth and very stiff stalks. It is a hardy, prolific, and very late variety, of great merit.

François Joseph II. (fig. 8).—A fine large fruit, of a

Yorkshire Hero?" I sent him, with others, 12 such potatoes as I never saw before. Another year Miss Burt must take extra care. I am, however, always glad when the ladies win. She exhibited the best specimens of "taters" I ever saw at an exhibition. The destruction of Potatoes is not only a national but a national discomfort, I venture to press on the necessity of planting "early ripeners and late keepers." Yorkshire Hero and Taylor's Hybrid are the sorts to have, they come out of the ground by August 7, and keep good till June. I dug my Potatoes in the 4, but so good were the Heroes that my servants preferred them to the new Royal Ashleafs. —Round Potatoes: Gryffe Castle Seedling and Royal Early Emperor Kidneys, Royal Ashleaf, Yorkshire Hero, Taylor's Yorkshire Hybrid, Cobbler's Lapstone, and Pebble White, sent here by Mr. Fenn. As far as I have tasted my Potatoes of the year, the last has been the best: it is a species of Lapstone. I have not got Mr. Myatt's Kidney, but I

Alexandra (fig. 1).—Fruit very large, roundish, and flattened, sometimes assuming the shape of a horse-shoe, in which case the fruit is sometimes larger than the variety called Dr. Nicaise; colour, deep orange-red; seeds close, not very prominent, of a yellowish colour; flesh rosy, and highly flavoured. A very good and distinct variety.

Penelope (fig. 2).—Fruit very large, round, sometimes flattened, of a pale red colour; seeds small, distant and rather prominent, flesh salmon-coloured, sweet, juicy, slightly acidulous, and strongly flavoured. The plant is dwarf in growth, and produces few leaves, with hairy leaflets. It is hardy, and very prolific.

Amazona (fig. 3).—Fruit large, of an elongated conical form, which is almost always regular in outline; seeds not deeply embedded; skin of a light reddish colour, with a tinge of vermilion on the top; flesh white, inclining to rosy, sweet, and very aromatic. The plant is vigorous in growth, of a medium height, hardy, and prolific.

beautiful roundish heart-shaped form; seeds yellowish and prominent; skin of a brilliant rose colour; flesh rosy, and of a most agreeable flavour. The foliage of this variety is of a bright shining green colour. A vigorous-growing, hardy, and prolific variety.

REVIEW OF THE GENUS NARCISSUS.—V.

Group III. (Continued).—PARVICORONATE; crown less than half as long as the divisions of the perianth.

In this paper we propose to treat of the four remaining vernal species of the Parvicoronate group, which taken together may be known from all other Narcissi by their saucer-shaped crowns, from a line to one-eighth of an inch in depth. Of the four, three are quite common in cultivation.

14. N. pachybulbos (Durieu, Revus Bot. 2, p. 425).—Bulb ovoid, 2 inches or more thick. Leaves 4-5 to a scape, flat, caescent, about a quarter of an inch broad, flattish, with a blunt keel. Scape under a foot high, compressed and acuticulate, 5-9 flowered. Longer pedicels about equalling the spathe. Tube pure white, half an inch long above the ovary. Expanded flower 6-7 lines across, pure white, the segments of the limb not more than a quarter of an inch long, and consequently only half as long as the tube, roundish, much imbricated, cuspidate. Crown not more than a line deep, subentire, pure white. Anthers biserial, subsessile. Walpers' Annales, 1, p. 838; Durieu, Expl. Alger. t. 47, fig. 1.

A native of Algeria, not yet, so far as we are aware, in cultivation in England. It comes very near to some of the small varieties of Tazetta; even if it were introduced, the flowers are too small for it to be likely to be a popular species. It is said to be slightly scented.

15. N. juncifolius (Linn Sp. Plant. p. 417).—Bulb ovoid, under an inch in thickness. Leaves 1-2 to a scape, deep glossy green, 8-12 inches long, semi-linear, channelled down the face, about a line in thickness. Scape equalling or shorter than the leaves, slender, subterete, bearing 2-6 fragrant flowers in the latter part of April. Spathe 18-21 lines long, the longer pedicels about the same. Tube 10-11 lines long, exclusive of the ovary. Divisions of the limb a bright full yellow, spreading horizontally when fully expanded, 3-4 inch long, slightly imbricated, oblanceolate or obovate cuspidate. Crown saucer-shaped, not more than a line deep, about the same colour as the limb, the edge faintly crenulate, about 3/4 inch across. Anthers sessile, biserial, the three upper ones protruded into the crown. Curt. Bot. Mag. t. 15. Redouté Lal. t. 159, Reich. Ic. t. 811; Queltia Jonquilla, Herbert and Kunth; Juncifolia, minor, media, and parvicorona, Haworth, Mon. p. 7.

This, the well-known Jonquil of the gardens, extends in a wild state from Spain, through the south of France and Italy, to Dalmatia. It has often been confounded, both in books and gardens, with N. juncifolius, but is much more robust in general habit, with larger and more numerous flowers, and a crown considerably shorter in proportion to the divisions of the limb. We have never seen any variation of the colour, which is a beautiful bright yellow. It is, perhaps, the most fragrant of all the species, and is often seen with double flowers in gardens.

16. N. biflorus (Curt. Bot. Mag. t. 197).—Bulb ovoid, more than an inch in thickness. Leaves about four to a scape, 3-4 inch broad, slightly glaucous, flatish bluntly keeled, often more than a foot long, compressed, with two salient edges, bearing typical flowers at the beginning of May near London. Spathe about 2 inches long, usually exceeding the pedicels. Tube about an inch long, exclusive of the ovary; expanded flower 15-18 lines across, the divisions milk-white (not so pure a white as in the next), spreading horizontally when fully expanded, 3-4 inch long, 3-4 inch broad, obovate, much imbricated, blunt or cuspidate; crown 1-1 1/2 line deep, less spreading than in poeticus, yellow, about a quarter of an inch across, the edge conspicuously crispo-crenulate. Anthers sessile, uniserial at the throat of the tube. Eng. Bot. t. 276, Red. Lal. t. 405, Kunth, Enum. 5, p. 73, Reich. Ic. t. 810. N. poeticus, Hudson; N. cathartica, Salisb. Prodr. p. 225. N. triflorus and dianthus, Haworth, Mon. p. 14.

Though this is said never to perfect its ovules and pollen, it is very common as a wild plant, has become naturalised in abundance in many counties of Britain, and is distributed on the Continent, through France to Switzerland, Italy, and the Tyrol. Grenier and Godron (Fl. Franc. 3, p. 257) describe an intermediate between this and Tazetta, under the name of Tazetta poeticus, with smaller and more numerous flowers than in biflorus, and a longer, deeper-coloured crown, which is the N. biflorus, var. hybridus, of De Candolle's "Flore Française;" and Dr. Henon, who made during many years a special study of the French Narcissi, writes as follows—"The station of Lattes, near Montpellier, is remarkable in that it offers many species mixed in the same meadow (poeticus, angustifolius, biflorus, Tazetta), as well as a considerable quantity of intermediate forms, varieties, or hybrids. In 1810, along with MM. Dunal, Delille, and Bouchet, I asserted that at this station might be seen all the passages from poeticus to Tazetta passing through biflorus without any appreciable line of demarcation. This assertion was strongly criticised; but verification being made on the spot with M. Delille, it was established that the fact was beyond doubt."

17. N. radiiflorus (Linn Sp. Plant. p. 414).—Bulb ovoid, about an inch in thickness. Leaves 3-4 to a scape, flat, with a blunt keel, glaucous, often a foot or more long in cultivation, 3-4 inch broad. Scape a foot or more high, compressed and two-edged in the typical plant, producing near London one or very rarely two flowers in the latter part of April. Pedicel generally much shorter than the spathe, which is 1 1/2-2 inches long; tube white, 12-14 lines long above the ovary, and about a line in thickness; expanded flower 21-24 lines across when expanded, with a distinct and agreeable odour, the divisions a pure snow-white, obovate, blunt or cuspidate, slightly imbricated, 6-9, or sometimes in cultivation even 12 lines broad; crown 1-1 1/2 line deep, saucer-shaped, very much crisped, with a bright scarlet edge, the mouth 4-4 1/2 lines across; anthers sessile, subuniserial at the throat of the tube. Eng. Bot. t. 275, Red. Lal. t. 160, Reich. Ic. t. 808.

Very common in cultivation, and extending as a wild plant all through the south of Europe, from France to Greece. The principal varieties are as follows:—

Var. 1, radiiflorus.—A more slender plant than the type, with narrower leaves, and obovate divisions of the limb of the

flower so much narrowed downwards that they are not at all imbricated in the expanded flower, and also more narrowed at the point. Crown rather narrower, and consequently more erect. Flowers at least a fortnight earlier than the type, generally in the first week in April near London, or even the last in March. N. radiiflorus, Salisb. Prodr. p. 225, Reich. Icones, t. 809; N. angustifolius, Ait. Kew, edit. 2, vol. 2, p. 241, and figured by Curtis in the "Botanical Magazine" under the name of N. maialis, which is afterwards corrected to angustifolius. A very handsome plant, truly wild in the Alps of Central Europe, and admitted both by Koch and Reichenbach as a distinct species.

Var. 2, stellatus (N. stellaris, Haw. Mon. p. 15, Sweet, Brit. Flow. Gard. ser. 2, t. 132).—A late-flowering form, with the divisions of the limb, as in the last, narrowed at the base, and not imbricated.

Var. 3, recurvus (N. recurvus, Haw. Mon. p. 15, Sweet, Brit. Flow. Gard. ser. 2, t. 188).—A late-flowering form, with weak recurved leaves, and the divisions of the limb reflexed and crisped towards the edge.

Var. 4, poetarum (N. poetarum, Haworth, Mon. p. 14, N. poeticus, var. grandiflorus, Herbert and Kunth).—An early form, with the expanded flower 2 1/2 or even 3 inches across, and much imbricated divisions.

Var. 5, verbenensis (Herb. Amaryl. t. 37, fig. 2; N. verbenensis, Room. Amaryl. 240).—A very slender late variety, with the divisions of the limb reflexed, 8-9 lines long, which are yellowish at the base.

This concludes the series of the species, with the exception of some little-known narrow-petaled autumn-flowering species, and the very abnormal N. Broussonetii, to which my next paper shall be devoted. J. G. Baker.

Home Correspondence.

The Royal Vineyard Grape.—Having had great experience in Grape growing, including the Royal Vineyard, I will here explain my mode of setting its fruit. The Royal Vineyard is one of those kinds that produce a quantity of little water-like beads on the pistil of each flower as soon as it opens, and which, in my opinion, is the cause of its bad setting, and, to further the process, I gently draw my hand down the bunches about twice during the few days they are in bloom, taking care to keep my hands dry; and I have no hesitation in saying they will then set as freely as any Hamburg or Sweetwater. Like some other kinds, they will crack a little at times, but I have not found much of this with Vines planted inside, and where the borders are kept moderately dry when the fruit is beginning to ripen. Unlike the Barbarossa, and some other late-keeping varieties, that crack across the centre and point of the berry, the Royal Vineyard cracks just round the footstalk. In point of flavour, for a late-keeping white Grape, I consider the Royal Vineyard next to the Muscat of Alexandria. A. S.

Yellow Bedding Plants.—Some few weeks ago I was travelling from Chelmsford to Ipswich by railway, when I was very much struck with some remarkably long rows of a beautiful yellow flower (not unlike a Tropaeolum), in what seemed to me to be nursery ground, not far from the Ardleigh station. I am unable to say whether it was a Tropaeolum or not, as our speed was too great to define it. I have just been informed that the above grounds belong to Messrs. Carter & Co. If such is the case, and these gentlemen would kindly state what the plant in question was, they might possibly be doing a service to the gardening world. Judging from what I saw of the Viola lutea at Battersea and other places this summer, I should be indeed chary about doing away with the Calceolaria and substituting it; after all, the Calceolarias are not to be despised, for with a little system and forethought we may have them in bloom from June till the end of the season—I allude to Gaines' seedling and aurea floribunda. The Tagetes signata pumila, though considered rather dinky, is nevertheless very effective for autumn work. Thomas Simpson, Broomfield, Chelmsford [Messrs. Carter & Co. inform us that the part of their seed farm which borders the Great Eastern Railway near Manningtree Station was set out with annuals as follows, arranged in long rows the entire length of the field: Mignonette, Virginian Stock (white), Candytuft (Dunnett's extra crimson), Nasturtium Tom Thumb (yellow), Collinsia atrorubens (purple and white), Nasturtium Tom Thumb (scarlet), Virginian Stock (rose), Chrysanthemum (new golden), Candytuft (purple), Candytuft (white), Collinsia multicolor marmorata (pink and white); and they further say, "We arranged them to contrast colours, as we thought they would be admired by the railway passengers as they passed down the line; and we are very pleased to learn, from your correspondent's inquiry, that they have produced the desired effect."—In your impression of October 16, Mr. Bennett, of Osberton, in again advertising to the Calceolaria having proved uncertain in many places, asks "Where shall we get a substitute?" That has yet to be found, but not in yellow Pansies, although they are very good in their way. I see no difficulty, however, in growing the yellow Calceolaria. All the plant wants is a deep soil with a cool bottom. The largest Calceolaria plants I ever saw were grown in a farm garden where the soil was undrained, and consequently very damp. A little dung from the farmyard was dug in before winter into the strong clay border. Small plants planted out in May became large shrubby specimens by October. In light soils, dig the soil out of the beds you mean to plant; put a good layer of rotten cow-dung in the bottom; fill in the soil again, and plant. All the Calceolaria plants that I have treated in the above way have done admirably. They were watered when planted out, and only once after (in 1868), and they bloomed up to Christmas. W. Hutchinson, Llwyndu House, Abergavenny.

Passiflora macrocarpa.—Yesterday I cut one of these fruits, which in colour and shape resembled very much a rather unhandsome Vegetable Marrow. It weighed 4 lb. 13 oz., girthed lengthwise 27 inches, and round the middle 19 1/2 inches. Its smell was rich, and I should be rather inclined to say heavy—certainly not so tempting

as the smell either of a Pine-apple or a Melon. The fruit is the first ripened from a small plant which I had spring was planted in a brick box in a French nursery, and I have sent the fruit to the family, and I have not had time to have a description of its eating qualities. I will forward to you if you wish it. It is made into a compôte. E.D.s. At the same time the same box was planted a Stephanotis floribunda, which grew amazingly, and flowered freely on the Pine stove, also in the same box was planted a P. edulis, which, however, grew so freely that to be cut away to make room for the P. macrocarpa, but in a tub at the other end of the Pine stove. The P. edulis, which fruited freely, setting its fruit with the assistance of the P. macrocarpa, which requires to be fertilised. I cannot say that the P. edulis is disagreeable, but my taste has not got sufficiently educated to like it, though I am told that when eaten with a little sherry it is excellent. Wm. Miller, Combe Abbey, October 26.

Judging Melons at Edinburgh.—The Melons which the Melons at the late International Exhibition in Edinburgh, were judged, has, both among the exhibitors and onlookers, excited much inquiry. It was that there was something new in the means of the censors in finding out the merits of the Melons. A reporter remarks that old Melons were taken by surprise; I may add that many were equally astonished at the fruit, but neither did the largest or handsomest Melon. Some suppose that the smell would be the by which the judges were guided. The Melons who were taken by surprise know well that of Melons often have very little perfume, past use, and some of the worst smell on pleasantly. There were two classes at the exhibition, scarlet-fleshed and green ditto. We saw how the one colour can be known from the other without cutting. It often occurs, when a cross between two kinds, that the fruit has the outward appearance of one parent, and the flesh of the other. When cutting is not practised, coloured flesh could easily be exhibited in Melons. I merely write for information. Being a grower of Melons, I am eager to learn the means of proving their quality, as it has sometimes been that I have sent to table what I considered a Melon, which after it had been cut was found to be for use. So much for appearance and smell, when suspicious of bad quality, tasted Melons by the same method that vendors try cheese, ripened without deforming the fruit. I think it would be also applied at exhibitions, and then the appearance arising from cutting the fruit would be avoided. J. O.

Wasp's Nests.—I have had a good deal of experience in taking wasp's nests in various ways. The best, but not the best, is that practised by boys, where one digs out the nest in the middle of the day, whilst two or three others stand round with a stick to knock down the wasps as they come out. Half the wasps belonging to the nest are killed about, to do more mischief, I believe, than they had the nest to work at. Then there is the plan of putting a squib into the nest, and digging out the nest whilst the wasps are busy with the smoke. I used squib cases made of tubing. Some skill is required in making the hole so that it should always be effectual. Sometimes 2 or 3 feet from the entrance, but we have sometimes 2 or 3 feet from the entrance, and the passage may run horizontally close under the ground, and in such cases it requires a well made hole to reach them. But I have given up this plan, and a simpler one of pouring about half a pint of kerosene into the nest at night. This also will reach the nest. The wasps will then be killed, and make a fresh entrance nearer to the nest. A dose of gas-tar be repeated, it will almost certainly reach them. I generally dig the nests out about the end of the day, and give the larvae to the chickens, and fond of them. I have occasionally known this to be that the eggs have tasted of kerosene, doubt chloroform would do instead of kerosene; but I have never tried it. It would be expensive if there were many nests to take, and a most curious way of destroying wasps, if a piece of sponge or rag dipped in cyanide of potassium placed just at the entrance of the nest, and that comes near it drops down dead. In a few days no more wasps come out of the nest, and which come back to it die—so poisonous is the gas which it gives off. When nests are taken there will still always be a few wasps taken at home. Every one of these may be placed a bottle upright in the ground, and the entrance to the nest was buried up to its neck in the bottle. They never come out, and I have sometimes had a common quart bottle full, and sometimes there will be not a dozen or two of stray wasps. C. W. Strickland.

The Troubles of Exhibitors.—As Mr. Bennett's letter confirms mine in every particular, I will reply from me; but as he wins up by putting the sole blame upon Mr. Ward, perhaps I am fairly entitled to a line or two in extenuation, would, however, be a good rule for all exhibitors to write their name and address in large characters on the inside of their box lids, as an instruction to the unpackers, and as an address for their return journey. Doubtless Mr. Bennett's all other exhibitors will do this for him. And his not doing so was the fault, and he took that he committed. In every case he took special care to be right. Mr. Ward seems surprised that Mr. Ward moved in the matter. What! sit down

adopt, as the flowers are only exceptionally circinate; Muller gave the name *A. Wilkesiana*. The synonymy of the plant would therefore be, *Acalypha Wilkesiana*, Müll. Arg. (*A. circinata*, A. Gray, MSS. in Herb. Kew; *A. tricolor*, Seem. MSS.). *Berthold Seemann*.

Viola Blue Perfection.—Mr. Bennett's remarks about yellow bedding Pansies (p. 1033), in which he has so ably championed their adaptability for the summer decoration of the flower garden, has induced me to say what I know about the good qualities of this *Viola* for a like purpose. I had the pleasure of first making its acquaintance at Wilton Park last August, and if I did not hit my hat to it on so doing, I at least paid the homage of declaring it to be the gem of the flower garden there. It was used as a belting for a round bed, with, I think, a centre of white variegated *Pelargonium*, and the effect it produced was so good, and its character, whether in habit or colour, so striking, that I vainly tried to ascertain what it was, but no one could tell me. Mr. Challis, the gardener to Earl Penbrooke, was unfortunately not to be met with, so that I could get no information from that source; however, I at last met with Mr. Waring, of Salisbury, and he informed me that, though growing it himself, he was ignorant of its correct designation, and it was not common in the locality, but he would vouch for it that it was a most continuous bloomer from early spring to late autumn. Fortunately Mr. Jobson, of Rotherfield Park, Hants, sent a plant of it to South Kensington, and got for it a First-class Certificate under the above name, and so cleared up that mystery; but how it originated seems to be yet unknown. Gardeners will find this *Viola* to be a great acquisition as a blue bedding plant, as it is an immense improvement on *cornuta*. *Alex. Dean*.

Potting Lilliums.—Allow me to thank "W. E." for the very practical hints which he gives us week after week. It will be admitted on all hands that the *Calendar* has never been filled with better instruction. I have been a reader of the *Gardeners' Chronicle* for at least 20 years, and have never seen the "*Calendar of Operations*" so well filled with useful matter as now. But does "authority" exclusively belong to that page? or is it ground whereon those only who will sing "*Quantum libet*" may tread? What means "W. E.'s" phrase, "authoritative tone of denial?" I stated my experience; what better authority is there than that? I grew up amongst Lilliums, and have had the advantage of seeing them potted under many circumstances, and have potted them myself times enough to enable me to condemn the practice of storing away the bulbs until spring. I can scarcely understand "W. E." No one will blame him for acting as a *chaperone* to "J. D." who possibly may be of the fair sex. But "W. E." says he can emphatically endorse the advice given by "J. D.," i.e., pot your Lilliums in the spring; and afterwards he says, the best time would be somewhere in January. This is said in a tone not "authoritative" enough to please me. "J. D." will have something to do to make even town folks believe January to be spring. I say you cannot state within a week when to pot all Lilliums at every place. My advice was, to do so when the stem is dead, and I still uphold it. The stem is kept alive sometimes by roots emitted from itself, independent of the bulb. These roots sustain it after the bulb has stopped its supply, consequently the bulb is at rest previously, and the stem becoming dead—and when that is dead, "the advent of the resting period" is long passed. Leaving the bulbs until they have begun to make roots is the cause of more failures than "W. E.'s" *argumentum ad ignorantiam*. "W. E." advises those who "value their bulbs" to follow the advice of Mr. Smith. I have no doubt Mr. Smith can give sound advice, but your readers will be discouraged to find that Mr. Smith has said absolutely nothing about the time of "potting" Lilliums! Who will set us right? and "authoritatively" tell us which is wrong? *M., Oct. 18.*

Duke of Cornwall Melon.—I can endorse all that Mr. Simpson has said in favour of this valuable, but little known variety. It is to be had in perfection to the end of December or middle of January, and is particularly well adapted for pot culture in Pine stoves, as it delights in a strong heat. Poor soil increases its fertility and diminishes its size. It has filled up a blank long felt, viz., a first-class late Melon. *James O. Smythe*.

Coloration of Leaves.—The case you give at p. 1033 of the change of the colour of the leaves of *Pelargonium l'Elegante*, by simply twisting the leaf-stalks, is one of considerable interest, and opens up a wide field for experiment. There can be no doubt of the fact, that in many cases the first result of a check to the sap, or a bruise on the tissue of leaf, flower, or stem, is a change of colour. In the latter case, the change may simply be the result of a disarrangement of cellular structure. The normal organisation is broken up, the cells are pressed higgledy-piggledy into each other, and consequently the light is reflected or absorbed in a different manner to a different extent; and at a change of angle, the light medium being changed, a change of colour would necessarily follow. But it is not quite so easy to see why a change in the quantity or quality of the sap should result in a change of colour, and yet such changes may also be simply mechanical. Vessels fully distended with fluid will present somewhat different angles to such as are partially collapsed, and the light falling upon the latter would be reflected differently. But it is not simply that the amount of sap would be lessened by the twistings adverted to, but its quality would be altered. The mere hindrance at the injured portion would affect the sap that had to wait at the barrier. The interruption would gorge the sap vessels underneath to repletion. This would force the fluids below the barrier into closer contact with the light, and thus bring a maximum amount of inspissatory force to bear

upon it at that particular point. The result would be, that the sap that passed through the barrier would be thicker beyond it than if it had not been stopped; and this difference of quality, combined with the contracted state of the half-filled upper cells, would produce the change of colour. The quantity and quality of the sap being thus changed, such changes necessarily affect the structural arrangement of the leaf. The latter being altered, ever so slightly, would necessarily affect the number, rate, and direction of the rays of light reflected from or absorbed by it. This change of quality and position of the leaves is probably the chief reason of all the varied tints they manifest throughout the season. The bright greens of the opening spring, the sober and staid colours of the summer, and the glowing tints of autumn, what are these but the reflexes of altered structure and the sure indexes of changed position? The sun impinges upon them at different angles all through the season, and very largely according to the transparency, or opaqueness of the reflector, the leaf or flower, will be the colour. Of course I am not advancing this as a satisfactory theory of colour, but simply as a reasonable explanation of the changes in the same plants throughout the season, and of others that may be artificially induced. Change of front, or of cheek to the colouring medium alone, has a wonderful effect upon colour. For example, take this very plant, *Pelargonium l'Elegante*, train it up to a stake—that is, connect it with a pillar or a pyramid—and the leaves will begin to glow into a pink at once, without any artificial tinting or bending. This is a fact that I have proved for myself, and therefore there is no uncertainty about it. Many of your readers cannot have failed to notice the two very fine pillars of this plant shown at the Royal Horticultural Show at Manchester. They were exquisite examples of cultivation, and their leaves glowed almost into scarlet from top to bottom. But none of the leaf-stalks seemed to have been twisted. If they were, of course we shall hear about it from the exhibitor whose name I regret to have forgotten. But assuming that they were not bent, whence the colouring? Why, they bent themselves. There may be exceptions, but as a rule this variety does not colour much, if at all, when running on the ground. It has shown no pink whatever with me in the flower garden. It is naturally a true ivy-leaf, keeping close to the ground; and with leaves, hugging it pretty closely, offering up the whole surface to the sun, at nearly a right angle. Train it up to a stake or over a pyramidal trellis, and this position is much changed. The fact is, the leaf of this *Pelargonium* has this peculiarity—it is dense and weighty for its size and the strength of its footstalk. Hence, no sooner is an attempt made to make it grow upright, than down go the leaves to an unnatural position; and this, I believe, is the chief secret of the excess of, or the change of, colour. Mere intensity of light will produce the same effects in a modified manner. Some plants of *l'Elegante* grown on brackets in the spring were suffused slightly with pink. But here again the natural position of the leaves was affected by hanging down, so that it is impossible to say how much of the colour was owing to the closeness to the glass, and how much to the weeping position. Scarcely any plant seems more susceptible to this pinking than the *Panicum imbecille variegatum*. Its beautifully green and white variegation may be made almost red by growing it in a strong light. I have seen a basket plant of this, with the very stems changed into the brightest colour, and both the white and red portions of the leaves crimsoned over with glowing brightness. The colouring of this *Panicum* is likewise much affected by the temperature in which it is grown. In the stove it dresses itself in its gayest colours, and is a charming addition as a basket plant among roof climbers on brackets, or covering a trellis. It is also good for running among ferneries, &c. Permit me to conclude with the following question: How is it that so many of our tricolor *Pelargoniums* are so much more perfectly coloured in the autumn than at any other season? That they are so, few flower-gardeners will deny. At the present moment such varieties as *Lady Cullum*, *Lucy Grieve*, *Miss Watson*, *Mrs. Pollock*, *Sunset*, glow their brightest just before the frost chases them away from our sight. Is it the hectic flush of coming death? But how, then, is it displayed? Is it the dying sun painting his loveliest before he sinks into winter somnolency? or is the long night of darkness preparing for him a better canvas for the fixing of its tints? or what is it? The fact of the beauty of such plants growing with the declining year must be acknowledged by all careful observers. How comes it, and by what ministry? *D. T. Fish*.

Tropaeolum Bothwellianum.—One of the most effective wall plants that has ever come under my observation is the *Tropaeolum* named above. It covered 100 yards of a wall 7 feet high that separates the quaint and beautiful flower garden at Bothwell Castle from the pleasure grounds; but it not only covered it in the ordinary way that *Tropaeolums* do, but with a sheet of the most brilliant orange-scarlet that ever eyes beheld; and as it is probably the most valuable acquisition of its kind, and has been distributed by Mr. Turnbull to many of his noble employer's friends, I proceed to give some description of it in the interests of gardening. It is one of the *Lobbianum* section, and may be considered as a selected seedling several times removed off *Brilliant*, having much of the characteristics of that flower, with the additional decided advantages of being of denser habit and infinitely more prolific in bloom. The fine purple or claret-coloured stems, and the entire almost orbicular leaves, of an olive colour, render it very marked. To that must be added the short footstalks which carry them, and the shortness of the intervals which enable the flowers in the one case to throw themselves clearly in advance when fully expanded, and in the other to

increase the yield of bloom in any given distance. The flowers themselves are of a brilliant orange-scarlet with the two top petals adorned with black radiating lines. On the southern exposure of this garden these flowers were literally studded along the wall, so dazzling that none of the tribe referred to could compare with it, and with the additional advantage, on inspection, of beautiful foliage set behind them to garnish them. I saw this on October 1, when I was gardening generally in the more inhospitable part of the North showed most things flat and dead. I have not exaggerated the picture. Even at the low part of the garden was "over" in my interest, but this and the 8-foot border adjacent which may be represented as an instance of a "border improved, and keeping pace with the improvement" of the times, was as showy and generally vating a piece of flower gardening as could anywhere be seen—thanks to the *Tropaeolum* referred to, and parti-coloured hues of thousands of *Dahlias* blooming in grand style. All hail to the *Dahlia* yet as an ever bedder, and never too fiery in effect from its clothing of leaves. *Delphiniums*, *Stocks*, and the blue, and orange of *Alyssum*, *Lobelia*, and *Geranium* made up, with some other mixtures, a gorgeous *ensemble* that might feast the eyes of flower-lovers days and days. One other word by way of comment to Mr. Turnbull's seedling, and that is, that of it was associated with the common *China* in the fine soft pinky blooms peeped out with advantage at intervals, and so would fallow some of the selected hybrid perpetuals, only the chance of association. *A.*

Foreign Correspondence

CENTRAL PARK, NEW YORK.—The general idea of this park having been described (p. 1017), I now advert to a few particulars respecting its arboriculture.

One department worthy of special attention is the Arboretum, which occupies about 40 acres, and is selected so as to interfere as little as possible with the more special requirements of the park. It is a collection of American and other trees, and one who wishes to become acquainted with the arborescent vegetation that will flourish in the north and middle sections of America, should visit this Arboretum. It is not arranged in a regular manner, but is so planned that all the most beautiful features of lawn and woodland landscape are preserved intact, so far as is possible, the natural relationship existing among trees and shrubs, which he may search of, without difficulty.

As regards plantations in the park generally, there have been made about 11 years, and the growth of trees and shrubs is highly satisfactory. The planting for the most part is in groups or masses, and of a kind similar to the way in which plantations are carried out in the public gardens of Milan, and in other public parks in Italy and France, the object being an improvement as regards picturesque effect of our parks at home, where the dotting and massing of trees and shrubs is followed, without regard to kind, character, colour, or foliage. As regards trees and shrubs of a deciduous character, the Americans have a much richer field in which to work than we have; and the pictorial effects which they produce, especially in public parks, are, for the most part, that can be desired.

Flower gardening seems to occupy but little attention, even in places where one might expect to find it as in public parks and open town spaces, and the flower is to be met with. It is intended, however, believe, some day to have a flower garden in Central Park. Among the most noteworthy trees in the park, of course, the "big tree" of California, and a variety of *Conifers* in general, various *Blechna*, including the pretty little hairy-leaved species of the Alps; nearly a dozen different kinds of *Strawberries*, which, when in bloom, have a rich and striking appearance; various other flowering trees and shrubs, and good sprinkling of weeping trees.

An essential feature of most metropolitan parks is an avenue or grand promenade, level, open, and shady; and this has not been overlooked in Central Park, in which there is a short but fine avenue of American *Birs*. This is appropriately named "Vine" in this instance being *Wistaria*, and is led over a flat top, supported by massive pillars placed 9 feet apart, and set in stone plant-boxes. Of the latter there are 70, and each contains one plant of *Wistaria*, which is trained to cover both top and pillars. When I saw it in full bloom, which was about the 20th of May, I saw, either indoors or out, I never witnessed a walk. An amazing amount of surface is covered when in blossom, and of all the floral displays in the world, I never witnessed a more beautiful and adequate idea of its great beauty.

Of water there is plenty, and it forms a conspicuous object in the landscape. True, the great reservoirs which supply the town are placed a little too high to be seen from points from which it might be desirable to see them; but besides these there are other ornamental water-works which have received skilful treatment, and which are most effective. These cover an area of nearly 40 acres, a portion of which is in the form of lakes, and in other shapes. At one part a ravine has been opened, and a small stream of water is here and there carried down from miniature cascades as it falls over boulders. Numerous rustic rock fountains for supplying pedestrians with drinking water have been provided in different localities, fountains of this simple, natural character have the merit of being less expensive and more pleasing and satisfactory than any other for park purposes. There are also large ornamental drinking fountains for horses, with tazzas in their centres, furnished with cups for birds. It is also proposed to have an establishment in the park where springs and wells of artificial mineral waters may be dispensed to convalescents and invalids, as well as to the public generally, and a firm, eminent in the preparation of such waters, has, I believe, been appointed to erect an establishment of the kind. Boating on the lake is a favourite amusement, and is every year on the increase. In this way the visitor can pass an hour very pleasantly, and derive new impressions of portions of the park from the water, while the Park Commissioners get a considerable rental from the boat-contractioners, all of which helps towards the better maintenance of the park. These lakes, with their boats and water-fowl, have a truly picturesque appearance. Road and other watering in the park is an operation requiring great attention. There are several elevations to which water will not rise, and these have to be kept in order either by means of engines or water carts. The water distributed over the park by means of carts amounts annually to many thousands of gallons, costing in its distribution many thousand dollars. Some more economical plan of watering is, however, I believe under consideration.

That portion of the park which is termed the terrace, is extremely effective. In the valley sleeps a placid lake, while a little higher up is a noble stone basin, about 90 feet in diameter, and fountain, overlooked by a terrace set on arches, and flanked on either side by flights of steps, the whole being backed up by a fine plantation of thriving trees on grassy slopes.

Skating is a favourite pastime with the Americans in winter, and for this ample accommodation has been secured. Ice disasters are also provided against, but in a different way from that in which we manage the matter in this country. There, by a well-ordered provision, water can be withdrawn at any time from the height in which it is kept in the reservoirs and lakes in summer, to a lower level, thus leaving only a safe depth below the skaters. The ice, at a large annual expense, is kept constantly clear of snow, which sometimes falls to a depth of six inches during the year. It will then be seen that between boating in summer and skating in winter, the Americans manage to get the maximum amount of enjoyment out of their ornamental waters. What, therefore, need hinder us at home from doing the same? Now that the Serpentine is about to be cleaned out, the American plan as regards skating facilities might be readily applied to it. The water could easily be withdrawn to a safe depth, while, from the fountains near the Bayswater road the ice could be fresh supplied as often as might be required.

The comfort and convenience of pedestrians in American parks are better cared for than with us about London, for under all crossings of drives and rides subways for pedestrians are provided. These subways are not damp or uninviting; on the contrary, they are light, attractive, and ornamental, the principal one among them being used as a refreshment department. They are faced with stone beautifully dressed, and furnished and ornamented with 'stars and stripes' in different colours. Cannot we introduce some improvement of this kind into our London parks, in which, as at Hyde Park Corner, for instance, people on foot have to stand waiting for lengthened periods before even the police can conduct them across in safety. In such cases elegant subways would surely be acquisitions. The principal subway in the Central Park cost a million of dollars.

As regards material for walks, which are generally about 15 feet in width, experiments have been made for several years with cement, asphalt, concrete, and pavement of various sorts, none of which have proved entirely satisfactory, though some have developed valuable qualities. Several pieces of walk have been laid down with a composition of tar, gravel, and cement, coal tar having been first used, and subsequently the ordinary tar of commerce. The appearance when the materials are properly mixed and laid down, is, as far as it has been tested, the most satisfactory of anything that has yet been tried; and it has the advantage of being dry and free from dust, while heat or cold does not diminish its practical utility.

The rust-work employed in American decoration is of a more substantial character than with us. The seats and arbours are ample also; most of the former are furnished with canopies, the brightness of the transatlantic sun rendering shade more necessary than in England. Other buildings in this park are also of a highly decorative character, the band-house, or orchestra, having very much the appearance of those at South Kensington, while the casino, both internally and externally, is very ornamental. In front of the last-named building are a fine drive and grass terrace, with the vine-covered walk already alluded to, the whole being finished off by means of a dwarf wall. The approaches from the lower ground to the walk are furnished with flights of 20 steps.

The entrances to the park are not yet complete, but judging from what I saw of them they will be in keep-

ing with the surrounding objects. The names to be attached to them sound singularly to European ears. Among them are the Scholars' Gate, Artists' Gate, Artisans' Gate, Merchants' Gate, Women's Gate, Hunters' Gate, Mariners' Gate, Gate of All Saints, Boys' Gate, Children's Gate, Minors' Gate, Engineers' Gate, Workmen's Gate, Clergymen's Gate, Pioneers' Gate, Farmers' Gate, Warriors' Gate, and Strangers' Gate. These names have a certain significance attached to them as regards the objects to which they lead. Few glass-houses are as yet erected, but one not unlike the Palm-house at Kew with its lake in front is, I believe, in contemplation.

I may add that rock-work, in connection with water, is extensively introduced into several parts of the park, and is generally so constructed as to be of a bold, natural character. Ferns are used for the decoration of the rocks, but not in sufficient abundance. Intermixed with rock creepers, as they are here, their elegant fronds have, I need not say, a charming appearance. A rock garden forms an interesting screen to the zoological department, which is as yet badly furnished with both beasts and birds. I may note here that, with the view of gathering information on the subject of the insects of the park, a collection of caterpillars has been made, and a proper record taken of the trees which they seem to frequent. This, if well carried out, may afford some useful entomological information. Near a gymnasium is one of the largest and finest trees of Quercus pedunculata I ever saw; it is one of the trees saved from the natural forest, and is one of the largest in the park. A little further on, the visitor gets a glimpse of the highest ground in the neighbourhood, and here it is intended to build an observatory 140 feet high, which, together with the natural elevation of the ground, will be some 300 feet above the datum line of the river. This will form a conspicuous object, seen either from the casino, refreshment pavilion, mall, or terrace.

Before leaving this Central Park I may add that flowering shrubs, especially *Cornus florida* and *Magnolia*, bloom beautifully in it; its water, islands, bridges, which are mostly of a rustic character, its rides, drives, terraces, and avenues are all on a grand and effective scale, and when the band plays on a fine summer evening, one feels that it is what it should be, truly a place for recreation and enjoyment. *Joseph Newton, Oxford Terrace, Hyde Park*

Notices of Books.

Transactions of the Woolhope Naturalists Field Club for 1868 (Hereford) 8vo, pp. 277, cuts and photographs.

A day with a field club in fine weather is almost as enjoyable as a day with the hounds, far more so to some people. In most cases, on such occasions, a great deal is said which, however valuable it may be at the time, is hardly worth recording, unless in the columns of the local journals. The managers of some of these bodies, however, think differently, and the result is that their "Transactions" too often contain a vast amount of twaddle, a large proportion of crude compilation, and a minimum of honest observation. Let us hasten to say that these remarks do not apply, except to a very limited extent, to the volume before us. There is in it, indeed, a slight infusion of what is very pleasant to read of in the county paper a few days after the event, but which is apt, when reproduced in the "Transactions" after a year's interval, to lose its interest. But in the case of the Woolhope Club the proportion of chaff to grain is really very slight, and the papers on local geology and natural history are admirably adapted to convey sound and accurate information, and to excite an interest among the residents in the natural features of their district. The Woolhope Club is fortunate in possessing among its members several accomplished naturalists, who appear thoroughly to understand what are the legitimate objects of such a club, and what are the best means of carrying them out. Two special subjects of investigation, in addition to the general natural history of the county, engage the attention of the club, viz. the remarkable trees of the district, of many of which, in this as in former volumes, small but characteristic photographs are given, and the edible Fungi, of which, also, some excellent coloured figures are supplied. By way of illustration we may cite a passage from a paper of Dr. Bull's, on the Elm—

"The English Elm, in ordinary Herefordshire soil, will grow more rapidly than that most vigorous growing of all the varieties of the Wych Elm, the Chichester Elm, a tree that in suitable soil will often make shoots of from 6 to 10 feet long in a single year. The actual experiment has been made. Planted side by side the English Elm grows more quickly, and general observation here seems to confirm it. I wish to lay stress on this point, because it seems to explain the complaint that has met me from several quarters, that the English Elms you buy now are 'such poor Elms that they won't grow well, and no dependence is to be placed upon them.' The fact is, the English Elms are now sent out grafted on the Mountain, or Wych Elm; they make wood much more rapidly, and have not the disadvantage of sending up suckers from the roots. 'I think I may say, sir, that grafted English is universal in the trade' was the result of my inquiries of a nurseryman. So long as the tree is planted in the rich, heavy soil, so prevalent in nurseries, the advantage is undeniable, a larger tree is grown in a shorter time, and equally good, but removed to the ordinary stiff clay loam of the county (Hereford), and the roots of the Wych Elm root. The tree may grow, but will not thrive. The conclusion is evident. If you wish to plant English Elms in the common soil, you must get them on their own roots, not on the Mountain, and this you must take care to do, or you will grow them from suckers yourself."

A little more editorial care in revising the proof-sheets would be advisable in future years, not only as to the correct rendering of scientific names, but also as to the list of honorary members, among whom we find the names of some, such as Professor John Lindley, who have paid the debt of Nature; Professor John Phillips, too, is still stated to reside at St. Mary's

Lodge, York, though it must be some 14 years since he migrated from the northern city to Oxford. But these are minor blemishes, not seriously impairing the value of a very interesting volume.

CATALOGUES RECEIVED.—H. Lane & Son, Roses, Fruit Trees, &c.—W. Bull, New and Rare Plants—J. Scott, Nursery Stock—F. Warner, Fruit Trees, Roses, &c.—W. Paul, Buss Catalogue—Paul & Son, Rose Catalogue—Ewing & Child, General Catalogue—T. Bridgen, Flower Roots—W. Arridge & Son, Bulbous Roots, &c.—T. B. Ware, Trees, Shrubs, &c., also Spring Flowers—W. Wood & Son, Catalogue of Roses; also Fruit Catalogue, and Hardy Ornamental Trees—T. McKenna & Sons, Dutch Bulbs—J. J. Chater, General Descriptive Catalogue—W. Rollason & Sons, Dutch and other Bulbs—S. Glendinning & Sons, Dutch Bulbs—G. Jackman & Son, Wholesale Catalogue—C. Turner, Roses, Fruit Trees, &c.; also Pelargoniums, Auriculas, &c.—Vilmorin-Audrieux et Cie., Catalogue des Fraisiers—Martin Müller, Arbres Fruitières—Léon de Cook, Catalogue Général—V. Lemoine, Prix Courant—Eugène Verdier fils aîné, Gladiolus, Pionies, Roses, &c.—M. Koster & Son, Trade List of Nursery Stock—D. Dauvresse, Catalogue Général.

Garden Memoranda.

MEADOWBANK, the residence of Thomas Dawson, Esq., is situate seven miles south of Glasgow, in a very quiet part of the country, and is of easy access by railway from the Southside station. This spot cannot fail to attract the notice of travellers by the Caledonian Railway, after crossing the Clyde near Uddingston station, from the extensive ranges of glass-houses, and neatly kept grounds, which at once suggest the idea of a village of glass, surrounded by a miniature park, and reminding one of old stories of moats and fortifications; being skirted on the west by the river Clyde, on the north by the embankment of the Caledonian Railway, on the east by the Uddingston turnpike-road, bounded by a substantial stone wall, on the south by the kitchen garden wall, gardener's house, &c.—access to this garden of treasures being by a small door in the boundary wall.

The first thing to attract the notice of the visitor is the enchanting but unpretending appearance of this garden and chateau of modern times,—

"Where Scottish scene does sit serene,
And Flora's beauties reign supreme."

—the residence and the grounds being alike free from any attempt at architectural grandeur, while Mr. Anderson has made the most of the ground by a series of successful and happy combinations of hardy and half-hardy plants, which are at the same time both pleasing and picturesque. In the more exposed parts of the grounds many half-hardy plants had suffered much from the frost at the end of August. The glass erections are 16 in number, and appear to have been built at different times, according to the requirements of an ever increasing collection; but, from their neat and clean appearance, bear ample evidence of being well cared for.

The collection of Orchids, for which this place is justly celebrated, is in itself unique; and, doubtless, a list of some of the best specimens will be very acceptable to many of your readers, particularly the long list of species in flower on the occasion of my visit on September 17. Having recently visited some of the leading London and other gardens, I was frequently asked what was to be seen at Meadowbank, and some little surprise was expressed by some, and a little disappointment by others, on learning that my visits were few and far between. I trust this short, but very incomplete list, may be the means of satisfying their wants to some extent, while to others it will be a means of extending their knowledge of species which may be had in flower at this season. To attempt anything like a detailed account of this wonderful collection would occupy too much space in your pages. I shall, therefore, confine myself to some of the most remarkable specimens, and to the general species in cultivation in most collections, more as a means of showing the various subjects cultivated together in the same house at this season, than to enter into a description of the numerous varieties with which the collection abounds, not only of those which are described, but those also which are undescribed. Of the latter I had the good fortune to find three in flower.

House No. 1 contained, amongst many others, in flower, the following, which create at this season a magnificent display—*Miltonia Regnelli* full of flower, five spikes; *Zygopetalum rostratum*, fine; *Aerides quinquevenerum*, several fine specimens in flower, one of the finest I ever saw producing six unusually strong spikes on a single stem; several varieties of *Vanda tricolor*, one very scarce, i.e., *Vanda tricolor meleagris*; *Cypripedium Stonei*, one stem with three fine flowers; *Miltonia virginialis*, associated with *M. Morelana*, a specimen 2 feet across, full of flower, the striking contrast of colour producing a grand effect; *Epidendrum cochleatum major*, fine; the Java variety of *Aerides suavisimum*, with four fine spikes; *Dendrobium formosum*, with one lead and two flowers; *Vanda cœrules*, with one strong spike; *Oncidium barbatum*, several plants of this lovely species making a grand display; *Lælia elegans*, in several varieties, one in particular far surpassing anything I ever saw before, both for size and depth of colour, being much darker than any of the varieties called *Turneri*, of which there is a fine example in flower in the same house. *Cymbidium Masterii*, good; also the old *Cattleya guttata*, two plants of *Miltonia Clowesiaana*, with 13 spikes each; *Aerides Thibautianum*, with five noble spikes; two plants of *Eriopsis rutidobulba*, with two and three fine spikes respectively. *Cattleya Leopoldii*, a glorious lot of plants, mostly getting past flower, a hybrid *Cattleya*, between *guttata* and *Loddigesii*, partaking in a marked degree of the characters of both parents, the growth being not quite so strong as is usually seen in *C. guttata*, while the sepals and petals, flushed with a delicate shining rose, are of the same size as and spotted like *guttata*, with a labelum indicative of its close affinity with *Loddigesii*.

altogether a lovely plant, with an apparently strong constitution; *Miltonia Clowesiana* superba, with extra large flowers; *Miltonia virginalis*, also fine; *Zygopetalum Mackayi*; *Cattleya speciosissima*, one of the most showy species at this season; *Miltonia Moreliana*, with 23 flowers; *Saccolabium Blumei* majus, *Calanthe veratrifolia*, *Vanda suavis*, *Oncidium Batemanni*, *Oncidium Papilio*, *Cypripedium Hookeræ*, *Cattleya Aclandiae*, the good old *Coclogyne speciosa*, a grand plant, near 3 feet across, full of bloom; one of the finest of all the *Miltonias*, candida *Jenischiana*, four fine spikes, with flowers of unusual size and colour, in both respects reminding one of *Odontoglossum Inseayi*, with the lip of *Miltonia candida grandiflora*, only brighter in colour and double the size. *Cattleya Trianae* and its varieties will shortly make a fine display in this house, there being many specimens with from five to ten sheaths each in luxuriant health. From the roof are suspended grand specimens of *Dendrobium Cambridgeanum*, *D. cumulatum*, *Limnates rosea*, *Calanthes* in varieties, &c.

House No. 2.—One of the grandest features which meet the eye on entering this house is the unique specimen of *Cattleya exoniensis*, Mr. Dominy's greatest achievement, and certainly one of the most beautiful *Cattleyas* in cultivation. This specimen has 13 growths or leads, which will convey some idea of the size of the specimen; it was just beginning to unfold its flowers, which at a hasty glance would remind one of the most brilliant variety of *C. labiata*: the specimen in question would doubtless be undervalued at 150 guineas. There were also grand examples of the following in this house:—*Cattleya Mossiae*, the Syon House variety, with several leads; also *Cattleya quadricolor*, *C. Dawsoni*, *C. maxima*, *C. Mossiae*, *C. marginata*, *C. Aclandiae*; *Dendrobium thyrsoflorum*, with growths 2 feet 6 inches in length; *Oncidium nebulosum*, showing for flower; *Oncidium Kramerianum*, *O. sessile*, *Burlingtonia fragrans*, and many other grand specimens.

House No. 3 is rather a span-roofed pit, but of large proportions, having no path inside; the cool end of this is devoted to the cultivation of *Odontoglossums*, and a few other plants requiring similar treatment, and the warmer end to a collection of seedling *Amaryllis*, and, judging from the exuberant growth of many of the *Odontoglossums* contained in this pit, it answers the purpose admirably. A long stage, covered with gravel, occupies the centre of the pit, and is of such a thickness as to exclude any direct circulation of air or heat from the pipes below; while the heat rising from the sides disperses itself more evenly, and is a check against a sudden current of cold air from without, the lights having to be tilted in front in the usual way. To enumerate the species of *Odontoglossum* contained in this pit would alone make a long list, and many of the species are represented by the score, some of the following being unusually fine:—*Odontoglossum nebulosum*, *O. Alexandræ*, *O. Pescatorei*, *O. luteo-purpureum*, *O. latro*, &c.; *Oncidium caudatum*, the rare *Masdevallias*, quite at home, as well as many other gems. *Robert Bullen, Curator, Botanic Garden, Glasgow.*
(To be Continued.)

Garden Operations.

(For the ensuing week.)

PLANT HOUSES.

VERY careful management will now be required in *Heath-houses* as regards their requirements, under the varying fluctuations of the external temperature, &c. In regard to the inmates, greater attention will be requisite in respect to those varieties, whether of the true *Ericas* or their near allies the *Epacrises*, which are cultivated amidst the various drawbacks always associated with houses in which mixed collections are kept, such, for instance, as many of our greenhouses and semi-conservatories. In either case, a cool temperature, free from any form of draught, is of the first importance. Too dry an atmosphere, or one too densely charged with moisture, are alike objectionable. Then, again, a sour stagnant soil, whether caused by imperfect drainage or a too retentive compost, through an insufficiency of sandy matter, or from the pots becoming dirty on the outside, tends to cause unhealthiness at the root. However trivial the original causes may be, ill health quickly increases in intensity, and hence the need of carefully guarding against these and all similar apparently trifling circumstances. Dispense with artificial heat as much as possible to the last. Covering the exterior of low-roofed houses or roomy pits with mats, as a protection against frosts of moderate intensity, is much better than a resort to fire-heat, however little. In connection with the above, I may refer to another lovely genus, namely, *Leschenaultia*; similar treatment to that which is given to *Heaths* will suit them well, the same attention to trifles being also equally necessary in this case. They thrive best when placed near to the glass, and seldom do better than when elevated to within a few inches of it. Both are very liable to the attacks of mildew, which can only be prevented by keeping the atmosphere moderately dry and fresh. The only safe cure is to apply a good dusting of finely-powdered flowers of sulphur all over. There is also another family of Australasian plants, to which the above remarks may be applied with much force. I refer to the fragrant and beautiful *Boronia*, and especially to *B. serrulata*. These are equally impatient of heat, draught, or damp, and especially dislike being kept over-moist at the roots. Added to which I may draw attention to a fact of no little importance, which is too frequently overlooked in regard to these latter. As is well known, the native habitat of *Boronia serrulata* is a somewhat protected locality upon the coast of New Holland, where it is enabled to fully develop and to ripen well the wood it annually makes. Now we too frequently overlook this fact. With a little extra

heat we may somewhat hurry the growth onward, and then by placing the plants in a moderately exposed, dry, and sunny aspect, we may ripen the artificially formed wood in like manner. Hence, much of the ill-success will be done away with, as the want of a better developed wood-formation is often the cause of the ill-health of this particular species. Let the temperature in all stoves be gradually reduced to an average of 60° by night for the next few weeks, bearing in mind the fact that to start any hard-wooded plants into growth which should now be resting, will be to irretrievably spoil them for a good summer display.

FORCING HOUSES.

All that is required in *Late Vineries* having fruit still hanging, is a minimum temperature of about 40°. This should be constantly maintained by the aid of very slight fires on frosty nights. During fine bright warm days persist in keeping the house as cool and airy as possible, so as to keep the berries from any material change. Remove every symptom of decayed or decaying leaves, and so keep all sweet and wholesome. In regard to *Pines* there may be instances where, for want of more room, the sucker-cuttings have been potted, and placed on a temporary hot-bed composed of fermenting materials alone. Here, in an atmosphere best suited to them, they root and grow freely; but they must not be permitted to remain in such a place one day longer than is necessary at this time, otherwise they will become drawn and weakly, and will not prove so stocky as they should be to form a basis for producing good fruit. A drier atmosphere, with a gradually reduced temperature, must, therefore, be sought for them. Be careful in regard to watering all young successions, those near to flues or other heating mediums will require more frequent supervision in this wise. Get the lights ready for placing upon *Peach* and *Nectarine* houses without further delay, and let them now be put on at the earliest opportunity.

HARDY FRUIT GARDEN.

Persist in wiping off the ripening leaves upon *Peach* and *Nectarine* trees. Already these are very late before they part, and I fear the wood will not be fully ripened, causing the many evils attending such a state to follow, such as gumming, &c. The removal of all leaves at the earliest moment, therefore, becomes a matter of importance. In view of the above facts, I do not advise that the wood should be loosened from the walls quite so soon this season, but rather to keep it attached a week or two longer than the sun may act more powerfully thereon. Do not longer delay the necessary plunging to the pot-rim of all *Strawberry* plants intended for forcing, or others potted up for transplanting out in the early spring, as a protection against frost.

HARDY FLOWER GARDEN.

Those who do not make a display with spring blooming plants, by means of planting those that will flower early into the beds immediately the bedding stuff has been removed, should, now that the frost has destroyed the beauty of the summer plants, have all vacant borders immediately forked or dug up and finished off neatly without delay. It will be advisable at the same time to give the borders or beds a moderate dressing with manure, which, if forked in thus early, will become thoroughly incorporated with the soil, and lose much of that crude strength which is apt to cause strong sappy growth, and comparatively little flower. Where spring bedding is adopted no further delay should now take place in regard to getting all the necessary subjects planted in their permanent blooming quarters. As regards height I may say that the pink *Silene pendula* may be planted in the centre of beds containing either the blue or white *Forget-me-Not*. The thicker these latter are planted now, so much the more densely will the bloom be at flowering time. The stronger the plants of any of the above are now, the sooner by a week or two will they bloom in the spring. This is a matter of some importance, to which I believe I before referred, at the time of sowing. As edgings to the *Forget-me-Nots*, either the lovely little *Saponaria calabrica*, var. *rubra*, the yellow bedding *Pansy* or *dwarf Tulips*, &c., will match well. Whilst the white variety of *Saponaria*, the *Clarkias*, *Collinsias*, *Limnanthes*, *Nemophilas*, &c., would do well to edge the *Silene* or others to which their flowers afford a proper contrast. *Wallflowers* will transplant well at this time, if proper care be taken not to injure the roots, and a good soaking be given to them immediately after being planted. I would advise that all grass plots which did not happen to be mown last week, be mown during the incoming one, commencing with the 1st of October; that is, if sharp frosts, and such as are likely to stop such work, do not prevail.

KITCHEN GARDEN.

Do not delay any longer the necessary taking up and housing of all root crops, such as *Carrots*, *Beet*, *Salsafy*, *Scorzoneræ*, &c., which have been left out so long to insure a more perfect growth. It would not be safe to risk them longer after this date. I suggested a week or two since that the main crops of *Beet-root* should be stored away out in the open borders, and clamped precisely in the same way as *Potatoes* habitually are. The same remarks apply with equal force to the keeping of *Carrots*, as the crop lasts far better so treated, than when the roots are packed in dry sand or in underground cellar-like places, where the air can penetrate to them pretty freely, and where dry-rot and other similar evils are known to exist and to multiply greatly. Remove as much of the surface growths as will part freely both from *Rhubarb* and *Seakale*. Give the former a sound dressing with good rotten manure, and keep the latter free of weeds or other litter likely to keep the sun and air therefrom, each of which should now have uninterrupted play, duly to ripen off the crowns, preparatory to the process of early forcing. *W. E.*

TOWN GARDENING.

The Golden Rod, Double Sunflower, and Milk Daisy, particularly the latter, of which there are many varieties, are very showy plants for towns. These, and all other plants, are improved by cultivation, and unfortunately they seldom receive, for a number of instances, when once planted they are allowed for years undisturbed. One would suppose that their rubbishy appearance that they were only a harbour insects. If these are divided into shoots, and planted three in a patch, and nearly as they progress in growth during summer, they produce a gay appearance, and well deserve the trouble bestowed on them. The *Frazinella* (*manica*) is a plant that will do well in any town garden, throwing up pyramids of flowers 2 feet 6 inches high, and emitting an odour like that of lemon. For its beauty and fine scent it should be introduced into every town garden; and now is the season to propagate it, by dividing the root. The *Widow herb*, is valuable in shrubberies under the drip of trees, and succeeding everywhere grows about 3 feet high; the roots should be cut in patches about 4 inches deep. This is the best season for dividing and transplanting the *manica*, an excellent plant for town gardens, as the *Dahlias* and *Marvel of Peru* with the first they should be cut down 3 inches of the ground, taken up and placed a few days, when they should be put away in winter, either in a cellar, or in a pit dug in the garden, covered with straw, and banked over with a few inches of soil. By this method the plump and fresh, and start freely in spring.

STATE OF THE WEATHER AT CHISWICK, BRISTOL.

For the Week ending Oct. 27, 1884, as observed at the Horticultural Society's Garden, Chiswick, Middlesex.

October	Moon's Age	BAROMETER.		TEMPERATURE.			Price, per bush.
		Max	Min	Max	Min	Mean	
Thurs. 21	18	30.220	30.124	56	25	40.5	8 0
Friday 22	17	30.399	30.374	50	41	45.0	8 0
Satur. 23	16	30.273	30.133	51	45	48.0	8 0
Sunday 24	15	30.167	30.108	57	25	41.5	8 0
Monday 25	14	30.194	29.939	53	31	42.5	8 0
Tuesday 26	13	29.979	29.904	50	21	35.5	8 0
Wed. 27	12	29.732	29.682	42	22	31.5	8 0
Average		30.123	30.084	51.7	31.4	41.5	8 0

Oct. 21—Densely overcast, cloudy but fine clear at night.
 22—Frosty, foggy, drusey, overcast, overcast and drusey.
 23—Densely overcast throughout, rain at night.
 24—Cloudy, very damp, fine, but cloudy, clear at night.
 25—Densely overcast, foggy, very fine, clear at night.
 26—Very fine and clear, cloudy, cold wind, clear at night.
 27—Very fine, frosty air, clear and fine, fine and clear.
 Mean temperature of the week, 41 deg. below the average height.

STATE OF THE WEATHER AT CHISWICK.

During the last 43 years, for the ensuing Week, ending Oct. 27, 1884.

October and November	Average Highest Temp.	Average Lowest Temp.	Mean Temp.	No. of Years in which it Rained	Greatest Quantity of Rain in 24 Hours	Frequency of Rain
1841-84	51.0	34.0	42.0	21	4.5	1.1
1841-4	51.1	34.1	42.1	25	0.5	1.1
1845-8	50.4	33.3	41.8	9	0.1	1.1
1849-52	53.5	35.9	44.7	9	0.5	1.1
1853-6	52.1	35.6	43.8	23	0.4	1.1
1867-70	52.9	37.8	45.0	20	0.8	1.1
1871-4	52.8	36.3	44.7	19	0.7	1.1

The highest temperature during the above period occurred on the 31st, 1864—therm. 67 deg., and the lowest on the 30th of Dec. 1841—therm. 20 deg.

Notices to Correspondents.

BARNES TESTIMONIAL. Mr. Pottle, Gardener, Little Woodbridge, 5s.
CLOCHES J. C. and others. Messrs. Hooper & Co., Avenue, Covent Garden Market, W.C., have these cloches for sale.
CORRESPONDENCE. J. S. Nankin. The publication of a letter would injure the cause you have at heart.
FERNS. *W. T. Lastrea rigida*, *Adiantum Capillus-veneris*, *Notholaena lanuginosa* and *Muranta*, *Ceterach nigricans*, *Cheilanthes fragrans*, *Cystopteris fragilis* and *Pendulum vulgare*.
FUNGUS. *Sigma*. Your Fungus is *Clavaria pistillata*. The fructification is totally different from that of *M. J. B.*
GROWING GRAPES FOR PROFIT. A. B. It is rather a province to advise you as to how you can best succeed by your Grapes, money making in whatever way, being rather a difficult matter now-a-days, success in any undertaking requires a practical knowledge of the subject; and much depends upon surrounding circumstances. There is firstly the production, secondly the marketing of the same, which is the most important part, and many at one place, for example, dispose of fruit at just double what another may get for the same. When can you most readily dispose of your fruit? Where is the market? Late Grapes will sell better than early forced fruit. If you force your Grapes, they will more readily bear forcing the next year. It is quite a mistaken notion of yours that you should have a rest every third or fourth year. Culture of Grapes is a perpetual, and every year they will repay your outlay by a satisfactory crop.
LATE FRANKFORD. *CAULIFLOWER.* *W. Drummond* writes: "heads" sent were large, compact, and very well cooked they were not particularly good; but the late in coming into use, it may be considered a good variety.
NAMES OF FRUITS. *AG Paris* 1, *Beurre Clairgeon*, *Chrétien d'Hiver*; 4, *Duchesse d'Angoulême*; 5, *Rance*; 23, *Gansell's Bergamot*; 25, *Gloire de France*; 26, *Crassane*; 15, *Figue de Naples*; 16, *Beurre de France*; 13, *Belle et Bonne*; 14, *Autumn Colmar*; 5, *Champion*; 3, 7, 9, 11, 17, quite rotten *Apples* 1, *Perle*; 2, probably *Lemon Pippin*; 6, *Boston Russett*; 5, *Essex*; 10, a small *Alfreton*; 11, *Winter Coaln*; 9, *Essex*; 13, *Hawthorn*; 21, *Royal Winter Nonpareil*.
Turner Pear. *Hacon's* incomparable.
POTATOS. *R. Heady*. Your seedling *Potatoes* were of a rate; white, mealy, and excellent in flavour.
ERRATA. At p. 1114, col. c, 5 lines from the bottom, Mr. W. Lee instead of Mr. Moor.
COMMUNICATIONS RECEIVED.—J. M.—T. S.—G. W.—A Correspondent.—J. C.—Stewkley.—J. O. W.—S. L.—D. T. F.

RAYNBIRD, CALDECOTT, BAWTREE, DOWLING, AND COMPANY (Limited),
 COALS, SEEDS, MANURE, and OILSEED MERCHANTS.
 Address: Seed Market, Mark Lane, E.C.; or Basingstoke
 Prices post free on application. Prize Medals, 1851
 for "Excellent Seed Corn and Seeds"

Seed Potatoes.
AND P. SHARPE'S WHOLESALE LIST of all
 the new and best varieties of Early and Late POTATOS is
 ready and may be had on application. The quality is very fine,
 and the price is low.
 Seed Growing Establishment, Wisbech.

IMMEDIATE SALE, about 2 tons of MONA'S
 PRIDE POTATOS, at 1s 6d. per stone; also a quantity of
 ROBUS DOMESTICA TREE SEED (the true Service), at 2s. 6d.
 per lb., new seed.
 Apply to the Proprietors of the Onehan Nursery, Isle of Man.

RICHARD WALKER has the following to offer for
 sale:—
 1. SEAKALE, for forcing, extra fine, 10s. per
 cask; 2. ASPARAGUS for forcing, at 2l per 1000, or
 10s. per cask; 3. CHAMPION DRUMHEAD CABBAGE
 per cask; 4. CHAMPION DRUMHEAD CABBAGE
 per cask.
 RICHARD WALKER, Market Gardens, Biggleswade, Beds.

Prize Pedigree Wheat.
JAMES CARTER AND CO. offer the following choice
 samples of SEED WHEAT, grown from Prize Stocks, with the
 greatest care in Selection, &c.—
 TALAVERA WHITE WHEAT.
 SHIRREFF'S BEARDED WHITE WHEAT.
 ROUGH CHAFF WHITE WHEAT.
 FENTON WHITE WHEAT.

Price—bushel, 11s. per quarter. Stock limited.
 WHEAT—leading varieties, for Seed.
 BARLEY, leading varieties, choice samples, for Feed.
 OATS, leading varieties, choice samples, for Seed.
 Lowest prices on application.
JAMES CARTER AND CO., the Royal Seedsmen, 237 and 238,
 Holborn, London, W.C.

H A L L E T T S
 PEDIGREE HUNTER'S WHITE WHEAT,
 ALSO THE
 ORIGINAL RED.

Price, including bags, Five Guineas per Quarter, by the Quarter or
 Half-quarter, One Guinea per Bushel for less than a Half-quarter,
 delivered at the Brighton Station, in bags sewed up, sealed, and
 containing Printed Directions for Planting, upon receipt of
 cheque or Post Office Order, without which it will not be sent to
 any of our
 known Correspondents. Less than a Bushel not supplied.
 Apply to Captain HALLETT, F.L.S., The Manor House,
 Brighton.

**LAWES' WHEAT MANURE, for AUTUMN
 SOWING**, now ready for delivery.
 All other Manures and Cakes as per Price List, supplied on the
 usual terms. Apply for prices, &c., to JOHN BENNETT LAWES,
 Mark Lane, London, & G.; Dublin, and Shrewsbury.

THE LONDON MANURE COMPANY
 (ESTABLISHED 1840)
 Have now ready for delivery, in fine condition,
 CORN MANURE, for Spring Use
 DISSOLVED BONES, for Dressing Pasture Lands
 SUPERPHOSPHATES of LIME
 PREPARED GUANO
 MANGEL and POTATO MANURES.
 Genuine PERUVIAN GUANO, and NITRATE of SODA
 Dock Warehouse; SULPHATE of AMMONIA, FISHERY
 L., &c.
 Offices, 114, Fenchurch Street, E.C.

**DEES AND CO'S BIPHOSPHATED PERUVIAN
 GUANO** (Registered Trade Mark, Flying Albatross), is now
 ready for delivery in quantity and in fine condition. It is believed
 to be the best Artificial Manure yet produced. Its base is
 the best Artificial Guano; it contains 21 per cent. of Soluble
 Phosphates, 8 to 7 per cent. of Ammonia with Salts of Potash. See
 reports of Dr. Voelcker, Dr. Anderson, Professor Way, Mr. Ogston,
 Mr. Sibson. Delivered in 2 cwt. bags, each of which is secured
 with a leaden seal, bearing the Company's Trade Mark. The analysis
 is guaranteed so long as the seals remain unbroken.
 Agents for the North of England—Messrs. Keighley, Maxstead
 & Co., Hull.
 Agents for Scotland—Messrs. Richard Connor & Co., Glasgow and
 agents for Ireland—Messrs. R. F. Gladstone & Co., Dublin
 DEES AND CO'S Biphosphated Peruvian Guano Company
 (Limited), 32, King William Street, London, E.C.

Autumn Sowing.
**WAMS' NITRO-PHOSPHATE or BLOOD
 MANURE for WHEAT**—This Manure, specially prepared for
 Autumn Sowing, is rich in Ammonia, Phosphates, and other
 elements required for the healthy growth of Grain Crops.
 Analyses of Blood and the grain of Wheat show that they are nearly
 identical in composition, hence the value of Blood as an ingredient
 in manure. It may be applied at the rate of from 3 to 4 cwt. per acre,
 according to the condition of the soil, either drilled with the seed
 broadcast, or if the latter, it should be well harrowed in.
 WAMS' NITRO-PHOSPHATE, whose Members are Cultivators of upwards of
 1,000,000 acres, which has been for years under management
 by the same firm, and consequently the genuineness and efficacy of the
 Manure is guaranteed.
 For further particulars apply to the Secretary,
 Messrs. WAMS, 113, Fenchurch Street, London, E.C.; Western
 Branch, County Chambers, Exeter; Irish Branch,
 Westmoreland Street, Dublin.

ASPIC L'HOMME LEFORT (the new French Cold
 Cream Wax), indispensable for Budding, Grafting, Healing,
 and all other purposes. In tins, 6d., 1s., 2s., 4s., and 6s., of all
 sizes.
 HOOPER AND CO., Covent Garden Market, London, W.C.

Wheat Sowing.
OWN'S FARMER'S FRIEND for Preventing the
 Smut of Wheat, and the Ravages of the Hessian Fly, and Wire-
 worm, &c. A few packets is sufficient for Six Bushels of Seed Wheat,
 and will keep it safe and fit to sow in a quarter of an hour.
 It is the largest Wheat Growers in the Kingdom,
 and its great power and efficacy, may be had of
 any of our Agents for every district.
 Full particulars for use are given with each packet.
 Prepared at the Manufactory, Woburn, Beds.
 To guard against fraudulent imitation and consequent
 loss, see that the signature of HENRY DOWN is on
 every packet.
 Agents in every Town throughout England, Scotland, and Ireland.

THE BIRMINGHAM CATTLE and POULTRY SHOW.
 —The TWENTY-FIRST GREAT ANNUAL EXHIBITION of
 FAT CATTLE, SHEEP, PIGS, DOMESTIC POULTRY, CORN,
 ROOTS, and IMPLEMENTS, will be held in HINGLEY HALL, on
 SATURDAY, MONDAY, TUESDAY, WEDNESDAY, and
 THURSDAY, November 27, 29, 30, and December 1 and 2, 1869,
 when PRIZES to the amount of nearly £2100 will be awarded in
 the following Divisions, viz.—
 FAT CATTLE £207 1s. 0d. BREEDING PIGS .. 277 2 0
 FAT SHEEP .. 210 8 0 ROOTS and CORN .. 76 10 0
 FAT PIGS .. 69 11 0 POULTRY and PIGEONS 74 14 0
 Prize Lists, Certificates of Entry, and every information may be
 obtained from the Secretary.
 The ENTRIES CLOSE on MONDAY, November 1.
 JOHN B. LYTHERALL, Secretary
 Offices, 33, New Street, Birmingham

SMITHFIELD CLUB FAT CATTLE SHOW.
 —The ANNUAL SHOW of FAT CATTLE, SHEEP, and
 PIGS, will be held at the AGRICULTURAL HALL, ISLINGTON, on
 MONDAY afternoon, December 6, and Four following Days.
 Intending Exhibitors are requested to apply for Certificate Forms
 by the reference letters as under.
 CATTLE.—Form A. For an OX or STEER (in any Class).
 " B. For a COW or HEIFER (in any Class).
 " C. For a BEAST in Extra Stock.
 SHEEP. " D. For a PEN of three WETHERS (in any Class).
 " E. For a SINGLE SHEEP in Extra Stock.
 PIGS. " F. For a PEN of three PIGS (in any Class).
 " G. For a SINGLE PIG in Extra Stock.
 ENTRIES for LIVE STOCK CLOSE NOVEMBER 1.
 Prize Lists, Forms of Certificates, and all information may be
 obtained on application to Mr. DAVID PULLEN, Assistant Secretary,
 at the Office of the Honorary Secretary, corner of Half-Moon
 Street, Piccadilly, London, W.
 N.B. All communications respecting the Show must be addressed
 to the Assistant Secretary, as above, and should bear outside the
 words "Smithfield Cattle Show."

The Agricultural Gazette.
 SATURDAY, OCTOBER 30, 1869.

MEETINGS FOR THE ENSUING WEEK.
 Nov. 2 } London Farmers' Club (Mr J. Howard, M.P., on Conti-
 } nental Farms), at Salisbury Hotel—5 p.m.
 3 } Central Chamber of Agriculture (Present unsatisfactory
 } Method of Taking the Corn Averages, and the Need of a
 } Uniform System of Weights and Measures), at Salisbury
 } Hotel—11 a.m.

"AGRICULTURE is too big to be moved much
 by any number of steam-tugs." The writer of
 this sentence could hardly have remembered the
 enormous power of the steam engines which are
 now being brought to bear on the work of steam
 tillage! He had not thought of the Buscott
 30-horse power engines which "get over" more
 than 30 acres daily of stiff clay ground! He did
 not know that Mr. CAMPBELL is contemplating
 the use of 100-horse power in a single field!
 Surely a steam-tug of these dimensions must
 move English agriculture, however "big" she
 be! But, indeed, we need not imagine from the
 quoted sentence anything more than that the
 writer was urging the undoubted truth that
 agriculture needs much that is beyond steam-
 power, whatever quantity of it be brought to
 bear—much to which directly it cannot be
 applied. He did not mean to disparage steam-
 power. He only desired to point out that Life
 and the Individuality of plant and animal, and
 the chemical tendencies and character of atoms,
 limit the power of the farmer, whatever may be
 the aid derived from steam. Steam-power cannot
 force the circumstances proper for the Turnip upon
 the acceptance of the Wheat-plant—it cannot
 of itself enrich soil which is barren by reason of
 the absence of fertilising matter—it cannot main-
 tain the life and vigour of a biennial plant after
 it has matured its seed. There is much beyond
 its power, and agriculture, which includes the
 whole, is "too big" to be moved by it alone.

There is much, however, undoubtedly that it
 does move most effectually. Indeed so great a
 part of agriculture consists of the proper tillage
 of the soil, so much of all depends on this
 one item, that we may say not only that the
 agriculture of particular localities and farms,
 but that the agriculture of whole districts—that
 English agriculture generally in fact, is being
 benefited by steam-power. Messrs. FOWLER
 & Co.—one likes to feel a continued indebted-
 ness to the name—are as a matter of fact pulling
 the agriculture of all England along. So is
 Mr. SMITH, of Woolston. The steam plough
 works at Leeds are virtually in themselves a
 spoke in the great wheel of English agricultural
 progress. On a recent visit we were glad to
 hear of the great demand for engines of great
 power which now exists. The essential point to
 be desired is that the clay lands of the country be
 deeply broken up and tilled. Whether that is
 done by engines let out on hire or by engines
 owned by the tenants of the land, matters
 nothing to an outsider interested only in the
 due tillage of the land. But the facts before
 us prove unquestionably that the contract
 system is extending, that an increasing number
 of engines of great power are being issued to
 companies and firms who undertake the cultiva-
 tion of the land at so much per acre; and that
 farmers of plough land, without any need of in-
 creased capital—with, indeed, a diminished need
 of capital (for they can dispense with horses in

the neighbourhood of a good steam plough)—are
 getting all the advantages of steam cultivation.
 Agriculture includes the cultivation of animals
 and plants as well as soil; and steam-power has
 hitherto had comparatively little influence upon
 these other departments of its field. A good herds-
 man has been hitherto supposed to be a man of
 quiet, easy, kindly temperament, dealing gently
 and leisurely with the living creatures he has
 charge of—a man as far removed as may be, in
 idea, from that of the snorting, reckless,
 irresistible steam-horse. But even he (with
 the living creatures which he tends) is dependant
 on the fertility of the farm, and that again
 hinges very much—not exclusively, indeed, but
 still materially—upon a well-tilled soil. The
 writer of our text was right in his assertion that
 fertility depends on other things as well as on
 that process of aeration and pulverisation which
 we call tillage—he was right in pointing out that
 fertilising matter from without needs to be
 actually added to the soil from the manure heap
 or the factory, as well as in admitting that
 fertilising matter from within needs to be made
 accessible by tillage, in order to the best result.
 But most people will, we think, pronounce him
 wrong if, without the qualifications we have
 pointed out, he should persist in saying that
 "Agriculture is too big to be moved much by
 any number of steam-tugs."

THE relative positions of the agricultural and
 town labourer is a very good subject for the
 labourer himself to discuss; but we doubt
 whether much service is done by bringing it
 under the notice of a Farmers' Club. The jury,
 whose verdict alone is material to the issue,
 generally arrive at their decision without much
 consultation with members of Agricultural
 Societies and Chambers: and there can be no
 doubt as to which way their award is tending.
 Our increase of population takes place mainly
 through our towns; and the class calling them-
 selves agricultural labourers have with each
 decennial census been for many years decreasing.
 No doubt a young man, whether in this class or
 any other, is often incompetent to judge what is
 for his true interest, but it is not always till he
 comes of age that the decision in his case is
 delayed. If he has entered young enough as
 ploughboy, he will rarely change his lot, unless,
 indeed, unfortunately, he should be caught up
 by the recruiting sergeant. It is thus with the
 father that the determination of his future
 generally rests. And a jury of labourers, partly
 fathers and partly grown-up sons, are likely to
 give as true a verdict as a jury of their employers,
 in Farmers' Clubs assembled, upon what is for
 their benefit.

We notice that at Lavenham the other day
 Mr. BAKER, a member of the local Farmers'
 Club, proved to his hearers, as he has since
 proved probably also to most of his readers, that
 the ordinary agricultural labourer of Suffolk is
 upon the whole at least as well paid as the
 ordinary unskilled labourer of the town.
 Assuming fairly enough the wages in the two
 cases to be 10s. and 14s. a week respectively, and
 valuing to the former his harvest money and his
 gleaning, his garden and his cheaper cottage,
 it is found that they are nearly paid alike—
 the whole of these advantages covering the
 difference in the actual money payment, amount-
 ing in fact to 4s. a week and 4s. over—thus
 making him 4s. per annum better than the other
 on the whole as regards mere power of pur-
 chasing. But when the physical and moral
 condition of the two are contrasted, Mr. BAKER
 says that, what with overcrowding and all its
 evils, sanitary and social, in town, there is no
 possibility of resisting his conclusion, that the
 country man is by far the more fortunate of the
 two. Many instances moreover can be named,
 he says, of men in good social position, substan-
 tial occupiers of land around Lavenham, who
 have risen from the ranks of the common agricul-
 tural labourer, showing that such men are not the
 downtrodden, helpless class which it suits the
 purpose of some people to call them.

The discussion which followed Mr. BAKER's
 paper (p. 1122) is well worth reading. The
 meeting was fortunately presided over by an
 outspoken chairman, who began apparently with
 a little bit of sarcasm:—"There is one item
 which Mr. BAKER does not include in his calcu-
 lation, viz., the allotment ground—acres of
 which are let to cottagers at a rent of 1s. per
 rod." To this, however, Mr. BIDDELL replied—
 "Mine pay only 6d.;" and Mr. ORPEN—"I
 know some places where they get 10 rods for

8s."—Newcastle had been referred to by Mr. BAKER as exhibiting many of the worst features of town life; and certainly if any one desires to see his ideal of black dirt realised, he should visit the mass of houses clustered in the valley on both sides of the river Tyne. The Chairman fortunately knew Newcastle-upon-Tyne, and this is what he said of town labourers there:—

"Newcastle-upon-Tyne had been mentioned, and he could state, from experience of three years' residence in that town, that they would find nowhere stronger men, women, boys, and girls. They would find houses there, too, as neat and as clean as he could wish to see. The people there, instead of living upon potatoes, as they did in this part of Suffolk, lived upon oatmeal, broth, and peas, and their arms were twice as large as the country labourer's. In proof of this, he might mention that a gentleman who had an estate in the North took some men there from Kent, but he found that they could not do anything like the day's work that the North countrymen could. The badness of the town houses had been mentioned, but perhaps it would have been better if that subject had not been mentioned at all, as he could find places in that very town (Lavenham) which were not fit for a pig to live in. Then, again, he did not think it was fair to compare the rates of mortality in towns with those in the country, for wherever large manufactories were carried on, people would be sure to go in search of employment; sometimes they would get work, sometimes not, and many of them were really starved to death. He thought the country places were as bad as the towns as regarded overcrowding. A great deal was said about drainage, but he was persuaded one of the great causes of illness among the country people was overcrowding. He had been into houses where the father and mother, four or five grown-up boys and girls, and three or four children, all slept in one room."

Mr. RINDER did not much help the case of the agricultural labourer when he offered an explanation:—

"He was sure the Chairman would bear him out when he said that half the workmen did not deserve nice respectable cottages; they tore down the staircases and broke up the shutters to use for firewood. There really was no encouragement for any gentleman to build nice respectable cottages."

It is plain then that, whether the question be one on which a discussion before agricultural employers can bear useful fruit or not, there is a good deal to be said on both sides of it. "Town labourers are huddled together in miserable lodgings unfit for human beings." "Country labourers live in places unfit for pigstyes." "There is scarcely a native male adult in Bethnal Green who is fit for military service." "Nowhere will you find stronger men, women, boys, and girls, than in Newcastle-upon-Tyne." "No man is in so comfortable a position as the provident man in a rural district, who may earn year in and year out 15s. a week."

Probably the safest conclusions at which an outsider, patiently considering the various allegations and opinions, can arrive, may be stated thus:—Both in country and in town great poverty and great misery exist; both in country and in town the provident and well-conducted man is able to rise in his position; whether in country or in town, there is no help, even for the "helpless" classes, that can approach self-help for its power and efficiency. In the worst paid agricultural districts the young unmarried agricultural labourer has plenty of pocket-money. He can squander it and acquire habits which will render comfort in after life impossible, whatever be his earnings; or he can save it and begin life with a good character, a houseful of furniture of his own, and the best girl in the parish for his wife.

The possibilities of the agricultural labourer, whether for decent comfort or for utter misery, are at least equal to those of the corresponding class in town. And we feel sure that any considerate master, who by the interest which he takes in the lads and young men upon his farm, shall retain them in his service, and thus keep them from the chances of town life, will at least have done them no harm. Paying them as much as possible according to their work, i. e. "by the piece," and interfering successfully by friendly advice in the alternative before them of saving or of wasting wages in their youth, he will have secured for them a place in the higher division of a class which contains a large proportion of individuals living in comfort and respectability.

— THE corn trade on Monday relapsed into the inactivity and low prices of the week before last. New English Wheat is quoted at 40s. per qr. at Mark Lane, and the highest figure named for White is 41s. per qr. Fine samples of Barley are in demand, at full rates. Inferior Barley, however, and other spring grain and pulse, have followed the decline in the price of Wheat. — Beasts and sheep, and beef and mutton have also declined considerably in the metropolitan markets, the supply having been in excess of the demand.—The

seed trade has no prominent feature.—English wool, although steady in demand, does not increase in value.

— The following question deserves a prominent place. If any of our readers can help our correspondent, he and others will be very much obliged. "A Constant Reader" writes as follows:—"Will any of your able correspondents be so kind as to favour me with their opinions as to the best mode of reclaiming a large tract near to the sea, which, by neglect, and the annual cutting of Bent, has been reduced from a flourishing rabbit warren to a blank waste of shifting sand. My object is to get it coated over, if possible, with a herbage suitable to rabbits and sheep. Bent, if left undisturbed, will, in the course of time, spread over the ground, but it is not a Grass on which animals can thrive. It has been stated that extensive sand-wastes in Russia have been restored and made firm by the use of a Lupine, which has spread over their surface a coat of verdure. Could you inform me which Lupine this may be, and whether it is wholesome provender for sheep and rabbits?"

— A large public meeting of Cheshire farmers and landowners, led by Mr. G. JACKSON, of Tattenhall, Mr. BARBOUR, of Bolesworth Castle, and others, has resolved —

"That looking at the fearful loss Cheshire has sustained by the unrestricted spread of pleuro-pneumonia, and the lessons taught at Aberdeen and throughout England by the cattle plague restrictions, which stopped the progress of pleuro pneumonia for the time, this meeting strongly favours the opinion that slaughter should follow in all cases certified by the Chief Constable to be pleuro-pneumonia."

And — "That the Cheshire cattle owners, relying on their own independence, approve of the formation of a county association, to provide compensation for all animals slaughtered under the certificate of our Chief Constable, that have been slaughtered in consequence of having pleuro pneumonia, and that the Cheshire Chamber of Agriculture be invited to patronise such a county cattle insurance association."

The last resolution was not carried without opposition, and a declaration of that failure which had overtaken many similar associations; but Mr. HARBOP, of Frodsham, said for the last 17 or 18 years he had been connected with a society which had not come to grief, and which had paid some thousands of pounds compensation. It went through the cattle plague, and he could see many to whom he had paid money—one to whom he had paid 300l.; and every shilling was paid that that association had agreed to pay. He believed that a Mutual Cattle Insurance Society was practicable, and it was the thing he had been agitating for the last 10 years, as agent for the Norfolk Farmers' Insurance Company. The opinion of their manager was that 1s. per head, or at most 1s. 6d., would insure compensation to the extent of 10l. or 12l. That would not quite compensate for three-fourths or more of the loss. As to the working part, don't be afraid of that. He was sure they had intelligent men in every village, who, with the assistance of a veterinary surgeon, could distinguish between pleuro and other complaints; and supposing they did make a mistake, it was better to slaughter one in error than to leave it to spread disease throughout the neighbourhood. The resolution was put and carried.

— The prospectus of a Farmer's Supply Association has been issued, which proposes to bridge the interval between the purchaser and the producer, much after the fashion of co-operative agencies. The following extracts explain the principle on which the Association is to act; and it is, we think, so far sound, inasmuch as, by the addition of another active firm to the many rival agencies at work, it contributes to increase the intensity of that competition on which we all depend for cheapness. Among the names on the council are those of the Hon. H. W. PETRE, of Essex; Mr. F. S. CHAMPION, of Sussex; Mr. G. B. SOLLY, of Kent; and Mr. TRASK, of Hampshire; and other gentlemen. The prospectus says—"The consumer is at present separated from the manufacturer and producer, and large commissions and profits are made by intermediate agents, the burden of which falls upon the purchaser. This can only be met by farmers combining their purchases, and thereby obtaining farming requisites at a considerable reduction in cost. This combination will give farmers the control of the agency through which they purchase, and enable them to obtain genuine and first-class manufactured foods and manures, which it is now almost out of the power of a single purchaser to secure, for adulterations are now systematically practised, and the markets are full of inferior articles. It will be the object of the Association to obtain genuine articles of every kind, by purchasing only under formal contracts, guarantees by analyses, and direct of the manufacturer and merchant, so that fraud can be immediately exposed and dealt with."

— Among the subjects to come under the attention of the Central Chamber of Agriculture next Tuesday, is the variety of weights and measures still in use in corn and other markets. Mr. E. SMITH, of Amotherly, Malton, read a paper on this subject the other day before the Malton Farmers' Club, in which a number of instances of this variety are given. For example, an imperial bushel of good Wheat will weigh 63 lb., Barley, 56 lb. At Malton, however, part of the Wheat is sold at 70 lb. to the bushel, and part at 63 lb. The factors, in making their returns to the excise, estimate Wheat at 63 lb. and Barley at 56 lb. The excise, whose duty it is to give the averages, calculate Wheat at 60 lb. the bushel, Barley at 47 lb., and Oats at 38 lb. Beans and Peas are returned by the factors at 63 lb.; the excise give Beans at 63 lb., but Peas at 64 lb. These divergencies are therefore misleading in the settlement of way-going crops, where the price is fixed by the Malton averages. If we go northward we find Wheat sold by the "boll" of two bushels, Barley and Oats by the quarter, though this is not universal

The report of Carlisle market quotes down "Carlisle bushel," leaving us to infer it is 220 lb and "pack" prevail as measures. In Lancashire the Hull farmers sell Wheat at 63 lb to the bushel, factors at 60 lb. In Wakefield, Doncaster, and other places, farmers sell Wheat by the load of 14 sacks, Barley at 56 lb per bushel. In the north, Wheat is sold by the 'cental' of 108 lb. Wheat by the bushel of 70 lb., Irish Wheat the comb (4 bushels) in use, and in Hampshire market runs thus:—"White Wheat, 7s. 6d. to 7s. 7 1/2 lb.; Barley, from 6s. to 6s. 3d. per imperial sack for malting qualities, and at from 22s. 6d. to 23s. 6d. per sack of 13 score 10 lb. for grinding. Oats 23s. 6d. per sack of 14 score 10 lb., and 22s. 6d. to 23s. 6d. per 12-score sack." The county contributes its quota to the general market prevailing. Of meat, in some places 14 lb. to the stone, in others 16 lb., and in others 18 lb. In some places it is sold by the score. There is at butter, we have 16 oz., 18 oz., 20 oz., and 22 oz. the lb. We have "long roll," "short roll," and "without end."—It will be a useful service if the Chamber shall, through their affiliated societies, come to an agreement upon a point which would give much variety and difference.

— Mr. BAILEY DENTON calls attention to the need of draining the streets of towns as well as of merely sewerage its streets for house drainage. The combination of both systems of pipes results in an interchange of air and surrounding earth of their respective sides, and in dry weather, when the natural surface becomes low, the earth becomes charged with sewage imperfectly conveyed in leaking drains, the fouling of a town's site in this way with excrement is inevitably followed by disease. The remedy would be to have tight sewers for house drainage, and ordinary drains for street drainage. In this way the town site would be dry, without any chances of becoming flooded. HAWKESLEY does indeed declare that dry sewers to economise all the animal excreta of a town, we imagine that few will conclude with him that Mr. BAILEY DENTON's difficulty would be even if dry earth conservancy were a practical operation.

— Mr. GOODWIN, the Secretary and Treasurer of the Bath and West of England and Southern Agricultural Society, has issued the first volume of that Society's Journal. It is chiefly for Professor BROWN's exhaustive treatise on the foot-and-mouth disease, which will be more generally read and studied just at the present time than is generally, we fear, the case with other articles. There are also good reports on the Southampton meeting, and on local breeds of sheep. The appended Note-book is a collection of selected paragraphs from contemporary journals.

— We regret our inability to give a full week of the very interesting agricultural discussion held the other day at Lavenham, under the auspices of the local Farmers' Club. Mr. BIDDLE's very energetic promotion of the Sugar-Beet in that neighbourhood has given a good deal of interest to the agricultural proceedings of the week, and we shall next week report some of the topics of current importance, delivered by Mr. BIDDLE, and other members of the club. We understand that Mr. DUNCAN's sugar factory is working day and night, dealing with several hundred tons of roots per week; and there is every prospect of proving a permanent addition to the general supply, and to the agricultural profits of the neighbourhood.

OUR LIVE STOCK.

MR. DUCKHAM's first periodical sale of Herefords was held on the 21st inst. at the ground at Hereford, the day after the agricultural meeting. The result was satisfactory, animals being sold at fair prices. STANWORTH's ably fine bull, bred at Adforton, and the son of Mr. Tudge's prize stock, brought the highest price of 190 gs. Mr. H. R. EVANS' PRINCE OF WALES, for 105 gs., and WELLINGTON, the property of the same gentleman, went for 60 gs.: Mr. COBURN'S 2-year-old bull, made by FENN & HARDING'S NOBLE made 60 gs. Other bulls fetched from 40 to 50 gs. Mr. B. ROGERS' MESS STANTON, which was three months' old bull-calf was sold for 50 gs. for cow and offspring. The GROVE stock, to Mr. T. JEFFRIES, realised an average of 50 gs. Nearly all of them had calved recently, and the Hereford Times says, the prices added to those of their dams, there is satisfaction of the increasing demand for good Hereford last summer's bull-calves brought from 160 to 180 and averaged more than 25l. 5s., and the calves averaged more than 20l. These prices, especially to the Grove stock, but good pedigree to quality, were given for other animals.

— On Tuesday, the 19th inst., Mr. STRAFFORD's sale took place at the Prebendal Farm, and was for the most part satisfactory, as a reference to the accompanying list will show. 1811l. was realised, which represents an average of 46l. 8s. 10d. upon the 39 animals disposed of. 30 cows and heifers averaged 51l. 11s. 9d.

Two of the cows and a calf were bought for the Queen:-

Table with columns: Name of Animal, When calved, Price, Purchaser. Lists various animals and their sale details.

We are constantly reminded, by the results of the importance attached to pedigree by breeders of cattle. The sale of Mr. Empson's most excellent stock at West Ravendale on the 20th inst. was only a new proof of this fact. Only seven out of the females offered for sale brought above 30 gs., and the top price given was 37 gs. The average over the animals disposed of was 22l. 14s. 9d., and the sum total realised, 1796l. 3s. 6d. The exception to the above statement was FAUNIST, by LORD BLITHE...

THE IRISH LAND QUESTION. The following is a speech by Mr. C. R. Read, M.P., at the recent meeting of the Belfast Agricultural Society. I was at a little local show three weeks ago in the county of Roscommon, where there were 500 entries...

very well here, I can assure you that in many societies in Ireland they do it a great deal better. Now, I have a few words to say about the Irish land question. You naturally suppose that I, as a tenant-farmer, had all my sympathies with the farmers of Ireland, and I was distressed beyond measure when I found that their demands and desires were such as I think no Government, no Parliament, and no country will ever gratify. In the first place they are all unanimous on one point—they demand fixity of tenure. What does this mean, but that every man who is now occupying an acre of land in Ireland should occupy it as long as ever he likes, at the present rent; that as long as he pays the landlord his present rent the power of eviction shall be removed from the landlord, the landlord shall become a sort of lord of the manor,—but he will hardly be this, because the lord of a manor inflicts a fine whenever he has a new tenant. He will not be so well off as this, but he something like a receiver of title rent-charge, the only alteration is to be in case of a depression or advance of prices. I would ask if it is good for the country— independent of its being a flagrant assault on the rights of property—is it good for agriculture, and is it good for the nation at large, that anything so preposterous should be granted? There is another thing brought forward—namely, that the landlords in Ireland do nothing. I can assure you that is the greatest exaggeration. There is no doubt that in buildings there is a difference between us in England and the landlords of Ireland. If a landlord here has a farm of 500 acres he erects the farm buildings and farmer's house, and perhaps some half-dozen cottages; but if he had it in Ireland he would have to erect 50 cottages, 50 pig-styes, 30 cow-houses, and is there anybody, unless he is a millionaire, who could afford to do that over a large estate? On a good and well-managed estate there is a considerable assistance given to a tenant. If he wants to build a house he generally gets the slates and timber, which constitute the chief part of the expense, from the landlord. I have had shown me the result of an immense amount of money expended by landlords, which they borrowed from Government, in draining and improving estates, and not a single sixpence has been charged against the tenant. Then, again, there is a great rage against the absentee landlords. Many hard things are said about them, but I find, for the most part, that these landlords are the most generous; that their rents are cheaper; and that their agreements, when there are any (agreements in Ireland being the exception and not the rule), are more liberal, and their estates are better cultivated than those of the smaller resident proprietors. Then you have read, and you have heard a great deal said, about the cruel evictions in Ireland. I believe that the landlords in Ireland change their tenants so very seldom that they would do anything rather than turn a man out of it is possible for him to pay his rent. So much is this so, that instead of considering an improving some of their properties, as I think they ought to do, they allow them to be subdivided in a most injudicious manner. I believe that since the Potato famine there have been few evictions in Ireland; and when they tell me of the wholesale confiscation of the tenant's property by the landlord, I am sure of this, that the rabbit confiscates more of the property of the tenant in Great Britain in twelve months than the whole of the Irish landlords have confiscated in the last 12 years. But you will tell me very truly that two wrongs do not make a right, and that if anything exists which causes even exceptional injustice, that is no reason why the law should legalise that injustice. If a landlord will not grant a good tenant a lease, if he evicts him, or unfairly raises his rent when that tenant has spent a large sum of money in improving his estate before he has had a fair opportunity of reimbursing himself, I say there ought to be some cheap, competent, and ready tribunal to which that tenant could appeal to decide what compensation he is entitled to. It may be asked, what sort of court would you have? Well, there are throughout Ireland certain courts held by assistant barristers (who are something like our county court judges), and it is my opinion if you had four commissioners appointed in each county, two appointed by the landlords and two appointed by the tenants, with this legal gentleman to preside over them and only to give his vote in case they could not agree, such a tribunal would command the confidence of the tenants and would be accepted by the landlords. There is only one thing I have altered my opinion about since I have been in Ireland, and that is the buildings. I was bold enough to say in the House of Commons that I thought the present law sufficient—that if the tenant built upon the land, and the incoming tenant or landlord would not buy these buildings, he could sell them or remove them as he pleased. I thought that would be enough; but having been in Ireland for five weeks, I do not now believe it. If a landlord lets a lot of land in small patches to people, and knows they are going to build upon them,—if he winks at their putting up their cabins, or pig-styes, or whatever they be, and then evicts them, it is his bounden duty to pay the full value of those buildings, though they may be to him a source of nuisance rather than profit. Then with regard to leases in Ireland, it is said there are no leases. There are more leases in Ireland than in this part of Norfolk: there are leases for lives, for 90 years, for 60 years, for 30 years, for 20 years, and I have seen piles and piles of leases which the tenants have declined to sign, but to which I should have cheerfully put my signature, and have considered the rents to be very liberal. I am in favour of every good tenant having a lease, but sometimes you cannot make them take these leases. We were told at the North Walsham dinner the other day that the cure for Ireland was to make everyone take a 30 years' lease,

and then at the expiration of this 30 years' lease the landlord should pay for every single improvement during that time. How could you possibly have that doctrine in Ireland and not have a similar one in England and Scotland? In Scotland they have leases for 19 or 21 years, and I am sure a Scotch tenant, as a rule, expends ten times more in the improvement of the land than an Irish tenant. Then you see what happens at the end of the lease. If you take up any newspaper you see that the Duke of Argyll, for instance, has a whole list of farms to be let by tender, and the out-going tenant is no more regarded than you or I should be. Thank God, that is not extended to Norfolk, and I hope it never will be. One other remedy put forth is, that the Ulster tenant-right in the North of Ireland should be extended to the whole country. I don't think you are aware what this is. If this tenant-right was for the payment of unexhausted improvements no one would give it more hearty support than I would do, but it is paying for the goodwill of the farm—nothing more nor less than this; and depends, not on the condition of the farm, nor on the improvements that the tenant has made, but it depends for its value on the rent that the tenant has paid, and on the good-nature of the landlord who allows it to be sold. I speak to you as practical men. Suppose that Ulster tenant-right was to become law in Norfolk to-day, and suppose we who happen to take a new farm have to pay 10l. an acre down for the goodwill of the farm, why, it would ruin every one of us at this table. Instead of having 10l. an acre to lay out on our land, as we have now, we should have 20l. to lay out, and we should not receive one penny more interest for our 20l. than for 10l. at present. I ask you to raise your voices against this, and I ask you, as practical men, to say that such an extension of that tenant-right would be the most damaging thing that could happen to agriculture. One other little matter is, that there should be written agreements. Well, that may sound, and doubtless is, a very good policy; but when you have agreements in Ireland—and I have seen them—Paddy particularly objects to put his name to the agreement; he is allowed, perhaps a fortnight to think it over, and then, when asked what he thinks of it, says "Think of it! faith, your honour, I am sure you would not put in anything against me, I have not looked at it." Then he signs the agreement, and also invariably breaks it. I have heard of another thing in the House of Commons, and that is the tyranny of landlords in seizing a man's crop upon the land, and not paying him for what we call covenants and tillages. I asked a very respectable man, "Would you not think it a better custom than you have now, that when you left a farm you should have your straw, your hay, your Turnips taken at the consuming value?" "Consuming value," he said, "what would that be?" "Why," I said, "two-thirds of the market value." He said, "Your honour, I would rather sell it as I do." What is the case? When a tenant goes he sells off the manure, the hay, the straw, the Turnips, and the man who pays his tenant-right for the goodwill of the farm comes in and finds nothing upon it whatever. There is a little improvement which I think might be made, and that is with regard to a six months' notice to quit. I say there ought to be a 12 months' notice to quit farms, not in Ireland only, but in England and Scotland. But I found out that in Ireland the tenancies there are so long and so uncertain as to when they began,—as to the time of year,—that it is the invariable custom to give 12 months' notice, and, therefore, what I thought would have done them a great deal of good would be nothing more than carrying out what they practise now. Then I tried to find out a practical grievance, and I discovered what I think a little one. In Ireland the poor's rates are half paid by the landlord, and half by the tenants. This seemed a good arrangement, but the poor's rates in Ireland are so small, sometimes being only 6d. in the pound for the year, that the tenant does not get a great pull out of it, but you come to the county rate, which they call cess, and which includes the roads, and this is frequently 2s. to 2s. 6d. in the pound. This is all paid by the tenant, and I say if the policy is as good in the one case it would be still more so in the other, because those gentlemen who levy the cess very often make new roads and bridges which are permanent improvements, and sometimes the drainage of a river is done by the Board of Works, and the whole of this expense is put on the county cess, whereas I think it should be equally divided between the landlord and the tenant. I believe honestly and truthfully what I have shadowed out would meet the approval of all right-minded men concerned in the management of the land in Ireland.

MUSTARD.

Among the few monopolies which are now in existence in this country, perhaps the most exclusive is that of the Mustard trade, which is entirely in the hands of some half-dozen manufacturers. Such a state of affairs is highly detrimental to the growers of the seed, who form a large class of agriculturists. Red or Black Mustard seed (Sinapis nigra), is almost exclusively grown in the southern division of Lincolnshire, the Isle of Wight, and some part of Norfolk; there is, however, only one market for it, and all the growers must come to Wisbeach to sell their produce. This fact in itself seems contrary to present customs; besides which, only on about four Saturdays in the year can it be sold at all. This year the crop has been unusually large, the yield being far in excess of that of late years; but owing to the showery weather prevailing at the time when it was being harvested, a great deal of the seed was secured in a damp condition. Last Saturday was the chief market day for Mustard,

the town of Wisbeach being almost full of growers, the offices of the buyers were crowded from an early hour, and in the Corn Exchange all other trade was nearly at a standstill.

The manufacturers, as usual, were very independent, and the farmers, not being able to make the rates they wished, had to be contented, or the reverse, with the highest price the buyers would give. Several of the manufacturers refused to bid for grey samples, and the few who were not particular as to the colour of the seed showed a remarkable determination to give very little for it.

Although a large quantity of the seed shown was much discoloured, yet there were many samples of very fine seed, and these made fair prices: one gentleman from Gosbison, in Lincolnshire, sold a parcel of 2000 bushels—of his own growth—for 14s. 3d. per bushel; this, however, was an exceptionally fine sample. The average price for this year's seed will not exceed 10s. 6d. per bushel, and the yield will perhaps reach 24 bushels per acre; but on some of the newly broken up pasture-land the crop has been very heavy, more than 30 bushels being obtained.

Loud and long were the complaints to be heard from those who had been holders of grey seed, and some irascible individuals consigned the whole of the buyers, Mustard, and all connected therewith, to a place where, according to report, Mustard and all other calefacients will be superfluous. That the manufacturers are able to lay their heads together, and thus compel the growers to take their price, is undoubtedly unjust to the farmer; but so long as the whole trade of the article is in the hands of a few large firms, the poor producer must grin and bear it, or grow something else. Messrs. Royle and Headland state in their "Materia Medica" that commercial flour of Mustard consists of—Red Mustard, 98 parts; White Mustard, 147 parts; Wheat flour, 56 parts; Capsicums, 1; Ginger, 1/2; and Turmeric, 2 1/2 parts. Such being the case, it appears that Mustard really is not Mustard, but a compound in which the genuine seed plays only a part.

Possibly, but not probably, the Mustard-seed crushers are going to give the great British public the benefit of this cheapness of the seed, and lower the price of the manufactured article. If they do so, they may perhaps lose the bad reputation they have acquired, for it is a common complaint that good Mustard is about double the price it ought to be; consequently the temptation to small dealers to sell an adulterated article, either of their own or a manufacturer's mixing, is hard to withstand. The result is that, oftener than not, the article put on the table for Mustard is what appears to be a base compound of pea or bean meal, or bakehouse sweepings, disguised with a little oil, common Ginger, Pepper, or Chili-pods. If it be thought that bakehouse refuse is too foul a compound to use for this purpose, we would ask—how often has the reader seen a coarse dusty-looking compound on the table, in a high state of fermentation? This is German yeast, or barm, which has been introduced in some nefarious manner. No matter whether we go into hotels or private houses, one of the most unusual things we meet with on the table, is a pot of decently pure Mustard. Where this is found, however, there is no condiment like it, and with the price of raw Mustard what it now is when it leaves the grower's hands, this pure article ought to be general. At any rate, there ought not to be that monopoly which makes the pure article so dear that a great inducement is held out to unprincipled manufacturers and dealers to sell a spurious compound.

Mustard makers will do well to beware in time, for as matters now stand, with the calculation which may be made that raw seed may be always obtained at a reasonable price, a great inducement is held out to the many capitalists who now want profitable employment for their money; and if these Mustard monopolists do not reform themselves, competition will be sure to do its proper work—indeed, the very best opening, we believe, which could suggest itself now in the whole business of the country, is the manufacture of Mustard, with the view of selling a pure article at such a fair price as would stop adulteration, and thereby enable travellers and housekeepers to be sure of a good condiment when they "dine out" or send to the family grocer. *Nemesis.*

LARGE AND SMALL FARMS.

[At the late quarterly meeting of the Dalrymple Farmers Club, Mr. Smith, the President of the Society, read the following paper.]

In considering this subject I refer, of course, to the advantages accruing to the farmer, but a very slight examination will show that any advantages which we would derive would be shared in by the people at large; and for this reason, that by whatever process—whether by obtaining the same crop at a smaller outlay, or a larger crop at the same outlay, the result is in either case cheapening the products of the earth to the consumer, along with an increased profit to the cultivator. Whether this end can be best attained by large or small holdings is an undecided point, and involves the question—Which offers the best opportunity for exhaustive cultivation? Now, it must be borne in mind that the words large and small are in this case only relative—what is large in one county or district, or on one class of land, being small in another. For example, a small sheep or hill farm might be a large agricultural one. A great part of the first might not pay to be ever otherwise than in pasture, and the rent of the one might be two or three times, per acre, the rent of the other. It follows, of course, that the exhaustive cultivation of the one is impossible in the other, and the labour and superintendence required in the one case might be two or three times more than is necessary for the same extent of land in the other.

I am disposed to think, for the reasons now to be

mentioned, that a medium-sized farm is the best, and a medium-sized farm I would define as one which the lessee can fairly and carefully superintend himself, neither more nor less. There are, of course, exceptions to every rule—this as well as others—but the exception proves the rule. The disadvantages of a large farm against which there is no set-off are numerous and very evident. In the first place, and chiefly, there is scarcely any trade or profession in which a man has to trust so implicitly to servants, and in large farms this, of course, becomes more and more the case; while only faithful service can ensure satisfactory results. Practical men like yourselves can readily appreciate the difference between saying to your servant come to your work, and having to say to him go to your work. It may, quite possibly, be the difference between profit and no profit. This is a matter of much greater importance than in manufactures, because in a factory the workpeople are concentrated in one building, and constantly under the eye of the managers and foremen. To effect so complete a supervision in agricultural operations you would require a foreman for every man: it would, at least, be quite impossible for any one man to overlook the working of other men employed, perhaps two or three miles from each other. I have heard manufacturers remark (and I find the same holds good in agriculture) that the larger the concern is the greater is the danger, and, indeed, the certainty of waste and extravagance creeping into its operations. For instance, a plough may want some trifling repairs, or a horse-shoe want nails, or any one of the hundred wants continually cropping up, may be supposed to require attention, and man, horse, and implement may go off to the smithy, the wright's shop, or saddler's, perhaps two or three miles off, and at a loss of half a day. One half of these journeys, I am satisfied, would be found unnecessary were the farmer in a position always to examine the grounds of the necessity himself. On moderate-sized farms it is quite possible to find useful employment for the field hands detained indoors in winter by stress of weather; but where the servants are very numerous this is much more difficult, and involves an expenditure of wages without return. In large farms there may be some saving to the landlord, and consequently in rent to the tenant, by the concentration of buildings in one place, but I question whether this is not more than counterbalanced by the loss of time involved in men, horses, and implements having to travel long distances to and from their work. In any size of farm the extent of crop primarily depends on the amount of seed sown, but the value of the profit depends on the economical working, which in its turn depends upon personal and careful supervision. I am therefore disposed to think, for the reasons I have indicated, that medium farms may be worked most economically, and that farmers will find that after they have passed some such limit as I have laid down their profits are in an inverse ratio to the extent of their holdings. As their holdings increase, their profits get less in proportion. Of course, I do not mean that this would go on till there was nothing left, but after a certain point I believe that the farmer does not earn the proportion of profit which a large outlay and constant labour deserves, and a considerable part of his capital would probably realise as much for him if invested at fair mercantile interest, without any of the risk or toil and anxiety attendant upon money outland on a business. Every man in any business of an honest kind is fairly entitled to be recompensed for his anxiety and trouble and risk, and if the returns on his capital do not sufficiently reward him for these, his business cannot be said to be a paying one; and in this sense, to which I do not see how any objection can be taken, I question whether large farms can be said to pay. One advantage which a large farm undoubtedly possesses over a small one is the power which the holder has, on account of his extensive holding and his larger capital, to employ machinery in his agricultural operations with economy. The use of machinery involves at first a very large outlay, which, however cheap in the long run, is too expensive for a small holder. The interest, even if he could command the capital, forms a serious addition to his rent, while in the opposite case the interest will be but a small item in the whole expenditure. The possession of it gives the owner, among many obvious advantages, the power of getting his work done with the greatest possible expedition, in suitable weather, with an important saving of wages; the speedy and economical ingathering of his crops, and with the power to be early in the market, and to sell at once, should prices rule high. The last is a matter of great importance, and would weigh materially against any argument, but that I hold that machinery may be as cheaply applied on medium as on large farms.

There are two points to be considered in this connection: first, the suitability of machinery to the extent of the farm; and secondly, its suitability to the means of the farmer. As to the first, I speak from experience, because my own farm is a medium-sized one, and I find that, taking everything into account, the interest on field machinery during the time it is idle, the expense of working, &c., I saved considerably by its possession. In proportion, I am convinced, is the saving effected on larger farms, because my first outlay is proportionately less. I have a machine just now, for instance, which in three or four seasons will pay itself in wages saved, and I shall have it for nothing during the rest of its existence, which will be a very long period. I speak generally of the machinery in use in our neighbourhood, and I except steam ploughs, which, while very costly, we need not here take into account, as they are not adapted to the formation of the land around us. As to the second point, I am bound to say that those farmers who cannot or will not spare sufficient capital to provide themselves with scientific appliances for the

cultivation of their farms, are placed at a great advantage; and in the existing race of competition are easily distanced. I do not for a moment mean to have exhausted this subject in this brief time. I can only hint to you the reasons which are established in my mind the truth of the statement, that, while large farms are good, moderate-sized farms are better. Small holdings I do not think advantage. I do not here speak of small or peasant property. Were that question imported into the discussion, argument might have to be revised. Now, I would generally, and without regard to the argument, to add a few words more. The progress of science and its application to agriculture is rapid, and the farmer who neglects its teaching will speedily be stranded on the shore, while his neighbours are carried on by the tide, and if there is one thing which science, as a matter of common sense, teaches more clearly than any other, it is that if you are ungenerous and unkind to your servant when well treated, and generosity is thrown away. Bear in mind that, whatever the treatment you must always incur the bulk of the expense of generous treatment, and it is the extra which you make the profit. You have, say, a field of 100 acres, you must plough it, but it may be that it only requires a little extra labour to make it bear a good crop. Should you put in inferior seed, a great part of the labour may be lost, which would have been saved by the use of good seed, only a little dearer; or, at that a critical time in the growth of the crop, extra manure for forcing will make the difference between only a moderate and an excellent crop. Should you like to see everybody thoroughly supplied in order that the most may be made of the soil, you have none too much of it for our population, and I hope to see the time when all the soil shall be available for the wants of the people, and the land shall flourish like a well-trimmed garden.

Home Correspondence.

Depth of Drains. — I observe at p. 1094 an article on the subject of drainage, recommending the pipes to be laid from 3 feet to 4 feet below the surface, and that drainage engineers seem to be of the opinion that the deeper drainage is best. Now it has appeared to me that the depth of the drains depends mainly on the nature of the soil. I conclude from the address of this letter that for some miles around this neighbourhood the soil is clay, admirably suited for brick-making, and from 5 feet to 10 feet deep. A neighbour of mine bought an estate a few years ago, and laid out a considerable sum in draining his fields for several years, and, according to advice, laid his pipes 4 feet 2 feet below the clay. He found, however, that the water did not run off, and his fields were not better. On the cause being explained to him, he was persuaded to take up his drains, and lay them above the clay, instead of below it, where they never reached. I found this to be the case on a meadow of my own, and have been obliged to relay my pipes about 17 inches deep from the resting upon, instead of lying under, the clay. The depth of the drains must depend on the nature of the soil. *Experientia docet, Clayton, Sussex.* Your article (p. 1094) you say, "Mr. Paget recommends for 3 feet as generally a sufficient depth for pasture land." I have not therefore made myself understood. I think that 4 feet drains will be as efficient as any other, if placed sufficiently deep each other; but that when an impervious stratum requires frequent drains, and there is no bottom at the depth of 6 feet, a drain of 8 feet is much more and equally effective. I also know that when a measure is found at a greater depth, say 6 feet, drains of that depth suffice at much wider intervals, and that the saving made by using them in my case, at the least 20 per cent. On these points I think the Enclosure Commissioners would vary the depth of these drains according to the circumstances of the case. *Charles Paget, Ruddington, Nottingham.*

Woolston against Tiptree. — Mr. Smith is a man for smashing, and no doubt thinks he has done so. Mr. Mechi in his farm accounts, although I have not seen any knowledge of accounts can easily see that Mr. Smith is not an "accountant," either by nature or by teaching. In your number for October 16 he has done of another opponent, and talks very glibly of doing things in the way of steam ploughing. He states 3s. 2d. for man, coal, water, and oil, for 100 acres, and 1s. 6d. for interest and wear and tear per acre, that the whole work done was 109 acres, and this represents interest and wear and tear of ploughing apparatus. Mr. Smith's engine is a locomotive, and therefore can do no other work than the farm except threshing, chaff cutting, &c., and such like. We may, then, safely assume that the cost of the engine, or, say, 125l. out of 1000l., be put down to the ploughing tackle. Then the ploughing tackle itself, with windlass, wire rope, &c., implements, cost 250l., so that we have 125l. on which to charge interest, wear and tear, &c., what Mr. Smith has forgotten altogether. It is customary to reckon 5 per cent. interest, and 10 per cent. for wear and tear, and 5 per cent. for depreciation and repairs account for wear and tear. We have Mr. Smith's "repairs account," so I will take the usual way of 15 per cent. to cover all three. 15 per cent. on 375l. amounts to 56l. 5s., instead of 37l. 3s. 6d., which Mr. Smith allows! I believe, however, that 109 acres is not the whole quantity under plough each year at Woolston, but I think it is under-estimate it if I reckon it to be 120 acres.

actually ploughed each year. But 562.5s. spread over 25 acres would amount to 5s. per acre for interest, wear and tear, and depreciation, instead of the simple 6d., which Mr. Smith puts down. Can Mr. Smith clear himself of this alleged miscalculation as easily as Mr. Meets? Mr. Meets shook off the Woolston sophisms? G. A. H. Mr. Smith's 1s. 6d. per acre means so many shillings a day; and that, over the number of days in the year on which Mr. Smith's farm were large enough, the engine would be at work, is, we presume, his justification of the argument. One shilling and sixpence an acre is 12s. a day, and a use of the engine during 100 days per annum would, at this rate, involve a charge of 60l. for interest.]

Cost of Steam Cultivation on the Woolston System.
 "Agricola" p. 1120 shall have the particulars for Mr. Bates' letter was in the Times of August 1, 1869, "Agricola" had better get a copy of that paper, and also a copy of your paper of January 1, 1869, and see to the "correctness" of them himself; and he will do so, for it is not gentlemanly to openly doubt statements when a sufficient reference is given. Now for the particulars:—

- 1. Finished harvest.
- 2. Started the smashers by steam-power on part of No. 1 heavy land, 20 acres.
- 3. Worked all day.
- 4. Finished the 20 acres at 10.5 A.M. Then shifted the tackle to No. 2, heavy land, and started.
- 5. Worked all day.
- 6. Finished No. 2, heavy land, at 5.10 P.M., 22½ acres; then shifted to No. 1, heavy land.
- 26. Sunday.
- 27. Worked all day.
- 28. Worked all day.
- 29. Finished No. 1, heavy land, at 8.20 A.M., 16½ acres. The men were at dung cart the rest of the day.
- 30. The men at dung-cart all day.
- Oct. 1. Tackle shifted to, and started on light land, No. 6, working the ridger and subsoiler.
- 2. Worked all day on No. 6.
- 3. Sunday.
- 4. Finished No. 6 (14 acres) at 11.20 A.M., then shifted and started the ridger and subsoiler on No. 1, light land.
- 5. Worked all day on No. 1.
- 6. Finished No. 1 (12 acres) at 8.20 A.M., then shifted the tackle and set the smasher to work on No. 4, light land.
- 7. Finished No. 1 (12 acres) at 11.50 A.M., then shifted the tackle to No. 5, light land, setting the ridger and subsoiler to work.
- 8. Worked all day on No. 5.
- 9. Finished No. 5 (12 acres) at 11.15 A.M., and then packed up the tackle for the year.

The total consumption of coal has been (on the 100 acres) 18 cwt., or an average of 1 cwt. 2 qr. 17 lb. per acre. A boy only 15 years of age worked the implements during the whole period.

I have noticed Sundays and dung-cart to make it quite clear as to the working days. It may be seen that I smashed 71 acres in 8½ days, and that I ridged and subsoiled 38 acres in 6½ days. The former was done at a depth of 6 inches, and the latter from 10 to 12 inches. Now, I must give a day's working expenses when working the ridger and subsoiler.

Engine man	.. .. .	per day	3s. 6d.
Windlass-man	.. .. .	.. .. .	2 6
Two anchor-men	.. .. .	.. .. .	5 0
15-year-old plough-boy	.. .. .	.. .. .	1 6
Plough-boy's assistant	.. .. .	.. .. .	2 6
Two roller-boys	.. .. .	.. .. .	1 6
Water fetchers	.. .. .	.. .. .	2 0
			18 6

The ploughboy's assistant is not needed with the smasher, therefore the cost for men at that work stands at 16s. per day. The average daily consumption of coal was 1½ cwt. and a fraction, 99 cwt. to smashing, and 99 cwt. to ridging and subsoiling. The 71 acres of smashing in eight and a-half days stands thus:—

Men for 8½ days, at 16s. per day	.. .. .	£6 16 0
Coal—4 tons 19 cwt., at 16s. per ton	.. .. .	3 19 2½
Oil, at 9d. per day	.. .. .	0 6 ½
		£11 1 7

—or an average of 3s. 2d. per acre, yet not quite, for I had thrown fractions away. The 38 acres of ridging and subsoiling in six and three-quarter days stands thus:—

Men for 6½ days, at 18s. 6d. per day	.. .. .	£6 4 10½
Coal—3 tons 19 cwt., at 16s. per ton	.. .. .	5 8 2½
Oil, at 9d. per day	.. .. .	0 5 0½
		£11 18 1½

—or an average of 5s. 1d. per acre, and a very little fraction over, and that is all. In my letter of October 11, I stated that the smashing cost 3s. 2d., and the ridging and subsoiling cost 5s. 1d. per acre; therefore "Agricola" may now see the data upon which my statement was founded in both cases: 1s. 6d. per acre must be added for interest of money and wear and tear. Now, let me tell "Agricola" one fact: I am now getting my 6 acres of Mangels, and the last year's ridging and subsoiling for them, at a cost of 7s. 3d. per acre, has left the land in such a beautiful condition that it will need only a cultivating with horses, at a cost of 2s. per acre, for Wheat this autumn. "Agricola" may, if he likes, see this done, and he may also see my Wheat that has already been planted on seed-beds costing only 6s. 3d. per acre, steam and horse-power work included. Yes; and there is my ridged work to see if he likes: I will stand no nonsense about his "doubts." William Smith, Woodstock Station, Bucks, Oct. 25.

Mangel Running to Seed.—Referring to your article on the running to seed of Mangels, I have a small field of 5 acres planted with this root. One half of it was drilled with seed obtained from Sutton's, and on this portion very few indeed have run away. On the other half, from seed purchased of a local dealer, a very large percentage have bolted, and I have from time to time had them topped. I must observe that the seed was cultivated and treated in every respect alike, and only one day intervened in the drilling. This would appear to do away with the theory of the season being the cause, as the weather was the same in

both parts of the field, and in my case it would appear to be caused by the difference of seed. F. W. Bignell, Loughton, Stony Stratford, Oct. 22.

Sand for Bedding.—Sea-sand has been used in my stables, in place of straw, for the last two seasons. Eleven horses, seven of which were hunters, have been free from colds, they have also had cool feet, and there has been no scent of any sort. Hampton-Lewis, Heallys, Beaumans, October 24.

Societies.

BATH AND WEST OF ENGLAND.

Bath: October 26.—At the usual meeting of the Council it was resolved that the Taunton meeting (1870) shall commence on Monday, June 6; and the Council having approved the stock and poultry prize sheets, ordered that they be forthwith printed and circulated. The total amount offered in prizes exceeds 1350l. To encourage proficiency in horse-shoeing Mr. Miles, of Exeter, again offers three prizes; it being stipulated that no man who has won a 1st prize in this competition will be eligible to enter. In the stock classes all entries must be made on or before April 20, in the poultry classes on or before May 1. Among the special conditions affecting the exhibition of stock are (1) the appointment of two inspectors to examine sheep on their admission to the showyard, with instructions to report to the stewards any cases in which sheep have not been really and fairly shorn bare, and (2) that "all cattle will be required to be paraded in the ring at least once a day, at the discretion of the stewards."

The Meeting of 1871.—Mr. Ramsden having presented an invitation to the Council from a public meeting of the inhabitants of Guildford and neighbourhood, for the Society to hold its meeting there in 1871, a deputation was appointed to visit the town, to inspect the ground offered for showyard and fields, and to report to the Council at the next meeting.

Farmers' Clubs.

HENHAM

The Development of the Agricultural Resources of Great Britain.—Mr. J. HOPE, jun, read, on Tuesday week, a paper on the above subject, from which we make the following extracts—When I consider the great importance of British agriculture in its relation to the supply of food to the people of the United Kingdom, I think I have introduced a subject worthy of the attention of all who take an interest in the prosperity of the British isles. I may say, in commencing, that I have no extravagant theory to present to you, or Utopian scheme to enforce, nor even to indulge in flights of imagination, but in a sober, rational, and earnest manner to present to you some considerations of a matter-of-fact character, that may tend in some very humble way to the development of the agricultural resources of this country. I do not expect (in our time, at least) to see Turnips growing on the top of Skiddaw, Potatoes on the crest of Snowdon, white Wheat on the summit of Ben Nevis, nor even Cabbages on the ridge of the Dunkerron Mountains of Kerry. As the quantity of land in these islands cannot be increased as the inhabitants increase, and as we do not possess the resources of Brother Jonathan in being able to go "further west," as found necessary, we must make the best (the very best) use of what resources are at our disposal. In this age of wonderful schemes it is not very likely that any great engineer will be able to shift us from our insular position by drifting us down south, say between Madeira and Morocco, therefore we must be content with our temperate, rather foggy, and uncertain climate. However, it has this important advantage, that it is able to grow the finest beef and mutton in the world.

Population.—According to the census of April, 1861, the number of inhabitants in the United Kingdom, including the Channel Islands, Isle of Man, &c., was 29,334,710, and now in October, 1869, taking into our calculation the annual addition to our population, our numbers will be 31½ millions; and in 50 years more, according to the present ratio of increase, our people will have doubled their numbers. And still further to show the development of the Anglo-Saxon race, we may say that the United States doubles its population in 25 years. "Should the same rate of increase go on (I here quote from C. A. Coke's census) England and Wales (not the United Kingdom) in 1901 may be expected to number 36 millions of the human race, which in the succeeding 50 years, or in 1951, may be increased to 73 millions, nearly four times its present inhabitants. This, however, is a point none can determine. We can but estimate the probabilities of the future by the increase of past years." On an average 373 persons reside on a square mile of surface in England, and, with the exception of Belgium, with 400 persons to a square mile, is one of the most densely populated countries on the face of the earth.

Food.—The supply of food to the nation is one ever increasing in its urgency, and its importance brings us to our subject. It is granted that our population numbers 31½ millions, we may ask the question, how much corn is required annually for our own consumption? Some political economists of eminence calculate that 1 quarter of corn is required on an average to feed every man, woman, and child for one year, and some also, of good authority, calculate 6 bushels per head. As the truth generally lies between extremes, so probably it may do so in this case. In my calculations I will assume the medium quantity to be nearest the truth, and I find we will require about 27 million quarters of corn for the food of the people of the British Isles.

Our Corn Growing Resources.—Taking the Board of Trade returns for 1868, which is the latest and best authority we could get, we find the following results for the United Kingdom:—England: 3,396,890 acres of

Wheat (310,000 acres increase over 1867, partly in consequence of the failure of the Turnip crop); 1,790,210 do. Barley; 1,488,170 do. Oats. Wales 130,552 acres of Wheat, 151,608 do. Barley; 257,153 do. Oats. Scotland—124,893 acres of Wheat, 219,515 do. Barley. 1,011,430 do. Oats. Ireland: 286,790 acres of Wheat, 183,252 do. Barley, 1,699,919 do. Oats.

Wheat Grown.—For the present we will only concern ourselves with Wheat, or human food. We had in the United Kingdom in 1868, 3,951,018 acres of Wheat, or in round numbers 4,000,000 of acres; taking 3¼ quarters (some say more) as an estimate, we find that in 1868 we grow in these isles about 1½ million quarters of corn.

Wheat Imported.—According to the Economist, our importation of Wheat for 1868 was in round numbers rather over 8 millions of quarters, which practical agriculturists say can be grown at home. For a period of years past our average annual importation was 10 millions of quarters of corn. The annual increase of corn required is about 200,000 quarters for the increase of population. And now, taking into account the proportion of Rye, Oats, and Barley consumed for human food, you will find our original estimate of the annual consumption per head to be very near the truth.

Dr and Cr Account.—I look upon every effort that is made for the increased productive power of our isles as being to the credit or profit side of our country, and I also look upon all land that is farmed under its productive power for want of capital, knowledge, industry, energy, or other causes, as being to the debtor or losing side of our country.

Beef and Mutton.—Leaving this corn question for a time I will now turn your attention to the question of beef and mutton, and taking Dr. Wynter's statement of the annual consumption of London as the basis of our calculation, I find it requires (exclusive of fish, fowls, rabbits, hams, bacon, &c.) 1,500,000 sheep, 250,000 oxen, 30,000 calves, and 30,000 pigs, and taking into account the fact that the population of London is 3,000,000, which forms about the tenth part of the population of the United Kingdom—in round numbers 30,000,000 (the Mark Lane Express of the 11th inst., in speaking of the corn question, makes use of the same quantities, and as this was written a week previously, it is a coincidence and also a confirmation)—and I find that we require, as near as I can come, for our annual consumption, 15,000,000 sheep, 2,500,000 oxen, 300,000 calves, and 300,000 pigs.

Cattle Imported.—The cattle imported are as below specified. I arrived at the conclusion by adding one-third to the first eight months made up and published by the Board of Trade so as to bring in the last four months of the year:—Cattle, all kinds, 124,781; sheep and lambs, 386,394; swine and hogs, 29,304. There are also comparatively minor imports of salt beef, pork, bacon, hams, &c., which I do not take into account. It will be observed that in comparison with our own importations, our importation of live cattle is of a very minor character.

Number of Live Stock.—The following figures will show the number of live stock in the United Kingdom in 1868, with the increase and decrease over and under 1867:—

Cows, 3,625,137	.. .. .	Increase, 52,343 over 1867
Other kinds, 5,458,279	.. .. .	299,800 "
Sheep and lambs, 95,607,819	.. .. .	1,789,861 "
Pigs, 3,189,167	.. .. .	Decrease, 1,081,933 under 1867

Effect of High-priced food on Stock.—"The high price of pigs and sheep in 1866 had the effect of increasing the number in 1867, and the very large decrease of pigs in 1868 was caused by the high price of food in that year." We see how wonderfully the law of supply and demand—the only just standard of value—can regulate our supplies of food with a precision that is perfectly astonishing, and with results that are of most reliable data for our information, and help us to understand the science of Political Economy, and to know that the balance can be kept without any paternal Government aid or centralizing influence.

Land and Crops Required.—The total area of the United Kingdom is 77,513,000 acres. Of these, 22,164,584 are under permanent pasture, and 11,659,855 under corn crops—a part of which, Barley, Oats, Beans and Peas, are used for cattle food—and under Turnips, Mangels, &c., 2,782,131. The total acreage under crops is 45,652,545, which leaves a balance of 32,000,000 acres of what is called waste lands, which we will not take upon ourselves to specify, as the Board of Trade say "that land capable of cultivation, but lying waste and untilled is erroneously returned under the heading of 'bare fallow or uncropped arable land.'"

Importations of Feeding Stuff.—We import in vast quantities Oats, Barley, Maize, Peas, Beans, Millet, Lentils, &c., the quantities of which we cannot now go into, and also immense quantities of linseed, cotton, rape and ruben cakes, containing, as our agriculturists have found, the highest and most nutritious and flesh-forming substances, with least waste of ash, moisture, and other useless matter, and also containing, as a matter of necessity, the richest manurial value—in fact, being worth nearly half the cost for that only—and with Peruvian guano advanced 10s. per ton last month, this item forms a very important estimate in the grazier's calculation. Linseed cake is, in its nature, the article that can be quickest manufactured into beef, &c., it is, in fact, concentrated ready for immediate transformation into the living organism. In this wonderful arrangement of indirect manure purchase we see the compensating clause of Nature, and how also "the liberal soul shall be made fat" in increased fertility and larger crops.

Turnip Crop.—We know that Turnips contain an average proportion of 90 per cent. of water, and being now rather an uncertain crop—to a certain extent—and the corn-land being required for food for man, not for cattle (as per statements of foreign corn imported as previously stated), we find we are fairly brought to

the question of "The development of the agricultural resources of the United Kingdom"

Waste Lands.—We have 32,000,000 acres of what are technically called waste lands. Of these there are (published in 1863) 2,000,000 acres occupied with woods and plantations, 7,000,000 acres in Scotland consist of sheep pasture (at a considerable elevation, and little improved), 8,000,000 in Ireland unenclosed (generally quite unimproved), 3,000,000 acres are mountain and bog, 12,000,000 acres consist of unimproved and very unproductive lands of every other kind. While I admit most freely that a large portion of land is farmed in very high, first-class condition, I also am compelled to say, from practical agricultural authority, that a very large proportion is cultivated in such a way as to be very unproductive, and also very unprofitable. In the matter of the reclamation of waste lands much has been done, but more remains to be done, and I look forward to the future of our country with promise, because the spirit of enterprise is abroad, and young England is putting on the armour for the foe. There are now victories, bloodless conquests, to obtain over the vast resources of the forces in Nature, and countless laurels for agricultural heroes to obtain, in which they will receive the blessings of the poor, the hungry, and too often famishing, population of our people, and in which they will know that "Peace hath her victories, not less renowned than war."

Suggestions.—In the few suggestions that I have to make I feel the need of much wisdom in touching on those great questions which lie before us, and wish to speak with perfect kindness and forbearance, and humility, knowing, as I do, that many older and wiser heads than mine have failed to solve or settle the following problems, which bear directly on the solution of our subject. The conveyance of land should be shorn of its cumbersome and expensive character, and be placed on a simple and equitable footing, so that the sale of land may become as simple—though not quite so quick—as a quarter of corn; as it is, the premium charged and the delay attendant is a disgrace to our legislators. The law of landlord and tenant might be so contrived as to be not "one-sided justice" to either, but with such covenants for the mutual protection of the rights and properties of each as to produce a good understanding between them. In homely language, we may say that they sail in the same boat, their interest being incidental; and where this is not the case improvement is stopped, and land deteriorates in value. Good leases, and fair compensation for improvements on both sides, and in cases of dispute a reference to a wise arbitrator, would lead to this desirable consummation, as will also the consideration of the next point. A settlement of the Game Law question, probably by the medium of a mutual compromise between the landlord and tenant, treating rabbits simply as vermin to be quickly destroyed as a nuisance, leaving the landlord the enjoyment of the hares and winged game, as already suggested by a large number of tenant-farmers and landlords, and thus doing away with the prolific source of dispute, the "gamekeeper," the tenant himself seeing that the hares and winged game are looked after for his landlord's shooting. I believe this question will soon be settled by the sheer force of common sense, and I heartily wish it a speedy burial. The waste lands to be improved, so as to develop our resources, and employ our able-bodied paupers who cannot get work. As land is a sound investment, it is to be hoped that there need be no lack of capital after the bursting of the bubble "limited liability," with its extensive depressing results; and after the money lost on foreign loans and Quixotic enterprises, I doubt not that money would be to be had on a safe, though slower, investment in the reclamation and improvement of the land of our own country. No more wilful waste should be countenanced in the matter of sewage, which is nothing else than "national loss," and the utilisation of it will be a source of national gain. The sanitary laws alone (apart from the question of finance) will compel us to take up this question.

More Meat, more Manure.—The manufacture of more meat, more manure, should be encouraged, primarily as a source of profit in the animal; and, secondly, as a fertilising power to aid in developing our resources. It can be proved that the quality of a farm is before its quantity, so that as far as possible every acre of land should be brought up to the highest state of efficiency, so as to double its producing power, and sell off 200*l.* or more instead of 100*l.*, and still under liberal treatment maintain its efficiency.

Rents.—As rents have increased, so have our crops, and power of producing corn and cattle. This shows that it has stimulated enterprise, by introducing improvements on every hand, in the shape of drainage and machinery. Free Trade showed this country the necessity of flinging aside notions of standing still, and induced us to go on with the spirit of progress, so that it has not by any means been an unmixed evil to the agriculturist, but otherwise.

Education.—The lack of good education in an agriculturist is simply undeveloped power, for if in any age the aphorism is true that "knowledge is power" it is so now. The leading general principles of science should be taught, so as to enable the farmer to grasp the leading principles of cause and effect in all their varied relationships with the laws of Nature; character of the soil, with regard to its capacity for bearing certain crops; the nature of the growing plant, its culture, and proper nourishment; the knowledge of the laws of life and health of the living animal, so as to develop this knowledge in a utilitarian way, with a view to increase and profit. This knowledge must go hand in hand with experience, to be of a strictly practical character, it being quite impossible for any man actively engaged in the business of farming to sit in his study all the day long; this can only be done by the literary man. "We must have men of thought," and we must also have "men of action."

The Peasant.—Better dwellings are in many places required by our peasantry. Better houses often mean better morality. The better education of the working power of the farm would enable the labourer to take a keener interest in his work, and an intelligent pride in the working of the same. A well-educated peasantry would also prove the best safeguard of our country's prosperity, and would help to solve the puzzling social questions awaiting solution, to wit—pauperism, crime and other kindred questions. I most cordially sympathise with all men who are labouring in an earnest and thorough way for the amelioration and solid instruction of our working people, for I believe the training and development of a noble race of men and women to be of vital importance to our nation.

Reviews.

Horses and Stables. By Colonel Fitzwygram, 15th (the King's) Hussars. (Longmans, Green, Reader & Dyer.)

A title-page with not a wasted word, a list of plates, a table of contents; and then Chapter I. on Ventilation, beginning "Pure air is as important to the integrity of the blood as wholesome food to the maintenance of the body;" no "Introduction," no "Preface"—the character of the whole work is illustrated by this directness and simplicity of its commencement. "Horses and Stables" is a very good and useful book, containing a fund of serviceable information in a succession of well-arranged short paragraphs. In section 10 of Chapter I., which relates to the ventilation and construction of stables, we read the cubical dimensions per horse in a number of public and private stables. They vary from 300 cubic feet in many of the inferior cab stables, up to 2500 cubic feet in the Royal Mews. A common dimension is 700 cubic feet; all the barrack stables quoted being, however, more. This and the other chapters of the book are illustrated. We have, for example, plans and elevations of good and faulty stables, the former yielding light, fresh air, and ample room to every horse, the latter imperfect in all these particulars. The first part of the volume relates to stables and stable management; the other parts more directly to the horse and to its treatment under disease. We shall bring the work under the notice of our readers by occasional extracts.

The Poultry Yard.

EACH season brings its duty, and to those who love order, even in their hobbies, the preparation for winter comes as naturally to them when thinking of their poultry, as it does when the first chill suggests the wisdom of making some difference in costume.

With the recollection of the unusual heat of last week fresh in our minds, we thought a friend was mistaken when, while looking with us at some stock, he said, "You must now look for daily decreasing light and increasing darkness, for cold nights and mornings." Impossible, thought we, the change would be too great, but it came.

Many do not sufficiently calculate the great change that takes place while the days shorten and the nights lengthen. The sun loses power, the earth becomes chilly; no growth of Grass, no animal life, nothing for poultry to eat but that which is given by hand. In many places, till this time, the chickens, now nearly as large as their parents, have roosted out and about. They have squeezed themselves still into the rip, in which they roosted when they were first deserted by their mother. They have perched on low rails and in hedges, but that must now be put an end to. During the long nights between this and Christmas they want more shelter than Nature has given to them. It is perfectly true that all her works are perfect, and that all are fitted for the weather they have to encounter, but anyone who has had the opportunity of watching birds will soon know the difference. Instinct teaches a bird at roost in wet weather to form a slope of its body to shoot off the rain. With the head tucked into the feathers, the legs drawn up and the body drooping from the shoulders, the rain runs off. We have seen it run a stream from the tail of a pheasant; but we have brought up our birds artificially, and they cannot bear the same hardships that one can which has never been sheltered. We have often wondered that in a wet time partridges should find the places they do. On the shelves of beetling banks, in the mouths of rabbits' burrows, under the roots of large trees—they choose fit shelter with admirable instinct. They are equally clever at sheltering themselves from cold winds. Our fowls, however, look for shelter to the places and contrivances they have always known, and it is for that reason we must, now the weather is changed, make fresh arrangements for them.

Where there is plenty of room there is no difficulty. All that has to be done is to bring the chickens into the fowlhouse to roost. This is sometimes troublesome, because after the hen has left the chickens they still roost in the rip, and when they are too large to do so, they roost, some in, some outside. We find the easiest way is to move the rips away. Nothing else is of any use; fowls firmly believe there is no place like home. Where twelve little chickens roosted for warmth after their mother had left them, 12 nearly full-grown fowls persist in lodging. It is a squabble towards roosting time, squeezing and screaming, the strong ones making good their entry, the weaker edging about till they get opposite the door, when they are out in a minute. This goes on till it is quite dark, when they settle down as they can. Some, however, roost on the top of the rip. It may be suffered while the nights are warm and comparatively short, but as soon as the weather breaks, and the nights lengthen, they must be brought to warmer and more secure roosting. The rips must be taken away, and the birds

driven into the house where they are intended to roost. After this has been done for a few nights the chickens take to it regularly. It may be that young chickens are almost too many for the place. If they are allowed to live in it, disease would be the consequence. If you have no other space to give them, do at once kill the faulty birds; care and food are not to be thrown away upon them, and the older they grow less they are worth. The perfect birds increase in value as they get older, till they attain maturity. Those that, from defects or absence of certain qualities, are destined for the table, become less valuable because they get older and more unprofitable, from each increasing their cost. Nothing destroys more pleasure so much as overstocking, and looking the fact that the little chickens of Manx are large fowls now. If you mean to do well, they now come to kill or sell.

The Birmingham entries close on November 1st. There is no accepted definition of the word used in an exhibition sense. When Birmingham first each percentage a cock and three hens or pullets it was altered to two, then, in the case of game, to one. The cocks and pullets are shown separately, and a definition of an exhibition pen, we say a cock and two hens. We advocate moderate feeding, with the best we give all the help we can, but as we like to know we are giving, we avoid prepared foods.

Farm Memoranda.

WESTER ROSS: Oct. 20.—A more bountiful and tantalising harvest we have not had in the West of Scotland for a very long period, and much more has been sustained. In the later districts a great deal of the crop remains out, and much of it must be all but spoiled from the length of time it has lain in a soaked condition. On August 19 we commenced harvest with six scythes, a smaller number than we used as the crops did not ripen simultaneously. We commenced on September 9, and on the evening of September 10 we left in the fields as much of the crop as we occupy three days in carting home. The rain, however, on the 12th, and no less than four days elapsed ere we got the three days' leading crop gathered together the remainder of the crop. The last of the crop brought home, it is superfluous to say, in anything but a good condition, on the evening of October 9. We cut 150 acres of Wheat, Oats, and Barley. The number of stacks was about 80. The whole of the cutting, gathering, binning, stooking, and carting, that being 26*l.*, or a little under 3*l.* per acre. Scythemen had 3*l.* 6*d.*, binders, 2*l.* 6*d.*, and gathering, 1*l.* 6*d.*, and rakers, 1*l.* 2*d.* per day. The rations. All the half-year servants were engaged in the harvest work, and their wages included in the harvest expenses, consequently the outlay is very much lessened. We employed a man for several days in cutting the crops on the farm adapted for it. The work was admirably done, every ear being in its right place, but the expense was certainly not less than with the scythe. The same result followed the machine as at other times were obtained with the scythe, and it was found that, although the machine seemed to have quite encircled the sheaves out of the way, yet, when the sheaves were scarcely so much ground gone over as the scythe. We did not anticipate that the expense of harvesting would be lessened by the use of a reaper, and consequently felt no disappointment in the result, and neither do we anticipate that there will be any material lessening of the expense in the future, as long as labourers are so abundant and wages so low, but the advantages resulting from having a reaper incomparably better than the scythe, especially when the crops are not their universal use, especially when the crops are not their universal use, especially when the crops are not their universal use. Notwithstanding the beneficial changes that have been made on the reaper, there is still a great deal for improvement. There is a liability to break down, interruptions which are not convenient on a large farm, besides numerous evils resulting therefrom, which one never bargained for. A servant, a few days ago, reached a neighbouring farm breathless, and that she had been sent to ask what the cause of the calamity had befallen them, as they had seen her there, their servants pass on horseback at a life-gone rate. She was informed that the servant had not gone to the stably with a broken harness, but a reaper. Our grain this year is of very various kinds, all that was secured before the rain is very much what was overtaken by it is greatly discoloured, and much of it sprouted, and must be in an unfit condition for months to come. The weather, however, is now to have settled, and the remainder of the crop is being gathered in. Potato lifting, which has been hindered by the weather, is now being prosecuted. Few fields of Wheat have as yet been sown, and with a view to the possibility of settled weather, a large breadth would be sown. We in the North are taking very little thin-seeding, but the tendency is fairly in that direction. With good soil, in fine condition, a very large quantity of seed is sufficient. Cattle are selling well, while sheep have greatly advanced in price, and there is, no doubt, by the disease among cattle.

ABBERTON, WORCESTERSHIRE: The allotment system.—We have much pleasure in calling attention to the result of a trial of the allotment system on the estate of William Laslett, Esq., at Abberton. It is a benevolence, and always a friend of the labourer, ready to express his friendship in a substantial manner, determined upon making an experiment with a few small allotments, so that he might be able to do as a means by which the hard-working

New Bedding Plant, Veronica Blue Gem.
THOMAS CRIPPS AND SON have great pleasure in announcing that they have purchased from Mr H. Warren, of Salisbury, the entire STOCK of this very distinct and useful plant, which excited so much admiration at South Kensington on the 21st ult. Unlike other shrubby Veronicas, it is of a neat, dwarf habit, the parent plant being only 9 inches high; the foliage is small and box-like, the axils of nearly every leaf producing large spikes of mauve flowers, making the plants appear literally clothed with bloom. It commences flowering when only 2 inches high, and continues in bloom throughout the season. Awarded first-class Certificates this year at Salisbury, Sherborne, Shirley, Bath, and South Kensington, and described by the *Gardener's Chronicle* as "a fine acquisition," and by the *Cottage Gardener* as "one of the prettiest plants that have been exhibited this year; its dwarf, neat habit will make it very useful for bedding and decorative purposes." Plants ready in May next, at 5s. each, with the usual discount to the Trade on six plants.
 The Nurseries, Tunbridge Wells, Kent.

Camellias, Azaleas, and Epacris.
HENRY WALTON, having a large stock of the above, finest plants possible, well set with bud, being all home worked, can with confidence recommend them.
AZALEAS, 24s. to 63s. per doz. | **CAMELLIAS**, 24s. to 63s. per doz.
EPACRIS, 15s. to 24s. per dozen.
 Having several hundreds of beautiful trained Azaleas, from 2 to 4 feet, fine for exhibition purposes, 10s. 6d. to 63s. each; also fine Half and Specimen Camellias, 10s. 6d. to 100s. each—this is a favourable opportunity for parties furnishing new houses or improving their present collections. Trade liberally dealt with. CATALOGUES on application.
 Edge End, Marsden, near Barnley, Lancashire.

Gladioli—Roses.
M. CH. VERDIER Fils (late Firm of Victor Verdier, Paris, has just published his new CATALOGUE of GLADIOLI, containing all the Novelties of the Season, which may be had free on application to his London Agents, Messrs. SILBERRAD and SON, 5, Harp Lane, Great Tower Street, E.C.
 N.B.—His CATALOGUE of NEW ROSES (which will be sent out next season) is also ready, and can be had on application to the above.

Roses, New Roses (Trade Price).
LÉVÉQUE ET FILS, NURSERYMEN, 132 and 134, Boulevard de l'Hôpital, Paris, begs to offer good and healthy plants of—
TEA ROSES, grafted and on their own roots, grown in small pots. *Maréchal Niel*, £4 per 100.
Souvenir d'Elise Vardon, Jean Pernet, M. Furtado, Madame Margottin, Reine du Portugal, (Climbing Devonensis, 10s. per doz.
Marie Staley, Marie Ducher, Adrienne Christophe, Colina Noirey, Montplaisir, &c., 15s. per dozen.
Vicomtesse du Cazes, Madame Falcot, Niphotos, Safrano, Triomphe du Luxembourg, Bongère, Adèle Jougant, Ophélie, Souvenir d'un Ami, Pachtolo, and all the best sorts, 6s. per 100.
SOUVENIR DE LA MALMAISON, on their own roots, in pots, 40s. per 100.
DWARFS, Hybrid Perpetual, the best sorts, strong plants (four choices), 40s. per 100, £9 per 1000.
STANDARDS, clean stems, strong heads, all the best sorts (four choices), £5 per 100.
Do., *Maréchal Niel*, £6 per 100.
BARONNE DE ROTHSCHILD, splendid sort, strong dwarfs, £4 per 100.
 Fifteen per Cent. Discount on the NEW ROSES of this YEAR. To be sent out for the first time next November.
 Lists and CATALOGUES on prepaid application.

Laurus latifolia
(CERASUS LAUROCERASUS, var. LATIFOLIA).
L. PAILLET, NURSERYMAN, Chateaux les Sceaux, near Paris, France, offers to the Trade for the first time his splendid new LAURUS, obtained from seed, between a seedling of *Laurus colchica* and *caucasica*. The immense size of its beautiful deep green foliage, its great hardness and rusticity, combine to make this novelty the most valuable of ornamental Evergreen Shrubs for Parks and Gardens. After having been planted in the open air for two years, the leaves of this variety attain a length of from 11 to 12 inches, and a width of from 4 to 5 inches. Price 12s. 18s., 20s., and 25s. per pair according to size. One plant over, set gratis, which are more. An illustration and further particulars will be sent on application by registered letter.
 All kinds of new and other Roses, disposable in large quantities, at low prices.
 Special culture of FRUIT TREE STOCKS, Young SHRUBS, and FOREST TREES, disposable in immense quantities at very low prices.
 All orders must be sent to Mr. L. PAILLET as above; or to his Agents, Messrs. R. SILBERRAD and SON, 5, Harp Lane, Great Tower Street, London, E.C.

Fruit Trees and Onions.
J. SCOTT, The Nurseries, Merriott, Somerset, calls attention to his fine Stock of FRUIT TREES, one of the largest and healthiest in the Kingdom. He has also for Sale several tons of prime large ONIONS, and from 10 to 15 bushels of Pickling do. The ORCHARDIST, the best work on Fruit Trees, with Descriptive and Cultural Direct, price 1s. 6d., in stamps.
Fruits and Fruit Trees.
J. SCOTT, The Nurseries, Merriott, Somerset, has now in his fruit room about 550 sorts of PEARS, which he offers, in named collections, at 1s. per dozen sorts. Cash with order; small sums in stamps. Orders for FRUIT TREES will be carefully attended to. 1000 sorts of Pears, 70 of Apples, 170 of Pines, 150 of Cherries, and other kinds in proportion. They are grown as Standards, 6 to 7 feet; Pyramids, 8 to 7 feet; and Bushes, 3 to 4 feet high, also Dwarf-trained fine healthy plants, and are described in the "Orchardist," the best work on Fruits in England, price 1s. 6d. A printed List or Index sent gratis.
STRONG STANDARD APPLES and PEARS.
 Large horizontal, Trained and Pyramid Apples and Pears; fine Standard and Dwarf trained PEACHES and NECTARINES; fine bushy LAURELS and LAURUS COLCHICUM, up to 4 feet; extra bushy LAURUSTINUS and PORTUGAL LAURELS, 1 1/2 to 3 feet; a large collection of Standard and Dwarf Perpetual, Dwarf China, and Climbing ROSES of the leading sorts; deciduous flowering SHRUBS, ASH, 2 to 5 feet, LARCH, SCOTCH, SPRUCE, and AUSTRIAN FIRS, and all sorts of FOREST TREES, strong Evergreen PRIVET and THORN QUICK for Hedges. All the above have been regularly transplanted, and are well rooted. Prices on application to
CHARLES BURGESS, The Nurseries, London Road, Cheltenham.

OAK, ASH, BEECH, ELM, and other FOREST TREES, from 1 1/2 feet to 3 1/2 feet, 5s. to 30s. per 1000; Sycamores and Laburnums, from 5 to 9 feet, 1s. 6d. per dozen, 2s. per 100; Walnuts, 3 and 4 feet, ditto; Spruce Fir, 3 and 4 feet, 3s. per dozen; Austrian Pine, 6s. per dozen; Laurels, 1, 2, and 3 feet, 6s., 7s., and 10s. per 100; Laurustinus, good plants, 2s., 3s., and 4s. per dozen. Ribes sanguineum, 1s. 6d. per dozen; Ribes nigrum, 1s. 6d. per dozen. Red Currant bushes, strong plants, 1s. 6d. per dozen. 1000 Roses, the best sorts, 1s., 1 1/2s., 2s., and 3s. per dozen, for cash only, of A. WILKIN, Fitter, Kevelem, Essex.
Planting Season.—Walton Nursery, Liverpool.
 To PLANTERS of PUBLIC or PRIVATE PARKS, CAMPELLERIES, PLEASURE GROUNDS, or WOODS and FORESTS.
W. SKIRVING begs to announce that his STOCK of TREES and SHRUBS is this season very extensive and well grown, and that he is now prepared to execute orders to any amount for Trees and Shrubs of all sizes, at moderate prices.
 W. S. considers the present and following month two of the best for transplanting Evergreen Trees or Shrubs, and solicits Planters to inspect his Stock, which consists of many thousands of the Holly, of the most choice varieties of the Gold and Silver Variegated kinds, and of the large broad-leaved Holly (the finest of a Evergreen Trees), hundreds of which are of large size and fine specimens for giving immediate effect, with many thousands of smaller sizes for general planting.
 Also an immense Stock of all other cultivated Trees and Shrubs, either for Villa, Park, or Forest planting, and of Fruit Trees for Gardens or large Orchards.
 N.B.—Fifty Acres of Walton Nursery being required for Villa Building, the Stock thereon must be cleared as soon as possible, therefore reduced prices will be accepted.—October, 1880.

Extra large Trees for Ornamental Planting
 IN PARKS AND AVENUES.
W. M. WOOD AND SON have to offer a magnificent STOCK of the following—
 Sycamores, 7 to 8 feet
 variegated, 6 to 8 feet
 Horae Chestnuts, 8 to 10 feet
 scarlet, 8 to 10 feet
 Catalpa syriaca, 7 to 8 feet
 Laburnums, 4 to 6 feet
 purple, 4 to 6 feet
 Weeping Ash, ex. fine, 7 to 9 feet
 Ash-leaved Maple, 7 to 8 feet
 Poplars, Black Italian and Lombardy, 8 to 10 feet
 Mountain Ash, 7 to 8 feet
 Weeping, 6 to 7 ft.
 Pyrus aria latifolia, 7 to 8 feet
 American Weeping Willows, 6 to 8 feet
 Elms, English, Chiochester, Wyob, 6 to 8 feet, and 8 to 10 feet
 Price on application.
 Address—Woodlands Nursery, Maresfield, Uckfield, Sussex.



Dried Natural Flowers.
BOETTNER BROTHERS, Greussen, near Erfurt, Prussia, have just published their NEW PRICED LIST of BOUQUETS, FLOWER BASKETS, WREATHS, &c., of DRIED NATURAL FLOWERS for this season. It may be obtained gratis and post free on application to their London Agents, Messrs. R. SILBERRAD and SON, 5, Harp Lane, Great Tower Street, E.C.

GENUINE TOBACCO PAPER, of the finest quality, 10d. per lb., or 34s. per cwt.
WILLIAM RUSHFORTH, Nurseryman and Seed Merchant, Leeds.

APPLEBY'S GENUINE TOBACCO PAPER, in 2 lb. and 4 lb. packets. Testimonials too numerous for insertion. Price on application to HENRY APPLEBY (Foreman to Messrs. Ivery & Son, Nurseryman, Dorking, Surrey).

The Cheapest and Best Insecticide.
DUTY-FREE TOBACCO
 BY HER MAJESTY'S ROYAL LETTERS PATENT, AND BY PERMISSION OF THE HON. BOARD OF CUSTOMS.

POOLEY'S TOBACCO POWDER, for the Prevention and Destruction of Blight and other Diseases in Plants. Sold by Nurserymen, Seedsmen, and Florists, in Tins at 1s., 2s. 6d., and 5s.
 Powder Distributors, 2s. 6d. and 3s. 6d. each.
 "I find it exceedingly useful for killing the Aphides on Roses and other Plants."—Geo. Evans, Superintendent, Royal Horticultural Gardens, South Kensington, May 7, 1868.
 Sole Manufacturer, T. A. POOLEY, Bonded Warehouse, Sussex Wharf, Wapping, E.

GISHURST COMPOUND.
 Used by many of the leading Gardeners since 1841, against Red Spider, Mites, Thrips, Green Fly, and other Blight, in solutions of from 1 to 2 ounces to the gallon of soft water, and of from 4 to 16 ounces as a Winter Dressing for Vines and Fruit Trees. Has outlived many preparations intended to supersede it.
 Sold Retail by Seedsmen, in boxes, 1s., 2s., and 10s. 6d.
 Wholesale by
PRICE'S PATENT CANDLE COMPANY (Limited), Battersea, London, S.W.



Cottam's Iron Hurdles, Fencing, and Gates.
COTTAM'S HURDLES are made in the best manner, of superior wrought iron, by an improved method. Illustrated Price Lists on application to **COTTAM AND CO., Iron Works, 2, Winsley Street, Oxford Street, London, W.**
COTTAM'S PATENT PORTABLE UNITED COW FITTINGS.
 Their advantages are—Portability, and fixtures, removable at pleasure, no woodwork. Partitions to impede ventilation or breed Vermin, Hay Rick dispensed with as unnecessary, increased width and depth of Feeding Troughs, Water Cistern, and Patent Drop Cover to prevent over-gorging. Cleanly, durable, and impervious to infection, being all of iron. Prices of Fittings per Cow, 6s.
 Prospectuses free of **COTTAM AND CO., Iron Works, 2, Winsley Street (opposite the Pantheon), Oxford Street, London, W.** where the above are exhibited, together with several important improvements in stable Fittings just secured by Patent.

E. T. ARCHER'S "FRIGI DOMO"
 Patronised by Her Majesty the Queen for Windsor and Frogmore Gardens, the Duke of Northumberland, Devonshire, late Sir J. Paxton for the Great Palace, Kew; Professor Lindley for the Horticultural Society, &c.
The best Shading is "Frigi Domo"
 White or Brown, made of prepared Hair and Wool, is conductor of heat or cold, keeping a fixed temperature purposes, for
 PROTECTION from the COLD WINDS and MORNING "FRIGI DOMO" NETTING, 2 yards wide, 1s. 6d. per square, 1s. 6d. per square.
 Two yards wide 1s. 6d. per square
 Four yards wide 1s. 6d. per square
 An improved make, 2 yards wide 1s. 6d. per square
 An improved make, 3 yards wide 2s. 6d. per square
 Serim Canvas, 72 inches wide, 70 yards long, 5s. 6d. and 8s. 6d. per yard.
 Hessian Canvas, 54 and 72 inches wide, 6s. 6d. and 8s. 6d. extra for cut lengths.
ELISHA THOMAS ARCHER, Wholesale and Retail, 7, Great Trinity Lane, Cannon Street, City, E.C., and of men and Seedsmen throughout the Kingdom.

JAMES PHILLIPS begs to submit their prices as follows—
GLASS for ORCHARD HOUSES
 As supplied by them to Mr. Rivers, to the Royal Horticultural and to most of the Nobility, Clergy, and Gentlemen in Kingdom.
 Each Box contains 100 feet. The prices only apply to the Squares 20 by 12, 20 by 13, 20 by 14, 20 by 15, 20 by 16, 20 by 17, 20 by 18, 20 by 19, 20 by 20, 20 by 21, 20 by 22, 20 by 23, 20 by 24, 20 by 25, 20 by 26, 20 by 27, 20 by 28, 20 by 29, 20 by 30, 20 by 31, 20 by 32, 20 by 33, 20 by 34, 20 by 35, 20 by 36, 20 by 37, 20 by 38, 20 by 39, 20 by 40, 20 by 41, 20 by 42, 20 by 43, 20 by 44, 20 by 45, 20 by 46, 20 by 47, 20 by 48, 20 by 49, 20 by 50, 20 by 51, 20 by 52, 20 by 53, 20 by 54, 20 by 55, 20 by 56, 20 by 57, 20 by 58, 20 by 59, 20 by 60, 20 by 61, 20 by 62, 20 by 63, 20 by 64, 20 by 65, 20 by 66, 20 by 67, 20 by 68, 20 by 69, 20 by 70, 20 by 71, 20 by 72, 20 by 73, 20 by 74, 20 by 75, 20 by 76, 20 by 77, 20 by 78, 20 by 79, 20 by 80, 20 by 81, 20 by 82, 20 by 83, 20 by 84, 20 by 85, 20 by 86, 20 by 87, 20 by 88, 20 by 89, 20 by 90, 20 by 91, 20 by 92, 20 by 93, 20 by 94, 20 by 95, 20 by 96, 20 by 97, 20 by 98, 20 by 99, 20 by 100.
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in.	ft.	in.	ft.	in.	ft.
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12 by 10	13 by 10	14 by 10	15 by 10	16 by 11	17 by 11
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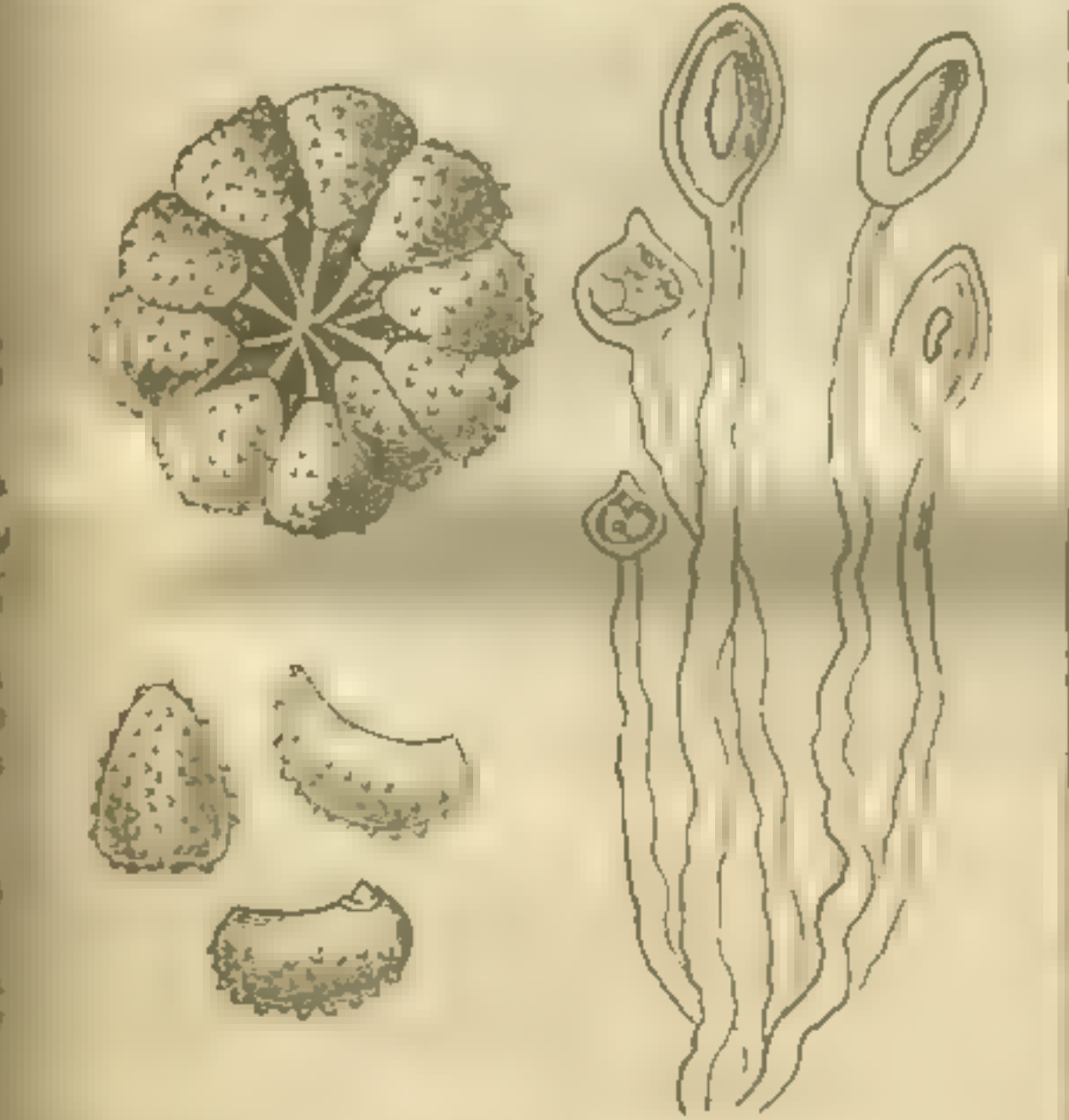
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The Gardeners' Chronicle.
 SATURDAY, NOVEMBER 6, 1869.

We have recently received from our excellent friend Mr. THWAITES a specimen of a minute FUNGUS which has caused some consternation amongst the coffee planters in Ceylon, in consequence of the rapid progress it seems to be making amongst the COFFEE PLANTS. A few trees were noticed to be infected in May last, and at the time of Mr. THWAITES' communi-



cation (July 24) two or three acres were showing the Fungus upon the leaves. These latter fall off before their proper time, and fears are entertained as to the effect on the amount of the crop.

The most curious circumstance is, that amongst more than a thousand species of Fungi received from Ceylon this does not occur; and that it is not only quite new, but with difficulty referable to any recognised section of Fungi. Indeed it seems just intermediate between true moulds and Uredos, allied on the one hand to Trichobasis and on the other to Rhinotrichum. Though the Fungus is developed from the parenchyma of the leaf there is not any covering to the little heaps such as is so obvious in Uredo and its immediate allies, while the mode of attachment reminds one of Rhinotrichum. We are obliged, therefore, to propose a new genus for its reception.*

As the Fungus is confined to the under surface of the leaves, and the mycelium is not superficial, it may be difficult to apply a remedy; but we should be inclined to try sulphur by means of one of the instruments which are used in the Hop grounds in Kent, or syringing with

* *Hemiteles*, Berk and Broome sori somewhat circinate, hyaline, naked; flocci distinct, inarticulate, flexuous, spores somewhat kidney-shaped, at first smooth, then granulate-verrucose on one side, attached obliquely at the base to a little papilliform point. *Hemiteles*, Berk and Br., forming little white circular patches on the under side of the leaves, consisting of minute filaments of flexuous threads surmounted by a single spherical spore attached obliquely at the base, rough externally, with wart like papilla, quite smooth on the side nearest the sori. The upper portion of the leaf above the patches looks as if it were burnt. Figure represents a group of threads with young immature spores highly magnified, together with one of the tufts as seen from above, and spores in different positions.

one of the sulphurous solutions which have been recommended for the extirpation of the Hop mildew. M. J. B.

ESSENTIAL to the tree when living, serviceable to it when dead, beautiful in all stages, from that of the tender bud to that of the "sere and yellow" fall, it is no wonder that the leaves attract universal attention. Age does but lend them additional charms. Constant to their purpose throughout, in death they are well nigh as important to the tree as when living. Thus AUTUMN LEAVES appeal to the most varied sympathies. Every one admires their rich hues. Poets and painters naturally revel in such things of beauty, moralists find in them most appropriate illustrations to give point to their teachings, and more practical gardeners utilise them by collecting them for their compost heaps!

While still green they are the agents by means of which the plant breathes, absorbs, and exhales. They serve to build up and consolidate its tissues; they are all-important agents in the formation of the starch, the sugar, the gum, the resin, the oil, the scores of ingredients elaborated in the plant. Without their aid the plant cannot, in most cases, avail itself of the supplies of nutriment stored up in its own tissues, still less can it draw from earth or air the food necessary for its support. No sooner do they lose their healthy green colour in autumn than they cease to be directly useful to the tree, though still, as we have seen, doing excellent service in the compost-heap. All this is so well known that it may seem trite to refer to it. The cause of all these changes, however, is by no means so generally understood, and as some valuable practical hints may be derived from the investigation of these matters, we need offer no apology for stating in general terms what is known of those changes in the leaf which precede its fall. The colouring matter of the healthy leaf consists of small granules of waxy or fatty matter, often encrusting a central nucleus of starch. These green granules constitute the chlorophyll of the botanist, and they are the very life-blood of the plant. If they are healthy the plant is vigorous, if they are diseased or deficient the plant is sickly. Hence the autumnal change of colour in the leaves is due in great measure, but not entirely, to the alteration in this "leaf-green." Its granules acquire a yellow or orange tint, gradually disintegrate, lose their kernel of starch, and ultimately disappear completely, leaving in their stead a few very small orange-coloured granules, and often a few drops of some oily substance. In this manner the leaf becomes, before its fall, emptied of all its active ingredients, such of them as are fluid or soluble are transferred to the stem or branch, there to aid in the consolidation of the tissues, the ripening of the wood, and the formation of the various secretions. The conduits and pipes passing from leaf to stem, the cells and vessels, are at this time filled with starch, the organising layer between the bark and the wood is gorged with nutritive material, in part transferred from the foliage. What remains behind in the leaf is either effete matter, no longer serviceable to the plant, or insoluble mineral substance, useless at this stage of the plant's existence, but returned to Mother Earth to be again utilised, perhaps by the same plant, in some other way at some other time.

While all this is going on slowly and surely, provision is being made for the severance of the useless and exhausted leaf from the stem. A thin layer of mealy cells gradually insinuates itself across the leaf-stalk at right angles to the other tissues, and by this living knife-edge or wedge the dead is separated from the living, as when a surgeon removes the gangrened extremity of a limb. The practical significance of all this lies in the word "rest," the discoloured leaf in autumn indicates the necessity for repose. If the "wood be well ripened" the rest after all is more apparent than real—in other words it is a change, or at most a slackening of work rather than absolute inactivity. With the returning warmth of spring a new set of actions begin, whose vigour is proportionate not only to the favourable or unfavourable conditions at the time, but also, and this markedly, to the perfection with which leaf action, and consequent ripening of the wood, have been carried on in the preceding autumn.

These facts offer a rational explanation of the practice recommended by "W. E." at pp. 1092, 1140, and approved of by most gardeners, of removing at this season, with a broom or other-

wise, the leaves of Nectarine or Peach trees grown against walls. As many of these leaves, perhaps the majority, are still green, and their removal is not easy, so forcible a mode of detachment looks at first sight like a barbarous process, antagonistic to the natural state of things, as above explained. But when we remember that, owing to the deficiency of light and heat at this season, leaf action and its consequences can hardly be carried on effectively or profitably, and that such unseasonable activity may even induce disastrous effects, it becomes easy to see the propriety of what at first seems questionable practice. The truth seems to be, that such plants as the Peach have not adapted themselves thoroughly to our climate; they require a certain aggregate amount of heat, and a certain intensity of light. In the East, where these trees are nearly wild, these requirements are fulfilled in the course of a comparatively short time; here, if they do get a sufficiency of light and heat, a much longer period is occupied in the process, and the trees are often surprised by autumn frosts before they have received their proper share—before, therefore, their work is complete. It is better, nevertheless, to allow the tree to rest, even if the work be not fully accomplished, rather than to incur the risk of exhausting or destroying the tree by allowing it to continue its operations under unfavourable conditions.

WE extract from the columns of the *Devon Weekly Times* the following particulars relating to the TESTIMONIAL to Mr. BARNES, late of Bicton:—"The retirement of Mr. JAMES BARNES, for nearly 30 years director and manager of the Bicton Gardens, Arboretum, Home Farm, &c., and the eminent services he has rendered to practical gardening and horticulture for a period of 50 years, induced some friends to co-operate, with the view of marking their sense of his services by some visible token of their warm appreciation and esteem. Only such as were personally acquainted with Mr. BARNES, or were familiar with and had received benefit from his labours, were invited to contribute; and the testimonial, simple as it is, and as it was wished to be, may be regarded as the spontaneous expression of friendship and admiration for a venerable, skilful, and excellent man. The presentation was made on Friday afternoon, at the Bude Haven Hotel. Mr. LANG (manager of Lord POLTIMORE'S gardens, &c.) presided, and Mr. FOSTER, Esq., Exmouth, occupied the vice-chair. The testimonial consisted of a very handsome silver tea service, on which was the following inscription:—"Presented to Mr. JAMES BARNES, for 30 years director and manager of the Bicton Gardens, &c., by attached friends, in recognition of his manly sincerity, integrity of character, and benevolence and geniality of disposition, and in appreciation of the valuable services he has rendered, through a long and useful life, to horticultural science, practical gardening, and agriculture." Mr. BARNES returned thanks for the testimonial in a few appropriate words."

M. DEHÉRAIN has recently addressed to the French Academy of Sciences, a note on the DECOMPOSITION of carbonic acid by the LEAVES of PLANTS, under the influence of light. M. PRILLEUX, he observed, had attributed the same decomposing faculty to all the luminous rays of equal intensity, while M. DECAISNE had affirmed that in plunging equal weights of marsh-plants into vessels filled with carbonic acid surrounded by liquids of divers colours and of equal transparency, he has constantly found that more oxygen was disengaged from plants lighted by the yellow and red rays, than by those which were lighted by the blue or green. In former researches M. DEHÉRAIN had demonstrated that evaporation is more active in plants exposed to yellow and red lights than in those exposed to green and blue. This coincidence he regarded as establishing a connection between the two vital functions of the leaves—the evaporation of water and the decomposition of carbonic acid by the disengagement of oxygen.

A PRESENTATION of a gold watch and an address was made at Altrincham, on the 27th ult., to Mr. THOMAS BAINES, gardener to HORATIO MICHOLLS, Esq., of Summerfield, Bowdon, on the occasion of his removal to the vicinity of London, with his employer. The address, illuminated on vellum, and mounted in a handsome gilt frame, was as follows:—"Presented, with a gold watch, to Mr. THOMAS BAINES, by the gardeners and friends of Altrincham, Bowdon, &c., on his leaving the neighbourhood, as a mark of their esteem and regard, October 27, 1869." The watch, a very handsome and massive one, bore an inscription in nearly similar terms. Mr. BAINES' high position as a cultivator is well known, and this mark of appreciation from those amongst whom he has long sojourned must be particularly grateful to his feelings. May he long live to take a prominent place in metropolitan horticulture!

A copy of the OBITUARY record of FELLOWS of the LINNEAN SOCIETY deceased during the year ending May 24, 1869, has just reached us. It has a special interest for us in many ways, amongst others in containing the names of such men as WALKER ARNOTT, WARD, DILKE, VON MARTIUS, and others connected with Botany and Horticulture. As in former years, the Society has done us the honour in many instances of extracting and adopting the biographical notices that have appeared in our own pages, a compliment that we may well be proud of. A remarkable feature in the list in question is the great age attained by so many Fellows of the Society. This is illustrated by the fact

that of 14 deceased Fellows whose age is mentioned in the above list (comprising 17 in all), the youngest was 51, the oldest 94; the numbers run thus—51, 54, 58, 59, 70, 75, 76, 80, 82 (two), 86, 88, 92, and 94. It is curious to observe that not one of the 14 died within the sixth decade. Dividing the number of years (1647) spent by the deceased Fellows on this earth by the number of individuals, we get as a result that the average longevity of a Fellow of the Society is 75 years, a circumstance that ought to induce our young naturalists to join the Society, and might be pleaded as a valid reason why insurance offices should reduce the amount of their premiums on the production of evidence that the insurer had joined the Society. Fellows have the option of compounding for all future payments by paying a sum equal to ten years' annual subscription at the time of their election, or at any subsequent period. Clearly the Society is in most cases a loser by this compounding process, a circumstance which perhaps induced the venerable Dean of Winchester, a year or two back, while in his eighth decade, to cease paying the annual subscription, as he had done for half a century or more, and compound for all future payments by tendering the usual composition fee. Reverting to the 14 gentlemen whose ages we have recorded above, it is satisfactory to find that addition to natural history assuredly does not tend to shorten life. Moreover, it is noteworthy that in most cases the naturalists mentioned above were not stay-at-home philosophers. Many had been travellers in extreme or unhealthy climates, several had served in the navy, several had passed great part of their lives in the incessant labour and harass of medical practice; almost all were, as the brief history of their lives shows, men of active habits.

— What does the reader think a PAPASICULTIVATOR (*papasiculteur*) is?—a grower of Papaws, or a trainer of papas? No; only a Potato grower. "Papas" is good Peruvian for Potato, so says the "Revue Horticole."

— In a recent issue, Mr. BENNETT, of Osberton, called attention to the beauty as a foliage plant of the plant known in gardens by the name of *Acalypha tricolor*. Having seen Mr. BENNETT'S plant, we can endorse all that he says as to its striking and novel appearance. It is not only beautiful in itself, but it affords variety, a quality that is very often charming, and certainly is so in this case. The proper name of this plant is *ACALYPHA WILKESIANA*, and it is thus spoken of by Dr SEEMANN in his "Flora Vitiensis:— "This shrub attains about 10 feet in height, and its foliage has generally the colour of our Copper Beeches; but very often the leaves assume a great variety of tints—pink, yellow, and brown, and then the plant is highly ornamental. It is often cultivated by the natives (of the Fiji Islands), together with other fine foliage plants, such as *Dracena ferrea*, *Codisum variegatum*, *Nothopanax fruticosum*, &c." The flowers are small, whitish, and borne on long, slender, feather-like spikes. What little elegance the flower-spikes may possess is quite eclipsed by the splendour of the leaves. Dr. SEEMANN'S communication on the subject will be found at p 1137.

— In the volume of "Transactions of the Woolhope Naturalists' Field Club for 1868" (noticed at p. 1139), there is amongst other interesting papers to which we may hereafter refer, a note of Mr. EDWIN LEES on the formation of FAIRY RINGS, and on the Fungi that inhabit them. Mr. LEES includes among fairy rings a variety of appearances which we have not been accustomed to consider as fairy rings. Our notion of a true fairy ring has always been associated with a circular outline, and with the presence of Fungi; but Mr. LEES includes rings (?) on which, owing to the irregular form, not even fairies could trip a round dance, and in which Fungi may or may not be present. Mr. LEES, however, includes them all under one head, and attributes them all to one cause—the subterranean gyrations of the mole. "In making his runs he disturbs the roots of the Grass, and the Grass itself withers and dies in the round that he has made. This offers a pabulum to the wandering sporules of Fungi not to be neglected. * * * For an uncertain time their occupation increases the size of the ring, but they do not originally form it."

— The fine specimen of the Ginkgo or Maidenhair tree, *SALISBURIA ADIANTIFOLIA*, at Panshanger, described by Mr. W. PAUL at p. 1067, in our volume for 1884, is nearly equalled by one at Whitfield, the residence of the Rev. ARCHER OLIVE, in Herefordshire. According to the account in the "Transactions of the Woolhope Naturalists' Club," this tree is the largest specimen of its kind in England, except that at Panshanger. The Woolhope tree now measures 7 feet 2 inches in girth, at 5 feet from the ground, is 50 feet 6 inches in height, and has a diametric spread of foliage of 40 feet. It is graceful in form, resembling a Beech in outline, and is supposed to have been planted about 1776, and therefore may be about 96 or 97 years old.

New Plants.

— *ONCIDIUM EUXANTHINUM*, sp. n.
Tetrapetala micropetala: "habitu Oncidii bifolii, Sims." Panicula ampla; sepalis oblongis obtuse acutis, lateralibus tertio infima connatis; labello basi humerato, lacinialis posticis cordato-retundatis hinc dentatis, isthmo subnullo, lacinia antica reniformi bulbo; callo ante basin laminaeformi transversa plurilobo, callo papuliformi supposito progre diente verrucis multis utrinque soritatis oppositis; tabula infrastigmatica porrecta; alis rotundatis lobulatis.
A very pretty Oncid, with the habit of *Oncidium bifolium*. The flowers have greenish sepals and petals, with transverse brownish bars, and a lip of the most beautiful yellow, having numerous brown blotches between the basilar side lobes. The flowers are as large as those of the old *Oncidium reflexum*. It was imported from Brazil by Messrs. Veitch, *H. G. Rehb. fl.*

— *LÆLIA ELEGANS* var. *LOBATA*.
Petalis angustis utrinque medio rotundo unilobatis, labelli lacinialis lateralibus prope rectangularis.
A curious variety of the old *Lælia elegans*, having the petals very narrow, and bearing one obtuse lobe in the midst on either side, and having also rectangular side laciniae of the lip as in *L. elegans* Houtteana. We have to thank J. Day, Esq., for it. *H. G. Rehb. fl.*

— *PASSIFLORA ORGANENSIS*. *Garda*.
Glabra, foliis basi rotundatis eglandulosis subpeltatis 3-nerviis divaricatis sub 3-lobis, lobis lateralibus ovatis obtusis, medio lato obtusissimo; petiolis eglandulosis, pedicellis geminis petiolo longioribus (nonnunquam brevioribus); calycis segmentis oblongis obtusis, petalis longioribus, coronae filamentis serie interioris complanato-petaloidis, petalis brevioribus, serie interioris connatis. *Gardner in Hook. Lond. Jour. Bot. iv. p. 104, Walp. Rep. v. 772*—Crescit in Brasilia montibus Organensis. *Gardner, n. 425* et ab aliis fore omnibus collectoribus allata. *V. sp. sic*
Var. *marmorata*. Foliis superne albidis maculatis. Prope urbem Rio. Miera! Bowman! *V. sp. sic et cult.*

This, though apparently a common species, does not appear to have been introduced into cultivation till recently. It is a stove climber, with much of the appearance of *P. punctata*, but has more pointed leaf-lobes, and only a single row of threads in the mouth of the flower tube. The under surface of the leaves is sometimes of a rich claret colour. The flowers are small, greenish white, the coronal threads violet, and tipped with white.

In the variety *marmorata*, now for the first time described, the upper surface of the leaves is prettily mottled with whitish or yellowish blotches. This form was introduced into Messrs. Veitch's establishment by the late Mr. Bowman. For specimens of the flowers we are indebted to Messrs. Veitch. As an ornamental foliage plant it will not take first rank, as it is perhaps inferior in that respect to *P. Maximiliana* (= *P. discolor*, Link and Ott, et Hort. Angl. plurim; *P. vesper-tilio*, Lemaire nec Linn.). On the other hand it is superior to *P. punctata*, which is occasionally met with in our gardens. *M. T. M.*

CYPRIPEDIUM PARISHII, *Rehb. fl.* (See p. 811)
We have quite forgotten to state that the first introduction of this most extraordinary plant to Europe is due to Mr. Stuart Low. It appears that the firm of Low & Co. have a special title for *Cyripedium*, having introduced no less than eight new species, probably even more, viz., *Lowi*, *Lindl.*; *Stonoi*, *Low*; *Dayanum*, *Rehb. fl.*; *virens*, *Rehb. fl.*; *Hookera*, *Rehb. fl.*; *Bullenianum*, *Rehb. fl.*; *concolor*, *Parish*; *Parishii*, *Rehb. fl.* *H. G. Rehb. fl.*

PLANT PORTRAITS.

ACER RUPINERVA ALBO-LIMBATUM.—*Bot. Mag. t. 5798*.
Aceraceae. This noble Japanese Maple is of about vigorous growth, and bears broad palmately 3-5 lobed leaves which are of a deep green colour, margined with white, while the petioles, peduncles, and underside of the midrib is of a pale red. It is a native of Japan and has been shown by Messrs. Standish & Co. under the personal name of *Acer japonicum*.
ANACTERIS DAWSONIANA.—*Flora des Serres, t. 185*.
Orchidaceae. One of the finest of our variegated-leaved Orchids, its tints and markings being of exquisite beauty. The leaves are ovate-lanceolate, dark velvety rich olive green, traversed by about seven longitudinal copper-coloured veins, the space on each side of the midrib being filled with fine reticulations of the same colour. It comes from the Malay Archipelago, and was introduced by Messrs. Low & Co.

AERIDES LOBBI.—*L'Éclair. Hort. t. 579*.
Orchidaceae. A beautiful stove epiphyte, with distichous linear leaves, obliquely lobed at the apex, and long dense cylindrical pendant spikes of flowers, which are white in the centre, slightly tinted with blue rose towards the outside, somewhat spotted with violet, the lip marked with a whitish central bar, and stained with deep violet on either side. Native of Montmeun, introduced by Messrs. Veitch & Sons.

CATLEYA FIDORATA.—*Flora des Serres, t. 1826*.
Orchidaceae. This remarkably showy species has short clavate stems, which terminate in an oblong ligulate leaf. The flowers are about the size of those of *C. Trianae*, and have whitish sepals and petals, while the lip is strongly tipped with rich amaranth, and its disc conspicuously marked with a broad stain of bright orange. It was introduced by M. Linden from Central America.

CHAMEPYRIS SPHEROPIA ANDELYENSIS.—*Rev. Hort. 1869, 31, fig. 8*.
Coniferae. A compact growing hardy evergreen shrub, of conical outline, and which is sometimes erroneously named in gardens *Rotinospora leptocoma*. The cones resemble those of *Bista* in form, but are described and represented as being much smaller, glaucous, with imbricated scales, bearing a mucronate protuberance. "The fructification," observes M. Carrière, "shows clearly its relationship to *C. sphaerocoma*." It was raised at Andelys, a French town, in the department of the Eure.

CLEMATIS FIBRIFOLIA.—*Rev. Hort. 1869, 10, fig. 1*.
Ranunculaceae. This distinct-looking species is described as a hardy sub-shrubby climber, growing to a height of 7 feet or upwards, producing three-parted leaves having lobulate segments, and numerous pretty, bell-shaped, nodding, yellowish white flowers, having rather long narrow tubes, and forming, as it were, axillary panicles, more or less branched. It was introduced to the French gardens from the Botanic Garden of Naples.

COMMELYNA DEFICIENS VARIETATA.—*Flora des Serres, t. 1824*.
Commelynaceae. This is a diff. low growing, stove perennial, and seems to be well adapted for summer gardening. It has terete branching stems, clothed with ovate lanceolate leaves, which are freely and elegantly striped with longitudinal bands of white, the small blue flowers being produced at the ends of the branches. A native of Brazil, and cultivated by M. Van Houtte.

COMMELYNA PROSTRATA.—*Gartenora, t. 692, fig. 1*.
A stove perennial of prostrate habit, resembling in growth the well known *Cyanotis vittata* (*Tradescantia zebrina* of gardens). It has succulent rooting stems, oval green leaves, and small blue flowers. A variegated variety is sometimes met with. It is a native of Peru.

DRIMYS COOPERI.—*Refug. Bot. t. 19*.
Liliaceae. One of a curious and rather pretty group of dwarf greenhouse bulbous plants, the present species having rather large bulbs, from which issue the broad, oblong lanceolate, green, unspotted leaves, and several dense racemes, usually 30-40 flowered, of nodding green and purple flowers on short scapes. It comes from the Cape of Good Hope, and has been introduced to the unique collection of W. Wilson Saunders, Esq.

ERYTHROXYLON MEXICANUM.—*Gartenora, t. 615*.
Erythroxyloideae. This is described as a slender branching shrub, with obovate oblong obtuse leaves, and small solitary greenish flowers growing in the leaf-axils. The plant is cultivated

under the name of *Erythroxylon Coca*, and is a native of Mexico.
GRONOMA GHIESBREGHTIANA.—*Bot. Mag. t. 5774*.
macoae. A dwarf almost stemless Palm, requiring moderate temperature. Its fronds are pinnately compound, which are much broader. The spathe are simple, linear, on tall erect peduncles, which overtop the introduced to the Continental gardens from China, by M. Ghibbri brought. Flowered at Kew.

GRIFFINIA DRYADES.—*Bot. Mag. t. 5786*.
Amaryllidaceae. A remarkable in the genus for its tall flower and its large flowers. It produces spreading, stamens foot long, and stout scapes as thick as the finger, from 10 to 13 large blue-lilac flowers, which are from the centre of the segments towards their base. Introduced from Brazil, and cultivated by W. Wilson Saunders, Esq. Lemaire says the name should be rendered *Dryades*.

GYMNOSTRIK LATIFOLIA.—*Rev. Hort. 1869, 31*.
Graminaceae. A remarkably ornamental perennial, a robust-growing cane-like stem, attaining a height of 10 feet, and furnished with broad lanceolate spreading leaves which have a short hairy ligule, and are of a bright colour, with the broad medium vein whitish. The inflorescence consists of amentiform nodding spikes. It is a growing Grass, forming handsome tufts, and a noble *Arundo Donax*. The roots may be taken up and placed under cover, as in the case of *Canina*, for protection may be afforded to them in the open ground has been sent from Monte Video, by M. Lemaire, to the *Muséum*, at Paris.

IRIS STYLOSA.—*Bot. Mag. t. 5773*.
Iridaceae. A spring-flowering perennial, of slender erect habit, to a moderate height, furnished with narrow ensiform leaves, sweet-scented pale violet-coloured flowers, the petals of which are mottled with yellow, and marked with curved transverse bands. It is a native of Africa, and was sent to Kew by Mrs. Bodichon. It had been introduced to the genus *Neubeckia* by Alefeld, on account of its perianth.

MACKAYA BELLA.—*Bot. Mag. t. 5797*.
Acanthaceae. A growing and remarkably beautiful greenhouse plant, of slender growth, nearly glabrous, with virgate lanceolate oblong sinuately-toothed leaves, and terminal racemes, 4-6 inches long, bearing numerous large erect flowers, having a slender tube campanulate spreading 5 lobed nearly equal limb, the throat of the limb pencilled with transverse concentric white lines. It is dedicated to the late Dr. Mackay, of Natal, who was sent from Natal to the Kew Gardens, and is now in the D Urban Botanic Gardens.

SEWAGE.

YOUR leader upon sewage and nursery carried my thoughts back more than 20 years time when I had charge for a short time young *Camellia* stock at the Royal Exotic Garden, Chelsea, then under the management of Messrs. Knight & Perry. At that period the late Mr. Joseph was a firm believer in the value of liquid sewage fertiliser. He had a pump put down for the liquid excrements from the stables, privies, &c. I remember well being somewhat shocked when watering the pits, then stocked with *Camellias*, to be accosted by Mr. Knight and to bring a watering-pot that way. He pointed to the pump, and I was requested to fill the pot. The stuff looked and smelt vilely. Mr. Knight's disgust and indignation in my face, and his manner assumed their gentlest, and said, "Now, Mr. Fish," said he, "I am going to give you a valuable lesson, and show you how to make plants grow like weeds. Every day when you water plants, come to this pump, and put a pint of it into each pot of water, and take notice of the result will have." Annoyed as I was at first, I obeyed the instructions to the letter, and soon became convinced my instructor was right. The *Camellias* grew well under my care, and Mr. Knight often when he saw me at the pump, or smelt the compound as he passed by.

That possibly has been the most fruitful lesson of my life. I have never forgotten it. It set me to thinking the place of waste in the economy of production has borne fruit in helping to solve one of the most difficult, and certainly the dirtiest, questions of the day. Dirt, however, is necessarily one of the facts of a working world, and it cannot be rendered innocuous by being ignored. It has drawn our attention on all hands, and even the most engulfed life in its horrible vortex, or engulfed wretchedness in its slimy embrace. For what is suffering, and much of the death that we see, but simply dirt in the wrong place. Like common ingrit between debauched machinery, dirt and prematurely extinguishes it.

As I showed in my paper read at Manchester, we can only escape from its enervating force and its stultifying power by enlisting it into our service. There is one outlet for the world's filth, and that is the vegetable life. The refuse that fills the air and pollutes the earth and poisons the water may be built up into Apple, Pear, Cherry, Peach, &c. Apricot trees, or into such or other fruit, or be worked up into a juicy Cabbage or a succulent sweet Lettuce, or crisp Cucumber, or a luscious apple or Melon. It may be transformed into the clusters in our finest Grapes, or made to give the sweetest Rose-bud, or be blanched into cauliflower spot or wrinkle or any such thing.

These views are neither new nor novel, but transforming of the waste of the world into a major portion of the work goes on to produce it. Our dead bodies and the products of combustion and decay are mostly distributed into the air or dissolved in the water without hindrance from us. Every day, possibly, the weight of every human being is thus distributed, etherealised, then transported, and finally ascends from all the smoking chimneys and reeking dunghill? All this is removed and

away without our ministry. It is only the more gross enormities and their appropriation, that have been deputed to us. Their offensiveness is the voice of love and mercy urging us to remove them from our sight, and place them on one side, so that they may be absorbed. These offensive matters are but the necessary food, the daily bread of plants. Set bread and butter, bread, sugar, or tea before living plants, they can make nothing of these in a sweet and perfect state. Give them a feed of offal, the offscourings of the earth, in a liquid or semi-gaseous form, and they will lap up that as a thirsty dog laps up water.

Such views are not more sound in theory than fruitful in practice. They have been amply confirmed by 20 years' experience. For that period I have applied liquid and solid sewage or excrement to almost every garden plant, with manifest advantage—excepting to Heaths, and a few other hard-wooded plants. It has mostly been applied in a liquid state. The best portions of such matters are easily soluble, but such liquids have been absorbed by ashes, dry, common, and burnt earth, sawdust, Cocoa-nut refuse, leaves, straw, dung, short grass, and almost every conceivable absorbent that could be converted into solid manure or compost. I, however, do not approve of burning weeds; there seems a loss of manure in doing so. These are treated thus, when any are about. But no well-kept garden should ever have a weed large enough to be carried out of it; they ought never to get beyond the seed-leaf, for they rob the proper crops, and impoverish the soil in growing more than their remains, however carefully treasured, can possibly enrich it. But occasionally weeds are to be found, especially in large nurseries, and the best place for them is either the livings, which not only destroys them but kills the seeds, if any; or they may be disposed of in layers with short grass edgings of walks, lawns, &c., and frequently soaked with sewage. Towards autumn, if enough hot dung can be added to the mass to generate a gentle fermentation, a heap of manure will be formed that will grow anything in the garden in a most satisfactory manner.

The solid deposits of sewage I consider of less value than the liquid, and by having a second well to pump from, and a deeper cesspool for the reception of the solid, and by keeping the pump in constant use, and if possible occasionally flushing out the solid by a strong rush of water, it is surprising how slowly the sediment accumulates.

However, Mr. Masters had to do with a large amount of solid, and his mode of managing it seems alike economical and successful. With the exception of charring the weeds, the refuse could not be turned to better account. There seems no part of his practice that could be improved upon. And even the burning forms ash, as you point out, which may be most useful as a deodoriser. But dry and burnt earth are powerful deodorisers, and living plants beat all dead substances whatever in extracting offensiveness out of the world's waste. Some of these may neutralise or bind up dead matters for a time, but plants extinguish them; they do more and better—they transform them into sweetness. The sewage of to-day becomes the perfume of the Violet and the sweetness of the valley Lily, as it rings its tiny bells in its silvery steeple above its broad church of ample, cool, rich, and fresh leaves, to a feast of pleasure, not many months hence. *D. F. Fish, F.R.H.S.*

LARGE MELONS.

SEVERAL letters appeared in the *Gardeners' Chronicle* of last year from correspondents who had evidently been successful Melon growers, and at p. 1040, 1869, I see one is mentioned that weighed 24 lb. Very good work indeed, but four Melons of 6 lb. each would be more useful for the dessert table. Nine years ago, when examining the market gardens about Lyons and the South of France, I found a very vigorous, strong-growing kind of Cantaloupe, which had a very thick rind, and was not very good in flavour. I had at the same time growing here a small American kind, that I got from New Orleans, which only grows about the size of an Orange, is very thin rinded, of an exquisite Muscat flavour, and is a very free setter.

By crossing these two, I have got a first-class hybrid, with the fine flavour, thin skin, and free-setting properties of the small American, and the strong, hardy constitution of the Lyons Cantaloupe. I now grow no other kind, and so keep the stock pure. Two years ago I cut three from one plant, the weights of which were 23 lb. 15 oz., 17 lb. 12 oz., and 16 lb. 1 oz.—making a total of 57 lb. 12 oz. from the one plant. We cut many more very heavy fruit, but I kept no record of the weight. I was rather surprised to find the flavour quite as good as those of the smaller size. The flesh is pink in colour.

The mode of culture is very simple. Our Melon ground was, till this year, on the south slope of an old gravel pit. In November the ground is thrown up in ridges to sweeten, and remains thus till spring, when the spaces between the ridges are filled with hot manure, and all levelled neatly down. The seeds are sown in 3-inch pots, one seed in a pot, and placed in a cool frame, for if raised in heat they are often too delicate for outdoor culture. By about May 15 a fine stock of plants ought to be ready for planting out. Choose a fine day, and arrange your cloches about 3 feet apart. Under each cloche plant a Melon; water and shade for a few days. When the plant has filled the cloche with foliage, it (the cloche) must be lifted and supported on three forked sticks about 6 inches above the collar of the plant. If the cloches are not wanted for other purposes they may be left in this position till the end of the season, to keep the collar of the plant dry.

The Melon, if the collar be kept dry, is a hardier plant than most of us think it is. In the autumn I put a handful of dry powdered charcoal round the neck of each plant, which I find very good for the prevention of

canker. I cover the ground all over with clean straw, which prevents evaporation in hot weather, and keeps both fruit and foliage clean during rainy weather. For the latest crops, we sow the seeds under the cloches where they are to remain. I have this day (October 19) cut 22 fine Melons from plants the seeds of which were sown on the 21st of last May, and the flavour of one cut is nearly as good as those I cut in July and August. *John A. Watson, Campagne Lammemoor, Geneva, Switzerland.*

HOW I GOT OVER MY "DISENDOWMENT."

ABOUT two years ago, owing to a change in the government of this place, I was "disendowed" from having my usual supply of manure from the farmyard, and was told that if I must have manure I must buy it. These were hard lines; and to send "to Coventry" for manure would take more of our time and our money than my estimate would permit. There was, however, no getting away from the fact that I was disendowed of my chief staple, "manure," that which gardeners so much depend upon for the production of good vegetables, and which are required at this place in no very moderate quantities. The problem generally held before the gardener to solve is this,—Given a piece of land, on which during all your life and the lives of as many as may live and die in the culture of that piece of land, from one to some hundreds of years: how to grow a good and plentiful supply of vegetables, rich and crisp, and in every way equal to vegetables seen at anyone else's table. In my case, the supply of vegetables was to be nothing short of that produced previous to the disendowment of manure, and I had to set about the manufacture of manure as best I could.

Having a large tract of pleasure-ground kept under the mowing machine, it occurred to me that this short Grass, which hitherto had been a nuisance, might in some way be utilized. I could not give it away, and when it was thrown into heaps it stunk intolerably. I resolved, therefore, to try how cattle could be fed upon it. On the strength of this idea I immediately set to work, and in the rubbish yard made a cattle-shed and fold-yard, sufficiently large for the accommodation of four animals. The yard littered down, and the water laid on, I was prepared for the cattle. A farmer close by let me have four yearling heifers, for which he allowed me so much per week for their keep. This was about Christmas, and until Grass came these animals were fed with hay, which I had saved from parts of the pleasure-ground which it is not so necessary to keep mown. When, however, grass-mowing with the machine commenced, it was carted into the fold-yard, and readily eaten up by the cattle, and any excess of what they required to eat was trodden under foot and speedily made into manure. All refuse from the garden was thrown into this place, and was either eaten or trodden into manure. In the course of the summer the cattle thrive amazingly, and it was now evident that the scheme was a good one, as I could manufacture manure as fast as it could be dug in, and not in very moderate quantities either.

Having thus given a brief statement of how, in the manufacture of manure, I got over my "disendowment," I may be allowed also to state in what other respects the fold-yard proved useful. Every one knows what luxury there is in the keep of a cow for a family, and on the strength of what I knew the cattle-yard could do, I bought a milch cow, for which I paid 15l. 10s., and during the first year, besides supplying my house with what milk and butter we wanted, we sold, including the price of the calf, milk and butter, as much as exactly realized the purchase-money of the cow. The cow is this year free to begin with, and I am pleased to say in better condition; and so far as the season has gone, yields more and of even better quality than her yield of last year, which is proof sufficient that her keep and habitation in the rubbish yard is as nearly as possible that which she likes. In addition to the animals mentioned I have also some pigs, which thrive amazingly on short Grass, Cabbage leaves, run Cauliflower, &c., and which add much to the richness of the manure. In the same yard I have also some fowls, so that this yard not only produces a plentiful supply of manure for the garden, but supplies my house as plentifully with good milk, butter, bacon, and fresh-laid eggs,—things not much to be despised either in town or country.

In this case of "disendowment" it happened to prove better for me in the end than if my supply from the "state farmyard" had been continued. I should only have got my supply in dribbles, now I have it in abundance, either well made or under-made, and at any time I want it. Let it be considered that I was eagerly selfish in establishing a cow for my own use, I should say, in justice to myself, that eight years ago this formed part of my agreement, but during that period circumstances in my house did not particularly require a cow, and not until I really wanted it did I make use of my privilege.

If a man has for his motto "Live and let live," and this coupled with a fair share of well-directed energy, depend upon it, it matters little whether or not that man be "disendowed;" even if "disestablished," he will right himself again. I have no doubt there are many large gardens similarly circumstanced to those of which I have now charge, where the short Grass might be utilized something after the manner above described. *Wm. Miller, Combe Abbey Gardens, in "Florist and Pomologist."*

HEATING VINE BORDERS

SOON after the late Mr. Thompson's (of Welbeck) experiments on the flow of sap in trees were published in the volume of "London's Gardeners' Magazine" for 1829 (p. 253), and it became known that means were taken at that place not only to protect the external borders of the early forcing-houses from the inclemency

of the weather, but that heat was also applied in order to stimulate a healthy action between the roots and branches of the growing plants, public attention became directed to the great revolution taking place in the practice of early forcing. In the same season a new forcing-house was erected in the gardens of the Earl Fitzwilliam, at Wentworth, in the external borders of which hot-water pipes were laid, but with what amount of success I never could ascertain. At Syon, about the same period, Mr. Forrest planted Vines on a bed of fermenting material in some of the forcing-pits, and they did admirably for a time, until the material of which the beds were composed became effete.

At Canon Hall, in Yorkshire, from whence the grand Muscat of that name was sent to the Horticultural Society nearly half a century since, and which Grape has so signally failed in the hands of most cultivators, experiments were instituted by Mr. Alexander Wilson, and are described by him at p. 26, vol. iii of the "Transactions of the Royal Horticultural Society." The most successful was from a "Vine grown in a pit on a bed of rotten leaves, which might be described as neither hot nor cold," until the Vine began to grow, and the heat in the pit increased, when a little heat could be perceived at the time the Vines were in blossom, not one of which failed to set, nor was there one bad berry when ripe; it was, therefore, inferred that if the "border of a viney can be heated a little, success will be sure." The discussion which has recently taken place in the *Gardeners' Chronicle* on this subject shows that a system of chambering, aerating and border heating is practised by many of our best producers of early fruit, and that others are still content to call in the aid of well protected fermenting matter to guarantee the latent heat of the previous season stored up in the border, in order that a healthy co-operation may be carried on between the roots and branches of the Vine.

At p. 260 of the same volume of the "Transactions" of the Society, there is a plan and description of an early viney erected at Trentham by Mr. Fleming, and which I had an opportunity of seeing some time since; the borders of which are chambered, and from which drains are laid into the house at intervals, and the whole is heated by fermenting dung closely covered in—the ammonia penetrating into the border, and also through the drains into the house when required. Wide cement troughs are fixed under the border into which manure water is placed when it is required to give an extra stimulus. Mr. Fleming also states that the "bunches and berries attain a very large size," but is of opinion "that moderate sized bunches, except for the purposes of exhibition, are much more satisfactory than very large ones, since the berries swell and colour better, and the bunches retain their bloom more perfectly, and look better when dished up, keep up a supply longer, and when it is necessary to send the supply to a distance, they travel infinitely better: it will therefore be well to reduce the large bunches to a moderate size."

A very successful mode of producing early Grapes has recently come under my own observation, in the gardens at Bereleigh Lodge, the delightful residence of Mrs. Forbes, near Petersfield, in Hampshire. The viney was erected for the late G. Forbes, Esq., some 13 or 14 years since, for the purpose of growing Vines in pots, in the management of which, however, the gardener did not prove very successful. The whole length of the house is 27 feet 6 inches, and the width 11 feet. A bed 25 feet in length occupies the middle part of the house from the north end, and is surrounded by a path on the sides and southern end. The roof is fixed, and ventilation is effected by 18-inch openings on either side, and also by an opening light at the top of the southern end, which is glazed; the northern end is opaque. The heating, which is very effective, is by hot-water pipes from a conical boiler, and regulated by stop valves.

Eight Vines were planted along the centre of the bed, in a foot of soil, 11 years ago; each presents the general contour of a Currant bush, the branches extending to the pipes on either side of the bed, and reaching almost to the apex of the roof, which is 4 feet 6 inches from the surface of the bed. They consist of the following sorts, viz, Charlesworth Tokay, Dutch Sweetwater, White Muscadine, and the remaining five Vines are Black Hamburgs. The house was begun to be forced the second week in February, and the Sweetwater Grapes were ripe on May 15. The Vines, notwithstanding the limited space in which the roots have to range, are in the most robust health, some of the leaves I put my rule across and found them to be 16 inches in diameter. The bunches were thinned down to an average of 10 on each Vine—and they were admirably finished, some of the Tokays being more than 2 lb. in weight, and of that beautiful amber colour which is often so difficult to obtain. The Hamburgs were from about 1 to 1½ lb., and of excellent colour and quality, nor did I observe a streaked or imperfect berry in the house.

The bed in which they are grown is full of roots to the very surface, and Mr. Adcock, the present excellent and intelligent gardener, told me that he top-dressed early in the spring with good yellow loam, well mixed with pig-dung and superphosphate of lime—simply removing the crust from the surface before applying the mixture. Mulching with sheep droppings is resorted to during the progress of growth, and over this mulching tepid water is plentifully poured when the state of the bed requires it.

I do not by any means wish to assert that the house in question is the best that could have been devised, or even that its arrangement is of the most economical kind, or that the selection of sorts is the best that could have been made; on the contrary, I believe that by restricting the path to the centre of the house, double the amount of equally efficient border and training-space may be obtained, but to show that by

the application of sound principles to everyday practice, very favourable results may be obtained. Thus the apparatus for heating this small unpretending structure is so arranged that the very shallow bed—one foot in thickness—in which the Vines are grown, is sufficiently warmed without the aid of any extra heating or protecting material. Look on this picture and on that—of wide external borders not only heated at a very considerable expense, but over which covering of some kind is also indispensable during the season of forcing, as a shelter alike from the ill effects of frost, rain, and snow, and this has hitherto been effected by masses of fermenting material, or leaves and fern thatched over, or a covering of tarpaulin; temporary roofs of glass, tiles and boards have also been employed, and these in front of grand ranges of ornamentally constructed forcing-houses.

A few such easily heated simple structures as the one I have attempted to describe would prove an admirable supplement to many such ranges, not only in point of economy, which I hold to be very considerable, but these more majestic houses would then at a lessened expense, come later into use, and with a more telling effect in the autumn months, when families are usually residing at their country seats.

In some parts of the country coals are cheap enough. I recollect the late Mr McIntosh, when gardener at Dalkeith, telling me that coals were delivered into the garden at 5s. per ton. To a like question, Mr. Fleming informed me a few years since that the expense of coals at Trentham was about 8s. 6d. per ton, whilst at this place the price is seldom under 28s.; and where forcing is carried on extensively, such a price is, to say the least of it, a very serious drawback. We are told, however, that great results are to be expected from some newly invented boilers, which, if fully realised, will prove a great boon to all engaged in the protection of plants or early forcing, and more especially in districts of the country where fuel is scarce and expensive. S. N.

Home Correspondence.

Potting Lilies.—I was glad to find the remarks of your correspondent "M." at p. 1138, are likely to lead to some expression of opinion as to the correct treatment and period of potting Lilies. Many amateur growers are very anxious to know how and when to perform this operation, as we find from inquiries from customers when ordering bulbs. From close practical observation I have found that Lilies generally, more especially the Japan species, are often greatly mismanaged during growth, and equally abused during dormancy. Now, although I am thoroughly convinced of the necessity of repose to all plants, and advocate its universal observance, it is plain there are limits, "variable, I admit, in their application," beyond which we may not with impunity carry the system, any more than we may its opposite. In this case it is apparent the usual period of rest beneficial to many bulbs is, to members of this genus, by far too lengthened; the vitality of the bulb is very materially weakened, and the utmost its remaining powers can effect is the development of leaves and flowers, bearing little or none of that beauty so characteristic of this tribe. I have no doubt but that the precise period of potting is of more importance than are the general ingredients of the soil. In fact I have long considered it an absurdity to attach an undue consequence to the minutiae of soil, as we find soils of the same kind differ chemically in different localities. In the case of Lilies, fine plants with wonderful blooms have been obtained by different growers, and produced in different soils, of very different composition. The mainspring of success lies in the proper period of potting, and the handling of the bulb at this time. I have found that as soon as the growth matures and the stem changes yellow to the base, the bulbs should be turned out of the pot, and if division is required this operation must be performed with such care as to mutilate as few of the roots attached to each bulb as possible. These appendages are the chief organs which impart vigour to the plant, and should to all intents and purposes be as much, or more, cared for and regarded than the scales of the bulbs. Each of these roots has an important office to perform, and will be found provided with organs which are active all the year round, contributing to and storing up in the reservoir of the bulbs nutriment during dormancy, and aiding the growth during the active stage. If potted at the season abovenamed, say about the middle of November, and stored away in a quiet cool place, in less than a month growth by the root will have commenced. This fact is of itself a sufficient guarantee that the practice of turning out of pots, lacerating and tearing off the so-called old roots, and storing in sand or similar material, is barbarous in the extreme, and is as opposed to Nature as is the practice of storing away as they decline for the season, and repotting in spring at a period when activity by the root is at its maximum height, and a young embryo growth very vigorous. My Japan Lilies are treated all alike, and I have at this moment hanging in my establishment stems of *L. auratum* bearing the pedicels of from 60 to 85 flowers upon each stem, and this season I have had from 25 to 40 flowers upon a single stem in a 32-sized pot. My system of management is based upon the above formula: I repot in November, and if bulbs have been individually grown in small pots for decorative purposes, without disturbing a root or piece of crock I repot into such larger sizes as desired. The same is done with compound specimens; they are simply repotted on with the same care and regard to roots as in the case of an *Erica* or similar plant. If bulbs are wanted for commercial purposes, they are sized out and potted with all the root possible into such sizes as are suitable for sale and transmission. Bulbs kept exposed for sale or other purposes during winter lose at least 50 per cent. of their strength; this great reduction, it must

be admitted, materially deteriorates from their value. As before said, I attach little importance to soil, but rely almost exclusively upon the ammonia extracted from animal manures, and abundantly applied during the process of growing, also during the swelling and opening of the buds. The ammonia facilitates the due maturation of growth, and enhances the colour and odour of the flowers. Without tendering any positive rules as to soils, I have found the staple ingredient a rich fibry loam, as devoid of mineral impurities as possible, a small quantity of peat as rich in humus as can be secured, and sharp river sand; these, well incorporated together, form a compound which will be found exactly what these denizens of the East require. *Ransley Tanton, F.R.H.S., The Nurseries, Epsom, Surrey.*

I am pleased with the compliment "M." a reader of your paper for 20 years, pays myself and my colleague, when he says he has never seen the Calendar so well filled with useful matter. I beg to inform him that "J. D." is not one of the fair sex, but an old practical gardener, requiring no *chaperone*, for he learnt the mode of wintering and potting Lilies from the late Mr. H. Groom, of Walworth, who was one of the best growers of his day, and whose system he ("J. D.") has adopted in town with tolerable success for many years. *J. Dale, F.R.H.S., Gardener to the Hon. Society of the Middle Temple.*—I notice that in your paper there is a discussion going on anent the proper time for potting Lilies. Now, I am only a young learner, but of course that is the more reason why I, like others, should know the why and wherefore of things. Where I work, it is our practice to put by the Lilies when they have finished blooming, and after the lapse of a few weeks to cut down the dried-off stems, and then to store the pots of Lilies under the house stages in a cool but dry corner, where they lie protected from frost until just before Christmas, when they are repotted after a comparatively long season of rest. On the other hand our Gladioli are topped (*i. e.*, the stems are cut) immediately after being taken up from the bed, and put by to dry until again required. Now it seems to me that both Lilies and Gladioli should, after blooming, have time allowed them in which their stems may die away, and then should come a still further period of rest for the bulbs, before being required to start into life again. I should also like to ask another question, and that is—What time for potting the Lily bulb is most advantageous to the wear of the bulb? I suppose bulbs, as well as mankind, have their term of existence, although in this respect they may vary; but what I mean is—would "M.'s" or "W. E.'s" method preserve the bulb the best? *Youngster.*

Yellow Bedding Plants.—At page 1136 Mr. Hutchinson states, in reply to my remarks on the above, that he finds no difficulty in growing the yellow *Calceolaria*. Perhaps not. He also states that all that the plant wants is a deep soil with a cool bottom. This is, no doubt, very suitable to the growth of the *Calceolaria*, but this will not ensure its success in all parts of the country. It may do so at Abergavenny, but not in Notts or Yorkshire, although in some situations in both these counties it succeeds remarkably well, whilst in others it defies the skill of the gardener and chemist. The situation and seasons have more influence on the growth and successful culture of the *Calceolaria* than any soil it can be planted in. I can enumerate several places within ten miles of Osberton where nearly every kind of soil has been tried, both in damp and dry situations, without success; and I am fully convinced, if soil would ensure its success, such practical men as Mr. Miller of the Manor, Holah of Rufford, Henderson of Thoresby, Hall of Sandbeck, and several others who bed out largely in this neighbourhood, would grow it more extensively. Indeed, at some of these establishments there is hardly a *Calceolaria* to be seen. At Osberton they generally do pretty well, only twice during the past ten years have they proved fickle, but this is enough to shake my entire confidence in them. The only sort I can fully rely on is *amplexicaulis*. This never fails. I grow extensively *Tropæolum "luteum" improved*, in the more conspicuous places, but for the future I intend to plant more extensively the yellow bedding Pansies, so charmed was I with their appearance at Sandbeck and Rufford. *Tagetes signata pumila* I believe I had the honour of first recommending as a very useful bedding plant, fine for autumn, and continuing in blossom a very long season. The true dwarf variety is certainly a gem, but I find it very difficult to procure true. I, however, saw a very striking bed of it lately, at J. Garside's, Esq., of Carlton House, Worksop. It was a large circular bed of the best variety, and stood out very conspicuous, being in full beauty, whilst the remainder of the garden occupants were entirely destroyed by frost. Yet notwithstanding the yellow foliage plants that have come to our rescue lately—the *Tagetes*, the yellow *Tropæolums*, Pansies, &c., we cannot dispense with the *Calceolaria* where it will succeed in any moderate degree of certainty; but in places where it will not grow or live a substitute must be found, and I have at present met with nothing more suitable than the Pansy for the purpose, if a true yellow is required. Those I spoke of in my former communication, and *Viola lutea grandiflora* (Tyerman's), are in every way suitable for yellow bedders. *Edwd. Bennett, Osberton.*

Lawn Mower.—The report of the International Exhibition of Horticulture at Hamburg, published in your journal of September 11, I beg leave to state is incomplete, so far as it refers to Williams' American "Archimedean" Lawn Mower. Having officially represented my State at that exhibition, the invention received my particular attention. Your reporter is right in saying, that at the first trial of lawn mowers, in the presence of the judges, no one appeared to show off the "Archimedean," the agent having received no notice that the trial was to take place on that day. My appeal to the committee in charge

induced the judges to grant another trial, which resulted in gaining for our mower the silver medal offered for one of the two best constructed lawn mowers. *H. Glafcke, late Major U.S.A., State Commissioner at the International Horticultural Exhibition of Hamburg, Harfords, Connecticut.*

Golden Champion Grape.—There has of late been considerable doubt thrown upon the character of the fine Grape, as to its strength of constitution, in houses most likely from the fact that to maintain the requisite to the great demand that has been placed upon it the stock has been unduly forced and over-gated, and its constitution consequently injured. I may therefore be of interest to some of your readers to mention that the Golden Champion will make a most did growth when grafted upon the Black Hamburgh. I called recently upon Mr. Jones, gardener to Mill, Mottisfont Abbey, Romsey, and he showed me in one of his vineries, a rod of the Golden Champion the growth of a graft upon the Black Hamburgh in February last, that was as fine and well ripened as rod of any other Vine would have been under the conditions. Perhaps those who have not hitherto been entirely satisfied with the growth of their plants by try grafting, or, if disposed to be even more experimental, may bud it on some well-established variety kind, as Mr. Stevens does at Trentham. I am by what I saw of the way in which Grapes are raised at Mottisfont, it is likely that Mr. Jones will be able to give a good account of the Golden Champion next May. *Alex. Dean.*

Our Fruit Failure and its Lessons.—To guard this evil as far as possible should be our object, and Mr. Fish gives us excellent advice in his article at p. 1038. Mr. T. C. Sage supplements a recommendation that a portable hot-water apparatus should be invented to use with the improved houses recommended by Mr. Fish, and which I endorse, not that I altogether blame the frost of spring for all the damage done. To arrive at the nearest possible conclusion as to the causes of this service if records were given of failures, with noted day and night temperature during the time the trees were in bloom, the state of the atmosphere during time, class of soils, &c. We should then gain a useful information on this point, which would be in guarding against much of the evil in the coming season. My own belief, in regard to the failures of fruit crops of the past season is, that the whole of blame should not be laid to frost alone. We have orchard-houses here with trees trained to wires or back walls. The outside border is 2 feet 6 inches wide, then a path of 3 feet, with a centre border 6 feet, in which are planted bush trees of Peaches, Apricots. The spaces between these are filled up with Peach and Nectarine trees in pots. The two last are which are respectively 25 and 30 feet long each, and nearly 14 feet wide, contain three Peach trees trained to the back walls, one Nectarine, and one Apricot, six trees planted out, and 20 pot trees of Peaches and Nectarines. The whole has now had three seasons work, and produced this year about three parts of fair crop for young trees—one tree of the *Chambour Peach* had only one inferior fruit. This tree has been every season; I do not think this variety is suitable to orchard-house culture. The best and finest fruit was obtained from a variety called *Dymond*, which I bought it from the Messrs. Veitch two years ago. It is really a very fine Peach, quite distinct from any other kind that I have. Altogether these two sorts have produced this season about 580 fruit of Peaches, Nectarines, and Apricots. In the same house I have now from 90 to 100 lb of Grapes nearly ready for use. The soil in one house is a heavy loam, with a liberal mixture of chalk, and in the other it is a natural garden soil, which is a heavy clay, with a sixth part of chalk. The trees do remarkably well in both houses, and are now looking very promising for another season. The weather here during nearly the whole time the trees were in bloom was bright and sunny during the day, with a very keen easterly wind necessary to give a liberal amount of air during the middle of the day, which was an evil, as the cold current of cold wind seemed to congeal the pollen, so hard that it was with difficulty it could be separated with a camel-hair brush. The weather during the nights was generally cold and cloudy, with more or less frost, and one or two storms of sleet and snow, as they were in full bloom; but, notwithstanding all, some Peach and Nectarine trees on the open wall produced a good crop. Taking all the trees together in the air, we had rather more than half a crop. I should state the trees on the open wall were produced by having two 9-inch boards side by side, and leaning on to some stakes leaning from the border to the wall, which formed a broad canopy standing out over the tops of trees about 12 or 15 inches; this, I believe, in ordinary seasons is the best covering for open walls. I have tried a great many things, but cannot find anything to answer the purpose so well as this. They were produced as soon as the blooms began to show colour, and remained on till the leaves were large enough to afford a slight protection to the young fruit. Now, my conclusion is this—if the frost is to be blamed for the loss of the unheated orchard-house fruit here, why should it not destroy the whole crop on the open wall, which was very much more likely to suffer than that in the orchard-house, where care was taken to box up the much of the sun-heat as possible every afternoon, which could be perceptibly felt at midnight, and in the same hour the surface of the walls in the open air would be disagreeably cold to the touch, and in the morning ice would often be seen hanging from the edges of the boards farthest from the wall, while the

The houses the temperature was hardly down to 40° Fahr. The lowest point touched during the blooming season was 2° below freezing, and this only once. I found, as a rule, that the pollen worked best in the morning before the cutting east wind was admitted. I had a hive of bees in the houses during part of the time, but they did not seem to move any better than was done with a camel-hair brush, which was kept going every day, both in the houses and on the open wall. On making inquiries of others, I find one cultivator attributes the loss of his crop to an insufficient supply of water to the roots previous to the blooming period—a point in which I believe there is much truth. Others, who have the assistance of a hot-water pipe, turned a little heat on at daylight in the morning, and gave air almost immediately, have a good crop. To ascertain as far as possible the results from different quarters must be my object for the length of this letter. I desire to see better crops of fruit, to obtain which let us have our houses properly constructed, for the cultivation of the fruit, with just enough piping to keep out frost during the blooming season. The walls can then be devoted to choice Pears, Plums, &c., which will be much improved by being grown against a south wall. *J. May, Hants.*

Vine Roots.—A subject to which for some considerable time I have given particular attention, has been adverted to by two of your correspondents. The first, Mr. Gill (see p. 1061), asks "if Vines make roots without the action of leaves and branches?" the second, Mr. Anderson (see p. 1137), putting the question in rather a different form, asks, "Do Vines make leaves and branches without the aid of new rootlets?" My answer to both of these questions is an emphatic No. It is as absurd to believe that, as it would be to believe a tree to live without roots altogether. These views of the subject are antagonistic to sound reason, and all the laws of the vegetable kingdom bearing hereupon. Mr. Anderson makes reference to opinions given by several gentlemen of very high standing in the horticultural world, and whose opinions are worthy of very respect. These gentlemen appear to have held different views upon the subject, but I am of opinion a little explanation would have shown "that yet, with all their differences, they all agreed." The best way to come to a correct conclusion upon this subject is to examine it physiologically. Now, much attention to not only Vines, but all sorts of trees, shrubs, &c., has brought me to form very different opinions from those which are commonly held upon many of the laws which govern the rise and flow of the sap, the formation of buds, branches, roots, and such like. I am prepared to receive much opposition from those who may have hurriedly examined the question, and who have not given it that attention it so well deserves. Those however who year after year, and at various seasons, will take the trouble to examine the roots of Vines, fruit trees, and any thing else they like, will I think in the end arrive at the same conclusion as I have done. In the first place, I would draw the notice of the reader to the fact, that the roots have absolute and entire control over the whole tree—stem, branches, and leaves—and even being the fact, when a tree becomes unhealthy, do the parts of gardeners at once examine the roots to ascertain the cause? This is proof positive that whatever they have to believe regarding the matter, their practice is substantially antagonistic to the foregoing questions. To come more fully into the subject in hand, let me notice what in autumn—for it is here I must begin to properly handle the subject—in autumn, when the fruit of the tree begins to ripen, then to a certain extent the roots set from rest to act. Gradually and by slow degrees the two motions become less active, until by the time the leaves have fallen the action has entirely ceased. This is the nature of Nature gradually sinking into sleep—or rest if you will, and this is as absolute for the Vine or any other tree, as it is for the animal kingdom. You will notice with all the known laws of Nature. By referring to Lindley's "Theory of Horticulture," you will there see the author's reasons for this. I, however, differ from him in some of the points; although what he says is to a certain extent true, yet, nevertheless, it is not the whole truth. The passages and surface become to a certain extent choked up, but every gardener knows well enough that they do not become entirely incapable of performing their functions, as we are by artificial means prolong the period of their existence. The roots, therefore, must have something to do with the matter. Yes, undoubtedly they have, and by their desire to go to rest refuse to supply the food necessary for keeping the leaves upon the trees. The roots are the mouths—the leaves the mouths—so that it would be as unreasonable to suppose that the leaves and branches of a tree would develop and grow without the action of the roots, as it would be to entertain the idea that the human stomach could be fed without the mouth providing it with food. At the end of the natural period of rest for the Vine, the buds begin to "swell," as it is popularly said; and how and by what means is this swelling process carried on? Not certainly without the action of the roots. Some I know declare that this is accomplished without the aid of the roots—that a store is laid up for this very purpose, and that this process takes place quite independently of root action. How can this possibly be the case? There must be a vacuum left somewhere, equivalent to the increased bulk of every bud upon the tree. Nay more, if, as Mr. Anderson says, the roots were dormant after the buds began to swell, we must expect a very large vacuum to have been made in the roots of the Vine, so much so indeed, that a perceptible difference must have been admitted in their circumference. And, further, it is admitted by most physiologists that the leaf draws the sap to it in much the same way as a valve draws water in a pump. Now, if this be the

case, a great number of the channels must have been entirely dried up in the roots, and as we in Scotland say, must have lost the "faug," that is to say, that these channels would require to be re-filled ere the leaves could perform their pump-like functions. Now as I deny in toto that the roots do not work as early as the leaves I will ask you to prove the matter for yourselves. After the buds have swollen for a short time, and the leaves begin to develop—at which time Mr. Anderson says his roots were still dormant—let a Vine be cut over near the ground, and what is the result? why, bleeding of course. Now what is the cause of this bleeding? Nothing more nor less than the action of the roots gathering food and forcing it up to the leaves or stomach of the tree. If the roots were dormant there would be no bleeding, and if the leaves alone were the cause of circulation of the sap there would be no bleeding, as, these having been removed, if the roots did not act independently, the flow of sap would at once cease when the union had been broken. This is the reason, although perhaps imperfectly understood, why all good gardeners incline to prune their Vines as soon as possible after they lose their leaves, as then and then only there is no danger of bleeding. Now although I have spoken thus, I do not deny that to all appearance the Vines were dormant. But such was not the case. As soon as the buds began to swell so soon did the action of the roots begin. Let us not suppose, however, that the starting into action of the roots as a natural cause should produce young roots or spongioles. Oh no, it is an after consequence. The food taken up by the roots has to be digested in the stomach of the plant—that is, the leaves—and return again ere young rootlets are formed. So that there may be no misconception upon this point, let me say that buds are leaves, flowers, and branches, in embryo, and consequently, act as stomach and lungs, until such time as the leaves begin to develop. The food or sap, therefore, is provided by the roots, and passing up through the tree to the bud, becomes there digested, and afterwards part thereof descends, and forms young spongioles; hence the reason why the action of the roots is not visible till some time after their real work has commenced. If anyone has the least doubt that it is the descending sap which forms the young rootlet, let him have one of the sections magnified, and he will at once perceive that it is done in much the same way that an icicle is formed, viz. by a descending deposit on the outside and point of the old wood. At page 18 of "Lindley's Theory of Horticulture" will be found a cut which will amply illustrate what I mean. I know that what I here advance is antagonistic to the views of many of our leading men; yet, nevertheless, unless they are prepared to give a better, a clearer, and more convincing proof of the correctness of their theory—for it is nothing more—I must abide by my own conclusions. *James M. Millan, Erskine Gardens, Glasgow.* Our correspondent is not quite up to time in his notions of vegetable physiology. *E. S.*

Lilium lancifolium.—Without venturing on a lengthened disquisition as to the general culture of this lovely genus—on which much diversity of opinion exists—I wish merely to state that at the present time we have here several plants of the above growing in only 4-inch pots, varying from 12 inches to 18 inches high in the main stems, each being furnished with five or six fully developed and deliciously scented flowers; hence affording admirable subjects for parlour and sitting-room purposes. The bulbs in question were procured from a London firm early last spring, and arrived here in a somewhat shrivelled dormant state. They were forthwith potted in a mixture of peat, loam, and silver sand, in 4-inch pots, in which they have grown up to the present time, resulting as I have previously detailed. Possibly there may be nothing new in the mode of culture; it is, however, the only instance that has ever come under my cognisance, and I have had considerable experience in the culture of them. Here I may be allowed to remark that some of the finest and best-bloomed specimens I ever saw were grown by me in 12-inch and 16-inch pots—several bulbs in a pot, and they were received and treated under similar conditions, excepting the small pots, to those which form the subject of the foregoing remarks. *William Gardiner, Eaton Park.*

Picea Pinsapo.—It was very interesting to read Mr. Gardiner's paper on *Picea Pinsapo* (see p. 1137), how it was attacked by a Fungus, blown down twice, and twice reared up; how, after all these casualties, it was thrown into a state of fructification—on the principle, I should say, that, finding its constitution gradually becoming weaker, it concentrated its remaining strength, like other races of plants and animals, in an effort, before death, to perpetuate its species. Mr. Gardiner says, that of late years the tree became less healthy, and that he subsequently found that the cause was an attack of Fungus. Now, in my opinion, this is a point which requires some clearing up. Was Fungus the primary cause of the decay, or was it only a consequence of decay arising from a totally different cause? In the "dark-coloured loam" in which the tree was planted might there not be something lurking which eventually proved distasteful to the roots? or did not the roots penetrate deeply (as the roots of Conifers do sometimes), to the formation of has, which abounds in lime, and there sicken and die, and during their decay became attacked by the Fungus? This opinion is strengthened by Mr. Gardiner's description of the state in which he found the roots, "one of the main surface roots was healthy." This is almost of itself evidence enough to prove that the Fungus was not the primary cause of decay; there is, indeed, direct evidence from Mr. Gardiner himself to prove that it was only a consequence of some other decay, as he says, "so far as I can ascertain, the Fungus is now apparently in a state of non-vitality." We may, then,

almost safely infer that decay originated in those roots which penetrated deeply into the subsoil, for, we observe, in its after history, that the tree showed marked evidence of renewed vigour by a formation of new bark at the base, and of terminal growth in the branches. All this to me, seems evidence that Fungus was not the primary cause of the decay. Perhaps Mr. Gardiner could furnish other information respecting the situation where his *Pinsapo* is planted, whether the situation is wet or dry—extremes either way might induce decay. "M. J. B." might be induced to say something in this case, but would that he could shift the primary cause of decay on to the shoulders of anything but this horrid Fungus, which haunts every gardener like a nightmare—lest either his Conifers, Peach trees, or Vines, should become irretrievably afflicted with it. There are three beautiful specimens of the *P. Pinsapo* here, which are respectively 20, 25, and 30 feet high, healthy, and otherwise well developed, but I trust we may be more fortunate than Mr. Gardiner has been with his. I should rather see cones produced upon them through maturity of years than by circumstances such as appear to have brought about the premature coming of Mr. Gardiner's trees. *Wm. Miller, Combe Abbey Gardens.*

The Early Maturation of Potatoes, so as to secure the crop in a healthy condition, is the great desideratum, and, with early sorts, this may generally be safely accomplished, but with late kinds it is occasionally well not to be in too great a hurry. This season we took up our principal crop in the first week in September, which for late sorts, in a general way, I consider too early, excepting in such a season as the present. The rainfall here for the last three years, in the months of June, July, and August, has been as under:—

	1867.	1868.	1869.
June	inches, 0.82	1.40	0.88
July	4.00	6.25	0.45
August	2.34	5.40	0.83
Inches.	8.06	7.14	2.16

This year, owing to the diminished amount of rainfall, especially in August, we have suffered more from drought than we did last season, though later in the season, and in a different manner. The park has in many places showed more brown than I have ever before observed. August-sown seeds, as Cabbage, Spinach, &c., at first came up badly, and many trees, particularly Beech, were prematurely shedding their leaves; but other things that failed last season have done well this, as late Peas, but then in May of this year we had 5.82 inches of rain. Potatoes ripened off early, the haulm being generally withered by the end of August; and fearing a repetition of the superabundance of last year, they were taken up as mentioned above, excepting part of a late kind, called here *Scilly Red*, the tubers of which were found too small to be useful, the tops of these being still somewhat green, though the leaves were mostly gone, they were left in the ground, in the hope they might still improve. Upon taking them up on the 15th October we were not disappointed. This fact proves that though the leaves may be mostly gone, yet, while matured juices are left in the stems, the tubers will grow and increase the value of the crop, other conditions being favourable. Early Potatoes in the garden were all that could be desired, both as to quantity and quality, in the field we had quality, but the quantity below average. *T. C. Elliott, Melbury House Gardens.*

"The Question."—Nothing stimulates a man so much to industry and good conduct as the hope of being, in the end, well rewarded for his pains. The Devil know this when he said, in his malice, "Does Job serve God for nought?" Gardeners are very apt to look upon their remuneration as inadequate, because they do not go into the matter in a business-like way, to see what they really do get. I once tried to convince an old pensioner that he had had about 2s. 6d. per day for all the years he had been a foot soldier, and he smiled at my view of the matter, but when he saw how I accounted for the Government securities for the whole term of his natural life, at even 1s. per day—and that he would have had to save from 300l. to 500l., and let the same out at good interest, to bring in 180l. a year and that this represented a saving of 20l. or 30l. a year for 15 years, he saw clearly that he had had 2s. 6d. a day, and something over. Now the only way to right the matter between the gardener and his employer, is to state clearly, in the first place, what the employer really does pay, for he must not be condemned without a hearing. Some proprietors of farms in Wales once sent a deputation to London, to confer with the Government about abatements and allowances, and when the items of cost were fairly set against the selling price, they were all convinced that they had an excellent paying business, for they had never had their balance-sheet so well audited before. The writer of this letter was duly examined by the Income Tax officials, and had to state the value of his salary in cash, and not only that but the cash value of household fuel, milk, vegetables, and the use of furniture, bed and table linen, carriage and the like, but this is not all, for enquiring into the cost of his life, and charging to the rent the various taxes, and the various rates, highway rates, inhabited houses tax, and the like, and the value of the water, &c., &c., of which the gardener attached to a country mansion or gentleman's seat does not pay, or, in other words, has it saved or added to his wages—and, as there can be no wrangling about figures, it is quite clear that the salaries of some gardeners, like the pay of the soldier above-mentioned, are certainly larger than they usually reckon them to be. But two and two will only make four, and not either three or five to please either party. The gardener who has been honourably dealt with by a generous employer usually becomes grateful, and firmly attached to his patron's interest; and the employers described by the late Dr. Lindley as persons who "should be allowed to serve themselves," who use their position as masters to get their work done for less than its fair and just value, need not be at all surprised at the servant copying so plain an example, and using his abilities, not for his employer's interest, but for his own. In Lancashire and elsewhere, where the effects of trade unions are felt, the wages for skilled labour have lately risen to an enormous extent, and these unions, in some instances, have dragged not only their own members but others out of the low wages formerly paid, into a very different state. As an instance of this I will add, that the papers teem with advertisements for masons and bricklayers at 7d. per hour, which, at 50 hours per week, gives 35s. 4d., or within a fraction of 100l. a year, and this, be it observed, is not for masters but for journeymen. When well

educated boys are leaving school they aspire to learn some business, which encourages them to climb after the coveted prize, and, in the case of the 7s. 6d. per hour, with an assistant, or labourer, to do the drudgery, always looks forward to the end of his bricksetting apprenticeship as to a land of Goshen not very far off. All the interested parties must be convinced that, unless well educated boys, of good character and strong constitution, can be induced to learn gardening, we shall feel the effects of a low status, and the art will assuredly go down to meet the scale. But how have these men got their wages raised? Simply by the clear head and the labouring hand, to combine and persevere, and with the natural imperfections of human nature, all starred ideas have often been entertained to compel numbers to support the union by which their wages had been got up. Still there stands the fact unquestioned, that the whole of the trades have bettered their condition, and it is to the union, with all its faults, that they owe the debt. I will now give one example of the unfairness of prices as affecting gardeners. The tailor, for one of the necessities of life, gets 30 per cent. advance for his skilled labour, whilst the wages of gardeners have been almost a fixture, to my knowledge, for the last 30 years. The science and practice of gardening, like that of railways, is but a thing of yesterday, for it had no literature even in my time. The gathering of Fern seed at stated times, &c., for witchcraft, and the "virtues" ascribed to certain plants, as the Chaste tree, and the superstitious pieces of information to be derived from Herbals and the like, furnish important evidence to show our patrons the "datum peg," or the watermark, from which we started; while the great fruit flower and vegetable shows will mark the progress that gardening and gardeners have made during the lifetime of living men. My namesake, Mr. Forsyth, got a grant from Government for improvements in fruit growing, and I name it here to show that the Government of that day set a good example, and did not let a public servant who had done some service to the community go unrewarded. The jealousy caused by this grant was discredit to the Opposition, and some of us can now look and laugh at their failures. For example, the late Thomas Andrew Knight experimented with Pine-apples mounted on shelves to produce their fruit without bottom heat, to fulfil a theory that the heat should go the other way. One would have thought that the Cucumbers and Melons, and all the host of cuttings from the hot-beds, would have exhorted the President, and warned such a shrewd observer. Mr. Knight's failure to grow Pine-apples without bottom heat has been like a bell on that rock, and has warned all his followers to give it a wide berth, and this gentleman was louder than any one in condemning the grant to the King's gardener. I am not expecting Government aid for gardeners, but I do expect that as they have a multitude of cares, and as their business requires great attention to be paid to it on Sundays, as well as on other days, and by night as well as by day, some adequate consideration for unremitting labour of head as well as of hand should be given. But some one will say, How are we to know who are gardeners and who are not? Easily enough. You do not mistake the hodman of the bricksetter for the craftsman he is writing upon, although he may be the best man in dress as well as in person. You have no difficulty in telling who are tailors, and who are not, although nearly half of all the human family "stitch at times." When learned men want to distinguish the human family from others having a brute resemblance, they say man is a cooking animal (using fire) to which the knight of the thimble might add that he is a dressing animal (using clothes), but he certainly is a gardening animal, a real cultivator, which no brute has ever been. All gardeners ought to be able to show that they are, or have been, recognised by some competent authority as such. An indenture of apprenticeship, on stamped paper, after the Scottish fashion, tells the fee paid, the time served, and the restraints used to learn the business. Moreover, it gives dates, and a clue to the history of the man, and subsequent papers will show the times and places where further proficiency has been acquired, without subjecting the gardener to any more prying or examination than would be required by an insurance office before granting a life policy. If a gardener's club were established in London with branches in the country, it would soon become impossible to palm off inferior men as well educated gardeners, and the headquarters would always be something like a home to fall back upon, and a source from which good gardeners could be drawn. We see the sailors in their "Home" in Liverpool. When we had only the wretched huddle for a house, and the rushes for a floor, the mason of the middle ages came, and was honoured as well as rewarded. He it was that took us out of the hut and the log cabin, and laid the foundations of the church, the castle, and the palace, of which it has been well said, "their very ruins are tremendous." In like manner, the craft confided to old gardeners, or rather to gardeners now living, is so well worthy of being handed down to posterity, that we shall commit a great blunder if we let it slip over one generation. And a society for the preservation of the craft is much wanted. The well educated youth leaving school with a strong constitution should pay some one a fee, and submit to the restraints of an apprenticeship, and thus the relationship of master and apprentice would be of the greatest value in securing the best interests of both, and as this would add to the gardener's income, it would at the same time make a legal demand for a course of instruction which no man could afford altogether to ignore, which is far from being the case now, where money is paid, and the young man is left to his own resources. Too much stress cannot be laid upon the simple fact that the gardener must be born an amateur, with sufficient force of character to grapple with the difficulties attending a thorough knowledge of plants, and their culture. He should have a great love for the other branches of natural history, and, generally speaking, of what may be termed rural life, for it would be perfectly useless to look for high class attainments where those are wanting. I could at any time during the last 20 years point to men who have been pitched into situations of trust as gardeners by patronage, to the great detriment of better men, and to the utter ruin of the gardens entrusted to them. I recollect an instance of one of these would-be gardeners appointed as one of the judges at an exhibition of fruit and flowers, and when his decision was called in question he astonished by exhibiting the other judges' medals, and saying "I have never seen a better specimen of the said gold medal having grown a better of grapes in his life, and I do not see that I patronage can bestow this style of practical information. There has been too much fiddling up in one string in coming out against the low rate of wages for gardeners, without stating honestly both sides of the question; for one gardener of the above named stamp would be found able to weigh down the scale against ten meritorious men. Far be it from me to speak slightly of patronage when it is bestowed on real merit by those who are competent to judge, but few will deny that among the number of young gardeners now learning the business, as well as among the young men with whom the writer of this letter has been associated, a goodly portion never could be good gardeners, for they never took root in their business. I am happy to be able to state, however, that the greater part of those who really loved the craft, and studied hard to master it, among my acquaintances, got well rewarded. The gardener's wages and the comforts of his residence, and the like, can never be of the slightest importance as influencing the fortune of his employer, and therefore it is too often from sheer thoughtlessness that his interest is overlooked. If we could only get young men to

understand the great value of high moral training, which is a cheap commodity, then when high class information has been engrafted upon that stock, the fruit will, generally speaking, be forthcoming in due season. Alex. Forsyth.

Notices of Books.

Field, Forest, and Garden Botany; a Simple Introduction to the Common Plants of the United States East of the Mississippi, both Wild and Cultivated. By Asa Gray. New York: Ivison. 8vo., pp 386.

In our student days, we hardly know why, unless from a supposed difficulty (purely imaginary) in procuring specimens, it was the fashion for students of botany to disregard, or even disparage, the study of any but "wild" plants. The fact that such and such a flower was a garden plant was, with many students, a sufficient reason for casting it aside without more than a passing glance. Of course, we are speaking of those who studied botany because it was part of the curriculum, and who "crammed" as much of the subject as was necessary for a "pass," never cared to digest what they had learnt, and, having obtained their object, straightway forgot all they had learnt. In the case of the few who studied botany for its own sake, and because they liked it, there was still a difficulty about garden plants, because few or none of the ordinary text-books make more than a passing notice of them. This has always seemed to us a great oversight, because garden plants are often more readily and constantly accessible than wild ones; they have as a rule larger and more conspicuous flowers, so that their structure is more readily made out by the inexperienced student, and they present a greater range and diversity of conformation than do wild plants. Again, if the student be desirous of studying the comparative anatomy or morphology of flowers, garden plants and garden varieties, such as double flowers and the like, offer facilities not possessed by our native plants. For physiological purposes, for investigations into the life-history of plants, garden specimens are indispensable. Some such opinion seems to have induced the eminent Professor of Botany in Harvard University to draw up the present volume. "It is very desirable," says he in his preface, "that students should be able to use exotic as well as indigenous plants in analysis; and a scientific acquaintance with the plants and flowers most common around us in garden, field, or greenhouse, and which so largely contribute to our well-being and enjoyment, would seem to be no less important than in the case of our native plants. If it is worth while so largely to assemble around us ornamental and useful trees, plants, and flowers, it is certainly well to know what they are, and what they are like." Hence "one of the main objects of this book is to provide cultivators, gardeners, and amateurs, and all who are fond of plants and flowers, with a simple guide to a knowledge of their botanical names and structure."

Of course, the book will be mainly serviceable to American students, but it will be of use also on this side of the Atlantic, and may serve as a model for some one to draw up a similar work for this country. There are one or two similar works in the French language, but none in English that can boast anything like completeness. The present work consists of a description, in as simple language as possible, of the majority of the more conspicuous and easily studied plants of the United States, east of the Mississippi, and of the principal garden flowers. These are all arranged according to their natural orders. The name of Professor Asa Gray is an ample guarantee for the accuracy of the book, which is intended to be used as a companion volume to the "First Lessons in Botany" by the same author.

It is curious to see how the idiom of the language is changing in America. One would hardly expect to notice this in a technical work written by so accomplished and correct a writer, and yet it seems strange to English eyes to read "for" in cases where we should say "in honour or in commemoration of." Thus "Martynia, named by Linnaeus for Prof. Martyn," meaning, not as might be inferred that Linnaeus had been requested by Martyn to name his plant for him, but simply that he bestowed the name "in honour of" Martyn. And so in the case of "Paulownia, named for a Russian Princess." The same expression is made use of in every case where a genus is named after a person else we might have thought it accidental. As it is, we point it out as an instance of a change in language going on in our own time, pretty much in the same way that species are supposed to be undergoing modification.

Some time since we had occasion to speak in terms of high commendation of the series of elementary Atlases intended for use in village schools and similar institutions, and published by Messrs. W. & A. K. Johnston, of Edinburgh and London. We may now announce the publication, by the same firm, of a similar series of Atlases of Physical Geography, at the extremely low price of 2s. 6d., 1s., and 6d. respectively. The maps are not so clear as was the case in the preceding series, indeed too much seems to have been attempted in a little space, nevertheless they will be of service for giving instruction in the main physical and climate peculiarities of the globe.

Florists' Flowers.

NOT many years since the HERBACEOUS CALCEOLARIA formed an important feature of our large metropolitan exhibitions, and though it is scarcely represented now, there is reason to hope the day is not far distant when it will be once more seen, in all its gay and gorgeous hues of colour. Probably one of the most attractive features of the exhibition held at the Crystal Palace in May last was a group of seedling Calceolarias exhibited

by Messrs. Dobson & Son, Woodlands Nursery, which were worth, for crowds of visitors hung about them, they were something altogether new, and of a type familiar from his childhood. The old type of herbaceous Calceolaria, that used to be bred of a size so large as to resemble in habit Mr. B. S. Williams' splendid Crotons, appeared to be a thing of the past; but with it has gone to some extent that ideal of form that used to be worshipped by florists 20 years ago. It should be smooth and full, like a small bladder, not flattened, nor indented like a bell, perfectly round in the outline whichever way viewed." I have no doubt but that Mr. Glenny wrote this, he had the shrubby Calceolaria in view, for he confessed that a higher type of perfection of form found in the shrubby rather than in the herbaceous Calceolaria. Mr. James, of Isleworth, a strain of herbaceous Calceolarias is now the very finest in cultivation, claims to have obtained dwarf growth by crossing with the shrubby Calceolaria. This was a decided gain, whether obtained in the way as Mr. James states, or whether it was simply a selection. If by the former, then it is worth another effort to bring about what is wanted in all our finest strains of herbaceous Calceolarias—an improved form and, if it can also be an admixture of the rich dark hues found in flowers of the shrubby kinds.

It was my privilege during the past summer to inspect, when at their best, the splendid Calceolarias grown by Mr. James and Messrs. Dobson & Sons. Actually these two strains, so long termed identical without adding to or detracting from the glory of either. I thought Mr. James' Calceolaria greater variety of colours, and of than the other way, and the indication of a near approach to a decided purple spot, while there was the preponderance of dark flowers—rich shades of blue, mauve type was absent from Messrs. Dobson's Calceolaria, but if there was less of variation, it was to some extent compensated for by some brilliant golden yellow of great size, handsomely spotted with dark spots, and here, too, were some grand dark flowers, as good as either of these, except in the matter of variation, was a fine strain in the hands of Mr. Wheeler, Warminster, which I saw at the meeting of the Bath and West of England Agricultural Association during the past summer; but all of these wanting in that which will no doubt soon be a perfected form. Flowers, wonderful in size, have been seen this season, but in many they are long, flat, and indented, and the orifices and upperside wide apart. Then in the matter of variegation, have perhaps branched out widely enough for our present, for "the colours and the markings of Calceolaria are becoming exceedingly numerous, and the last few years they have been diverted from general characteristic in an extraordinary manner from speckles and blotches of all forms and sizes, and have produced blossoms with stripes like a Calceolaria ramifying from the hollow which is at the base of the rays from the centre to the outer edge." Mr. Glenny in 1860, and if to these positions we presently add "the roundness and freedom of form—so large a majority of the present variety deficient in these respects"—then we shall have a comparative perfection with the Calceolaria.

But little propagation of the Calceolaria appears to be attempted now. Growers like Mr. James who exhibit occasionally, grow on a few good plants for the purpose, and name them, and the specimen plants he sometimes produces represent or four years' growth. Sometimes, too, a first year having the quality of form in a high degree, is grafted for the purpose of getting seed to raise a new strain. The Calceolaria is now almost generally raised from seed. The latter part of August or the first of September—if there be ample convenience for wintering the plants, and giving them every attention, or even earlier in cases where the winter is limited, and the plants have to struggle against a severe winter, is a good time at which to sow the seed. It should be sown in pans or large pots about 10 inches in diameter. If pots are used, they should be filled about three-fourths up with crocks, and over this soil, say three or four inches of equal quantities of peat and good garden soil, should be passed through a fine sieve and to which should be added a liberal quantity of silver sand. Sow the seed very thinly, as they are so minute, and afterwards shaking over them a little fine soil, water with a fine rose. Perhaps as a general rule it is better to attempt to cover it. Place the pots or pans in a cool and protect them well from the mid-day sun, by placing a piece of glass over the pots, the soil should be kept regularly moist without too frequent watering, thus the germination of the seed will be greatly promoted. As soon as the plants can be handled, they should be pricked off into larger pots, about an inch square, and a compost containing less of peat and more of garden soil. As soon as the plants thus transplanted are well established, touch each other, plant them out singly into 60-pots, and continue to shut them into larger pots as the fibres touch their sides. During the summer and spring months, they will make fine plants, and bloom early in summer. All plants exhibiting a weakly, and straggling habit should be thrown away as worthless.

I am afraid that the interesting class of Calceolarias is dying out, although it has been respecting these that they "are more hardy than the

Round London they appear to have been entirely passed from sight. Occasionally they can be met with in some remote country show, and are seen to be invariably well grown, and highly productive. It is to be hoped that they will be taken up again, by some one ere long, and presented to the public in some more attractive colours, combined with the fine style of growth that some years ago used to be seen at the Royal Nurseries, Slough. R. D.

The Apiary.

UPPERS—I do not wonder at tradesmen who retail honey being unwilling to heave over a heavy box of combs upwards every time a comb is required. The is probably kept bottom upwards not only during the winter but on the tradesman's counter, to exhibit the honey to his customers; then, if the combs are to be used, they are to be taken out of the bars, which is unquestionably the only way, yet long it is boxes are at present constructed, that the comb has to be turned over, and a risk run of losing a mass by setting honey running, which had dripped down into the top of the box as it lay underneath. The alternative, to break out comb as the box is a clumsy and troublesome business too. Could all this be prevented by a different construction of boxes, according to a plan that Taylor recommends in the case of straw supers? Let the top of the super be formed of two boards, glazed either across the grain, one made to fit the inner diameter of the super, and a quarter of an inch thick, the other made wide enough to cover its outside diameter, and of thicker material. This could be fastened to the super's sides with screws. Now, when it is desired to remove any combs, all that would be necessary to do it with perfect ease would be to unscrew the place the box on its top, turned down, to remain in place, and remove the sides of the box all at once, leaving the combs standing up on a flat board, and thus in the easiest of all positions to cut them from their attachments. Of course it would be necessary to fix the board to the flat board-top and I see different ways of doing this, and at the same time leaving a flat surface for the honey to run from. A glass case, instead of the box, may be used to cover the combs when lying on the tradesman's counter.

Lower square or oblong boxes are still more easily constructed, so that the comb will be available by this method. Large boxes may have two opposite sides made movable by being fastened by screws, and brass hinges, and eyes may be added to come into use when all the screws have been taken out. One movable side would be sufficient for a small box. I have seen such a box as the above with a pane of glass over the mouth, and many they lay on a tradesman's counter, showing the comb beautifully through a couple of windows, while the comb was taken out with the greatest ease, and without the loss of a drop of honey. A. B., North.

OUT A MONTH ago I placed a small super, weighing 6 or 7 lbs, over a hive of bees, as it was wet and they could not get out. I thought they would clear out the combs, so that I should have them and empty for next summer's campaign. Can I tell me whether it is necessary to remove the super, and if so, how soon? It seems a great pity, in cold weather, to subject the poor bees to ejectionment. I have stands in a beehive of which the back is but sheltered by a wall. Will it be necessary to surround with hay-bands, or any other covering? The climate is very damp, and the situation windy, but the front and sides of the hive, and the top, are all in Lancashire.

do not approve of allowing partially filled supers to remain on during the winter. Unless the stock is strong in bees, or only poorly supplied with stores, more than probable that the bees will already have cleared from the super. In that case it would be better to remove it. At any rate, on some cold morning if you lift it up to see whether there are many bees, if so, wait until some very mild day, when, removed the super, place it in a warm room, with a partially open window; the bees will return to their present stock without injury. The cover of the hive, of course, be put on as soon as possible after the removal of the super. We do not, in the south of England, need to wrap up our hives, when protected by a house, with hay bands, cloths, or other material. It is only in your climate a mat made of loosely twisted straw might be of advantage. It should be so managed that it should throw off any rain that may drive in from the roof of the bee-house. The great thing, however, is to keep your stocks very populous, and well provided with stores, when the bees will be able to stand any of our weather without any other protection than what may be afforded by shelter from rain.

Garden Memoranda.

DOWNBANK. THE RESIDENCE OF THOMAS DAWSON. (continued from p 1149).—Proceeding from the house No. 4, we enter No. 4, which is a large spanned structure, erected for the cultivation of the Orchids, of which there is here a fine collection, some in inch-glass, some in pots, and some in the open air. The stage are arranged for effect with flowering plants and foliage plants. Extending the entire length of the stage are a great many fine plants of the genus *Phalaenopsis*, on many of which I counted upwards of 20 spikes of bloom in grand perfection—the number of expanded blooms at the time being upwards of 100. So gorgeous a display may be more easily imagined than described. In front of these was a *Epilendrum vitellinum*, mostly large plants, producing their brilliant orange-scarlet flowers in profusion, and, belted with foliage plants and other plants, it looked as if the idea it was to carry out the style of ribbon borders. The following

Orchids were also noticed, either as fine varieties, or as specimens of gigantic proportions—*Oncidium incurvum*, 4 feet across, but getting past its best, though even then I counted 23 spikes of bloom in fine condition. *Odontoglossum labellatum*, *O. Kramerii*, *O. Lindleyanum*, *O. Uro-Skinneri*, *Trochilium turanense*, with upwards of 100 flowers, *O. Lindleyi* extra, a specimen 2 yards across and having 17 of its large spikes just in perfection, was of itself worth a day's journey to see, *O. serratum*, *O. obryzatum*, *O. incurvum majus*, *Lacoste Schilleriana*, &c., all in flower. I cannot leave this house without alluding to one other specimen, although it was not in flower, this is *Angaria Cowsoni*, which measures about 3 feet across, and invariably produces about 70 flowers. The growth of this fine specimen this season is as good as ever.

House No. 5 is in two divisions—the first being occupied by a collection of *Amaryllis*, in the cultivation of which Mr. Dawson takes great interest, and possesses one of the most complete collections in the country; but being their dormant season, I had no opportunity of making notes on varieties. The second division contains a great number of fine specimens of *Aerides Lobbii* and *Saccolabium curvifolium*; in this house are also several plants of *Saccolabium gattatum*, *A. pumilum*, *Pleurochilus pulchellus*, and others, amongst which was a fine plant of *P. cornu-cervi*, and the curious *Pleurochilus loweri*, besides a quantity of the finest *Cypripediums*.

House No. 6 is chiefly devoted to a collection of *Cattleyas* in magnificent condition, and far too numerous to name and describe here; the collection consists mostly of fine specimens of the leading kinds found in trade catalogues. Conspicuous also in this house were grand examples of *Gomezia planifolia*, *Pogstachya pubescens* in flower, *Oncidium ensiferum*, *Oncidium reflexum* in flower, *Laelia autumnalis*, a great quantity, with scores of flower-spikes, sufficient in themselves to create a grand display during the dull season; *Maxillaria venusta*, *Laelia flava*, *Laelia cinnabarina*, *Trichoplia suavis*, *T. picta*, and *T. crispata*; *Epidendrum lechrosum amabile*, *Zygopetalum maxillare*, *Odontoglossum Insleyi*, *O. hastatum*, *O. nastilabium*, *O. Uro-Skinneri*, *O. cristatum*, *O. pendulum roseum*, and *O. novium*, the two last being enormous specimens; *Epidendrum campylostachy*, *Cattleya citrina*, *Sophranitis grandiflora* and others, were suspended from the roof of this house, and doing admirably.

House No. 7 is certainly the crowning point of the whole; indeed I hesitate to note the gigantic proportions of the specimens contained in this house, more especially considering the extreme rarity of some of them; I shall, therefore, confine myself to the names of a few of the most familiar species, which in most instances may not only be seen in fine specimens, but in great variety and quantity, the following being prominent—*Dendrobium Purshii*, *D. forbesii*, *D. subseriale*, *D. Bensoni*, *D. Farmeri*, *D. aurinum*, *D. Vestrumii*, *D. sessile*, *D. crispatum*, *D. prunellinum*, *D. cumulatum*, *D. macrophyllum giganteum*, *D. Wardianum*, *D. Devonianum*, *D. chrysotoxum*, and *D. crassinode*, with *Dendrobium glumacum*, *D. filiforme*, and *Aerides maculosum*. On the centre stage are some *Vandas* of remarkable size, 5 or 6 feet high from the pot, clothed with foliage to the bottom, many with four growths and upwards, while one specimen has 50 growths of various sizes, *Vanda Bitemini* is 8 feet high, *Vanda Loweri* 4 feet, *Cypripedium villosum*, 3 feet across; *Oncidium lanceatum*, very fine and in great quantities; also *Cattleya Dowiana*, *C. amethystoglossa*, *Oncidium Cavendishianum*, *O. Linnæi*, and great quantities of *Aerides*, such as *A. Larpentæ*, *A. nobis*, *A. "fox-brush"*, and *A. roseum*, *Vanda Bensoni*, and *V. Hookeri*; the old *Anselma africana*, unusually fine; *Angraecum sesquipedale*, *A. eburneum*, *A. caudatum*, *Cyclopis Linnæi*, *Cyclopis pandurata*, *Saccolabium ampullaceum*, *Cattleya superba*, all fine specimens, together with numerous other fine species and varieties of little moment to the general reader, many being comparatively unknown except to those who are continually novelty-hunting.

House No. 8 contains, amongst a general temperate collection, the following, most of which may be counted by the dozen, the plants as a rule being small, but in fine health.—*Cattleya Warneri*, *C. Mossiae*, *C. bicolor*, *C. Trianae*, *C. speciosissima*, *C. Skinneri*, *C. Leopoldi*, *C. Dawsoni*, *C. bulbosa*, &c.; *Laelia anceps*, and its varieties *Dawsoni* and *Barkeri*, *L. purpurata*, *L. gigantea*, *Epidendrum rhizophorum*, very large and in flower, *E. nemorale majus*, one of the finest Orchids, and a noble specimen, *Trichoplia eucnea*, *T. suavis*, *T. crispata*, *Oncidium Forbesii*, *O. Papilio*, with upwards of 30 flowers expanded, quite a feature in themselves. *O. sarcochilus*, grown in small pots suspended from the roof in quantity, and very fine. There are here, also, many *Dendrobies*, amongst which were fine examples of *D. heterocarpum*, and other fine species. One other plant, deserving of special notice, is a magnificent specimen of *Laelia superbissima*, fast rivalling the famous *Broomfield* plant. Adjoining this house is a lean-to frame, in which are some fine examples of the lovely *Disa grandiflora* in flower.

House No. 9 is devoted to a small but choice collection of novelties belonging to the cool Orchid section, amongst which are several gems of sterling merit, either as new and rare species, or older ones seldom seen in such good condition. The following are a few species, which are evidently quite at home in this house, a portion of which is partitioned off, and forms a sort of closed box, having a northern aspect; the plants are close to the glass, and kept very cool, and I never saw *Laelia majalis* anything near so fine as it is here. *Barkeria*, too, are doing well, in the other portion of the house, and occupying one end are several plants of *Flore de San Joseph* (*Epidendrum erubescens*) growing in wild luxuriance on the stage, uncontrolled by pots or

other incumbrances, *Laelia albida*, and its varieties, by dozens, *Laelia furfuracea*, *Oncidium leucochilum*, *O. ornithorhynchum*, *Odontoglossum Phalaenopsis*, some of the *Lycastes*—one new species very fine, and a beautiful *O. longotlet*, which will doubtless be shortly described and named.

There were various other houses, devoted to other objects but it is not my purpose here to enter into any details of the contents of these houses, suffice it to say, that there is here also a good collection of miscellaneous plants, Mr. Dawson having many pet varieties amongst them. Long may he live to enjoy the fruits of his labours, and maintain the proud position he has so deservedly won, and in which he has been so materially aided by Mr. Anderson's skill and sagacity. Robert Bullen, Curator, Royal Botanic Garden, Glasgow.

Miscellaneous.

Gigantic Trees—Passing and stopping for a few hours at Pueblo Nuevo, with its curious Cactus fences, I put up for the night at Nagarote, where I measured a famous Genisaro tree (*Pithecolobium saman*, Benth.), belonging to the Mimosa tribe, of which the villagers are justly proud, and for which 200 dollars have been offered—a high price in a country where timber abounds, and yet they had the public spirit—the rarest of virtues in a Spanish American—to refuse the offer, others say the Government made them refuse. The tree, of which a woodcut is given in Spurr's "Central America," is but 90 feet high; but some of the lower branches, which are quite horizontal, are 92 feet long and 5 feet in diameter. The stem, 4 feet above the base, is 21 feet in circumference, and the crown of the tree describes a circle of 348 feet. A whole regiment of soldiers may seek repose in its shade. If this vegetable monster had been a denizen of any part of the eastern hemisphere, it would have become a fit object of tree-worship, that singular religion which flourished long before temples and churches were thought of, and which enjoyed a more extensive geographical range than any creed has done since. At one time it was diffused over the whole of Europe, Asia, Africa, and Polynesia. Throughout Europe and some islands of Polynesia it has been supplanted by Christianity, in parts of Asia and Africa by Mohammedanism, but nowhere have its rites been entirely suppressed. Deprived of their religious character and import, many of them have survived to this day, everywhere associated with mirth, good feeling and festivity. No trace of tree-worship has been noticed amongst the natives of Australia, nor amongst those of the New World, though it had penetrated to the easternmost islands of Polynesia. The fact is most singular, as no continent boasts of such magnificent and venerable trees as America. In the virgin forests of Brazil there are trunks of such gigantic size that fifteen Indians with outstretched arms could hardly span them; trunks which, by counting the concentric rings of their wood, must have been in existence when Homer wrote his immortal poem. In Upper California and along the whole north-western coast of America the vegetation attains enormous dimensions and age. Three hundred feet is no uncommon height for a tree, and some of the *Wellingtonias* overtop St. Peter's, and almost rival the height of the pinnacle of Cheops, whilst their age is such that they must have been in full growth long before the Saxon invasion of England. Yet these peculiarities do not seem to have made any impression on the mind of the American Indian, evidently proving that size, venerable look, and age of trees are not sufficient to account for their worship by the largest section of the human race. Indeed, tree-worship can scarcely have sprung from simple admiration. We have plenty of people among us with a strong leaning that way, and can pretty well judge of its range and scope. The Rev. Charles Young tells us that from childhood nothing in Nature had a greater attraction for him than trees, and a giant tree, such as that of which the bark existed at the Crystal Palace, had been the height of his ambition among the sights of Nature. To gratify this feeling he made purposely a voyage to the Amazon, of which he has given an interesting account to Galton's "Vacation Tourists," and one might suppose that when at last he found himself among the vegetable giants of Brazil feelings superior to those of gratified curiosity would come to the surface. But there was nothing of the kind; even a botanical interest does not appear to have been roused in him. Mr. Young's predilection is rather prevalent in the United States, where travellers are almost bored to death by being taken to see big trees. Dr. Russell, who went thither for a very different purpose, and during a period of great civil commotion, repeatedly mentions his being forced to visit such objects; and he tries to account for the admiration Americans have for their vegetable monsters by the fact that in the United States few things are old and venerable, and any exception to that rule is carefully noticed. I remember, in passing through Cambridge, Massachusetts, seeing a black board, recording that the mayor and aldermen of that town had been such Vandals as to cut down an old and large tree which stood in the middle of the road, and underneath was written with chalk, "Let this be remembered at the next election!" A ride of three days from Managua, by way of Tipitapa and Juigalpa, brought me to Chontales, the finest and most fertile district of Nicaragua. Approaching it from the west, as I did, you find yourself amongst rich undulating grass-lands, which even at the end of the dry season retain their verdure and afford pasture to thousands of heads of cattle. On nearing Libertad, the ground becomes more elevated, the climate considerably cooler, and you get occasional glimpses of the Lake of Granada, with its islands and majestic volcanoes. Close to Libertad commences a dense virgin forest, which extends to the Atlantic seaboard, and a singular feature of which is, that the stems of

the trees are of a very light grey, as well indicated by Mr. George Chambers in some of his clever sketches; but the correctness of which I was inclined to doubt until I had actually seen it in the landscape itself." Dr. Seemann's "Dotlings in Nicaragua."

A Natural Life-Raft.—"Only a traveller's story!" such used to be the reception of many curious and wonderful "natural history" facts related by travellers before the beginning of the present century. The study of Nature was then in its infancy, or more correctly speaking, illustrations in aid of the study were then few in comparison with those of the present day. The increase of the facilities for travel during the last 50 years has been the means, more than all other items in the progress of civilisation, of making us acquainted with Nature's work, and has also proved, in general "travellers tales" to be true, or at least "founded on fact." It our grandmothers had been told that in "out-landish parts of the world" there grew water-lilies with such big leaves that one of them would support herself and her good man sitting comfortably in their easy chairs,—"Ah! only a traveller's tale" would have been the answer. But in her days there were no such journals as "Land and Water," and natural history was then treated almost as a mystery, and not, as now, a popular study. Although we are all familiar with the wonderful tales told by voyagers on the Amazon of the buoyant power of the leaf of Victoria regia, now a common and well-known water-plant, I have not seen recorded the actual weight supported it may therefore interest your readers to mention an experiment made here last week:—A leaf was selected, the worst but one of eight on the plant, as we did not like to destroy the best; it was, however, pretty perfect, only a few holes within 6 inches of the margin, diameter 5 feet 6 inches. On this leaf I placed a wheel 3 feet 6 inches diameter, with eight spokes made of thin wood, and a small footboard, on which I stood and floated "high and dry;" the wheel was necessary to distribute the pressure over a considerable portion of the surface, the texture of the leaf being exceedingly tender (the footboard did not touch the leaf, but rested on the spokes of the wheel). I have no doubt that if the wheel had been of the same diameter as the leaf it would have served as a life-raft for a small family, as the next experiment will show. The wheel and footboard were removed from the leaf and its surface left quite free; we then gradually spread over the surface shell gravel previously weighed out in lots of half cwt.; basketful after basketful was shovelled on up to 3 cwt., when the gardeners standing by would not believe their own eyes, and began feeling under the leaf thinking there must be some other support than water,—but no, the leaf floated quite free,—another 20 lb., and another, and another, was thrown on, and yet the good ship remained seaworthy and no signs of foundering; 426 lb. called, water began to leak in through the holes; the excitement or, perhaps, the heat of the "stove" in which we worked, made us rather hasty and unsteady in loading cargo, the weight of which was being augmented by the leakage and an unlucky cast tilted the leaf on one side, the water rushed over, it crumpled up like a sheet of paper and sank in deep water, carrying with it a load of 436 lb. (besides water). This is the greatest weight I have yet seen a leaf support, and the eight now on the plant may be considered equal to 1½ tons. William Sowerby, Botanic Gardens, Regent's Park, in "Land and Water."

Coal Plants.—The Lepidodendron was as abundant as the Sigillaria, and though nearly related to it, it had a very different appearance. The stem was covered with beautiful markings, arranged spirally, and was repeatedly branched like our ordinary forest trees. The leaves were short and flat, and the fruit was a cone produced at the end of the branches. Although as large as the cones of many Fir trees, it has all the characteristics of the small cones of the Club Moss. This tree grew to a height of 50 to 70 feet. World of Wonders.

Garden Operations.

(For the ensuing week.)

PLANT HOUSES.

We are now entering upon the dullest and most unfavourable period of the whole year, so far as the culture of plants under glass is concerned. The artificial heat, which is necessary as a security against frosts, and, in the case of soft-wooded plants, is needed to dispel the excessive dampness so characteristic of our atmosphere, should receive our constant attention. If we are to grow plants to anything like fair specimens, or indeed, if we only wish to keep the general stock in good and thriving health, we must aim at something more than giving waterings at regular intervals, affording air daily, and keeping out the frost. As the days shorten, light decreases, so that everything should be discouraged which tends to keep a plant in active growth, except so much as is needed to insure permanent healthiness. The nearer we approach to the shortest day the more fully should these rules be carried out, by gradually affording less heat and moisture, without, if possible, decreasing the amount of fresh air. Now, in regard to the supply of water during the winter months, it is well known that plants in general thrive better, and imbibe the proffered nutriment with far greater zest, if, as in the case of root waterings, it is afforded somewhat sparingly; or withheld until the ball attains an extent of dryness short of incurring a risk of the plants flagging. When we consider that these rules can be safely acted upon during the dry summer months, with perfect immunity from injury to the plants, it will be readily seen how very essential it is to the well-being of individual specimens—more especially those at rest—

that all root waterings, save those that are absolutely required for their existence, should be withheld at this time, when no great tax, either from direct sun-heat or atmospheric influences is likely to be placed upon them. For this reason, I would not place any specimen which should now be undergoing a season of rest near to any form of artificial heating apparatus, because if the ball is forced into a dry state, a corresponding frequent supply of water must in the course of things be given. This acts as a stimulant to active growth, and a derangement of the system consequently follows. In most structures there are of necessity some certain corners or positions where, during severe frosty periods, the forced heat will make itself felt; here we should place what soft-wooded plants we require in continuous activity, or those of any variety that we value the least. Those specimens of the lovely Hedychium, which have ceased to flower should now be removed to an intermediate house, in a dry warm corner of which they may be permitted to ripen off the old growths, which will then die down and make room for those which will be produced successively in the ensuing spring. Anomatheca cruenta is one of the prettiest little bulbs we know for pot culture. If potted about this time in sandy loam they will make a good growth of bright green foliage during the winter; and commencing to bloom late in May, will produce a succession of brilliant crimson flowers, tinted with scarlet throughout the summer. A juncea is another pretty free-flowering variety, with pink flowers, having a dark blotch at the base. I may state that the former of these makes a very pretty display when planted separately in a bed in the open ground. As natives of the Cape of Good Hope, their general treatment will be understood without further comment being needed.

FORCING HOUSES.

The necessary preparations must now be made preparatory to commencing forcing the earlier Tineries. In cases where the roots are growing in outside borders, the necessary protective substances should be obtained, and a good covering of fermenting materials should be properly prepared and placed thereon. It is a good plan to place a nice layer of well-ripened bracken Fern over the surface of the border, upon which to place the warm material. This, whilst it neutralises the intensity of the heat upon the immediate surface of the border and near to the surface roots, affords them additional encouragement to grow, and aids in retaining the body of heat both latent and artificial. I have recently stated that hot stable litter, if moderately sweet, or, next to this, heated leaves, afford the best possible medium with indoors to aid Vines in breaking, or making their young shoots. In structures of moderate extent advantage should be taken of such assistance. The renewal of the heat in tan beds connected with Pines generally should be seen to in the early part of this month, when the tan beds are finally made up for the mid-winter season. The pots may be eased up to and around the rim where there is any certainty that no further fluctuations of any consequence will occur. Gradually reduce the artificial temperature to 62 or 63° by night, with an increase of 8° to 9° by day, that is, of course, with an additional increase of 7° or 8° by sun-heat. The bottom-heat should not greatly exceed 75° or 77° by the middle of the month. Attend to the necessary shifting of Cherry trees grown in pots for early forcing. The same advice applies to Fig trees under like circumstances. Top-dress such as do not need fresh potting with an admixture of good rotten manure and fibrous loam. Place this upon the surfaces of the old balls, after first removing all unnecessary or loose soil therefrom.

HARDY FLOWER GARDEN.

Auriculas should now be placed in the cold pits or other places where it is intended they should winter. Climbing plants generally attached to walls should be first pruned back somewhat, and then nailed in, preparatory to covering up any of the semi-hardy ones which may need protection, such as the Banksian and other tender Roses, &c. Lose no time in planting-out, or potting for future planting all bulbs intended for blooming in the outer borders. Our best old gardeners used to fix the 9th November as the latest date when all such should be got in, considering that they would then have time to root and establish themselves ere severe weather set in. In the last Calendar, under this heading, for "October," read "November."

KITCHEN GARDEN.

Those who have not attended to the storing away of their Root-crops will have run some risk of getting them frozen, for already we have experienced somewhat severe frosts. Those who have delayed the operation so long should lose no further opportunity. Potatoes, whether with indoors, in sheds, or in clamps, will require constant attention, as indications of disease are exhibiting themselves in cases where few if any of the symptoms were seen at the getting-up time. All diseased tubers should be sorted out and removed at the earliest possible time. Take advantage of each fine day to push forward the final earthing-up of successional or late Celery and Cardoons. The sharp weather we have already had should induce additional activity upon all proper occasions. Bank the main crop up substantially as an additional security against any sort of weather which may ensue. W. E.

TOWN GARDENING.

GRASS-PLOTS and verges should not be mown again this season. They should be well swept and rolled, and, to give the walks a neat appearance, the margins should be cut with the edging iron. Collect together all dead leaves and cuttings off bushes, and prepare them for manure by burning them, and mixing the ashes with rotten grass which has previously been

collected into a heap. This should be well over and mixed thoroughly together; it will make an excellent manure for digging into borders. If a larger stock of Chrysanthemums required, continue to take off suckers from low pot them separately in 60-sized pots, and keep through the winter in a cold frame. Freshly trees and shrubs should be securely staked, to them from being disturbed in the ground by frost. This is of the utmost importance to their health and therefore should not be neglected for a moment. If a covering of leaves or rotten dung be upon ground to cover the roots, it will greatly assist them in making a fresh growth. J. D.

STATE OF THE WEATHER AT CHISWICK, NEAR LONDON. For the Week ending Nov. 3, 1867, as observed at the Observatory.

Table with columns: October and Nov, Moon's Age, BAROMETER (Max, Min), TEMPERATURE (Of the Air: Max, Min, Mean; Of the Soil: 1 foot, 2 feet). Rows for Thurs, Friday, Saturday, Sunday, Monday, Tuesday, Wednesday, and Average.

STATE OF THE WEATHER AT CHISWICK. During the last 43 years, for the ensuing Week, ending Nov. 3, 1867.

Table with columns: November, Average Highest Temp, Average Lowest Temp, Mean Temp, No. of Years in which it Rained, Greatest Quantity of Rain. Rows for Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday.

Notices to Correspondents.

BOILER: Subscriber of 20 Years. The saddle for one of the small ones, is also one of the best boilers. We cannot recommend one that will be better. Of the different saddles, that called saddle is probably the best. CLOTHES: H. D. H. (see p. 111.) We do not know the ball in Dublin. People should advertise the COKE: Subscriber. Coke gives off, weight for sulphurous vapours than coal. COLLETTIA CRUCIATA: We believe this to be a CUCUMBER ROOTS: I O I. Your Cucumber roots by a minute worm of the genus Vibrio. We see the perfect insect, but in small quantities. For the roots, and take care not to use the wheel that you have used. GHERKIN: C. G. Gherkin prophetaurum—Gherkin commonly found in the bottles of pickles. LATE VINERY: J. H. If the wood is not up a little to heat and plenty of air. NAMES OF FRUITS: J. J. Constant Reader. For Winkfield; 2, Winter Crassane, 3, Beurre known; 5, Bishop's Thumb, 6, Flemish Apple Boston Russet—C. D. Apple probably King. Specimen sent very scrubby.—George, 3, Crassane, 54 and 55, Beurre Diep, 12, Knight's Winter Crassane, 13, Dunbar, 4, King of the Pippins, 1, Winter Strawberry, 6, Roston Pippin, 7, Stagg's Nonpareil, 8, Gloria Mundi; 2 and 8, not known.—C. R. 4 O. I. C. and Apples, 1, Dutch Codling, 1, Golden Russet, 11, Winter Mjelling flower, 1, Napoleon Russet, 16, Waltham, 18, Hoysche Golden Russet, 19, Old Golden Cio's Golden Drop. Others unknown. NAMES OF PLANTS: Alpha. We cannot pronounce Phlox, or any other trees, from the leaves. They, orientalis, var. freudenlandi.—J. S. As far as we can tell, in the absence of better not white clover or Lotus corniculatus.—G. G. REMOVAL OF VINE: A Correspondent inquires upon leaving the property, is entitled to take the plants. TESTIMONIALS: G. With many of your remarks certainly not in your special application of the overwhelming majority we against you. You at some points; for instance, Dr. Lanley's position the Council Room of the Royal Horticultural testimonial was presented to him before he instituted in his honor subsequently. The testimonial, though truly it was less than it been. London had a monument erected to his sees it, and substantial relief was afforded to us. We suspect that your name did not appear in the lists, or you would not have fallen into these VETERAN MEMBERS: J. M. We will forward you London Committee. A good suggestion, in small cases. WINTER-TINERIES: T. F. Wellingtonians in pots attacked like yours, probably from the roots in bad condition. The late frost does not seem to the young shoots, and it is probable that the trees may be affected with Fungus. It is to examine the roots of the affected trees, on account of a Pinsky in the last Gardeners' Conference often suffer from this cause. N. J. are now several instances in which this has been the case. Worms: D. H. Lime-water, perfectly clear, for safety for bringing worms out of the pots, case of such plants as leathes, which do not matter. YEW: H. H. Plant at once. ERRATUM.—In notice of Viola Blue Perfecissima. Mr. "Waring," read Mr. "Warren." COMMUNICATIONS RECEIVED.—T. T.—E. & C.—S. E.—J. S.—W. E.—C. P.—F. H.—S. G.—P. G.—W. P.—J. H.—R. H.—G. T.—W. S.—J. D.

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A comparison of these figures with those of any other Root Show in the Kingdom will show that the Gloucester Root Show is the largest. The number of Entries at the last Show exceeded 1500. Forms of Entry may be had gratis of Gloucester. A. C. WHEELER, Hon. Sec.

The Agricultural Gazette.

SATURDAY, NOVEMBER 6, 1869.

AN important contribution towards the settlement of the Irish Land Question has appeared during the current week, in a pamphlet from the pen of Mr. CAIRD. Treating the Irish farmers and landowners as belonging to the same species as ourselves—amenable to the same motives—liable to the same influences which some students and speakers on the subject appear to deny—Mr. CAIRD treats the question as anyone interested in the prosperity of an estate might do. The land is half cultivated, the tenantry are purposeless and helpless, the labourers are in miserable plight. But this is no new thing, requiring any special theory for its explanation, or any heroic treatment for its remedy. Such things have happened before. The very counties which now furnish us with examples of the best agriculture, the highest rents and largest produce, were a century ago no better off. In the Lothians, as in the northern counties generally, "leases for lives, no outlay by the landlord, on the contrary, grassums, or fines paid to him for renewal, subletting, and subdivision to crofters, strict entails tying up the land in the hands of needy owners, then kept Scotland in a state of stagnation and chronic poverty."

What is the history of the wonderful improvement which has since then been witnessed? From 1780, owing chiefly to "enabling laws" affecting the condition of strictly entailed estates, the principle has become established, and the practice has become universal, "that the duty of the landlord is to provide his farms with buildings, and other permanent improvements, and that of the tenant to find the capital for cultivation, under the security of a lease for a fixed term of years." And it is to the influences of the lease for a term of years that the whole change is to be attributed.

What, then, is Mr. CAIRD's remedy for the present state of Irish agriculture? Would he yield to any cry for "fixity of tenure?"—that would be both futile and dishonest. No law can ever fix a rent, and circumstances may again arise, as heretofore, to diminish the value of an Irish farm below its present rental. No law, moreover, can interfere between the two parties to a bargain, and alter the terms of it by mere enactment, without a display of dishonesty which one instinctively would call lawless. But does the law never interfere between the landlord and the tenant? Undoubtedly it does. It gives a year's holding to the man who is accepted as tenant for however short a period. In this its practice rests on the very nature of things—on the fact that the land yields its return only once a year.

Why should not the presumption of law, based upon this natural condition of things, which gives 12 months tenancy without consulting the will of the landowner, be extended?—and, on the ground of the equally natural and unquestionable fact that the return to the enterprising farmer is not realised within the year, why should not the tenant, "holding without written lease, be secured in possession by presumption of law (except for failure to pay rent) for an equitable term, say five years, sufficient to recoup the expenditure necessary to a proper system of cultivation?"

It is in this way, and pleading the existing practice and presumption as its precedent, that Mr. CAIRD would, as it were by force, introduce into Ireland generally that wonderfully fertilising and enriching agency which everywhere else the agricultural lease for a term of years has proved to be.

We shall recur to the pages of this publication for the purpose of again discussing some of the points to which Mr. CAIRD refers. Meanwhile

* "The Irish Land Question." By James Caird. Pp. 35. Longmans.

many of our readers will no doubt read and study the pamphlet for themselves.

THE Council of the Royal Agricultural Society unanimously adopted the report of their committee, recommending that their usual annual grant in connection with agricultural education be made for 1870. The expediency and usefulness of their educational examinations have always been consistently maintained in these columns, even upon those practical grounds which in all probability will supply the point of attack upon them. It may, however, be useful to take the opportunity of again stating the reasons why we think the examination system should be maintained.

The Royal Agricultural Society necessarily represents to the outside world the great body of farmers in the country, and its action is to a great extent looked upon as representing the opinion of farmers generally, and the extent to which they are disposed to keep on a level with the ideas of the community at large. The effects of any distinct want of sympathy between the farming and other classes would sooner or later be serious, but in the present position of political parties they would certainly fall most heavily on the farmers. In all reasonable matters, therefore, it is clearly their policy to fall in with the general current of opinion. Now, if there is one question at the present time which has taken a decided hold of the popular mind, it is that of popular education, technical as well as general—nor is this merely a temporary popular whim; it is, on the contrary, the expression of a growing national need. The opinion is gradually gaining ground, though expressed some years ago by men like Dr. PLAYFAIR, that England has been falling behind in manufacturing excellence on account of her incapacity to compete with the intelligence that more highly educated artisans bring to their work in other countries. Quite lately this has supplied the text for articles in the Times. As long as we maintained our superiority in the more substantial manufactures we were indifferent to our known inferiority in matters of taste and art. This was a mistake; the sense of beauty shown in other nations more than amongst ourselves indicated a capacity of culture which only wanted turning into more utilitarian directions to convince even practical men of its value. While the latent power of other nations has been developed, we have been content to rest at the same level. But though technical education has been and still is neglected among us, general education, its necessary forerunner, is every day receiving more attention. The prestige of the Universities could not prevent their funds being looked into and applied to the endowment of new professorships: endowed schools have been dealt with in the same spirit. The turn of the landed interest will come next. It will be required to do something for education, and the demands that will be made from it will depend on the disposition that it shows to act independently of coercion. It is however well to remember that, by a natural process of gravitation burdens thrown on landowners tend to fall on rent. This will be remembered, and an enlightened spirit among farmers themselves will undoubtedly favourably affect their position when national education comes to be dealt with.

The connection between these considerations and the examinations of the Royal Agricultural Society may seem to be slight, but it is far less so than it seems. The matter is in truth a crucial one. If the examinations are discontinued farmers must be held to be guilty of greater indifference to education than any other class in the country whose work deals with matters requiring an equal degree of intelligence. If that should unhappily come to be the case, they will not be credited with much sympathy for national education generally. This simply means that, as less will be expected from them, more will be required.

In the present day no class can afford to stand still. Other countries understand this better than we do, because they see that no class in a community can confine the effects of its deficiencies to itself. The Americans can hardly be called unpractical or unprosperous, yet they are everywhere founding agricultural colleges, and they have the greatest confidence in scientific and technical education as promoters of material prosperity and national progress. This is the root of the matter. Education gives a man

a capacity for adapting himself to altered conditions and turning them to his advantage. The practical man always remains in his groove, and sooner or later falls to the rear; the well educated farmer is armed at all points, he is progressive as well as practical, and on progressive men a country depends for its permanent well-doing.

To abolish these examinations would be reactionary. It would have been far better not to have commenced them than to give them up after only two years' trial. They have not yet attracted a large number of candidates, but they are a means, not an end. The object of all examinations is to direct and give method to professional study; and that so little of it at present exists among agriculturists is the very reason why the examinations are wanted. As soon as it began to be found that it gave a man some stamp to have passed these examinations, as in all other cases of the kind a body of students would be created. It can hardly be contended that this would not be desirable. Some students there would always be, and it would not be very creditable that the Highland Society only should give these their opportunities of distinction.

To conclude, one argument against the scheme will doubtless be the expense. For this there is an easy remedy—give no prizes, but merely certificates, which will cost nothing more than the paper on which they are printed. The highest rewards at Oxford and Cambridge are only the appearance of a list in a newspaper. The prize system is economically absurd. No labourer could be worse paid than the man who looks to a few pounds' worth of books as the only reward of perhaps months of exertion. D.

THE Wheat trade at Mark Lane, and throughout the country, has continued during the week without any alteration in price. The lowest figure now quoted at Mark Lane is 40s. per quarter; but we are informed that in the Isle of Thanet even, a district usually celebrated for its fine quality of Wheat, the price has been as low as 38s. per quarter. Thus it seems inferior Wheat does not come to London. Malting Barley has been inquired after, and fine qualities have advanced 1s. per quarter in value. Oats, beans, peas, and other feeding stuffs, have remained without alteration. The trade at the Metropolitan stock and meat markets has been dull, at previous prices, the best beasts making 5s. 6d., and the best sheep 5s. 8d. per 8 lb. On Monday there was the large supply of 6000 beasts, more than half of which were foreign, and 14,895 sheep, only 1570 of which were imported. The agricultural seed trade continues in a very depressed condition.—English wool is no dearer, but factors are speculating, on the ground that the home-grown wool trade must soon participate in the general improvement in the prices of manufactured cloths.

Mr. HOWARD'S lecture on Continental Farming, before the London Farmers' Club last Monday, which occupies so many columns of our paper to-day, will be read with interest for its picture of both merits and defects. From both sides of the picture English agriculturists may learn. The possibilities of improvement by the more general adoption of irrigation, and by the extension of Beetroot cultivation, are very forcibly put, and attention will no doubt be directed to them. The light thrown by Mr. HOWARD'S pictures on the policy or impolicy of cottier farming and petty landowning is also most serviceable and timely. We may next week refer more in detail to the lesson thus given to us, for the present the lecturer must be left to tell his story without comment.

At a meeting of the Council of the Central Chamber of Agriculture, held on Tuesday, Mr. C. S. READ, M.P., president, in the chair, it was decided that the annual meeting of the Council should be held at 2 o'clock P.M. on the Wednesday in the Smithfield Club show week, and that the question for discussion at the February meeting, 1870, should be the "Best Mode of Providing for the Future Maintenance of Highways and Turnpike Roads." The subject of the day was "The Present Unsatisfactory Method of Taking the Corn Averages." A resolution to the effect "That, in the opinion of this Council, the corn averages as at present taken are fallacious, and that the buyers' returns should be limited to purchases from growers only," was proposed by Mr. GARDNER (East Kent), and seconded by Mr. CLAY (West Yorkshire). An amendment, "that the returns should be made by the growers only," was proposed by Mr. W. SWITHEEN (Worcestershire), and seconded by Mr. VARDEN (Worcestershire). A lively discussion ensued, in the course of which Mr. DUCKHAM said that in Herefordshire they had resolved to recommend the adoption of the standard at which the tithes were commuted, and to drop the averages altogether; but if the present system were to be continued, then he maintained that all buyers should return to the Inland Revenue Office the quantity of corn they had purchased, and the price; and no great difficulty would arise in regard to such a system as that being adopted. Ultimately the amendment was withdrawn, and the original motion carried unanimously. With respect to "The Necessity for a Uniform System of Weights and Measures," the disadvantages of the differing weights of the market bushel were exposed. News-

paper reports of markets were generally unintelligible, except to people expert in local customs. The superiority of weight as a rule of sale over measure was insisted on. Disputes and risks of litigation would then be avoided. Mr. DUCKHAM moved "That, in the opinion of this Council, all agricultural produce should be sold by weight only." The motion was seconded by Mr. WILLSON, and carried unanimously. It was agreed that the resolutions should be forwarded by the secretary to the provincial Chambers, and that a copy of them should be sent to the President of the Board of Trade.

The value of fresh brewers' grains has long been known to cowkeepers. Their serviceableness has, however, hitherto been confined to the neighbourhood of the mash tun, where they are made, for they do not "keep." Messrs. MILBURN have, as our readers know, conceived the idea of drying them, or making them available at a distance. They have hitherto, however useful as cow-food, been supposed comparatively of little value for general purposes, but it is found that they are largely bought, when dried, at a price we should have hardly thought them likely to command. It has been generally alleged that there can be no goodness in the husk of Barley, but grains do not altogether consist of mere husk; and it is urged besides that linseed-cake is only husk, and still realises 12l. a ton. Desiccated grains, they say, are specially good, because the stomach of the animal can so easily extract what nutriment they contain, which arises from the "cooking" they have undergone by both the maltster and the brewer. The chemical view of the desiccated grain is presented in the following analysis from Dr. VOELCKER and from Mr. SIBSON:—

COMPARATIVE ANALYSES.

Table with 7 columns: Grains, Oats, Beans, Linseed cake, Barley, Wheat. Rows include Moisture, Oil, Albuminous compounds, Gum, starch, and digestible fibre, Woody fibre, and Mineral matter. Total values are 100.00 for each column.

These figures are presented to us by Messrs. MILBURN as fairly contrasting the value of their food with that of other well-known substances. They seem, however, to prove, if, indeed, they do prove, too much for the grains. It is difficult to read with intelligence such a classification of ingredients as is here presented. We see, for instance, that brewers' grains contain 24.87 per cent. of albuminous compounds, while Barley contains only 10.84. That certainly needs further explanation. We are quite willing, however, to believe there is more in grains than the cowkeepers' use of them has yet taught us, and the following passage from MURPHY'S "Chemistry" is worth consideration. He says—"The grains left after mulling (with superfluous moisture evaporated) are very beneficial for the use of swine and cattle, as they contain gum and some of the nitrogenous or protein constituents of Barley in the shape of gluten, together with a certain amount of cellulose, which is valuable; and are as effective in nourishing as an equivalent weight of the original unmalted grain."

A correspondent points out to us how desirable it is that the weekly country returns now being made by inspectors or chief constables, as to the progress or condition of the foot-and-mouth disease, and pleuropneumonia, in the several counties should, in order to the presentation of a complete picture of our losses, also publish the losses which had taken place prior to the adoption of the Act.

A case before the magistrate at the Thames Police Court on Monday last, in which a young man was accused of stealing 64 stones of suet, reveals the existence of a Dutch butter factory near Bromley. Mr. CHARLES YOUNG, solicitor, said he was prosecuting a case of nuisance on Bow Common a year ago, and Mr. LEWIS, solicitor, produced some of the fat from the Dutch butter factory, and said it was sent to Holland and mixed with Dutch butter, and re-exported to England. The Dutch butter factory manufactures tons upon tons of the stuff, and it is sold in our shops as "real Dorset" and "real Cambridge," or "genuine dairy-fed butter."

THE FARMING AND PEASANTRY OF THE CONTINENT.

The following is a condensed report of the Paper read by Mr. James Howard, M.P., at the meeting of the London Farmers' Club on Monday evening.)

FRENCH FARMING.

I WOULD first invite attention to the agriculture of France. French agriculture has long had what many have advocated for England—viz., a Government Department of Agriculture, presided over by a Minister, who takes under his paternal wing the whole family of agricultural colleges, the collection of statistics, farms, mechanical museums, schools, roads, drainage, horse-breeding, chemistry, the necessary supply of food for the people, an experimental implement factory, and a hundred other things are under his control, and the expense of these various institutions is defrayed by the State. Again, the State establishes horse shows and agricultural meetings. The whole country has been divided into 12 districts, in each of which a show (termed a "Concours Regional") is held, and large sums are distributed, with a view to stimulate improve-

* Milburn & Co.'s desiccated.

† Good average.

ments in the various departments of farming. This shows everything is under the control of the Inspector-General of Agriculture, the whole being borne by the State. Further, the Government, with a view to raise the general level of farming, offers in each of the districts a silver cup worth another 120l., called the "Prize of Honour," as a prize for the best-managed farm, which the most useful improvements have produced. With all these various agencies at work, one might expect that agriculture throughout France would be stripped of everything primitive, and the motto of the new French Agriculture, "Practice with Science, Progress with Prudence" would be everywhere realised.

If an intelligent English agriculturist were to estimate of French farming by what he sees from the railway between Calais and Paris, and from the small number of animals and other conditions, come to the conclusion that the whole was going to the bad. This, however, is not the case. Improvement is very slow, scarcely perceptible to those who make an inspection at one of the farms in England, it was years before such farms as the Duke of Leicester's in Norfolk, the Duke of Bedford's at Woburn, and Earl Spencer's in Northamptonshire exerted any marked influence in farms throughout the country. So in France, there are farms which are as far in advance of the general agriculture of the country as were the spirited noblemen I have referred to at the beginning of the present century. The farms alluded to have many of them received the "Prize of Honour," and are exerting a quiet but powerful influence in their respective neighbourhoods.

(1.) Notably among such farms is that of M. Decrombecque, at Lens, about 50 miles from Calais. Decrombecque is a very remarkable man upwards of 70 years of age he is full of energy, read in agriculture, knows England, and is too with English methods of farming, of which he has not been slow to avail himself. His farm is in extent. Half the land is his own, purchased with profits made by farming; indeed, he had a very little capital when he commenced. On the occasion of my visit in the harvest of the Wheat crop was very fine. I saw also Beetroot, all on the ridge, without a single bush in any part. He estimated that the produce weighed about 13 tons per acre. The land had been ploughed 16 to 18 inches deep, with huge ploughs by ox-teams, 16 in a team. On all the farms I visited I found two sets of ploughs, one set for *profonde* ploughing, and the other for deep work called *profonde*. Thirty horses and 80 working oxen kept, the latter only working half time. M. Decrombecque has had a sugar factory on his farm for 20 years; he thinks that farming without the sugar must be a very slow affair. 300 to 400 cattle are fattened on pulp from the sugar factory. He adopted the "box" system, which he came to England to see nearly 20 years ago. He has the advantage in keeping the cattle in covered stalls, and he has found that they are much sooner ready for the butcher than when kept in daylight. An open-sided shed was a great improvement, and as soon as, and sometimes before, the wheat was a heavy flexible or chain spiked harrows were used on the surface with a view to set the annual weeds shed corn germinating. The operation is expensive and not very costly; and M. Decrombecque, by many years' experience, finds he is amply repaid for the trouble. He prefers it to any system of deep or shallow ploughing.

(2.) Another highly cultivated farm is that of M. Gustave Hamoir, at Sautain, near Valenciennes, about 200 miles north of Paris. This gentleman is a very superior and intelligent man—quite my model of what a farmer ought to be—observant, shrewd, informed, and in manners the gentleman. M. Hamoir's district the country is covered with factories, and the properties are much subdivided. 25 acres in one plot being considered quite a large one. One-third, and even one-half the land is cropped with Beetroot. There are a few farms of 100 to 200 acres, but the general run is about 30 to 40 acres. For years M. Hamoir has had fully half of his farm cropped with Beet, all the rest Wheat, except small plots for growing fodder, Clover, and Lucerne. Beet becoming less esteemed, as it does not produce so much Sugar-Beet as oil-cake (rape cake), which now is sold to the land as manure. M. Hamoir, like M. Decrombecque, ploughs his land some 16 inches deep for the crop. The rent in this district is higher than in other I know—the average is 2l. to 2.5l. per acre. In large plots it sells for as high a price as 100l. per acre. The price of land is enhanced from the fact that a French farmer does not and will not appropriate almost any price when the opportunity offers. Hamoir says he has known land sell as high as 1000l. per acre. His opinion is that it would be better for interests that the small farmer should not be a proprietor or landowner, especially at the present time. The interest of his money invested in securities would enable him to hire, even at a high rate, double the quantity of land he can hold as owner; but this course is not adopted because of ignorance which prevails, and the fear of money in other ways. Another reason, says M. Hamoir, and at least as painful a one, is that of the short duration of leases, which are for nine years. The tenant stands in fear and dread that at the end of his lease may be ousted for some other competitor.

(3.) I will now give you a picture of a very fine district, that of Sologne, about 150 miles from Paris, in which M. Edouard Lecouteux, Editor of a

soil. Like France, agriculture in Belgium is in possession of a State department; and, like France, the land is much subdivided. There are a quarter of a million peasant farms under 2 acres, about 20,000 farms of 30 acres, about 10,000 farms of 100 acres, and about 1000 farms of 250 acres and upwards—the average being about 11 acres. Rather more than half the country is cultivated by the owners of the soil. But in Flanders, however, there are few proprietors; the rent of land, as has been asserted, is by no means extravagant; nor do I think you will conclude that the peasantry are overpaid. In Hainault, the highest rented province (and very fine lands, according to the last official returns), the rent averaged 35s. per acre; in Luxemburg, the lowest, it was 12s. 9d. per acre, the average throughout Belgium was 27s. per acre. The average wages of the farm labourer is 1s. 1d. per day, without food, the maximum being 1s. 8d. and the minimum 8d. per day; wages, nevertheless, are said to have advanced 25 to 30 per cent. since 1840. From inquiries I made among the older labourers, I found that 6d. per day was no unusual pay but a few years ago. I had travelled through Belgium several times, but had never set foot upon a farm until last year, when I went over to Brussels to act as a judge of implements. The trial of mowing-machines took place a few miles from the city. The meadow selected was naturally a rich soil, but the crop of Grass was poor, and the field had evidently not been invaded by the roller for many a long day. The farmer attributed the poorness of the crop to Providence—he had expected a better one, as he had got the priest to pray for it! I remarked that Providence should not be held responsible for the omission of rolling; whilst my colleague, M. Hamoir, dryly told him he thought the prayers would be answered if he put on plenty of dung! I mention this as one of many instances I have met with of superstition. It is not an uncommon sight, especially in the Rhenish provinces, to see the image of a patron saint erected at the head of a field, in the hope that the crops would be thereby protected. On the occasion of my visit to the Brussels Show, I went across the plains of Waterloo; it was just previous to harvest. The farms here are large, much of the land is fine, but neither my brother nor I thought the crops, considering the fine season, anything remarkable.

In July last, landing at Ostend, I stayed there a few days, and made excursions in the neighbourhood. The farmers seemed plain, plodding people, knew very little of what was going on in the agricultural world: their houses seemed comfortless, and their living very frugal. The rotation of many farms is Rye, Oats, Potatoes, or Sugar-Beet, then Rye; no Wheat. I found very little in farm produce worth noting down. The practice of ploughing up the land before the crop is carted is general in this, as well as in most parts of the Continent. One farmer showed me his flock, of which he appeared very proud. The Flemish breed are long-legged, small-scragged, narrow animals, which cannot pay the farmer to breed. The same man has some really good Shorthorns and pigs. Boars in this neighbourhood travel like stallions, fresh blood being obtained every year. The labourers seemed dejected and in a low condition. I looked in at the village inn and had a conversation with the landlady, from whom I learned that she never saw a farm labourer in her house, except after dinner on Sunday, when a few would drop in to have a glass of beer. She drew a gloomy picture of their condition, remarking, "Poor things! they have not much comfort in this life."

(1) At Baron Peers', at Oostcamp, near Bruges, I found a better state of things—good cattle, Hampshire Down and Oxfordshire sheep, white Yorkshire pigs, better paid and better fed labourers, and higher rents. The Baron adopts the following rotation:—Wheat, Rye, Oats, Clover, Flax, Potatoes or Mangel. Two, and, as in this case, three white straw crops in succession is not an uncommon practice: to an Englishman it seems unscientific, and none but thorough good land could long stand such treatment. The Baron thinks highly of the practice of growing a little Chicory, which he sows in May; the tops are cut twice during the summer and autumn for green food: the roots remain in the ground all the winter, and are said to be the best food to give to ewes after lambing. At Bearnem, a few miles beyond Baron Peers', is a large Government reformatory, well worthy of a visit; a farm of 600 acres and a garden of 10 acres is attached. The lads receive an excellent training, but I have not time to describe what I saw. A few miles from Brussels is the parish of Dilbeck, containing 2750 acres. In this village, which may be considered an average specimen, there are five or six farms of 85 to 150 acres, ten from 37 to 45 acres, many of about 20 acres, and a large number of 2, 3, and 4 acres. M. Verheyden is the principal farmer of the place, occupying 140 acres, at a rental of 240l., and is a plain, but keen thoughtful man. The cottier farmers work for the larger ones, and get 1s. 3d. per day. M. Verheyden told me that the small farmers above the cottiers could never live and pay their way by mere farming; that their mainstay was fruit, vegetables, and poultry; that, if not too far from a large town, a steady man with a careful wife might get on. The rent of a 10-acre farm, with house, is about 55s. per acre in this parish, and he further said that the farms in his neighbourhood were increasing in size; that wages had more than doubled—20 years ago they were only 6d. per day, without food. Leases are for nine years, without covenant as to crops. He informed me that farmers were no politicians, and voted as their landlord wished. I heard from M. Verheyden a good deal on practical matters; but I must not dwell, for I wish to say something of the finest farm I saw in Belgium—

(2) That of M. Dumont, of Chassart, near Fleurus. The extent is about 1500 acres, divided into five farms, with a homestead to each. At the central homestead is a large sugar factory and grain distillery. The homesteads are connected by iron tramways, which inter-

sect the whole farm: 12 kilometres or eight miles of tramway in one farm was a novel sight. The rail is used to bring home the Beet and other crops—to take back manure, pulp, &c. I had been for days previously among the cottier farmers, who almost invariably use great wheelbarrows for carrying off their crops. Two-thirds of the land is the property of M. Dumont; the other one-third is hired. The rotation adopted is—1st, Beet; 2d, Wheat and Oats, half of each; 3d, Clover and Flax, half of each; 4th, Wheat. M. Dumont adopts the English practice of cutting Wheat before becoming quite ripe. The almost universal practice on the Continent is the very uneconomical one of leaving it till dead ripe. I saw one splendid field of Sugar-Beet, of 175 acres, which was estimated at over 20 tons an acre. The tops of the Sugar-Beet are cut off, and given to the sheep on the pastures. An acre of Flax is on the average worth 21l. M. Dumont keeps over 600 head of cattle. Large numbers are fed upon pulp and the residuum of the distillery. Pleuro-pneumonia has made such ravages that M. Dumont and many others have adopted the practice of inoculation; the pus is obtained from the State Veterinary College, and inserted at the tail. If the operation is performed in hot weather the tail drops off through mortification setting in, but when done in cool weather no injurious consequences ensue. Having suffered much from this fatal disease among my cattle I was determined to try it, but have hitherto been prevented by order of the veterinary inspector of the county, who has acted on the advice of Professor Simonds. The Professor opposes the practice; but those practical Belgian farmers who have had extensive experience regard it, to use M. Dumont's own words, as a "sovereign remedy." For foot-rot in sheep M. Dumont gave me the following recipe, which he has found an unfailing remedy:—

"One pound of Egyptian, half a pound of sulphate of copper reduced to a fine powder, one ounce avoirdupois of bi chloride of mercury reduced to a very fine powder, these materials should be mixed up with strong vinegar until they assume a proper consistency."

The sheep are fed under cover, the prevailing plan on the Continent; a sheepfold is a very rare sight. The food is 12 lb of pulp per head per day. Wages on the farm are 2 francs per day in summer, and 1 franc 50 cents in winter—no board and lodging, but the employment is continuous, and not intermittent, as in the small-farm districts. The people seemed comparatively well off. Chassart is in the Walloon district, Waterloo being in sight; it is the district for large farms; however, I passed a good many large homesteads unused, the land belonging thereto having been cut up into small farms. That such holdings required no such accommodation is a suggestive fact. M. Dumont's farm is one well worth a journey to see, and the pleasure of my visit was greatly enhanced by the kindness and hospitable reception I met with.

Soon after my return from Belgium, I was greatly surprised at the contents of a letter addressed by Mr. C. W. Hoskyns, M.P., to the *Times*, affirming that Belgium produced a larger amount of animal food in proportion than was raised in England. I confess that a very different impression was produced by my visit. Except upon the large farms, very little stock is to be seen. I have taken the trouble to ascertain the relative number of cattle in the two countries. The Inspector-General of Agriculture in Belgium has favoured me with the following most recent published return: Cattle, 1,257,649; sheep, 5,348,515; pigs, 158,418. The taxation of Belgium does not appear to weigh heavily on the land. There are no poor-rates—no taxation for the church. The cost of punishment of crime and the support of the prisons is borne by the state. The whole amount of taxation which falls upon the land is about 2s. 6d. per acre per annum. Schools for boys and girls exist all over the country. Education is not compulsory; but few parents neglect to send their children to school: the expense is borne partly by the State and partly by the parish.

IRRIGATION.

I will now for a few moments direct your attention to the subject of irrigation. Some four years ago I spent a few weeks in Egypt. I was so impressed with the astonishing results obtained by the simple application of water to land in the valley of the Nile, that I came home under a strong conviction that in England, notwithstanding the difference between the two climates, we do not reap half the advantages we might do from the water which a beneficent Providence sends us. By the aid of very primitive pumps, worked by a mule or bullock, or a couple of donkeys, sufficient water is often raised by the Egyptian farmer to irrigate 30, 40, or 50 acres of land, which fields produce prodigious crops of a kind of Clover called "Burseem." My recent visit to Italy and Switzerland has confirmed me in this opinion. I am aware that water-meadows in England are almost as old as the hills. The practice of irrigation is, however, confined to a very few localities—not one farmer in 500 in England, I venture to say, knows anything of the subject, or has ever given the matter serious consideration; and I believe there are reasons which have produced the indifference, for which, I think, the State is in great measure answerable. To the consideration of this part of the question I will return presently. The practice of irrigation in Europe is carried out on the greatest scale, and with probably the best results, in the plains of Lombardy and Piedmont. In Lombardy, out of a total area of 6,000,000 acres, upwards of 1,000,000 are artificially irrigated; upwards of 3000 miles of main or minor canals have been cut in the province, beside a vast extent of small arteries belonging to private individuals. Although some of the main canals are used for the purposes of navigation, they are mainly constructed with a view to a comprehensive plan for irrigating the country. The grand canal, which brings

the water of the Ticino to Milan, has been in existence some 700 years, and for this long period has the benefit of irrigation been carried on. I would also mention that for almost a longer period a portion of the sewage of Milan has been utilised. I believe the credit is due to the monks of the monastery of Chiaravalle I visited some of the fields which had been irrigated for centuries; and although not furnished with any modern appliances to be seen at the irrigated fields at Bedford, the results are most satisfactory. I mention that at Bedford the growth of Italian Grass by town sewage is a most complete success; many as six crops have been raised this year, and at some 20l. per acre. I visited an irrigated field of 90 acres at Milan, rented by a M. Antonio, and at which the water is used 11 times over, and the point at which it reaches the field is where he parts with it to his neighbour. The rent of the farm is about 61s. per acre. The land is considered a low one, as 5l. an acre is not an unusual rent. The Grass I saw growing was 24 days of growth was fit to cut. Seven crops had previously been raised since the beginning of the year. The Grass growing in irrigated fields is perennial. A good deal of the further land is susceptible of irrigation. After a Wharfedale Cabbages are planted. The Wheat in one field was cut on June 24th; on July 7th the Cabbages were planted, and on August 24th (the day I was there) the ground was completely covered. The Cabbages were sent to the Milan market. The land was irrigated once before the Cabbages were planted. On this farm I saw a fine dairy of 18 cows. Having heard much of the milk quality of the breed, I inquired into the quantity of milk produced, and found it varied from 38 to 44 gallons per day. The cows are fed on Grass from the irrigated meadows, and are milked at noon and at 10 o'clock at night. The price realised for milk, which is fetched from the farm by the buyer, is from 5d. to 5½d. per gallon. The farm of 90 acres, one-third is irrigated, the other arable. Six men, four women, and a boy, and four lads are employed. I would call attention to the mode of paying the labourers. They are paid 5l. per day all the year round. Each family, in addition one-third of the produce of 2½ acres of corn. The land is set apart for the labourer, and the labourer performs the work, and gets one-third of the produce. A good crop of Indian corn is raised, yielding 48 to 54 bushels per acre.

On this farm I had another opportunity of seeing how the labourers are lodged. A box suspended from the stable roof furnished a bed for the horse, and some adjoining rooms, without windows, I found the beds. Finding one man down with the fever I made my exit, but anything more wretched and indecent can scarcely be conceived. Families have more than one room, but often two or three families occupy the same apartment. M. Chassart, who is an engineer by profession, and also a proprietor and farmer in the neighbourhood, has a centrifugal pump, driven by a portable engine, for pumping back the water when it has reached the part of his farm, a plan with which he is well satisfied. The watered plains of Lombardy present a most luxuriant appearance; the kind of Grass is very opposite of the blue Grass found on some of the western plains of America, which, as the Yankee proverb is "as crisp as hair and wants lathering before it is mowed." On leaving the plains of Lombardy I crossed the Alps to Switzerland. Everywhere along the sides are to be seen devices for catching and storing the water on the Grass slopes; then again it is sent on its way to the valley and turned over the meadows, and fields of Maize; indeed, as the fertility of the country depends upon the utilisation of the water, every little stream is turned to the best account.

When in Spain some years ago I passed through the districts which, in the time of the Moors, were so fruitful, through being irrigated, but which, through the neglect of the Spaniards in not maintaining the works left them by the Moors, are now barren. The question is often asked by thinking men, "What is the next great step which can be taken in agriculture?" I remember some three years ago Mr. Gladstone, in talking to Mr. Clayden, Mr. Leeks, and myself, on increasing the meat supply, propounded this question. I smiled and remarked as gravely as I could that I did not see how we could make another advance until he repealed the Malt-tax. In England, the question on the best farms has arrived at a state of stagnation in the growth of cereals and root-crops. He believes it is idle to expect any very great increase in the produce per acre—the general average of the country will unquestionably be considerably increased. I am now speaking solely of the highest style of farming, with a view to discover what next great step should be taken. Putting out of sight for a moment sugar-maize, and even the repeal of the Malt-tax, I take it that the question of the day is—not so much how any more sheep or cattle can be fed on bought feeding stuffs, but how they can be raised and profitably kept upon crops raised upon the farm. In other words, how a greater amount can be economically produced. I believe no man present will differ from me in the opinion that he could always command a supply of water for the irrigation, a larger quantity of green food could be raised, and if so, it would furnish the means of supporting a greater number of animals. Is there any great difficulty, mechanical, or otherwise, in placing the power of irrigating the lands in the hands of a number of English farmers? Along our coast, where water is to be obtained in abundance, how can it be worked from the surface, a centrifugal or chain pump, worked by a horse or an engine, would supply the water for the irrigation of scores of acres. More of course, than this, I take it, is required; the water must be

ers, I maintain, should not be the exclusive property of individuals, but be free for the good of the whole people. M. Durand, a French agriculturist of remarkable energy, alive to the importance of irrigation, determined to avail himself of the water of the Arnon. For this purpose he turned a branch of the river, constructed a canal two miles long, and erected a dam at the junction. With the earth dug out he made an embankment, to prevent the flooding of 50 acres of land, whilst on the other 75 acres he turned the water brought by the canal. This arrangement enabled him to keep double the number of cattle and sheep, as well as to raise one-third more corn. For long years, however, he was at war with opponents, but at length he succeeded in putting down all opposition and was rewarded by the State with a gold medal for the work he had accomplished. The rivers and running water of France are not under the control of private individuals as in England. The water only belongs to the owner of the land through which it flows during its transit; when it passes his boundary he has no further control over it. As long ago as 1669, Louis XIV. abolished the feudal rights of the proprietor in rivers, the ownership thereof being reserved to the State. Owing to the want of energy in France, the great boon secured by this enactment has not been an advantage to any great extent. But he it is to me to advocate such spoliation or confiscation as adopted by France, but I sincerely wish that the Rivers Commission, which is yet pursuing its inquiries, see its way to recommend to Government the bringing of all rivers and watercourses under a central authority, having power to buy up the acquired rights of individual owners, in order that the water of the rivers, not only for irrigation, but in other respects, be as free for the benefit of the whole people as the air we breathe. I would also express a hope that the Commission will see its way to some plan for clearing our rivers and streams against being polluted by the fertilising matter which now runs to waste.

CONCLUSIONS.

After having seen a good deal of the Continent of Europe, I have arrived at the conclusion that, with land cut up into small farms, a greater number of people can manage to live, or exist upon it. The question then arises, What is the more desirable condition of things—a system under which the greatest production can be raised upon a given area, or a system for which the largest amount of food can be raised at least cost? That the small farmer can raise produce cheaply as it can be raised on a large scale I apprehend no practical man will maintain; and again, when conditions are favourable, as in Belgium, the crops of the cultivators of a few acres are as a rule far inferior to those of the large stock farmer. There are many at present day whose only notion about the use of land is, how it can be made to support the greatest population. Lord Palmerston once made the trite remark, "It simply meant matter in the wrong place." When a good view is taken of the subject of population—it is considered what millions of acres of virgin land throughout the world invite the industry of man, which he could subsist in comfort and independence, we must conclude that a wise and beneficent Providence has given us a world large enough; yea, far more than is required for the present family of man—alone the great prairies and plains of the Western States of America, capable of supporting millions of persons. I remember the impression the sight of them made upon me. It occurred to me that Lord Palmerston, seeing them, would have exclaimed: "Overpopulation, why it simply means men in the wrong place!" The condition of the English farm labourer has of late attracted a large share of public attention. Whilst I am sensible of the degradation and comparative poverty of the peasantry in some parts of our own country, and that I am a strenuous advocate for the better housing, better education, and the adoption of other means of raising their position, I say fearlessly that their condition is superior, and if they would spend less in beer and tobacco, and had the same amount of land as the labourer upon the Continent. I was talking over this subject the other day with two of my own men, who were engaged going about to start machinery. In this employment they have during the past 10 years been employed half over Europe, they were both brought up as agricultural labourers. One said to me, speaking of the Continental labourer, "Poor things, I have often heard them: they do live hard with their black bread and broth, and Cabbage and red-herring, and such like." He also said, "You know, sir, they can't do more than a day's work, for there is nothing inside them." This man, though no political economist, remarks, "You know, sir, their labour don't cost much, their masters don't get much work out of 'em." I have often said for reasons I have stated I am opposed to the being cut up into small holdings, I would not have supposed that I think it desirable a whole country should be divided into monster farms. To me a state of things I am equally opposed. I believe to be the best condition of things for all interests, so that a farmer with a family of sons has a choice of holding for them a choice of holdings suited to his means at his command; and notwithstanding the sentiments I have uttered, I hold that the industrious, thrifty labourer ought to be able to look upon some degree of probability to his occupancy of land in which he will not be solely dependent upon his daily labour. The notion that a minute subdivision of land has a tendency to raise wages is a great error. Go into almost any part of England where the hold now predominate, and there will be found a lower scale of wages, but, what is worse, a want of continuous employment. In a tour I made through the centre of Tipperary and Cork, and precisely the same results: work on large

farms was continuous; on small, intermittent. The same state of things I found to exist in every part of the Continent. Another conclusion I have arrived at is, that in all countries nothing tends to keep back agriculture so much as insecurity of tenure. Leases are all but universal on the Continent, but wherever I went there was the same complaint, the same reason for not making permanent improvement, the leases were said to be too short, the tenure too insecure. The province of Groningen, in Holland, possesses, I believe, the greatest agricultural wealth of any part of Europe: here the tenancy is hereditary. I mention this not by way of advocating the principle of fixity of tenure, but as a proof that the tendency of length of tenure is to increased production.

[Mr. Howard's remarks on the small farm system prevalent in France and Germany must be postponed for a week.]

Home Correspondence.

Steam Cultivation: Small and Large Tackle.—Some time ago I had a friendly passage of arms with Mr. Toepffer, on the respective merits of large and small steam cultivating apparatus. Since that time I do not remember to have met with his name until since the occasion of the Peterborough trials. These have afforded him the opportunity of mounting his great hobby, and trying to ride over everybody else. I have had some years' experience, and I have always been ready to say a word in behalf of the small roundabout; and the most apt comparison I can make is that of a little hardy horse, which over a difficult country will always beat a great ungainly brute. Let it be clearly understood that my remarks will be restricted, and apply only to farms of moderate size, say from 200 to 400 acres arable. On such farms a steam-engine should generally be found for threshing, grinding, chaff-cutting, &c., and if the hardy horse which does all this can be fetched out to give a lift with the ploughing or cultivating, it appears to me just what most of us want. With farms of large size it is my opinion that a couple of sets would then be desirable over the big set. I have spoken of ploughing as well as cultivating, for I had recently an opportunity of witnessing the performance of a very ingenious and handy plough, which was invented, and is worked unobtrusively, by Mr. T. Beards, of Stowe. It consists of a light frame, in which are fixed two double ploughs, one at each end. On reaching the end of the field, while the anchor is being shifted, the ploughman loops up one pair of ploughs by a short chain to the framework, and in turning the rope, as it tightens, raises one pair of ploughs out of the ground and draws the other pair in. This is effected by a simple but clever contrivance, which shows that the inventor has a bit of engineering skill. To those who prefer ploughing to cultivating, or may wish to use a plough occasionally, I would say, go and see the beautiful work which it being, or has been, done at Stowe. I confess my own predilection for cultivation for strong clay land, such as that which I occupy, but there are seasons and occasions when a plough may be used with advantage, and this want the latter tool of Mr. Beards would supply, for the small extra outlay of about 50*l.* The greatest mistake which, in my opinion, inventors and manufacturers of, not only steam, but also horse-drawn implements make, is attempting too much. If half the cultivators and scarifiers in use were reduced one-third or one-half in width, and made to do the work properly with a team of four horse, instead of merely going over and giving a surface scratching, we should see less Twitch, and cultivation would be regarded with more favour. Monsters, from the Great Eastern downwards, have been always more or less failures. The great ship may do for laying submarine cables, but for ordinary work she is a great failure. I have to-day walked over the Woolston farm, and certainly nothing can look better. The cultivation for the whole year has been completed. One piece of land, from which a crop of Mangels has just been removed, needed nothing, owing to the cultivation it received for the last crop, but a horse-scarifying to prepare a good seed-bed for Wheat, which was to-day being drilled. On an adjoining farm, recently purchased by Mr. Smith, the fences have all been cleared away, and a large number of men are engaged in draining, preparatory to a general smashing up, and the place is, in fact, undergoing a speedy and complete transformation; and will, no doubt, in the hands of its energetic owner, soon be on a par with the older cultivated portion of the estate. To a farmer with ordinary means, the purchase of a large set of tackle involves too much capital, and hiring is very uncertain. Joint sets, too, are objectionable, as it is hardly likely that B. will rest satisfied while A. has finished his work; and if the tackle is to be removed backwards and forwards as each has finished a field, too much time, wages, and coals are wasted in travelling. I have for several years been in the habit of cultivating for hire among my neighbours, but I never do this sort of work until my own is finished, and then the season has been sometimes too far advanced for it to have done the hirers much service. I have never coveted this kind of business. On a farm where steam is constantly used, the land is generally more or less prepared for it. In other cases it is often the reverse,—crooked fences, deep water gutters ploughed out, high-backed lands, excess of filth, &c., in fact, I find that I can never do the same amount of work abroad as I can at home. There may possibly be farms, such as Mr. Campbell's, of Buscott, where there may be room for a Leviathan set of tackle, but ordinary occupations will not justify the outlay, and the hiring system is too uncertain to depend upon. Some years since the large Suffolk drills were introduced and hired out. At the present time such an implement is, in this part of the country, rarely seen. Instead of hiring, each farmer prefers to

keep a little handy six or eight furrow drill of his own, which can be brought out at a minute's notice. Steam plough companies will, I think, never be found paving concerns, at all events I should be sorry to invest money in one. Several have come to grief, and others have enjoyed but a very limited amount of success. After 11 years' experience, I do not hesitate to say that any occupier, if he has over 200 acres of strong land, will find it answer his purpose to become the owner of a set of the small tackle for his own use, and, if inclined, he may, when he has finished, give his neighbours a lift and reduce the cost of his own. This is what I have done, and, so far, I am satisfied with the result. F. W. Bignell, November 2.

"Agricola" (p. 1120) shall have the particulars for which he asks," writes Mr. Smith; and he would lecture me; "for it is not gentlemanly to openly doubt statements when a sufficient reference is given." If Mr. Smith will kindly and attentively read over my last communication, he will observe I wished to obtain the required particulars from Mr. Toepffer, as a champion of the larger and more expensive tackle, versus the smaller or Woolston system. Can Mr. Toepffer, or any gentleman using the larger tackle, question the correctness of the *Agricultural Gazette* of January 20, 1868—if so, will they point out the error? Mr. Smith puts forward Mr. Bates' evidence, as given in his letter in the *Times* of August 9, 1869. I asked, has Mr. Toepffer any knowledge of such evidence? and has he any reason to doubt Mr. Smith's figures, as given in the *Agricultural Gazette* of October 16? These are the particulars I require, and long to see the gap in *Bell's Messenger* filled up. Mr. Smith's last sentence I will not notice, but let me hope that he may reply to the postscript of mine of October 23. Having referred me to your paper of January 20, 1866, it gave me an opportunity of reading over his several communications on this subject, also those of "West Indian." Will Mr. Toepffer give his experience on the waggoning of corn? or is the instance at the Britannia Farms, Bedford, of a traction engine being thus used, the first on record? *Agricola*.

Mangel Running to Seed.—The letter of Mr. Bignell in your last week's impression, in reference to the above subject, says one half of the 5 acres of Mangel he sowed "bolted" very badly; the other, which was sown from seed supplied by Messrs. Sutton, was not near so bad, there having been only one day's difference in the sowing, and all treated alike. Mr. B. says this does away with the theory of the season being the cause. I must beg leave to differ on the point with Mr. B., as I have this season seen and examined a few fields of Mangels, several of which were sown from seed supplied by Messrs. Sutton, and in no single instance can I find them less seeded than the others, or better in either quantity or quality. Francis Hutchinson, Northallerton.

Societies.

ROYAL AGRICULTURAL SOCIETY OF ENGLAND.

MONTHLY COUNCIL: Wednesday, November 8.—Present the Duke of Devonshire, K.G., in the chair; the Earl of Lichfield, Lord Chesham, Lord Kesteven, Lord Tredegar, Sir Watkin W. Wynn, Bart., M.P.; Mr. Baldwin, Mr. Barthropp, Mr. Booth, Mr. Bowly, Mr. Bramston, Mr. Cintrell, Colonel Caulloner, Mr. Clayden, Mr. Clive, Mr. Davies, Mr. Druce, Mr. Brandreth Gibbs, Mr. Holland, Mr. Hornsby, Mr. Wren Hoskyns, M.P., Colonel Kingscote, M.P.; Mr. Leeds, Mr. Milward, Mr. Pann, Mr. Rixden, Mr. Sanday, Mr. Shuttleworth, Mr. Thompson, Mr. Torr, Mr. Wells, M.P.; Major Wilson, Mr. Jacob Wilson, Professor Simonds, and Dr. Voelcker.

The following new members were elected:—
Aitkin, James, Peterborough
Bradshaw, Richard, Tubury House, Abingdon
Brown, Wm. Henry, Brookfield House, Bellbroughton, Stourbridge
Dear, Henry Charles, North Stonham Park, Southampton
De Schroder, Baron, The Dell, Staines, Berkshire
Godson, Nicholls S., Hook Norton, Chipping Norton
Hilton, Robert S., Miltstead Rectory, Sittingbourne
Jonas, Henry, 4, Whitehall, London, S.W.
Maxwell, Captain J. R. Heron, Springkell, Ecclefechan, Dumfries
Merriman, Edward Bayerstock, Marlborough
Neve, Richard, Benenden, Staplehurst
Parkin, Paxton W., Ridgemount, Bassett, Southampton
Perkins, William, Minster, Hamgate
Rayment, Edward D., 307, Vauxhall Road, Liverpool
Sadler, William, Ferrygate, Drem, N.B.
Senior, James, The Parsonage, Stafford
Wyles, Robert, Little Ponton, Grantham

FINANCES.—Colonel Kingscote, M.P., presented the report, from which it appeared that the Secretary's receipts during the past three months had been duly examined by the Committee, and by Messrs. Quilter, Ball & Co., the Society's accountants, and found correct. The balance in the hands of the bankers on October 31, was 1311*l.* 10*s.* 1*d.* The quarterly statement of subscriptions and arrears to September 30 and the quarterly cash account were laid on the table. The arrears then amounted to 1572*l.* The funded property had been raised to the sum of 20,000*l.* New Three per Cents, and an additional sum, the balance of 8000*l.* which had been ordered to be invested as a Reserve Show Fund, had purchased 1612*l.* 7*s.* 8*d.* New Three per Cents. This report having been adopted, Colonel Kingscote stated that the committee had received two letters from members of the Council asking for payment of their services as judges at the Manchester meeting, which the committee begged to lay before the Council. A discussion having ensued on the laws of the Society as bearing on the subject, as also on the custom of the Council with respect to it, the President suggested that notice of a debate resolution on the subject should be given. Mr. Sanday therefore gave notice that at the next monthly Council he should move "that the rule for the non-

payment of judges who are members of the Council be rescinded."

JOURNAL. — Mr. Thompson (chairman) reported that the Editor and Dr. Voelker had carried out their tour in Belgium very successfully, and that their report will be published in the next Number of the Journal; they had applied to be allowed to have an illustrative map lithographed, at a cost not exceeding 40l., which application the committee had endorsed. The committee also recommended that not more than 6000 copies of the next Number of the Journal be printed.—This report was adopted.

SELECTION.—Mr. Thompson (chairman) reported that the gentleman who had been highly recommended as a member of Council to represent the county of Kent had died within the last few days; they therefore recommended that the election of a member of Council to fill the existing vacancy be postponed until December. This report having been adopted, Mr. Thompson called attention to the pending revision of the bye-laws, and suggested that the existing rules as to weekly Councils should be made applicable to only one intermediate meeting between the monthly Councils during the session of Parliament. This suggestion, having been seconded by Colonel Challoner, was carried unanimously.

GENERAL, OXFORD.—Colonel Challoner reported that the authorities of Oxford having requested information as to the water supply of the showyard, the Secretary had been instructed to acquaint them with the conditions of their agreement. This report having been adopted, it was moved by Mr. Torr, seconded by Mr. Milward, and carried unanimously, that the names of Mr. M. W. Ridley, M.P., and Mr. Robert Leeds, be added to the list of the committee.

IMPLEMENT.—Colonel Challoner (chairman) reported that the proof of the Oxford prize sheet, with conditions, had been adopted, subject to a few minor alterations.—This report was adopted.

STOCK PRIZES.—Mr. Milward reported that a list of prizes for the Oxford meeting had been provisionally agreed to and ordered to be printed. It was recommended that the name of Mr. N Stone be added to the list of the committee.—This report was adopted.

A letter having been read from Mr. Mason, High Sheriff of Oxfordshire, it was proposed by Mr. Thompson, seconded by Mr. Jacob Wilson, and carried unanimously, "that Mr. Mason's offer to give a piece of plate of the value of 100 guineas for the best managed farm in a district named by him near Oxford be accepted; that the Council, however, are not prepared to offer a second prize; and that the Society do appoint, and defray the expenses of, judges and a reporter, and fix the conditions of competition, all details to be arranged by the Journal Committee after communicating with Mr. Mason, it being understood that the report shall be first published in the Journal of the Society."

A memorial from the breeders of Norfolk and Suffolk polled cattle having been read, the Secretary was instructed to inform the memorialists that the Stock Prizes Committee had complied with their request, viz., that prizes should be offered for the above breed of cattle at the next country meeting of the Society.

A letter from Mr. Swannick, on the subject of pigs being entered for exhibition which do not comply with the regulation of having had a litter within a certain time, or being so far gone in farrow as to farrow before September 1, was referred to the Stock Prizes Committee.

EDUCATION.—Mr. Holland (chairman), in applying for the renewal of the grant of 200l., gave an outline of the result of this year's examinations, as has already been published in the last report of the Council, and stated that all those gentlemen who had passed the examinations were, with one exception, about to become either farmers or land-agents. Mr. Thompson having asked whether the result of this year's experiment had been satisfactory to the committee, and received a reply in the affirmative, a discussion arose as to the maximum age at which candidates should be admitted to compete for the Society's prizes; but the recommendation of the committee, that the maximum age be fixed at 21, was ultimately adopted, and the grant was unanimously renewed for the year 1870.

The judges of Potato-diggers reported that the adjourned trials had taken place on October 6, at Manchester, and that the prize of 10l. had been awarded to No. 573, Messrs. Coleman & Morton.

A protest having been lodged against Mr. Nixey's Devon cow "Pink" (No. 680), on the ground that she had not produced a calf within the time specified in the conditions (12 months before the date of the show), and Mr. Nixey being unable to certify that she had—the Council decided that the prize awarded to the above-mentioned cow had been forfeited.

An application to have an authorised inscription engraved on a piece of plate, purchased with prize-money won at Manchester, was granted.

The Oxford meeting was arranged to commence on Monday, July 18, and to close on Friday, July 22, at 4 o'clock.

Reports on the recent International Horticultural Exhibition at Hamburg, and on the taking of samples for analysis of the guano from the Guanape Islands, both forwarded by the Secretary of State for Foreign Affairs, as well as a report on the exhibition of the Agricultural Society of New South Wales, held at Sydney, forwarded by the Secretary of State for the Colonies, were laid before the Council.

It was moved by Mr. Thompson, seconded by Col. Kingscote, M.P., and carried unanimously:— (1) That the Council at its rising to-day stand adjourned to Wednesday, December 8, at 12 o'clock. (2) That a committee consisting of any members of Council who are willing to attend, shall meet on Tuesday the 7th of December, at 12 o'clock, to prepare

a report to the general meeting,—the report to be laid before the Council the following day. (3) That the half-yearly general meeting of the Society be held on Thursday, December 9, at 12 o'clock.

The Council then adjourned until Wednesday, December 8, at 12 o'clock.

SMITHFIELD CLUB.

A COUNCIL meeting was held November 3. Present—His Grace the Duke of Marlborough, President, in the chair; Hugh Aylmer, John Baldwin, J. N. Beasley, W. B. Canning, John Clayden, Joseph Druce, Samuel Druce, Thomas Duckham, Brandreth Gibbs, Hon. Secretary; Richard Hornsby, Charles Howard, James Howard, M.P.; H. W. Keary, Robert Leeds, E. W. Moore, Henry Overman, John Painter, Wm. Sunday, J. T. Senior, Wm. Torr, Lord Tredegar, Vice-President; J. S. Turner, Jacob Wilson.

The honorary secretary was authorised to apply for the usual license from the Privy Council for holding the Club show.

A committee was appointed to make the necessary arrangements as to disinfecting cattle conveyances. The Council prepared a house list of the eight members whom they recommend to be selected on the Council, in place of those who retire by rotation at the close of the ensuing show.

The offer of the Agricultural Hall Company to prepare, at a cost of 15l., temporary accommodation for any animals that may be taken ill during the show was accepted.

It was determined that the Club's annual dinner shall take place in the new dining hall attached to the show, on Monday, Dec. 6, at 4.30 punctually. The stewards and hon. secretary were requested to make the necessary arrangements connected therewith.

Authority was given for the preparation of the pieces of plate and silver cups offered by the Club at the ensuing show.

The following were duly elected members of the Club:—The Earl of March, M.P.; Charles M'Niven, Perysfield, Godstone; Mr. Milburn, 76, Church Lane, E.; Rowland Wood, Clapton, Oundle, John Unite, 291, Edgeware Road; James G. Unite, 291, Edgeware Road; James Hart, 244, Whitechapel Road; Nathaniel Stalgoe, Manor Farm, Adderbury, Oxfordshire; Wm. T. Franklin, Ascot, Wallingford, Joseph Pulley, Lower Eaton, Hereford, Francis Dodd, Rush Court, Wallingford, C. Stephenson, Woburn, Beds., John C. F. Ramsden, Busbridge Hall, Godalming, J. E. Heasman, Angmering, Arundel; Eli Benjifield, Stalbridge, Dorsetshire, James Mason, Lynsham Hall, Witney, Thomas Franklin, Ascot, Wallingford; Joseph Franklin, Milton, Wheatley, Oxon; Philip Turner, The Leen, Pembridge, Hereford; Sir Anthony D. Rothschild, Bart., Aston, Clinton, Tring; James Reid, Graystone, Alford, Aberdeen. Thomas C. Booth, Warlaby, Northampton; the Earl of Radnor, Coleshill, Highworth.

The Council determined that the report on the live stock exhibited at the show be written, as for the last two years, by Mr. H. H. Dixon.

The Council, having considered whether by the rules certain entries of live stock could be received, came to decisions on the same, and gave instructions accordingly.

The best thanks of the meeting were voted to his Grace the President for his able conduct in the chair.

Farmers' Clubs.

LONDON.

Nov. 1: Continental Farming.—After Mr. Howard's lecture, reported in another page, a short discussion ensued.

Mr. J. K. FOWLER had seen much of the farming on the Continent, and regretted that Mr. Howard had not more fully described its dairy management. He quite agreed with him that Sugar-Beet would make great headway in this country; but distilling from Beet would not pay, as the spirit was so inferior to Grape spirit. Another subject was the sheep and cattle imports to the Continent from this country. English machinery did not take so well, as in many instances there were not mechanics capable of repairing our highly-finished and expensive productions. In some instances, however, as on the large farms and estates of noblemen and princes, machinery has been successfully used. He referred to the Continental beer. He had never seen anything in which so great an improvement had occurred in the last few years as had taken place in Continental beer. This he attributed to the fact that there was no odious Malt-tax.

Mr. READ, M.P., said the paper just heard would be as valuable in a political as in an agricultural sense. He was glad to find that the labourers in this country were better cared for than they were on the Continent. John Bull is apt to be very conceited and stupid. It must be remembered, however, that though 20 years ago the Continental farmers were in the very depths of misery, if we do not mind, they will go on improving till, instead of our being first in the race, we shall be very far behind.

Dr. VOELCKER was very pleased to hear Mr. Read say that the agriculture of some parts of the Continent had greatly improved during the last 20 years. But he regretted that this could not be applied to Belgium, for during his recent tour with Mr. Jenkins, after an interval of 16 years, he only saw a certain improvement in stock, which he traced to strains of English animals. He believed the corn grown was better formerly than now. He must not, however, say more about Belgian farming, or he should take the gilt off their coming report. He might remark, however, that the Belgians on more than one occasion expressed their astonishment at finding English gentlemen coming over to look at their farming, as everything which was good there had, they said, been learned in England, or

by reading English publications. In regard to Beet, he believed England was better growing this root than was the case elsewhere. If any English farmer wanted a Sugar-Beet, he must not go to Belgium, Germany, in the neighbourhood of Metz, then described minutely the proper soil for the Sugar-Beet root, the gist of which should vegetate entirely below the soil. The results of analysis which he recollects there was only one-half as much sugar above the ground as there was in that soil.

Mr. CROSSKILL questioned whether the profitable growth of Sugar-Beet on the Continent not due to the protective system under which, viz., the high duty on colonial sugar, that Continental farmers had improved more than English farmers had during the war, then referred to Mr. Fowler's remarks on Yorkshire, who was wont to exclaim, "year great civiliser of the human race. Manufacture sent beer to precede them; they took to themselves; thus they were able to congregate to Christianity!" This was of course intended to create a laugh, but it was appropriate to Mr. Fowler's conclusions. For his part he thought better to teach the labourer to avoid the temptation of beer.

Mr. EVE had found the bear on the farm. He could not but remark on the production of eggs and even milk, which was London milk, and very much purer, than that of the country.

Mr. PELL, M.P., said Mr. Howard's culture and large farming were the improvement only in large farms, touched on cottier farming. He thought that the conclusions of Mr. Howard's culture and large farming were the erroneous impression to the Club. He were very likely to be arrived at by Howard, who has done so much for the of English agriculture. As regards the sewage of our towns might be more profitable extent. The water, too, might also be raised for irrigation small cost in many cases. As regards (Mr. Pell) did not place much faith in the English farmer to compete with the in producing sugar. With beef and 9l a pound, he thought the principle, both for the farmer and the his part he would rather preserve a flock of sheep than sell his roots in a factory.

The CHAIRMAN thanked Mr. Howard for character of the subject had made a lecture and less suitable for the time. He would be better able to understand what thing was perfectly clear from Mr. Howard's viz., that the labourer on the Continent harder for much less pay.

Mr. HOWARD, in regard to Mr. Pell's that he had not advised the English system, he had not only described what regards large farms and peasant culture. were present, he would advise him to next year "On the Pasture Farming of in reply to Mr. Crosskill's observations, if we had a free breakfast table, as would be nothing for the British of in regard to the sugar duties.

LAVERNHAM.

Annual Meeting.—At the annual Club last week there was quite an eloquence, and we take the following report in the Suffolk Chronicle.

Mr. T. P. HITCHCOCK said we had lately of the condition of the labourer. Now, the primary object of the Club was to improve the condition of the labourer. If they offered prizes for them to compete for them they would and made them more skilful, and by them to earn more money, and by social condition. At the late Social Canon Girdlestone, the world-be-come cultural labourer, said no deduction from wages for beer or cider or as if they were to claim for the time, alone of all classes perfect immunity that flesh is heir to." They might labourers should never be ill, should and should never be like every other that to be? It was perfect did not pretend to be philanthropic among their labourers, their interests extent identified with those of the was sure they were as much the as those theorists and visionaries about the country talking of what

Mr. J. J. MECHI said he was man to propose the health of the President, whose absence they would, perhaps, be expected of a word or two about agriculture. apron-string farmer, but still a farmer—a scientific farmer if formed certain views upon the agriculture of the kingdom, but to the general subject they would

been very much interested in what he had seen day. He had been exceedingly pleased and glad in their comparatively retired part of the country they were luxuriating in steam, not only in their mills but also in the conversion of their produce into articles of every day use—sugar. The sugar manufactory was a very fine and splendid undertaking, and he had been exceedingly interested in going over that day, and if they studied the operations going on at that manufactory they would find that science had almost everything to do with the rendering those operations profitable, and they would conclude that it would be well for agriculture to seek the aid of science to render its pursuit more profitable to the community at large than at present. We were in a transition state—coming from the primitive pastoral state, when the farms were few and Grass superabundant to one in which there was a treble population. We now had a population of 32 millions instead of 10 millions in the year 1800. Those millions who were engaged in manufactures required to be fed every day, and looked to their brother countrymen, who were agriculturists, to produce more than they used to do by the investment of greater capital and enlarged intelligence. It came the question—has that been done, or has the limit of it been exhausted? He thought they would agree with him that we were only on the threshold of agricultural progress. It was only the other day that we discarded the flail for the horse threshing machine, and soon after doing so we found steam-power was a further and see if steam is not also applicable to the cultivation of the land? To show them the extent of the power of steam he would tell them that he asked an engine-driver that day what was the power of the engine of 14-horse power which he was driving competitively with horses, and also the pressure per inch which he was working? and he was rather surprised to learn that at a pressure of 160 lb to the square inch, and with the power fully applied, it was equal to 100 horses. What did they see in the great marine engines? One of these was nominally of a 1000-horse power, but was equal to 6000 actual horses. Let us measure their minds never to use a man where we could use a horse, and never to use a horse where we could use a steam-engine. This brought him to the question "Have we capital enough for the purpose?" It could not be denied that we were going now from the expenditure of a small capital to the necessity for a large one in agriculture—much larger one—and if they had not got it themselves they must get it from some one who had got it. They did that practically in the matter of steam-engines, for if they could not afford to have one on their farm, or if the farm was not large enough to employ a full engine, they went to some one who had capital and bought an engine which he was willing upon interest to let to them. But he was a believer in agriculture being short of capital. Go where you would, he could find a number of comfortable men with very large capital invested in everything but agriculture. He could point to a near him, where a very respectable gentleman told him he could not afford to put up covered yards and steam-engines, but he (Mr. Mechi) knew that gentleman had got out in loans and mortgages. He would admit that there was a want of capital, what was the belief in the power they had to invest in capital. They were not in a different position to manufacturers, for the history of all manufactures that those engaged in them were at first opposed to the most profitable and interesting inventions were brought to bear upon those manufactures. They remember how, in the early days of railways, the cities looked upon the railway-engine as a terrible thing, and would not have the lines brought to them, and what had been the consequence? They had had to make lines at great expense to bring them into communication with the great towns, simply because they would not believe in the advantage of railways in the first instance. Let both landlord and tenant open their minds to this fact, for the fact that agricultural improvement must be done by landlord and tenant for their mutual benefit. The improvement must strike every landlord, as it struck him that day, when he saw a nasty awkward farmer of the field they were cultivating interfering with those two engines of Fowler's. A great nuisance had there, causing loss to the farmer and deterioration of the value of the land, so that the tenant could not pay to the landlord the full value of the farm. A great many years ago he (Mr. Mechi) made war on the landlords of Suffolk, and he believed it had done a good deal of good, although he was a good deal abused at the time, that a good many of these nonsensical politicians had succumbed to the attack. But they had not done the work yet; and their enlightened landlords—they were enlightened, but, like the tenants, their prejudices could not be overcome at once—must be overcome on another point. They still retained a prejudice arising from the many hedgerows and small fields, but when they thoroughly understood that the loss both to themselves and to the tenants invested £100 or £1000 in engines for steam cultivation, they would no longer wish them to exist. He could afford to pay a better rent to his landlord, and, practically, that was what would follow their movements. Are they aware what is the produce of this land per acre? He had had to look out what the produce came to, taking the United Kingdom, and he had from the best authorities our present produce did not exceed 3/ 12s. per acre. He would tell them it was. Half the United Kingdom is in pasture,

and a great deal of it is poor, miserable, wretched pasture, which is robbed for the sake of the uplands and other good land. Before our country can take her proper position, before she produces the 365,000,000 eggs a year that Colonel Parker told them we import from abroad, these worthless grass lands, which on the average do not produce more than 10c a year, must be made by cultivation to produce, as some of theirs produced as he had heard that day, 20 tons of good Beet, worth 20/ an acre. Was it right for them to allow the present state of things, when this land could be made to produce more? Let landlords and tenants lay their heads together and give up old prejudices, and the belief that they were short of capital when they were not, because they were lending millions to foreigners—something like 300,000,000/ sterling—and cease to cry out "Where is the money come from?"—that was a little piece of hyperisry; and when they were convinced (as they were being convinced), that it answered their purpose to take 20/ an acre for a good crop of Beetroot, let them not spend it all when they had got it, but put a little back in the shape of cake, and a little in corn. This led him to the question whether it was profitable for them to support this excellent sugar manufactory—the only one existing in the United Kingdom. To arrive at a proper conclusion, he would ask them—What would the bullocks pay for this 20 tons of Beetroot, and how much the manure they make was worth? The question was not yet solved, whether it would pay them better to sell the Beet to the sugar maker, or to feed bullocks on it. He had heard it said that it takes a ton of Beet to make 14 lb. of meat, and, perhaps 5s or 6s worth of manure, and if that calculation were correct, and they could grow 20 tons of Beet an acre, it would pay them very handsomely to sell it to the sugar maker. He had been laughed at a great many times, but he farmed for profit, and he obtained it by draining his land, throwing down fences, having all the land growing something, feeding a large quantity of cake and corn which did not grow on his land. He thus made a profit for both landlord and tenant. Did they believe in his profits? [A Voice No. He thought not. Cheers and laughter. That was a very honest answer, and he expected some such reply from some quarter, but he was there to speak the truth, and he could only tell them this—that on his farm, which was almost all arable—he had only 14 acres of Grass—he found he had 14/ an acre capital as tenant, and he found that was not enough, and he could not hold his corn as he would like, but had to sell a good deal of it to buy bullocks. He wanted 20/ an acre capital as tenant. If they asked how it was invested he would tell them. There was 6/ an acre in live stock when he took stock, which was at Christmas, his tillages, which were deep and included all manure, came to 3/ 10s. per acre; horses, 1/ per acre; implements, between 2/ and 3/ and the unsold stock, corn, &c., he had come to 3/ or 4/ an acre, which brought up his capital to 16/ an acre; but he could make a greater profit if he had 20/ or 24/ an acre to land all arable, excepting 14 acres. That was a question of pounds, shillings, and pence. Was it better to put 20/ on 1 acre than on 2 acres with two rents, tithes, and taxes, two seeds, and so on? [Mr. H. BIDDELL. And two crops.] They would grow maximum crops as large on one acre as with ordinary farming they would on two, and that was the way he made his profits, and when he told them his profit, as landlord and tenant, on 170 acres was something like 612/ a year, they would think it was not so very bad considering that he was an apron-string farmer. He could not do it with 10/ an acre capital, nor with 12/ but he could with 16/ and he could do more with 20/. He knew many thought 10/ an acre was ample, and if they had plenty of poor Grass it was, but not if they had all arable land. The great want, especially if they grew roots to sell off their farm, was more manure; and there was no way, his experience had taught him, of producing that manure so cheaply and of such good quality as by feeding animals under cover on what did not grow on the farm—cake, especially, and corn—that was better than all the artificial manure, except in some peculiar soils where superphosphate was needed. Then, as to the treatment of manure, when they had got guano it would not do to put it down in the farmyard and let the rains of heaven wash it away—if a man were to do that they would think he was insane or a great fool; but that was just what they did when they allowed that still better guano they made at home to be so washed and turned over and made into muck heaps by the side of the road and rained upon. They were, in so doing, making a fatal economical mistake. Those who had seen his crops would know whether the estimate he was going to give them were correct. He got his bailiff to measure his root crops before he came, and he found on each square rod 78 roots averaging 7 lb. each, representing 39 1/2 tons of long red Mangels per acre; and the globe Mangels, with the same number of roots to the rod, came to 37 1/2 tons an acre. How were such crops produced on poor land which let before he had it at 18s. or 20s. an acre? It was by drainage, deep cultivation, and above all by the consumption of 20 tons of cake and corn fed under shelter, taken like hotch-potch pudding directly from under the animals and put on to the land and ploughed in like guano. The finish of the rotation on part of his farm was two Wheat crops—White Wheat followed by Rivetts. He was asked what he had after Wheat, and he replied that he rested it with 40 tons of Mangels. That was his resting crop, and he could not make it except with the quantity of stock he kept, and if he could get it off in time he went in for another Wheat crop. Let them have their land clean, and get their landlord to drain it for them and put up good buildings, paying him a fair interest, and they could increase the food for the people grown in the kingdom from 3/ to 10/ or 12/ an acre, and thus retain in the kingdom a

large proportion of the 70,000,000/ a year we pay for foreign produce, including tea and articles of that kind. But then came the question, did they put all this food which they consumed on to the land again and thus increase their crops? No, we are only coming gradually to that, and the gentlemen in Ipswich, Norwich, and other large places are just coming to believe that 30,000,000 of sheep being good for the land 130,000,000 of people were added to the 30,000,000 of sheep in manual power we should be in a different position with regard to the production of meat and other food to that we now occupied. That was a question for the towns, and it was a question for the agriculturists too. He knew a party who had the grant of the sewage of North London for 50 years, but what was the use of carrying gas or coals to people who would not have it? He believed the Corporation of Norwich had taken 1800 acres of land, and were going to pump their sewage on to it, and they had already been bid 6/ an acre for the land on which the sewage would be used. A very eminent man connected with Liverpool had informed him that people were willing to give 25s. a-day for the use of a 2-inch pipe of sewage, and at that rate they would get a very good return for the large investment in machinery. That enormous stream of food that goes into London should come out again. It can come out again into the country provided they were all prepared to say—landlords particularly, for it was to their especial interest—that when it is brought they would pay a fair price for it—such a price as would leave a satisfactory profit, because none of these things would be done without a profit. Let them believe him, it was for their interest that landlords as well as tenants should work together to make agriculturists as free as they could. He could not agree with the statement that if Manchester was in ruins the land would still prosper. Don't believe it. Your beef, mutton, and corn would not fetch the prices they do now if you could sweep away from England that which employs the largest number of her children—her manufactures. It was her manufactures that made her great and wealthy, and it is through them that she will retain her greatness. I hope we shall see town and country united for their mutual good, and with no jealousy between them—and that buyer and seller may see that they are necessary for each other's profit and the good of the country. Mr. HITCHCOCK said Mr. Mechi misrepresented him when he said that he (Mr. Hitchcock) stated that the country would prosper if these great towns were in ruins. He said no such thing. What he said was that their fields would be cultivated then, and in proof of his assertion he pointed to the Campagna of Rome, which was cultivated though Rome had fallen. He did not mean that they would be equally prosperous, and, said Mr. Hitchcock, when I said "you," I did not mean you, but your posterity long years to come. Mr. WM. BIDDELL, the Vice-Chairman, returned thanks, and after an allusion to the flourishing condition of the Lavenham Farmers' Club, said they had been asked for their opinions with regard to the Sugar-Beet. He had not experienced those great crops that the sanguine among them expected last year, but he had come so near them that he was inclined to grow a greater breadth next year if Mr. Duncan would offer the same inducements that he had done this year. He believed when they selected their seed they would improve both in the bulk and quality of their crops, for he could not but think the seed they had was very bad. For his own part Mr. Mechi's statement required a great deal of digestion before they became assimilated into his (Mr. Biddell's) agricultural system—but at the same time they had to thank Mr. Mechi for a great many things. He did not agree with all Mr. Mechi's experiments, and he should not be wrong if he said that he agreed with very few of them, but as Mr. Mechi had become public property, and possessed such a wonderfully good temper—he did not feel any diffidence in making some comments upon them. He must think Mr. Mechi, when called to a better world, would leave his mark upon the day in which he lived. Did they know what had been the effect of his crusade against thick sowing? He would tell them. There were about 3 1/2 million acres of Wheat grown a year in the country, and he did not exaggerate when he said Mr. Mechi had decreased the quantity of seed by half a peck per acre; and, spread over the whole breadth grown, that half peck per acre became a great saving of food, and a gain to the country of between 100,000,000 and 200,000,000. A man who had done that deserved well of his country, to say nothing of his war against pollards and his advocacy of deep draining. Not that he (Mr. Biddell) was altogether one of those who believed in 5 or 6 feet draining, but they were going wrong when Mr. Mechi set them right. Mr. Mechi was one of the sanguine people who were the leaders of the world. It was they who took steps in advance of the common run of people—sometimes they broke their necks over the obstacles, but without them we should not have advanced as we have. As to the heavy outlay of which Mr. Mechi spoke, he could understand that by making a double outlay of 20/ an acre he could largely increase his produce, but the difficulty remained that they could not get two crops in one year. He had never seen the year when a double crop was obtained to pay for this double outlay of capital. Mr. H. BIDDELL said the gentleman who alluded to the condition of the agricultural labourer only went into the question a little way. He got as far as Canon Gardlestone, and there he pulled up, and just where he pulled up, he (Mr. Biddell) wanted to begin. The Canon had been from one end of the kingdom to the other preaching right and left that the agricultural labourer is not paid sufficient to keep body and soul together; but while he was preaching this they saw him linked hand in hand with men like Mr. Patten,

Mr. Beales, and Professor Fawcett, who were bringing forth resolutions which they said they were going to press, the effect of which was, that we are to have compulsory education. Whether the labouring man can keep his children or not, still he shall educate them. Whether they should put the child to work at eight, or 10, or 12, was another question; but he should like to put this question—if a man with five or six children gets 10s. a week, which Canon Girdlestone protests is more than they earn in his neighbourhood, and one of the children earns 2s. and another 3s. a week, if you compel that man to drop 50 per cent. of his income by preventing his children from earning anything and compelling them to be educated, how are the man, his wife, and children to live on 10s. a-week? That was a point he wanted cleared up, and the man who brought the matter to that point should clear it up. He was no enemy to education. He thought every man should be able to read and write, and to see a man neither able to read his Bible nor sign his name was a state of things no one wished to continue. At the same time, if a labourer and his family had hardly enough to subsist on it was a cruel thing, because you persist that his children shall be educated, to say he shall have less to support them upon. He could see no solution to the question at all, but would be very much gratified to see it solved. No doubt it was gratifying to see a clergyman of a parish where the inspector came round, to find the children at his schools ready at once with the latitude and longitude of Seringapatam, and able to answer all sorts of questions of that sort, but if this knowledge were gained at the expense of a glass of beer to the father and a piece of meat to the mother, when in a weak state, they had no right to expect it. Till we have put labourers in a condition to keep themselves and their children, and have their children at school, we have no right to force them to go there. The last resolution of the National Educational League was, that education should be compulsory, and he could not conceive of compulsion without imprisonment as the alternative of disobedience, and the effect would be that whether the father had the money to feed his children or not he must not take advantage of their labour on pain of being sent to gaol. That wanted very careful handling. He did not want to stand up as an enemy to education—he wished to further it, and if a Bill were introduced into the House of Commons he would not counsel factious opposition to it, and he would ask his brother farmers to give their information and assistance to their members, in order that such a bill might be framed as would meet the case, but he would at all times protest against compulsory education, which would bring compulsory starvation in its wake. He knew the same parties who formed the Education League would tell us it was not the plodding man—it was the brilliant intellect and the faculty of inventive genius that we want to further, but to such he would say as the Spanish minister said to his Queen, "It is not so much philosophers your Majesty stands in need of as happy and contented subjects." He did not wish to follow Mr. Hitchcock into the agricultural subjects that are not connected with agriculture, on which that gentleman had spoken. He had heard Mr. Mechi allude to the land he occupied at Tiptree, as being poor land. The question he was going to put to Mr. Mechi was not in the spirit of opposition, but it was a plain question, which he knew he would answer. He had heard it asserted by gentlemen living in the neighbourhood of Tiptree, whose integrity he could not doubt and whose veracity it would be folly to question, that a good part of the land Mr. Mechi occupies was capable and did produce on an average 4 quarters of Wheat an acre before he took the farm. Now land that did that could not be very poor land, or we had a vast quantity of very poor land in the best districts of Suffolk. He hoped wherever Mr. Mechi went he would be received in the manner which his equal temper entitled him to expect. He had had to meet attacks in which the writers and speakers would have done well to copy the equal temper of the man they attacked, and they would have got out of it a little better. He (Mr. Biddell) did not disbelieve Mr. Mechi's word, but he disbelieved the conclusions at which he arrived, and he was not a believer in the profits of the Tiptree Hall Farm.

Mr. MECHI, in reply, said Mr. Biddell said he did not believe his statements. That was a point on which he (Mr. Mechi) could not argue, but Mr. Biddell said that Tiptree Hall land was not poor land. The other day some of the land adjoining his, of the same quality as his was, unimproved, undrained, and with fences like his had when he bought, it was sold for 20l. an acre. He had no doubt there were portions of his farm on which 4 quarters an acre had been grown—perhaps 35 acres. In 1842, his land was undrained and full of fences, and he was told that the yield of Wheat that year was 1 1/4 quarter an acre. Last year he had 75 acres of Wheat which averaged 6 quarters an acre, and that was some improvement. Having built a very large barn he was told by all his friends that he should never fill it, and consequently he was rather sparing in his first purchase of rick frames, but bought four, the next year he bought four more, and then added another four, and this year he had his barn and rick frames full and stacks besides. He believed the time was coming when no bullocks would be allowed to range on the land or pastures but all would be kept under cover; and he advocated folding sheep on the land with iron hurdles, changing them twice a day, and taking the proper mixed food to them, and they would make more meat at a cheaper rate and manure the land better than by being allowed to range on the old system. Another thing he wished to mention was, that whilst everyone around him had the foot-and-mouth disease none of his bullocks under cover had taken it, and in the same way he escaped the cattle plague.

Farm Memoranda.

ROXBURGHSHIRE, TWEEDSIDE, October 30—There has been a good deal of grain brought into the markets this month, and we have now a good idea how the crops are going to yield. Barley was very bulky, and is threshing out a capital crop; in the earliest districts it was cut and carried without getting a single shower, the colour is not so fine as last year, but the weight much the same—from 57 to 60 lb. per bushel, and it fetches from 33s. to 40s per quarter. In the later districts they were caught by the broken weather, which discoloured the grain, and a good deal of it was carried in bad order, and heated, which accounts for the large number of inferior samples that are coming into the markets. Oats were generally short in the straw, and will be a light crop—they were very much damaged by the weather, not only in the stook, but also in the stack, particularly where they were not thatched, for the heavy rains drenched them down, and they had to be carted out dry. There is also a large quantity spoiled by heating, especially in the high districts the samples that were got in early are fine and heavy. Potatoes are a capital crop, and we have heard of no disease amongst them; Turnips are also very good. Stock of all kinds has done well through the summer, and are put on to Turnips in capital condition. The murrain has been prevalent amongst the cattle, and in a few cases the sheep have taken it also, but it has been of a mild type, and has not thrown them very much back. There is a good demand for the cattle that are coming into the markets, and high prices are given for them. Sheep have also been much inquired after, and are selling dear. Draft ewes will be up from 8s. to 10s. a head from last year. A number of farms have been advertised to let this month, for which there has been a great competition, and are letting at a considerable rise over the old rents. II.

Calendar of Operations.

NOVEMBER.—Wheat-sowing on autumn fallows that have been manured should now be concluded with all possible despatch, and after root crops as soon as they are removed from the ground. Although Wheat likes a stale furrow seed-bed, it is beside the question, practically speaking, to talk of a stale seed-bed in lands ploughed during November, which is generally cold and rainy. There are no doubt exceptions to this, viz., long periods of dry frosty weather. But even in such cases November weather should not be trusted to a single night, and therefore the safest plan is for the steam tackle to go back to the seed-drill and harrows, and bring up the seeding every day close to the ploughing; for if rain falls over-night the seed-bed is better to-day than to-morrow, and if it continues dry and frosty the land will make the seed-bed improve just as well, if not in many cases better, after being seeded than before.

Mangel Wurzel, however favourable the weather may have been hitherto, should now be stored without delay, as directed during last month. If frost has set in before they are lifted, so as to affect the roots, it may be advisable to give them a few days fresh weather to recover; but if the risk is greater than the prospect of advantage, pull and store in pits of a less size. The roots thus stored will require to be examined in the course of ten days or so, as the pits may need to be turned, and any frost-bitten roots which have not recovered thrown out. The pits may be so made that in turning them two or three may be made into one of twice or thrice the size, and, as a rule, if Mangels are the least touched with frost they should be thus stored and turned before being finally earthed up for the winter. The expense is little compared with the safety of so valuable a crop. Select a fine drying day for turning, and throw aside all roots in the slightest degree affected, the bulk of which may be turned to some account in feeding store stock.

Early lambs for Christmas should now be forced forward, bearing in mind that the fineness of the quality depends upon the food of the ewes and what little the lambs themselves eat exclusive of milk, and that plenty of rich milk is the natural and best food for making lamb which will fetch the top price in the London market; and further, that quantity of milk will not make up for quality. Corn is better than cake for making rich milk, Clover hay than meadow hay, Cabbages than Turnips, and the yellow-fleshed varieties of Turnips are to be preferred to the white-fleshed. Sheltered pastures should be set apart for ewes and lambs, and where there is not shelter naturally, stuffed hurdles should be used or straw webbing, as directed in spring-time, one row above the other slanting so as to form a semi-roof for the ewes and lambs to go under in rainy weather. This will also serve the ewes that are lambing to supply the demands of the new year, and the season onwards. As a rule the skins of ewes and lambs must be kept dry, and if this cannot be done outdoors, it is better to house the flock at once in roomy pens, and feed wholly on artificial food. W. B.

Notices to Correspondents.

MANGELS AND FROST W. M. If "W. M." means that he moved and bruised his Mangels whilst frozen, then, probably, they will not keep long. But Mangels will now stand a good bit of Autumn frost if left untouched till their frozen condition has been altered by a change of temperature.

PEDIGREE IN LIVE STOCK.—Mr. Willoughby's Woolst paper on this subject must, unfortunately, be delayed a week.

THE WOOLSTON ACCIDENT OF STEAM CUBINATION G. A. H. and Mr. Smith.—We have letters from both of these gentlemen, and must ask them to forgive the delay of a week. The Farmers' Club reports have taken all our available space.

SULPHURIC ACID L. S. D. Your question about gas water has been forwarded to a competent authority, and will be answered next week. Do not mix it in composts. An alkali would be more serviceable than an acid for such a use. Vegetable composts will rot under the influence of moisture, air, and time, without any other aid.

Caution to Gardeners.—When you buy SAYNOR AND COOKE'S WARRANTED PRUNING and BUDDING KNIVES, observe the mark SAYNOR, also the Corporate Warranted without which none are genuine. S. & C. regret having to caution Gardeners and others compelled to do so, in consequence of an imitation of quality, having been sold for the genuine one, and which many complaints to be made to them of Knives which they make all of which are warranted both by Saynor & Cooke and S. & C.'s PRUNING and BUDDING KNIVES are the cheapest in the market. Faxon Works, Sheffield. Established upwards of 40 years.

Horticultural Glass Warehouses. THOMAS MILLINGTON 457, 87, Bishopsgate Street Without, London, E.C. NEW LIST FOR ORCHARD-HOUSE GLASS at Wholesale and Retail, the Nobility, Gentry, Mr. Rivers, and the Cultivators of the United Kingdom. ORCHARD-HOUSE GLASS.

16 by 12	12 by 10	10 by 8	8 by 6	6 by 4	4 by 3
20 by 12	14 by 10	12 by 8	10 by 6	8 by 6	6 by 4
20 by 14	14 by 12	12 by 10	10 by 8	8 by 6	6 by 4
20 by 15	14 by 12	12 by 10	10 by 8	8 by 6	6 by 4
20 by 16	14 by 12	12 by 10	10 by 8	8 by 6	6 by 4

Per 100 feet

SMALL SHEET SQUARES, 15 in. per side

6 by 4	7 by 5	8 by 6	9 by 7
10 by 8	12 by 9	14 by 10	16 by 12
18 by 12	22 by 16	24 by 18	28 by 21
30 by 24	36 by 28	42 by 36	48 by 42

Per 100 feet

LARGE SHEET SQUARES, 15 in. per side

10 by 8	12 by 9	14 by 10	16 by 12
18 by 12	22 by 16	24 by 18	28 by 21
30 by 24	36 by 28	42 by 36	48 by 42

Per 100 feet

The above Prices are only for the Sizes stated; if other Size be required, a Special Price will be given.

SHEET GLASS. In Sheets for Cutting up, averaging from 6 to 12 ft. 16 oz. 4ths quality, per 300 feet case, 31s. 3ds " " " 30s. 2ds " " " 29s. Best " " " 28s.

SHEET GLASS is made only in the following sizes: 21 oz., 26 oz., 32 oz., 36 oz., and 42 oz.

HARTLEY'S IMPROVED ROLLED ROUGH BRITISH PLATE GLASS for Windows and Screens. Coloured Glass, Glass Shades, Striking Glass.

PAINTS, COLOURS, VARNISHES & STUCCO PAINT, 2s. per cwt. This Paint adheres to walls, resists the weather, and is free from the smell of Oil Paint, resembling a stone surface, and on required shade. It is mixed with rain or pure river water.

WHITE ZINC PAINT, 36s. per cwt. One hundredweight Zinc Paint, with three gallons of Linseed Oil, will cover one hundredweight and a-half of White Lead and Linseed Oil. Special Dryers for this Paint.

IMPROVED ANTI-CORROSION PAINT, 2s. per cwt. Anti-corrosion Paint is extensively used for all exposed situations, on Brick, Stone, Compo, Iron, Conservatories, Greenhouses, &c., and is easily applied by ordinary workmen. Prepared Oil for disto, &c. per gallon.

GENUINE WHITE LEAD 30 0
SECONDS WHITE LEAD 28 0
GROUND PATENT DRYERS, 3d. to 4d. per lb.
OXFORD OCHRE, 3d. to 4d. per lb.
RAW UMBER, 4d. to 6d. per lb.
BURNT do., 6d. to 8d. per lb.
GREEN PAINT, all shades, 2s. to 30 0
BLACK PAINT, 2s. to 30 0
RED PAINT .. 2s. to 30 0

GROUND BRUSHES, DUSTERS, SASH TOOLS, DISTEMPER BRUSHES.

The above are Not, for Cash, and as such cannot be exchanged. Lists of any of the above on application.

Glass for Garden Purposes. JAMES PHILLIPS beg to submit their REDUCED PRICES.

PROPAGATING

Each.—s. d.	12 inches in diameter	0 8 1/2
	3 "	0 4 1/2
	4 "	0 5 1/2
	5 "	0 6 1/2
	6 "	0 8
	7 "	0 10 1/2
	8 "	1 0
	9 "	1 2
	10 "	1 4
	11 "	1 6

BEE GLASSES, with ventilating hole through top

4 inches in diameter	0s. 6d.	9 inches in diameter	10 "
6 "	0 8	10 "	11 "
7 "	0 10	11 "	12 "
8 "	1 1	12 "	13 "
	1 4		

Either flat or conical tops.

CUCUMBER

24 inches long	2s. 0d.	16 inches long	14 "
22 "	1 1 1/2	14 "	12 "
20 "	1 8	12 "	10 "
18 "	1 6		

HAND GLASSES.

Each.—s. d.	13 inches	6 6
	14 "	7 6
	16 "	8 6 1/2

London Agents for HARTLEY'S IMPROVED ROUGH PLATE, LENSED OIL, Genuine WHITE LEAD, PAINTS of various colours ground ready for use, SHEET and ROUGH PLATE GLASS, ROLLED ROUGH BRITISH PLATE, PATENT PLATE, ORNAMENTAL SHEET, HORTICULTURAL, ORNAMENTAL, every description of GLASS, of the best Manufacture, at Wholesale and Retail. Lists of Prices and Estimates forwarded on application.

JAS. PHILLIPS AND CO., 120, Bishopsgate Street.

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Pelargoniums for the Million.

JAMES HULDEK'S unrivalled Collection of French, Fancy, and Show varieties is now ready, at the following low prices—100 plants, distinct sorts, for 50s.; 50 plants for 30s.; or 25 plants, distinct sorts, for 20s., hamper and postage included. Crown Nursery, Reading.

VARIEGATED PELARGONIUMS.—Mrs Dix. Pictus, Spanish Beauty, Jock o' Hazeldan, Louisa Smith, Lizzie, Carolina Longford, Oberon, Dragon, Countess Tyrconnell, Golden Circle, Glen Eyre Beauty. CABSON and SON, Gravel Walk Nursery, Peterborough.

Special Offer.—Madame Lemoine. WILLIAM BADMAN offers strong plants of this most beautiful of Double Pelargoniums, in single pots, 6s per dozen. LORD DERBY, finest Pelargonium grown, 4s per dozen. Package included. Terms cash. Cemetery Nursery, Gravesend.

British Fern Catalogue. ROBERT SIM will send, post free for six postage stamps, Part I (British Ferns and their varieties, 98 pages, including prices of Exotic Ferns), of his PRICED DESCRIPTIVE CATALOGUE of BRITISH and EXOTIC FERNS, No. 7. Foot's Cray Nursery, Sidcup Hill, Kent.

Choice Seeds and Spores, for present Sowing. JOHN H LEY, NURSERYMAN, Croydon, has saved with great care SPORES from his extensive Collection of EXOTIC FERNS. If sown now in the manner described on each packet, would produce many fine varieties next season. Per packet, 1s. 6d and 1s. 3d. CENTAUREA CANDIDISSIMA, good Seeds, 1s. per packet. PIRETHRUM GOLDEN FEATHER, 500 ditto, 1s., post free.

Everlasting and Dried Natural Flowers. JAMES CARTER, DUNNETT, and BEALE'S WHOLESALE LIST of the above is now ready, and will be forwarded immediately on application. 237 and 238, High Holborn, London, W.C.

JAMES CARTER AND CO. have a beautiful Stock of Seedlings, in excellent condition, of their choicest Strains of CALIFORNIA, CINERARIA, and PRIMULA, in 50-pots, fit for potting on immediately for early Spring Blooming. Worthy the attention of those who have omitted to sow at proper time. Price, 12s per 100, 1s per dozen. JAMES CARTER AND CO., 237 and 238, High Holborn, W.C.; and Crystal Palace Nurseries, Forest Hill, S.E.

Gladioli—New Roses. EUGENE VERDIER Fils Aîné, NURSERYMAN, 3, Rue Dunois, Paris, publishes in August and September of each year complete and descriptive CATALOGUES, with prices. They comprise all the finest and newest varieties of Gladioli, Paeonies, and New Roses. Gratis and post free on application.

A VAN GEERT, NURSERYMAN, Ghent, Belgium, has to announce that he has still some large plants of LAMELLIAS left, with flower buds, at 7s. 6d. to 15s. each; seedling plants of ABIES BRACTEATA, 2-yr. old, at 60s. per dozen. Strong plants of UVARIA GRANDIFLORA, at 4s. per dozen. Also plants of LANTANA HORBONICA, at 7s. 6d.; CHAMEROPS BUMBUS, at 15s.; and CORYPHA AUSTRALIS at 10s. 6d.

New Japanese and other Chrysanthemums. JOHN SALTER AND SON beg to announce that the CHRYSANTHEMUMS are unusually fine this season. Their large Collection, NOW IN BLOOM in the Winter Garden, may be seen throughout the months of November and December, every day except Sunday. Admission free. Versailles Nursery, William Street, Vale Place, Hammersmith, W. near Kensington Railway Bridge.

New Catalogue of Dutch Bulbs, Plants, &c. ROBERT PARKER begs to announce that his NEW CATALOGUE containing Select Descriptive and Priced Lists of American Grasses, Cyclamens, Gladioli, Hyacinths, Lilies, Narcissus, Tulips, and other bulbs, Mosses, and other Plants, Fruit Trees, Sweet Violets, &c., is now published, and will be forwarded on application. Forest Nursery, Tooting, Surrey, S.W.

Dutch and other Bulbs. WM CUTRUSH AND SON are celebrated for HYACINTHS, TULIPS, CROCUSES, and other DUTCH BULBS. All the great Prizes, including the Two Special Prizes offered by the London Gardeners, awarded to their Collection one year ago in the Spring. Their report is of one quality, therefore Customers may rely upon having the finest Bulbs. CATALOGUES post free. H. G. Cutrush Nursery, L. near N.

Dutch Flower Roots. FRANCIS & ARTHUR DICKSON & SONS, have received from the most celebrated Growers in Holland their large importation of the above, and have the satisfaction to say that the Bulbs are large, sound, and well ripened. Early orders respectfully solicited. DESCRIPTIVE PRICED CATALOGUES sent free on application. The "Old" Established Seed Warehouse, 106, Eastgate Street, London, E.C.

Hyacinths, Tulips, &c. BUTLER, McCULLOCH AND CO. beg to announce the publication of their AUTUMN CATALOGUE of the above, which will be sent gratis and post paid on application. Orders for Bulbs can now be executed. BUTLER, McCULLOCH AND CO., South Row, Covent Garden Market, London, W.C. Established upwards of a Century.

Arrival of Bulbs. A R R AND S U G D E N, 12, King Street, Covent Garden, W.C. CATALOGUE containing much additional valuable information is ready, and on application sent free to the Readers of the Chronicle. BULBS for Early Flowering now ready to be put out, of first-class quality.

The Gardeners' Chronicle. SATURDAY, NOVEMBER 13, 1869.

MEETINGS FOR THE ENSUING WEEK. Royal Horticultural (Fruit and Floral Committees), at South Kensington .. 11 A.M. Ditto (General Meeting) 3 P.M. .. 5 P.M. .. 14—Lincoln

COMPLICATED as is the geographical distribution of organised beings, it would have been adered still more so if, at an earlier stage of our knowledge, the two great ISTHMIUSES of the world those of DARIEN and SUEZ—had been cut under by the agency of man, so as to allow of unrestricted spread of such plants and animals are now found in their neighbourhood. There are many reasons to believe that at an early period the present geological epoch, North and South America were not connected by that great bridge which now separates the Atlantic and Pacific Oceans, but that this was formed by one of the great upheavings which have added to the coast of Peru, Bolivia, and Chili, a greater part of its desert tracts, and but seldom being covered by vegetation, and but seldom

visited by actual rain. In the narrowest part of the Isthmus of Darien we find beds of oyster shells, formed by a species still existing in a living state on the Pacific coast; the majority of the fishes, both fresh and salt water, as Dr. GUNTHER has clearly shown in his admirable treatise in the "Zoological Transactions," are found on the coast of both the Atlantic and the Pacific; and the maritime and shore vegetation, consisting of plants chained to the water's edge, and therefore not able to spread overland, is identically the same on both sides. Curiously enough the same conditions do not seem to prevail on the Isthmus of Suez—the fish fauna of the Red Sea, Dr. GUNTHER reminds us, being absolutely different from that of the Mediterranean. It will be interesting to watch how far this state of things will be influenced by the great work now completed, we mean the canal across the Isthmus of Suez.

These and similar reflections are naturally forced upon us as the day approaches when one of the greatest engineering feats of our time, certainly one of the greatest our French neighbours have achieved, is to be thrown open to the commerce of the world, when trade is invited to resume its old channels—that trade which, in days of yore, when navigators did not pass by the Cape of Good Hope, covered the terraced gardens of the Mediterranean with precious works of art, and enabled the German merchant princes to heat their rooms with Cinnamon wood from India. It is humiliating to think that some of our greatest engineers, probably influenced more by political than other reasons, boldly pronounced against the possibility of a canal, and thereby added not a little to the embarrassments of that great entrepreneur, M. DE LESSEPS. Yet for all of that, like GALILEO'S world, the great project continued to move on, to progress, till at last it stands before us an accomplished task. But at this stage a difficulty begins to make itself felt, which, indeed, has long been foreseen, but requires now to be dealt with. This is the task of preventing the canal from silting up. On both sides of the canal we have typhoons—hills of loose sand—which, like the *melanchols* of the Peruvian deserts, are set in motion by moderately strong winds, and constantly change their position. Enormous quantities of this sand would in certain seasons of the year drift into the canal and cause, if not a complete choking up, at all events a serious outlay for dredging. What is to be done to prevent this mischief—to keep, in fact, the desert under control? You cannot pave so extensive a tract of country, but you can do the next best thing, you can cover it with vegetation. It is a question whether the gardener or the engineer shall be called in, whether cultivation or dredging is the cheapest method of dealing with this difficulty; and we are hardly in a position to work out the question of £ s. d. until we have more facts than are at present at our command. But we have no doubt that if cultivation is determined upon, we shall be able to establish our mastery over the sand. We have overcome much greater obstacles in Ascension—where, it will be remembered, that, acting under the advice of the late Dr. LINDLEY and of Dr. HOOKER, we took in hand an island which was a mere heap of ashes and cinders, without any water and no vegetation, save that of a few Ferns and Lichens at the very top of the highest hill, but which, by judiciously adding to the scanty flora Nature had provided, now possesses large trees, produces quantities of vegetables and abundant supplies of water for shipping. With such triumphant results achieved, gardeners need not shrink from the difficulties presented by the Isthmus of Suez.

NEGRETTI has drawn attention to the great danger from sand which threatens the canal from the western side, but the late Dr. KORSCHY, who was attached to the mission of inquiry despatched to Suez by the Austrian Government some years ago, points out with justice that the eastern side is still more to be feared as a sand supply. If Suez were a fresh-water canal, nothing would be more easy than to establish such irrigating works as would speedily convert the desert into a garden; but being salt water we must commence by availing ourselves, in the first instance, of the little moisture that is found around the wells. There everything must be done to extend the existing vegetation. This would have the immediate effect of causing more dew, mist and rain, and would enable us gradually to connect these different centres of plant life, until the whole desert, as far as required, was put under the gardener's control. Of course, it

would be desirable that this green covering should consist, as nearly as possible, of useful plants; but that would be merely an after-consideration. In the first instance, it would be desirable that every plant that will grow in a bare and heated soil of sand or gravel, such as a great part of the Isthmus is, should be sown. KORSCHY has published a long list of such plants as he thinks suitable for this purpose; and we think that his list might be considerably extended by adding some of those found in arid parts of California, Peru, Chili, and Australia. The most suitable are species such as those whose roots penetrate deeply into the soil, and whose branches and foliage are sufficiently thick to act as a kind of break towards the clouds of sand that are raised; less useful, though also acceptable, would be those which creep along the ground, and keep the sand down; and of still minor importance, all annuals which can be made to grow.

AN appeal is made, at p. 1161, for information respecting the influence of FUNGUS SPAWN on the ROOTS of CONIFERS. Unfortunately gardeners must still be haunted by the nightmare of "this horrid Fungus," and it is well if they are frightened into more diligent guarding against a very pressing evil. Nothing new is to be said upon the subject. Cases from time to time have been reported both as to the pernicious effects of fungous spawn, and of the benefit of lifting and cutting off the diseased roots. There is great unwillingness even in more scientific quarters to believe that Fungi can affect healthy plants or tissues. This, however, has been proved again and again in the case of Potato mould, Vine mildew, and other Fungi which attack leaves. The rapidly destructive powers of the threads of Mucor on the tissues of Apples was long since pointed out by Dr. HASSALL, and any cultivator may find confirmation of the fact for himself if he will observe closely what takes place in plants when they are shifted. A little piece of stick in the mould, should spawn grow upon it, will be a source of deadly mischief. Little threads are thrown off to the healthy roots, which soon decay, and if the mischief is not stopped, serious injury is almost sure to follow. We had ourselves an opportunity, in shifting some cuttings of Pelargoniums a few days since, of witnessing an incontrovertible instance of the way in which spawn travels to the healthy roots and destroys their vitality. The same thing unfortunately is sometimes experienced to an alarming extent in the case of the moulds belonging to the genus Polyactis. Mischief to the extent of many hundred pounds in a single nursery has ensued from these little moulds seizing on the branchlets of Conifers, Heaths, &c., and at once causing the decay of the subjacent tissues whereon they settled. It is seldom possible to ascertain precisely to what especial Fungus the spawn affecting roots belongs, but in the few cases where it has been fully developed it has always proved to belong to one of our commonest Polypori. No tree should ever be planted where one has stood before without the most careful grubbing up of the old roots. It is more frequently to the influence of fungous spawn that failure is due, than to the old theory of the soil being exhausted and not capable of supplying the necessary nutriment. M. J. B.

— WE are informed that at the meeting of the ROYAL HORTICULTURAL SOCIETY to be held on Tuesday, November 16, the following prizes will be offered, viz. —

- By W WILSON SAUNDERS, Esq., V.P.R.H.S.—Collection of winter bedding plants, to be exhibited in pots or boxes, 2l. 1l. By the Society.—4 Chrysanthemums, large-flowered, in pots, distinct (open), 1l, 15s., 10s.; 4 Chrysanthemums, Pompons, in pots, distinct (open), 1l, 15s., 10s.; 12 Chrysanthemums, cut blooms, distinct (nurserymen), 10s., 7s., 5s.; 5 Chrysanthemums, cut blooms, distinct (amateurs), 10s., 7s., 5s.; 12 plants bearing decorative fruits, in pots, varied (open), 1l, 5s., 1l, 15s.; 6 plants bearing decorative fruits, in pots, varied (open), 15s., 10s., 5s.

— Through the courtesy of M. NAUDIN we have received some particulars of the METEOROLOGICAL OBSERVATORY, recently established by M. CHARLES ST. CLAIRE DEVILLE, in the park "Mont Souris," in the immediate neighbourhood of Paris. This establishment has been founded for the purpose of observing and recording meteorological phenomena *per se*, and also with special reference to agriculture and horticulture. The park is of large extent, and will soon be one of the prettiest near Paris. The observatory is provided with all the numerous instruments now required for ascertaining the temperature, pressure, humidity, rainfall, electric and magnetic conditions of the atmosphere, &c., as well as for observations on the direction and force of the winds, the nature and intensity of light, the forms of clouds, and other matters, not excepting shooting stars and earthquakes. It will

... have been so much altered...
 ... own risers could hardly recognise...
 ... growing kinds I had, almost as a rule...
 ... adapted to dry soils, there is less tendency...
 ... and the produce is less coarse in shape...
 ... of high quality. A contrary remark applies to...
 ... more robust constitution as these...
 ... and, this is especially the...
 ... with such short-knued kinds as *St. Albans*,
 ... *Kidney*, *Countess*, and *Onward*—kinds...
 ... large from cropping on dry...
 ... and do well, with plenty of...
 ... Mr. Penn will be pleased to hear the latter...
 ... Somerset as "producing as good a crop...
 ... and will prove a favourite with...
 ... to the *Gardeners' Chronicle*...

I purpose to inflict upon them the...
 ... of all the 110 varieties. Let me...
 ... their fears. I shall not do so, for it would...
 ... and looking at the peculiar conditions...
 ... under which many of the trials take place, a writer is...
 ... often justified in publishing a disparaging opinion.
 ... Somerset friend mentions a grievance against many...
 ... that I fully endorse; it is this—seed Potatoes...
 ... often sent out that have been, in consequence...
 ... and the...
 ... to expose to get any...
 ... the...
 ... and personally I have to complain...
 ... of my failures in the spring resulted from...
 ... and to be saved than from any of my own...
 ... red stocks. Housing seed for the winter is of the...
 ... importance, and no man or firm can do his or...
 ... his customer's justice who does not make this a...
 ... primary consideration. Buyers, however, have the...
 ... body in their own hands, and it is one that will give...
 ... themselves and tradesmen equal satisfaction—Buy in...
 ... as early, and do not leave it until planting...
 ... time. This is before me are specially valuable in one...
 ... respect, there are in each of the columns, the first for...
 ... "quality," the third for "shape,"...
 ... the second, the feature being the maximum, and...
 ... somewhat singular that out of the entire number...
 ... more than two dozen varieties get the full number...
 ... marks, but it would be unfair to publish the names...
 ... those only as there are a large number that are but...
 ... or two short of the maximum, whilst also in both...
 ... cases, in relation to new kinds, the appended note...
 ... "just give it another trial," is of frequent occurrence...
 ... have a strong bias of that, as between the trade and the...
 ... public, there are but two ways of arriving at anything...
 ... so just a decision as to the merits of all the various...
 ... kinds of Potatoes in the market. The first is a public...
 ... trial in some public grounds, say at Chiswick, for...
 ... instance, at which a given quantity of tubers of every...
 ... available kind shall be simultaneously planted, and...
 ... occasionally overlooked by a reliable committee of...
 ... gentlemen thoroughly competent for the purpose, so that...
 ... the...
 ... taken at certain stages of growth...
 ... the whole should take place not later...
 ... than August, when the number of marks...
 ... awarded to each under the several heads of "earliness,"...
 ... "size," and "shape," might be entered. The matter of...
 ... trial quality could be easily adjudicated upon by...
 ... a member of the committee separately at their own...
 ... expense. A fair and complete report, with any...
 ... observations thereon that the committee may think...
 ... desirable to make, should be published as early as...
 ... possible not only for the satisfaction or otherwise of...
 ... persons supplying seed, but also for the information...
 ... of the public. The committee should have the...
 ... power to award First-class Certificates to those kinds...
 ... obtained the full number of marks only; Second-...
 ... Certificates to those that obtained three-fourths...
 ... upwards, and Third-class Certificates to those that...
 ... obtained one half the number.
 ... It is to be hoped that there was an unanimous agreement...
 ... the part of all concerned, to accept, first, the offer of...
 ... trial, and second, the verdict pronounced, it...
 ... would have the beneficial result of at once making...
 ... known to all the world what are the best kinds of...
 ... Potatoes we have, and of cutting down to something...
 ... reasonable dimensions our existing plethora of...
 ... varieties that are good, bad, and indifferent. My...
 ... proposal, failing the first, would be to estab-...
 ... a preconcerted and simultaneous trial by...
 ... able persons in various parts of the country...
 ... growing the same kinds, under as nearly as...
 ... possible the same conditions. Reports of these trials...
 ... should also be published, but it is manifest that any-...
 ... thing like the weight and importance that would...
 ... attach to the verdict of a central and responsible body...
 ... could not be given in the latter case. What should...
 ... constitute a Potato first-class qualification? I...
 ... do not know, but in other things "doctors will differ,"...
 ... and on minor points only; however, there...
 ... would be an expediency in getting half-a-dozen capable...
 ... persons to agree, in the first place, that where earliness is...
 ... more important than its neighbour, shall have a...
 ... Potato first-class qualification, and be fit for table as soon as...
 ... its neighbour, and of course, if less productive than its neighbour, shall have a...
 ... second-class qualification. If you get high quality combined with...
 ... early maturity and free production, here is at once...
 ... a first-class qualification. But the bulk of...
 ... the...
 ... second and main croppers, should be...
 ... under the heads already mentioned. And first...
 ... that a good variety should be a free cropper, an...
 ... abundant bearer—one that will fill up the bushel...
 ... fully. Secondly, the quality should be of the...
 ... best; but what constitutes high quality? white...
 ... texture, perfect freedom from core, and...
 ... flavour. We have many fine yellow Potatoes, of...
 ... flavour and usefulness, but the colour is...
 ... very objectionable. As to the texture, some...
 ... of the very best kinds vary as to dryness when cooked...
 ... from a moderately dry flesh will generally be more...
 ... associated than one excessively so. Mr. Penn,

in his note on York-shire Hero, says that "it is a little...
 ... too dry in its eating to please the palates of an extreme...
 ... few." I find the same fault with it, and think that...
 ... not "an extreme few" will be able to give it. It has...
 ... a roughness to the tongue that other good kinds do not...
 ... quite so dry do not possess, still the variety affords a...
 ... capital criterion by which to judge of the mealy...
 ... texture of other kinds. Thus, as to shape deep or...
 ... protruding eyes should bring disqualification, and the...
 ... surface should be even, and the outline graceful, the...
 ... handsomest round kinds are oval or pebble-shaped, and...
 ... many of these are almost perfect. Royal Albert, Scotch...
 ... Blue, and Emperor, are examples. One of the truest...
 ... rounds is the Red Regent, a coarse-growing kind; but...
 ... almost as a rule in strong growers a coarse and uneven...
 ... shape is to be found. Kidneys are outgrowing the old...
 ... kidney form of round at one end and pointed at the...
 ... other; and all the best kinds develop an improved form...
 ... For a time, handsome show variety, the Waterloo Kidney...
 ... beats all I have yet seen; but this is close run by...
 ... Dickson's Premier, Huntington Kidney, the King of Potatoes...
 ... Daintree's Kidney, and a few others. All of these will...
 ... turn out with me tubers as smooth as though scraped...
 ... with glass, and in form almost faultless. All of these...
 ... kinds afford good guides as to what should constitute...
 ... form. I do trust that my suggestion as to a central...
 ... trial will be taken up in good earnest, and that it may...
 ... be made a practical reality. I am willing to send for...
 ... judgment any of my own varieties. Who else will offer to...
 ... "do likewise?" Alex. Dean.

REVIEW OF THE GENUS NARCISSUS.—VI

Group III. (Continued).—PARVICORNATE: crown less than half as long as the divisions of the perianth.

The autumn-flowering species, with a star-like limb with narrow acute linear divisions, are three in number. I am not aware that any of them are in cultivation in England now.

18. *N. penduliflorus* (Schreb.) Moric fasc 1 t 2.—Bulb small, globose, producing 1-2 slender terete fistulose leaves about a foot long, at the same time as the flower. Scape slender, 1-4 flowered, spathe equalling or exceeding the pedicels. Flower with a Jonquil odour, the tube 7-8 lines long, the divisions slightly shorter, greenish, linear, very acute, spreading horizontally, not more than a line broad in the lower part. Crown very minute, the same colour as the leaves, with six redish brown stigma lobes. Anthers sessile, basical, at the top of the tube. Siliques, 1-2 long. *Hort. Kew*, p. 76; *Calceolaria*, p. 10; *Herb. Bot. Reg.*, p. 22, fig. 1; *Herb. Bot. Reg.*, p. 22, fig. 1; *Herb. Bot. Reg.*, p. 22, fig. 1.

A native of Spain and Barbary. It resembles the next in general habit, but may easily be known by its green flowers, and subterete leaves.

19. *N. elapsus* (Spain. Veg. Phan. 12, p. 452).—Bulb roundish, an inch or less in thickness. Leaves one or rarely two appearing at the same time as the flowers, flattish, finely channelled, a line or less broad, equalling or exceeding the pedicels. Scape slender, 1-4 flowered, spathe equalling or exceeding the pedicels. Flower with a Jonquil odour, the tube 7-8 lines long, the divisions slightly shorter, greenish, linear, very acute, spreading horizontally, not more than a line broad in the lower part. Crown very minute, the same colour as the leaves, with six redish brown stigma lobes. Anthers sessile, basical, at the top of the tube. Siliques, 1-2 long. *Hort. Kew*, p. 76; *Calceolaria*, p. 10; *Herb. Bot. Reg.*, p. 22, fig. 1; *Herb. Bot. Reg.*, p. 22, fig. 1; *Herb. Bot. Reg.*, p. 22, fig. 1.

A native of Italy, Sicily, and Algiers. Differs from the next by its more robust habit, several flowers, and leaves contemporaneous with them.

20. *N. repens* (Lam.) Sp. Plant. p. 411.—Bulb ovoid, 6-8 lines thick. Leaves solitary or two together, filiform, subterete, usually not appearing till after the scape has risen. Scape usually one, rarely two-flowered, very slender, under a foot high. Pedicel 6-9 lines long, shorter than the spathe. Tube, segments, crown and stamens, like those of the preceding. *Hort. Kew*, p. 76; *Calceolaria*, p. 10; *Herb. Bot. Reg.*, p. 22, fig. 1; *Herb. Bot. Reg.*, p. 22, fig. 1; *Herb. Bot. Reg.*, p. 22, fig. 1.

Extends from Spain through the south of Europe to the Barbary States, Greece, and Palestine. Flowers in September and October.

21. *N. Broussonetii* (Lagasca, Nov. Gen. p. 13).—Bulb ovoid, as large as a hen's egg. Leaves about four to a scape, 4-6 lines broad, about as long as the scape. Scape about a foot high, 4-8 flowered. Pedicels 6-10 lines long, shorter than the spathe. Tube 8-9 lines long, exclusive of the ovary, under a line thick, greenish at the base, white upwards. Divisions of the limb subcampanulate erecto-patent, pure white, oblong-lanceolate, about half an inch long by a quarter of an inch broad, narrowed to a point at the base. Anthers sessile, basical, at the top of the tube. Siliques, 1-2 long. *Hort. Kew*, p. 76; *Calceolaria*, p. 10; *Herb. Bot. Reg.*, p. 22, fig. 1; *Herb. Bot. Reg.*, p. 22, fig. 1; *Herb. Bot. Reg.*, p. 22, fig. 1.

A very rare and little known plant, gathered at Mogadore by Broussonet. I have seen a single dried specimen from the herbarium of Gay at Kew. It is exceedingly well-marked from all the other Parvicornate by its nearly obsolete crown, subcampanulate flower, and developed filaments; in fact, it is a plant so distinct in habit and characters, that M. Gay proposed that it should have a genus to itself. This concludes my review of the known species. T. G. Baker.

Home Correspondence.

Vine Roots.—That roots are often made without any corresponding action taking place in the branches, is a common occurrence, and can be demonstrated by any gardener. Many years ago, I was set to take up a number of Gooseberry bushes in the autumn, just as they had lost all their leaves; these were put away for a few

weeks before being permanently planted out, and in the meantime there had grown a number of young roots, in fact, when removed to be planted into their permanent quarters many of them were made up of young roots, from 1 to 1 1/2 inch thick. Of course, there was no corresponding action taking place with the leaves at the time. Now, will you consider a particular season of the year, and under certain conditions, one part of a plant will have a very evident evidence of vitality and active growth, while another portion of the same plant may be in a perfectly dormant state. Where is the mystery here? Reverse the seasons, and then we shall see that portion of the plant which is acted upon by the atmosphere first manifest vitality, and development in the branches will become apparent before such is the case in regard to the roots. You may call this stored up force or energy, or anything else by which it may be better known, but still the simple facts remain the same. We have seen some trees, after being cut down and lying on the ground, throw out leaves and shoots of some inches in length. More than 20 years ago I took charge of a greenhouse that had Vines in it. The first winter proved mild, with little rain. The Vines broke tolerably well, and at first gave out average-sized leaves; but about the time when the bunches of Grapes should have begun to hang down, and open their flowers, both foliage and bunches seemed to have withered. Six weeks passed over before the leaves began to recover, when young wood began to make new leaves, but still many of the young clusters retained a twist in the stem of the bunch, and several of them even in the bunch itself. I could not satisfy myself as to the cause, and fancied the house might have been opened too early some cold early morning. As the season advanced we gave them every attention, as also in the season following, but with no better results. They had made plenty of wood, although rather late, and perhaps some of it was scarcely well ripened, but as there was very little young wood left at pruning time, this unripeness could not have been the cause of the failure. Next winter we examined the roots, and here we found the evil. The border had not been made many years; but the Vines were there before the border had been renewed, and their roots had been cut in beyond any leaders, and replanted too deeply in an over-adhesive, not properly drained border. Was not the first growth of these Vines, the development of their first leaves, and the showing of the bunches, all due to atmospheric influences, without assistance from the roots? Did not the check which they received occur before the root-action began to be of any service to them? When the summer's sun had to some extent warmed the border, then their second growth took place. When we examined the border we found that several of the Vines had begun to throw out young roots just under where they entered the soil; and I inferred that, had they been allowed to grow on without being disturbed, they might have made a large and valuable crop. I had made mistakes, growth takes place in parts exposed to atmospheric action before root-action commences. Most practical men are aware that Nature does not keep such things in nutshells for the few to speculate on. G. Dawson.

—Last February, in order to ease the Vines of their labour, I cut off the remainder of our Lady Downe's Grapes, with the entire spur attached to the bunch, and inserted the end of the wood in about bottles of water containing a little pounded charcoal. The last of the Grapes were cut in May when the spurs had commenced growing, and the flavour of the Grapes of course was nearly gone, owing to the growth on the spur. Out of curiosity I put half a dozen as they were in the bottles of water, into one of our vases, and with the extra heat thus given the young shoots lengthened themselves to 7 inches and bunches were also freely developed on each shoot. No roots up to this time were visible, but some of them had calused over, and no doubt roots would have shown themselves in time, had not a too hot bulk of sun one day ended my experiment. Reasonably, if a branch of a Vine will produce growth in this way without the action of roots, a long broomstick-like Vine full of sap will surely do the same thing, after a little heat and dewing is applied, without the roots being in action. Those familiar with pot Vine culture—and I mean those who understand the advantage of having more roots in the pot than soil, after the young cane is matured—know well that root and bud do not move simultaneously till the bud is developed into a shoot and leaf. And if this be a fact, which I have no doubt about, where root and branch are in the same temperature, I am persuaded that root action does not take place as far as with Vines planted in an outside border. I believe Vines in all many cases, when planted in cold heavy soils, be advanced to the stoning period before real root-action takes place, and hence the great advantage in having Vine borders as much under command as a Vine in a pot, i.e., heated or protected in such a way that cold, rain, snow, or frost may not lower the temperature of the soil too much. Mr. Thomson, I believe, gives slight artificial bottom-heat, in order to raise the soil to a proper temperature preparatory to root-action, and he increases it greatly as soon as root and branch work simultaneously together, but not before—as after this a greater amount of bottom-heat may be maintained with advantage; and this is exactly in accordance with what we find the Vine enjoying in its natural state, which he knows well, and which he attributes to an ear as he is able. At the sub-Congress at Mr. Williams', to which Mr. Anderson refers, when this question was mooted, I was not so fully prepared to adhere to the opinion I then expressed as I am now, namely, that root-action does not take place in cold borders till some weeks after shoots are formed; this I believed in then—that Vine buds swell and form shoots before root-action takes place, when root and branch are in equal

temperatures, as in the case of pot Vines: this I believe in now—and I have a firm conviction, that when the roots are subjected to a greater heat than the branch, that even then growth is the forerunner of root manufacture. H. Knight, Floors Castle Gardens ["Taties" begin to sprout before they begin to form roots. Eds.]

Vine Budding.—Some seven or eight years since, you were so good as to publish a short paper of mine on Vine budding, as being much the neatest and most certain way of working the Vine. It is only necessary to have the bud perfectly ripe, and to cut it off with a small portion of wood, for the operation to be as certain as any other kind of budding. In the paper alluded to above, I endeavoured to point out the great benefit likely to be obtained by working some of our weaker growing and delicately rooted Vines, on free-growing, vigorous stocks, such as the Trebbiano, Gros Guillaume, and White Nice; and I am yet of opinion that worked Vines will ultimately become an important branch of trade with our nurserymen. It would be most interesting to try what effect such stocks would have on the late-keeping properties of Muscats and other Grapes. Any Vine that retains its foliage very late in the season would appear a most desirable stock to bud late kinds on. J. Sheppard, Woolverstone Park.

—At p. 1137 D. Bain asks: "Is Vine budding a new discovery?" This was asked in reference to what Mr. Stevens has done rather cleverly, by budding a whole house of Vines at Trentham. Mr. Bain states that his superior had budded Vines eight years ago. I have a prior claim to that. Above 20 years ago I had a young Vine sent me, said to be a very early black kind. As I had no vacant situation for it, the thought struck me that I might try a bud on one of the old Vines. I took off a bud in the usual way, leaving the wood on, and inserted it in the thick stem of an old Vine. It was a very weak bud. It began to push rather weakly at first, but the longer it grew the stronger it grew, and eventually it ripened a good cane. It was cut down to about 4½ feet, and ripened eight bunches the following year. In Mr. Stevens' case he had fine young Vines to operate upon, while I had the stem of an old Vine. Vine budding is useful in many cases where grafting cannot be applied. On the naked stem of an old Vine, where you want a shoot, insert a bud, and the end is soon attained. W. Hutchison, Llynndu House, Abergeenny.

Potting Lilies.—Your correspondent "M." has afforded no new facts in confirmation of his former statements regarding the proper time to pot Lihums. He has rather chosen to rest his defence upon some minor phrases incorporated with my last few observations, which are, however, extraneous to the point at issue. What I meant by "authoritative tone of denial" I have already explained, and it is simply this: that whilst "J. D." offered advice which he himself had acted successfully upon, and seen others do likewise, "M." differed in toto therewith. "M." questions the propriety of the advice offered by "J. D." it is not a question of differing with him as to his practice. I have referred to "the last week in January—previously to the advent of their natural swelling and root-making," as being a good time in which to perform the operation: not as "M." puts it, "somewhere in January." Surely "M." would not have me fix a given day when to do so. I take "J. D.'s" statement, "till spring," in its broadest sense, to imply "early time," as some authorities have it, and as it is accepted literally by gardeners generally, especially when speaking of greenhouse plants, or such as are cultivated under glass, as potted Lihums are. Now then, as to "M.'s" statements regarding the real subject at issue. "M." says, the moment the stems are dead we may infer the advent of the resting period is long past, through the fact that certain roots at the base of each stem exist alone to support the stems. Such a theory I can by no means support, i. e., that living roots exist but to waste their energies upon dying stems, when the scaly bulbs below are actively engaged in collecting support from the stems continuously whilst an iota of life remains. I must needs go further: even after observable superficial activity is past, the long rambling succulent roots which have taken friendly hold of the soil comprising the ball, are yet, whilst slowly dying away, affording an additional aid to the same, until each bulb, replete with vitality—the collective working of root and stem during the growing season—is again prepared to shoot forth. Furthermore, I would attach some little weight to that amount of sympathetic action which necessarily exists between the roots and the soil in which they are imbedded, as being more suitable to them than when the roots are torn rudely therefrom, and placed loosely in other soil at a time when no immediate action is possible. So much for actual practice, but past observation has long suggested to my mind that we should not rest here—that, taking Nature as our guide, we are acting wrongly in "drying off" the balls containing Lihums, and more especially so in regard to the L. auratum. Let any one who may have L. lanceifolium planted in the open ground, take up the bulbs in the early spring, and an examination of them will, I think, convince him of this fact. "M." rather taxes his imagination when he says Mr. Smith says "absolutely nothing" about potting his Lihum. I need do no more than make the following quotation from Mr. Smith's paper in regard to this. He says "In 1868 the plant was transferred to a larger pot, and placed in a temperate house in the month of February." "In 1869 it was turned out of the pot, and a small portion of the old soil removed, it was then potted and treated as before, the plant producing 193 blooms." Understand, this was all done in 1869!—the very month when potting was performed being given above. "Blooming past (he says, confirmatory of the above), they are cut down, and stored away until the season arrives to start them into growth." The primary

remarks of "M." regarding "the Calendar," I cannot pass over unheeded. Perhaps there is not in connection with periodical literature a more monotonous task or a more thankless office than that of writing a "weekly calendar" for a leading gardening paper. I have likened it to an infant, which week by week you may nurse for long years and yet it never grows. You may never put it into "short clothes." The long clothes of routine must be kept to, and practices, however obsolete with some, in some way referred to. You may prime it up with a few modern scraps, and that is all—that is, if you would fall in with the views of all, and that "week after week," as he considerably has it. I thank "M." for his complimentary remarks. Wm. Earley.

Ornamental-foliaged Pelargonium.—My friend and neighbour, Mr. D. T. Fish, in concluding some very interesting remarks on the coloration of the leaves of the Ivy-leaved Pelargonium L'Elegante (see p. 1138) asks the following question—"How is it that so many of our tricolor Pelargoniums are so much more perfectly coloured in the autumn than at any other season?" Now, I am not about to answer this question, for the best possible reason, viz., that I do not know how it is. But I can fully corroborate his statement as to such being the case; and what is more, I may also state that, under favourable conditions, they will retain this degree of brilliancy with little or no diminution during the entire winter months. This circumstance has induced me for some time past to regard these plants as being of the greatest importance for the purpose of winter decoration. And so convinced am I of their adaptability to this purpose that, in the second edition of my "Ornamental-foliaged Pelargoniums," I have earnestly recommended the use of a separate erection for their cultivation, more particularly during the winter and spring months. The great beauty of these interesting plants renders them, I think, worthy of the consideration which may be regarded as to some extent necessary, as the ordinary greenhouse is found to be too cold, and in other respects unsuited to their successful cultivation during winter; while the plant stove, on the other hand, is too close and warm. This being found to be the case, I am sanguine enough to think it quite possible that before long a "tricolor house" will be quite as likely to be found forming part of many extensive horticultural establishments as an orchard-house is at the present time; and certainly the former will be found to be fully as enjoyable, and possibly little less interesting than the latter. Nearly all that is really necessary to keep the various classes of ornamental-foliaged Pelargoniums in healthy and vigorous condition, and to continue to produce abundance of brilliantly coloured foliage throughout the winter and spring months, is moderate warmth, abundance of air, without subjecting the plants to sharp draughts, a position moderately close to the glass, or where little or no obstruction exists to the direct rays of light, and carefully avoiding overcrowding the plants. All these conditions can be best secured in a not over lofty span-roofed erection. P. Griene, Culford.

Yellow Bedding Plants.—I have not yet observed in the discussion that has taken place concerning yellow bedding-plants, that anyone has recommended for that purpose the double Tagetes patula nana, or dwarf orange French Marigold. This is certainly one of the best of all the yellow annuals for bedding or ribbons. It grows to an even height of about 7 inches, commences blooming very early, and continues to do so until cut down by frost. It will also succeed much better on dry soils than will either the Pansy or Calceolaria. The dwarf bedding Tropaeolums are also fast developing some good things; but the compactum section has beaten the Tom Thumbs out of the field, not only as regards habit, but also the quality and quantity of flower. Golden King of Tom Thumbs might have made a showy bedder, but for the very undesirable habit it has (common alike to all the Tom Thumbs) of crowding up its bloom with foliage. Those who have grown it, and been disappointed with the result, should not allow themselves to be prejudiced against the plants of the compactum section, as they are quite free from that defect. Luteum Improved is a capital thing; and there are some fine orange colours also to be had. Indeed, one might make a flower garden exclusively from dwarf Tropaeolums, so great is the variety of colours that occur amongst them. I heartily acknowledge the good qualities of the yellow Pansy and Viola lutea grandiflora, but in arranging masses different heights are necessary, and, to meet this want, a variety of plants must be resorted to. Alex. Dean.

Coloration of Leaves.—Mr. D. T. Fish, in his essay upon this subject (p. 1133), has laboured hard to show that the pink colour occasionally seen in the foliage of the Ivy-leaved Pelargonium, L'Elegante, is necessarily the result of some unnatural contortion of the leaf-stalks. How far his argument holds good the following little fact may show. Not long since I was at the establishment of Messrs Elcombe & Son, of Romsey, and in one of the houses there saw a lot of plants of this Pelargonium standing upon a shelf, where they had been for some time, with the foliage hanging downward all round the pots, but not a coloured leaf was there among them. On the stage, just opposite to these, however, was one plant that was beautifully coloured deep pink. On seeing this, I at once said to Mr. Elcombe, "I suppose you have been twisting the stalks or branches of this," but he replied, "Oh dear, no! nothing of the kind—the simple reason of it is, the plant has been allowed to go dry;" and this I found, on closer observation, to be the case. As to the bright coloration that Mr. Fish writes of as being so marked in some of the tricolor Pelargoniums in the autumn, it may seem cruel to cast a matter-of-fact stone at that gentleman's highly imaginative and poetical tablet of suppositions, but is it not really the case that the cool and humid atmo-

sphere of autumn, combined with the fact that the soil is warm and root action excessive, constitute the real cause of this high development of beauty, its being the "hectic flush of coming death," or, in other words, nonsense; high coloration in a tricolor Pelargonium being the accompaniment of rude health, not of delicate beauty. Alex. Dean.

Seedling Ferns.—The following fact may be of interest to those of your readers who are anxious to raise Ferns from spores. A few weeks since I received spores of Nothochlana candida, which I sowed freely. I now see that each seedling is distinguished with silver, causing the whole mass to have a bright silvery appearance. I have raised many sorts of Silver Ferns, but never observed this occurrence. J. H. Ley.

Pruning the Wellingtonia.—I have a number of plants of Wellingtonia gigantea, would my correspondents kindly inform me if it is necessary for them to cut off the lower branches, and at what time of the year to do it? T. T. [To the above, which we submitted to Mr. Frost, of Drogheda, a gentleman replies:—I would never think of the lower branches of the Wellingtonia—what is to be done? If it is absolutely necessary, I would cut off at once. We never prune here, with the exception of taking out forked leaders where they are doing us any harm, we keep the trees to one stem.]

An Oak Tree Decaying.—I should be obliged by your advice regarding an Oak tree some years has been very sickly—it is, I think, a tree of middle age. The branches at the top are withered and sickly look. I am told that if cut off at this season would restore it. May I ask for your opinion? and if so, how, and in what way should guano to water, how often, and at what time should manure it?—whether for the purpose of the soil should be dug round the tree, which stands in a lawn? An Old Subscriber. [We sent your query to Mr. Ingram, of Belvoir, who obliges us with the following reply. Eds.:—The premature decay of the tree may result from poverty of soil, a wet subsoil with pyrites, or gravelly bed with ferruginous glomerates, or many other circumstances equally obnoxious to timber trees; but as the soil has not been mentioned, a remedy can scarcely be given. It is advisable to ascertain the character of the subsoil, this may be done by digging a hole in depth, near, but not close enough to injure the roots. If the subsoil exhibits a tendency to dryness, due to a sloping position, or drench with manure-water made with cow-dung and a little superphosphate this latter will destroy Fungus, which may have begun to attack the roots of the tree. If the soil be manure poor, or unsuitable as above described, preparing a compost, the primary ingredients should be a good strong loam, or new red marl, mixed with leaf-soil, road-scraps, granite road, so much the better, and a little gypsum. Pare the turf carefully beneath the tree to a distance equal to the distance covered by the roots, then spread the compost 4 inches in thickness in where practicable; carefully avoid the roots; then water abundantly, and relay the soil, not let the raised soil come in contact with the tree—place bricks or stones round the tree, highly stimulating manure, such as guano, is a hazardous application. A trench dug round the tree would probably destroy many valuable roots.]

Potato Grafting.—Some years since I was engaged in grafting on a small scale, but soon gave it up, being likely to lead to any improvement. Some time held the opinion, that if any improvement could be effected it must be by grafting the shoots. This idea will perhaps be thought a little wild one, yet I do not start this notion without experience, which I consider applicable to both as to its practicability and its probability to produce. Many years since I grafted seedling Tulips, and it is a well-known fact that the seedling Tulip to continue for years, the seedling, or what florists call a breeder, should be broken into colours or flume and feathered, or broken into so many experiments have been made during the last hundred years, diameters Ten or twelve years ago, and for two or three running, several of the above-named Tulips were experimented on by grafting, for the purpose of making them break into colour. The operation was a complete success. In every case the graft took and grew, that bulb the next year produced a feathered or flamed flower. From this it is evident that the graft produced a positive and desirable effect on the stock or root, and I also presume that a Tulip can be grafted, so may the Potato. The method of grafting was to take a feathered or flamed Tulip with the Tulip was to take a feathered or flamed Tulip just at the time it was commencing to grow, cutting it off with the leaf on the stem, and fixing it off the flower of the seedling, fixing it on as usual, as possible. I may also state that some of the best grafted flowers lived and bloomed, some three or four weeks, some a fortnight, some three or four days, following is the plan I would recommend for grafting the Potato:—Provide as many and as small as may be thought proper, and cut out all the eyes, one in each Potato, plant them as usual, in the most convenient for performing the operation, either in pots or the open ground, and place a part of the Potato with the eye uppermost, and even with the surface of the soil; place a feathered or flamed Tulip shoot to each; cut off the other side shoots as they appear, encourage them to grow with a little fine earth, grow them as usual, to sun and weather as possible, so as to be ready

hardy; and keep each shoot tied up to the stake. When the shoots have grown 8 or 10 inches long, perform the operation by the transfer of the shoots. Having provided some slips of soft matting, a little thin, soft but close-textured paper—if oiled paper all the better—also a little softened tallow, with a very sharp knife cut the shoot at 3 or 4 inches up the stem by a sloping cut; fix it on without any cleft or tongue; wrap a small piece of paper round it, binding it tight with the matting, after which rub over with the tallow. Then carefully tie and bind up all the grafts to the stake, so that no part may droop or hang down. For a few days a hand-glass might help; at any rate shade from the sun. Earth them up to the graft and expose them to sun and weather, still keeping the grafts tied up to the stakes all the season, and cutting off the tips of any shoots that may make their appearance from below the grafts. If I were asked what the result of these experiments would be if successfully carried out, I would say that each variety will still continue to produce its kind. But may not each imbibe something of the quality of the other—some of its richness, some of its vigour and prolificacy. What I should value most would be any seed that may be produced on the grafted plants. Should grafting fail, perhaps inarching might succeed. I think "S. S." (p. 1137) erred in one or two points in his operations. The shoots should not have been joined nearer to the set than from 3 to 4 inches, that being the part to produce the Potato; one of the shoots ought to have been cut off as soon as the union had taken place, as also the root of the other; there should have been no pruning of the tops except such shoots as sprang from below the grafts, and of these only the tips cut off as soon as they appeared, just below the surface of the soil. *Wm. Burnett, Monk Gate, York.*

Planting the Deodar for Timber.—About 15 or 20 years ago there was a dispute in your columns whether Deodar timber, grown in this country, would be valuable. The opinions about it were very conflicting; and I do not recollect, and cannot find out, that either side got the better of the argument. As I wish to make some plantations, I should be much obliged for your opinion, as more must be known about it now than was known 15 years ago. Would you also tell me whether trees grown from cuttings are as vigorous and well-shaped as seedlings? This also was a disputed point in your paper; and as most nurserymen raise their stock of Conifers from cuttings, it is a very important matter. *O. M.* [We sent the above to Mr. Frost, of Dropmore, who kindly replies as follows:—The Deodar should now be planted extensively; it is a fast grower, and there cannot be any doubt about the quality of the timber. We have some fine Deodars growing here from cuttings, which I have raised, and which are equal to the seedling plants: no one can see any difference. *Abies Douglasii* here, also raised from a cutting, is admired by all who see it. *Picea grandis* or *amabilis*, raised from a cutting by myself, is now a much handsomer plant than the parent tree; if they start with good leading shoots, I like them, if not, they are useless. *Pinus insignis* grows into fine specimens from cuttings; quite equal to seedlings with us.]

Californian Conifers.—For the following information respecting the "big tree" and other Californian Conifers in the Mariposa Grove, I am indebted to Mr. Olmsted, the well-known American garden architect, who, having spent many years in California, is well acquainted with its vegetable productions, and vouches for the truth of the subjoined measurements, which have been supplied by the person to whom the care of the Grove in question has been entrusted:—Of *Wellingtonia gigantea* (the big tree) there are 600 in the Mariposa Grove, and the largest measures between 90 and 100 feet in circumference near the ground. These trees seed pretty abundantly, and the seeds themselves meet with a ready market in San Francisco; indeed, all Conifers seed pretty abundantly here, except *Picea nobilis*, which furnishes cones but sparingly. *Pinus Lambertiana* and *contorta* are abundant. Of *P. amabilis* the largest specimens measure from 20 to 25 feet in circumference, and over or near 200 feet in height. Seeds of these are not generally good, being liable to be injured by worms. We have also *P. grandis*, and of Douglas Fir we have some fine specimens; of the latter some measure 20 feet in circumference, and 150 feet in height. Of *Abies Williamsoni*, the largest trees are 2 or 3 feet in diameter, and nearly 100 feet in height. Specimens of *Libocedrus decurrens* are 6 feet in diameter, and 200 feet in height. The largest trees of *Pinus Jeffreyi* measure from 4 to 5 feet in diameter, and 150 feet in height. *P. ponderosa* is 8 or 10 feet in diameter, and 200 feet in height. *P. Lambertiana* is of similar size with *ponderosa*, and its cones measure from 15 to 22 inches in length. *P. Sabiniana* is rather a scrubby Pine, measuring from about 3 feet in diameter, and from 25 to 100 feet in height. Of *P. contorta*, the largest trees are from 3 feet in diameter, and 100 feet in height. The seeds of this tree are very small. About *P. Benthamiana* I am not certain; it is called here sometimes *Cembra* and sometimes *Cembroides*. It grows on the summit of the Nevada Mountains, and is a scrubby Pine, with five leaves, and short thick chocolate-coloured cones, the seeds in which are about the size of a small Pea, and are difficult to obtain. *P. monticola* grows high up on the mountains, has a rather smooth light-coloured bark, is 5-leaved, and measures from 2 to 3 feet in diameter, with cones an inch in diameter, and about 6 inches in length. Of many of the finest specimens of these trees I have seen photographs in Mr. Olmsted's office in New York, and their appearance bears out what has just been said respecting their size. Of the value of the Douglas Fir as a timber tree, too much can scarcely be said; indeed its merits are all but universally appreciated, and most of the other kinds are also favourites in this country, in which, however, they seed but sparingly. In California the reverse is the case, and as I expect samples of seed

from all the finest specimens there in the course of a few weeks, I shall be pleased to share my contributions with cultivators wishing to possess seeds of native growth. *Joseph Newton, 74, Oxford Terrace, Hyde Park.*

Salisburia adiantifolia.—There is a handsome specimen of the Maiden-hair Tree in Mr. Caldwell's nurseries at Knutsford, which, though not so large as either of the plants previously mentioned, is, nevertheless, of an unusual size for this kind of tree, being over 20 feet high, and proportionately large. With its beautiful pyramidal form, it well deserves the description given by Mr. Paul of the one at Panshanger. *Old Sub, Knutsford.*

Croton elegans.—In this very popular class of foliage plants, *Croton elegans* seems to be but little known. I have seldom met with it in my travels, and I cannot call to mind ever seeing but one specimen, independently of my own, placed on the exhibition table. I have a pyramid upwards of 6½ feet high, beautifully coloured; indeed I consider it one of the handsomest of the high-coloured varieties I have seen—I do not include Mr. Veitch's latest introductions, for it is impossible to form a correct opinion of these from small plants, since with age, if properly treated, they improve in colour. *Croton elegans* is smaller in the foliage than many of the other varieties, but equally free in its growth. Although, generally speaking, Crotons are free-growing plants, they require a little management to grow them well, and a good deal of skill to colour them properly. I have seen large specimens very indifferently coloured and some perfectly green; plenty of light is essential to the development of variegation, and they should never be shaded unless the sun is very powerful; even then, if they could enjoy a free circulation of air around them, they would be better without shade. Too frequent pottings and imperfect drainage will also prevent them colouring well. I have two immense plants, upwards of 7 feet high, viz. *C. variegatum* and *C. angustifolium*, that look like pillars of gold; the latter, with its beautiful drooping leaves, may justly be styled the golden fountain plant. These plants are fully exposed to the light and receive as much air as possible; they are the admiration of every one that has seen them, in consequence of their high colouring. I have forwarded a branch of *C. elegans* for your inspection; I have also sent some of its foliage, as well as that of the beautiful *Sanchezia nobilis*. *Edward Bennett, Osberton.* [The specimens sent were magnificent examples. Eds.]

Fairy Rings.—The way in which Mr. Lees (p. 1158) gives the mole the credit of being instrumental in preparing a suitable habitat for the Fungus which forms "fairy rings," is ingenious, but faulty. How will he account for the presence of fairy rings in Ireland, where they are most common, and where the mole does not exist? In the case of the rings which have a circular outline, I am inclined to think the appearance is caused by the spawn of the Fungus having originally started from a given point, whence it has uniformly radiated, till at length the fructification appears above the ground in a more or less regular manner. It would be interesting to note what species of Fungus produce these appearances; I once saw a most perfect ring, of about 3 yards in diameter, formed of the common Mushroom, on a lawn which was kept regularly cut with a machine. *W. H. F.*

Peruvian Name for Potato.—I see from your editorial note that your contemporary, the "Revue Horticole," says that "Papas" is good Peruvian for Potatoes. It is certainly the name given to Potatoes by all Spanish Americans, including Peruvians. There is no Peruvian language, properly so called. The Court language of ancient Peru (still spoken over a great part of the Andes of South America) was the Quichua, but that had no name for Potato. In the language of one of the tribes of the coast (the native country of the Potato) the esculent was called "Ascu," at least so says Tschudi, who gave much thought to the subject. Curiously enough, though there was no name for Potato in Quichua, I found one for sweet Potato, which is "Cumar," and, still more curious, this is the name by which this Convolvulacea is known throughout the South Sea Islands, as far even as Fiji. *Berthold Seemann.*

Judging Melons at Edinburgh.—We often hear it said that there is nothing new under the sun; but it would seem that your correspondent "J. O." has found out the last new thing in Melon judging. Whatever was new in the means adopted by the judges to find out the merits of the Melons in question, they (the judges) are not entitled to the praise if the method was a success; neither are they deserving of censure if it was a failure, they being strictly enjoined by the assistant secretary and managers of the exhibition not to cut the Melons. "J. O." does not say that the judges were unsuccessful in their efforts to carry out this new system, which is very satisfactory to me as one of the judges, and I doubt not, will be equally so to Mr. Speed, of Chatsworth, and Mr. Westcott, of Baby, who, like myself, were engaged in carrying out the new plan. And it is not quite clear to me but that very much may be said in its favour; it is sight and smell versus taste—two senses to one; and it is two to one the taste is more likely to be vitiated either by the morning dram or pipe, or from the extra glass of toddy indulged in over-night at great shows like the one in Edinburgh. It was rather a singular circumstance, and in favour of my argument, that both the 1st prizes for Melons were awarded to the same grower, and he from the sunny south "J. O." has mentioned what a reporter has said in the matter. It would be better both for exhibitors and judges if reporters would give the particulars of such exhibitions with less of the censorial spirit; it is but a very cursory view they take, and often their report is second-hand. It is, to say the least of it, ill-judged to condemn the decisions of the men who are appointed as judges, and

who try to the best of their ability to do justice. *George Thomson, Stansted Park, Sussex.*

Golden Champion and White Lady Downe's Grapes.—I availed myself of a recent visit to Edinburgh to inspect these two new Grapes at Dalkeith. The former can be seen growing under various circumstances, but always with the most robust growth and vigorous development. Mr. Thomson has it on its own roots, and also grafted on the following stocks: Black Hamburg, Muscat of Alexandria, White Tokay, Lady Downe's, Muscat Troveren, and Raisin de Calabre, and in each instance the growth is all that could be desired. So vigorous is it, that it actually causes the stocks to swell out, and thicken much more than any other Grape. It has another valuable characteristic: though the berries are covered with rich bloom, this does not rub off readily by any means, and when fully ripe, the bloom appears to be even more tenacious of its hold on the berry. This is suggestive of its being a good traveller. I saw the new White Lady Downe's both on its own roots and worked on the Black Hamburg; on its own roots it was the most vigorous grower, though there was no room to find fault with its development on the Black Hamburg; but the flavour appeared best in the Grapes taken from the Vine on its own roots,—there certainly did seem to be a smack of the Muscat flavour about them. The Fruit Committee will soon have an opportunity of testing the value of the Grape for themselves, as Mr. Thomson intends sending some bunches of it to London shortly. I think it very improbable that a similar charge to that brought against the Golden Champion, namely, delicacy of constitution will be laid against the White Lady Downe's. The canes I saw looked as stout and healthy as could be desired. *E. D.*

Vanda cœrulea and Rogiera gratissima.—Blooming specimens of these two plants are now to be seen at Dalkeith. There is a magnificent example of this grand Orchid: the plant is about 28 inches in height, the foliage good, though not so well furnished as in the case of Lord Lonsborough's largest plant. It has two spikes of flowers: one has 23 expanded flowers and four buds, the other 21 expanded flowers and four buds, making, inclusive of the buds, 53 flowers. It is a striking object just now in the Orchid-house at Dalkeith. The Rogiera is, under the conditions by which it is cultivated at Dalkeith, an invaluable autumn and winter-blooming plant. It has bold trusses of deep bluish-coloured flowers, not unlike those of the *Laurustinus* in appearance, and these are freely produced. Mr. Thomson states that it remains in bloom for a long time, and in his opinion would make a valuable window plant for large towns. *R. D.*

Wellingtonia gigantea.—The following are the dimensions of one now growing at Stoke Bishop, near Bristol. I planted it in June, 1859. It was then 18 inches high. On measuring it a few days since I found its height to be 30 feet 8 inches, and the circumference of the stem, at 3 feet from the ground, 4 feet 6 inches. The branches, where they meet on the trunk, measure about 44 feet round. *Wm. Tothill, jun., Torquay.*—I have one *Wellingtonia*, planted from a pot, about a foot high, in October, 1858. It has never been affected by any changes in temperature, not even in the severe winter of 1866-67, which destroyed two large specimens of the *Pinus insignis*, and damaged so many evergreen shrubs. It measures now 26 feet 2 inches in height, and makes yearly growth of about 2 feet 6 inches to 3 feet. I should say that the county is Kent, and the soil, of course, excellent. *G. F.*

Protecting Fruit Trees.—Mr. D. T. Fish has fully illustrated the great want of some efficient means of protection for our wall fruits. As most of our ordinary appliances have failed, it is time to look about us and decide what is to be done for next season. In addition to other aids, I have found old herring nets most valuable protectors; and as these can be had cheap, and are in great request for protecting fruit from the ravages of birds, no garden should be without a good supply for the double purpose. We have some strong wires, strained from the top of the wall just under the coping to some small Oak posts, standing about a foot out of the ground, 5 feet apart, and 2 feet from the wall. On these we strain a double net, and as the meshes cross each other, with the net supported at a sharp angle from the trees, it forms a most admirable screen against pelting hail, snow, and rain, which are generally more fatal to the tender blossoms than cold winds or actual frost. It was perfectly delightful, standing behind the nets placed in this way during last season, to see the way they repelled the heavy storms of snow and rain; but the springs of late have been so exceptional as to set all ordinary means of protection at defiance, so that it has at last become a question of glass versus nets, canvas, &c.; and I doubt not but in the long run glass will be found the cheapest, as it can be turned to so many useful purposes as soon as the crop is safe. Sir J. Paxton's patent lights appear to me to be by far the most suitable for this double purpose, as they are so thoroughly portable, cheap, and durable. They can be moved from place to place with the greatest facility—in fact, just as easily as the lights of a pit or frame, thereby effecting a great saving of time and risk in removal over such structures as require taking to pieces before moving them. The system of ventilation, too, is of the most perfect kind, as every leaf is kept in motion, and as fruit-screens or protectors, I feel I cannot too strongly recommend them. We have some of the 14-foot sashes in use here as a Peach-house, giving us a good-looking house 6½ feet by 11 feet 6 inches, through which I have just run a flow and return pipe, that we may be well prepared to cope with a spring like the past. The trees in this house have again made from 3 to 5 feet of short-jointed fruit-bearing wood, and are of the most perfect kind. *J. Sheppard, Woolverstone Park.*

Foreign Correspondence.

CENTRAL PARK, NEW YORK.—The accompanying representation from one of your former volumes (p. 456, 1858) will give your readers a good idea of the general appearance of this park, although the details of the plan have been somewhat altered in transferring them to the ground. It will be seen that it is rectangular in form, a description of outline which associates best with outside buildings, especially with those of New York, which are all placed along the sides of straight streets, themselves being again intersected by straight avenues—an arrangement which, together with the numbering of the streets, certainly has the advantage of enabling strangers to find any particular locality with greater facility than can be done in English towns of similar size.

The outlines of the park being straight, it may be imagined that the interior of it, near the boundary, has a formal appearance: but, owing to both natural and artificial undulations of the ground, together with skilful planting, such is not the case. Indeed, a person may often be within a few yards of the retaining wall without knowing he is near it, so well has it been concealed from view, and when the plantations shall have attained full size even surrounding buildings will be imperceptible.

One point worthy of remark in reference to American parks is that all work done in connection with them is done well, the garden architects having the full control not only of operations within the park, but also of those in connection with the new streets and avenues in its vicinity—the whole of which belongs to the Park Commissioners, who receive annually an improved rental from such property, which they buy up, and take care to keep in good condition. All unsightly objects are thus removed from the boundaries of American parks, which become interesting centres to wealthy neighbourhoods.

Nor is the garden architect bound down, as with us, to a certain contract. An approximate estimate is, as a matter of course, made in the first instance for the guidance of the Park Commissioners, but, if it is seen afterwards that more money is absolutely needed, it is obtained. Not so with us in London, except in the

while the plantations are young, but which will become apparent when they have become full grown. If first cost, however, is not a consideration, overcrowding can be easily relieved by means of judicious thinning. "Plant thickly," say nurserymen; "but thin in time, that being the proper way of securing good woodland scenery;" and I quite agree with them; but in practice I have often to act differently on the score of economy. The island on which New York, properly so called, is placed, contains about 30 square miles. The park to which I have been advertising occupies its centre, and the value of land in its vicinity has risen from comparatively nothing to some 30,000 dollars per block of 100 by 25 feet; and so satisfied are the Americans with the benefits of town improvements of this description, that no fewer than 22 parks and open spaces, varying from one to 843 acres, belong to New York alone. Need I state, therefore, that in few cities has the march of improvement been carried on to a greater extent during these last ten years than in that of New York. Joseph Newton.

Societies.

SCOTTISH ARBORICULTURAL SOCIETY.—2 Annual General Meeting.—The Sixteenth Annual General Meeting was held at Edinburgh, Robert Hutchison, Esq., of Carlisle, F.R.S.E., President, in the chair. After the minutes of the last meeting had been read, the President delivered the Inaugural Address, from which we extract the following passages:—"We are called upon to assist in endeavouring to ascertain exactly the influence which vegetation has, or rather the influence which woods exert, on the health of the country, both directly and indirectly, through their bearing on the rainfall. This is a most important and most interesting branch of arboricultural science, and one which is yet completely in its infancy. The attention of scientific men has only lately been aroused to the fact, that trees modify very materially both the climate and the rainfall of a country; and in order to ascertain the precise nature and extent of the influence they exercise, very minute and careful observations, and a series of registrations in different localities, under different circumstances, must be made. This is a work which falls very particularly within our immediate province as a society, and we must not shrink it, but must each one carefully, and conscientiously, do the portion of it which falls to his hand to do; and by all labouring together, an immense amount of light may be thrown on this important question, which may be useful to the more purely scientific minds and associations; and should we, in our humble in-

energy and shrewdness is not unequal to... Let us then, gentlemen, endeavour of the... such a way as a Society, by our scientific... in the van of arboriculture that are... ship in the Scottish Arboricultural Society will... not for a Government appointment to... let our ranks be the source to which not our own... but that of other countries, will look for the... advanced foresters. But, gentlemen, to attain... we must labour hard in the work of self-education... in mind that the best, and indeed the only... that which a man gives himself by training his... of close and accurate observation, and by accustoming... to classify and arrange the facts he has ascertained... wait long, and reasoning from these facts to general... and laws. And let us never forget, gentlemen, the... quality of our country, "caution." We must be... that our theories are based upon facts, and not... theories. The rock on which many scientific men... is theorising first and observing afterwards, and... and perverting facts to suit pre-conceived ideas... must not be discouraged if at first, in our... any department of Nature, it appears "a... quite without a plan." If we only persevere... to dawn through the darkness, and order to emerge... we had thought was chaos—the facts which... presented a mere jumble of discordant and... matter will group and arrange themselves into... shall be rewarded by understanding the method... reason of Nature's workmanship, and of finding... aid in modifying its effects to suit the wants and... of the human race. In cultivating arboricultural... spirit we shall also find our interest in every... knowledge and inquiry awakened and excited... remarked, all knowledge is one, and as arboriculture... climate and rainfall, these again influence the... of the soil, and the health of man and beast... spring, in endless ramifications, all the... industry and knowledge: so in first labouring... sincerely in our own calling, we shall find... freemen of the great world of science and art.

A very fine collection of cones of the... sent for exhibition, from Drogheda, by... created considerable interest.

The anniversary dinner of the Society (whose... number upwards of 500) was held in the... conclusion of the meeting—Robert Hutchison, Esq.,... acting as chairman, and Professor Balcanquhall, Esq.,... M'Corquodale, V.P., as croupiers.

LINSEAN.—Mr. G. Beatham, Esq., President... Mr. W. G. Smith exhibited a fine...



case of Government works. Let us see how the matter stands in reference to Finsbury Park, which the garden architect asserted would take some 9000*l.* to execute properly. For this work tenders were invited from contractors, the range of whose estimates varied from 4500*l.* to 12,500*l.*—the cheapest man getting the work to do; but, as might have been expected, he "broke down." Under such conditions how could the architect's plan be satisfactorily carried out? But, as I have said, they do things better in America.

Having the surroundings of a park under the direction of its architect is a great advantage, too, in the way of economy, for in preparing the plan for the park another is made for the neighbourhood. The situations of its streets and avenues are all set out, and the foundations of the residences excavated; if, therefore, additional soil is wanted in the park for boundary concealment, or for mounds, the quantity at command can be calculated to a nicety, and the sources from which it can be derived accurately determined.

From what has been stated about improved surroundings, it may be thought that American parks are made chiefly for the benefit of the rich, but that is not the case. They are intended to furnish healthful recreation for the poor as well as the wealthy, the young and the old, all of whom make good use of them; and although situated in the midst of a population approaching two millions, of diverse origin, the park regulations are as a rule well observed. Occasionally, a person who would not willingly be classed among the uneducated is found to take peculiar satisfaction in evading a rule, or, in the absence of the eye of authority, in violating some minor regulation. Such misdemeanors are happily exceptional. In short, the inhabitants as a whole, one and all, seem to feel that, while a large amount of money has been spent in its formation, a park has been produced which, for the extent of its area, the taste, elegance, and beauty of its adornment stands unrivalled; and, therefore, the interest in maintaining it unblemished is all but universal. Of 1,195,695 persons who visited this park in one year, but 135 arrests were made for violation of the regulations, the most frequent misdemeanour being fast driving.

The way in which the public roads have been carried across the park so as to conceal their traffic, is worthy of all praise, and indeed, against the carrying out of the plan in general I have little to say; the treatment of the water, drives, walks, and rides, is all that can be desired. The only thing with which I would be disposed to find fault is the planting, of which in my opinion there is a little too much; not at present,

investigations, and thereby in defining laws by which our country will be benefited, both in the increased health of its inhabitants, and in the improved abundance of its harvests, the reward of the pains and trouble expended will be a rich one. But, gentlemen, besides the good we may help, by God's blessing, in doing to our countrymen, we shall certainly be conferring a great boon on ourselves by cultivating a habit of intelligent observation. We cease to be like "dumb driven cattle," and become "heroes in the strife," when we lift our daily work out of the mere routine of petty drudgery, into the willing co-operation in the great battle of knowledge against ignorance; and every day, as we go on striving, the field of our view will open up and enlarge, and we shall find an intensified interest in our lives, and in everything that surrounds us. The dignity and importance of arboriculture as a science, is at last, I am happy to say, forcing itself upon public attention; and the work of the forester is making itself felt as an agency of immense power for good or for evil, according as it is performed. Unfortunately, in former years, from ignorance of climatic and hygienic laws, which are now acknowledged, forestry was regarded as mainly a necessary work of destruction. This is now authoritatively admitted and referred to by the Under-Secretary of State for India—Mr. Grant Duff—who, in introducing his financial statement in the House of Commons, in the last session of Parliament, said (referring to Indian forest conservancy)—"No one who had not looked into this subject had the faintest idea how terrible were the effects, over wide regions of the globe, of carelessness in keeping up a proper proportion of trees. Let anyone to whom the whole matter is new, turn to the remarkable work of the American minister at Florence, Mr. Marsh, upon 'Physical Geography as Modified by Human Action,' and he will shudder at the dangers which we have only just escaped. If our predecessors in India had known what we know, much of the enormous expense which we are now being put to with regard to irrigation would have been quite unnecessary. But the mistakes of former days are past praying for, and we can only now rejoice that the conservation of the forest has been recognised as a great State necessity, and that a regular forest department has been inaugurated, which will take to India the science of France and Germany." Now, gentlemen, with regard to this species of the Indian Secretary, I have a remark to make. The schools of forestry in these countries are famous, and deservedly so, but I am proud to say that, in my humble opinion, Scotland, without any school of forestry, is equally famous in this department. And one of the necessary qualifications, in fact the concluding touch to the education of those young foresters, who are, according to Mr. Grant Duff, "to carry to the East the science of France and Germany," is, that they must for a time, after being in France and Germany, have studied under some approved Scotch forester in Scotland—to rectify, I suppose, any erroneous ideas imbibed in France and Germany previously. Yes, gentlemen, in the ranks of this Society there have been found many scientific foresters, who have been chosen by the Government, and sent forth to our Indian Empire; and at the present moment, if I am not mistaken, two young men—members of the Scottish Arboricultural Society—are about to follow these pioneers, who have carried the name of our Society to the jungle and the Himalayan peak, and who are already showing that Scotch

Cantianus carbonarius, a new British... him on burnt earth and charcoal heaps in... President announced, in reference to a... the late Professor Parlati, that he had... that the subscription list would shortly be... early payment would be necessary on the part... of the Society who intended to contribute.... Esq., was elected a fellow of the Society. ... papers were read.—1. A... some Brazilian... neighbourhood of Campinas. By Joachim... a letter to the President (translated from... The author mentioned that Anacardium... near Campinas, on a small scale, for its... raw or roasted, or for its oil, which is... order to observe whether this plant might... as well as subterranean pois, he last year... of it, as well as of the Vourdia subterranea... imported from the African coast, and... some Fazenias by the negroes for the... are eaten boiled—and contrived to prevent... of both from penetrating into the ground... interposition of a resisting body, such as a... of wood, or by raising the branch of a... flower was not produced so low down, as... could no longer reach the ground. Under... in the Anacardium, the stipes proceeding from the... of which the ovary is formed lengthened... 4 inches, but the ovary never enlarged, and... same state till the point perished. This was... ovaries of many individuals. In the Vourdia... compressible spongy substance in the ground... beneath the surface, when the soil is soft... porous, the peduncle failed to immediately... not penetrate the ground. The author was... that neither of these leguminous plants... Notwithstanding all the care and attention... bestowed, M. de Mello had failed in observing... apetalous flowers mentioned by Sprengel... by De Candolle in the "Prodromus," by Linnaeus... "Treasury of Botany," and by Bentham in... "Genera Plantarum." The flowers in 18... examined were all uniform, and provided with... apetalous). "The fact of my not having seen these... flowers, mentioned by botanists of the first... the following queries:—Has the existence of... flowers been verified? If so, are they constant?... Has the transference of this plant from Africa... sufficient influence over it to cause their disappearance... the ovary, after the fall of the petals, but... the base by the persistent calyx, been mistaken... apetalous flower? Or have the flowers... observation? These are questions which I... definitely solve, but I shall make a fresh... meantime it appears to me to be placed beyond... the hermaphrodite petaliferous flowers of... The author then made some lengthened... Brazilian Cucurbitaceae, and concluded by... brief notes on species belonging to the... Menispermaceae, Euphorbiaceae, Myrsinaceae, and... A Maranta, probably imported, is called...

tubercles rhizomes, from which is extracted a flour, the...

by H. Trimen, Esq. The insect referred to was found by a pupil of Dr. Oglivie, by whom the following...

Notices of Books.

The Scenery of England and Wales; its Character and Origin, &c. By D Mackintosh, F.G.S. Longmans.

Here is a book which we may recommend alike to the naturalist and to the attention of those who may be contemplating a similar "outing" next year.

Upheavals and depressions there may have been in former epochs, and still are to a limited extent in this country, but its diversified surface is principally caused by what geologists call "denudation."

Two new journals have recently put in a first appearance. The first, called the Academy (Murray), is devoted mainly to literature with a dash of science.

The Apiary.

GLASS HIVES.—Will you kindly inform me what is the best kind of glass beehive in which the bees can be seen at work, and from which the honey can most easily be taken?

cover the box with any cloths or wrappers, or any other protection than is sufficient to throw off rain.

I LOOKED at my hives to-day (October 31), to see in what condition the bees are, and am glad to give a good report of them: they were all living and merry; but, strange to say, the hybrid Egyptians were the best of all.

It may be remembered that this stock was originally a condemned lot of bees, driven from a cottager's common hive situated at a considerable distance from the apiary in which the pure Egyptian colony was kept.

Garden Memoranda.

MR. SALTER'S NURSERY, HAMMERSMITH.—A visit to Mr. Salter's in the autumn season is almost one of the necessities of life to those who look affectionately on Chrysanthemums; and we can assure all such persons that, as in former years, such a visit will gratify them now, and create a yearning for some of the novelties to be offered for their home decoration hereafter.

The novelties seem this year to run very much on the Japanese strain, and certainly some very decided acquisitions to these grotesque forms—forms admirable for conservatory decoration, true painters' flowers, but not at all modelled after the florist's standard—have been obtained.

Amongst the novelties of the Chinese breed, occur some very pleasing flowers. Foremost we must place Duke of Edinburgh, a large incurved sort with abundant material, and of a handsome rosy lilac colour, paler towards the crown.

Of older sorts the following were blooming well.—Incurved sort—Pink Perfection, large delicate pink, very fine; Beethoven, large bronze-red, yellow at the back.

also red; and Fingal, large, deep rosy violet, paler on the reverse of the florets. Aurea multiflora, pale clear yellow; Mrs. Rundle, pure white; and Rotundiflora, a pale rosy lilac, white-centred sport from Golden Beverley, are all smallish-flowered incurved varieties, but with the flower-heads so deep as to form a complete ball, and so closely similar in style as to form pretty companion kinds.

The whole collection, owing doubtless to the fine autumn weather, has even a brighter appearance than usual, and many of the varieties are certainly blooming finer than they are generally seen.

MR. A. FORSYTH, BRUNSWICK NURSERY, STOKES NEWINGTON, has, as usual, an excellent display. His show-house is now remarkably gay, the centre being filled with specimens grown in the usual manner to produce fine show blooms, and the outside stages effectively and tastefully arranged with well-grown and flowered specimens of the large-flowering and Pompon kinds.

AT the TEMPLE GARDENS Messrs Deane and Broom have their plants arranged, as usual, in their vinery in the gardens. They are this year better than usual. The best flowers of the large-flowering kinds in Mr. Dale's collection (which, by the way, is not quite so large as formerly) were Cherub, golden-amber, finely incurved;

JAMES CARTER AND CO. beg to call attention to their new and improved full particulars of which are given in their Descriptive Catalogue. Copies forwarded post free on application.

SPRING FLOWERING BULBS and PLANTS, for Shrubberies and Lawns, for House Decors on. JAMES CARTER AND CO'S COLLECTION OF PLANTS. 1. 132 Hardy Plants, price 2s. 2. 261 Spring flowering Bedding Plants, price 42s. 3. 50 Half-wooded Greenhouse Plants, price 35s. 4. 50 Hardy Plants, price 70s. 5. 50 Hardy Plants, price 70s. 6. 50 Hardy Plants, price 70s. 7. 50 Hardy Plants, price 70s. 8. 50 Hardy Plants, price 70s. 9. 50 Hardy Plants, price 70s. 10. 50 Hardy Plants, price 70s. 11. 50 Hardy Plants, price 70s. 12. 50 Hardy Plants, price 70s. 13. 50 Hardy Plants, price 70s. 14. 50 Hardy Plants, price 70s. 15. 50 Hardy Plants, price 70s. 16. 50 Hardy Plants, price 70s. 17. 50 Hardy Plants, price 70s. 18. 50 Hardy Plants, price 70s. 19. 50 Hardy Plants, price 70s. 20. 50 Hardy Plants, price 70s. 21. 50 Hardy Plants, price 70s. 22. 50 Hardy Plants, price 70s. 23. 50 Hardy Plants, price 70s. 24. 50 Hardy Plants, price 70s. 25. 50 Hardy Plants, price 70s. 26. 50 Hardy Plants, price 70s. 27. 50 Hardy Plants, price 70s. 28. 50 Hardy Plants, price 70s. 29. 50 Hardy Plants, price 70s. 30. 50 Hardy Plants, price 70s. 31. 50 Hardy Plants, price 70s. 32. 50 Hardy Plants, price 70s. 33. 50 Hardy Plants, price 70s. 34. 50 Hardy Plants, price 70s. 35. 50 Hardy Plants, price 70s. 36. 50 Hardy Plants, price 70s. 37. 50 Hardy Plants, price 70s. 38. 50 Hardy Plants, price 70s. 39. 50 Hardy Plants, price 70s. 40. 50 Hardy Plants, price 70s. 41. 50 Hardy Plants, price 70s. 42. 50 Hardy Plants, price 70s. 43. 50 Hardy Plants, price 70s. 44. 50 Hardy Plants, price 70s. 45. 50 Hardy Plants, price 70s. 46. 50 Hardy Plants, price 70s. 47. 50 Hardy Plants, price 70s. 48. 50 Hardy Plants, price 70s. 49. 50 Hardy Plants, price 70s. 50. 50 Hardy Plants, price 70s. 51. 50 Hardy Plants, price 70s. 52. 50 Hardy Plants, price 70s. 53. 50 Hardy Plants, price 70s. 54. 50 Hardy Plants, price 70s. 55. 50 Hardy Plants, price 70s. 56. 50 Hardy Plants, price 70s. 57. 50 Hardy Plants, price 70s. 58. 50 Hardy Plants, price 70s. 59. 50 Hardy Plants, price 70s. 60. 50 Hardy Plants, price 70s. 61. 50 Hardy Plants, price 70s. 62. 50 Hardy Plants, price 70s. 63. 50 Hardy Plants, price 70s. 64. 50 Hardy Plants, price 70s. 65. 50 Hardy Plants, price 70s. 66. 50 Hardy Plants, price 70s. 67. 50 Hardy Plants, price 70s. 68. 50 Hardy Plants, price 70s. 69. 50 Hardy Plants, price 70s. 70. 50 Hardy Plants, price 70s. 71. 50 Hardy Plants, price 70s. 72. 50 Hardy Plants, price 70s. 73. 50 Hardy Plants, price 70s. 74. 50 Hardy Plants, price 70s. 75. 50 Hardy Plants, price 70s. 76. 50 Hardy Plants, price 70s. 77. 50 Hardy Plants, price 70s. 78. 50 Hardy Plants, price 70s. 79. 50 Hardy Plants, price 70s. 80. 50 Hardy Plants, price 70s. 81. 50 Hardy Plants, price 70s. 82. 50 Hardy Plants, price 70s. 83. 50 Hardy Plants, price 70s. 84. 50 Hardy Plants, price 70s. 85. 50 Hardy Plants, price 70s. 86. 50 Hardy Plants, price 70s. 87. 50 Hardy Plants, price 70s. 88. 50 Hardy Plants, price 70s. 89. 50 Hardy Plants, price 70s. 90. 50 Hardy Plants, price 70s. 91. 50 Hardy Plants, price 70s. 92. 50 Hardy Plants, price 70s. 93. 50 Hardy Plants, price 70s. 94. 50 Hardy Plants, price 70s. 95. 50 Hardy Plants, price 70s. 96. 50 Hardy Plants, price 70s. 97. 50 Hardy Plants, price 70s. 98. 50 Hardy Plants, price 70s. 99. 50 Hardy Plants, price 70s. 100. 50 Hardy Plants, price 70s.

NEW TRICOLOR GERANIUMS, to be distributed in the Spring. Clivedon Bedding Plants. New Hardy Clematis. New and Rare Plants. New Coleus. ORNAMENTAL FOLIAGE PLANTS. Greenhouse, Conservatory, and Outdoor Plants, for Autumn growing. M. J. AREN'S PROLIFIC RASPBERRY. Collections of TREES and SHRUBS (see Catalogue), consisting of Standard Ornamentals, Trees of large size. Plants for Hedges. Evergreen Shrubs. Rhododendrons. Evergreen Trees and Shrubs. Herbaceous Plants. Fruited Trees. American Plants. Conifers. Hardy Climbers and Shrubs. Herbaceous Plants. Apples. Apricots. Cherries. Currants. Raspberries, and other miscellaneous Fruit Trees. NEW CONTINENTAL STRAWBERRIES. STRAWBERRIES, older varieties. VINES. ROSES - Provence, Hybrid China, Moss, Hybrid Bourbon, Damask, Climbing, Rosa Alba, China Roses. Austrian Hiberna and Double Yellow, Climbing Perpetual Musk, Noisette, Tea-scented, Hybrid Perpetual, Perpetual Moss, Ile de Bourbon. COLLECTIONS OF ROSES. Dwarf Hybrid Perpetual Roses, in pots, for Forcing. JAMES CARTER AND CO., 237 and 238, High Holborn, London, W.C.; and Crystal Palace Nurseries, Forest Hill, S.E.

LARGE CEDRUS DEODARA, 10, 15, and 20 ft. high; Green and Variegated HOLLIES, 9 to 12 feet high; ENGLISH YEW, 7 feet high; TARTARIAN ARBOR-VITAE, 9 to 12 feet high; PINUS CEMBRA, 10 to 15 feet high, and SPANISH CHESTNUTS, 15 to 20 feet high. Also a beautiful specimen of the HAIR TREE (SALISBURYA ADIANTIFOLIA), over 10 feet high, perfect pyramidal form. Price on application.

WILLIAM HEALE, Deceased. - All Persons having any CLAIM or DEMAND against the Estate of WILLIAM HEALE, late of Calne and Chippenham, Nurseryman, Seedman, and Florist, Deceased, are requested to send Particulars thereof in writing, either to Mrs. MARIA KIRBY, Calne, Executrix, or to Mr. JOHN SPENCER, Bowood, Executor, forthwith, that the same may be examined and, if found correct, Discharged. And all Persons INDEBTED to the said WILLIAM HEALE at the time of his Death are desired to PAY the same to one of the above-named parties on or before JANUARY 1, 1870.

Notice to the Public - The Business, in all its branches, will be carried on as heretofore by Mrs. MARIA KIRBY (late Heale), under the name of "HEALE AND CO." Nurserymen, Seedmen, and Florists, at Calne and Chippenham, Wiltshire, Calne, Nov. 10.

Extra large Trees for Ornamental Planting IN PARKS AND AVENUES. W. M. WOOD AND SON have to offer a magnificent STOCK of the following - Sycamores, 7 to 8 feet. Variegated, 4 to 6 feet. Horse Chestnuts, 8 to 10 feet. Scarlet, 4 to 10 feet. Catalpa sylvatica, 7 to 8 feet. Laburnums, 4 to 6 feet. Weeping Ash, ex fine, 7 to 9 feet. Ash-leaved Maple, 7 to 8 feet. Poplars, Black Italian and Lombards, 8 to 10 feet. Mountain Ash, 7 to 8 feet. Weeping, 6 to 7 ft. Peris at a lat folia, 7 to 8 feet. American Weeping Willows, 6 to 8 feet. Elm, English, Chester, Wych, 6 to 8 feet, and 8 to 10 feet. Price on application. Address - Woodlands Nursery, Marsfield, Uckfield, Sussex.

Planting Season - Walton Nursery, Liverpool. To PLANTERS of PUBLIC or PRIVATE PARKS, GARDENS, PLEASURE GROUNDS, and WOODS and FORESTS.

W. SKIRVING begs to announce that his STOCK of TREES and SHRUBS is this season very extensive and well grown, and that he is now prepared to execute orders to any amount for Trees and Shrubs of all sizes, at moderate prices. W. S. considers the present and following month two of the best for transplanting Evergreen Trees or Shrubs, and solicits Planters to inspect his Stock, which consists of many thousands of the Holly, of the most choice varieties of the Gold and Silver Variegated kinds, and of the large broad-leaved Holly (the finest of all Evergreen Trees), hundreds of which are of large size and fine specimens for giving immediate effect, with many thousands of smaller sizes for general planting. Also an immense Stock of all other cultivated Trees and Shrubs, either for Parks, Forest planting, and of Fruit Trees for Gardens or large Orchards. N.B. Fifty Acres of Walton Nursery being required for Villa Building, the Stock thereon must be cleared as soon as possible, therefore reduced prices will be accepted - October, 1869.

Victoria Nursery, Wisbeach. - Special Offer. W. WOODCOCK offers for Sale - 5000 LAURELS, 1 to 5 feet, 3s. to 15s. per 100; 1000 LAURUSTINUS, 1 1/2 to 2 feet, many in flower, 25s. per 100; 3000 OAK, stout, 3 to 5 feet, transplanted; CHESTNUT, Horse, 4 to 6 feet, in working order; MAHONIAS, 1 yr. WALNUTS, &c. &c.; 100 bushels of COMEY'S NORFOLK SELECTED and SKIRVING'S PURPLE-TOP SWEDE. WANTED, Standard CHERRIES and PLUMS, well up. A reference at once from all unknown Correspondents will save time.

BEAUTIFUL SPRING FLOWERS. Now ready, in strong Plants. HEPATICA, sorts, 4s. per doz. PRIMROSES, double & single, 4s. White, 6s. per doz. double Yellow, 8s. Purple, 6s. per doz. double Rose, 9s.; double Crimson, 12s. per doz. ROCKETS, double White and Purple, 6s. per doz. VIOLETS, 20 distinct sorts (see Catalogue), 4s. per doz. POLYANTHUS, the finest strain in the world, 2s. 6d. per doz., 15s. per 100. PANSIES, finest border varieties, 2s. 6d. per doz.; 15s. per 100. DAISIES, 6 distinct kinds, 4s. per doz. AURICULA, Perrin's Red, 3s. per doz. HOLLYHOCKS, 24 distinct kinds, to name, 3s. per doz. PAMPAS GRASS, 3s. per doz.; 20s. per 100. LEUCOCYUM VERNUM (Snowflake), 2s. 6d. per doz. AUBRETTIAS, sorts, 4s. per doz. ADONIS VERNALIS, 6s. per doz. RULBOCODIUM VERNUM, 3s. per doz. MYOSOTIS DISSIDIFLORA, 4s. per doz.; 25s. per 100. ALOPECURUS PRATENSIS AUREO VARIEGATUS (new Golden Grass) 1s. 6d. each; 12s. per doz. HOLC'S LANATUS ALBO VARIEGATUS (new Striped Grass), 1s. 6d. each; 12s. per doz. FOX GLOVE, finest Spotted, 3s. per doz.; 20s. per 100. WILDFLOWER, double Yellow and Dark, 4s. per doz. DIELIS SPECTABILIS, 6s. per doz. ARABIS ALBA VARIEGATA, 2s. 6d. per doz.; 20s. per 100. ENOTHERA MISSOURIENSIS, 1s. per doz. PHLOX NELS. N., PROCEMBENS and VERNA, 4s. per doz. PYRETHRUMS, Single and Double, to name, 6s. per doz. SPIRÆAS, sorts, 6s. per doz. TRITOMA UVARIA, 6s. per doz. CLOVES, Double Purple, Crimson and Striped, 6s. per doz. PICOTEES, fine, to colour, 6s. per doz. COWSLIP (Giant), 3s. per doz.

ROSES. - 24 choice distinct Varieties to name, Dwarf, 15s. Do. do. do. Standards, 25s. or half the number for half the amount. STRAWBERRIES, - DR. HOGG and NEW PERPETUAL PINE, 7s. 6d. per 100. Do., 40 other kinds (see List), 2s. 6d. to 5s. per 100. CHRYSANTHEMUMS - 20 New Chrysanthemums of 1869, 10s. P.O. Orders on Castle Heddingham. A CATALOGUE of Choice New Plants of 1869, Bulbs, Roses, Fruit Trees, &c., free on application. W.M. DILLISTONE, Nurseryman, &c., Sible Heddingham, Essex.

Autumn Planting. PETER LAWSON AND SON will be glad to send their CATALOGUE (just published) of FOREST and ORNAMENTAL TREES and SHRUBS, free upon application. The stock of LARCHES, SCOTCH FIRS, AUSTRIAN and COLOSSEAN PINES, &c., comprises some millions of healthy, well-grown plants, and special offers will be made for large quantities when personal inspection is not convenient. Edinburgh and London. RAYNBIRD, CALDECOTT, BAWTREE, DOWLING, and COMPANY (Limited), CORN, SEED, MANURE, and OILCARE MERCHANTS. Address, 26, Seed Market, Mark Lane, E.C., or Buxtonake. Samples and prices post free on application. Prize Medals, 1861, for Wheat; 1862, for "Excellent Seed Corn and Seeds."

Seed Potatoes. H. AND F. SHARPE'S WHOLESALE LIST of all the new and best varieties of Early and Late POTATOS is now ready, and may be had on application. The quality is very fine, and prices low. Seed growing Establishment, Wisbech.

RICHARD WALKER has the following to offer for cash - Splendid SEAKALE, for forcing, extra fine, 10s. per 100; fine GIANT ASPARAGUS, for forcing, at £1 per 1000, or 3s. per 100; ROBINSON'S CHAMPION DRUMHEAD CABBAGE plant at 2s. 6d. per 1000. RICHARD WALKER, Market Gardens, Biggleswade, Beds.

Autumn, 1869. - Special Offer. MAGNIFICENT SEAKALE ROOTS, extra strong, 10s. 6d. per 100; Magnificent ASPARAGUS ROOTS, extra strong, for forcing, 10s. 6d. per 100; good plants CABBAGE ROSES, 2s. 6d. per 100; 5 plants ROSE DE MPAUX, 2s. 6d. per dozen; 1 plant BUCKINGHAM PRANTS and GLOBE EMBELLIES, 2s. 6d. per dozen; STRAWBERRY Plants, 2s. 6d. per 100; very strong Standard and Dwarf PLUMS and PEARS, 12s. per dozen. PRICE LIST on application. WILLIAM HOOPER, New Wandsworth, S.W.

THE Cheapest and most Effectual of all PLANTS for Gams and Fox Covert, PAMPAS GRASS. Surplus stock, strong, healthy, seedling plants, twice transplanted, 25s. per 100, or £12 per 1000, delivered free to Heaings Station. BUNDY, Kengrae, Woodbridge, Suffolk.

BIRMINGHAM CATTLE and POULTRY SHOW, 1869. - THE TWENTY-FIRST GREAT ANNUAL EXHIBITION OF FAT CATTLE, SHEEP, PIGS, DOMESTIC POULTRY, ROOTS, CORN, and IMPLEMENTS, will be held in BINGLEY HALL, on SATURDAY, MONDAY, TUESDAY, WEDNESDAY, and THURSDAY, November 27, 28, and 29, and December 1 and 2. TWO THOUSAND ONE HUNDRED POUNDS in PRIZES. Admission - On Saturday, November 27 (to witness the whole of the Judging), 10s.; on Monday, November 28, 5s.; on Tuesday, November 29, 1s.; on Wednesday and Thursday, December 1 and 2, 1s. to 5s. m., after that hour, 6d. For Special Railway Arrangements, see the Advertisements and Bills of the several Companies.

The Agricultural Gazette. SATURDAY, NOVEMBER 13, 1869.

Mr. HOWARD's excellent Paper on CONTINENTAL FARMING is a sufficiently convincing proof that English agriculture, in spite of our higher northern latitude, is on the whole more productive than that of such districts as he has visited; and that taking even Belgian farming with which to compare it, and with which it has been occasionally contrasted to its discredit, the agriculture of our country is on the whole superior, whether as to its produce of grain, or of meat, or as to its maintenance of an intelligent and well-conditioned tenantry. The small farm system, and still more the small estate system, may possibly be defended on other grounds of State policy, but for its power to turn the soil to the most useful account, and for its power, or rather want of power, to "stock" the country with an intelligent middle-class population, it admits of no defence. No doubt, however, like every other existing system, those at present maintained by it upon the land will strongly object to be improved from off the face of the earth by any change. There is a multitude of families living in decent comfort, under circumstances to which they are accustomed, labouring their little plots, and living on them, who will care nothing as to the results of any English discussion of their condition. We may indeed learn little from them or their experience; but they, on the other hand, can receive no useful lesson from us. In good years they probably obtain as large a produce from the land as we do; and if they have a smaller surplus to dispose of than we send in to the towns, it is because of the much larger population living directly upon it in the country.

There are, however, certainly some large establishments in France, and Belgium, and Germany, which furnish ample instruction to the English farmer; and to one of these - one of the example farms of Europe - not mentioned by Mr. HOWARD, we may direct attention. The following are particulars supplied to us by the tenant representing the company, who, some 30 years ago, acquired the land by embankment and enclosure. The three decennial periods which have since elapsed have represented continual progress in improvement, economy, and fertility: -

Wilhelmnapolder, province of Zeeland, in Holland, contains about 2900 acres in regular cultivation, the rest is wood, &c. Of this 2825 are of a clayey description, some heavy clay, but never so stiff as in some parts of England, and always a sandy subsoil at various depths. About 150 acres are sandy and poor

EARLY SANDRINGHAM KIDNEY POTATO. THE EARLIEST, MOST PROLIFIC, AND BEST VARIETY FOR FORCING PURPOSES IN CULTIVATION. Price to the Trade and further particulars may be had on application to H. AND F. SHARPE, SEEDGROWING ESTABLISHMENT, WISBECH

JOHNSTONE'S ST. MARTIN'S RHUBARB. W. P. LAIRD & SINCLAIR, NURSERYMEN, DUNDEE, N.B.,

HAVE pleasure in offering the above NEW VARIETY of RHUBARB, which they have confidence in recommending as the earliest and best sort in cultivation. The raiser of it describes it "as one of a batch of Seedlings from 'Victoria'; the seedling plant was a fortnight earlier than any of the remainder of the lot, and grown beside 'Prince Albert' and 'Linnaeus,' always ten days earlier than them, and giving a larger quantity of superior stems to either of these varieties. It forces better than any variety I know, and has a splendid colour."

Strong Roots, 2s. 6d. each. Usual Discount to the Trade. The following TESTIMONIALS, selected from amongst many others, speak to its merits by disinterested parties - "Gentlemen - I have much pleasure in saying that Johnstone's St. Martin's Rhubarb is the best I have in my possession. It is a thick leafed variety, bears a heavy crop twice a year, and is cut early, and I have no doubt, give a third, as even ten days ago it was throwing up fresh leaves. One peculiarity it possesses of not throwing up flower-stems, only one having appeared on one of my plants in the course of two years. It makes an admirable preserve - I am, &c., "Thybank House, October 18, 1869." "Gentlemen - I have pleasure in saying that Johnstone's St. Martin's Rhubarb is the best I have in my possession. It is a thick leafed variety, bears a heavy crop twice a year, and is cut early, and I have no doubt, give a third, as even ten days ago it was throwing up fresh leaves. One peculiarity it possesses of not throwing up flower-stems, only one having appeared on one of my plants in the course of two years. It makes an admirable preserve - I am, &c., "Edinburgh, October 20, 1869." "Gentlemen - I have fully tested the merits of your Johnstone's St. Martin's Rhubarb, both by cultivation and cooking, and com-

but while the former was somewhat coarse, the latter was perhaps the best Bates bull which has been exhibited since DUKE OF NORTHUMBERLAND took the 1st prize at Oxford. If the respective pedigrees of the two bulls had been before the judges, they would probably have placed 5TH DUKE OF OXFORD in the position which he held some months later at the Royal meeting at Chester, viz, 1st in his class. It has always been a subject of regret with me that so noble an animal should not have left his mark more extensively on Bates' families.

The excellence of pure-bred animals is, however, perhaps nowhere so strikingly proved as at the shows of fat stock at Birmingham, Ilington, and elsewhere, where the animal is everything, and his pedigree as such counts for nothing. Passing over, as my limits compel me to do, the long line of winners which will doubtless recur to the recollection of your readers, I will only allude to Mr. Rowland Wood's Birmingham Gold Medal ox of 1865. The writer of the Shorthorn intelligence in *Bell's Messenger*, after enumerating many distinguished bulls to which this ox traces his descent, among which are Mr. Booth's DIAMOND, son of the Irish cow *Necklace* and Mr. Bate's 2D DUKE OF NORTHUMBERLAND, concludes by remarking that "it is not much of a marvel that so wonderful a beast should be able to show such goodly antecedents." Here, however, I must guard myself from being supposed to contend that cross-bred animals of surpassing merit do not make their appearance at our fat shows; all I desire to prove is the high standard to which the pure breeds habitually attain.

With regard to the necessity for selection in breeding animals, I entirely agree with you. We frequently see at the present day bulls brought forward for sale which, on account of colour, deficient size, want of head, or some other defect, are quite unsuited to be the sires of stock, and which consequently are worthless except at the price which they may be worth as inferior beef. And I cannot but hope that our breeders will pay more attention to the rearing of steers than they have done lately. Lord Spencer remarked long ago that an animal may make an excellent steer, which was quite unfit to be a bull. With meat at its present price a good lot of steers will pay much better than a number of inferior bulls.

In my next article I hope to say, with your permission, a few words on the inexpediency of making use of any but animals of pure blood as sires. *Willoughby Wood, Nov. 3.*

MR. SHIRREFF'S WHEAT AND OATS.

WHEN walking over a field of Wheat on the farm of Mungoswells, in the county of Haddington, in the spring of 1819, a green healthy plant attracted my attention—the crop generally then looking more dead than alive from the severity of the previous winter—and next day measures were taken to insure its vigorous growth. In the course of summer several stalks were nibbled off by hares, but, notwithstanding, 63 ears were gathered at harvest, yielding 2173 grains, which were carefully propagated—the fourth harvest producing about 40 quarters of grain. This Wheat proved to be a new variety, and was called Mungoswells'; but the name was not long of being changed, and it has been sold in Haddington market by the following names—Hunter's, Eastbarns, Fraser's, Murray's, Lady Hall, and other aliases. In the summer of 1821, a tall stack of Oats was observed growing on Mungoswells, and in the following spring its seeds were sown beside several known varieties, the plants at harvest being still conspicuous for height. This variety became the Hopetoun Oat. On the farm of Drem, in 1832, there was picked up an ear of Wheat containing 99 grains—other three having dropped out before it came into my possession. From this ear Hopetoun Wheat was propagated, and although the name has been pretty generally retained, it is sometimes known in the west of Scotland as White Hunter's. The next cereal introduced into field practice was Shirreff's Oat, which is seldom to be met with in Haddington market at the present time, but is generally to be had at Dalkeith, and also at Kelso, where it is known by the name "Make-him-rich."

Improvement had hitherto been taken up by fits and starts, and it was resolved to pursue the object systematically. With this view, Wheat fields far and near were examined, and ears selected for propagating their seeds, so that the experimental Wheat plot of 1857 contained plants of nearly all the kinds cultivated in Britain, together with plants from the seeds of ears which had been selected in the previous summer. From this mode of investigation, the following varieties have been added to the list of farm crops:—Shirreff's Bearded White, Shirreff's Bearded Red, Pringle's, Smith's, and Howden's. Efforts were likewise made to obtain superior Oats in the same way as had been done with Wheat. Twelve or fourteen ears were selected from fields in the neighbourhood of Haddington, and their seeds sown in a comparative trial plot, with 20 old kinds, in the spring of 1863, and from this source the Fellow family arose, consisting of Early Fellow, Fine Fellow, and Long Fellow. Crossing or hybridising varieties of Wheat has been attended with interesting and satisfactory results. Shirreff's Bearded White, with small, round, and pearly-looking seeds, on being fertilised with pollen from Talavera (famed for size and quality of grain), produced King Richard, scarcely equalled for length and strength of straw, and, if statements from various parts of Britain are to be relied on, unequalled for beauty of flour. Two varieties have sprung from King Richard, which have been named King Red Chaff and King Beard. Both have been handed, for the purpose of propagating, to Mr. Begbie, Barneyhill, and are likely soon to attract notice. The named varieties from this cross inherit much of size

and quality of Talavera. From experiments in the present year by crossing, new varieties are expected to be eight days earlier than the present ones.

Plants and animals play important parts in the economy of a well-managed arable farm in East Lothian. Animals, while being fattened, supply the means for promoting the growth of plants which are cultivated, and every addition to the vegetable produce increases the means of fattening live stock. Thus plants can be made to act and react upon each other, and through these agents the condition of the farm may be kept stationary, progressive, or deteriorating. But on such a farm animals ought to be considered of less importance than plants, because the latter forms the foundation and largest portion of the farmer's wealth, and without plants animals cannot exist. Agricultural associations devote almost their whole attention to animals, and the favourable change which all of them have undergone, from the ox to the bantam, testifies to the farmer's influence over the objects of his care. But, confining our view to the cereals, let us see what is done to improve this class of plants. Seed shows are held and premiums awarded, the competing parcels being previously prepared for exhibition by being frequently passed before a blower, round and round a sieve, and, if necessary, hand-picked over plates, or even tossed on a blanket. By these means the seeds of weeds are got rid of; but such appliances cannot change the nature of the grain.

The state of the cereals may be judged from what is seen at our great agricultural gatherings; and the recent meeting of the Royal Agricultural Society of England at Manchester afforded opportunity of examining into this matter. At the stall of the Society's seedsmen Wheat was displayed in small bundles of ears, in small samples of grain, and in clusters of ears arranged on pasteboard. This kind did not exceed 12 or 14, and very few were correctly named. Oats were in a similar state of neglect and confusion, small bundles of ears being artistically displayed, interspersed with the words "Black Tartar" and "White Tartar." There were also grain samples—about 20 ears—each spread separately out on pasteboard and hanging upon the wall, all numbered, but very few named. After a careful scrutiny, no member of the Fellow family could be found, and the much older Hopetoun Oat was also wanting. This extensive stall did not contain a cereal with which the name of Shirreff could be associated, unless it was the Shirreff Oat. At the last meeting of the Highland Society at Edinburgh, the most distinguished collection of seeds could boast of six varieties of Wheat in large sacks, marked with six different names; but there was little doubt of four of them being one and the same variety, and that none of the applied names was the correct one. Almost every species of plant can be modified by skilful treatment; and if improvement is seldom seen in the field than in the garden, it may perhaps be owing to farmers viewing each kind of crop as a whole, and overlooking individual plants. Besides, gardeners are brought more closely into contact with individual plants, by studying their properties and habits, but in both professions similar measures will be followed by similar results. About 40 years ago there was laid before a society in East Lothian a plan for improving cereals, which was well received and favourably inaugurated; but eventually it was strangled from dislike to its author. This public, and, perhaps, unparalleled, recognition for having been instrumental in introducing new farm plants is particularly gratifying to me, but high as the pleasure may be arising from this source, it is equalled, if not surpassed, by the evidence afforded of so many agriculturists being alive to the usefulness and propriety of improving the plants they cultivate. [The above remarks were made last week at Haddington by Mr. Patrick Shirreff, of East Lothian, on the occasion of a dinner given in his honour by his friends and neighbours.]

SEED WHEAT.

As ye sow, so shall ye reap. There is no doubt about it. Other things being equal, superior seed gives a superior return. And until we adopt, as a system, the same care and selection of growing and saving seed that the most careful breeders do in breeding for the improvement of their stock, we shall fall short of obtaining as fully developed crops as are of comparatively easy attainment. Every item of farm labour performed with care and good judgment pays well, but not one pays more abundantly than this of selecting and saving seed. A vast difference is realised, whether we plant the best seed—plump, full of nutriment—or blasted, or shrunken, where the germ of life is but just sufficient to vegetate. Such seed may come up and grow, but it is tardy in coming up, and still more tardy in growing; and being of a weakly growth, is also much more liable to disease than that from good healthy seed.

It is by careful attention to little things that the farmer is enabled to improve his crops from year to year, and thus to increase his fortune; for in farming, perhaps more than in any other calling, is good luck made up of attention to minor matters of detail.

But is it every decent looking sample that may be offered in the market that is worthy of the name of "seed wheat"? It is not. Good stocks ever do best, just as a pure-bred animal will thrive where a mongrel will starve. Take an analogous case if a half-bred ewe is put to a pure-bred tup, the produce follows the sire, and one ram lamb in ten may even seem nearly as well bred as his progenitor. But use him with a similar class of ewe, in hopes of obtaining the like results, and failure is certain. So a Wheat that has been long, carefully, and successfully grown on the same soil, possesses inherent aptitudes and peculiarities which no chance cultivation can ever reach. In the

stocks offered such qualities may be expected, vigorous prolific growth usually follows. In present prices, there is no better investment than judiciously selected seed.

The cultivation of Wheat was the subject of discussion at the East Lothian Farmers' Club at the meetings last autumn, and it is noticeable every one who took part in the discussion agreed the value of a judicious change of seed. Some of the leading speakers—Mr. Mill, Lurgate; Mr. Bearford, and others—we have in previous years the pleasure of supplying with seed. In one from us last season, Mr. Smith, of Stevenson, said "I have got the premium two years in succession with Browick Wheat."

One word as to the origin of Browick Wheat—we chiefly supply from this district, and we have Five-and-twenty years ago last month, a farmer was walking about among his reapers. A amount of personal oversight was probably more then than now—for reaping-machines were not in order of the day. In going along by the standing his eye was caught by the appearance of an ear of wheat different from the rest—fuller, and more developed from top to bottom, without dwarfing towards the apex. It was on a good stiff-stemmed and second thoughts led to its being carefully picked and carried home. In another month each ear was dibbled singly, 6 inches apart, in the farmer's ground. Towards harvest it had to be threaded to keep off birds, for they like these small patches best. The new Wheat—for a new variety it certainly proved to be—well repaid the pains and care bestowed upon it, and retained all its original characteristics of the plump grain, square, equable ear, and clean straw with little liability for being lodged or sprouting in wet season. In two years a small field was sown with it. It proved more prolific than any sown on the side; neighbours wanted to try it, and readily paid a long price for it.

This occurred on a farm at the hamlet of Wymondham and parish of Wymondham. The painstaking farmer was Mr. Robert Banham, who is, we are glad to still alive. May many happy days be in store for him. It was first offered to the public in 1848, and annually been so ever since. From the beginning, Browick Wheat has extended in area and wide, until it is probably the most extensively grown Wheat in England. Nor is it confined itself to this country; for a Wheat near Dieppe informed us some time since that in season purchases 80 quarters of it in Mark Lane sent over for his own sowing. Ten years ago I was requested to send to a French marquis, in the department of Vaucluse, one quarter of it for trial, and only half its produce year by year been sown would now supply seed Wheat sufficient for the "Let no one despise the day of small things."

The secret of Mr. Banham's success is probably He has repeatedly re-selected his stock, starting from the finest ear he could obtain; thus getting the highest sense of the term, a "pedigree" of Wheat. And hence also the oft-noticed and accounted for, that seed obtained direct from a greater robustness of growth than when grown years on the same farm without the change. On this principle any farmer has it in his power to obtain fresh seed, as it were, on his own farm, by taking the proper pains. Nothing that is worth in the world can be done without pains. The repeated quotation about the man who made blades of Grass grow where only one grew before a benefactor to his race, is surely in a high degree applicable to Mr. Banham. Therefore "to whom honour is due." *The Autumn Circular, Bowick & Co., Bedford.*

Home Correspondent.

Interest and Wear and Tear.—According to "G. A. H." (p. 114) I am a bad "accountant" implies that he is a good one, inasmuch as he himself up as a judge in such matters. This is true, yet for all that he is a bad one at "accounting" or he would not have "reckoned" my farm at 225 acres a year. The work on my farm for 15 years been regularly recorded, and never once year did it reach 100 acres, and here is the result it has done so this year. On September 1st entered upon 131 acres more land, of which 70 are Grass, and 61 are under the plough. The heavy clay, adjoining my old heavy clay-lane has made it necessary that I should re-plough farm. 10 acres of this additional ploughed land have been sown for permanent Grass, and the 51 acres have been thrown together with the ploughed land. The fields now stand thus:—164 acres, No. 2, 224 acres, No. 3, 33 acres, No. 4, 23 acres. The two former represent ploughed land, and the two latter represent new ploughed land, and if you look at my published last week you may see that I did 200 No. 3. This it is that has raised my quantity of year to over 100 acres. My occupation of arable land 112 acres: hereafter it will be 163 acres. "G. A. H." should "estimate" my year's work at 225 acres I want to know, for he has not till now that my occupation was over 100. If he had been careful in reading my letters he would have known that I never go twice over my land with steam-power for a crop, and he would have known that I condemn such practice as is out by others who do. My letter last week was to him that my work this year on my 131 acres 109 acres, and that is all, excepting 17 acres of work next March for Peas. You have estimated him the 1s. 6d. per acre for interest and wear and

but let me remind him that the Royal Agricultural Society took 200 days as the datum on which they made their calculations when they awarded the great 500l. prize at Chester, therefore I have no trouble to clear myself of his "alleged miscalculations;" and if Mr. Mechi can get out of his mess as easily he will not hurt. My great object in the application of steam-power to the cultivation of the soil is to get deep and clean seed-beds at the cheapest cost. This year I have got a seed-bed on 51 acres of Wheat at 6s. 8d. per acre on 6 acres, after Mangels for Wheat, at 2s. per acre, and my ridging and subsoiling, from 10 to 12 inches deep, stands at 6s. 7d. per acre. These are figures that I pride myself in being able to show, and I am proud to support them (when questioned) with the data on which they are based, and I will show the condition of my land against any man's land; but I will not work land over by steam-power for the sake of appearances, and being busy with my tackle for no useful purpose. If "G. A. H." is learned as "an accountant," he has got a lot to learn about steam-power and culture; therefore, let me give him this little dose. I must, however, give him my "account of repairs:"—

1 new share to ridging plough	£0 2 0
2 new shares to smasher	0 8 0
Total	£0 10 0

Since writing the preceding, it has occurred to me that I ought to have gone into the interest of money, and wear and tear question, to show that in my case no extra capital is needed to work my farm by steam. My old arable land needed six horses to work it under horse culture. Under steam culture I have never used but three, and they, as I have heretofore shown, only work 118 days a-year. On the farm that I have just bought, four horses have always been kept to work the heavy arable land, and I never knew a profit made by a horse on it, yet I have known of many a dead one. I have started off with five to do the two farms, and this week will complete their work for the year, excepting job work, and that will be very light, for nearly the whole of the tiles are already drawn, and laid upon the new portion of my farm for draining. Therefore, I am a gainer of six horses, let us put them with their tackle and implements to work with, at 40l. each. I need less capital, upon that point, 240l. Now fix their keeping (less the value of their manure) at 25l. each; in this way, at the end of the year, I save 150l. Now, let us put the case, taking the half of the engine and tackle, as "G. A. H." says, at 375l. Now, for the other side—

Six horses, with their tackle and imple- ments (less needed)	240 0 0
Keep for a year of six horses	150 0 0
Total	£390 0 0

This gives a gain to me at the end of the first year of 15l., therefore no extra money is needed, and I am a gainer every year afterwards of 150l. for horse-keeping, to say nothing about the cleaner and deeper farming and increased produce that I get; but I must say something about increased produce, for it has been, and will be, very considerable. My old heavy land under horse culture needed and had a dead fallow every fourth year, yet under steam culture it has never had one, neither will it ever need one, therefore I am a gainer of one-fourth in produce upon that point; and the farm that I have just entered upon has had a portion of dead fallow yearly, this year it had some, and I had to pay by valuation for three ploughings with four horses each ploughing and two scufflings, with half a year's rent and taxes for making them, without getting any produce. Now I shall never need any dead fallow or fallow of any kind upon this farm again, therefore I must hereafter be a great gainer in the shape of increased produce. I take it that "G. A. H." is a traction engineman; I have read a lot about these wonderful things of late, that they are getting them up to from 20 to 40 tons in weight. Years ago I read of less weighty things than these having got stuck in the mud, and it may be that some misty morning or other we may hear of the heavy weights in upon in any weather. Look at my letter last week. It comes out just at the moment when I want it, does the work when work is very valuable, and then gets packed up for the year, and everybody else must have it at the right time if they mean to be gainers by using it as well as having the work done cheap and well. *William Smith Woolston, Blechley Station, Bucks, Nov. 1.*

Woolston Steam Ploughing.—I cannot see why you should assume (see p. 1115) that 1s. 6d. per acre means 12s. per day, and then say that 100 days would give 60l. for interest, and wear and depreciation. Does Mr. Smith work his tackle for 100 days? I trow not, otherwise he ploughs only an acre a day. Mr. Smith professed to give us facts and not theory, and if he does not keep his engine at work ploughing for 100 days, what right has he to put down 1s. 6d. per acre as the actual cost for interest and wear and tear? If Mr. Mechi did anything so utterly contrary to honest accounts, I warrant Woolston would be down upon Tip-tree with a vengeance. If Mr. Toepffer were fool enough to tell his shareholders that 1s. 6d. per acre was ample to cover "interest and wear and tear," and were to advise them to set that sum aside for that purpose, and if he were, moreover, to hold his tongue about "depreciation," no one would laugh more loudly than Mr. Smith at the "blind advice." Yet, what is the blind advice that Mr. Smith is giving to his brother farmers? Why, simply to buy a set of steam ploughing tackle to cultivate 100 acres with. And then he says they will be able to make seed-beds for Wheat at 6s. 8d. per acre and seed-beds for roots or Beans at 6s. 7d. per acre. When Mr. Smith says he has made a seed-bed for 6s. 8d. per acre, I tell him he is deceiving himself, and in deceiving himself he is deceiving the public; for the sum of 1s. 6d. per acre put down for interest and wear and tear is a "mere

estimate" (and a very ridiculous one); and besides this, he keeps out of sight altogether a very material item in the cost, viz., "depreciation." If I mistake not, Mr. Smith began with a much smaller engine than he has now. How much did he lose in it when he sold it? How much, too, did his present large engine cost? and how much does he suppose he will lose on it when in two or three years' time he replaces it with a road locomotive? It will not do for Mr. Smith to tell us he brings down his expenses, and makes up the interest and wear and tear by hiring out his ploughing apparatus to his neighbours (if he does do so), for a horse farmer might as reasonably say that his seed-bed only costs him so and so, because he makes a profit by hiring out his horses and waggons to the parson or the squire when they want some coal drawn. Moreover, if I mistake not, there was not long ago a terrible row kicked up because in the Tip-tree accounts a small sum was put down as having been received by Mr. Mechi from his neighbours for grinding some corn with his little fixed engine which he has had for the last 20 years. If, too, Mr. Smith can scuffle heavy clay-land with horses for 2s. per acre, I think he must be a hen. A hen could scratch, and so could he; but I do not think that either of them would scratch it very deep. I have a 5-tine Coleman cultivator that works 3½ feet wide; and it is very hard work for four horses to do three and a half acres per day, and that costs me 11s., or 1s. per acre. *G. A. H.*

Wages and Education.—Upon the condition of the agricultural labourer of the fens, allow me to give my experience as an employer and practical farmer. Much has been said about the "down-trodden," helpless state of the labouring class, but I must at once protest against those terms being applied to the labourer in this district (the Isle of Ely). I am now paying my men 12s. per week, some of whom have boys also working for me at 5s. and 6s. a week; and nearly all last month the wife, when she could go to work, was earning 1s. 3d. per day Potato picking, and in the spring for many weeks together women here obtain employment at 1s. per day weeding. Looking over the harvest labour account, I find that each set—that is, the man, his wife, and a child, or in some cases two children, during the 12 days they were cutting, earned on an average about 8l.; after this time, for 10 days, the men received 3s. 6d. and six pints of beer a day, whilst carting, stacking, &c. It may be said that this does not affect the question of their down-trodden state, but I think it will be allowed that a man who knows his work and does it, also knows that his labour is worth the wage he receives; and that at the end of the week when paid, he and his master are under no obligations the one to the other. That several—I cannot say many—of my best labourers, men who have been working for me for more than 20 years, can neither read nor write, is, I confess, a matter of regret; but in every case where these men have children, they have received a sufficient education to be able to read the Bible to their parents, to write fairly, and to tell, with a little consideration and a scratch of the head—for that process seems to have some occult virtue in calculation—the number of 7 lb. linseed cakes required to be crushed to give 24 fattening bullocks 6 lb. each; and I think that such an education is sufficient for them, in the station in life to which they have been called. What earthly use would it be to teach these lads astronomy, or the use of the globes? We cannot all be classical scholars, like Canon Girdlestone, or Mr. Beales, M.A., and I fancy those gentlemen would not be thanked by the labourer for his proposed compulsory education, for the poor man, and particularly the agricultural labourer, is very jealous of interference, and any attempt at coercion in connection with the training of his children would only tend to create ill-feeling between him and the authorities. It is not to be supposed that the education of the working-class will be as defective in the next generation as it has been; for as improvement is being carried on in all other matters, so education will continue to keep pace with them. But not by forcing can this be done. The labourer will see the advantage of knowledge, and avail himself of the opportunities afforded him for obtaining it. *Nemesia, Nov. 9.*

Mangel Running to Seed.—Having seen in the *Agricultural Gazette* several paragraphs on Mangels running this year, I give my experience from seed purchased of Messrs. Sutton & Co., sown April 24. A finer or more handsome lot of roots I have never seen. They were the admiration of all who saw them, not one showing the least sign of running. The sorts were the Berkshire Prize Yellow Intermediate, and Long Red and Yellow Mammoth. Having weighed several ranks, in different parts of the field, I found the average was 10 tons per acre. *Thos. Andrews, Box, Nov. 9.*

Foot-and-Mouth Disease.—In one of my byres my herdmen and myself estimate a destruction by the disease of from 80 to 100 stone (of 14 lb.); but this is only a small portion, for the suffering herd has had to be fed almost totally with expensive food—boiled linseed, bran, barley-meal, soaked oil-cake, &c., which, had the cattle been free from the disease, would have produced a large additional amount of beef; besides, my "fag" and pastures are wasting and deteriorating rapidly at this season, and which should have been assisting in producing the people's food. Again, as I have herds in other places free from disease, the lands should be with their horses upon the arable land preparing for next year's crops. I have, however, been obliged to employ them in attending to the unafflicted stock, and thus the horses are partly idle, and considerably dis-jointing the farm operations. I was also put to serious inconvenience by Yarm Fair, as the highway rans, or more properly speaking, twists through and round the pastures in which I had 70 head

of cattle, and prudence induced me to order these to be removed to fields adjoining the Tees, in which they were overcrowded, with a short supply of Grass for the whole; further, I was most desirous to buy in for winter 40 to 50 Scotch highlanders, but the risk of introducing the foot-and-mouth disease upon my farms deterred me, and therefore the Grass which would have fed these will be greatly wasted. I have also, for coguate reasons, bought no sheep or lambs, and farmers around are deterred sending their cows away from home for breeding purposes. No doubt, if I can preserve the 90 head, which are separated from the contaminated lots, the reader sale and increased price they are realising will go some way to liquidate the losses, from the disease wasting the cattle attacked; but, then, I am disposing of fattening animals which are scarcely fit for market, and thus is inflicted an injury upon the country—as, were it not for the risks of the "foot-and-mouth," I should not push them into the market. *W. A. W. W. Sadberge Hall, Oct. 27.*

Shirreff's Bearded Wheats.—I read with great pleasure in your journal the proposal of a testimonial to Mr. Patrick Shirreff, as from perusal of the papers he has written, from correspondence, and from experience in the growth of his valuable varieties of Wheat, I am convinced that few persons more deserve an acknowledgment of their services to agriculture. Having had some share in introducing his varieties into Suffolk I can speak highly of the quality of both his red and white bearded Wheats. I notice that your scientific correspondent (Mr. Brown, in a letter written a few weeks back, says he is informed there are no first-rate bearded varieties; I should be happy to send him an ear and a few kernels of Shirreff's White to prove the contrary, and for his comparative experiments, as to rust, &c., if he continues them this year. This kind has a plump, short kernel, and weighs well this year; the weight here was 18½ stones nett per sack, i.e., 64½ lb. per bushel; last year it reached 19 stones, or 66½ lb. per bushel. The land in this neighbourhood (near Bury St. Edmund's) is not sufficiently strong or fertile to produce extraordinary Wheat crops, nor can a fine White Wheat vie in point of quality with the coarser Browick or Spalding, yet both the red and white kinds have produced with us 10 sacks per acre. Mr. Brown, in his suggestive letter, is of opinion that vigour of Wheat is shown by the beard, and that probably the fungoid disease (the Take-all) of Australia, might be rendered less destructive by growing vigorous bearded varieties, less subject to blight or rust. I believe this idea is correct, and if so, Shirreff's Wheat would be well worth an Australian trial. I would make another suggestion—the Hessian fly is in many districts in America so very destructive to the grains of Wheat, that the cultivators have been compelled to grow a coarse kind of Rivetta, there called "anti-fly," which is guard by its beard from the attack of the egg-producing fly. Now, if Shirreff's bearded Wheats should prove similarly exempt from attack, what a gain is here, both to Australian and America, and what an inducement to the suffering cultivators there to assist in the proposed testimonial. Whether bearded varieties are exempt from attacks of fly and Fungus, and if so, to what extent, is well worth investigation and experiment, and I would wish to call the attention of Mr. Brown, and other scientific men, to the subject. *W. R., November 3.*

Foreign Correspondence.

TORONTO Canadian Agriculture.—The *Toronto Weekly Globe* of October 15 contains two articles on the remarks of a writer in the *Agricultural Gazette* of August 28, the substance of which you will no doubt be glad to lay before your readers. The difficulties in the way of Wheat growing on both sides of the St. Lawrence, to which your contributor had referred, lie not in any extreme rigour of the climate north of the river which he points out, or in any natural poverty of so much of the soil, but in the prevalence of the Wheat midge. It is this which has for a number of years past "devastated our Wheat crops, and caused that falling off in exports which we all feel so acutely, and suffer from so much." It is, however, from another article in the same paper that I shall ask you to give your readers some extracts. The writer says—"I have lived in Canada 37 years, and during that time have been intimately acquainted with the Wheat-producing capabilities of every section of this Province, from Kingston to Sarnia, and northward from Lake Ontario to Cabot's Head, as well as those of very many portions of the United States, and must beg to differ most maternally from the writer in the *Agricultural Gazette*, and the excellent authorities whom he quotes. Canada has not, as far as the land in Canada is concerned, disappointed any reasonable practical agriculturist in regard to her Wheat-growing powers. I have myself a hundred times verified by actual measurement very large yields of the best Wheat, often 30 to 40 and 50 bushels per acre—those yields occasionally extending over large areas. Only last year a tenant of mine harvested and measured 37½ bushels of good fall Wheat per acre from a field of about 18 acres, and the country papers are often found to contain statements, in which name, lot and concession are mentioned, where 50 bushels of excellent Wheat are harvested to the acre. Instances can be mentioned to the thousand of such yields as 30 to 35 bushels to the acre, and for Barley, Peas, and Oats, there is no country that will and does produce per acre more of these so-called coarser grains. It is not the fault of the land or climate—it is simply want of knowledge, capital, and above all, the low prices of produce, compared with the high cost of labour, deterring the Canadian husbandman from the necessary draining, and the heavy expenditure for manures that the English agriculturist so freely lavishes his money on. These are causes that render Wheat growing here more proce-

less because slack hands (for such will get in among us) have an idea that it is not needful to work so hard for the squire as for other employers. It is an excellent and praiseworthy plan to let the hands on Saturday afternoon, say at four o'clock, summer or winter. It is a boon which they will value; its value to the employer is not appreciable, and it affords an ample worthy of imitation.

Upon the owner himself a beneficial influence will undoubtedly be exerted, if he gives moderate attention to his farm in his own occupation. He gets a greater insight into rural affairs, he is better able to judge of that pertains thereto, and he can more readily sympathise with the losses which his tenants at any one experience."

Pharmacopœia, including the Outlines of Materia Medica, &c., for the Use of Practitioners and Students of Veterinary Medicine. By Richard V. Fuson, F.C.S., Professor of Chemistry and Materia Medica at the Royal Veterinary College, &c. John Churchill & Son, New Burlington Street.

A trustworthy dictionary of the various substances used in veterinary medicine, with their synonyms, composition, modes of preparation, actions and uses, and modes of application, antidotes, &c. Professor Fuson is an unquestionable authority on all these subjects.

Farm Memoranda.

HAMPSHIRE.—This, our usual record of agricultural matters, has been somewhat delayed by other pressing engagements. It is, however, an interesting period of a year to all engaged in the occupation of land, as it now that the various crops of grain and Pulse have been tested by threshing, and the various root crops food for cattle are showing and promising in their bulk and value. The aggregate produce of the county generally was never better, reckoning the food for man and cattle. It is true the produce of the Wheat crop is this year more difficult to estimate than usual, owing to the great disparity in produce, which, in some instances, amounts to only half a crop, in others a full crop, in fields of similar soil and cultivation, it must, therefore, be written as a bare average, and this view the case is somewhat strengthened by the rates at which it is selling. Barley is a fair average crop, of different quality. Oats a little over an average, both weight and quantity. Beans and Peas are a good average produce. Hay, both field and meadow produce, as a full crop and well saved. There is a good bulk and quality of early crops, both Mangel and Swedish turnips, and also the latter varieties of common turnips are very promising, and more than usually so at the chalk hill farms. Cabbages of various sorts are coming into use more than formerly in field cultivation, being found good wholesome food for all the stock of the farm, and are ready for use earlier than other root crops. Cabbages this year planted the last week in June were fit for use September 1, and by cutting after a green crop they are certain to succeed. The large provision of cattle food has led to a very great and rapid rise in the price of store stock, and from Wilton Fair, September 13, to Winchester Fair, October 23, the increased value may be stated at 7s. to 8s. per head, and even at this price it may fairly be expected that sheep will give an increase of value over cost price equal to the average of seasons. The breeders of stock on the hill farms ought to be justified with present prices, for although their stock sold very low last year, the average of three years must be satisfactory. In anticipation of prices for meat through the winter and spring months, many parties consider that it must be lower on account of the large quantity of cattle food to be consumed; but it should be remembered that we used to get, years ago, a large number of well-fed sheep and cattle at our fairs. But this is not the case at present, excepting exhibition stock, showing there is no accumulation of fat stock, and that the requirements of the consumer are so great that we are (notwithstanding an over average breed of lambs for the past three years) drawing very hard upon our supplies to meet the demand, and our Government statistics are to be relied on, we are now 1,360,000 sheep short in number as compared with the previous year in the United Kingdom. If this is true, mutton and beef, notwithstanding foreign supplies, must be dearer rather than cheaper. It is satisfactory to know that the flocks of sheep in this county were never more healthy, and that the large numbers of horned ewes which usually come into the southern division at this period are yielding a very numerous fall of lambs, which, together with the ewes, are in fine condition. It is much to be regretted that the same cannot be said of cow cattle, for the foot-and-mouth disease is very prevalent in different parts of the county, and it is generally admitted that recent regulations upon the question are not sufficient to check its extension. We are still receiving large importations of store cattle from Ireland, which sell readily in our fairs and markets, owing to the abundance of fodder and roots. These are of a better description of stock than formerly, and are nearly allied to the Shorthorn breed, but they do not pay for wintering in straw yards, like well-bred North Devon cattle, nor do they meet with so ready a sale in the spring. Unfortunately the supply of Devon cattle is very limited, hence the ready sale for the Irish importations. *Joseph Blundell, Southampton, Nov. 8.*

and hard that they cannot make fair wages, and the hunting meets are arranged with the proviso that, unless rain falls, the hounds will not be brought out. In Lancashire Potato raising has been carried on as fast as was practicable, considering the wet weather. The produce is good as to both quantity and quality; but, unfortunately, the disease has set in, and two-thirds of the crop are lost. Growers, for this reason, are hurrying their tubers to market, and will accept very low prices in order to get rid of them. A large grower informed me to-day that his crop, which looked magnificent a few weeks ago, is completely spoiled, and that he has never had so much disease since the fatal Irish famine year. It is fortunate for the community that there is little or no disease in the warp soils in Marshland (Yorkshire), and in Scotland; but the losses in the Ormskirk and Southport districts, where the crop is extensively cultivated, will be serious. Fortunately for them, too, their Wheat crop was remarkably good, and, contrary to the experience of other districts, threshes out well. Their early Potatoes, besides, were a sound and profitable crop. It would seem that the warm, muggy weather, and the thunder and lightning in the early part of October, brought on the disease which caught the later sorts. The results of the year's cropping in this district have been,—Grass and hay, very good—much above the average. Wheat very good. Oats very good, but many of them caught by the rain before carried and injured; early Potatoes, an excellent crop, late Potatoes, a large produce, but two-thirds spoiled. Barley and Turnips are not much cultivated in this district, but where Swedes and Mangels are grown, the crops are magnificent. It is now excessively cold, and this morning the ground was covered with snow. *W. H. B., Nov. 10.*

The Poultry Yard.

Does Poultry Keeping Pay?—This homely question is frequently asked, but not often answered, or if answered, the replies are not altogether satisfactory. I am not prepared to give other than a general reply, founded upon observation. It is an unquestionable fact that a vast increase in our stock of poultry has taken place within the past few years; ergo the keeping of poultry must be profitable, or they would not be so widely extended or so numerous bred. The rearing and management of farmyard poultry has become quite a scientific business in itself. The old-fashioned farmer's dame is gone, and her broods gone with her. Her geese and her poultry were desirable on the farm when she entered her new husband's home; these she personally tended, and these stock breeders remained till death, natural death, took them off. The modern dame has altogether new ideas of poultry economy. The majority of these modern farmer's dames, I regret to say, abjure for the most part personal attendance, but they have the poultry woman, and to her is committed the management of the poultry of the farm subject to their supervision and I must say it is in the wrong direction, for be it fully known that the breeding and management of poultry has become as much a question of scientific breeding, of choice and selection, of judgment and careful crossing, as in any other department of farm practice or high breeding. Our highly interesting and beautiful poultry shows abundantly testify to this truth. Surprising birds are continually exhibited, and it is from these that fresh stocks are constantly raised. The best birds are speedily brought up, and go to replenish stale stocks, or for the improvement of the breed in many a farmyard the great aim being to propagate the best breeds of healthy character, coming to great size in the shortest time. To accomplish this desideratum, judicious crossings of the very many breeds of poultry are resorted to in keeping to a true breed, the finest specimens alone are retained for breeding purposes. This is again aided by pure and choice selections of the same breed from fresh stocks. A cockerill should never be retained more than two years for service in the same yard, and the hens should be sold off before arriving at old age. Pullets should be kept from the cockerills till they are well grown, otherwise their full growth and development is much retarded, if not altogether curtailed. Most farmers' dames prefer the breeding and raising of poultry for sale, but there are many who prefer keeping a stock of poultry entirely for the production of eggs for sale, and these contend that their's is the most profitable course. It is true that certain breeds of poultry do produce an astonishing number of eggs, for which there is always a ready sale; but to do this a large stock of hens (layers) must be kept, which also entails some rearing to keep up the stock. This large stock is probably more costly to support than a moderate stock of breeding hens with their chickens. I certainly prefer the breeding and rearing for sale, and the way in which most poultry keepers get them up is novel and good. The poultry woman has usually near her residence, or in the farmyard poultry houses, suitable conveniences and nests for the hens to lay and sit in. As they come off, well sheltered hen coops are placed upon some dry spot, and in a warm situation. There the chicks are raised till they are able to provide for themselves. They are then taken to the poultry houses, which are distributed about the farm, and are fixed in the most suitable places upon the farm, and least likely to be detrimental to the cropping by trespass. These poultry houses are generally wooden frame houses, so as to be readily moved from place to place. Occasionally they are used for layers and sitters. They are from 6 to 10 feet square and 7 or 8 feet in height, and are provided with suitable roosts, entrance, &c., and nests. The young cockerels are taken to a house apart from the pullets, and at a distance sufficient to keep them separate for a considerable time. At these houses they are fed daily, but their chief sustenance is derived from

their strolling about in search of worms, flies, insects, berries, roots, weeds, &c., upon which they do well. Prior to harvest they are taken up to the yards, to prevent their mischievous attacks upon the crops. As soon as a field is clear, they are returned to their home and encouraged to pick the stubbles, to which they soon get accustomed. It is in this way that many large poultry establishments are upheld. The fattening is a separate department, and is done in houses or hovels, especially provided with corn, meal, Potatoes, bran, &c. *O. F.*

Miscellaneous.

The Condition of the Agricultural Labourer.—At a recent meeting of the Ougar Labourers' Friend Society, the Rev. F. A. Fane, one of the vice-presidents, delivered a speech which produced some astonishment. Gesticulating somewhat violently, the rev. gentleman said it was all very well for them to meet and chatter, and praise their good doings, and represent everything they did for the labouring classes in *couleur de rose*; but he was one of those who thought, if there were any points the discussion of which might add either to the improvement of themselves or others, they should "blurt out" their opinions upon them. He thought they ought not to be too squeamish in what they said. He was then understood to recommend wholesome and decent cottages for the respectable poor, and to speak in favour of beer-houses and public-houses being put under better control, rather than closed entirely; for, he said, he drank beer, they (the company) drank beer, and he did not see why they should altogether prevent the working classes from drinking it. What he proposed they should do was to raise the character of the labouring man, and then he would not go to the public-house. They should teach him that the money he spent there was wanted by his wife and family at home. And then they ought to get rid of the Poor-law. He believed that that "horrid law" encouraged improvidence, the parent of all vices, that it destroyed those kind feelings which ought to exist in families, that it separated class from class, that it encouraged fraud, dissipation, and lying. He believed that that law counteracted that which they all wished to encourage—providence, self-support, self-dependence, and frugality. He believed that that law filled our lanes with vagrants, and our public-houses with lazy drunkards. These were startling statements. Then they would ask him what remedy he had to suggest. Was he going to allow the poor to starve, and the sick and infirm to lie upon the roads and die? All who knew him would acquit him of any such thought? He wished to elevate the poor man. He did not wish to see him degraded and disgraced by the Poor-law. He was not very fond of trades' unions in one way, yet in another he admired them, and thought they had done an immensity of good. In some respects, indeed, trades' unions had been a blessing to them. They had shown them what men could do—that men could support themselves in sickness and infirmity, and in times when they wished to contend against their masters, by their little weekly contributions. Going to things more local, there was a society in this district of 12,000 people; in that society there were between 700 and 800 labourers, and at the present moment it had \$5000, to distribute among them in times of necessity, thus rendering them independent of the world and their parish, and enabling them to hold up their heads as Englishmen. Who, then, would tell him that the working classes could not support themselves? It was the vagabond and the rogue who came upon the parish, the liar and the thief. It would be of the greatest advantage to society in general, and it would be of the greatest benefit, morally and socially, to the poor man himself, if they could lift him from that degraded condition of going and walking before the board of guardians with his head down, to ask a morsel of bread from his brother rate-payers. These were novel views. He knew they struck some hard. He never looked upon the Poor-law as a charitable law, for charity meant ransom, and who ever saw an overseer with a Poor-rate book in his hand, and looked with any love upon him? The Poor-law system was not a charitable one; it was nothing of the sort; it was a maudlin sympathy, and by it they were keeping down the poor man whom they wanted to elevate to take a position among the citizens of this great country. —Mr Chisenhale-Marsh rose and said he thought it was to be regretted that Mr. Fane had marred an otherwise excellent speech by the comments which he made at the opening of it. It so happened that on the subject of the inefficiency of the Poor-law he agreed with Mr. Fane, but even if he had not he wished to assure Mr. Fane that, so far from his speaking on any subject connected with the welfare of the poor against the will of anybody present, it was, on the contrary, with their thorough acquiescence. God forgive him if he did not meet them there as a true friend of the working man, prepared to listen to any suggestion for his improvement, without its being in any way "blurted out." All he objected to in Mr. Fane's speech was the accusation that they met there to cockle themselves up with the good things of this world, and only to pretend to be the friends of the poor. Did they think he would leave his comfortable home to come there—but, pshaw! why talk of himself? Did they think Mr. Stall-brass would toil as he had done, or Mr. Shepherd, of the Roding society, or Mr. Wentworth, of Harlow, if they had not the welfare of the poor really at heart? He hoped Mr. Fane would not in future intersperse the good things which he said with the insinuation that he was speaking to unwilling ears.—Mr. Fane said he made no accusations. He only wanted people to take his suggestions into consideration.—Mr Chisenhale-Marsh: Sir, you remember the end, but forget the beginning of your speech. I wish it to be thoroughly understood

SOUTH LANCASHIRE.—The differences of climate in this little island of Great Britain are most surprising. In Lancashire we have had two months of wet and broken weather, interfering seriously with the raising of Potatoes and the sowing of Wheat, while in the Midland Counties farmers complain of a want of rain to enable them to work their land. Drainers there will not take piece-work, because the ground is so dry

that we meet here for the welfare of the poor, and those who do not wish well to the poor are better out of our society.—Mr. Welch was sure Mr. Fane did not mean what he said at the beginning of his speech. He had often sat under Mr. Fane as a preacher, and no man uttered more truth with greater effect. His heart was so good that he hardly knew what he said.—Mr. Fane I beg most emphatically to say that I don't retract a single word I have uttered. I adhere to what I have stated in toto, and I hope the reporters will say so in the newspapers.—Mr. Chisenhale-Marsh: And I hope the reporters will say that that observation was received with a loud laugh.

Calendar of Operations.

NOVEMBER: Stubble lands.—In late seasons in the North, where corn harvest is seldom concluded before the end of October, turning over the stubbles is the main work of the ploughs in November. In early seasons, when the harvest is finished by the end of September and beginning of October, and the weather is settled and dry, it is common to autumn fallow, by ploughing, scarifying, and cleaning the land, and also to apply manure; but in late seasons, and even in ordinary ones, the winter furrow is all that the land gets, and when intended for Turnips the following season it is common to plough deep with four horses, or subsoil as directed below. For Peas and Beans farm-yard manure is not unfrequently spread upon the stubbles, and either ploughed or ribbed in. Manuring in December is preferred to manuring in early spring, on the twofold ground that it suits the Bean crop better, and that any injury done to the land in carting is rectified by the frost of winter. Up to a recent date the work of ribbing was exclusively done by horses and oxen, but it is now cheaper and much more effectually performed by steam ridging ploughs,—the covering of the manure and the leaving of the land exposed to the weather being both better done.

Lea ploughing follows stubble ploughing, South and North—a large breadth being turned over for spring corn during the current month. Where wireworm is suspected skim-plough the green sod into the open furrows, covering it well with the bottom slice, as this rots all vegetable matter, and thus deprives the insects of food in the spring, while it at the same time starts the spring corn—Oats or Wheat—more rapidly. Whereas, a green seam of Grass between every furrow slice robs the land of manure, and supplies food—fresh Grass roots—for the insects in the spring before the roots of the corn are available.

Claying and Compost.—Manuring open, porous, gravelly, sandy, and peaty soils, and marling and chalking clayey and peaty soils, are operations successfully performed during the month, as the frosts and rains that follow continue the process of disintegration throughout the winter months, thereby giving to poor sickly Clover and stunted Grass when spring comes a totally different appearance. Whenever it can be profitably done, so much ground should be gone over yearly. Some marly clays are sufficiently friable to be broken fine in the spreading, and worked in by chain-harrows, others require frost to break them down. All composts should be broken as fine as possible, and chain-harrowed. In some cases a bush-harrow or seed-harrows work better than chain-harrows, more especially when heavy top-dressings are given, as from 200 to 400 cartloads per acre for changing the texture of poor sandy, gravelly, or peaty soils. Drifted chalk, or chalk drift as it is otherwise termed, is found in some places under a thin stratum of clay, and so broken, when dug from the pits, as to be fit for application to heavy clay-lands adjoining, or to other soils within reach, to which it can be profitably applied. On farms where the ploughing is done by steam, such works form profitable employment for the teams during any spare time they have this month.

Water Meadows.—If the water has been let on during the last week in October, it may have to be shut off the second in November, according to the weather. If the sluices have been opened earlier, the meadows may be ready for another flooding by this time, and so on, the alternate process requiring close watching. Where there is a limited supply of water, provision if possible should be made, so that when the water is shut off one field it may be turned on to another, the periods of flooding and drying being timed accordingly.

Town Sewage and Farm Sewage continue to apply during the month. The yield of Italian Rye-grass now decreases rapidly, but the average of the month will run from a third to the half of the midsummer cuttings, and with an extra handful of meal the Grass forms the best food for milch cows at this season. Give Clover hay chaff along with it, or well browned meadow hay in the absence of Clover hay. Owing to the decrease of solar light the Grass is more liable to blanch towards the bottom, and therefore should be more frequently cut than in the summer time.

Turnip harvesting.—Swedes and yellow-fleshed varieties are stored in pits, in the same way as Mangel Wurzel are in our southern counties, but in the northern they are more commonly left in the drills. There are, however, not a few exceptions to this in the North, for we have seen them as successfully stored both in pits and barns in the counties of Inverness, Ross, and Caithness, as in Kent, Surrey, and Sussex; and it has often occurred to us that the exceptional practice of Scotland should become the rule, owing to the heavy loss sustained in giving frozen Turnips to live stock, either neat cattle or sheep. To obviate this, most farmers during winter keep 14 days' or a month's Turnips stored in barns or heaps outside to supply the wants of a snowstorm or season of hard frosty weather. Others pull and set the Turnips close to each other in clamps, technically termed clamping, in the field for sheep, or in some paddock adjoining the homestead for

housed stock. But such supplies seldom meet the demands of northern winters. In those places where the climate and weather is favourable, the southern practice is becoming more general, but in the more exposed and elevated situations the great difficulty experienced is the unfavourable weather at this season for storing, as winter sets in before the roots are fully grown and ready for pulling. But this is no reason why farmers should not store when the weather permits, and the Turnips are in a state fit for it. As for the green tops, although they may be of some value in November for feeding, it is generally otherwise through the winter, so that they are worth more for ploughing in as green manure at this season, than for feeding material even during the current month. In storing in the field for sheep some make small round pits, one for each shift of the nets or folding of the sheep if the flock is small, or two or more pits if the flock is large. One turnip-cutter is required at each pit, the cut Turnips being carried in baskets by the shepherd or shepherds to the troughs. Others make larger pits, and distribute with a horse and cart. Some cast out a double furrow, and store in this 10 or 12 drills. Some store half the crop in the field for sheep, the other half at the homestead for housed stock. Globe, or white-fleshed Turnips, are generally pulled as required, or eaten off in the drills by sheep. Sometimes part of the crop is carted off, and consumed on stubble or grass-land; in other cases, the whole crop is so treated. Autumn Turnips are consumed in the same way; but in favourable seasons they continue to swell during this month, and may not be consumed until next. Some varieties are hardy, and may be kept on longer on dry land for sheep feed.

Potatoes, Carrots, and Parsnips.—Finish digging as soon as possible. If in any way frost bitten, store in pits smaller than usual, and turn as directed for Mangel Wurzel. When stored in barns, spread them rather thinly over the floor for a month or so, using some other house as a temporary store, until they will permit of being all stored in the barn of the usual depth.

Kohl Rabi, store as Swedes, taking care not to cut or injure the root in topping and tailing, for although hardy when whole, it is otherwise when broken. This applies also to Swedes, and indeed to all the root crops with greater force than is generally credited. Cutting the top and tail off a Turnip should be deferred till the time of consumption.

Live Stock.—In some of the southern counties, store cattle and sheep are still abroad in the pastures, but the former would be better in the strawyards, and the latter should now be greatly thinned. When the inclosures adjoin, it is common to leave the gates between open, so as to give the flock, or division of the flock, as the case may be, the run of the whole at pleasure. Fields possessing peculiar shelter should be reserved for breeding ewes in stormy weather, and when shelter does not exist naturally, it should be provided artificially, for in-lamb ewes should be kept dry and sheltered, and so should young store sheep. W. B.

Notices to Correspondents.

CHINESE SWINE: H V asks where he can procure a sow of the pure black Chinese breed?

FROZEN MANGELS: W M. Mangels covered by their leaf, and by the soil in which they are standing, will bear a little frost uninjured; but if they have been pulled, and are lying exposed, a very little frost is certain to end in their rotting in the pit. Such roots had therefore better be eaten at once—pulped, and mixed with chaff.

GAS-WATER: Hillsborough. The quantity of sulphuric acid required depends entirely on the strength of the gas liquor. For the gas-liquor you are likely to get, about 7 oz. of acid per gallon will be required; but be very careful how you mix it, on account of the sulphuretted hydrogen given off.

GRAINS: Midburn & Co. Next week.

MAIZE, DRIED GRAINS, AND MARK LANE: Amateur. The relative value of Maize for feeding animals will depend on the kind of animals to be fed. For fattening it has of late been cheaper than any other food; but for hard working horses, which exhaust a large amount of muscle, more nitrogenous food, as Beans and Oats, would probably be more profitably used. The value of dried grains for pigs is likely to be very low. What fresh grains are as food for pigs, desiccated grains are when re-scalded. The Mark Lane Corn Exchange is free to casual visitors and purchasers of corn, &c.

MOWING MACHINES: North Staffordshire. Wood's combined mower and reaper has been used to our knowledge with satisfactory results upon a hill-side dairy farm. But, as a rule, it is better to use a mowing machine for Grass and a reaper for corn.

THRESHING CLOVER: Cor. In reply to a question as to the method of getting the seed from a lot of ripe Clover hay, we extract the following from an American periodical—"The Alsike Clover bears its seed in its first blossoms each year, consequently, when I wish to save seed, I let the Clover stand about two weeks longer than I would for a hay crop alone; then cut, and house it as soon as cured, the same as for hay. About November 1, so that I can have the hay for winter use, I employ a Clover-thresher, of which there are plenty here (they cost about 120 dol., gold), and thresh it out. They will thresh about 20 bushels in a day, and it will be about as clean as Wheat when it comes from the threshing machine. I then run it through my fanning mill, which blows out the dust and fine dirt, but it will still be full of bits of broken hay, and if there are any other seeds in it, they will be there still. I then take a very fine wire sieve, that will, with considerable shaking, let the Alsike seed through, and nothing else. Red Clover, when saved for seed, is managed in the same way, with the exception of the cutting. The Red Clover bears its seed in the second blossom, consequently it has to be cut for hay early in the season, then allowed to grow up the second time, and when ripe, cut and saved for seed, then threshed, and managed the same as the Alsike. The Alsike will yield from six to eight bushels to the acre, the Red Clover from four to six. Red Clover, when saved for seed, is worthless for hay, as it becomes dry and black, and when threshed it all goes to chaff. Such is not the case with the Alsike,—its stalks and leaves are as green and fresh after having ripened its seed as the Red Clover when cut in its prime; and after it has been threshed it makes as good hay for horses, or stock of any kind, as the Red Clover at its best."

* * * Received for publication next week—"Tenant-Right," "Glass Stables," &c

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W^M PAUL has to offer a magnificent lot of the above, Dutch-grown roots, at 2s 6d, 2s 6d, and 1s. each, 24s, 36s, and 50s per dozen—a few extra large roots, 7s 6d each. The usual discount if the Trade off the dozen rates when ordered by the dozen. PAUL'S Nurseries, Watlington Cross, London, N.

Lilium auratum.—To the Trade and Others

HOOVER AND CO. expect to receive very fine Bulbs of the above, via the New Pacific Railway, due about January next. They are collected by a Person thoroughly acquainted with their requirements, and will doubtless arrive in the best condition. They will be in London in about 55 to 60 days from their native soil. Orders now booked, and persons requiring them will oblige by sending their orders without delay. Prices on application. HOOVER AND CO., Covent Garden, London, W.C.

British Fern Catalogue.

ROBERT SIM will send, post free for six postage stamps, Part I (British Ferns and their varieties, 34 pages, including prices of Hardy Exotic Ferns) of his PRICED DESCRIPTIVE CATALOGUE OF BRITISH AND EXOTIC FERNS, No. 7. Foot's Cray Nursery, Sidcup Hill, Kent.

New Japanese and other Chrysanthemums.

JOHN SALTER AND SON beg to announce that the CHRYSANTHEMUMS are unusually fine this season. Their large collection, NOW IN BLOOM in the Winter Garden, may be seen throughout the months of November and December, every day except Sunday. Admission free. Verschoor's Nursery, Whitehall Street, Vale Place, Hammersmith, W (near Kensington Railway Bridge).

Chrysanthemums.

ADAM FORSYTH begs to inform his Friends and the Public that his Specimen and other CHRYSANTHEMUMS are unusually fine this season, and may be seen every day (Sundays excepted). A visit is respectfully solicited. Brunswick Nursery, Stoke Newington, N.

The Gardeners' Chronicle.

SATURDAY, NOVEMBER 20, 1869.

A REPORT to the Council of the Royal Horticultural Society "On the FOREST EDUCATION on the Continent and in England respectively," from the pen of Mr. ANDREW MURRAY, is before us. Mr. MURRAY, it appears, availed himself of the opportunity afforded him by his recent visit to St. Petersburg, to inquire into the working of the forest schools in Germany and in Russia. The inquiry was made with special reference to the question, whether it be advisable or no to send candidates for forest appointments in India, to pursue the greater portion of their education in Germany or France. It may be remembered that in our remarks on this matter, when the regulations sanctioned by the India Board were under discussion, we stated that in the forest schools of the Continent there was an organisation for teaching forestry such as does not exist in this country at present. Moreover, we alluded to the much larger area of the Continental forests, and also to the system followed in their management, which is more akin to that adopted in India, than is that acted on generally in this country.

Mr. MURRAY, we find, questions some of our remarks. He contends that the German forest schools do not offer greater facilities than are to be met with here. Now, as we have at present positively no organisation whatever for the purpose, it is difficult to admit the correctness of Mr. MURRAY'S conclusions. Again, Mr. MURRAY doubts the eminence of the teachers in the forest schools, unless in the case of some particular men. Whether this be so or no, what we may term forest literature—the treatises on the management of the woods in France, Belgium, and Germany, the splendid monographs on the insects and Fungi destructive to woods—monographs, to compare with which we have few or none at all in this country, are sufficient to show what was our main object—that the organisation for teaching on the Continent is far superior to anything we possess. Nor did we write solely from paper knowledge. We had documents before us giving the *resumé* of studies pursued in the varied establishments; but more than this, our remarks were based upon considerable personal observation and experience of the practical working of these institutions, and on a knowledge of the existing state of things in India. We mention these things, as it were, in self-defence, and with no intention of carping at Mr. MURRAY'S report, which is, to our thinking, a valuable one, and one calculated to do good service. Moreover, Mr. MURRAY'S views and our own entirely coincide upon one point—after all, the most important one—that it is by no means essential, or even desirable, that the candidates for forest appointments in India should pass any lengthened time in Germany or France, if proper educational provision be made here. There is no reason whatever why not only a complete initiation into the principles of forestry science, and the numerous collateral subjects connected with it, but also a thorough training in the practical duties of a forest officer, should not be insured in this country. We have every facility for the purpose, if our resources were but organised and

utilised. We have no lack of men able and willing to teach surveying, mensuration, vegetable physiology, and the various sciences which can be taught in the class-room or laboratory. We are by no means deficient in shrewd experienced craftsmen. We have at home a now somewhat numerous body of officers who have been connected with the forest department in India, who know its requirements, and are competent to carry out measures to supply them. We have also, as Mr. MURRAY shows, an area of forest ample for all purposes of teaching, and we have, too, in our limited space, a much greater diversity of timber than is to be met with in a much larger area on the Continent. The system followed in the Oak woods of the Weald, is of course unlike that required in the Pine woods and Larch plantations of Scotland. Surely a man who, as the result of practical training, can get the best results out of his woods, whether in the shape of Hop poles, charcoal, Oak bark, loppings, timber, or what not, can be trusted to regulate the cutting of Indian forests. Such a man, while securing a due supply of sleepers for railways, or Teak for ship timber, will take care that the reckless and wanton mismanagement which has prevailed so frightfully in India in former years, shall have no place in the future.

We have the teaching both of the theory and the practice to our hands; we have ample materials for practical demonstration and experiment: by all means let us have the organisation, let us have a forest-school—a regularly ordered institute, which shall not interfere with the private tuition that we have now, but shall lead up to it, and ensure a better and more instructed class of pupils, and extend the scope of the teaching powers of the forester, at the same time that it quickens and concentrates them.

As it is now, while giving all praise to the practical acquirements of the majority of our foresters, we cannot overlook that too many of them are woefully deficient in any scientific knowledge. Many of them have, indeed, scarcely any knowledge whatever of trees, other than those with which they come daily into contact. Some of our best practical foresters, rambling through an arboretum, containing specimens of high promise as timber trees, would find it difficult to attach the right names to the trees they saw, if they did not happen to have similar ones growing under their own observation. How many foresters of experience could even tell the Douglas Fir? And, yet, these are the only men we have at present who can act as instructors in forestry. Under these circumstances it is no wonder the authorities turned to Germany and France, where at least better provision is made for instruction in forestal matters.

The Indian Forest Service is a profession intended to rank with other learned professions. Those who enter it should be as well trained in general knowledge, and as efficient in practical duties, as those who enter upon other professions of a similar character, such as civil engineering, surveying, and the like. This cannot be expected under our present want of system, but could readily be effected by proper organisation. The Institute of Surveyors has the matter in hand; the Scottish Arboricultural Society will not neglect its duties; the Royal Horticultural Society is alive to the requirements of the case. The establishment of an Arboricultural Committee would help on the cause, and contribute to better the position of the forester. So that we may look forward with confidence to the removal of the present anomalous state of things.

MR. A. W. BENNETT, in the first part of the new weekly scientific periodical, "Nature," has an article in which he shows that in some winter flowering plants, as the Gorse, the Dead Nettles, &c., the pollen is applied to the stigma of the flower while it is still unopened, and thus self-fertilisation is insured under the most favourable circumstances as regards complete protection from the weather and other adverse influences. In the *Chimonanthus præcox*, on the other hand, the stamens cover the pistil completely and discharge their pollen outwardly, so that none can fall on the stigma. As a necessary consequence, the fruit is not formed in this country, for want, at the season of flowering, of the proper insects to effect cross-fertilisation.

We may expect that many analogous observations will be forthcoming now that Mr. DARWIN has called renewed attention to this subject. It is one of great interest, and offers a fine field for observations which will commend themselves

to amateurs from the ease with which they may be made. It would be desirable to ascertain whether, if a plant should happen to flower at different seasons, it is fertilised in the same manner at all times, or whether different climatal conditions are accompanied by corresponding diversities in physiological office. The researches of DARWIN, HILDEBRAND, and others show that the "setting" of a flower by its own pollen (self-fertilisation) is a rarer phenomenon than cross-fertilisation: the cross apparently imparting greater fertility and a greater degree of vigour to the offspring than arise from self-fertilisation. This being so, it becomes a matter of great interest to ascertain how and why it is that so large a contingent of flowers are "set" in the bud, or at least in such a manner that a cross is next to impossible, and self-fertilisation rendered inevitable. We are at present in the dark as to the why and wherefore of this, though it is so frequent an occurrence that there must be some good reason for it.

As any facts bearing on so important a subject are valuable, we may here record the arrangements for securing self-fertilisation in the flower of *Alyxia daphnoides*, a pretty evergreen shrub, with orange-coloured berries, too little known in this country. On examining unopened flower-buds of this plant (now in bloom, the anthers may be seen inclining inwards and downwards in such a manner that the pollen falls on the stigma placed a little beneath them. The tube of the corolla, moreover, is lined with hairs pointing in the same downward direction, as if to direct the pollen to the stigma, which is copiously dusted over with the pollen grains. Clearly self-fertilisation is the rule in this plant; the corolla is so tightly closed that an insect would have very great difficulty in affecting an entrance, unless indeed it were to bore a hole through the side of the tube, as some insects do. DARWIN strongly insists on the great advantages that are likely to accrue from an occasional cross, even where self-fertilisation is the rule. In some instances it is difficult to see how this could be effected save by insects boring into the flower, as we have supposed in the case of the *Alyxia*.

In any case the practical inference to be drawn by gardeners desirous of securing the setting of their Grape blossoms, or other flowers needing artificial assistance, is this, that they should avoid applying the pollen of any given flower to the stigma of the same flower. They should by preference use the pollen of one flower to set the pistil of another. If the two flowers are on two different plants (of the same species or variety, of course, understood) so much the better. If the reader will watch the operations of the bees in his orchard-house next spring, he will see at a glance how the humble-bees unconsciously effect the "cross" of which we have been speaking, and how comparatively rare it is for them to brush off the pollen of one blossom on to the stigma of the same flower. Almost invariably they carry it off to some other flower. Another illustration of the motto, *Nemo sibi vivit*.

— IN the current number of the "Journal of Botany" is a full description and coloured representation of the LARGE ABROID, described originally in our columns by Dr. SEEMANN (see pp. 220, 713). It will be remembered that "Punch" suggested that this plant should be named in honour of Gog and Magog. Dr. SEEMANN has to some extent acted on the suggestion, inasmuch as the specific name given to the plant is "gigas." Generically it forms a new genus of Aroidæ, which the discoverer has named in honour of Mr. GOLWIN, the Editor of the "Builder," a gentleman well known, not only in his professional capacity as an architect, but as the persevering advocate of all measures likely to promote social improvement and refinement. "Godwinia gigas" has been exhibited by Mr. W. BULL before the Royal Horticultural Society, and will no doubt reappear at intervals, to the wonderment of the uninitiated. At some future time we shall probably cite Dr. SEEMANN'S article on the plant at greater length.

— We understand that the Council of the Royal Horticultural Society has resolved on issuing a Bronze Medal, to be called the RARE PLANT MEDAL, and to be awarded at any of the Society'S meetings, for the first exhibition in this country of plants of great botanical interest.

New Plants.

MOERMODES UNCLIA, *Rehb. fil.*, *supra*, p. 891. This species having flowered with W. Wilson Saunders, Esq., has just been published in the "Botanical Magazine," t. 5892, and named a second time, by an oversight, *Mormodes Greenii*. We are very sorry that the name, so justly deserved by Mr. Green, must give way for that of a Pardale (the Persian Uncial), a short diagnosis given by us is absolutely sufficient

complete, adding also the chief character of the callosity on the anterior disc of the lip.

If we are rightly informed, there was an impression at the meeting of the Royal Horticultural Society, when Mr. Saunders exhibited his plant, that it formed a connecting link between Mormodes and Cynoches. That is not the case. All the species of Cynoches have spherical pollinaria, all those of Mormodes have these organs ligulate, depressed, flat on the outside. H. G. Rehb. fil.

SELENIPEDIUM LONGIFOLIUM, Rehb. fil. Wawz.

Folius latius ligulatis apice attenuatis; pedunculo bene exserto pilis parvis demum deciduis pilosulis, subcalvo, apice rase moso, bracteis heliconiacis, ovaris subcalvis (scu non velutinis, sed parvis pilis nantissimis hinc sparatis pilosulis), sepalo superiori oblongo triangulo obtuse acuto crispulo, sepalo inferiori duplo latiori oblongo labellum excedente; petalis a lata basi canatis subpatulis, tritis, apice velutinis, labelli unguis emphatis lunbo aspidatis, sacci lunbo antico retusum; staminibus late triangulo (subtriangulo), limbis p...

Rehb. fil. Wawz. in v. Mold and v. Selt. Hb. Bot. Zeitung, 1852, 690! Selenipedium longifolium, Rehb. fil. Wawz. in Rehb. fil. Xenia, l. p. 3; Rehb. Beitr. Orch. Central Am. p. 44! Selenipedium Reichenbachii, Enderes, in litt. Cyripedium Reichenbachii, Enderes, in hortis.

When we first described this plant we had very bad materials—a broken leaf, pieces of three or four inflorescences, disarticulated floral organs, and a very poor sketch that would have done honour to the phantasy of modern artists. For all that, we had to thank our late friend, J. von Warszewicz, who discovered the plant in the Cordilleras of Chiriqui, at from 5000 to 8000 feet elevation. Much later, in 1867, we obtained an accurate sketch, and a very faithful description of Selenipedium Reichenbachii, from M. Enderes, who re-discovered the plant in a very inaccessible place. Next came Mr. W. Bull's Catalogue, No. 48, where, at p. 4, is a very tempting popular description of the plant. It being there named Cyripedium Reichenbachii, we may be entitled to protest against calling that black velvety back border of the staminode a moustache, for we have a better idea of that male ornament. The comparison with an elderly, ill-used old horse-brush, would perhaps have been better! We may add, that the tubercles standing right and left of the column, observed before, and noted in a very similar description of the Cyripedium carneum (or Selenipedium Pearcei) in a certain periodical, would form a very nice addition to vegetable morphology in general, and to Cyripedology in particular, if they were not those organs which botanists call anthers. Finally, the large callosity observed in the same poor C. carneum, is what we call the stigma. Excuse these morphological trifles! The Gardeners' Chronicle told us recently of the appearance of the plant at South Kensington; Messrs. Veitch inform us of its flowering with them; and we have now at hand a flower and a sketch of a leaf kindly sent from the Royal Horticultural Society's Garden, we believe, by Mr. Eyles.

The flowers remind one very much of Selenipedium dariense, Rehb. fil. in Act. Leop. Cyripedium Hartwegii, Rehb. fil. in Seemann Herald, xlv.), a very interesting earlier discovery of Dr. B. Seemann's in Darien. It is easily distinguished by the two angles at the inner base of the channelled claw or unguis of the lip. Selenipedium Hartwegii stands even nearer, yet it appears to be very distinct, by its much larger and longer bracts, by an open channel of the unguis of the lip, and by some discrepancies in the lip. The other Selenipedia, with gibbous hollows on the sides of the lip, are Czerwiakowianum and Boissierianum. Our plant appears to have the habit of the old Selenipedium caudatum. The peduncle is very curious, as far as we can ascertain from dried specimens, on account of the deciduous hairs. The inflorescence has bracts very much like those of Heliconias. The flowers are greenish, very shining outside. The dorsal sepal is nearly oblong-triangular, with a brownish border. The inferior sepal is much broader and longer, or even quite as long as the lip. The petals have a broad, subcordate base, and taper into a tail, greenish, with white borders, and two brown streaks at the base, and brown at the ends—these tails being much shorter than those of the well-known long-tailed species. The lip is highly curious for the basilar margins of the unguis overlapping one another, so that there is no channel left. The side gibbous hollows stand over the pouch of the lip. It is whitish internally, with many small purplish dots. The edges of the unguis are yellowish-green, with many inconspicuous small brownish spots. The anterior part of the sac is olive-green, with a slight brownish hue, the superior border green. The trilobular ovary is port-wine coloured, with very small and inconspicuous scattered white hairs.

It rather appears (as M. Enderes kindly informed us), that but one flower opens at once. For men of science that is a characteristic feature; for amateurs it is an interesting fact. We may, however, expect to see one day or another an artistical caricature, bearing perhaps half-a-dozen open flowers at once on the same flower-stalk. Trahit sua quemque voluptas! H. G. Rehb. fil.

DENDROBIUM SUPERBUM ["MACROPHYLLUM"] VELUTINUM.

Petalis valde hastatis, labelli tenuissimis velutinis, mento obtusissimis.

This very pretty variety has been introduced by Messrs. Veitch, who have twice kindly sent us supplies of it, so that these gentlemen would appear to flower it very freely. It is rather different from the old and not uncommon type. The mentum is singularly blunt and large. Both sepals and petals are light rosy purple. The lip bears two large dark violet-purple spots, as also two smaller ones on the base. The very hastate base of the petals is striking. The profusion of hairs on the lip is extremely rich, and gives the effect of some modern hairy winter dress or the natural cover

of an ice-bear. It comes from the Moluccas, and will form a good addition to the already numerous varieties of this fine Dendrobe. H. G. Rehb. fil.

DENDROBIUM SUPERBUM ["MACROPHYLLUM"] HUTTONI.

Perigonio candido, labelli disco ac ungue purpureis

A very striking novelty. The flowers are clear white. The disc of the lip bears two beautiful purplish blotches, and its base is of the same colour. For this beautiful thing we have to thank Messrs. Veitch, who obtained it through their late excellent collector, Mr. Hutton, from the Malayan Archipelago. H. G. Rehb. fil.

AMERICAN POTATOS.

In the spring of the year I received from the Editors of the Gardeners' Chronicle the following Potatos for trial—the Early Rose, Bresee's No. 1, Bresee's Prolific, and Chmax. Through Mr. Shirley Hibberd, I received, from Mr. Bliss, of New York, No. 1, No. 4, the King of the Earlies, No. F, No. 5, and also more tubers of the Early Rose and Bresee's Prolific. The specimens of both lots were very fine. The first lot was planted tolerably early, and the last, which arrived on June 4, was planted June 5, and was dug up October 15.

My opinion of the Early Rose is the same exactly as that expressed by the Editors. I gave a tuber or two to the Rev. Robert Price, Rector of Clui Okesford, to plant. He showed me two tubers taken from one plant, which were the finest kidney Potatos I ever saw, and beautifully shaped. I asked him to dress them, and report to me. He said they were below at the core, and not good. This was the only kidney sent to me. The others were of the line of round. I tasted several times the sorts sent, but they were not good enough for me. With the exception of a few of the Early Rose, which I shall try again, I gave them to "Steevie" to take to the dry enaly son of Rushton, where I think they will be very valuable for cottagers. They had all here the same great fault—they were not dry enough, and their colour was, except the Early Rose, of a dull white. When cooked by steam their flesh was soft and flavourless. Still I admired the Potatos much, and the raisers deserve great credit for the following excellencies—the finest foliage I ever saw (some of the leaves were 6 inches by 5), great croppers, of large size, very handsome, very white in flesh, and very fine in the grain. I never saw finer Potatos than No. 5 and No. F, still, when cooked by steam, they were soft and not good flavoured.

Dryness and firmness, combined with mealiness, are essential to a first-class Potato. The best of all the trial Potatos sent here, for quality and flavour, was Mr. Barron's Perfection. I shall plant it again. It is worth a trial. As the last lot was planted so late as June 5, it is no wonder that some of the tubers were diseased. I received from Mrs. Allen, of Shepton Mallet, the great Callao and Gleeson's Late, probably the same as Zebra. Neither are good enough for me. The last was not ripe till the first week in November, and hence was diseased. I have made up my mind to get rid of all late ripening Potatos, and I advise my readers to do the same. Two parts out of three of the late ripeners have perished already. The national wealth has been robbed to that amount, and domestic comfort has suffered in the same ratio.

The most valuable Potatos in England, so far as I have had experience, are the Royal Ashleaf, Hero, and Taylor's Hybrid. The last is not to be had; but the two former may be procured. The reason why Hero and Taylor's Hybrid are so valuable is, that they are great croppers, of first quality, come out early to escape disasters, and keep till the end of the season. If you keep three Potatos, buy these—Royal Ashleaf, Gryffe Castle, and Hero; they will carry you from June to June. Do not be led away with great croppers, and huge Potatos. There is, I am sorry to see, both as regards fruits and vegetables, a vulgar predilection for something huge or abundant, without the least reference to quality and flavour. You will find Turner's Gem Melon better far than those huge exhibition flavourless Melons!

I said in my last article that the Lapstone is apt to grow out early and supertuberate. Mr. Rivers in his letter complains that his have done so. He has sent for Hero, which he shall have. It ripens here a fortnight, three weeks, and sometimes a month before the Lapstone. Hence its great value. With your eyes closed you would not know it from the Lapstone, from which it was raised.

Till I have tried the Bryanston Kidney, I shall not say more on the subject of Potatos. I have read with pleasure and attention Mr. Dean's article. The difficulty lies here in 120 Potatos, in sorts, were planted at Chiswick, it would hardly be a trial for other soils and situations. I should like to see them tried (and also cooked) in clay soil, brown loam, chalky soil, and sandy soil. I should crown king that Potato which suited most of these conditions for seven years. I have had Hero and Taylor's Hybrid above seven years; and I never knew them go astray at any time. H. G. Radcliffe, Nov. 15.

THE ALOE.

(Abstract of a Paper read before the Scientific Committee of the Royal Horticultural Society.)

In the cultivation of Aloes it is as well to bear in mind that they grow equally well with or without roots. There is scarcely any perceptible difference in the time required for re-establishment, between an Aloe carefully dug out of the ground with all its roots, and a rootless branch that has been broken or chopped off; both are at times liable to damp off or decay at the root.

Aloes are found growing in all kinds of soil,—rich alluvial soil, leaf-mould, red clay, yellow clay, hard

limestone soil, brash soil, sandy soil,—in fact, in its Aloe or Aloes, provided always that it is rocky as far as my observation extends, they do not seem to thrive for any length of time if they are planted in such localities. I attribute the great mortality in garden Aloes to this fact; it is not because the soil is unsuitable, for, as I have before stated, they will grow in almost any description of soil, if it be rocky.

I would therefore advise all who wish to cultivate their plants successfully, in the first place to choose a moderate-sized hole—say, from 1 foot to 3 feet in length, and breadth (according to the size of the men they are intending to plant); fill this hole with rocks, allowing some of them to project above the ground (these should, if possible, be ornamentally shaped); plant the Aloe amongst the rocks, fixing it in an upright position until it is found to stand on its own; then fill up the interstices with soil—any moist good soil will answer the purpose. Do not be too liberal in the supply of water, especially at first, if the soil is moist, the Aloe will require no water at all.

After some time has elapsed, if the plant is to be looking red and unhealthy, its root should be examined, for it may have decayed; and if this is the case it should be taken up again, and the decayed part carefully removed or cut away, until you arrive at the sound and healthy part of the stem. The Aloe should then be placed in the sun for several days (if the men are large and succulent, for several weeks), and hidden before it is again put into the soil. Do not follow that the plant should be watered because it has decayed at the root, for Aloe will plant again and again, even until severely decayed, always taking the same precautionary measures.

Moreover it will be found that Aloes will recover from decay at the heart, or from that portion of the stem from whence spring the young growing leaves. It may be from two causes, viz. water lodging among the too crowded leaves, or the larva of some insect that feeds upon that portion of the plant. In this case the affected should have the greater portion of leaves removed, and the diseased parts cut away; the wound carefully washed and dried, after which will soon be found that the plant will recover, and grow again from the centre or shoot from the side.

Aloes should not be watered often nor at intervals, for the climate of South Africa is extremely variable, and subjected to great vicissitudes; in their wild state they are unaccustomed to a regular supply of water. They endure long periods of severe drought, a burning summer sun, or a strong north wind, and again, at other seasons, are deluged with torrents of rain, for such is the nature of the climate they inhabit; but from the compactness of their leaves and roots, there is no succulent matter enabled to endure these great changes. The Aloe, for in rainy seasons they extend every branch with moisture, and this supply is stored away, to be absorbed by degrees, in the drought and severity, according to the requirements of the plant; and from this store of moisture the blossoms and seeds are frequently supplied with nourishment, which supply is obtained from the succulent leaves of the plant, which then become attenuated.

Aloes should never be pruned or trimmed away whatever. The old leaves which accumulate at the base of the growing stem, and if left to themselves form an oval-shaped mass of grey and hoary-looking foliage, which forms an excellent contrast with the green leaves above, giving the Aloe its peculiar picturesque appearance. Moreover, the removal of this mass of old leaves frequently results in the decay of the plant, which is much to be regretted.

Many of the dwarf species of Aloes are much more rare within the colony than they were, for I am sorry to state that Aloes, like other succulent plants, are fast disappearing within the boundary of the colony. The sheep and goats for this country what the goats did for St. Helena, rapidly altering the nature of its flora and lands, and causing many plants to disappear through their destructive ravages, for in severe winters when there is a scarcity of grass, these animals have the habit of browsing upon succulent plants, and the bitter leaves of the Aloes are eaten with avidity. M. E. Barber. Communicated by Dr. Hooker.

CHURCH DECORATION.

It has been suggested to the country clergyman that he might be assisted in his church decoration by the use of the Holly, which is a native plant, and which may be used in a variety of ways. We applied to Mr. H. G. Rehb. for his taste in church decoration, and he has kindly furnished us with some notes on the subject, and which we shall publish from time to time, and these our long and candid notice to other nations, and anything but to our own people only; for we are convinced that every country should use such plants as they shall think best to the setting forth of their religion, and to the raising of the people to a perfect and gloriously living, with it or without it.

PERHAPS the simplest style of decoration is that with in those village churches where the church is decorated with a garland in the top of the door which divide pew from pew, and sticks in the top of Holly some 6 inches high, with a few red berries on it. The next step in advance is found in the use of small bushy pieces of the partitioning Holly in the ornamentation of the partitioning, and so on, through Arbor-vitae, and other plants, to Camellias, immortelles, exotic Fern fronds, and amazonica, and Passiflora corulea. In the use of all the different kinds of plants

for the same reason commonly laid under tribute, there is one important rule that is not sufficiently attended to generally, and it applies with greater force to churches than to any other places. It is, that the most agreeable general effect occurs where there is the least variety in the flowers, and when the display of foliage is in the proportion of three or four to one of the flowers or fruit. Whenever any combinations are employed the greatest care should be used to avoid vulgar, glaring effects. Soft, subdued tones of colouring should always be the aim of the church decorator.

As to wall decorations, so with designs. In our opinion, a church wall, covered with a museum-like collection of symbolic designs, artfully wrought in flowers and leaves, is not in good taste. A selection of two suitable designs, and their repetition alternately all round the church, will always have a better effect, not to mention the advisability of varying the form of the designs upon different occasions, in preference to the display of them all upon any one occasion.

One of the reasons why church decorations are so often displeasing arises from inattention to the latter part of the Apostolic injunction to the Corinthians, to do everything "decently and in order," or (as another translation renders it) "in a seemly and due order." All large and striking, if they are to be executed "in order," must require a considerable exercise of forethought and judgment. It is too often the case that flowers and other objects are collected almost haphazardly at the last hour, that the workers have neither thought, nor have they been told beforehand what is to be done, and that each does something as his taste or fancy directs, the natural result of which is a medley of ornaments, a display more curious than pleasing.

Another reason is, that there is so frequently no competent person to be found, possessing the ability to design, the influence and social position to direct, and the inclination to undertake the responsibility of superintending, the decoration of a church; for it is useless to attempt to ignore or deny the fact, that *quod homines, sed sententia*—many men, many minds; or, as Cicero still more pointedly puts it, *quod homines, sed causa*. The most pleasing effects invariably proceed from the orderly and systematic workings of many willing hands under the direction of one experienced head, and where any one member of a congregation has displayed such qualifications in the decorations of his or her own rooms, it would be well for the rest to resolve upon giving him or her at least one trial as their acknowledged chief for the occasion, in the decoration of their place of worship, and if he or she succeeds, to retain the chieftainship until a better can be found.

It must have occurred to many as a somewhat curious circumstance that architects rarely if ever make any provision, in their designs for churches, for floral decoration. For instance, at certain distances up the aisles and elsewhere there might easily be arrangements for placing removable octagonal flower-pots, made of the same wood as the pews, and lined with zinc, which might either hold a bouquet of flowers, or a dwarf plant of *Camellia* in bloom, or a pot of some elegant Grass. The same contrivances might be permanently fixed (if ornamentally executed), at the foot of the pillars of the church, and be used for pot-plants of climbers, such as the *Passion-flowers*, *Lapageria*, &c. Again, in the carving which so often surrounds a font, it would be so easy to provide for the occasional insertion of glass or zinc tubes of water, for keeping choice flowers from drooping, as they too frequently do.

Residents in the country who have good gardens, and still more those who are fortunate enough to possess conservatories, might do much for church decoration, by growing plants especially for that purpose. And while no person might care to grow enough of any one plant for the purpose, lest it might make his garden too much like that of a nurseryman, yet by a combination amongst several parishioners to grow each a few of that particular plant, an ample supply of it might be provided upon the special occasion when it was intended to use it. Many, too, who have no greenhouse may nevertheless be able to assist by growing such tender shrubs as *Myrtle*, *Oleander*, &c., which do well in rooms and well lighted halls.

Uniformity in the size of the flower-pots that are used for each kind of plant may seem to be a trifling matter, but is, nevertheless, one that would well repay a little attention to it. Where pot plants are to be used in rows, it looks very badly to see different-sized pots, besides which, uniformity in size of pots is more likely than anything else to ensure uniformity in the size of the plants when fit for use.

As most of the principal festivals of the Church of England occur during the coldest months of the year, it will be advisable to be prepared with some form of "seaman chair" or covered hand-barrow, in which to move the plants to and from the church. This will afford necessary protection, not only against frost, but also against easterly wind, scorching sun, or heavy show or rain, either of which might injure the blooms, if not the foliage, of many a plant.

Plants intended to be used again should not be kept in churches for a longer time than can be helped, for though some will stand changes of temperature without injury, others are much more susceptible on this point.

Gas in churches is likely to be very prejudicial to plants, unless great care be used. Not only must they be kept for as short a time as possible in places where gas is used, but the persons in charge of the gas should be cautioned about the manner in which they light it, for it is a too common practice with such people to turn on all the jets at once by a link at the main, and then to walk leisurely round the church each jet separately, a proceeding which not necessarily all will allow, though perhaps not an excessively dangerous quantity of gas to escape to the discomfort of the congregation and the injury of all flowers and foliage, whether cut or growing. Every gas-burner should be turned on and lighted before the next one is turned on, and where, as in some cases, this cannot be done because several jets are turned on and off by one cock, then two or more persons should be employed to light simultaneously, so as to reduce to a minimum the escape of unconsumed gas. Again, after a service at which gas-lights have been used, it is important to clear out the foul air and the heated products of combustion, before shutting up the church for the night, if the plants are to be left there. Much care is necessary in doing this on a frosty night, or the plants will take as much injury from the cold as they would have done from the impure air. The object to be attained is a free circulation of air without a draught.

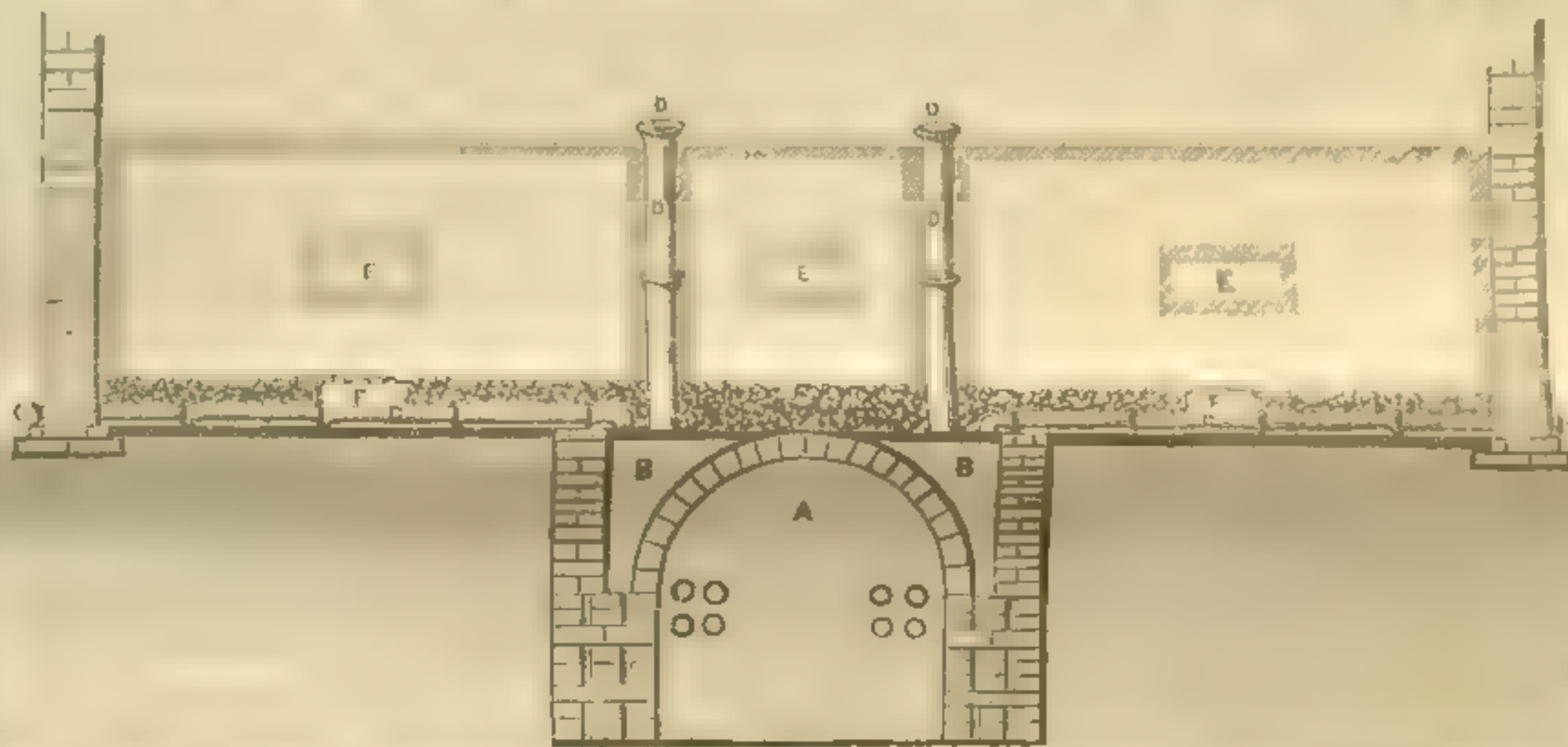
Draughts are equally injurious to plants as they are to human beings who are not used to them. And, as invalids are sure to avoid seats near the entrance, so stove and greenhouse plants should have positions allotted to them where they will be free from such prejudicial influences.

These remarks, although made with reference to growing plants, apply with equal force to cut flowers and evergreens, which, by attention to them, can be made to keep much fresher than would otherwise be the case. *H. T.*

BOTTOM HEAT.

(A Paper read at the Manchester Congress.)

As a nurseryman, I have found bottom-heat to be of the greatest use for all kinds of propagation, not only for stove, but even for hardy plants, a great many cuttings of which cannot be made to root without it. The



best material for producing bottom-heat for this purpose, and for forwarding young plants after they have been potted off is tan. It retains its heating power for a long time, and gives out just such a genial, moist heat as all kinds of young plants, cuttings, and Orchids like. To keep up this genial heat, it is necessary to turn over the beds every six weeks or so, and add a little fresh tan at each turning.

The next best materials to tan are properly prepared dung and leaves, but they require so much management, and the heat is so changeable, that they are only adapted for a few plants, and require the exercise of great care. I now come to bottom-heat for large subjects, and for those growing in borders, such as tropical plants, Vines, &c., and it is in their case, when the heat has not been properly applied, that the abuse of bottom-heat has been seen.

There has been a good deal of controversy lately about growing early Grapes without bottom-heat. Now, I maintain that you cannot strike cuttings of the Vine without it, neither can you grow good early pot Vines without it. Then why should Vines planted out in borders dislike it? My opinion is that they do not, while for forcing Vines year after year, very early, it is positively wanted, otherwise the Vines will wear themselves out. My experience tells me that it is from the want of sufficient water that mischief arises from the use of bottom-heat. I have been a victim from this very cause, for it is scarcely possible to make men of ordinary practice believe the quantity of water that is required to supply a border where there is bottom-heat, and in which the plants are planted out. I now adopt the plan of measuring the water. I maintain that plants indoors, and especially since the heat is greater, require quite as much water as those out-of-doors, therefore, I give them 24 inches per annum, or about 12 gallons to the square foot, giving the greatest quantity when the Vines are in a growing state. I do not say that even this would insure safety with badly applied bottom-heat, such as from hot-water pipes amongst the drainage or in the border. These would be failures, for as regards extremes of heat, cold, and dryness, we should be at the mercy of the stoker and waterer. In applying bottom-heat to borders, it should be perfectly under control, and capable of being conveyed to the roots of

plants at will, and by such a method that the heating medium can be extended by means of any distance. I have paid a good deal of attention to this subject and I think the perfect method of growing early Grapes would be one built after the plan shown. It should have a span of 18 feet or more with walls on the outer walls so as to extend the borders 18 feet from the inside when wanted and also to let out the bottom-heat to the outer border, in fact to extend the roots to any distance. From the centre of the border, a, extending the whole length of the border to the upper part of the border, to let up the heat from the arch as quickly as possible to the chambers to be conveyed into the earthenware or cast-iron distributing pipes, &c., which should be laid quite level otherwise the heat will not be regular. These pipes I recommend to be placed at intervals of 2 feet apart throughout the length of the house, on a concrete bottom, with 12 inches of brick rubbish over them. I have a great opinion of a rating order for forcing plants, in fact, for all kinds of plants, therefore in a house 50 or 60 feet long, I put three pipes on each side of the house D, in communication with the heating chambers, so that in winter air can pass from the inside of the house amongst the roots of the plants, and when the borders are formed, outside provision can be made so that in summer they can be cooled from the outside. I think that with provision like this for bottom heat, air, and water, will stand hard to most of failures in forcing early Grapes. *J. H. Smith, Royal Nurseries, &c.* The publication of this paper has been unavoidably delayed. *L. S.*

SPRING BEDDING PLANTS.—No. I

SPRING bedding can be carried on at a very trifling expense every year, for after having once procured the plants to begin with, there will be but little trouble to perpetuate the stock for future supply. No expensive houses are required to protect them from the frost, all the subjects being hardy, and proof against the various vicissitudes of our fickle climate. There are, besides, many plants of great merit not adapted for bedding purposes in a general way, but which, on account of their beauty, must not be discarded, but a home found for them in the border, where they will be equally attractive. First and foremost among these border plants must be mentioned the Hepaticas, as they are among the first harbingers of spring. There are many varieties, pink, blue, red, and white, both single and double, as well as a very large flowered species from Transylvania called *angulosa*. The only rule necessary to grow these is to plant them in a sunny place, if possible, where they are partially shaded in the summer but not in the winter, and then leave them alone. Follow this rule, and you will have each succeeding year some of the most charming masses imaginable.

The double-flowered Primroses and Polyanthus stand next, as they flower about the same time, and will succeed in a similar situation to the Hepaticas. If any difference is made as to treatment, give them plenty of manure. There is almost every shade of colour to be found among them, and their lively masses of green, studded with large flowers, will amply repay care in their cultivation. There is a Hibernian species, too, of great merit, viz. *Primula concolor*, it is in the way of *P. denticulata*, but much more robust in growth. It throws up in February and March large heads of lavender-coloured flowers, from 9 to 12 inches in height, grows vigorously in the open border, and when once known will surely become a great favourite. *P. cortusoides* is another species adapted for the border; its rose-coloured flowers are produced in great abundance, and, if planted in a damp shady situation, it will continue to bloom at intervals during the whole of the summer. Most of the other Primulas require more care than can be given in the open border; therefore they should be placed upon the rock-work. Before leaving the Primulas I must mention the *Dodecatheon* or American Crayfish, they are very interesting plants and remain in flower a long time. *D. Menziesii* and its variety, and *D. droysii*, are the best.

Dielytra spectabilis is a gem of the first water, but it requires to be planted in a sheltered spot, or its delicate foliage will get injured by the early frosts. For pot culture it is very valuable. *Orobanchium vernum* is a charming leguminous plant; it forms neat bushes of light green foliage, which is smothered with its purple flowers early in the spring; there is a white-flowered variety, as well as a double-flowered form of both, all of which deserve unlimited cultivation. The old-fashioned double yellow and black *Walflowers* demand notice for spring decoration, the best place to plant them is close against a wall, where they will flower much better than in the open border. *Adonis vernalis*, the "Spring Peacock-eye" is another gem for the borders, its large deep yellow flowers—frequently as large as a five-shilling piece—are produced in great abundance. A strong plant in flower is one of the most dazzling objects a garden can possess.

Then there is the charming little *Scilla cupressifolia*, with its yellow disc-like flowers, which lay on the surface like so many Australian sovereigns fresh from the mint. This should not be planted anywhere near

the winter Aconite (*Eranthis hyemalis*). The latter should by no means be left out of any collection of early flowers. Some people say it becomes a nuisance. Why? because they disturb it, and its small roots get scattered about, and come up all over the garden. It wants planting where it will not be disturbed, and it will soon form a luxuriant mass of great beauty. One of my greatest favourites in the spring is *Trillium grandiflorum*, another is *T. pendulum*. Those who have not got them should procure them without delay, plant them in plenty of peat, and let them alone; the *Rhododendron* bed, however, is the place for them, as their foliage will be slightly protected from the wind.

There are a great many others which I could mention, but space will not permit; however, if the borders are well filled with these, and clumps of such things as *Arabis*, *Alyssum*, *Iberis*, *Saxifraga*, *Aubrieta*, *Phlox*, *Silene*, *Saponaria*, *Gentiana*, *Mycosotis*, and many others which are adapted for bedding purposes, a charming picture will be secured. With such a collection no one would ever think of discarding the perennial border for the sake of the fashionable summer bedding plants of the present day.

Let me now leave the borders, and mention a few things suitable for the beds. Edging plants will first occupy attention, and I will endeavour to adhere as much as possible to those that can be permanently used, and are alike suitable for summer or spring bedding. *Arabis alpina* fol. var. and *A. albida* fol. var. are too well known to need any comment, but too much cannot be said of them for general decorative purposes; they are very attractive the whole of the year, but more especially during the winter and spring months. In planting these I should leave a space between the edging and the grass for the introduction of such things as *Scilla bifolia*, *S. sibirica*, and others. The sky-blue flowers of those just mentioned will form a striking contrast with the rich varied foliage of the *Arabis*. *A. lucida* fol. var. is a beautiful plant, but it will not do in this list of permanent edging plants, as it will not thrive in all situations. *Aubrieta purpurea* fol. var. is another useful subject for edging; it is very uniform in growth and very lively in appearance, and groups well with almost every plant that can be used for spring or summer bedding. *Alyssum saxatile compactum* fol. var. is admirably adapted for edging purposes; it is very vigorous in growth and bold in outline, its variegation is very distinct, and in my opinion it is one of the best hardy variegated plants in cultivation. *Ajuga reptans atropurpurea* is a useful variety of the common Bugle, only much more vigorous in growth; it forms a very uniform mass of deep bronzy purple foliage, and it is a very striking object, especially when grouped with plants of a light pleasing foliage, or even with the variegated form of the common *Ajuga*.

Veronica glauca is another very neat and useful perennial, and deserves extensive cultivation. It forms a close compact mass not more than 2 inches in height, and in colour resembles the well-known *Centaurea*. It is very useful for continuous lines, as it requires no trouble to keep it in its place, and has a very pleasing appearance at all times of the year. *Veronica spicata* fol. var. is another of this class, and very similar in character to the preceding; its foliage is of a dark green colour variegated with yellow. *Pyrethrum Parthenium aureum*, the Golden Feather, must not be neglected in a selection of this character; the pleasing colour of its foliage is very attractive during the winter and spring, and it blends harmoniously with the prevailing colours of the spring garden. There are numerous others which might be mentioned for this purpose, such as the *Bellis aucubifolia*, *Trentham Blue*, *White*, *Yellow*, and *Purple Pansies*, *Sempervivum tectorum*, *Sempervivum californicum*, the incrustated kinds of *Saxifragas*, besides a goodly array of bulbous plants.

All of these which I have mentioned, from their dwarf compact growth and perennial habit, can be planted permanently as we do not depend upon their flower, but upon their rich varied foliage, which remains the same throughout the year. They may also be advantageously used for other positions in the beds, besides that of edging. For instance, take a small circular bed and plant close to the turf *Scilla sibirica*, and then *Aubrieta purpurea* fol. var. which will be considered the edging for the second row, use *Ajuga reptans atropurpurea* for the third row, plant *Arabis albida* fol. var. for the fourth row, plant *Pyrethrum Parthenium aureum* filling up the centre with *Mycosotis sylvatica*, with a few Tulips planted between. By this arrangement you will have a permanent bed, attractive the whole of the year. It will be seen that the plants used for edging must depend entirely upon the taste of the cultivator. In my next paper I will give my ideas upon those plants most suited for bedding, with their propagation, dividing them into sections, viz. those of biennial, and those of perennial duration. *A. J. P., Tottenham*

NERINES.

AMONG that class of plants that generally comes under the category of miscellaneous bulbs, there are none more worthy of attention and cultivation than the Nerines. They are eminently plants for the million—firstly, because of the ease with which they can be cultivated, the little attention in the way of greenhouse accommodation and service required; and secondly and mainly, because of the gorgeous character of the flowers, produced in umbellate heads of the most fascinating character. But unlike some of the plants, because they have an additional claim upon our notice, because their flowers do not spring from ungainly foliage, nor have they an awkward habit to provoke an offensive comparison; on the contrary, the bulbs are handsome, the glaucous foliage is during the time of inflorescence about as perfect, from its freshness and lustre, as foliage could be, and the limited

area of pot room necessary for keeping up such a respectable state of things is somewhat remarkable. An 8-inch pot is sufficient to provide the necessary food for eight bulbs, which do not favour the idea of separation, but held on together, Siamese twin-like, and have reciprocal connections for good or evil. These eight bulbs will each produce a scape, and out of the eight scapes are likely to come no less than 160 flowers, or an average of about 20 flowers to each scape. These grand floral umbels will span from 8 to 10 inches in diameter, according to cultivation. The floral envelop or perianth of most of the so-called species of the genus in question is of the most brilliant orange-scarlet conceivable. Some of the sorts, as *Pothergillii*, for instance, are tinted as if with burnished gold, so that the more brilliant the light the more dazzling is the effect, compelling on the part of even the most stolid sightseer the fullest admiration. The scape grows to about double the length of the foliage, so that nothing intervenes to mar this beautiful production of Nature. The brilliant colours are admirably relieved by the forest of stamens with their conspicuous bundles of white anthers which stand stiff and erect projecting from the respective centres of the flowers, thus heightening the beauty of the flowers. This is no exaggerated picture, but a very faint portrayal of this brilliant Amaryllid. And yet its merits are not generally known. How often do we in the course of our peregrinations note many beautiful things conspicuous by their absence, and this is one of them—a plant, forsooth, that would delight the hearts and flower-proclivities of thousands, within the reach of their pockets and establishments, and yet very few take advantage of the privilege of growing it.

The Guernsey Lily (*Nerine sarniensis*) even although the least conspicuous of the batch, is a grand object, hardy in many parts of the country, but hardy or not, available and plastic in the hands of the cultivator for brightening up "the homes" indoors during the dull months of October and November, showing up grandly against the scowling winds and leaden sky that often prevail. Opining that no more reasonable time could be hit upon, I have ventured to solicit the attention of your readers, asking them to make inquiries in their respective districts if such things can be seen—for now the plants should be in the height of their inflorescence—resting well satisfied that their eyes will be feasted, and I, if not publicly thanked, shall be at least gratefully remembered. I know there is a grand sight of the kind at Mr. Rucker's once a year and if he could be induced to transport a few of his specimens to Kensington, and the public be well advertised of the display it would create a *furor* not second in importance to the Orchidomania of days present, or the Tulipomania of days past.

There are half-a-dozen so-called species that I have grown for years, and with the view of bringing them more particularly under the notice of your readers, I will describe in some measure their characters. I am by no means clear that all those which bear specific names are species; in fact, by the canonical law of botanical nomenclature it is quite clear that the majority are only selected varieties differing so infinitesimally in habit, and chiefly in colour, as to justify the position I have assumed respecting them. I should say, *N. flexuosa*, *N. venusta*, *N. Pothergillii*, and *N. cornuca*, are only forms of one and the same species, and must be referred as varieties to the first-named. In truth the family likeness is very great, not only in respect of inflorescence, but also as to habit, habit of plant, and form of flower, which are not essentially diverse from *N. sarniensis* in either of those named above.

N. undulata, sometimes called *Nerine* or *Amaryllis crispata*, is undoubtedly a distinct species. It yields the smallest bulbs of the family, smaller considerably than those of the Jacobian Lily (*Amaryllis formosissima*), and not much larger than those of the *Atamasca* Lily (*Zephyranthes candidissima*). The bulbs are distinct, being clothed with a profusion of bulb-scales and the narrow ligulate or strap-shaped pale green leaves generally precede the flower scapes. The latter reach to a height of 12 inches, and bear numerous flowers, whose perianth segments are of a wavy or undulating outline, as its cognomen indicates, and of a soft flesh tint. It is much the smallest and least showy of the family, but, nevertheless, a distinct and beautiful object, flowering a month or two later than the *venusta* section.

N. sarniensis is a species having bulbs not much unlike a James' Keeping Onion, covered with brown scales. The foliage of this is handsome, from its shining viridescence, and the flower scapes will grow from 24 to 30 inches, bearing quantities of pale salmon-coloured flowers, the segments of the perianth being recurved at the extremity.

N. cornuca possesses by far the strongest constitution in the family, for the bulbs grow so exuberantly as to dispense with their scaly coating. The scales in the family I am describing are formed by the bases of the annual decaying leaves that envelop the bulb, but so powerful is the constitution of the variety in question that when it dispenses with its annual complement of leaves it retains the rudimentary bases in perfect health, and thus swells much faster into bulk of bulb. The flower scapes are strong, but the number of flowers is not proportionately increased. Individually they are of larger dimensions than in any other sort, but 20 seems to be about the maximum attainable, the colour is a brilliant orange-scarlet, as if the outcome of a fusion between the intensely bright *flexuosa* and the pale *sarniensis*. The reproductive parts of the flower are longer, and look, in comparison with the others, as if too far away from home to present the elegance of their compeers. The foliage is broad, oblong, entire, vigorous, light, and arching, hence sometimes the name of *curvifolia* is ascribed to it, but it is a synonym. Another variety bearing the name of *cornuca*, or rather

of *cornuca major* (for vendors have seldom any more varieties to offer), is tinted with a totally different constitution, but it is, nevertheless, a most distinct variety, evidently several removes off *sarniensis*, being largely over the other hue, and generally coming later into bloom than its more gigantic relations, so much reserved at the extremities, and the whole making altogether a handsome though by no means so showy an umbel.

N. flexuosa has very finely finished bulbs, perfect in outline, and enveloped in a transparent sheath, which is large enough to envelop the bulb, and is so tautened up, to use a nautical phrase, as to appear to be artistically dealt with. The leaves are of a less dark green, and less glaucous, than those described above, and the scapes, as a rule, are in proportion than any of the other sorts. The flowers are composed of a perianth of the most magnificent colouring, being of the most vivid crimson, tinted slightly with orange, immensely attractive, not gaudy, and when in perfection of inflorescence point of form quite the *beau ideal* of a selected Garden bouquet.

N. venusta has bulbs very much like those of *flexuosa* and seems to be a selected seedling of that variety, blended, however, in part of foliage and inflorescence with *Pothergillii*. It is exceedingly early, being among the first to flower. It is an immense border, extending laterally even more than other sorts, although it is the shyest bloomer of the lot. It never throws a scape so tall as other sorts, and may be looked upon as the most elegant of the orange-scarlet varieties.

N. Pothergillii has bulbs in point of form not unlike a fusion of *Hippocrepis* and *flexuosa*. James' Keeping Onion, surrounded with some faintly scarlet. The leaves are scarcely so broad as *flexuosa*, but they are of a beautiful gaudy hue, unlike the rest of the family, and the same tint also envelopes the flower scapes. The umbels present the most perfect outline of the family, the segments of the perianth of each individual being markedly recurved, indeed this is a characteristic of the family. The flowers are of a very pleasing color, the veins, orange-red shade being tinted with burnished gold. This is certainly the most elegant of the group, and grows with the greatest freedom in a mild atmosphere, with minimum amount of shade.

As to the rationale of culture, simplicity is the order of the day. As hinted above, the plants are but hardy, and therefore only sufficient frost to keep out frost is needed. If propagation sixteen blossoming period be desired, a little fire heat to increase house to an intermediate temperature will do very well. A dry, rather than a moist, and a less desirable food for the plants, the beauty of the inflorescence. When the resting period is over, leaf-formation and consolidation must be attended to, in order to ensure a future vigorous growth. Watering must take place until the roots are well advanced that the leaves may not suffer from signs of decay. Then let water be gradually withheld, and see that the bulbs get what is called a "resting" in the sun. Don't breed them, but after they are matured or even when they are young, unless the water pot be used judiciously, the flowers and growth of these bulbs do not winter and spring, and they rest during the portion of the year, and can be stowed in any cool corner at command. A slight watering during the resting period is attended with good effect, but a systematic watering would be decidedly injurious. Far better not to look at them for four months in summer and early autumn, than to force them out of season by injudicious watering. The soil, pot the bulbs as soon as they have done flowering, and keep them in under cover rather than over pots to induce premature inflorescence. Any soil that will grow *Polargonium*, or *Proserpinaca*, whereon fibre is largely incorporated, will grow to perfection.

Home Correspondence.

Deodar—I have observed with surprise Mr. Frost's recommendation in the last *Gardener's Chronicle* the Deodar as a timber tree. "The Deodar," he says, "should now be planted extensively, it is a really grower, and there cannot be a doubt about the utility of the timber." Speaking by the letter, I should be very much disposed to say the same, but in a contrary sense to what he means. The fact is, that a question remains exactly where it was when the Deodar came to be introduced, as to its value as timber. Additional information as has been obtained since its introduction, has not gone to confirm these opinions. But the Deodar, a though tolerably abundant in the country now, has in very few places been planted for timber, and I have heard of no place where it has not yet elapsed to test the endurance of the wood. We are still, therefore, without material to answer the very pertinent inquiry of your correspondent, to whom Mr. Frost replies, and as I think his answer will do harm by misleading those who trust to his experience and well-known skill, I hope you will permit me to enter a caveat against it. The knowledge that those who take an interest in the subject not only entertain hopes of the timber but include the belief that it is inferior, may induce your correspondent to make further inquiry before acting on Mr. Frost's advice. I am only speaking of the quality of the timber, I do not dispute the beauty of the tree, although here it scarcely comes up to its reputation. It is

beauty is in its youth. When older, the Cedar of Lebanon, to my taste, is far finer. Its habit of growth is now well known to be that of the Poplar, and any one who plants it with a view to posterity must look at it by that light, and not by the grace and elegance of its youth. *A M*—The controversy respecting the quality of the timber of the Deodar Cedar, referred to in your last number, was on this wise. At that time a large quantity of seed was imported, and land-owners were urged to plant it largely, on account of the value of its timber. I wrote a letter to the *Gardeners' Chronicle*, expressing a doubt as to whether it were desirable to do this before the quality of the timber, as grown in England, was proved, instancing the different quality of the wood of the Cedar of Lebanon, as grown in its native mountains and in England, and the very various qualities of timber produced in different countries by the Scotch Fir. I was not successful in convincing some of your readers that it required proof in this country, until Dr. Hooker was so kind as to support my view by some much stronger instances of the different qualities of the same tree, when grown under different circumstances, taken from his own experience in India. This was the end of the correspondence on the subject. I am now glad to learn from Mr. Frost that the Deodar is promising to produce valuable timber in England, and I should be very much obliged to Mr. Frost or any other of your correspondents who have experience in the matter, if they would state what are the particular qualities of the timber which the Deodar produces in England, and also what are the differences between the timber (at similar ages) of the Deodar, the Cedar of Lebanon, and the Mount Atlas Cedar, of the three the last appears to be the hardest in constitution, and the Deodar the least so. So far as I have been able to learn, this is so in Yorkshire. It would be very interesting to learn what the comparative value of the timber produced by the three is in places where they all three thrive equally well. *C. W. Strickland*

Fairy Rings.—I remember reading last year in the *Hereford Times* an article of Mr. Lees' on Fungi, but I do not remember that he then advanced the theory of the gyrations of the mole as the cause of the Fairy Rings, although it seems that he does so now. In growing Mushrooms artificially, they generally grow in clusters, and it is customary with some to cut them off with a knife. This is a bad practice, as it causes the roots to rot in the soil, and of course no more Mushrooms will grow there. Instead of cutting them off they should be pulled off by the hand, by which means the roots and top will come out together, leaving a hole in the bed. This hole should be filled with fresh soil, and pressed hard, and Mushrooms will grow again in the same spot. Now, a Fairy Ring commences by a cluster of Fungi in one spot. Why is it that it extends outwards the following year? Simply because the *pabulum* is used up, and the mycelium or spawn extends outwards in search of food for a fresh ring. Mr. Lees' theory is quite opposed to the growth of Fungi, for the furrows made by the gyrations of the mole loosen the soil, and make it quite unfit for the spawn to run in. The best Fairy Rings I ever saw were in strong Warwickshire clay, where the turf was as hard as the turnpike road. I imagine that if, when a Fairy Ring is in full growth, a piece of it, say 15 inches long and broad, was cut out with the spade to a moderate depth, filled in with fresh soil and trodden hard, the spawn would run in this and spoil the ring. Further, I believe that, by digging out the soil, a certain width inside the ring all round, and replacing with fresh soil, trod hard, you could induce the ring to grow inwards as well as outwards, and by following this up bring back the ring to where it originated. I should like to hear what others have to say on this hitherto knotty subject. *W. Hutchison, Moyndu House, Abernavenny.*

Vine Roots.—I should feel greatly obliged if any of your correspondents who are sufficiently versed in the root and branch action of the Vine, and are perfectly conversant with its adaptability to circumstances, could say from whence comes the copious flow of sap that ascends so rapidly in its branches, as a prelude to growth? *J. R.*

Grafting the Grape Vine.—If any of your correspondents who may be interested in this mode of propagation of the Vine, were to look into the *Transactions of the Horticultural Society of London*, they would find an article written, say 14 years ago, on the cuneiform mode of grafting the Vine. I have frequently practised this method successfully, and believe that it can be adopted more usefully than any other system of grafting or so-called budding. The stock as well as the scion should be ripe wood of one year's growth. An eye at the apex of the stock is allowed to grow till it is 2 inches in length. That of the scion should be kept dormant till the time of grafting. To proceed with the operation, the stock should be cleft about 2½ or 3 inches down, paring and tapering off the insides of this cleft with the utmost precision, so that it may splice exactly with the corresponding taper of the scion, but taking care not to have too closely to the base of the shoot at the top of the stock. The scion must then be inserted, and bound moderately firm with a ligature in the usual manner. The incised part should next be covered with soft clay, and the whole, excepting the shoot and the eye of the scion, should be covered with Sphagnum, which must be kept moist. When the shoot at the top of the stock has grown 10 inches, its top should be pinched off, in order that in this condition it may render more effective service to the scion, and as soon as the eye of the latter begins to push, the shoot referred to can be completely cut off. It then follows, if this simple process has been perfectly performed and cared for, that the eye will break boldly, exhibiting the embryo cluster, which in process of time will be developed into a perfect bunch; thus not only proving the

merits of a variety when desirable in one season, but also obtaining a strong cane 15 or 20 feet in length. I have not read the article referred to on this subject, but with these facts before us there seems but narrow space left for wrangling as to priority in budding the Grape Vine. *John Reid, Haigh Hall Gardens.* [The budding of the Vine, as practised by Mr. Stevens, is quite different from all the modes of inserting ripened buds on the stock which have been alluded to, and which are neither more nor less than bud-grafting. The budding process which has excited this discussion consists in taking the bud from the fully developed but still leafy shoot towards autumn, paring it off with the bark and the thinnest possible layer of wood, and inserting this in the stock exactly as in budding Peaches, and differing from Rose-budding only in the non-removal of wood cut with the bud. The bud, thus inserted, forms an union with the stock, but remains dormant till spring, when it starts into growth—exactly as in ordinary budding. *Eds.*]

The Weather in Scotland.—On Martinmas term morning (Nov. 11) I found the minimum thermometer registering out-of-doors, 4 feet above the ground, 15°, with several inches of snow lying on the ground. On the morning of the 10th it had fallen to 28°, with a rising barometer and a somewhat murky atmosphere. Snow fell uninterruptedly for five hours in Lanarkshire, which, as it sometimes does, intensified the cold to the degree recorded above. To find the same parallel of cold I require to look back over regularly recorded temperatures—which, by the way, are as accurately taken as by most other observers—to March 21, 1867. Then the minimum was 14°, and on the 16th of the same month it was 12°. Since that date we have had no severe frosts in Scotland generally. Taking the present month with the view of establishing a fairer parallel of cold, I find that we must go back to 1866, when on the 10th, 19th, and 20th, the following minima are respectively recorded: 19°, 16°, 17°, while if we take the mornings of the 11th, in 1866, 1867, 1868, and 1869, they show the respective minima of 31°, 42°, 24°, and 15°. Hence it will be observed that during last night we had 17° of frost. It would appear, after all, that the influence of the Gulf Stream is not all-potent in rescuing us, at least, from sudden variations of temperature. *J. A.*

Farnham Castle Orchids.—In answer to Professor Reichenbach's query in your last Number respecting *Catasetum saccatum*, I am sorry to say it died soon after flowering in 1853. It was imported, together with many new and interesting species of Orchids, from a savage locality near the head waters of the Marañon, in 1852, by Warszewicz. The cases were six months in reaching the port of embarkation, and upon their arrival in this country the contents were in an indescribable state of rotteness and confusion, consequently many fine things were lost. None of the living plants have changed owners since, that I am aware of, so that they are extremely rare and valuable. I presume the collectors are approaching the same locality from the Peruvian side of the continent, if so, we may expect many novelties. *Brassia Lawrenceana* var. *longissima* is now in bloom here. The lateral sepals measure 10½ inches in length, and from their extremity to the tip of the dorsal one is no less than 16 inches. The plant was Mr. Buller's, and is the same from which the figure in the "Botanical Magazine" was taken. *Cypripedium caudatum* has tails 28 inches in length, and attracts everyone's attention from its quaint and curious appearance. I grow this species in the cool house, but its variety roseum requires more heat. There is also in bloom here a very fine variety of *Cattleya maxima*; the bulbs are about 2 feet high, and the flower-spike is a foot in diameter, with nine fine flowers. The same plant has produced in former years as many as 13 flowers on a single spike, and is certainly a grand species. *J. W. Lawrence, Gr., Farnham Castle.*

Picea Pinsapo.—I fully concur with Mr. Miller's opinion as to the desirability of clearing up so important a matter as far as may be practicable; consequently I have made a re-investigation of the soil in which the *Picea* is growing, but with little material result, excepting that it was found to be in a medium state as to moisture; also that I have subsequently learnt that many years prior to the introduction of this Conifer here, a considerable quantity of other kinds of earth was added to the ground surrounding the spot in which the tree in question is growing, for the purpose of extending the carriage drive, to which the tree is in close proximity; consequently, there may be, as Mr. Miller observes, something of a pernicious character lurking in this foreign addition, such as bits of decayed wood, old roots, &c., either of which would be liable to foster Fungi, and prove mischievous to the roots of the *Picea*. That the healthy roots of trees, and of Conifers especially, are susceptible to Fungus influence, I think it would be a work of supererogation to prove, inasmuch as there are innumerable instances on record of the baneful effects of planting trees on sites where the old roots of pre-existing trees have not been grubbed up; and, if necessary, I could instance two cases in particular at present existent in this neighbourhood, both being Deodar Cedars. See also what "M. J. B." has lately stated in your columns respecting the influence of Fungus spawn, both on the shoots and roots of Conifers, &c. (p. 1181.) In conclusion, allow me to add that I have recently searched amongst some of the roots of the Tulip tree, referred to by me at the same time with the *P. Pinsapo*, but failed to discover anything to lead to the supposition that anything other than the pestilent parasite was the cause of the decay; unless it arose primarily from the roots having come in contact with something pernicious in the soil, when I find it arranged as follows—Top-soil, about 12 inches deep, on a thin layer of red sand, under which is a formation of an obdurate dry, argillaceous marl, into which

the roots do not appear to have penetrated far, but the majority of the roots, both healthy and decayed, appear to ramify in the top soil, chiefly within a dozen yards of the Tulip tree. There is growing under similar conditions a fine and healthy *Sequoia sempervirens*, upwards of 30 feet high, and it exhibits as yet no evidences of ill-health. *Wm. Gardner, The Gardens, Eaton Park, Nov 15*

Arabis or Aubrietia.—The writer of your "Calendar of Operations," referring to the effective arrangement of some flower-beds on the grassy banks of the Round Tower at Windsor, speaks of the employment of a purple *Arabis*. He would much oblige a "Lover of Spring Flowers" by giving the specific name of this very effective *Arabis*. Such a plant has long been sought for by growers of spring flowers, and its acquisition would be hailed with no inconsiderable pleasure. An *Arabis* called *purpurea*, and subsequently "rosea," was sent out a few years since, but its tint of rose is of the slightest. *Arabis blepharophylla* *superba* is really a rose-coloured *Arabis*. Has the general who marshals the flowers on the Castle bank (Peace, perturbed shade of Sir Geoffrey Wyattville!) secured a large stock of this novelty? and is this the *Arabis* referred to? or has your talented writer mistaken *Aubrietia græca*, or *purpurea*, for an *Arabis*? In either or any case, information is sought for by a *Lover of Spring Flowers*

Judging Melons at Edinburgh.—I have to thank Mr. Thomson for having thus far enlightened me on the subject of Melon judging at Edinburgh. I am not aware that the method of judging was either a success or a failure. And certainly the numbers who exhibited on the occasion referred to (many of whom are dissatisfied) can blame the committee of management for adopting a system of judging one season, and changing it the next. Whether right or wrong not to cut the fruit does not seem to be so much the complaint, as cutting them at one show, and leaving them uncut at another. It had been known that colour and smell were to have been the standard of perfection, I believe a very different-looking lot of fruit would have appeared on that exhibition table. It is the exhibitors to whom the greatest amount of credit is due for such fine displays of horticultural skill, and they have a right to be treated with common justice. Surely it is right that they should know what is expected of them. I have heard many of the leading horticulturists in England express themselves freely on the matter, but I never heard one say a word in favour of the method by which the merits of the Melons referred to were decided. It is generally acknowledged that better men as judges could not have been found, but that is no reason why their system of judging should be kept a mystery from supporters of the exhibition. The advertising of the judges was a step in the right direction, and I observe in a contemporary this week some able remarks on the subject. Mr. Thomson's remarks on "dram and pipe" I should suppose are correct, but I, providentially, having avoided both as dangerous companions, cannot make any suggestion on the matter, further than that those who judge should have none of their senses impaired. *J. O.*

Foreign Correspondence.

HORTICULTURE AT CANNES.—The only garden at Cannes which I had time to visit was that of the Duc de Vallombrosa, situated towards the western extremity of the town. The grounds are bounded on one side by the steep rocky bank of a stream, which in time of rain may be copious enough, but which is usually a scanty and ill-favoured rill flowing in a broad stony bed. On entering from the main road by a handsome lodge, a fine broad walk conducts through a tucket of Olive, Acacia and Eucalyptus along a gentle ascent in the direction of the mansion: among these trees, and partially sheltered, by them are some noble specimens of *Musa Ensete*, producing a fine effect with the other vegetation. Diverging to the left is a small collection of Orange trees, near which I must not omit to notice a bower or tent composed of woody climbers, of which *Hexacentris coccinea*, an *Acanthad* from Nepal, just now in full flower, is the most remarkable. Each flower, when pressed, exudes two or three drops of water, having a pure, non-saccharine taste. Near this arbour are specimens of *Musa Cavendishii*, one of which had a few fruits in a half-ripe condition. Here, too, as in many other parts of the grounds, were some noble plants of *Aralia papyrifera*, throwing out great diverging flower-stems, also *Bambusa arundinæa*, which I had not before seen in outdoor cultivation, but which was developing its beauty in a promising manner. Other species of *Bambusa*, tucketed as *B. nana*, *B. laourasi* and *B. lutescens*, are remarkably fine in the neighbourhood of some *jets d'eau*, which the garden is so fortunate as to possess. This reminds me to observe that water—that indispensable condition for vigorous vegetation on this coast—is plentiful in the beautiful grounds of this chateau, entering them at so great an elevation that even the highest terraces obtain a supply.

Near one of the *jets d'eau* of which I have spoken is a specimen of *Eucalyptus globulus*, which M. Opoix, the intelligent *jardinier en chef*, assured me was a seedling of 1863, and which is now a fine tree at least 40 feet in height. There are many other examples in the gardens of this country of the extremely rapid and vigorous growth of this *Eucalyptus*, which is a most valuable addition to the native vegetation, since it supports the drought of summer without suffering. But though it will grow in many situations it develops itself most rapidly in a good, deep, well-drained soil, with a fair allowance of moisture, and some preliminary shelter from other trees. Towering up out of the rounded masses of Olive, it has an admirable effect, which is not a little enhanced by the agreeable rufous tint of its bark. Several other species of this genus in

set apart for the purpose, and, being gaily decorated, had a very cheerful appearance. The proceedings commenced with a dinner at six o'clock, and later on in the evening tea was served. A considerable portion of the time was occupied with vocal and instrumental music by those employed on the establishment. The principals, with members of their families, were present the whole of the evening. The company separated at ten o'clock, highly gratified with the social intercourse enjoyed. Reading Paper.

Coal Plants.—The aspect of the abundant fossil known as Calamites was very different from that of the other plants associated with it, and of any tree in our forests; but it exhibited at that early period of the earth's history the form and appearance of one of our humble marsh plants, the Equisetum, or Horsetail. It had a tall, slender, smooth stem, marked on the lower naked portion with rings of pits from which branches had fallen. The branches were given off at intervals in rings or whorls, and these again branched and re-branched in the same way. The leaves were needle or wedge-shaped, and arranged also in whorls. The fruit was borne at the ends of the branches, and agreed in the most minute particulars with those of the Horsetail. World of Wonders.

Heliotropes as Conservatory Climbers.—In the summer of 1867 I found a plant of *H. peruvianum* had taken possession of a corner in a Peach pit; it grew at a surprising rate all through the summer and winter, and furnished an immense supply of cut flowers. This plant had been accidentally raised from seed, or some small cutting had been inserted between the stonework and soil in the pit. Every gardener knows the value of Heliotrope flowers, both for colour and perfume, in mixed bouquets or for decorative purposes. The plant is now a large bush, and might have been 3 or 4 feet in height had it not been cut in so much for the flowers. Where room can be spared for it, there is no plant that I know of more worthy than the Heliotrope of being planted out either as a climber or bush in the greenhouse or conservatory. The surprising growth and beauty of the plant is never seen when grown in a pot, and when planted out in the open air the winter settles its pretensions before it arrives at any great size. William Tillery, in "Florist and Pomologist."

Obituary.

AT Sydenham Nursery, Kelso, on the 11th inst., Mr. HENRY TAIT, for 36 years nurseryman and seedsman in that town.

Garden Operations.

(For the ensuing week.)

PLANT HOUSES.

IN connection with plant culture there is a simple practice, which is generally of far greater importance than to most casual observers would seem possible. I refer to the necessity which exists of periodically turning round such plants as are grown in old lean-to and other structures, so that what little sun there is may be advantageously used to the benefit of all sides of the plants alike. Such facts are well known by those who grow the best of our showy New Holland plants into fine specimens, but are often entirely overlooked by less pretentious cultivators. Again, soft-wooded plants and such as are very succulent, form much finer plants in far less time when turned round, say once a week, than others which are left to take care of themselves. Thoughtful and observant cultivators are aware how very much simply shifting a pot plant from one place to another is conducive to drying the ball. Here, then, is a fact confirmatory of the above remark, to say nothing of the good accruing to each plant by a uniform exposure of all its upper parts. If we have the means—and they are within our reach as above shown—of causing the roots to require fresh water a little oftener than is their wont at this dull humid period, we have a powerful incentive to a good onward growth, and should make the most of it. These facts are particularly useful in regard to *Cinerarias*, *Primulas*, and the like, when in full growth. *Poinsettias* are now showing the young bracts, and according to the treatment they receive so in proportion will be their fineness. A nice amount of bottom-heat, and a little weak guano-water applied to the roots will greatly assist them, and should by all means be afforded if possible, together with frequent dampings over-head with a syringe or fine-rosed water-pot.

FORCING HOUSES.

Early forced Vines, whether grown in pots, boxes, or otherwise—such, in fact, as were started late in September, or during the first week of October—should, if proper attention has been paid them, now be pushing into growth. Great care will therefore be necessary not to let the temperature by night exceed a moderate and safe maximum. More harm is likely to accrue to them through inattention to this matter than from most other causes. It is perhaps needless for me to observe, that whilst the heat should never be permitted to fall below temperate (55°), both in regard to Vines and all other subjects which are assuming the young leaf at this period, yet a few degrees above it may be safely admissible. I would therefore fix 58° as being the nearest approach, at such a juncture, to a safe and necessary mean. By day some 12° or 14° rise may be permitted safely by artificial means alone, with a moderate supply of fresh air, with a further increase of 8° to 10° should bright sunshine diffuse its warmth. I repeat, that additional moisture, both directly to the roots, and indirectly in the form of moist vapour for the surface growth, must be afforded constantly in conformity with the rise of the temperature. Gently start the second early Vineries (doubtless the first with some), acting upon the same safe old principles during cold weather. Begin with an artificial tem-

perature of 46° by night, with an increase of 4° or 5° when the external weather is mild and less forced. I have before alluded to the great advantage of having a heap of fermenting materials placed in the house at the starting time; the moderate amount of warm steam which is constantly and uniformly given off tends greatly to soften the canes, which greatly helps them in pushing the buds, or in "breaking," as the operation is styled in gardening phraseology. Independently of what I have already said in regard to outside Vine borders, it may be well to suggest that that of the third house should have a thorough good covering of protecting materials placed upon it to keep out frost. Various means will suggest themselves, such as bracken Fern, which is one of the best materials for the purpose when attainable. In respect to the early Peach and Nectarine-houses, which I intimated last week might be started by this time, I may state that, as regards the temperature proper, from 15° to 17° will be a good mean, as an artificial night temperature, with a day one of from 50° to 52°. I also suggested last week the desirability of once damping the young wood, to induce a more ready activity in the buds. Push forward the necessary preparation of the later houses, keep them scrupulously clean, as it is upon a very strict application of this simple practice that freedom from a variety of evils is assured some few months hence. Prepare some pits or frames in which to plant successional beds of *Asparagus* for forcing. Let all the materials be as firm as possible at the time of planting, and especially is it necessary that the soil should be firmly pressed around each root when the crowns are planted in the beds. Place a few pots of *Tarragon* into a forcing-house or other similar structure, that a supply of young growths may be obtained when that which is now in use is finished. It seems somewhat early to suggest the putting in heat of a box or two of *Mint*; but I may here state suggestively that fine lambs, by the hundred, already exist in this neighbourhood (Herts).

HARDY FLOWER GARDEN

If there is one season of the year when our old favourite flower, the *Auricula*, needs more attention than at another, it is during the present and the next two or three months. Remove every form of decay from around the stems, and indeed from the frame or pit containing them, immediately it is discernible, and keep everything about them as fresh and sweet as is possible. Abundance of air should always be freely admitted on proper occasions, consistently with safety from frosts severe enough to harm them. *Hardy Annuals*, which were sown some weeks since, such as *Nemophylas*, *Limnanthes*, and other varieties, somewhat succulent, in their nature, should now be nicely thinned out, otherwise fluctuations in the weather will cause them, when grown too thickly, to rot or damp off, and thereby cause vacant or patchy places in the beds. Sometimes good show varieties of *Polyanthuses* grown in pots push up flower-spikes irregularly at this season. In all such instances the buds should be taken carefully out of the hearts while yet in the embryo state, and before they have made much growth, otherwise, if left to develop themselves, they prevent the plants from making a full and fine display in the early spring. Where alterations of any form are in contemplation in this department, they may be freely entered on now, during mild and convenient periods, as trees and grass, &c, may be removed with perfect immunity from risks of any sort.

HARDY FRUIT GARDEN.

I need add little under this heading to my suggestions of last week. Do not, however, delay longer the placing of a moderate mulching of manure over the roots of all recently planted trees, including those which were transplanted in exposed situations last autumn; as it is more than probable that many of the young roots exist very near the surface. Those who meditate taking dwarf pyramidal fruit trees up this season, for the purpose of pruning their roots, may likewise choose the first favourable opportunity for so doing. In all cases where this is done, attend to the proper staking of them as a protection against high winds, even if it be but to steady them against a slight oscillation only, as much injury may be done to the roots near to the collar of the trees.

KITCHEN GARDEN.

Appearances at the time of writing seem to foretell a somewhat rainy period; hence it may not be possible to do much upon the ground in this department. There is ample work, however, to fetch up in the matter of digging vacant spaces in the manner described last week. As soon as the green foliage can be safely removed from *Seakale*, there may be a few pots placed over some of the crowns, and fermenting materials added, so that a nice gentle warmth be insured at the first, increasing in slight gradations until a fair maximum of from 90° to 95° is insured; this in view of forcing the stools so operated on for a supply at an early date. The same remarks apply equally to *Rhubarb*, where it is intended to force it in the open ground. W. E.

TOWN GARDENING.

THOSE plants that have been stored away in frames should now be looked over. All the dead leaves should be at once removed, and the plants will be much benefited if the soil is stirred a little, and the pots turned round. At all times when the weather is fine the lights should be taken off, but when it is wet, foggy, or windy they should be kept on, and should be slightly tilted at the apex. Should the weather turn frosty, cover the frames up with mats, loose litter, &c. The *Helleborus niger*, or Christmas Rose, a useful and pleasing flower for town gardens, will flower freely if covered with a hand-glass, which should be at once placed over it, and be slightly tilted. Another plant which flowers about the same time, and is, moreover, sweet-scented, is the *Tussilago fragrans*, which likewise requires a little similar protection to flower

it well. The flowers of these two plants, or a few sprigs of Holly, make a nice Christmas bouquet. As flowers suitable for the decoration of vestibules, &c., are now scarce, such places may be enlivened by a few nice bushy evergreens in pots, mixed with plants of *Solanum Capsicastrum*, &c., *Capsicum*, and *Acacia lophantha*. These plants, by a very pleasing display at this season, and their indoor confinement in winter very well, and if they are taken out and syringed occasionally when done with, they are planted out in the garden they soon recover their strength and vigour. The planting-out of *Hyacinths*, *Tulips*, &c., as directed at p. 1116, is completed, and satisfactory will be the display in spring.

STATE OF THE WEATHER AT CHISWICK, GREAT BRITAIN

Table with columns: Moon's Age, BAROMETER (Max, Min), TEMPERATURE (Of the Air: Max, Min, Mean; Of the Earth: 1 foot, 2 feet, 3 feet, 4 feet, 5 feet, 6 feet, 7 feet, 8 feet, 9 feet, 10 feet, 11 feet, 12 feet). Rows for Nov 11-17 and Average.

STATE OF THE WEATHER AT CHISWICK

Table with columns: Day, Average Highest Temp., Average Lowest Temp., Mean Temp., No. of Years in which it rained, Greatest Quantity of Rain, Prevailing Wind. Rows for November 1-7.

Notices to Correspondents.

ARIZONIA STELLERIANA S. & G. This is a herb... We are not aware by whom or when it was introduced... BROWN RUST... CONIFERS: Mr Woolley is thanked for his specimen... DRESSING CHRYSANTHEMUM BLOOMS... FUSCUS H.C. Your Fungus reached us uncoloured... GLOXINIAS... MULET... NAMES OF FRUITS... NAMES OF PLANTS... RABBITS BARKING TREES... THE STUBBARD APPLE... TROTMAN'S GAS STOVE... COMMUNICATIONS RECEIVED... M.—T. H. & Son, Southill.—J. J. H.—T. C. B.—A. piator.—D. W.—P. G.—Amateur.—G. B.

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BIRMINGHAM CATTLE and POULTRY SHOW. THE TWENTY-FIRST GREAT ANNUAL EXHIBITION OF CATTLE SHEEP AND DOMESTIC POULTRY...

CENTRAL CHAMBER of AGRICULTURE. The GENERAL BUSINESS COMMITTEE will meet at the Chamber on Wednesday, December 2, at 10 o'clock...

The Agricultural Gazette. SATURDAY, NOVEMBER 20, 1869.

MEETINGS FOR THE TWO FOLLOWING WEEKS. Nov. 22 Institution of Surveyors, 12, Great George Street, West...

THE annual report of experience on a sewage farm which has now for some years appeared with reference to the Lodge Farm, Barking, has just been published. The farm has for the last two years been under the direction of the Hon. HENRY W. PETRE...

The change in public opinion which we thus foresee, will be due in no small degree to the simple, lucid, unpretentious way in which...

every autumn Mr. PETRE has stated the results of his own management. For the full details we refer the reader to his pamphlet.

We may, however, mention here that 7 acres have yielded 1800 tons of Grass in 1869—that the Grass has been found serviceable, not only as cow food, but for fattening cattle and for stable use...

During the year 300,000 tons of sewage have been sufficient to render highly productive 120 acres of the Lodge Farm. Of this quantity 53 acres have been in Rye-grass, bearing an average of 100 crops in that time...

Mr. PETRE is not singular in the regret which he expresses in the last sentence of his pamphlet, that "the means of rendering many thousand acres (much in need of it) in the highest degree productive, should be still running to waste into the Thames...

THE subject of excessive game preservation was discussed the other day before the Leicester Chamber of Agriculture, who resolved, upon the motion of Mr. FORSTER...

That the over-preservation of ground game is fraught with much mischief; seriously tends to diminish the profits of the occupier of the soil, tends to increase crime in the rural districts...

Most of these propositions were strenuously disputed and denied by Lord BERNERS; but his lordship's amendment, to the effect that the subject was not one for legislation, and must be left to mutual arrangement between landlord and tenant, was not accepted by the meeting.

He (Lord BERNERS) was opposed to the over-preservation of game; but he never was called upon to pay a single penny for damage. Game was one of the most certain rents they could have. If he did not want his shooting, instantly a man would give him 100l. for the partridge shooting in September...

Notes for the Year Ending 1869. Upon the Sewage Cultivation of Lodge Farm, Barking, by the Hon. Henry W. Petre. Llangosta Water, &c. Exchange.

turned on to a piece of Swedes, and remarked at the time that the tenant would come at Christmas, and say, 'See how the Swedes have been eaten by the game.' (Cries of 'Oh, oh' and a voice, 'It's false.') He was telling them a fact. He would tell them another case: A man came to him and said the game was doing a great deal of mischief. He said, 'Will you show it me?' and they went into a field next the stackyard, and found the Swedes very much bitten. He (Lord BERNERS) turned round and said, 'Just look here you tell me the hares have eaten these; there is scarcely a Turnip-top but what rats have been at; you have not killed the rats. There were tracks all across a 6 or 7-acre field, and the rats had done it. He said 'If you will take me to the cover side where there are 100 or 500 hares, and show me 5s. worth of damage done, I will pay it you.' He took him round the farm, and said, 'Now show me 5s. worth of damage,' and he (the tenant) said he could not. He asked the man why he had not taken up his Swedes, and he replied that they were caught by the frost or he should have done so. He could not point out any damage. He (Lord BERNERS) simply said, what he began with, that the question should be one of agreement between landlord and tenant. On an estate of a deceased baronet who was passionately fond of sporting there was a farm nearly adjoining his house, the land of which was miserably bad, and the tenants had hardly cultivated it, and at one time did not cultivate it at all—it was all given up to game. That was what the landlord chose to do with it. The landlord could do just as he liked with his own, and he gave up that to game and took no rent, but let his own sheep run across the land. He wished on all occasions that people should look on that question fairly."

THE question as to drainage, whether 3 feet is an efficient or a sufficient depth at which to lay the channel through which the otherwise stagnant water of the soil and subsoil is to press its way out of the field, and thus establish that current within their substance on which fertility in so many ways depends,—this question seems not to have excited much interest of late among our correspondents. Raised by a memorandum from Mr. C. PAGE, of Ruddington Grange, Nottingham, and since referred to by one or two, we had hoped that before winter drainage should have commenced we might have known from men in all parts of the country what the experience in various soils has been of 30 inches, 3 feet, 4 feet drainage. It is still not too late for such a record of experience to be immediately serviceable, and we venture again to recommend the subject as one to which our correspondents might most usefully address themselves.

Looking at the subject from the standpoint whence water is regarded not as a nuisance, poisoner, choker, but a feeder, fertiliser, deepener of the soil, we prefer the deeper drain; but experience as to the good influence, and even the sufficiency of the shallower, is worth recording, and we shall be glad to receive it. Meanwhile, for those of our readers who are disposed to take the latter view—biased, perhaps, by the impression that by drainage they ought to seek the cheapest way of getting rid of water—let us state the case once more, employing for the purpose the words of our excellent correspondent, Mr. D. T. FISHER, which he used the other day in a most suggestive speech before the Lavenham Farmers' Club:—

"You look upon water as a thing to be got rid of in the easiest manner. For year after year you allowed it to water-log your land until it was licked up by the sun, or dismissed into the nearest ditch. By deep and thorough drainage the land is converted into a sieve. The rain-water falls upon the earth freighted with carbonic acid gas and ammonia. It is robbed of the valuable essence in its passage, and dismissed from your deep drains pure. More than this, every drop of water exerts a cleaving force on the land. It splits the ground into fragments, and thus forms a fine and friable tilth. Besides, where water goes air can follow, and the passage of water and presence of air bring the heat of the sun with them, and thus the rough drainage quickens the earth with warmth and enters it with gases at the same time. Then why should these soil-forming processes be arrested at a depth of 6 or 8 inches from the surface? To look into the bottom of your furrows, one would suppose that you farmers were all devoted worshippers of the god Pan—not, indeed, the poetical deity of the shepherds, but that most impenetrable crust which is found at the bottom of your fields. Years ago, gardeners sent their sharp spades through this barrier, and thus increased the depth and productive power of the earth. Other conditions of climate and quality being the same, the productive power of the soil is in the direct ratio of its mass. There is not one of you that does not want more land for yourselves or your

sons. I will tell you how to get it without any increase of rent or taxes—go deeper down for it. Steam has familiarised us with the term horsepower. Now I wish to apply a similar mode of reckoning to the land. Its power of production can be measured by its depth in inches. By examining your tilths we can tell whether your farm is a 4, 6, 8, 10, 12, 14, 16, or 18-inch power farm. Every inch you add to your depth you gain 100 tons per acre of working force. By mucking this deep tilth, such results as Mr. MEECH has brought before us may readily be reached, and the average produce of the nation be raised from 37. or 47. to 207. per acre."

— AT Mark Lane and throughout the country the price of Wheat has declined—home-grown 1s., and foreign 2s. per quarter. The quotations now show that at Mark Lane even, where the most inferior samples are not sent, prices for this year's growth have dropped to 38s. or below 5s. per bushel. Ordinary Barley is 1s. per qr. cheaper, Oats a trifle dearer, other feeding-stuff at last week's prices.—With the large supply of 4,583 beasts, on Monday at the Metropolitan Market, there was a good demand for all the prime qualities, and the high price of 5s. 8d. per stone was maintained. Sheep, were in brisk demand, at 5s. 10d. per stone for best kinds. These prices were obtained on Thursday.—The agricultural seed trade, with the exception of a speculative demand for White Clover seed, is in a very quiet state.—English wool still stands at previous low prices.

— We receive the following from Mr. C. S. READ, M.P., just as we go to press. It relates to a subject mooted some weeks ago by a correspondent—'If I remember aright, a correspondent of the *Agricultural Gazette* a few weeks since asked for information on the best mode of preventing hillocks of sea sand from blowing. I hoped that some one better qualified than I am to offer advice would have answered the question, but as no one has spoken, I will give the result of my small experience. Plant the hills over with large patches of the Seamat weed or Sedge (*Arundo arenaria*); it will spread its lateral roots quickly, and do much to stop the sand from moving. Anywhere on the west coast of England or in Ireland, Grass will in a short time spring up with the Sedge, and when the Grass produces a sward, the Sedge, having done its mission, will presently die out. Rabbits must be exterminated, as they should be everywhere else, save in warrens. Their continual scratching exposes the fresh sand to the action of the wind, and effectually prevents the Sedge from growing."

— An important meeting on the Transit of Cattle, a subject to which the interest and interference of Miss BURDETT COURTIS have of late largely contributed to direct public attention, was held last week at Peterborough. After a very instructive and energetic address by Mr. WALLER, Secretary of the Home Cattle Defence Association, the following resolutions were adopted by the Chamber of Agriculture:—

"1. That after careful consideration of the inquiries upon which their views have been asked by the Privy Council, they are of opinion that their suggestions should be confined to the simple question—'How a sufficient supply of food and water may be provided for all animals carried by railway in Great Britain?'

"2. That they consider themselves precluded from offering any suggestions with reference to the inland transit of foreign animals, holding as they do more strongly than ever the view that all foreign animals should be slaughtered at the port of landing.

"3. That it will be advisable in any future legislation to compel railway companies to improve the construction of their trucks for the transit of cattle, and to make them liable for damages for unnecessary delay arising in the transit of cattle."

— The following letter, referring incidentally to the seeding of Mangel plants, a subject which was dismissed last week, is nevertheless published because of the very striking testimony which it contains to the serviceableness of town sewage as the best possible manure for succulent growth. Dry and solid manure is more likely to promote the early running of a biennial plant to seed, than a manure dissolved in water, which tends to develop leaf and bulb. Mr. MORGAN, in treating of the Metropolitan Sewage Company, writes as follows from Lodge Farm, Barking:—'I observe in last Saturday's *Agricultural Gazette*, that Messrs. SUTTON'S Mangel seeds had grown fine roots, and that the crop had not run. Our experience on 4 acres of Mangels, under irrigation—half being sown with seed from Messrs. SUTTON, and the other half with seed from Messrs. CARTER—agrees with the observation made by Mr. ANDREWS. The crop was a very good one—a very even one—the land being well covered and the roots close, and the number of runners was very small, if compared with crops on other farms. I wish, however, to add for your information, that the same seed, *i.e.*, similarly procured, put into the land on a different part of the farm, which had farmyard manure, and which was not under sewage irrigation, did produce runners in average numbers. I think our experience rather confirms the belief that has been previously expressed, namely, that if the root is kept moist it does not run. The same seed planted in the lands at the Creek so sewage presented a like satisfactory appearance, and the contrast which it presented to the crop of Sugar-Beet which grew alongside it, and which threw up a perfect forest of heads, was very marked. In contrasting the two crops of Mangels to which I have referred, I must give you the weight of each crop. That taken off the land under sewage (4 acres 1 rood 12 poles, weighed 201 tons. That taken off the other land (10 acres), which had received a dressing of about 20 loads of dung, weighed 200 tons.

The whole crop was passed over the wheel and a correct account kept. The result from Long Red Mangel seed (the crop being Yellow Globe) in between 2 roods 6 poles, has given us 15 tons of roots, aided by sewage dressings. The nearest neighbours both put land under the purpose of growing Mangel so; and I hear from one of them that he has tons an acre, and that he is perfectly satisfied. The other, I believe, claims to have a greater yield in part. The arrangement made with the gentlemen was that they should pay a price for the crop, and that dressings should be put on as seemed needed. The price per acre was fixed (as an experiment) at 47. an acre. We gave them good dressings, and when their land is better dressed with less sewage than that which they received for them better crops."

OUR LIVE STOCK.

MR. STRAFFORD has advertised the pedigree Shorthorns at Shobnall Grange for sale. They have been long and carefully bred by its present owner, J. Meakin, and represents some of the most valuable strains of blood. The 40 animals composing the stock offered to the public on the 15th of next month.

— That serious changes are pending in the subject of animal food is evident to every one who has even no great difficulty, in preserving meat for an indefinite length of time, and now that the scientific and commercial speculators have begun to put their ingenuity to the test, no great time can elapse before their ingenuity will begin to show itself. These changes are due to the very spirited account recently given by Professor Gamgee before the Midland Farmers' Association. The Professor has been engaged during the last year in working out a problem, which may be considered as finally settled. He is now about to prove that meat can be kept moist and sweet from all taint by inexpensive means. It is his intention here to fully describe Prof. Gamgee's process. It consists in causing sulphurous acid gas and oxide to act upon carcases of animals in chambers. The air is removed by a pump from containing the meat, and carbonic oxide is subsequently a certain amount of sulphurous acid added, which completes the operation. About 1000 Professor Gamgee, consignments of meat are now reaching us regularly from America. He also takes an apparatus can be provided for about 2000, which 500 sheep could be cured daily. When in connection with the above statements the facilities for the transport of living cattle in trade of this country may well be looked upon as in a transition state. Professor Gamgee says that the meat of a quality which would be considered in the metropolitan market might be sold in Export prices varying from 4d. to 5d. per lb. Such a result, if realised, would exert a modifying influence on agriculture; nevertheless, we concur in the view of Mr. Masfen said in the discussion following Prof. Gamgee's remarks, that any feasible suggestion would enable the poor to obtain a larger amount heretofore of good substantial food should be met with delight.

— The Hampshire Down sheep, according to E. P. Squairey, originated from the crossing of the Wiltshire horned sheep, and the old Berkshire with the Southdowns which were introduced into Wiltshire and Hampshire early in the present century. These crosses were made with varying success, owing on the instinctive capacity of the farmer to select proper animals for the purpose. From 1840 to 1850 the Hampshire Downs of North Hants and the South Wilts were, owing to the different character which constituted a good sheep, totally different in character. The Wiltshire sheep was larger and less handsome, and not so uniform with respect to colour as those of Hampshire, and a ewe with a face and ears was not necessarily drafted, provided she was possessed of other good points. To Mr. HAZEL of Oak Ash, near Newbury, is due, in a great measure, the present character and position of the Hampshire Down sheep. This agriculturist effected the improvement by careful crossing with the largest and best-fleshed of the Babraham Southdown flock. This was applied with wonderful ability, and at a great cost at length resulted in the present perfect animal. An old Hampshire type is still well represented in flocks of Mr. F. Budd, Messrs. Parker, Barking, and others.

ON FIXITY OF TENURE v. TENANT-RIGHT.

Now, when our crops have been gathered in, and harvest homes celebrated, and farmers have had an opportunity to attend agricultural meetings and talk over their affairs, it seems a favourable opportunity to open again the question of the security enjoyed by the tenant-farmer, or claimed in his behalf, and to canvass the possibility by legislation or otherwise of encouraging him to improve his holding, while at the same time abridging the right of the owner, what he likes with his own property. It is a subject that the Irishman should earnestly consider in the coming winter, as if there were no ground to be procured on this side of the Channel. And it seems to us that the principle of sance for the goose being applicable in the matter, that any remedial measure applicable to the tenant might be useful also to us. In approaching the subject of what is called tenant-right here or fixity of tenure in Ireland, let us first consider what are the differences that exist between the different countries.

ploughs, when the handle is once set no guidance is needed, and so four furrows were thrown simultaneously without a hand being put to the plough. Arrived at the end of the field, it turned with far greater ease than horses could do, and ploughed its way back again up a hill with inclines of 1 in 12. The ploughs were set as deep as possible, and the work done was quite first-rate. The contrast between the road-steamer and the plough-horses was most remarkable. Whilst three horses were painfully struggling along with one double-furrow plough through the exceedingly hard, dry, stiff soil, it was drawing its two double-furrow ploughs with such facility that it was evident there was an immense supply of power to spare, and that it could have taken another couple of double furrow-ploughs behind it; indeed, the furnace-door had to be kept open the whole time. The road-steamer, too, was quite free from the dilemmas to which horses are liable, such as getting their feet entangled in the chains, &c., and when occasionally it accelerated its speed a little too much, a single "Woa!" would bring it to a stand. It ran in front of the ploughs on the unploughed ground, thus avoiding all possibility of compressing or poaching the soil after it had been turned up. The road-steamer ploughed its allotted portion without meeting with a single difficulty or impediment of any kind, and when it was led away all who had witnessed its performance declared that its behaviour was perfect, and that it could at once be put to practical work. It promises to be of incalculable advantage to farmers, as it will enable them to dispense almost entirely with horses, since it can fetch its own fuel and water, and can be employed in ploughing, reaping, and mowing, in carrying manure, and taking produce to market. Great gratification was expressed by all present, and a brilliant future predicted for the road-steamer.

THE CONSEQUENCES OF INTRODUCING MONGREL BLOOD.

ALTHOUGH good animals are, as I have shown, produced by pure breeds, I by no means deny that individual specimens of equal, or even occasionally of superior excellence, may be found among crosses. Thus if cows of any good Scotch breed are crossed with a Shorthorn bull, the off-spring usually unite the hardihood and fine grained meat of the dam with the size and early maturity of the sire. Steers of this character would probably be worth more per lb. than pure Shorthorns, and be heavier than pure Scots of the same age. Mr. Darwin appears to consider increased vigour to be the general result of crossing two distinct breeds of domestic animals. This is probably part of the law which makes the union of near affinities injurious, when continued too long. While even a slight change of blood is beneficial, a complete cross appears, from the facts collected by Mr. Darwin, to have the effect of imparting peculiar vigour to the offspring. The success of a first cross is indeed proverbial, and where circumstances are favourable there is no better mode of producing animals for the butcher than the union of two distinct breeds. When, however, you ask, "Does it follow because an animal has a splendid lineage he is necessarily better than one less favoured in this particular?" I reply, that as an animal for the consumer, it is by no means a necessary consequence. We have seen cross-bred oxen take the medal at our great fat shows against all the pure breeds. The celebrated Durham ox himself was a son of Favourite, from a cow without a pedigree. But suppose that the half-bred steer, which has won the Gold Medal at Islington or Birmingham had been a bull, what would have been his value? As a breeding animal, absolutely nil. If there be any one point on which all breeders of reputation may be considered unanimous, it is that of never using a mongrel sire. Common sense indeed points out that, where we are uncertain of the antecedent parentage of an animal, we cannot place the same reliance upon the uniformity of his progeny as we can on that of one whom we know that for many generations back his ancestors have all belonged to one race. The liability to "breed back," as it is popularly termed, is a universally recognised fact, but it was reserved for Mr. Darwin fully to investigate this intricate subject, and to throw a light upon the laws which regulate "reversion," which must eventually expand our knowledge far beyond its present limits. By elaborate and accurate experiments, both with pigeons and with poultry, Mr. Darwin has conclusively shown that the result of crossing two pure breeds is "to give an impulse towards reversion, as shown by the reappearance of long-lost characters. The proof lies in certain peculiarities, which do not characterise the immediate parents, and therefore cannot have been derived from them, frequently appearing in the offspring of two breeds when crossed, which peculiarities never appear, or appear with extreme rarity in these same breeds, as long as they are precluded from crossing." My limits will not permit me to attempt even an abridgment of the mass of evidence on which Mr. Darwin's important discovery rests. I refer my readers, therefore, to chapters 6 and 7 in the first volume of the work from which I have quoted, where Mr. Darwin relates his experiments in breeding pigeons and poultry, and then to chapter 13 in the second volume, where he recapitulates his views on the subject of inheritance, and more particularly of reversion. The general result of crossing certain breeds of poultry and of pigeons was to produce in the mongrel offspring certain characters which do not belong to the parents on either side, but which appear to have been derived from the wild species from which they originally descended. A similar effect is also shown sometimes to follow the crossing of sheep. The

liability of black lambs to occur even in the best bred Leicester and Southdown flocks is well known, and, along with other evidence, points to the probability that the earliest sheep were brown or black. The following instance of reversion, given by Mr. Darwin, is curious—"The Rev. W. D. Fox was informed that seven white Southdown ewes were put to a so-called Spanish ram, which had two small black spots in his side, and they produced 13 lambs, all perfectly black. Mr. F. believes that this ram belonged to a breed which he himself kept, and which is always spotted with black and white; and he finds that Leicester sheep crossed by rams of this breed always produce black lambs. He has gone on recrossing those crossed sheep with pure white Leicesters during three successive generations, but always with the same result. Mr. F. was also told by the friend from whom the spotted breed was procured, that he likewise had gone on for six or seven generations crossing with white sheep, but still black lambs were invariably produced."

Here another principle evidently was at work, viz., "prepotency," as Mr. Darwin terms the stronger influence of one breed over another on the offspring; and I am inclined to estimate the prepotency of aboriginal or early breeds more highly than he does. When prepotency appears to characterise more recent breeds, such as Leicester sheep and Shorthorn cattle, which undoubtedly have swallowed up a large proportion of rival races, this may be caused by the persistent use of near affinities, which has impressed upon them a unity of character not easily to be attained by more miscellaneous breeding. When we see, however, how persistent is the latent force of primeval character, it is to be hoped that all who desire to improve their herds will perceive the danger of using mongrel sires. The risk is not an imaginary one, for at local shows prizes are not unfrequently given to animals of whose pedigree all that is known is the name of the sire. Nay, I have never known a case in which a prize for breeding stock was given to a heifer which had been purchased at a market, and whose pedigree was utterly unknown. She might have combined the blood of Scotch, Hereford, Welsh, Shorthorn, Loughorn, and countless other breeds. The injury which may accrue to a herd from the introduction of impure blood, can scarcely be over-estimated. So far from the official sanction of prizes being awarded to such mongrels, every influence ought to be brought to bear to induce farmers to secure for their herds sires of pure pedigree. Although they are becoming more alive to the value of blood than formerly, still a considerable proportion of farmers deem it a mere fancy. If it were otherwise, we should hardly see well-bred bulls sold below their store value so frequently as is now the case. Take, for example, the recent sale at the Prebendal Farm, when the bulls, chiefly of Knightley blood, went for prices quite disproportioned to those made by their dams. Thus, one yearling, whose dam was sold for 120 gs., only made 24 gs. And I remember at the Birmingham sale last spring seeing a very nice young bull of the Princess family, for which not even a bid was made. On the whole, I am still of opinion that benefit would arise from placing the pedigrees of breeding animals before the judges, as one of the elements for enabling them to arrive at a sound decision respecting their merits. *Willoughby Wood, Holly Bank, Nov. 12.*

Home Correspondence.

Steam Cultivation Charges.—My letter at p. 1193, when speaking of the horses kept to work the heavy land just bought, should read thus. "Five horses have always been kept to work the heavy arable land." "G. A. H." was in a great hurry to give me another wip with his stick, in fact, has "fallen foul" of me by giving me a second blow before I could get upon my legs to defend myself. At p. 1141 he charged me with having "fallen foul of another opponent," whereas it was Mr. Greig and Mr. Teopffer who "fell foul" of the roundabout tackle at Peterborough, and I stood up to defend it, yet for all that I was to be thrashed. Well, never mind, his blows do not hurt me; and I take it that the back-handed blow at you, about the 1s. 6d. an acre for wear and tear, did not fret you. My letter (p. 1193) has done all that is necessary for me to do upon the eighteen penny question; therefore, I will follow "G. A. H." to Tiptree, where, "if Mr. Mechi did anything so utterly contrary to honest accounts, I warrant Woolston would be down upon Tiptree with a vengeance." Now, I have never been "down upon Tiptree with a vengeance;" for all I have done has been merely to show up Mr. Mechi's own figures; and all the good "G. A. H." is now doing, to his friend Mr. Mechi, is to keep the raw place open. I will not fret about his reference to "depreciation," for you all know that I have never concealed that or any other point upon the question of steam cultivation, and if my advice to the farmer is blind advice, it is what I am practising myself, in buying it very profitable. Although my occupation was only 112 acres arable, and is only 163 acres now, I am not deceived about the cost of my seed-beds, nor am I wrong about the bit after Mangels, although it stands at only 2s. per acre. People on the spot who see never express a doubt, and when "G. A. H." falls upon me about the change of engine, he gets no ground, for I have long since told you that, 11 years ago, I gave my first 7-horse engine and 100l. for the engine I now use, and it is in capital trim, although it has done no end of threshing and grinding as well as my ploughing; and its cost in repairs during the whole period has not been so much as it would cost to shoe 10 horses during the same period, and he is vastly wrong when he says thus—"How much does he suppose he will lose on it when in two

or three years' time he replaces it with a more active?" I will not lose money in that way, I will keep my good old engine that I can depend upon in any weather and at any work, that has served me faithfully for 11 years, and will for 11 years more, doubt. Anthe is also vastly wrong when he says "bring out my ploughing apparatus," for I have done a bit of that work, neither will I, for I have demned the practice from the start. At 1s. 6d. that work must be done at the right time, and at the loss "interest of money, depreciation," and all else out of the question to make a man a traction-engine man. Here he is upon his high horse, him ride it, and I will leave him and Mr. Biddell on with their millering. Mr. Biddell is right upon that point. But I must have a word about his "hen scratching." The system of regular way of charging such work has been done each horse 2s. 6d. per day, the man 2s., and the boy 6d. each. They do 6 or 8 acres a day, therefore the price comes out at 2s. per acre. Now let us take the dead fallow that I have just paid for, and taking these figures as our mode of calculation, three quarters of an acre as a day's work, and an acre a day the last two days, and thus find out the cost per acre.

One ploughing, 4 horses, a man and a boy, 1 acre per day	1s. 6d.
Two ploughings, at an acre a day, 4 horses, a man and a boy—two days	3s. 0d.
Two cultivatings, at 2s. per acre each time	4s. 0d.
Half a year's rent and taxes	10s. 0d.

I paid that and get no produce. Woolston calls that hen scratching? It is not my Mangel land, scratched over at a good price, is, and well, too. It is of no use for hard horse-trodden work, that may be done on an acre, with mine: for he does not take into account the beautiful condition the previous year's roots had left it for me to work upon. Mr. Bignell tells him all about it. Mr. Bignell's neighbour, sees for himself, and tells you there is a wide contrast between the two. There is a wide contrast between the two, and his neighbour, Mr. H. Biddell, who gives credit for intentional truthfulness, writes (p. 1171) that he did not believe his neighbours. "G. A. H." will learn a lesson. *William Smith, Woolston, Bucks, Nov. 13.*

Woolston Steam Ploughing.—I observe Mr. Smith adopts your explanation of the 1s. 6d. for interest and wear and tear, in which it means 8 acres daily, at 1s. 6d., or 128 acres in 100 days of ploughing in each year. Now, if ploughing at 8 acres per day, would run up 100 days, but if a farm be worked on the usual system without bare fallows, the actual ploughing is but three-fourths of that unit rotation, for only every year in grass-seeds and Clover. Each acre, then, of actual plough represents justly a rotation, but every farm has some waste on some small portion in permanent Grass, and we safely assume that 1067 acres under rotation of a farm of at least 1100 acres. So then it is, that in order to carry out the Woolston steam "smashing," at Mr. Smith's estimate, a man must have a farm of 1100 acres. Now, a wonderful discovery Mr. Smith has made, "smashing" on the Woolston roundabout, actually will pay on a farm of 1100 acres, however, be misled; this is not what Mr. Smith to prove, or rather to insinuate, and though I p. 1192) I am not to be frightened by the mode of defence, and I have too keen a sense drawn off by a red-herring drawn across the question is this: Mr. Smith declares that the power, and the partial assistance of horse and Woolston "actually made a seed-bed for the cost of 6s. 8d. per acre." I assert that his own figures prove his declaration to be a foundation; that he is, in fact, as I said, "deceiving himself, and, in deceiving him, deceiving the public." He tells me that year he never ploughed a much as 100 acres, and yet he has the hardihood to assert that an acre, which on "less" than 100 acres would be "less" than 7l. 10s. per annum, is enough interest and wear and tear upon a set of machinery costing 375l.,—that is to say, 1s. 7s. 6d. per cent. per annum for interest and wear. The little question of "depreciation" he veniently ignores, and goes on to talk of keeping six horses. But what have we to do with Woolston? We are not talking about the cost of ploughing, but we are not even comparing the cost by steam with the "actual cost" of making a seed-bed by horse-power, we are simply inquiring the power at Woolston, which Mr. Smith has "actually made" for 6s. 8d. per acre, but which distinctly prove by his own figures he has not am quite willing to admit that if he had 1100 acres, and was able to plough 800 acres with his present tackle, he might have done so, has not got 1100 acres, and he has not ploughed in the year. What I complain of in Mr. Smith he endeavours to persuade small farmers to buy 100 acres to plough every year, that is, to them to purchase "for their own use only" steam tackle, and that when they have done so, seed-bed for Wheat will only cost them 1s. 6d. an acre. That is what I declare to be a fallacy is a

* "Variation of Domestic Animals," Vol. II, p. 39.

immediately begin and go on in the heap, I find it better to suffer this, and apply it in a rotten state to the crops, especially to those kinds that are rapid in their growth, and come early to maturity. Turnips and Potatoes grow a better crop with short than with long dung. A braird of the former is sometimes got by using well-rotted dung, where it fails with that unfermented and recently made. Most kinds of crops thrive best when the land is dunged just before sowing. Beans are, perhaps, an exception. I think that though the land is dunged in November or December previous, and allowed to lie in that seemingly careless state—spread on the surface and exposed to all sorts of weather till ploughed in spring at sowing time—the crop turns out as good as the more recently manured portions. With Turnips and other green crops it turns out quite different. It certainly saves labour at a very busy season, by dunging in autumn and winter; but they never do so well as putting it in the drill before sowing, and allowing exposure in the heap drill as short a time as possible.

Mr. JAMES M'LAREN, Spittal, said—I at one time had an opportunity, under favourable circumstances, of testing whether liquid manure of good quality would pay the expense of pumping and carting; but I, like most others, after three years' trial, gave it up as an unprofitable speculation. When liquid can be made available over meadows by natural gravitation, there can be no doubt of its utility; but when this cannot be done, I have found it profitable to retain the liquid and return it back over the manure-heap frequently, or allow the liquid to pass slowly over a tank or large ditch, occasionally coated over thinly with any waste substances, such as dried wreck or weeds, Potato tops, or peat moss, &c. I have for years collected several hundred tons of good Turnip manure from the last mentioned plan.

Mr. J. FINLAYSON, Penbreich—The enlargement of the manure heap on the farm is most important, and whatever can be got off weeds, gathered off the land, sawdust, or the like, should be collected and spread amongst it; for, though these may be almost valueless apart and in themselves, all of them, and many things else beside, become valuable manures when mixed together and decomposed. It would be an immense saving, on dry field farms especially, if the strawyards were roofed in, as, where there is such dependence generally placed on the breeding and rearing of stock, all the straw requires to be used for fodder; but, as matters stand, a little of the above-mentioned ingredients, or such-like, spread under the cattle occasionally, will help to keep them dry, and augment the manure-heap. I believe that sawdust is very much under ban as a manure, but having used it so long as bedding for my feeding cattle and milch cow sheds, I find that it absorbs a great deal of the surplus liquid in the byres, and becomes, when mixed in the dunghill and decomposed, an excellent fertiliser for Potato, Turnip, and cereal crops, and although I have not experienced it, I believe it will be more so for clay land.

Mr. CHARLES WINGATE, Corntown, said—It appears that lime and animal and vegetable substances have been applied to land for many ages, without any definite knowledge higher than the experience of repeated application producing similar results; but chemistry has to some extent dispelled our ignorance, by disclosing the component parts of animal, vegetable, and mineral substances. We are told that vegetables have carbonic acid, water, and ammonia as their chief aliment, in combination with certain mineral substances, as these are found in plants—namely, lime, potash, soda, magnesia, silica, sulphates, and phosphates; and as these are taken from the soil, the quantity requisite for the growth and health of plants becomes exhausted, or so much reduced that means are resorted to, to supply the waste, and bring the various substances immediately essential within the reach of the roots of the grain and Grass plants destined to provide food for man and beast; that carbonic acid and ammonia, through the agency of the sun, are decomposed and assimilated by plants; that potash is essential for cultivated plants, and is supplied to a large extent from decayed Clover and Turnips, that soda, which is usually in union with potash, is found in the dunghill, that sulphur is found in all plants, and phosphoric acid is essential to their healthy growth; hence the increased and increasing demand for various sulphates and phosphates now so familiar in commerce. The sulphates of magnesia and lime are useful in the production of Turnips and Potatoes, and lime is held as the only reliable substance for the cure of "finger-and-toe" in Turnips; that nitrates and salts of ammonia also increase the growth of cultivated plants when accompanied with the suitable mineral substances already alluded to. Lime decomposes all vegetable matter in the soil, and corrects acidity in the organic matter, that it assists in the decomposition of certain salts whose bases form the food of plants—in fact, it is an excellent solvent when applied in proper quantity and at the proper time. In regard to farmyard manure, this seems, from every account, to be the most important of manures to the farmer, as it contains all the elements upon which plants live. The richer the food is of the stock kept, the richer will the manure be. The loss sustained by the soil owing to the withdrawal to market of grain, hay, and dairy produce, can only be supplied timeously by artificial manures, which are happily so well understood. Farmyard manure is required for the nourishment of Potatoes and also of Beans, and it is of the utmost importance in the production of Clovers and Grasses. The question, however, before us is, what is the best mode of preparing this manure? It may be difficult to decide it, as seasons and places may be so unlike each other. However, there is one mode which is recommended; it is, that the liquids should be allowed to flow from the stables or byres into tanks or pits

placed 3 or 4 feet below the level of the ground, the solids being placed on the top, so as to admit of their absorbing the gases as they escape from the ground.

DORCHESTER.

Agricultural Cottages.—The following is an abridgement of a paper on this subject read by Mr. HOMER, of Martinstown, at a past meeting of this club, to which we have not hitherto given publication. He said—The subject I have to bring before the club this evening for discussion is cottage accommodation on farms, and the way in which the cottage system affects generally the employer and employed. In the first place I will look at the present state of the cottages in general in the agricultural parishes, which I consider insufficient to meet the wants of a growing population. Take, for instance, the census from 1851 to 1861, and you will find that there has been no increase in many parishes, and it is solely attributable, in my opinion, to the want of houses to live in, and many good labourers are under the necessity of taking houses or lodgings in the nearest town, where they have to pay a high rent, and walk miles to their work. Many do this during the summer months, when work is plentiful; but in the winter, when work is short, they are driven to the greatest extremities. I know it has been said that by building more cottages in your parish the population would increase, and the poor's rate would increase also; but this would be so very trifling under the present system of union rating that I do not think this argument holds good, the union being assessed alike for the maintenance of the poor.

We will now look at the present state of some of the cottages, and the improvements we think necessary to be made. For some years past, upon many of the large estates in our county, these improvements have been carried out, by building new cottages of a more commodious and better description, adding greatly to the comfort of the poor. Still there is a great deal more that ought to be done, as in many cases the old cottages have but one bedroom, and in the majority only two, and, where the families are large, both sexes are obliged to sleep in the same bedroom, which is a great evil. Every cottage should have three bedrooms, and all other appliances for decency, which would improve very much the morals and health of the labouring classes. There is another improvement I think would greatly add to the comfort of old people after they are receiving parish pay. At present these old people must either receive out-door relief and live with their children or friends or go to the union workhouse. The former they always prefer, if possible, as they term the latter a prison, the man and his wife being separated after having lived perhaps 10 or 20 years together. Still these old people are adding to the family, the houses being generally in a crowded state before. In this case I will suggest a plan, which I think, if carried out, would add greatly to their comfort, and that is, to build small cottages of two rooms on the same floor, one for a sitting and the other a bedroom, with small offices attached and a little garden, and call them charity or alms houses, the overseers of the parish to have the sole control of them, to put deserving old people in, rent-free, for their lives.

We will now come to our subject—viz, on cottage accommodation on farms. In many cases there are sufficient for the use of the farm; in many others only two or three are allowed for the carters and shepherds, and I know a few cases when even these are withheld. For some years past many of our landed proprietors thought it expedient for the good of the farm labourer to take the cottages (with the exception of the two or three before-named) and let them at a low rent to the labourers, so that the men should be independent of any particular master, and get his work at the best market. I will give these gentlemen full credit for their philanthropy, but I think I shall be able to prove that the labourer has not been benefited by the change.

We will now consider whether it is an advantage for men to hire their cottages, or to have them rent-free, found by the employers. Take first the man that hires his cottage, and depends for his work at the best market, and make a calculation of his earnings. The first six months from Lady-day to Michaelmas, I calculate (if a good workman) 12s. per week; from Michaelmas to Lady-day, 9s.; making an average of 10s. 6d. per week for the year. He will have to pay at least 2s. per week for Louse rent, fuel, and rates, leaving 8s. 6d. per week for his maintenance. This I believe to be up to the general average of wages for out-door labourers, as there will be several weeks lost by bad weather and other things, and not always certain of getting work. Take another instance of a man renting his house. This man may hire himself for a year as a general labourer at 10s. per week; 20s. and his liquor extra for harvest. This man will have to pay his rent and rates, and also to buy fuel, which will leave him barely with 9s. per week. This man, however, I think better off than the man always depending on the labour market, as he has his regular pay, and loses no time from bad weather. The two cases that I have brought before you will not apply generally to all men renting their cottages, as there are some who from want of skill and perseverance cannot earn the wages first described, and others will not hire themselves by the year; consequently during the winter they are often out of work, and poaching and petty thieving are resorted to.

We will now take the case of the yearly servant, who is provided with his house on the farm. He is hired for a year at 8s. per week common work, to have piece-work, such as hedging, draining, mowing, reaping, and Turnip-hoeing, which will add from 1s. to 2s. per week more to the wages (this, however, must depend on the man, as some will earn much more at piece-work than others); to have his grist—from 2 to 4 bushels of Wheat per month, according to his working family—at 5s. per bushel, cottage, garden, and rates free, fuel,

such as furze or wood faggots, for cutting, and coals given to some extent; from 20 to 30 Potatoes per acre, the ground prepared for planting; and a liquor found him for the year, which I calculate, is equal to 12s. or 13s. per week, being always near his work. In many cases, however, not allowed, and 1s. per week more is given; but the men in general prefer the former, their Wheat at (on an average) 1d. per bushel, bread is much better for family purposes than men, I consider, are 2s. per week better than renting their cottages and depending on the market.

We will now look at the disadvantages to the occupier of land and the labourers in many cases from want of cottage accommodation. I secure certain labour for the whole year, and know that good farming cannot be carried on without sufficient manual labour, and certain labour secured without cottages for the men to live in to the farm or in the parish. We will take a farm requiring 10 cottages, and it has the consequence is, you must all those cottages to working families, if possible, who in many cases crowded together regardless of common sense, also causes constant change, because as the men grow up they leave their father to look after themselves or get married. The consequence is, a good young man for want of a cottage to live in, and the father is obliged to leave too, or to live in a not large enough; so a constant change is made yearly, which is a great disadvantage. Take another instance, there are many cottages, or more from any parish, with only one or two cottages,—and I know cases of this sort, must then depend on the neighbouring parishes for labourers. We will allow there are plenty of men, and they are hired at an extra 1s. per week, men will have to walk a mile every morning, and night, which will take one hour every day, an extra time, 626 miles extra to walk during the year, more than the men living on the farm. These, however, are very uncertain, and the labour is frequently put to great inconvenience in the winter when the men can get work nearer home.

We will now consider the general advantages to labourers, farmers, and landlords, of having cottages attached to the farms. Take first the farmer. There cannot be a doubt but that a man who is near his work and comfortably housed, will derive more benefit from his work than he who is far from it. He takes his meals at home with his family, and when wet and tired walks home. Another advantage he has, is that he can spend in his garden during the spring and summer months, more than the man that has to go from his work. The farmer derives a great deal of benefit from having certain labour without fluctuation, and the farm going on regularly; his labourers, and families being near he has an opportunity of seeing their general conduct, and also assisting them in various other ways, and adding to their comfort. But here I must observe that he does not get his labour cheaper, as the cottages are filled for the summer months; but in the winter there is more than is really required for the work on the farm. The landlord, by building cottages, is letting them with the farms, would be a great advantage, as I believe every farm with a good accommodation is worth 10 per cent. more than without it, besides having his farm managed in a much better way.

Let us now see what number of cottages are required for every 100 acres of land, and depend in a great measure whether the land is a pasture farm, the former requiring more labour than the latter; therefore the general rule laid down. Small farms and large farms, in proportion than larger holdings. We will take an arable and sheep farm of 100 acres. These farms, I calculate, ought to have 10 cottages to every 100 acres at the best market. This, I think, would be sufficient for all the ordinary work of the farm with a view to harvest, &c. I have now endeavoured to present before you the principal points on which I have to bear, and have put my ideas in as plain a manner as possible, so that as much time as you may spend in observations to be made in the present.

Reviews.

The Irish Land Question. By James C. O'Brien. Our recent notice of this pamphlet, we are glad to hear that a second edition is now issued, one particular barely accurate, and in many respects it was deficient. It is not right to say of Mr. O'Brien's even, "as it were," enforce the lease of the land for years upon either landlord or tenant, though he be, because of its proved inability in its power to promote agriculture, and general industry, and fertility, and general improvement, yet no proposal in his pages to induce the enactment between the owner of the land and the tenant a reasonable use whatever he may desire of his property. Mr. O'Brien does, indeed, demand for a term of years which he says is their political advisers are now making in the intended sense, yet is "sound in principle," and that the operations of agriculture, and the most primitive kind, naturally extend beyond a single year, and outlays made in cultivating and enriching his land be recovered in the first crop. What he proposes, therefore, is not an average

ld be hindered from making any agreement just as with a tenant, for as short a time as he may please, that, where no agreement exists, the presumption is that under such circumstances now gives the tenant 12 months' peaceable possession should, except for what in the face of costly outlay, certainly not unreasonable—a period of at least five years be recommended that various specified encouragements to a voluntary grant of leases for a still longer period be also given by enactment.

The following are the changes which he recommends the consideration of Government—

- 1. That the law as to buildings and other permanent improvements on land should be altered so that the tenant should be freed from all obligations of repair, at present time.
- 2. A tenant, on writing with it written leave to be secured by the Government of the law (except for failure to rent for an equitable term, say five years, sufficient to pay the expenditure necessary to a proper system of irrigation).
- 3. That management to be given to the system of leases for a term, by the Government loans for land improvement made on leases of not less than 20 years.
- 4. That the law as to the right of the tenant to be secured by the Government of the law (except for failure to rent for an equitable term, say five years, sufficient to pay the expenditure necessary to a proper system of irrigation).
- 5. That the law as to the right of the tenant to be secured by the Government of the law (except for failure to rent for an equitable term, say five years, sufficient to pay the expenditure necessary to a proper system of irrigation).
- 6. That the law as to the right of the tenant to be secured by the Government of the law (except for failure to rent for an equitable term, say five years, sufficient to pay the expenditure necessary to a proper system of irrigation).
- 7. That the law as to the right of the tenant to be secured by the Government of the law (except for failure to rent for an equitable term, say five years, sufficient to pay the expenditure necessary to a proper system of irrigation).

These proposals, in addition to Mr. Bright's plan of Government assistance to tenants willing to buy farms from owners willing to sell, are what seem to Mr. Carl to embrace the main conditions required to enable the Irish people to work out for themselves agricultural prosperity of their country. And to a concise and discussion of these proposals the pamphlet addressed.

Farm Memoranda.

FIELD OF ELY (AYLESBY HOUSE, CHATTERIS).
Nov. 13.—The summer of 1869 will long be remembered as one of the most remarkable that agriculturists have experienced. The summer heat of April, and the cold and wintry cold of May and June, the alternations of heat and cold, dry and wet, during the summer months, have left impressions and produced results which will not easily be forgotten. And the autumn and winter appear to be equally strange and exceptional. The 9th and 11th of October reminded us of the intense heat and oppressive temperature of the memorable summer of 1868, and were quickly followed by snow and frost equal in intensity to what generally look for in mid-winter—so sudden and severe have been the changes. But one of the most striking peculiarities of the last two months has been almost incessant gales that have been blowing. Lead of the proverbial November fogs and damp atmosphere, we have had November dust blowing in gusts, not only from the roads, but from the fields, in instances leaving the Wheat, where sown, well uncovered. Drifts of dust like snowdrifts, except colour, have accumulated against hedgerows, and had to be again carted on to the land. Five times to the completion of harvest we have seen the corn blown from the corn stack, and many may now be seen half stripped, and still the wind is blowing a

reshing has been proceeded with, with great activity, and it has sometimes appeared as though the people must all be blown away together. The stormy weather has doubtless been one agent in reducing the supplies of English-grown Wheat to shorter and more limited at market; but the designer, as though anticipating our difficulties, has not us most liberally supplied—too much so, probably, in his own interest as well as for ours, but for the benefit, doubtless, of the community at large. One more confirming the truth of the old adage, "It is an ill wind that blows nobody any good." The price of Wheat is quite unremunerative to the grower, and corn-producing farms, where but few stock can be kept, will afford a poor return for the capital and skill employed in their cultivation. On farms where large quantities of cattle and sheep are bred and fattened the prospect brighter. Meat is high, and likely to continue so, grazing is conducted at a good profit, and happy the man who are favoured with the facilities for making as well as for corn-growing, as the profits on the one will help to recoup them for the losses on the other, and they have a fair chance of making "both ends and the middle meet;" but we fear it will be far otherwise with some, less favourably circumstanced.

The threshing test proves the yield of Wheat to be very various. The heavy laid crops turn out very well, whilst some of the brighter and up-standing crops are yielding very well. The quality of the bulky crop is far better than could have been expected, though the yield in many instances is fearfully short. A better class of crops—say about 50 per cent. of the whole—will produce an average yield; the remainder will be seriously deficient, probably 30 per cent. below average. These are the conclusions we have arrived

at, from the knowledge obtained by the threshing test up to the present time.

Barley is yielding rather worse than we expected, probably the difference between our estimate and the actual yield will be about a quarter per acre.

As far as we have tried the Oat crop, we are inclined to regard it as the most satisfactory on the farm, but the good yield is to some extent neutralised by the low price. Beans and Peas are comparative failures.

The crop of hay was good, and has been followed by good average crops of Mungels and Kail Rab. We are taking them up and storing them now, and they are turning out well. Cereals were a good crop, but the cold wind and frosts of the last week in October did many of them serious mischief, reducing their value 30 per cent. or more. Potatoes vary very much, but are reported as largely diseased. The Wheat seeding is in progress. We have finished, but many people are still busy. The late and long harvest made the preparations late, and threw work very much "in heaps," a state of things always undesirable and perplexing. Much land too has been unfit to sow for want of moisture, and even now is too dry and unyielding. We are ploughing some stiff land for Beans, and it breaks up very hard and dry at bottom. Wheats where early sown come up very slowly, and seem to want a little warmer and moister weather. Foot-and-mouth disease has appeared amongst us, but not generally in a severe form, and we have heard of no losses of life amongst the cattle. Importation of foreign cattle and disease appear to resemble cause and effect, and if we are to be free from the one we must forbid the other. A. S. R.

MERSE OF BERWICKSHIRE. Nov. 13.—The legitimate test of threshing has now been tried, what might have been suspected from the turning over and carting out of stacks at the close of harvest, that our crop has suffered more from bad weather than it has done for these 12 years past. Fully one-half was a field when the rain came on, Sept. 10. Much that was in stack had better been out, and badly built stacks were drowned by continuous rain. Things were worst under active management, as this made the work of twice or thrice carting. Slow coaches were content to keep their stacks a foot, and wait for fair weather. And a right wind it was when it did come, for it soon dried everything, but colour was lost, sprouting more or less general, and very bad in sheltered places.

Of course, it comforted us during that weary time of rain and heat to learn from our "leading journal" that the bulk of the crop in Scotland was secured, and it would benefit the Turnips. And so it did, but winter's wind came too soon after this and cut down the tops, so that we need look for no farther increase. As it is, the crop is quite superior to any we have seen these three years past. There is not much grass in the fields for ewes, now that tapping is done, but there will be no lack of Turnips for them when the time comes, and artichoke feet won't do instead of Turnips, here, at least, we find it so. Although there have fallen 2½ inches of rain since harvest, yet the ground is dry and firm for folding of sheep and storing of Swedes. Streams have been very little moved, and water is rather scarce for threshing mills, much to the advantage of those that travel for hire.

In spite of legislative wisdom and police surveillance, foot-and-mouth disease (our name of murrain is less clumsy) has kept its line across country. To well-conditioned cattle it does no harm, but on lean beasts and cows it is oppressive, not so much so, however, as the Aot, which would actually compel a beast to remain in the field where first attacked, when he would be so much more comfortable in a straw-yard or shed. Care may delay the march of the disease—nothing can stop it, and we would rather take our chance and be free from inspection. Why not compel farmers, "in the interest of the consuming public," to keep twice as many cattle as they at present think they are able to do? J. T.

NORTH RIDING OF YORKSHIRE. November 17.—Since the date of our last report we have in this district experienced weather of a very chequered description. Twice within the month we have had a cover of snow and about 6' of frost, and accompanied with strong north winds. We have had this interspersed with some days of fine mild weather, but the general character of the month has been wintry.

Several farmers brought their fattening cattle into the yards during the first week of November, and all store cattle have since been housed, being quite three weeks before the average time of housing.

A commencement has been made with pulling and storing the root crops. Swedes are a full plant but in size the bulbs are short of an average. White Turnips sown early are in many places a failure; the late sown have done better, and are pulling off fairly; but, on the whole, our roots can scarcely come up to an average.

Potatoes proved a good crop, and very little disease in this district. Some farmers sold in the field at from 15s. to 18s. an acre. The price now is about 3s. a bushel.

Wheat is threshing out quite as well as was expected, but on some farms the yield of Barley is complained of.

Store cattle have gone up in price, and sheep very much so, the latter quite 10s. a-head from the prices current at this date last year.

Foot-and-mouth disease still lingers in the district, and in the case of fat cattle we hear very serious losses have been sustained.

Early-sown Wheats have come up well, and so far look promising. W. J. M.

CAPRERA.—We have heard but little of late about Garibaldi's doings. Some of his most melancholy anniversaries occur in this and the forthcoming autumn months, and his best friends must rejoice at

the almost perfect certainty that nothing this year will tempt him out of his island home—that home which he would never have quitted for his disastrous exploits of Aspromonte and Mentana had not the seductions of some of his friends got the better of his sound, but not sedulently self-relying judgment. At Caprera, and away from the turmoil of politics, Garibaldi is himself again, and shows himself possessed of the practical brains as well as the kind heart for which the world gives him credit. There can be nothing more charming than the account some of the General's recent visitors give of the manner in which his love and labour have in little more than ten or 12 years contrived to turn a bare rock near the coast of Sardinia, not only into a smiling garden, but also into a richly productive estate.

It was natural to expect that a man of Garibaldi's simple tastes and abstemious habits would have chosen his island hermitage for the mere sake of its barren and desolate look, and that the tilling of a few acres for Wheat, and the growth of the commonest vegetables, should have met all his requirements. But the cultivation of the mere necessities of life would not have filled up the cravings of an extraordinarily active mind. Unlike most of his countrymen, Garibaldi did not gratify his ambition by setting masons to work. He charged Nature with the embellishment of his home, and so marvellous is that Mediterranean climate, that in this short time luxuriant groves of Laurel and Myrtle have sprung up to overshadow his low roof. All round, in the hollows, wherever shelter could be found or made, the Orange and Lemon are growing in thickets, while on more exposed sites there spreads a wide plantation of Olive and Almond, over-topped by the Cypress, the Pine, and even the Date Palm, though the latter bears no fruit. Garibaldi himself drinks no wine, but he is, nevertheless, a wine-grower on a large scale. His hill sides are covered with low, closely pruned Vine stocks, an importation from the most celebrated Piedmontese and Tuscan vineyards, the young Vines, planted in straight rows at a metre's distance from one another, are never suffered to rise above 2 or 3 feet from the ground, and never bear more than two or three bunches of Grapes. By this thrift the hospitable General is enabled to place choice wine before the guests who crowd upon him, while the Marsala and Malaga Grapes growing at will on his lofty arbours supply the dessert with such luscious fruit as the south alone knows of. The General's orchards do not yield many Apples, Pears, or Peaches, but the Prickly Pear and the Carob Tree are so prolific, that their produce is thrown with a full hand to fatten swine. Garibaldi's dairy is supplied with milk and butter by six cows of the tall Cremona breed, but numerous herds of cattle roam at large in the island, needing no shelter at any time in the year, and providing the establishment with mountain-fed butcher's meat, in return for the Lucerne and Clover which the General mows out of artificial meadows, where the Grass is cut five times in the year. The same constant prosperity does not attend all the General's undertakings. All his efforts to root out a poisonous weed with which the island once teemed have not been altogether successful, and the propagation of his flocks and herds is thereby sensibly checked. In the same manner the attempt to acclimatise the silkworm has turned out a failure, the soil being unpropitious to the growth of the Mulberry. Garibaldi, however, points with exultation to the flourishing condition of his Potato fields. No species of the favourite tuber is neglected, and there is no treat he so heartily enjoys as a dish of his own Potatoes, baked under embers, with his own hand, in the open air—a treat which calls up reminiscences of his camp life on the Tonale or the Stelvio, or of his pioneer's experience in the backwoods of Mississippi or the Plate. Garibaldi indulges in the luxury of a flower-garden, but the bees which he has lately introduced, and of which he has already nine hives, "the object of assiduous and almost paternal care," are not dependent on his beds for their honey, but cull it out of the fragrant shrubs with which both Caprera and the adjoining Maddalena are covered. To get hives to do well on so gusty a spot as that bleak rock of Caprera has been accounted little less than a prodigy. On the coasts of his own island, all round Maddalena and along the shore of Sardinia, Garibaldi's nets have the pick of the Mediterranean fishery: white quails, partridges, and wild goats afford him plentiful home sports, without reckoning the pheasant and the wild boar, with which he has stocked some of the most unreclaimed heaths of his domain.

We must admit that Garibaldi has not been single-handed in these movements. His right and left hands have been one Barberan, from Parma, for many years the General's companion at Caprera, and a German named Weber, whose aid and example supplied theory and practice to a man who could bring to his work little more than an amateur's earnestness and good-will. It should also be borne in mind that the General's friends are legion, and there is nothing in the shape of garden implements and agricultural machines, nothing under the denomination of seed, plant, or graft, of dead or live stock, nothing that could minister to his wants or gratify his fancy, that has not been forced upon him. Still, it is not every man who could turn such advantages to so good a purpose. Garibaldi, however, loves work for work's own sake; and he brings to his work that energy of will and that magnetic ascendancy over other people's will which fit a man for the task of a ruler of men, and enable him to wield all subordinate forces as a mere instrument, whether the work in hand be the conduct of a campaign, the government of a state, or the mere management of a large farming establishment. It is, in the meanwhile, not a little interesting to see a man who has played so striking and yet so unequal a part in contemporary events, who has had his sublime, and again his next-door-to-sublime moments—to see such

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"A garden with empty flower-beds is like a house without furniture."

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New Japanese and other Chrysanthemums. JOHN SALTER and SON beg to announce that the CHRYSANTHEMUMS are unusual for this season. Their large collection, now in bloom in the Winter Garden, may be seen throughout the months of November and December, every day except Sunday. Adm. free. Verney Nursery, William Street, Yale Place, Hammermith, W. (near Kensington), Railway Bridge.

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Lilium auratum.—To the Trade and others HOOPER and CO. expect to receive very fine Bulbs of the above, via the New Pacific Railway, due about January next. They are collected by a Person thoroughly acquainted with their requirements, and will be unless arrive in the best condition. They will be in London in about 55 to 60 days from their native soil. Orders now booked, and persons requiring them will oblige by sending their orders without delay. Prices on application. HOOPER and CO., Covent Garden, London, W.C.

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The Gardeners' Chronicle. SATURDAY, NOVEMBER 27, 1869.

MEETING FOR THE ENSUING WEEK. THURSDAY, Dec. 2.—Linscott 8 P.M.

THOSE who have travelled through districts where mineral fuel is scarce, and where in consequence TREES are looked too to yield some heating material, have no doubt noticed what are called "pollard" trees, that is, trees from which the branches are periodically cut for faggots and cord wood; and others—long, lean, lanky things—trimmed up like a whip-stick, and with heads scarcely larger than a crow's nest. These are trees which rarely attain the timber size, and if they do they are such as the timber merchant, when he comes to purchase, will veto as being unsuitable for his purpose, unless perchance the incessant pruning may have given them a gnarled growth, and then they may yield a little veneer. Look into the primæval forest, where in the struggle for existence, might has crushed out right, and the few trees remaining have become monarchs of their locality, or go into the park or dressed grounds of the proprietor close by, where room has been given, but the pruning-hook has never gained admittance, and what do we find? Trees, possibly of the same age as the pollards or whip-sticks, each containing hundreds of feet of timber, and worth, it may be, scores of pounds; and what is the reason? Just this—the pollards had been pruned out of existence; while the trees where Nature had been allowed its natural action—where root and branch reciprocated each others services—had become in reality "property," ornaments of the country, cash to the owner, and such as we Britons are proud of.

We are not, however, going to write an essay upon forestry; our object is widely different; and we merely cite the preceding facts to illustrate a more utilitarian object, viz., the GROWTH OF FRUIT.

A few weeks back a correspondent gave the history of the Bishop Stortford VINES, concluding with the intelligence that, being worn out, they were to be rooted up, and new ones planted in their places. Upon reading the fact, the exclamation involuntarily rose to our lips—'Pollard Vines! Poor things, they have been dwarfed (pruned) if not to death, out of all useful existence!' Now, what is the difference between these Vines, and the pollard trees to which we

have before referred? Just this, that while the pollard may have been decapitated, or denuded of its branches every second or third year, or even less frequently, these Vines have been "whip-sticked" every year; and, not content with that, the more they attempted to develop themselves through the growing season, the more determinedly did the gardener, by his perpetual "pinching" process, say—"So far shalt thou go, but no further; Nature may know her ways, but we, the gardeners, are superior to Nature, and you, the plants, must submit to our ways as being better for you."

A quarter of a century ago, and for many years subsequently, the Vines in question were the pride of the country. Every autumn Covent Garden market revelled in the splendour of their produce, and now, in what ought to be considered their prime, they are to be rooted up and cast into the fire. Are we to regard this as an illustration of "fast life," wherein, by high feeding, hard drinking, and the neglect of hygienic rules, a man lives seven years in one, and at the age of 30 finds himself constitutionally a sexagenarian? Practically we think this to be the fact, and that constant pinching in the summer, and close pruning in the winter, engenders a something akin to those zymotic diseases, such as slow, low, and intermittent fevers, which, while they do not actually kill the patient, allow him to drag on but a wretched existence. When these Vines first came into bearing most of the great gardeners of that day wished to see them. Dr. LINDLEY wrote a glowing panegyric upon their cultivation, demonstrating the porosity of the border, by asserting that he could "push his walking-stick up to the handle anywhere into it." We accompanied GLENDINNING and BARNES, CHARLES MACINTOSH and BAILEY, of Nuneham, to see them; indeed, a gardener who had not seen Mr. JONES NASH'S Vines was scarcely recognised as belonging to progressive horticultural life. And what are they now? Just at the time when they ought to be in their prime they are "used up," "pumped out," useless cumberers of the ground. There must be a reason for this, and what is it? It is of no use to beat about the bush, but let us grapple honestly with their lives' history.

We say the reason may be found in the slow and tormenting process of the pollard or restrictive system; and the fact that these Vines, notwithstanding the vigour of their early youth, have been pruned to death—have, in fact, by the hands of the gardener, been systematically deprived of that breathing space of foliage which was not only necessary but indispensable to their profitable existence. These Vines have been kept to the single-rod, restrictive, and close-pruning systems, and they have failed, as thousands of Vines have done before them. Had one of them, instead of being confined closely to a single rafter, been allowed gradually, year by year, to have filled 15 or 16 of them—in fact, a whole house, it is not improbable that, like the unrestricted monarchs of the forest, they would annually have accumulated strength, and been now in the full vigour of their youth. Such an inference is not improbable; on the contrary, it is in perfect accord with physiological induction and practical experience. By the process of restrictive pruning, we must have restricted root action. We cannot have one without the other, and though we may think to regulate and balance the forces, we do so at the expense of natural vigour; and though the plant may seemingly submit to our restrictions, it will be, by the dwarfing process, at the ultimate sacrifice of the vital force. These Vines are ~~ruined~~ and the man in charge says there "is no knowing where the roots are." From the experience we had many years ago in lifting a quantity of old Vines originally planted by SPEECHLEY, we venture to say that the Stortford Vine roots have rambled little beyond the area of the border. When the branches are restricted, the roots follow the same law; and it is surprising how few and small they are, even upon Vines half a century old. Even if they did ramble at Stortford, they could scarcely in that elevated spot take any injury.

Here we pause for the present, with the intention of resuming our remarks shortly. P.

THE natural history of the different species of INSECTS which attack exotic species of ORCHIDACEÆ is necessarily but little known. The collector of such plants naturally selects, in their native haunts, only healthy specimens

which, free from the attacks of insects, are able to bear the journey to England in good health; and it can but rarely happen that the economy of the insect parasites are likely to be investigated on the spot, because the collector, even if he were inclined to undertake such an investigation, remains but a short time on the same locality, and is hence unable to pursue the examination during the often long period which is necessary for the transformations of the different insects to be perfected. These remarks are necessary by way of apology for the incomplete history of the two species of insects represented in the accompanying engraving, the central figure of which represents the basal portion of the overlapping leaves of the bud of an exotic species of Orchid, to which the attention of the members of the Scientific Committee of the Horticultural Society was directed by Mr. BATEMAN on March 2, 1869. The species of Orchid attacked was unfortunately undetermined. Securely nestled between the overlapping leaves were two white fleshy grub-like larvae, with chestnut-coloured shining heads of the natural size represented in the central figure. In this position they were feeding upon the thickened substance of the leaves, the upper surface of which was eaten off to some distance, without any hole being gnawed through the leaf.



The upper surface of the body, shown in the right-hand figure, is very much wrinkled, and on the underside the anterior segments are entirely destitute of articulated legs, their place being represented by fleshy tubercles. The mouth is furnished with two very strong, triangular, horny jaws, the inner margin of which is somewhat irregular, the right jaw having two small conical teeth, which are only blunt swellings in the left jaw. The under jaws are of a less robust consistence, having a somewhat oval terminal lobe, armed with about eight strong, short, blunt bristles, on the outside of which is the short maxillary palpus, consisting of only two joints. The lower lip is more fleshy, and rather heart-shaped, with the fore margin nearly straight, and having the two minute two-jointed labial palpi affixed near the anterior lateral angles. From the characters thus exhibited by these insects we have no hesitation in arriving at the conclusion that the larvae before us are those of one of the weevil family, of which several thousand distinct species are known, and all of which are vegetable feeders.

Too little is known of the distinctive characters of the larvae of the different sections of this great family to enable us to conjecture to what genus or even sub-family the insect belongs—unfortunately one of the larvae had received an injury and died, as did also the second specimen soon after we had examined it.

Immediately in the vicinity of these larvae were also found within the bud several minute dead pupæ, lying in a mass of hard dry particles of dark-coloured matter, which we had no difficulty in recognising as the excrement of the larvae from which these pupæ had been developed. These pupæ, represented of the natural size in our central figure, and more highly magnified in the upper left-hand figure, evidently belonged to a species of the extremely numerous family Chalcididæ, and by very carefully scaling off the outer horny pellicle, under the microscope, we were enabled to extract the imago, or perfect

insect, and to extend its limbs, as represented in the middle left-hand figure, magnified to same degree as the pupæ. The insect brought to the light of day proved to be the female of a species of Eurytomidæ, a sub-family of Hymenopterous (Chalcididæ, and on comparing other specimens of the pupæ we obtained from the female of the same species, the male of the antennæ more strongly setose, with five intermediate joints of the flagellum angulated on the inner margin, whereas the joints are oval and less setose in the female antenna, which is represented in the upper right-hand figure, and that of the male in the lower left-hand figure.

As the Chalcididæ have been almost universally regarded as parasites upon other insects like the Ichneumonidæ, the question of the relation of this species before us with the larva or with the above-described pupæ, has not been determined. Certain it is that the larvae were uninjured, and the pupæ were no longer in a condition to attack them parasitically, so that the minute larvae must have fed either upon the curculionideous larva or upon the pupæ. The possibility of the latter suggestion is greatly increased by some observations which have been made upon the habits of an American species of Eurytomidæ (the name of joint-worms from being found in the joints of the straws of Barley) by Mr. T. W. HARRIS, in his fine work upon the various insects of the United States, and by Mr. WALSH, in the eighth Number of the "Entomologist," in which the non-parasitic habits of these particular species of Eurytomidæ were insisted upon, Mr. WALSH having shown that they belong to a distinct subgenus, whereas the typical Eurytomæ are parasitic. The insects which we have examined from the pupæ before us belong not to the genus but to the restricted genus Isosoma, so that it is most probable that they fed upon the curculionideous larva upon the pupæ, and were not parasites on the white grub before described. For identification we propose the name of Isosoma Orchidearum for the insects. I. O. W.

— It is officially announced that His Majesty the KING of the BELGIANS intends to honour the Horticultural Society's Gardens, at South Kensington, with a visit this morning. Many of the leading men have signified their desire to exhibit a promenade and band will commence at 12 o'clock instead of 2 P.M. Scarcely even the Voluntary more reason to acknowledge gratefully the hospitality extended to them on various occasions by the Belgian King and his people, than have the horticulturists. We hope that the Council of the Society, as the representatives of British Horticulturists, what in them lies to show how deeply we are indebted alike to the King and his subjects for their courtesy and good feeling.

— We are informed that Lieut. Colonel R.E. F.L.S., Honorary Secretary of the Horticultural Society, offers for competition at the first meeting in 1870 (viz., January 19) an Essay on the PRINCIPLES of CRITICISM.

— When alluding to the SEVER CANALS two since, we alluded to the probability that a gardener would have to be called in to the engineer. An extract from the "British Journal" of the 10th April last will show that already been done by the gardener at Ismailia, a ground on which stands Ismailia, a town of 200,000 inhabitants, and the headquarters of the army, but a few years since, a dry sandy desert, on which was never known to fall. All is now transformed into an old dried-up basin of Lake Timsah, has been filled with water from the Nile by a freshwater canal, the shrubs, and plants of all descriptions, and wherever the soil is irrigated, and the air widens fast. Accompanying this extraordinary formation of the aspect of the place, there is a corresponding change in the climate. At Ismailia, during eight months of the year, the mean temperature for the four months (September is 94°, the following four months, the four winter months, 45°. Until two years ago, it was unknown, but in the twelve months last, there were actually 14 days on which no later than Sunday last there fell a shower of rain, a phenomenon which had never previously witnessed. Rain is a country deprived of its forests, or of violent storms. Here we see rain returning to a desert on restoring the trees.

— Our French neighbours have got to us. Under the auspices of the Imperial Horticultural Society of France, a Treaty is open to makers of all nations—is to be the object of the trial is to ascertain by examination, under similar circumstances, or kind of apparatus heats a definite quantity

...regularly, rapidly, and con-
tinuously. Here is an opportunity for some of our
manufacturers. Here is a chance for enthusiastic
inventors, who would have us believe that they get
more heat out of a basket of coal than was ever put
into it by Sam, the great fireman.

Our Edinburgh contemporary, The Farmer,
gives the following particulars respecting MELVILLE'S
PERFUMED MUSCAT GRAPE, a new variety, raised by
Mr MELVILLE of the Dalmeu Park Gardens, in the
vicinity of that city. Compared with the well-known
White Muscat of Alexandria, says our northern con-
temporany, the variety is a good deal like it both in
taste and berry, but of a more golden-yellow colour
when fully ripe. It is, however, decidedly sharper,
richer, and more perfumed in flavour, very thin-
skinned, tender-fleshed, and dissolving in the mouth, so
that it may be looked forward to as one likely to stand
in successful competition with the Ducness of Buccleuch
and other best flavoured white sorts. But its most
distinguished peculiarity is the delicate agreeable per-
fume which it possesses, and which is distinctly appre-
ciable on entering the vinery where it is growing, as
well as at the dessert table. It is said to have been
obtained from "Snow's Muscat," by which we presume
meant the Muscat of Hamburgh, at the Black Muscat
of Alexandria.

We inadvertently endorsed a statement of
Mr A. W. BENNETT's last week (p. 120), to the effect
that the CHIMONANTHUS PRÆCOX does not fruit in
this country for want, at the season of flowering, of the
proper insects to effect cross-fertilisation. We are
convinced that the plant in question does occasionally
fruit in this country, though rarely.

New Plants.

MACADAMIA TERNIFOLIA, F von Mueller.

...dentatis, lanceolato-dentatis, ovato v. ob-
longo-lanceolatis, v. ovatis, glabris, breviter petiolatis, raro
fere utrinque rarius, pinnis oppositis; pedicellulis axilla, caliceo
...
The plant is Macadama (Proteacea) was originally
described by our indefatigable friend, Dr. von Mueller,
who afterwards referred it to Helicia. More recently
a further and more complete supply of specimens and
the fruit have induced him to consider his first
impressions as correct, as the fruit distinguishes the
present plant from Helicia. Some small plants of the
species, of which the above is the technical description,
were cultivated by Messrs. B. G. Henderson & Son at the
meeting of the Royal Committee, on November 13, but
before Mr Bull was the first to introduce the
plant into cultivation, some two or three years ago.
Its native country (Moreton Bay) it is described
as a tree sometimes attaining a height of 100 feet, but
usually of about 30-40 feet, with leaves in whorls of
two or four or rarely two, each shortly stalked, leathery,
being glabrous, ovate or oblongo-lanceolate, entire
dentate at the margin, from 4-6 inches to a foot
long, by one inch and upwards in breadth. The
flowers, which are not very showy, are arranged in a
long-stalked raceme, each subtended by a single bract,
and described as having four linear spoon-shaped
lobes reflexed at the points. The stamens are four in
number, inserted near the middle of the calyx-tube;
the filaments are longer than the anthers, which latter
are linear, with a lengthened connective. The ovary
is sessile, surrounded at the base by a denticulate ring.
The style is thread-like, terminated by a thickened
 stigma. The fruit is a kind of drupe, with a fleshy
pericarp, encasing a hard shell, like that of a Walnut,
and within a walnut is a kernel, described by Mr
Berkeley as particularly sweet and agreeable to the
taste, thus confirming the statement of its discoverer,
Mr Water Hill, who compares the flavour to that of
Almonds. This circumstance is the more noteworthy
in view of the paucity of native fruits in Australia,
and the rarity of any edible seed among Proteaceae.
As a conservatory plant it will be grown in this
country for the sake of its shining Brexia-like foliage.
It is altogether a very interesting but not very
valuable addition to our list of conservatory plants; and
should some fortunate cultivator succeed in inducing
the plant to produce its seeds, great will be the delight
of the Fruit Committee after the eulogium pronounced
by Mr Berkeley on the imported fruit. M. F. M.

VINE SOILS.

...as may be almost every subject per-
taining to viticulture, we were nevertheless favoured
by Mr Cramb, in his interesting paper, read at the
Manchester meeting, with some new food for discussion.
In respect to the desirability of certain soils for Vines,
we are indebted to Mr Cramb, who is one of our best
practical vintners, and is moreover one of long
experience, for suggesting a-thinking on the subject. We
are inclined to him for bringing certain facts of his
own observation before us relating to the important
subject of soils. It is a subject of considerable import-
ance, and one but very little understood. We turn to
the back pages of this paper, to all sorts
of treatises on the Vine, to the many scores of
pieces of wonderful Vines, and the way to make
the best berries-but we learn nothing further, how-
ever, than that the said borders have been com-
posed of good turfy loam, which is so vague a term,
and from which the one hand to sand on the other,
and practically the information is worth nothing
nearly all the writers on Vine culture recommend the

admixture of "old lime rubbish," besides manures of
various kinds. But few, however, like Mr. Cramb, have
ever ventured in the fields of the geologist and chemist
to search for the secret of success or non-success in
Grape cultivation.

In my plain, matter-of-fact sort of article on the
Vines at Trentham (p. 1051), I had the courtesy to
make some remarks on Mr Cramb's theory. I ven-
tured in some measure to disagree with Mr. Cramb in
his wholesale condemnation of calcareous soils, and to
state that "facts would hardly bear out his assump-
tions," &c., and for this (see p. 1107) I am somewhat
severely (I think) called to account. Mr Cramb lays
his statement before us, and presumes to invite dis-
cussion. I have been expecting to see it ably
discussed-to have our Grape cultivators, whether
successful ones or not, bringing their facts forward,
not in the spirit of contradiction or opposition, but
with an honourable desire thus to gain some useful
and reliable information. It may not be a pleasant
thing to Mr. Cramb for anyone like myself to try to
upset such a long-cherished pet theory as this has
been. It has, as it were, become so wound up in his
very existence, that, lover-like, he can see in it
no blemishes, nor listen to one word of argu-
ment against his pet, from whatever quarter
it may come. Therefore, although I have but little
hope of convincing Mr Cramb by any fact or argu-
ment of mine, I hope he will believe in my sincerity. I
would just suggest to Mr Cramb, that it is not a
particularly nice part of self-justification to accuse his
opponents of false motives. Let me assure Mr Cramb
that I have not only read his paper carefully, but I had
also the pleasure of hearing the author himself read
it. I am told that I have "no right to salt up truth,"
whatever that rather ambiguous expression may mean.
Is Mr. Cramb, himself, the personification of truth,
that his writings must be accepted as the veriest
gospel? Mr. Cramb gives us a few facts, which are
valuable, and it is a pity he did not confine himself to
these-the rest is belief or matter of opinion. Very
dogmatic opinion, too, the reasonings of which I dispute.

It is impossible for any one to rise up from a perusal
of Mr Cramb's paper without feeling that it was not
so much to ask, or even to prove "what soil is best
suited for the production of Grapes," although we
have his verdict in favour of the siliceous soil of the old
red sandstone (not excluding others), as a laboured
attempt to prove bad, and a wholesale condemnation
of all calcareous matter in our Vine borders. The question,
then, is not that with which Mr. Cramb deals in his
paper, but are calcareous soils injurious to Vines?
Or are calcareous soils to be recommended for the
formation of our Vine borders?

I hope I have shown in my previous writings that I
can be very liberal minded as regards Vines and
their cultivation, not an exclusive advocate for
any one kind of soil, whether the major portion of it be
either calcareous, siliceous, or aluminous. I believe
more in its mechanical than in its chemical compo-
sition. The texture of the soil, its porosity and
permeability in its relations to heat and moisture, and
its power of retaining and transmitting under all
circumstances, wet and dry, the necessary quantities of
moisture, are of ten times more consequence than its
mere chemical constituents, for as Anderson, in "The
Elements of Agricultural Chemistry," says-"The
soil must not merely be considered as the source of the
inorganic food of plants, for it has to act also as a
support for them while growing, and to retain a
sufficient quantity of moisture to support their life,
and unless it possess all the properties which fit it for
this purpose it may contain all the elements of the food
of plants, and yet be nearly or altogether barren."
Vegetation is by no means a sure indication of the
chemical constituents of a soil, for analysts have
proved, over and over again, that plants frequently
possess in a great degree that which is almost entirely
absent from the soil, and it must never be forgotten
that the essential food of plants is found in water with
light and air; where these, therefore, can be best
supplied will the plants best succeed.

There are abundant examples to prove that the
Vine is one of the most accommodating of plants
as to soil, &c. 'Tis but to-day, on making some
alterations in our Vine-borders, that I have had
to note another illustration of my statement. I
do not find the roots in the finely prepared
borders of Wimbledon loam. I do not find them
greedily devouring the top-dressings of manure which
have been oft applied. I find them, however in the
gravel walk; I find them clustering round the broken
bricks, coal-clinkers, &c. I wonder how much there would be
present, &c. 'Tis not so very long ago since Dr.
Lindley, in the columns of this paper, wrote a glowing
account of Mr. Wilmot's Vines at Isleworth, telling
us that their roots were almost entirely in coal ashes
and coal clinkers, which set everybody with any of these
commodities to spare to turn them to good account
in their Vine-borders. But I need not multiply
instances; one grows good Grapes in one kind of soil-
it may be siliceous; another in another, which may be
calcareous; and a good gardener who knows how to
compose and manipulate his soil will grow good Grapes
in either, despite Mr. Cramb's disclaimers. How is it,
for instance, that our neighbours, who grow their
Grapes in exactly the same sort of soil as we do should
generally have Grapes more inferior to ours? Is it, or
can it be, owing to soil, or management?

I am not about to dispute for one moment that
Mr. Cramb has not found the siliceous soil superior to
the calcareous mixture, as he has found it at Tort-
worth, or that he has not good grounds for preferring
the one to the other. Are we, however, to be led from
this solitary example, on the extremely limited actual
experience of Mr. Cramb, to such a hasty conclusion,
and protest against the presence of all calcareous

matter? I hope not. I hope the subject now agitated
will be thoroughly discussed.

Mr. Cramb's guilt of a grievous error in accounting
for the bad effects of the calcareous soil when he states
that "the caustic property of the lime worked all the
mischief." Did Mr. Cramb apply lime to his borders
in a caustic state? because such a thing as caustic lime
does not exist in a state of Nature. It has to be made
so by an artificial process, that of burning. Again,
Mr. Cramb says, "the nearer it approaches to a state of
carbonate, the more fatal the effect." It is difficult to
understand what is clearly meant by this, whether it is
carbonate of lime, which is virtually the limestone
itself, or chalk, or effete lime, or whether it is carbonate
of magnesia, which is a component part of the
magnesian limestone, which, when in a caustic state,
rendered so by burning, is said to be injurious to
vegetation. A very sagacious acquaintance with chemistry
ought to have enabled Mr. Cramb to understand this.
Telling us that the nearer the calcareous particles of
soil approach to a state of carbonate, &c.-like saying that
the nearer water approaches the liquid state the hotter
it becomes. Chalk and limestone when burnt, form
lime; the burning drive off the carbonic acid; it is then
caustic. By exposure to the air, &c., it again absorbs
the carbonic acid gas, and returns to its original state
of carbonate of lime, or, in other words, to the same
chemical nature as powder of chalk or limestone, which
is merely a earthly ingredient of the soil, improving
its texture in its relation to absorption, &c. These are
the opinions of the most learned chemists, including
Sir H. Davy. The evil, therefore, of which Mr. Cramb
complains must be traced to the magnesia, and not to
the lime, yet it is difficult to account for it even here,
as the soils on the magnesian limestone are as fertile
as any others. The question which will come upper-
most is this-Is not this a mere supposition of
Mr. Cramb's?

All fertile soils, say our learned chemists, contain
some portion of calcareous earth. The three earths
which constitute the principal ingredients in all culti-
vated soils, are lime, clay (alumina), flint (silica); not
one of these singly can be considered fertile, and the
richest soils are those in which these three earths are
mixed in the most intimate proportions. As note our
great river valleys-that of the Thames, for example:
where do we find richer land, or land more favourable
for the cultivation of the Vine, using it in what we are
pleased to call its natural state, without any admixture
whatever? These are called alluvial loams, being the
deposits by water from the various formations, along
with decayed vegetable matter. In these alluvial
loams there is a good percentage of calcareous matter,
without which they would probably be almost sterile.
Calcareous soils attract more moisture than siliceous
soils, which being sandy are very open and porous, and
consequently require a more abundant and continuous
supply of moisture than the former. In a rainy county
like Gloucestershire, it is not then at all remarkable that a
siliceous soil should prove the best, simply because its
great porosity allows the superabundant moisture to
readily pass away. Siliceous soils are hungry soils, and
decompose manure faster than do either of the other
two. This Mr. Cramb confirms somewhat by having
for the cultivation of his pot Vines to use one-third
part manure, which must strike every practitioner as
being a very large proportion, and tempts one to fancy
that the siliceous had not, after all, such a great deal to do
with the success. B.

(To be Continued)

EVERBEARING STRAWBERRY.

DURING the last two seasons the agricultural and
horticultural world in America has been much
interested by the advent of a Strawberry, claimed to be
new by its introducers, and affirmed to be an old
variety under a new name by its traducers. As it
really is a curiosity, and about taking part with
either its proprietors or users, I will proceed to
describe it for the benefit of your readers.

The plant is called by its proprietors the "Mexican
Everbearing Strawberry;" it has been most extensively
advertised and puffed by one portion of the Press, and
considerably decried by the other. Strange to say,
those who decry the plant, "don't advertise it;"
whether from not being paid to do so, or from con-
scientious motives, it would be difficult to decide, but it
is quite clear that the advertisements are very long,
highly illustrated, and must be exceedingly costly. In
the beginning of the present season, about May, the
writer procured some of the plants, and set them in his
garden. They had been a good deal injured by detention
in transit, and were therefore some time before they
recovered; but no sooner did they take hold of the
ground, and throw out new leaves, than they also
began to blossom and bear fruit, and they have con-
tinued bearing ever since, the plants never having been
three days without ripe fruit on them, and now
(October 8) each plant has a considerable number of
berries on it in every stage, from the blossom to the
ripe fruit. By actual measurement of some just picked,
they are one and one-tenth of an inch long, six-tenths
of an inch broad at the upper end, tapering to a blunt
point; they are a pretty lively scarlet, covered with
yellow seeds, highly fragrant to the smell, but not
highly flavoured to the taste: they are, however, pos-
sessed of the true Strawberry flavour, and though not
so acid as many kinds they are very pleasant.

They would not be much noticed during the season
of the ordinary Strawberries, but later they become a
rarity and a treat; they all part from the crown in
gathering, and are very light in weight compared with
their size. The flower is perfect, and requires no other
to fructify it, it is very small, and the plants are, as a
matter of course, continually covered with blossoms.
The plants do not throw many offsets, but many of
these blossom before being well rooted and bear fruit.

and sometimes the second offset does so too. The proprietors claim perhaps more than it deserves, and as they sell the plants at two dollars and a half a dozen (10s. sterling), temptation is strong to do so; but that it is an "everbearing" variety, the writer can vouch, as he has gathered them more or less every week during the present season, and they show for fruit now as much as ever.

Whether it is a new variety or not, botanists alone can decide, but that it is a Mexican variety, the writer is certain. A gentleman just from Mexico recognised it, and said that he had been in the place from whence it was brought, i.e., the mountain range near Jalapa, Mexico; that he had there seen it in a wild state, bearing profusely, from early spring throughout the year, until the frost stopped it. Of course the frosts in Mexico are not severe, but the plant comes from the high Andean chain of mountains which form the highlands of Mexico, from 5000 to 10,000 feet above the sea. The berries there are much larger than they are here, and higher flavoured. In Mexico they are delicious, but there all fruits come to greater perfection than elsewhere. It grows well under glass, and in pots.

As a native of a hot climate, and from its everbearing habits, it would I should imagine be a valuable variety for forcing in England, and I have no doubt that a proper house devoted to this purpose would be a productive speculation. At all events to those to whom such fruit all the year round is an object, the experiment would be worth trying; the plants could easily be sent from here by steamship at a small expense during the proper season. The traducers of the plant say that it is nothing but the old bush Alpine revamped up; but it is strange that the old bush Alpine has a much rounder berry, and is a very shy, though perpetual bearer, whereas this is a long slender berry and a profuse bearer. That it is an "Alpine" or rather an "Andean" plant there can be no doubt, for we have good evidence of its existence in a wild state in the Andean range, and in great profusion.

The plant with the writer is not a strong grower, but it spreads into a stock of several inches across in one season, and thus each plant becomes a considerable tuft. The leaves are not large, nor hairy, they are of a lighter green, and different character from any of the ordinary cultivated varieties. They have not had fair play in the writer's garden, which four years ago was a mere sand-bed, bearing nothing but the poorest kinds of grass and Sorrel, though now brought up to tolerable fertility by manure. No Strawberry, however, does well in this garden, and hitherto all have died out but the "scarlet" and the present Mexican. The latter has not yet stood the winter here; but the growers assure us of, and warrant, its perfect hardiness.

As a stock for raising new seedlings from, it must be valuable; hybridised with others to increase its size and flavour, and care being taken to retain its everbearing qualities, it must become a useful variety for the forcing house, if for nothing else. *Vectis, Lower Canada, October 8.*

POTATO CULTURE.

I HAVE just secured a most satisfactory crop of Potatoes, exhibiting all that could be desired in size, quality, and quantity, and as the results obtained are by no means general this season, I feel more satisfied that my success is in some measure due to the system of culture I pursue,—a system, it should be remarked, calculated to counteract the disadvantages that attend the cultivation of Potatoes on cold clay soils, and which may be called, by way of distinction, the super-surface plan of planting. The system was devised to meet certain difficulties attendant on the growth of Potatoes on cold retentive soils; but its general applicability to all descriptions of land is not for a moment asserted.

It would be wrong to dogmatise on modes of culture practised in the case of Potatoes, so various are the circumstances of soil and position which exist in every district; but if every large grower of Potatoes were to try to learn lessons by his failures, and borrow hints from his successes, and so adapt his management to the special peculiarities of his land, we should hear of fewer failures in the Potato crop. My Potatoes are grown in well worked but strong soil, resting on clay. By following the old plan of drawing deep drills 4 or 5 inches in depth, the Potato sets were within 6 inches of the cold subsoil: so placed, the roots of the plant soon struck down and suffered from the low temperature and dampness of the retentive subsoil. Potato crops of inferior quality, and more often badly diseased than not, were too often the result.

The plan I now pursue is based on the principle that the Potato, being a tender exotic, requires all the heat and light we can give it, deep good mould, and immunity from sour soil, in which water rests and stagnates. I place the sets on the surface 18 inches apart, having well dusted the ground with burnt earth and wood ashes. The Potato rows are drawn out 3 feet apart from each other. The soil for 18 inches on each side of the row is drawn over the sets in a continuous ridge. The furrows thus formed are made deeper than the natural level, and in this way the sets enjoy the advantage of being above the surface, and heavy rains never rest among the tubers. The Potato thus placed has 12 inches of good soil below it, with a base of 36 inches laterally for its roots to ramify in. The rows are run east and west, so that one side of the ridge is fully exposed to the sun.

In the winter preparation of the land I avoid the use of fresh manure, and if employed at all a light dressing is all I think necessary to apply. Burnt earth and wood ashes is an application rich in the best manure for Potatoes; potash is more liberally applied, but this is not all. In digging I have as much of the subsoil brought to the surface as the weather is likely to operate upon. As soon as wind and frost and rain

have caused these heavy, sulky lumps of clay to break up, a dusting of burnt earth is thrown upon them, and the cohesion of the lumps is destroyed for ever. In thus treating the land the Potato gets a certain quantity of fresh soil, and this, with the dry warm dressing of ashes, its elevated position securing all possible heat, free space, air, and light, without obstruction, it is perhaps no wonder that, even in our old kitchen gardens, crops of excellent Potatoes, averaging 20 tons to the acre, are obtained. *William Ingram, Belvoir.*

Home Correspondence.

Colouring of Pelargonium Leaves.—By the leave of you grand editors I the sooth, I want to hae a word wi' twa o' your writers, that ca' the hectic flush o' comin' death nonsense. If that's nonsense, it is a kind of fulery that Nature—that mustna be ca'd a fule—indulges in gie muckle. A' the woods are flushed ower wi' this nonsense jist afore the bonnie leaves fa' down and dee. And in a' sic cases the flush is no a proof o' robust health, but jist the sign o' comin' death. And hoo does Mr. Sandy Dean ken that it is jist the contrarie in Pelargonium leaves? At ony rate, he disna prove his pint by telling us a' that a droothy bottom and excessive root action baith alike paint the cheeks of the Pelargonium leaves sae prettily. Nae man, gin Sandy had ever suffered frae whusky drooth he would hae kent brawly that that makes pale faces; whereas, when oor feet are under a weel-spread table, they become a bonnie red colour; and I am no sure that it wadna be jist sae wi' the plants. But I canna see hoo the starving o' the roots in the Elegant Pelargonium could cause the robust health that makes the high development o' beauty. Neither is it sae easy to unnerstan hoo warm or nimble feet (roots) can mak a rosy face or bright leaves. Gin it be sae, oor fair leddies hae only to put their feet in het water, and their hands oot in the cauld, to mak the roses on their cheeks bloom tae perfection; which seems rather a nonsensical and dangerous proceeding, no to be followed by leddies or plants, without we kent mair about it than Mr. Sandy Dean has yet tellt us. *A Canny Scot.*

Judging Melons.—It would perhaps be well if the managers of our horticultural shows would follow the rule laid down for judging Melons at the Edinburgh show. I am of opinion that it is not necessary to cut a Melon to arrive at a pretty correct estimation of its qualities, unless it be a new or unknown kind. The present system of judging fruit by flavour is, to my mind, most unsatisfactory. It is simply impossible for any one to go over a multitude of dishes and make just awards by flavour alone. If we are to judge our fruits at horticultural exhibitions by flavour, it will often be at the expense of good cultivation. Rather let us place this in the foreground, and judge with our eyes, and we shall not often err in forming a correct judgment of the qualities of most fruits. A repetition of tasting cloy the palate, and often misleads, but it is an easy matter to run the eye over a large number of dishes and pick out the best, and as your correspondent has it, there are the two senses to guide to a decision, viz., sight and smell, *versus* taste, but if the number of dishes are thus reduced by selecting the best grown, it is easy to decide by flavour, if the competition is very close. We much want a code of fixed rules to judge by, as it is not uncommon to find at one show that the judges have cut a fruit on almost every dish, and perhaps an inferior looking collection has the award, while at the next show size and general appearance have carried the day. *J. Sheppard, Woolverstone Park.*

Melon Judging at Edinburgh.—Mr. Thompson has explained a' about hoo it was that the grumbli' arose about the Melon judging. It seems that the Caledonian Society, after scoorin the countrie for able judges, sent their officers to those same judges to tell them hoo to dae their wark. They might look at and smell the fruit, but daurna cut nor taste them. Weel-a-weel, wonders will never cease. If sic a mode o' judging the Melons was to be adopted the Society needna hae sent sae far for judges. The nearest grocer body has a pair o' scales, and ony bit o' a painter frae the Schule o' Design could hae judged the Melons as weel, or better, than the best gairdner in Britain. A' that was needed was an ee to see the beauty, a hand to clap the fruit into the scales, and a nose to sniff it a wee bit. Then, presto! begone! 1st prize heaviest, handsomest, fullsomest. Weel-a-weel, sic a display o' judgment is simple at least; an' ance admit that Melons are only grown to be eed and smelt and no eaten, and the plan is a' right enough. But, then, on sic a plan we might jist as weel grow Gourds or Squashes, which are larger an' handsomer than mony Melons; an' they could be scented wi' Eau-de-Cologne or ither gude stuff. If twa senses can but be pleased, wha cares about the taste? Sae at least thinks ane o' the judges, wha has written to approve o' the tasteless mode o' judgment. He likewise gangs on to haud up the practice on the queerest ground ever heard o' this side o' the Tweed. Scotch tobacco and whusky toddy are no only strong but irresistible to oor southern judges. But it seems that while sic things dunt or destroy the taste, they leave the senses o' smell an' sicht strong an' clear as afore. Noo, it is weel kent that this doesna square wi' oor experience. Toddy will mak the een see dooble; and it is kent gie weel that onything that benumbs or bemuddles the palate blunts the smell as weel as sends the taste wrang. Besides, we dinna want either toddy-muddled or 'bacca-numbered judges, we hae plenty o' the sort at hame, without scoorin England for them at show times. But Mr. Thompson has mair to say in favour o' ee-an'-nose judging. He will hae it that it beats the ither mode o' tasting a'thegither, because it gies us twa senses to ane. Weel, that beats a' I ever heard! Suppose we jist let in the taste, wouldna that gie us

three senses against twa? Or does Mr. Thompson mean to say that the judges wha insist on baith up their noses an' close their een? Surely baith see an' smell when he is tastin'; in fact, baith better after the Melon is cut than afore. The skin shuts in the best o' the perfume and quality. I' the face o' Mr. Thompson's wise officers o' the Caledonian Horticultural Society whase rules he admires, I mak best o' the sense they shut oot is weel kent; the ither put thegither, an' in fact in the oocht to be first considered. If Melons were to be worn as chignons, or suspended as nose rings, then ee-an'-nose judgment oocht to rule; but as they are grown for to please the sense o' taste oocht to be consulted an' hae the there need be nae rivalry ava atween the judging sic fruits. It's no a question o' twa ane, o' three against twa even, but it is a question o' senses doing their very utmost to fin' out the best. An' Melons are sic kittle fruit to judge, an' sharp nose, a keen ee, an' a weel seasoned tongue o' them numberd wi' 'bacca, nor muddled wi' fin' oot the best. Mr. Thompson seems to hae been a' right because baith the prizes were to the same grower. Noo, I confess, I thought until I read Mr. Thompson's letter. But on o' the toddy, the interference o' the oocht senses pitied against the ane, &c., I hae no mair in saying that I think the judgment, rather than a meddle an' muddle frae beginning to the final award a loup i' the dark. An' it shows, a gude mony o' us will rather keep hame than hae them sniffed at an' passed over in fashion. The proof o' the Melon, fit for puddin', is i' the preeing o't; an' it is jist an attempt to judge the former wi' a look o' the sniff o' the nose, as it would be to test the puddin' i' the same way. If the fruit is better o' than the prize, let it be kept at hame, an' name o' common sense let's no gang on quality without testing for it like some o' us. Even insects winna eat their fruit without see if it's gude; and surely oor judges o' muckle sense as a wee bit waspy. *A Canny Scot.*

Herbaceous Grafting.—A correspondent's writing on Potato grafting, reminds me of experiments tried in herbaceous grafting during the part of the present season, and which were described in a paper read by me at the Congress, "On the Influence of the Stock, Scion, &c.," and subsequently published in *Gardeners' Chronicle*. The writer at Burnett) says:—"What I value most seeds that may be produced on the grafted. This is precisely my view of the subject, carefully preserved seeds produced by Beans, Scarlet Runners, &c., with a view whether or not the stock will produce any influence upon the produce of the scion. This cannot be ascertained before next season, at present wished to allude to, was the luxuriance with which the Scarlet Runner grafted upon the common dwarf French was contrary to my expectation, and the necessary sustenance through the fragile dwarf Bean, and this without any effort on the scion to emit roots above the junction; the other hand, dwarf French Beans grafted on the Scarlet Runner were considerably less than the same varieties growing upon their own roots in neither of the cases can I perceive any in the seeds so produced from that of the grafted. *P. Grant draws P.S.* In my remarks at p. 1184, on "Orchid-foliaged Pelargoniums for the purpose of decoration," I intended to say Orchid-house an orchard-house, as there printed.

Potting Lilliums.—Hark! Nature loudly calls to "W. E." to discountinue the off" of the bulbs of these plants. He is and we see him apologising to the old because she has been saying the same. Now if "W. E." will follow Nature, there little difference between us—and that theory. "W. E." will persist in writing week of January," while I am writing has not turned out Lilliums yet, or he such—will he pardon me?—nonsense, supporting dead stems, for the roots with the stem—and the "scaly bulbs engaged in collecting support" from the is some of "W. E.'s" theory, not mine. fresh! and fresh! I say—pot your stem is dead, as being the time when the bulb is least active, for the bulbs of the opinion never "rest," in the fullest The bulbs cease to make new roots at stem begins to decay, this may be called of its resting period. While the stem bulb seems to draw up the required succulent roots, thereby charging the to make other roots, and at the same the "invisible" part "W. E." speaks as this process is completed, if the soil the bulb will begin again to make roots, prepare itself to throw up another the stem is vis ble by this practice laid such a foundation in the way of stem will not be those "drawn reads" I must refer "W. E." to Mr. Tan gentleman has so well disposed of have been raised that I need not explanation. I must own I was

content to abide by the teaching of our forefathers, but as, like "W. E." awakened by the teaching of nature, by following up the process by which she so wonderfully carries the Liliun round with the year, like "J. D.'s" note, it is candid. I hope he will in November potting, and report: I must leave to you the task of explaining "spring." I would so respectfully ask Mr. Smith to give us the interpretation of his time of "potting" Liliuns. I would advise "Youngster," and all—I question if there are many—who have not tried November potting, thinning, as the case may require, to prove it, and gain at once. M.

Vine Roots.—When I propounded the question (see 1137), Do Vines make leaves and branches without the aid of new rootlets? I expected that it would be intelligently understood, and debated upon its merits. It seemed to me to be a very suggestive question, interesting to science and practice combined, where the men of the spade and the men of science could actually co-operate to settle the question. In order that there might be no misunderstanding of the text, I averred that it appeared to me that spongiole or spongy rootlet formation, was more the consequence of the cause of leaf and branch manufacture. This is no foregone conclusion, but warranted by repeated observations of Vine plants growing under different circumstances, all tending to demonstrate and confirm the theory propounded. Mr. Knight's additional experience since 1868 is more emphatic, and enables me to speak with more decision and power, while Mr. Dawson's observations also go to establish the simple fact, so far as Vines are concerned. But I was apt to run away with the idea that because spongiole manufacture does not take place simultaneously with leaf-and-branch development, that since the supporters of that theory are committed to the idea that the established roots are dormant, and that the leaves and branches are entirely indebted to the stem, which is supposed to be like a river and its tributaries. Only there is this difference, to be true to metaphor—the river of sap which is manufactured into such extension flows uphill. Mr. M'Millan, who has given particular attention to this subject for a considerable time, seems to fully appreciate and understand the hydraulic pressure of sap in active motion, and its tendency to ooze out and "bleed" at fracture, when it cannot be otherwise utilised; but utterances upon other physiological questions—such, for instance, as "a vacuum left somewhere equivalent to the increased bulk of every bud upon the tree," and the theory as to leaf-fall, viz., "by their (the roots) desire to go to rest refuse to supply the food necessary for keeping the leaves on the trees,"—are more original than sound; and in fact, to borrow the line of his own imagery, never had the "fang" most people know that the ascending sap is manufactured into leaves and branches, and the descending sap into spongioles. [Loose physiology in Eds.] Between root and branch there is the most intimate relationship, and because we see leaves and branches forming in Vines and deciduous trees generally as precursors to new roots, it would be a series of unwisdom to surmise, and then credit, that root action was fast asleep, or that every available particle of sap was withdrawn without the old roots retaining the power to replenish themselves. That seems to me to be the foregone idea upon which the whole action turns. As to the time occupied before the ascending sap elaborates itself, and manufactures additional feeders, it depends upon circumstances of situation, of heat and moisture, and of plant constitution. A heated Vine border will accelerate the work, but only in degree, as has been abundantly testified by pot Vines, where root and branch are living in the same heat and atmosphere. But by far the most important lesson to be drawn from the subject is, that spongiole formation, following, and not preceding, nor going hand in hand with branch extension, follows on after the wood is apparently ripe. If the ascending sap takes priority in force during spring, the descending claims a given time to finish up the activity of the year. Hence, the simple adduced by Mr. Dawson with the Gooseberry Vines, and the oft-observed habit of orchard trees generally having spongiole-like roots after the trees are defoliated. The Vine plant shows the same habit, and illustrates the same theory, as anyone may see by observing his Vine borders that the white spongioles, appearing by the eye, are crying "Give! give!" when the wood is apparently ripe, and plants seemingly in winter repose. There may be such a thing, therefore, as too early pruning; and is there a crying necessity for the conservancy of these choice plants at that particular season? A border exposed to the elements, particularly during autumnal rain and cold, bodes no good results to the extended Vine roots, and therefore there is much better plea for autumn than even early winter protection. This root finishing must be going on when, as you remarked in a recent leader, the cells in the vascular layer are filling with starch, and when the spongiole and is consolidating nutritive material. Buds and bulbous plants generally differ from other plants; the roots in all cases precede the growth, as any one can see with a Hyacinth bulb in a Pseudobulbous plants, again, as in the case of Orchids, borrow life from their established connection, and are only furnished with roots on their own account when the young growths probably are from two to three months old. In the case of Lilies it is also patent that in the pot in which they are growing may be well furnished with roots before their crowns show symptoms of upward growth; and hence the necessity for the water-studying their various habits and catering for them accordingly. To be sure there are plenty of

abnormal instances that might be placed on record, as for example, that of Hyacinths being destroyed at the root base and pushing leaves by a reversion of the sap, but death was ultimately the consequence. It is possible also to adduce instances of any deciduous scion of a fruit tree having its eyes either accidentally or intentionally rubbed off, and the scion by the force of the sap emitting roots without leaves, but death, too, ultimately took place. To the best of my belief, founded on several observations, I am bound to declare upon the side of those upon whose banner is inscribed "spongiole formation is the consequence of leaf and branch extension." James Anderson, Nov. 22.—Do Vines commence growth without root action taking place? Buds certainly cannot expand without a flow of sap takes place, nor "tatties" sprout from the same cause, or, more properly, I should say, without expansion taking place. Neither can life exist either in the animal or vegetable world without a continuous supply of life's juice, or a sufficiency of it stored up, as in bulbous roots, to expand, flow on, perpetuate, and multiply their kind. If a Potato or other fleshy root were kept in a very low temperature, probably growth would not take place. Apply heat, and the stored-up sap at once expands, finding a natural outlet in the production of shoots. It is the same in a large tree if cut down early and full of sap, the return of spring causes an expansion of this locked-up moisture, and probably an immense pressure is brought to bear, at least it is often sufficient to push the buds into leaf. Any one who has attempted to stop a Vine bleeding can form some idea of the immense pressure caused by the flow of sap. Do what you may it will escape somewhere. The more active this root action, so in proportion will the sap be propelled, resulting in robust shoots and handsome clusters. Your correspondent, Mr. Knight, infers, that because his Vine shoots, inserted in claret bottles of water, lived and pushed into leaf, that a long broomstick-like Vine will do the same thing without the action of roots, after a little heat and dewing is applied. It is just this heat and dewing that causes the sap to flow more actively, and a corresponding activity at once takes place in the roots to supply the increased demand. If your correspondent wants proof of this fallacy of Vines starting into growth without root action, let him sever all connection between roots and top of one Vine just before starting his house, and wait the result. I will venture to predict that scarcely a bud will break. I am of opinion that roots are ever at work in a greater or less degree, and that the circulation of sap is as continuous. If it were not so, the branches of every tree would be dried up by the winds and frost of winter, and plants would cease to exist. Mr. Dawson appears to have fallen into a similar error in the case of his Gooseberry bushes, as he says at the time they were forming roots, there was no corresponding action taking place aboveground. The roots had had their allotted work, viz., to supply wood, rind, and bud with sap, and keep the whole plump, ready to push forth fresh leaves at the proper time; and who shall say that no increase of rind or stem was taking place because not visible to our ken? J. Sheppard, Gr. to J. Burners, Esq., Woolerstone Park.

Fuchsia Princess Beatrice.—To all lovers of Fuchsias allow me to recommend the above. A cutting was given me in February last; I struck it at once, grew it on, and began flowering it in the first week in August. A finer plant for its age I have never seen. It measured 8 feet high and 4 feet 6 inches in diameter at the bottom—a grand pyramid. Besides being a free flowering variety it is a splendid grower, with good habit and foliage. These two points, I think, are generally forgotten by the raisers. What we want is something that will grow, make a specimen, and repay us for our trouble. T. P. Turner, Gr. to E. S. Simpson, Esq., Walton, York.

Yellow Bedding Plants.—I find *Oenothera macrocarpa* a most efficient plant for bedding or ribbons; it grows evenly to a height of 8 to 9 inches, but should be pegged down to 5 or 6 inches; it is a hardy, herbaceous plant and a free grower, and lasts all the summer in bloom. I have two round beds of it, planted 16 years ago, and it continues as beautiful as when first planted. This old plant has succeeded better than anything I have tried, and it suits itself to almost any soils and seasons. It is easily increased by seed and divisions of the roots, and cuttings may be struck under a hand-glass in any soil in the spring, when the cuttings are 3 inches long. William Smythe, The Gardens, Elmham.

Amaryllis Johnsoni.—I have here at present a bulb of *Amaryllis Johnsoni*, with two large blooms on it, each bloom is 7½ inches in diameter. About the middle of last January it showed three blooms, which were large and fine; as soon as they were over it showed three other blooms, which were fully out in May—they were equally large and fine. The last four years it has had six flowers in each year. I should like to know if it is an unusual thing to have this plant flower a third time in the year. Robert Stokoe, Gr. to H. C. Marshall, Esq., Westwood Hall, Leeds. [We suppose this to have been a case of "anticipation," where the buds, destined under ordinary circumstances for future seasons, become developed before their time. Eds.]

Cordons and Calvilles.—In your report of the last meeting of the Royal Horticultural Society, it is stated that "from Mr. Shepherd, gardener to P. N. Laurie, Esq., Parxhill Park, Sussex, came a good dish of Calville Blanc Apples from small trees on the Paradise stock;" and further, that to these Apples a Special Certificate was given. It may interest some of your readers to learn that these Apples were gathered from trees worked on the true French Paradise stock; that the trees (maidens) were planted during the spring of the present year, and that the fruit was matured against a south wall. It need hardly be added that the Calville is usually grown in the orchard-house at

Trentham and other large gardens, where it is much esteemed. Compared to these, other Calvilles grown in the open air, and shown at Kensington lately were mere Crabs. The trees from which these Calvilles were gathered are not small in the sense of being pushed into dwarf bushes, but long, handsome, vigorous rods, from 6 to 10 feet long, and with plump fruit-buds from base to apex. Mr. A. McKenzie, of Alexandra Park, also sent a box containing a considerable variety of fruit gathered from cordons planted during the past spring, and a plant showing the beautiful and abundant way the trees are furnished with buds for the coming year, without betraying a trace of the contortions or nakedness of dwarf trees grafted on other stocks when submitted to the cordon form. Both fruit and tree came too late for notice. In doing me the honour of reproducing figure 143 from my "Parks, Promenades, and Gardens of Paris"—a cut which shows how the Calville Blanc, Lady Apple, American Mother, Newtown Pippin, and all the finer and tenderer French, American, and British Apples may be grown to a perfection they have never yet attained in this country—you praise the system "for small gardens." I should never have devoted a page to it were I not certain that it will prove of infinitely greater use in all the large gardens in these islands. In the gardens where there is space and light and intelligence to give it a fair chance the hardier kinds round the open border, such kinds as those above named on low walls, the faces of pits, &c.—in the gardens where there is a large fruit room to be stocked, and where discriminating tastes both in dining room and kitchen have to be catered for, in these it will be found in good time all I have asserted it to be. I may add that I have had some of the finest Apples and Pears I ever saw either in France or England grown on this system in the past unfavourable season from Mr. Tillery, of Welbeck,—one of the largest and noblest gardens we have; and I hear that Mr. Stevens, of Trentham, is also trying the system on a large scale. W. Robinson.

Salisburia adiantifolia.—The fine specimens of *Salisburia adiantifolia*, mentioned in your last Numbers, are all surpassed by one in the Botanical Garden at Pisa. In January last it attained 2.95 m. in girth (i. e. 9 feet 7 inches), at 3 feet above ground. I could not take an exact measure of its height, but I am sure that it must range between 75 and 90 feet. It was received from England, and planted in 1787. It is a splendid tree, and very remarkable for the rich golden colour which the leaves assume before falling. Two other large specimens are in the same garden, both under 6 feet, and unluckily male trees, like the first. I think that this must be one of the largest, if not the largest, of its kind in Europe. The Ginkgo, of Montpellier, is only 2.04 m., and is regarded as the largest in France. In the same garden at Pisa, among many interesting plants, are also to be found a *Cedrus Libani*, introduced from England in 1787—girth 11 feet 6 inches, a *Magnolia grandiflora*, of the same age, which measures 6 feet—it is a perfect cone of verdure, the spreading branches covering an area of almost 60 feet in diameter; a *Laurus Camphora*, planted in 1842, measures 4 feet 6 inches; and last, but first for age, the veteran of the garden, *Aesculus Hippocastanum*, planted in 1597, has attained 10 feet 6 inches. I will send by-and-by some other notices about remarkable trees in Italy, which may perhaps interest your readers. Our country is really in her gardens, and in the beautiful remains of her ancient forests, more rich in rare and gigantic trees than is generally believed. E. Fenzl.

[We cordially thank our correspondent for his communication, and shall be pleased to receive the notices he speaks of. Eds.]

Cedrus Deodara for Timber.—I would advise your correspondent "O. M." to be cautious how he plants the Deodar for timber. If his land lies low, and is well sheltered, it will do; but in a high and cold situation it will barely live, and never become much more than a shrub. I have some on my lawn, 1100 feet above the sea. They were planted nine years ago. The best of them is sheltered from the south-west by a high bank, and it is now not quite 6 feet high, and two others more exposed are scarcely 3 feet. Wellingtonias planted at the same time are more than 10 feet high, stout and healthy. G. A. H. [It is quite clear there are Deodars and Deodars. The severe frost of a few winters since destroyed the tops of several and left other adjacent trees unscathed. We can scarcely recommend the Deodar as a timber tree in the midland or northern counties, unless under exceptional circumstances. Eds.]

Iberis gibraltaria.—May I record a few words of praise of a very beautiful hardy plant not generally known in cultivation? Of the perennial species of *Iberis*, none are so ornamental as the Candytuft, which decorates and takes its name from the Rock of Gibraltar. Last April I procured and sent home plants which have almost ever since been continuously in flower; and one specimen in the open border, which was frozen hard three weeks ago, is now (Nov. 19) covered with delicate lilac flowers. The corymbs and individual flowers are twice the size of those of *Iberis sempervirens*, and the foliage and habit is also much larger. It seems to differ from all the other species in being a continuous bloomer, the lateral shoots outgrowing and hiding the old flowers as they decay. It is readily propagated from cuttings. The usual colour of the flowers is a delicate lilac, but I found in the mountains south of Tetuan, in Barbary, a variety with pure white flowers. I did not, however, succeed in preserving it in a living state. Messrs. Backhouse, I believe, imported the plant from Gibraltar last year. George Maw, F.L.S., Benthall Hall, Brossley, Nov. 19. [See an article on this plant and its allies, at p. 711, 1868. Eds.]

Melastoma granulosa.—The cultivation of this showy and attractive plant is very simple. It grows freely in

rough sandy peat, treated as a stove plant during the winter. The most luxuriant shoots should be kept stopped until spring; then shift, and grow the plant in an airy greenhouse till autumn, when it is sure to blossom freely. I do not stop after March. Young shoots, not too luxuriant, root freely in bottom-heat under a bell or hand-glass. I have a young plant here now, not more than 2 feet high, which a week ago had three large bunches of flowers on it. The plant is not by any means tender; the stove in which it is grown during the winter is often below 45°. I have not seen the least injury done to the plant by a low temperature. *P. Frost, Drogheda.* The specimens forwarded by Mr. Frost were very beautiful. *EDS.*

Blue Viola.—Mr. Dodds, of Bower Ashton, has this day called my attention to Mr. Dean's remarks respecting the Blue Viola, which he saw in bloom here last August, and I hope I may be pardoned for correcting a mistake which has been made regarding it. It is not Blue Perfection, but was sent out a few years ago under the somewhat alarming name, Good Gracious, at least, such was the name which I received with it, and which I have every reason to believe correct. Whether it is, or is not, synonymous with the variety sent to South Kensington by Mr. Jobson, I cannot say: but in respect to its good qualities of healthy constitution, free and perpetual blooming, and deep blue colour, I may say that I have not seen its equal either in the spring or summer garden. Many visitors to Wilton House, have been much pleased with the effect it produced. Allow me to add, if any one is particularly desirous to possess it, that I shall be happy to make an exchange for a white Pansy, possessing the same good qualities of habit and constitution. *Thomas Challis, The Gardens, Wilton House.*

Monstera deliciosa.—This luscious fruit has been brought to great perfection by W. Addison, Esq., of Oak Lawn, near Leatherhead; fine fruit, measuring upwards of 13 inches in length and 11 inches girth, have ripened most successfully, the scales swelling most prominently and separating distinctly when matured, exposing a delicious amber-coloured fleshy fruit of unsurpassed flavour. The course of treatment pursued by this gentleman was such as to offer a hint to any one wishing to grow and mature tropical fruits. In an ordinary span stove a brick arched chamber was constructed, through which the flow and return pipes passed, a false bottom was laid on, and the *Monstera* planted out in a bed of loamy soil of about 2½ feet in depth. During the growing season water was plentifully supplied, but almost withheld after the spikes of flower were set. The subterranean warmth was kept up correspondingly to that of the atmosphere. The result of this treatment is that while fine fruit have been cut for table up to a few days ago, the auxiliary buds upon the terminal shoots have all again set flower. Thus the fruiting of this tropical delicacy, and indeed many others, may be periodically secured if the alternation of seasons, together with the terrestrial condition of the countries of which the plants are indigenous are studied, and a system of treatment based upon these principles adopted. *W. Addison, Esq., Oak Lawn, Leatherhead.*

Green Peas in November.—Mr. Carmichael, of the Sandringham, has for three years past kept up a good supply of green Peas through the winter by sowing, early in September, about five or six Peas in a pot of Maclean's Little Gem, a delicious early Marrowfat kind, which is coming into general use for early work, and is undoubtedly the best for that purpose. These, when sown, are placed in a cold frame, and towards the end of October they are removed to the shelves in the various houses, to come in in succession. Mr. Carmichael gathered the first dish on the 11th inst., full-sized Peas—truly a dish to set before a prince at this time of year; and a succession will now be kept up for some weeks. Maclean's Little Gem must not be confounded with Beck's Little Gem, and greatly indebted as we are to the late Dr. Maclean for so many fine Peas, we must especially welcome for early use two such first-class early Marrowfats as Maclean's Little Gem and Advancer. We want now an early Pea possessing the character of Advancer, with the earliness of First Crop or Dillistone's *H. D.*—I am still obtaining Peas, which were supplied to me for Daniel O'Rourke, that have been grown without any protection, and were sown in the first week in August. Another, of which I do not know the name, yielded well up to the end of last week. It was sown about the middle of July, in mistake for Dickson's Favourite, which I have always found, since its introduction in 1853 or 1854, the best of all varieties for my last crop. I remember gathering from it one year as late as December 2. A row of Ring-leader, sown July 14 last, produced only a small quantity of unfilled little pods, so that, however desirable this variety may be for a first crop, my experience proves to me it is quite worthless for a last one. I find no difficulty in obtaining late Peas, provided the frost does not come on so severely as to destroy them. The only conditions are to put plenty of moist well decomposed manure in the trench where they are sown, and never to allow the earth about their roots to become afterwards quite dry. Also, in the event of very dry weather occurring during their period of growth, to syringe them well overhead occasionally with a mixture of soft water and sulphur, in order to prevent the mildew appearing—with which, as every one knows, late Peas are almost invariably attacked. *Amateur, Whitland, Carmarthenshire, Nov. 18.*

Foreign Correspondence.

PROSPECT PARK, BROOKLYN.—This new park, the laying-out of which has been entrusted to the same garden architects as that at New York, is nearly completed, and must be pronounced to be one of the finest of American public parks. In extent (about 550 acres) and variety of surface and decoration it is fully equal

to the Central Park, while it has already even a more aged appearance, owing to the skilful retention of some grown-up timber trees that happened to be on the place. The new planting, too, has been done with material sufficiently large to give immediate effect, and, owing to skilful previous preparation, the trees, since they have been put in, have thriven unusually well.

It will thus be seen that in selecting a site for a park it is important that such natural advantages should be secured as are found in well-grown woods—an agreeable variety of surface, and fair prospects, both of distant and local scope. It is true that a site may be deficient in any of these characteristics, and yet with time enough and money enough be convertible, by well-directed skill and labour, into a park of varied and attractive scenery. If, however, such conditions as are most desirable to be added should have been already provided by Nature in the immediate vicinity of a site, it would be felt on the one hand to be an extravagance to repeat them upon it by artificial means, while on the other the disadvantage of its being without them would be greater, because more obvious. Moreover, there are two possible misfortunes in a site which, in no period of time and by no expenditure of labour, can ever be remedied: these are, inadequate dimensions and inconvenient shape. Small parks are of little use, a sense of enlarged freedom is to all, at all times, the most certain and the most valuable gratification afforded by a park.

The scenery which favours this gratification is, therefore, more desirable to be secured than any other, and the various topographical conditions and circumstances of a site thus in reality become important, very much in the proportion by which they give the means of increasing the general impression of undeigned limit. The degree of this impression which will be found in any particular park must unquestionably depend very much upon the manner in which it is laid out: that is to say, on the manner in which the original topographical conditions are turned to account by the designers. The latter must first determine what accommodations are desirable within the park, and next how these shall be situated with reference to one another and to exterior circumstances; for the best possible way to release the mind wholly from matters of business is to interest it in objects agreeable to the taste, and, at the same time, entirely different from the objects connected with those occupations by which the faculties have been overtaken. And this is what ought to be found by townspeople in a park, in which to maintain anything of a rural, natural, or tranquillising character; the driving room, riding room, walking room, skating, sailing, and playing room, must be not only liberally designed, but must be studied and adapted to all natural circumstances of the site with the greatest care.

These points have not been overlooked in Brooklyn Park, and I may add that one feature peculiar to American parks is having in them what are called "concourses," i. e., places for congregation and rest adapted to the assemblage of large numbers of people. Three of these are to be found in Prospect Park. The first of them is designated the "look-out," an elevated position from which is obtained a view of the neighbouring harbour, the distant mountain ranges of New Jersey, the ocean offing, and other scenery of interest; while from its occupying the highest ground in the park, it is exposed to refreshing sea breezes, and at the same time a view can be had from it of military spectacles held occasionally on the parade-ground attached to the park. It is proposed to form here a terraced platform 100 feet in length, with seats and awnings connected, by a broad terrace walk and staircase, with an oval court for carriages, 300 feet long, and 150 feet wide. From this "look-out" broad walks lead across the park to the east end of the lake, where, at a point commanding the largest water view, together with a rich open verdant landscape backed up by evergreens, arrangements for open air concerts have been made.

The orchestra is to be situated on an island in a bay of the lake, so that it can be seen from three sides. On the main land, within a distance of 275 yards at which distance the music of a well-appointed band can be perfectly appreciated, standing room is provided for horses and carriages in a circular space about 500 feet in diameter, and in an oval space at a higher elevation, 300 feet long, and 175 feet wide, while in front, at a distance varying from 100 to 500 feet, a space is provided to be occupied by seated seats sufficient to accommodate upwards of 10,000 people.

Midway between what is termed the "look-out" and the "music concourse," and with approaches from both, a series of terraces and arcades is provided, connected with which is room for a large restaurant. These terraces look out upon the lake, and the floor of the lower arcade being nearly on a level with the surface of the lake, it can be readily entered from the ice in winter or from boats in summer. The upper terrace is 500 feet in length by 40 feet in width, and the floor-space of the structure 175 feet by 200 feet. These arcades are intended to form the principal architectural feature of the park.

Of sylvan characteristics there are four of considerable importance. First, upon the green sward and slopes of the upper lake some of the finest American forest trees stand singly and in open groups, so as to admit of the amplest individual development. Second, in the central portion of the park is an open grove of forest trees, in which visitors may ramble in shade, without impediment from underwood. Third, a collection of the more delicate shrubs, especially evergreens, both Conifers and what we call in England American plants, such as *Rhododendrons*, *Kalmias*, *Azaleas*, and *Andromedas*, is arranged in a natural way. Fourth, there are picturesque groups of evergreens and deciduous trees and shrubs on the shore of the lake, while near the boundary and central portion of the park is a

considerable amount of woodland scenery. A flat piece of grass of large dimensions is apart as a playground or common for rural sports, and is open to all persons on foot. Grazing grounds within the park.

As regards water, this park, like that at New York, has its lake of considerable extent, the feeling meander through other parts of the ground in the form of streamlets for a long distance before reaching the lake. Water for supplying these is to be pumped from the lake to aid a spring on the side of a distant hill, so as to have always a supply from that point, the pump for this purpose worked by steam-power. The stream thus intended to take first the character of a small mountain rivulet taking a very irregular course with numerous small rapids, falls and rocks and ferns, until it emerges from the wood upon a grassy slope; then it flows quietly until, after falling over a body of water in connection with a foot bridge on the shore of the park opposite that on which it started, it has the appearance of a small river with high banks and at length, passing what is called the "concourse," empties itself into the eastern bay of the lake. Here, on the north shore, is a small island planted with large trees and small thickets of the latter overhanging the water. In the recesses of the water lakes and other aquatic plants are appropriately ornament some portions of the water, giving some interest and variety to the scenery.

In shape Prospect Park is somewhat "singularly enough," remarked a French visitor, "the entrances are at the corners." But this could only be seen, I think they were not their positions had not been in judiciously chosen principal approach is, indeed, quite a masterpiece of constructive ability, and is an entrance to a park comparable with it, except the *Place de la Concorde* in Paris. It is made to pass through an oval gate 100 feet in length and 800 feet in width, the gate just cuts off the sharp angle of the park, the avenues lined with trees pierce its opposite sides in various directions. It is belted by a fountain in its centre forms an elegant and at least two of the main thoroughfares that the ornamental appearance has also been given to the looking reservoir contiguous to this gateway. A judicious treatment of the ground connects the

As to drives, the principal one, commencing at a width of 60 feet at the entrance, just as it is carried in a southerly direction for some distance but diverges slightly to the east, so as to terminate itself to some high ground in the neighbourhood, there branches to the south-east and west, which has a part of what is called the "concourse" which has an average width of 40 feet, and an easterly branch leads nearly directly into the park. It commands, moreover, from a point opposite the entrance, a view lengthwise of an extensive grassy glade, dotted with trees and small masses. Continuing on the course indicated, this road soon curves to the left, ascends to a point from which it is proposed to have an extensive view in a westerly direction of the principal open ground of the park. From this point the road descends into a woody dell, intended to have some architectural features, a battle which is reported to have been fought near this spot. Passing through a glade of turf to the left, bounded on the opposite side by thick coppice wood, the drive continues to pass through a narrow path by which means full advantage is taken of existing opportunities for shade, and the drive continues to run in a southerly direction, approaches what is termed the "concourse" boundary line, at this point it divides into two branches enlarges almost directly into the "concourse" called the music concourse. The other branch of the drive after passing the two entrances to the "concourse" is carried round the head of the lake, and is termed the refractory. It then curves towards the west side of Look-out Hill, where there is nothing in the natural scenery so remarkable, yet agreeable views are to be obtained across the water, the north shore of the lake, and a system of bridle roads are introduced as to connect all the principal points of interest within easy access of each other.

One point in connection with American parks is to receive more attention than with European parks, ground outside their boundaries. This is to be built on, or is planted ornamentally, so as to be out from view anything which would be either with, or counteractive to the park design. The designs of American parks thus either belong to the class of those which are to be carefully laid-out ground of a highly artistic character. How we manage such matters is amply illustrated by the surrounding of New York Park, and those at *Frisbury* and *Southbury* in Boston, *Baltimore*, *Philadelphia*, and *Washington*. Cities can also boast of public parks; but these are not materially different from those at New York, and shall not occupy further space in this paper.

plants of the new A. Ordianus. A very remarkable circumstance in connection with this house is, that since the plants have been placed in it they have nearly all commenced to make new growth at the roots, in a very decided manner, sending out numerous strong green "feeders" in every direction; even old dry stems, about 18 inches in height, are throwing out roots all down the stems, showing plainly that they like their situation.

The winter garden has recently been improved by removing one side of a span-roof that formerly marred the view from the entrance, and the wooden latticed framework that did duty as a path down the centre has been replaced by a handsome arrangement of Minton's tiles. This path being much more effective, inasmuch as the contrast in colour between it and the sombre green tints of the Tree Ferns and other fine-foliage plants, is very pleasing.

In one of the other houses we noticed the largest of two specimens of the wonderful Aroid, Godwinia gigas, with its top cut off, an attempt being made to flower it by first inducing it to rest. Another plant, new to this country, is Psychotria cyanocarpa, which is just now bearing small fruit of a rich bright indigo-blue colour. It was introduced by Dr Seemann from South America. The new Bertolonia primulaeflora was also blooming very freely. The plant is a neat compact grower, and produces its clear soft rose coloured flowers in profusion. It is a fine introduction to our stoves, from Ecuador. In the same structure was also a specimen of the plant producing strychnine, Strychnos nuxvomica, from the East Indies. In a cool house devoted to Palms, of which highly ornamental class of plants there is here a large collection, is a species of Artocarpus named grandis, which was thought to bear a considerable resemblance to the Bread-fruit tree, Artocarpus incisa, but proves to be more hardy, and has broader and more deeply lobed leaves than the latter species. This plant is doing well in a cool house, whereas the leaves of the Bread-fruit tree turned yellow in the same temperature, and the plant had to be transferred to its proper place, a stove.

Amongst the Palms there are many species deserving a more extended notice, on account of their graceful habit and general adaptability for the adornment of our homes, but though we have now so many species we have only a few variegated ones. Amongst them Mr. Bull has three or four species, including Rhapsis flabelliformis aureo-variegata, one of Mr. Fortune's fine introductions, and Chamedorea Ghiesbreghtii fol. var. Curculigo recurvata variegata, though not a Palm, is a fine substitute for one, the leaves being long and recurved, of a fine green tint, banded clearly with white stripes,—an extremely ornamental stove perennial. A new species, named Welfia regia, is extremely pretty in its young state. It has smooth slender leaf-stalks and bilobed leaves, which, when young, are of a pleasing bronzy chocolate colour.

Obituary.

MANY visitors to the nurseries of Messrs. Rivers, of Sawbridgeworth, will regret to hear of the decease, on the 20th inst., of Mr. W. H. PERRY, for nearly 50 years in the employ of that firm. Mr. Perry was well known as a judge at the metropolitan Rose shows, and had an extensive acquaintance with fruits.

Garden Operations.

(For the ensuing week.)

PLANT HOUSES.

THOUGH not so much labour is required in Orchid-houses at this period of the year as during the growing season, they nevertheless require daily—nay, almost hourly—supervision and attention to their sundry minor wants. As unimpeded light is of the utmost importance in connection with their successful cultivation, it will be necessary to keep the glass as clean and free from dirt or other accumulations as is possible. Resort should, therefore, be frequently had to actual cleansings with clear water. At no period of the year, moreover, is it more essential than it is at present, that the plants be separated and kept in at least two different temperatures, &c. I refer to those two divisions known popularly as the Mexican and the Indian Orchids. The former, if kept at this time in the higher temperature which is needful to the well-being of those which are natives of the tropics are sure to suffer in a variety of ways; not the least of which results from the want of a proper season of rest. Some little variation from the ordinary course may have to be made in the case of such varieties as are from time to time pushing up spikes preliminary to flowering, when a few degrees more warmth will tend to increase the beauty of the Mexican or Indian sorts. This increased heat may be afforded with greater immunity from risks, because any moderate amount of excitement which may be given will exhaust its powers in giving greater magnitude to the spikes, or increased size to the individual blooms. Those gems amongst Orchids, the Sophronitis, will now be blooming, and they may be maintained longer in beauty by hanging the blocks upon which they grow in a cool dry corner of the house. Cymbidium insigne, which affords such a delightful fragrance about Christmas, will now be showing its spikes, and may safely receive a slight aid as above. Plants of Cypripedium insigne, which may have been grown in cool greenhouses, &c., during the past summer months, may be induced to flower more freely, and to produce finer flowers, by introducing them into stoves or other similar structures, where a moderate warmth exists. In regard to the mean temperature best suited to the two divisions before alluded to, the Mexican or cooler house should range somewhere between 48° and 50° by night, with an increase of from 6° to 9° by day, according to the amount of sunlight. The Indian house may be from 9° to 10° higher

at all times. Be very careful, when water is needed by any plant, not to pour it immediately on to the pseudo-bulbs, or they may rot off. Pour it carefully round the inner rims of the pots, and thus avoid this and other similar risks. Do not let water stand about more than is absolutely necessary, whether in tanks or otherwise, at this time. With a supply of pipes sufficient to distribute the heat, without much forcing, a very fair supply of humidity will pervade the house from the pots, &c. without resorting to other means. Cinerarias and Pelargoniums of the Cape section, which are intended to bloom somewhat late in the ensuing summer months, cannot possibly have too much air on all proper occasions, as it gives them a sturdy form of growth, and greatly increases their future flowering capabilities. Where they have begun to push their crowns up, and where the pots are well filled with roots, they should have alternate waterings with liquid manures, this may be afforded tolerably strong, as they are rather gross feeders. Where it is practicable to deluge them overhead with fresh water without running antagonistic to the wants of other inmates, this should be done occasionally in the fore-part of fine days.

FORCING HOUSES.

Those Vineries which were started a few weeks ago will now be swelling their buds somewhat prominently, hence very uniform treatment must be entered upon. The moderate amount of night temperature which I have often suggested must still be maintained, as undue forcing by night too surely ends in a stunted growth. Maintain, therefore, an average temperature of 50° to 51° by night, and from 60° to 62° by day, with a rise of 8° or 10° by actual sun-heat or external atmospheric influences alone for some few weeks to come. Moisture may be freely permitted within such vineries at this time, and until the shoots have pushed. Give a good soaking with water, at a warmth of about 85°, to the internal border, if at all dry. In instances where the borders are outside keep a nice uniform warmth of 70° to 75°. By no means let it exceed a maximum of 90°, as I have previously intimated. Let both heat and moisture decline gradually as we approach the month of December; a day temperature by artificial means of about 66° will now be ample, and 62° will suffice by night. Watch the bottom-heat contained in tan-beds; if it exceeds the requisite temperature, give it vent by sinking holes into the material, and if it declines materially, let a moderate quantity of hot water be poured into it, sufficient to produce a fresh supply of warmth in process of fermentation. In regard to such structures, let air be now given at all times when the thermometer reaches 60°; and as soon as the buds commence swelling, let them be damped over two or three times daily. In instances where Peach or Nectarine-trees are already in flower, if any so early do exist, I suggest the desirability of setting the blooms artificially. Bring forward a few Strawberries where early forcing is intended, and place them into a light airy pit or cool vinery, after first well washing the pots.

HARDY FLOWER GARDEN.

Do not let fallen leaves and other similar litter accumulate too thickly around freshly planted subjects, such as Saponarias, Silenes, Pyrethrums, &c., otherwise they will become so drawn and weakly that they will not be able to withstand such frosts as may visit us before the winter is over. Look occasionally over beds of Pansies, Pinks, and Carnations, and should any have become loosened in consequence of the action of the wind, let them be pegged down or otherwise made firm at the base forthwith. If any have not yet planted their Tulips, let them do so immediately. I beg to thank a "Lover of Spring Flowers," for drawing my attention to the Calendar at p. 1188. What I meant and should have written was Aubrietia, and not Arabis, as he seems to surmise. The general who, as your correspondent seems aware, "marshals the flowers around the Tower," deserves the thanks of all visitors to the Castle for the fine display afforded upon such a steep and confined space during both spring and summer. Those who have delayed placing ashes or other kind of protection around stools of Tritomas, should do so without further delay, for we may expect such an amount of frost as would be likely to injure them at any time. Proceed with the customary forking over of all Shrubbery Borders as soon as the leaves have fallen from surrounding deciduous trees, and there is a fair likelihood that they may remain tidy afterwards. I have frequently referred to the fact that walks which are kept regularly rolled during the autumn and winter months, mild weather prevailing, of course amply repay the labour expended on them by being firmer and cleaner in consequence, during the ensuing summer, independently of the fact that they afford so much more pleasure and comfort to the pedestrian during the winter. Good clean walks are indeed a feature to be commended in any place; they afford a certain amount of cheerfulness when all around is dull.

KITCHEN GARDEN.

Place successional batches of Seakale in Mushroom-houses or other similar places. This, of course, where this mode of growing it is practised. When grown in Mushroom-houses, where a little air is needed, it is a good plan to place a nice layer of fresh leaves over the crowns after they are placed in the house; this not only tends to ward off direct air-currents, but obstructs the passage of any light which may be admitted. These remarks apply to Chicory and to Endive, in instances where it is desirable to push them along quickly. Now that we have had some rather searching frosts, it may be desirable to make use of the supply of Red Cabbage before any symptoms of decay appear. These Cabbages, as is well-known, are far better after having been submitted to the influences of a frost or two. As I have previously stated, Parsnips should not be taken

up otherwise than as they are required for use, to lose their chief characteristic properties by being packed away to afterwards. W. E.

TOWN GARDENING.

THE Chrysanthemums should all be corrected before cutting down, as the arrangement for the next season much depends on this process. The labels I find are those made from yellow lead, with white lead and oil; and if written on the inscription will be indelible. Go over the plants, and, before digging, prune as required all the shoots of last summer's growth. Cut out all suckers that come up from the roots; let the branches of two or more shrubs interlace with another, or interlace, but keep each one separate, this is more orderly and pleasing to the eye. See that the drains in the walks are not choked clear them at once and set them right before the worms at this season, if the walks are bottomed, make a great mess with their crowns, walks should be well watered with a strong salt and water, which will suffice to clear them, and if the walks be well rolled after, they will be clean for the winter. The grass plots should be frequently rolled, which will improve them, make it agreeable to look upon. J. D.

STATE OF THE WEATHER AT CHISWICK, MIDDLESEX, For the Week ending Nov. 24, 1869, as observed at the Kew Observatory.

Table with columns: Nov, Moon's Age, BAROMETER (Max, Min), TEMPERATURE (Of the Air, Max, Min, Mean), Wind, Rain.

Nov 18—Dense fog, very fine, clear and cold. 19—Overcast, cloudy, but fine, clear and cold. 20—Clear and frosty, very fine, clear and fine. 21—Sharp frost, very fine, densely overcast. 22—Slight rain, heavy rain, cloudy. 23—Densely overcast, overcast, densely overcast. 24—Densely overcast, overcast, densely overcast. Mean temperature of the week, 53.10 deg, below zero.

STATE OF THE WEATHER AT CHISWICK, DURING THE LAST 43 YEARS, FOR THE ENSUING WEEK, ENDING DECEMBER 1, 1869.

Table with columns: November and Day, Average Height of Barometer, Average Temperature, Mean Temperature, No of Years in which it Rained, Greatest Quantity of Rain.

The highest temperature during the above period since 1st 1827 therm. 65 deg., and the lowest on the 30th, 14 deg.

Notices to Correspondents.

CHEAP GREENHOUSES. T.P.S. Consult our advertising. Unless you have sufficient knowledge to plan a plan carried out, you had better avail yourself of the services of a hot-house builder, stating the kind of require. GLASS: Anon. Messrs. Chance Brothers & Co., Street Buildings, Moorgate Street, E.C. are makers of green glass. We are not aware that this is a special recommendation for propagating purposes, slight green tint is not injurious. MANURING VINE BORDERS.—In answer to our (p. 1159) that have been made as to the manure for top-dress my Vine border, I may say that it is of the following ingredients, viz., two good loads of partially rotted yellow turfy loam from pasture, one barrow-load of well-decomposed cow manure, half a peck of superphosphate of lime. The well mixed and incorporated together before use the surface of the bed, which extends 25 feet in length is 5 feet 4 inches in width. S.N. NAMES OF FRUITS: M.N.O. Peas: 1 Broom 2, Eyewood.—H.P. Apples: 2, Caroline, 3, Pippins; 5, Rhode Island Greening; 6, Barron's 8, Winter Nonsuch. The others had the names of the small angular fruit being Winter Codlin, unknown. Peas: 7, Knight's Winter Cassino; Bergamotte d'Esperen; 9, not known; 10, 11, Susette de Bay; 12, Cl. de Morecan. NAMES OF PLANTS: T.C.P.G. Nipholobus longum destortum, 1, Aspidium trifoliatum, 2, Pteridium, 3, Asplenium Fabianum, 4, Pteridium, 5, Asplenium, 6, Salvinella, 7, Nephrolepis tuberosa, 8, Selaginella, 9, Asplenium, 10, Asplenium, 11, Cheilanthes, 12, Monocotyledon, 13, Goniopteris, 14, Fraxinifolia, 15, A.K. Abies Nordmanniana, 16, Agave mon Hornbeam.—F.M. The Agave but the attenuated stem is not a specific character, delayed, owing to a misarrangement of the parts. The common pear-shaped Puff-balls, pyriform.—Anatolus, 1, Rhus Cotinus. S.N. SLEPENTHS: T.C.P.G. These plants are freely seeds, whenever obtainable. Otherwise they may be taken off the offshoots which spring from the plants after they have acquired some age. POT VINES: Enquirer. The vines should not be kept the roots intact, start them gently, feed them by placing a false rim of turf in the space with a rich compost.—Anatolus. See reply. You must start the vines very gently, of treatment will be from time to time in the Calendar. SUCCEULENTS: A.W. If you read French there are and cheap little books by M. Lemaitre, on the Succulents and Cacti. See p. 140. ERRATUM. At p. 1159, col. c, last line of 5th column "streaked or imperfect berry" read "shaded berry." COMMUNICATIONS RECEIVED.—A. J.—T. S.—J. H. W.—R. W. S.—W. R.—O. M.—B.—G. H.—J. C.—W. C.—W. M.—R. H.—W. H.—J. B.

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BIRMINGHAM CATTLE and POULTRY SHOW, 1899 - The TWENTY FIRST GREAT ANNUAL EXHIBITION OF FAT CATTLE, SHEEP, PIGS, DOMESTIC POULTRY, ROOTS, CORN, and IMPLEMENTS...

CENTRAL CHAMBER OF AGRICULTURE - The GENERAL BUSINESS COMMITTEE will meet at the Salisbury Hotel, Fleet Street, on WEDNESDAY, December 8, at 1 o'clock...

MEETING FOR THE ENSUING WEEK, Nov 29 to Dec 2, Birmingham and Midland Counties Fat Stock and Poultry Show, in Bingley Hall, Birmingham.

SOME weeks ago Miss BURDETT COUTTS made an earnest appeal to the public against the cruelties inflicted on cattle during their transit by steamer and railroad...

Acting upon the suggestion of Mr. REID, of Granton, near Edinburgh, who for some years has devoted his attention to the improvement of the ordinary cattle truck...

Mr. REID was instructed by her to supply one of his recently patented cattle waggons, in which provision for the animals carried is made by a trough and hayrack...

The cattle stand face to face; and there is room for six when the partitions are in their places, and for eight when they are removed...

On Wednesday, Nov. 3, Mr. REID, by direction of Miss COUTTS, purchased six black heifers in Edinburgh market for conveyance to London...

Further names published as received, GENERAL TRADE NURSERY LIST may be had on application.



Red Spider Magnified.



Established 1833, HANCOCK'S INDIA-RUBBER HOSE and TUBING.

Used by many of the leading Gardeners since 1850, against Red Spider, Mildew, Thrips, Green Fly, and other Blight, in solutions of from 1 to 2 ounces to the gallon of soft water...

Wholesale by PRICE'S PATENT CANDLE COMPANY (Limited), Battersea, London, S.W.

Established 1833, HANCOCK'S INDIA-RUBBER HOSE and TUBING.

CARRIAGE, GIG, & DOG-CART APRONS, HORSE SINGING APPARATUS, with GAS BURNERS, and INDIA-RUBBER TUBING.

Improved INDIA-RUBBER DOORSTOPS, WATERPROOF CART and WAGGON COVERS made any size.

BELTING for SAW MILLS, THRESHING MACHINES, and FLOU R MILLS.

IMPROVED INDIA-RUBBER WEDGE SHAPED GAS BAGS for Microscopes and Dissolving Views; any size to order.

FLANGE TUBING, for excluding Draught and Dust, and preventing the swamping of Glass Doors.

VULCANISED INDIA-RUBBER BILLIARD COVERS, WATERPROOF BILLIARD TABLE COVERS.

Illustrated Price Lists on application, JAMES LYNE HANCOCK, Vulcanised India-Rubber Works, 286, Goswell Road, London, E.C.

THE GENERAL LAND DRAINAGE and IMPROVEMENT COMPANY, Directors: Thomas Chapman, Esq., F.R.S., The Right Hon. Viscount Compton...

THE LANDS IMPROVEMENT COMPANY, (Incorporated by Special Acts of Parliament.) Directors: John Clutton, Esq., 9, Whitehall Place, S.W.

BIRMINGHAM CATTLE and POULTRY SHOW, 1899 - The TWENTY FIRST GREAT ANNUAL EXHIBITION OF FAT CATTLE, SHEEP, PIGS, DOMESTIC POULTRY, ROOTS, CORN, and IMPLEMENTS...

CENTRAL CHAMBER OF AGRICULTURE - The GENERAL BUSINESS COMMITTEE will meet at the Salisbury Hotel, Fleet Street, on WEDNESDAY, December 8, at 1 o'clock...

MEETING FOR THE ENSUING WEEK, Nov 29 to Dec 2, Birmingham and Midland Counties Fat Stock and Poultry Show, in Bingley Hall, Birmingham.

SOME weeks ago Miss BURDETT COUTTS made an earnest appeal to the public against the cruelties inflicted on cattle during their transit by steamer and railroad...

Acting upon the suggestion of Mr. REID, of Granton, near Edinburgh, who for some years has devoted his attention to the improvement of the ordinary cattle truck...

Mr. REID was instructed by her to supply one of his recently patented cattle waggons, in which provision for the animals carried is made by a trough and hayrack...

The cattle stand face to face; and there is room for six when the partitions are in their places, and for eight when they are removed...

On Wednesday, Nov. 3, Mr. REID, by direction of Miss COUTTS, purchased six black heifers in Edinburgh market for conveyance to London...

Further names published as received, GENERAL TRADE NURSERY LIST may be had on application.

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These animals had been taken from Grass, and conveyed in the usual cattle truck 100 miles to Edinburgh. They were placed in Mr. RED's truck at 4.30 P.M. on Saturday, and left the Waverley Goods Station of the North British Railway at 8.0 P.M. the same night. At Carlisle the truck passed on to the North Western line; at Ingleton it was transferred to the Midland; and it reached London at 2.20 A.M. on Monday morning. The cattle never left the truck from 4.30 P.M. on Saturday until 6.30 A.M. on Monday, when they were taken out and driven to the Islington market. At starting there were 42 gallons of water in the tank which is fitted to the truck, and the whole of it was consumed by 7 o'clock on Sunday night, before reaching Trent. At that station 12 more gallons were run into the water trough, which were drunk before the train started. No more was given until reaching London, when the heifers drank about 7 gallons. Of hay the animals ate 2½ stones, 10 stones having been placed in the tank at starting, and, in addition to the hay, 3 stones of oatmeal were consumed with the water. The cost of this food was 10s. for hay, and 6s. for oatmeal; and the fine appearance of the beasts was the subject of general comment in the market.

It is plain that Miss BURDETT COURTS could not have adopted a more effectual plan of illustrating the position maintained in her published letter than by an experiment of this kind. She had asserted in her letter that, under the present system, cattle in railway trucks suffer a great amount of bodily distress during their conveyance from place to place. And this may be confidently inferred from the result of her experiment. Thus, it is shown that in the journey from Edinburgh, in a comfortable carriage, these cattle drank 61 gallons of water and ate 13 stones of hay and oats. How much greater would have been their need, then, if crowded in an ordinary truck? Again, if they drank 61 gallons of water in a convenient truck during 38 hours in November, how much would they have wanted in an ordinary crowded and unsheltered truck in July or August? But suppose them sent in this ordinary truck, with a desire to drink 61 gallons of water, and not a single drop attainable to soften their parched throats—not a mouthful of food given for them to masticate and to ruminate upon, so as to produce the saliva necessary to keep the life moist, and the tongue from cleaving to the mouth!

This, then, is the great lesson the experiment teaches.—Water and food are necessary in winter when cattle are in a comfortable truck; in summer, therefore, they are much more necessary.

In addition to its proof of the inhumanity now practised on railways in the conveyance of cattle, it certainly gives other results that will facilitate the adoption of a better system than now exists. In the first place, whether the present truck used by Miss COURTS be the one that best combines efficiency and economy of construction, or not, is of no importance. If there be a better, so much the better, but even this demonstrates the following facts: That the cattle, if not actually improved in appearance by the journey in a truck, where they can feed and drink, are not at all deteriorated by the journey. They were, in fact, sold readily at more money than they would have fetched if they had been conveyed in the ordinary manner.

Here, then, is a sum of money in the hands of the salesman greater than he would have had if the cattle had not received this humane treatment, and this will pay for the food and water and attention. Taken at option, and comfortably, such provision is as valuable to the animal system as any food it has received during the time that it has undergone feeding. And the farmer must not grumble about the cost of it. As to the railway companies, whether the better trucks be more expensive ones or not, it is certain that they have no right to practise systematic cruelty because it will cost money to build proper carriages. The costermonger, whose horse's collar galls its shoulder, is obliged to give up his horse's work till he recovers, to get a new collar, or pay a fine or go to prison. There is little sympathy shown when the policeman pounces on him and shuts up his trade in this manner. Railway companies have been too big to be dealt with by the ordinary Act. Now, however, that the Special Act is about to catch them, the obligation on their part to provide proper carriages for the traffic of live stock becomes imperative.

The experiment now alluded to can, for these reasons, have no other than a favourable influ-

ence in promoting the establishment of a better, more comfortable, and more humane mode of conveying animals by railway during long journeys. At the same time it most clearly shows to what extent to which animals undergo a deprivation that is of all others the most painful to endure; and Miss COURTS has rendered one of her many good services to society by calling attention to a very serious evil, capable of so easy a remedy.

Whether the particular mode of conveyance on rails she has tried be the one to be adopted or not, the experiment has at least done this great good—it has shown positively that animals do suffer hunger and thirst on the road, and that the public opinion she has raised throughout the country, denouncing the system now in practice, is well founded.

THE Report of Mr. HOPE's Paper on sewage utilisation before the Institution of Surveyors last Monday, will be read with interest, as the latest utterance on this subject of the man to whom, more than any other, will be awarded the credit of having achieved the success, when the country shall have been aroused to the enormous loss it now sustains in this particular way. Only the former part of the lecture is here given. The facts at Barking and at Parsloes, and those regarding the utilisation scheme at Romford, of which Mr. HOPE has taken the whole burden on himself, are here related, and on the whole they are sufficiently encouraging. At any rate the discouragements and failures are stated as frankly as the successes; and the reader may judge with confidence for himself. We think that the conclusion to which he will come is, that for most ordinary English agricultural crops sewage, applied with discretion, is the most fertilising manure he ever heard of; but that for crops to which our climate is of only occasional, or of doubtful fitness, sewage, like other manures, will produce only occasional or doubtful results. The life and character of a plant are, in fact, an unalterable "quantity" in all our agricultural calculations. They may be improvable within very narrow limits, but no enthusiastic belief in the power of any new agency in agriculture should blind us to the fact that however animals—and, *a fortiori*, men—who are capable of influence by many other motives than the merely material ones may improve under education, plants have very limited capacities indeed.

We may educate our animals to some extent to bear with, and perhaps to profit by, an unaccustomed set of circumstances; plants, however, must be simply selected for their ascertained natural aptitudes. And however wonderful may be the produce, for example, of the Maize plant under its own climate, we must not think that, even with the aid of sewage, anything more than an occasional success, in a year like 1868, will be attainable in ours. Happily, however, there are plants enough for which our climate is well adapted, by which we can most perfectly utilise this wonderful agency. Italian Rye-grass, Mangel Wurzel, Cabbages, Celery, Strawberries, Asparagus—all these prosper wonderfully under its influence; and even grain crops, judiciously treated, will answer satisfactorily to the sewage whip.

The latter part of Mr. HOPE's lecture was a clever argument, based upon the fact, which he had just enumerated, in which sarcastic criticism and exuberant fluency of rhetorical illustration are brought to bear upon the assertion—"It won't pay." An extract will suffice:—

"When a sailor wishes to describe a peculiarly desperate situation, he says that a man is between the devil and the deep sea. Now, if we substitute for the devil the enemy of mankind the Court of Chancery—and there are some persons who would think the substitution not altogether ill-fitting—we very accurately define the present position of most of the towns in England. These towns utilise their sewage in some way or other, the deep sea, far away from all oyster beds and bathing machines, salmon fisheries and salt pans, is the only place where the Court of Chancery will allow sewage to be discharged, and even in such a case as this I am strongly of opinion that, if a respectable and duly qualified merchant mormul or water baby applied to the Court for an injunction, the present Lord CHANCELLOR, who is such a conscientious disciple of Mrs. DUMAS, would decide that the petitioner had a *case made*, or, perhaps *case made*, and I would prohibit the further pollution of the deep sea."

"But in the case of London what says poor Father Thames? Poor old fellow, for nearly centuries past he has been in the large so many indignities, that it was apparently considered that one more could not do him any very great harm; nevertheless, this last piece of ingratitude seems to have been too much for him, and his fatal stream of sewage seems to have been the last drop that made his bitter exposure flow; for his official spokesman, the Solicitor to the Conservancy, has just inserted an advertisement in the *Times*, giving notice of a Bill that he is going to apply for to Parliament this next session, to prohibit the discharge of solid matter into the river

Thames from the sewers and drains of the Metropolitan Area of Works, at Barking, in the county of Essex, and of the Metropolitan Area of Works, in the county of Kent, and from any other place belonging to them, or any other body or person, and to compel the Metropolitan Board of Works to do all that is necessary to prevent the effluent waters of the Metropolitan Area of Works from flowing into the river Thames."

"I smiled when my friend brought this advertisement of anguish from Father Thames. 'Hallo! what a man,' said I, 'deed-dare the sewage of London. Don't you wish you may get it? Why, if it were possible to pay to deodorise it? Then I began to think what the Court of Chancery had said in one or two cases, and began to think that perhaps Parliament would do whether it 'paid' or not, to do what the old law would and would say that he had as much right to be kept out of his body else. But the dry weather sewage of London, in the Thames, is alone sufficient to fill a lake of 1000 acres 3 feet deep, every 24 hours; so how is it within the bounds of practical possibility to 'deodorise' this mass, unless by allowing it to deodorise itself in the air and through the land?"

"In fact, it is quite plain that the days of the state of things are numbered, and that the will of sewage 'has got to be done,' as the expressive *Times* goes, and 'done' it will be, for truth will triumph in spite of all opposition and all assertion, and which latter is so often the greatest impediment to improvement."

— GREAT depression has continued in the trade throughout the markets of the kingdom, although the large foreign arrivals have been readily at 2s. per quarter further reduction, and the retail trade has resulted, as confidence in the prices is still wanting. The trade in spring wheat is depressed; there is a reduction of 1s. to 2s. upon Beans, Peas, and Best Barley, and the sorts of Barley and Oats are 6d. to 1s. lower.—In the seed market there is a general inquiry for Clover seed; and for the best advance of 2s. to 3s. per cwt. has taken place.—Potato trade dull and slow.—In the cattle market of Monday the supply of beasts was short in the previous week, and trade was brisk, and there was a slight advance in the prices of the qualities of beef. Sheep, too, were not plentiful, and were readily disposed of at an advance on the previous Monday's prices. On Thursday there was a large supply of English beasts, but a short supply, so that trade was again active at the quotations, and a fair clearance was effected in kinds of cattle. Sheep were more plentiful in stock, and prices were lower for the small and business transactions.—Wool trade improved for qualities prices a shade higher. Trade in tanning districts slack, and though a large quantity of wool is being used, the profits are very meagre.

— Compared with former years, we are glad that the entries for the Birmingham Cattle and Show are far above the average. The prizes for having been much increased, a grand display is expected, particularly from the local Shropshire breed, whilst there is no doubt that the exhibition will maintain its character as one of the first kind in the kingdom. The raising of the fees on poultry slightly diminished the numbers, but 2500 of nearly every known variety of fowls and pigeons certainly be as many as most visitors will inspect. The root and corn show forms a most and interesting feature, and will be far better anticipated in the earlier part of the season. As the space appropriated to my lements and miscellanea articles, we understand that the applications for allotment have been unprecedentedly numerous, much so, indeed, that in nearly all cases they had to be curtailed.

— The second report of the Commission appointed to inquire into the employment of women and children in agriculture has just been issued. We shall refer in detail to the substance of its conclusions next week. The two gentlemen to whom the task of framing recommendations, upon the points which they have collected, has been committed, as to the lessons which it teaches, and has accordingly issued separate reports on the subject.

OUR LIVE STOCK.

THE Shobnall Grange catalogue, just issued, contains the pedigrees of 28 cows and heifers, and 11 bulls, names of the sires lately used in Mr. Meakin's evidence of the pains which has been taken in the stock of first-rate quality. DUKER OF CHAMBERLAIN (21,584), by Mr. Tanqueray's MARMADUCE 33 and of the Bates *Cambridge* Rose tribe, is the seven of the lots; GRAND DUKE OF ESSEX 28 ROYAL WHARFDALL (22,507), and from Lady BUCKINGHAM, by THE BUCK (13,530), and therefore spanned by the sire of two promising young bulls of the Zeal and Zeal families, and ROYAL MASTER BUTTERFIELD is represented by two excellent heifers. First list we notice Zeal 9th by LENTON FAVORITE from Zeal 6th descended from Zeal 1st of ROYAL, previously from Chilton stock. Two younger ones of the same family will also be offered on the sale day. We anticipate some competition for *Charming Maid* by LORD LIVERPOOL, and of the DUKE OF ESSEX 5TH will not be without notice. Lastly we mention *Fidget 7th*, a 3-yr-old Bull, 3d Lord Oxford, and from Captain Blaine's *Fidget 6th* by 7TH DUKE OF YORK, the pedigree cross having been the renowned Bates are, DUKER OF NORTH MELLEND.

— The Belmont sale on the 18th inst. was successful one. The very fair average of 327 7s. 6d. realised upon the 20 animals offered, while 33s. 10d. the average of the 17 females. *Amelia* by *St. Albans* (20,932), and of the *Asia* or *Account* purchased by Mr. Savage for 51 gs.; *Ruth* by *Duke*

done." The engineers said so when Stevenson proposed to drag trains of carriages on a tramway by means of locomotives, at even the moderate pace of 12 miles an hour. But once show them a railway with the trains of carriages running on it, get them into the new groove, and they will make railways under the metropolis, or over it, or across the Alps, or the Channel, if anybody will pay for them. The idea of steam navigation across the Atlantic was met by a shout of "Can't be done!" and the idea of saving the larger half of the manure due to the land, and using it profitably is met with a similar exclamation. Yet it will be done; and we shall then no longer find extensive arable districts, and even whole counties, where steam tillage is scarcely adopted by a single tenant-farmer.

Steam cultivation will advance rapidly when the land is properly fed; it cannot advance while it is starved, any more than it can go into the Great Sahara to drive a cotton-mill where there is no cotton, or plough up the sand which is sterile. We don't say that English agriculture is literally starved, it is the best in the world; but the price of feeding it is, as we have said, constantly increasing; and it is because English agriculturists feel this that they are shy at present of steam tillage, knowing as they do that deep cultivation increases the appetite for manure, sooner or later.

I believe that the duty of writers is not to side with obstructives who take "can't" for their motto, but to endeavour to rouse the public opinion when it slumbers, as it does on the important subject we have referred to. It is quite unnecessary to patronise or defend steam tillage, which with a fair field and no favour can take care of itself. "Steam" and "progress" are words of some pretension, and the way in which they are sometime used reminds one of the story of the old woman's hen and her cat, who so sadly bullied their visitor, the young swan. If he ventured to express his ideas they put him down at once; "Can you catch mice, lay eggs, mew and purr?"—"No." "Then hold your tongue!" H. E.

THE CONDITION OF MANURES.

A MOVEMENT is being adopted in some districts for farmers to club together and contract for large quantities of superphosphate, supplied by tender. Although the plan, no doubt, offers advantages in cases where a large quantity of soluble phosphate is the chief consideration, it may be questioned whether it is generally desirable for obtaining the best class of manures,—that is, if the condition of the manure and the character of the phosphates of which it is made be taken into account. In such cases it behoves the purchaser to make sure, by having the bulk delivered to him tested, that it is really of the quality guaranteed.

The "condition" of manures has of late attracted more attention amongst farmers, since it is well proved by experience that a well-mellowed, powdery manure, which runs easily through the drill, is of much more practical value than one having the same composition but wanting in these physical qualities. In fact a good condition is almost tantamount to an additional quantity of soluble phosphate, since it allows of that which is present being applied to much better advantage through the more complete incorporation with the soil.

A word should also be added with respect to the "precipitated" phosphate, of which a good deal has been heard of late, and the nature of which I explained in my last report. The following passages are extracted from a paper of mine on the method I adopt for estimating this constituent of manures, and which appeared in the *Chemical News* of Sept. 10, 1869:—

"The fact of superphosphates 'going back,' or losing in soluble phosphate on keeping, will hardly at present be disputed,—the question at issue being whether the phosphate so reduced can be estimated or not.

"It often happens that a quantity of superphosphate which when freshly made contains, say 25 per cent. of soluble phosphate, is found after keeping (in some cases only a short time) to have lost 2, 3, 5, or even more per cent. of its soluble phosphate."

The process for the estimation of the phosphate so reduced is then described:—

"I need scarcely say that it is not my intention to introduce the determination of precipitated phosphate into my ordinary analysis of superphosphate, nor include it in the usual determination of soluble phosphate, unless specially requested, and then to state it separately,—since whatever its agricultural value may be (space forbids me entering into this part of the subject), it is no longer soluble phosphate, and will not obviously pass as such when a definite percentage of soluble is bargained for: its value is, however, at the same time, very superior, I consider, to the undecomposed or ordinary insoluble phosphates."

The following remarks are offered more especially to manufacturers, or those connected with the preparation of manures:—

1. *The Relation between the Total Phosphates in the Manure (the Phosphate made soluble, and the insoluble together) and the Acid used.*—It is evident that the less acid used, the more total phosphates will be present, but the less of them will be soluble. The converse is also evident: viz., that the more acid used, the less total phosphates, but the more of them will be soluble, but not necessarily the higher percentage in the manure. Thus, supposing we were to use 200 parts of bone-ash of 70 per cent. phosphate, and 100 parts of acid, we should have in the product 140 parts of phosphate in 300 of material (leaving out for simplicity the loss referred to in my last), or about 46½ per cent., which is obviously too little acid. If, on the other hand, 100 parts of ash were dissolved with 200 parts of acid, we have only 70 parts of phosphate in the 300 of material, or only about 23½ per cent., which is as much too little (the right quantity lying evidently between the two). Although this is, of course, an extreme case, it is mentioned to prove the fact that beyond a

certain point more acid will lessen the percentage of soluble phosphate instead of increasing it,—simply because it brings down the total phosphates too low, notwithstanding the whole of this (as far as practicable) may be made soluble.

The same rules of proportion of course apply to the addition of any other materials which may be added to superphosphate, or other materials mixed together in the preparation of special manures. Thus the addition of any extra quantity of water in mixing of course lowers the percentage of everything in the manure: many makers take no account of the weight of the water used (the better plan is to use a weaker acid and no water); and, when left to the men engaged in the operation, is the commonest source of variation in the product—especially as a little extra water gets the work on quicker. If a bone manure, when freshly made, is found to contain—say 25 per cent. of soluble, but does not dry up well, and it is thought advisable to add a little drying material, the mass will not have 25 per cent. after the addition of such material, since the same quantity of phosphate is spread over the increased quantity of material. Although this may appear self-evident to some, it would seem to be incomprehensible to others, to judge by the correspondence I sometimes receive.

2. *As regards the Soluble Phosphate Produced from a given weight of Acid*—the theoretical quantity is 80 parts of real acid (SO³) for 156 parts of tribasic phosphate; or for 100 parts of bone ash, as above, 55½ parts of ordinary brown acid.

Bone ash, however, also contains, as is well known, variable quantities of carbonate of lime as well as phosphate,—while other phosphatic materials often contain much more carbonate, and also oxide of iron, alumina, &c.; but, taking all these into account, it is found, as well known, in practice, that more than the theoretical quantity of acid is always needed, and which may, I think, be due to the following causes:—

(a) To the necessarily imperfect state of division of the phosphatic materials operated on, even when ground as fine as practically possible, and by which a portion of the phosphate of lime escapes actual contact with the acid, even under the best mechanical arrangements. This is shown by the fact that the finer the state of division the more complete the decomposition,—it being almost instantaneous in the case of chemically divided phosphate. A too rapid decomposition is not, however, the most desirable in practice hence the necessary excess of acid is borne with for practical considerations presently to be touched on.

(b) To acid consumed in decomposing phosphates which are not rendered actually soluble, and on which the question of "precipitated" phosphates I think throws some light. This is especially noticeable in well-made bone manures in which the greater part and sometimes the whole of the bone has evidently undergone decomposition, as proved by its mellow and pulverulent condition, although only a portion of it is obtained as actual soluble phosphate on analysis, but considerably more when the "precipitated" is determined.

The primary object of the skilful manufacturer is thus to obtain the most marketable article,—that is, a superphosphate having the largest amount of soluble phosphate, associated with the best mechanical condition (the difficulty of preserving the latter increasing with the former) without a strict regard to the greatest economy of acid—this at present prices especially—being usually considered a secondary consideration.

To attain this end a certain amount of chemical information is, of course, indispensable, but a good deal besides is requisite, since it is just the point on which the individual experience and skill of the manufacturer is needed, and which no rules can altogether replace. *Alfred Sibson, F.C.S., Consulting and Analytical Chemist, 11, Eaton Terrace, St. John's Wood.*

FARMING IN THE NEW FOREST.

HAVING introduced in 1845, by the request of the late Duke of Richmond and Lord Portman, the Italian Rye-grass, and the mode of growing nine crops a year, about 70 tons per acre (*Royal Agricultural Society's Journal*, p. 576), and again by their request in 1847, with further illustrations (*Royal Society's Journal*, p. 572), I may presume I am not altogether a stranger to the agriculturists of that period, and hope no apology will be required for troubling them with my present farming operations; and that those of the present will excuse me if I am troublesome by taking this opportunity of introducing myself through the medium of the year's produce of the farm of which I am a tenant, in the New Forest, where there are between 60,000 and 90,000 acres of land in a wild state, growing little else than a few Oaks, many Firs, an immense quantity of Furze, Fern, and Heather; grazed from May to November by those who have forest rights, with an interior class of ponies, worse cattle, and bad pigs, where anyone turning out animals of a better kind are not sure they will take them up again. My year's produce consists of white and red Wheat, Barley, Oats, Mangels of both kinds, Swedes, Carrots, Cabbages, Australian Prairie Grass and Italian Rye-grass. Samples of the white Chidham Wheat, Mangels of both kinds, Swedes, Carrots and Cabbages, have gone to the Birmingham Exhibition for competition against all England, Ireland and Scotland. Others are sent, through the kindness of Mr. George Gibbs, of Down Street, Piccadilly, to the Smithfield Fat Cattle Show, Islington, for the inspection of the public.

He has my white Chidham Wheat, 63 lb. per bushel; April Wheat, 66 lb.; Chevalier Barley, 58 lb.; Winter Oats, 43 lb.; Mangels of both kinds, Swedes, Carrots, and two specimens of the Australian Prairie Grass, dug up and potted, from one of which three crops were cut, between October 10, 1868, and October 11, 1869; one

pound of which was dried in the kitchen in the warmer in the day, upon the oven at night, and so dried; the rate of 30 tons of hay per acre per annum since October 11 last,—the specimen indeed was of the summer, and has not been cut. The Grass of excellent quality, and eaten freely by every animal, from the horse to the pig.

I have been asked whether it or the Italian grass is the more productive, to this I must be content at present to reply that 70 tons of Italian Grass has been grown by others as well as by me—at Barking instance; therefore that is an established fact. I do not lose more than from 5 to 2 by artificial drying, which I was satisfied 20 years since; the three crops of Australian Grass amounted to 55 tons, and was drying from 16 to 9. The Italian was very well received one dressing of liquid manure (horse water) after every cutting—the Australian manure at all; I have some now growing under liquid dressing.

I know of no plant that pays so well for high feeding as I know no limit to its produce well fed. I know no plant so productive without manure as the Australian Rye-grass, and after which such crops of Wheat, Barley, and Oats can be grown. All my corn and roots are grown after Italian Rye-grass. My Chidham Wheat which had the 2d prize at Birmingham last year, was grown after it, and it was sold at Guildford on two distinct market days, by Messrs. Legg & Co., who stated that on those two days there was no other sample of Wheat in the market that sold so high a price. *William Dickinson, New Park, Hants.*

Home Correspondence.

Depth of Drains.—I willingly respond to the invitation which you have given to practical men to communicate their experience, and the inference which they have drawn from it in respect to the depth of drains, is really advisable for drainage. I adopt unreservedly the well-motivated opinion of Mr. Paget on this subject, possess land which I believe to be of similar formation, and I have a well-founded confidence in his judgment. I have long experience to guide me in the most prudent course for our new red sandy soils, for I have provided during 49 years of management of my own property, under my own observation not less than 7,000,000 of draining tiles for the use of myself and my tenants. When I began in the year 1820 to give them every encouragement to be during the winter their own labourers at the work, and followed the same practice on my own land, I acted chiefly with the motive of employing the labour which at that period was so redundant that it was a waste of life, and the poor-rates were unequal to cope with the distress occasioned by the want of work on our clay soils. I, therefore, catered for the labour employment in my tile-yard and on my own land, which, in the prevalent culture of clay land, then seemed to me the only remunerative application of drainage, I had practised and recommended a depth of 2 feet as adequate to the purpose, for with no wet or pervious subsoils except in rare patches of ground, and only casual fissures on shaly strata, which which springs can find a course, but the common has been that a great deal of the work was ill-done, and has required to be rectified or supplemented since the practice of subsoiling has been resorted to. I usually adopt 3 feet as the depth, though in stiff clay I would not go deeper into meadows than 2½ feet; for I have often seen the water over drains when sunk deeper, and I have seen this still more remarkably in the Oxfordshire while within the same park it was necessary to go to the depth of 4 or 5 feet in order to tap the spongy subsoil of the overlying upper green sand gault; and I have found the same necessity where, on the top of a hill, a basin of sandy soil on the clay for a space of 100 acres. The result, therefore, of my experience is, that no rigid rule ought to be laid down, and that the requirements of the Government and of the drainage companies in this question are arbitrary. The effect of the drainage on my estate has been wonderful in the promotion of the cultivation of Turnips and Mangel Wurzel, and Barley and the consequent improvement of sheep husbandry and the prosperity of landlord and tenants. *O. E. Grove.*

Sugar-Beet.—So much has been said about the growing, and the advantages derived from its cultivation, that my employer was induced to obtain seed this spring direct from Mr. Duncan. The here is perhaps as good for the cultivation of the beet as any in the country: at least, if we judge from the fact that it has produced—if not always, frequently for years—the heaviest Mangel roots which have been shown at the Smithfield Club Show. My experience with Beetroot, which was grown on the same land, received the same treatment in every respect as the above is as follows,—while the Mangels weighed 25 tons per acre, the Beetroot weighed 16 tons only. How the difference in weight occurred I am unable to account for, and would be under an obligation to any of our correspondents who could assist me to a solution of the question. The Beetroot did not produce a considerable tap-root. That portion of the root which penetrated the soil was divided more or less into roots of various dimensions; and I should suppose, even taken together, a diminution in weight from that of an individual root. The top was also much larger than the Mangels, and had more disposition to produce seed. On our Mangel crop of this year—about 100 acres, seed of which came from several firms—I know

observed that peculiar "bolting" tendency which some of your correspondents have experienced; however we do not recognise such aspirants, for so soon as the disposition to run up is apparent, the offender's top is cut off and often more than once during the season. The consequence is, at storing time there is little difference between the would-be seeder and his next neighbour. To my eye there is nothing more offensive in a Mangel field than a lot of seed-stalks towering all the season, and I am sure there cannot be a more mischievous weed. P. Mitchell, Rainham, Nov. 16.

Steam Cultivation.—Let me tell "G. A. H." that I am very busy this week with about 30 men, all at job work, stocking, digging and delving; some knocking down trees, some pulling up hedges, some clearing away trees, &c., and some filling in clay pits, for I cannot get on with my draining; the ground a few inches under the surface is much too hard for that work; therefore I cannot attend to his "interest of money and depreciation" question now, but by another week I will prove that mine is the fair way of calculating it, and the way that has been accepted by all excepting him. Please give him my letter from the Times of Saturday last, to let him see what can be done on a small occupation. William Smith, Woolston, Bletchley Station, Bucks, Nov. 23.—[The following is Mr Smith's letter to the Times:—

Sir,—I have made up my book on Steam Cultivation for the 14 years ending March, 1869, showing the operations both by steam and horse-power, and the cost and cropping on the several fields during the whole period. Here is a summary of it—

HEAVY LAND.—Field No. 1.
One ridge-ploughing and subsoiling by steam-power £0 7 3
Ten smashings by steam-power 3 6 8
Eight cultivatings with horses 0 18 0
One subsoiling by horses 0 3 0
Two ploughings with horses 1 4 0
Total £5 19 11

Or an average of 8s. 7d. an acre a-year. The cropping has been. Oats one, Clover two, Wheat four, Swedes one, Barley two, and Beans four.

Field No. 2
Two ridge-ploughings and subsoilings by steam-power £1 0 4
Eight smashings by steam-power 2 11 5
Two cultivatings and drilling at one operation by steam power 0 10 0
Five cultivatings with horses 0 11 6
Two subsoilings with horses 0 6 0
One ridge-ploughing with horses 0 4 0
Total £5 3 3

Or an average of 7s. 4d. an acre a-year. Crops: Beans five, Wheat five, Swedes one, Barley two, and Clover one.

Field No. 3
Two ridge-ploughings and subsoilings by steam-power £1 0 4
Eleven smashings by steam-power 3 11 5
Three cultivatings and drillings by steam-power 0 17 0
Seven cultivatings with horses 0 14 0
One subsoiling with horses 0 3 0
One ridge-ploughing with horses 0 4 0
Total £5 9 9

Or an average of 9s. 8d. an acre a-year. Crops: Peas one, Barley two, Beans five, Wheat five, and Swedes one.

Field No. 4
Two ridge ploughings and subsoilings by steam-power £0 17 5
Ten smashings by steam-power 3 6 8
Three cultivatings and drillings by steam-power 0 17 0
Nine cultivatings with horses 0 18 0
One subsoiling with horses 0 3 0
One ploughing with horses 0 12 0
Total £5 14 1

Or an average of 9s. 7d. an acre a-year. Crops: Wheat five, Beans six, Barley two, and Swedes one.

LIGHT LAND.—Field No. 1.
Three ridge ploughings and subsoilings by steam-power £1 10 6
Five smashings by steam-power 1 11 5
Three cultivatings and drillings by steam power 0 19 0
Seven cultivatings by horses 0 14 0
One subsoiling by horses 0 3 0
Two ploughings by horses 1 1 0
One ridge-ploughing by horses 0 4 0
Total £6 2 11

Or an average of 8s. 9d. an acre a-year. Crops: Beans three, Wheat five, roots two, Barley two, Clover one, and Peas one.

Field No. 2
Two ridge ploughings and subsoilings by steam-power £1 0 4
Five smashings by steam power 1 13 4
Two cultivatings and drillings by steam-power 0 12 0
Six cultivatings by horses 0 12 0
One subsoiling by horses 0 3 0
Three ploughings by horses 1 8 0
One ridge ploughing by horses 0 4 0
Total £5 12 8

Or an average of 8s. 0d. an acre a-year. Crops: Roots three, Wheat five, Clover two, Beans two, and Barley two.

Field No. 3
Three ridge-ploughings and subsoilings by steam-power £1 7 7
Six smashings by steam power 2 0 0
Ten cultivatings by horses 1 2 0
Two subsoilings by horses 0 6 0
Two ploughings by horses 1 1 0
Total £5 16 7

Or an average of 8s. 4d. an acre a-year. Crops: Wheat five, roots three, Barley two, Beans three, and Clover one.

Field No. 4
Four ridge ploughings and subsoilings by steam-power £1 17 0
Two smashings 0 13 4
One cultivating and drilling by steam-power 0 7 0
Four cultivatings by horses 0 10 0
Two subsoilings with horses 0 6 0
Four ploughings by horses 1 15 0
Total £5 9 1

Or an average of 7s. 9d. an acre a-year. Crops: Wheat five, Beans three, roots two, Barley two, and Clover two.

Field No. 5
Three ridge-ploughings and subsoilings by steam-power £1 10 6
One smashing by steam-power 0 6 8
One cultivating and drilling by steam power 0 7 0
Six cultivatings with horses 0 12 0
One subsoiling with horses 0 3 0
Four ploughings with horses 1 11 6
One ridge-ploughing with horses 0 4 0
Total £4 14 8

Or an average of 6s. 9d. an acre a-year. Crops: Clover three, Wheat five, Beans two, Barley two, and roots two.

Field No. 6
One ridge-ploughing and subsoiling by steam-power £0 7 3
Three smashings by steam-power 1 0 0
One cultivating and drilling by steam-power 0 7 0
Nine cultivatings with horses 1 0 0
One subsoiling by horses 0 3 0
Three ploughings with horses 1 11 6
One ridge-ploughing with horses 0 4 0
Total £4 12 0

Or an average of 6s. 7d. an acre a-year. Crops: Wheat four, Clover three, Oats two, roots one, Barley three, and Peas one.

My land was not clean at starting, but it is clean now. The heavy land part of my farm under horse culture had a dead fallow every fourth year; under steam culture it has had none, yet it is clean.

The turnover plough has not been in Nos. 2 and 3 heavy land during the whole period of 14 years. It has been upon No. 1 twice, and No. 4 once, and that is all, thereby proving that the plough on heavy land, under steam culture, is of little or no use. On the light land part of my farm it has been more used—twice on No. 1, thrice on No. 2, twice on No. 3, four times on No. 4, four times on No. 5, and three on No. 6, worked on all by horse power, thereby showing that on lighter soils it is more needed.

The average cost of seed beds, as may be seen above, has been on the heavy land 18s. 8d. an acre, and on the lighter land 7s. 4d. an acre. Under horse culture the former would cost over 1l., and the latter would cost near upon 1l. per acre; therefore I have effected a great saving.

The saving in horse-keeping has been very great. Under horse culture I used six to work my farm, not over 6 inches deep. Under steam culture I have kept only three, and they on an average have worked only 118 days a year. Now, if we fix the cost of the keeping of a horse, with shoeing, &c., at 25l. a year, exclusive of the value of its manure, I save 75l. a year by the reduction of six horses to three. This, for 14 years, gives a total of 1050l., the cost of two complete sets of tackle—even three sets, if we set off half the engines to threshing.

The increased produce question I went into in August last, in a letter that you published, showing that it had been quite 2 quarters per acre upon my heavy land. Therefore, if we calculate it upon my 40 acres of heavy land, leaving the light land unnoticed, we get a gain of 80 quarters a year for 14 years, which gives a total of 1120 quarters, and at 40s. per quarter a value of 2240l.

You see that there is not only a saving in the cost of seed-beds, and in the keeping of horses, but there is also on heavy clay land a great gain by increased produce, and the land can always be kept clean and ready for crop at the cost shown above, provided the work is done at proper time.

Will the landlords and farmers of England, with these facts before them, still turn a deaf ear to what I say and let their 800,000 acres of land fallow as shown by the Board of Trade, still remain under dead fallow, when it were so easy and could work and keep it clean for ever.

I now start a new book under altered circumstances, viz., with 181 acres of land added to my farm. The arable heavy land part joining my old heavy land, therefore a re-arrangement of field is required. This has been done, and this year's work has been entered into it accordingly. Hereafter my saving in horse keep will be greatly increased, and my produce will also be greatly increased, for a dead fallow has been the rule on the new part of my farm. I had to pay by valuation for some this year, I shall not have to do so another year.]

Glass Coverings for Stableyards.—In these days, when glass structures are so cheap and essential, I often wonder glass is not more frequently used for the purpose of covering in stable-yards. Two years before the death of my late employer, Sir O. P. Wakeman, Bart., of Perdiswell Hall, Worcester, he consulted me on the propriety of covering in the stable-yard, at the same time he also wished to know if Vines could not be grown and trained under the roof, both for shade and profit. My answer was decidedly in favour of his proposition. Accordingly the yard was covered in (ventilation being admitted at the sides), and the Vines planted; but how the latter have succeeded I never heard, for at his death, the place, after erasing several of the glass structures, was let, and very indifferently kept up. I left to fulfil another appointment, and within a few months left the neighbourhood for my present situation. Now, whether the Vines succeeded or not, the covering-in of the yard was a grand idea, and proved of immense service both in the winter and in wet weather. In the former, when the ground was frozen and covered with snow, it proved a fine place to exercise the horses in, and in wet weather it proved equally useful for washing the carriages, &c., in; but, above all, it was appreciated and found most serviceable upon party nights, especially in a snow storm, a pelting heavy rain, or strong dews, everything being nice and snug under cover; there was no running with coats here and rugs there on the approach of a storm, but just as the conveyance was backed into the yard so it remained with all its paraphernalia, a great boon to the owners, drivers, and helpers. Indeed I heard Sir Olfley say, it would pay the cost of outlay in a very short time, by the extra care the servants bestowed on his property. This can easily be understood, it being so much more pleasant to work in the dry, that things could be properly attended to at once, instead of being put off for a more favourable day to-morrow. What can be a more miserable sight than to see a lot of splendid equipages standing out for hours in the wet and snow? And this occurs every season on party nights, for it is seldom there is convenience for housing more than the family conveyances. Now most stable-yards are available for covering, either by a span or ridge-and-furrow roof, and the expense would be very trifling. Indeed, if the roof is covered with Vines it would repay the outlay in a few years, I would certainly recommend the practice, and I feel convinced

if our great hothouse builders would take the hint, and add the covering in of stable-yards to their advertisements, they would stimulate the proprietors of such to have them enclosed. At any rate, give them the cue. Edward Bennett, Osberton, Worksop.

Foreign Correspondence.

PARIS.—Some time since the Emperor purchased about 3000 acres of marsh land at Arx, in the neighbourhood of Cape Breton. A portion of this estate has been thoroughly reclaimed, and is now devoted to the formation of a model agricultural colony. The other day, as it were, the domain was nothing more than a huge morass; but the waters have been drawn off by the formation of about 18 miles of canal, varying in width from 30 to 60 feet, and connected with another for navigation, which passes across the low lands to the port of Cape Breton. The portion reclaimed is furnished with excellent macadamised roads, bringing the 30 farms already formed in the domain into communication with the surrounding neighbourhood.

This large plot of ground was the hotbed of fevers, which at times ravaged the neighbouring villages fearfully, and its reclamation and cultivation are the greatest benefits that could possibly be conferred upon the district. The use of wealth and power is felt when applied to such objects as these.

A judge has made a wonderful discovery, if the account of it is to be relied on, namely, that the soil of the department of the Haute-Saône contains a stratum of rich mineral manure, lying just beneath the surface, and being from 120 to 300 feet in thickness. The analysis of this wondrous manure, which is described as bearing about the same relation to dung that coal does to wood, gives the following result:—

Mineral oil 40
Nitrate of ammonia 28
Nitrate of potash 58
Carbonate of lime 40.0
Silica 25.0
Oxide of iron 0.5
Sulphur 0.6
Carbon 0.1

The precious deposit is described as the result of the decomposition of fish, animals, molluscs, &c. But the most wonderful part of the story is that it is to be found in almost every part of France, lying close to the surface. Research is being continued, and further results are promised shortly.

Important changes have been made this autumn in the arrangements of the Imperial Schools of Agriculture. Until the other day the rules remained the same as they were at their establishment, 20 years ago. Formerly all the pupils were boarders in the school. Day scholars and what are called free scholars are now added. The age of admission for all classes is raised from 17 to 18 years, in order that they may come to the school better prepared for the higher branches of agricultural science. The course of study, on the other hand, is now reduced from three to two years, the number of lessons being increased, and the practical lessons in cultivation reduced. Each school will now have six bursarships per annum to award to its boarders. There are three of these Imperial schools in France. Candidates who possess the diploma of Bachelor of Science are admitted without examination, but all others, with the exception of the free scholars, who are admitted by special authority of the Minister of Agriculture, are examined before admission by a jury appointed by the Minister for each school, in the following subjects—Surveying, levelling, and plan-drawing, arithmetic, as far as progression; geometry; the elements of natural philosophy and chemistry; the geography of Europe, and especially of France. At the end of the term of study the re-examination of the out-going pupils consists of a written composition on a given subject, oral examination by the masters, and a dissertation on a subject drawn by lot, or on a mode of culture which has been practised in the month preceding the examination. Each pupil who passes in a satisfactory manner receives a diploma of Agricultural Instruction, and the first and second gold and silver medals in addition.

Those pupils who stand well on the list are allowed to study two years longer in public or private establishments, obtain commissions to travel and collect statistics and information, their expenses being paid by the State.

The courses of study comprise—1, Natural history, chemistry, mineralogy, and geology; 2, rural engineering, mechanics, and construction; 3, agriculture, proper and comparative; 4, zoology and zootechny, applied to agriculture; 5, horticulture, arboriculture, and botany; 6, rural economy, legislation, &c.; 7, agricultural book-keeping. In addition to the collegiate instruction, the pupils are practically taught the use of all implements, and all modes of culture.

The fees are—for boarders, 30l. a year, for board, lodging, medical attendance, fire, lighting, washing, and instruction; and the day scholars 10l. a year, for instruction only, each paying an examination fee of 1l. on quitting the school.

Born or naturalised French subjects alone have the right of admission as boarders in these schools, but the Minister of Agriculture can present a foreigner as a special favour. The day school is open to all the world on examination, so long as there are vacancies existing.

Societies.

INSTITUTION OF SURVEYORS.

The Distribution and Agricultural Use of Town Sewage: Nov. 22.—Mr William Hope, V.C., Associate of the Institution, read a Paper on this subject, from which we make the following extracts.—I have been asked to re-open the adjourned discussion on the utilisation of town sewage, by furnishing a

short account of some of our successes and some of our disappointments at Barking during the past season. And to this I will add such general observations as further experience has enabled me to make.

I will commence with my disappointments, or rather with a few of them, because as they belong to the order of mischances termed by the Registrar-General "preventable," were I to finish with them I should leave an erroneous impression on your minds.

DISAPPOINTMENTS.

Italian Rye-grass.—With regard then to the best known sewage crop, namely Italian Rye-grass, I stated in the spring that, under proper cultivation, 10 crops, averaging 9 or 10 tons each per acre, would always be obtained in one season by the application of a sufficient quantity of sewage, if the Grass were sown at the right time of the year, namely in the month of August. This statement I repeat now, and further experience has only confirmed me in this view, yet I am sorry to say that in actual production I can only bring you 1 ton nearer the promised 100 than before. On my own land I have, as yet, no Rye-grass under sewage, but on the Metropolis Sewage Company's farm one piece of ground had been sown in the month which I had so frequently recommended, and I was in great hopes even although it had been somewhat starved in the winter, yet that it would have been sufficiently liberally dealt with during the growing season to have given a result approaching, at all events, to the standard of 100 tons. If you consider that it is now upwards of eight years since I first began to labour towards the utilisation of sewage of London, you will better understand the disappointment that it was to me on finding that when there seemed at last to be a chance of a fair experiment, this chance should have been thrown away and the desired result postponed until the end of the ninth or perhaps tenth year. I say, or perhaps tenth year, because, as I shall presently explain, it is now fortunately in my power to make reliable quantitative experiments, independently of the Metropolis Sewage Company, who have for so long stopped the way. But as full result can only be looked for from Grass sown in the month of August, I cannot obtain that full result next year. I must wait for the year following, which will be the tenth of my labours. Let us hope that there may be something lucky and auspicious in that figure, and that the tenth crop of Grass cut at the close of the tenth year of work will complete the last 10 tons required to make up the promised 100.

Maize.—I have to record another disappointment with regard to Maize. I had, and still have, great hopes of this as the cereal pre-eminently adapted to utilise large quantities of sewage, and to yield maximum quantities of food per acre whether for man or beast. I stated, that so forcing was the effect of liquid food upon this crop, that I had every expectation that I should be able to ripen it in any year in the climate of Essex, because the growth of the plant in its early stages would be so hastened, that it would be able to avail itself, for ripening, of the heat which we always have in August and September. This expectation I still entertain, but with one modification, and that is, that to guard against the effect of a cold spring, followed by a cold early summer, such as we had this year, it is absolutely essential that the seed should be sown in an open porous soil, so that when the sun does come, it may penetrate and warm the soil and roots of the plant in the shortest possible time. The soil in which I ripened the Maize last year, and in which I have failed to ripen it this year, was a cold dense brick-earth, which was never thoroughly warmed this year at all. The 3 inches a day, or one-eighth of an inch an hour, as Mr. Bramwall forcibly put it, which the sewage enabled the Indian corn to grow last year for a month continuously, was never attained this year for a single day. No sooner had it struggled above the surface of the stiff earth, than the cold north winds in June nipped it, and, in fact, it was frost-bitten, so much so, that down to the middle of July it was completely white and blanched, like Celery or Seakale, and appeared to be all but dead. However, having entire confidence in the stimulating powers of sewage, I then commenced applying it with an obstinacy in proportion to the strength of the previous north wind, and the result was that the colour rapidly reappeared, towards the end of July it began to grow; and, at last, in the middle of October, it attained the proportions you see in this plant; the cobs being about two-thirds formed. I have no doubt, from what I observed this year, that even in an exceptional season, such as the past, the crop would ripen if sown in an open warm soil such as I have described. As it was, the result has been in one respect very satisfactory, for it has proved to me that Maize would always be a paying crop for a sewage farmer to grow, even if it did not ripen. The piece of land on which I grew it this year was exactly the ninth part of an acre, and from this I obtained a weight of Maize-straw of no less than 2½ tons, although it was partially dried by the bitter north wind, which you will recollect in the latter half of October. Every ounce of this was valuable food, whether for horses or cattle, and all classes of stock are ravenously fond of it, leaving all other food to feast upon it, it is therefore difficult to place the feeding value of the straw in this state, including the half-formed cobs, at less than 30s. per ton, for the percentage of sugar in the straw is very large, besides which there is the partially formed starch in the cob. It is clear that 22½ tons of such food per acre would effectually protect a farmer against any possibility of loss, and, in fact bring him in a very handsome profit.

With regard to the calculations which I made, but which I did not venture to put before you on the previous occasion, as to the probable amount of grain to be obtained per acre from this crop, under sewage cultivation, I am happy to say that I have since been

informed by Mr. Henry Evershed, the well-known agricultural writer, that these calculations are borne out in every place in the United States where there is anything approaching to a careful and exhaustive cultivation. The calculations I made were based upon the average weight of a great number of different seeds of Maize, which I weighed individually. I then carefully observed the nature of the plant, and compared my observations with written accounts, and I came to the conclusion that if Maize were planted at the rate of one plant to every 4 square feet, which I am satisfied would not be a bit too close—and well fed—the return in grain would amount to the astonishing quantity of from 20 to 30 quarters per acre, and this not in the cob, but after being shelled. Now, if we consider that this is a grain which weighs 60 lb. to the bushel, and that its analysis shows a feeding value very little, if at all, inferior to Wheat, it is quite clear that for stock-feeding and for horse-keep it is one of the most profitable crops that a sewage-farmer can grow for home consumption; and even if he sells it at the low price which it usually commands in our markets, say 30s a quarter, he will get a return, including the further value of the straw, equal to about double that which he can hope for from the finest crop of Wheat.

Strawberries, &c.—Among the minor disappointments of the year have been—first, Strawberries, which suffer, of course, as much from cold north winds under sewage as under any other kind of cultivation; secondly, Lettuces, which, under the combined influence of a cold clay soil and cold north wind, were very much retarded in their growth, and, although moderately good, never attained maximum size; thirdly, I may mention all other kinds of market-garden produce, which I tried in my own stiff land, with the exception of Celery, Scarlet Runners, and common Beetroot.

The Celery, which is one of the most difficult and expensive crops to produce under ordinary cultivation, has succeeded in a remarkable degree, and I have brought here a plant as a specimen. I am assured that the rent of the rich black mould to the south of London, where the greater part of the Celery for market is produced, is no less than 16l. an acre. This I was informed on the best possible authority, namely, that of the gentleman who is agent for a great part of the land, and who was more struck, on a visit which he paid me a couple of months ago, by the appearance of the Celery than by anything else.

SUCCESSSES.

Among the successes of the season, either at the Lodge Farm or on my own ground, may be mentioned also the following:—

Grain Crops.—A crop of Wheat on 4½ acres, the land being a poor gravel, and the crop being the third crop of Wheat in succession, gave just under 4 quarters to the acre of grain, weighing 61 lb. to the bushel, from an application of about 700 tons of sewage per acre; however, in the judgment of Professor Voelcker as well as in my own, this crop was starved and mismanged at a critical period of its growth.

Two acres of Oats, following two successive white crops, with green catch crops in between, received, on a poor yellow gravel, some 600 tons of sewage per acre, and yielded 10½ quarters of grain to the acre, weighing 41 lb. to the bushel.

Six acres of Barley, following two successive white crops, on a poor gravel, and said to have received rather more sewage, yielded 4½ quarters to the acre, weighing 52 lb. to the bushel.

Green Crops.—An acre of Beans received 800 tons of sewage, and yielded 5 quarters of grain.

Four acres 1 rood and 12 poles of Mangel received a more uncertain quantity of sewage, and produced altogether 201 tons of roots, or not far short of 50 tons per acre; but this was starved for many weeks together.

Three roods 10 poles of Potatoes realised nearly 26l. in the Borough market; the quantity of sewage uncertain.

An acre of Carrots, which received about 1000 tons of sewage, realised 36l. 10s.

An acre and three quarters of Onions, which received one light dressing and two heavy ones, sold for 80l. 12s. 11d., or about 46l. an acre.

An acre of Sugar-Beetroot, grown experimentally according to the directions, as regards distance apart between the roots, of some eminent Belgian sugar manufacturers, yielded 22½ tons from the application of about 1000 tons of sewage; but the seed was not very good, and the amount of top was enormous, and out of all proportion to the roots, partly, as Mr. Duncan believes, owing to the inferior seed, and partly, I have no doubt, owing to their being too close together. Next year, with better seed, and a distance between the roots better adapted to the particularly forcing character of sewage manure, I shall get much superior results. Nevertheless, this is, I believe, a greater weight than has been obtained by any of the farmers at Lavenham. Still it is a question whether, in view of the large returns to be obtained by the growth of other crops, Sugar-Beetroot will be a paying crop for a sewage farmer to grow: for it must be recollected that it is almost impossible to precede it by any winter catch crop, and that it remains in the ground so late that it can hardly be followed by any other crop, unless it is desired to take a crop of cereals off the ground, for which, however, it would not be a very good preparation, inasmuch as full dressings of manure cannot be applied to it without the risk of reducing the percentage of crystallisable sugar, or, rather, increasing the difficulty and expense of crystallisation, and therefore, of course, diminishing the value of the root.

PARSLOES EXPERIMENTAL FIELD.

Many now present are aware, from personal observation, of the peculiarly sticky, ungenial character of the soil of the experimental field on which I have been

working. Those who have not seen the field themselves will, perhaps, be interested in seeing which is a perfectly fair sample of the soil, gentlemen, however, who gave me the personal visit during the summer, will be struck by the peculiarly backward, unprofitable appearance of the field then presented. It is not, therefore, some satisfaction that I am able to produce a specimen of Mangel, which I selected, and being taken up, as among the best of the field, weighed when taken up, 31 lb. The total weight of the Parsloes; but I have measured it accurately, and 4½ acres I have obtained 352 cubic yards of weight of a cubic yard I find to be about 10½ cwt. Consequently, as from the whole of the 352 cubic yards, equal to 184 tons of weight, would be almost 41 tons per acre, which would be considered a satisfactory result by a high standard of the ordinary system, with moderately good soil, I venture to submit, as remarkable a result, as sticky yellow brick-earth as the Parsloes alluded to.

SEWAGE FARM AT ROMFORD.

I have said that, for the future, I shall be able to record accurate quantitative experiments in the cultivation of town sewage. This is because I have taken a lease of another farm about three miles from London, together with a lease of the town of Romford. I am informed that the town contains a population of about 8000, of whom 6500 are believed to be "sewered," as they are at the present time. However, correct information can be obtained in the course of the coming year, the actual amount of population drained by the sewerage.

The farm consists of about 120 acres, of which greater part is a light sandy and gravelly soil, admirably adapted for sewage irrigation, but exceedingly poor land. For the land, with buildings, I pay a rent of 300l. a year. For the delivered upon the farm, I pay a rent which is the largest dead rent paid for the sewage of any town, no matter what the population, up to the present time—namely, 600l. a year. For instance, the town of Croydon only gets about 800l. a year, or half as much, for the sewage of a population nearly as great as that at present drained by the Romford sewerage. Nevertheless, I believe that I have got a very good bargain, as I have got the sewage for only like 2s. per head of the present population, in intention, so soon as I have got the land ready for the proper distribution of the sewage, soon as I can procure a self-recording meter, will not become clogged with the dirt of the sewer, and commence a series of quantitative experiments, a correct and rigid account shall be kept for the benefit of the public.

Having this farm to lay out, which is laid almost in a ring fence, and having it entirely in my own control, I am anxious, of course, to make a model sewage farm in every respect, and I have very great pains to ascertain the best method in which to lay land out for irrigation. I have, in consideration, first, the effect of running ploughing channels, in arable land; secondly, the niceness for distributing an equal quantity of sewage over each square yard of the bed; thirdly, the result of both in laying out the land and in the ploughing and cultivating it after it was laid out; and, as a result of many careful observations and experiments, was, that the breadth which combined the advantages was 15 feet from the ridge to the furrow, with as great a length as possible; I therefore desire to amend the statement made in my last paper, to the effect that the width of bed was from 10 to 45 feet from the furrow; and I find that after the shallow and cross ploughings that may be necessary to obliterate the former cultivation, two ploughings are amply sufficient to lay the land up to the slope of 1 in 25, and as two ploughings are considered too much for ordinary cultivation, of preparing the surface for sewage irrigation itself into the labour necessary to obliterate the former cultivation, plus, in the case of flat land, that to give the necessary fall along the ridge of the bed will therefore be seen, that further experience served to cheapen the process of laying out, and that it is not one of those cases where fresh experiments arise the more the subject is investigated.

For the distribution of the sewage over the field, wherever to obtain a sufficient fall a height of 30 inches given to the carrier of over 30 inches. I am given of the description of sheet-iron trough which I gave in my former paper, with a slight improvement, to in my former paper, with a slight improvement, addition to the prolongation of the sides, to give stiffness, and so to admit of a greater distance between the supports, the top of the sides will be as a flange, to give lateral strength. The troughs will be tied together every three feet by a pair of uprights to take the bottom of the trough, with a cross-piece to take the bottom of the uprights. The uprights will spread 1 foot from the base, and will be mortised into a sleeper 1 foot below the surface. There will be a cross-piece every 30 feet, with a simple water-tight joint between every down-pipe, and a shutter in the main trough, which the further flow of the sewage can be stopped or stopped altogether at pleasure. The area of the main trough will be equal to the area of an 18-inch pipe: and the contract price will be 10s. with supports and shutters, with two cross-pieces fixed in position, ready for work, 1s. 6d. per yard forward, with an extra 5s. for each opening, and down-pipe; making a total, including the cost of the pipe, of 7s. 2d. per yard forward, which is a very economical method. The contractor is Mr. Edwin

or are to be put over pipes with the view of getting them out of the way, open two or three drains at one side; put pipes in these; trench the two or three ridges between, one ridge being trenched in advance of the other, and the stones gathered into small wooden boxes may be carried across to fill the next set of drains being opened. In this way we have drained and trenched large areas of old and new land, the whole work being done by contract at about 10s. per acre—the land the following season being under Turnips, after bonedust dibbled in on the trenched surface. In examples of very bad, poisonous bottoms, the top spit or furrow only is turned over, the bottom being loosened with the pick, dug over, to remove stones, or subsoiled. When done by the plough, the bottom may require to be subsoiled several times before it is fit for being mixed with the staple or arable soil. In such cases it is a prudent plan to deepen by degrees, bringing up an inch or so at a time, and exposing it on the surface as much as possible to the influence of the weather before seed time.

The Stable.—As the days shorten some horsekeepers reduce the daily allowance of corn, others take nearly as much work out of their teams this month as any other, whether ploughing or carting, &c., they plough deep, and hence do not reduce the feed. As a rule, horses should be kept in good working condition this month.

Breeding Ewes.—Attend to as last month. As the weather becomes colder they require more food and shelter; the latter being equivalent to so much of the former. In the lowlands of Scotland and northern counties of England, the rams are generally taken from the ewes about the latter week of the month; but in Highland sheep-walks, or rather if ewes have to lamb there, the rams are only put to the ewes about this time. The bathing or smearing of blackfaced and Cheviot hogs is concluded about the same time. Flocks leave the more elevated districts of Scotland for the low country grazings, where they remain during the winter months, returning hence in the spring, the times of departure and return depending upon the nature of the season. Thus Heather, and some of the mountain Grasses, are in their prime during November, and when the weather is open they supply an abundance of feed, not only relished by sheep, but by black cattle also, and both do well upon it. Milch cows, when turned out about mid-day for an hour or two, browse the young Heath greedily; but the change from open to stormy weather is often rapid, and stocks must be shifted accordingly to their winter quarters, to avoid being "storm-stayed."

The Dairy, in the common acceptation of the phrase, is now a secondary question as regards the daily produce in milk; but to this old rule there are exceptions, more in number than formerly. According to the old plan, two or three cows were timed to calve about this season, or else calvers were bought in, and the remainder of the herd allowed to run dry—not all at once, but to suit the calving in spring time. But improvements in stock management enable dairy-men now to produce more and richer and better milk during the winter months than formerly, so that those who supply our large towns with milk and fresh butter by railway endeavour to produce at this season what their customers require, the daily supply being little short of that of summer. But to accomplish this, the newly or recently-calved milch cows must be kept uniformly warm, and well fed on proper food; and if this is done, they will yield an abundance of rich milk throughout the winter months. Dry cows, and those nearly so, should be kept fresh on plenty of Turnips, but not fattened; and equal attention requires to be paid to their warmth; frosty Turnips and winter hay highly objectionable. The currycomb and brush, more especially the latter, should be freely used on both the calved and in-calf, to keep up a healthy clean state of the skin.

Gorse comes into use when the sewage Grass fails. When properly bruised, it is excellent food for milch cows, and it should be more extensively grown for this purpose than at present. If a man can cut as much in a day as will serve 16 cows, and if an acre and a-half of Gorse will feed the 16 cows for a month, the value of an acre compared with Grass is easily calculated by any dairyman. As to the crushing, the engine that threshes, cuts chaff, &c., will also work the Gorse mill. The above calculation is at the rate of three bushels of bruised Gorse to a cow daily, but at 2 bushels daily, with Turnips, an acre would serve the 16 cows a month, and so on.

The Pig-stye.—Bacon-hogs fatten as the days shorten. Increase the allowance of sour food as you force them forward. This latter applies also to small porkers. Breeding sows serve about the end of the month to bring forth towards the end of March. *W. B.*

Notices to Correspondents.

JERSEY Cows A G writes—"On October 29 a Jersey heifer calved three weeks before her time, and the calf (a dead one) had to be taken from her. She recovered, and went on well till about 10 days since, when her milk became so tainted as to be quite useless, and her breath smells as badly as the milk. I can only compare it to bad fish. We are at a loss what to do, and I should feel much obliged if you could give me a hint, as the cow is a valuable one, and a great pet." [It is possible that the cow may have eaten some putrid substance. Were the foetal membranes removed out of her reach? Try the effect of 2 ounces of hyposulphite of soda dissolved in the drink-water twice a-day, or give it as a drench in a quart of warm water. We conclude from your letter that the cow is in good health.]

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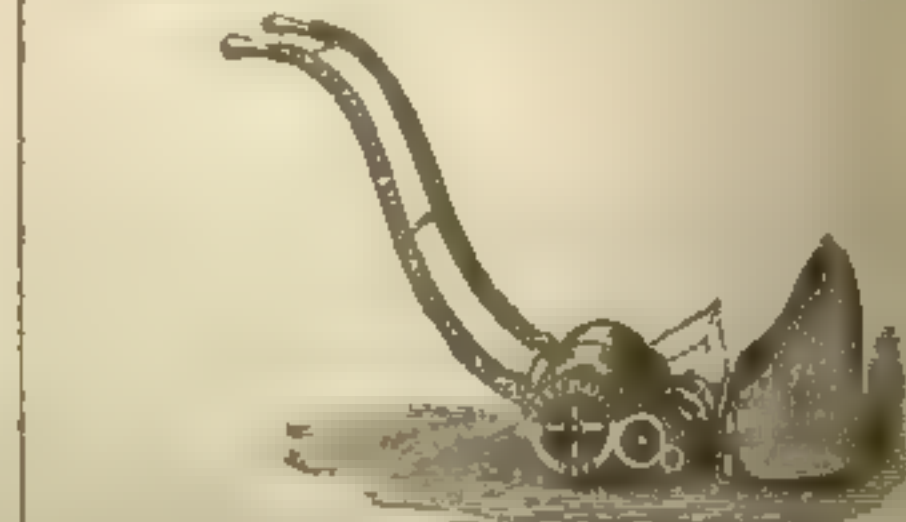
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a little and the fragments arrange themselves differently, but still they are the same fragments—and throughout their almost infinite permutations one common semblance runs; and so in these Potatoes the "blood" of one or other parent was to be manifestly traced in greater or less degree throughout—the combinations were diverse to a wonderful extent, but the material was the same. The most interesting fact, physiologically, was the production of a small, round, mottled tuber, almost precisely identical with the wild forms introduced to Chiswick from Peru. But this reversion, however interesting as a matter of science, affords an illustration of the necessity of getting out of the rut, and of striking out a new course. We don't want endless combinations of old forms, still less do we want, for practical purposes, to go back. In the matter of the Potato, our Hibernian friends even would object to advance backwards.

But how are we to get out of the beaten track—how are we to make real progress—how baffle disease—how improve constitution—how secure new and really improved varieties? Numerous methods have been recommended, and all sorts of schemes proposed. Here is another, probably not a new, suggestion:—There are several hundreds of species of the genus *Solanum*. In the case of the great majority there would probably be no good result forthcoming from an attempt to cross-fertilise their flowers with those of the Potato, but there are some few with which it would be quite worth while to make the attempt—such as *S. Magha*, *S. immitis*, *S. Commersoni*, *S. demissum*, *S. cardiophyllum*, *S. verrucosum*. We should look to our Botanic Gardens to introduce the plants where necessary, and to carry out the preliminary trials; should such trials be sufficiently promising, the experiment might be pursued by private individuals, abandoned if unsuccessful, or followed up on the large scale by growers for sale. It is quite clear that in-and-in breeding has been carried on long enough—a little new blood is required, but we don't know how it can be supplied, except by some such means as we have pointed out.

THERE are two distinct forms of *Picea Pinsapo* cultivated in our gardens: the one with obtuse leaves, which has borne cones plentifully this year in different parts of the kingdom; and the other with acute leaves, of which a fine specimen was in Mr. STANDISH'S collection at South Kensington on Nov. 16, of which we have never seen fruit, and which is sometimes confounded with *Picea cephalonica*. This is the form of which an authentic specimen from BOISSIER is contained in the Kew Herbarium; but on reference to his plate and text we find that it is considered as a sterile branch of the obtuse-leaved *Pinsapo*. Be this as it may, large plants exist in this country like that exhibited by Mr. STANDISH, and time alone will show whether when old they exhibit the characters of the obtuse-leaved tree.

A supposed variety of the species, named *var. baboriensis*, from the locality in which it has been found, has been described from Algiers; a specimen of this, with ripe cones, is in the Kew collection. The locality in question is noted as the upper woody region of the mountains Babor and Tababor, in Eastern Kabilia. An important difference, however, appears in the leaves, though the cones seem identical. In both the acute and obtuse leaved *Pinsapo* the leaves come straight from the branches, a character by which they are distinguished from the Silver Fir; but in the *baboriensis* variety there is the same twist at the base, and the leaves have much the character of those of the Silver Fir. Now, exactly as in the *Pinsapo*, there is an acute-leaved variety named *P. cephalonica* or *P. Apollinis*,* and the ordinary obtuse-leaved form of the Silver Fir; and Mr. Cox lately sent up to South Kensington a branch with cones, referred, both by himself and subsequently by Mr. ANDREW MURRAY, to *P. cephalonica*, with obtuse leaves; confirming the judgment of PARLATORE in considering it a variety of *Picea Abies*.

It appears, then, either that the variety *baboriensis* must be considered as an intermediate species,† with the leaves of the Silver Fir and

the cones of *Pinsapo*, or there will be reason to believe that, however different they may be, the three are forms of one highly variable species. It is particularly requested that if any one has fruiting plants of the acute-leaved *Pinsapo*, specimens may be sent to the meeting at South Kensington on December 21. M. J. B.

IN accordance with the announcement made in our last, HIS MAJESTY the KING OF THE BELGIANS, attended by Viscount TORRINGTON, General GREY, and several other members of his suite, visited the gardens and art collection at South Kensington. The KING was received at the Museum by Mr. FOSTER, Mr. H. COLE, C.B., Mr. OWEN, Mr. THOMPSON, and Mr. REDGRAVE, R.A., and was for two hours occupied with the inspection of the whole establishment. From the Museum HIS MAJESTY proceeded to the gardens of the Royal Horticultural Society, where he was received, at the north-east entrance, by Mr. W. W. SAUNDERS, F.R.S., and Mr. JAMES BATEMAN, F.R.S., vice-presidents of the Society, and by other members of the Council. The deplorably wretched state of the weather prevented any attempt to enjoy the sight which, even at this time of the year, the open grounds afford; but in the large conservatory, where a numerous company of Fellows had assembled, a beautiful and extensive exhibition was furnished by the principal nurserymen and florists.

There are, we believe, but few gardeners who ever grow their SHALLOTS FROM SEED. This doubtless arises from the seed not coming to perfection regularly in our climate. Nevertheless, we recently saw some very fine specimens grown in this manner by Mr. TRIGG, of Hayling, Hampshire, five of which weighed 1 lb. 7 oz. Mr. TRIGG informed us that to obtain them he planted the offsets in the usual manner, and allowed them to seed, which they do the second year. He sowed the seed in good rich soil, at the same time as he sowed his Onion seed, and obtained the crop from which the above were taken as fair average specimens. When growing in rows in the same manner as Onions, they much resemble the latter for some time, until they begin to divide into offsets, when the peculiar difference between them is readily distinguished. These improved examples are said to be much milder in flavour than those obtained in the usual manner.

We believe that SCHACHT was the first who pointed out that the FALL of the LEAF was due to the formation of a few loose, powdery-looking cells formed between the living and dying portions of the plant. This is equally the case in the curious phenomena called Cladotaxis, in which twigs of the Oak, Willow, and some other trees are thrown off by a process of natural pruning. This is especially visible in the nodes below the point from whence the stalk of the Pear has been thrown off, each internode in its turn separating from that below. In no case, however, have we seen it more strongly exemplified than in the Vine, where the cells are so abundant that they may be easily rubbed off, in the shape of a thick glittering dust, by the finger. What, however, we wish to call attention to at present, is a fact which we have not ourselves observed before, neither has it been noticed by our most distinguished British pomologist (the word being taken in its widest sense), viz., that the blade of the leaf in the Vine is often thrown off before the petiole, the denuded petioles remaining still attached to the shoot. This is, of course, the indication that the leaf of the Vine is essentially compound, though only one leaflet is developed, a circumstance which might be expected from the habit of many of its near relations. This is at first not so manifest as in some other apparently simple leaves, as for example in the Orange, though a swelling will be observed at the point of junction, which is indicative of the true nature of the case. It is very probable that this fact may have been recorded before, but it was a useful doctrine of Professor HENSLOW, that it is very desirable to record as soon as possible such observations, as their publication can do no harm, and may very possibly direct attention to points which might otherwise be long overlooked. M. J. B. [The phenomenon alluded to has once or twice only come under our own notice. V. MOHL and others have shown the gradual formation of a very delicate layer of cells athwart the leaf-stalk at right angles to the direction of the other tissues, and which act as a knife edge would do in separating the leaf. These cells are formed originally long before the leaf falls; and we presume that it is these cells enlarged, and often filled with starch grains, which furnish the white mealy substance alluded to by "M. J. B.," but we do not recollect whether the whole course of development has been continuously watched. Eps.]

The employment of sublimed SULPHUR in our HOP GROUNDS has, beyond all doubt, been a great boon to cultivators in checking mildew, and its use is now pretty general, having outlived the unreasonable prejudices which were at first raised against it, as indeed is the case with all innovations. Powdered sulphur was found to be less efficacious, though not entirely without benefit. A communication was, however, lately made to the French Academy by M. MARÉS with reference to the change which flowers of sulphur or ground sulphur undergo when cast on the soil of vineyards. It is found that it is converted into sulphuric acid, which then combines with the lime in the soil to make sulphate of lime. Whether the chemical change takes place merely from the direct action of the oxygen of the atmosphere, or from the sulphuretted hydrogen emanating from the manure in contact with the sulphur, does not appear certain, though no odour of sulphuretted hydrogen is perceptible; but it is found

that its effects are very beneficial in the case of the Vine mildew. It would clearly be a great boon to Hop growers if the parasite could be destroyed before the bine springs out from the soil, and would be well worth the attention of our more intelligent cultivators if they would make the experiment. The parasite could not be stamped out immediately the wind would bring spores of the mildew to neighbouring Hop grounds, where matters would be sure to take their course; but if it was once checked that sulphur applied to the soil was effective in a comparative case of the application would be adopted. The subject is scarcely less important to our GRAPE GROWERS, who still continue to suffer from the mildew, and we recommend their careful consideration. M. J. B. [These into the composition of whose Vine wine enters! Eps.]

New Plants.

—*STANHOPEA GIBROSA*, sp. n. aff. Stanhopea Wardii hypochilio incurvo, lobis superiori uncarinato, lato, pectore argute profunde angustissimo, aperte, portione apposita lato angustata utrinque, cornibus filicatis ligulatis, apice acuto, basi gibbero solido magno, columna ovata his angusto triangularis, alis semiovatis angustis auriculis usque.

A species in the way of *Stanhopea Wardii* distinct. We obtained it from Messrs. H. G. Rehb. fl.

—*RESTREPIA ANTENNIFERA*, H. B. K. Sepalo dorsali triangulo caudato apice clavato sepalo inferiori lato ligulato apice bifido lobis petalis sepalo superiori subaequalibus, bracteis triobovatis; labello ima basi auriculis geminis erectis, unguiculato, a latiori basi ligulato apice clavato basin versus in setam exsertente, ceterum gracilenta clavata. — *Restrepia antennifera*, H. B. Kth. Syn. i. 341.

Restrepias of the original shape are regarded with favour by amateurs. The *Restrepia elegans* is known in gardens, though rather rare. It is a curious plant, easily offended, and thus often do well for long together. We found it in a state in the Hamburg garden, but it has since divided and partially lost without our knowledge. The remainder of the three great patches got into a state in the Hamburg garden, but it has since divided and partially lost without our knowledge. The remainder of the three great patches got into a state in the Hamburg garden, but it has since divided and partially lost without our knowledge. The remainder of the three great patches got into a state in the Hamburg garden, but it has since divided and partially lost without our knowledge.

—*TRICHOCEROS PARVIFLORUS*, H. B. K. Calice nudo, pseudobulbis parvis crassis mucositate hirsutis apice seu in apiculis redactis lobis ad 5, inferioribus ad vaginas reductis, apice racemose cetera elongato axillari, paucifloro longidistantibus. Flores "postici." Ovaria bracteis triangularibus multoties exsertentibus. Sepala triangula viridia vitta brunnea. Petala cuneiformia acuta, maculis transversis brunneis tripartita, partibus laterales lineares ovatae, line ciliatae partibus mediae excavatae disco labellata, imbo brevissimo ciliatae, mediae maculis brunneis transverse, partibus laterales maculis viridibus. Columna brevis clavata, apice bifido lobis semiovatis ciliolata acuta adnata, rostellum triangulum apice retusum lobis fovea immersa limbo erecto subpentagono; antheram valde violaceo-barbata, in superficie antica vitta brunnea; pollinia incumbentia pyriformia bifaria connectiva canaliculata linearis glandula orata. — *Trichoceros parviflorus*, H. B. K. in Kth. Sp.

Formerly *Trichoceros* was a great curiosity, the lateral parts of the lip being regarded as staminodes, a mistake we have long ago. It comes near *Telipogon*, but all have an uncinata glandule. The small green with violaceous and brown spots and bars of botanical interest, yet the hairy column of one of the head of a puss, though violaceous, not to be found. We have at hand dried specimens from Humboldt, Bonpland, Hartweg, Epling, Mandon. Mr. Gustav Wallis sent it alive to Linden, with whom, and with W. Wilson Esq., it is now flowering. H. G. Rehb. fl.

SPRING BEDDING PLANTS.

BIENNIAL plants for spring flowering are of our attention, and these I will notice in their superiority for this purpose. The Forget-me-Nots furnish such beauty to the garden, that we cannot, or do not, wish to do without them. There are several beautiful varieties of which very little is at present known. *M. sylvatica* is the species so generally cultivated in den and other places where this system of bedding is carried on. It is very free-flowering, and a charming mass of bright blue flowers in the spring. It grows from 12 to 18 inches in height, this depends in a great measure upon soil and circumstances. *M. sylvatica* alba is a pure white variety of the above. It is very pleasing, and we have seen it growing with the typical plant. *M. sylvatica* is a new variety, which I see offered for sale by a well-known firm for this class of plants in flower last season, and considered it a very valuable acquisition, its pleasing mass of rose-coloured blossoms blending harmoniously with those of the typical. *M. dissitiflora* is a very distinct and beautiful species, introduced under the name of

* There is an obtuse-leaved form of *P. Apollinis*, from Attica, in the Kew Herbarium, as well as an acute-leaved form marked "Greece."
† Of this Mount Babor or Tababor Fir, there is an excellent coloured figure in Van Houtte's "Flore des Serres" (vol. xvii. p. 9, t. 1717 1718), under the name of *Abies numidica*, and we saw young plants of the same Fir growing in M. Van Houtte's nursery in the early part of last year. Eps.

think there has been sufficient said of this in the papers of last spring, to obviate the necessity of my saying a word. It grows from 6 to 9 inches in height, and when in bloom presents a beautiful mass of sky-blue flowers with yellow eyes. For massing this stands pre-eminent.

Myosotis asorica is a very dwarf-growing species obtained from the Azores, scarcely exceeding 1 inches in height. Its flowers are light blue, with a yellow centre, and are produced in innumerable quantities. M. asorica alba is a pure white variety of the above, equally as dwarf, and a charming companion for the blue one. M. asorica caerulea is another charming variety, of which too much cannot be said. It claims special attention from every lover of spring flowers, on account of its dwarf distinct habit, its free-flowering capabilities, and the heavenly blue colour of its flowers. I saw it for the first time at Erfurt, in Prussia, during the past season, and I think I never saw anything more lovely. There was a bed containing some 3000 of these sturdy little plants, not more than 4 inches in height, each forming a distinct, compact, pyramidal little bush, and not a plant varying the slightest, either in size or height. Every plant was smothered with flowers of a magnificent deep blue colour. It reproduces itself freely from seed, and it must be considered one of the greatest acquisitions for the spring garden that has been raised for many years. A bed of these varieties of M. asorica, edged with Arabis lucida variegata, would make one of the sweetest beds imaginable.

There are other species of the Myosotis, but those I have mentioned constitute the cream of the family. Most of them may be considered perennials, but as they are all freely obtained from seed this is the best way of procuring them, and the plants thus raised grow and flower more freely than those propagated in the usual way. The best time to sow the Myosotis is in August. Prepare the bed by digging, and rake it rather fine; water the bed some days before the seed is sown, so that it will not readily get dry. After the seed is sown the bed should be shaded with some light material, but as soon as the seed appears gradually remove it, until the plants are strong enough to bear the sun. By the end of September or beginning of October they should be removed to their winter quarters, care

plants strong enough to flower the following season. Pyrethrum Parthenium aureum, or the Golden Feather, should be treated in the same way as the Myosotis, and will be found invaluable for spring decoration.

Among other plants of this character may be mentioned Collinsia bicolor, C. grandiflora and C. verna, Nemophila insignis, N. bicolor, and N. atomaria, Clarkia pulcherrima fl.-pl. and the double white var. Candytuft, Limnanthes Douglasii, Lathænia, and the Vesicaria. These should also be sown about the middle of July, and should be transplanted as soon as ready into their winter quarters. There are also many other places where these plants may be used with a very pleasing effect, such as in the vacant places in the shrubbery; if these plants are once located there, they will reproduce themselves every year, without any further trouble. The Myosotis and Sineses would grow much more vigorously and flower more freely there than in the borders where they are fully exposed to the sun. You could introduce many more, such as Primroses, Polyanthus, Violets, and such-like plants, which would greatly enliven the scene. I know of a walk about half-a-mile in length, at Walthamstow, around a piece of ornamental water; it is surrounded by high trees, and under these thousands of Primroses grow luxuriantly, and perpetuate themselves without any trouble. Besides masses of such plants as I have mentioned, here and there we find a complete carpet of the common Anemone nemorosa and A. apennina. I live in hopes of seeing our shrubbery borders and waste places thus filled, and until we endeavour to imitate Nature by the cultivation of these hardy plants, our gardens will only prove to what a low ebb horticulture has subsided. In my next paper I shall give some descriptive notes upon perennials adapted for spring decoration, with hints upon their cultivation and propagation. A. J. P., Tottenham.

CHURCH DECORATION.—No. II.

Drawing and Making Designs.—There are few kinds of handywork which illustrate so forcibly the truth of the maxim that "what is worth doing at all is worth

ruling a line between every other mark or point, the required triangle will be produced, and its three sides will be equal, so that by whichever angle you hang it up, it will look always the same.

We will next assume that the triangle which you have drawn is larger than you want, and that you require one of a different size. Upon Figure 2 you will find a dotted triangle, of the same size as that in Figure 1. You will also find that dotted lines have been drawn from the centre to the angles of the dotted triangle, and that a smaller circle has been described, and, lastly, you will see that a smaller triangle has been formed by ruling lines between the points where the circle crosses the dotted lines from the centre.

Upon Figure 2 will also be found a larger triangle, which it is scarcely necessary to explain has been obtained in like manner by means of a larger circle. It is only by thus correctly drawing one triangle within another, that a proper form is to be obtained, for covering with evergreens or everlasting flowers.

In order to produce the very pleasing design of two triangles interlacing, it will be seen, on reference to Figure 3, that by dividing the circumference of a circle, as before, into six parts, and by ruling lines between every other mark, you get two large triangles. Then describe a smaller circle from the same centre, and determine the six points upon its circumference by ruling lines (as shown by the dotted one) from the centre to the angles of the large triangle; then connect by straight lines every other one of these points, and you will find that you have two smaller triangles, arranged perfectly symmetrically with the two larger triangles. By erasing or rubbing out a little piece of the lines where you wish another triangle to appear to pass over, the effect of interlacing is produced.

Hanging or Fixing-up Designs.—It is grievous to see, as we have so often observed, really nicely-made designs so fixed up as to deprive one of all pleasure in looking at them. We well know that it is not an easy matter to use a hammer upon the top of a tall ladder unless by those used to such work, nevertheless, designs must be hung horizontally, perpendicularly, and at regular distances apart, or otherwise the effect which they are intended to produce will be seriously marred.

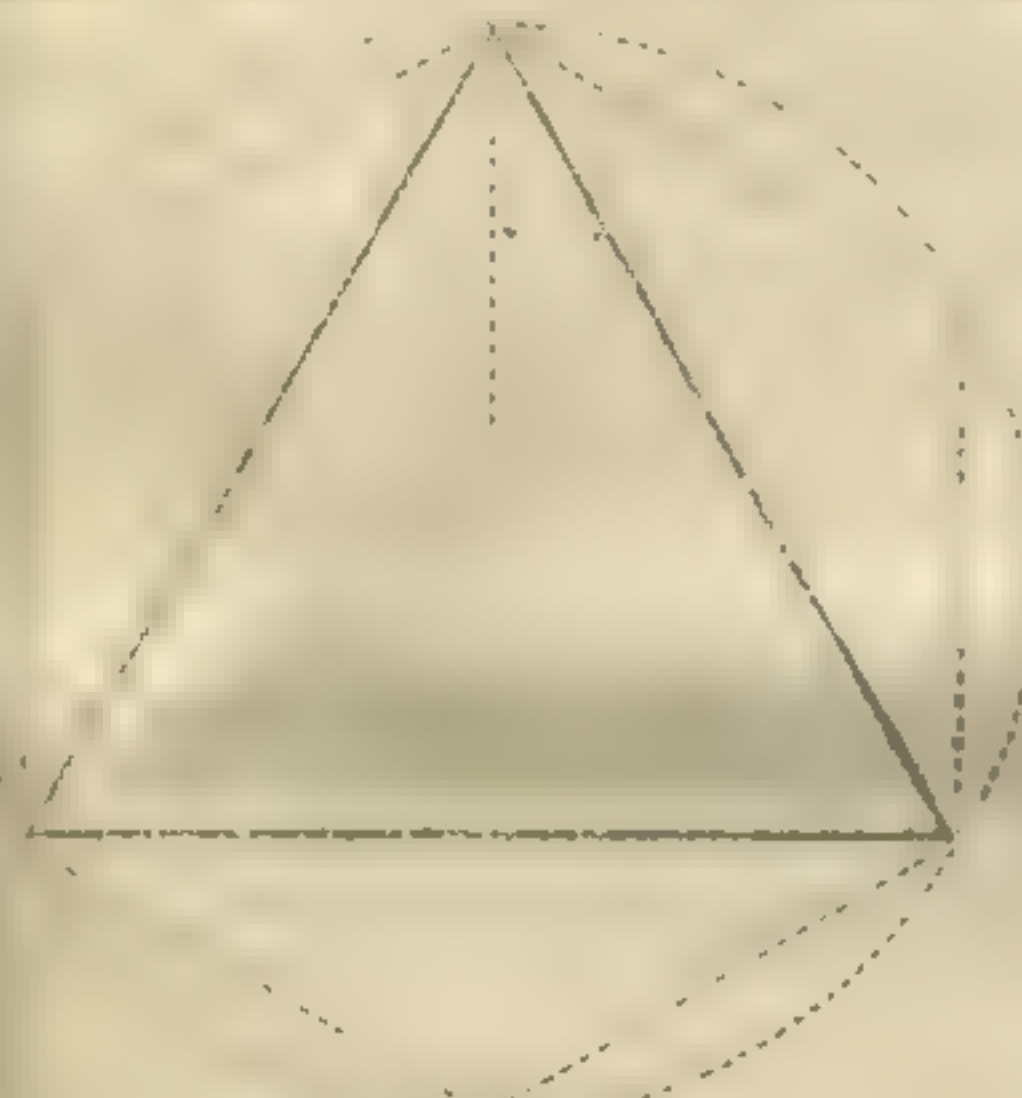


FIG. 1.

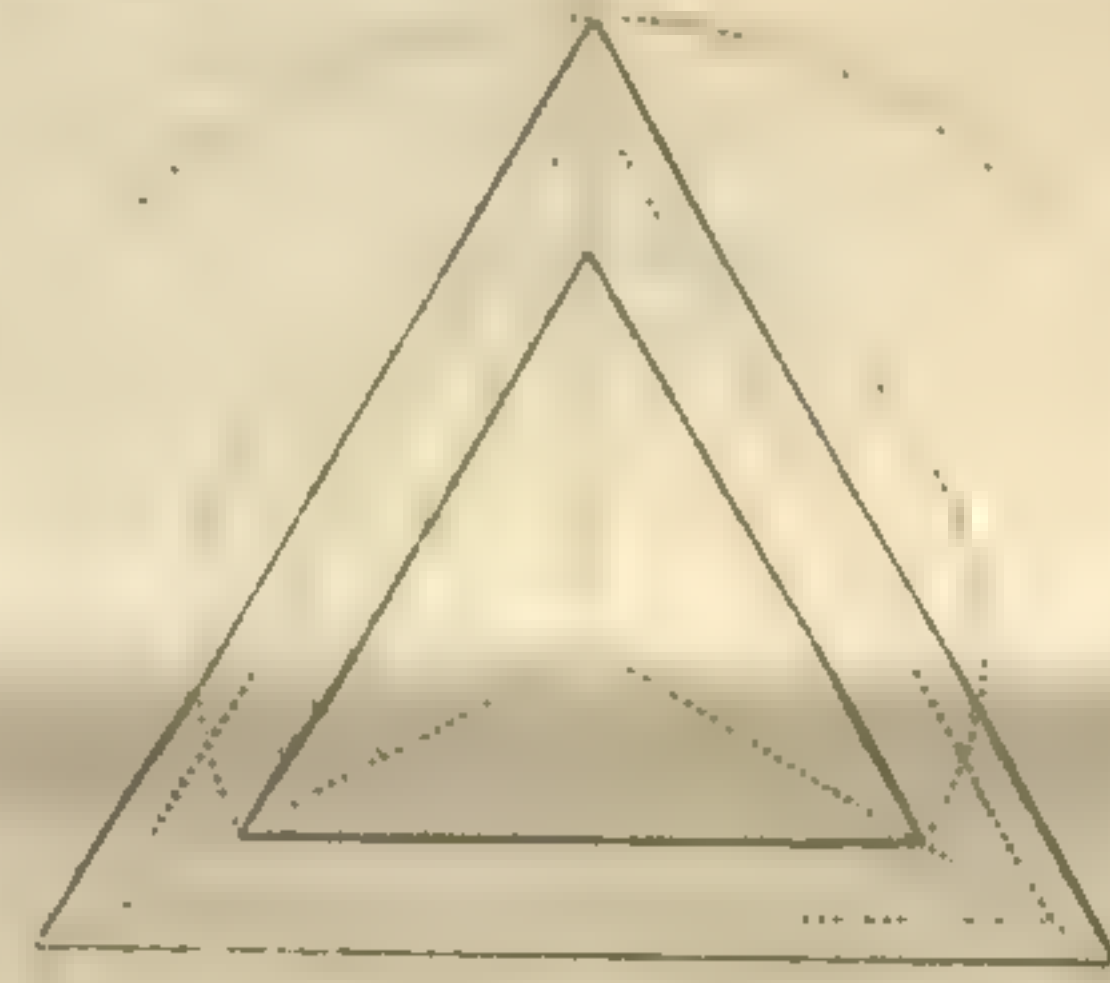


FIG. 2.



FIG. 3.

being taken not to plant them too closely. A very small space in the kitchen garden will suffice to produce many thousands of these plants. I find one of the best places is under the Gooseberry and Currant trees, where they can receive protection from the heat of the sun, in the alleys of the Asparagus beds, shading them with the tops of the Asparagus. But I should recommend devoting a small piece of the kitchen garden to them as a nursery, for the propagation of these plants, as they can then be looked after more effectually.

Another capital plant for this kind of gardening is the Silene pendula, it is very free in growth, and from its pleasing colour is indispensable to the spring garden. It grows from 18 to 24 inches in height, and forms a dense mass of lively rose-coloured flowers, which have a very pleasing appearance. There is a white-flowered variety, which forms a fine contrast with the former. Sown in August, similar to the Myosotis, and they will then be strong enough to plant out with them. Campanula calabrica is another charming biennial, and admirably adapted for grouping with such as the dwarf Myosotis. It forms dense cushions, about 4 inches in height of bright pink-coloured flowers, which remain a bloom a long time. It is one of the loveliest of the spring flowers, and deserves unlimited cultivation. There is a white-flowered variety of this also, which is very pleasing. Sow at the same time as Silene, and treat in the same way. Another very important plant for the spring garden is the old-fashioned purple Honesty, Lunaria annua, it is admirably adapted for the centre beds, as it grows about 2 feet in height, it is of a very vigorous habit, and an abundant bloomer, and is very easily raised from seed. Sow in August, and treat in the same way as Myosotis.

The Wallflowers next claim our attention. The single yellow Italian Wallflower is a charming addition to the spring garden, to which it stands in the same relation as the Calceolaria does to the summer garden. It is exceedingly dwarf, not exceeding 12 inches in height, it flowers as freely as the common wallflower, but the flowers are of a bright dazzling yellow. This plant is strictly perennial, and it can be moved without any risk, but as it comes from seed there is no occasion for troubling about them, unless you transfer them to the border. The seed of this should be sown as soon as ripe, or you will not get

doing well," as that of drawing designs; for unless they are produced correctly, the effect is anything but pleasing to either the educated or the uneducated eye; the former will at once observe their inaccuracy and want of symmetry, while the latter will be impressed with an indescribable feeling of something being somehow or somewhere not quite what it ought to be, without being able to point out, or even recognise, what is wrong.

When we speak of a design being incorrectly drawn, we mean that certain lines which should be of the same length, are not of equal length, or that certain points which should be at equal distances from each other are not so. If there be any doubt as to the correctness of any design, it can be determined by describing a circle upon it from the centre of the design, and measuring the distances from its various points to the circumference of that circle.

It will consequently be found to be the best plan in all cases to commence by drawing a circle, within or around which the design should be drawn. A square piece of soft deal should be provided—2 or 3 feet square would be a convenient size,—over this the paper to be drawn upon should be fastened, either by pins to the edge of the board, or by pasting the edges of the paper upon the board. The advantage of the soft deal is, that if you do not possess a large pair of compasses you can fix in a pin for the centre of your circle, and having prepared a piece of fine string or strong thread with a loop at each end, you can put one loop over the pin, and put a pencil-point through the other loop, and thus draw a circle without compasses.

Let us begin with a triangle which is not only one of the designs most frequently required for church decoration, but at the same time one of those in which the least inaccuracy of drawing is readily observed. Let us suppose that you have drawn a circle of 12 inches diameter, that is to say, that it is 6 inches from the centre to any part of the circumference. Now, if you start from a point at the top of the circle and mark off distances of 6 inches all round the circle, you will find that you have made six marks. A reference to Figure 1 will show that by ruling a line between every mark you make a hexagon, while by

For instance, an equal-sided triangle looks better when fixed with one angle pointing upwards than with one angle pointing downwards, but in either case the side opposite to that angle must be perfectly horizontal. Again, a star composed of an odd number of rays, such as 5, 7, or 9, must always have one of its rays pointing upwards, and must be so fixed that when a plumb-line is dropped from that opposite point it shall pass exactly midway between the two lowermost points. But if the star have an even number of rays, say 6, 8, 10, or 12, it does not matter whether the highest part of it is a ray-point or an imaginary line connecting two of the ray-points; in the latter case, however, the imaginary line must be a horizontal one, or in other words, a plumb-line placed at a point equally distant from the two topmost ray-points must, when the star is correctly fixed, pass exactly half-way between the two lowermost ray-points. W. T.

VINE SOILS.

(Continued from p. 1231.)

I AM asked to bring forward my facts in order to prove where Grapes are grown to perfection in soils composed in a great part of calcareous matter. This is intended as a "clapper," no doubt, but "B." is no partisan of either one soil or the other. To the question, however, Calcareous soils are widely distributed over the country. I do not possess acquaintance with all. Calcareous matter is found in almost every soil. Soils, however, which may be termed strongly calcareous, are to be found in the counties of Kent, Sussex, and Hampshire, and in these counties can it be said that good Grapes are not cultivated? I would refer Mr. Cramp to the Vines and Vine-borders at Denbies, Dorking, under the management of the veteran Mr. Drewett. These borders were formed in 1853-4, and contain a very large quantity of calcareous matter, purposely provided for them by Mr. Drewett, who, unlike Mr. Cramp, believes in the efficiency of lime for the Vine. Since their formation to the present time, Mr. Drewett has never failed to have satisfactory crops; and I am informed that the "Denbies" Trebbianos to be seen at the present moment are worth going a long way to see. Mr. Drewett's success at the metropolitan shows for

duty to assist one another. Why has Vine budding been kept so long a secret? B.

Root Action.—Questions have been mooted in your columns respecting the priority of action of roots or stems, especially in Vines, as bearing on the application of bottom-heat; also as to the cause of their bleeding. The rationale of the process of their life and growth is this:—In the seed the radicle is the first to start, nourished by the cotyledons under the influence of heat and moisture; from it descends a chain of cells, the extreme one collects water from below, in which nutritious elements are dissolved. These ascend through the stem by virtue of the power named endosmose by Dutrochet, while the stem returns by exosmose a fluid elaborated by the leaves or other surface exposed to light. It has lately been proved by Professor Graham that without any influence of vitality all crystalloid liquids, as water, &c., will, in definite proportions, pass through any septum to take the place, by diffusion, of any colloid liquid, as gum, &c., which in less quantity will pass to the opposite side: this is the explanation of the transfusion in the animal system of the chyle, the blood, and the liquids conveyed by absorbents and glands. During cold weather or drought, the sap contained in the vessels of the roots, and of the stem, and leaves, is in a state of equilibrium, and therefore no action occurs in deciduous trees, but a slight movement continues in evergreens, as it does in hibernating animal life. It may be seen accordingly that snow melts first on evergreens. Warmth, however, causes the buds to swell which had been stored with starchy materials in autumn, arrested by cold in their progress of cell structure: thus a vacuum, or at least a line of less resistance becomes established, which calls into action the principle of endosmose. That growth proceeds first downwards is exhibited in the roots which descend in the Pandanus from considerable heights of the stem, and from the simple example of the Duckweed, which sends roots down from each of its leaves, thus creating a gradually increasing family of plants. It has been found by recent researches that the copious transpiration from plants, which is the effective cause of the active pumping by the spongiole of the root, takes place chiefly from the smooth or upper surface of the leaf; and the red and yellow rays of light chiefly operate on it. It has also been shown by Dehérain to the French Academy that this transpiration takes place equally in a saturated atmosphere, and therefore depends on light, and not on simple evaporation. It is also worthy of notice that the process of diffusion is not dependent, except secondarily, on capillary attraction, to which it is commonly attributed, because the sap passes upwards and downwards, not through tubes, but through a succession of closed cells, each of which is subject to the aforesaid law of endosmose. Doubtless bottom-heat would accelerate the movement, and may, if carefully restricted, be useful to the Vine, but should not be used to originate its action, and it demands abundant supplies of water. G. H. F.

Salisbury adiantifolia.—There was a fine healthy specimen of the Maiden-hair tree growing in the pleasure grounds of the Marquis of Bath's, at Longleat, about 14 years since. If still in existence, it must now be one of the largest in this country, as at that time I should say it was at least 40 feet high. Perhaps the present gardener will be so good as to give a few particulars of this plant. Specimens of the Tulip tree (Liriodendron tulipifera) were grand at the same place. If this noble tree will stand the atmosphere of London, it would be one of the handsomest and most suitable for the Thames Embankment, rivalling the Plane for rapidity of growth [?] and singularly out foliage; and, in addition, its autumnal tints are of the most varied and beautiful character, and of the most exquisite polish. J. Sheppard, Woolverstone Park.—Our foreman, a native of Surrey, informs me that 18 or 20 years ago there grew a splendid specimen of the Maiden-hair tree at Milford, in that county. The tree was between 60 and 70 feet high, growing side by side with a noble specimen of the deciduous Cypress (Taxodium distichum), that measured nearly 20 yards through. Will any of your numerous correspondents kindly inform me if the two plants mentioned above are still at Milford? Solihull.

Barbe de Capucin.—I procured a packet of this salad plant from Messrs. Barr & Sugden last spring, seeing that it is so highly prized by our neighbours across the Channel. I think it ought to be grown by all who have hitherto used chicory for salads. It is equally free in growth, hardiness, &c., whilst the leaves, in lieu of the Dandelion-like narrow ones of the chicory, resemble more nearly those of the Batavian Endive, really forming in some instances a heart of their own accord; which characteristic they carry with them and maintain in process of secondary growth and blanching. William Earley, Welwyn.

Heliotropea.—It may interest some of your readers to know, in corroboration of an extract from the "Florist and Pomologist," at p. 1212, that I have a plant of Heliotrope, planted more than 15 years ago against a wall in a cold conservatory, the stem of which at 3 inches from the ground is now 12 inches in circumference, and has from the main stem two branches, which are each fully 6 inches in circumference. The plant is kept down to about 8 feet by frequent pruning, and is covered periodically with an abundance of bloom. H. W.

The "Acharnesorricher" Melon.—[Phœbus, what a name!]—Seeing this Melon favourably mentioned in a catalogue sent out by a London firm as a "hardy ridge" variety, I obtained from them a packet, which contained eight seeds. These I sowed on April 3 in two 5-inch pots, four seeds in each, and placed them in a moderate hotbed, used for raising half-hardy annuals. Out of the whole, four seeds vegetated, and when the plants had acquired a

couple of leaves they were transferred singly into the same sized pots and replaced in the bed, where they remained till June 4, by which time the heat had entirely departed from it. I then planted out, without disturbing the ball of earth, one each on two separate ridges, prepared exactly as is done for ridge Cucumbers. Over one of these was placed a 4 feet square glazed frame, the other was left wholly exposed to the weather. A third plant was taken out of the pot and inserted in the original bed, the frame not being removed. The fourth plant was unfortunately destroyed by a slug, so that I had but three plants altogether. The whole grew in a very healthy vigorous state, but the two in the frames much more rapidly than the unprotected one. They all produced, I observed, numerous male flowers before the shoots had extended far, without any female ones appearing; but afterwards, when the male blooms had all withered, and the shoots become more lengthened, a number of females presented themselves instead, which turned yellow and dropped off without swelling. This circumstance I attribute to the want of impregnation, which was not attended to by me owing to my previous ignorance of the habits of the plant, and, no doubt, was the reason of my obtaining the small return of fruit that I did eventually. The following is a statement of the results. The ridge plant within the frame produced three fruit, which weighed 2 lb. 13 oz., 2 lb. 11 oz., and 1 lb. 11 oz., and all ripened perfectly during September. That in the other frame had but one fruit, which came to full maturity the first week of October, the weight of it being 3 lb. 5 oz. The open ridge plant set five fruit, three of which had attained the size of an Orange, and two rather less, when a slight frost that occurred on the 1st or 2d of August, though it did not injure my Dablias or other flowers, nor even my Tomatos, so curled and blackened the leaves of the Melon, that it never rallied, and consequently the produce did not ripen. From my experience, then, of this Melon, as above adduced, I should say that owing to the vicissitude of the weather about the time of its ripening, it cannot be grown in this country as an open-air variety with any degree of certainty, but that it will answer well in the generality of seasons, without artificial heat being applied, if simply protected by a frame, and may be made very prolific by care being taken with regard to impregnation, as I have before mentioned, the fruit weighing from 2½ lb. to 3½ lb. each, or perhaps more. As to the qualities of the fruit, it is not only very handsome in appearance, but its flavour surpasses that of many of the more tender-constituted kinds, that are grown at so much greater an expense and trouble in a hotbed or pit expressly prepared for them. The form is completely circular, evenly quartered, and flattened at both top and bottom; the skin roughish, mottled with a dark and paler green, which turns yellow when ripe, and slightly netted. The flesh is pretty thick, deep orange-coloured in the centre, passing to yellow-green next the skin, melting, juicy, and agreeable to the palate; but it does not possess so powerful an aroma as some of the more tender-growing kinds. I think, therefore, considering its cheap and easy management, as well as other qualifications, this Melon is decidedly an acquisition, worthy of more extensive cultivation; and it appears to me surprising that, although introduced some years ago, its existence should be so little known throughout the country. I had visits from two first-class provincial nurserymen, and also an extensive grower of Melons for the market, as well as private gardeners, who all told me they had never before seen, or even heard of, such a variety; nor am I aware of its ever having been noticed in any of the horticultural publications. As it is my intention, if I be still in the land of the living, to give it another trial next year, I shall feel greatly obliged by some one of your correspondents who has grown it, affording me, through the medium of your paper, a statement of his experience, as well as opinion of its merits, which will also, I have no doubt, prove interesting and serviceable to many others of your readers besides myself. Amateur, Whitland, Carmarthen Nov. 26.

Colouring of Pelargonium Leaves.—"A Canny Scot" has given us such a display of his "learning" on this subject, that we poor "bogles awa' doon sooth" ought to be quite dumbfounded—but we are not; we are "na sae daft" as to be deceived by his "whigmaleery," and still think that the expression of "the hectic flush of coming death," as applied to tricolor Pelargoniums, is sheer nonsense. What on earth has the fall of the leaf in autumn to do with the question? or does he class Pelargoniums with deciduous trees, and expect them to shed their foliage in the autumn also? What if I were to go into his stove at midsummer, and in the presence of his Caladiums, then rich with glorious colour but still in robust health, tell him such nonsense? or take him to his plantations, and point to some magnificent Purple Beech, and there repeat it? If he did not "c." me a fule," he certainly would think it. Then why should not tricolor Pelargoniums be subject to the same conditions. His remarks about Pelargonium L'Élegante are not to the point. Mr. Fish has shown how pink coloration would be obtained in the leaves of this variety by twisting the leaf-stalk. I simply stated that like results were obtained by excessive drought, but I did not set up the absurd theory that coloration in this variety was the result of rude health; it is not a tricolor at all, but a simple bicolor, and has no third colour under any conditions but those mentioned. When pink appears it is as a discoloration of the white edge only, and not as a zone. But the remarks of Mr. Fish and myself, in the latter portion of our notices respectively, did apply to the tricolor Pelargoniums, a class of plants that I maintain are most healthy, and growing under the most favourable conditions, when exhibiting their richest colours. "A Canny Scot" seems to

think that foliage only is healthy when it is the densest green, and that all departures from the colour of Dame Nature's dress must necessarily be unhealthy; but he forgets that the "old lady" of ladies of the present day, like bright young things, whether in the form of beautiful flowers or foliage. I "ken naething about the whyny" of usually cool my tongue with the drink of Adam; but I can tell him that the "old lady" whether of plants or "ladies," are the true bright leaves or rosy cheeks. To talk about their feet in hot water, and their hands in cold, is rubbish. When next our "Old Lady" gets pale in the face, and "c." in his pair him, instead of putting them into "hot water" them "nimble" by running a mile or two, and then realise what he as yet "canna name" nimble warm feet are the accompaniments of cheeks. Alex. Dean.

Judging Melons.—Are we to understand George Thomson that Melons are to be judged by sight and smell, and not by taste? He has offered a very weak argument. In the first place, I would ask, what is a Melon worth without flavour? Let scent and appearance be what they may, I say that no judge should give a prize to a Melon without first tasting it. I think it ought to be allowed at all exhibitions to have wax fruit, and give up growing Melons for all parties. A rule should be laid down for growers and judges. I always make it a rule to award a prize. I may mention that I have seen green-fleshed Melons exhibited as red-fleshed, and vice versa. I was judge at Paisley years since, when Mr. Wilkins showed a Gem a very fine green-fleshed variety, of quality, and to all appearances just like the one Mr. Wilkins informed me that he had seen from Scarlet Gem. The first point of merit was the thickness of flesh, and a more beautiful shaped fruit. Those large, coarse Melons too often take 1st prizes should not be so. William Smythe, The Gardens, Elphinstone.

Scot" asks, "if two senses can but be placed about the taste?" And then he thinks one of the judges, who has written of the tasteless mode of judgment." "A Canny Scot" is in error if he thinks my object in defending the non-tasting principle; it was to defend myself and co-judges from the reproach we had introduced a new system by which we were to be judged. In doing so I hinted that much might be said in favour of the non-tasting of judging. When one has tasted a good one, a bad one, it is a difficult matter to tell what one is like. Fancy tasting, before breakfast, Melons as were shown at Edinburgh, and some as green and hard as Swedes. "A Canny Scot" had seen such Melons but seen get prizes from the tasting test, he would not think them handsome enough for nose or credit to the growers, and would have been at home "A Canny Scot" is not very expert in comparing the Melon to the Gourds or Cucumbers, although he might grow either to please his scent them to please his nose, he would not be satisfied to have his sense of taste might, if he cut a Melon that had been tasted and smell only. George Thomson, Stranraer.

Pears at the Liverpool Show.—The display visited upon Mr. Manley's collection of Pears, at the recent exhibition of the Liverpool Horticultural Society, has been upheld by Mr. Barron of Chiswick. At my desire a fruit of Duchesse d'Angoulême, one of the Pears set up as Duchesse d'Angoulême submitted to him, and he pronounced both to be the latter. I shall be glad if you will publish this matter; and as it was well known the fruit submitted to Mr. Barron, many will be satisfied with his decision thereon. Mr. Manderson's tree bearing the fruit set up as Duchesse d'Angoulême came from Mr. Rivers under that name, and as the fruit had that somewhat tapering, yellow appearance, similar to the Duchesse d'Angoulême, I was led to suppose to be the latter. The circumstance shows a variety in character when grown under different conditions, and in different aspects. I may mention that the judges were Mr. Tillyard, of Brockton, and Mr. Stevens, of Trentham. Your Reporter.

Foreign Correspondence

ANTIBES.—Among private gardens in France there is none, I believe, to compare with that of M. Gustave Thuret, and whether on account of its extent, richness, or the perfect manner in which it is kept, 12 years have elapsed since M. Thuret's planting operations on this spot, which was covered with Olive trees, Vines and other trees, like the adjacent country is at the present time. Before attempting any description of the villa which indeed can be but very imperfectly done, that Antibes is an ancient walled seaport, 12 miles from Cannes, and that it is on the promontory, which, stretching into the sea, separates the Golfe de Juan from the northern extremity of which lies Nice. The villa of M. Thuret, which is situated on the

story... us and picturesque building, in cottage style... of the ornate and pretentious character which is so common to modern French country houses. In the driveway of lavender... plants... its ways and verandahs... H... and... P... J... rather... E... A... for... A... Euphorbia... Cotyledon... Portulacaria... K... the last... flowering freely... a splendid specimen of... a large lush bearing numerous...

A... lawn is impossible in this dry country, but the... has a spacious grassy slope, bounded by a fine... of wood, to the beauty of which some lofty... largely contribute. The lawn is adorned about its circumference with some very noble groups, of which a mass of *Gynerium argenteum* is the finest I have seen. Another striking plant in this situation is *Yucca...*... together... I was... not... to the lawn, let me say that some part of it which is more or less dotted over with Pines, has been planted with *Arenarum*, which are very beautiful in the winter and spring. The rough lawns in this country allow this fashion of ornamentation, and I have seen even *Ixias* flowering among the grass with very good effect.

Gravel, which forms such good paths in our English gardens is not procurable here, nor in so dry a climate would it be of any value. In its place a loose white boulders is employed, while for edging a variety of small plants is used—two species of *Statice*, *Gazania splendens*, *Santolina viridis*, and *Mesembryanthemum* do duty for the neat and useful Box.

The... roadway leading to the house is bordered with Orange trees and Date Palms, the latter still in a leafless condition. There are several other Palms about the grounds, as *Jubaea spectabilis*, *Coryphæa australis*, *Sabal Palmetto*, and *Chamærops excelsa*, a good part of *Cycas revoluta*, which is perfectly hardy in this climate. *Acave americana* is cultivated as in all the warmer parts of Mediterranean France, but I have seen no specimens of such magnificent dimensions here. Several other species of *Agave*, grown in the open ground, are also exceedingly fine, as *A. litchii*, *A. mexicana*, *A. Seelyi* and *A. coccinea*.

It is impossible for me to enumerate the mass of miscellaneous plants which line the walks, or even with a few sheets of a letter to notice the more interesting. I shall therefore pass on to the more botanical part of the grounds, which with a spacious garden and vineyard, occupies a plot somewhat removed from the rest. Here, planted on some blackwood under a south wall, is a collection of *Cactaceæ*, as *Locustia*, *Euphorbia* and *Stapelia*; also a large number of plants in pots. Near by are long ranges of frames used for propagating, and also for the preservation of some of the rarer or more tender plants in winter. These frames, with a small unheated greenhouse used as a nursery, are the only glass shelters about the grounds.

Among the more noteworthy plants on this portion of the property I observed with pleasure *Diospyros kaki*, producing a fruit which for shape or size reminded me of a green walnut. When mature, it is said to have a well-flavoured pulp resembling plum jam. *Psidium Cattleianum*, growing to the size of a small Currant bush and bearing its ripe fruits, was also in this part of the garden. Here too are some beds of *Cistus*, a genus which has afforded material for long and laborious studies on hybridization to M. Thuret's friend, Dr. E. Bornet. Both gentlemen are devoted to botanical pursuits, of which the striking evidence is the patient care bestowed on correctly naming the plants in the garden. All, moreover, are beautifully ticketed with labels of the most permanent kind, and a copious catalogue is kept of the plants in cultivation. Daniel Hanbury, Palazzo Orango, near Mentone, Nov. 17, 1869.

Societies.

LINNEAN Soc. 1869. Bentham, Esq., President, in the chair. The following papers were read—*I. Revision of the...*... *II. On the...*... *III. On the...*... *IV. On the...*... *V. On the...*... *VI. On the...*... *VII. On the...*... *VIII. On the...*... *IX. On the...*... *X. On the...*... *XI. On the...*... *XII. On the...*... *XIII. On the...*... *XIV. On the...*... *XV. On the...*... *XVI. On the...*... *XVII. On the...*... *XVIII. On the...*... *XIX. On the...*... *XX. On the...*... *XXI. On the...*... *XXII. On the...*... *XXIII. On the...*... *XXIV. On the...*... *XXV. On the...*... *XXVI. On the...*... *XXVII. On the...*... *XXVIII. On the...*... *XXIX. On the...*... *XXX. On the...*... *XXXI. On the...*... *XXXII. On the...*... *XXXIII. On the...*... *XXXIV. On the...*... *XXXV. On the...*... *XXXVI. On the...*... *XXXVII. On the...*... *XXXVIII. On the...*... *XXXIX. On the...*... *XL. On the...*... *XLI. On the...*... *XLII. On the...*... *XLIII. On the...*... *XLIV. 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for bloom very prominently. Both thrive well in a cool place,—any locality, in fact, will suit them, provided the frost is kept out, and all the light and sunshine possible afforded them. Some of the main stock, or second early *Cinerarias*, may be induced to form more compact and spreading heads of bloom if the points are pinched back just as they show symptoms of starting for flower. The forwardest ones, being now well pot-bound, will be much benefited by frequent applications of wholesome manure-water. Let the temperature in all stoves be still further reduced; from 56° to 59° will now be ample by night, with an increase by day in proportion to the brightness of the weather. Attend well to the cleaning of the foliage of trees of *Oranges, Citrons, &c.*, during this their season of rest. Give them but a moderate supply of root-waterings at this time. The conservatory should now be kept gay with relays of blooming plants obtained from any other houses which the grower may be in possession of. A slight amount of heat may be kept constantly in those conservatories which are kept as show-houses, and which are not used as growing houses. Under these circumstances most plants when in bloom may be safely placed therein, even *Orchidaceous plants*, especially such as the showy *Phajus, Brassias, Oncidiums, Zygopetalums*, and such *Dendrobiums* as *D. chrysanthum, D. nobile, D. Pierardi, &c.* Root-waterings should, however, be withheld, as I have before intimated, as in all instances where a minimum temperature is maintained sufficient moisture exists in the air for all their presents wants. Make as much advance as possible from this time with all subjects intended for indoor and other decorations at Christmas. *Poinsettias, Euphorbias*, especially *E. jacquiniflora* and *White Camellias* are all more or less useful, and likely to be made good use of, if at hand at that time. Even plants of the Christmas Rose, *Helleborus niger*, taken up at once and forced, may come in very acceptable. Flowering *Chrysanthemums* which have become in the least degree shabby should be removed immediately. Healthy foliage plants, even if but sparingly intermixed with other blooming plants, will be far more pleasing to the eye than the above. In our efforts to make a rather large display, we are most of us rather prone to crowd unduly such valuable subjects as *Azaleas, Ericas, Epacris, &c.* Immediately an opportunity offers, by the removal of the *Chrysanthemums*, let not a moment be lost in thinning out the stock, so that as much light and air as possible at this dull season may fall to the lot of each specimen alike.

FORCING HOUSES.

Be very cautious not to allow the temperature to fluctuate materially in those *Vineries* in which the buds, having swelled to the full, are about bursting into leaf. Let those rods which have been bent down to assure a more uniform growth throughout, be now placed and tied securely into their permanent quarters. Do this before the buds push forth more prominently, as in that case there will be greater risk of breaking them in the performance. The vinery at such a stage cannot well be kept too moist, all other circumstances being favourable to a good growth. If the borders are within doors, the requirements of the roots, in regard to the necessary waterings, must have constant attention. Always use tepid water, and even though the season be as infelicitous as it well can be, the fact must not be overlooked, that, with an active surface growth, the roots must have such an amount of supply as they would require under like circumstances at a more natural growing season. The frequency with which water at the root is needed must depend wholly upon the site, and depth, and drainage of the border, the age of the Vines, and so many other circumstances that it is not possible to offer advice on this point. When water is really requisite, let it be afforded liberally. Too frequently at this season we err on the side of affording a too meagre supply. Moreover, occasional surface-sloppings, consisting of three or four 4-gallon watering-pots-full, are far more likely to cause a stagnation than are any over copious waterings at regular intervals. By too frequent surface-waterings we benight the surface soil, that it becomes perfectly impervious to air—a state of things which is most injurious to healthy root formation or active vegetation. Where the borders are outside keep the warmth of the fermenting materials as near to a mean of 85° as is possible. This will afford to the surface of the border a moderate warmth of from 65° to 70°. *Peach* and *Nectarine* trees, which are advancing to the blooming stage, having been started as previously suggested, must be kept constantly syringed from two to four times a day, according to the state of the weather. Keep up an average temperature of about 58°, by means of artificial heat, of giving air at all times when the outer atmosphere is capable of influencing this by a rise of 3° or 4°. Do not stop a drop of water about more than is absolutely needful for a week or so previously to the first flowers opening, and use every endeavour to make the internal surfaces as dry as possible preparatory for that event. Make a successional sowing of *Dwarf Kidney Beans* if necessary.

HARDY FLOWER GARDEN.

Amateurs with limited means at their disposal take a larger amount of interest in this department of our Calendar than do most others. I will therefore commence at this, the planting season, to direct attention to a few such hardy plants as are likely to be useful herein. I will begin with *Hardy Climbing Plants*, which are so desirable in all confined or enclosed spaces, apparently extending, as they do, the area by the beauty of their display, and concealing most unsightly objects. As staple plants for backgrounds, and to climb high if needed, the *Virginian Creeper (Ampelopsis hederacea)*, the *Trumpet-flower (Bignonia radicans)*, the *Chinese Wistaria (Glycine sinensis)*, the sweet white *Jasmine (Jasminum officinale)*, *Magnolia*

conspicua, and sundry climbing *Roses*, such as varieties of the *Boursault, multiflora, Ayshire*, and *semper-virens* groups, and, though less hardy, the *Banksian*, with certain hybrid climbing varieties, are amongst the best of deciduous plants. Amongst evergreen climbing plants, of which there is rather a dearth at the present time, though we hope to see the number extended, we have the following:—*Ivies* with variegated foliage, such as *Hedera Helix latifolia variegata, H. argentea variegata, H. rhombea variegata, H. elegantissima*, and *H. maculata*. As a very strong grower, with large heart-shaped leaves, bright, shining, and constant, the *H. colchica (Rægneriana)* is not to be surpassed, attaching itself freely and firmly to the driest walls, &c.

KITCHEN GARDEN.

In continuation of some previous remarks regarding a system of successional cropping, I pass on to what is a very general crop with all. I refer to the plantations of *Spring Cabbages*. If these have been planted upon the current year's Onion-bed, as I have frequently urged, seeing that they do so much better thereon, the beds will have become somewhat impoverished. The only way to thoroughly renovate them will therefore be to either bastard-trench, or thoroughly trench them over, placing at the bottom a good layer of manure, and another at from 4 to 5 inches below the surface. So treated, this will then be the best possible site for the summer crop of *Peas*, as here they may find appropriate nutriment during the greatest drought. One thing I would observe, however, even if it be necessary to take some of the old stumps up at the present time and lay them by in some corner, let the ground be operated upon as soon as possible if at all light in its nature. It will then have ample time to settle down firmly. This is a matter of no little importance. Another hint should not be overlooked in connection with light hungry soils, which is, that the cruder or less decayed the manure, if given in the same quantities as spit-manure would be, so much the better. The soil will have ample time to turn it to account ere required by the roots. The soil is so hungry in some places, as also here, that if a man leaves his coat by chance on the ground all night, the buttons thereon are well-nigh consumed by morning! Do not be concerned as yet in regard to the necessary space for next summer's *Onion-bed*. Those who are in possession of light dry soil may now make a sowing of *Peas*, for the early crops. I have purposely waited till this time, as for the last two or three years November-sown *Peas* have become too winter-proud. Sown now, they will be soon enough, if at all favourable weather ensue. Those who have a cold retentive soil should sow in boxes or frames in the spring, and transplant in the usual manner. *W. E.*

TOWN GARDENING.

If to convert sooty spots into agreeable gardens be the object in view, the soil should now be attended to at once. It is quite certain that in many instances the ground is actually poisoned with soot, and choked with the accumulated rubbish of years. Therefore as much of the old soil as is unfit for supporting vegetation should be at once removed, and its place supplied with fresh loam from the country, with a mixture of rotten dung. There should not be less than 2 feet deep for the beds and borders, and 6 inches for the grass plots. This will greatly improve the vegetation, and also have a tendency to purify the atmosphere. The arrangement and laying-out of the garden embrace a variety of considerations, such as situation, exposure, &c. The beds and borders should be exposed to the sun as far as possible, but the form must be left to the taste of the owner, which should now be put in action—so that the groundwork can be done in time for planting and turfing in February. Walks should be bottomed with brick rubbish, ready to receive the gravel after all other work is done. *British Ferns* do well in town in the most confined situations in fresh soil, and the present is a good time to throw up a bank of earth to build the rockery on. This should be built of an irregular outline: the material best suited for this purpose being "clinkers," from glass works, and burnt bricks. These should be so placed that vacancies are left between the rockwork, to be filled with such soil as is likely to suit each individual species. *J. D.*

STATE OF THE WEATHER AT CHISWICK, NEAR LONDON, For the Week ending Dec. 11, 1869, as observed at the Horticultural Gardens.

Nov and Dec	Moon's Age	BAROMETER.		TEMPERATURE.					Wind	Rain
		Max.	Min.	Of the Air			Of the Earth			
				Max.	Min.	Mean	1 foot	2 feet deep.		
Thurs. 25	39	29.947	29.813	81	36	44.5	45	44	NW	.00
Friday 26	40	29.770	29.712	80	36	43.0	45	43	W.	.00
Satur. 27	41	29.720	29.608	66	42	44.0	45	44	SW	1.04
Sunday 28	42	29.725	29.443	61	35	38.5	46	44	NW	1.00
Monday 29	43	29.830	29.826	40	35	37.5	44	44	W	.40
Tuesday 30	44	29.840	29.628	41	22	31.5	44	43	N	.00
Wed. 1	45	29.865	29.660	39	20	29.5	42	43	N	.00
Average		29.824	29.685	45.4	31.3	38.7	44.4	43.5		1.44

Nov 25—Frosty fog; very fine, clear and fine.
 26—Overcast, densely overcast, overcast.
 27—Rain, heavy rain throughout.
 28—Cloudy, very damp; very fine, clear and cold.
 29—Overcast and cold, densely overcast, drizzling rain.
 30—Overcast, very cold wind, clear and frosty.
 Dec. 1—Sharp frost; very fine; clear, sharp frost.
 Mean temperature of the week, 27.10 deg. below the average.

STATE OF THE WEATHER AT CHISWICK, During the last 43 years, for the ensuing Week, ending Dec. 11, 1869.

December	Average Highest Temp.	Average Lowest Temp.	Mean Temp.	No. of Years in which it Rained	Greatest Quantity of Rain	Prevailing Winds.							
						N	NE	E	SE	S	SW	W	NW
Sunday..	5	49.0	35.2	42.1	25	0.75	3	2	1	7	11	5	2
Mon ..	6	48.2	35.7	42.4	22	0.78	3	2	4	7	15	8	2
Tue ..	7	48.4	34.3	43.5	21	1.02	2	8	2	3	15	8	3
Wed ..	8	45.9	33.6	40.3	19	0.54	2	8	1	2	13	6	6
Thurs ..	9	46.7	34.9	40.8	17	0.40	3	5	4	3	11	4	7
Friday ..	10	47.0	34.8	39.9	26	0.67	2	7	3	3	9	11	4
Satur ..	11	46.5	34.8	39.5	17	1.02	3	5	6	2	7	13	5

The highest temperature during the above period occurred on the 11th, 1844—therm. 63 deg., and the lowest on the 8th and 9th, 1867—therm. 13 deg.

Notices to Correspondents.

** We regret to have to repeat the announcement in our columns several months since that Mr. Mellish now in no way connected with the *Gardener's Chronicle* is the Publisher; editorial communications should be sent to the office, 41, Wellington Street, Covent Garden.

APPLE TREES DESTROYED WITH INSECTS: *W. G.* The bark sent are covered with the Apple-bark louse, *Conchiformis*. We hope shortly to publish an article on this subject, wherein several remedies are suggested.

BEST: *T. C.* A fine sample of the purple-stemmed *Beta Cyclis*, which is commonly grown in gardens under the name of *Beta brasiliensis*.

BOOKS: *Rumford Street, Manchester* (signature illegible). 1, Hoopes' "Book of Evergreens," a book, to be had of any foreign bookseller; 2, an advertisement column. Apply to Lovell, 1, 2, to Mr. Casbourn, *Herald Office, Newbury*; 3, M. Chatin's little book on Watercresses, with Cresson," published in 1866 by Baulière Paris.

CUCUMBER: *G. Edeard* Your Cucumber, raised from Eclipse cross with Craig's Prolific, and which is one of the strongest constitution and most prolific known, belongs to the spined class. The sample sent are good-looking, evenly swelled, of moderate and of good average quality as to flesh, flavor, &c. These latter points, however, we do not equal to Telegraph and other varieties of that name.

DECAYED SOUTH AMERICAN BEEF: *Manurba*, W. practical experience in its use for Vine-budding, should be loth to try it.

EVERBEARING STRAWBERRIES: *L. W. Magnificus* and *Sir Charles Napier* and *British Queen* Strawberry shown at South Kensington not quite six weeks ago had been grown in the open air. There are strawberries like yours which possess the property of being, &c. The alpine varieties are, however, those which can lay any claim to the character of everbearing and that in a very modified sense, to which we strongly suspect this new American will be found to be equal. We think so from the description given of it by respondent, "Vectis." The habit of growth, but the fruit, are all in character. We have long had yours, the examples of which you send, of a different character, a form of our ordinary *Everbearing*, possessing, as you state, the character of *everbearing*.

FLORAL CRITICISM: *Thorn*. Our correspondent, Sec. of the Secretary of the Royal Horticultural Society, Florist and Pomologist: *F. W.* Published 11, Fleet Street, E.C.

GARDENERS' EXAMINATIONS: *An Enquirer*, *London*, &c., to James Richards, Esq., Royal Horticultural Society, South Kensington, W., and to P. Le Neve, Secretary, Society of Arts, Adelphi, London, E.C.

GARDEN MEMORANDA: *A. D.* At present we are done with such articles. We trust shortly to be arrangements, which will give us more space for other matters. We must, however, request respondents to confine themselves strictly to what are peculiar to the places visited, and not to generalities. If brevity be the soul of wit, it is to possess the soul if not the body of that faculty, both are happily combined in one need fear not. The proverb, *Res est laboro, obscurus fit*, has in this case.

GRAFTED VINES: *R. W. S.* You have not only grafted well by grafting your Black Hamburg Vine varieties, which late results will no doubt your own experience has already proved that late on Black Hamburgs succeed fully better than varieties are grown on their own roots. You are a wise man: your second was otherwise. Since on Black Hamburg by all means. *Black* is a good early white grape, having far sized berries of a very pleasant sweetwater flavor, what difficult to set well, yet, when well grown, handsome and hangs well on the Vine. It is synonymous with Scotch White Cluster.

GRAFTING WAX: *H. B.* Mix tallow, beeswax, in equal parts, or you may put a little more tallow, more pliable.

HEATING APPARATUS: *J. P.* If the pipes get so cold cannot bear your hand upon them, then your piping. If this is not the case, your boiler probably requires cleaning. We would advise a man who arranged it look it over.

INSECTS: *P. P.* Your larva are those of some species possibly of the destructive *Othiorhynchus* which arrives at the perfect state in the spring. As more communicative as to their habits, we might more decidedly in our reply.

LABRUS REBANS: *A. C.* *Labrus rebans* in Britain, awarded us, through Messrs. Lawson, some fine shrub in berry, under the impression that it was bear see in England. We never saw the fruit to be rather larger than the berry of the common *Labrus*.

NAMES OF FRUITS: *T. B. A.* *Baldwin*, *Baldwin*, *Hacott's* *Imperial*; *B. de* *Beurre de Capucins*; *B. de* *4, Thompson*; *4, Vicar of Wankfield*; *4, rotten*; *5, Passo d'Ascar*; *6, Comte de Lancy*.

NAMES OF PLANTS: *R. J.* No. 1 is *Glycystris* No. 2, *Taxodium distichum*. It is a *Glycystris* whether they are the same or not. The foliage is alike, and the *Glycystris* never perfects the one is from China, and the other from the *sub-julian* by *A. M.* Probably you are making out any real difference between the *sub-julian* and *imperialis*—*B. de* *Lilonia* *horibunda*, *Lil. Lycastris* *cruenta*, although the latter has a clouded spot.

SALISBURY ADIANTUM: *Y. B.* *Adiantum* *fordi* is still in existence, but is not, we believe, you imagine.

SHRUBS OF THE BANKS OF A GULLY: *Thorn* to *Rhododendrons*, you may plant any of the group of *Cotoneasters*, *Portugal Laurel*, *Winnif*, the double flowered *Gorse*, and the *Yew* planted along the top would be very effective wood, the *Ivy* and *St. John's Wort*, *Hypocissis* are good subjects.

SPRUCE FIR DRAIN: *H. D. F.* The information to enable any one to form an opinion upon the correspondent will tell us something about the state of drainage, and the condition of the strata, we shall then say what we think would be mere conjecture to name a course.

TRANSPARATION OF PLANTS: *H. T.* forgets that on botany or horticulture contains the information. The fact is abundantly well established.

VARIATED LAUREL: *N. A. B.* A pretty species, others as good in cultivation.

COMMUNICATIONS RECEIVED: *H. W. C.* (signature illegible); *G. G.*—*J. McM.*—*Rustic*—*H. L. B.*—*J. M.*—*R. C. S.*—*G. E. J. P.*—*G. R. A.*—*J. M.*—*H. C. S.* (next week)—*J. B.*—*T. P.*—*L. C. N.*—*A. D.*

JAMES CARTER AND CO beg to call attention to their stock, as under, full particulars of which are given in their DESCRIPTIVE CATALOGUE. Copies forwarded post free on application.

- SPRING FLOWERING BULBS and PLANTS, for Shrubbery and Flower Beds.
JAMES CARTER AND CO'S COLLECTION of PLANTS.
No. 1, containing 132 Hardy Plants, price 15s.
No. 2, containing 204 Spring flowering Bedding Plants, price 42s.
No. 3, containing 50 in. flowered Greenhouse Plants, price 3s.
No. 4, containing 50 in. flowered Greenhouse Plants, price 3s.
No. 5, containing 50 in. flowered Greenhouse Plants, price 3s.
No. 6, containing 50 in. flowered Greenhouse Plants, price 3s.
No. 7, containing 50 in. flowered Greenhouse Plants, price 3s.
No. 8, containing 50 in. flowered Greenhouse Plants, price 3s.
No. 9, containing 50 in. flowered Greenhouse Plants, price 3s.
No. 10, containing 50 in. flowered Greenhouse Plants, price 3s.
No. 11, containing 50 in. flowered Greenhouse Plants, price 3s.
No. 12, containing 50 in. flowered Greenhouse Plants, price 3s.
No. 13, containing 50 in. flowered Greenhouse Plants, price 3s.
No. 14, containing 50 in. flowered Greenhouse Plants, price 3s.
No. 15, containing 50 in. flowered Greenhouse Plants, price 3s.
No. 16, containing 50 in. flowered Greenhouse Plants, price 3s.

NEW TRICOLOR GERANIUMS, to be distributed in the Spring of 1870.
New Zebra Tree or Geraniums
New Ivy-leaved Geraniums
New Variegated Geraniums of 1868
New Double Geraniums
Cividen Bedding Plants
New Hardy Clematis
New and Rare Plants
New Coleus

ORNAMENTAL FOLIAGE PLANTS.
Store, Greenhouse, Conservatory, and Outdoor Plants, for Autumn growing.

M'LAREN'S PROLIFIC RASPBERRY.
Collections of TREES and SHRUBS (see Catalogue), consisting of Standard Ornamental Trees of large size
Plants for Hedges
Evergreen Shrubs
Rhododendrons
Fragrant Trees and Shrubs
Herbaceous Perennials
Transplanted Forest Trees
American Plants
Conifers
Hardy Climbers and Shrubs
Herbaceous Plants

FRUIT TREES.
Apples
Peaches
Apricots
Pears
Cherries
Quinces
Currants
Raspberries, in 10 other in continuous Fruit Trees.

NEW CONTINENTAL STRAWBERRIES.
STRAWBERRIES, older varieties.
VINES.
ROSES.

Provence
Hybrid China
Moss
Hybrid Bourbon
Danask
Climbing
China Roses
Austrian Briars and Double Yellow,
Climbing Perpetual Moss,
Noisette, Tea-scented, Hybrid Perpetual, Perpetual Moss,
Le de Bourbon.

COLLECTIONS OF ROSES.
Dwarf Hybrid Perpetuals, in pots, for Foreign
JAMES CARTER AND CO., 37 and 238, High Holborn, London, W.C., and Crystal Palace Nurseries, Forest Hill, S.E.

Autumn Planting.
PETER LAWSON AND SON will be glad to send their CATALOGUE (last published) of FOREST and ORNAMENTAL TREES and SHRUBS, free upon application.
The stock of LARCHES, SCOTCH FIRS, AUSTRIAN and CORSIKIAN PINES, &c., comprises some millions of healthy, well-grown plants, and special offers will be made for large quantities when personal inspection is not convenient.
Edinburgh and London.

Planting Season.
DICKSONS AND CO., NURSERYMEN and SEEDSMEN.
1, Waterloo Place, Edinburgh, beg to call the attention of those about to plant to their very large and healthy stock of FOREST TREES, FRUIT TREES, ORNAMENTAL TREES and SHRUBS, which are low in price and of the finest quality. They are all well and very exposed ground, are fully rooted, and their wood is thoroughly ripened. Samples and Catalogues on application. Special prices will be quoted where large quantities are taken.

RICHARD SMITH'S LIST of EVERGREEN and RAPID-GROWING SHRUBS, RHODODENDRONS, STANDARD ORNAMENTAL TREES, CLIMBING and TWINING PLANTS, with their generic, specific, and English names, native country, height, time of flowering, colour, &c., and general remarks, free by post.
RICHARD SMITH, Nurseryman and Seedsmen, Worcester

CADLY AND SON, NURSERYMEN and SEEDSMEN.
Colebrook, Ireland, have to offer a large stock of COMMON LAUREL, PORTUGAL ditto, LAURUSTINUS, IRISH YEW, Common ditto, at 1 Nursery Staff generally, which will be sold Cheap. They will be delivered on board the London Steamboat at Belfast free. Prices on application. Orders sent to Messrs. HURST and SON, London, will have prompt attention.

Cedrus Deodara.
FINE SPECIMENS, 7, 8, 9, 10, to 15 feet, at 1s per foot.
W.M. MAULE and SONS have to offer a large supply of extra fine EVERGREEN TREES and SHRUBS, calculated to give immediate effect to Parks, Cemeteries, and Plantations, and suitable for screening and blocking out new Buildings, that are springing up daily in the vicinity of all large towns.
The Nurseries, Bristol

To the Trade.
SPECIAL OFFER of LAURESTINUS PYRAMIDALIS (NEW)
W.M. KNIGHT solicits orders for the above new variety of LAURESTINUS, having now grown it for five years past for Stock. It has been seen growing in his Nursery by many eminent Nurserymen, by whom it has been pronounced a fine hardy, compact plant, of sterling merit, the habit being robust, compact, flowers pure white, nearly twice the size of the old varieties, and very sweet-scented, with a continuation of flowers during the most severe weather.

W.M. KNIGHT's great confidence in offering it in fine specimens, 4 to 6 feet, full of bud, per pair, 10s; second size, 3 to 4 feet, do, 10s.; third size, 2 to 3 feet, do, 7s.; fourth size, 1 1/2 to 2 feet, do, 5s.
Floral Nursery, Hailsham, Sussex.

THORNTON begs to intimate to the Trade that the Stock offered below cannot be surpassed for health and vigorous roots. All been grown in maiden soil, and the stock, very extensive, is offered at low prices.
Pines, Austrian, 9 to 15 inches
Spruce Fir, 1 to 2, and 2 to 2 1/2 feet
Pines, Italian, 15 inches
Larcel, 1 to 1 1/2 feet
Pines, French, 2 to 3 feet
Turkey Oak, 1 to 2 feet
Pines, Austrian, 1 to 1 1/2 feet
Cryptomeria japonica, 12 to 15 inches
Pines, Italian, 2 to 3, and 3 to 4 feet
Chinese Arbor-vitae, 9 to 15 inches
Pines, Austrian, 9 to 15 inches
Thomas Thornton, Heathcote, Bagshot, Surrey.

Limes, Purple Bech, &c.
LIMES, best Red-twigged Variety, 6 to 10 feet, 15s to 30s per dozen.
PURPLE and COPPER BEECH, very fine, transplanted in spring of 1869, 6 to 10 feet, 15s to 25s per dozen.
WEEPING BEECH, very fine, 2 1/2 to 3 1/2 feet per dozen.
FLAWS, Chestnut and Hertfordshire, 8 to 14 feet, 12s to 30s per doz.
Price Lists on application to
JAMES CARTER AND CO., The Royal Norfolk Nurseries, Norwich

PARSONS' NEW HYBRID TREE MIGNONETTE.—
This new Tree Mignonette has no equal, it is robust in growth, of very compact habit, and deliciously sweet.
G.P. has been improving it by careful selection for the last ten years, as the result certain it will become a universal favourite, he has grown plants of it 3 feet in height, and 5 feet in circumference, in three months from the time of sowing; moderate sized plants take about 9 or 10 months from the time of sowing. In sealed packets, 1s.
To be had from G. PARSONS, Nurseryman and Seedsmen by appointment to her Majesty, 47 and 23, Western Road Brighton, and Hisscock's Gate, Keynour, Hursley, Hampshire. May also be had at HURST and SONS, 6, Leadenhall Street, London, E.C.

RAYNBIRD, CALDECOTT, RAWTREE, DOWLING, AND COMPANY (Limited),
COCK SEED, MATHS, and OYSTERS MERCHANTS.
Address: 20, Seed Market, Mark Lane, E.C., or Basingstoke
Samples and prices post free on application. Prize Medals, 1851, for Wheat, 1862, for "Excellent Seed Corn and Seeds"

To the Wholesale Trade.
HERBERT H. NICHOLSON, SEEDGROWER, Great Clacton (near St. Osyth), Essex, has the following SEEDS to offer, for cash only:—
ROBINSON'S PRIZE CHAMPION OX CABBAGE, 20s per cwt.
NON-PAREIL CABBAGE 11s.
WHITE CELERY (Levathan) 10s.
SELECTED DARK RED BERT 10s.
STUDENT PARSNIP 8s.
MYATT'S CURLED PARSLEY 7s per bush
STOBBLE TURNIP 18s.
&c. Also all the Annual FLOWER SEEDS, at low prices.

Johnstone's St. Martin's Rhubarb.
W.P. LAIRD AND SINCLAIR, NURSERYMEN, Dundee, N.B., have pleasure in offering the above NEW VARIETY of RHUBARB, which they have confidence in recommending as the earliest and best sort in cultivation. The raiser of it describes it "as one of a batch of seedlings from 'Victoria,' the seedling plant was a fortnight earlier than any of the remainder of the lot, and grown beside 'Prince Albert' and 'Linnaeus,' always ten days earlier than them, and giving a larger quantity of superior stems to either of these varieties. It forces better than any variety I know, and has a splendid colour."
Strong Roots, 2s. 6d. each. Usual Discount to the Trade.

The following Testimonials, selected from amongst many others, speak to its merits by disinterested parties:—

From CHAS. GUTHRIE, Esq., of Tullymore, Dundee, a celebrated Horticulturist.—Taybank House, October 18, 1869.
"Gentlemen.—I have much pleasure in saying that Johnstone's St. Martin's Rhubarb is the best I have in my possession. It is a thick fleshy-stalked variety, bears a heavy crop twice a year, and if cut early, would, I have no doubt, give a third, as even ten days ago it was throwing up fresh leaves. Its peculiarity it possesses of not throwing up flower-stems, only one having appeared in one of my plants in the course of two years. It makes an admirable preserve.—I am, &c. "CHAS. GUTHRIE"

From Wm. GORRIE, Esq., Horticultural Editor of "The Farmer" Edinburgh, October 20, 1869.

"Gentlemen.—I have fully tested the merits of your Johnstone's St. Martin's Rhubarb, both by cultivation and cooking, and compared with the well-known Victoria variety, I find it to be considerably earlier in spring, to yield fully a heavier crop, and to stand out later in autumn, while in quality it is much milder and decidedly more agreeable flavoured, requiring considerably less sugar, which is no inconsiderable advantage in the estimation of cottage gardeners, and others with limited incomes. "WILLIAM GORRIE"

From Mr. LAUR, Restaurateur, Dundee.—October 19, 1869.
"Gentlemen.—I have pleasure in testifying to the fine quality of your St. Martin's Rhubarb. In the course of my business I use Rhubarb to a very large extent—many times during the season I have seen the first supplied to me from the open air, and I always give a preference to it over others in the market. "THOMAS LAMB"

London Agents—Messrs. Hooper & Co., Covent Garden Market, W.C. May be had true from the following Firms, who have it direct from us:—

- Sheffield Messrs. Fisher, Holmes & Co.
Leeds Mr. Edward Holmes.
Exeter Messrs. Scator & Co.
Andover Mr. Wm. Miller.
Glasgow Messrs. Austin & McAlan.
Dublin Joseph Berry & Sons.
Further names published as received.

GENERAL TRADE NURSERY LIST may be had on application.

To the Trade.
JOHN PERKINS, Sen., begs to offer the following FRUIT TREES, all of the finest quality:—
STANDARD PEARS, 3 to 7 feet stems, with good heads, at 50s per 100, consisting of the following and other early varieties:
Louis Bonne of Jersey
Comte de Flandro
Williams' Bon Chretien
Lemon | Marie Louise
Jargonelle | Swan's Egg, &c. &c.
Bourre de Amanlis
STANDARD MAYDUKE CHERRIES, 5 to 6 ft. stem, 76s. per 100. Dwarf-trained do, do., ex fine, 6 to 10 shoots, 18s per doz; 130s p. 100. Do. do MORELLO do, do. 6 to 10 do, 18s per doz; 130s per 100. All letters to be addressed JOHN PERKINS, Sen., 22, Market Square, Northampton.

Special Offer of Specimen Conifers, Evergreens, &c.
W.M. KNIGHT solicits Orders for the following TREES and PLANTS, which have been recently transplanted, are in perfect health, and cannot be surpassed in the Trade:—

- Arancaria imbricata, 3 to 10 feet
Large Spruce Fir, perfect specimen, from 7 to 10 feet
Abies Douglasii, 4 to 8 feet
Laurustinus, specimen in bud, 4 to 6 feet
Cryptomeria Japonica, 6 to 11 feet
Portuga Laurels, 3 to 6 ft. (6 ft. Common Laurels, 4 to 8 feet)
Picea mariana, 3 to 5 feet
Arbutus, 3 to 5 feet
" grandis, 5 to 8 feet
" nobilis gaulca, 2 to 4 feet
Rhododendron ponticum, fine plants, in bud, 2 to 4 feet
Pinus nigra, 4 to 6 feet
Hollyhocks, finest named, including sorts, well budded.
" austriaca, 4 to 6 feet
Wellingtonia gigantea, 4 to 8 feet
ROSES, 50,000, all heights, 3 to the finest and best.
FRUIT TREES, 100,000, all the leading sorts, may give a good crop the first season.
ORNAMENTAL TREES, 100,000, all kinds.
CLIMBING PLANTS, ROSES, and other Plants, great variety, very cheap.
CATALOGUES and special prices on application.
Floral Nursery, Hailsham, Hursley, Sussex.

SURPLUS STOCK. Reduced Prices. Mostly transplanted in 1868 and 1869.
Abies Nordmanniana, 4, 6, 9, to 12 feet
Ash, Common, 9 to 12 feet
12 inches, ditto, 1 to 2 feet
Deutzia crenata flore pleno, 2 to 3 ft.
Juniperus chinensis, 3, 4, to 5 feet
Laurels, Common, 2 to 3 feet
Pinus austriaca, 1 to 2 feet
Laurels, Portugal, 1, 2, to 3 feet
Thuja Warrena, 3 to 4 1/2 feet
3 to 4 feet
Fir Larch, 10 to 12 feet
Pines, Hex-leaved, 3 to 4 feet
All well furnished, bushy, and good rooted.
Standard and Pyramid Pears and Pines, one, besides a general stock of Fruit and Rose Trees, American Plants, Conifers, Hardy Evergreen and Deciduous Trees and shrubs, Climbers, and Forest Trees, &c. Prices on application to
GEO. JACKMAN and SON, Woking Nursery, Surrey

DOWNIE, LAIRD, AND LAING beg to offer the undermentioned VALUABLE NURSERY STOCK, which is all in the best possible health. To ensure a sale, the whole will be offered at (as near as possible) one-half the usual sale price. The Fruit Trees are all of the finest sorts, and true to name. Inspection invited.
45,000 Oak, English, 2 1/2, 3, to 4 ft.
30 Cupressus Lawsoniana, 2 to 3 feet.
200 Portugal Laurel, 3 to 5 ft., very fine.
30 Cupressus Lawsoniana, 4 to 6 feet.
5,000 Laurel, Bay, 3 to 4 feet.
100 Thujaopsis borealis, 2 to 3 feet.
40 Irish Yew, 7 to 8 feet.
150 Tree Box, 3 feet.
12 Wellingtonia gigantea, 5 to 7 feet, very fine.
200 Thuja sibirica, 3 to 4 feet.
300 Maculoseous Shrubs
50 Picea Nordmanniana, 1 to 1 1/2 feet, fine.
1,000 Dwarf Trained Apples, sorts named.
6 Thuja gigantea, 7 to 8 feet.
1,000 Dwarf Trained Pears, sorts named.
3 Arancaria imbricata, 4 to 6 feet, very fine.
20 Cedrus Deodara, 4, 5, to 6 feet.
500 Dwarf Trained Cherries, sorts named.
20 Cedrus Deodara, 4, 5, to 6 feet.
1,000 Gooseberries, sorts named.
200 Aucuba japonica, 2 to 2 1/2 feet, very fine.
1,000 Currants, sorts named.
N.B.—As the above must shortly be cleared off to make way for building purposes, early orders are respectfully solicited.
West Coates Nursery, Edinburgh.—November 20.

The Smithfield Club Cattle Show—Stand 77.
SUTTON AND SONS, THE QUEEN'S SEEDSMEN, Reading, will exhibit specimens of:—
SUTTON'S MAMMOTH LONG RED MANGEL, weighing 40 lb. each.
SUTTON'S YELL-OW INTERMEDIATE MANGEL.
SUTTON'S FERNS PRIZE YELL-OW GLOBE MANGEL.
SUTTON'S CHAMPION SWED.
SUTTON'S IMPROVE VARIETY OF TURNIPS.
SUTTON'S KOHL RABI, CALIA, & CARLOTS, &c.
SUTTON'S GLASS SEEDS OF ALL SORTS.
CHOICE POTATOS, for Planting.
And will receive Orders for the same at moderate prices.
STAND 77—SUTTON AND SONS.

Special Offer for Sale, to Clear Out.
ASPARAGUS ROOTS, 1-yr. old, 10s. per 1000; 2-yr. old, 15s. per 1000; 3-yr. old, 22s. per 1000. SEAKALE ROOTS, 1-yr. old, 6s. per 100; 2-yr. old, 10s. per 100; 3-yr. old, 12s. per 100, extra strong, 15s. per 100.
GLADIOLUS BRANCHLEYENSIS, 10s. per 100.
Mr. MASTERMAN, 11, New Ring Lane.

Autumn Gardening.
SEAKALE, ASIATIC, & 3rd EARLY ROOTS, &c.
JAMES CARTER AND CO. offer the following in special quantities:—
SEAKALE, extra fine roots, for Forcing, 15s. per 100 very fine roots, for Forcing, 20s. 6d. per 100 large, 7s. 6d. per 100.
ASPARAGUS, Giant, extra large plants, for Forcing, 10s. per 100 strong, 3-yr. old, 6s. per 100.
" " strong, 2-yr. old, 4s. per 100.
RHUBARB ROOTS, Baldry's Scarlet, extra strong, 1s. 6d. each other varieties, extra strong, 2s. to 12s. p. doz.
MUSHROOM SPAWN, best Millrace, 6s. per bushel. the French 4s. to 6s. 6d. per box.
JAMES CARTER AND CO., 37 and 238, High Holborn, London, W.C.

CENTRAL CHAMBER OF AGRICULTURE.—
The GENERAL BUSINESS COMMITTEE will meet at the Salisbury Hotel, Fleet Street, on WEDNESDAY, December 8, at 1 o'clock.
Same day, at 2 o'clock, MEETING of the COUNCIL, consisting of the Deputed Members from the Provincial Chambers, and of the Elected Members of Council.
Same day, at 3 o'clock, when the business of the Council is concluded, ANNUAL MEETING of the Members of the Central Chamber.
AGENDA:—
To receive the Report of the Council for the year 1870.
To elect a Vice-Chairman for the year 1870.
To elect eight Members of the Central Chamber to be Members of Council, in lieu of the following, who retire by rotation, but who are eligible for re-election:—Mr. H. Massey, Mr. R. Jasper More, Mr. J. Payne, Mr. Albert Bell, M.P., Mr. Charles Bea, Mr. C. S. Road, M.P., Mr. Edmund Riley, Mr. John Smyth.
To appoint Auditors, and to transact other business.
JOHN ALGERNON CLARKE, Secretary.
The Salisbury Hotel, Fleet Street, E.C.

ROYAL AGRICULTURAL SOCIETY OF ENGLAND.—
The GENERAL MEETING of MEMBERS will be held at the Society's House, 12, Hanover Square, on THURSDAY, December 9, at 12 o'clock, when the REPORT from the COUNCIL will be read, and the Election of Auditors will take place.
By Order of the Council. W. M. JENKINS, Secretary.

The Agricultural Gazette. SATURDAY, DECEMBER 4, 1869.

- MEETINGS FOR THE ENSUING WEEK.
Dec. 5 } Smithfield Club Cattle Show, at Agricultural Hall, Finsbury
Dec. 10 } Land & Farmers Club, Mr. R. H. Massey on Farm Agreements, at Salisbury Hotel, E.C.
" 11 } Salisbury Club General Meeting, at the West End Hotel, E.C.
" 12 } London Farmers Club (General Meeting) at Salisbury Hotel, E.C.
" 13 } Dinner, Dinner—5.30 p.m.
" 14 } North of England Chamber of Agriculture, at Newcastle-on-Tyne.
" 15 } Royal Agricultural Society (Council Meeting), at Hanover Square—Noon.
" 16 } General Chamber of Agriculture (General Meeting), at Salisbury Hotel, E.C.
" 17 } Royal Agricultural Society General Meeting—Noon.

THE above list of meetings shows that we are to have a busy agricultural time next week. The Smithfield Club will open its annual show on Monday morning, at 9 A.M., when the judges will commence their labours, and when members of the Society and the representatives of the Press—and the general public on payment of 5s.—will be admitted to witness the awards. By the way we find we are mistaken as to the general public—they are excluded till 2 P.M., when the process of selecting the prize animals is concluded; though why they should not be admitted with the others is hard to understand. In the evening of this day, at the Salisbury Hotel, the important subject of farm agreements, to which we refer below, will be introduced by Mr. MASIEN, to be discussed for the 50th time, with, as it seems to us, wonderfully little result. It would be a capital effort of what may be called the statistical department of the Royal Agricultural Society—which seems to have awakened to the fact that a description of things as they are is really better than all the direct agricultural teaching in the world—if an attempt were made to ascertain how much more land in this country is now let on lease or low let on a formal farm agreement than was so let 20 years ago. It would, we fear, be found that there had been marvellously little direct result of all the writing, publishing, and specifiying on this vexed question, whatever the fruits indirectly may have been.
On Tuesday the general meetings of members of the Smithfield Club and Farmers Club will take place at twelve and half-past three respectively. The Farmers Club dinner will take place at 5.30 P.M., at the Salisbury Hotel, where Mr. NEWTON, the retiring chairman of the year, will preside and introduce his successor, Mr. JAMES HOWARD, M.P., the elected President for 1870. The monthly Council meeting of the Royal

STEAM CULTIVATION.

A HEALTHY discussion has followed my letter last month on the Peterborough steam cultivation trials. Mr Smith writes that his... (text continues)

father has nursed and nursed it and kept it in its swaddling clothes, until it runs a danger of being smothered by these very kindnesses. Let it have its liberty and the use of its legs to emerge from its cramped-up position a giant. Richard Thompson, 56, Newland, Lincoln.

The following letter, by Mr Avering, of Rochester, has appeared in a local paper, and is reproduced here as an extremely fair comparison of the rival systems:—

The great importance of steam cultivation, not only to tenant-farmers, but to the landlords of this country, must be my excuse for asking your permission to bring the subject before your readers.

It is now 15 years since I first introduced steam ploughing into this county, and many will remember the constant breakages and other annoyances which then occurred, some due to the want of management, but more from weakness of the machinery itself for the work, but since that time many thousands of pounds have been expended in perfecting it.

The thanks of all interested in steam cultivation are due to the gentlemen who in its early stages became purchasers of machinery, and who have since adopted, and by their perseverance assisted in carrying out, each improvement as it arose. Among the pioneers in this county the names of Messrs. Nunn, Messrs. Pye, and Mr. James Lane will come to your ears.

Of the many systems and systems which have been practically brought before the public, two only stand out as the simplest and have proved the most successful.

In both of these the traction power is transmitted to the implement through a steel wire-rope winding upon a drum. In the one case the two winding drums are fixed in a winch frame, and connected to a stationary steam-engine, and can be worked from one corner of a field, the rope being led all round the land intended to be ploughed, through pulley-sheaves anchored in convenient positions. One end of each rope being made fast to the plough, the implement is drawn backwards and forwards, by the drums pulling alternately, and the pulley-sheaves and anchors at each end of the furrow are moved forward as the plough proceeds.

In the other system each of the winding drums is placed under the boiler of a self-moving steam-engine, and one engine at each end of the furrow working alternately and pulling the plough towards it, the other moving forward into position, ready for the return of the plough.

These two systems are known as the single engine, or roundabout, and the double engine, or direct system of steam cultivation.

The advantages of the roundabout system are in the cheapness of the machinery, as the tackle can be drawn by an ordinary portable engine, and in its superior fitness for very hilly and for awkwardly-shaped fields.

Its disadvantages consist in loss of power, great length of wire-rope, useless expenditure of time in returns, and great quantity of apparatus necessary.

The advantages of the direct system are:—Short length of rope required, and consequent economy of power, the little time taken in getting to work, and the small amount of wear and tear due to the simplicity of the tackle.

Its disadvantages are its first cost, the width of the headlands left, and the difficulty in moving the engines on wet land. This last difficulty has been almost entirely removed by increasing the diameter and width of the driving wheels.

For large farms and for letting for hire the double engine or direct system is the best, and has proved itself to be capable of doing more work per day at a less cost than any other. With this tackle I find from experience that 10 acres can be ploughed from 8 to 9 inches deep in a day of 9 hours, at this time of year, in ordinary soils, with a pair of 12-horse power engines, and a 6-furrow plough, at a cost in no case exceeding the following estimate:—

Table with 2 columns: Item and Price. Items include Chief engineer, Second, Ploughman, Assistant ploughman, Two boys, 15 cwt. of coal, Water, Oil &c., Depreciation, renewals, interest of capital, &c., to replace in 19 years at 3% per acre on 10 acres.

Or 7s. 6d. per acre. The lowest price at which this work could be done by horse-power is 15s. per acre, many farmers having stated it would cost them 20s., and some of them that such price for 100 acres of similar land as that referred to above.

That "good work" can now be made by the steam plough is shown by the remarks of the judges at the several ploughing matches where these machines have worked this season, more especially at the meeting of the Isle of Thanet Association, where it was acknowledged by all that the horse ploughs were fairly beaten.

A very considerable increase in the yield, amounting in some cases to as much as three sacks per acre, has been found to result on the application of steam-power to the cultivation of heavy clay lands, and this is not surprising when we consider the damaging effect to the drainage of such lands caused by four horses following each other in the furrows when ploughing it, and the low temperature of the soil consequent upon the water being unable to find its way to the drains. I believe that great advantages will also be found to follow the application of steam-power to the drilling and harrowing in the seed on heavy soils, as there is, without question, much injury done by the horses' foot-marks, every one of which, acting like a dish, will hold the water if gathered until it be evaporated by the sun's rays.

... imported from this country some of Mr. ... animals, including Brute of the Nile for 1000 ... (text continues)

... sale of Sir Wm Stirling Maxwell's ... some weeks since at Keir, Mr. Young ... (text continues)

... Mr. Duckham has advertised his second periodical sale of pure-bred Herefords for Tuesday, Feb. 1. The auction will be held in the cattle market, Hereford.

... Next Thursday Mr. Dells will hold his second annual sale of Short-horns at York, ... (text continues)

The following remarks on the quantity of food in the form of hay required for horned stock are translated from Moll and Gayot's excellent work on cattle. The authors quote from M. Reesdel, who paid much attention to the subject of feeding milch cows, and who sums up his experience in a manner singularly concise and exact. — To preserve life, or more correctly to maintain the animal at the same weight, requires a quantity of nutritive principles proportional to the live weight of the animal. If the nutritive principles contained in the food are insufficient, the animal diminishes in weight, if, on the contrary, there is an excess of nutritive principles, he increases in weight, fattens, grows, or furnishes other products, as work, milk, &c. The maintenance of life among horned cattle requires 830 grammes (183 lbs.) of hay, or the equivalent, for each 50 kilogrammes (110 lbs.) of the animal's live weight, or 1-60th of his live weight. For to satisfy the animal completely he must have hay equal to 1-30th of his live weight per day. Besides the 30th part of his weight in dry substances, the animal requires 1-30ths of his weight of water, or of liquid contained in his food. If to be completely satisfied a horned beast has need of a quantity of nutriment equal to 3/4 for every 100 of his weight, and if 1/3 are necessary to preserve life, it follows that half of the rations is for maintenance (nourriture de soutien), and that the other half is productive (nourriture de production), from which results fat in fattening animals, growth among young stock, milk and the growth of the foetus in cows, &c. Forage of production (this forage being always supposed to be hay or the equivalent) produces among milch cows, for each kilogramme (2.2 lb.) of forage, one kilogramme of milk, or 23 grammes of increase in the calf in the womb of the mother, and among young stock and fattening cattle 10 kilogrammes of forage give 1 kilogramme of increase in the weight of the animal. It follows from this that a cow eats in one year (or 360 days), to make a round sum) 3.0 times 1600 grammes, or 4800 kilogrammes (10,500 lb.) of hay for every 50 kilogrammes (110 lb.) of her weight, or, what is the same thing, 12 times her own live weight. If, then, a cow weighs 500 kilogrammes (1100 lb.), she eats in one year 12 times 500 kilogrammes or 3500 kilogrammes (7920 lb.) of hay, if she weighs 600 kilogrammes she eats double, or 7200 kilogrammes (15,840 lb.) of hay.

I think it possible that some injury to the cause of steam ploughing has resulted from an indiscriminate use of deep ploughing for whatever crop the land may have been intended. I am of opinion that for green crops, &c., the land should be cultivated at least from 12 to 14 inches in depth, say once in every four years, stirring up the subsoil but not bringing it to the surface, and thus enabling the air and water to descend; but that where Wheat, &c., is to be grown, especially on light lands, the depth of the ploughing should not exceed from 4 to 5 inches, leaving a good firm subsoil with no horse-trodden "pan" to obstruct the roots of the corn in their downward growth. Both heavy and light lands would thus be kept at a more even temperature, the heavy lands not suffering from excess of water in the spring time, and the light lands from drought in the summer.

In conclusion I should say that steam cultivation will enable the farmer to become more independent of seasons, and better able to take advantage of the proper time for getting in the seed; he will be able to dispense with a large number of horses, whose food can then be applied to better purposes, the steam engine consuming nothing except when actually at work, and requiring no attention on Sundays; and the land can by its means be cultivated to a depth practically unattainable by animal power. It is also an important advantage of steam tillage that, the land being once thoroughly broken up by it, every succeeding operation is performed more rapidly and at less cost.

It would be difficult to show in what other direction farmers are to look for the means of meeting their constantly increasing expenses. *Thomas Aveling, Rochester, Nov. 19.*

THE DEPTH OF DRAINS.

I SHOULD have responded to your desire for practical information with regard to the depth of drains, had I not deemed it best to wait until the weather had been sufficiently wet to afford a fair test of the state of the grass-field which I drained last winter, at a depth of 3 feet, at 18 yards apart. For, although after the heavy rainfall during the spring, the field was perfectly dry, this might have been regarded as due to the exceptional action of drains which have been recently executed. I can now, however, state that, having carefully examined every part of it, there is no trace of stagnant moisture to be found; but, on the contrary, the whole field presents the appearance of well-drained land. In this case, therefore, drains 3 feet deep and 18 yards apart have proved a decided success. Granting, for the sake of argument, that 4 feet at 12 yards apart might have been equally successful, the expense would have been nearly double. In reply to your question whether it is not an advantage to obtain on turf land an additional foot of dry subsoil, I shall answer in the affirmative, as a general rule. But where, as in my field, the subsoil partakes more or less of the nature of rubble from between 2 and 3 feet below the surface, after which it becomes a bed of solid clay, it is doubtful whether, by placing the drains a foot deeper, this extra foot of dry subsoil would in practice be obtained; for, owing to the tenacity of the clay, the water would be a longer time making its way into the drains than at present, and thus the clay would become thoroughly saturated before they began to run. This slowness of filtration I take to be the principal cause of the failure of 4-foot drainage in another of my fields, which I have recorded in your columns. During continuously wet weather the whole mass of the soil becomes saturated with wet up to the top, so that I have actually witnessed water standing in pools above drains which were discharging much more water than they ought to have done. In the other case—of drains laid so as to be immediately below the open gravelly or rubbly subsoil, and which consequently quickly remove the greater part of the surface water—I think that if the foot of soil between them were tested, it would be found drier than if the drains had been laid a foot deeper. I consider that success in draining, as in every other agricultural operation, requires experience and practical tact. There is nothing on which an unbending rule can be laid down to suit all soils, climates, and circumstances.

Thick or thin seeding, early or late sowing, shallow or deep ploughing, permanent pasture or alternate husbandry, breeding or feeding, may each be advisable in its proper place and time. But there is no agricultural question to which there is not another side. As regards draining, I am a decided advocate for depth, where the circumstances are favourable. But as cost is so important a consideration, I am certain that where drains 3 feet, at 18 yards apart, are more effectual than those of 4 feet at 12 yards, the owners and occupiers of land will prefer the former.

I had written thus far when the instructive letter of Mr. William Smith to *Bell's Weekly Messenger* came under my notice. While advocating deep draining in general, that gentleman says, "I have no rule as to depth. Judgment, moderation, and a regard to cost is my motto." As illustrating how he carries out this principle, he gives the following interesting statement.—"Forty years ago the grass-land at the back of my house was (although a good field) very wet in the winter. It is mixed gravel and clay. At that period it was drained 2 feet deep, 8 yards from drain to drain. Up the furrows from then till now it has been dry, let the weather be ever so wet, and it has not had a tittle the matter with any of its drains. This is what I call good draining on such a soil."

It is instructive to note how the practical sagacity of Mr. Smith enables him to meet a difficult case with totally different treatment. "Sixteen years ago I drained my field No. 5, light land. It is gravel mixed with patches of clay. I put the drains in from 1 to 6 feet deep, 60 yards from drain to drain. The cost per dram for labour was 10s. 6d., and I put in

4-inch pipes. This field in a wet time used to be very wet; since I drained it, it has always been very dry." Some strong land Mr. Smith has drained at 4 feet, and finds that—especially since it has been steam cultivated—it has been dry ever since. In like manner I found, many years ago, that a large grass-field, which had been drained by my predecessor, at a depth of about 2 feet 6 inches, was in parts still wet. The land is strong, but interspersed to a considerable depth with rubble. I have completely cured these wet places by 4-foot drains, running into a new main, which in some places is 6 feet deep. These deep drains invariably run after wet sooner than the shallow ones. In short, an occupier who has his eyes open will generally drain his own land both more effectually and at less cost than a stranger, who comes with preconceived ideas of depth and distance. And draining is so expensive an operation that it is important that it should be carried out both effectually and economically. *Willoughby Wood, Holly Bank, Nov. 30.*

ON THE PRODUCTION OF SUCCESSIVE GREEN CROPS.

THE Strines Calico Printworks are in Derbyshire, distant from Manchester 14 miles, Stockport 7, and Buxton 12. They employ from 500 to 600 work-people, and in connection with them is a farm of about 105 acres. Part of the land is in Derbyshire, and the remainder in Cheshire, the river Goyt passing through the midst. About 50 acres are level and low-lying, the remainder being elevated. The climate is late, especially if east or north-east winds prevail in the spring, and there is not much growth before the month of May.

The stock at present on the farm consists of 14 horses, 1 mule, 1 ass, 21 cows, 13 young cattle, 26 sheep, and 3 pigs.

The horses are heavy draught horses, and are mostly used for draught purposes at the works, as also are the mule and ass; the cow-manure is used for dyeing purposes at the works.

A good supply of manure is obtained from the works, consisting of a mixture of human excrement, flue-ashes, and ammonia-water from the gas manufactory; also a supply of gas-lime. I have had charge of the above farm for nearly nine years, and have conducted the following operations, by means of which I have obtained a continuous succession of green crops:—

- 40 acres meadow land, Grass cut and made into hay; aftermath grazed.
- 43 acres grazed.
- 22 acres under cultivation.

105 acres.

Sixteen acres of the 22 are about half a mile distant from the works and farmyard, and on high ground; they are cultivated under a four-course rotation, namely,—4 acres Oats, 4 acres Swedes, 4 acres Barley or Oats, and 4 acres Rye-grass and Clover.

The Turnips are pulled and carted home in October and November; the Rye-grass and Clover are ready to cut the first time the fourth week in June; the second cutting being ready about the second or third week in August. Thus, for distinction, I will call the 16 acres.

The other six acres are near the works and farmyard, and are level, with a good strong soil, gravelly subsoil, and good natural drainage. They have been devoted entirely to the production of successive green crops for the last seven years.

The six acres have been divided into five as equal parts as possible, which I will call Nos. 1, 2, 3, 4, 5.

No. 1 is manured during the autumn with gas-lime, which is ploughed in; the land is prepared during the spring; in the third week of April drills, 27 inches apart, are made; the land is manured with farmyard manure, and Potatoes (the early sort) are planted in alternate drills. In the first week of May Ox Cabbage plants, 30 inches apart, are put in the drills remaining (the Ox Cabbage seed having been sown the previous August and pricked out during the autumn); during the months of May and June the land is hoed, cleaned, and the plants earthed up; in August the Potatoes are dug, and sold at once, the small and diseased ones being steamed and stored for pigs.

Immediately the Potatoes are cleared the land is scarified, and the cabbages earthed up, as they will soon cover the vacant space. In October the outer leaves are taken off, and the Cabbages are ready to cut in November.

No. 2.—In January or February the Cabbage-stalks are ploughed out, and gathered off; the land is harrowed and ploughed, and sown with spring Tares, with Rye and a few Beans to hold up the crop. The sowing is made in February or March (according to weather), and the crop is ready to cut in July.

No. 3.—Immediately the Tares are cleared the land is manured with manure from the works, which is ploughed in; it is then prepared for sowing Italian Rye-grass not later than August. During the autumn, winter, and more especially in the spring, liquid manure from the farmyard is applied; the first cutting is generally ready to cut in the beginning of May, and the last cutting not later than the first or second week in September. Under ordinary circumstances there will be three cuttings, and if the land is well supplied with liquid manure between each cutting, there will be four.

No. 4.—Immediately the Italian Rye-grass is cleared off, the land is dressed with manure from the works, which is ploughed in, and winter Tares are sown, to be ready to cut in May and June. The crop is cut up in small strips at a time; and as a strip is cleared the land is ploughed, manured with manure from the works, and drilled 21 inches apart; Savoy Cabbages are then planted 18 inches apart (the Savoy Cabbage-seed having been sown in February or March, and pricked out in April or May, and held in readiness),

each successive strip is treated in the same manner, in case the last strip should be rather late. The strips are put in a little thicker there. The sowing will be ready to cut in January.

No. 5.—The Cabbage-stalks are ploughed out, and sown with spring Tares, with Rye and Beans to hold up the crop. The sowing is made twice, one in April the other in May; the first is ready to cut in August, the other in September.

Having described the mode of culture of the green crops, I will now describe the mode of cutting them.

May.—A supply of Italian Rye-grass from Nos. 3 and 4 is cut and carted to the farmyard, and the greater part passed through Richmond's chaff-cutters (attached to the steam engine). When too succulent, they are mixed with chaff. All the horses, the mule, the ass, and get an allowance, the young cattle being cut in May.

June.—Winter Tares from No. 4, and Rye-grass from the 16 acres, form the supply for the month; the winter Tares are now strong, and be cut into chaff. All the horses, mule, and Cows, consume Tares and make ready for Cabbages. When the Tares are all cut, six of the horses are put out on the pasture at night, and the cows are more at pasture with the supply from the 16 acres, and the second cutting of Italian Rye-grass come in. All the young cattle are out at grass; what is not required of the second cutting and Clover is made into hay.

July.—Spring Tares from No. 2 now come in, and a strong heavy crop requires cutting. To these are added Rye-grass and Clover, prepared in the same manner as the winter Tares. The Rye-grass off No. 3. The six horses are put out during the night, the cows are partly cut, and young cattle entirely.

August.—Spring Tares are obtained from the sowing Italian Rye-grass, a third cutting of Rye-grass and Clover from the 16 acres if required. The horses are at pasture during the night, all receiving green food; all the cows are at pasture aftermath, and the young cattle are also at pasture.

September.—Italian Rye-grass from No. 4, and Tares from No. 5 (second sowing), a straw cut through the cutting-machine, and the 16 acres are got this month. All the cows are at pasture, but all the cows and young cattle are at pasture.

October.—Ox Cabbage leaves from No. 1, and tops from the 16 acres, are used this month. The cows are receiving a small quantity of Turnips from the 16 acres, and the cows a cartload per day of leaves or Turnip-tops, carted out into the field and spread there, so that all can be consumed by the young cattle at grass.

November.—Ox Cabbages are got from No. 1, two feeds per day for the cows, and one for the young cattle (or Turnip-tops); the Cabbages are as near to the ground as possible with a strong bill; each Cabbage is cut in four quarters, and to cleave the stalk up the middle, as they are valuable eating in it. The horses have a small quantity of steamed Turnips the last week.

December.—Ox Cabbages continue to be cut from No. 1, viz., two feeds per day for the cows, and one for the young cattle. A week's supply is always kept cut beforehand, in case frost sets in, as the Cabbage breaks like glass in frost. If the weather seems settled for frost, another week's stock is got in; and if the storm is longer, Turnips are substituted, the sheep getting a few Cabbages this month, and the horses getting a quantity of steamed Turnips, as in November.

January.—Savoy Cabbages from No. 4 are cut, and a supply is kept cut beforehand in December. The cows obtain two feeds per day of the young cattle one; the sheep also get a few feeds of the same as during last month.

February.—Same as in January.

March.—Swede Turnips are used from No. 2, all the cows receiving two feeds per day, and the young cattle one. The young cattle get one feed per day, being out at pasture a few hours per day. The cows have a few steamed Turnips as before, and a small quantity also.

April.—Swede Turnips continue to be cut from No. 2, all the cows receiving two feeds per day, and the young cattle one. The young cattle get one feed per day, being out at pasture a few hours per day. The cows have a few steamed Turnips as before, and a small quantity also.

REMARKS ON THE ABOVE

No. 1. *Potato or Cabbage System.*—The system of growing Swede Turnips, Mangels, and Cabbages in the place of the Cabbages and Potatoes is not answer so well as the present system. Cabbages are not of much size before the first cutting in July, and after that the Potato-tops are cut, and the Cabbages, now beginning to spread their leaves, would cover up the Potatoes if they were cut out. I have frequently seen the stems of Cabbages projecting over each other, and when the stems have been 54 inches apart, the Potatoes are readily sold to the work-people at a good price. In getting the Potatoes, the drill is dug out first, and in a few days the rows will incline over the vacant space, and be covered by a turnpike road.

No. 2. *Spring Tares, with Rye and Beans.*—I have tried Tares with Oats, but could not keep them with the above it will stand either rain or drought, and not go down. If the crop did go down, it would be a great loss.

have to be consumed at once or made into hay, and it would leave a vacancy in the continuous supply which could not be filled up. The above crop is too heavy and strong to admit of Italian Rye-grass being sown in the spring.

No. 3. Italian Rye-grass.—This is an excellent crop, with its three or four cuttings, and it is always ready. I have had but one failure in this crop during the last seven years, and that was caused by my not being able to attend to the sowing at the proper time.

No. 4. Winter Tares and Rye.—I have tried Tares with Wheat, but could not keep the crop up; sown with Rye it is sure to stand. I have tried Swede Turnips, and also Yellow Turnips, after the Tares, but have not succeeded in raising a full crop, as the season is too far advanced in this locality, as I find from experience in the 16 acres that the first or second week in May is the best time in this district; and, as the Yellow Turnips come in at a time when not required, I am in favour of the Savoy Cabbages, for I have never yet failed in raising a full crop, and the Savoy Cabbages come just when the others are done.

No. 5. Spring Tares, with Rye and Beans.—(Same as No. 2.) I have tried them with Oats, but could not make the crop stand.

The Spring Tares in Nos. 2 and 5, and the Winter Tares in No. 4, ought not to be cut until they are at their full growth, if it can be avoided, as there is no second cutting like that yielded by Italian Rye-grass, each cutting of which ought not to be allowed to grow too long, as by so doing it interferes with the next. There is sufficient time, after each crop is cleared, to prepare and sow or plant the next, and there will not be any failure if the dates given are attended to.

The result may be thus briefly summed up: the land has grown heavier crops each succeeding year; and, by careful management, a supply of green food has been kept up for each succeeding day in the year. John Chambers, Bailiff to the Strines Calico-Printing Company, in the "Journal of the English Agricultural Society."

Home Correspondence.

Manures on Grass Land.—In the belief that the results of an experiment tried by me this year on eight half-acre plots of permanent pasture, may interest your readers, I annex a table showing the results. The quality of the soil and the character of the herbage was the same throughout. It will be observed that the only plot which gave a profit was that dressed with lime and salt, the quality of the hay, too, from this plot was the best of all. I propose to allow the land to remain unmanured for the next two seasons, with the view of testing the value of the manure left in the soil by the subsequent yield of hay. Coles Child, Bromley Palace, Kent, Nov. 24.

together being 3607; which added to the 8007 for beasts sold fat, would make 11607 from a breeding stock, instead of 16807 from a dairy stock: which still shows a balance of 5200 in favour of the dairy. These few simple figures will, I think, satisfy most people that dairy farming is much more profitable than breeding or growing beef. G. A. H.

Mangel Wurzel and Sugar-Beet.—Mr. Mitchell asks for a solution of the question as to the growth of Beet, as compared with Mangel. The weight is, I think, confessedly in favour of Mangel, even when the Beet is closely cultivated. I have grown Beet in alternate rows with Mangel, from seed from Mr. Duncan, and I have seen it grown from other seed elsewhere on various soils. The weight of the crop seems to be much in proportion to the depth of cultivation more than liberal treatment with manure. On the deeper cultivation the roots carried their size well into the soil, on the shallower, that portion of the root that penetrated the soil was divided more or less into roots of inferior dimensions; the Mangel grown under the same conditions were remarkably fine. On cultivation exceptionally deep in a clay soil, the root seemed to force itself into the soil without the division into roots of inferior dimensions. Deep cultivation seems to be the secret of success in growing Beet. J. C. C.

Sugar-Beet.—Will you allow me to correct a statement which appeared in your journal touching the cultivation of this crop? It is supposed that no crop can immediately precede or immediately follow Sugar-Beet. This is an error, as our experience at this farm will show. The best return of Sugar-Beet which we have had this year is that from 7 acres of land, which yielded 196 tons, or 28 tons an acre. This crop followed immediately upon the removal of Winter Rye and Winter Onions (the heaviest Beet came after the latter), and a close crop of Cabbages and Wheat followed at once the removal of the Beet. The land destined for Beet-growing next year is now in Grass, which will be allowed to stand as long as possible, and will be ploughed up only when we are ready to put in the Sugar-Beet seed. Henry J. Morgan, Lodge Farm, Barking, December 1.

Woolston Steam Cultivation.—I am afraid Mr. Smith has got a dig in the ribs which he does not feel very comfortable under. He talks of having 30 men employed, and therefore has no time to attend to "G. A. H." and his "interest of money and depreciation," but as these men are all employed, as he himself says, at "jobwork," why need they take up so much of his time? I, too, have a great many men employed (far more than 30), and fully half of them are at day work, not jobwork, yet I can find time to poke through Mr. Smith's figures and point out his fallacies. What was the use of asking you to reprint his letter to the Times? I read the Times and have seen it there, but what is the value of it? It is a "mere estimate," and

forth into the streets of Ascalon—I actually believe that Tiptree has done more good to British agriculture than Woolston has—ten times over. I hope Mr. Smith will understand that I am still waiting patiently for his reply when his 30 men have finished their job. G. A. H. [Neither "G. A. H." nor his readers must imagine, from the silence of Mr. Smith, that he has not an answer to his clever assailant. We have received a long report on the subject from Woolston, for which we are unable to find room this week.]

Foreign Correspondence.

TORONTO Turkey Raising.—The turkey is a native of the American continent, and is found in the wild state all through the Western States, and often in the south-western part of Upper Canada. The wild mix with the tame, and do not produce males, and are therefore, doubtless, of exactly the same species. The tame turkeys often associate with the wild, and join their flocks, breeding with them, and sometimes coming home to the barn-yard in the winter with some of their progeny.

Turkeys, in their wild state, always separate after the breeding season, the males and females into separate flocks, and they seem to associate with other, they certainly migrate to considerable distances, and there is no known rule for their returning: the separation between the sexes seems to be complete, and if they ever meet again in pairs it is undoubtedly chance. It has been observed that the broods of the wild bird are very large, whilst the broods of those kept in confinement are often very small. American turkey breeders assert that the cause of small broods is that the same male bird is kept year after year, and those who look to their turkeys for profit, therefore, spare no pains to change the male bird every year, replacing him by one from as great a distance as possible. Many who have tried it say that, with the same male, they get good broods the first year, poor broods the second, and very bad ones the third year. This is a piece of "henwife lore" that may be worth putting in force in England, where, for some reason or other, they do not raise one young turkey where they raise ten in America. It can do no harm to try the experiment. Vectis, Toronto, Canada, October 8.

Societies.

BATH AND WEST OF ENGLAND.

November 30.—At a special meeting of the Council at Bristol, Sir J. T. B. Duckworth, Bart., in the chair. Guildford Meeting, 1871.—The deputation which visited Guildford, on the 4th November last, reported in highly favourable terms of the site in Shalford Park, proposed to be placed at the disposal of the Society for the meeting to be held in 1871, and it was resolved by the Council that the invitation from the inhabitants of Guildford be accepted, and that the usual conditions be signed by the secretary on behalf the Council, and interchanged with the conditions already signed by the authorities at Guildford.

Privileges of Members.—Several new members were proposed for election at the next meeting of the Council to be held on Tuesday, February 22; and it transpired that no person not proposed on or before that day will be eligible to exhibit at the Taunton meeting on the same terms of advantage as those enjoyed by duly elected members.

BIRMINGHAM AND MIDLAND COUNTIES.

The 21st meeting of this Society was opened on Saturday last, when the judges, from the uneven character of the cattle, got through their complicated duties with unusual ease. We say "complicated duties," because there are so many extra and special prizes offered by this Society that some of the animals come before the judges as many as five times. This was the case, as will be seen by our prize list, with the Earl of Aylesford's steer, for in addition to the 1st prize of his class, he was awarded the extra prize for the best Shorthorn, the gold medal for the best male, the Innkeeper's Prize for the best animal in the Hall, and so on; the value of the whole amounting to upwards of 1200, or more than double the intrinsic value of the steer himself.

A remarkable feature of the Bingley Hall cattle was their inferiority as compared with last year. Then there was the most uniformly good collection of cattle that we ever saw together, and in addition to their regular fatness, their fine firm touch had never been equalled. The animals which have just been dismissed from the show, however, besides being very irregular, were in many cases very infirm, or oily, instead of being firmly fat, under the hand. This, of course, has nothing to do with the directors and managers of the Bingley Hall show, as they do not select the animals which appear in response to their prize list. But in this contrast we infer there is a great practical lesson for us to learn, for last year there was scarcely a bit of fine quality or wholesome green food to be had during the six months preceding the Christmas shows, while this year there has been an ample supply, and in some places almost a superabundance of green food and roots for our live stock. The conclusion we may therefore draw is that, if our breeders and graziers could see their way clear to keeping their domestic animals free from foreign diseases, and otherwise be assured that a more certain direct profit on feeding stock would accrue, not only might the quality of our animal food be greatly improved, but its home-produce might be increased to any extent. The means for effecting both these desirable ends consist, of course, in the supply and use of a much larger amount of foreign corn. If these shows, with the wide differences in the quality of the animals in question, do not teach this practical lesson, of what practical value are they?

Table with 10 columns: Manure applied, Quantity, Cost at per acre, When applied, When cut, Produce at per acre, Value at 80s. per load, Profit, Loss, Remarks. Rows include Farmyard manure from open yard, Ditto from covered yard, Sulphate of ammonia, Soda, Potash, Salt, Dried clay, Superphos lime, Guano, Nitrate of soda, and Manure.

Dairy Farming against Breeding.—It seems to me that very few people appreciate the benefits of dairy farming. The same sort of land which rears and fattens good stock will produce first-rate dairy produce. Now, let us look at the relative returns from each. Suppose I have a farm which will keep 40 breeding cows, my regular winter stock will be 160 head—40 cows, 40 calves, 6 to 12 months old; 40 beasts, 1 1/2 to 2 years old; 40 beasts 2 1/2 to 3 years old, which will be sold off just before the new crop of calves come. Now all the beasts, except the calves, eat a full average ration, and the calves I consider will eat half a ration—that is to say, 40 calves will eat as much as 20 beasts. Therefore I have to provide rations for 140 head instead of 160 head. But if instead of breeding I kept a dairy of 40 cows, the same food would keep them. Now, let us compare the money returns. Every one will admit that a good average cow will produce at the very least 127 a year in butter and cheese, so that 140 cows would give at this low estimate, 16800. But if I keep a breeding stock of 160 head, say 40 breeding cows, I should sell off every year 10 fat beasts three years old, worth, say 200 each, and bringing in only 8000, or less than half what a dairy using the same food would bring in. But it may be said, "if you have 40 breeding cows you will not use all the milk for the calves; you may make 20 cows bring up the 40 calves, which will leave you 20 cows for a dairy, and at the end of three months you may wean the calves, and get the other 20 cows for the dairy for the remainder of their time, during which they will give you about half profit." Let us then see how much this would add to the profit. Twenty cows at 127 would be 2540, and 20 cows at 61 (half profit after calves are off), would be 1200, the two

therefore simply "trash." So I quote against himself his own words, addressed to Mr. Toepfler (see p. 1097), "let him give over talking of what he can do, and instead tell us what he does do." Mr. Smith proposed to give us "facts," and I have already shown by his own figures that his so-called "facts" are fallacies, and that he never has made a seed-bed for Wheat at 6s. 8d. per acre, because his own figures prove that in order to do so he must occupy a farm on which he has 1067 acres under rotation on the four-field system, and of which 800 acres must be actually ploughed or, as he calls it, "smashed" each year. Now he never has occupied such a farm, and therefore he never has made a seed-bed for Wheat at 6s. 8d. per acre. He has, in fact, been telling us, not what he does do, but what he estimates he can do. This is a hard nut for Mr. Smith to crack, and I think he will break his teeth before he does it. And now one word about Mr. Mechi. Mr. Smith evidently thinks that I am a great friend of Mr. Mechi, and that my attack on the Woolston fallacies was a retaliation for the attack on Mr. Mechi's accounts, and he accuses me of keeping open "the raw" which he fancies he has established. I suspect Mr. Mechi's hide is too tough to be rubbed into a raw by Mr. Smith's criticisms; he must employ a professional accountant to assist him before his critique of the Tiptree accounts is any better than henscratching. As to my friendship for Mr. Mechi, I never saw him in my life, and he is no more my friend than he is the friend of every gentleman in England who takes an interest in agriculture. I may occasionally smile at his enthusiasm, but I most thoroughly respect his honesty of purpose and his truthfulness. Nay—tell it not in Gath, let it not go

cultivation, there was nothing new or novel in the ba...

Reviews.

The Commissioners on the Employment

of Children in Agriculture. Report of the Commissioners on the Employment of Children in Agriculture. London: H.M.S.O. 1906.

Other ground of the child to the acquisition of the English language, is looked at by the...

by requiring a certain amount of education for the child before he is allowed to be employed...

the existing low standard of education is a serious obstacle to the employment of children...

It is upon the testimony of landowners, Boards of Guardians, and others, including farmers, in favour of a prohibition of the employment of children under 12 years of age...

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Farm Memoranda.

LISCARIA, BIRKENHEAD. - Having a few hours to spare when in Liverpool last autumn, and being within 14 miles of Mr. Lathdale's model farm at Laward, I determined to avail myself of the opportunity of seeing this well-known establishment.

Mr. J. A. C. ... Mr. J. A. C. ... Mr. J. A. C. ...

birds. In the class for chickens (No. 2), Mrs. Arkwright again won 1st, and took the cup as well. The competition in this class was very great, and the result showed that the old breeders hold their own pretty well.

Classes 3 and 4, for hens and pullets, grey Dorkings, but not silver greys. More than 90 pairs competed, Mr. John Fox winning for hens, and Mr. Crossley 1st and cup for pullets.

Mr. Thomas Raines had 1st prize for a very handsome silver grey cock, and Mr. E. D. Holt 1st for a pair of hens of great merit. The appearance of this latter class was extremely interesting, from the symmetry of shape and beauty of plumage.

We think we may report progress and improvement in the white Dorkings; they show more frame and stamina. Mr. John Choyce was 1st for cock birds, and Mr. J. Robinson for hens or pullets.

Mr. W. A. Taylor may be proud of the adult Cochin cock that won him Mr. Mapplebeck's cup, and Mr. Zurhorst's 2d prize bird was well worthy of his position.

Mr. William Sanday was 1st for cocks of 1869, with a young bird that will, we think, be hard to beat in future; Mr. Cattell was 2d, and Captain Heaton 3d. These names will give some idea as to the quality of the birds sent.

The classes for buff Cochin hens and pullets were an exhibition in themselves. All the best known breeders competed, and hard was the struggle, many who have been accustomed to substantial honours having to content themselves with commendations. Mr. W. A. Taylor took 1st for hens, and Mr. Cattell for pullets. The brown and partridge-feathered Cochins do not make progress. By dint of pushing they were made to take a more prominent place a year or two back, but they do not hold it either in quality or numbers. Mr. White and Mr. Amies won 1st for cock birds (old and young), and Messrs. Taylor and Tudman for hens and pullets.

Mr. A. O. Worthington and Mr. Swindell were the winners of the two 1st prizes for white Cochin cocks, and Mr. Smalley and Mr. Williamson for hens and pullets.

The competition in dark Brahmas was immense, the entries numerous, and the quality very high. The winning bird in the class for adult cocks was one that has seldom been equalled. He was exhibited by Mrs. Hunt, of Aldermasley. The Rev. John Bowen won 1st for young birds with an excellent chicken, in a competition of 70 birds. Mr. Lingwood was 1st for hens, and Mrs. Hurt for pullets. The light Brahmas have been fostered, praised, and pushed into notice by their own admirers, but they will never take the place of the dark ones, nor do we think they will ever equal them. The entries of them were small. Mr. Lacy and Mr. Crook won 1sts for cocks, Mr. Williamson and Mr. Crook 1sts for pullets and hens. Eighteen pens of Malays divided into four classes made but a poor show. A young Malay cock is not a bird that appears to advantage in a pen by himself: he gives one the idea of a boy in corduroys too small for him. The Crevecoeurs were excellent; seldom, if ever, has the class for the cocks of this breed been equalled. The increase of frame and size is great, and the improved constitution and stamina of the birds speak for the pains that have been bestowed on their development. Mr. W. R. Park won 1st prize, Mr. Zurhorst 2d. Mr. Park also won 1st with a pair of hens; Mr. Durbell for Houdan cocks, and Mr. C. Morris for hens. The Hon. C. W. FitzWilliam took all the 1st prizes for the La Flèche fowls.

Mr. H. Lane won in a canter 1st prize for Spanish cocks (adults). He won, but not so easily, the 1st for chickens. The Hon. Miss Pennant 1st for hens, and Mrs. Hyde for pullets. Black Hamburgs having made themselves a position, keep it. The birds shown were very good. Messrs. Mason & Walker were 1st for cocks, and the Rev. W. Sergeantson for pullets. In golden pencilled Mr. Whittaker won 1st in the class for cocks, and Mr. H. Beldon for pullets; this latter exhibitor was 1st for silver pencilled cocks, and the Duke of Sutherland took 1st prize for pullets.

Mr. W. A. Hyde took the 1st honours for golden spangled Hamburgs in both classes; Mr. H. Pickles for the best cock bird, and Miss E. Browne for the best pullets in the silver spangled.

Mr. Shaw took both the 1st prizes for black Polish, Mr. Nicholls for cocks, and Mr. Harvey for pullets in the golden spangled, but the competition was poor.

Mr. G. C. Adkins took a double first in silver Poland, winning both for cocks and pullets. The class for silver Poland cocks was a very good one indeed.

Class 59, for "any other variety," was more interesting than usual, the 1st prize being taken by Mr. Montresor, with a pen of very handsome Indian game called "Bajsa." The second was awarded to silkies, the 3d to Andalusians, and high commendations and commendations were distributed freely.

(To be Concluded next week.)

Calendar of Operations.

DECEMBER.—Steam Culture, in favourable climates, ought to be finished before this time, as stated in previous months; but to the general rule there are many exceptions. Lands, however, which could not be cultivated at an earlier date, should now be ploughed or smashed up without delay. And besides the exceptional examples of ordinary tillage, this is one of the best months for trenching and deepening old pastures or worn-out arable soils. To get the newly deepened or reclaimed land turned up to the frost and rains of winter is a cardinal point, upon which much of the success of the work depends; hence, as much as possible should be done over by steam in the early part of the month, for the alternate washing by heavy rains

and freezing of newly broken-up land has a powerful effect in sweetening it and preparing it for manure and the growth of crops. Indeed, without this preparation, it is in many cases hopeless to put manure or seed into it. Often exceptional examples, calcareous, gravelly, and sandy stubbles, leys and fallows, may be cultivated by steam as successfully just now as at an earlier period, so far as the mere work of tillage is concerned. It is otherwise with tenacious clay soils, which by this time have absorbed their maximum of water; and hence they more or less "squeeze" and "paste;" whereas, when worked in a comparatively dry state the furrow-slice breaks up into a thousand fragments, thus exposing nearly as much surface to the weather as do gravelly and sandy soils when ploughed or smashed at this season.

Horse Ploughing (in the absence of steam) is general this month in open weather. In early and ordinary seasons the stubbles are ploughed before this in the northern counties of Scotland, but in late seasons it is otherwise; and when much rain falls, the ploughs may have to be sent to the ley until the stubbles become sufficiently dry. Beans are sometimes sown upon the stubbles in February, and covered thinly by ribbing or ridging, in preference to poaching the land in December; and if frosty weather intervenes, manure may be carted and spread upon the stubbles. In favourable springs fine crops of Beans have been thus grown; but the practice can only be commended as the least of two evils. It is, however, only the heavier class of soils that are thus left to spring. When the ploughs have been removed from stubbles adapted for the growth of Turnips, they may be returned in a day or two after the rain ceases, and on no account should they be allowed to lie over uncultivated during the winter months; and now that steam can be hired in every county, there is no occasion for poaching.

Draining operations continue to be carried on with vigour, as stated last month. There is still a large breadth of the country undrained, and much that has been drained is only half done, while not a few of the pipes in the earlier drained land are beginning to give way, thus proving that the artificial drainage of land is not a permanent work. It further proves that the useful duration of a drain is anything but a uniform period. The practical conclusion to be deduced from this is manifest, viz., the drains require to be carefully examined at this season after every storm, to see if they are all flowing freely; and this is not all, for the fields upwards require close examination also, to see if wet places are making their appearance—in other words, to see if the whole field is being thoroughly drained. Where a drain ceases to act in young Wheats, Clovers, &c., the wet spots should be marked either by stake, or pit, or the intersection of cross lines, so that the injury can be repaired at the close of harvest, when no such wet spot may be perceptible. But when the old drain or a new one can be opened, the sooner the reparation is made the better. Where there are doubts as to the whereabouts of the defect in the drain, it is better to open cross-drains above and below, and to put new drains half-way between the old, than to open the old ones. The cross-drain should be sufficiently far above and below to make sure work. Two or three main drains angularly across the bottom of the field, when drains cease to drain off the water properly in wet weather, afford instant relief, and, in putting in such mains, the common drains crossed should be carefully examined, one by one, and new drains put in half-way between, when needful. On comparatively level land the drains, whether filled with stones or pipes, are liable to be silted up, and when there is much declivity, the water is liable to flow below the pipes, here and there, washing away soil, and thus derange the continuity of the flow in the drains. The soil above is also liable to be washed into the pipes. When such defects are suspected a cross-cut should be made in time and the drains examined.

Fat Stock.—December is pre-eminently a season when the fattening properties of our different breeds of cattle, and the merits of individuals in each breed are discussed and tested in various ways, so as to determine which is the most profitable for producers and consumers. The great fat stock exhibitions have begun, and it has been complained that in getting up stock for these meetings the fattening process is carried to an extreme; but the objection is no longer generally applicable. The process of fattening is a natural one, and where wholesome food is given in buildings properly lighted and ventilated, and when animals have a sufficiency of daily exercise, there is no fear of the abnormal productions complained of. The best kind of food for fattening neat cattle, sheep, and pigs, is no doubt, for each, an open question, which is subject to no little diversity of opinion. But although it applies to the few animals exhibited at our winter fat stock shows, it is otherwise with the great bulk of stock fattening for the shambles; for, generally speaking, the relative price of cake and corn, with the quantity and quality of the root-crops, hay, and straw grown on the farm, form together the practical solution of the question. It follows that each farmer has to solve it for himself. That which was the most profitable dietary last year may not be the best this year. Diversity of breed and age have each their peculiar demands, so that those who purchase stock for fattening select animals according to the food they have to give. Some Scotch and Welsh breeds pay more for corn than for cake generally; and corn, when ground into meal and mutton than oilcake. Of late years the consumption of meal has been on the increase, along with pulped roots and chaff, with a still greater increase in the weight of corn-fed meat from a given quantity of food consumed; and there cannot be a doubt that the improvement is based on sound principles, and therefore permanent. W. B.

Fruit Trees for Sale. J. SCOTT, The Nurseries, Merritt, ... glad to receive orders for the above, which consist of 1000 ... APPLE, 170 do. of PLUM, 150 do. of CHERRY ... Standards, 6 to 7; Pyramids, 4 to 5 ... 5 feet high; also very fine Dwarf-trained ... superior growth, are offered. The above are ... "Orchardist," the best work on Fruit Trees in ... in stamps. A printed List or Index sent gratis. J. S. also offers a splendid stock of FOREST TREES, SHRUBS and EVERGREENS in every variety. CATALOGUE free on application.

Nursery Stock (one of the Largest in the Kingdom). THOMAS KENNEDY AND CO. have a large and superior stock of FOREST TREES, DECIDUOUS and EVERGREENS ... they are selling at moderate prices. The Trees ... all ages and sizes, are particularly well suited for ... or giving immediate effect in the formation of ... Ornamental Parks, Pleasure Grounds, &c. Dumfries has long enjoyed the pre-eminence of a ... best localities in Great Britain for rearing; and the ... climate being peculiarly adapted for rearing; and the ... these Trees have been planted throughout the ... (where Millions are sent by T. K. & Co. every ... invariably done well. Dumfries, from its central position, is most favourably ... the speedy transmission of goods to all parts of the ... T. K. & Co. will forward a Copy of their DESCRIPTIVE ... CATALOGUE to any address on application. Nursery and Seed Establishment, Dumfries.

To Noblemen, Gentlemen, Nurserymen, and Others.

Two Hundred fine Single Specimen GOLDEN ... varying in height from 3 to 8 feet, and from 12 to 18 ... JOHN FRETtingham begs to offer ... which are fine Single Specimen ... will carry splendid balls of earth. They are ... ground, in the best possible state of health, and ... every way fine specimens—probably such as are ... anywhere else in England. Also a quantity of similar sized SILVER ... STRIPED HEDGEHOG HOLLIES, Standard ... PARK APRICOTS, on fine legs; strong Standards ... by the 1000, suitable for orchard planting, in ... bearing state. The above are accurately described ... seen growing in the Nursery. Full particulars ... application. N.B.—One Hundred of the ... from 3 to 5 feet, the rest from 5 to 8 feet in height. JOHN FRETtingham, Stapleford, ... 18, Corn Market, 1, Erby.

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- ALDER, 2 to 3 feet ... 3 to 4 feet ... 4 to 5 feet ... ASH, 2 to 3 feet ... 3 to 4 feet ... 4 to 5 feet ... BEECH, 1 to 2 feet ... 2 to 3 feet ... 3 to 4 feet ... BIRCH, 3 to 4 feet ... CHESTNUT, Spanish, 2 to 3 feet ... ELM, Chichester, 6 to 8 feet ... Hertfordshire, 6 to 8 feet ... FIR, Scotch, 1 to 2 feet ... Spruce, 1 to 2 feet ... 2 to 3 feet ... 3 to 4 feet ... HAZEL, 2 to 4 feet ... NORWAY MAPLE, 6 to 8 feet ... 8 to 10 feet ... OAK, Brit sh, 2 to 3 feet ... 3 to 4 feet ... POPLARS, Lombardy, Black English, ... Italian, Orario, 6 to 8 feet ... COMMON LAUREL, 1 1/2 to 2 feet ... 2 to 3 feet ... 3 to 4 feet ... MAHONIA AQUIFOLIUM, fine ... Prices to the Trade on application to EWING AND CHILDS, The Royal Norfolk Nurseries.

W. HANDSCOMB, The Nurseries

- Woburn, Beds, offers the following— 100,000 2-yr. ASH, 5 to 6 inches. 20,000 3-yr. OAK, 9 to 15 inches. 10,000 SPRUCE FIR, 2 1/2 to 4 feet. 2,000 ... 3 to 5 ft. 10,000 COMMON LAURELS, 2 to 4 feet. 5,000 3-yr. BEECH. 1,000 ... 3 to 4 feet. 5,000 SCOTCH FIRS, 3 to 4 feet. 3,000 LARCH ... 3 to 4 feet. 3,000 ... 3 to 6 feet. 3,000 HAZEL, 3 to 5 feet. 2,000 BLACK ITALIAN POPLAR, 6 to 8 feet. 2,000 WELPIN FIR, 4 to 6 feet. 2,000 TRIFOLIUM, bushy, 2 to 3 feet. 500 LIME, Red Twigged, 6 to 8 feet. 300 PINUS AUSTRIACA, 2 1/2 to 3 feet. 60 EVERGREEN OAK, bushy, 4 to 6 feet. ELMS, of Ser. 3, 12 to 15 feet. RED MULBERRIES, 3 to 4 feet. 2,000 HORSE CHESTNUT, 3 to 4 feet. 60 New Double SCARLET THORN.

To the Trade.

MR. WILLIAM MASTERS, etc. Canterbury, has a fine stock of FRUIT TREES upon moderate terms. MULBERRIES, 5 and 6 feet, Standards and Dwarf. A clean healthy set as seen. PEACH and NECTARINE, Dwarf Maiden and trained. In the most healthy state. PLUMS and CHERRIES, Dwarf Maiden and trained. 3-yr. trained, of all the leading sorts, as well as Pyramids, for early fruiting. PEARS, of very choice sorts, of the same description. WALNUT and QUINCE, Standards, of all sizes, and APPLES, of the leading kinds, both the Dwarf and Standard, Pyramids, Dwarf, and ... They are all Standards, Pyramids, Dwarf, and ...

- FLOWERING SHRUBS and TREES. ROSES, of the very best kinds that could be ... Standards and Dwarf. ACACIA INERMIS, dwarf, 6 feet stems. ACER, or Negundo, variegatum, of 6 feet stems. COPPER BEECH, 3, 4, 5, and 10 feet stems. CAROLINA ROSE ACACIA, 6 feet. Double APPLE, CHERRY, PEACH, of sorts. DROOPING MOUNTAIN ASH, LABURNUM. COMMON ASH, &c. RHODODENDRONS, of choice named kinds, thousands for shrubbery and Wood planting. HEATHS, AZALEAS, ANDROMEDAS, KALMIA. Aucuba, 6 in., and 1, 2, and 3 feet. 1, 2, and 3-yr. Albrea frutex, many named kinds. Laurels, 2 1/2 to 4 feet. Box, of sorts, 1, 2, and 3 feet. Philadelphus, of many sorts. Lilacs, of many varieties. Spiraea, do. do. Gueldres Rose, and other Viburnums. Sweet Bay, 1 and 2 feet. Laurestine, 1 and 2 feet. CONIFERS. Firs and Pines, of many kinds. Junipers, of all sorts. Biota and Thuja. Cypress, do. Araucaria, 1 to 2 feet. Cedar (Red), Atlantic, &c. Chamacyparis variegata, beautiful. MISCELLANEOUS. Lime layers, 3 to 4 feet. Asparagus, 1, 2, and 3-yr. old. Sea-kale, 1, and 2-yr. Rhubarb, 1, and 2-yr. Prices upon application.

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MASTIC L'ROMME (The new French Gold)
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THE above and many other PATENTERS
 are made in France.

ORNAMENTAL PAVING TILES
 for Conservatories, Greenhouses, &c.

SILVER SAND
 for Lawns, &c.

SHANKS PATENT LAWN MOWERS
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 for Lawns, &c.

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 for Lawns, &c.



CHERRY TREES, for Market Gardens.—Fine Pyramids of the following sorts of Cherries, all of which bore good crops last season, can now be supplied. They may be planted from 6 to 8 feet apart:—May Duke, Archeduke, Empress Eugenie (very early), and Royal Duke.

As the above form of Tree is new in Market Gardening, a Tree of each sort can be sent as sample. Price per 100 or per 1000 given by Messrs. RIVERS and SON, Sawbridgeworth

ORDERS respectfully solicited for PYRAMIDAL PEAR TREES, fine stuff, best sorts, 18s per dozen. PYRAMIDAL APPLE TREES, fine stuff, best sorts, 12s per dozen. Dwarf-trained MAYDUKE, MORELO, and BIGARREAU CHERRY TREES, very strong stuff, 20s per dozen. Dwarf-trained MOORPARK APRICOT TREES, 50s per dozen. CHARLES B. SAUNDERS, Nurseryman, Jersey

Fruit Trees and Evergreens.

SALT MARSH and SON have a fine stock of extra strong STANDARD and TRAINED FRUIT TREES to offer, at reasonable prices. Also of large EVERGREENS of various kinds suitable for immediate effect. CATALOGUES and prices on application. Moulsham Nurseries, Chelmsford.

VINES.—Well-ripened planting and fruiting Canes (including Mrs. Pince and Madrasfield Court), from 2s. 6d. to 10s. 6d. each; names on application. Eyes of Mrs. Pince, 3d., and Madrasfield Court, 6d. each.

Some fine Standard Trained PEACHES, NECTARINES, PEARS, PLUMS, and CHERRIES, three years trained on a wall. A large quantity of FRUIT TREES, in pots, to be sold at a bargain, for want of room, all grown under glass, and have been potted two years. For particulars, apply to J. HOUSE, Eastgate Nursery, Peterborough

STRONG STANDARD APPLES and PEARS.—Large horizontal Trained and Pyramid Apples and Pears; fine Standard and Dwarf-trained PEACHES and NECTARINES; fine bushy LAURELS and LAURUS COLCHICUM, up to 4 feet; extra bushy LAURUSTINUS and PORTUGAL LAURELS, 1 1/2 to 3 feet; a large collection of Standard and Dwarf Perpetual, Dwarf China, and Climbing ROSES of the leading sorts; deciduous flowering SHRUBS; ASH, 2 to 5 feet; LARCH, SCOTCH, SPRUCE, and AUSTRIAN FIRS, and all kinds of FOREST TREES; strong Evergreen PRIVET and THORN QUICK for Hedges. All the above have been regularly transplanted, and are well rooted. Prices on application to CHARLES BURGESS, The Nurseries, London Road, Cheltenham.

Fruit Trees for Sale.

J. SCOTT, The Nurseries, Merriott, Somerset, will be glad to receive orders for the above, which will be carefully attended to. The Trees consist of 1000 sorts of PEARS, 700 do. of APPLE, 170 do. of PLUM, 150 do. of CHERRY, with other kinds in proportion. Standard, 6 to 7, Pyramids, 6 to 7, and Bushes, 3 to 6 feet high; also very fine Dwarf-trained Trees of all kinds, of superior growth, are offered. The above are described in the "Orchardist," the best work on Fruit Trees in England, price 1s. 6d. in stamps. A printed List or Index sent gratis.

J. S. also offers a splendid stock of FOREST TREES, DECIDUOUS SHRUBS and EVERGREENS in every variety. CATALOGUE free on application.

Forest, Fruit, and other Trees.

JAMES DICKSON and SONS' NURSERY STOCK is not surpassed in Britain; therefore, they have every convenience in soliciting Orders, and inviting intending planters to visit their EXTENSIVE NURSERIES, which can now be reached, on foot, in seven minutes, from the Chester Railway Station, by their new private road from the foot of the Flockersbrook Railway Bridge. PRICE LISTS on application. (Old Established Nursery and Seed Business.) "Newton" Nurseries, Chester.

EVERGREEN HEDGES. AMERICAN ARBOR-VITÆ, 4 to 5 feet, at 40s. per 100; 5 to 6 feet, at 60s. per 100. SIBERIAN ARBOR-VITÆ, 2 to 2 1/2 feet, 40s. per 100; 2 1/2 to 3 feet, 50s. per 100; 3 to 3 1/2 feet, 60s. per 100; 3 1/2 to 4 feet, 80s. per 100. RICHARD SMITH, Nurseryman, Worcester.

Cedrus Decidua.

FINE SPECIMENS, 7, 8, 9, 10, to 15 feet, at 1s. per foot. W.M. MAULE and SONS have to offer a large supply of extra fine EVERGREEN TREES and SHRUBS, cultivated to give immediate effect to Parks, Cemeteries, and Plantations, and suitable for screening and blocking out new buildings, that are springing up daily in the vicinity of our large towns. The Nurseries, Bristol.

British Fern Catalogue.

ROBERT SIM will send, post free for six postage stamps, Part I. (British Ferns and their varieties, 36 pages, including prices of Hardy Exotic Ferns) of his PRICED DESCRIPTIVE CATALOGUE OF BRITISH and EXOTIC FERNS, No. 7. Foot's Cray Nursery, Sidcup Hill, Kent.

RAYNBIRD, CALDECOTT, BAWTREE, DOWLING, and COMPANY (Limited), CORN, SEED, MANURE, and OILCORN MERCHANTS. Address, 25, Seed Market, Mark Lane, E.C.; or Basingstoke. Samples and prices post free on application. Prize Medals, 1851, for Wheat; 1852, for "Excellent Seed Corn and Seeds."

Gladioli—Seedlings, and by Name.

GLADIOLI Seedlings, first-class—Per 100, 7s., per 1000, £3. 100 Gladioli, by name, 10 sorts 8s. 100 " " 25 sorts 18s. 100 " " 60 sorts 30s to 40s. LEVEQUE et FILS, Nurserymen, 132 and 134, Boulevard de l'Hopital, Paris.

DOBSON'S CELEBRATED FLOWER SEEDS.

CALCEOLARIA.—Unequaled for variety and brilliant colours, with very dwarf habit and large heads of bloom. 1s. 6d., 2s. 6d., 3s. 6d., and 5s.

The 1st Prizes are invariably awarded to our Collections. CINERARIA.—Sixty 1st Prizes have been awarded our Collections within the last 4 years. 1s. 2s. 6d., and 5s.

PRIMULA SINENSIS FIMBRIATA.—Those are not surpassed by any strain in the trade for richness of colour and fine fringe. 1s., 2s. 6d., and 5s.

PALESTRA.—In eight splendid colours. 1s. and 2s. CYCLAMEN.—From a collection numbering some thousands. 1s. and 2s.

The above Seeds, having stood the test for several years, are strongly recommended for their superior quality, and are warranted to give satisfaction. DOBSON and SONS, Woodland's Nursery, Isleworth, W.

New Roses now ready.

DUCHEE, Chemin des Quatre Maisons, Lyons, France.

BENGALE DUCHER.—Growth and flowering similar to ordinary Bengal. Pure white

TEA ROSES.

MADAME DUCHER.—Strong and dwarfish growth; flowers medium full, well shaped, abundant flowering; from Gloire de Dijon. Bright yellow

CHAMOIS.—Vigorous, straight, and strong branches; flowers medium full; yellow Chamois, at times with copper tint.

JEANNE D'ARC.—Vigorous, flowers medium full, well made; light yellow; style of the Pactole

LE MONT BLANC.—Very vigorous; flowers very large, full, well made; white, slightly tinged yellow.

TOUR BERTRAND.—Very vigorous; flowers very full, large, well made, cup-shaped; strong pedicel; light yellow; from Gloire de Dijon.

SULFUREUX.—Vigorous; flowers medium, full, well made; sulphur-yellow; very beautiful.

NOISSETTES.

LAMORQUE JAUNE.—Branches strong; flowers large, very full, flowering on each branch, dark yellow; very beautiful; from Noisette Lamorque.

REVE D'OR.—Very vigorous; flowers large, full, well made; dark yellow, sometimes of a light tint; from Madame Schuis.

MICROPHYLLA IMBRICATA SARMENTEUX.—Flowers medium, well imbricated; very light pink. The finest of the class. Price 25 francs each.

Hyacinths, Tulips, &c.

BUTLER, McCULLOCH AND CO. beg to announce the publication of their AUTUMN CATALOGUE of the above, which will be sent gratis and post paid on application. Orders for Bulbs can now be executed.

BUTLER, McCULLOCH AND CO., South Row, Covent Garden Market, London, W.C. Established upwards of a Century

Dutch and other Bulbs.

W.M. CUTBUSH AND SON are celebrated for HYACINTHS, TULIPS, CROCUSES, and other DUTCH BULBS. All the Great Prizes, including the Two Special Prizes offered by the Dutch Growers, awarded to their Collections again last Spring. They import only the best quality, therefore Customers may rely upon having the finest Bulbs. CATALOGUES post free. Highgate Nurseries, London, N.

Arrival of Bulbs.

BARE AND SUGDEN, 12 King Street, Covent Garden, W.C.

CATALOGUE containing much additional valuable information now ready, and on application sent free to the Readers of the Gardeners' Chronicle. BULBS for Early Flowering now ready to send out, of first-class quality

New Catalogue of Dutch Bulbs, Plants, &c.

ROBERT PARKER begs to announce that his NEW CATALOGUE, containing Select Descriptive and Priced Lists of Amaryllis, Crocuses, Cyclamens, Gladioli, Hyacinths, Liliums, Narcissus, Tulips, and other bulbs, Miscellaneous Plants, Fruit Trees, Sweet Violets, &c., is now published, and will be forwarded to applicants.—Exotic Nursery, Tooting, Surrey, S.W.

Dutch Flower Roots.

ARCHIBALD HENDERSON begs to announce that he has received a large Consignment of Dutch and other Roots, carefully selected from the most celebrated growers.

DESCRIPTIVE and PRICED CATALOGUES are now ready, containing practical directions for their successful cultivation on all the various systems now adopted.

Also a CHOICE and SELECT LIST of VEGETABLE and HARDY FLOWER SEEDS for Autumn Sowing. Catalogues gratis and post free upon application.

Sion Nursery, Thornton Heath, Surrey, and at the East Surrey Seed Warehouse, College Grounds, North End, Croydon.



CARTER'S COLLECTIONS of HYACINTHS, CROCUS, TULIPS, &c.—To any one desirous of producing an effective display at the most moderate cost, JAMES CARTER & Co. strongly recommend the following Collection:—

CARTER'S SPECIAL "GUINEA" COLLECTION

For Indoor and Outdoor Decoration.

- 12 very fine NAMED HYACINTHS, for pots or glasses
12 mixed BEDDING HYACINTHS
6 named POLYANTHUS NARCISSUS
24 named BORDER NARCISSUS
13 extra fine mixed DOUBLE TULIPS
12 extra fine mixed SINGLE TULIPS
100 PURPLE CROCUS
50 STRIPED CROCUS
50 WHITE CROCUS
12 CAMPERNELLE JONQUILS
24 extra choice mixed SPANISH IRIS
12 DOUBLE DAFFODILS
12 GLADIOLUS BRENCHELEYENSIS
24 GLADIOLUS BYZANTINUS

The above for 21s., or the half for 10s. 6d.

For full instructions for cultivation, and particulars of the above assortments, see CARTER'S ILLUSTRATED BULB CATALOGUE for 1883, gratis and post free.

The Royal Seedsmen, 237 and 238, High Holborn, London, W.C.

FRUIT TREES OF EVERY DESCRIPTION.



WILLIAM ROLLISSON & SONS

BEG RESPECTFULLY TO ANNOUNCE THAT THEIR

NEW CATALOGUE OF HARDY AND ORCHARD-HOUSE FRUIT

Is now published, which contains a full and Descriptive List of all the Popular Favourites in Fruit together with additions of most of the Novelties, worthy of merit, of the season; and will be forwarded, Post Free, on application to

THE NURSERIES, TOOTING, LONDON, S.W.

FOR PLANTING on HILL SIDES and generally on HIGH GROUNDS

PAUL & SON,

THE "OLD" NURSERIES, CHESHUNT, N.,

BEG TO OFFER AS FINE RECENTLY REMOVED PLANTS OF

THE RARE MEXICAN PINUS DEVONIANA, HARTWEGII MACROPHYLLA, AND LLAVEANA.

Species now unrepresented in some of our best Pinetums.

ALSO LARGE QUANTITIES OF

ARAUCARIA, 3 to 6 feet; PINUS MACROCARPA, DON PEDRI, MURICATA, INSIGNIS, THAMIANA, PICEA PINSAPO, NORDMANNIANA, CEDRUS ATLANTICA, WELLINGTONIAS, &c. Also a most comprehensive collection of other classes of Conifers.

HARDY EVERGREENS—as LAURELS, COMMON and PORTUGAL, 2 to 6 feet; RHODODENDRUM 1 to 4 feet; VARIEGATED HOLLIES, at really reasonable prices. YEWs and AUCUBAS, &c. TREES of all kinds, FRUIT TREES in many varied forms, are all described in

PAUL and SON'S NEW DESCRIPTIVE CATALOGUE, post free.

For PRICES of ROSES, see p. 1251 of last week's Gardeners' Chronicle

Pelargoniums for the Million.

JAMES HOLDER'S unrivalled Collection of Fancy, and Show varieties is now ready, at the following prices—100 plants, distinct sorts, for 50s.; 50 plants for 25 plants, distinct sorts, for 20s., hamper and package included. Crown Nursery, Reading.

Special Offer.—Madame Lemonade

WILLIAM BADMAN offers strong Plants of most beautiful of Double Pelargoniums, in 10s. 6d. per dozen. LORD DERBY, finest Pelargonium per dozen. Package included. Terms cash. Cometary Nursery, Gravesend.

Chrysanthemums.

ADAM FORSYTH begs to inform his Friends that his Specimens and other CHRYSANTHEMUMS are unusually fine this season, and may be seen every day (excepted). A visit is respectfully solicited. Brunswick Nursery, Stoke Newington, N.

New Japanese and other Chrysanthemums

JOHN SALTER and SON beg to announce that their CHRYSANTHEMUMS are unusually fine this season. Large Collection, NOW IN BLOOM in the Winter Garden, seen throughout the months of November and December, except Sunday. Admittance free. Versailles Nursery, William Street, Vale Place, (near Kensington Railway Bridge).

New Chrysanthemums.

H. CANNELL has now a splendid collection of 217 varieties, consisting of all the New and varieties in cultivation, and will supply them either as Rooted Cuttings, or Potted Plants, at the very lowest prices with quality and economy.

See H. O.'S FLORAL GUIDE, giving particulars for Japan and other varieties. Other kinds are chosen so that they are best adapted for, and a great deal of information, including the Second Chapter on the Art of the Natural Requirements of Plants. Free for Post. New Florist Flower and Florist Flower Seed Market, N.

Everlasting and Dried Natural Flowers. JAMES CARTER, DUNNETT, Wholesale List of the above is now ready, and forwarded immediately on application. 237 and 238, High Holborn, London, W.C.

Cheap, Cheap, Cheap.

JOHN BARRETT begs to offer his HERBACEOUS CALCEOLARIAS at the following prices.—In small pots, 4s. per doz., 20s. per 100, from 10s. 6d. per doz., 12s. 6d. per 100.

The following choice GERANIUMS—LADY CULLUM, 6s. per dozen, 45s. per 100. SOPHIE DUMARRESQUE, 5s. per dozen, 40s. per 100. ITALIA UNITA, 3s. 6d. per dozen, 28s. per 100. MRS POLLOCK, 3s. 6d. per dozen, 28s. per 100. BEAUTY OF OULTON, 3s. 6d. per dozen, 28s. per 100. Fine healthy plants, package included. St. John's Nursery, Bury St. Edmunds.

Lilium auratum.

WM. PAUL has to offer a magnificent lot of Dutch-grown roots, at 2s. 6d., 3s. 6d., and 4s. each, and 50s. per dozen; a few extra large roots, 7s. 6d. each, discount to the Trade off the dozen rates when ordered. PAUL'S Nurseries, Waltham Cross, London.

Lilium auratum.—To the Trade and the

HOOPER and CO. expect to receive very large quantities of the above, via the New Pacific Railway, due in next. They are collected by a Person thoroughly acquainted with their requirements, and will doubtless arrive in the best time. They will be in London in about 55 to 60 days from their Orders now booked, and persons requiring them will send their orders without delay. Prices on application. HOOPER and CO., Covent Garden, London.

Lilium auratum.

POTTED NOW WILL BLOOM MAGNIFICENTLY. MR. WILLIAM BULL can supply good roots, 2s. 6d. each, or 24s. per dozen; 3s. 6d. each, or 36s. per dozen, or 60s. per dozen. A few extraordinary Bulbs and 13s. 6d. each.

L. LANCIFOLIUM RUBRUM, immense Bulbs, 2s. 6d. per dozen. L. LANCIFOLIUM ALBUM, immense Bulbs, 2s. 6d. per dozen. Establishment for New and Rare Plants, King's Road, London, S.W.

SUTTONS' HOME-GROWN SEEDS.



SEASON 1869 AND 1870.

THE FORWARDEST PEA KNOWN IS SUTTONS' RINGLEADER.

The Royal Horticultural Society tested carefully the merits of the leading kinds of Early Peas, and in the *Gardener's Chronicle*, June 27, 1868, the following brief but emphatic statement appeared:—"The earliest form of all was Ringleader. Several of the Peas blossomed at the same time, but Ringleader was fit to gather first."

SUTTONS' RINGLEADER PEA is also the Best Variety for very Late Sowing. The following is extracted from the *Gardener's Chronicle*:—"Late Peas are indeed a luxury. I sowed Suttons' Ringleader the second week in July, and gathered one peck of well-filled pods the second week in September. I sowed two rows a fortnight later, and gathered Peas on October 6—a really good dish—much to the satisfaction of my employers. I have to-day (October 13) picked another good dish of Peas from plants which show no appearance of milder."—E. HAWTHORN, Gr. to P. Kemp, Esq., *Goldwell House*.

The following UNSOLICITED Testimonials are selected from a large number received to the same effect—

1868.—From Mr. CHARLES TURNER, *The Royal Nurseries*:—"We had our first gathering of Early Peas this day for dinner—Ringleader, sown in November in the open ground, and has never had any predecessor."

1868.—From Mr. H. BEANS, Gr. to Sir Charles Presley, *Fern Hill*:—"I gathered a fine good dish of your far-famed Ringleader Pea. I had it in row three seasons in succession, and never began gathering later than May 24."

1868.—From Mr. T. HOLLOWAY, Gr. to Lord Grantley:—"I picked your Ringleader Pea a week ago from this day."

1869.—From Mr. W. H. BARNES, Gr. to Major Roys, *The Oaks, Deal, Kent*:—"Your Ringleader Pea is still the earliest in cultivation and the best I ever crop. I planted them out in the spring, and gathered them on May 21 and sowed some of the seed, and planted again on August 20, and gathered from them the middle of October till November 4, 1868."

Price 2s. per quart, cheaper in large quantities.

The Largest and best EARLY PEA for Market Gardening purposes is

SUTTONS' IMPROVED EARLY CHAMPION.

This excellent large-podded Early Pea is only four days later than our "Ringleader," and quite a week earlier than *Drum O'Rourke* or *Sangster's No. 1*. It produces a crop of fine large green pods, and is specially adapted for growing in large quantities to pick green for market. The numerous Testimonials we have received, together with the increasing demand, prove its great superiority over the sorts usually grown for that purpose.

Price 1s. 6d. per quart, or much cheaper in large quantities.

THE THREE best POTATOS for the ensuing season are, for the Earliest Crop,

SUTTONS' EARLY RACEHORSE KIDNEY

The forwardest in cultivation.

The tubers nearly double the size of Walnut-leaf. Of the many Early Kidney Potatos sent out for some years past we know of none at all equal in earliness or productiveness to this. We speak with confidence, having planted in our trial grounds every new variety offered for sale. We have hitherto always sold out long before the season closed, and as our stock is limited, early orders are necessary to secure a supply.

Price 5s. per peck, cheaper by the bushel.

For the Main Crop,

SUTTONS' BERKSHIRE KIDNEY,

Raised and selected from among 40 Seedlings of the *Fluke*. Having planted it side by side with the different varieties of that class, we have proved it to be by far the best of them all, and quite a fortnight earlier. The tubers are of good size, very numerous, and remarkably clear skin. It is most valuable for the main garden crop, and has been remarkably free from disease, while other varieties growing close by were almost destroyed.

Price 5s. per peck, cheaper by the bushel.

For the Latest Crop,

SUTTONS' RED-SKINNED FLOUR-BALL.

This Potato has the peculiar merit of producing tubers all of full size, and weighing from 12 to 20 ounces each. While most other red varieties boil yellow, this is white, and is most correctly described as Flour-ball. For supplying the London dining rooms especially, we feel confident it will supersede every other kind when sufficiently known. In a field where many other sorts were all more or less diseased, our Red-skinned Flour-ball was entirely free, which we can only attribute to its remarkably vigorous growth. It is a Seedling, and we offer it now for the first season.

Price 7s. 6d. per peck, cheaper by the bush.

SUTTONS' NEW CATALOGUE for 1870

Is now in course of delivery.

Intending Purchasers can obtain it Gratis on application.

All Goods Carriage Free.

SUTTON AND SONS, SEEDSMEN TO THE QUEEN, READING, BERKS.

JAMES CARTER AND CO. have a beautiful Stock of Seedlings, in excellent condition, of their choicest Strains of CALCEOLARIA, CINERARIA, and PRIMUM, in 60-pots, fit for potting on immediately for early Spring Blooming. Worth the attention of those who have omitted to sow at proper time. Price, 2s. per 100, 3s. per 1 dozen.

JAMES CARTER AND CO. 27 and 28 High Holborn, W.C. and Crystal Palace Nurseries, Forest Hill, S.E.

New Geraniums

JOHN KEYNES begs to announce that he has secured the stocks of these two first-rate flowers which have excited so much admiration at the Royal Horticultural Society. First-class Certificates have been awarded them. They comprise *COLLENSHILL* (Escarbol), bright scarlet 7-petal, the finest of its class, and *LALY EDITH*, a bright purple 7-petal. These are the two best acquisitions of the season. They will be sent out in April next, at 10s. 6d. each. Drawings may be had on receipt of 15 postage stamps. (Cast a Street Nurseries, Secretary)

French Roses.—To Florists and Nurserymen.

LÉVEQUE ET FILS, 12 and 14, Boulevard de l'Hôpital, Paris, beg to state that they have a large Stock of strong Dwarf's of the best sorts of ROSES employed in Paris for the Market Flowers, such as *Ju de Margottin*, *Triumph de l'Exposition*, *Dr. Ru*, *Séateur Vainqueur*, *Baronne Prevost*, *Mme. Boll*, *Gloire de Dijon*, *Charles Margottin*, &c. Prices, 2s. per 100, and 25c. per 1000. Also Dwarf's of all good sorts (their choice), 2s. per 100, 25c. per 1000. TEA SORTS, NEW ROSES, and others. See previous Advertisements.

Autumn Planting.

PETER LAWSON AND SON will be glad to send their CATALOGUE of choice and useful TREES and ORNAMENTAL TREES and SHRUBS, free upon application. The stock of LARCHES, BOUTCH FIR, AUSTRIAN and CORSIAN PINES, &c., comprises some millions of healthy, well-grown plants, and special offers will be made for large quantities when personal inspection is not convenient. Edinburgh and London.

RICHARD SMITH'S LIST of EVERGREEN and DECIDUOUS SHRUBS, RHODODENDRONS, STANDARD ORNAMENTAL TREES, CLIMBING and TWINING PLANTS, with their generic, specific, and English names, native country, height, time of flowering, colour, &c., and general remarks, free by post.

RICHARD SMITH, Nurseryman and Seedsman, Worcester.

JAMES FAIRHEAD AND SON, SEED GROWERS and Merchants, 7, Borough Market, London, S.E., beg to inform their Friends and the Public, that their WHOLESALE CATALOGUE of SEEDS is now ready, and will be forwarded post free on application. Early orders are recommended, which will meet with prompt attention.

Established 1806

T. HANDASYDE AND DAVIDSON have to intimate that their CATALOGUE of NURSERY STOCK is now ready, and will be forwarded on application. Seed Warehouse: 24, Cockburn Street, Edinburgh. Nurseries: Brunstain Glen, Musselburgh.

WEBB'S NEW GIANT POLYANTHUS, Florist Flower, and GIANT COWSLIP SEEDS; also Plants of all the varieties, with double PRIMROSES of different colours. AURICULAS, both Single and Double; with every sort of Early Spring Flowers. LIST on application.—Mr WEBB, Calcut, Reading.

The Gardeners' Chronicle.

SATURDAY, DECEMBER 11, 1869.

MEETING FOR THE ENSUING WEEK

THURSDAY, Dec. 16—London 8 P.M.

THE EXTENSION SYSTEM of VINE MANAGEMENT is silently working its way. Those cultivators who tacitly ignore its claims to notice, find it advantageous to increase the breadth of foliage upon their Vines. Some allow the leading shoot to take its course down the back wall of the house; others, who have been in the habit, after the Vines have been stopped at the spring dressing, to remove every lateral branchlet except the leading one, and to stop that most resolutely as fast as it makes a fresh growth, now find it convenient to leave all the laterals, and not to be too particular about stopping them; while many allow the laterals to run entirely wild for the remainder of the season after the fruit is cut. Calling in the autumn upon a noted Grape grower, whose Vines are planted with a naked stem outside the house, we found a whole forest of shoots running wild over and almost covering the border; and upon going inside the houses we found that anything but close pinching or stopping had been practised. Our friend said he was afraid we should consider him a very slovenly Grape grower; but rallying him upon his change of practice, he confessed that the Vines the preceding season had carried an exceedingly heavy crop, and as they showed the effects of it in the following crop refusing to colour, the plants had been allowed to run comparatively wild, with the hope of increasing the root action. Quite right! But if a more extended leafage increases the root action one season, why not every season? And if it is good to restore the plants to luxuriance after being overcropped, why should it not be good for them at all times? To answer these questions would, however, open up a field much too wide for us to explore at the present.

The early failure of the Bishop Stortford Vines comes before us as a severe condemnation of the restrictive system of cultivating the Vine. While we have been exclaiming against worn-out borders and roots having gone wrong, it is not impossible that, if we could probe Nature's secrets to their ultimate result, we should find that the loss of vigour consequent upon the dwarfing system of pruning has had as much to do with our failures as unsuitable soil. A word of caution may also be gathered from this case, relative to excessively light and to the now fashionable aerated borders.

The Stortford borders, properly speaking, are not aerated—that is, no special provision was made for the purpose by piercing them with air drains; but from the exceeding porosity of the material of the borders, viz., London street garbage, local loam, brick rubbish, and bones, and the care which Mr. NASH took to prevent a foot being at any time set upon them, it is probable they were as well aerated as those where more trouble had been taken to secure that purpose. According to Mr. FOWLER, ten years may be considered the life of a Vine grown upon the Castle Kennedy plan; and if such is the fact, we must confess that the light is not worth the candle, especially when we know that Vines 10 to 15, or perhaps 20 times their age, grown upon the extension plan, continue to produce good fruit. Upon this latter point we have a fact or two to record.

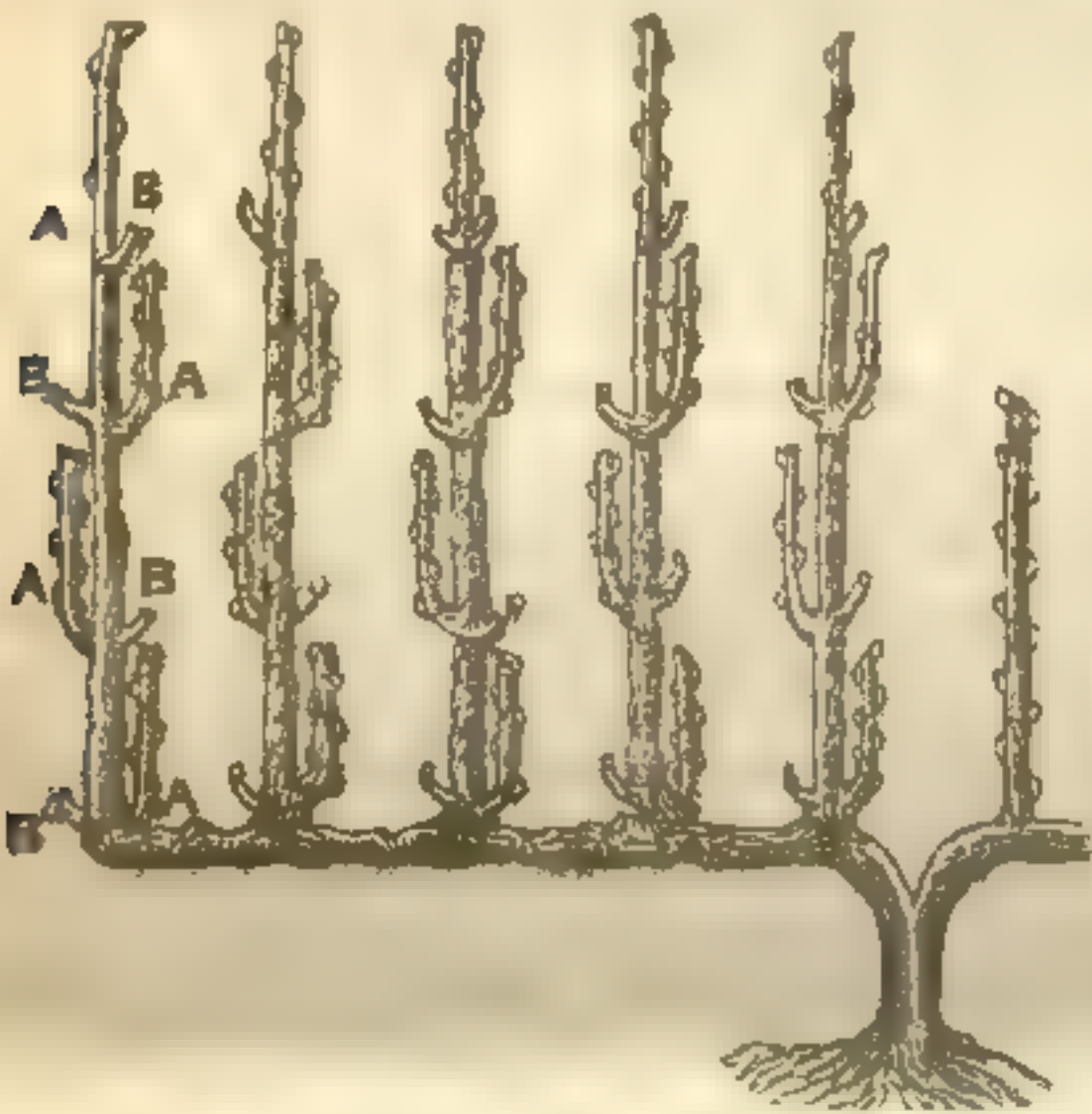
In the county of Leicester, not far from Ashby-de-la-Zouch, are some fine old Vines, the history of which we had recently the curiosity to ascertain, and here it is—"The Vines here are 50 years old, and have been pruned upon the extension system for more than 20 years. I began to compete at Chiswick in 1841, and at the Royal Botanic Garden in 1848. I took the first prize the first time I exhibited at the latter place—the first time I showed Black Hamburgs; I took it on June 30 last, and have seldom missed the first prize during the whole time. I know I took it every show at the Botanic, for three years without intermission, and if I remember rightly for 12 lb., as well as for the single dish. I have had four first prizes for Grapes in one day, and I exhibited Hamburgs eight times in one season, and was first each time. I have exhibited at the Crystal Palace and many local shows, but have no conception of the number of prizes I have taken altogether." We need scarcely say the gentleman here referred to is the veteran Grape grower, Mr. M. HENDERSON, gardener to Sir GEORGE BEAUMONT, Bart. The Vineries at Cole Orton are limited in extent, so much so that probably the whole area is not so much as that of one of the vineries at Bishop Stortford; yet the Vines are in vigorous condition after 28 years of hard firing, and continue to produce fruit such as for general excellence can rarely be excelled. These Vines are pruned upon the "cut to the best bud" principle, and it matters not whether that be the first, fifth, or fifteenth—to that bud will the shoot be shortened. The quantity of old wood left in them is something remarkable, there being at the least four times the quantity that would be considered necessary for a systematic method of training. But there it is, and, viewing the results, we cannot say it is without its use. Not a strip of bark has been removed, we should think, for 20 years, and so gnarled and ragged do the Vines look, that if a young gardener from one of the modern fashionable Grape-growing establishments could be dropped into the gardens without knowing the history of the Vines, we have no doubt his first and fixed impression, until he saw the produce, would be to root them out, and cast them to the rubbish heap. But these Vines have yet good service to perform, and perhaps we shall hear of them and their produce when some of the modern wonders have sunk into insignificance.

Recurring to the Bishop Stortford Vines, if they are not already destroyed, it would be an exceedingly interesting and perhaps valuable experiment if Mr. NASH would test the feasibility of filling one of the houses with two or more of the old Vines. This could be effected by laying two or three of the best Vines down horizontally, and at proper distances, taking up a shoot to each rafter, and stopping or removing the remainder. If the increased growth should be accompanied by increased root action, which it must be, then fresh vigour would be imparted to the plants, and possibly they might go on bearing for a century or more. At Cliveden, where Mr. JOHN FLEMING found a mixed house of Muscats and Hamburgs a complete failure, shaking and shrivelling constantly taking place, he cut out all the Vines except one Muscat, from which he filled the house, and it answers completely. Why should not the Bishop Stortford Vines do the same? We hope Mr. NASH will make the experiment, not only for his own gain, but in the interest of practical investigation.

The engraving which we here introduce, shows how the Vines retained for such an experiment may be trained into a systematic form. Presuming the old Vines to be closely pruned and left

down horizontally we would select, when they broke into growth in the spring, the strongest shoots at about 30 inches to 3 feet apart, and stop all the other shoots at the fourth or fifth leaf, as root encouragers, until such time as the shoots retained got fully established. Then, supposing the rafter to be 15 or 20 feet long, we would establish spurs or gnaws at 3 feet or 4 feet apart, and nearly opposite each other upon each branch, and from these spurs in alternate years we would take the young shoots which would produce the crop in the following season. The engraving supposes the Vine to be thoroughly established, and pruned for the succeeding year. B are the young shoots that will produce the crop next season, say 1870, and will then be cut out to the bud nearest the main stem; while A are the spurs from which the shoots will be produced to carry the crop in 1871. In this way it will be seen the pruning of the Vine is reduced to some half-dozen cuts upon each rod, and the removal of the laterals—a system which any person may understand.

The advantages of the system will be a very large reservoir of sap stored up in the Vine at all times, ready to repair any shortcomings on the part of the roots, consequent upon cold weather; and, secondly, a regular succession of young shoots which have not borne fruit, for the following season. These we regard as root



A. Bearing branches for next year
B. Spurs for successional crop

promoters, and our experience is much at fault, and our physiological knowledge also, if they would not be found to play a most important part in the economy of the plant. With such shoots we must get fine well-matured buds; and such buds—the treatment being suitable—are the precursors of fine crops of well-matured fruit. P.

— WE are requested to state that the PRIZE of 5*l.* 5*s.* offered by Lieut.-Col. SCOTT, R.E., secretary of the Royal Horticultural Society, for an essay on the PRINCIPLES OF FLORAL CRITICISM, will be awarded on Wednesday, May 4, 1870, and not on January 19, as previously announced. We may add that many correspondents complain of the vagueness of the proposal, and ask whether an essay on the "correct standard" for florists' flowers be intended, or one on the proper method of judging plants in general at exhibitions. Perhaps some light might be thrown on the matter, if the names of the judges were announced. The subject is one of so much interest and importance that we trust fuller information may be forthcoming, and for our own parts we should like to see the matter treated in a broad catholic spirit.

— The following communication relating to the EVERBEARING ANDINE STRAWBERRY, from Dr. SPRUCK, the South American traveller, whose services in the cause of botany and horticulture are beyond all praise, will be read with much interest:—"The 'Ever-bearing Strawberry,' from the highlands of Mexico, so well described by your Canadian correspondent, 'Vesta,' is doubtless one of those varieties of *Fragaria vesca* commonly cultivated throughout the Andes within the tropics, where the perpetual spring of that favoured region has had the effect of rendering the Strawberry perennially fruitful, and many of the deciduous-leaved trees of Europe evergreen. In the Equatorial Andes the province of Ambato is famed for its Strawberries, which equal in size and flavour some of our best varieties, and which are to be seen exposed for sale in the market place of Ambato every day in the year. They are cultivated at an altitude of from 7000 to 9500 feet above the sea, where the mean temperature of the year ranges between 59° and 67°; but the best are grown a little way out of Ambato, as you go towards Guayaquil, on the slopes of Guachi (lat. 1½° S.), at near 9000 feet, and in a mean temperature of 60°; where, however, the thermometer does sometimes descend to the freezing point in the early morning, perhaps half-a-dozen times in the year, and scarcely ever on two successive days. Down-right rainy weather is almost as rare as frost, and the climate is, on the whole, dry. The soil is entirely derived from matters ejected by the adjacent volcanoes, and consists chiefly of loose sand and

baked mud, to appearance almost utterly sterile, but by the aid of irrigation it is rendered exceedingly fertile, gardens, corn fields, and meadows meeting the eye on all sides, wherever water can be thrown over the soil. From the main 'acequia,' or watercourse, water is every day turned into the furrows that alternate with the rows of Strawberries, or Maize, or Alfalfa (*Medicago sativa*), or Meadow-grass. A native poet, describing this very spot, speaks of the fertilising streamlets—

'Entre cespes dormidas ó entre frescas.'
(Sleeping in the turf, or among Strawberries.)

Without this artificial aid, a moisture-loving plant, like the Strawberry, would hardly survive under the vertical sun of the equator, even at that great altitude; but near Quito, where the climate is much moister—10 months out of the 12 being rainy—little irrigation is needed. Quito, however, is near the upper limit of Strawberry cultivation, and the fruit is much inferior to that of Ambato. The Strawberry is generally considered a true native of the Andes of Ecuador, and I have seen it wild in two or three places, especially on the northern declivity of Pichincha, at 10,000 feet; but even there it grew by the side of a much-frequented path; and as the Indians appear to have no native name for it, but call it by its Spanish names 'Fresa' and 'Frutilla,' I can only consider it an introduced plant. However that may be, it is known to have been cultivated there fully 800 years; and its character of perennial fruitfulness—whether native to it or acquired—would doubtless be preserved in any other locality (so far as changed conditions would allow) for a good number of years, especially if propagated by stolons; so that its introduction to England, as the foundation of (at least) an autumn-fruiting Strawberry, seems highly desirable. Whether it will retain its everbearing property here when raised from seed, will, I hope, soon be tested, as seeds of it, obtained from Ambato, have already been sown near London, by Mr. D. HANBURY."

— The Royal Horticultural Society of Ireland has announced its intention to hold a SPRING EXHIBITION of HYACINTHS on the 24th of March next. The exhibition is to include Tulips, Narcissi, and Crocuses, as well as other spring flowers. Of Hyacinths there are four classes provided for amateurs and two for nurserymen, besides various special prizes, one of which is a Gardeners' Cup, to be provided by subscription, and held by the gardener who wins the greatest number of prizes at this show.

— Don't say modest worth is not appreciated. Of course not, when neither time, season, nor place are favourable for the exercise of the softer virtues; but alter the conditions, and then see. Here is an illustration from the *Natal Mercury*, published at Durban, on September 25 of the present year:—"Mr. PEBBIN has kindly left at our office a nice little *Primrose* and a fine *Dandelion*, both grown in his garden. The latter grows admirably, and the former with care in a moist and shady spot. These are only some of the many plants which Mr. PEBBIN has carefully planted and reared in his garden in the city."

— MM. PLANCHON and LICHTENSTEIN, in recently commenting on the fact of the existence on Vine leaves of GALLS which shelter families of Phylloxera, similar to the Phylloxera vastatrix of the roots, suggest that the insect found on the leaves is probably a transitory form—in itself injurious—of that which destroys the roots, and with them the entire stem of the Vine. According to this hypothesis, it will be necessary to admit two states of the Phylloxera vastatrix—the gall-inhabiting and the root-inhabiting. The former, they go on to say, should be carefully compared with the Pemphigus vitis folii of ASA FITCH, which, according to that learned entomologist, produces galls upon the leaves of Vines in the United States of America. The latter has perhaps its analogue in the so-called thrips, which, according to M. SÉBIGNÉ, of Narbonne, infests the Vines of the same country. Nothing is easier than to recognise the galls, which are often very numerous on the leaves, especially towards the ends of the twigs, to which they give a crisped appearance.

— Dr. TÉLÉPHE DESMARTIS communicates to the *Indicateur Vinicole* the following intelligence concerning a REMEDY for the VINE DISEASE. In the vineyard under his observation there were in the spring about 60 Vine stocks attacked with the disease. They were treated with earth mixed in the proportion of 8 or 10 per cent with coal-tar. Of the 60 stocks, 50 have now recovered their vigour perfectly, and the Grapes have swollen and ripened; five present a doubtful appearance, and the remainder have succumbed to the disease. M. DESMARTIS also mentions having found the Phylloxera on the leaves, from which he concludes that the evil is progressing. The insecticide of M. GORREAU, of Saint-Loubès, is favourably spoken of.

— The Friday evening meetings of the ROYAL INSTITUTION are arranged to commence on the 21st of January. The evening discourses before Easter will probably be given by Prof. TYNDALL, Prof. ODLING, Prof. RUSKIN, Dr. CARPENTER, Mr. CLIFFORD, Prof. SYLVESTER, Dr. ROLLESTON, Prof. ROSCOE, Prof. HUXLEY, Prof. WILLIAMSON, and Dr. BLACKIE. The Christmas lectures (adapted to a juvenile auditory) will be by Prof. TYNDALL, who has chosen Light for his subject; the first will be delivered on the 28th inst. at 3 o'clock. Arrangements have been made for the following courses before Easter:—On the Architecture of the Human Body, by Prof. HUMPHREY, F.R.S.; on the Vegetable Products of Chemistry, by Prof. ODLING, F.R.S.; on Meteorology, by Mr. ROBERT SCOTT; on Plant Life as contrasted to that of Animals, by Dr. MASTERS, F.L.S.; Deductions from the Comparative Anatomy of the Nervous System, by Prof. ROLLESTON,

F.R.S.; an Introduction to the Science of Botany, by Prof. MAX MÜLLER; on the Sun, by J. LOCKYER, F.R.S. After Easter, the following will be delivered:—On the Principles of Political Philosophy, by Prof. BLACKIE, F.R.S.; on the Principles of Astronomy, by Prof. TYNDALL, F.R.S.; on the Principles of Geology, by Prof. ROLLESTON, F.R.S.; on the Principles of History, by Prof. ROLLESTON, F.R.S.

— We perceive that the Editorship of "GARDENER" is in future to be entrusted to Mr. THOMSON (Dalkeith), and Mr. RICHARDS (London), *Arcades ambo*. We hope that the success of this well conducted magazine will be enhanced by the new arrangements.

— We are informed that at the meeting of the Royal Horticultural Society, on Tuesday, December 21, the following prizes were offered for competition, viz:—By the Rev. G. KEMP, F.R.S., and member of the Fruit Committee.—1. For the best winter dessert of Apples and 3 dishes of each. 3*l.*, 2*l.*

PLANT PORTRAITS.

ALOCASIA JENNINGSII.—*Flores des Serres*, t. 11, p. 11. *Illustr. Hort.*, t. 535. Araceæ. This beautiful plant which has the large cordate ovate bright green leaves in sections between the veins with broad wedge-shaped brown patches, and is now pretty generally known, is represented in the above cited coloured figures.

ANTHELIUM LANCEOLATUM.—*Bot. Beech.*, t. 14, p. 14. A stove perennial, with lanceolate stem 1/2 green leaves long, narrowed to the base. The tall peduncles support brown spadix, which issues from a sheath of yellowish green spathe. The plant was introduced to the Royal Gardens at Kew from the West Indies.

APHELANDRA ACUTIFOLIA.—*Bull. Mag.*, t. 538, p. 14. One of the most brilliant flowers of the present group. It forms a stove shrub of erect habit, the stems furnished with broad oblong ovate acuminate leaves terminated by imbricated spikes 4 to 6 inches long of deep vermilion red flowers, the upper lip of which is and projects forward, while the lower lip consists of oblong-obovate spreading lobes. It has been introduced to Peru by Messrs. Veitch & Sons.

ASPARAGUS SCANDENS.—*Rej.*, t. 21, p. 11. A remarkably elegant climbing greenhouse perennial, first met with in cultivation, and recently re-introduced from Africa by Mr. Wilson Saunders. The annual, unarmoured stems bear usually in threes, numerous linear-pointed leaves, which on the ultimate branches nearly in one plane. The whitish pendent flowers on these ultimate branchlets, and are succeeded by orange-coloured berries. It is an admirable climber in greenhouses or conservatories, and will readily climb up a small cord, and may then be readily removed to any position it may be required to occupy.

BETULA ALBA PENDULA ELEGANS.—*Rej.*, t. 11, p. 11. fig. 33. Betulaceæ. A deciduous weeping tree, of ornamental character, differing from the ordinary Birch (which has the branches curving downwards) in its rounded form to the head in having the long and flexible branches directed perpendicularly towards the stem, which gives to the tree a distinct and truly weeping aspect. It has been introduced to MM. Bonamy frères, of Toulouse.

CAUCANTARIA HENRICI.—*Bot. Mag.*, t. 572, p. 11. Scrophulariaceæ. This elegant greenhouse or half-airly shrub has been introduced by Mr. Anderson-Henry, after whom it is named the Amies of Guayaquil, whence it was sent by Prof. A. It is of slender erect habit, with rather large elongated leaves, downy beneath, and produces for some time a profusion of small yellow flowers, both upper and lower lip inflated, so as entirely to close the mouth. It is allied to *C. hysopifolia*.

CERUS LINDLEYI.—*Bot. Mag.*, t. 577, p. 11. Cactaceæ. Described by Dr. Hooker as being one of the most beautiful columnar Cacti in the succulent house at Kew. It is erect and very sparingly branched habit, and has a height of 12 feet, and a diameter of from 4 to 6 inches, stems being 5 or 6 angled, contracted or jointed at the base with thick, flat, straight, rounded ribs, an inch in depth, and bearing on the terminal joint one or two flowers, 10 inches in diameter, which are white, with a green tinge towards the outside. It is a native of the Guayra, and Curaçoa, and has recently been introduced from the United States by Mr. W. Bull.

COREOPSIS ARISTATA.—*Hort.*, t. 18, p. 18. fig. 18. *Hort.*, 1869, 72, with tab. Composite. A much-branched glabrous annual, growing about 3 feet high, and with deep pinnatifid leaves, living corolla lanceolate, segments, and producing large rayed flowers, the inner rays of a small single fluted tube, and the outer rays of a single panel, and of a fine orange colour.

CORYLINA GILGOLLEYI.—*Bot. Mag.*, t. 568, p. 11. A greenhouse shrub, of considerable promise as an ornamental plant, with the usual erect, palm-like habit of the tree, forming a neat head of recurved leaves, and a small branch in breadth, striated in an oblique direction with white, and in age acquiring more or less of a red tinge, especially at the margin. It has not, however, been highly coloured in the figure above given. It has been found in New Zealand and Australia, by Mr. Gilgoley, and was first exhibited at the Ghent show in 1868, by M. Ambroise Verachaffelt.

CROCUS ORPHANIDES.—*Bot. Mag.*, t. 576, p. 11. Iridaceæ. A flowering and very distinct ornamental variety. It is furnished with large bottle-shaped corolla, with elongate leaves, which are developed with the pedicels, and are without flowers, which latter spread to a diameter of 2 or more, and are yellow in the throat, whence numerous multifid stigmas of a deep orange-red. It is a native of Greece, and was received at Kew from Professor Orphanides, Athens.

GEONOMA LACERATA.—*Floral Mag.*, t. 446, p. 11. A visional garden name for a neat-growing stove Palm, of dwarf close habit, the leaf-stalks of which are sheathing at the base, and terminate in broad bilobed leaves with an excurrent thread in the sinus, the lobes laterally split at the apex, and the surface ribbed, appear plicate. It is a native of Central America, and seeds were brought home by Dr. Seemann.

GEONOMA SEEMANNI.—*Floral Mag.*, t. 446, p. 11. A visional garden name for a remarkably distinct and dwarf stove Palm, remarkable for the young state for its leafy character, and for its established plants, which are from the top of the angular petiole, and form the fish-tail-like lobes. Introduced by Dr. Seemann from America, and cultivated by Mr. Bull.

ILEX AQUIFOLIUM CILIATA AUREO-MARGINATA.—*Floral Mag.*, t. 1811. Aquifoliaceæ. An elegant hardy shrub, of a somewhat close, erect, formal habit, and quite the character of the small saw-leaved green Holly, is not uncommon in gardens. In this case the lanceolate leaves, which are finely saw-toothed at the

... and give the plant a bright ...
 ... variety, cultivated by M. Van ...
 ... 2. Orchidaceae.
 ... stove epiphyte, furnished
 ... pseudobulbs, linear-lanceo-
 ... of small flowers, remark-
 ... for their dark brown lanceolate sepals and petals, and
 ... suborbate semiorbicular crenulate-undulate lip, which
 ... than long, yellow, with a deep blood red spot on
 ... which projects a long curved yellow horn. It
 ... from St. Catherine's, Brazil.

FLOROSA.—*Bot. Mag.* t. 5768. Malvaceae. A pretty
 ... branching annual, with slender sparingly-branched
 ... 6 to 10 inches high, furnished with bipinnatifid leaves
 ... oval outline, and producing from their axils
 ... aure-coloured flowers, paler in the centre
 ... across. The Messrs. Veitch & Sons have recently

ORCHIDIFLORA.—*Illustr. Hort.* t. 574. Amaryllidaceae.
 ... greenhouse perennial of moderately vigorous habit,
 ... being bottle-shaped bulbs, a few long linear leaves, which
 ... and fistulose at the margin, and an erect flower
 ... consisting in an umbel of several beautiful large white
 ... which are freely striped with bright crimson, and
 ... larger than in *P. ornata*, the only species previously
 ... It was obtained by M. Ambroise Verschaffel from
 ... whence it was sent by the Belgian Consul, M.

THE DEODAR.

I OBSERVE that some correspondence has taken
 ... this noble tree, the Cedrus Deodara,
 ... I do not find that much fresh light has
 ... thrown on the subject. I fully concur with my
 ... friend, Mr. Frost, in recommending the Deodar to
 ... planted to a large extent, if only as a noble free-
 ... tree, and I have observed that it grows well
 ... almost any kind of soil. It is one of the noblest
 ... grandest trees we have for our landscapes, on
 ... of its distinct colour and elegant growth, white
 ... invaluable for early game cover, for making
 ... a shelter against winds and storms, or for
 ... in open cleared places in our woods and parks,
 ... in ravines, and on the slopes of hills, either
 ... other Conifers or along with deciduous trees.
 ... introduced, now grand it would be in our
 ... every day in the year, but more particularly
 ... autumn.

I have observed that the Deodar stands bravely
 ... the sea breezes, and will grow well in the
 ... of the sea. For evidence that it will also grow
 ... on poor sandy and brashy soils we have only to
 ... at its condition about Farnborough and Aldershot
 ... vicinity of the Haldon Hills, and in many other
 ... sandy hungry soils, where it may be seen in a
 ... thriving state.

There is in this country—not only in Hants, Surrey,
 ... Devon, but in other counties also—thousands and
 ... of thousands of acres of poor, hungry, sandy,
 ... shaly, gravelly, uncultivated soil, that has not yet
 ... turned to any account, and which might be
 ... planted with various Conifers, if trenched,
 ... ditched, or in some way loosened up by steam-
 ... or other means. Thus treated they would add
 ... beauty of our landscapes, would be of great import-
 ... affording shelter to exposed tracts of country,
 ... time would also greatly add to our wealth, were
 ... to be methodically set about and carried out
 ... principle. Besides, after thus yielding a
 ... of timber trees, this now poor useless soil, not
 ... brought into cultivation, would for a future gener-
 ... than Rye-grass, Clover, and other herbage for feed-
 ... making meat and butter. The growing
 ... crops would follow after; and at length the
 ... be available for forming into noble parks,
 ... and farms, for the maintenance of deer,
 ... and bullocks, if only it were judiciously cleared
 ... trees enough were left to form a shelter to the
 ... country and adjacent crops. This
 ... also be the means of enticing the clouds
 ... such localities there to drop their moisture and
 ... and of breaking the brunt of the cold, searing,
 ... wind. If a mixture of the beautiful Conifers
 ... introduced into the country during the last 50 years
 ... planted, rising up with the older com-
 ... kinds as sheltering nurses, to be methodically
 ... in due season, one might soon observe what
 ... would prove most suitable for the various soils,
 ... and aspects. The new, good, and well-known
 ... varieties could be first planted at from 50 to
 ... feet apart, according to kind and circumstances;
 ... up with others at half the distance, and
 ... up with the common *Pinus* as

... to the Deodar as a timber tree, I do not
 ... at the present time there is any reliable
 ... obtainable as to its value as grown in this
 ... nor has any tree, fully grown, been taken
 ... and sawn up in the United Kingdom. Like all
 ... Cedars and Conifers, it requires considerable
 ... In my opinion, nothing under a century can
 ... its value, and then, as with the Scotch Fir,
 ... and other Conifers, it must be grown on various
 ... and in different situations and aspects, through-
 ... the Kingdom, before any fair estimate can be formed
 ... its value. I have not yet seen a tree above
 ... not more than 30 feet high, though I have
 ... the produce cones for years, and have seen
 ... produced from home-grown plants, as well
 ... from the home-grown seed.

The Deodar will strike freely from cuttings, and
 ... the plants thus obtained will grow into as hard-
 ... seedlings is well-known, so that any
 ... plants can now be produced. As to waiting
 ... the value of Deodar timber of our own
 ... that is nonsense, for the question is one, the
 ... of which must be left to coming
 ... I have, however, seen enough of this
 ... and noble tree in different places, and under

various aspects, to justify me in saying, plant—yes,
 ... plant it extensively. Those of us who live with enjoy
 ... its beauty as a distinct and splendid landscape tree,
 ... there is little doubt that future generations will
 ... both enjoy its beauty, and have the satisfaction of
 ... turning it to account as a useful timber tree. James
 ... Barnes, 1, Rolle Street, Ermslow.

ORCHID-EATING INSECTS.

Centrinus laticornis.—Will you allow me to add a
 ... word to "I.O.W.'s" interesting chapter on the above
 ... subject at p. 1230 of the *Gardeners' Chronicle*? I think
 ... I am due to stamp out his tale by identifying the cur-
 ... culionidous larva, of which he found two specimens in
 ... the green Orchid leaves, attached to him. Some time
 ... after he received these (and while he was, I believe,
 ... abroad) I received two perfect curculionidous insects
 ... from the same source whence he got the larva. They
 ... correspond in size to them, and are, I have little doubt,
 ... the perfect insect into which other larvae, the same as
 ... his, but which had escaped notice, had turned after
 ... undergoing their metamorphoses.

The species belongs to the genus *Centrinus*, and in
 ... size and appearance comes close to the North
 ... American species, named by Say, *Centrinus scutellum-
 ... album*, but is quite distinct. There are also one or two
 ... Brazilian species which are very like it, both in size and
 ... sculpture, but neither does it correspond with any of
 ... them. I cannot find in the books any species described
 ... which agrees with it; nor is it represented in the
 ... British Museum. Considering how rich that museum
 ... is in Curculionids, I have therefore little hesitation in
 ... regarding it as new, and describing it as such.

I have made inquiry as to the source from which it
 ... has originally been imported, but find that this is not
 ... known, although it was thought that it might be South
 ... America, as its finders had received importations not
 ... long before from that continent. It was only discovered
 ... by its eating the leaves of the Orchids, and it does not
 ... particularly attack any kind or species, but all such as
 ... have soft leaves, as *Dendrobium* and *Epidendrum*.
 ... It gets down into the heart of the shoot, and it is
 ... only when the leaves grow up that the damage it has
 ... done is perceived. As it attacks both *Dendrobium*
 ... from India and *Epidendrum* from South America,
 ... its food gives us no clue to its native country, but as
 ... the genus *Centrinus* is exclusively American, and the
 ... present species is generally reputed to know American
 ... species, and the gentleman who found it had lately
 ... imported species from South America, there can be no
 ... doubt that it comes from the New World, and in all
 ... probability from South America. For the same
 ... reasons we may rest assured that its natural food
 ... is not *Dendrobium* but *Epidendrum*, and I therefore
 ... think I am warranted in describing it under the name
 ... of *Centrinus Epidendri*.

CENTRINUS EPIDENDRI.

Affinis *C. scutellum-album*, totus niger, thorax punctato-
 ... punctatus ante basin latiore. Elytra humeris promin-
 ... tibus, cancellato-punctato-striata, long. 2 1/2 lin., lat. 1 1/2 lin.
 ... Habitat in America meridionali.

Of the same size and very similar to *Centrinus scutellum-
 ... album*, but wholly black, somewhat narrower, and
 ... with the rostrum stronger, the thorax more deeply
 ... punctate, more convex, and widest a little before the
 ... base instead of being widest at the base. The shoulders
 ... of the elytra are more prominent, the striae are
 ... cancellate-punctate-striate and more distinctly defined.
 ... A. M.

CONTINUITY OF GROWTH.

I HAVE read all that has appeared on the subject of
 ... root versus top action with great interest. The argu-
 ... ments on both sides seem somewhat weakened in force,
 ... by ignoring the great fact that growth is continuous in
 ... both root and top. The rest of plants is not the torpor
 ... of death, but something more akin to the sleep of
 ... animals. Now, in sleep, no vital function is arrested.
 ... The repose of the body may check the energy of their
 ... working, but they work on nevertheless, and the circula-
 ... tion of fluids never stops from birth to death. In a
 ... lesser degree this is likewise probably true of plants.
 ... At no period of their existence is there a complete
 ... stoppage of fluids, unless indeed the life of both root
 ... and branch is arrested, and bound hard and fast in the
 ... iron fetters of frost. Therefore, instead of dwelling
 ... on the question when the sap begins to flow in either
 ... root or branch, it would be more pertinent to inquire
 ... when, if ever, it ceases flowing?

This question elicits another of great importance to
 ... this inquiry, and that is, whether there may not be
 ... a circulation of fluids without any apparent extension
 ... of parts? We know that in the animal economy every
 ... vital function may be performed for years without any
 ... addition to the size and weight of the body. The new
 ... matter simply supplies the waste of the old, and the
 ... equilibrium between the two forces of waste and
 ... supply is maintained. Now, is it not possible that
 ... something like this may take place during the wintry
 ... sleep or rest of plants? The languid action of root and
 ... branch during the cold winter season may simply
 ... supply the waste incident to the season, and in a
 ... normal state of the plant do but little more, in an
 ... abnormal condition the roots, at least, can so ration
 ... nutrients and feeds from themselves as to repair
 ... the aid of water as must be well known to every
 ... practical man. I do not profess that there is no
 ... stagnation of fluids, and makes an inextinguishable root in
 ... the theory that spongioles cannot be formed without
 ... the ministry of the water, sending down new matter
 ... for that purpose. Now every winter millions of such
 ... spongioles are emitted by thousands upon thousands of
 ... transplanted plants, in such profusion and with a power
 ... and persistency that destroys the basis of any such
 ... absolute theory. But leaving this matter, and turning

to the point that there may possibly be actual circula-
 ... tion and nutrition without the addition of new matter
 ... or any extension of parts at all it is much more obvious
 ... that there may be extension of parts which we cannot
 ... see by a mere superficial examination with the naked
 ... eye. Growth is so slow in its advance, so hidden in
 ... its progress, that we can only see it by a long and
 ... visible program. We cannot even for certain say
 ... positively whether it is in a growing state. Hence the
 ... uncertainty and worthlessness of the phrases, roots
 ... had or had not begun to grow. The roots had never
 ... ceased growing, and at the very moment that they
 ... were pronounced torpid, they were doubtless feeding
 ... the plant with all necessary supplies. The very position
 ... of the roots, far down in the ground beyond the reach
 ... of ordinary frost, preserves them from the effects
 ... of the cold. And thus, doubtless, in what is termed the
 ... dormant season, they are not dead, but they are dormant. But
 ... this expression, the dead season, applied to plants, is
 ... misleading. The truth is, it has nothing whatever to
 ... do with death, it is but another and a different phase
 ... of life.

Even the leaf falls, as Professor Owen has so beauti-
 ... fully told us, not because an old leaf dies, but because
 ... a new leaf is born; and this new leaf all the winter
 ... light and beauty next year. True, the baby leaf may
 ... be cradled in storm, swaddled round with gummy robes
 ... of shivering ice, and furnished with a swan's-down
 ... cloak of drifting snow, but all these but work together
 ... for its good, and long to send it forth in the best time,
 ... and in the most beautiful array. And all these
 ... apparent hardships, even a season of sunlight, every
 ... passing zephyr nears the baby with warmth,
 ... and comforts it as with a mother's lullaby. The
 ... warmth of spring does not find the bud as the winds of
 ... autumn do it, slowly and successively it has been advancing,
 ... like the chrysalis, through its long place, and when
 ... spring comes its mission is not to arouse the dead, but
 ... to furnish a suitable air medium for the manifestation
 ... of the living. Leaves leaf out from their scaly
 ... envelopes, and seeds from their tiny cells, less from
 ... an invitation from without, than by the irrepressible
 ... impulses of a struggling and advancing life within.

The theory of a continuity of circulation and
 ... nutrition, if accepted, will enable us at least to assess
 ... of their proper worth the terms—dormancy and growth.
 ... It may also help to explain some of the facts that have
 ... been adduced by your correspondents, for I believe
 ... that this continuous tendency to grow is not confined
 ... to any particular part of a plant. It is manifested
 ... by root and branch, leaf and bark, and when any
 ... of these parts are separated the one, or the other, the
 ... detached portion make a new growth, as if it were
 ... growth as before, and it is not until the spring, for
 ... how long a time such a cutting may be kept in the
 ... ground, and have been noticed to live and form branches for one,
 ... two, or even three years, without a vestige of root.

Roots, as already observed, are likewise frequently
 ... formed without the aid of leaves. More marvellous
 ... still, roots have the power, not only of living, but
 ... actually creating both stems and leaves for themselves,
 ... and thus forming every portion of a plant; while the
 ... universal practice of striking cuttings shows that stems
 ... have the power, not only of subsisting without roots,
 ... but likewise of creating them. Mr. Knight, of Floors,
 ... gives a case at p. 1183 of this growth of shoots without
 ... the formation of roots. Last winter, or rather this
 ... spring, I had more than a hundred illustrations of the
 ... formation of roots in abundance without the develop-
 ... ment of a single leaf. This happens often when an
 ... Oleander leaf is struck as a cutting in water, we
 ... have seen such a leaf produce roots in abundance
 ... year after year for several years, but not a single
 ... leaf (Eds.) On the 24th of December last year
 ... I cut half a house of Muscat Grapes, and stored
 ... them away on the French method. The last of
 ... these Grapes were used on the last day of April. As
 ... they were cut during the spring, I observed that most
 ... of the spurs of wood were forming roots, and as the
 ... water continued sweet, the spurs were left until
 ... September, when the fruit-room was cleared for summer
 ... fruit. At that time most of the bottles were half full of
 ... roots, though in no case had a single leaf been fully
 ... developed. The fruit room was cool and dark—hence
 ... I presume the energy or growing power of the spur
 ... went rootwards, instead of, as in Mr. Knight's case,
 ... leaf and shootwards, thus confirming Mr. G. Dawson's
 ... view, that the direction of growth is much dependent
 ... on atmospheric or other circumstances. The fact of my
 ... Vine shoots forming roots so plentifully without leaves
 ... also knocks an unmendable hole in the theory so con-
 ... fidently advanced by Mr. M'Millan (p. 1161), that the
 ... roots have absolute and entire control over the entire
 ... tree, and that spongioles cannot be formed without the
 ... aid of leaves. In all these cases the shoots acted wholly
 ... without roots, and formed them in plenty, mostly
 ... thick spongioles too, without a leaf at all. However,
 ... as this gentleman proceeds to say that the leaf draws
 ... the sap to it in much the same way as a valve draws
 ... water in a pump, and as a pump valve does not draw
 ... water at all, the two theories may be dismissed together.

In the case cited by Mr. Gull at p. 1164, that has
 ... originated this discussion—the growth of the roots of
 ... one Vine ceasing when grafted upon another,—this
 ... case, if I understand it rightly might be due to the
 ... mere substitution of force. I have read Mr. Gull's
 ... short note carefully, and it seems that the roots of one
 ... Vine were left in the ground, and that when the
 ... union of the Muscat was completed upon the Royal
 ... Vineyard, the roots of the Muscat Vine ceased to grow.
 ... If such is the true version of the case there is no
 ... mystery about it, and the present discussion has not
 ... touched the question involved in it. So far, that case
 ... is not a matter of top versus root, or of root versus
 ... top, but simply of one root versus another, and of the

stronger superseding the weaker. The two sets of roots were more than were needed for the sustentation of one shoot, and the stock set aside the roots of the scion as soon as the union by approach was consummated. When two currents of unequal volume meet, the stronger will dam up the weaker, and that may possibly be all that happened here.

The other cases advanced seem to be sufficiently explained by the continuity of growth here contended for. In what direction that growth will be first manifested, will be to a large extent determined by external circumstances, and the internal wants of the plant. In cases of injury, especially underground, the growing powers will be first directed to their repair. This is abundantly proved by the extraordinary activity of roots injured by transplantation. There is not only an unusual effort made to restore the loss of absorbing power, but likewise to extend the roots, so as to hold the plant firmly in its place. Call it plant instinct, the faculty of self-preservation, or what you will, the fact remains indisputable, that there is an abnormal activity of root action in all transplanted plants immediately after their removal, compared with those that have not been disturbed. Mr. Anderson (p. 1064) cites a case to the contrary, but that case, as it stands, is not conclusive; we need other data to determine its value, chiefly the time of removal, and the bottom and top temperature afterwards. If the Vine tops were immediately placed in a higher temperature than the roots, or even if the temperatures were equal, and growth instantly excited in the top, the result would be as Mr. Anderson states. But had the roots been placed in a higher temperature than the stems, and especially had sufficient time been allowed the roots to repair the injury of removal, the order of growth would most probably have been reversed.

In a state of nature, I believe, root and top action proceed simultaneously. Under artificial or accidental circumstances either root or top growth may be made to precede the other at pleasure to a limited extent. But growth is ever continuous, and there is no such thing during the life of the plant as an entire stagnation of fluids, unless induced by frost or intense drought. While each plant is a whole, that whole is made up of an endless series of independent units, most or all of which have an individual power of growth in themselves, while contributing their quota to the growing force, strength, and beauty of the entire plant. Moreover, growth can be hindered or accelerated, but not entirely arrested, by art, without the destruction of the plant. As to the precedence of root or branch it is more safe and successful practice to stimulate the roots into vigour by the application of heat and moisture, before exciting the top, as without doubt the supplies sent forward by the roots are essential to the healthy development of leaf, flower, and branch, and to the maturation of the fruit. Continuous root action is needed to supply the wants and stimulate the vigour of the whole plant; and notwithstanding what may be said to the contrary, most practical men will agree with me that it is quite possible to excite root action, and cause it far to outrun that of the top. Bulbs may be held to be exceptional cases, possessing in themselves sufficient stores of organisable matter to develop either root or stem without external aid. But ripened buds are endowed with somewhat similar powers, and by keeping the crowns of bulbs and of buds alike cool and dry, while the roots of both are warm, root growth can be made without arousing the top into activity. Our mode of treating bulbs after potting is a daily illustration of this, and I

have seen Rose pots, destined for early blooming, crammed full of spongioles before a single bud had burst into leaflet, by simply plunging the pots in bottom-heat out-of-doors in November. D. T. Fish.

NEW PEAS.

WE are indebted to Messrs. Carter & Co. for the use of the block representing one of their newly-raised Peas—the Cook's Favourite—concerning which we reported as follows in August last:—"The most promising variety in this lot appeared to be one called Hundredfold or the Cook's Favourite, which was obtained from Laxton's Prolific and Ne Plus Ultra, height 4 feet, a late prolific variety (about fourteen days later than Supreme), with remarkably fine pods, which are slightly curved, and of the fine deep colour of Ne Plus Ultra, with a very fine bloom. The Peas

the first rank (as a town tree), whose overwhelming majority will protest against the condemnation of the Lime. Here, however, the matter of taste; and although it would be exceptional, and do not apply to the application of the tree, we prefer to be shaken by Mr. Robinson's pleading, to give young Limes growing in our parks, the beauty and fragrance, which, when they diffuse all around them." D. T. Fish.

Tricks of the Trade.—As this is the time when nurserymen's catalogues abound, and you let me tell you what has happened among the plants I cultivate are the good ones in their native forests, will give the



when boiled are said to be of a fine dark green colour. The seed is of a distinct pale olive-green. This is a sort that is likely to become popular both for marketing and garden use." The woodcut has been taken from a photograph, which we have had the opportunity of inspecting. Next season we may have the chance of ascertaining whether the promise of the present be fulfilled in the future.

Home Correspondence.

The Lime as a Town Tree.—It will be remembered that I was pretty severely handled for recommending the Lime for this purpose in your pages. It therefore affords me considerable satisfaction to find my favourable impression of the Lime confirmed by the able critique of Mr. Robinson's work on "The Parks, Promenades, and Gardens of Paris," in the last number of the "Edinburgh Review." The reviewer states at p. 467 that "If a formidable minority will dissent from Mr. Robinson's exaltation of the Plane into

untainted, as I thought, with the character could sustain the I order them from what I a sure quarter; and in due time which only half are my own choice remainder were substituted for the course I am told they happened to kinds I wanted, that those which I equal on the average to those which I am requested to pay for Roses I seems to me very like a tailor sending when you ordered a blue, and expressing it was quite as good, and suited to your If a tradesman is able to send you a one you may have in ignorance ordered better, but the superiority must be object not merely to fill up an order. agricultural dinner in Ireland a waiter a gentleman to inform a friend at some he would be happy to take wine with conveyed the information to some

explained that the one "gentleman being in action," thought the other, who had finished his dinner, would do just as well. I dare say many have met with the same experience as I have. It is time that nurserymen should become accurate in naming, not give quantities to plants they hardly possess, or try to do in the unwary by extravagant descriptions. *B. M.*

Salisburya adiantifolia.—It may interest some of our readers to know that one of the best specimens of this tree is to be seen at the Highgate Nurseries of Messrs. Cutbush & Son. This plant is about 50 feet in height, beautifully symmetrical, strong, healthy, and vigorous. Another older tree, but perhaps not in such good condition, may be seen at Caen Wood, Highgate, the seat of the Earl of Mansfield. *J. P., Highgate.*—In the garden at Hespall Hall, Bakewell, Derbyshire, there probably is to be seen about as fine a plant of this tree as can be found in this country. I saw it there a few years ago, and was told that only one larger than it existed in England. The specimen certainly was a splendid one. *Mor.* [Can any correspondent give us with fuller particulars of this specimen?]—I believe that the oldest and best known maiden-hair tree in England is to be found in the grounds of Lord Ravensworth, Waltham Green, Waltham, Middlesex. A letter just received from Mr. Wood, his lordship's gardener, gives the height of the maiden-hair at Purser's Cross, Waltham Green, as 17 feet, that is 17 feet higher than the Panshanger tree, and according to historical accounts, Lord Ravensworth's tree was planted in the year 1767, which is 22 years before the date of planting the Rev. Mr. Dives's tree (see p. 1158). The oldest in England of the following trees are said to be found in the parish of Waltham (an account of height, age, and by whom planted, will be given in another paper, if you think proper)—*Quercus Suber* (Cork tree), Pomegranate, *Cercis Siliquastrum*, &c. *D. Cunningham.* [We shall gladly receive this information. EDS.]

Potato Grafting.—More than 18 years ago, when residing in the neighbourhood of Dumfries, I read an account of a Scotch minister having successfully grafted Potatoes, and I tried the experiment. The minister led on his graft. My plan was to cut a goose quill square, and use it like a cheese-taster, going down over the eye of a Potato, and then with a turn extracting the eye; next to take another Potato, the one desired to be the improver, and do the same with it, inserting that eye in the hole. This was done with another eye, in case the first failed, and then the remaining eyes were cut away, so that if the grafted Potato grew, it must be from the inserted eyes. At my first attempt I grew a set of Potatoes which received the award of merit at the Dumfries Horticultural Society's show, if I remember right, in September, 1850. I explained to Messrs. Downie, Laird & Laing's agent the process he asked me why I had tried the Regent—what was the matter with that? I answered, because it was a good medium. "Now is my Potato better than a Regent?" He said, "It is." "That, then," I said, "is true enough." My cross was a Flour-ball on a Prince Regent. I gave away the whole stock, and do not know what the ultimate result was. By using a coarse graft to breed back, and the produce becomes coarser than the original *Archibald Grant*.—When doctors and dentists differ, who shall decide? On the vexed question now at issue respecting Potato grafting, the opinions of editors certainly differ, for while the editors of this Paper evidently lean to the method of grafting practised by Mr. Fenn to obtain hybrids, the editor of the "Magazine" does not believe in any such thing, and your correspondent is a mere delusion; the experiments at Stoke Newington and other places are ample to prove the fact. I am quite prepared to admit the perfect adhesion of scion and stock, and that it will grow, and this is all I am prepared to admit. To produce true hybrids by this method I believe to be impossible, much more to change the colour of the tuber by graft, or a sprout, taken from a Potato, is self-supporting at such a very early period, as shown by me in an article on the American Rose Potato in the "Florist," that it scarcely requires to draw any nourishment from the stock to aid it in growth. A sprout, 1/2 inch long, is self-supporting, and a scion would grow equally well if placed in a piece of Turnip, Carrot, or Artichoke, as if inserted into a Potato. It is stated on p. 1253, that "the scion has to draw upon the set for its nourishment," and that it does so when union has been perfect is shown, we think, by the fact that in such cases the set is so exhausted that it remains in a shrivelled and an empty bag of skin. Whereas, on the other hand, when no union has taken place, the set remains plump. This is a fallacy for the very opposite often occurs. Again, it is said that "one excellent variety positively stated to have thus originated, and, one, why not more?" It never has been shown satisfactorily to my mind that any one variety ever was raised by the process of grafting. I believe the variety in question was obtained by a sport. I am "not steeled against conviction," but I must see, and feel, before I can be convinced. What about the experiments with the two Beets (see *Gardeners' Chronicle*, 1855, p. 20)? I shall return again to this subject after it has been well ventilated. *Edward Rennell, Osberton, Worksop.* We do not overlook the case of the Beet. We take it as a fact and trust we shall get more of the same kind in future assertions. EDS.]

longest. It is sometimes found good on poor clay, but certainly the most durable Scotch Fir timber is found on boulder gravel at from 600 to 1200 feet and upwards above the sea level. For roofing and building purposes, if manufactured, prepared and seasoned the same as Baltic timber, it is, if of age, and off the soils, &c., I have named, much superior, yea very much superior to quantities of Norway small logs imported into this country, and sold as Baltic timber at the present day. Many proprietors who have the machinery for cutting up old timber on their estates, sell good Scotch Fir at a nominal price per foot, and buy, at three times its price, foreign timber which is no better in quality, and often not so good. Where the soil is of a good deep loam, and rich vegetable soil, Scotch Fir, being pushed beyond its natural growth, never lives so long, and does not commence to form heart-wood, but frequently bursts out, forming ulcerated places on the surface of the bole, at ages varying from 40 to 50 or 60 years. This frequently occurs in hollow places in the natural forests in the North of Scotland. The time I would prefer to have it felled would be from October 1 to March 1. I know Scotch Fir, felled in June and July, soon turns black under the bark, and under these conditions seems to me to decay more rapidly than when cut at any other time. I have myself seen four-barred fencing cut and sawn out of the natural forest in the North, the posts, no doubt, taken from the root ends of trees, which, at 25 years old, seemed to me quite good. No greater mistakes are made than in the purchasing of wood, and it frequently happens that both buyer and seller are totally ignorant of what they deal in. What in regard to Oak and to Ash, could be said of the soil, which has everything to do with its durability and elasticity—but not more so than in the case of the Scotch Fir? For my own part, I would have a good hard-grown Scotch Fir in preference to Larch in a fast grown unhearted state. With regard to fanking Scotch Fir so much used by railways, I could go into the natural forest and pick out Scotch Fir trees that would sink in water to the bottom. No Oak could last longer. In such cases it would be an utter absurdity to attempt to force out the natural sap, as the sap in such trees is a solid mass of resin, and were the timber to undergo any chemical process known at the present day, it would not compare in point of durability to the same timber in its natural state. With regard to Scotch Fir gate-posts, if you procure root-cuts of old hard-grown trees, they will last much longer than Oak grown in light, thin, and gravelly soils. *W. G., York.*

Vanda cœrulea.—I observed some time ago, in the *Gardeners' Chronicle*, a notice of a fine specimen of *Vanda cœrulea*, flowered by Mr. Thomson, gardener to the Duke of Buccleuch. I am tempted to tell you that we flowered here this season a plant of this beautiful Orchid, which produced five fine spikes of flowers. The three lower spikes had 20 and 21 flowers respectively, and the two upper 17 and 15, making 93 blooms. Since 1853 we have flowered this plant every year, and we have had spikes with more flowers than this season. It came to us from Calcutta in a box with other Orchids. We have observed that every year the flowers last a shorter time. In 1853 it bloomed in October, and in January the flowers were still fresh enough to remain in the drawing-room. This year the flowers remained fresh for about six weeks. *J. M. D., Dale Park, Arundel.*

Garden Ivies.—At p. 1259 you give a brief abstract of a paper on garden Ivies, submitted by Mr. S. Hibberd to the Linnæan Society, and of which I have also seen the full report. Mr. Hibberd does me the honour of adopting, though without acknowledgment, my interpretation of the genus *Hedera*, and the species composing it, as published in my "Revision of *Hederaceæ*," pp. 29-36, illustrated with woodcuts and plates. He tells us that, during the last 15 years, he has assiduously collected and studied the species and varieties (so-called), representing the three well-known types, viz., *H. Helix*, L., *H. canariensis*, Willd., and *H. colchica*, C. Koch. Now, I don't think that, until I, by excluding 85 species, reduced the genus *Hedera* to intelligible limits, representing nothing more nor less than what are termed Ivies by gardeners, any approach was made towards disentangling any specific types from several hundred kinds known to exist, either wild or cultivated. That these three types are well-known, as Mr. Hibberd asserts, may be doubted, though I have tried hard, both by description, woodcuts, and plates, to make them so. I could find no specific character in the form of leaf, and had to rely in *H. colchica* upon the scaly covering of the axils and petioel, in *H. Helix* and *H. canariensis* upon the nature of the stellate hairs covering the same organs, these hairs having from 6-8 rays in *H. Helix*, and from 13-15 in *H. canariensis*, besides being smaller in the latter, and the species itself having a distinct geographical range. I have no fear that any transitions between the scaly and the stellate-haired Ivies will be discovered, but it is quite within the range of possibility that some may turn up which may obliterate altogether the characters relied upon for distinguishing *H. Helix* from *H. canariensis*. A careful study of our garden Ivies might thus prove of direct scientific value, and I was in hopes that Mr. Hibberd's paper would have been the result of such a study. But I cannot help thinking that he has been ill-advised to submit his researches in their present raw state to the consideration of the Linnæan Society. He is altogether wrong, as every botanist will tell him, to change well established specific names—absolutely inassailable as far as their right of priority is concerned,—because they do not harmonise with the system of nomenclature set up for his varieties. Who would dream of following him in rejecting the name of *colchica* for that of *coriacea*, all Ivy leaves being coriaceous, and that of *canariensis* for the (relative) name of *grandifolia*? Nor do I think that the author has any very clear notions of the object and

character of classification. He puts the varieties of the different species in four divisions. This of course would be a convenience to any one searching them out by diagnoses arranged under these headings. But unfortunately, the different divisions break down, so that some varieties, as he tells us, may be classed under several of them. The scandent Ivies may become fructing and arborescent if you wait long enough, and the arborescent have an inclination to become scandent if opportunity presents itself (proximity of an old wall, rich soil, &c.). This should have taught Mr. Hibberd that his classification is absolutely useless, and that he ought to try to find in another direction more reliable characters for his purpose. At all events that is the lesson it would convey to botanists. To lead in any question it is necessary to make oneself acquainted with all that has been written thereon, and then endeavour by additional study to advance it. I do not think that Mr. Hibberd has done this. There are many observations about the varieties of Ivies of which he does not seem to have taken cognizance, and hence his paper is not up to the mark. He is perfectly mistaken, for instance, in considering the Irish Ivy of gardens as a variety of *Hedera canariensis*; it remains yet to be shown that it is not a variety of *H. Helix*. *H. Helix* is a very variable plant, and it is the large-leaved Irish Ivy (*Sten. Rev. Hed. tub. B.*), which is a form of *H. canariensis*. It is, therefore, most reprehensible to change the name of *H. canariensis* for *H. grandifolia*, when this large-leaved, quickly growing form of *H. Helix* has nothing whatever to do with *H. canariensis* true. Again, about *H. Helix poetica*. Is not this the *H. poetum* (*H. chrysoarpa*, Walsh, in Hort. Soc. Trans. 1825), which has yellow fruit, and is the classical Ivy or Kiosos, the plant of which Pliny speaks as *Eleric genus chrysoarpon*? And why is it placed amongst Mr. Hibberd's scandent, non-fructing division? What strikes one as singular is that some varieties, of which (if I understand Mr. Hibberd aright) the flowers have never been seen, are classed under *H. Helix* and *H. canariensis* respectively. Now, as the flowers are absolutely necessary to distinguish the species, how does Mr. Hibberd manage to classify his varieties under these two species? If the characters I have relied upon for distinguishing the three species hold good, the most simple way of classifying their varieties would be to divide them in the first instance into black fruited, yellow-fruited, and white-fruited kinds, and then again into subdivisions, characterised by the form and nature of their leaves and general habit. I have never yet been able to find out, and perhaps some of your correspondents may be able to answer the question, whether Ivies with white blotched leaves have white fruit, and those with yellow blotched leaves yellow fruit. If so, it would materially simplify the classification. Biologically, too, some of the varieties may be distinguished, some being liable to be killed by a temperature which others will stand without any ill effects; and again, while the tints of the leaves of some are not affected by temperature, others undergo a perceptible change as soon as the thermometer sinks below a certain degree. All this and a great deal more will have to be fairly met before we are in a position to deal definitively with the classification and nature of our garden Ivies. Mr. Hibberd, I trust, will not be discouraged by this and kindred criticisms from pursuing the subject, but rather regard it as a spur to a further series of observations, which may help to set a question at rest in which scientific botany and horticulture are alike interested. *Beethold Seemann.*

Vine Soils.—Your correspondent, Mr. Cramb, has undoubtedly attributed the failure of which he complained in his Vines, to the wrong cause, when he attributes it to the presence of lime in his soil. I may be in error in attributing my success in a great measure to an addition of that element to that naturally existing in the soils of this neighbourhood. My viney is placed on the bare oolitic rock from which the thinner surface store had been raised for building. I need hardly observe that carbonate of lime is a prominent feature in that rock. Over that bare foundation was laid a foot of broken stone of the same character. On that was laid 2 feet deep of our ordinary soil, mixed with half-inch bones and rough scrapings from our limestone roads. This bed of earth is under the glass roof, and I see no way of escape for the roots from it. The Vines were planted in this nine years ago, and my visitors have been, during this season, so much struck with the size and deep green colour of the leaves, and the abundance of fine fruit, that your readers may, at least, remain satisfied that the presence of lime in the soil for their Vines is harmless. *Charles Lawrence, Cirencester.*

Vine Budding and Grafting.—That "there is really nothing new under the sun," as "B." says at p. 1257, is undoubtedly true, and this remark applies to the mode of Vine budding recently practised at Trentham, for that Mr. Stevens is unfortunately not the inventor of the process will appear on reference to p. 1137, where we have information of its being practised many years before the introduction of the Madresfield Court Muscat Grape. As Mr. Bain (p. 1137) very justly remarks, "there are many excellent practical gardeners throughout the country who never pen their experience," and for my part, I agree with "B." in thinking that this a great loss to those who wish to learn for it would be especially advantageous to have the opinions of really practical men on the controverted subjects brought before the public—much more so than is the gratuitous criticism of those who do give their experience. I, like every other gardener who desires of gaining knowledge, should be only too glad to be informed of a better mode of grafting than that described by me at p. 1260, and to be initiated into the mysteries not only of budding, but of grafting the Grape Vine, in reference to which "B." says I have much to learn. *Who* who would do a service to the public should be

Scotch Fir Timber.—Your correspondent, at p. 1257, asks at what age Scotch Fir timber may be used, and also the season of the year for cutting it down. No Scotch Fir should be cut down until 60 years of age, while 100, and, in some cases 120 years, may be allowed before it is cleared off as a matured crop. The age at which Scotch Fir timber ought to be cut will in all cases be regulated by the soil, subsoil, climate, and altitude. On bare rocky soil, on gravel, or even deep sand, it will be found to succeed the best and live the

profuse with their irony, and more generous in imparting their practical experience. If "B." can explain any method by which the budding or grafting of the Vine may be made more certain, and more prompt as regards the production of ripe Grapes, than that I have advanced, I shall be glad to hear it. *John Reid, Haigh Hall Garden, Dec 6.*—At the tail-end of a paragraph in the *Gardeners' Chronicle*, at p. 1253, I observe "a little crook-backed gentleman." My reply to him is that the budding of the Vine being slow in action, and to some extent uncertain, "practical men" find grafting so very superior in a general way that they adopt the most useful methods of it in their practice, leaving the less important, such as budding, in abeyance, so that it may be cried up at the nick of time to keep the craft awake. *J. R.*

Bottom Heat for Vines.—We have not yet been furnished by any of your numerous correspondents with any real proofs of the relative merits or demerits of the two systems of culture. Therefore I should like to see it put to some practical test, everything connected with the Vines, except the bottom-heat, being made as much alike as possible. We shall start a vinery in the second week of December, and in this house I intend subjecting six pot Vines to the test, and trust it may induce others interested in the subject to try a similar experiment; by so doing we may arrive at some practical conclusion. The Vines I shall try are in 10-inch pots, struck from eyes last spring, and have, as nearly as possible, the same length and strength of canes. They are—two Black Hamburgs, two Frankenthals, and two Royal Muscadines. One of each will be plunged in the border outside, covered with dry litter, will be brought in through the front wall, and tied to the wires. The other three will be placed inside, close to the front wall, the canes will be placed alongside of the others, and both will in every respect receive the same treatment, except that the roots in the latter case will be kept in the same temperature as the tops. With your permission I will report the result when the Grapes are cut. *J. McIndoe, The Palace Gardens, Bishopsthorpe, York.* [Pray do. Eds.]

Root Action.—An interesting controversy is being carried on in your columns as to whether spongiole or young rootlet formation is the cause or the consequence of leaf and branch manufacture. In the island of Madeira, I managed for some years a model farm, which received a subsidy from the Portuguese Government. Owing to my success in showing how the vineyards could be restored by the use of sulphur, and by a return to a proper system of cultivation, and also to the introduction of many new and useful plants, such as the *Holcus saccharatus*, the use of this plant, and of many other novelties, was insisted upon in letters to the papers, and in a book written in Portuguese describing my experiments. The seed of the *Holcus* was sown at different times of the year, with varying results. The most usual course, however, was to sow about February. In about eight or 10 days the young grasses grew up, some in their permanent location, and some in pots to be distributed amongst those who liked to try a few plants on their own lands, especially amongst my own tenants. Taking these young plants at about a month old, you saw nothing but a little grass plant with two leaves, and five or six thread-like roots. They were planted at a distance of about 18 inches, and carefully and anxiously watched from, say, March to May. The progress was most disappointing to the eye, and distracting to the enthusiastic *impresario*, who was terribly quizzed by the neighbours. May was fairly commenced, and still they showed no sign, beyond putting out two or three narrow stunted leaves. The tenants came in and asked sarcastically if that was the new Sugar-cane that was so loudly praised? In desperation, I pulled up one of the plants, and if Linnæus really fell down and worshipped a splendid specimen of Furze, he would certainly have done so on witnessing the hidden forces of Nature exemplified in the roots of the *Holcus*. There was a solid stump or neck of the plant surrounded by masses of spongioles which must have weighed some pounds—transparent, juicy rootlets, bursting with sap, and only waiting the stimulus of a slightly hotter sun to force the leafy portion into growth. The weather became hotter, and in three weeks the plant, from a little tender grass about 9 inches high, became a robust cane 6 feet high, with, in most cases, four or five other canes which had tillered from the roots. In three weeks more they had ripened their seed, and were cut down. The rootlets were then examined, and found wizened and thready, as at first; in fact pumped out dry. *Richard C. Smith, 12, Cross Lane, St. Mary-at-Hill.*—Do Vines make fresh roots or spongioles, without the action of leaves, &c., or vice versa?

I consider that much depends upon the relative temperature of the soil in which the roots are, and of the atmosphere of the house in which the Vine grows. Moreover, I believe, that in all well-made Vine borders (where means are used to ward off the autumn and winter rains, and to husband the solar heat of the previous summer), that a certain portion of the spongioles survive and act throughout the winter, instead of going entirely to rest when the leaves have fallen, as some of your correspondents seem to think. I also believe that Vines will make fresh roots without any perceptible action taking place in the branches, also that they will make leaves and branches, without fresh roots. In proof thereof, I would cite the following experiments. In February I took four Vines grown in pots, and having disentangled the roots, I placed them on four large pieces of turf, covering over with soil; they were placed in a pit, where they had a steady bottom-heat of 60°, while the minimum temperature of the atmosphere averaged 50°. Two of the canes were kept inside the pit, whilst the other two were taken out into the open air. For convenience I will style the former A. and the latter B. When

the buds of A. showed signs of bursting, we found many fresh roots. On B. the young roots were scarcely so far advanced but quite as numerous. Later, when the shoots on A. were 2 or 3 inches in length, the rootlets were from $\frac{1}{2}$ an inch to 2 inches. Whilst B. showed no perceptible increase in the size of the buds, the young roots were much increased in size and number, many of them being over $\frac{1}{2}$ an inch in length, and by the time the buds had burst the most forward were 1 $\frac{1}{2}$ inch in length. Simultaneously with this experiment I introduced a Vine rod into a plant stove, the minimum temperature of which was 60°; the roots were entirely outside. When the shoots were from 6 to 8 inches in length, the leaves flagged much in sunshine. I carefully lifted them, but failed to find a single fresh root; in fact, the smaller roots had rotted off. The Vines had been planted three years before, under circumstances over which I had no control; and the soil being a perfect morass, it was no wonder that all the smaller roots were gone. Whence, then, came the supply of food that enabled this Vine to grow from 6 to 8 inches? It must have been the sap stored up previously to the decay of the roots. It at least goes far to prove that Vines will make leaves and branches without the aid of fresh rootlets, and also without the corresponding root or branch action, provided circumstances favour the production of either. In the case of an early vinery planted in a raised bed inside the house (without bottom-heat), the Vines being old and showing want of vigour, I determined to add 2 feet of fresh soil to the border, by removing the front wall of the bed. On this being done I found many healthy spongioles, and upon disentangling the roots and removing 2 or 3 inches of the old soil, I found them still more numerous; as nearly as I could calculate, I should say one-third of them were in healthy action, whilst the remainder were seemingly inert. Now the leaves had been off those Vines two months, yet here we have a considerable porportion of the spongioles in good health, and doubtless in action; and this I believe goes on to a much greater extent than is generally supposed. May not the number of active spongioles be proportioned to the diminished wants of the plant until such time as it is again excited into action? I could cite other instances wherein fruit trees, bushes, &c., have made fresh roots in midwinter without any corresponding top action. *J. B.*

Judging Melons.—I have always been opposed to the practice of cutting every Melon exhibited for competition at horticultural shows, although when acting as a judge of such productions I have usually been compelled to do so, by the rules of the society, or in compliance with the wishes of its officers, who are generally under the impression that exhibitors would not feel satisfied unless this was done. Nevertheless, I quite agree with your correspondent, Mr. Sheppard (p. 1232), in thinking that in a majority of instances a sufficiently correct estimation of the quality of a fruit can be arrived at without actually eating a portion of it. Or why should flavour be the only quality taken into consideration in estimating the merits of a Melon, and ignoring all other qualities—such as weight, size, form, colour, &c.? I am quite aware that I may be told that Melons are grown to be eaten, and that "the proof of the pudding is the eating of it, &c." This, of course, is true enough, but there may be more than one opinion respecting a pudding even after it has been subjected to this ordeal. And Pine-apples are also grown to be eaten, but judges are neither expected nor allowed to cut them in their endeavours to decide upon their merits. It is a common saying, and it is also quite a true one, "that there is no accounting for taste," and the taste exercised by the palate is as capricious and diversified as any other. Delicate Spanish girls will slice and eat a raw Onion with as much relish as an English beauty would a ripe Peach or an Apricot; and while Mrs. A. drinks her tea nearly as sweet as sugar will make it, Mrs. B., on the other hand, abominates the minutest introduction of either cream or sugar into her beverage. And it is even possible that your correspondent, "A Canny Scot" (see p. 1233), would mightily enjoy his toddy of a degree of alcoholic potency which might compel the learned Editors of the *Gardeners' Chronicle* to make wry faces. I have also heard of sundry means being used to give the desired flavour to partially ripened fruit, which has little to do with good cultivation, and has not, I believe, been recommended by any horticultural writer, such as that referred to in the admission of the winner of a 1st prize, who confessed that at the suggestion of his "ingenious moiety" his prize fruit passed the night previous to the exhibition enveloped in moist flannel in a slow oven. But be this as it may, there is no doubting the fact that many Melons find a place upon the exhibition table which are the produce of plants which have paid the debt of Nature long before the ripening process had even commenced in the fruit. In conclusion, I think that the system recently inaugurated at Edinburgh was a step in the right direction, which, I hope, will be generally followed, and that the knife will only be appealed to as a *dernier resort* when all other means of arriving at a satisfactory decision have failed. *P. Griene, Culford.*—At the first exhibition held at the Crystal Palace I exhibited three Melons—one for the heaviest, which obtained the 1st prize; one for the best scarlet-fleshed, to which the 1st prize was awarded, one for the green-fleshed (the Green Gage), which received the 2d prize. None of the Melons were cut. The judgment went by sight and smell. I was very much disappointed at not getting the 1st prize for the Green Gage, as I knew what it could do, it having taken several 1st prizes before. And Mr. Thomson, now of Dalkeith, once being a judge at the Royal Botanic Gardens exhibition, where it got the 1st prize, said to me, "Mr. Monro, that Melon will beat the world;" so, as I had a fine fruit at the Crystal Palace, I felt disappointed

that it only got the 2d prize, but all the other bits of Melons were very much annoyed, and "That it was not fair, as the fruit had not been cut, and they would see the judges about it," which did. I said "I was very glad, and if my Green Gage not get the 1st prize I would eat it." The next day the judges came, cut all the fruit except the Green Gage, and they took the 2d prize card off my Green Gage, and put the 1st prize upon it, leaving the others were. I don't believe any person can judge a Melon without he tastes it; as for whiskey, &c., that nonsense, the taste of a bad Melon will soon be a taste of a good one out of the mouth—the same good one. A person that cannot judge a Melon without whiskey or brandy has no business to be a judge. *John Monro, Potter's Bar.* Some few years since I offered a few Green Gages for Melon judging in these columns, a portion of which again quote, thinking it may be of some use in settling the vexed question now at issue in your columns. No class of fruit, perhaps, is more difficult to judge than Melons, and I have no hesitation in stating that the showing is on this account rendered a very uninteresting one, is, indeed, hardly possible to select the best shown from among perhaps the hundred Melons staged sometimes at our great London exhibitions. It is true that the judges are at liberty to cut such Melons; some, however, are passed over in consequence of their uninviting appearance, others are chosen because the name they bear is known not to be a first-class variety; and a third group, no doubt, is disregarded for other reasons. But, even when all these things are taken into account, what some being inferior, some good, and some middle, the mouth gets sadly out of order in arriving at the hundredth or last specimen. In judging, as I have stated, therefore becomes a lottery. I do not say, however, that this is a bad case, for there is no rule without an exception. Prizes must be awarded, and although there are losers, still there must be some winners. It has been at various exhibitions myself, I can truly assert that Melons which have been awarded prizes by one set of judges would not be awarded at all from others. So much is it true, and as every man's taste is not alike, how is it to believe that the best Melons always obtain prizes? I do not for a moment insinuate the contrary; it is merely a matter of fact. What we want is some standard to guide us, but by taste alone is not sufficient, for I have seen Melons awarded 1st prizes at our great exhibitions, which are ludicrously small that I should have been asked to have sent them to my employer's table. I am of the opinion that moderate size and weight, thin skin, thick flesh, and handsome appearance should have preference over small size. In one respect Melons like Potatoes, some varieties are good in certain seasons, and under some particular course of culture, while some kinds in other places are poor and insipid. Nine years since we put up a new Melon-house at Osberton which answers admirably, the crops being very abundant. In this house I have a great many varieties of Melons now in cultivation. From experience I have come to the conclusion, just stated, viz., that the same variety, under different conditions, varies very much in flavour. In a book I find Melon lists so overburdened with names that in the case of beginners it would be a difficult thing to make a selection of any one particular variety. How different is this from years gone by, when the Beechwood and Cantaloupe were the two principal favourites. But time changes all things, and should not the judging of Melons on the old plan of tasting only, change? *Edward Bennett, Osberton.*

Dear Chrony.—Could you not settle these gardeners by asking the tasting ones if they use Melons before sending to their employer's table, do they use a cheese-piercer, and plug up against the door, or how do they use tobacco? Or how do they use the veyors for the dessert of the Belgravians and West-enders do when in Covent Garden? The Chrony owes to a weakness for tasting good Melons. *Eds.]*

Potting Lilies.—I can fully endorse all your correspondent "M.'s" remarks (see p. 1232) when you pot Lilies in November. My advice is to pot them as soon as you can in November, or should the stems be so soon, repot at once. I have always found Lilies at work even after the stems have died down in the time. I firmly believe that *Lilium auratum* is growing, as I have just turned mine out of a pot and found some splendid roots in a fine greenhouse. These I disturbed as little as possible, only moving a little of the old soil and shifting into a new pot, larger, according to the strength of the bulb. All potting is completed I place them in a cool, excluding frost, and then cover them with a layer of cocoa fibre, withholding water until they have grown to say 3 inches in length, and then gradually increase the light and air of the greenhouse. The soil is good turfy peat, with a little loam and sand, silver sand, all chopped up roughly with a spade well incorporated together. *G. Willers, Cambridge.*

—In answer to your correspondent "M." with reference to the time I pot my Lilies, I feel doubt he will be surprised to hear that I referred to in p. 1064 was potted on February. I do not mean to say that February is the best time to pot all Lilies. I consider that any one in possession of a fair collection of bulbs, and the convenience of grow them, can have a succession of bloom from the month of May up to the month of October, consequently the potting must be done at intervals, according to the time the plants are required to bloom, prefer commencing in the month of August, with smaller bulbs of the *auratum* varieties, leaving

large bulbs for late flowering. If plants be brought into flower in the month of May or June, it naturally follows they will be ready for potting before those that flower in September. Then why should we wait till November, or put those in November which ought to be deferred till January? My experience teaches me that it can be done with advantage from the month of August to the month of February. I differ from "M. A." where he says, keep them dry through the winter, in my opinion they should never be allowed to get dry. Again, he says, take away all the small bulbs, and "to shift the larger ones without disturbing them is still better." I ask, can this be done without disturbing the large bulbs, and what is the advantage of so long? I consider that, if large specimens are aimed at, we must have them entire, as we get much better-furnished plants than by taking the small bulbs away. In p. 1138 we are told that the stem is kept alive sometimes by roots emitted from itself. Independently of the bulb, these roots sustain it after the bulb has stopped its supply. But, in the absence of these roots, I ask what sustains the stem but the scaly bulbs below which we are told are gone to rest previously. In p. 1232 we find "M." has changed his mind. He there says, "for the bulbs of these plants never rest." I quite agree with him on that point. J. Smith, *G. to James Bland, Esq., Quarry Bank, Alkerton, near Liverpool.* "M."s' reply to this note is subjoined. Eds.—My object at first in writing about these bulbs, was to break through the practice—the old practice—of storing away the bulbs in winter, to be pulled to pieces in spring for fresh potting, when vigour ought to have been vigorous. Mr. Smith bears me out in this matter. Mr. Smith was fortunate in being in possession of so large a bulb of *Lilium auratum* when the price kept many—myself for one—from purchasing. That, doubtless, partially explains Mr. Smith's success, though I do not wish to detract anything from his skill. I dare say, as Mr. Smith alleges, that *Liliums* can, by potting bulbs at different times, be prolonged in flower to the period he mentions; but there must be no storing away in that practice through the winter, but rather "potting when the stem is dead." Mr. Smith differs with me on the condition of the soil through the winter, or in the state of partial dormancy. He would certainly find fault if I said, keep the soil "wet." I considered the term "dead dry," would convey my meaning—a state of soil where it is possible for anything just to live and make roots. That is the meaning I intended to convey. If Mr. Smith had his pots bursting with the quantity of bulbs contained in them, as I have had this season (not *auratum*), he would, if not inclined to disturb all his bulbs, find a means to thin them. Although Mr. Smith finds fault with this, my middle proposition, he quite agrees with my last, and what I styled the best, that is, leaving the bulbs alone as long as possible without potting. In answer to Mr. S.'s question respecting the sustenance of the stem when no roots are emitted from it, I say, as he surely knows, a dying stem requires no sustenance, the withholding of sustenance is the cause of decay. Mr. S. is wrong in his impression that I changed my mind on such a point as the resting of these plants. I do not know what better term to use that would be intelligible and give the true meaning of what I said. I said, "in the fullest sense of the term they do not rest." Mr. Smith agrees with me. I am very glad Mr. Smith has given the public the benefit of his experience, and that he has come to my aid in the endeavour to show that storing away the bulbs of those plants is wrong, as advised in this journal. M.

"Good Gracious!" Pansy.—I see at p. 1234 a notice of a blue *Viola*, called by one person "Blue Perfection," and by another "Good Gracious." Now, I remember the late Donald Beaton writing very much in favour of, I believe, this very Pansy, in the "Journal of Horticulture," some six or seven years since. Mr. Beaton said it would be the best blue bedder in cultivation, and it seems his words are likely to come true. Mr. Beaton also, in his amusing way, described how a lady acquaintance on first seeing it, held up both hands and cried, "Good gracious!" and said, "Mr. B., I don't think it could have a better name." So judging from that, it must have been sent out under that name, and poor Beaton's words are likely to come true. J. W. Kingston, *Bolton Hall Gardens.*—I have received so many inquiries during the last few days respecting the blue *Viola* referred to by Mr. Dean, that I find it too great a tax upon my time to reply to them by letter. As I before stated, I received the name I have given with it, and believed it to be the true one. As Mr. George Smith, nurseryman, Fisherton, Salisbury, supplied it to me, perhaps that gentleman will kindly give its previous history, and so clear up any mystery respecting it. I have this week been informed, by those who have seen Beaton's Good Gracious, that the two are distinct. Mr. Williams, of Holloway, to whom I sent a cutting, also says it is not like Mr. Jobson's variety. I have not a plant in bloom at the present time, but will send one at the earliest opportunity, to the Floral Committee, South Kensington, for its opinion respecting it. Thomas Challis, *The Gardens, Wilton House.* [Beaton's Good Gracious Pansy, was a double-flowered variety, and a deep purple. Eds.]

The Heliotrope and Carnation.—I can confirm all that Mr. Pillery says (see p. 1212) in favour of the Heliotrope as a very useful and desirable plant for greenhouse or conservatory decoration, either planted out and grown as a bush, or planted against a wall and trained as a climber. We have here the back and wall of the conservatory planted with Heliotrope, and at the present time, when loaded with its highly perfumed blooms, it is the admiration of all who see it. There is also another plant which, for pot culture, is worthy of more extended cultivation,—that is, the Tree, or perpetual blooming Carnation, which for its fragrance, and great variety of colour, is indispensable

for greenhouse or conservatory decoration. I have had plants in bloom for several weeks, and they are likely to continue so through the winter months, and as my employer is passionately fond of them—indeed, I don't know who is not, I am able to give him one for his button-hole every morning. I have a variety now in bloom called the Dragon, a beautiful bright crimson, measuring from 3 to 4 inches across, a bloom of which is no mean object at this season of the year, when sweet-scented flowers are both scarce and valuable, indeed, I think no greenhouse or conservatory of any pretensions ought to be without them. They are equally valuable to those who have no greenhouse at command, as I shall presently show. We have a fine collection growing in the borders of the kitchen garden, and many of them have not ceased blooming since the beginning of the summer, and, if the weather continues mild, I have no hesitation in saying that we shall be able to cut nearly up to Christmas. I may state that many of the kinds now in flower in the borders are the produce of a packet of seed. Therefore, I would say to all lovers of the Carnation "set your borders in order, and try your luck with seed or plants." I say luck, because, if from seed, all will not be prizes, or, in plain terms, perfect flowers; but nevertheless, I say to all, try, as the results from a packet of seed here are perfectly encouraging. I think if the Royal Horticultural Society of London, would take this subject in hand at another season, and offer prizes for Tree Carnations in pots, or for cut flowers, it would be an inducement for their more extended cultivation. Hear! hear! Why should they not meet with encouragement as well as the Chrysanthemum? True, they would not make such a gorgeous display as the latter; but, on the other hand, their sweetness and variety of colour ought to place them in the first rank of sweet-scented flowers. This is merely a suggestion; and as I know there are several good growers in the neighbourhood of London, perhaps they would favour the readers of the *Gardeners' Chronicle* with a few cultural hints. Perhaps some one may turn round and say they are so easily grown, that no hints are required. How often, however, do we see them neglected, or not properly cared for in due time? If these few remarks should be fruitful in bringing this much-esteemed flower into more general cultivation, I shall be glad, as I feel sure it will well repay a little extra attention. It is encouraging to see plants grown from 3 to 4 feet high in one season from cuttings. George R. Allis, *Hurtaholme Hall, Lincoln.* [See Mr. Howard's remarks on this subject in our last and present Number. Eds.]

Conifers in South Devon.—We have here a specimen of *Cupressus Lambertiana*, 36 feet in height and 90 feet round; the greatest distance through is 34 feet, and the girth of the trunk 4 feet 6 inches, the latter three measurements were taken at 3 feet from the ground. Another of *C. macrocarpa* measures 32 feet in height (fully 6 feet of top has been taken off), and at 4 feet from the earth, 68 feet round, with a trunk 4 feet in girth. We have also *Wellingtonia gigantea*, 26 feet high, 47 feet round, and 4 feet 4 inches round the stem. The above have all been planted about 11 years, and are exceedingly handsome, being well furnished throughout, and forming fine pyramids. Of *Wellingtonias*, I may observe, that, although we have upwards of 40 in the grounds here, I notice but one of them producing cones, and that by no means the largest one. This I think is somewhat unusual in this country, at least in small plants. The *Cupressus Lambertiana* mentioned has, at the present time, some hundreds of fine cones upon it. Those *Wellingtonias* that are in some degree protected by other trees, &c., from the salt-impregnated winds from the sea (about half a mile distant), present a far more healthy appearance than those exposed to its full action. *Pinus insignis* has proved nearly a failure, being subject to the ravages of a grub, which commences its havoc in June, and completely hollows out the interior of the young shoots. As I do not remember having noticed it in any other part of England to such an extent, I shall take the liberty of forwarding for your inspection some of the attacked shoots when it commences its active operations again. It is completely ruining the Pines at many places in South Devon. I may also observe that the Fig does remarkably well here, one growing on a very exposed part of the lawn being 20 feet high, 111 feet round, and having a bole 6 feet in circumference. It forms a huge compact bush. During the past autumn I have gathered from this tree several bushels of fine well-ripened fruit. John Faurey, *Gr. to T. Allcard, Esq., Hermosa, Teignmouth.*

Cedrus Deodara for Timber.—According to my experience with the *Deodar* as a timber tree, your correspondent "G. A. H." p. 1233, is quite right in dissuading anyone from planting it in large quantities, unless in very favourable situations. The severe frosts in 1860 and 1861 nearly killed all the finest specimens in the midland counties in exposed situations, and it can only be depended on to arrive at timber size in the shelter of other plantations or trees. I am not certain that its timber will be of much value either in this country, unless it is grown slowly, like the Larch and Scotch Fir, on hill-sides and in rocky soils. A few years ago I sent a slab of it to the museum of the Horticultural Society, from a tree nearly of timber size, for it measured 4 feet in circumference at the base. This tree was originally grafted on a Cedar of Lebanon, in 1838, from a branch taken from a young tree raised from the first seeds sent from India by Lord William Bentinck. It grew in a very sheltered corner in the park, on a sandy soil, and was about 25 feet in height, when it was transplanted to the shrubbery, where the situation was lower and colder. This was in 1858, and in 1861 the severe frost so injured it that it had to be cut down. The slab was taken from the centre of the tree, and showed the Lebanon and *Deodar* sections in equal proportions.

Where they had been grafted was easily seen, for the *Deodar* portion was thicker, the bark rougher, and more knots in the timber from branches, although the number of rings was the same. Mr. Murray took some cups of the timber of each kind, of equal length and thickness, to try their relative breaking powers, and found the *Deodar* wood was the toughest, but this may have arisen from the number of knots in it. To me the timber, when first sawn up, seemed much alike in colour and texture, but fine *Deodar* was the kindest from branches, and perhaps if grown slowly, and in poor soil, it might be resinous and hard, as it is said to be in its native habitat. William Tillery.—Probably it is as yet premature to speak of the quality of British grown *Deodar* timber. The wood of most of the Fir tribe is soft when young, still the *Deodar* can be compared with Spruce, Scotch, and Larch Firs of the same age, and it is softer than any of them. I have recently cut down a *Deodar* about 20 years of age and 150 feet high. It was very soft and spongy. Great chips flew from the axe in a shower, and the tree seemed to be down in the shortest possible time. As soon as it was felled I decided to test it, and found it soft throughout. The heart was small, and not much harder than the other. There was little or no resin, no perceptible perfume, and the wood in grain and quality resembled the spongiest Scotch Pine drawn up in stuffy plantations on rich soil in England. It must not for a moment be compared in quality to the mountain-grown Scotch Deal, or black Pine, which is more durable than foreign wood. And yet this tree was grown in the open, with free exposure, and no crowding. I do not anticipate any difficulty in growing the *Deodar* throughout most portions of England. Here (in East Anglia) it grows very rapidly on good soils, and with moderate shelter, and in many places without either; but I fear its timber may be of but little use after it is grown. Still the tree is highly ornamental, and splendid for hiding feathered game, while its weeping and drooping form gives it a special value in the eyes of the artistic planter and landscape artist. In all boundary belts for parks, clumps, or home scenery, and every position where beauty is held to be of more consequence than utility—the effect of the growing tree more highly prized than the commercial value of its timber—the *Cedrus Deodara* should be plentifully introduced. But the mere timber grower for profit should fight shy of the *Deodar*, lest his profits should be consumed in the billets and faggots of mere firewood that will probably be the inglorious end of his charming so-called timber trees. Observer.

Yellow Bedding Plants.—I have read with great interest the various papers under this heading, but many of your readers will concur with me in thinking that very little good has been derived from them. Therefore, "what can we get as a substitute for the Yellow *Calceolaria*?" must still be an open question. Mr. Bennett, of Osberton, recommends the *Viola* and Pansy. The latter has been tried over and over again, but has always failed as a summer bedding plant. By the end of July it is used up; then the *Viola* and other subjects, such as the *Oenothera*, introduced by other correspondents, what are they compared with the delightful yellow and glowing effect produced by the *Calceolaria*? I feel sure there would not be half the disappointment with the *Calceolaria*, if proper pains were taken with it at planting time. The soil in the beds should be taken out a foot deep, and some good rotten stable manure placed at the bottom. I find them to do better in Yorkshire than on the gravelly subsoil in Middlesex. T. P. T., *Thornhill Gardens, York.*

Tobacco Free of Duty.—What we want for horticultural uses is a good strong and cheap compound of tobacco, prepared for fumigating all kinds of greenhouses. This we want, free from sulphur and greasy matter. If the Duty-free Tobacco Company would prepare a mixture of Cayenne pepper with grains or rough chopped tobacco, that would improve the quality of the mixture for all purposes, and would destroy all kinds of insects without injuring the revenue. I have not yet found any good and cheap substance for fumigating. Tobacco-paper, if kept too long, becomes useless. I should like to have the opinions of others on this subject, and also to hear what the Duty-free Tobacco Company has to say about it. William Smythe, *The Gardens, Elmham Hall.*

Chimonanthus grandiflorus.—I herewith forward for your inspection a seed vessel of *Chimonanthus grandiflorus*, which has fruited with me during the three last seasons, although the seeds of the past season have not come to perfection, owing perhaps to the ungenial spring. I have one fruit much larger than the one sent, which I have not opened. I have never observed fruit upon the *Chimonanthus praecox*, although I have been acquainted with it for the last ten years. Rustic, *West Kent.*

Foreign Correspondence.

WASHINGTON PARK, BROOKLYN.—This is only about 30 acres in extent, and, therefore, scarcely deserves the name of a park; it is in reality what may be termed an open town space or public square, and it is on that account that I am anxious to direct special attention to it. It was once called "Fort Greene," a location in the very heart of the city, and it is for the most part elevated above the adjoining land. The rise in parts is, indeed, so considerable, that the surrounding buildings are overlooked, and interesting views are commanded, extending far up the East river, and down what is called the lower bay, bringing their ever varying scenic incidents almost within the limits of the park. An invigorating sea breeze is wafted in from the waters, which is most captivating to all who seek the higher level of the "Greene" on a warm summer's day. Owing to the advantage thus offered of fine prospect and pure air, combined with extended and varied

character of surface, the ground, out of which the park has been formed, has received a more complete and interesting arrangement of accommodations for popular recreation than can often be attempted in public squares of large towns. The chief requisites sought to be obtained were ornamental grounds in connection with convenience for public meetings, or for other incidental purposes which bring together large crowds—requirements essentially dissimilar and difficult to incorporate in grounds of limited extent intended for popular resort. This desideratum has, however, been accomplished, and that too, in a very satisfactory manner. For refreshing purity of air and beauty of prospect, the central part of the grounds is the best, and that portion has been chosen for floral decoration, while the lowest ground has been devoted to public assemblage accommodation, a space being left there sufficiently large to afford easy standing room for 30,000 persons. This ground is paved, and is provided in the centre with a "rostrum" for public speakers. It also offers a convenient site for concerts, and it is sometimes used as a drill ground. The whole space can be brilliantly lighted, and while the park, properly so called, is fenced round, so as to be closed at night, this is left open. The interior of the enclosure immediately opposite the "rostrum" has been the scene of great historical events, and for many years has been used by the citizens of Brooklyn as a place for patriotic demonstrations. A "saluting ground" has, therefore, been formed at this point, and a memorial monument for the "Prison-ship Martyrs" is to be erected at a little distance off, where they are entombed, while, with the intention of securing to visitors an agreeable walk in the immediate vicinity of the square when the gates of the enclosure are shut for the night, the adjoining side walks have been increased in width to 30 feet, and have been ornamented with a double row of trees. Gates are provided at the various angles and in the centre of each side. I may likewise add that special prominence is given to the angular approaches, which have been enlarged and symmetrically planted with trees, so that they may present a more agreeable effect to visitors entering the park than they otherwise would do, and also offer facilities for an easy turn in connection with the exterior side walks.

In the enclosed pleasure ground broad walks are so laid out that the whole space is thoroughly traversed by them, and turned to account. As has been stated, the general surface of the ground is very irregular; but it has been thought desirable to arrange for a nearly level lawn of considerable extent for boys, and for another lawn of about the same dimensions for the use of girls and children. The undulating ground has been somewhat closely planted, and is laid out so as to offer a series of shady walks that have outlooks over open grassy spaces at intervals. About the centre of the park there is to be a Vine-covered walk in the form of a cross, which will serve to furnish protection from the fierce rays of the sun in hot weather. One arm of this shelter connects it with the "saluting ground," another with a refreshment department, and a third with an observatory, while a fourth commands the most interesting view over the city that can be obtained within the limits of the property. Taken altogether this park, when completed, will, considering its size, form one of the finest public pleasure grounds in the gardenesque style anywhere to be found.

How desirable would it be if the centre of London had such an agreeably laid out open space? It is true we could not have the bold natural inequality of ground that is to be found in Washington Park; but by raising mounds artificially, and by means of skillful planting, much might be done to relieve the flat squares of London of their existing uninteresting monotony. Above all, our squares should be thrown open to the public, as is done both in America and France. Outsiders cannot be expected to take interest in them until that is done, and that they would then take a lively interest in them and thoroughly appreciate their beauties, is abundantly proved in the case of Kew Gardens, and in some of our open spaces nearer town, in which the flowers and shrubs receive but trifling injury. "Liberal hands make many friends." Let us hope that some one "in authority" may take the matter earnestly in hand, pull down the unsightly railings, and let the pent-up children of the London poor enjoy a run on the green sward, amid trees and flowers, as they annually do, during the autumn months, in the Temple Gardens. Then, and not till then, will our London squares be a public benefit. *J. Newton, Oxford Terrace, Hyde Park.*

Societies.

EDINBURGH BOTANICAL. Nov. 11.—This was the first meeting of the 34th session. Dr Cleghorn, President, in the chair. The President delivered the opening address, on the Progress and State of Botany in Britain, from which we extract a portion relating to the *Indian Forest Service*. "It is not necessary to go here to allude to the feelings for young men in the department of public service with which I have had the honour to be long connected. With the greatly extended forest operations which the formation of railways necessitated, the want of trained assistants was much felt, and the Secretary of State for India resolved, in 1868, to send out a few youths, properly trained, for service in the forests of India. The first detachment of assistants, after two years and ten months' education, chiefly on the Continent, have sailed for the East, a second party are now in the forests, and a third will undergo the preliminary examination next month. Much has been written in the *Gardener's Chronicle* and other periodicals, with reference to these appointments; and as much misapprehension exists, it seems desirable to give the facts in regard to the object of the present arrangement. In Britain, while arboriculture is conducted with the greatest skill and success, and the finest specimens of ornamental trees and artificial plantings may be seen, there is a comparatively small area of wood cultivated as a crop, and that is diminishing rapidly every year, of the wood grown for ornament or game, there is a much greater extent. It is humbling

for a Scotchman to confess that there is no school of forestry in this country where the different branches of study can be mastered. It is to be hoped that by the joint action of the Highland Society and the Scottish Arboricultural Society an organised system of instruction may be set on foot. In Germany, the system of forest science and management is most elaborate and carefully arranged. The works of Hartig, Burckhardt, &c., all published under Government auspices, show the importance attached to forestry in a country where the population depends entirely on wood for fuel. France also has large and well-regulated establishments for the conservancy of State forests. The chief training school is the Ecole Impériale Forestière at Nancy, an excellent institution; and in the immediate neighbourhood are very extensive tracts of natural forest, where the different branches of study can be mastered. Four youths are now under training in Prussia and four in France, and they are to finish their education by spending some time with a practical forester in Scotland. The experiment now being tried is of great importance, and I doubt not such alteration will be made as seems expedient. The object is to secure the largest amount of theoretical knowledge and practical training combined. It will be admitted that the youths would be imperfectly prepared for their duty in India if they had not an opportunity of seeing the timber slices of the Austrian and Bavarian mountains, the valuation surveys, economical manufacture of tar and charcoal, and the collection of various articles of forest produce. In Britain, from the force of circumstances, the forests are very small, and the system of management, though sound and suitable on the small scale, is less adapted for the vast forests of India. With regard to the development of the botanical resources of India, I may notice that the Cinchona plantations in Bengal now cover 1000 acres, and those in Madras are considerably more extensive. Vigorous efforts are also made to introduce *Cephaelis Ipecacuanha* on the same principle, and so far as it is possible to obtain a sufficient stock of plants from the botanic gardens and scientific nurseries of Britain, without a special mission to the Organ Mountains, this has been done. Dr Anderson Lopes, on his return to India, to take out sixty plants obtained in Europe. This introduction has been forced on Government by the new views in the medical treatment of dysentery, and the greatly increased price of the drug, which now sells at 9s. per lb. Some of the skilled Cinchona gardeners, set free in consequence of the completion of operations, are available for the charge of cotton farms, instituted by Government in various suitable districts." The following communications were read:—I. *On Equations to the Curved Outlines of the Leaves of Plants.* By Mr. Wm. Mitchell.—II. *Supplementary Notes on the Indian Flora of Greenland.* By W. Lauder Lindsay, M.D., F.L.S., F.R.S.E.—III. *On Dr. Sims' Arrangement of the Hepatice.* By Benjamin Carrington, M.D.—IV. *Miscellaneous Communications.* Professor Dickson, Glasgow, made some remarks regarding the formation of the fruit of *Rhipiphorus* wasps, and exhibited preserved specimens. He stated that Mr Sadler and he had paid a visit to Tsumungamo last month, where they found the plant fruting in the greatest profusion on the shore. Dr Dickson also exhibited a flower of *Tropaeolum* (Indian Creeper) having two spurs. Mr. Geric exhibited cones of *Picea cephalota* and *Cupressus Lambertiana*, produced at St. Fort, Fifeshire. Duncan Forbes, Esq., presented cones of *Picea cephalota*, taken from a tree at Culloden House, 15 feet 8 inches high. Mr Fowler, of Castle Kennedy, sent cones of *Picea Fendleri*, P. Webbiana, and *Abies orientalis*, produced there. Mr Bissett presented cones of *Picea cephalota*, produced at Moncrieffe, Perthshire. Mr. McNab exhibited cones of *Picea Nordmanniana* from the Cambridge Botanic Garden. Professor Christison presented the fruit of a species of *Strophanthus*, which yields an arrow-poison used by the African natives on the Shire.

ENTOMOLOGICAL. Nov. 15.—Mr. H. W. Bates, president, in the chair. Mr. Edwin Deane, of Hartlepool, sent for exhibition a large number of *Ichneumon* specimens, and at town, which Mr. F. Smith stated was identical with specimens of a *Ichneumon* species in the British Museum from North Bengal. Mr. F. Smith exhibited specimens illustrating the economy of *Rhipiphorus paradoxus*, which resides as a parasite in the nests of the common wasp, in opposition to the views contained in Mr. Murray's paper on this insect in the last number of the "Annals of Natural History." These specimens had been collected by the late Mr Stone, and distinctly showed the parasitic larva with its head immersed in the soft body of the wasp-grub, which was sucked dry in the course of 48 hours. In one instance a pupa of *Rhipiphorus* and one of the wasp had been found in a single cell, but both were stunted in size, and Mr Smith mentioned instances in which a parasitic larva had not succeeded in killing its victim. Professor Westwood cited the Rev. Iansdown Guilding's observations on *Horia* to the same effect. Mr Pascoe exhibited a number of new species of Australian Heterocerous beetles, including a species of *Holeus*, covered with a white secretion, which had been considered to be a Fungus growing on the insect during its lifetime. Mr Wallace, however, considered it highly doubtful whether the secretion was really vegetable and not of an animal nature. Mr Briggs exhibited *Deloipea pulchella*, taken on Oct. 1st at Fokestone, and Mr. Dairy, a number of beautifully preserved Lepidoptera larvae. Mr A. Miller made some observations on the peculiar scent emitted by *Cynips ligulella* and another taken by Mr. Salvin read a paper on *Clotilia*, a genus of beautiful American butterflies, of which he exhibited six species. Mr Bates read a paper containing descriptions of new species of Lamellicorn and Longicorn Beetles, collected at Chontales, in Nicaragua, by Messrs. Belt and Janson, and Mr. Baly sent a memoir containing descriptions of new genera and species of Hymenoptera, chiefly from the East India and South America. Mr. Herne and the Secretary communicated various observations on the great swarms of Syrphids observed by them on the southern and eastern coasts of England during the past autumn, and which were almost unanimously regarded by the members present as having been reared in this country, and not blown across the sea from abroad, the vast swarms of Aphides previously observed being sufficient to account for the extraordinary numbers of these aphidivorous flies.

Notices of Books.

Dottings on the Roadside in Panama, Nicaragua, and Mosquito. By Bedford Pim, Captain, R.N., and Berthold Seemann, Ph.D., F.L.S., F.R.G.S., &c. London: Chapman & Hall. 1869. Pp. 469. "On April 4, just when the morning star had announced that dawn of day was nigh, two solitary horsemen on muleback might have been seen slowly wending their way through the suburbs of Leon, and their Cactus and Pine-apple fences. It was yet too dark to distinguish their expression of countenance, but judging from their conversation, and the snatches of tunes one of them was whistling, they were evidently pleased." We seem to have read something very like this before, probably in one of our old friend Mr. G. P. R. James's novels; but in this true history one of the

travellers, no doubt the whistler, was Dr. Seemann and the other was Mr. John Holman, a mining captain of great experience, and who had bound east from the Pacific coast for the purpose of order to ascertain the value of certain mines, and to be, to purchase the best of them. In the latter part of (March to July, 1866) devoted to this purpose, our two travellers explored the districts on the Pacific side of Nicaragua pretty thoroughly, though somewhat disappointed with most of the places visited, they succeeded in purchasing for the gold and silver mine of Javali in the Chontales.

Javali itself is about midway between the Pacific river, which flows into the Atlantic at a place of the same name. The nearest town is Libertad, derived its name from a grog-shop where the man had liberty to do pretty much as he liked. The forest stretches away in an unbroken line to the place, and in its centre is the very productive mine.

Dr. Seemann has long ago earned his name as an investigator, but it is very evident from the way he still travels with his eyes open. His observations or jottings are certainly fascinating reading, and all going on around him, and knows the value of what he sees; added to this he possesses a store of facts collected in most parts of the world, and the power of putting his ideas into words in a clear and pleasant, if somewhat abrupt style. Not a botanist eclipsed by the practical man; quite the contrary, for when on Peza Blanca the highest peak in Chontales, he found that many of the plants had been destroyed by fire, he tells us that "a man who had kindled the flame was with me, and somewhat astonished when, instead of receiving qualified praise for having cleared the view, it was fortunate, standing as we did on the yawning precipice, that the enraged botanist was somewhat mollified by my appreciative fine landscape which he had, as it were, unriddled."

There are many notes scattered throughout of the volume on the character of the vegetation of various districts, and on individual new or rare plants some of which have been already quoted in a journal. At Leon the yards or patios in the low houses "are in some instances nearly as gardens, where one finds a few Plantain, Orange, granate, Soursop and Mango trees, as well as Cockscombs, Gomphrenas, Frangipania, Jess and Polianthes tuberosa; highly-scented flowers being to be those most cultivated." In the Chontales gold region many plants with variegated leaves observed. "There are some fine species of *Cissampelos* (including besides the well-known *C. zeylanica* several new ones); two beautiful species of *Cissua*, one with bright scarlet flowers (introduced by me into English gardens), and several *Mimosa* and *Aroides*. But the finest of these is the one named *Cyrtodeira chontalensis*, a non-vascular plant (See *Gardener's Chronicle*, p. 655, 1867).

Our author's views with reference to popular science are worth notice, and may be gathered from the following. He says: "Make it a point of popular scientific writings to have your facts correct, and you need not, in my opinion, be aware of whatever form you may choose to employ in them before those whom you have undertaken to instruct." Whilst we heartily recognise the value of truth in this sentence, we must enter a protest against its furthest application. No one can convey sound scientific information in non-technical language better than Dr. Seemann, when he tries to do it. Though one may not follow him in some of his rather bold conclusions, one cannot fail to be struck with the ease with which in ordinary conversations the discussions on pile-buildings, on the extinction of races, on the native country of the Cornut, and on the similarity in character of the rocks in the north of England and in Chiriquiare. This sort of writing is natural to him, and is such a merely popular naturalist could pen. But what Dr. Seemann labours to be over-condescending to the scientific mind, the result is far less satisfactory than shown in the story of the Mistletoe and the Apple in which the elaborate verbal machinery is altogether out of proportion to the somewhat unscientific result attained.

We should not be giving a fair view of the matter under notice were we to omit its humorous parts many parts are very amusing. What is better than the following "petition" of a new country from Jamaica, unfortunately in the character of Panama:—"My dear Gentlemen.—I have just put my Pen in hand to address you in these few lines, hoping when it reaches your hand it may have just it leaves me at present, Sir, and I have just put in favour if you could let me have something if you please for I am a Poor Stranger and I have got No Person to give nothing at all, Sir, or I am in the Chain Gang, for I for stealin, for the Holy Bible says in the 15th Chapter of Exydos Honesty is the best of Policies." Can you be surprised at hearing that the request of this interesting convict was complied with? A very following religious tale evidently loses nothing in telling:—"Whilst at breakfast in a small village, a man of the place came into the house, and stood steadily gazing at me for some time, rather startled by the information that his brother was in Panama. All I could do was to assure him that I was very sorry to hear it. But couldn't you do anything to get him out of it? he asked. I don't think that I have any direct influence in that quarter, was my reply. You have, the stranger assured me; I am going to the masses said for his soul, and should feel obliged to

your giving a few reals towards paying the cost." Of course as before, the ingenuity of the beggar was rewarded though the donor was afterwards of opinion that he had only relieved a thirsty soul.

But we must pass on to the remainder of the book. Captain Pim and Dr Seemann are old shipmates, and therefore understand one another, so that when the latter lays down his pen at the end of p. 208, the Captain starts off on a new tack on the next page, and continues in the volume. He is so well known in connection with the development of Central America that it is scarcely necessary to say that his chapters are full of information, and show how completely he has mastered the whole subject. It is chiefly the Mosquito coast that is treated of here, and especial attention is drawn to the various political events which have occurred in connection with Grey Town and Bluefields. Captain Pim, who writes with all the humour and blunt honesty of a sailor, is no admirer of United States policy, as shown in the application of the Monroe doctrine to Mosquito, which is under British protection; nor does he look upon the "irrepressible conflict" as an interesting creature, equal with, if not superior to, the white races, to be indulged to the utmost on every opportunity.

Our author's valuable and suggestive work "Gate of the Pacific," was published in 1857. Since that date he has been four times into Nicaragua, constantly endeavouring to gain up the country, and establish overland routes from sea to sea, and in spite of all the disappointments he has had to endure, his writings show how enthusiastic he still remains in his favourite project.

Perhaps the most interesting portion of Captain Pim's part of the "Dottings" is that devoted to the King of Mosquito. This monarch, however little known to European sovereigns, is, if the Captain's account is not tinged with the flattery usually tendered to royalty, well worthy of his rank. He is very anxious to improve his country by every means in his power, and especially by the cultivation of English relations. A rather singular feature in his character is a melancholy, produced by the conviction that he is the last of his race, and by the spectacle of the evident though gradual extinction of his people. It is the same in Mosquito as in all other countries where races are in contact, the old nation is dying out, slowly but surely, and here, as elsewhere, the immediate cause of extinction, from whatever this may result, is the fact that sterility constantly increases. In Mosquito, we are told, that a birth is now a very rare event among the Indians. The ugly spot in the king's character is his partiality to the bottle, but he showed a self-control in this respect, remarkable in one of his race, during the whole period of his cruise in H.M.S. Gorgon. Captain Pim having represented to him the bad example which would be set to the crew by one of his extra officers giving way to habits of excess.

We have dwelt at such length on this book to show its varied nature; and can only allude to Captain Pim's account of a 45 hours' cruise in a canoe up the Bluefields river, by which he determined with certainty that it was navigable for 65 miles from its mouth—and to Dr Seemann's very well-digested and instructive historical sketch of the rise of the bucanneers, and their invasion and destruction of Old Panama. In connection with the latter we may also draw attention to the extensive list of books and papers, arranged in chronological order, relating to Central America, which must be of very great service to all interested in the chequered history of those countries.

If the book is somewhat loosely put together, or the matter not very satisfactorily arranged, still we must remember that it does not profess to be more than a collection of "dottings." We have no hesitation in recommending it to our readers as a book containing an immense amount of accurate information on the history, topography, ethnology, and natural productions of a little known part of the world, conveyed in so amusing a style that we fancy few persons will commence reading it without finishing the volume.

Florists' Flowers.

The simplest way of getting up a stock of TREE or PERPETUAL CARNATIONS is the following:—Place the stock plants in a gentle heat at once. Take off the cuttings early in February, and put them in around the edges of 60-sized pots, in equal parts of loam, leaf-mould, and sand; then water well, and plunge in a gentle bottom-heat, taking care it is not too damp. When they are rooted, pot them off singly in 3-inch pots, and replace them in heat until they are well established, after which harden off gradually, and place in a cold frame until April. At that time, if the weather permits, plant them out on a piece of open ground, which has been well dressed with soot, dung, and lime, and trenched from 2 to 3 feet deep. Place a 4-foot stick to each plant, and keep it regularly tied up so that the winds and rains do not break it. By the middle of September it will be in a fit state to pot into a 6 or 7 inch pot, as the case may be. After potting the plants must have a good watering, and be placed in a shady place for a fortnight, being also syringed overhead twice a day in bright weather.

By the time the plants are again established, place them in the sun on a bed of ashes or boards. As soon as the autumn rains come on, get them under cover at once, but give them plenty of air. They should at once commence flowering, and continue all through the winter or spring months, if assisted with a little fire-heat and liquid manure, which latter, when they are well established, they may have once a week. They will delight in being plunged in sweet dung, so as to keep the roots cool, and will root through the bottom of the pot, and over the top. Occasionally dissolve 1 oz. of ammonia (carbonate) in a gallon of water, and water with this solution. If the plants are in a healthy

state the feathery roots may be seen on the surface in the course of a few days, after each watering with the ammonia.

I hope to be able to give you the names of a number of other varieties—English, Continental, and American—in case they prove good for anything. The best lot of seedlings that has yet come under my notice belong to a private gentleman at Arundel, who declines to circulate them in the trade, but who gives to his friends with a very liberal hand. Most people who have travelled between Arundel and Worthing, at any time within the last 12 months, must have noticed the floral display in the windows and gardens at Cross Bush. W. Howard, Barchin.

MR SALTER'S CHRYSANTHEMUMS. We supplement the remarks made at p. 1187 by the following notes on some of the novelties which have blossomed since our previous visit, among which occur some remarkably showy and novel forms. Taking the new Japanese varieties first, one of the most strikingly distinct is named Colonel Hemery. In this variety the flower-heads form a semiglobular open mass of straight, stiff, long, narrow, strap-shaped florets, and being of a deep golden-yellow colour, they are exceedingly showy. Another, named Sol, is of similar form, but of a paler hue. Greater variety is shown in the two varieties which are of the more ordinary form. Of the Japanese variety with curled florets, the Chinese variety is the most distinct, with very long and peculiar large flower-heads, and a decided improvement on the older sorts. Helen McGregor is also an advance on the varieties previously obtained, its colour being a rich deep chestnut-red, and its flower-heads very full and fringe-like. Gibrissa is another fine large sort, with the flower-heads formed of long loose florets, forming a flattish head, yellow slightly tinted with red in some stages, but eventually becoming almost entirely yellow. To another style of flower belong the two following, which are decided acquisitions, in them the florets are tubular at the base but split open at the upper end, and they form large, loose, and highly characteristic flower heads. Their names are Meg Merriles, a bold-flowered white, somewhat yellowish in the centre, and Rob Roy, very distinct as to colour, the tubular portion of the florets being of a dull purplish red, and the flattened expanded parts, which show the inner surface, of a pale amber or buff—very nearly, in fact, the colours prevalent in the wild Honeysuckle.

We have also to notice two additions to the new Chinese varieties—Beauty of Stoke, a large incurved flower of a pale yellow hue, suffused with a tint of red, which becomes more pronounced in age; and Meyerbeer, a medium-sized variety of a pale rosy tint, lighter towards the centre, and remarkable for the breadth of its neatly incurved florets. Virginals is a good addition of the present season, to the group of large white Anemone-flowered sorts.

Another very interesting plant now blooming with Mr Salter, is the variegated-leaved Sweet Violet. Its distinctly white-edged leaves, and deep purple flowers, are well-contrasted and pleasing.

Garden Memoranda.

MESSRS. E. G. HENDERSON & SON'S, WELINGTON ROAD, ST JOHN'S WOOD.—This is one of the principal emporiums for novelties in the metropolis; and especially so in regard to bedding plants, of whatever kind they may consist. It may also faithfully be said to be, not the birthplace of, but the "nursery" from which the pioneers of that now universally admired class of ornamental-foliage Pelargoniums were first introduced to our gardens, where, by their markings and colour they lend a charm which is justly appreciated by all who possess a taste for floriculture.

During the summer months Messrs Henderson's trial grounds are well worthy a visit, for here are to be seen the newest candidates for bedding-out honours, grown side by side with their more established rivals. Unfortunately our visit was made somewhat late in the season, for already many of the choicest plants had been cut up for stock. Amongst golden-foliated plants, the Puchsia has been making perhaps slow, but steady progress in making its way into the summer borders. Already several good novelties in this way have appeared; and, in some new varieties which Messrs Henderson possess, still further improvement is perceptible: of these three new varieties, named Golden Treasure, Golden Mantle, and Crown of Jewels, are not yet sent out. The former is a prostrate-growing kind, with beautiful yellowish foliage and good habit. Golden Mantle produces exceedingly fine large golden-foliated leaves, and in colour is much superior to the variety known as Crown of Jewels, sent out by this firm in 1867. Crown of Jewels is the dwarfest, or more prostrate growing form. The young growing points of the shoots are of a rich ruby colour, and as they get older they become golden coloured, making the plant somewhat suggestive of clusters of rubies on Cloth of Gold, one of the earlier breaks in this form. As seen in a small group, this variety produced an effect which is equalled by few other plants.

A comparatively new feature in bedding out, and one which is greatly rising in estimation, is the "carpet bedding," a system which seems to be much appreciated by Mr Gibson, who adorns the nooks and corners at Battersea Park in this fashion. Of plants suitable for this purpose there is here a fine collection, including also many of the choicest gems of the alpine flora, and a good selection of herbaceous border plants. Amongst the latter we noticed a dwarf free-growing form of Antirrhinum, named Tom Thumb, with orange-yellow flowers. This is a welcome addition to a pretty class of autumn flowering plants which are easily propagated by cuttings, and thrive in any good garden soil. The variety Tom Thumb, when planted out, and its roots established, should have the centre shoot

picked out, which makes the plant become dwarf and bushy, and greatly improves its appearance when flowering, which it does freely. *Cineraria scanthifolia*, a compact growing variety, is a fair substitute for the *Centaurea*, which it surpasses for ribbon borders, on account of its uniform and regular growth and its neat appearance. For growing in pots for conservatory decoration in autumn and winter, it is one of the most useful subjects of its kind. *Centaurea tenuis* compacta is a dwarf and compact growing variety, with fine silvery foliage. *Gnaphalium tomentosum* a small close-growing silvery-leaved plant, was here planted in an oblong round ceramic bed of Mrs Pim's, producing a distinct effect. A good feature in this plant is, that when planted out it can be kept to any moderate height by pinching, without backing for staff. *Acrocarpa Andersoni* was also doing well. Of this plant I may be remarked that it succeeds a variety when planted in a similar manner to Box. Another very dwarf silvery-foliated plant, more suitable for carpet bedding than for edging, is the *Achillea umbellata*.

We also remarked a fine variety of yellow Pansy, named Golden Bedder, a dwarf compact grower and profuse bloomer; a good variety for associating with the Imperial Blue. Though there are several good yellow Pansies mentioned as possible successors to the *Golden Bedder*, we saw none which we considered worth the notice of the *Golden Bedder*. It does not do well in the conservatory, but in the open air it does well. It is a good variety for ribbon borders. Of perpetual flowering Pansies there are here two good varieties, named Rose of England and Plato, the former a belted, and the latter a self-coloured rosy flower, both of which are said to flower more or less for nearly the whole year. Also a reddish-striped winter flowering Carnation named Atlanta.

Amongst early plants were fine little specimens of *Cryptomeria japonica*, a much neglected graceful-foliated Conifer, that is perfectly hardy, a golden variegated variety of Chinese Privet, which is very beautiful planted en masse. *Genista prostrata*, a capital subject for rockwork, and also for hanging baskets; *Hydrangea paniculata grandiflora*, a fine large free-flowering variety introduced about three years ago, but since almost lost sight of, until a specimen appeared at one of the autumn meetings of the Floral Committee, where its merits were judged worthy of a First-class Certificate. It is not a particularly quick grower, but it possesses the desirable qualities of hardiness and adaptability for forcing. In a collection of hardy Ferns was a specimen of *Polystichum lonchitis*, obtained from Donegal, and growing very freely here; this is said to be more free in growth than the Scotch form of the same species.

The houses are numerous, and are built on economical principles, being for the most part span-roofed structures on walls but little raised above the ground, and with a sunk path down the centre. In the manner stages are disposed with, and the plants are well exposed to the light. We noticed one house entirely filled with *Caladiums* of almost all forms and shades of colour. This class of plants, though requiring plenty of heat and moisture for its successful growth, is nevertheless admirably adapted for grouping with other plants in warm greenhouses, where the bold, varied, beautifully coloured foliage is greatly admired in summer when really good flowering plants are at a discount. In a comparatively cool damp house, containing principally *Cattleyas*, were several specimens of *Dendrobium Falconeri*, thriving and looking remarkably well, and the rare and beautiful *Cattleya Dowiana*, with numerous fine flowers. In another house was a very handsome variety of *Oncidium Papilio*, and a large specimen of the magnificent *Gloriosa superba* in full bloom. It is thought that this latter is a variety, being stronger and robuster in growth than the species in question is generally seen. *Cobaea penduliflora* is very distinct, having dark green foliage, and producing bell-shaped flowers, with long, wavy, greenish-white segments. Another plant of which little is known in this country is a species of *Napatorium*, named *gracile odoratum*, which forces well, and comes into flower about Christmas, producing sweet-scented white flowers. It is said to be largely grown in America for cut flowers, and is in much demand for wedding bouquets.

Miscellaneous.

A Fruit and Flower Fair.—They are blowing for button-holes all the year round, and the hunting men now wear yellow ones in their scarlet coats, with a background of Neapolitan Violets. From February to August from 1866 to 1869 yellow Roses are sent up per week by the first train in the morning to the establishment at Knightsbridge, for the button-holes and bouquets of the day. The yellow Roses are eight months in flower, and four at rest. Their three principal varieties are Madame Falcoo, a deep copper yellow; Isabel Sprunt, which is perhaps the *prima donna*, with its lovely pale straw colour; and Marshal Niel, "a fat flower," of a rather more decided yellow. The button-hole business has increased immensely during the last two or three years, and as *a la Russe* dinners have rather gone out, the flower has become far more profitable than the fruit trade. Bridal bouquets have the pure white *Garland* to encircle the Orange blossom, *Stephanotis* (which is in bloom for eight months next to it for the general groundwork, and the *Hedera japonica*, which is a feathery appearance, which looks up the *Stephanotis* white *Harvard* which is like variety, white Or-holes, with three *Stephanotis*, and fairy rosebuds set on silver *Stephanotis* being backed up with Fern and Myrtle. At Mrs Henderson's are employed in the composition of Court bouquets, and the place of the Orange blossom is often taken by a *Camellia*. For general business there is also a run on

the *Eucharis amazonica*, *Stephanotis*, *Jasmines*, *Carnations*, *Picotees*, *Neapolitan Violets*, *Anthurium Scherzerianum*, *Orchids*, *Camellias*, *Heaths*, *Lilies of the Valley*, *Myosotis*, and *double Pelargonium*. Perhaps no flower does more service than the *Bouvardia*, the white for bouquets, and the red for button-holes. The *Anthurium Scherzerianum* is a very favourite crimson, with a horn like a shepherd's crook from the centre: as the flower fades the horn grows larger and hardens, and becomes the pouch for the seed. Maiden-hair, with its minute black stems, comes well into a bouquet, and the *Amazonian Lily* (*Eucharis*) is first favourite for ladies' back hair, along with flowers and Ferns. We found a plant of it in one of the houses, with fifteen spikes and seven flowers on a spike. When it is rifled of these treasures it will rest till Christmas, and then take the place of white *Camellias*, and with rest it will flower three times a year. The *Italian Tuberoses* last for five months, and afford a nice autumn white flower; and *Forget-me-Not*, blue *Hyacinth*, and dark *Myosotis* have a heavy run on them when the Oxford and Cambridge boat race comes round. *Thujopsis borealis alba* takes its part among the white division all the summer, and in winter the "Ascot yellow" *Picotee* flourishes bravely. The City folks generally wear a small flower or single bloom in their button-hole, whereas the West-enders like one much larger. *The Gentleman's Magazine*.

The Tyranny of Gardeners.—In an article relating to the Royal Horticultural Society's Fungus meeting, which appeared in the *Echo* shortly afterwards, the writer thus describes the relationship between gentlemen and their gardeners:—"A gentleman who only knows the few things necessary to obtain a double first at Oxford, or perhaps to take a share in the government of this little State, indulges himself in the dream that his leisure hours, few and far between, may be advantageously passed in his own garden, amid the flowers which he loves, albeit he has no time to cherish them himself. Oh, vain delusion! He enters the sacred precincts. Perhaps he is audacious enough to keep a key, and to let himself in without humbly ringing the bell; but once inside the wall, he meets his master. The gardener approaches, courteous, though somewhat stern; and the gentleman rouses himself to make some encouraging remarks and criticisms. Poor fellow! how soon his little light is extinguished! How he is snubbed with *Cinerarias*, and brought up short with *Calceolarias*, and extinguished with *Scolopendras* (!), each and all of them having another long name tacked on to its tail. There is no use in talking about wishing this bed here, and the other there, or pleading for more sweet flowers, or asking what has become of all his old favourites. The despot settles him every time he opens his lips with a mouthful of uncouth syllables, to which it is impossible he can attach any single idea. Then he learns by degrees that gardens are not kept for their ostensible proprietors, but that flowers are grown to be exhibited, so that the gardener may obtain prizes, and three-fourths of the fruit is plucked in the blossom to allow of a few specimens attaining gigantic size and being sent to a horticultural show, to be eventually eaten by the judges."

Peach Palm. The clustered stems of the Peach Palm (*Bactris Gaspaes*) grow to 60, or even 90, feet high, and are thickly armed with long prickles. The numerous curling and drooping leaves rarely exceed 7 feet, and they have from 50 to 60 leaflets on each side, aggregate by threes and fours, and pointing in all directions. The fruits are massed into large pendulous corymbs, and if from their size and vivid colours of yellow and red they may be likened to a well-ripened Peach, in shape they more resemble a hen's egg, although usually rather more conical. The thick, firm flesh is mealy when cooked, something between a Potato and a Chestnut in flavour, and superior to either. A seedless variety is common, but the fruits are much smaller, and contain no more edible matter than those that have a stone (or endocarp) in the centre. *R. Spruce* in "Journal of the Linnean Society."

Garden Operations.

(For the ensuing week.)

PLANT HOUSES.

AMONGST the subjects which will now come in useful to maintain the display of flowers are some of the varieties of the beautiful genus *Amaryllis*. *A. aulica*, which, when grown from seedlings, affords so many shades of scarlet, we have had in bloom some time. The varieties to which I more immediately refer are *A. formosissima* (the *Jacobaea Lily*), *A. splendens*, *A. Brilliant*, and *A. solandraefolia*, &c. To insure fine blooms of either kind, a slight amount of bottom-heat may be afforded. As it does not often occur that the operator has a nice, moderately dry, warm bed of tan for the purpose—beds of fermenting materials being so moist—perhaps the best place for them would be upon a board placed either upon a pipe or a flue or other fixture near them. At this, their flowering period, moderate waterings only should be afforded, and if short, sturdy flower-stalks are required, they must be kept in as much light as can be admitted to them. The lovely *Schizostylis coccinea*, if it was turned out into the border during the summer, and potted up a month ago as advised, will now be blooming freely, and will continue to do so in an open, airy conservatory or greenhouse for some time to come. Keep the two species of *Tropaeolums*—namely, *pentalophyllum* and *speciosum*—if grown in pots, somewhat dry, and so hasten the resting period. Some varieties of the semi-hardy shrubby *Veronicas*—especially *V. Andersoni* fol. var., &c., will also afford a very gay addition to the flowering plants; the only care they require, except occasional waterings, is to keep damp from settling upon their flowers. However severe the weather may become during the

incoming week, be particular not to encourage too high a temperature, which many are very apt to do when they have fires in full work. I have frequently urged the desirability of covering up all houses during severe frosty periods with mats, or any other materials which may be at hand. It is astonishing the amount of both labour and anxiety which is saved by this simple process, especially to the amateur, who may have many other things to attract his attention apart from gardening. Besides saving fuel, it is far better for the health of the plants. Should the frost at any time—and the wonder is that this is not more frequently the case—take hold of the inmates of any structure, the only remedy which the amateur has is to increase the internal artificial heat at the earliest possible moment, watching the thermometer in its upward tendency until the freezing-point is reached, when between which point, *i. e.*, 32°, and the next degree, 33°, let every plant be copiously syringed with cold water over all the frozen parts. This being done, shade them well from the sun, and do not allow the temperature to be raised for the rest of the day above 44° or 45°. Air should be given sufficient to dry up the excess of water which has been expended. Let the temperature of all greenhouses proper be now reduced to as near a mean of 40 as possible by artificial means only. Of course an upward tendency of some 8° to 10° must at all times be admitted from sun-heat, wholly apart from any aid by artificial heating.

FORCING HOUSES.

Those *Vineries* which are in preparation for starting between the present time and the last week of this month, may now have the necessary amount of fermenting materials placed on to the outside borders. This will afford a kindly warmth by the time it is wanted. To delay this operation until the inside is being started is, to say the least, a mistaken idea. Be careful not to let those Vines which are actually growing have a night temperature exceeding a mean of 57° by night, and 61° or 62° by day, if severe weather supervene, and much forced heat is necessary to maintain such a maximum. Those persons who may be just starting their vineries should not allow the temperature to exceed a mean of 50° by night, and 55° by day; this, with frequent moistenings until such time as foliage is produced, when a somewhat modified humid regimen will have to be adopted. In regard to *Pines* it will be necessary, should severe weather exist during this month, to keep the night temperature down to as near 60° as possible. Be particular to use mats as protective coverings to all *Pine-pits*, &c., where practicable, for the reasons given above. Give as much air as possible to all *Peach* and *Nectarine trees* which may be in flower, and have recourse to artificial fertilisation. Do not force *Cherries* too quickly at first, but by beginning as low as from 44° to 46°, bring the bloom buds forth very gently, so that as much strength as possible may be given to each bloom. Those *Strawberry plants* which were introduced into cool pits or vineries a few weeks ago, may now, if early forcing is intended, have the pots plunged into bottom-heat of from 68° to 70°. Keep the tops or crowns cool for a week or longer, so that the roots may have a good start.

HARDY FRUIT GARDEN.

Bush fruits, such as *Gooseberries*, *Currants*, &c. must now be watched to see that the birds do not destroy the buds. Independently of bullfinches and blackcaps, I have known sparrows to strip the buds from both Red and White Currants at a dull, hard period. To prevent this, few things are better than to twist a few reels of white cotton conspicuously around the branches.

HARDY FLOWER GARDEN.

In continuation of my previous remarks upon *Hardy Climbing Plants*, I will now allude to such evergreens as are used to embellish walls and vacant spaces, with less rambling growth than those previously referred to, and amongst which the best variety of *Magnolia grandiflora* stands pre-eminent. *Escallonia macrantha* is another very beautiful glossy-leaved evergreen, bearing a profusion of red flowers; both these plants require the protection of a mat or two in winter. *Cotoneaster Simonsii* is a very neat foliaged plant, with bright red berries; next to which, *C. uva-ursi* is commendable for the size of its leaves. The red *Pyracantha* (*Crataegus Pyracantha*) has the peculiar merit of retaining its clusters of scarlet berries through the winter—that is, if not consumed by birds, who like them much. There also exists a white-fruited variety. Two or three of the well-known *Berberis*, if well trained, make very pretty objects for walls and the like, especially such as *B. Darwinii*. The large-leaved *Mahonia* (*B. macrophylla*), the Japanese evergreen varieties, *B. japonica*, as well as *B. dulcis*, &c., are all pretty. *Chimonanthus fragrans*, though leafless, produces very fragrant blooms at a season when they are very acceptable. *Forsythia viridissima* will afford a very pleasing variety, whilst *Jasmenum nudiflorum* endures the winter through with its plentiful yellow flowers. The Box-leaved and the azurean varieties of *Ceanothus* from Mexico are now seldom to be met with, though they do well against south walls. I would just enumerate, by the way, *Lonicera aureo-reticulata*, *Aristolochia Siphon*, a fine large-leaved plant for summer display alone, especially if trained upon poles or attached to verandahs; also *Dioscorea Batatas*, for a like purpose; the Parsley-leaved *Bramble*, and to those who would not grumble at a good 5s. worth, I may mention that there is a new Japanese variety of the *Virginian Creeper*, which is rather more compact in habit, with more colour than the old one. Then for minor fretwork, such as for small screens to embellish the base of aviaries, for fire-screens, window-sills, and every place where a healthy, thriving, minute creeper is a desideratum,

there is *Veitch's* miniature-foliaged *Virginian Creeper* (*Ampelopsis tricuspidata Veitchii*), a perfect gem in every way. I have not exhausted the list, but will now close—last, though not least—to the recent acquisition of the way of *Clematises*. From *C. Flammula*, the smallest and also the sweetest, up to *C. Thomas Moore*, the largest, there is every shade of colouring which the most fastidious could wish for; whilst as a double-flowered variety, the azure blue *C. John Gould Veitch*, should find a place in every garden. I must leave other subjects of more growth, such as shrubs, both deciduous and evergreen, for a future time.

KITCHEN GARDEN.

Continue to collect and store fallen leaves, and place any fresh soils upon beds or borders, as it is intended to renovate any this winter. Get a fortnight's supply of *Jerusalem Artichokes*, *Pumpkins*, *Horse Radish*, and all other things which are obtained during severe weather. *W. E.*

TOWN GARDENING.

THOUGH the *Chrysanthemum* is a toady plant, I have known a long and hard winter in many plants; therefore I advise that they be taken up, and laid in by the heels in rows, kept sort separate. They can then be easily covered and protected from frost. The borders will then be ready for a winter fallow, which is of great importance. It will also be advisable, where *Hyacinths* and other bulbs are planted in beds, to cover them with a layer of cocoa-nut fibre or tan 2 or 3 inches deep. During heavy showers of rain or snow a covering of mats should be superadded. In February, if the frost breaks, the covering should be nearly all removed with the hands as carefully as possible, so as not to injure the long and slender, and incapable of supporting the flowers. After this they should be protected from heavy rain and frost by mats thrown over hoops placed away in the dark should now be brought to light, and a few more firm roots placed away, as directed at p. 972. This will aid in keeping up a succession as they come into bloom in the open air. *J. D.*

STATE OF THE WEATHER AT CHISWICK, NEAR LONDON For the Week ending Dec. 8, 1889, as observed at the Horticultural Gardens.

Dec	Moon & A.S.P.	BAROMETR.		TEMPERATURE				
		Max	Min	Of the Air			Of the Earth	
Thurs	2	29.958	29.896	34	17	25.5	41	41
Friday	3	29.826	29.814	34	29	33.5	40	4
Satur.	4	30.213	30.21	48	26	37.4	4	40
Sunday	5	30.320	30.193	42	35	39.0	40	39
Mon.	6	30.304	30.151	39	33	37.0	41	40
Tues.	7	29.161	29.016	41	35	38.0	44	40
Wed.	8	29.087	29.931	43	36	39.5	41	40
Average		30.071	29.945	40.7	30.5	35.8	40.7	40.1

Dec 2—Overcast, sharp frost, dense fog & drizzle.
 3—Sharp frost, very fine, clear in cold at night.
 4—Sheet, gradually overcast, clear and frosty.
 5—Cloudy, overcast, very dull, overcast.
 6—Densely overcast, foggy, heavy, overcast and cold.
 7—Dense fog, density of mist, overcast, cold wind.
 8—Dense fog, overcast, densely overcast.
 Mean temperature of the week, 41.19 deg below the average.

STATE OF THE WEATHER AT CHISWICK, DURING THE LAST 43 YEARS, FOR THE ENSUING WEEK, ENDING DEC. 11, 1889.

December	Average Highest Temp.	Average Lowest Temp.	Mean Temp.	No of Years in which it Returned.	Greatest Quantity of Rain.	Prevalence of Wind	
						N	S
Sunday	48.0	37.0	42.5	19	0.55 in.	3	4
Mon	47.5	36.5	42.0	23	1.16	2	4
Tues.	48.9	34.3	40.6	21	1.26	5	5
Wed.	47.0	33.6	40.3	19	0.34	5	3
Thurs	46.5	31.9	39.2	15	0.31	6	4
Friday	45.9	31.0	38.9	22	0.38	10	3
Satur	45.8	33.7	39.7	20	0.59	6	3

The highest temperature during the above period occurred on the 15th, 1868, therm. 69 deg., and the lowest on the 12th, 1868, therm. 7 deg.

Notices to Correspondents.

ABYSSINIAN MIXTURE F.S. Received, and under trial.
 BOOKS—C.R. Grigor's "Arboriculture" is the most complete and useful of any book we know—C. Lawrence, the "Pomologist," if not too expensive.
 DISEASED ORCHID LEAF G.G. We have never seen anything like the affection on your Orchid leaf. It is not a case of spot, nor does it in the least resemble that disease. Can you give any real cause to account for it, depending on its position in the house? It shall be submitted to the Committee at the next meeting, at South Kensington, on Dec. 11.
 INDIAN FOREST SERVICE—Const. & Rev. Secy. Write to the Secretary at the India Office.
 LOMARIA GIBBA: R.H. There are several well marked forms of this fine dwarf Tree Fern, namely, *dellii*, *major*, *minor*, *zealandica*, &c. The latter, in its aspect, in some degree approaches *Blechnum brasiliense*.
 NAMES OF FRUITS—H.L.H. 1, Suffolk Thorn; 2, Monarch; 3 and 4, Bourré d'Arnhemberg; 5, double Plus Meurle; 7, Glou Morgeant.
 NAMES OF PLANT: J.B. We will ascertain.—If P. *Agrostis squarrosa*. We do not know the work referred to you had better wait for the publication of the coming work by Mr W. Wilson Saunders and Mr. W. Smith.—R.J.B. Your plant is neither *Atriplex* nor *Podium*, but the common *Mercurialis annua*—(the Elm), *Veronica elliptica*.
 OXFORD SHOW. H.J. New arrangements will be made embodying some of your suggestions.
 PICEA PINNATA W. Wildsmith. The specimens have been received. We will exhibit them at the next meeting of the Scientific Committee, on December 21.
 PRUNING FRUIT BUSHES. H.M. Yes; but prune close.
 STRAWBERRY A.M.A. We believe not at present.
 VINE STYPTIC. Channel John Young & Son, Dalkeith. People with goods to sell should advertise them.
 COMMUNICATIONS RECEIVED.—W.F.—J.G.—G.A.H.—J.C.—D.C.—C.L.—Q.R.—G.P.—J.McM.—Sap.—Equine.—A.F.—J.B.—A.W.—P.G.—E.C.—F.S.

OUR LIVE STOCK.

The following measurements of cattle were taken during the past week at Islington. Lord Penrhyn's steer, in the Shorthorn class, not exceeding 3 years and 3 months old, is a noble-looking animal: he girths 8 feet 6 inches, and is 5 feet 4 inches long. In this case the live weight is 20 cwt. 0 qr. 13 lb.; and as he will probably yield about 70 per cent. of beef, his dead weight will not be far off 14 cwt. On the other hand, calculating his weight from measurement and using '28 as the decimal multiplier (see "Ewart's Agriculturist's Assistant"), he ought to weigh 13 1/2 cwt. We measured Mr. Outhwaite's steer (No. 81), the winner of the first place in the class for steers above 3 years and 3 months old. His girth is 8 feet 7 inches, and his length from shoulder to rump 5 feet 6 inches. His live weight is 20 cwt. 1 qr. 6 lb., which, if it yields 70 per cent. of beef, makes his carcase weight to be 113 1/2 stones. Taking the method of calculation from measurement, his weight ought to be 113 1/2 stone. The method used in the above cases in order to calculate the carcase weight is as follows. Square the girth, reducing the inches to decimals of feet, next multiply by the length in feet and decimal parts of a foot, and finally multiply by a number varying from '23, in the case of half fat inferior animals, up to '28, which would only be used in extraordinary cases, such as we are now considering. Among other extraordinary cattle may be mentioned one exhibited by Mr. Scales, of Grantham (No. 95): the girth and length of this animal were respectively 8 feet 10 inches and 5 feet 4 inches, and his live weight is 21 cwt. 3 qr. 14 lb. The fineness of bone in the case of many cattle was very remarkable, especially among the Devons. We noticed one case particularly, that of Mr. Nixey's beautifully level 4-year-old heifer, No. 29 in the catalogue: the bone immediately below the knee of this heifer was smaller than a man's wrist, only measuring 6 inches, and yet this was supporting a weight of above 12 cwt! We hope on a future occasion to be able to give the absolute weights of some of the above-mentioned animals, and also of many others whose measurements were ascertained during the Islington show week.

We have received the following communication from Mr. Willoughby Wood:—"I am happy to tell you that Oxford's Ada brought yesterday a fine rich roan heifer-calf by NORTHERN DUKE (22,431), which does great credit both to his sire and his dam. She has all the marks of high blood, together with a degree of vigour not always exhibited by the possessors of long pedigree."

COST OF STEAM CULTIVATION.

"G. A. H." says, "I observe that Mr. Smith adopts your explanation of the 1s. 6d. per acre for interest of money and wear and tear. . . . I assert that Mr. Smith's own figures prove his declaration to be totally devoid of foundation, that he is in fact deceiving himself, and in deceiving himself he is deceiving the public." And he goes on to say, "What I complain of in Mr. Smith, is that he endeavours to persuade small farmers, having only 100 acres to plough every year, that it will pay them to purchase, for their own use only, a set of steam tackle, and that when they have done so their seed-beds for Wheat will only cost them 6s. 8d. per acre."

I will take the points as they stand. In 1855 I provided myself with a 7-horse engine (cost 200l.), with a windlass, &c (cost 80l.), and with a smasher and a digger and subsoiler, made by my own blacksmith (cost together 18l.—total 298l.). With this engine and apparatus I started in December, 1855, but found the engine, windlass, and anchors all defective. I then altered the engine and windlass, and had made by my own blacksmith a set of new anchors, and got another snatch-block, and afterwards another, at a cost of 33l. This brought my total up to 331l. With the apparatus thus improved I made some further trials, and on November 13, 1856, I wrote thus to the Mark Lane Express:—

"I have since harvest ploughed by steam the whole of my farm except a bit of Wheat stubble left to try an experiment on in the spring, and a bit of Clover ley ploughed by horses. In ploughing my Bean and Pea stubble at a depth of 6 inches I did an average of 5 acres per day, including men, coal, water, and horses for shifting, at an average cost of 5s. 2d. per acre, and in ploughing my Wheat stubble at a depth of 8 inches on the heavy, and 10 inches on the light land, I did an average of 3 acres per day, at an average cost of 8s. 8d. per acre, including men, coal, water, &c. To this must be added interest, and wear and tear—say, 1s. 6d. per acre, which will be the outside, the tackle coming in nearly as good as it went out."

Now this extract does not tell us the quantity of work done in 1856, but my book on steam cultivation does. Here it is:—

Table with 4 columns: Description of work, Field No., Acres, and Days. Rows include Smasher 16 inches deep, Heavy land, Light land, Ridge-ploughing and subsoiling, Heavy land, and Light land.

Therefore the total for the year of the two kinds of work was 65 acres. After completing the work I estimated the fair amount for depreciation and interest that should be charged upon this small quantity of work done, taking into consideration that the engine was employed for threshing, &c.; and besides this, I had sold three horses off for 150l. to make way for the engine. I came to the conclusion that 1s. 6d. per acre would be a fair charge for interest and depre-

ciation, &c. That has been my charge down to this day, and it has never until now been questioned, although it has been regularly published in the Messenger every year when that paper reported my cropping, and that mode of estimating has been adopted and practised by all excepting "G. A. H."

Only the Royal Agricultural Society took two hundred days as a basis when it awarded its 500l. prize at Chester, and it has made similar estimates ever since in the award of its prizes. But let us test the point, and see whether it was fair or not. The work done was 65 acres. The total cost of tackle stood at 331l., from this I must deduct the 150l. for three horses sold off to make way for the engine; this reduced the total, and I must charge the half of the engine to threshing, 100l. These two items together reduced the total to 81l., therefore in December, 1856, there was 4l. 1s. due for interest; 1s. 6d. per acre on 65 acres would over-pay this by 16s. 6d., but 16s. 6d. would not be enough for wear and tear and depreciation, although the tackle went in without any apparent wear and tear; but I have another item to bring in—the saving of the keeping of three horses sold off to make room for the engine, &c.; this, at 25l. each, gives me 75l. Here is enough and to spare. I was not "deceived," for I knew that I was winning. And here is another item of gain that I must bring into consideration—60 quarters of Peas grown upon 12 acres of heavy clay land, that under horse culture would have been dead fallow. Surely I have said enough to show that I did not make an unfair estimate of interest and wear and tear when I fixed it at 1s. 6d. an acre.

Will "G. A. H." tell me again that I am deceived about my 6s. 8d. an acre seed-bed for Wheat, or my 1s. 6d. an acre for interest and wear and tear? The fact is, I had no extra interest to pay, and the 1s. 6d. per acre might all have been placed to wear and tear without using the word interest. I need not go into the question of 100l. for change of engine in 1859, for you see that I had already gained enough to pay it.

I will now state my case again, by taking my starting-point at Michaelmas last, when I entered upon my new occupation, bringing my total arable land up to 163 acres, showing the number and cost of horses, &c., that would have been needed to work it by horses only, and the number and cost of horses, &c., with the cost of an engine and a set of steam tackle to work it upon the Woolston system. I shall fix the cost of a horse with its tackle and implements to work with at 45l.; the cost of an engine at 300l., charging the half of it to threshing; the cost of a set of tackle with a 5-tined smasher and a ridger—the two implements I use—at 266l., the price at which they are offered by the makers to the public, and the cost of the keeping of a horse at 25l.

My 163 acres of arable land consist of 90 acres very heavy clay, hilly, and uneven; in fact, there are five hills upon it, all at points very steep, and 73 acres of what I call light land, but, in fact, not so. It is upon the flat—mixed gravel and clay. Under horse culture, to work the whole 6 inches deep, would need 10 horses; under steam culture, to work it 10 inches deep, I have started off with five. That number will not get half employment throughout the year, but as yet I have a lot of landlord's work to do, and I mean to be well up to the mark for doing all, both tenant's and landlord's, for at least this year. Now, let us look at this picture:—

Table comparing Steam power Cultivation (1869 to 1870) and Horse Culture (1869 to 1870). Columns include engine cost, tackle cost, horse costs, and balance.

This is grand; the large sum of 16l. more tenant's capital is needed to work this 163 acres farm of mine the first year, having the whole in crop, than would have been needed under horse culture having a portion of fallow. "G. A. H." will want interest on this large sum of 16l., and he shall have it, for with my extra cropping under steam culture I shall be able to pay it. Having considered the matter over again, I will not alter my estimate of 1s. 6d. per acre, therefore my seed-bed for Wheat stands at 6s. 8d. an acre.

Now there is a point about this interest on tenant's capital worth looking into. You never hear of interest being charged on horses, their tackle and implements, or on money for payment of labour. When a valuation is made horse-keeping is taken into account, their tackle and implements are also considered, and so is their doctor's bill, and the knowledge of now and then a dead horse is not tossed on one side, payment of labour is also considered, but interest of money never is. I will support my case by an extract from Mr. Morton's paper, read before the Society of Arts, Dec. 7, 1859:—

"Now the cost of horse labour on 21 farms in different parts of the country, of which the particulars have been kindly given to me: those farms employ 282 horses, and they cost for food, for depreciation of value, and saddler's and blacksmith's bills, 7815l. a year, their implements need 870l. a year to keep them good, and the ploughmen an 11,000l. a year, or 46l. a head a year in wages,—about 13,000l. in all, or 46l. per horse per annum."

The farmers had to find this 13,000l., yet interest upon it is not considered. Yet "G. A. H." will make us use the word interest when we talk about steam ploughing. I knew that I must, and I did so, although in my own case I knew that but little additional tenant's capital was needed, and more when increased

produce was brought to bear upon it. My assertion about Mr. Smith's figures being based on a foundation must fall to the ground, for the above proves that I am not "deceived," and I am not "deceiving the public."

Now for the last point. Mr. Smith endeavours to persuade small farmers. Here is an extract of a letter that, in 1858, I addressed and published among farmers of England:—

"September, October, and March are the best months for applying steam power to the cultivation of the soil, deducting Sundays and a few days for the week-end, the working days for September are 14, for October 14, and for March 14, multiplied by 14 1/2 and 14 1/2 and 14 1/2, gives 225, 225, and 225, as a set of apparatus within three months. By the application of steam power it is to be generally applied to the soil, every large farmer must have a set between them on hire, one of another, an arrangement, for September and October will see the work as to be done well, it must be done in the autumn."

My advice to the farmer has always been, and it was in 1858, "every large farmer must have a set of apparatus of his own."

"Two or three small farmers may have a set of apparatus of their own, but it will not pay them to do so, and October will not wait, and if the work is to be done it must be done in those months."

My own practice shows that it would pay a set on a very small farm of heavy clay, "G. A. H." must see that it pays well on a mine—interest wear and tear, depreciation, being considered. Then let him pick up a box about his 1100-acre farm, for he could swinging of it about we must add "deceives" name 6s. 8d. an acre is the cost of my seed-bed—Wheat—interest and wear and tear, &c. being well considered and included, and in one word more—20 acres of my growing Wheat from old heavy land are Wheat after Wheat. This will give time on my new land to drain and clear; 25 it is planted. It will all be under crop next year, part Beans and a part Peas, and it will be a very good Wheat the following autumn. We can do this when aided by steam-power. The Wheat noticed is up, and looks well, and this year the mine will never need a dead fallow, as the dead fallow has been the rule heretofore.

Now, it may be seen that in 1856 a man in 6s. 8d. an acre, and that in 1869 a seed-bed is 60 How is this? is a question that may be asked. I will tell you. In 1856 my land was raw, and the same for cleanliness with other people of the under, hard, horse-trodden surface made for water-furrows a matter of necessity. My engine could work my three-tined smasher deep, clearing a width of from 30 to 36 inches on an average 5 acres a-day. The cost for oil, and water was 5s. 2d. an acre, and I got extras at 1s. 6d. per acre, this brought it up to 6s. 8d. I use the word extra, as I will not drop it up by it 12 in. In 1869 my land, from being working by steam-power, and become dry and clean. The pitch-plaster having been smashed, my engine that I took in exchange ago could work a five-tined cultivator 4 1/2 width, and do on an average 8 acres a-day of men, coal, oil, and water, of 3s. 2d. per acre, add 1s. 6d. for extras: this brought it up to 4s. 8d. brought the total cost of seed-bed up to 6s. 8d. That is a fact, "G. A. H.," you see little before I have done with you, for I am "deceiver."

Now, I ask "G. A. H.," "Agricola" (Mr. Toepffer will not talk to), Mr. Greig, and Mr. who fell foul of the roundabout tackle at Peterborough and all the contracting men together, to tell us we can find a farm worked by steam-power on a contract plan? That is where all the business done by steam-power, the horses having been leaving just enough to do the harvest, and work, as well as the light cultivations, and Mr. Torr has been a great advocate of the matter yet he has only had a few acres a-year done on occupation, and I cannot hear of any one who has more than he. Mr. Bates in the Times, and a Berkshire farmer in Bell's Messenger, weeks ago, showed us to some extent the nature of the former had 7 1/2 acres done by steam-power over at a cost of 27s. 2d. an acre. Such a system would make beggars of any men who would continue to scatter their money for the purpose to scramble for. I do not ask Mr. Campbell the question, for he is a private worker, but I want to know when he began working "since harvest," for could not have done "since harvest" until he had cleared a bit of I cannot fix "since harvest" this year ending in the middle of August, and from that period to the thorough trials there were but 36 working days he would get over in the 36 days 1996 acres, could do "from 2000 to 3000" "since harvest" before the Peterborough trials, I cannot say Mr. Campbell would do well to explain. I must not call upon him to pay interest on his sum of money he must have spent on his seed-tackle; if he does 1s. 6d. per acre on 2s. 6d.—5 per cent. on 1000l. would come to 2000 acres, and the tackle that he has had have cost that large sum. He is an experimenter, I should charge him with his last set of trials. I am an experimentalist, and cannot stand a man all I have spent; for instance, the cost of a windlass must not be added to the cost of a

one that I have had 11 years—although I have it by me as a relic, and am proud of it, it being the first that practically worked land by steam-power, and so on, it would not require the 500*l.* to be aided that I have spent in making and improving my combined water and drill that I have condemned and cast aside as worthless, giving the public the advantage of my experience.

And now, in conclusion, let me ask "G. A. H." to look over my letter that you have kindly taken from the *Times*, and see whether a set of steam tackle would not be very valuable on small holdings of heavy clay land. Forty acres have given me a gain of 2200*l.* in 14 years, in the shape of increased produce. Will he ask how this done? I will tell him. A great portion is due to having all my land in crop instead of a fourth part of it in fallow yearly, and the remaining portion is due to greater fertility of the whole. Will he turn round and say, Smith's is an exceptional case? No, he cannot, for there are the 800,000 acres of fallow, as shown in the Board of Trade. This large number of acres may be multiplied by four, to represent the quantity of land worked under the fallow system. This gives 3,200,000 acres of heavy land especially needing steam-power upon it, and if you take my data for gains, you get a gain of over 12,000,000*l.* a year to the country. Surely such a gain as that is worth trying for, especially as it can be won without any increase of tenants' capital, excepting a little that must be cast in making the engine from the steam to the other. In putting down a house and rebuilding it, there is always a cost, so the old material ever so good, yet we seldom hear of regret or loss after it is done. *William Smith, Woolston, Bletchley Station, Bucks, Nov. 20.*

Home Correspondence.

The Yield of Sugar-Beet Contrasted with Mangel.
—In last week's *Agricultural Gazette* there is a letter from Mr. Mitchell, of Rainham, asking for an explanation of the fact, that while his Mangel yielded 25 tons per acre, his Sugar-Beet yielded but 16 tons. If, as he says, they received the same treatment in every respect, that explains the difference of yield. For there must have been a difference in regard to the distance of the plants from each other. As a rule the Sugar-Beet does not grow so large as the Mangel, and therefore, to ensure the same weight per acre, more must be grown. To make this plain, I presume that in an ordinary crop of large Mangel there will be from 60 to 80 roots to the pole. Now, in Sugar-Beet there should be about 200 roots on the same area. This increase of the number of the roots will compensate for their individual lightness, and the gross yield of Sugar-Beet will probably be as great as that of Mangel. Already they are running each other pretty close in the Lavenham district. The heaviest crop of Sugar-Beet this year weighed in the gross 31 tons per acre. The heaviest crop of Mangels seen weighed 1 ton less, or 30 tons. Weighed without tops the Mangel reached 29 tons per acre, and the Sugar-Beet 21½ tons. The number of Mangels per pole was 100 roots, of Sugar-Beet 200. These facts and figures point a lesson and indicate the direction improvement should take in regard to Sugar-Beet. Many one who remembers the first crop of Mangels, with their uncouth roots and coarse large leaves, and contrasts them with the fine stock and small leaves of the most approved sorts of to-day, will see at a glance that the same course of improvement by selection and crossing, if needful, must be pursued with the Sugar-Beet. Amongst the crops now there are great differences in regard to top and habit. These have been noted by the growers, and most of them are saving their own seed from what they consider the best samples. I believe in a few years we will have model crops of Sugar-Beet, with little or any greater development of top than among the best Mangels. Once this is accomplished the roots may go yet closer together, and as, bulk for bulk, they weigh heavier than common Mangel, it follows that by-and-by we shall have as heavy or even heavier crops of the Sugar-Beet per acre. Meanwhile, I do not think that even now there is much loss incurred by growing the Sugar-Beet, even for feeding purposes. Possibly Mr. Mitchell may get as much meat, butter, milk, or cheese out of his 16 tons of Sugars as from his 25 tons of common Mangel. True he loses a little over a third in weight, but probably that loss is converted into a gain by the doubling of his percentage of sugar. As to the bolting of such crops, I regret that it has not been discussed apart from the names of any particular farms. The public are not asked to state whose seed had or had not bolted, much or little, but whether seed that was known to be old had bolted more generally than that which was known to be new. During the hot summer of 1868 the Lavenham Sugar-beets hardly bolted at all. During the cool changeable season of 1869 the self-same seed, only a year older, bolted fearfully. Can anyone divine the cause, or determine the question on its merits, without puffing up or running down any seedman, great or small? Further, the bolting this year was by no means confined to Sugar-Beet. Since last writing on the matter I have seen many fields of common Mangel, and some of them were more seedy than any of the Lavenham Sugar crops. I highly approve of Mr. Mitchell's plan of behoarding the bolting, and thus improving immensely the appearance of the crops, and giving the runaway plants a chance of converting their growing force to useful purposes by sending it rootwards. *D. T. Fish.*

Depth of Drains.—I have read with much pleasure the very interesting paragraph on the above subject by "H. V. Grove," in your last week's paper, and I am of the same opinion as himself in regard to Government and drainage companies. Their agents or inspectors seem to be too much restricted to certain

depths; so much so, that no other person's opinion, however practical, seems to be of any value. The consequence of which is, that undoubtedly a great deal of money and labour is to some extent wasted through the rigid rules enforced. Instead of which, I find from many years' experience in draining both light and heavy land, that the depth, and distance between drains can be decided in the field only. The practice frequently adopted is to send a man forward to open holes in the fields to be drained, and for these holes to be inspected perhaps on the next day, or it may be a week afterwards, when, it matters not of what nature the subsoil may be, there will in nine cases out of ten be water found in the holes, and if the holes have been dug 3 or 4 feet, as the case may be, it will at once be considered necessary to drain to the same depth; whereas, it may be just possible that all the water in the holes has gone down from the surface instead of having risen from beneath the bottom of the drain. Now, to prevent this error, the man with the spade and the inspector should go both together; and as the man digs the hole, the inspector sees with his own eyes where the water comes from—whether from the surface or the subsoil. If a strong impervious clay bottom, the water will all be found from the surface, but if, on the contrary, an open, porous, sandy, or gravelly bottom, then the water will be found at the bottom of the hole, instead of on the surface. Now, the question to be asked is, how to drain in the best manner, and at least expense, the different kinds of land, and to find an answer to the subject I will simply give the following, which any well digger can answer, viz. We will sink a well to supply an establishment at any desired spot, and in doing so it will all depend on the nature of the subsoil whether we get water quick or not. Should the subsoil be of a strong clay nature, it is well known that 20 to 30, or even 50 feet may be sunk before getting water, whereas, on the contrary, should the subsoil be of a porous and free nature, the result is that water is found near the surface, or within a few feet, seldom over 10 to 15. Now, in draining the two different kinds of land, I find from practice that, in the case of the strong clay subsoil, what has to be considered is the best and quickest means of providing for the surface water to escape, and to accomplish which I find that from 2 feet 6 inches to 3 feet is better than a greater depth—the former more especially in grass-land, because there are no springs from beneath to contend with. The drains to be not more than 10 to 12 feet apart. But in draining the open and porous subsoil a very different practice is necessary, as we have here to contend with springs from beneath, therefore drain from 4 to 6 feet deep, and from 20 to 30 feet between the drains. As it is a matter of *£ s d.*, it behoves every landowner to consider seriously before he lays himself under the clutches of drainage companies, who may compel him to entail a burden upon his tenantry beyond what is really necessary. However good such companies may be, I consider the depth of drains should be an open question. *W. C. Kipler.*

Societies.

ROYAL AGRICULTURAL OF ENGLAND.

MONTHLY COUNCIL, Wednesday, December 8—
Present: the Duke of Devonshire, K.G., in the chair; the Earl of Powis, Viscount Bridport, Lord Chesham, Lord Kesteven, Lord Tredegar, Lord Vernon, Lord Walsingham, Sir Massey Lopes, Bart., M.P., Mr. Adant, M.P., Mr. Baldwin, Mr. Barnett, Mr. Barthrop, Mr. B. B. B., Mr. Bowly, Mr. Cantrell, Colonel Challoner, Mr. Draca, Mr. Brandreth Gibbs, Mr. Hassall, Mr. Holland, Mr. Hornsby, Mr. Hoskyns, M.P., Colonel Kingscote, M.P., Mr. Leeds, Mr. Milward, Mr. Pain, Mr. Randall, Mr. Ransome, Mr. Rigden, Mr. Sanday, Mr. Thompson, Mr. Torr, Mr. Turner, Mr. Webb, Mr. Wells, M.P., Mr. Jacob Wilson, Professor Simonds, and Dr. Voelcker.

Softon, the Earl of, Croxteth, Liverpool
Alison, Arthur, Elgates Forest Lodge, Crawley, Sussex
Ailison, Charles F., Crawley, Sussex

—were elected Governors of the Society. The following new members were elected—
Dutton, John, Curbridge, Farringdon, Berks
Fenton, M. K. K., Calhote Hall, Nunceaton
Franklin, William, Limer Magna, Chesby
Franklin, Joseph, Little Milton, Tewkesbury, Oxon
Mackintosh, Harwood Langton Grange, Nidley
Wilson, John, Kettleby Tharpe, near Bury
Spurr, Anthony, Downlands, Lyane Regis, Dorset
Tinley, Edward, Southwell, Nottingham
Westharp, Rev. Richard A., Berners Rectory, Ongar, Essex
Whitworth, Henry, 96, King Street, Manchester

FINANCES.—Major-General Viscount Bridport (who presided) presented the report from which it appeared that the Secretary's receipts during the past month had been duly examined by the committee, and by Messrs. Quilter, Bail & Co., the Society's accountants, and found correct. The balance in the hands of the bankers on November 30 was 3067*l.* 18*s.* 6*d.* The committee recommended that Mr. J. Gale's salary be increased 20*l.* per annum, in consideration of his long and efficient services to the Society; that a list of members in arrear with their subscriptions be sent to each member of the Council, with a request that individually he will assist in obtaining payment of such arrears; and that a sum of 2000*l.* be placed on deposit with the Society's bankers.—This report was adopted.

JOURNAL.—Mr. Thompson (chairman) reported the decision of the judges of the essays competing for the prize of 20*l.*, offered for an essay on any agricultural subject, awarding it to one of the Princes in Jersey, bearing the motto, *Practical*. The motto-paper having been opened by the President, the essay was declared to have been written by Mr. C. P. Le Cornu, of Trinity Manor, Jersey. With reference to the prize of a piece of plate, of the value of 100 *gs.*, offered by Mr. Mason to the occupier of the best managed farm within a

certain area round Oxford, the committee made the following recommendations—(1). That an entrance-fee of 2*l.* be required from candidates who are members of the Royal Agricultural Society, and of 3*l.* from all other competitors; (2). That the competition be confined to tenant-farmers; (3). That no farm be allowed to compete which does not contain at least 200 acres; (4). That a second prize of 50*l.* be awarded to the 3d best farm. (5). That no entry be received later than Saturday, February 26. And so that the certificate of entry shall contain the name and address of the candidate and of the proprietor of the farm, the kind of soil (light or heavy), the acreage of the farm, and its distance and bearing from the nearest town.—This report was adopted.

CHEMICAL.—Mr. Wells (chairman) presented the report of the committee, which contained the annual report of the *Chemical Society*. This report was referred back to the committee for the purpose of enabling them to select certain portions of it for publication in the agricultural newspapers.

VETERINARY.—Lord Liverpool (chairman) having presented the usual annual report, Mr. Jacob Wilson drew the attention of the Council to the question of the equivalent which the Society obtained for the annual grant of 200*l.* to the Royal Veterinary College. After a conversation it was resolved (with two dissentients) that the Veterinary Committee, after conferring with the governing body of the Royal Veterinary College, be requested to make a special report to the Council, on the suggestion made by Mr. Jacob Wilson, that a portion of the grant of 200*l.* be in future placed at the disposal of the Veterinary Committee to obtain reports on special subjects of interest connected with veterinary science—the committee to report to the Council at their meeting in March.

SHOWARD CONTRACTS.—Mr. Randall (chairman) reported that the plan of the showyard for 1870 had been passed in the hands of the local committee at Oxford, to enable them to proceed with the levelling required, which is now in progress, and that the arrangements for the railway siding, and for the supply of water to the ground, had been satisfactorily determined.—This report was adopted.

SELECTION.—Mr. Thompson (chairman) reported that the committee had completed the revision of the bye-laws, but desired to take the instructions of the Council as to certain points. They also recommended that a copy of the new edition of the charter, bye-laws, and resolutions of Council be sent to each member of the Council, and to all future members of the Society on their election; and that the same be printed in the next number of the Journal, and circulated amongst the present members of the Society. It was also recommended that the annual report of each standing committee shall contain a list of its members, omitting those who have absented themselves during the whole year, and that it shall contain the names of those proposed to be added to the list for the ensuing year. The questions relating to the bye-laws having been disposed of, and the other recommendations of the committee adopted, the Chairman stated that the committee had agreed to recommend Mr. Charles Whitehead, of Barming House, Maidstone, to fill the vacancy in the Council caused by the election of his Grace the Duke of Devonshire, K.G., as a Vice-President. Mr. Wells, M.P., having proposed, and Mr. Randall seconded the nomination of Mr. Whitehead, an amendment, substituting the name of Mr. R. Russell, of Farmingham, was moved by Mr. Cantrell, and seconded by Mr. Rigden. On a show of hands the amendment was lost by one vote, the numbers being, for Mr. Russell 11, and for Mr. Whitehead 12.

The Secretary was instructed to communicate with the local authorities at Chester, Shrewsbury, Stafford, and Wolverhampton, informing them that the Society's country meetings in the year 1871 will be held in the district including Cheshire, Shropshire, Staffordshire, and North Wales.

Mr. Sanday, having given notice that he would move "that the rule for the non-payment of judges who are members of Council be rescinded," stated that as no such rule could be found, his resolution was unnecessary. It was therefore moved by Mr. Milward, and seconded by Mr. Thompson, "that Mr. Sanday and Mr. Bowly be paid for their services at Manchester," whereupon, under clause 36 of the bye-laws, Lord Bridport requested that the consideration of the question be deferred until the next monthly Council. On a show of hands 13 votes were given against the postponement and 7 for it. The question being therefore deferred, Lord Vernon gave notice that at the next monthly Council he should move "That judges who are members of Council may be paid for services rendered to the Society."

The Earl of Lichfield gave notice that at the next monthly Council he will call the attention of the Council to the inconvenience arising out of the conditions of the charter fixing the date and place of holding the general meeting, and excluding from the Society's meetings the discussion of all subjects having reference to measures pending, or to be brought forward in either House of Parliament.

The standing committees for the year 1870 were appointed.

The report of the Council to the half-yearly general meeting was prepared.

A letter from Mr. W. A. Gibbs on the harvesting of hay and corn in wet seasons was referred to the Implementation Committee.

The Council having given the usual leave of absence to the secretary and clerks, adjourned over the Christmas vacation.

At a special Council, which met, by order of the President, at the rising of the monthly Council, the stock and implement prize-sheets for the Oxford

These extracts will be forwarded for publication in the course of next week. *H. M. J.*

meeting were arranged, certain prizes for Dorset sheep having been added to the draft of the former, on the motion of Lord Bridport.

THE ANNUAL MEETING of this association was held on Thursday last at the offices, Hanover Square, the Duke of Devonshire in the chair.

There was a more than ordinarily large attendance, and among those present were Mr. W. Caldwell, Colonel Challoner, Mr. H. S. Thompson, Mr. J. Fawcett, Lord Denman, Mr. J. L. Hythe, Mr. Edward Johnstone, Lord Vernon, Mr. G. A. Hankey, Sir Walter Stirling, Mr. T. C. Booth, Mr. J. Bigg, Mr. J. Yardley, Mr. C. Cadle, Mr. Duckham, Mr. G. Smythe, Mr. C. S. Roberts, Mr. C. S. Read, M.P., Mr. Fytche, Mr. Botley, &c. The proceedings were commenced by his Grace calling upon the Secretary to read the following report:—

REPORT OF THE COUNCIL.

Since the last General Meeting in May, 2 Governors and 32 Members have died, and 4 Governors and 182 Members have been elected, so that the Society now consists of 75 Life Governors, 73 Annual Governors, 1469 Life Members, 3962 Annual Members, 16 Honorary Members; making a total of 5597, and showing an increase of 86 for the year 1869.

The half-yearly statement of accounts to the 30th June, 1869, has been examined and approved by the auditors and accountants of the Society, and has been furnished to all members in the last number of the Journal. Owing to the great financial success of the Manchester meeting, the funded capital of the Society has been raised to the sum of 20,000*l.* Stock in the New Three per Cents, while an additional sum of 4612*l.* 7*s.* 8*d.* New Three per Cents, has been invested as a Reserve Show Fund. The Council regret that owing to the continued difficulty experienced in collecting arrears of subscriptions, they have been compelled to take legal proceedings against some members of the Society; but they have obtained the only satisfaction possible under such circumstances, the arrears have been paid, and the legality of the Society's claims has been most clearly established.

Under the Presidency of H. R. H. the Prince of Wales, the Manchester meeting attained an unusual degree of success. Their Royal Highnesses the Prince and Princess of Wales honoured the exhibition with their presence on two occasions. The expectations of the Council as to the magnitude of the meeting were even surpassed by the result. The entries of implements largely exceeded those at any previous meeting of the Society, and the exhibition of stock was on a still more extended scale. The crowd of members and visitors more than doubled in number those who were admitted to the show yard at Leicester, and the amount received for admission was proportionately large. The interest created by the magnificent exhibition of live stock and implements may be estimated by the fact that more than a thousand pounds was realized by the sale of catalogues.

The local committee carried out the various arrangements which had been entrusted to them with remarkable zeal and liberality, and their secretary (Mr. Whitworth), in particular, was untiring in his exertions to promote the success of the meeting. Considering that during the six days of the show it was visited by more than 200,000 people, the Council believe that no slight praise is due to the arrangements by which so large a number of persons could obtain excellent refreshments without inconvenience, and at a moderate price—the more so as these arrangements were made by Mr. Whitworth with the advantage of a considerable profit to the Society. Mr. Whitworth's indefatigable efforts on behalf of the Society induced the Council to request his acceptance of the sum of 150*g.* as an acknowledgment of his services.

The great agricultural feature of the meeting was, no doubt, the careful and prolonged trials of reaping and mowing machines, and whether tested by the interest exhibited in them each day by crowds of intelligent spectators, or by the great increase in the extent to which reapers were reported to have been used during the following harvest, there can remain no question that the Society's trials of implements at Manchester have already yielded good results.

On the two Sundays during which the stock was in the yard, Divine service was performed by the Vicar of Stretford, before large and attentive congregations chiefly composed of the servants in attendance on the animals.

The Council have fixed the commencement of the Oxford meeting for Monday, July 18. They have decided that the live stock shall all be in the yard by 4 o'clock in the afternoon of Saturday, July 16, which will allow of the animals recovering from the fatigue of the journey to the show (and thus place those which have travelled from distant counties more on an equality with others which have come only a short distance), before the judges commence their inspection on the Monday morning following. The show will close on Friday, July 23, at 4 o'clock, thus enabling most of the stock to commence their homeward journey the same evening, and to arrive at their destination before the following Sunday morning.

In addition to the usual classes contained in the stock prize-sheet, the Council have offered for competition at Oxford, prizes for Norfolk and Suffolk polled cattle, for Dorset sheep, and for Lincoln as distinguished from other long-wooled sheep. The Oxfordshire Agricultural Society has offered special prizes for pairs of dairy cows for Oxfordshire Down sheep, and for hackneys; and the local committee have offered prizes for a class of 4 year old, and 1 for another of older hunters.

The High Sheriff for Oxfordshire (James Mason, Esq.) has offered a piece of plate of the value of 100*g.* as a prize for the best managed farm in the district, included within a line drawn through the towns of Reading, Great Marlow, Aylesbury, Buckingham, Banbury, Stow-on-the-Wold, Lechlade, Wantage, and back to Reading. The Council have agreed to fix the conditions of competition; to appoint, and to defray the expenses of, the judges and a reporter; and to arrange all other details. They have determined that an entrance fee of 2*l.* be required from competitors who are members of the Society, and 3*l.* from all others, that the competition be confined to tenant farmers, that no farm shall be entered which does not contain 20 acres, that a sum of 50*g.* be given to the occupier of the second best farm, that no entry be received later than Saturday, February 26, and that every certificate of entry shall contain the name and address of the candidate, and of the proprietor of the farm, the kind of soil (light or heavy), the acreage of the farm, and its distance and bearing from the nearest town.

The schedule of prizes for implements and machinery to be awarded at Oxford contains classes for fixed steam engines, horse gears, mills, crushers, chaff-cutters, oilcake breakers, turnip cutters, steaming apparatus, dairy implements, bone mills, guano breakers, caprolite mills, flax breaking machines, tile machinery, and draining tools.

The continually increasing number of implements exhibited at the country meetings of the Society has compelled the Council to consider by what method a sufficient number of judges in each department could be appointed beforehand, and also by what means a large portion of the time of the judges, hitherto devoted to a preliminary examination, and a selection of implements for trial, could be advantageously economised. The Council have, therefore, resolved—that every implement intended by the exhibitor for competition

shall be entered in its respective section and class for trial at the time when the specification is sent in to the secretary, but notwithstanding such entry, the discretion of trial will rest with the judges; also, that no exhibitor may enter more than one implement of the same construction for competition in any one class. Further, in order to protect the interests of purchasers, it has been resolved, that although certain implements, belonging to the classes for which prizes are offered, are not entered for trial, the stewards may, on the recommendation of the judges, order any of them to be tried and their capabilities made public.

The attention of the Council having been drawn to the increasing adulteration of manures and feeding cakes, especially guano, nitrate of soda, ground bones, and linseed-cakes, Dr. Voelcker has been requested to submit to the monthly Council in March, June, and December, a report of the various samples forwarded to him by members of the Society, so that such report, together with the names of the dealers who supplied the substances analysed, shall, if the Council think fit, be published in the agricultural journals.

The Society's educational examinations in April last were conducted on the same plan as those of the previous year, and the results were so satisfactory, that the Council have renewed the grant (200*l.*) for the year 1870, with this alteration, however, viz.,—that whereas, hitherto, it has been considered advisable not to fix any limit to the ages of candidates, in order that all comers might be admitted during the earlier stages of our proceedings, it has now been thought advisable to fix a maximum of age for candidates; no one who has passed his 21st birthday before March 31, can in 1870 be admitted as a candidate for the Society's honours and prizes.—By order of the Council, H. M. JENKINS, Secretary.

Lord DENMAN, in moving the adoption of the report, said that it was one which could not be other than highly satisfactory to the Society. Their meeting at Manchester had been highly successful, and every effort must be made to make that of July next equally successful. He might mention that the disease known as blackfoot [Quarter-ill?] had appeared among cattle in his neighbourhood, and as its causes and prevention are not at all known, it might be well that it should be investigated, and some account of its prevention and cure be inserted in the Journal. He had lost many animals by it, and he dare say others had. He should be very glad to find their meeting successful next year, especially as it would be presided over by so illustrious a member of the association.

Mr. W. G. CALDWELL seconded the motion. He had only one remark to make, and that was with respect to the rules of competition for the prize offered by the High Sheriff of Oxfordshire. He observed that the acreage of the farms was to be returned distinguishing the land whether light or heavy. He thought they ought to distinguish also whether it was arable or pasture, because a dairy farmer might not be a good arable one. They ought therefore to obtain a return which would inform them in which the preponderance of arable or grass-land was. He approved of the steps taken by the Council to make the work of the judges easier, and to put an end to the terrible system of having to look at everything for two or three days before they could really tell what to do. He thought that the rule requiring competitors to send in the number and description of the implements for trial in their respective sections, and that no exhibitor should enter more than one implement of the same construction or class for trial, was an uncommonly good one. He had himself been a judge for two years consent-very, and could say that everything which would ease their shoulders a little would be of essential service and work well for the Society. He thought also it was advisable for the Council to give a more definite description of what were to be considered miscellaneous articles, which might be of use to agriculturists, so as to guide the judges as to what they might look at and what they should pass by entirely.

Mr. READ, M.P., expressed his satisfaction at the improvement in the Journal. It was now more practical and useful than anything they had hitherto had. The review of Castleacre Farm, which appeared in the last Journal, was singularly opportune, and he regretted that Mr. Hudson, who was so long a member of the Council, and a most useful member of the Society, had passed away before it was printed. That review was most important, because it proved what could be done by capital when applied to bad or, at least, to inferior land. If it was the prominent duty of the British farmer to supply the nation with corn and meat, no one performed that duty more successfully than did Mr. Hudson; but whether exceedingly high farming paid was a question not yet quite determined. If he might make a criticism where there was so much that was good, he would say that when gentlemen wrote reviews in the dull season of early spring, and in so doing mentioned the wages of the agricultural labourer, they should be good enough to inquire what the average earnings of labourers were, rather than the wages of that particular period. Those at Castleacre were put down at 1*l.* a week, when, in point of fact, Mr. Hudson spent 2000*l.* a-year in labour on a farm of 800 acres. In the larger portion of the year men could readily earn 2*s.* 6*d.* per day, and in harvest time often 2*l.* and never less than 30*s.* per week. He hoped the Journal would be issued as early as possible, and he looked forward with a great deal of pleasurable anticipation to the report on Belgian farming, and that not only on account of its agricultural but its political bearing.

Mr. NIELD, as one of the not most inactive members of the Manchester local committee, expressed on its behalf his pleasure at the handsome recognition made in the report of the value of their labours. He was glad to say that his predictions of a successful meeting had been verified to the letter, and he sincerely hoped that a similar successful gathering would be held next year at Oxford. He ventured to say that a large margin of saving had been effected in the fittings of the show-ground, and regretted that their present arrangements precluded them from adopting changes the benefits of which were apparent when they were carried out by the local bodies. He witnessed with pleasure the increase in the number of members, and expressed a

hope that the time would come when every acre of 100 acres would feel it an honour and a privilege to belong to the Royal Agricultural Society. He had been educated for the last two or three years, both privately and publicly, the drawing together to the Agricultural Society of every leading agricultural association in the kingdom; and, though he admitted that they had taken a step in the right direction by dividing the country into five districts, yet he was not satisfied till he found the principal associations united with them, and a deputy from each presiding at their meetings. They might look with some eyes on the rapid progress of the times in which we lived. He admitted the advantages which agriculture had derived from the services rendered to the country by the great territorial magnates of the country; he believed that the more noblemen were brought into personal contact with sensible and practical farmers, the better it was for themselves and for the country. He agreed with the hon. member who spoke that the Journal was greatly improved, and quite a pleasure to read it.

Mr. BOTLEY expressed the pleasure he felt in hearing the report, and also at the improved appearance of the Journal; the more so as he had been told that it would be better if it were more practical and practical essays inserted which would be more read and quoted. That had been the case, and he was happy to see the result he had predicted followed. He congratulated the Society on the success which had attended the institution of the educational examinations, for no money could be better spent than that which was spent in promoting an industrial and useful education, and the result would be the general benefit of noblemen, the middle classes, farmers, and even the agricultural labourer.

Mr. T. WILLSON complained that some of the exhibitors had been withdrawn from the showyard at Manchester, to form part of a jumping exhibition, and many persons who had come hundreds of miles to see them at all, because they had no chance, and there was no means of getting any. He considered it should not be permitted to remove any animals from the Society's show-ground.

Dr. CRISP expressed an opinion that the Journal might be still further improved, and suggested it should contain a summary of what was passing in various parts of the world. He also referred to the desirability of dissolving their connection with the Veterinary College, and expressed an opinion that no arrangement could be made while such connection existed. He thought the Council should advise the Government to establish a national Veterinary College, also advocated a system of inspection and regulation of minor diseases in cattle, which would, he had no doubt, be eventually carried into effect.

Mr. THOMPSON expressed his gratification at the practical feeling which pervaded the meeting, and his approval which had been expressed in favour of the appointment of the Secretary. That gentleman, now admitted, had shown himself an able Editor, and respect to the blackfoot rot [Quarter-ill?], he had cured was to seton very early. Those who had been early setoning had found it very effectual in curing the disease.

A MEMBER: Combined with good management, Mr. THOMPSON said that the well-kept showyard was not so subject to the disease as those which were kept, but setoning had been found very effectual. Caldwell had expressed some doubt about the wisdom of so many miscellaneous articles, yet their inclusion proved very useful in attracting visitors to the showyard and increasing their receipts. The number of members was now 6000. He thought it very wise to have an invested sum, for the purpose of putting up their prize list, and it was only in this way they could carry on their operations on a footing of security. Their object in investing was to pay by the time the standing expenses of the Society. It was intended to have a large invested sum, but it was not sufficient to conduct its operations in a safe manner. The present attendance showed that the selection for the meeting proved that Thursday was a better day for the general meeting.

Mr. CRISP said that the practice of setoning was cruel, that it ought to be put down by the Society, and the Prevention of Cruelty to Animals.

Professor COLEMAN suggested that it would be expedient to send a gentleman down to the place of show, in order to see the implements and arrange as to their mode of trial, so that when the judges came down they would find the implements prepared for them, and be able to commence their work at once without wasting so much time as they now did in arranging the details of the trials.

Mr. TOBE explained that the exhibition of jumping of horses at Manchester was not the Society's display. In point of fact the Society would have it, and the only condition made as to the horses should come through the Society's showyard. With respect to the miscellaneous articles played, no prizes were given for articles which were not agricultural, and the exhibition in question was very remunerative.

Mr. DUCKHAM thought that members of the Society had a right to see everything sent for exhibition without any extra charge.

Lord VERNON said that the Council would pay attention to any suggestions with regard to economical arrangements of the showyard, and he was obliged to any member of a local committee who would make them.

Mr. JACOB WILSON agreed that people who visited the showyard had a right to see the whole exhibition, but a glance at the catalogue would show that the jumping exhibition was not theirs, and the hon.

it were only withdrawn for a short time from the showyard.

Mr GRAY thought it rather beneath the dignity of the Society to listen to a proposition from the local committee that they should have an exhibition of that kind.

Mr. J. NIELD pointed out that the local committee had expended a large sum, and though they had recouped themselves to the extent of 5000l. by this means they were still a good deal out of pocket.

Mr T. WILSON thought it very objectionable that horses should be taken out of the showyard to be spoilt in jumping over fences which no good sportsman could take without the risk of breaking his neck.

Mr THOMPSON said that due notice was given that there would be such an exhibition, but only those horses left the yard which were entered for it, and none without the express sanction of the owners.

Sir W. STIRLING regretted that the question should have arisen, because it was the only thing calculated to mar their perfect unanimity. He had no doubt that union of commerce and agriculture at Manchester would be productive of the best results. There had been a public spirit manifested at Manchester on the occasion of the meeting most creditable. No misunderstanding whatever had arisen, and he considered it a fortunate circumstance that the Manchester meeting had taken place in what was almost a crisis in the history of the country. Agriculture was now one of the staple topics of the day, and was not only discussed at their meetings, but at those of the Social Science Congress, and the subject was treated not only in an agricultural but in a commercial spirit.

The report was unanimously adopted; and, on the motion of Mr. Arkell, the auditors received a vote of thanks; and subsequently, on the motion of Mr Badham, seconded by Mr Torr, they were re-elected.

A cordial vote of thanks to the noble Duke in the chair was given, on the motion of Mr. Duckham, seconded by Mr. Read, M.P.; and

His Grace, in returning thanks, said it gave him great pleasure to fill the position in which the Council had placed him, and to listen to the discussion which had taken place.

THE SMITHFIELD CLUB CATTLE SHOW.

AGRICULTURAL HALL, ISLINGTON.—The Smithfield Club Show was opened for the eighth time in the Agricultural Hall, Islington, on Monday last, with all its previous prospects of success; and these have been amply realised. If the cattle have slightly fallen off in consequence of a number of animals entered being last week within an "infected district," so declared because of the prevalence of the foot-and-mouth disease, the quality and appearance of the large number sent were generally excellent, while the sheep are as good as, if not better than, they ever were, and the pigs are so uniformly good, that nothing more can be desired in this department. Whether, therefore, this show be intended for a practical lesson to farmers, or a country display for the pleasure of the metropolitan inhabitants, it has been perfectly successful.

The Devons, as has been always customary, have been placed in the first position; and, so far as beauty of form and colour go, the collection of this breed in the Agricultural Hall this week have well earned their place; but as regards the practical, or meat-paying value of the little creatures, with which the younger, and the greater part of the older, classes were filled, there is ample room for discussion. Some of the Devons were heavy and well grown; but taking them as a whole, there was not that thriftiness and hardness of appearance which are now required to make both ends meet when a farmer has to depend on the profit of feeding for his fixed expenses and livelihood, or, in other words, for a good interest on the capital he employs. The steers were very remarkable for their perfect ripeness at their early age. They were as mellow in their touch as most cross breeds are when three times as old. Mr. Buller's and Mr. Nixey's were peculiarly of this description, and Mr. Smith's, of Hooper's, Exeter, was as perfect for form and touch as could well be found. The weights do not correspond with the prizes, for in the next class, the 1st prize steer, shown by Mr. Hambro, M.P., did not weigh so much as the 2d prize by 110 lb. In the next class, too, the 1st weighed 14 cwt. 0 qr. 3 lb.; the 2d, 15 cwt. 0 qr. 13 lb.; and Mr. Smith's great and good, but not very ornamental beast, weighed 19 cwt 2 stones 25 lb or nearly 5 cwt 3 stones over the 1st prize. As the quality of this beast was equal to any shown we do not understand the use of weighing the animals, if it be not taken into account at all in estimating the merits of each. This view, too, is more particularly important when it is observed that the 1st prize is only one month younger than the unnoticed beast, which weighed upwards of 5½ cwt. more. The heifers were as pretty as could be, and the cows full of flesh and remarkably firm, from their natural character and skilful feeding.

The Herefords were a far greater improvement on the Birmingham muster than they usually are, although Mr Heath's ox, with a disfigured back, took the highest honour, as he did at Bingley Hall. Nevertheless, the breed is by no means so well illustrated this year as we have seen it. Her Majesty the Queen was 2d, with a beautifully fed steer, and the 3d, with an equally good heifer. In the oxen the Earl of Darley's beast was remarkable for his fine character of head, horn, and coat, while he had great substance, well and evenly distributed, and his feeding was not surpassed, if equalled, among any animals of this breed. Mr. Bettridge's 3d was very beautiful. The Hereford heifers under four years of age were attractive, from the 1st and 2d prizes having appeared

at Birmingham, and the decision in Bingley Hall having been here, very properly as we think, reversed. Mr Arkwright now takes 1st, and Mr. Garrett the 2d Mr. Baldwin's cow at nine years of age was a wonderful beast for youthfulness of appearance and touch. She deservedly took 1st in her class.

The Shorthorns carried off all the special honours, but the males were particularly honoured with the new premium of a 100 gs. cup. This however did not fall to the younger class, wherein her Majesty the Queen was 1st with a well bred and well proportioned steer, but to the medium-aged animals, the steers under three years and three months. In short the Earl of Aylesford's steer which took upwards of 120l. in prize at Birmingham, here took everything in his class that a breeder and feeder could take, and the greatest honour of the Hall, in the form of the 100 gs. cup, for the best animal in the Hall. The value of these prizes, as will be seen by our prize list, is 170l. Thus in two weeks this animal has been awarded prizes to over the amount of 200l. As the Earl of Aylesford has been so constant a breeder and feeder and patron of agricultural shows, we cordially congratulate him on this signal triumph. The live weight of his beautiful steer was 19 cwt. 2 stones 13 lb. The judges of the Shorthorns had evidently an eye to line character, for Mr. Outhwaite's 1st among the oxen was of a similar stamp to the gold cup steer, while the Marquis of Exeter's had everything good about him, excepting a slack back, which partook more of the character of a malformation than any defect of character or breeding. Mr. D. R. Davies, of the Old Hall, Cheshire, added to this class by sending a very fine animal, but too masculine in appearance. Mr. J. Scales sent an ill-formed ox into this class,—a disfigurement to the Shorthorn classes of fat stock generally. Colonel Towneley's heifer was 1st here, as at Bingley Hall, but the cup went against her in favour of the cow sent by Sir W. C. Trevelyan, Bart., as it did at Birmingham. Mr. Atheron's 2d in the heifers, and the Duke of Devonshire's 3d among the cows, were both fine well-grown and massive white animals. The Messrs. Mitchell's 6 years and 10 months cow was only attractive for her beauty of colour and form, for she was very small for a Shorthorn. She was also 2d at Bingley Hall.

The Sussex animals have made a rapid stride in improvement. The form and general character of this breed clearly indicates that they once belonged to the herds from which the Devons spring. Even now there is not more difference between them and the Devons in general, than there is between the North and South Devons themselves. Indeed, when the younger animals are touched, we are inclined to ask where do the Devons end and the Sussex begin. As a whole, however, there is a far greater size and a more valuable proportion of flesh in the Sussex classes than there is among the Devons. Their quality cannot be described as superfine, although in many cases, and, indeed, in most cases, it is excellent, in fact good enough for anybody who is blessed with fair health and a corresponding digestion. Mr. Lee Steere's 1st prize is a grand steer, fine and mellow under the hand, and massive in his flesh. The oxen are very large, and their quality is good, while the cows are very handsome as well as hardy to look at. The breed furnishes good serviceable beasts for farmers who have their rent to pay, either out of beef or butter, or both.

The Suffolk breed made a very poor show, the only one out of the six which was worthy of notice being a very handsome little 3-year-old cow sent from Sandringham by his Royal Highness the Prince of Wales. The two steers had mean, ridgy backs, and were correspondingly coarse all over.

The Longhorns were four only, the 1st prize ox being the one which we described last year from Bingley Hall, as having as perfect a touch as any in the Hall; and having been kept over for this show he has grown into so remarkably good a beast that he would do credit to any breed.

In the Scotch Horned steers or oxen there is the most extraordinary decision we ever saw. In the first place, the 1st prize is described as "breeder unknown," while his age is set down as "about 4 years and 6 months." This may be a fair guess, but no one could guess what his breeding is. If there was another animal in the Hall of a type at all similar it was the black heifer in the class for the female Irish breed. This, however, would not have mattered had there been nothing in particular shown with him, but there was a really good show of Highlanders, and the 2d was a deep well covered brindle, with a perfect outline set off with fine towering horns, while the ox of Mr. Cueves, of Middleton of Rora, Longside, Aberdeen, was as finely formed, massive, and altogether picturesque a Highlander as any one could desire to see in a day's ride in their native county. The 1st prize certainly had a fine back, but his smooth black coat and degenerated Welsh appearance made him a contemptible object beside the grand "Scotch Horned" animals with which he was classed.

The Welsh Cattle were exactly as they were at Birmingham, and Captain Platt again took both prizes.

The Cross-breeds had some good animals among them, but, as we said last week, unless there is something very striking among them, the honours outside of classes ought to go to the pure breeds. After the remarks we then made we were glad to see that the judges awarded the special honours as they did. The enormous blue and white beast from Anzlesca and Bingley Hall put in his appearance here, but he was more adapted for pleasing the unsophisticated than for attracting the attention of practical men.

In the Extra Classes Mr. Foljambe sent a very much overdone white ox, and for some reason or other he was taken out to be compared with the Earl of Aylesford's steer when the 100 gs. cup was being decided

upon. But why this was done we could not guess. Here, too, as if to set off the fine home-bred beasts, the "Concessionaires from the Argentine Republic and Uruguayan Governments," whatever that may mean, sent a specimen of the animals they contemplate bringing from the River Plate, but unless they can surpass this brute there is not much fear of the breed over there coming into competition here beyond what they have done in the shape of bone and hides.

The following were the Judges and their Awards:—

CATTLE.—DEVONS, Hereford, Sussex, Norfolk or Suffolk Polled, Long Horned, Irish Cross or Mixed.—W. H. Henry, Bridgwater Salop; W. Yeoman, Stratford Court, Hereford; John Ford, 1st Rushton, Islandford, Shorthorn, Scotch and Welsh—H. G. Aylmer, West Dereham, Norfolk; Charles De Witt, Baldenham, Beds; William Sateray, Radcliffe-on-Trent, Notts.

DEVONS

Steers, not exceeding 2 years and 6 months old.—1st, 25l., J. H. Buller, Down, Crediton; 2d, 15l., W. G. Nixey, 1st and 2d Court Farm, Slough; 3d, 10l., Her Majesty the Queen, Prince Consort's Norfolk Farm, Windsor.

Steers, not exceeding 3 years and 3 months old.—1st, 30l., C. Hambro, M.P., Milton Abbey, Blandford; 2d, 20l., C. McNiven, Ferryfield, Goslone; 3d, 10l., W. G. Nixey, Upton Court Farm, Slough. Commended: J. Parthing, Farrington, N. Hants.

Heifers, not exceeding 2 years and 6 months old.—1st, 25l., W. Parthing, Slough; 2d, 15l., R. Burton, Bury, N. Hants.

Heifers, not exceeding 4 years old.—1st, 25l., W. G. Nixey, 1st and 2d Court Farm, Slough; 2d, 15l., W. Parthing, Slough; 3d, 10l., C. McNiven, Ferryfield, Goslone. Commended: W. Smith, Hooper's, Exeter.

Cows, above 4 years old, having had at least one live calf.—1st, 25l., W. Parthing, Slough; 2d, 15l., W. Smith, Hooper's, Exeter; 3d, 10l., J. Hitchcock, Broomhouse, Devon.

HEREFORDS

Steers, not exceeding 2 years and 6 months old.—1st, 20l., P. Turner, The Leen, Pembridge; 2d, 15l., Her Majesty the Queen, Prince Consort's Flemish Farm, Windsor.

Steers, not exceeding 3 years and 3 months old.—1st, 30l., J. Price, Court House, Pembridge; 2d, 20l., the Earl of Harley, Cobham Hall, Gravesend; 3d, 10l., H. Bettridge, East Hanney, Wantage. Commended: A. Pike, Milton, Tewkesbury.

Steers or Oxen, above 3 years and 3 months old.—1st, 30l., W. Heath, Lusham Hall, Norwich; 2d, 20l., the Earl of Darley, 3d, 10l., H. Bettridge, East Hanney, Wantage.

Heifers, not exceeding 4 years old.—1st, 25l., J. H. Arkwright, Hampton Court, Leominster; 2d, 15l., T. Garrett, Compton Scarpion, Shipston-on-Steur; 3d, 10l., R. Coston, Hayton, Stanton Lacy, Salop. Commended: Her Majesty the Queen, Prince Consort's Flemish Farm, Windsor.

Cows, above 4 years old, having had at least one live calf.—1st, 20l., J. Baldwin, 1st Bilton, Warwick; 2d, 15l., A. Benjafield, Stalbridge; 3d, 10l., R. Wortley, Norfolk.

SHORTHORNS

Steers, not exceeding 2 years and 6 months old.—1st, 20l., Her Majesty the Queen, Prince Consort's Slaw Farm, Windsor; 2d, 15l., W. Stagg, Aylesford, Oxford; 3d, 10l., R. L. Carter, 1st Waverley.

Steers, not exceeding 3 years and 3 months old.—1st, 30l., the Earl of Aylesford, Packington Hall, Coventry; 2d, 20l., R. Wood, Clapton, Northampton; 3d, 10l., Lord Fearham, Parry's Castle, Bangor. Highly Commended: T. Fulver, Broughton, Kettering.

Steers or Oxen, above 3 years and 3 months old.—1st, 30l., J. Outhwaite, Bidnese, Catterick; 2d, 20l., the Marquis of Exeter, Burghley Park, Stamford; 3d, 10l., Colonel Loyd-Hinsey, M.P., Lockinge Park, Wantage. Highly Commended: P. Brown, Gwentworth, Ipswich.

Heifers, not exceeding 4 years old.—1st, 25l., Colonel Chas. Towneley, Towneley, Burnley, Lancaster; 2d, 15l., T. Atherton, Speke, Garston; 3d, 10l., J. R. Aylmer, Fincham Hall, Downham. Highly Commended: J. Reid, Grayston, Alford.

Cows, above 4 years old, having had at least one live calf.—1st, 25l., Sir W. Calverley, Burt, Wallington, Newcastle-on-Tyne; 2d, 15l., A. and A. Mitchell, Aliso, Chackmannan; 3d, 10l., the Duke of Devonshire, Holker Hall, Grange, Lancaster. Highly Commended: J. Whyte, Chinterty, Blackburn, Aberdeen. Commended: R. Eastwood, Clitheroe.

SUSSEX

Steers or Oxen, not exceeding 3 years old.—1st, 25l., Lee Steere, Jayes Park, Dorking; 2d, 15l., J. and A. Heasman, Angmering, Sussex; 3d, 10l., G. C. Coote, Torrington, Sussex. Commended: G. Napper, Orford, Sussex, and J. M. Montefiore, Worth Park, Crawley.

Steers or Oxen, above 3 years old.—1st, 25l., Lee Steere, Dorking; 2d, 15l., E. Cane, Berwick Court, Lewes; 3d, 10l., J. M. Montefiore, Worth Park, Crawley, Sussex. Commended class generally.

Heifers, not exceeding 4 years old.—1st, 20l., E. and A. Stanford, Eaton Ashurst, Sussex; 2d, 15l., Lee Steere.

Cows, above 4 years old having had at least one live calf.—1st, 20l., J. and A. Heasman, Angmering; 2d, 15l., J. Shoo Smith, Berwick, Lewes. Highly Commended: W. Botting, Hurstpierpoint, Sussex. Commended class generally.

NORFOLK OR SUFFOLK POLLED

Steers or Oxen of any age.—1st, 15l., R. C. Symonds, Aylmerston, Norfolk; 2d, 10l., W. Harvey, Tinworth, Bury St. Edmunds.

Heifers or Cows of any age.—1st, 15l., H. R. H. the Prince of Wales, Sandringham, Norfolk; 2d, 10l., W. T. Mullen, North Walsham, Norfolk.

LONGHORNS

Steers or Oxen of any age.—1st, 10l., Sir J. Harper Crews, Bart., Calke Abbey, Derby; 2d, W. T. Cox, Spendon Hall, Derby.

Heifers or Cows of any age.—1st, 10l., W. T. Cox, Derby.

SCOTCH HORNS

Steers or Oxen of any age.—1st, 30l., Wihart & Wylie, Galowgate, Aberdeen; 2d, 15l., C. Morrison, Baddon Park, Reading. Highly Commended: T. L. Melville Cartwright, Melville, Ladybank Fife. Commended class generally.

Heifers or Cows of any age.—1st, 15l., Sir W. Calverley, Trevelyan, Bart., Wallington, Newcastle-on-Tyne; 2d, 10l., R. Eastwood, Thorneholme, Lancashire.

SCOTCH POLLED

Steers or Oxen of any age.—1st, 30l., J. Stephen, Conglass, Inverurie, Aberdeen; 2d, 15l., A. Longman, Hursfield, Rattle, Banff.

Heifers or Cows, of any age.—1st, 15l., K. Jardine, Esq., M.P., Castlemilk, Lockerbie, Dumfriesshire; 2d, 10l., J. Reid, Greystone, Alford, Aberdeen.

IRISH (AND BRED IN IRELAND)

Steers or Oxen, of any age.—1st, 10l., R. Wortley, Suffolk Hall, Aylsham, Norfolk; 2d, 5l., W. Nipper, Calfield, Norfolk.

Heifers or Cows, of any age.—1st, 10l., Lord Berners, Keythorpe Hall, Leicester; 2d, 5l., no entry.

WELSH.

Steers or Oxen (runts), of any age.—1st, 20l., H. Williams, Abercothly, Nantgaredig, Carmarthen; 2d, 10l., Capt. H. Platt, Gorrddinog, Bangor.

Heifers or Cows, of any age.—No entry.

CROSS OR MIXED-BRED.

Steers, not exceeding 3 years old.—1st, 25l., J. and W. Martin, Aberdeen; 2d, 5l., W. and J. Lawson, Meikletown, Aberdeen; 3d, 10l., R. Walker, Altyre, Forres. Highly Commended: J. Wortley, Felmingham, Aylsham. Commended: class generally.

Steers or Oxen, above 3 years old.—1st, 25l., J. P. McPherson, Muertan of Kinloss, Forres, Elgin; 2d, 15l., J. and W. Martin, Aberdeen; 3d, 10l., R. H. Harris, Earnhill, Forres, Moray. Commended: class generally.

Heifers, not exceeding 4 years old.—1st, 20l., J. D. Allen, Pyt House Farm, Tisbury; 2d, 10l., H. N. L. Morrison, Blair Guise, Whitehouse, Aberdeen. Commended: G. Mitchell, Foveru, Aberdeen, and H.R.H. the Prince of Wales, Sandringham.

SILVER CUPS.

Silver Cup, value 40l., to the exhibitor, for the best Steer or Ox in any of the classes, the Earl of Aylesford, Packington Hall, Coventry.

Silver Cup, value 40l., to the exhibitor, for the best Heifer or Cow in any of the classes, Sir W. Calverley Trevelyan, Bart., Wellington, Newcastle-on-Tyne.

GOLD MEDALS.

Gold Medal to the breeder of the animal winning the Silver Cup for—

The best Steer or Ox in any of the classes, the Earl of Aylesford, Packington Hall, Coventry.

The best Heifer or Cow in any of the classes, Sir W. Trevelyan, Bart., Wellington, Newcastle-on-Tyne.

EXTRA STOCK.

(That cannot be shown in any of the Classes.)

Silver Medal and 7l. to the exhibitor, for the best Steer or Ox, G. S. Foljambe, Osberton Hall, Worksop. Highly Commended: Her Majesty the Queen. Commended: G. Lawson, H.R.H. the Prince of Wales, Messrs. Wishart & Wylie, T. Bromwich, and J. Overman.

Silver Medal and 5l. to the exhibitor, for the best Heifer or Cow, J. Christy, Boynton Hall, Chelmsford. Highly Commended: R. Jardine, Esq., M.P.

CHAMPION PRIZE.

Piece of Plate, value 100l., for "the best beast in the show," the Earl of Aylesford, Packington Hall, Coventry.

SHEEP.

The Leicesters were placed in the first position, and were a small show of ten pens. Lord Berners took the first prize for shearlings of both heavy and light weights, the former trio weighing 6 cwt. 2 qr. 21 lb., and the latter 5 cwt. 3 qr. 7 lb. These were admirable for their symmetry, fine lustrous fleeces, and general pure traits. Mr. Newman's and Colonel Lowther's were also fine of form and pure as regards character, while Mr. Jordan's, of Driffield, were only a trifle coarse, and weighed 19 lb. more.

The Cotswolds were a poor lot of two pens. The disinclination of Cotswold breeders to exhibit on these occasions is something altogether unintelligible. They have the grandest breed of sheep in the world to show, but the outside public do not know it.

The Lincolns stood just as they did at Birmingham, the same exhibitors taking the same prizes, and only one additional pen being shown, which received no honour.

The Kentish or Romney Marsh were fine pens, and although their backs were not flat and their coats white and staring, there was a considerable improvement in the touch. The hardness of these sheep appears to make them a desirable breed on the bleak marsh from which they take their name.

The Cross-bred Long-woolled sheep were generally very mean; but Mr. T. W. D. Harris sent three Leicester and Lincoln, first cross, which were extraordinary for size, symmetry, and the fineness and lustre of their fleeces.

In the Extra Stock Lord Berners was fairly beaten, the cup going to the executors of the late Mr. Jordan. Lord Berners' wether weighed 1 cwt. 3 qr. 26 lb., and the prize wether 2 cwt. 1 qr. 19 lb., or 41 lb. more. For the cup for ewes there were only two entries. In the Long-woolled sheep (not Leicesters) Mr. Harris was again the winner, with a magnificent Lincoln-Leicester ewe, the weight of which was 2 cwt. 1 qr. 12 lb.

The Southdowns appear to have been put thus far down the list that they might be outside the gallery pillars, so that their beautiful symmetry might be towards the light, and thereby be more plainly seen by the spectators. If this be so, it was good judgment on the part of the stewards, for a finer lot of beauties were never seen together. Lord Walsingham almost surpassed himself on this occasion, and it must have been highly gratifying to his agent, Mr. Henry Woods, and his clever shepherd, Day, to see that, even in such good company, the Merton sheep carried everything so easily before them. The Merton 1st prize in the class not restricted to weight, took, in addition, the 20l. cup, as the best pen of Hants, Wilts, or Southdowns. Their weight was 6 cwt. 1 qr. 7 lb. Lord Sondes' 2d prize weighed 6 cwt. 0 qr. 3 lb. In the class not to exceed 200 lb., the Merton sheep were marvellously pretty, and their touch was equal to their beauty. Mr. Foljambe was 2d here with a very pretty trio, their weight being 4 lb. less in the three. The Merton 1st prize two-shears were the most perfect in form for sheep of this age that we ever saw. Sir W. Throckmorton, Bart., was a good second, and the Earl of Radnor a corresponding third.

The Hants and Wilts Downs were a great improvement on last collection; in fact, these sheep come better and better every year. Messrs. R. & J. Russell's were extraordinary for size and quality, their backs being equal to most of the neater Southdowns. Their weight was 7 cwt. 1 qr. 11 lb. Mr. Walter's were but little inferior as regards form and quality; but they were lighter by 31 lb. the three. As an indication of

the suitability for early forcing, and the great size this breed will come to at an early age, there were no entries of two-shears.

The Shropshires were few, and, as far as they could do so, the prizes stood the same as they did at Birmingham. In the absence of Lord Chesham's 2d shearling pen, Mr. Nock took 2d prize, and three entries having failed to appear, Lord Wenlock took the 3d. In the two-shears, Lord Wenlock was 1st and Mrs. Beach 2d, in a very weak class.

The Oxfordshires were anything but a fine show, and it seems to be the fashion to besmear the coats of these sheep with oil and dust. This, we presume, arises from the habit of cutting their coats flat on the back, and, indeed, something of the kind is necessary to disguise this deep cutting into the fleece. The backs of the 2d prize sheep were awfully disfigured, the whole of them being in but little better form. The prizes for fat wethers had only one pen shown for them.

The Mountain Breeds were of the whitefaced and blackfaced tribes, the former being Dartmoor, and the latter the bold, wild, and wiry Scotch.

Ryeland, Cheviot, and Dorset were represented by a pen of each, the former taking 1st, the latter the 2d and the Cheviot 3d. This and the previous class are more ornamental than useful as competitors.

In the second edition of Extra Stock there were some remarkable sheep. Mr. Rigden sent a wether, weighing, however, only 1 cwt. 2 qr. 15 lb., and Lord Walsingham took this cup also very easily. Sir W. Throckmorton, however, took the cup for ewes with a very handsome and heavy sheep. In the class for Short-woolled, not Southdown, Mr. Nock took the cup for a splendid Shropshire wether; and in the ewes Mr. J. Rawlence won the cup with as grand a sheep as any in the Hall. This was of the Hampshire breed, the weight being 2 cwt. 2 qr. 26 lb.

The Cross-bred Long and Short Woolled Sheep were remarkable for their variety, and also for the pen with which Mr. Overman took the medal as well as cup for his Long-wool and Southdown cross. Mr. Rook's second prize were Lincoln-Herts, their weight being 7 cwt. 2 qr. 18 lb.; Mr. Overman's weighing 7 cwt. 1 qr. 3 lb. Mr. Overman was again first for a single fat wether, and he also took the medal for the best Long and Short-woolled cross; and a more beautiful sheep we have never seen.

The following were the Judges and their Awards:—

SHEEP.—Leicesters, Cotswolds, Lincoln, Kentish or Romney Marsh, and other distinct Long-wools, Oxfordshire, Mountain, and Cross—Charles Clark, Scopwick, near Lincoln. Ralph Newton, Campsfield, Woodstock; John Davis, Webton Court, Hereford. Southdowns, Hampshire or Wiltshire, Shropshire, Ryland, Cheviot, and Dorset—Henry Masfen, Pendeford, Wolverhampton; Henry Lugar, Ingham, Bury St. Edmunds; Henry Hart, Beddingham, Lewes, Sussex.

LEICESTERS.

Fat Wethers, 1 year old (under 23 months).—1st, 20l., Lord Berners, Keythorpe Hall, Leicester; 2d, 15l., W. Brown, Holme-on-Spalding Moor, York; 3d, 5l., B. Painter, Burley-on-the-Hill, Oakham, Rutland.

Fat Wethers, 1 year old (under 23 months), each sheep not to exceed 220 lb. live weight.—1st, 20l., Lord Berners, 2d, 15l., J. Newman, Harrowden, Bedford; 3d, 5l., Colonel Lowther, Oakham, Rutland.

COTSWOLDS.

Fat Wethers, 1 year old (under 23 months).—1st, 20l., Right Hon. Sir J. Rolt, Wotton-under-Edge, Gloucester; 2d, 15l., J. Baldwin, Luddington, Warwick.

LINCOLNS.

Fat Wethers, 1 year old (under 23 months).—1st, 20l., J. Byron, Kirkby Green, Sleaford; 2d, 15l., J. R. Caswell, Quadding, near Spalding; 3d, 5l., R. N. Morley, Leadenham, near Grantham.

KENTISH OR ROMNEY MARSH.

Fat Wethers, 1 year old (under 23 months).—1st, 15l., W. Burch, Rhode Court, Faversham, Kent; 2d, 10l., J. Newport, Ashford, Kent.

CROSS-BRED LONG WOOLS.

Fat Wethers, 1 year old (under 23 months).—1st, 15l., T. W. D. Harris, Wooton, Northampton; 2d, 10l., Sir W. De Capel Brooke, Bart., Kettering, Northampton.

SOUTH-DOWNS.

Fat Wethers, 1 year old (under 23 months).—1st, 20l., Lord Walsingham, Thetford, Norfolk; 2d, 10l., Lord Sondes, Thetford, Norfolk; 3d, 5l., Sir W. Throckmorton, Bart., Buckland, Berks. Highly Commended: Duke of Richmond, Goodwood. Commended: Earl Radnor, Coleshill, High Wycombe.

Fat Wethers, 1 year old (under 23 months), each sheep not to exceed 200 lb. live weight.—1st, 15l., Lord Walsingham; 2d, 10l., G. S. Foljambe, Worksop, Nottingham; 3d, 5l., Lord Sondes. Commended: Lord Brybrooke, Audley End, Essex, the Duke of Richmond, Goodwood.

Fat Wethers, 2 years old (above 23 and under 35 months).—1st, 20l., Lord Walsingham, Thetford, Norfolk; 2d, 10l., Sir W. Throckmorton, Bart.; 3d, 5l., Earl Radnor. Highly Commended: Duke of Richmond, Goodwood. Commended: class generally.

HAMPSHIRE OR WILTSHIRE DOWNS.

Fat Wethers, 1 year old (under 23 months).—1st, 20l., R. and J. Russell, Horton Kirby, Kent; 2d, 15l., J. Walter, Bearwood, Berks; 3d, 5l., L. Loyd, Monk's Orchard, Addington, Surrey. Highly Commended: J. Russell, St. John's, Sutton-at-Hove, Kent. Commended: class generally.

Fat Wethers, 2 years old (above 23 and under 35 months).—No entry.

SHROPSHIRE.

Fat Wethers, 1 year old (under 23 months).—1st, 20l., Lord Chesham, Chesham, Bucks; 2d, 10l., T. Nock, Sutton Maddock, Shropshire; 3d, 5l., Lord Wenlock, Escrik Park, York.

Fat Wethers, 2 years old (above 23 and under 35 months).—1st, 15l., Lord Wenlock; 2d, 5l., S. Beach, Brewood, Pookridge, Stafford. Commended: Earl of Aylesford, Coventry.

OXFORDSHIRE.

Fat Wethers, 1 year old (under 23 months).—1st, 20l., A. Rogers, Bromham, Bedford; 2d, 15l., F. Street, Harrowden, Bedford; 3d, 5l., S. Druce, Eynsham, Oxford.

Fat Wethers, 2 years old (above 23 and under 35 months).—1st, 15l., A. Rogers, Bromham, Bedford; 2d, no entry.

MOUNTAIN BREEDS.

Fat Wethers (of any Whitefaced Mountain breed, of any age).—1st, 15l., W. Smith, Hoopern, Exeter; 2d, 10l., J. Tapp, Twitchea, Devon.

Fat Wethers (of any Blackfaced or Speckledfaced Mountain breed, of any age).—1st, 15l., J. M'Gill, Rotchell, Dumfries; 2d, 10l., Marquis of Aylesbury, Marlborough, Wiltshire.

RYELANDS, CHEVIOTS, DORSETS, &c. Fat Wethers.—1st, 15l., J. B. Downing, Hallowell, Bedford; 2d, 10l., H. Farthing, Nether Stowey, Somerset; 3d, 5l., J. M'Gill, Rotchell, Dumfries.

CROSS-BRED LONG AND SHORT WOOLS.

Fat Wethers, 1 year old (under 23 months).—1st, 15l., J. Overman, Burnham Sutton, Norfolk; 2d, 10l., Watton, Thetford, Norfolk; 3d, 5l., G. Ellis, Bedford.

Fat Wethers, 1 year old (under 23 months), not to exceed 220 lb. live weight.—1st, 15l., Burnham Sutton; 2d, 5l., Colonel Loyd, Wootton Bassett, Berks.

SILVER CUP.

Silver Cup, value 20l., to the exhibitor, for the best Sheep in any of the classes, Lord Berners, Keythorpe Hall, Leicester.

EXTRA STOCK.

(That cannot be shown in any of the Classes.)

Silver Medal to the exhibitor, for the best Wether Sheep, the executors of F. Jordan, Easton, Bedford.

Silver Medal to the exhibitor, for the best Lamb Sheep (not Leicester), T. W. D. Harris, Wootton, Northampton.

Silver Medal to the exhibitor for the best Southdown Sheep, Lord Walsingham, Merton Hall, Bedford. Commended: W. Taylor. Commended: class generally.

Silver Medal to the exhibitor for the best Short-woolled Sheep, Lord Walsingham, Merton Hall, Bedford. Highly Commended: H. Humphrey. Commended: Lord Walsingham.

Silver Medal to the exhibitor for the best Short-woolled Wether (not Southdown), T. Nock, Sutton Maddock.

Silver Medal to the exhibitor for the best Short-woolled Sheep (not Southdown), J. Rawlence, Bulbridge, Wiltshire.

Silver Medal to the exhibitor for the best Cross-bred (Long and Short-woolled Cross), J. Overman, Burnham Sutton.

PIGS.

These creatures become more and more of a general character and quality from feeding every day. At this show there were 55 pens, and not one was done from excessive forcing, while large larders and dowagers were altogether absent. The swinish monstrosities are now considered unworthy a place in a show of agricultural stock. Flabby, patchy cattle which used to appear as a great proof that the shows are at length becoming more instructive, both to the rising generation of farmers and the concourse of town visitors.

In the class for white breeds under 9 months Mr. Cattle's 8 months and 28 days old was extraordinary for substance and fine mellow fat. These are of the greatest possible weight for their kind and age. Mr. Lyon was in next class, as he was at Birmingham, with a pen well as his animals always are. The younger pigs did not present so much uniformity. Chamberlayne's, 1st, had the appearance of a skin of a negro; and Mr. Coate's, 2d, were very "lardified." The Berkshires were unusual there being only three pens over 9 months in pens over 12 months of age. As regards character there was nothing remarkable, excepting the breed, like others, is "sporting," as the gardeners so that we shall soon have Berkshires of the small breed, in the same way as we have the small white breeds.

The following were the Judges and their Awards:—

PROCS.—Joseph Smith, Henley-in-Arden, Warwick; Woodman, Southeast, Lewes; Gilbert Murray, Castle, Derby.

WHITE.

Not exceeding 9 months old.—1st, 10l., C. Cattle Nottingham; 2d, 5l., Captain R. P. Warren, Berks. Highly Commended: Rev. J. O. Stevens, Savernham, Berks. Above 9 and not exceeding 12 months old.—1st, J. Lynn, Stroxtan, Lincoln; 2d, 5l., W. H. Dunn, High Berks. Highly Commended: T. L. M. Cartwright, Berks.

Above 12 and not exceeding 18 months old.—1st, W. H. Dunn, Hungerford, Berks; 2d, 5l., Earl of Radnor. Commended: Her Majesty the Queen, Prince Consort's Farm, Windsor.

BLACK.

Not exceeding 9 months old.—1st, 10l., T. Chamberlayne, Cranbury Park, Winchester; 2d, 5l., J. Coate, High Blandford. Highly Commended: J. Kent, Whyke, Hampshire.

Above 9 and not exceeding 12 months old.—1st, Chamberlayne, Cranbury Park, Winchester; 2d, 5l., J. Coate, High Blandford, Dorset. Highly Commended: J. W. Wuyke, Chichester, Sussex.

Above 12 and not exceeding 18 months old.—1st, J. Coate, Hammoor, Blandford, Dorset; 2d, 5l., Capt. J. Warren, Basingstoke. Commended: C. McNeill, Surrey.

OTHER BREEDS.

Not exceeding 9 months old.—1st, 10l., S. Druce, Oxford; 2d, 5l., J. Biggs, Cublington, Beds. Above 9 and not exceeding 12 months old.—1st, Roberson, Hertford; 2d, 5l., J. Biggs, Cublington. Highly Commended: J. Treadwell, Upper Winchester, Berks.

Above 12 and not exceeding 18 months old.—1st, Clark, Altwood, Berks; 2d, 5l., J. P. King, Berks.

SILVER CUP.

Silver Cup, value 20l., to the exhibitor, for the best Pig in any of the classes, J. Coate, Hammoor, Dorset.

EXTRA STOCK.

(That cannot be shown in any of the Classes.)

Silver Medal to the exhibitor for the best Pig, C. Coate, Porryfield, Godstone, Surrey. Highly Commended: J. Overman, T. Chamberlayne, Berks. Commended: J. Overman, T. Chamberlayne, Berks. Stephens, and J. Coate.

IMPLEMENTS.

The exhibition of implements in the Agricultural Hall this year is not above an average. The number of stands in the main body of the hall exceeds that of last year, there being on the ground floor 31 for 1868; and in the galleries, 177 against 23 for 1868; and in the galleries, 177 against 164. Total this year, 208; last year, 193; increase 15 stands. But the number of stands indicated

the exhibitors, and as the space both years is small—or we may say, the same—it follows that many of the exhibitors have not been able to get the articles entered in the catalogue into the Hall. On the other hand, we never saw the stands more closely packed together, while the selection seen the best ever credited to the exhibitors. In the Avenue of Art, there are some 22 stands, and in the new department opened this year, viz., the Central Hall, Bazaar, &c., total in this department, 72 stands. Grand total on exhibition, 280 stands.

Horizontal Engines form an interesting class. Some of them are coming perhaps rather familiar to our friends, but, upon the whole, we have to report progress. The number is also on the increase. Horizontal engines are on the increase for indoor threshing, especially in our northern and western counties, where the climate is unsuited for outdoor threshing.

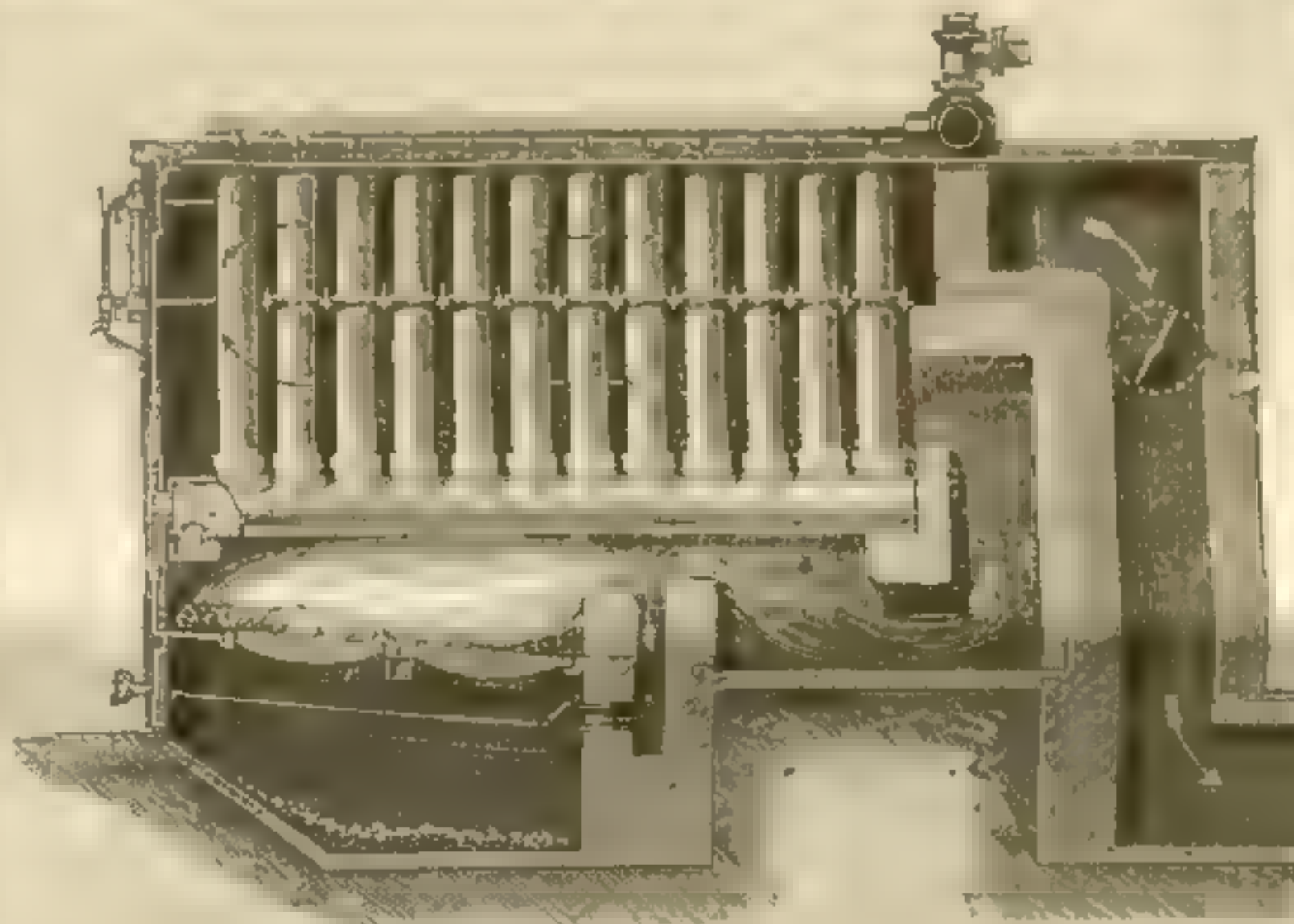
Vertical engines continue to merit growing patronage. They have their advantages over the horizontal engines, not only in construction as to the working and extra and unequal wear of the piston and cylinder, but in their adaptation to light work—as grinding, chaff cutting, and root-pulping. The small area of space they occupy is also greatly in their favour. Of late years very great progress has been made in the cattle-feeding department of farm practice, hence the growing demand for engines of this class, but this is not all that must be reported, for they are evidently also entering into competition with their rivals in the threshing barn. They have long been in extensive use by builders for hoisting and pumping, being made locomotive by means of rails, and constructed on this plan they are proving equally effective and advantageous in the brick-field, quarry, wood-yard, large dairies for churning, laundries, for driving washing machines, and the like. Add to this the growing use of a heavier class of engines for steam culture, which necessitates as it were the employment of small vertical ones at the homestead, it is easy accounting for the growing popularity of the latter at all our implement exhibitions. In construction there is a close similarity on the whole, but in details of mechanism they are diversified. Something of course depends upon the special purposes for which they have been made, and whether they are to be used outdoors or indoors, and whether they are to burn coal or coke, and so on.

Portable Engines continue to claim the chief share of the Hall. They are of all sizes, from the small "pony" up to the big "steam horse." They exemplify the highest standard of skilled labour, and in the details of mechanism we have to report progress likewise. The improvements made by Roby & Co., Perseverance Iron Works, Lincoln, merit special notice; they consist chiefly of a "governor," regulating the cut-off of the steam in a very effective manner; it is placed and works horizontally in the crank-shaft, and acts directly upon the eccentric, by which the full boiler pressure of the steam is always got in the cylinder. The admission of full-pressure steam to the cylinder being thus regulated in the most effective manner, the engine always works at its maximum point, effecting thereby a corresponding economy in the consumption of fuel, as compared with the old plan. The cylinder is jacketed and well cased, and from the brackets carrying the crank-shaft and governor being cast in a piece with the saddle, the boiler is thus strengthened where it most requires it. Improvements have also been made in the boiler, both as to the generation of steam and the easy keeping of it in effective working trim. The steel boiler of William Adams & Son, and other improvements of their portable engine, merit special notice.

Traction Engines—This favourite class is not so well represented in numbers as it should have been, several examples not being admitted for the want of room. This restriction in the admission of traction engines gives a prominence to the old portables, which they otherwise would not have enjoyed in the Hall. The limited number on view are, however, a first-rate selection, a flattering but trustworthy sample of the whole class exhibited at Manchester, Leicester, and other summer meetings of the Royal Agricultural Society of England, of different exhibitors showing respective peculiarities of construction. Thus, the engine of Messrs Richard Garrett & Sons differs from the two, a 14-horse and a 12-horse ploughing engine, of John Fowler & Co.; these latter, again, from the Messrs Clayton & Shuttleworth's, Mr. Burrell's, and the Messrs James & Frederick Howard's, and the Bedford engine, again, from the Messrs. Aveling & Porter's. The agricultural public is now familiar with the distinctive characteristics of all these engines, and it is highly interesting to hear how closely farmers scrutinise differences, each from his own point of view, as determined by experience and observation. The grand desideratum generally at issue is the cultivation of land by steam—the absence of the steam-plough this year—the fact, however, which this gives to the cultivators, shows a great diversity of soil and climate; harvest results an increase of from 8 to 20 bushels per acre, when thrown in the scales, so influence the balance of opinion as to baffle any approximation at a general conclusion in favour of this or that peculiarity of construction. At the same time twin-engine hauling and smashing are obviously this year in the ascendency, but a few words more on the head under steam-harvest implements.

Steam Boilers—The Messrs. J. & F. Howard exhibit their "patent safety boiler and superheater," which continues to receive a well-merited patronage in agriculture and all the other arts and branches

of manufacture where steam-power to any considerable extent is used. It is adapted for small works as well as large ones, but in large concerns, where a number of boilers are used, the economy of steam and fuel, taking into account at the same time the greater safety, leaves, perhaps, a balance in its favour. One large house, for example, some time ago, after making the necessary inspection of those in use, had their boilers put up on the Howard plan, as illustrated in the accompanying section, and before two years had expired they were so satisfied with the advantages realised that they gave orders for four more boilers to take the place of those in use on the old plan long before they were worn out. Such facts speak for themselves. With the view of placing the matter of fact argument fairly before them, we give the following description of the illustration. The new boiler, it will be seen, is built up of wrought-iron tubes, the bursting pressure of each of which is fully 2000 lb. per square inch, and the whole of the steam pipes and connections are tested to a cold water pressure of 500 lb. before they leave the Britannia Iron Works. When a common boiler bursts at work, the upshot is generally more easily imagined than described. It is otherwise with the safety boiler, for in the event of the bursting of a single tube, say any of those shown in section, the result would only be equivalent to the forcible opening of the safety-valve and blowing off of steam into the heating chamber, thereby suddenly lowering the temperature and steam pressure, and putting out perhaps the fire, so that no dangerous accident or serious loss of property could be sustained. The simplicity of parts, the facility with which they can be set up and repaired, economy of house room, and the durability of the whole, form together another characteristic of the safety boiler and superheater. Thus, as there are no rivets or seams in their construction, there is not a single bolt or joint exposed to the action of the fire. The tubes being all counterparts of each other, those farthest from and those nearest when the heat is most intense, can be interchanged in suc-



HOWARD'S NEW PATENT SAFETY BOILER AND SUPERHEATER.

cession, so as to increase the durability of the whole to a maximum. The tubes being also so arranged and fitted in sections that each is free to expand and contract reciprocally, as they absorb or give out heat, it follows that the expansion or contraction, as the case may be, produces no harm. Again, as the parts are all made on the interchangeable principle, they are easily set up and repaired, and with regard to house room the new boiler does not require over half the space of a Cornish one of equal horse-power. The circulation of the water is so perfect throughout the boiler that no burning out or fouling of the tubes takes place. Thus, as each tube has within it an internal one rising up through the water space, the water is consequently divided into annular concentric columns. The upper portion of the tubes is divided from the lower by a diaphragm, and the current of heated gases from the fire (the direction of which will be seen in the section by the arrows) impinging upon the tubes, causes the water in the outer space or ring to rise to the top and flow down to the bottom of the inner tube, thereby keeping up a most active circulation in every part of the boiler. The upper part of the tubes form the heating chamber, and from the manner they are exposed to the heat it will readily be seen that the high-pressure process of superheating can easily be carried to the desired degree.

Corrugated Tube Boiler, or more correctly speaking, **Three-lobed Tube Boiler**.—The Messrs. Kinsey, Norton, Hill & Co., Robin Hood Works, Nottingham, exhibit a boiler with three-lobed tubes (Kinsey's patent), which has an awkward resemblance to the Messrs. Howard's safety superheater in more respects than one. Thus the mode of applying heat—i. e., the flue and chimney—and the position of the lower horizontal tube and the diaphragm are identical, and even the vertical outer corrugated tubes, each with three lobes—each lobe opening into the other with a central tube rising up in each lobe—is virtually an imitation of three of Howard's tubes, shown in the above section. The one exhibited is a three-lobed tube. They may be made with any number according to the horse-power required. As to the specific mechanism there is nothing new in that—corrugated tubes having long ago been used; but we do not recollect having seen any in use with three lobes, as in Kinsey's patent.

Gas Engines—The Huzon Gas Engine is in its

place, in the clock gallery—a 1-horse power engine, and is exhibited at work by Mr F. B. Valance, Greenwich and London. In almost all sorts of household work it is freer from objection than steam-power, and wherever it is in use it is giving very great satisfaction. It is well adapted for driving the churn in the dairy, or the washing and wringing machines in the laundry, where a supply of gas can be had, and also for grinding, crushing, &c., &c., as you can start the engine at the gas is turned on, and stop instantly by turning it off, without any loss of time or motive power, while gas is cheaper than steam, and the Huzon Gas Engine more easily kept in working order.

Steam Ploughs—What shall we say to the reader—"that there is not a steam plough in the great hall?" No, not one! Mr Smith, of Wootton, does not require a steam plough, and I memory does not fail us he once told us, perhaps half-joke, half-serious, "the day is not far distant when steam ploughs will not be shown at our general meeting," but we never imagined that that time would be Christmas, 1869! The poet Drayton tells his readers that the Hereford birds sat on the ground and sang curses against the plough, because they had a branch to perch on, every tree having been pulled up, and those who say some up purposely to sow a prejudice against the sowing of the character of the soil, are such up.

Steam Cultivators have of all their own way this year in the Agriculture Hall. The fact, apart from any other argument, goes far to prove that harvest results are in their favour, and we aver that this is likewise the general testimony of experience. It will no doubt be said that had there been room in the Hall, steam ploughs would have been shown. But that is not the question at issue. It is an old and true saying, "Whatever touches the purse-strings eventually tells its own tale," and leaving the reader to apply this we have to report the two cultivators on the stand of John Fowler & Co., and the very high degree of perfection they exemplify in mechanism and manufacture. Being entirely free from all complication the resistance falls equally upon the working parts, so that they are both strong and simple, while the wearing parts, so to speak, are, on the other hand, reduced to a minimum. The main axle that carries the road wheels is cranked, and as the frame carrying the lines is connected to the crank the latter (the lines are lowered or raised and adjusted to any depth required by the tilage or nature of the land. The body or frame fixed to the crank is of a breadth suitable for heavy land, but when crossing or working light lands, lugged sides are put on, adding as many tines as you like, and when hauled by double engine tackle the cultivator may be over 40 ft. in length. The two ropes are from each end—are attached to the free end of the long turning (or lifting) lever, seen in advance of the single wheel in front. This long lever is carried on a stud sufficiently far back to place the lever within the reach of the steersman so as to give him complete command of it. The two ropes become alternately the hauling rope and the tail rope, and at the end when the alternation takes place, in the act of turning, self-acting rope guides receive the tail rope; and in this way one man on y is re-

quired to work the implement. On the other end of the turning lever are two chains, connected with two quadrant pulleys on the crank axle, and as the lever is pulled round the chains turn the axle by means of the quadrant, and thus raise the implement out of the ground. Thus when it comes up to one headland the engine on the opposite headland is thrown into gear, when it pulls the lever round, raises the frame, which is held by a catch, and when up to the proper height the implement is then hauled into fresh ground by the lever coming against a stop. The steersman, who remains seated all the while, then releases the catch, when the implement drops into work and is hauled along the field; the tail rope being laid down in the rear ready to become the hauling rope when the cultivator comes up to the hauling engine; and so on until the field is finished, the turning at the headland occupying less time than is required to describe it.

The Different Systems of Rope Traction in the cultivation of land by steam-power are now familiarly known under various designations, as (1), twin engine and twin implement system; (2), twin engine and single implement system, or double engine and single implement system; (3), single engine and twin implement system; (4), the roundabout system—single engine and implement; (5), the single engine, anchor, and implement system; and (6), the flying rope and twin rigger anchor, or single engine system (Fisken's). Then there are winding drums and clip drums, attached or detached, but they do not necessarily form systems. That shown in the Hall by the Messrs. John Fowler & Co. is included in the two Messrs—a 14-horse and 12-horse—each carrying a winding drum under the boiler: the two engines, of course, representing two 14-horse and two 12-horse, each pair for working a cultivator as described above.

The Messrs. James and Frederick Howard exhibit a traction engine adapted for either the first or fifth systems, and models illustrating how the both systems, and also the fourth, are carried out. The Messrs. Coleman & Martin, of Leeds, show two instances of the third system, with their own, and their own. The Britannia Steam Cultivator Company enter the sixth in the catalogue. Models of Fisken's light rope steam ploughing tackle, but the stand is empty.

The following engraving illustrates the system.

coffee pots, kitchen ranges, and so on, including, of course, sewing machines.

Dairy Utensils as last year, with the exception of Ash's current churn, in which the cream flows against a fixed dasher; and Hunt & Pickering's milk can (Hunt's patent), in which the neck and lid of the ordinary cans in use about Leicester is replaced by true and faced. A conical wooden cover, seated with cork, is fitted and secured inside the neck by a compound lever, which is made to act with considerable pressure on the milk, while it at the same time keeps down the cover and makes the can air-tight, and the levers are secured by a lock. The cans are made in all sizes, of the best charcoal tinned sheet-iron, and fitted with wood bottoms.

Carpeting Tools, grindstones, saw-benches, endless saws or feeders, leather and vulcanized india-rubber boots, and many other articles.

Artificial Manures, oilcakes, and feeding stuffs, are well represented by C. F. Stofell's concentrated fish manure below stairs in the arcade, and by Raynbird & Co. Davis's compressed fodders, &c., and others in the galleries.

Henry Allnatt, Esq., of the Estate Office, has the most interesting stand in the Agricultural Hall. His diagrams are drawn with surprising fidelity of purpose and effect.

SEEDS AND ROOTS.

Messrs. Hooper & Co., seed merchants, Covent Garden, exhibit a finely arranged selection of seed Potatoes, consisting of small samples of the most noted varieties of the day. Paterson's Bovinia, or cattle-feeder, occupies a prominent central position. The roots, although exceedingly large, are perfectly healthy, which indicates a vigorous constitution.

Messrs. Thomas Gibbs & Co., corner of Half Moon Street, Piccadilly, London, W., the seedsman to the Royal Agricultural Society of England, exhibit splendid collections—1st, of dried specimens of selected natural Grasses; 2d, of all the most approved kinds of Wheat, Barley, Oats, &c.; 3d, seeds of the above two specimens; 4th, growing specimens in pots. Their collection of roots is of first-rate quality and finely arranged:—Drumhead Cabbage (Robinson's), each weighing upwards of 50lb.; Yellow Globe, Orange Globe, and Red Globe Mangel are superior, and so is the Long Red variety; Swedes, excellent; and this also applies to their purple and green Kohl Rabi, their yellow and white-fleshed Turnips, and to their Parsnips and Belgian Carrots.

Messrs. J. C. Wheeler & Son, Gloucester, exhibit a fine collection of roots and seeds. The different varieties of Mangels are both large and superior in quality.

Messrs. George Gibbs & Co., 24, 25, and 26, Down Street, Piccadilly, London, W., have, as usual, a large stand, tastefully laid out with magnificent roots of the finest quality, surmounted ornamentally with dried specimens of all the best Grasses, thus illustrating the produce of their mixtures for laying down land to permanent meadow and pasture, and also for renovating worn-out grass-land. Their Drumhead Cabbages (Robinson's) are of enormous size, one weighing 59 lb., and another 60 lb., when newly pulled. A Gourd weighs 84 lb., Long Red Mangel about 46. Their Yellow Oval Mangels are also unusually large and fine. The Globe varieties are also splendid; Swedes and Kohl Rabi very fine; and the same may be said of yellow and white-fleshed Turnips, and of Belgian and Long Surrey Carrots.

Messrs. Raynbird, Caldecott, Bawtree, Dowling & Co., Basingstoke and Mark Lane, London, exhibit finely selected samples of agricultural seeds, including seed corn and the Grasses, also of roots, oilcakes, feeding stuffs, and manures, all of the very best quality.

Messrs. Isaac Wright & Son, Great Bentley, Essex, exhibit fine Cabbages, Swedes, and the different varieties of Globe and Long Mangel Wurzel, with samples of agricultural seeds and specimens of the Grasses.

Messrs. Thomas Harrison & Son, Midland Seed Warehouse, Leicester, have a splendid stand. The numerous articles exhibited are judiciously selected, and of the very best quality, and this applies equally to seed roots and dried specimens.

Messrs. James Carter & Co., High Holborn, London, have a most magnificent collection, very skillfully selected from their own farms and those of their customers. The splendid show of roots are from the latter, and the seeds and growing specimens in garden pans and pots from the former. The gigantic Brussels Sprouts, which are without a rival in the Hall, are most attractive objects, and so are the enormous Drumhead Cabbages and Drumhead Savoys, produced by Mr Robinson this year. The Warden Mangels, Mammoth Long Reds, and sewage produce from Barking, at the rate of 50 tons per acre, are all wonderful specimens of vegetable growth. So are the splendid Swedes, grown by B Allan, Esq., Wexford. The Kohl Rabi are fine; the yellow and white-fleshed Turnips are very excellent, and the same may be said of Belgian Carrots and Jersey Parsnips. The Sugar-Beet and the "Perfection Salad Beet" merit the highest commendation. There is a fine show of seed Potatoes, including Paterson's Bovinia and Victoria, and some other varieties more interesting to gardeners than farmers.

The growing specimens show the germinating powers of the seed and the constitutional health of the specimens themselves.

Mr. John K. King, Great Coggeshall, Essex, has a fine collection of his pedigree prize stocks of Mangel Wurzel, Swedes, and other roots, whose superior quality is attracting the attention of good judges, practically acquainted with the growth of the seed. His roots are but of medium size, finely formed, and remarkably free from abnormal growth or

unhealthy development; and this applies to the Mangels as much as to the Swedes and Turnips.

Messrs. Sutton & Sons, Royal Berks Seed Establishment, Reading, Berks, show a splendid collection of dried Grasses, and also of Grasses in growth, showing their germinating powers. The roots are super-excellent and finely arranged. The Mammoth Long Red Mangels in the centre, and the intermediate or oblong orange and yellow varieties on either side are magnificent, and universally admired both for size and quality. Their Champion Swedes are also very superior, and so is their Kohl Rabi, more especially the green variety. The yellow and white-fleshed Turnips are also very fine, and so are the different kinds of Sugar-Beet, Carrots, and Parsnips. The Drumhead Cabbages are remarkable productions of vegetable growth. Their Early Racehorse and Walker's Regents are superior specimens of seed Potatoes, and so are Drummond's Prolific and the King of the Potatoes. A fine sample of Paterson's Bovinia is shown. The Reading Onions are also excellent.

Mr. Alfred Hall, Westbury Farm, Westbury Wilts, has a most attractive exhibition of his Westbury Swedes, all growing as it were. He also shows his Long Red and Yellow Globe Mangels, Green Kohl Rabi and Belgian Carrots.

The almost incredible size of roots shown this year and the enormous produce per acre call for a general remark in conclusion. When Cabbages weigh 60 lb. and upwards each, Mangels 48 lb., and Potatoes are grown as big as dumb-bells, and when 50 tons of the former (Mangels) are grown per acre, and 40 tons of Potatoes, does it not augur well for the future?

At the annual dinner of the Smithfield Club, held on Monday evening, in the new dining hall, a larger number than has been known for some years assembled. The Duke of Marlborough was in the chair, and in giving "Success to the Smithfield Club," his Grace reminded his hearers how the society, from a small beginning, had developed itself, increasing more and more in usefulness, in public estimation, and in prosperity, until at last it had become the most important agricultural association in the country. He then drew a comparison between the Royal Agricultural Society and the Smithfield Club, speaking of the former as a society which fostered the breeding of cattle, while the Club promoted the feeding of the animals for the use of man. Lord Walsingham returned thanks for the prize winners, expressing his gratification that he had obtained prizes for every pen of sheep (three in number) which he had exhibited. The noble lord expressed his opinion that the show was, on the whole, a fair average one. Mr. Keary, for the judges, said that the show was a good average one, no doubt, but he had known better animals take the gold medals; still he was much surprised at seeing so large an amount of food produced at such early maturity as the show of 1869 in a most remarkable degree exhibited.

HIGHLAND AND AGRICULTURAL.

At the monthly meeting of the directors of this Society, held last week, it was resolved that the anniversary general meeting of the Society should be held on Wednesday, January 19, 1870.

Dumfries Show.—The following are the principal points noticed in the report with reference to the show to be held at Dumfries in July next year—1st. It was resolved to add a section for Ayrshire cows in-calf, of any age. 2d. That the premiums for stock should be the same as at the Edinburgh show, with the exception of those for Ayrshire cows, extra horses, and Leicester sheep, in regard to which a modification is proposed. 3d. That the premiums for extra sheep and for dairy produce should be the medium gold and silver medals. 4th. That a silver medal should be given to the commended animals in all classes of stock, and as a 2d prize for poultry in place of the Bronze Medal. The following additions to the regulations were recommended:—1. No animal to be allowed to compete in more than one section. 2. With reference to regulations 6 and 8, birth of at least a seven months' calf must be certified; and in regard to regulation 9, birth of at least a nine months' foal. 3. A veterinary surgeon will attend each set of judges of horses. He shall examine those selected for premiums, and shall declare as to their soundness before the judges finally decide, but the veterinary surgeon shall in no way interfere with the judging. 4. In the class of horses, all breeding stock selected for premiums shall be examined by a veterinary surgeon, but shall only be cast by him on the ground of unsoundness which may be likely to affect their progeny. 5. No protests on veterinary grounds will be received. The board approved of the various suggestions contained in the minute in regard to the Dumfries show; and the secretary was instructed to submit the revised list and regulations to a meeting of members to be held at Dumfries on Wednesday the 15th current. In regard to the implement department, the board resolved that the judges at Dumfries should be authorized to award medals or commendations, as was done at the Edinburgh show, for general collections, and for new inventions or improvements, where a trial is not practicable.

Proposed Show at Perth in 1871.—The classes of stock for the proposed show at Perth in 1871, as suggested by the committee on general shows on Nov. 17, was approved of by the board, and the secretary was instructed to bring the list before the members in the next meeting to be held at Perth on Friday the 17th current.

Premiums for Essays and Reports.—The following new subjects were added—On the operation of the Contagious Diseases (Animals) Act, 1869, on the different modes of shoeing horses, with special reference to those recently introduced; on lambing and the diseases incident thereto, particularly whether some of

these diseases are of an infectious or contagious nature, with statistics (competition for this premium to be limited to shepherds); on the methods of management of woods and forests in the schools of Germany, Hanover, France, and other parts of the Continent, on the current prices realized for forest produce in different districts throughout Scotland; on the effects of the very dry summer of 1869 on trees and shrubs generally in different soils, situations and exposures; on the comparative advantage of ploughing-in manure immediately after it is spread on the land or of allowing it to remain on the ground for some weeks before it is covered; on the causes of the failure of winter Wheat sown after early Potatoes lifted in July or August.

Farmers' Clubs.

LONDON.

On Farm Agreements: Monday, Dec. 6.—Mr. MASFEN read a paper on this subject, in which, after some very discursive remarks on the general relations of landlord, tenant, and labourer, he discussed Mr. Cadle's form of farm agreement, to which the Royal Agricultural Society of England had awarded their premium.

MR. CADLE'S FORM OF FARM AGREEMENT.

In the year 1868 the Royal Agricultural Society offered a premium for the best form of agricultural agreement, or an essay upon the same, and in awarding this prize to Mr. Cadle they recognise the existing necessity for more liberal covenants. I do not know how far my views may be endorsed by the members of this Club, but if the motive power of the Royal Agricultural Society will assist in carrying out the revolution proposed in Mr. Cadle's agreement, I think we have grounds for hope that a point is gained, and we shall soon find a better system than the present unsatisfactory mode of making out justice to quitting tenants.

This agreement sets forth that the hay, straw, &c., all belong to the landlord, and that the hay, straw, fodder and roots of every description be consumed on the farm, except that certain quantities of hay, straw, and roots be sold, the full value being returned to the farm in the shape of cake or artificial manure. Now, this is a boon not generally given to farmers, and the great waste you frequently see of straw, where a tenant is compelled to consume it all, is such as to render it little better than rotted straw, returning nothing fertilizing to the land for succeeding crops. Another clause not generally found is, that a tenant may sow two white straw crops in succession. Now this, I think, will be advantageous in many localities, and not injurious to the land; it has been so in my case, having frequently found a great difficulty in the growth of Clover, and in each case, when I have adopted the second white straw crop, preceded by a liberal application of manure, the result has been a satisfactory root of red Clover. Mr. Cadle proposes compensation for artificial food and manure used on a liberal scale, and I think it will meet with many supporters; as far as the food is concerned I will go with him, but I am not disposed to sanction his views as regards superphosphate, except as regards that used in the last year of the occupation. For draining and all permanent improvements in building, &c., on the tenant's own grass land, a planting fences and fruit trees, a section of the landlord for all improvements being given, I fully endorse his proposals, and coincide with his general mode of compensation for the various appliances referred to as the productive elements which a tenant, farming highly, must leave for the benefit of his successor. In clause 9 stipulation is made for all land sowed to be paid for if clean, 5s. to 30s. per acre, at the discretion of the valuer, in addition to the Clover or Grass seeds sown, &c., returning to the tenant an equivalent for good manure, &c., which he would receive no more than 10s. per acre, &c.

In a discussion at the Midland Farmers' Club, Mr. Russell, of Cheshire, directed the attention of the meeting to all agreements of a stipulation for clean land. He proposes that, at the expiration of Michaelmas of any year, 1/4 of the arable land shall be left to plant with white straw crops, one fourth shall have been followed with green crops during the previous summer, the other moiety shall have been wholly under Clover or mixed Grass seeds or part in Clover, the rest Beans and Peas; after being manured, some of the Clover or Grass seeds being allowed to stand for seed. He requires that no more than one-fourth of the arable land should be fallow in the year after the termination of the tenancy, nor require an outlay of more than 10s. per acre, &c. if it does not exceed that sum the landlord or tenant should pay the difference, if more the outgoing tenant should pay. To follow the compensation clause. Not less than one-fourth of the Clover or mixed Grass seeds shall be in own for hay during the last year, for the use of and to be paid for by the incoming tenant, for the remainder of the land, whereon Clover or other Grasses have been grown, the whole standing by sheep, the incoming tenant shall pay after the rate of 40s. per acre, provided such land be clean and that only one crop of corn has been taken since the previous fallow. There are other covenants that relate to the purchase of manures, which are dealt with in the manner proposed by Mr. Cadle. With one exception, Mr. Randall proposes that one half the proceeds of the hay, straw, &c., sold be returned to the tenant.

TIME OF ENTRY TO FARMS.

Much diversity of opinion exists on the time of quitting and entry on farms; it is contended in some localities that Michaelmas is a more desirable time for change than Lady Day.

It is not general in my locality; but on several occasions I have valued on farms where a change has taken place at Michaelmas, and in those cases I have found it has given satisfaction. In the Michaelmas change one thing is apparent—that the off-going tenant can clear away, and that the incoming tenant, by paying for the produce, which is then secured, is at liberty to proceed in all matters without hindrance, and carry on the various operations of the farm, which are often very unsatisfactory performed by an off-goer who leaves at Lady Day. I should here observe that, although I oppose any set rule of cropping, I should require the farm to be given up in a certain course, although the valuer would never consider a farm up to the required standard of good husbandry when a proposition of any one crop prevailed. I have always contended in agreement should be made to suit the localities. It is said, "No three-course system for the off-going tenant." It is said, "The off-going tenant should have a good tenant for six or eight years, &c." Mr. Cadle's reply is, "Give liberal agreements, and the off-going tenant will have been benefited by the change." Ad practical men know much land in 1869, &c., that all of artificial food and manure, &c., which is consumed from a liberal diet of the best animals. The off-going tenant's capital is not expected to be made by the animals who consume the food, but from the fertilizing properties of the manure.

you see, the want of recognition in all farming customs of ancient date. In some instances the manure upon the farm belongs to the tenant; he pays on entry, and, as a matter of course, receives for it on leaving. In that case there is no object gained by lowering the condition of the farm. If he has a limited quantity of manure on entry, and leaving a larger proportion at the expiration of his tenancy, he receives for all additional, and is thus recompensed for the expense to which he has been put by that increase. This is considered by many farmers the best form of occupation, and as one of the best of all old agreements has certainly much to recommend it. In other counties there are various customs in general use, called compensation for dressings and acts of husbandry, that find favour as tending to a good state of husbandry. The off-going tenant receives compensation for the last year's artificial manure bill, deducting certain sums for the roots, as per the mode of consuming them.

THE LABOURER.

Another most important consideration for the tenant is to see that he stipulates for the provision of good cottage accommodation:—

We are often told we provide our cattle with comfortable and warm shelter, but the lodgings of our agricultural labourer is not taken into consideration. This is a thing that requires attention, proper accommodation within a reasonable distance from his labour should be provided. The Urban Chargeability Act has in some measure removed an obstacle in the way of this great good; but there is much still to be done to make the matter as satisfactory as I could wish. Lord Leicester expressed a good opinion upon this subject a few years ago. He told us that in improving the dwellings of the labourer we were not to expect a return for our capital direct, but must charge the additional convenience we receive with some share of the expense incurred, which should be borne by both landowner and tenant, and in that view I think he would find many of these best able to form an opinion join him. The labourer must be better educated, and with that increased education you fit him for a more elevated position in the social scale, and in no way so well reward him, as in increasing the happiness of his own fireside. Education enlightens him, and should make him a better labourer, and that same information makes him more alive to the position in which he has been too much of a reproach to our class and of a mis-erisation by another. I believe the agricultural labourer of this kingdom will bear favourable comparison with the operative classes generally, still I consider there is necessity for his condition being improved, the requirements of the age make the service he has to perform more intricate than formerly. The education of the labourers' children will occupy the attention of Parliament during the next session, and I trust that in dealing with it provision will be made to educate them to the position they are expected to fill, and if in addition to their book knowledge some scheme can be devised for their technical education, an additional object will be achieved. The steam engine, plough, reaping machine, in fact every new appliance for the general cultivation of the farm, is rendered more valuable, the amount of property in the shape of machinery more costly than formerly, hence you require a better man, a more intelligence must be brought to bear in nearly every branch of labour in which he is engaged.

GAME.

The next is one of the most difficult questions to deal with in connection with landlord and tenant—I allude to game.

Mr. Cadle, in his agreement, provides for the destruction of rabbits all the year, and for no dog during the breeding season, which is quite right, and with the general stipulation. With regard to compensation for damage done by game I cannot coincide with the proposal, knowing from practical experience the evil attending the clause, viz., "To all what all damage done by game, exceeding 5s. per acre for each and every acre so injured." I have frequently been called in to assess damages done by game, and all who have been similarly placed will agree with me that it is surrounded by a variety of disagreeable circumstances. You must first as per this agreement, submit to an amount of damage, receiving no compensation; you then have to make a claim of a nature not the most agreeable, and no claim is viewed either by a landowner or his advisers with a more jealous eye than the one alluded to. I will ask you as practical men, in how many cases of this kind have you not found that a notice to quit has followed on almost the very next opportunity after such a claim has been made? If, gentlemen, you have not, I have. When consulted upon matters of this kind, my first question is, Do you value your occupation? If so, do not do anything likely to irritate your landlord, or those in his employ, for it must be well known there are besides the owner those who are fully as difficult to deal with in things of this kind. I believe a greater evil exists than this over-preservation of game. Another most objectionable practice on some estates is to introduce a second tenant by setting the game. This should never be done without first offering it to the tenant, and if he refuses to have it at the value placed upon it when he takes the farm (which should always be a fair one) the landlord should then be considered at liberty to deal with it as he thinks well. I look for the whole question to be more set at rest by public opinion being brought to bear upon it than anything else. Men and things are more influenced by that than by any other power. The law now gives the tenant the game, but by a voluntary act he resigns his right to the owner, feeling at the same time he has little option in the matter. There is one remark I wish to make upon the rabbit clause in Mr. Cadle's agreement; it provides for the destruction of them at any time, but there are hundreds of farms where rabbits never remain on the land during the day, although at night they visit you by hundreds, to the utter destruction of your crop. Now, in cases of this sort, the stipulation affords no remedy, you have no power to enter the coverts where these pests of the farm take shelter during the day, and to attempt to interfere there would be considered sacrilege.

THE LEASE.

One word upon Scotch farming and leases. As you are aware, in Scotland the general system of tenure is by lease of 19 or 21 years, renewable at a certain period, prior to the expiration of the term specified.

The system of farming there has much to recommend it to our notice—land well farmed, masters and labourers happy and prosperous, the amount of capital there invested contrasting very favourably with that of England. No complaint can there be heard of the uncertainty of tenure, and the want of security for invested capital. The tenant immediately makes a liberal investment with an assurance that there is no opportunity during his term to reap the reward of the same—and it is as applicable to the case of a yearly tenant, if the security which Mr. Cadle sets forth in his essay be not upon. We were told by the late Mr. G. of Dunston, a lease will bring a barren heath to the productivity of a garden, and that a yearly tenancy will return the garden to its original desert state.

POSSIBILITIES OF ENGLISH AGRICULTURE.

I feel persuaded that if either of the systems here

proposed were generally adopted, it would tend more than anything else to increase the value of the land of this kingdom, and would double the available food for the people.

Mr. Allison has recorded an opinion that the husbandry of Flanders in our plains, and of Tuscany on our hill sides, would easily raise food enough for double our population. Mr. Smith, of Dunston, whose name will everywhere command respect, has expressed his conviction that by leaving and subsiding alone, leaving the question of manure out of sight, Great Britain in 25 years will become a corn exporting country; while Professor Johnston, in his lectures upon agricultural chemistry, expresses his deliberate conviction that, as a whole, this island does not produce one half the food for man which it might be made to bear with profit to the farmer, and which by the time our population is doubled he believes will be found readily to yield. The late Prince Consort, who took so deep an interest in the progress of agriculture, in one of his speeches said—"Agriculture, which was once the main pursuit of this as of every other nation, holds even now, notwithstanding the development of commerce and manufactures, a fundamental position in the realm, and, although time has changed the position which the owner of the land with his feudal dependents held in the empire, the country gentleman, with his wife and children, the country clergyman, the tenant or the labourer, still form a great and, I hope, a happy family, in which we gradually recognise the foundation of our social state. Science and mechanical improvement have in these days changed the mere practice of cultivating the soil into an industrial pursuit, requiring capital, machinery, industry, skill, and perseverance in the struggle of competition. This is another great change, but we must consider it a great progress, as it demands higher efforts and a higher intelligence." His Grace the Duke of Marlborough so aptly said "Whatever the material prosperity of the country may be, it must be based on that which supplies the resources of natural life and vigour to the nation." Sir John Pakington also "repudiates the idea of a man placing confidence in his landlord, let him treat it commercially, and place his trust in a written document." If then, we are to credit these assertions—and I fully believe to a great extent in their correctness—I ask my brother farmers if we should not be "Up and doing." The name of Earl Ducie is familiar to most in this room; his views upon the question before us are clear and concise. At an agricultural dinner he thus addressed those present—"Those farmers who look with dislike upon the progress of improvement, under the impression that it operates against themselves, could not entertain a greater mistake; for go through the length and breadth of England, it would be seen that where the landlord was found the most enlightened, the tenant was found in the most flourishing circumstances; the tenant knew his duty to his landlord, and the landlord to his tenant. No question could affect more the relative position of both parties than that of leases, and his opinion was, that till that question was fairly and clearly understood, all their efforts after improvement would fall short of what they ought to be. He (Lord Ducie) would give every tenant a lease, but in return he must have intelligence. He considered a man a fool who invested his capital without security. Mr. Randall says, that by sensible and business men a lease was considered most desirable. But we are fettered by landlords, what we know to be a fact, that in very extensive and highly cultivated parts of the country (he alluded to Yorkshire and Lincolnshire) land was occupied from year to year. The farms in the neighbourhood alluded to remained from generation to generation in the hands of the same family of tenants, who considered if they had leases their farms would be re-valued, and might be called upon to pay an increase of rent, which increased value was mainly due to their own industry and outlay.

CONCLUSION.

In the first place I feel bound to express my opinion in favour of a lease, considering it the best security for the investment of capital tending to the independence of the occupier, and an increase of value to the landlord, with a largely increased production for the benefit of the nation at large. Secondly, in cases where an objection is made to granting a lease a liberal tenant-right should be given, extending a scale of compensation for unexhausted improvements, or for clean farming to such an extent, or in an equal ratio to that proposed in the agreement selected by the Royal Agricultural Society, and with at least twelve months' notice to quit.

During the subsequent discussion (after some explanatory remarks by Mr. CADLE)—

Mr. Brown, of Tring, said as a landlord he could declare there were bad tenants as well as bad landlords. An agreement cuts both ways. And that was true also of one clause in his agreements that was worth all the rest. "The landlord agrees to a valuation, at the end of the tenancy, of all permanent improvements made by the tenant, for which full compensation has not been received." As to excessive rental, he had valued a farm and the rent was objected to by a member of this Club. He then "put it on the market, as it was called, and the result was an increase of 5s. per acre over his valuation. It was the farmers who did this. The farmers raised the rents, and not the land agents. He was opposed to Michaelmas outgoings. It was a great inconvenience for one to begin before the other had left, but at Lady Day one could walk in and the other out. There ought to be protection against bad tenants as well as bad landlords. With regard to game, he would annihilate it if he could, but the gentlemen of the county loved sport, and he would give them encouragement.

Mr. Mizen asked if we were at all agreed as to who should do the improvement to the land? He found that if he spent 6l. for dung and 6l. for chalk, and should die at the end of 12 months, his widow would not be able to claim one farthing for the outlay. He had drained land 26 years ago, and every drain was now perfect. That certainly ought to be equal a permanent improvement, and the willow or family of a man who made such an investment ought to have compensation. He did not believe in acts done for no price. As wealth increased property would become more valuable, and surely we could not imagine land to be the only property which remains stationary as regards value. He knew a farmer who spent 3/ an acre in oilcake, which he brought and consumed on the farm. Now, will you tie a man like this not to sell his hay and straw? He expended 3000l. a year for extraneous food, because he found it more profitable than it was to consume straw and depend on roots; and he ought to have some security.

Mr. TRETHERY said the tenant ought to do his own chalking. If this were not so, it would soon be expected that landlords should be the ploughing. But he would not compensate for this or any other permanent improvement by valuation, but before ploughing or chalking, or anything else was done, he would have a written agreement defining the quality of the land. As regards improvements, tenants and landlords are not right and all landlords are wrong. He offered a compensation clause to leases. As to selling hay and straw, his experience was, that the farmer who consumed his hay, straw, and roots was the best farmer. Who was to check the quantity of hay sold, and the manure brought back in return?

Mr. COLESMAKER, too, did not approve of long leases. He

rather believed in arrangements for compensation. He might be a good fellow and a bad farmer, or a bad fellow and a good farmer, and a disagreeable fellow. The tenant might not "hit it off," and if a long lease were given the term might be disagreeable to both.

Mr. READ said—W. Loozer makes an improvement, and ought to be compensated. He differed from Mr. Trettery in the question whether a tenant ought to be compensated for improvements for every improvement. He thought that it was in Lincolnshire, &c. that the tenant ought to be compensated for every improvement. He was in favour of long leases, but he thought the time had come when the tenant ought to be compensated for general improvements.

Mr. STURTEVANT said there were too many run-down farms in towns wanted to have a farm, though young to teach farmers how to farm the land there to spend a fortune. This was no doubt the case, but it was very detrimental to the interests of this country. He thought that such run-down farms ought to be reduced to words and figures. "Unexhausted improvements" "tenant-right" "unexhausted improvements" Write them down, tenant right, a farm ought to be viewed in the mill, a manufactory, or any other place of business.

Farm Memoranda.

WEST GLOUCESTERSHIRE. December 1881. has come upon us unusually early, and with severity, for on October 27 our hills were covered with snow, and several rather sharp frosts followed. This somewhat aroused our anxiety for the securing of the root crops, which had been a very favourable time for the ears of wheat. It is now pretty well completed hereabouts, and is day too soon, for we had another heavy frost on the morning of the 1st inst., accompanied with rain which has very nearly put a stop to the growth of fallows. Fortunately the Wheat was advanced in this neighbourhood; all the Wheat and Clover leys are sown, and in most cases the plant appearing strong, except upon some of the clay soils, which by the way were sown in a rough state, and not wet enough for the seed to germinate properly; therefore it has not done otherwise would have done had the rain come as it was sown. But upon the whole a favourable seed-time could scarcely be desired. It has been taken as much as possible of the weather for the carting out of the dung for the roots next year. We are now ploughing and subsoiling the land, a plan which we are likely to see more practised than it is, for it is worthy of greater patronage, inasmuch as it assists the drainage of the soil, as well as the production of heavier crops of roots.

Stock of every description is selling well. Cows are more sought after than common at this time of year, owing probably to an abundant supply of food; they range from 12l. to 18l. per cow, 16l. to 22l.; beef, 75s. to 80s. per cwt. Store lambs are high at 8d. to 8½d. per lb. Store lambs are high at 21s. to 11s. 9d., porkers, 12s. to 12s. 3d. per score.

Much anxiety is felt hereabouts at the time of the foot-and-mouth disease in four or five herds, and at a distance of several miles apart a month ago, in a village near here, some of the herds were attacked with the disease, which first was confined to the one homestead; but within a fortnight or so, two other herds became infected, but not seriously, at two or three miles apart, and neither of the owners could give any cause for the outbreak, as they have not any fresh stock into their respective herds since time past. It behoves us all to be very careful going to inspect another stock (especially herds) out of curiosity, as this disease is the most contagious character, and as carried in clothes from one herd to another, as certain beast will give it to another. Authorised inspectors, too, should be most careful in visiting diseased herds, or they, instead of preventing the spread of the disease, will be the conveyors of it from herd to herd, so long as one's cattle are free from disease, do not tax themselves with anxiety about the matter, but do all in their power to suppress the disease, but we trust they will not be too desirous of it, but we trust they will not be too desirous of their interference. Every farmer having a herd infected will be but too careful to try to restore them as soon as possible, and perhaps the best able to manage his own herd, a restriction as to driving our cattle about the place, suffering from the disease, should be imposed upon us, is perfectly right and just. Some time ago we were asked by a neighbouring farmer to leave a fat heifer in our cowhouse on its way to the slaughter-house, which was granted. Upon her arrival she was put in a box, and was fetched away on the following day. As soon as she was gone the cowman swept the dung, and littered down the box again, in one of our cows, whose time was up to a few days the cow became very unwell, and her food. Having no suspicion that it was the matter, beyond expecting her to be done; but, as no calf came within a reasonable time, suspicions were soon aroused, and we were sorry that she had the foot-and-mouth disease, immediately shut off all communication with the infected shed, in which were 19 cows and a whole of which had it except one. If she had it was in the mildest possible form. The attacked calved when in the very worst stage.

and was down for some time; indeed, we hardly expected she could recover; but she did, and so did all the others. We did not give any medicine whatever, simply kept them very clean, and nursed them throughly. Not one of the cattle at the home- stead, although it is situated only a few hundred yards from the cow-house; neither did either of our neighbours have it amongst their cattle; thus showing the disease can, with proper care on the part of the owners of stock, be stamped out, or its ravages greatly alleviated. The fat heifer above referred to showed no sign whatever of being infected, but it was proved that she had been taken to market in a cattle pen, which had had in it a beast suffering with foot-and-mouth disease only a few days before. F. W.

NEW HALL FARM, PENDLETON, MANCHESTER.—Farm, 201½ acres—Pasture, 61 acres; meadow not covered with dung-water, 63 acres; meadow covered with dung-water, 20 acres; Wheat after Potatoes, 21 acres. Oats, 17 acres, Rye, 2 acres, Potatoes, 16 acres, Swedes, 7 acres, Mangel Wurzel, 2 acres; orchard and gardens, 2 acres, plantations and roads, 12½ acres. Customary rotations 1st, green crops, 2d, Wheat; 3d, Oats—with seeds for two years and upwards. Live stock—seven horses, seven colts, 30 dairy cows, 17 stirks and heifers, 51 sheep and lambs, 5 pigs, 10 rearing calves, and 3 bulls. Total, 112. Have top-dressed over 100 acres of grass-land since this year came in, with town's manure, lime compost, and other manures. Also used 550 tons for Potatoes, Swedes, and Mangels, and five tons of superphosphate. No drainage. Since last gained the prize I have put up at my own expense a strong wood shedding, slated and tiled. Have subsoiled 16 acres from 18 to 20 inches deep, and trenched ploughed 10 acres. Hugh Higson, August 6.

Mr Higson's farm lies on the banks of the Irwell, a little above Manchester, and is well sheltered from the E.N.E. and N.W. by high ground and plantations. The climate good for the district. Not at a great altitude, being very few feet above the river. The surface is nearly level. The soil a good deep sandy loam and alluvial. Good public roads through it, and close to a good market for anything, and for procuring fertilisers of every description without railway or water carriage. The Potatoes, Swedes, and Mangels very vigorous crops and perfectly clean, with the headridges well followed. The 2 acres of Rye had been cut for soiling, and the land sown with common Turnips, which were turned, very clean, and looking well. A 9-acre field of Wheat the heaviest crop we have seen. The remainder, 12 acres, also a heavy clean crop. A 7-acre field of Oats, after Potatoes, a heavy clean crop. A 10-acre field after seeds, not so good or so clean—had failed in places. The meadow and pasture lands produce good herbage, free from coarse Grass or weeds, a considerable portion lying on the banks of the river. All the fences, gates and posts in good order. Roads, all public ones and in good keeping. The farm buildings not in uniform order, built no doubt at different periods but very clean, and in good repair. Sufficiently commodious, three neat fancy cottages in the yard. Mr Higson does not live in the farmhouse, which is neat and in good repair. He has other callings more profitable than farming. He has a good and useful assortment of implements, and 21 stock frames, all round ones. The cattle mostly of improved Short-horn, but long pedigrees, and many real good animals, but perhaps not the deepest milkers. The bulls are well bred animals. The entire farm is in first-class order, and we cannot see where much improvement can be made.—Inspected August 6th, 1869.

We have never had a greater difficulty in deciding on our awards than in this case. Had the cases been parallel we might have had an easy task, but we have had to consider point by point. The circumstances in every respect so different. The position of the parties, the soil, the climate, and locality all different. Mr Higson's opponent's farm is 300 acres, a mossy soil, and in a worse climate, and 10 miles from Manchester. Gets a living solely by farming, and has expended a great amount of money in draining, new fences, and roads, but, with the exception of the Oats, the crops are not quite so heavy. Two points only brought us to our conclusion, but whether right or wrong we cannot say. His opponent's Potatoes are in butts, and he had not finished his hay making on the 7th of this month. Inspector of Manchester Agricultural Society.

Miscellaneous.

Returns showing the Average Annual Price of Wheat for each of the 21 years from 1826 to 1846, both inclusive; and also for 21 years, from 1847 to 1867, both inclusive; and the maximum and minimum prices distinctively in each of those series of years, together with the average price, on the whole, of each series:—

Table with columns for Per Qr, d, and years (1826-1867). It shows price fluctuations for wheat over two 21-year periods, including average, maximum, and minimum prices.

A. W. Fonblanque, Comptroller of Corn Returns.

Glue which will unite Polished Steel.—The following is a Turkish recipe for a cement used to fasten diamonds and other precious stones to metallic surfaces, and which is said to be capable of strongly uniting surfaces of polished steel, even when exposed to moisture. It is as follows:—Dissolve five or six bits of gum mastic, each the size of a large pea, in as much spirits of wine as will suffice to render it liquid. In another vessel dissolve in brandy as much isinglass, previously softened in water, as will make a 2-ounce phial of strong glue, adding two small bits of gum ammoniac, which must be rubbed until dissolved. Then mix the whole with heat. Keep in a phial closely stopped. When it is to be used, set the phial in boiling water. The Stationer.

Calendar of Operations.

DECEMBER.—Carting: Keep in advance. The days are now short, but that is no reason why steam work of any kind should be allowed to fall behind, but the contrary, for the lengthening days of spring invariably bring with them enough to do. If field work is concluded for the time being, or if the teams are driven out of the field by frost or bad weather, all sorts of carting that can be done should be set about without delay.

Clay Fen Land is done at this time without horses, the clay or clayey marl being found under the peat earth, sometimes only 2 or 3 feet below the surface. Trenches are opened, the clay dug out and spread across between the trenches with the spade or spade and barrow at the rate of from 50 to 200 cubic yards per acre. The trenches are then filled with the peat earth dug out above the clay. The work is heavy, but remunerating, and much land is clayed annually in our fen districts.

Chalking or marling.—In those places where drifted chalk is covered by a bed of clay only a few feet in depth, by opening trenches it is brought up and spread upon the surface with the spade. In other places greensand and gravelly marl lie below 3 or 4 feet of clay, when each is dug up and applied in the same way, at this season, wholly by manual labour.

Trenching.—Reclaiming waste land, and deepening what is already under the plough, by trenching, are works which are prosecuted this month, as in November. In some places hands are more easily got in the present state of the labour market during December and January, than earlier, and when such is the case the work of trenching proceeds accordingly. Shallow, rocky soils are deepened, either by trenching out the rock or by carting on fresh soil, and not unfrequently partly by both these operations; trenching being necessary to remove portions of the rock which crop out in some places nearly to the surface, and in others to the surface altogether.

Fences.—Steam culture is causing the removal of many old fences with the view of enlarging fields. In stubbing out old ones it is better to trench the ground well under the hedge, as the roots are smaller and more easily cut than at the surface. If there is no ditch, begin at one end by opening a trench 2 or 3 feet deep, according to the nature of the subsoil and the depth to which the roots have gone. But if there is a ditch or two ditches, one on each side, put a drain-pipe in one ditch, and then undermine the hedge on one or both sides, as the case may be. In this way an experienced hand will soon stub out an old hedge and fill the ditches without any botheration from the roots. Before planting a new hedge on the flat the ground should be trenched 2 feet deep, well manured with compost, and limed. Lime compost makes excellent manure for a young Thorn hedge. If planted on a bank between two open ditches, trenching will be unnecessary, unless in the case of moorland; but the young hedge will stand more in need of manure. Some farmers plant two rows vertically on the top, others form two horizontal banks, on which the plants are laid. The former is the more natural, as the roots will not grow horizontally, but the latter is best adapted for many soils, as the roots strike downwards, and thus spread over a wider surface.

Early Lamb.—On many farms in Sussex, Hants, and Dorset, this is the height of the lambing season. The month is unusually trying for the health of cattle, as may be judged by the rapid fluctuations of the thermometer, and the peculiar natural physical condition of live stock at this season of the year. Ewes, therefore, require careful attention both before and after lambing. Wet coats must be avoided. It follows that there should be a lambing shed or hovel sufficiently large to hold the ewe flock with their followers in wet and stormy weather, and such the most successful flockmasters endeavour to have. In open weather those that are able have a run of the pastures during the day, but are housed over-night. Ewes about the lamb should have a small paddock close by, as they will thus do better during the day than in the hovel, particularly if we have the very mild weather sometimes experienced at this season in our southern counties. The Belgian Carrot is one of the best roots for milk ewes, while it is equally well adapted for indoor feeding in stormy weather, and for the lambs when they begin to feed. They should be given pulped along with a little meal and Clover hay chaff. W. B.

Notices to Correspondents.

LAND AGENTS I suppose possibly Mr H Allnutt, of the Antigua Gazette, 20, Fleet Street may be able to help you. MENDERS ON GRASSES AND FENCIBLES.—I would refer you to P. L. G., the proprietor per acre in roads and trusses for plant was, by a transposition, rendered "31 1/2", instead of "2 1/2". ROYAL AGRICULTURAL COLLEGE M.—The annual fees more than the usual name. An earnest student will get first rate knowledge of chemistry as well as of agriculture there.

F. T. ARCHER'S "FRIGI DOMO"—Patronised by Her Majesty the Queen for Windsor Castle and Frogmore Gardens, the Duke of Northumberland, Duke of Devonshire, late Sir J. Paxton for the Crystal Palace, Koyal Gardens, Kew; Professor Lindley for the Horticultural Society, &c.

The best Shading is "Frigi Domo" Netting. Write for List, unprepared Hair and Wool, a perfect non-conductor of heat or cold, keeping a fixed temperature where it is applied. It is adapted for all Horticultural and Floricultural purposes, for PROTECTION from the COLD WINDS and MORNING FROSTS "FRIGI DOMO" NETTING, 3 yards wide, 1s. 6d. per yard run. "FRIGI DOMO" CANVAS. Two yards wide 1s. 6d. per yard run. Four yards wide 2s. 6d. per yard. An improved make, 3 yards wide .. 1s. 6d. per yard. An improved make, 3 yards wide .. 2s. 6d. per yard run. Serim Canvas, 12 inches wide, 70 yards long, 6d., 8d., 1s., 1s. 6d., and 2s. per yard. Hoan Canvas, 14 and 17 inches wide, 6d. and 8d. per yard. 1d. extra for cut lengths. ELISHA THOMAS ARCHER, Wholesale and Sole Manufacturer, 7, Great Trinity Lane, Cannon Street, City, E.C., and of all Nurserymen and Seedsmen throughout the Kingdom.

JAMES PHILLIPS AND CO.

beg to submit their prices as follows:—GLASS for ORCHARD HOUSES, As supplied by them to Mr. Rivers, to the Royal Horticultural Society, and to most of the Nobility, Clergy, and Gentlemen of the United Kingdom.

Table listing prices for Horticultural Glass in various sizes (e.g., 11 by 8, 12 by 9, 13 by 10) and quantities (e.g., 100 feet boxes).

These prices only apply to the sizes stated.

Table listing prices for Small Sheet Squares in various sizes (e.g., 4 by 4, 6 by 6, 8 by 8) and quantities (e.g., 100 feet boxes).

SMALL SHEET SQUARES.

Table listing prices for Small Sheet Squares in various sizes (e.g., 4 by 4, 6 by 6, 8 by 8) and quantities (e.g., 100 feet boxes).

ORCHARD-HOUSE SIZES.

Table listing prices for Orchard-House Sizes in various dimensions (e.g., 10 by 12, 12 by 14, 14 by 16) and quantities (e.g., 100 feet).

SMALL SHEET SQUARES, 15 oz., per 100 feet.

Table listing prices for Small Sheet Squares, 15 oz., per 100 feet in various sizes (e.g., 6 by 4, 8 by 4, 10 by 4).

LARGE SHEET SQUARES, 15 oz., per 100 feet.

Table listing prices for Large Sheet Squares, 15 oz., per 100 feet in various sizes (e.g., 10 by 8, 12 by 9, 14 by 10).

SHEET GLASS.

In Sheets for Cutting up, averaging from 6 to 9 feet super. 15 oz.

Table listing prices for Sheet Glass in various qualities (e.g., 4ths quality, 3ds, 2ds, Best) and quantities (e.g., per 200 feet case).

SHET GLASS is made only in the following substances, 15 oz.

Table listing prices for Shet Glass in various substances (e.g., 21 oz., 20 oz., 32 oz., 30 oz., and 42 oz.).

HARTLEY'S IMPROVED ROLLED ROUGH PLATE IN

1-8th in., 3-16th in., 1-4th in., and 3-8th in. substances. BRITISH PLATE GLASS for Windows and Silvered for Looking Glasses, Coloured Glass, Glass Shades, Striking Glasses, &c. &c.

PAINTS, COLOURS, VARNISHES, &c. STUCCO PAINT, 2s. per cwt. This Paint adheres firmly to the walls, resists the weather, and is free from the glossy appearance of Oil Paint, resembling a stone surface, and can be made any required shade. It is mixed with rain or pure river water.

WHITE ZINC PAINT, 3s. per cwt. One hundredweight of pure Zinc Paint, with three gallons of Linseed Oil, will cover as much as one hundredweight and a-half of White Lead and six gallons of Linseed Oil. Special Dryers for this Paint.

IMPROVED ANTI-CORROSION PAINT, 3s. to 3s. 6d. per cwt. Anti-corrosion Paint is extensively used for all kinds of work in exposed situations, on Brick, Stone, Compo, Iron, Iron Bridges, Conservatories, Greenhouses, &c., and is easily laid on by any ordinary workman. Prepared Oil for ditto, 4s. per gallon.

GENUINE WHITE LEAD 30 0 LINED OIL 2 9
SECONDS WHITE LEAD 28 0 BOILED OIL 3 2
GROUND PATENT DRY-TURPENTINE 2 9
ERS, 3d to 4d per lb. LINED OIL PUTTY,
" OXFORD OCHRE, 3d.
" 4d per lb.
" RAW UMBER, 4d to
" 6d per lb. [per b
" BURST do, 6d to 9d
GREEN PAINT, all shades,
" 2s to 6s 0
BLACK PAINT, 2s to 3s 0
RED PAINT 2s to 3s 0

FINE OAK VARNISH, 10s to 12 0
" CARRIAGE do., 12s to 14 0
" PAPER do., 10s to 12 0
" COPAL 18 0
" NOTTING 13 0
" Patent GOLD SIZE 10 0
" BLACK JAPAN 11 0
GLAZIERS' DIAMONDS and TOOLS

GROUND BRUSHES, MILD LEAD PICES
DUSTERS, SASH TOOLS, OIL LEA
DISTEMPER BRUSHES,
The above are Net, for Cash, and as such cannot be booked. Lists of any of the above on application.

NOTICE.

- ROYAL HORTICULTURAL SOCIETY, LONDON.
- ROYAL ZOOLOGICAL SOCIETY, LONDON.
- ROYAL BOTANIC SOCIETY, LONDON.
- ROYAL BOTANIC GARDENS, DUBLIN.
- ROYAL BOTANIC GARDENS, LIVERPOOL.
- ROYAL BOTANIC GARDENS, CAMBRIDGE.
- ROYAL WINTER GARDEN, DUBLIN.
- ROYAL DEPARTMENT OF SCIENCE AND ART, LONDON.

It is with great gratification that we announce our permission to refer upon any occasion to the various

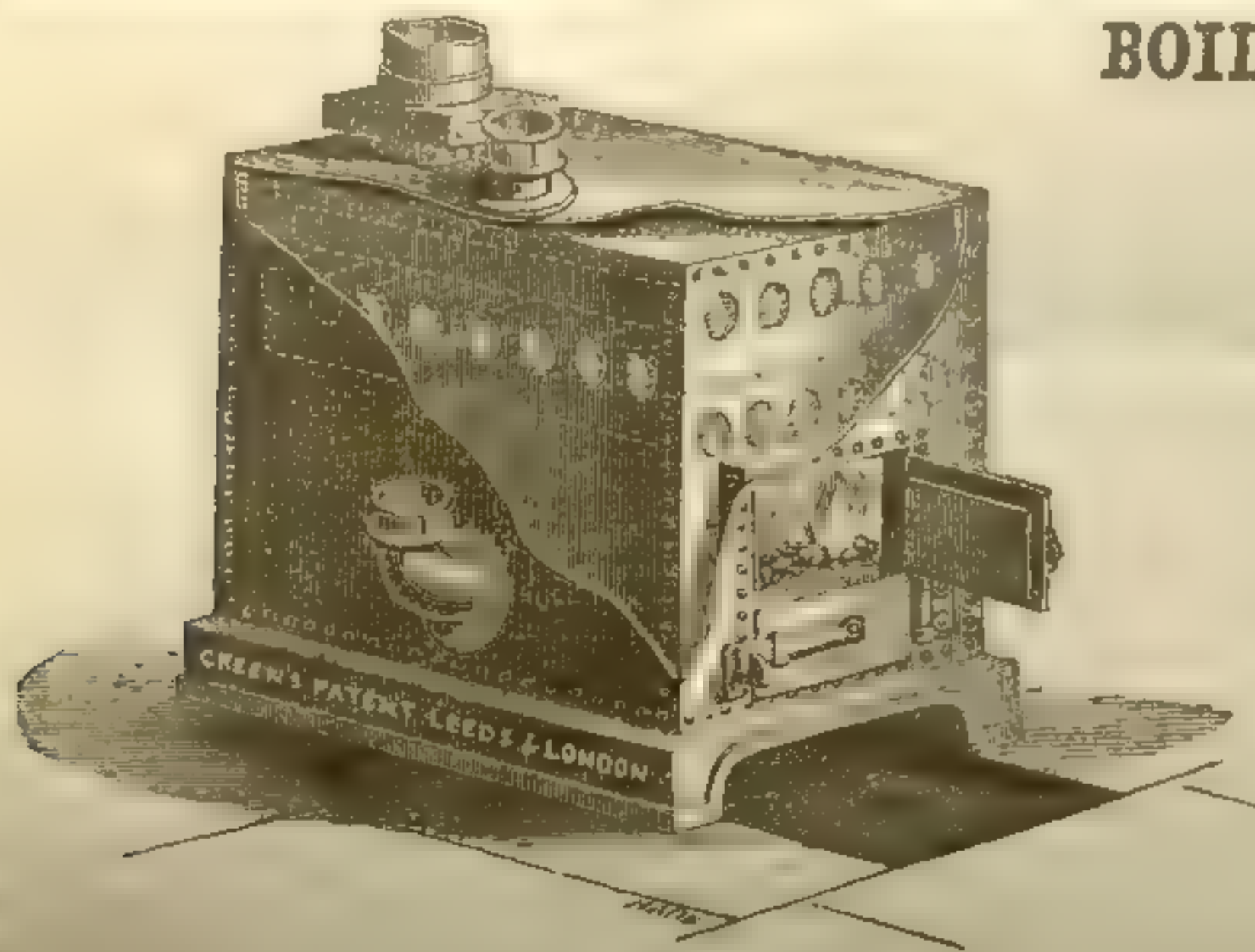
HEATING APPARATUSES at the above, where our "ONE BOILER SYSTEM"

HAS FOR YEARS BEEN SUBJECTED TO THE MOST CRITICAL TESTS WITH EVERY SATISFACTORY RESULT. IT IS MATCHLESS FOR EFFICIENCY, AND IS WORKING THE LARGEST APPARATUS ON RECORD.

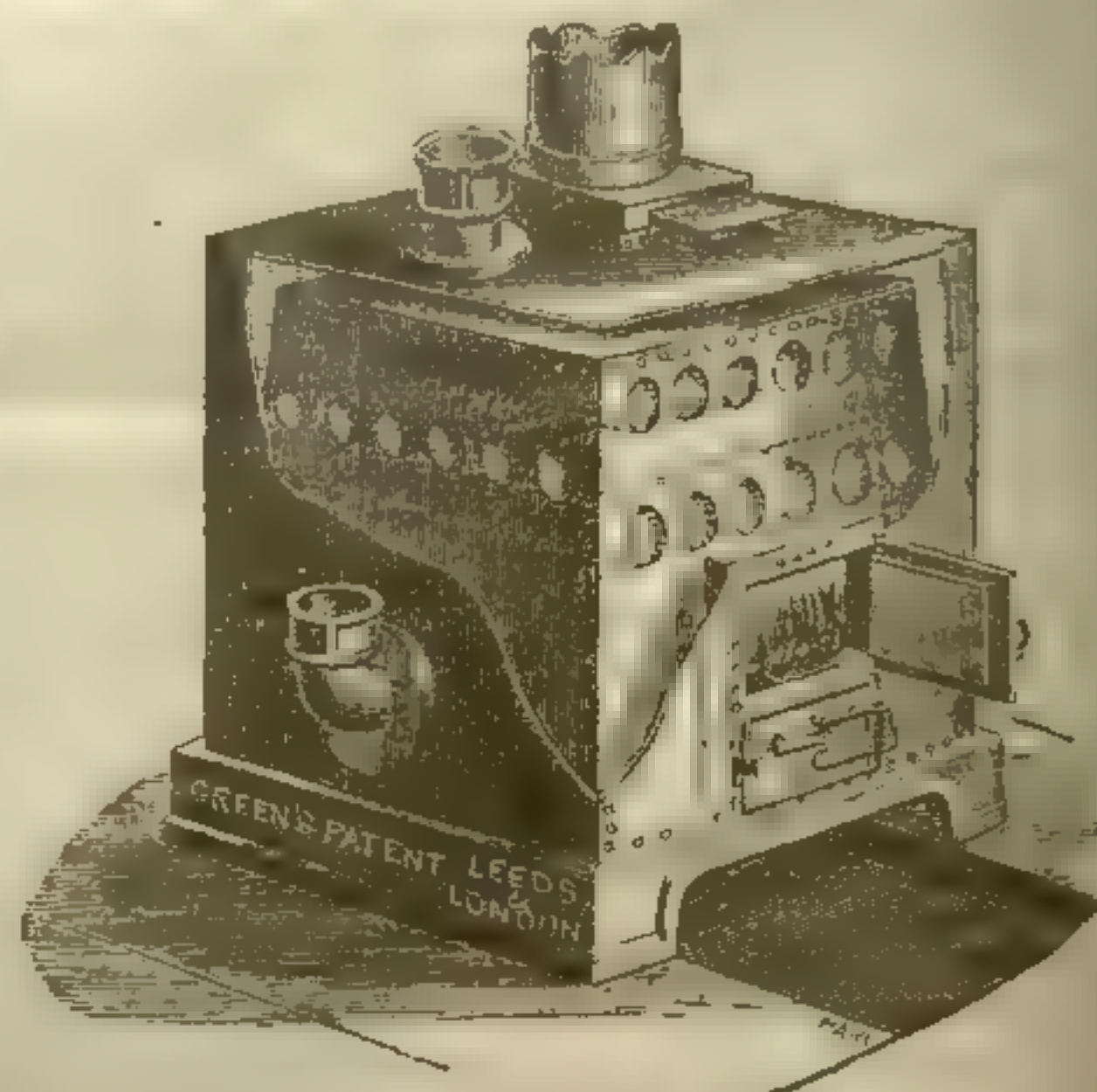
These are no theoretical statements, but positive facts, and it is not too much to add, that no boiler can boast a parallel.

For List of Details, see "ILLUSTRATED BOOK of DESIGNS" (12th Edition), which can be obtained by addressing a note to **JOHN WEEKS AND COMPANY, HORTICULTURAL ENGINEERS, &c., KING'S ROAD, CHELSEA.**

GREEN'S PATENT IMPROVED TUBULAR HOT-WATER BOILERS.



OBLONG BOILER.



SQUARE BOILER.

THE ABOVE BOILERS ARE

THE MOST EFFECTIVE AND DURABLE EVER INVENTED.

They can be set to work at a nominal cost, inasmuch as no brickwork is required; as will be seen from the above drawing, they are placed upon a Cast-iron base which answers the purpose of Foundation and Ashpit.

From the peculiar and substantial manner in which these Boilers are made, they are warranted to last for years without getting out of order; in fact, we guarantee ten years, but feel convinced that they will serve all the purposes for which they are intended for a much longer period.

They are specially adapted for Heating Greenhouses, Churches, Chapels, Schools, Public Buildings, Entrance Halls, Warehouses, Workshops, &c.

THE FOLLOWING ARE THE ADVANTAGES OF THESE BOILERS:—

- 1st, They require no setting in brickwork.
- 2d, They are complete in themselves, having perfect means of regulation.
- 3d, They take up little room, and can be put in places inaccessible to other Boilers.
- 4th, They are economisers of fuel, owing to the great amount of heating surface upon which the fire acts in a direct manner, and the consumption of smoke.
- 5th, The fire can be made to last from 12 to 24 hours without attention.
- 6th, Any number of Flows and Returns can be annexed to the Boilers by means of mud doors.
- 7th, By means of mud doors, they can be readily cleaned out when required.
- 8th, The Chimney is made of cast-iron, which can either be taken through the wall or turned into a flue, to meet the convenience of the situation that it may be in.

PRICE LISTS ON APPLICATION.

THOMAS GREEN AND SON, SMITHFIELD IRON WORKS, LEEDS;
and 54 & 55, BLACKFRIARS ROAD, LONDON, S.E.

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Roses Suitable for Climbers or Stocks.

MR PARKER begs to state that he can supply...

Gladioli—New Roses.

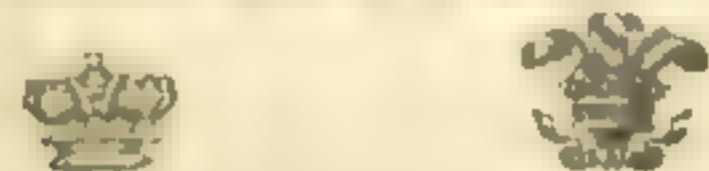
FRANCIS VEDDER has a fine Nursery, 3, Rue...

Everlasting and Dried Natural Flowers and Grasses

JAMES CARTER, DUNNETT, AND BEALE are now...

To the Trade.

DOBSON'S SUPERB BALSAM.—These are large and...



MR WILLIAM BULL begs to intimate that his new...

GARDENERS' CHRONICLE PRIZE

At the GREAT PROVINCIAL SHOW of the ROYAL...

The Gardeners' Chronicle. SATURDAY, DECEMBER 18, 1869.

MEETINGS FOR THE ENSUING WEEK.

Table with 2 columns: Date and Meeting Name. Includes Royal Horticultural (Fruit and Floral) and Scientific Committee.

We have now before us the ROYAL HORTICULTURAL SOCIETY'S PROGRAMME for 1870. The proposed arrangements differ from those of preceding years...

We are glad to find, in what may be called the Great Show of June 15, and which is to include leading features of Orchids, stove and greenhouse plants...

more familiar plants already grown up, and with which visitors have become so well acquainted. It may be hoped, on account of the variety they impart...

Among the novel features of this schedule, as compared with former years, we find that provision is made for a somewhat important show of Gladioli, with a premier prize of 10l., offered by the Duke of Buccleuch...

So much relates to South Kensington. We get, moreover, this year, a vast improvement upon last, in the early announcement of the Society's own portion of the schedule for the Oxford meeting...

We mentioned the Dublin Hyacinth show last week, and we may now add that the Royal Caledonian Horticultural Society will hold a Hyacinth show on the 29th and 30th of March.

so that exhibitors and censors have their work before them, and we cannot close the year 1869 better than by wishing both, in the campaign of 1870, all the good fortune and satisfaction which may fully attend upon right and just decisions.

LAST week we inserted an extract from the Echo, headed the TYRANNY OF GALLIENERS. In that letter there was much truth mixed with some error. This week it is our painful province to publish the record of some transactions of quite another character.

"Label.—Barnes v Lady Rolle.—This was an action for libel in the Queen's Bench, in which the defendant, Lady LOUISA ROLLE, had allowed judgment to go by default...

"The plaintiff had been head gardener to Lord and Lady ROLLE for nearly 30 years, at Bilton, Devonshire, and, according to his testimony, and that of other witnesses, he had bestowed great care on the management of the gardens, and they were represented as the finest in England.

"The letters were put in as evidence, and the passages containing the libel read to the jury, and were set forth in the proceedings. The first letter was addressed to a lady named CATLIGH, who had purchased some of Lady ROLLE'S surplus Pines.

"The second letter was dated the 18th of June, 1869, and addressed to a gentleman named MAULLIERS who had applied to see the gardens at Bilton, in which her ladyship made the following statement—

"The plaintiff was now 64 years of age. He said when he left Bilton a service of plate was presented to him, and when he resigned the gardens were in a perfect state. He had nothing to do with Mrs. CATLIGH'S refusal to take any more of the surplus Pines.

"No evidence was given on the part of Lady ROLLE. Mr. Serjeant ROBINSON, in his opening address and in summing up, asked the jury to award fair and temperate damages.

"In the course of the case it was proved that Mr. Flood, attorney for the plaintiff, residing at Exeter, had obtained the letter written to Mr. MAULLIERS. Mr. LOPES invited the jury to arrive at the conclusion that the justice of the case would be satisfied by an assessment of one farthing in damages.

ROLLE was advanced in years, and felt irritated at the plaintiff leaving her service so soon as he did. The learned Counsel commented in strong language on the conduct of the attorney, and said that if BARNES had been left to himself the action would not have been brought, but it was an attorney's action, and he trusted the jury would express their opinion by the nominal amount they awarded.

"Mr. Under-Sheriff BURCHELL told the jury that the libel was admitted. The only question for them was the loss the plaintiff had sustained by the letters. There was no pretence for special damage. The letters were written to two persons only, and it was not because the plaintiff was poor in comparison with Lady ROLLE, nor that her ladyship was rich, that they should give considerable damages. It was their province to say whether mere nominal or substantial damages would satisfy the justice of the case.

"The jury retired, and on their return, after a brief consultation, assessed the damages at 100*l.*, the full amount claimed in the declaration."

— THE following letter has been sent us for publication:—The Council of the Workmen's International Exhibition, to be opened on July 7, 1870, at the Agricultural Hall, Islington, has determined to hold a conference of delegates from the towns of the United Kingdom, and of other countries, on the 10th January next, at the rooms of the Society of Arts (in John Street, Adelphi), which have kindly been lent for that occasion. The day's business will begin at 10 A.M., and will be distributed as follows:—

1. Statement and discussion of the proposed method of arrangement of exhibition
2. Statement and discussion of the proposed system of prizes, and appointment of jurors
3. Discussion on the opening of workshops in the exhibition
4. Reports, statements, and suggestions from local committees
5. Statement and discussion as to the means to be adopted to make the exhibition promote the interests of technical education.

Mr. MUNDELLA, M.P., and Mr. S. MORLEY, M.P., will successively occupy the chair, during the day's sitting. The conference will be brought to a close at 4 P.M., and all the delegates are invited to meet the Council at dinner (Mr. T. HUGHES, M.P., to preside) at 5.30. In the evening a public meeting will be held at 8 P.M. at Exeter Hall, at which Professor HUXLEY will preside, if it should be impossible for the president (the Rt. Hon. W. E. GLADSTONE, M.P.) to be present. The following resolutions will be moved:—

1. That the principles laid down in the prospectus of the Workmen's International Exhibition of 1870, which require the worker's name to be attached to the article produced, are both just and useful; as tending to give workmen their share in the credit of production, and to increase the pride and interest which attaches to skilled labour.
2. That it is of the highest importance to develop amongst all the people a true perception of what is beautiful in colour and form, and a scientific knowledge of the machinery and material employed in existing industries, and this meeting pledges its best exertions to promote the success of the Workmen's International Exhibition of 1870, as a valuable instrument to this end.
3. That the true knowledge and aptitude for combination shown by workmen who can produce for a Workmen's Exhibition an article requiring many different kinds of labour, deserve the encouragement of every class, as the first step towards greater and more important kinds of co-operation.
4. That it is in the interest of all nations that each should stimulate the other in the development of their higher productive powers, the prosperity of every people requiring continual progress in the cultivation of human faculties and that perfection of machinery which yields the largest return to the day-labourer.

We ought to add that the Council strongly hopes that all towns in this and other countries will lose no time in calling together a public meeting, and appointing delegates to attend the conference. Such delegates must be appointed by public meeting, and we shall be extremely glad to receive as early as possible the names of those who will attend. The Council are especially desirous that co-operative, trade, benefit, and other societies, and workmen's clubs and institutes, and large workshops will also send delegates on this occasion. We are directed to request that all such societies should put themselves in communication with us, and to assure them that their representatives will be gladly welcomed. The Council will provide accommodation for the night of January 10 for those delegates who wish them to do so, and will otherwise do all in their power to facilitate the attendance of their visitors, on receiving communications on the subject. We would therefore urge, not only our own local committees, but all those who are interested in the carrying out of a workmen's international exhibition, to take immediate steps for calling together a meeting of their fellow townsmen for the purpose of making better known the character of the undertaking, to appoint committees where they are not already in existence, to multiply the number of intending exhibitors, and to appoint delegates to the conference. AUBERON HEBBERT, THOMAS PARLSON, J. W. PROBYN, Hon. Secs., 150, Strand, London, Nov. 30, 1869. Several noblemen and gentlemen of high position and great influence, but whose names we are obliged to omit, have promised to take part in the meeting.

— M. VICTOR CHATEL has raised the alarm cry of "War with the grubs of the May-bug" (*vers blancs des hannetons*), and predicts an immense invasion of these insects in the spring of 1870 or 1871, and which he believes will take the proportions of a great plague. Hence he urges that it is necessary to act without delay, and daily. The grubs must be picked up by school children, or eaten by poultry, as soon as the ground is ploughed or dug, while ravens, magpies, starlings, wood-pigeons, sparrows, and hedgehogs, the great enemies of May-bugs, must be preserved and encouraged.

— A correspondent has sent us a sample of the seeds of the two Conifers called THUJA GIGANTEA—the true and the false—for the purpose of again direct-

ing attention to the confusion existing in gardens, and perpetuated in many nursery catalogues and advertisements, as to the proper application of the name. The seeds, like the plants, are most dissimilar. It may be, therefore, useful to repeat that the plant usually called Thuja gigantea in gardens, is not Thuja gigantea at all, properly so called, but the LIBOCEDRUS DEUCEBENS of Torrey, which bears the synonyms of Thuja Craigiana, Murray, and Thuja gigantea, Carrière and Gordon; while the plant called Thuja Lobbii in gardens is the true THUJA GIGANTEA of Nuttall, the original describer—Thuja Menziesii, Douglas, Carrière, and Gordon, and Thuja Lobbii, Hort., being synonyms. Cultivators will please make a note of this, and correct their lists accordingly.

— M. ERNEST FAIVRE gives the subjoined resumé of his experience as to the effects of ANNULAR WOUNDS in the BARK of TREES. In the Mulberry trees, as in all trees deprived of latex, annular incisions generally produce the following manifestations:—1, formation at the upper lip of the wound of a swelling or tissue restorer; 2, diametrical growth of the parts above the zone of bark taken off; 3, hardening of the wood in that region; 4, stationary condition of the parts below, if they are deprived of leaves and of buds; or, if not, vigorous shoots from below the lower lip of the wound; 5, more easy, more early, and more abundant flowering and fructification, 6, destruction, after a variable time, of all the parts above the annulation.

— A good deal of interest has lately been excited in India, especially about the NEILGHERRIES, as to the possibility of raising MUSHROOMS artificially. It was known that an esculent Fungus is occasionally developed on white ant's nests, and experiments have been made at Bangalore with white ant's nest soil. We have just received a quantity of Agaric, preserved in alcohol, which have appeared on it, but we have no information as to whether they have proved to be useful esculents or not. The species is certainly undescribed, but approaching in some respects one of which we have a drawing transmitted from Ceylon by the late Dr. GARDNER, with strongly twisted gregarious stems, arising from a common base. It does not, however, appear amongst the numerous figures which have been sent us by Mr. THWAITES, so that Dr. GARDNER'S Agaric is probably not a common species in Ceylon. The species before us probably belongs to the subgenus Armillaria, and may be called Agaricus termitigena—the characters of which, so far as they can be elicited without dried specimens, for those before us may have lost their colour, may be given as follows:—

- Pileus 1–2 inches across, strongly and obtusely umbonate, smooth centre, or notched at the margin, which is thin and even, or slightly striate, edge at first slightly indented.
- Stem 8 inches high, 3/4 inch thick, solid, cartilaginous, not twisted, darker than the pileus, especially towards the base, slightly tomentose or fibrillose; ring ascending, permanent, situated near the top of the stem, with a more or less lacerated margin.
- Gills rather narrow, $\frac{1}{2}$ inch wide, $\frac{1}{2}$ inch apart, $\frac{1}{2}$ inch behind; edge entire. M. J. B.

— We have on more than one occasion had before us samples of Mr. STEVENSON'S ABYSSINIAN MIXTURE, a compound prepared for the destruction of insects, such as mealy-bug, scale, thrips, red spider, &c, which infest plants; and our experience of its action upon these pests is very satisfactory. When used at the strength indicated by the vendor, namely, 4 oz. to the gallon, a single application when the parts are well wetted is sufficient to kill the greater number, while the few stragglers such as may have escaped the first application are cleared off by a second. The mixture has to be dissolved in hot water, and used after cooling. The experimental trial we have made of it warrants us in stating that it will be a very useful help towards keeping a collection of plants clean.

— From some recent experiments by M. E. PRILLIEUX on the GREENING OF ETIOLATED PLANTS, communicated to the French Academy of Sciences, he concludes that in order to acquire the maximum of chlorophyll, that is to say a healthy green colour, such plants should at first be submitted to moderate light (*peu intense*), and afterwards, in order that assimilation may be carried on under the best possible conditions, to a more energetic light. M. PRILLIEUX deduces from his studies the following general law:—In order that the action of light may be utilized by plants, it must, like that of heat, be kept within certain limits, beyond which it remains without effect. These limits do not appear to be the same for different functions, thus a quantity of light which is excessive for the production of green matter is utilisable for the decomposition of carbonic acid by the green matter already formed. The maximum is not the same for both these phenomena, much less light being required for the greening than for the reduction of the carbonic acid.

— The proprietors of the "Journal of Horticulture" offer the following PRIZE for COMPETITION at the show of the ROYAL HORTICULTURAL SOCIETY at OXFORD in July next, viz.:—Dessert of Fruits, unlimited as to quantity and kind, fit for the table, and combining excellence of quality with taste in arrangement, 10*l.* Open to amateurs and gentlemen's gardeners only.

PLANT PORTRAITS.

BEONIA SEDESI.—*Flor. and Pomol* 1869, 169, with tab. Begoniaceae. This is one of the finest hybrid Begonias in cultivation, being of good habit, a free flowerer, and bright coloured. It is the result of a cross, B. boliviana being one of the parents, and it requires cool stove treatment. The purplish red fleshy stems, grow erect, and bear obliquely ovate-lanceolate, dull green, red-haired leaves, from the axils of which spring the 3-flowered cymes, bearing flowers of a rich carmine crimson, the central one male, larger than the lateral smaller five-petaled females, and composed of two ovate sepals and two oblong ovate spreading petals. Messrs. Veitch & Sons were the fortunate raisers of this fine novelty.

CALOCHORTUS UNIFLORUS.—*Bol. Mag.* t. 1868, p. 10. A lovely dwarf habit half hardy herb, with small, round, and a slender leafy scape supporting from 1 to 2 of a pale pink colour, and measure 1/4 inch across. The most lovely little liliaceous plant the Botanical Garden of San Francisco has seen. It is a native of C. Ilacinas. It is a native of the high mountains of Cruz. "Though called uniflorus the flowers are more than two."

CHRYSA TERNATA.—*Rev. Hort.* 1869, 499, with tab. This ornamental and little-known greenhouse plant, which comes from the temperate parts of Mexico, with long stalked trifoliate leaves, simple, elliptic-oblong leaflets, and bears an umbeliferous sweet-scented flowers, which bear some resemblance of the Orange tree. The plant introduced from Peru is now very rarely met with.

COTONEASTER FLORENTINA.—*Leafy Bot.* t. 1869, p. 10. A neat, very pretty, hardy evergreen shrub, with a foot in height, with congested, crowded branches, clothed with small obovate-oblong leaves, not 1/2 inch long, but are of a shining dark green, silvery white beneath; the flowers are small, succeeded by depressed, globose, crimson berries, the smallest of the Cotoneasters, and was raised by Messrs. Saunders, Esq., from North Indian seeds, obtained by late Dr. Royle.

COTONEASTER CONGESTA.—*Refug. Bot.* t. 1869, p. 10. A neat hardy evergreen shrub, resembling C. florentina in aspect, and forming a compact rounded bush, with recurved, remarkably congested branches, the leaves are obovate-oblong, of a palish green, and the flowers are silvery beneath; the flowers are white, succeeded by globose, crimson berries. This was also raised from seeds, communicated to Mr. Wilson Saunders, Esq. It is a plant of slow growth, and scarcely attains a height of 1 foot.

COTONEASTER PROSTRATA.—*Refug. Bot.* t. 1869, p. 10. A prostrate habit half hardy evergreen shrub, with branches, having English nodes, and rounded, reddish obovate leaves, dark green above, and silvery beneath, the white flowers are globose turbinate berries. A native of the mountains of the Himalayas, introduced by W. Wilson Saunders, Esq. It is least effective as a decorative plant of any of the Cotoneasters.

COTONEASTER SIMONI.—*Refug. Bot.* t. 1869, p. 10. An excellent representation of a tolerably well-known evergreen shrub, one of the most ornamental Cotoneasters, and hitherto undescribed botanical specimens are larger than in the allied species, oblong-ovate green above, with the berries turbinate, and dark. It is a native of Khasya.

CUPRESSUS MACROCARPA VARIEGATA.—*L. Hort.* t. 1869, p. 10. In this variety of the well-known C. macrocarpa, the branches appear irregularly blotched with a sequence of some of the twigs being without chlorophyll, is similar in character to that of Thujaopsis delavrayana variegata. It is a variety of Cupressus macrocarpa.

DENDROBIUM BASSINAE.—*Bol. Mag.* t. 1869, p. 10. A remarkable and beautiful stove epiphyte, of which will be found at p. 164, has the pendulous stem, feet long, and densely knotted, these bear either solitary or in pairs, the large white parts of which are prettily tipped with rose colour. The lip is marked with a broad yellow line, and by Col. Hanson from the Aracan Mountains, in 1860, and was also found by the Rev. G. S. P. in the mountains of Kiang-koung.

ELAEAGNUS ANGUSTIFOLIA.—*Flor. and Pomol* 1869, p. 10. A very pretty little tufted shrub, with potential grows from 1 to 2 inches in height, and soil or position in which it occurs, and the leaves are 1 inch long, linear, entire, pointed, slightly petioled, the flowers, 1 to 2 on each stem, measure a line or across, and are of the palest and brightest rose colour. It is a native of the mountains of the Pyrenees.

HELLEBORUS LANCEOLATUS.—*Re. Hort.* 1869, p. 10. A remarkably showy stove plant, with stems of about 2 feet in height, bearing long, ovate lanceolate acuminate leaves of a bright green, and an inflorescence consisting of clusters of bracts, of which the outer ones are longer and more deeply coloured, orange red towards the base, which is from the centre of the bracts, and the plant is a native of the mountains of the Pyrenees, and was introduced to the Jardin des Plantes at Paris.

LEUCODENDRON TULIPIFERUM.—*L. Hort.* t. 1869, p. 10. A very pretty little ornamental shrub, with robust, erect succulent stems, which are of a reddish purple colour, and bear thick, obovate lanceolate leaves, of a dark green on the upper surface, and bright green beneath. The small, inconspicuous, whitish flowers are in long, drooping, axillary racemes. The name of Leucodendron tulipiferum was introduced from the country of the Upper States of the United States.

LILIU MAXIMOWICHI.—*Gard. Mag.* t. 1869, p. 10. A very pretty little ornamental shrub, with slender stems from 2 to 3 feet high, clothed with small, lanceolate leaves, and bearing comparatively large, brilliant orange, ring flowers, with lanceolate recurved segments, marked with small elliptic black purple spots, where is found a distinct net-like pattern, which is twisted at the point. It appears to have been introduced from the country of the Upper States of the St. Petersburg Botanic Garden from Japan.

LEUCODENDRON TULIPIFERUM.—*L. Hort.* t. 1869, p. 10. A well marked tree, with finest hardy deciduous trees, the young shoots are covered with which are freely blotched with yellow, in a manner over the central portions of the disc. It is a native of the Belgian Gardens.

MESEMBRYANTHEMUM POLYCHROMUM.—*L. Hort.* t. 1869, p. 10. A very pretty little ornamental shrub, with succulent herb, the close matted growth of which is well suited for another summer bedding culture. The fleshy stems are thickly clothed with fleshy, heart-shaped leaves, which are densely covered with cream colour, so that the plant forms a mass, entirely covering the surface, the flowers are of a rosy purple. It is a garden variety, and is a native of the Cape of Good Hope.

ONCHOCLEA MEXICANA.—*Flor. and Pomol* 1869, p. 10. One of the most charming of stove epiphytes, with congested compressed peduncles, and bearing racemes of large and beautifully coloured flowers, and petals oblong lanceolate, obtuse, wavy, purple, and white, and the sepals, oblong lanceolate, and white in the front half, and marked at the base with a blotch of purple, which passes in a kind of broad patch of rich orange colour. It is a native of the mountains of the Pyrenees, and has been introduced by M. Lindau.

ONIDIUM SPLENDIDUM.—*Flora des Serres*, t. 1835. Orchidaceae. A grand and extremely rare epiphyte has short roundish subcompressed pseudobulbs, bearing each a single oblong leaf, and an erect raceme of large showy flowers, the sepals and petals of which are oblong-ligulate, nearly covered with chestnut-coloured blotches on a dull greenish ground, and the lip is very large, obovate, with a broad claw like base, and a clear bright yellow colour. It comes from Guatemala, and appears to be in the hands of Messrs. Thibaut and Kettler.

POEQUERIA MULTIFLORA.—*L'Hist. Hort.* t. 597. Cistaceae. This magnificent evergreen stove shrub is furnished with broad oval-oblong subcoriaceous leaves, which are velvety beneath. The inflorescence consists of terminal cymes of numerous large white fragrant flowers, which have a slender tube, 4 inches long, and a spreading star shaped limb, measuring some 2½ inches across, and consisting of five unequal long-oblong segments. It was introduced to the establishment of M. A. Verschaffelt, from St. Catherine's, near the Mauritius in 1866.

SALICAZURATA DESCHAMPSIANA.—*Rev. Hort.* 1869, 134. Cistaceae. A warm greenhouse sub-shrubby plant, of great beauty, growing 3 feet or more in height, and furnished with cordiform acuminate leaves, the stems being terminated by ovate-oblong terminal spike-like collections of flowers, which are of a lively rose colour, with the tube of the corolla very much inflated, and the ovate caducous bracts and spreading calyx both of a deep red colour. It is cultivated in the French gardens.

VELLOZIA ELEGANS.—*Bot. Mag.* t. 5803. Hamodoraceae. An interesting warm greenhouse or stove perennial, with a slender erect, flexuous stem, clothed above with the tristichous, serrated, ensiform leaves, which are sharply keeled, and become flattening at the base. The terminal peduncles become divided into three to five long slender pedicels, supporting the flowers, which are pale lilac in bud, then pure white, enlarging and turning green after flowering. "Our first knowledge of this plant," writes Dr. Hooker, "was derived from a specimen brought from his garden by the Hon. H. Fox Talbot, Esq., to the Kew Herbarium, in 1866, and which was raised from seed procured either from the Cape or Madagascar." This specimen Prof. Oliver proposed the name of *Vellozia*. Subsequently, when a plant which had been pro-

rotted manure, and protect them well from slugs. They are likewise gems when bedded out for early spring. The best time to plant out both the double and single varieties for a spring display is early in October, that their roots may have strength to flower early in spring, they delight in rather a strong rich soil, but will grow in almost any soil in a shady situation.

After they have done flowering divide the roots, and remove them into a shady border, composed of rich strong soil, and carefully attend to watering until they have taken root, after which they will require no further care beside keeping them free from weed until the following autumn, when they should be taken up and planted as before recommended. New varieties may be raised from seed if carefully selected. I have this autumn planted out several thousands of the single varieties of various colours in my arrangements of spring bedding plants. *Edward Bennett, Osberton.*

CHURCH DECORATION.—No. III.

Drawing and Making Designs (continued).—We started with asserting how important it is to base almost every design upon a circle; and we have already gone even further, and been obliged to avail ourselves of the use of two circles, one within the other. Let us now proceed to draw some stars, in doing which we again find two circles indispensable. Describe two circles from the same centre, one with a radius of 12 inches, the other with a radius of 5 inches. Divide the outer one into six parts, by six points at equal distances apart. Do the same on the smaller circle, but place the points just half-way between the points of the larger circle, as shown on figure 4. By ruling lines from the points on one circle to the points

for keeping flowers alive or for replenishing with fresh ones as they fade, it is quite in good taste, and in every way commendable to use well-made artificial flowers, at least, such is our opinion. We studiously select our finest flowers for church decoration, as the Jews of old obeyed the command, "the first of the first fruits of thy land thou shalt bring into the house of the Lord thy God." And who shall say that there is not more art in making a plant bloom well just when its flowers are wanted, than in any artificial flower that ever was made?

The great dangers to be apprehended from permitting the use of artificial flowers for church decoration are, first, that a wrong flower may be introduced, say a white Japan Lily instead of a common Lily, when the one blooms in autumn and the other in early summer, and, secondly, that they are liable to be placed in impossible positions. All this, however, may be obviated by obtaining the assistance of some experienced head gardener or amateur, who is familiar with the flowers which it is proposed to be used. *W. T.*

[Here for the present we take leave of this portion of the subject, with the intention of reverting to it about Easter. In the meantime we shall from time to time allude to certain plants of special interest or value for church decoration, and to the readiest mode of growing them. *Eds.*]

CALCAREOUS SOILS FOR VINES.

THE discussion respecting the influence of calcareous soils on Vines which has appeared in your columns has afforded some interesting information, and will bear still further illustration. The recorded experience of a practical and observant man always deserves consideration, and although Mr. Cramb's conclusions do not accord with the opinion largely entertained by

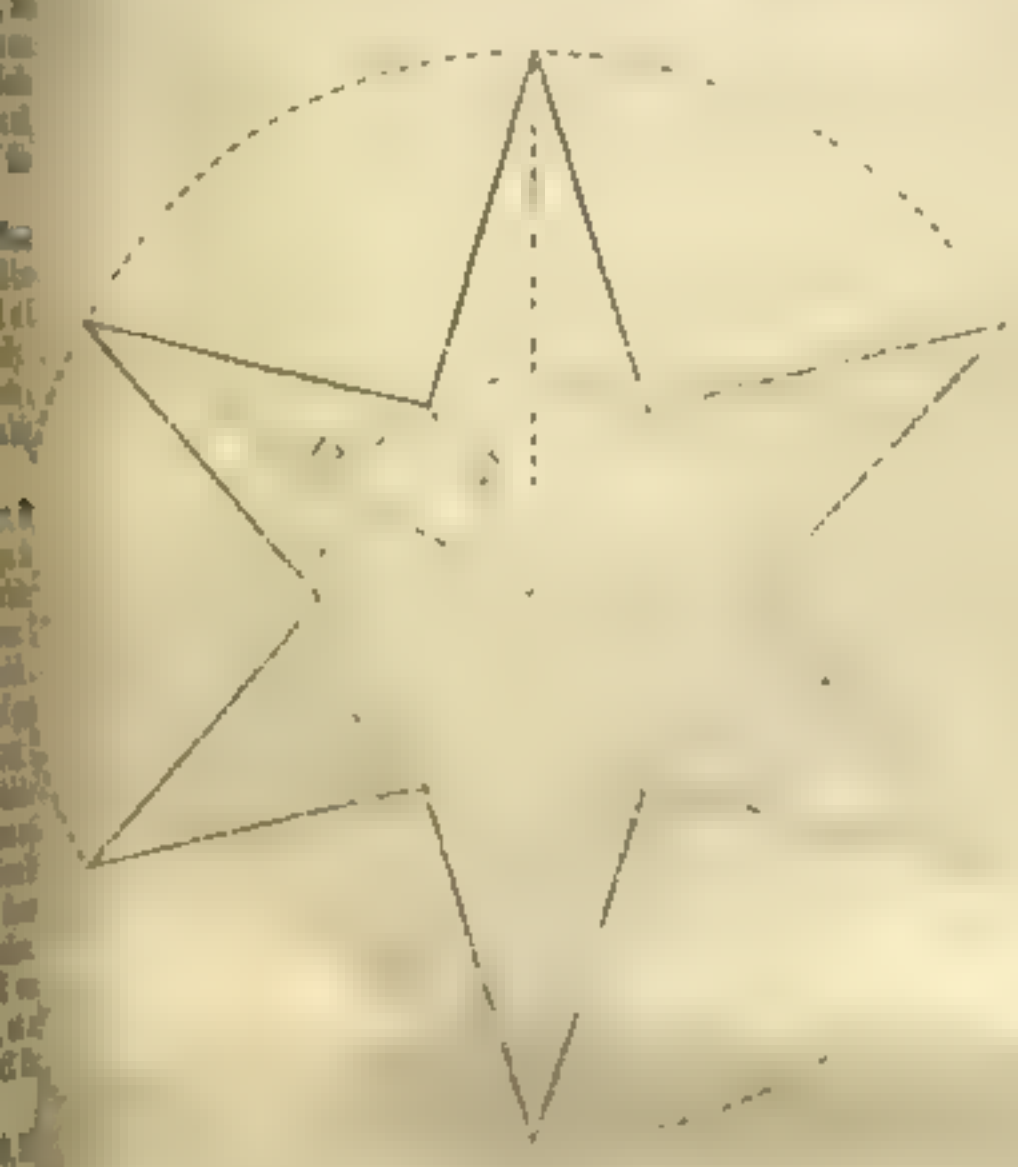


FIG. 4.

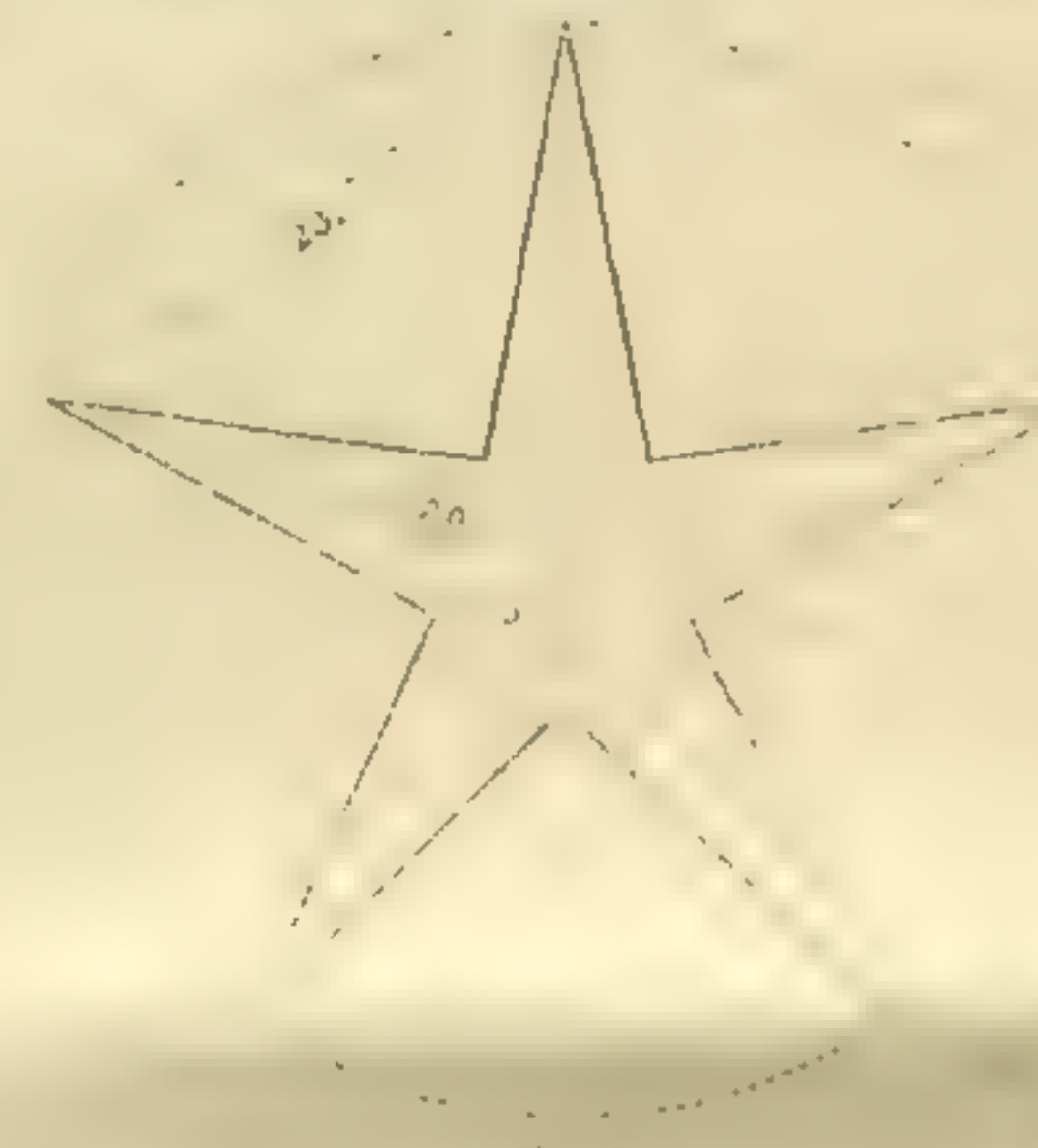


FIG. 5.

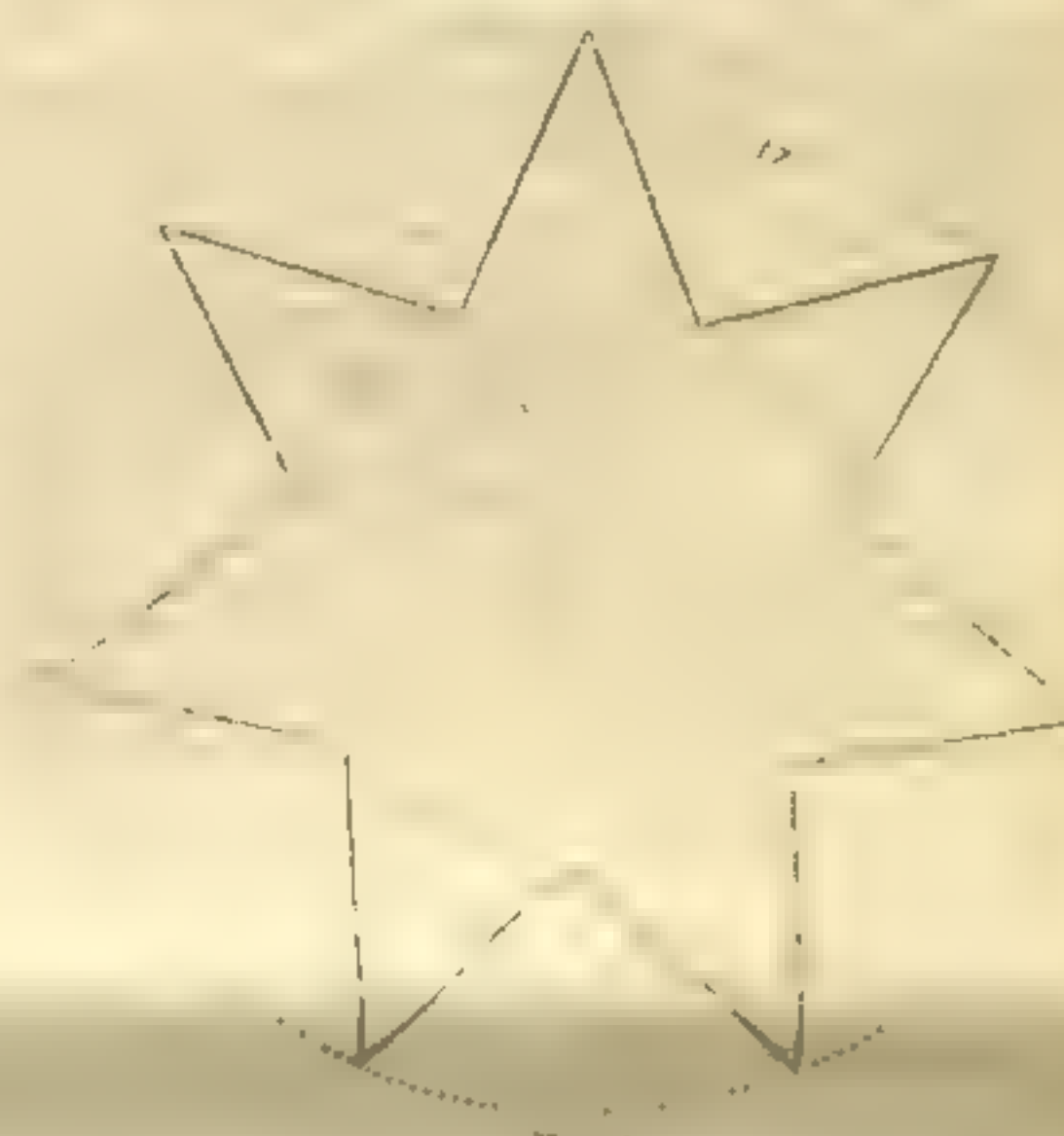


FIG. 6.

duced to the Edinburgh Botanic Gardens bore flowers, the name was named by Prof. Balfour, *Vellozia Talboti*, which was afterwards changed to *Talbotia elegans*. Dr. Hooker, however, regards it as not separable from *Vellozia*.

THE PRIMROSE.

THE Primrose family is eminently distinguished amongst flowers as being one of the earliest harbingers of the spring, and is no less conspicuous for the simplicity and beauty of its flowers, and the delightful odour which they impart. Several of the species now wild in Britain, forming the most pleasing ornaments of our woods and valleys. *Primula vulgaris*, the common species of our woods, which in its wild state, has been sung by poets, admired by lovers, and known to almost every one as one of the most charming flowers of early spring, needs no comment, being the supposed parent of all our innumerable varieties of beautiful Primroses it would be hardly worth to omit to mention it in this short notice.

The whole of this beautiful spring-flowering genus of late years been much neglected, but the rage in the present day for spring gardening is now calling to our aid those old early favourites of our youth. Nothing can look more cheerful in the early spring months, every variety is full of interest, and the heart of a child seems to leap with joy at the first sight of a Primrose. Most of the varieties are of the most easy culture, and their free flowering properties make them valuable either for beds, pots, or borders.

The most highly-prized cultivated varieties of this flower are the double ones, yet how scarce (judging by the high prices asked for them) they appear to have become. In my boyhood's days they could have been purchased for much less money, but then I have no doubt they were much more extensively grown. I fear these high prices will deter people from planting them so extensively as they deserve to be, and thus prevent their being distributed through the country as plentifully as in bygone days. The double varieties, which there are several colours, can be grown and potted in pots, 32's being the most suitable size for the purpose, they should be grown out in the open air during the summer season, and lifted and potted out about the end of September, in a mixture of leaf-mould, sand, and peat, and either plunged in ashes and covered with a shaly situation, or put into a cool frame, where they may remain until they come into flower, and then removed into the greenhouse.

After the flowering season is over, turn the plants out of the pots, and divide them into as many parts as you are eyes, plant them out in a shady situation, in a bed composed of leaf-mould, loam, sand, and well

on the other, a six-rayed star is obtained of correct proportions.

Illustrations of five-rayed and seven-rayed stars will be found in figures 5 and 6. With reference to these, as well as to other stars having an odd number of rays, it is worth while to notice, that when you have fixed the points upon the outer circle, you can most easily determine the points on the inner circle by ruling lines from the points on the outer circle through the centre and beyond it, until you come to the inner circle. In each of these last two figures such a line is indicated by dots.

On comparing these two stars, it will doubtless be noticed that one is a sharp or long-pointed, and the other a blunt or short-pointed star; and, on farther examination, it will be seen that this difference is entirely dependent upon the relative sizes of the circles; for in the blunt-pointed star the diameter of the smaller circle is half that of the larger one, while in the sharp-pointed star the inner circle has a diameter of only one-fourth of that of the outer circle.

In determining the position of the points upon the outer circle for the formation of five and seven-rayed stars, it will be useful to remember that they are most readily drawn upon a circle with a radius of 20, in which case the points of a five-rayed star will be 23 from each other, and the points of a seven-rayed star will be 17 from each other.

Reverting to the subject of hanging designs, such as up upon such walls we may find that to be it is practicable to suspend such designs on a screw nail, it is advisable to hang them up temporarily upon a nail in some place within easy reach, and thus to test whether or not they will, with their existing arrangements for suspension, hang "square" when they reach the nail for which they are intended. This trial will afford ready means of making any necessary corrections, and thus much valuable time will be saved at the final hanging.

Artificial Flowers—Many are accustomed to condemn the use of artificial flowers in churches, for reasons which we need not discuss. Our views on this matter depend upon the quality of the flowers, upon the amount of art, or of ignorance, displayed in their manufacture, upon the extent to which they resemble and might be mistaken for, the truly natural ones. A badly-made artificial flower ought never to be allowed to come into a church—it were better to have faded or dead flowers—and better still to have none at all. But there are now such beautifully-made flowers to be had, that there is no excuse for using inferior and bad imitations. And where decorations are required to last for some days, and there are no conveniences either

Vine growers, his arguments are not the less instructive, and have the recommendation of being suggestive of inquiry into a subject that has not, as far as I am aware, been fully investigated, viz., the peculiar character and qualities of the various limestones in relation to horticulture. Experience is the best teacher, and information coming from persons who have practically tested the value of the different limestones on their natural beds will materially advance the inquiry. Your correspondent "B." has brought forward many arguments and illustrations in favour of lime in its various conditions in the cultivation of Vines, and there can be no doubt that soils which, from contiguity to chalk, and similar aggregations of lime, have been largely intermixed with such substances, are amongst those that are highly favourable for fruit and Vine culture.

Limestone formations are extensively developed in this country, and their partial disruption and degradation during the drift period caused the matters composing them to be widely distributed, and our best soils have been strengthened and fortified by the admixture of calcareous elements; but it must be remembered that lime, when thus amalgamated with soil, is no longer caustic in its action, but by the loss of its more active properties it has become more identified with the soil of which it forms a part, and more available for the support of vegetation.

The great limestone formations as they now exist, and where their surfaces are not obscured by accumulations of drift, are of a very characteristic of such formations, in such soil, derived immediately from the rock on which it rests, does not contain all the fertile qualities which are found in the alluvial soil of the valleys. The magnesian limestone in Yorkshire and Nottinghamshire, without adventitious aid from other formations, does not present any very encouraging basis to work upon; and, independently of any peculiarities it may possess obnoxious to the Vine, it would certainly fail to afford those elements of nutrition required by that plant in the artificial and forcing culture it is subjected to in our hot-houses. Limestone will certainly exercise a chemical influence on matters exposed to it, and certain kinds of magnesian limestone are said to possess noxious properties so as to make their use objectionable for agricultural purposes. This stone examined chemically has been found to contain the same component parts—about three of lime and two of magnesia. The magnesian lime in a certain time imbibed only 42-both parts of fixed air, while common lime had imbibed 45ths of its quantity, and to this non-absorption and the consequent remaining of the magnesian lime for a longer time in a state of causticity, the names

quality has been attributed. But, however objectionable may be the lime and the exposed surfaces of magnesian rock sparsely covered with soil, there are many places situated on the magnesian limestone formation which are exceptionally favourable for Vine culture; but it is where considerable deposits of drift of a light loamy character have been made, or where the soft shaly argillaceous beds have been exposed and broken up during the glacial drift period, and rendered more friable and mouldy by the subsequent action of the weather and artificial management. I need only instance Bury Hill, near Mansfield, where Grapes of great excellence have been grown.

If we turn to another great lime-producing formation—the carboniferous or mountain limestone—I question if instances can be found of soils resting immediately upon that rock, and derived directly from its decomposition, being in themselves rich enough, and affording all that is required in a soil, to produce Grapes of superior quality. Although it is highly fossiliferous, the true limestone of this formation is excessively hard, and sub-crystalline in character—so much so, that in Derbyshire it is worked up as marble. In some localities, when freshly broken, it smells offensively, and in the neighbourhood of trap dykes it is bituminous in character. This description relates only to the limestone beds. Leaving them, as being most unlikely to form Vine soils, we reach a series of stratified beds associated with the mountain limestone, and derived from the degradation of all preceding rocks, exhibiting great variety of composition. There are examples of sandstones, shales, slaty flags, and grits. The waste of these matters, washed down the precipitous Derbyshire hills, added to limestone detritus, forms a soil that possesses, with but little artificial aid, every constituent of fertility, and has doubtless greatly assisted the cultural efforts of the great gardeners who have rendered Chatsworth famous.

The extensive and important oolite limestone formation stretches across the country, from Lyme Regis in Dorsetshire to Yorkshire. It appears in hill ranges and elevations of the excellent altitude for climatic advantages of from 400 to 600 feet above the sea; it is throughout strongly calcareous, and varies in composition, being in some instances soft and friable, and in others hard and siliceous. In some cases the upper beds have been swept away, and deposits of marly clay left. The lime soil resting immediately on the oolitic rock is thinly spread upon the surface, and it is only within the last half century that its capabilities, in an agricultural point of view, have been appreciated. With the aid of artificial manure and stock, good cereal crops are obtained, but I cannot regard it as being likely to afford a congenial or sufficient soil for Vine culture. The rock is cold, retentive of moisture, and not broken up sufficiently to allow the penetration of roots or the passage of air; and again I am unable to instance any remarkable cases of success in Vine cultivation pursued upon this limestone, and on the soil afforded by it. But descending to the valleys which everywhere intersect the hill ranges, an accumulation of soil, partly derived from the calcareous hills, and from the clay beds of the lias and marlstone is found, which has the character and some of the qualities of rich alluvium or loam; with this natural compost at command, a good cultivator may justly calculate on satisfactory results in Vine culture. The vineries at Belton, near Grantham, situated in one of the valleys near the limestone hills, for many years afforded the finest Grapes grown in the district.

I think it will be found that very many more instances of successful Vine cultivation will be found in the valleys adjoining the chalk, than on the chalk itself. I am not indisposed to believe that chalk being softer than ordinary limestone, under cultivation may decompose more rapidly, its silicates may be more readily available, and its causticity less than the magnesian lime; still I am persuaded that the Vine will be found to thrive best in the composts nature has spread on our hillsides and on the plains and valleys, composts that contain all the varied mineral riches of calcareous hills, contributions wrenched from the primitive rocks by the devastating floods of the drift period, matters yielded up by the old sea-beds of the lias, or borrowed from the gypseous beds of the red sandstone. These loamy deposits, some the gifts of great floods, others of rivers that year by year pursue their work of mixing, amalgamating, and depositing earthy and other matters on the soils that give us the best corn, the best vegetables, the best fruits, and finally the best Grapes—when we most closely imitate these in preparing matters for our Vine borders, our success is the most assured. *William Ingram, Belvoir Castle Gardens.*

POTATO GRAFTING.

"HEY, Giles" Potato! In what a garb you are likely to become dressed? Blended with your fine Latin titled relations, how caressed you will be? I wish you much joy. *Solanum tuberosum*—ahem! Giles Potato, my boy! why, you have got—let me see—nearly a thousand of your fine family connections, most of whom, let me tell you, would snub, ay, even poison you, poor Giles! Therefore be careful how you make your selection; take the Editors' advice: some half dozen or so out of the whole lot might prove congenial, not caring to notice the "hair on your hocks," and submit to marry you into their families, where your fine robust constitution might work such wonders, by producing a generation to wear "such coats" that "e'en their own fathers wouldn't know 'em."

I must say I felt rather famous, as I arose one fine morning lately to find my patronymic placed in much honour amongst those of other and better men. But fate is driving, otherwise I would give a good pull at the reins, in so far as the cross-fertilisation of the Potato is concerned. I cannot, however, see the slightest chance

of my getting out of these "ruts" for the next seven years; and I do hope and believe, if I am permitted to live so long, that I shall be able to show you a fine smooth surface, with a good sound bottom by that time. I have got, I am happy to say, after long and weary years of trials, my Dukes of Oxford, viz., good male Potato sires, which merely want "licking into form," and this must be done by cross-fertilisation again, kidneys with kidneys, and rounds with rounds. I assure you that those kaleidoscopic "fellows," which you so pleasurably animadverted upon, could be placed in a line of beauty and symmetry. I have not arrived at their creation for nothing, and I could give you a correct pedigree of each "coloured piece," though I own I fear Dame Nature will ever play her pranks in the Potato, as in most other things, by occasionally in her most precocious moods "advancing backwards" as well as forwards. But she will never recede farther than natural origin, let it be human, animal, or vegetable. No art in the world could induce that wild-looking seedling of mine to enter into any other than Potato existence. Was there ever a perpetuated cross between the pheasant and the fowl? Then I must beg with yourself to remain very sceptical indeed about uniting the distinct genera *Helianthus* and *Solanum*. I stick to species, and the varieties of species, in my attempts at improvement, dismissing for ever from my mind considerations how men, once monkeys, happened to lose their tails through an acquired habit of sitting down! This Potato-grafting affair has certainly laid those who have hitherto practised, or recommended its continuance, under ridicule; but there is much more reasonableness and hopefulness in it than there would be in grafting the Artichoke on to the Potato. It is possible to cause results in the one case, impossible in the other; and if any good is to be the result of my persistence in grafting the Potato, I do propose to follow it up; and if it should take me about as long as the cross-breeding process, why the year 1900 will strike before I could gain the "brush," and Nature would, in my regards, have "advanced backwards" into Shakespeare's second stage of childhood! I am sure I ought not to advise any one to enter on the improvement of the esculent, as a hobby. Let me rather advise others to take to Pelargoniums, Roses, or Pomology: one successful effort in those ways will bring them more credit and acknowledgement, in every probability, in a tithe of the time than a hundred masterful summersaults in the other.

Great satisfaction, however, remains in the consideration that we cannot all produce Yorkshire Heros, nor are we all born to be Kings! But there are two names in connection with this Potato grafting, now that it has met with the prominence you have been good enough to bestow upon it, which you have left out, and which should be remembered, viz., the Rev. W. F. Radcliffe, as being the first to unearth the process, and Mr. Thomas Almond, of Bedale, Yorkshire, for producing his hybrid, the Yorkshire Hero—certainly not the least prominent of its class yet in the field. I still retain Mr. Taylor's notes by me, carefully guarded as the apple of my eye, but I feel it due to him for me ere long to return them to their rightful owner: their honest open faces first proved to me that in them there could be no guile, and so it has proved, and will prove more and more for many years to come, or I am very much mistaken.

One sentence more:—I think my friend Mr. A. Dean has hardly treated this subject with his usual acumen. If he would allow himself some opportunity to conceive of the graft-tuber, as he will call it—seeing that he objects to its being named a "stock"—and the graft, in the light of cotyledons, as merely supplying *pabulum* for the subsistence of the young germ or shoot till such time as the latter has formed roots, it can by a very slight stretch of the imagination become understood how the act of hybridisation will have already commenced in the cases of healthy action during the process of the cicatrization of the skins and the combining of the cellular tissue; in fact, the cross is and must be so completed: the roots afterwards formed upon the shoot merely cater for the support of the life of the foliage and the crop.

Another correspondent proposes to graft by approach of two distinct young shoots. Here we get minglings of constituents from above, and the plant supported through life from below by nourishment from Mother Earth through the roots, which have nothing to do with actual hybridisation; for if they had, how could individual products remain true from year to year, and for the ever of their existence? *Robt. Fenn, the Rectory Woodstock, Oxon, December 9.*

Home Correspondence.

Mildew on Roots of Trees.—In further reference to this subject, permit me to observe that though Mr. Miller has in his last paper laboured hard to show that the diseased state of the *Picea*—recently alluded to by me in your columns—originated rather from the influence of some deleterious constituent in the substrata over which the tree is growing, than from the effects of Fungi alone, he has unfortunately done so partly under false premises, inasmuch as he has (perhaps unwittingly) confounded my description of the strata pertaining to the Tulip tree with those belonging to the *Picea*, thereby invalidating his supposition that the roots of the latter were not enabled to penetrate the obdurate formation, which exists only under the Tulip tree, whereas that underlying the *Picea* differs considerably in its composition from the former. Secondly, this invalidity is rendered still more apparent by the fact that the tree is supported in position by means of the stout poles, arranged so as to resist, even the force of a tornado, hence the "ever restless winds" can have no appreciable effect on the root process, as Mr. Miller seems to

imagine. Thirdly, Mr. Miller, again, seems to have been away, whereas every visibly infected tree is subjected to excision when the tree first begins to decay on Mother Earth, hence my remark, "the *Picea* now apparently in a state of non-vitality," no longer exists. Recurring to the substratum over which the *Picea* is growing, allow me to remark that in the *Picea* there are several Spruce, Fir, and Shrub, planted several years ago, the existence of the tree in question, of which, as far as I am cognizant, I have not seen any evidence aught pernicious in the soil, but that the decay of the roots arose from the Fungi alone. This assumption is strengthened by the fact that recently I have ascertained that the old roots of pre-existing trees and shrubs, when the latter were cut down, that these old roots were the progenitors of the present *Picea*. I will however grant that my exploration in the soil under the tree in support of the above assumption, may deny that the old roots in question are present somewhere in the soil under the tree, would involve much labour to instance search, from the fact that the old roots are at a considerable depth below the surface, by the adding of other soil for leveling purposes, the cause of the decay of some trees may be in accordance with the ideas of some authorities, no reason to doubt; but to affirm that the soil alone is not capable of affecting the trees, is, I conceive, unwarranted by observation of facts. In proof of this, to adduce an example that has recently come to my notice, it is that of a *Wellingtonia*, about 13 feet high, on a nobleman's pleasure grounds in this country, and which during the past summer has been sickly hue, which was attributed to the drought. Scrutiny, however, proved a severe attack of Fungi, arising in contact with bits of decayed old roots, which generated fungous spawn, these old roots having been inadvertently conveyed in the soil on a plateau on which the *Wellingtonia* were planted, some five or six years ago. In addition to the many proofs already adduced, in addition to which I may advert to those of some *Deodars* at Bickon, lately mentioned by Barnes in your columns (see p. 1257), I would merely observe that, notwithstanding the fact that the soil is not capable of affecting the tissues of trees, it is really surprising that practitioners should yet affect to suppose the presence of such as old roots and bits of wood in their Vine borders. Such persons are materially impressed with what happens in the roots at Rabley Gardens some few years ago, as attested by Mr. J. Munro, the then editor of the *Gardeners' Chronicle* of April 30, 1863, in the case the disease arose from fungous contact with the Elm boughs, old roots, and fragments of the artificial drainage of the Vine borders at *Gardiner, Eaton Park*.

Tricks of the Trade.—Is your correspondent aware that there are three different varieties of English nurseries under the name of *Picea*? he in the first instance make it plain, as he wanted? If botanists are agreed to be true one, horticulturists are not, and after man might be willing to sell, but not to buy the one he considered the true one. One of the three forms exists with me as a seedling, but not appear identical with any other *Picea*, but in the opinion of some of my friends to be magnificent, and I certainly would not to "warrant" that it will not. It is on my "B. M.'s" own account, that his own conscientious enough not to take advantage of a did not sell him one thing for another, of also acute enough not to "warrant" the identity of which (horticulturally) is established. In all friendship I would advise "B. M." whether he was not disappointed or deceived? *An Old Nurseryman.*

Garden Ivies.—Not having seen your "Revision of Hederacea," and hearing of it in the first time, it was simply impossible for me in my paper on "Garden Ivies," to be indebtedness to him. If, however, I was honoured because I have taken a leaf out of Nature, and have had more regard to the truth than for authority in my reading of the subject, have no objection at all. It is perhaps to ask whether Dr Seemann has proposed to me in any way, for in a paper in which I contributed to the "Gardeners' Chronicle," Dec. 12, 1863, I described a lot of *Hedera* and flung them aside as distant relatives of the Ivies of the garden. It is evident that he has not yet mastered the purport of my paper, perhaps is more my fault than his, but I will wait for his perception of my paper, and approval which must necessarily be found my selected 50 varieties were arranged upwards of 200 names, and the majority were of extravagant in length, hideous in shape, and deceptive in meaning, there was left, and that was to do as I have done, all afresh, and after a strictly

What am I to understand by "Hedera helix minor" or "Hedera helix major"? Is it the elegant marbled variety called British Ivy? It cannot be, because it does not mean variegated or coloured like the ivy which I could like marble. I could not go on mentioning such names as these, so I have given the most distinctive characteristic of each, and the new name thereupon. Thus, the "Hedera helix major" above cited bears now the name of which conveys the idea of something more than the usual unattractive colouring, as in the case of the Ivy. For garden purposes it is a better name for botanical purposes it is Hedera helix major. As to the determination of Ivies as Ivies, it is not necessary to look after hairs and scales at all. It is not necessary to feel the botanical eye, much less the microscope, to enable me to distinguish my three species of Hedera from other species of Hedera of the books. I admit authority in these matters, which fully accounts for the "starchiness" and forbidding eccentricities of botanical nomenclature. As Dr. Seemann asks for information on a few practical points, I have great pleasure in supplying to his request.—First, as to determining the place of an Ivy in my classification. It is easily done without the aid of fruit, and I will undertake to tell Dr. Seemann in an instant to what part of my classification my Ivy he can show me should be assigned. If we were to adopt the colour of the fruit as the principal character, we should never attain to a classification as I could easily explain, could I dare to trespass on your space. Dr. Seemann says, "I have never been able to find out whether Ivies with white blotched leaves have white fruit, and those with yellow blotched leaves have yellow fruit." This confession ought to make an end of the discussion, for it proves that the writer has had a very limited experience with Ivies, and therefore should not be in haste to stultify me out because I do not bow my neck to the Basil of Authority. My aurea Hedera helix aurea maculata and my aurea Hedera helix aurea maculata has golden leaves and black berries. My pallida Hedera canariensis and my pallida Hedera canariensis has white blotched leaves and black berries. This, however, is a climbing Ivy, which I had to grow in a fruiting state in order to determine its place in my classification. In altering its form the variegation was banished, which was a matter of no consequence, seeing that the object was accomplished. I do not expect that my classification will endure for all time, but I maintain first that it is my own, and the result of much observation and some little hard work, second, that it is calculated to be useful to cultivators, and perhaps suggestive to the botanists, who appear to be too often preoccupied with the idea that plants were made for their names, whereas in truth their names must be made for the plants. Any who wish to see the 50 species enumerated in my paper may do so by applying to Mr. Turner's nursery, South as I have written, or to a gentleman upwards of 200 specimens, and examples of all the 50 kinds. Shirley.

Speckled Apples.—In reference to your note on "Speckled Apples," in the Notices to Correspondents in the *Chronicle*, at p. 1068, I wish to inform you that I have had an opportunity to compare another thermometer (with that of Negretti's) which my gardener had been using, I was sorry to find that it had escaped his notice that the column of spirit had been separated, so that his observations had for some time been recorded at least below the true temperature. I have no doubt the specks on the Apples were caused by the same action. W. C. Trevelyan, Wallington.

Vine Budding.—For the benefit of the uninitiated, perhaps you will have the goodness to clear up a little difficulty which has occurred in my endeavour to interpret your directions (p. 1209) for inserting the buds "exactly as in budding the Peach tree; and differs from Rose budding only in the non-removal of the wood cut with the bark." The non-removal of the wood I can understand, as a manipulatory necessity, owing to the extreme tenuity of the bark of the Vine, little or nothing that could be handled would remain if the wood were removed; its office, I imagine, being merely that of a vehicle for the bud. It is not so difficult to understand that the bark of the stock is to be raised for the reception of the bud, in the manner of Rose budding? Neither my gardener (who is a skilful hand) nor myself can conceive such a mode of the attempt. Instead of raising the bark, we are to cut a clean slice out of the stock, and then to burnum exactly to the shape and size of the bud, applying the latter to the stock in the usual manner, and sealing with plastic. This method, I hope, differs in no essential particular from the method you have described; and it is, in fact, the nearest approach we were able to make to it. We found the sap in a liquid state; and in a very protected from frost and rain I know of no natural law that would forbid "a happy union," even at the end of the year. As Uninitiated Amateur, Clapham Park.

Mr. Stevens will be good enough to explain to me the mode of budding adopted, about which there seems to be some apprehension. E. D.

The Maiden-hair tree alluded to by Mr. Stevens, at p. 1258, is still in existence and in full vigour. Its height is now 61 feet, and the circumference at 1 feet from the ground is 5 feet 7 inches. The case of the Tump trees is 98 feet high, and the circumference at 1 feet from the ground. The Maiden-hair tree is now 114 feet high. *Chronicle*, Dec. 14.

Holland Vines.—In a leading article (p. 1229), signed "P.," it is made to the failure of the Bishop's Vine, and a conclusion drawn from it which hardly think logical. "P." says "these Vines have

been kept to the single rod, restrictive and close pruning systems, and have failed as thousands of Vines have done before them." Now this might be quite true—and strictly logical if the object were to grow a Vine as a handsome plant to look at and to preserve it like the Hampton Court Vine to a vigorous old age. But it seems to me that the real object in this country is to grow Vines to produce the greatest quantity of fine fruit in a limited space. Glass-houses are expensive, and if by one system we can grow every year 1000 lb of Grapes in a house which, by another system will only produce 250 lb, what does it signify if the Vines live in a few years and have to be replaced? Respecting the system of close pruning Vines, I say, do not give it up if it pays. If anyone will calculate the amount of Grapes which may be grown in a given space by means of "whip pruning" of Vines as compared to the ordinary system it will astonish him. In an ordinary viney 1 lb to each 2 square feet of surface covered by the glass is considered a great crop. Mr. Thomson says, in a house 15 feet wide allow the rods to run up at distances of 30 inches, and upon each rod allow eight bunches of 1½ lb. each, or 12 lb. to a rod, occupying a space of 37½ square feet. Let us however, take it at 1 lb. from each 2 square feet of house room, or 1 lb. to each foot. Now I mention that by the whip system of pruning we can grow four times that weight of Grapes. By the usual system we grow 1 lb. from each square foot of house room, but by the whip system we can grow 2 lb. from each square foot. No doubt our Vines may die in a few years, but what then? The replanting of Vines is a very trifling matter. Supposing we had to replant our Vines every two years we should still be gainers by the system, because the cost of young Vines is very trifling, and we can always get a half crop the first year after planting, if we plant proper sized Vines, and a full crop the second year. Rather sharp work, if meant to be taken as the rule. E. D.

In saying this I speak from actual experience. I have Vines planted as standards under glass pruned on the whip system, and I know that each rod can be made to produce 10 lb of Grapes. The Vines are planted in rows 4 feet apart, running north and south, and are 15 inches apart in the row, consequently each Vine occupies a space of 5 square feet, and if each rod produces 10 lb of Grapes, it follows that each square foot of house room produces 2 lb of Grapes. Now, I freely admit that the ground must be highly manured to do this, but after all what is the cost of manure? It is a mere bagatelle compared with the cost of the glasshouse and the artificial heat. No doubt some of your readers will say the thing is impossible. All I can say is that I know it to be quite possible, and I think a very little reflection will show them that there is really nothing wonderful in it. Suppose we have a Vine in a 16-inch pot. That Vine has just 1 square foot of surface to root into, whereas each of my Vines has 5 square feet to root into. But 5 lb. of Grapes from a Vine in a 16-inch pot would not be considered anything very wonderful. If thus a single square foot of surface in a pot will, with careful culture, produce 5 lb. of Grapes, why should it be thought unreasonable to expect 10 lb from 5 square feet of the soil, which forms the floor of the hothouse itself? No doubt pot Vines are usually worn out in a single year, but then if a pot Vine has been grown in a 16-inch pot, and is meant to be thrown away after one crop, it will be made to produce considerably more than 5 lb of Grapes; in fact, it will produce 8 lb or 10 lb, or five times as much from the same extent of soil as I speak of. I doubt very much whether a Vine in a 16-inch pot, restricted to 2 lb. of Grapes yearly (which would be the proportionate quantity), would ever wear out, or at all events it would last with careful treatment for many years. Whether my Vines will wear out or not experience only will show, for I have not had them long enough yet, I shall not, however, be greatly disappointed if they do. To replace a few Vines every year is not a very great outlay. But in reality I see no reason whatever why they should wear out. Some of the vineyards in Burgundy are said to be several hundred years old, and the Vines in them have not been replanted in the memory of man, yet these Vines are every year cut down to a "stump" that has only some half dozen eyes left upon it. Surely these Vines are as "closely pruned" as those which in this country are treated on the single-rod whip system. How comes it, then, that they are not "used up" or "pumped out"? There is an expression in France, *les yeux de la vigne*, which means literally "the eyes of the Vine," and which is synonymous with "good wine," implying that the older the Vine the better the wine, yet we know that in all the large vineyards of France the Vines are every year pruned down to a stump, from 6 to 15 inches high, and from this stump starts forth every year 6 or 8 shoots, each of which is allowed to bear one or two bunches, and is rigidly stopped when it is about 3 or 3½ feet long. Indeed, the rough pruning that Vines get in the Vine countries would astonish many a Grape grower in England. Can "P." then explain why these Vines do not die off, or get used up just at the very time when they ought to be in their prime? G. A. H.—Our leader upon this subject demands the attention of every Grape grower. The fact is most gardeners are in constant danger of sacrificing freedom for trimness. To cut close is a more common practice than to cut skilfully or wisely. The fishing-rod or waking-stick is too often the model that the close-spurrier tries to follow. Smoothness, too, must be had at any price—even though the whole of the strongest eyes on the Vine must be paid for it. Many show much more anxiety to cut homewards than fruitwards. All the noble spurs, though burdened with embryo fruit, fall victims to the knife, chisel, or saw, simply because

they are ugly looking things. No matter through the branch becomes barren, so long as the barbarous maker can rejoice in the spectacle of a strictly stuck on rafter or wall. The winter facelings on the vine often followed by spring stoppage and subsequent bursting leaves are looked as on things unworthy of space, and are treated as if they were not wanted, the fruit. The plant is over-crowded with the after and thus with the loss of strength, the back of its strength. No! the Vine does not want to give up the contest. Its vital power is strong, and it will carry with the resistance and punishment of a plant. Halted in its attempts to grow at the expense of its fruit, it then turns its energy to the roots, and makes a rush homewards. The leading shoots can get our rafters like rain-courses. But the use of the savage pruner is to cut down the leading shoots, and thus the Vine is given a powerful shock in the entire system. For a time the furthest end joints are paralysed, a state of collapse ensues. Life trembles in the balance with death, it, however, conquers. But the effect of the shock endures for a time. The plant gradually regains strength, but proceeds generally more slowly—cautiously. There is a new distribution of force. It seldom again ventures to risk all its energy in one direction. It seeks safety and various outlets for its growing power. Thus having better chance of escaping observation than the strong, staked leader. But the pruner's eye is upon them. He no longer measures inches, but cuts in any one, punch, two, cut, three, save back to one, and so on, throughout the season. And yet many affect to wonder at pollarded Vines wearing out prematurely, and fading in their prime. What, the pollards in our hedgerows have a natural and pleasant time of it compared to the barbarous cruelties perpetrated upon Grape Vines under glass. The former are permitted to make at least one summer's growth in peace, and sometimes as many as four or five, but the poor Vines are under the thumb or knife of the operator from January to December. They die if they can to counteract the evils of such cruel treatment, they hoard up clandestine shoots behind leaves, and grow away rapidly in every hidden nook or corner, that they may preserve that healthy root action upon which the maturation of the crop and the preparation for the succeeding one depends. Could our close spurriers and pinchers only see the checks which the practice gives to the roots, and how they resent the cramping of the top, this might possibly lead them to abandon it. I am not forgetful of the fact that excessive root action may favour sterility, while the moderate activity of the roots induces fertility. But where root action is excessive it is much safer to deal with it directly by root pruning, than indirectly by top cramping, or close pruning. In the former case, we perform a surgical operation where it is needed, in the latter we bring about a state of general weakness of the entire plant, which often ends in death, in our attempts to cure a well understood and easily managed malady. But as, doubtless, those who have spurred Vines all their lives will continue to do so, and as many are only beginning to spur who will also become enamoured of the system, and as, moreover, the spurring system is simple, and has the merit possibly of packing the utmost amount of fruit-bearing wood into the smallest possible area, it may be well to notice an excellent means of neutralising to a great extent the evils resulting from the practice. The greatest evil possible is the big franco which it offers to the formation of roots. This evil might be neutralised or remedied by allowing the leading shoot of the Vines to run on without stopping each year. Mr. Ward, Mr. Miller's successful Grape grower at Bishop Stortford, also allows shoots to proceed from the base of his Muscat Vines near the wall plates. Both top and bottom shoots get powerfully to form roots, while doubtless the top one, by drawing up a full supply of fluids through the entire length of the canes, brings the raw supplies of food needed within easy reach of the bunches. At the autumn pruning both shoots are cut back, to be succeeded by others the following season. Possibly no better means could be adopted in combination with a system of close spurring. But I greatly doubt the wisdom of adopting the system of close spurring for a permanency. It is all very well to mix it with the long or short rod systems. By such means no rod, nor portion of a rod, need be spurred for a longer period than three years. It could then be cut out to make way for another, and so on in succession. On long rafters three or four rods could be standing them together, and portions of them spurred or not as desired. On shorter ones two rods would be enough. When once furnished a rod could be cut out and another started every year, and thus the roots as well as the top be made to renew their youth annually. Vines so treated could hardly ever wear out, provided the borders were properly formed and kept well nourished. Though I believe "P." is substantially right in regard to the cause of failure of Mr. Nash's Vines, yet it ought to be stated that the chief symbol of their weakness, consists in the shanking of their fruit. For close spurred Vines of their age, the leaves developed are respectable, and the show of fruit promising, but the fruit becomes wrecked in the last stage by shanking off fruit in bunches of berries and bunches. The border is in battalions of berries and bunches. The border is wide, and mostly raised above the surrounding ground. I agree with "P." that the roots would not be likely to take much harm, even if they had run out of the borders into the kitchen garden, that run out in front of them. What is certain is, that they cannot be the surface of the border. As these Vines are historical, perhaps you could send a trustworthy reporter to see them taken up, and give a full and particular account where they were found, and in what condition. I do not consider the extraordinary prosperity that delighted the late Dr. Landley

as a good quality in a Vine border. This quality in excess is a great deal more likely to foster the development of gross and short-lived roots and wood than of healthy and long-lived plants. Possibly the Vines burst through the borders, as described by "B." (p. 1331). Most practical men can confirm his description, that Vine roots will often hasten away through the best soils and the richest dressings, and bury themselves in gravel walks or hard roadways. They choose to endure hardness, and I have long learned that firmness, amounting to obstinacy, is one of the best physical conditions of a Vine border. Has the want of it caused the wreck, by shanking, of the famous Vines of Jones Nash, Esq., at Bishop Stortford? *David Tell Fact.*

Soil for Ferns.—Although most Ferns thrive in the usual compost of peat and sand, sometimes with, and sometimes without the addition of a little loam, my experience tells me that, generally speaking, they do not get enough of what they require out of it in time to ensure a full development before the season of growth is over. This is owing to the insoluble nature of ordinary peat. By adding a plentiful proportion of thoroughly decayed wood to my compost of peat, sand and loam, I find that my plants exhibit a very superior luxuriance to that of the collection from which they were taken. *J. H. Maw, Broseley.*

Chilian Beet.—I venture to send you my experience of the above Beet this summer, in the belief that it may prove of some little interest to those of your readers who may have tried the plant or who contemplate giving it a trial for bedding purposes. I got some of the seed with my general supply of flower seeds in the beginning of May, and had it sown in a well-prepared border, composed of good loamy soil. The seed germinated well enough, the plants grew vigorously, and were soon ready for removing to the position that I had assigned for them in the flower garden. I must tell you that I sowed it for the express purpose of introducing it into the composition of my summer bedding, having heard so much said in favour of it by the party sending it out (which, as a matter of course, I could not escape), and it having otherwise been recommended to me. I was much astonished, on close examination of the plants at the stage of growth at which they were fit for transplanting, to be unable to perceive any points in them approaching to anything of a superior character to other Beets used for a like purpose. I thought, however, that it would improve as it saw more days. On that assumption I transferred to the centre of each of the various beds one of the most promising plants, and promised to myself a treat in witnessing its expected fine, dark, rich colour blend admirably with the other plants composing the beds. But lo! what was my annoyance and disappointment to observe, when too late, that instead of improving, as I had so sanguinely predicted, a retrograde movement had set in; and from thenceforward it daily became worse and worse—coarser and coarser every moment of its wretched life, until it reached the climax of its monstrosities, and displayed to my disappointment a rough, coarse, dirty, half-green Beet, approaching to the size and coarseness of a Mangel used for agricultural purposes, and, of course, completely spoiling the look of my beds, and proving an eyesore to all who had the misfortune to see it. Thus have I recounted to you my first, and, I dare say, my last, experience of the Chilian Beet, which from the very bottom of my heart I wish God-speed out of the horticultural world. In the ever-interesting columns of the *Gardeners' Chronicle* might I ask some of your readers to let appear their experiences in the cultivation of this so-called acquisition in bedding? *Tap, Dublin, December 7.*

Low Border Pear Trees.—I have a row of these trees grafted on the Quince stock, and now about six years old. They are on a border sloping to the south and sheltered behind. They are in fine health, and every season delight me with the abundance of blossoms they annually produce. But alas! they do not give me any fruit worthy of notice. In 1866 there was a total failure; in 1867 I was gratified with two or three dozen—a poor crop, but it made me hope on; in 1868, three Pears; and this season, 1869, one poor solitary fruit made me almost despair. I have tried tiffany and hushes of evergreens as protectors, without avail. The question I now wish to ask is, can Mr. Robinson, who is a great advocate for this French mode of training, suggest any safe protector, or can any of your contributors? I think I have read in your columns a suggestion from some one that ridges of thin boards would answer well the purpose. It is just possible that some one of your numerous readers may have tried this method; if so, I hope to see it reported on, for I fear that without some efficient mode of protecting the blossoms, fruit from such trees must be a myth in our English climate. *Inquirer.*

Potting Lilliums.—I would not have troubled you further on this matter but for the fact that your correspondent "M." now that he finds some of his arguments untenable, wishes, by shifting them off his own shoulders, to encumber me with them. Thus, at p. 1138, "M." writes: "The stem is kept alive sometimes by roots emitted from itself, independently of the bulb. These roots sustain it after the bulb has stopped its supply, consequently the bulb is at rest previously, and when the stem is dead the advent of the resting period is long past." I disputed this theory, i. e., that "the bulb had been long gone to rest previously to the stems dying." And here is "M.'s" rejoinder (see p. 1232):—"W. E. has not turned out Lilliums yet, or he would not write such nonsense as dead roots supporting dead stems, &c." Now, what I did was to write of "dead roots," quoting "M." fairly by saying, "living roots existing but to support dead stems, &c." It is not necessary that I should further notice this, though I reassert, that to say a bulb has long gone to rest whilst the stem with roots,

and it may be leaves attached, is active, is somewhat strange reasoning, and cannot, I think, rightly explain the real meaning of so acute an observer as your correspondent seems to be. Why it is the bulb which receives support from the stem at this juncture, and not that the former "refuses further support" to the latter! I freely endorse "M.'s" inference that the bulbs are "never really at rest." But I cannot see how this aids his argument, unless, indeed, he would hasten them off to a state of semi-rest in October, and then immediately force upon them some four months of unobservable underground activity ere any sign of superficial growth exhibits itself. Rather let him with me give them that well-timed annual ebb and flow of a bulb's, or other deciduous plant's mode of growth, as regularly as each tide moves to and from our shores, and as Nature so beautifully illustrates in all her doings. Take the time of the plant's decadence aboveground in the autumn, to that of its surface activity in the spring, and by draining a line at or about mid-winter, not November, may we not naturally infer that a change is developing itself, and that greater vitality is becoming co-existent with the equally remarkable change of the season? Again, "M." is beside the mark when with characteristic ability he calls upon your readers to observe my recent bit of tuition from "Dame Nature." I said, as did "M." himself, that long ago I received this lesson at her august hands. Mr. Tanton's remarks, to which he refers me, afford valuable information, as do "M.'s" also. They are nevertheless combatable upon sound principles, but I do not intend to enter further into the question, as sufficient has already been advanced on this subject by *W. E.*—I fear, in my hurried reply to Mr. Smith's letter, I left unnoticed an important point, which is this: in speaking of "potting," a distinction ought to be drawn between "potting" and "shifting" plants. One would come to the conclusion on reading Mr. Smith's letter that he must have shifted his Lillium so late as February 1, because he dreads the disturbance of his bulbs at any time, and of course much more so just at the time they start into growth. If such is not the case, he has succeeded in stretching out his late Lilliums as far from the usual habit of the plants as he has pushed his early ones. I never had occasion to pot before October; and November I consider is as late as I can safely leave them, this being about the middle of the time Mr. Smith takes to get through his potting. It is, no doubt, a safe time to recommend to those who have a few bulbs only. I must thank Mr. Smith for his letter. It shows there is more to be done with Lilliums than many of us imagined. Although Mr. Smith endeavours to find fault with me, he has, nevertheless, although indirectly, fully endorsed the most important points I raised; and I hope he may live to see Lilliums in flower all the year round. Your correspondent "A.," who lately treated on Nerines, lays himself open to the same charge; at least, he was not sufficiently explicit when speaking of potting. The flowering of that class of plants almost entirely depends on their management in this respect. Autumnal floral display, to which this class of plants lends no unimportant aid, may suddenly be a blank, by pulling to pieces the pots of bulbs, and separating them one from another, in order, it may be, to increase the supply. The best plan would be to divide the batch into smaller batches without more disturbance than is actually necessary. I have known some varieties of these plants flower successively for nearly 20 years, with no more attention paid to them than a little additional soil at the surface; and other varieties, by being potted as above described, have refused to flower for several years after. *M.*

Dry Rot.—Attentive readers of your Journal cannot fail to have noticed with satisfaction an increasing interest in Fungological matters. Upon the subject of dry rot there is still much to be discovered, and if I am correctly informed we are without any knowledge at present of the form of the fructification of this most mischievous mycelium. Having occasion just now to order the re-binning of the whole of a cellar, containing many thousand pounds worth of wine, I send you this note of all the information that I have been able to obtain, in the hope of eliciting further knowledge from yourself and others. Deal laths, soaked for three weeks in a solution of sulphate of copper, are said to be impervious to dry rot. Lime-washing the bin before using it again, is said by others to be all that is necessary, provided that all affected laths have been removed and destroyed. But for the recent notices about mildew at the roots of Fir trees, I should have thought seriously of using pitch-Pine laths. Now I am assured that dry rot will not attack either East Indian Teak or Demerara Greenheart. Do you know of any chemical principle in these woods antagonistic to Fungoid growth? Sulphur or creasote would be apt to affect the flavour of the wine through the corks. *W. T.* [The fructification of dry rot (*Merulius lachrymans*) is well known, and consists of myriads of snuff-coloured spores. Many other Fungi, however, occur in cellars, which must not be confounded with true dry rot. We have never seen true dry rot on Teak or Greenheart, but they are subject, especially where they come in contact with other wood, to that form of decomposition which is known under the name of Eremcausis. No one can tell why particular Fungi affect particular kinds of wood, while others affect almost all wood equally. A solution of corrosive sublimate is a certain cure, but its effect wears out after a few years. Perhaps the best substitute for laths is strong felt, which must be previously steeped in creasote or the above-mentioned solution. True dry rot, however, seldom originates in the laths. *M. J. B.*]

Continuity of Growth.—I notice at p. 1279 of your impression for December 11, an able article by Mr. D. T. Fish upon this subject. In that article he

makes reference to my letter upon Vine p. 1161, and therein repeatedly misrepresents I said. Will you, therefore, have the goodness to allow me a little space to rectify the matter. I, and most of the others who have written on the subject, says, only tends to strengthen my position in the matter. If Mr. Fish will have the goodness to read the first ten lines of my article, he will find the conclusion to which he has come at the end of the last paragraph of his article is just the same as contained in the little word, "No," which answers two opposite questions of Mr. Gill and Mr. Fish, viz., "that root and top action proceed simultaneously" when plants are grown in a natural condition. The case brought forward by Mr. Fish to prove that leaves could be produced without roots, has no bearing upon the subject, and yet have the cases cited by Mr. Fish to reverse, for both are extraordinary circumstances having any bearing whatever upon what is not, the result of root and leaf formation, and healthy tree in a natural condition, must be remembered that this is the case which I took my stand. From beginning to end of my article there is no reference made to roots or roots might do if placed in a condition other than their natural state. Every one knows that ordinary things are accomplished by the means of the vegetable kingdom in their struggle for existence. Roots in some cases will form shoots, and shoots in almost every case will form roots, and this has no bearing upon the subject of the first understood it, and wrote accordingly who have written upon the subject had been in mind, there would have been less said upon the and far sounder conclusions would have been by them. Again, Mr. Fish misrepresents me that I said "spongioles cannot be formed without aid of leaves;" and by denying this he misrepresents himself; for does he not adopt the language of Owen at the top of his third paragraph, that "the leaf falls not because an old leaf is because a new leaf is born," clearly showing that tree is never without leaves the whole of its life. It was looking at it in this light that what Mr. Fish attributes to me, he looked towards the end of my article to find these words, when referring to this point that there may be no misconception upon it, let me say that buds are leaves, flower buds in embryo, and consequently act as spongioles until such time as the leaves begin to develop. Mr. Fish taken this sentence, in conjunction with what he attributes to me, he would have done justice; but, by taking the one without the other, entirely misrepresents my meaning. I ought to be put right when I am wrong, but I can't misrepresent. Regarding my reference to a pump, the simile was used for simplicity, not to be literally understood; and a man of intelligence as Mr. Fish cannot fail to perceive what I meant by it. If, however, as Mr. Fish says, of a pump does not draw water at all, will he be so good as enlighten us by stating how it can accomplish this without it, unless he uses a James McMillan. [We believe that the buds act rather as consumers than as producers as our correspondent states. *Eos.*]

Vine Soils.—I know the authors of your article are so competent to put controversialists to rest, that I so highly approve of your liberal admission of opinions into the *Chronicle*, that I could not but question the action of calcareous soils. In common parlance, a soil may be calcareous, but, strictly speaking, the surface soil is calcareous, exclusively formed of carbonate of lime. The calcareous soil of this place is composed of numbers, of 45 parts carbonate of lime, 10 parts aluminous earth, and 10 siliceous, and is very sandy. In it the Vines grow vigorously and abundantly. I have two Vines, planted 20 years ago, the roots of one run under a carriage, the other under a grass plat; they are never more than 10 feet apart. Last winter, I sawed off one of them close to the ground, and the other grew 2 to 3 inches in length daily in July, and about 16 feet in length, strong red roots. Such calcareous soil is good for Vines. As to success on soils of pure siliceous, but I know a part of a shire that was black sand, and almost barren, and a view to improve it, was first dressed with small results, then chalk was added, and it became fertile. My recommendation, therefore, designate no soil as unfruitful until you have obtained its component parts; and I am sure it will be a great advantage if writers treating on horticulture or agriculture would let us know the position of the soil they write about. *Farther Barton, Cirencester.*

Yellow Bedding Plants.—Your correspondent "T. P. T." (p. 1284) is in error when he says "The Pansy has been tried over and over again as a summer bedding plant but has always failed." At the end of July it is used up. If "T. P. T." here next August, September, or October, convince him otherwise, and take him masses of Yellow Pansies as well persuade him, and thus prove by ocular demonstration that he not use it up by the end of July. I have a good lot of latea, in the middle of October, one perfect flower, with my friend Mr. Willis, when at the success in the cultivation of the Pansy depends upon its proper management. *Osberton.*

entirely free from the greenfly, which is sometimes very troublesome to this plant. Dieffenbachia maculata stands next, a remarkable plant, and all the more creditable by reason of the small pot it was grown in. How seldom we see this plant shown to perfection: generally speaking, as the leaves attain age they turn a dingy brown colour, which entirely destroys its character and usefulness for exhibition. But such is not the case with Mr. Bennett's plant, it retains its pretty green leaves, freely blotched with white throughout. This plant should always be cut down in the winter, and must be shaded from the scorching sun, to grow it to perfection.

Alocasias of sorts, and Dracaenas of sorts, have also a place here, as also have the Sansevieria zeylanica—an immense plant, Boehmeria argentea, Pavetta borbonica, Cyanophyllum magnificum, Marantas of sorts, and last, but not least, that seldom-seen plant, Campylobotrys refulgens. In days gone by, Mr. Bennett has shown this plant probably better than any other man in the country. Abundant drainage, a light, porous soil, with plenty of silver sand, and close shading, give the clue to success.

I find I have accidentally omitted to mention a good specimen of Cyperus alternifolius variegatus, which is the largest of the kind and the best coloured I have ever seen, not an entirely green leaf being seen on the plant. To colour this plant to perfection requires some amount of skill; but if the following simple rules are adopted, the desired object may invariably be secured. 1st. Don't have a plant that has been obtained from seed, as that cannot be relied on to produce variegation. 2d. Rest the plant every winter, and cut it down, keeping it in a warm house. 3d. Pot in a compost containing equal quantities of peat, leaf-mould, silver sand, and brick or mortar rubbish, and only pot once a-year. This plant is especially valuable for the trimming of vases, &c., and should have a place in every collection.

Before taking my leave of the house containing the above remarkable specimens, I would just state that I noticed several young plants of recent introduction, including some of the new Crotons, but as their characters are not sufficiently developed in their young state to enable one to form an accurate opinion of their respective merits, I refrain from making any comment upon them at present. In another house devoted to flowering plants I noticed the following as being remarkably fine and well-flowered, but as I did not take any notes, I am unable to give particulars as to size and the number of flowers each plant carried:—Bougainvillea glabra, Allamandas—cathartica, Schottii, grandiflora (very beautiful), Hendersoni, and peritofolia (good); Ixoras—salicifolia, javanica, and coccinea; Dipladenias—splendens (good), crassinoda, and the lovely amabilis (the latter unusually fine); Clerodendron Kämpferi and Thomsonæ, good; Rondeletia speciosa and Stephanotis floribunda were alike good. I cannot conclude this incomplete account of the plants without stating that there are many good specimen greenhouse plants in another house; and further, that the place looked remarkably well at the time of my visit (middle of September) throughout. The Vanilla has also abundance of fruit pods this season. Thos. Simpson, Broomfield, Chelmsford.

Garden Operations.

(For the ensuing week.)

PLANT HOUSES.

THE ornamental and useful Francisceas will now generally be more or less enlivening stoves with their variably tinted blue, or mauve and white flowers. Whilst at this stage no moisture should be allowed to settle upon the plants, neither should any great amount of humidity be permitted in the structure containing them. The flowers being somewhat delicate, they readily damp off before their usual time if any excess is permitted in either way. Kalosanthes should now be kept as dry as they conveniently can be without allowing them to become at all shrivelled in the leaf. They do not require much heat; a moderately cool, but dry corner, in any intermediate house which is kept up to a mean of from 45° to 50°, will suit them well. Bulbs, such as Hyacinths, Crocuses, Narcissus, &c., will now become an attractive feature in gardens generally. A constant successional supply should therefore be maintained. There is one point in the culture of these favourites to which all growers do not seem to attach the proper amount of attention, and concerning which a few words may not be out of place here. I refer to the fact, that instead of removing them from beneath the material which was placed over them during the process of root-making, as soon as they have fairly established themselves, many let them remain, one batch after another, until they are wanted for forcing, when, in many instances, the later lot has made some inches of growth. The leaves and flower-spikes so produced are thoroughly blanched, and as ill adapted as anything can well be to carry forward those necessary offices in connection with roots which are necessary to produce fine individual flowers, and in the absence of which no cultural merit is attainable. As soon as the bulbs have made roots, and become properly attached to the soil, let them be removed to the full light, where both sun and air may freely reach them; the cooler the situation the better, provided always that frost is not permitted to reach them. The nearer they are placed to the glass the better, and it may be said in regard to waterings that the more frequently the soil needs a fresh supply the better, provided at all times that the balls dry kindly, and nothing in the way of stagnant soil exists, as the roots delight in a fresh supply. There may be some few instances in which certain cultivators wish to make a good show of blooming plants at a very early date, and who, in order to do so, are not

averse to forcing their plants out of season. To furnish such a display as this, there are some few rather unusual subjects which will respond with tolerable freedom to a little extra pushing, especially Clerodendrons—the varieties C. Thomsonæ and C. Balfourii in particular; Impatiens flaccida and I. flaccida alba; most of the Gardenias, excepting G. Stanleyana; such varieties of evergreen shrubs, like Hibiscus, as may be grown; Bougainvilleas and Libonias; which may all be turned to very useful account.

FORCING HOUSES.

I have little to add in regard to Early Fineries. Be particular not to enforce too much artificial warmth at any stage, as far more injury will accrue therefrom than is to be seen at the moment by the superficial observer. Attend constantly to the state of heat of the fermenting materials upon the outer borders. The fluctuating weather we have experienced of late in this wise—sometimes sharp and frosty, at others a densely surcharged humid atmosphere—will necessitate constant watchfulness to keep the heat at a uniform mean. See that the Vines in the Late Fineries do not suffer at any time during severe weather from frost, but afford protection therefrom in some shape or form. I need add little in regard to Pines, excepting it be to recommend in those instances where an uninterrupted supply of Pine-apples is necessary, that a few of the forwardest successional be sorted out, and means be assured to cause them to show as soon as possible. This to follow those now showing fruit. Should very severe weather ensue—and it often happens about this time—let me suggest that the utmost caution be exercised, not to exceed by a single degree the maximum of artificial heat which is absolutely necessary; for depend upon it the dry, heated atmosphere, even at a minimum, will prove a sufficient tax upon all well cultivated plants. Especially is this to be enforced if the cold is of some duration, when a slight reduction of the mean heat may be advisable. Keep well above the temperate point at all times, but hug it as closely as is possible during such periods as these, of course according to the requirements of each separate batch of plants. Keep up a successional supply of such things as Seakale, Mushrooms, Asparagus, &c, by the continued introduction of the necessary material at properly regulated intervals, in order that no scarcity of a proper supply may show a faulty place in past arrangements.

HARDY FRUIT GARDEN.

Those who may not yet have placed the necessary protective material against Fig trees attached to walls out-of-doors, should now do so at once. Straw hurdles neatly hung up against them, so as to represent a thatch, do as well as anything; as, while they ward off any really severe frosts that occur, they nevertheless admit more air amongst the branches behind them than is possible when they are tightly bound up with straw or hay. I lately referred to the necessity of running white cotton athwart Gooseberry or Currant trees, for the purpose of keeping small birds from destroying the fruit-buds. I find that the best material for this purpose is the best white hempen or flax string used by shoemakers. It is procurable in balls, costing about 2½d. These balls contain many yards, and the material is very strong.

HARDY FLOWER GARDEN.

When I last wrote, and, indeed, but a day or two since, everything seemed to indicate a frosty period. The change in the moon's quarter on the forenoon of the 10th inst. has, however, changed the aspect of affairs, though there can be no certainty of a mild period for many days together. It will be necessary, therefore, to provide proper protection for all subjects likely to require it, should a frosty period ensue. This will be the more imperative after so mild a period. Young plants of Cynerium argenteum (the Pampas Grass) should have some sort of protection placed around their base. Outdoor beds of Hyacinths and Tulips should have some protecting material for a like purpose. Should there be a mild period, push forward all planting, or any form of alterations which may be in hand, &c, with the utmost despatch; this especially in regard to the removal of turf and the necessary occasional rolling of grass plots. Give Neapolitan Violets all the air possible during mild periods, keeping them clear of everything in the form of decay. Protect Pot Roses which are intended for forcing shortly, and keep them moderately dry. During unusually wet periods, even on light soils, the Bellis perennis aucubafolia (both white and red flowered varieties) will scarcely exist; they should therefore be potted up and receive the protection of a frame; the same remarks will also apply equally to the best double varieties of Pyrethrum.

KITCHEN GARDEN.

It will be advisable to look over those crops which were lately protected by the use of litter, whether dried Fern or straw, and, by removing all such from them, to allow the air, with what drying tendency it may have, full play. In those instances, where the rows of Celery have not been so protected—and it was not needful, it will be seen that the sides of the somewhat abrupt and upright mounds have crumbled or wasted by the influence of the frost. These it will be advisable to go over and to replace the soil to its former position, or should a sharper period ensue the crop will be liable to suffer, so attenuated have the sides of the mounds become. Look through all frames or pits containing Lettuces or Endive, and remove such as are at all decayed, which some are certain to be at this time, even with every attention. In the case of good stock frames it will be advisable to fill up all vacancies with other suitable plants taken up from the outer borders. Look out for the necessary materials for making hotbeds; for the time will now soon come round when they must be turned to account. W. E.

TOWN GARDENING.

A VERY useful subject for hiding blank walls in gardens is the Grape Vine. Now is the best time for pruning and nailing it, an operation which should be done as follows:—Considering that the fruit has more importance (for the purposes above mentioned) than the fruit, the plants must be so pruned as to favour the production of the leaves. The main leading shoots may be trained either horizontally or perpendicularly about 12 inches apart from each other. These shoots should be cut back to a plane which may be nailed straight towards the extremity of the buds. The young wood of the past season should be pruned to one or more eyes, according to the strength of the shoot and the space to be filled. Sufficient quantity of last year's wood should be secured, to fill up spaces caused by the removal of older branches. When the pruning is finished, all in neatly and regularly. A good dressing of dung, forked in a few feet round the stem, will do great service to them. Should the weather be dry and fine, roll the Grass well, sweep and rake, and clear the borders of everything in the way of rubbish, so that the garden may be in a happy state at Christmas. J. D.

STATE OF THE WEATHER AT CHRISWICK, FROM THE 1st OF DECEMBER 1862 TO THE 15th INST.

Table with columns: Dec, Moon's Age, Barometer (Max, Min), Temperature of the Air (Max, Min, Mean), and other weather-related data for the week ending Dec 15, 1863.

Summary of weather conditions for the week, including observations on temperature, wind, and precipitation.

STATE OF THE WEATHER AT CHRISWICK DURING THE LAST 43 YEARS.

Table showing long-term weather statistics for Chriswick, including average highest and lowest temperatures, mean temperature, and frequency of rain.

Additional weather notes and observations for the period covered by the table.

Notices to Correspondents.

A collection of notices and responses to readers, including information about books, garden products, and local events.

outstripped us in agricultural economy and production? For ourselves, although aware of the industrious and indefatigable character of the Chinese, we have full confidence that English agriculturists might overtake and even surpass them. It is surprising that questions affecting the welfare of agriculture excite so little public interest. Yet we are persuaded that no very important steps will be taken in the improvement of farming until popular intelligence has cleared away certain obstacles which we have often pointed out, and which, as they are social, or political, can only be removed by the pressure of public opinion.

No one can seriously compare the agricultural skill and contrivance of any other European nation with that of England; our farming is that of a thickly populated and enterprising nation. It is deficient only where it wants a fair field for enterprise and materials for the exercise of skill.

— THE grain trade in London has been in a slow and almost unaltered condition throughout the week. A trifling exception may, however, be made to Wheat, both English and foreign, which has declined 1s. per quarter, and to Oats, which are lower in value by 6d. per quarter. Barley, Beans, Peas, and feeding stuff generally have been a dull sale at previous rates. The highest quotation for this year's Wheat of English growth is 43s., and red samples are quoted as low as 36s. per quarter. Country markets have corresponded.

— The Metropolitan great Christmas stock market has confirmed the remarks we made on the Bingley Hall animals in regard to the want of firmness in their fat. There were some of the more corn fed stock which were firm and good, but the great bulk of the animals were in the worst condition which has been seen at the Christmas market for several years. This created a large amount of surprise in some quarters, but if it be looked at from the light in which we viewed it, it will at once become intelligible. The question, therefore, may be again asked—Would it not be better for us if circumstances should discourage the importation of live stock, which is so often diseased, and thereby increase the encouragement to import foreign corn for producing a largely increased amount of animal food at home? It was further remarked in many places that in-and-in-breeding is proving yearly to be more and more unremunerative. Does this apply to the small-boned pedigree Shorthorns? the diminutive pedigree Devons? or to the less fleshy and more uniform pedigree Herefords? Does it also apply to sheep? As to pigs, we may at once say we know it does. While this is the result of home breeding too, it is equally clear that foreign animals are greatly improved in their form and character. This was particularly noticeable on Monday last in the Dutch and French beasts. The Scotch beasts, again, took the lead as regards form and condition from feeding. This was not anticipated, for the animals of late, where they have come off grass and turnips, have been soft and flabby, the result no doubt of an excess of moisture in their green food and roots. The following is the return of the numbers at the "great market" during the last 28 years:—

Year.	Beasts shown.	Price.	Year.	Beasts shown.	Price.
1841	4700	3 8 to 5 0	1856	6749	3 4 to 5 0
1842	4711	3 4 to 4 8	1857	6556	3 4 to 4 8
1843	4511	3 8 to 4 4	1858	6174	3 4 to 5 0
1844	5773	4 0 to 4 6	1859	7560	3 6 to 5 4
1845	5276	3 6 to 4 8	1860	7866	3 4 to 5 4
1846	4570	4 0 to 5 8	1861	8841	3 4 to 5 0
1847	4382	3 4 to 4 8	1862	8430	3 4 to 5 0
1848	5042	3 4 to 4 8	1863	10370	3 6 to 5 2
1849	5767	3 4 to 4 6	1864	7131	3 8 to 5 8
1850	6341	3 0 to 3 10	1865	7530	3 4 to 5 4
1851	6103	2 8 to 4 2	1866	7349	3 8 to 5 6
1852	6071	2 8 to 4 0	1867	8110	3 4 to 5 1
1853	7077	3 2 to 4 10	1868	7921	3 4 to 5 8
1854	6171	3 6 to 5 4	1869	6728	3 4 to 5 10
1855	7000	3 8 to 5 2			

The trade was not in a very animated state, in consequence of the length of time there was before the coming festival. It was besides anticipated that an unusually large supply would arrive for the Thursday's market. This, however, did not transpire, for there were only 1812 beasts in the market, including those left over from Monday. Previous prices were therefore maintained for both choice and middling qualities, 5s. 8d. per sub being the highest quotations. In such provincial markets as Wakefield, Manchester, Liverpool, Birmingham, Bristol, and so on, the numbers are reported as larger, and the condition of most of them as good. Of sheep, but few of the show class were present either on Monday or Thursday. The large supply of 24,790 on the two days made all but the show sheep and ripe handlers slow of sale.

— On Saturday morning last an outbreak of foot-and-mouth disease was discovered among the few cattle which remained in the Agricultural Hall after the close of the Smithfield Club exhibition on the previous day. Under the provisions of the special order for holding the exhibition, arrangements had been made for removing cattle out of the metropolis with a police order, which was granted only on the production of a certificate of health, signed by one of the veterinary surgeons, and in pursuance of this provision Professors SIMONDS and BROWN examined all the cattle in the Hall on Friday, and signed the required certificates, all the animals being free from disease. During Friday night the greater part of the stock was

removed. On Saturday morning, however, one of the remaining cattle, a Devon ox, was discovered to be ill, and was immediately taken from the Hall and put in the hospital, as it is termed,—a distant part of the building, which is appropriated to the reception of animals which may be taken ill during the show. An examination was made of the ox by the veterinary inspectors, and he was found to be suffering from the incipient stage of foot-and-mouth disease. Pending the issue of instructions from the Privy Council respecting the disposal of the animals, directions were given to prevent any of the 45 which were left in the Hall being taken away. The police licenses for the removal of cattle out of the metropolis were revoked in the course of the afternoon. On Monday the cattle were again inspected, and several of them indicated the existence of the disease; the total number of attacks amounted to seven. Police licences were issued on Monday for the slaughter of the cattle within the metropolis, and they were all removed from the Hall during Monday and Tuesday. Disinfection of the manure was commenced immediately under the supervision of the inspector to the local authority. It is somewhat remarkable that this is the first instance of the appearance of a contagious disease among cattle at the Smithfield Show since the outbreak of cattle plague in this country led to the holding of exhibitions under the restrictions of the Privy Council licence. Respecting the cause of the outbreak the professional opinion is, that the infection was in some way conveyed to the cattle, probably by persons coming from diseased animals, two or three days before the discovery of the disease. This opinion is based on the well-known fact of the limited duration of the incubative stage of foot-and-mouth disease; not more than 48 hours intervening between the time of infection and the declaration of symptoms in the majority of instances.

— The West Herts fat stock show at Watford on Tuesday last was a most successful local exhibition. Seven cups were awarded, in addition to money prizes. W. H. SWITH, Esq., M.P., offered two 10-guinea cups, one for the best bred ox or steer in any of the classes, and the other for the best bred cow or heifer, both to have been bred by a tenant-farmer. These were judicious premiums, as in each case the selected animal had not taken a prize in its class. Mr. LEACH LONGROFT, Hemel Hempstead, took the 1st for a very handsome steer, and Mr. JOHN WHITE the 2nd for a good 2-year-old heifer. The 1st class prize in the oxen was taken by Mrs. MORTEN, Lea Farm, Watford, and also the cup given by the Earl of ESSEX for the best ox or steer, without any conditions as to breeding. The Earl of CLARENDON, K.G., was 2d with a good steer of 2 years and 8 months. In the heifers the Earl of CLARENDON was 1st, and W. JONES LOYD, Esq., 2d. In this class, however, there was the best animal bred by a tenant-farmer, and for her was awarded the handsome prize of a 20-guinea cup, subscribed for by the unkeepers and tradesmen of Watford. Mr. G. STONE, Cassio Bridge Farm, Watford, was the possessor of this fine blood-red cow. Lord CHESHAM was also a winner in the heifer class, with a very pretty West Highlander. Two cups were offered for sheep, one by W. JONES LOYD, Esq., and the other by H. R. BRAND, Esq., M.P. These were both to be competed for by tenant-farmers only. Lord CHESHAM took the 5-guinea prize offered by the Old Berkley Hunt for the best sheep (ewe or wether) of any age or breed. This was with one of five 2-shear Shrops. The pigs were excellent, W. JONES LOYD, Esq., taking three 1st prizes with excellently bred and fed pens. The Earl of Essex was also a successful exhibitor. Poultry, pigeons, and dead poultry, to the number of 142 prizes, made up a very attractive show, and the number of visitors indicated that it was well appreciated. This show was arranged in tents; but it is anticipated that by next year a public hall for this show and public meetings generally will be completed.

OUR LIVE STOCK.

BUFFON long ago remarked that domestic animals breed oftener in the year, and produce more young at a birth than wild animals of the same species; they also sometimes breed at an earlier age. Mr. Darwin in discussing this interesting point tells us that some authors have lately attempted to show that fertility increases and decreases in an inverse ratio with the amount of food. This strange doctrine has apparently arisen from individual animals when supplied with an inordinate quantity of food, and from plants of many kinds when grown on excessively rich soils, as on a dunghill, becoming sterile. With hardly an exception, our domesticated animals which have long been habituated to a regular and copious supply of food without the labour of searching for it are more fertile than the corresponding wild animals. It is notorious how frequently cats and dogs breed, and how many young they produce at a birth. The wild rabbit is said generally to breed four times yearly, and to produce from four to eight young; the tame rabbit breeds six to seven times yearly, and produces from four to eleven young. The ferret, though generally so closely confined, is more prolific than its supposed wild prototype. The wild sow is remarkably prolific, for she often breeds twice in the year, and produces from four to eight, and sometimes even twelve young at a birth; but the domestic sow regularly breeds twice a-year, and would breed oftener if permitted; and a sow that produces less than eight pigs at a birth "is worth little, and the sooner she is fattened for the butcher the better." The amount of food affects the fertility even of the same individual: thus sheep, which on mountains never produce more than one lamb at a birth, when brought down to lowland pastures frequently bear twins. This difference is apparently not due to the cold of the higher land, for sheep and other

domestic animals are said to be extremely prolific in Lapland. Hard living, also, retards the period at which animals conceive; for it has been found in the northern islands of Scotland that cows to bear calves before they are four or five individuals has probably much increased the number of a race. But with cats, dogs, and ferrets, we not valued for their prolificacy, selection must be played a subordinate part, and their success must be attributed to the more favourable conditions of life under which they have long existed.

— Mr. Dodd's sale at York, on the 26th, attended with considerable success. The total obtained for 27 cows and heifers was 3000 lbs., the 30 bulls brought an average of 275 lbs. The total average for the 57 animals sold being 275 lbs. No remarkably high figures were realised, but a uniform range of prices characterised the sale. Late Mr. Dawson's *Sarannah*, by THORNDALE (23,066), brought the highest bid for cows, the property of Major Stapylton, whom we have frequently seen before the public as a specimen of high bred Shorthorns, at 56 gs. *Charmers* of the origia, and descended from *Milbore* which was chased very cheaply by Mr. Wilkinson for 1000 lbs. *Ada*, another of THORNDALE LAD's heifers, secured by Major Stapylton for 41 gs. The cow of the same sire also induced Mr. Singleton to bid for *Beauty*, of the Weston Hall herd, but was bought by Mr. Betts, hence these three heifers, all by the same bull, and bred by the late Mr. C. H. Dawson, the excellent average of 177 lbs. The first lot to the company was THORNDALE LAD bred by Mr. Betts, of Preston Hall, and possessing a valuable pedigree, tracing back to the famous bridge Rose tribe, and got by Mr. Thorne's bull, THORNDALE. After some competition this sire, now 5 years old, became the property of Mr. Lamb, of Auburn, Lincoln, for 82 gs. In 1851, OXFORD, a son of Captain Gunter's EARL (15,966), a grand-son of THE DUKE OF OXFORD, great-grand-son of GIB DUKE OF OXFORD, only made 33 gs., and DUKE ROYAL, a 4-year-old, full of the best Wetherby, Towson Kirklevington blood, and also a prize-taker at Mr. Palfreyman for the low figure of 115 gs.

— Few persons who visited the Agri-Stock in the recent exhibition of fat stock, could fail to be struck by the gigantic ox shown by Mr. J. Jones, of this animal, now 5 years and 7 months old, produce of a Welsh bull and a Shorthorn cow, second cross. Although far from as large as might be, he has attained the extraordinary weight of 27 cwt. 3 qr. 19 lb., and the measuring tape the following dimensions:—Girth, immediately below the shoulder, 9 ft 1 in; length from shoulder to tip of ear, 6 ft; height from ground at shoulder, 5 ft 6 in; height of hind quarters, 5 ft 8 in; from centre of hocks (hips or pin bones), 2 ft 6 in; round bone below knee, 10 in.

SPURIOUS GUANOS.

— The attention of the Council of the Agricultural Society having been drawn to the increasing use of manures and feeding stuffs, especially guano, soda, ground bones and lime, &c., Dr. Veleky requested to submit to the monthly council in December, a report on the various samples sent him by members of the Society, so that such reports with the names of the dealers who supplied the material, should, if the Council think fit, be published in the agricultural journals.

At the monthly Council meeting held on Dec. 1st, Dr. Veleky presented a report in accordance with the resolution, and I now beg leave to forward you extracts from it, and to request that you will publish the next number of your Paper.

Analysis No. 1 represents the composition of a sample of guano which I analysed for Mr. C. C. Harlstone. This analysis was produced by Perkins & Sons, auctioneers, of Southampton, at the time of the sale. No. 2 shows the composition of material sent to me as a sample of the bulk, sold at auction by Mr. Horace Leggett, Brownwick, Hants.

Moisture	...
Organic matter and salts of ammonia	...
Phosphate of lime and magnesia (bone earth)	...
Oxide of iron and alumina (clay)	...
Sulphate of lime	...
Carbonate of lime	...
Water-soluble salts	...
Insoluble in water	...

Containing nitrogen equal to ammonia. Instead of 1 1/2 per cent. of ammonia, as in the No. 1, No. 2 barely contained 2 1/2 per cent. The latter further contained scarcely one-third the amount of phosphates which is found in genuine guano, and appeared to be principally composed of gypsum and a yellowish coloured loamy soil.

The next illustration of a spurious guano is furnished in a sample sent for analysis by Mr. Under Howden, Marston Court, Pembroke-shire, who informed me that he bought it of G. C. Dobell & Co., of Liverpool. These persons maintain that this is genuine as imported, but may be quite correct for they may have imported a spurious article; nevertheless it is not a genuine guano, but a compound resembling guano in appearance.

characters, and having but little else in common with that fertiliser.

Analysis sent by Mr. Alexander Howden, Marston Court, Pentridge, Herefordshire.

Matter, salts of ammonia, and water of	11.53
.....	0.71
.....	1.07
.....	2.05
Oxide of iron and alumina	14.54
Alkaline salts	traces
Incombustible matter (fine clay and sand)	49.29
.....	100.00
..... Nitrogen	0.73
..... Phosphoric acid	0.89
..... Phosphate of lime	28.55

These analytical results do not require any explanation.

The latest case was brought under my notice by Mr. H. Barney-Lutley, Brockhampton Court, Worcester.

Analysis of a sample of Adulterated guano marked "Feathers" sent by Mr. H. Barney-Lutley, Brockhampton Park, Sept. 21.

Matter, salts of ammonia, and water of	7.27
.....	1.07
.....	2.05
Oxide of iron and alumina	14.54
Alkaline salts	traces
Incombustible matter (fine clay and sand)	49.29
.....	100.00
..... Nitrogen	0.73
..... Phosphoric acid	0.89
..... Phosphate of lime	28.55

It will be seen that this so-called guano contained only 53 per cent of phosphate of lime in round numbers instead of 23 to 25, the percentage found in genuine Peruvian guano, and that it yielded not quite 3 per cent of ammonia, instead of 16 per cent., which is the average percentage in good guano. Adding together the worthless matters in this feathery compound, for it was nothing else but a mixture of a sample of guano with a little Peruvian guano and plenty of guano bird feathers, we have no less than 75 per cent of useless materials, and only 25 per cent of fertilizing constituents. On inquiry, I find that the "Feather Manure" was sold as Peruvian Guano at 17 a ton by a Mr. Weekes, of Bromyard, Herefordshire. Its real value cannot be put higher than 24 lbs. or 3/4 at the most. Augustus Voelcker

LAND RECLAMATION AND IMPROVEMENT.

A Paper by JOHN SCOTT, HERMON HILL FARM, RUDWICK.

IN the reclamation and improvement of the waste lands of the United Kingdom there is a work to be done of immense magnitude, involving an outlay of one of the very first importance in its bearing upon the material welfare and prosperity of the nation. It has been so customary to hear British agriculturists spoken of as an example of perfect rural economy, and the statement has been so generally accepted as true, that the real facts of the case are, by the majority, either lost sight of or totally discredited.

Of all the branches of industry which occupy the attention and absorb the capital of millions of our population, that which is the oldest, and forms the basis and staple of the whole, has been most neglected, and advanced most slowly. It has been regarded in the popular mind as the adaptation of a stereotyped practice to a pursuit which, if not exhausted, leaves little room for further development. Even in modern times, when the spirit of enterprise has permeated every section of society, when science conjoined with art has triumphed over what were not long ago considered as Nature's insuperable barriers, and the wonderfulness of human thought and effort has been to a large extent developed, the resources at command, even under such influences, the science of agriculture has to a great extent remained enveloped in the false ideas which have so long attached to it a position of inferior importance.

The means and the practice were no doubt in harmony with the previous requirements, but with the present altered conditions of a greatly increased population and the facilities afforded by the advancement of the collateral arts and sciences, it becomes imperative that agriculture should yield to their pressure in the march of progress.

Our present supply of agricultural produce is yearly becoming more incapable of satisfying the growing demand, which increasing numbers entail, and this deficiency can only be corrected by making a better use of the resources at our disposal. No one can yet affirm what the productive capabilities of the soil may be, but how wide is the assertion that within the area of the United Kingdom we have a field which, when developed and improved, will sustain in comfort and plenty a population many times exceeding its present number.

The means of deriving an increased supply are, either by the reclamation of waste lands, or by rendering more productive those already under cultivation. There is abundance of scope for effort in both directions, for it is hard to say which is most to be regretted, the pretence of cultivating so much half-improved land, or the utter neglect of so much that is capable of improvement and cultivation.

It is estimated that of the 15,500,000 acres in Great Britain and Ireland classed as occupied and improved, only 10,000,000 acres are properly drained, and only 5,000,000 acres yield a fair crop of any description. The increase to be derived from the improvement of this source alone would double of our whole trade and commerce. The total amount of uncultivated and waste land is not less than 32 millions of acres; and if we assume one-half of this portion to be

improvable for cultivation, we obtain an increase to our arable land of 16 millions of acres of virgin soil, equal to an area of 25,000 square miles, or about four-fifths of the whole extent of Scotland, while of the remaining 16 millions of acres not started for cultivation, at least 10 millions might be greatly improved in value as sheep-walks, and the climate ameliorated by judicious drainage and planting.

The slow appropriation of these waste lands to purposes of cultivation need not be wondered at when we consider the general amount of improvement required and the connection of agriculture with other divisions of science and industry. While forming the basis and support of commerce and of all the arts, it has this in common with every one of them, that it is powerless and spiritless in its action. Though there may be none which could exist so well alone, yet few are so dependent for growth and progress upon the collateral and auxiliary part of the other branches of art and science. The necessity for agricultural progress did not arise until the modern extension of the commercial and industrial arts, and it is only the recent advancement of the physical and natural sciences which has placed the means at our disposal and elucidated the true principles of the cultivation of the soil. But now that the necessity is created, the means are provided, and the principles are known, it is a great and simple matter to put the land to its most profitable and useful employment.

In all works of reclamation the conditions of soil and climate exert a powerful influence, and the correlation which subsists between them becomes a point of much interest and importance. Soils differ greatly not only in chemical constitution, but also in physical characteristics, and in our estimate of them we must be guided by their climatic and physical relations no less than by the results of chemical analysis. It is comparatively easy to adapt the plants or crops to the nature of the soil when once we know what mineral ingredients are afforded by the one and required by the other, but it demands more observation and diligent application of means to bring the physical or mechanical qualities of the soil into the state most conducive to the growth of its natural products. The necessary influence of mechanical operations here becomes obvious, for the conditions of air, moisture, and warmth which are essential to the development of the changes which occur in the process of germination, have little or nothing to do with the chemical qualities of the soil, but are all dependent upon its mechanical relations. And this influence is not confined to the first stage of vegetation, for in no period of growth or maturity can the plants avail themselves of their full amount of food unless the state of the soil admits of the free passage of air and water, and favours the extension of the roots in all directions. These requirements can only be provided by efficient drainage and judicious manuring, and judicious planting of the soil.

When there is excess of water in a soil, and no provision for withdrawing it, the interstitial canals become completely filled to the exclusion of the necessary amount of air. But when the soil is drained the superfluous water is drawn off through the air canals, and only so much moisture is retained as can be absorbed by the minuter pores which separate the small particles of earth. As there is communication through the canals between the pores and the drains, it is evident that the water will all be withdrawn from the soil except that which is held by capillary attraction. Thus the water which falls upon and is absorbed by the surface-ground, percolates towards the drainage level, flushing every crevice and canal in its descent, leaving behind it all the nutritive ingredients which it carries in suspension or in solution, and which the soil, acting as a filter, extracts and appropriates.

The moist condition of a well drained soil which occurs after a thorough wetting, is very aptly illustrated by means of the absorbent properties of the common sponge. If a piece of sponge be first immersed in water so as to bring it into a condition analogous to that of a saturated soil, and then suspended in the air without any compression, the atmosphere will fulfil the purpose of a drain and soon draw off all the water from the canals or larger pores of the substance. When the flow of water has entirely ceased even to fall in drops, we might naturally infer that, as it had been subjected to the most favourable condition for extracting the water, the sponge would be almost dry. But its powers of imbibition, and by analogy, those of the soil, are seen to perfection if we now hold it between the forefinger and thumb, and feel a screening stroke with the nail, when a large amount of water will be absorbed and held in solution.

The temperature of a soil depends very much upon its humidity. Dry land absorbs heat more quickly and loses it sooner than that which is wet; and, as the temperature of a place is chiefly dependent upon that of the superincumbent air, which again is regulated by radiation of the solar heat from the earth's surface, it follows that excess of water in a soil must render the climate colder and more backward. Consequently the summer temperature of an undrained district will be greatly lower than if it had been drained, while the winter temperature will be unnaturally high; thereby rendering the annual temperature more uniform, an effect which is not considered favourable to health and vigor in vegetation. The uniformity of annual temperature will be greater in proportion to the wetness of the soil, which, while its power of absorption will be lessened, and the loss by evaporation increased, will longer retain the heat which has acquired.

The effects of altitude upon climate are somewhat similar to those of latitude, but more marked, because the same degree of change occurs within a much smaller limit. A change of elevation of only a few feet

will alter the temperature as much as an equal number of miles of latitude. The rarity of the air, which is the chief cause of the lowering of the temperature in elevated positions, cannot be overcome but by drainage, which will render the soil better adapted to absorb and radiate the solar heat, and by providing artificial shelter where required, the climate may be considerably altered and improved.

The other causes, which regulate the condition of the climate of a place, being of a general character, and therefore more or less beyond the power of human control or alteration, do not require notice here.

The preliminary points of a more practical character, which require consideration before commencing a work of land reclamation and improvement, are chiefly those of "ways and means."

The amount of permanent outlay that may be required to complete the work will always largely determine the relative advantages to be derived from it. It is, therefore, necessary that an approximate estimate should be formed of the various expenses that may be entailed before any portion of the work is taken in hand.

The outlay will, in many cases, be much affected by the proportion of land drainage which requires to be executed, but it sometimes happens, even where the outlay may be small, that a sum far exceeding the cost of the operation has to be expended in clearing the soil, and in rendering it suitable for cultivation. Where the soil is of a heavy nature, the soil, these proceed a great distance, and even to the improvement, and with works of a similar kind, as grubbing or leveling, frequently occasion more trouble and expense in their removal than would be required to drain effectually the wotted soil. A large quantity of stone can usually, however, be utilised, since they afford lasting material for the construction of fences, and for making and keeping in a state of efficient repair the roads of the farm. But if the land has been previously subdivided and laid out in suitable divisions, it will add considerably to its present value, by obviating the necessity for any additional outlay in this respect.

Another point of great importance is the position and exterior surroundings of the land itself, and the facilities which may thereby be afforded or hindered for its improvement. In many districts where land reclamation may now be profitably carried out, labour was at one time so scarce and dear as to prevent its application, not only to inferior soils, but also to those of better quality, where much labour required to be expended before the land would admit of being cultivated. Such an objection can now scarcely be said to exist, for with the diffusion of knowledge and a general application of science to mechanical pursuits, we see a number of every kind becoming simplified and cheapened in all its parts. In cases of newly-cleared and uncultivated lands, the natural superiority in the quality of the soil, and the facility of its improvement, is a matter which reaches of even the least populous districts, and means afforded to the owner or occupier of inferior soils for the bestowal of increased care and attention upon lands formerly cultivated on a system requiring the least possible amount of labour. It is by means of labour alone that we derive every advantage afforded by the soil; and the difficulty attending its judicious application to the varied operations of agriculture becomes in a great degree surmounted when we find a horse or a steam-engine completing in the most perfect manner the equivalent toil of many hands. The rapid means of transit now enjoyed between different parts of the country tends also to regulate the price of this commodity, and renders the transmission of a few lands from one place to another a comparatively trivial affair.

The insulated position of a large extent of the reclaimable area of Great Britain, and the means of communication existing between such districts and the nearest market towns, for the disposal of farm produce and the purchase of lime and manures, is a matter for greater calculation, since these factors have a direct influence upon the result, and are themselves less within the power of individual effort. In many of our upland districts, the difficulty of obtaining the requisite supplies alone deters cultivation, and there the farmer is compelled to follow the practice of his forefathers, although often surrounded by considerable tracts of low-lying land, which, comparatively worthless in its present state, when drained, cultivated, limed, and manured, becomes a valuable acquisition by enabling him not only to maintain a greater number of live stock, but also to effect an improvement in the herbage and character of the breed. In the south of Scotland, where many spirited works of reclamation have been carried out, we could refer with pleasure to numerous instances where these satisfactory results have been attained, and where, by the conversion of a few hundred acres of poor mountain pasture, the flocks and herds of large hill-farms have become more than doubled, while the corresponding advantages resulting from the movement in other respects have necessitated a complete revolution of farm economy, and been the means of introducing into high and exposed districts a new and improved system of sheep husbandry. But even there, as in many other mountainous parts of the country, little further advancement need be looked for in this respect, until a more extended system of railway communication places the drain-pipe and lime-kiln more within the reach of every upland farmer.

It is impossible to say what distance these supplies may be profitably conveyed where the carriage has to be undertaken by the ordinary teams of the farms, or by others employed for the purpose. That will very depend upon the quantity of material to be carried, and upon the value of its application to the soil. We are aware of one case, in Wales, where extensive works of mountain reclamation are now being carried out, and for which lime and manures are carted a distance

of ten miles or upwards, from the nearest railway station. In this instance, however, the drain-pipes are manufactured upon the estate, and it is certain that the disadvantages above alluded to may be greatly lessened where the clay is suitable for the purpose, or where limestone is to be had for burning on or near to the farm, if the works are of sufficient magnitude to induce the first necessary outlay.

After inquiring how far the resources of the soil may be influenced by the foregoing considerations, some comparison should be drawn between its present worth and probable improved value. The real money value of this difference will always be found to be in proportion to the insufficiency of the lands already under cultivation to supply the ruling demand for the article of consumption which the land in question is best fitted to produce.

It thus becomes apparent that to undertake the reclamation of land which in its improved condition would only be adapted for the proper growth of Grass and root crops, and not for the production of any of the cereals, at a time when grain was at a premium and live stock at a discount, it could not, for the time being, be rendered so profitable an investment as if the demand had been contrariwise. But, notwithstanding that longer time would be required in this case before the investment yielded the expected returns, it could scarcely, on that account, be regarded as less certain. On commencing reclamation the land is taken at its unimproved value, and any outlay expended upon it and effecting what it professes, viz., "improvement," ought eventually to repay itself. Where the land has been improved, the numbers of live stock will be increased whether the prices are high or low, and this surplus should afford good interest for the money expended, until the price of provisions finds time to re-adjust itself. One point which may induce the undertaking of land-reclamation at a time when its returns may be considered as subject to such restrictions, is, that when its natural productions do increase in value, it can at once be turned to the best and fullest advantage.

A large amount of circulating capital is requisite for the proper conduct of a work of reclamation. This capital, forming as it does the motive-power of the whole concern, is exposed to the greatest risks; and much personal knowledge and experience of the different operations is necessary in order to insure its proper appliance. There is nothing simpler than to squander a large amount of capital in attempting such improvements, and that sometimes without effecting the desired result; and therefore a work of this kind should never be undertaken by any one who has not thoroughly studied the economy of the farm, and is, moreover, possessed of the necessary talent, judgment, and energy, as well as skilful administrative ability.

Next to having sufficient means at command wherewith to carry out our designs, it is essential that there be some trustworthy security for the return of the capital so invested. No prudent agriculturist will expend his own capital in the improvement of another's estate unless he has some assurance of being able to reap a profit by his outlay; and, short of absolute ownership, this contingency cannot be amply provided for otherwise than by renting the land for a certain number of years. The longer, therefore, the terms of a lease extend, the more identical do the interests of farmer and proprietor become; for the farmer soon discovers that during the currency of his lease he may bring the soil into the highest state of culture, and, after reaping a fair return for his trouble and outlay, leave the land, at its expiry, worth more to his landlord and more to himself.

CONTINENTAL AGRICULTURAL NOTES.

[FROM BRITISH CONSULS' REPORTS.]

The Cattle Trade of Denmark.—Previous to 1865, when the export from Jutland to Great Britain was set on foot, the trade in cattle was divided into four branches. All the best fat animals were sent to Hamburg, the next best to Copenhagen, and all the lean and commoner kinds were used for general home consumption. The trade to Hamburg, which was the most profitable, left the breeders but a small gain, inasmuch as the greater portion of the Jutland beasts sent to Hamburg was re-exported to England, and not only had to bear the expense of a long and wearisome transport, but also double commissions and other onerous agents charges.

The trade to Copenhagen was very uncertain and fluctuating, partly owing to the limited nature of the market, and partly from the uncertainty of the supplies from the Zealand breeders. It was likewise found that the Copenhagen consumers would not buy prime meat when inferior kinds could be had. This state of things acted very depressingly on the country cattle breeders, who often found that their fat oxen after remaining days in Copenhagen had to be transhipped to Hamburg for want of purchasers. The demand for home consumption was generally less than the supply, and only for the commoner kinds. The most important branch for Jutland was, and still is, the trade in stall-fed cattle—that is to say, in animals housed during the winter, and in the spring driven down and sold to the Sleswig and Holstein graziers, who after having fattened them on their rich pasture lands, again send them on to Hamburg or England, this trade is, however, very precarious, and, perhaps, the most uncertain of all, for changes of weather and seasons influence prices in a most arbitrary and sudden manner.

The uncertainty, therefore, of the Jutland cattle trade in general, the want of suitable markets, and of a steady demand for prime, well-fed animals, had, as may be supposed, hindered the natural development of this branch of agricultural industry, and it had long been felt that a direct trade with England would afford a

steady and remunerative market, and rapidly develop this source of national wealth. It was not, however, until 1865 that an attempt was made to open a direct steam communication with Great Britain, which was successfully effected in that year, both from Copenhagen and Aarhus, and with highly satisfactory results, not only for the breeders but for agriculture in general. The breaking out of the cattle plague in England, and the prohibitory and restrictive measures adopted by the Danish Government in consequence, was a serious blow to this new and promising trade, and the result has been that it has ceased to be remunerative, and the Jutlanders are forced to fall back on their old trading channels, to the mutual disadvantage of both countries. A statement of the extent of the exports to England in 1865, and the two subsequent years, will best show the effect of the restrictive measure above referred to. There were exported to England from Denmark:—

From April	Horned Cattle.	Sheep.	Pigs.
1865 to 1866	10,794	7,325	2071
1866 to 1867	8,937	8,723	237
1867 to 1868	6,138	2,920	37

The amount exported in 1865, it is stated, must not be taken as a normal standard, since it was only in that year the first attempt at direct trade was made. On the contrary, it is believed that the removal of the precautionary restrictions in England would have the effect of giving it a very considerable development. Denmark is eminently an agricultural country, and her farmers are in general a well-to-do set, possessing good and extensive flocks and herds, although the quality of these latter is scarcely comparable to English fed animals. A considerable improvement in this respect has of late taken place, and the Danes are endeavouring to enter into competition with the better description of English cattle, and already the Holstein beasts are a favourite breed with the London butchers. The total export of cattle, sheep, and pigs from Denmark to foreign countries has been during the last three years 141,149 head, 129,830 head, and 118,272 head respectively. About three-fourths were from Jutland, which province, under the influence of the encouragement which a steady and remunerative demand such as the English market affords, would rapidly increase its productive powers, and export, no doubt, much larger quantities.

Mr. Consul Crowe concludes this interesting portion of his report as follows:—I am informed that the home supplies are likely to be short throughout this year (1869), owing to the graziers being compelled to retain a larger number of stock to make up for the deficiency caused by the forced sales of 1868; the importance, therefore, of an increased foreign importation will be seen, as meat will probably continue scarce throughout the year. It is to be regretted, therefore, in view of the high price of animal food in England, and the importance of cheap provisions for our working classes, that the present restrictions which check the importation of Danish domestic animals into Great Britain cannot be removed. There has been no epidemic of any kind among domestic animals in Denmark proper since 1781; neither in Sleswig nor Holstein since 1813; and the Danish Government, which, by virtue of a law passed in 1857, possesses almost despotic powers for the prevention of the propagation of contagious diseases, contemplates issuing very stringent precautionary measures to guard against the possible importation of infection from the Swedish and Baltic ports. It is to be hoped, therefore, in the interest alike of the Danish exporter and the English consumer, that a freer importation of Danish cattle may soon be permitted.

Hamburg.—The cattle market of Hamburg has become of great importance, owing to the convenience of shipment to foreign countries. The exact number of cattle and sheep exported to British and other foreign ports cannot be ascertained; but the number and value of those brought to the market of Hamburg during the last year, from Holstein, Mecklenburg, Hanover, and the interior of Germany, principally by railway, were as follows:—

Oxen and cows	59,461	Pigs	232,432
Calves	32,005	Sheep and lambs	163,091

Throughout the whole of the year the cattle in this part of the country were in a healthy state; and although there were cases of sheep pox upon some farms in Mecklenburg and Hanover, there is no reason to suppose that any diseased sheep have been shipped from the port of Hamburg.

Memel Horse Breeding.—For more than a century this province of Prussia has been celebrated, more than any other part of Germany, for its horse-breeding, and at the present moment about three-fifths of the entire number of horses required annually for the use of the Prussian army, are bred in this province. Frederick William I., in founding the breeding establishment at Frakehnen (near Gumbinnen), in the year 1780, gave the first impulse to horse-breeding in Prussia; and under the reign of Frederick II. a plan was carried into execution which consisted in placing a number of the stallions bred at Frakehnen at certain stations in this province for the use of the landowners and other private persons in possession of mares. By enabling these persons to send their mares to the next stallion station without the expense attending a long journey, by charging a very low fee for the covering, and by guaranteeing comparatively pure blood, the number and the breed of horses throughout the country was raised in a short time. In the course of a few years this plan was found to have worked so successfully that the King founded three more establishments similar to that at Frakehnen in other parts of Prussia. Thus, after a few years it was found possible to mount the Prussian cavalry, which hitherto had been obliged to purchase their horses in foreign countries, on Prussian-bred horses, and a new source of gain was at the same time opened to the inhabitants of the country. The Royal establishment at Frakehnen covers an area

of 16,000 Prussian morgen (or about 16,000 English acres), and includes the chief farm and 13 smaller ones besides a large tract of land which is laid out as grazing ground, and partly for growing the kinds of grain wanted for food. At the chief farm are kept only mares of the purest blood without admixture of colour, and at the various out-farms others are arranged according to blood or colour, and are one, two, or three-year-old stallions. All of them are turned out to graze during summer (the pasture being, of course, partitioned off by fences), and are under the care of keepers, and if found necessary, are muzzled. When the stallions are three and four-year-old they are placed at one especial out-farm, where they are trained provisionally for a term of three or four years in order to be fit (on the completion of the fourth year) to be sent to the various establishments in this province of Prussia. After having passed a certain time of probation at these establishments stallions are distributed for further use to large country breeding depots, which exist in various parts of the Prussian monarchy. Those which, for some reason or other, are considered to be sent to the last-mentioned depots, together with a certain number of mares, are placed at the Royal Master of the Horse, who selects such horses as may be required for the Prussia's stud. The Master of the Horse likewise those which for some reason or other are considered by the director of the establishments to be unadapted for breeding purposes in the autumn of every year sold by the Frakehnen. The Royal Commissioners who purchase the requisite number of horses for the Prussian army either buy what they want from the landed proprietors, or make their purchases at the horse fairs. The average price paid by the Commissioners for a horse in the province is about 200 Prussian dollars (30*l*.)

WOOLSTON STEAM-PLUGHING.

I OBSERVE that Mr. Smith's men have done some jobs, and so he is at leisure to resume his correspondence. He does not, however, depart from his favourite mode of battle, he throws out a few undigested figures as the Parthians did, and thereby hopes to create. If his figures were true they might have some value, but they are mere estimates. What a pretty little estimate he gives us—balances 716*l*. against 716*l*. Dear me, what an account! Does he really suppose that men of his sense, men able to appreciate sound business accounts, put any value on such a ridiculous estimate? What have we to do with horses? He will go on bringing up these horses, although they have nothing to do with the question, and so now I will get up about the horses. He has a small farm of 112 acres of arable ground, of which he never ploughs so much as 100 acres in any one year. This is partly "heavy land" (four fields are so) and partly "light land" (six fields are so), and before he begins steam-ploughing he used six horses on that land. I can say is—"Mr. Smith you were in the habit (whatever you may be now) a desperately bad farmer. Mr. Mechi calls himself an apron string farmer, and does not even call himself so much, for I took it late in life, and I have a deal to learn; but let myself with the published opinions of the authorities, farming such a farm ought to have been done with "four" horses instead of "six," which Mr. Smith required. I have a farm in the Weald of Sussex, stiff clay as you will find, there are nearly 100 acres of arable, and it is worked with five horses. The authorities reckon 50 acres of plough to each horse if the farm be "heavy" land, or 80 acres if the farm be "light" land. Mr. Smith, during the 14 years, has used three horses on his 112 acres mixed (light and heavy) land, and a steam ploughing apparatus beside. Now, hear it, ye small farmers of England, who Mr. Smith wants to bamboozle by buying steam "smashers." Mr. Smith's own paragraph, too, about horses is really delicious. "I never hear of interest being charged on horses, tackle and implements." Indeed, Mr. Smith, then, is the meaning of the extract which you give us from Mr. Morton's paper, wherein he says "those farms employ 282 horses, and they cost for depreciation of value, and saddlers' and harness bills, 7815*l*. a-year." At the end of each year a good farmer values his live and dead stock, and depreciation is thereby brought into the account. The best book-keepers amongst them charge 5 per cent interest on the whole capital embarked in the business, reckon a single penny as "farming profit," which again strike their profits first and then deduct 5 per cent. from it. The first practice is the best. Very few men work wholly on their own capital, but work with borrowed capital, and interest on that must be paid whether the farm leaves a profit or loss. The question is the use, however, of going into those questions? let us keep to the point. Mr. Smith says that 1*s*. 6*d*. for each acre actually ploughed is sufficient to cover interest, and wear and tear, and depreciation upon a set of steam cultivating tackle on a farm of 112 acres arable, and of which more than 100 acres are ploughed each year. He asserts to be a pure fallacy, which even a child could see he were one riding a hobby-horse! (concluding through). Mr. Smith admits that a set of his apparatus (including half the price of the engine) cost him 1000*l*. while 1*s*. 6*d*. per acre in 100 acres would only amount to 7*l*. 10*s*. per annum, or exactly 2 per cent. per annum to cover interest and wear and tear and depreciation. And now about Mr. Smith trying to persuade

farmers to buy steam cultivators. He denies that he had done so, and brings up a sentence printed in 1838 (eleven years ago) in support of his denial, and yet in the very same breath he reasserts the advisability of small farmers having an apparatus exclusively for their own use—he says, "My own practice shows that it would pay to have a set on a very small farm of heavy land, and 'G. A. H.' must see that it pays well on this farm of mine, interest, wear and tear, depreciation and all being considered."

Is Mr. Smith in his senses when he makes such an assertion? The apparatus is admitted to be worth 375*l.*, and the whole yearly sum put aside to cover interest, and wear and tear, and depreciation, is less than 7*l.* 10*s.*, or less than 2 per cent per annum. Mr. Smith had better quietly give up the contest. He invented the word "smashing," and I am afraid he has got "smashed" himself. He is going to drop the word "interest," for he "will not be pulled up by it again," and so he will in future call his 1*s.* 6*d.* per acre "extras." There is an old proverb, "A rose by any other name would smell as sweet;" so Mr. Smith need not expect to alter the fact by altering the word. Let him do the honest thing by telling his brother farmers, "If a man has a farm large enough to require 800 acres to be ploughed each year, then 1*s.* 6*d.* per acre is enough to cover interest, and wear and tear, and depreciation upon a steam-ploughing apparatus, but if his farm is smaller, that charge will increase in inverse ratio to the size of the farm—that is to say, 400 acres of actual plough would require 3*s.* per acre, 200 acres of actual plough would require 6*s.* per acre, and 100 acres of actual plough would require 12*s.* per acre to cover interest, and wear and tear, and depreciation." Let him also add that "he is sorry for having misled them by saying that he had made a seed-bed for Wheat at a cost of 6*s.* 8*d.* per acre, for the real cost of it was 17*s.* 2*d.*, inasmuch as the 1*s.* 6*d.* for 'extras' ought to have been 12*s.*" Let him do this, and "G. A. H." will trouble him no more. Nevertheless, I cannot part with him without one parting shot, for he is what schoolboys call "so coxy." He is always telling me that I shall learn something from him before he is done with me. I have no doubt, sir, that Mr. Smith could teach me a good deal about farming, for he was brought up to it, while I took to it late in life. Farming, however, is not Mr. Smith's hobby, of which he has two,—one is to criticise Mr. Mechi's accounts, and the other is to vaunt his inventions in the matter of steam-ploughing. It may be a rude speech to make; but what will he say when I tell him he is neither a good accountant nor a good mechanic? When an old hen lays an egg she cackles in a most fearful way about it, as if no hen had ever laid an egg before, or ever would lay such an egg again. Mr. Smith set to work at steam-ploughing some years ago, and he has ever since been crackling in such a loud tone that he has not been able to hear what others have been doing, and he fancies himself still cook of the roost.

If Mr. Smith would undertake to teach me farming, possibly I might feel obliged, and sit at his feet, as Saul did at the feet of Gamaliel; but I should not like to pay "a five-guinea fee," unless he would undertake to show me how to work 112 acres of arable mixed light and heavy land with less than six horses. As to accounts and mechanics I really would not like to pay a fee for them, for if I may gauge his knowledge of them by his writings in your columns, I am inclined to think I knew more about both those subjects a quarter of a century ago than he knows about them now after his 14 years' experience of steamploughing, or "smashing," as he so facetiously calls it. *G. A. H.*

Home Correspondence.

Steam Cultivation by the Roundabout Tackle.—I must have a few words with Mr. Toepffer, who tells us that I contend that my tackle, the roundabout tackle, works cheaper than any other. I do; but then he tells you that my evidence has been analysed and found incorrect; yet he does not tell us where, or whom by. I know what he is driving at; it is at "G. A. H.'s" half-fought battle. Let him see it out before he talks of "incorrectness." The plain facts are these. I can make seed-beds for Wheat at 6*s.* 8*d.* an acre. Can he do so with his 14 or 20-horse power two-engine tackle. The evidence in his letter is clear that he cannot; for after telling us that he has ploughed some Scotch Fir tree land up at 3*l.* 10*s.* an acre, he says:—"On the other hand, I have performed work at 6*s.* an acre." What work? He tells you, and these are his words.—"In a large field with straight boundaries, where we get over 35 acres and more per diem, with a 14-horse power tackle." I take that to mean two 14-horse-power engines. My engine can do, on an average, 8 acres a day smashing; that is all first work. If we fix his engines to do double that quantity of work, all smashing or first work, that is quite all they can do. Then his 35 acres a day is mere scratching—2*s.* an acre work when done by horses, but then his cost is vastly over 6*s.* per acre, for we must add the coal and water found by the farmers, and when that is done his is only a scratch towards a seed-bed. The evidence brought forth by Mr. Toepffer proves that my application is the cheaper, and his telling us that a set or two of Smith's tackle has been sold at a loss does not weigh much, for the same remark would apply to many a set of direct-action tackle, to say nothing about the clip-drum, and it may be that there is a man to be found that has got a set of roundabout tackle, yet has some work done by contract. What of that? It is not every farmer who knows how to apply tackle, and what is worse, in some cases will not be guided. Mr. Toepffer may repeat his blind advice to the farmer, and crack up his "giant" as much as he likes, yet for all

that my "baby" can thrash it at seed-bed making. There are my seed-beds for Wheat at 6*s.* 8*d.* per acre to be seen by any man. Let him tell us on what farm you can find this done by the double-engine tackle. Let him do that, or give over talking. It is all very well for Mr. Toepffer to tell us that there are a lot of farmers in the locality of Seafood who will scatter a lot of money for him and other contracting men to seramble for. His lowest figure, 6*s.* an acre for scratching over 35 acres a day, gives him 10*l.* 10*s.* a day. Such figures ought to make him fat, but when coal and water are added to it, it will not make the farmers fat, neither will it give to England the big loaf. Hence the landlords in that locality arranged their lands and buildings so that the farmers can cart their corn at harvest with the fewest number of horses, and have the farmers sold off half their horses to make way for these contracting men? for if that is not done, they are scattering their money by the aid of horse and steam-power, and you must know that that will never give the big loaf, and I am quite certain that they will never find out my grand secret—how to farm the deepest, cleanest, and at the least cost. Mr. Toepffer's evidence is dead against him upon these points, for, as to depth, he says nothing; 120 acres in a week must mean scratching. As to cleanliness, he says that "many of the fields were full of weeds," and as to cost I have shown above that 6*s.* an acre, with coal and water to be added, is the cost of a mere scratching, that is what Mr. Toepffer calls "testing" the thing upon their own farms, he does not pretend that any of them have thoroughly set-to to farm regularly by steam-power upon the contract plan. *Wm. Smith, Woolston, Dec. 7*

The reply of Mr. Smith, of Woolston, to "G. A. H.," as also his letter to the *Times* a few days back, are worthy of careful perusal, and whatever charge may be laid at Mr. Smith's door of hastiness of temper or curtness of reply, is in a degree compensated for by the fulness of his communications. And when we would measure the relative value of the two modes of steam cultivation—direct or roundabout tackle—by the evidence of witnesses on both sides, the witnesses representing the former are conspicuous by their absence, at least, in replying to communications in your Journal. "Steam-ploughs. What shall we say to the reader—that there is not a steam-plough in the great Hall? No, not one" are the words in your report of the Smithfield Club Cattle Show. Also, "Mr. Smith, of Woolston, does not require a steam-plough." You then quote his remark: "The day is not distant when steam-ploughs will not be shown at our general meetings," adding, "but we never imagined that that time would be Christmas, 1869." Their absence would imply that the cultivators, even in the makers' opinion, were mere deserving of the costly space. There are one or two points on which Mr. Smith would perhaps be good enough to give an answer, or express an opinion. The first more immediately in reference to steam as a motive power on a farm, that is, the use of a traction engine for the purposes of harvesting corn, drawing out manure, and any other draught purpose to which horse-power has hitherto been applied. Secondly, has the increased fertility of his land been altogether owing to the better and deeper cultivation of the soil? or, as Baron Liebig puts it, in his "Modern Agriculture," p. 108 "As the smallest portions of food cannot of themselves leave the spot, in which they are held firmly fixed by the soil, we can understand what immense influence must be exerted on its fertility by its careful mechanical division and thorough intermixture." Or, has he stimulated it by manures; beyond that used under horse cultivation; in other words, is the average of live stock on his farm the same now, per acre, as before the introduction of steam or improved cultivation? Is hay or straw sold in any quantity? Certainly, with such payments as in Mr. Bates' case, of 4*s.* 6*d.* per acre, and a Berkshire farmer of 27*s.* 2*d.* per acre (twice over), no doubt the contract system is the best for owners of double tackle, and although steam or deeper cultivation may make the natural stores in soil and subsoil more available, still the profit will be all on one side *West Indian*.

Land-fast Stones and Steam Cultivation.—I should be much obliged if any of your numerous correspondents would give me their advice as to whether steam cultivating would answer on my farm. I hold 180 acres of arable land (mixed soil), but throughout the whole of it there are occasional land-fast stones varying in size from a few pounds up to half a ton. What would be the effect of a steam-cultivator coming in contact with one of them? Of course afterwards they could easily be removed, but it would be impossible to know beforehand where they are. Coals are cheap, and most of the fields have running water in the dykes. *H. H., Leicestershire.*

The Depth of Drains.—In my last article on draining, part of one sentence is so printed as to convey an opposite meaning from what I intended. Instead of "I have actually witnessed water standing in pools above drains which were discharging much more water than they ought to have done," read "much more feebly than they ought to have done;" my complaint being that the drains did not discharge sufficient water. It so happens that being in the field to-day to which I alluded as having been wet previous to re-draining at a depth of 3 feet, and which is now perfectly dry, I observed water standing in an adjoining field of similar character which is drained 1 foot deep, thus affording evidence that the water was unable to make its way through such tenacious soil with sufficient celerity. A correspondent of *Bell's Messenger* finds fault with Mr. Smith for using 4-inch pipes, in one of the instances which I quoted last week, and maintains that 2-inch pipes would probably have been sufficient. As the drains were placed so far apart as 60 yards, Mr. Smith had

probably a sufficient reason for what he did, and I remember seeing some hilly land in Derbyshire, on the limestone, which was effectually dried by a few deep drains at wide intervals. The evil to be remedied in this case was not principally caused by surface water, but by springs, which flow so abundantly that 2-inch pipes would certainly not have proved an adequate outlet. *H. H., Leicestershire.*

Dairy Farming.—When "G. A. H." on dairy farming does not breeding and feeding Dec. 4, takes as an example 40 cows, 40 from 2 to 3 years, 40 from 1 to 2 years, and 40 from 6 to 12 months, and assumes the last 40 to be equal to 20 cows, the others being considered equal to cows in consuming, he commits a palpable error. I beg to state a few facts which I hope may do something to correct "G. A. H." and others interested in the matter to which he has called attention. I have apportioned 24 acres to four cows—viz. 4*l.* pasture, 5 mowing—and I turn them in May 15, which in a goodish season supplies them till August. A change by this time being required, and aftergrass not being ready in the mown 5 acres they have to be supplied elsewhere till it is ready (there has been none these last two years), they then go in on aftergrass, and so on to spring pasture again. September finds them requiring a few mouthfuls of hay, mornings, and by 15th of following May these four cows, by keeping them in good profit condition, will have eaten every bent of hay grown on the 5 acres, so that this shows four cows consuming the produce of the 9*l.* acres completely. Now "G. A. H." allows 12*l.* each cow upon 140, and shows between the processes 580*l.* balance in favour of dairying over breeding and feeding. I will assume, though I don't suppose, my four cows to produce 15*l.* each all round all told, viz. 60*l.* gross receipt, on 9*l.* acres, 2*l.* 10*s.* per acre. Expenses, milking, foddering, and general attention, 5*s.* weekly=13*l.*, preparing compost, composting, beating, churning, rolling, stone-picking, &c., mowing and raking, carrying, ricking, thatching, bought straw=13*l.*—deterioration in cows annually=4*l.*, saying nothing of weather risks, dry summers, and home labour and wear of utensils; then thus it stands, 60*l.*—30=30, or 7*l.* 10*s.* each. Against it I put 8 heifers at 12*l.* the 1st of May, if Grass enough, and towards the end of October sell them on an average of 20*l.* each, labour *nil*, risks about equal, twice the profit for the same outlay, and land at liberty to May following. *C. F. Brinklow, Coventry.*

Lambs and their Disorders.—There has been here what appeared to be a very healthy fat flock of lambs up to the 25th of November, and then purging made its appearance. Five have died in four days. I was induced to examine their stomachs, and found in them all the secret of the disease, viz. tape-worms. I would persuade all flock-masters and lamb-rearers, who let their lambs run loose, to inspect for themselves. The worms can be seen by applying to *J. S. Hind, Penan Farm, Teano*.

Royal Agricultural Society's Prize Farms.—Every member of the Royal Agricultural Society must join heartily in the congratulations offered to the Council at the annual meeting, on the practical steps they are now taking, both in the Journal and the proposed prizes, to bring the best models and instances of farming before the public. And I hope that the tenant-farmers round Oxford, to whom the proposed prizes are restricted, will second the efforts of the Society, and enter for the sweepstakes. In the meantime, the Council and the judges, whom they may appoint, will have to weigh several delicate and difficult questions which they must needs encounter if they are to arrive at any satisfactory conclusion. What is to be considered "the best managed farm?" The one that looks best when the judges go over it—the one that produces the greatest amount of saleable food in corn and meat—or is it the one that pays the highest interest to the occupier? I take it all three points will be ingredients in their decision, and certainly if there are many competitors some will rest their claim on one or more of these points. Again the area round Oxford contains such varieties of soil and cultivation as to render any comparison almost impossible. There is the Thames valley, with its early spring and dry soil on the south, with the cold and backward Cotswolds on the north. There are the sheep breeding farms on the Ilsley Downs and Chiltern Hills to compare with the oilite pastures and the dairies of the Aylesbury Vale. There is some of the richest corn-producing land between Didcot and Wantage, where 6 or 7 quarters of Wheat are not uncommon, to be contrasted with poor uplands where 3 quarters is a difficult average to attain. The same with roots. One farmer with artificial aid may grow as much food on 1 acre as another can get off 10, with a considerable amount of superphosphate. The result will probably show the necessity, if these prizes are continued, of distinguishing hill from vale farms, clays from chalks, and arable from pasture. I do not write this to discourage any one from entering the lists in February next, and trying his luck. On the contrary, I hope all who have any pretensions of being in any respect better farmers than their neighbours will join in the combat. It cannot be otherwise than useful to all to have their proceedings compared and criticised, and to have the benefit of the judges' report and opinion upon their system. My only regret is that the *concourse*, as our French friends call it, is confined to tenants. I should have opened it to all comers. My opinion is that the landlords and their bailiffs, who would have entered in large numbers, if permitted, would have shown some excellent farming, some well cropped and well cultivated fields, which would command admiration, but if the three points I first mentioned are carefully required into they would fail in showing the necessary amount of profit on the capital employed. I should have been glad myself to have entered my farm without any hope of a prize, for the sake of the benefit which I

can foresee would arise from the criticism and report of my neighbours, from an inspection of the system I have often advocated in these columns and in the Society's Journal, of my heavy dressings, followed by heavy crops. The great object of the Council is to demonstrate by example what may be done in each locality; and I trust there will be no backwardness or jealousy on the part of the tenant-farmers to mar the success of the experiment. J. B. M.

Broad Clover.—When, last summer, Mr. John Ford, Mr. Henry Fookes, Mr. W. James, and other noble specimens of English yeomen came here to dine and eat Strawberries, I showed Mr. John Ford the article on Clover sent by me to the *Agricultural Gazette*. He read it, and said it was all right; and then he told me as follows:—"My experience of Wheat after broad Clovers this year is this. I fed off with sheep one-half of a field when the Clovers were full grown, skim-coultured it and ploughed it for Wheat, which was sown on a stale fallow. The other half of the field was seeded, and dunged, and ploughed up. The first gave me the best Wheat crop. When both pieces were ploughed I could see no difference in the Clover roots, but when I sowed the field the roots of the first moiety of the field had disappeared." Mr. Ford also said "cattle like broad Clovers better than Cow-grass." Now for the testimony of Stephen Rogers, my servant, clept by "D. Deal," "Steevie," who lived many years as carter with Mr. Ford and his father. His version is that "maiden Clover seed is the finest and best, but that Clover seeded after hay produces most seed; that the former is generally better harvested than the latter, and that whether maiden seed or otherwise, if it is well taken and kept in the rick unheated, and thatched up by the sides, according to his experience the seed will be good at least for three or four years." Stephen is a very accurate man, as I have reason to know. He was my clerk at Rushton, and still performs the same office. I once gave out the wrong second lesson in church, when Stephen popped up his head and said *sotto voce*, but loud enough for everybody to hear "You be wrong; it ain't 'G'latians,' its 'Fegians' to-day!" The congregation did not exactly laugh, but the muscles of their faces assumed "tetanic complications," and I looked as red as a harvest moon! W. F. Radclyffe.

Thin Seeding.—At a time when Mr. Mechi is so strongly advocating the policy of thin sowing, I think the enclosed experiment of a hundred years ago may be interesting to him, which I met with the other day in the "Gentleman's Magazine" of October, 1769:—"The following experiment was made by Mr. Wheatley, of Morden, in Cambridgeshire. He last year caused an acre of land to be planted with Wheat, leaving the distance of a foot between each grain, which took up just half a peck and a pint of seed, and this year produced 39 bushels of corn." B. E. H.

Societies.

STAFFORDSHIRE.

On Tenant-Right.—At a late meeting of the Staffordshire Chamber of Agriculture, Mr. CARRINGTON SMITH opened a discussion by proposing—"That the recognition by the Legislature of the principle of tenant-right would promote the interests of landlord, tenant, and labourer, and also increase the prosperity of the nation at large." He argued that there was room for improvement in the condition of the three classes he had named, and the remedy he believed to be in tenant-right. By tenant-right he meant a balance of accounts between landlord and tenant at the expiration of a tenancy, whether that balance was due to the landlord for depreciation of his property by the tenant, or whether the balance was due to the tenant for unexhausted improvements made entirely at his expense. He repudiated all intention of advocating odious schemes of fixity of tenure, which would be a return on one side only to the feudal system; nor did he advocate a system of leases, which had been tried and found wanting. He proposed to apply the principle of tenant-right in the following manner:—At the expiration of every tenancy it should be compulsory, in the absence of an amicable arrangement between the landlord and tenant, for each party to appoint a duly qualified valuer, whose award (or that of an umpire, to be appointed by them in case of their being unable to agree) should be final. It would be their duty to say what was due to the landlord or to the tenant; there should be no appeal from their decision, and their award should be recoverable as a common debt by distress.

Mr. J. S. NORRIS seconded the resolution. The CHAIRMAN (Lord Harrowby) thought the resolution was rather too vaguely framed, for he could not see how the Legislature could interfere. He was not opposed to the principle of tenant-right, and he had adopted the principle of arbitration with respect to his farms; but he would point out that English farmers occupied a very different position from farmers in Ireland. The English farmer generally found everything made to his hand, or if not he made a stipulation with his future landlord as to the terms on which improvements should be made, whether by landlord or tenant; but in Ireland there was no definite understanding at all between landlord and tenant, and the latter did what he pleased with the land, without consulting either the landlord or his agent. He frequently laid out a great deal of money, and then found that the law afforded him no protection. A state of things so wholly devoid of common sense was unintelligible to an English farmer. Tenant-farmers in England were quite competent to take care of themselves, and he feared that if the meeting affirmed the simple principle of tenant-right without qualifications they might lead to inferences very different from those they intended.

Mr. W. J. CARRINGTON said, if the tenant-farmers of Staffordshire were only properly protected the

grazing land of the county might very soon be increased in value 20% or 30% per acre.

Lord LICHFIELD censured the landowners of the county for their want of interest in this subject, and maintained that it was one of the first duties of a landlord to encourage his tenants to the utmost of his power to lay out their capital on the improvement of the land. He held very firmly that property ought to be protected, and he believed he was promoting that end by giving the utmost protection possible to the rights of tenants in the soil. He would like to know whether Mr. Smith meant that a tenant was to receive compensation for improvements made without the consent of the landlord.

Mr. SMITH replied that a tenant ought to receive compensation for drainage done without the consent of the landlord.

Lord LICHFIELD was prepared to support the interference of the Legislature, within certain limits, for the protection of tenants; but he could not vote for the resolution unless the phrase "tenant-right" were properly defined. With regard to the land question in Ireland, he desired to say most emphatically that if in the Irish Land Bill any principle were adopted which would be unjust to either tenant or landlord, nothing could save that principle from being eventually adopted in England. He utterly failed to see why any principle which might fairly be applied to Ireland should not be applied to England. Public opinion on the subject was ripening so rapidly that if it had been possible to avoid legislative interference things would soon have righted themselves under the pressure of that public opinion. There could be no doubt, however, that legislative interference was necessary in Ireland; that some attempt must be made to unravel the hopeless confusion there seen; but any legislation for Ireland would be far more just and efficient if they applied the same legislation to England than if they did not. He had devoted a good deal of attention to the subject of agreements between landlords and tenants, and he found that there was great difficulty in deciding on what principle to allow compensation for commercial and for permanent improvements. Varying decisions by arbitrators were highly undesirable, and therefore he would recommend that a county should be divided into districts, that the landlords of a district on one side, and the tenants on the other, should appoint a valuer, who should serve for 12 months, and before whom, in the presence of an umpire, disputes should be brought. If the valuer and the umpire were unable to agree, the dispute should be taken before some competent tribunal, whose decision should be final. As to approaching legislation on the question of the land, he would point out one or two particulars in which Ireland differed from England. In Ireland they would have to deal with existing improvements. No land bill for Ireland would be of the slightest avail which did not give compensation to tenants for improvements already effected. At the present time all those improvements were the property of the landlord, and it was melancholy and absurd to hear these who took the extreme landlord view talk about the way in which the tenant was protected. The difficulties in the way would be very great; but he thought they might be met in the following manner.—After a certain date, to be named in the Act, landlords and tenants must start afresh and upon a fair footing. The principle upon which compensation was to be given in the future must be clearly stated; but if the question of existing improvements were allowed to stand over, the subject would be as full of difficulties 30 years hence as it was now. He thought the only way of settling the compensation to be paid for existing improvements would be some such court of arbitration as he had described. Every tenant who had a disputed claim on his landlord for unexhausted improvements must register his claim by a certain day, and supposing the award were given for 20% or 30% the landlord would meet the claim either by paying the money down and starting afresh, or by giving the tenant a certain number of years' occupation in the nature of compensation, or the sum awarded should be registered against the landlord, to be paid at any future time upon the eviction of the tenant. This scheme would have the effect of bringing landlords and tenants together in Ireland, and so remove the crying evil of separation and consequent want of sympathy between the two classes. He desired to point out that in Ireland, in consequence of the absence of trade and manufactures, a person who was turned out of his holding had often no choice between the workhouse and starvation; and this brought him to the question whether compensation ought to be allowed for eviction. If he were at once to say that it ought, he would be put down as an advocate of fixity of tenure, and all that sort of thing; but he could not conceal from himself that it would be useless to pass any land bill for Ireland which did not provide against capricious ejections, made merely for the purpose of improving property. If a landlord desired to throw 10 farms of 30 acres each into one farm of 300 acres, and if he found thereon 10 or 20 tenements which had been built without his leave, he would declare that, so far from being improvements, they were injurious, and a great difficulty would arise; but it must be remembered that those houses would have been built under a system which the landlords had themselves allowed to grow up. At the present time good landlords made handsome compensation to tenants evicted under such circumstances; but there was this difficulty—if compensation were given by law for eviction, the right of the tenant to property in the soil would be recognised. Compensation under this head would have to be given, but in such a way that the rights of property must not be interfered with. After entreating the Chamber to give these subjects the fullest consideration, Lord Lichfield moved the adjournment of the discussion.

Farmers' Clubs.

LAVENHAM.

Clay Land cultivated Flat.—At the last meeting of this Club, Mr. R. EDGAR read a paper on the stages of cultivation on the flat over cultivation on stetches not less than 12 yards in width. He said:—"I mean by the flat, land where I advise a greater width where the land is of width at the ends of the field. I ought also to say that my remarks only apply to land that is well drained for then every drop of water that falls has a surface influence; instead of letting it run off by surface drains, we ought to hinder it as far as possible, and make it percolate through the soil, underdrains, to be carried off by them. The amount of soil is washed off by surface drains on hilly land, which would be avoided by ploughing the flat across the hill, and the fertilising power the rain would be left in the soil. The advantage we derive from this system is, that if the land is better ploughed, every practical man knows, making a fallow the land is ploughed on the stetch, because it can only be ploughed in that way; then why do we plough on the stetch when half the furrows are of different depths, and one-sixth useless labour is required? The result in farming heavy land is to keep the work in and how is this to be done better than by the labour that is now wasted, such as doing land every three years, throwing back the doing out water furrows, &c., to a better purpose was perhaps the best system, laying land on backed stetches, and having plenty of water before underdraining was thought of, but an exploding everywhere, and cannot long remain a district. Another advantage in favour of flat is that more land is planted by one-sixteenth, we get a more level crop, and better sample, the furrows of small stetches are planted, there is sufficient soil to bring those rows up to the other result is underlying weak straws, and small thin kernels; with more trouble to the farmer make his work look well than if it all stood up and even. The drilling is done equally well on flat, and on large farms where drills to fit the stetches have been used with six horses, a two-yard drills working the same number of will do 3 acres a day more; and land on the flat always drill a day or two sooner than the other, the furrows are the last places to dry. In all the operations an advantage is gained, such as more rolling; the roller presses more evenly than on round stetches. Then there is horse-hoeing, implement works best with the shafts in the stetch where they can be when land is level, but on small stetches, where they must be placed in a quarter-cart fashion, giving an unpleasant work both horse and man.

In fielding land with sleep I think we can do too few furrows, for in addition to losing the being cast, the manure from them is not so distributed over the surface, but is nearly all in the furrows (which in the succeeding crop is the middle of the stetch), causing the corn to be lodged, when the sides of the stetches are so strong enough. I do not know of an operation cannot be done better on the flat than on a stetch; we all know it is best for the reaping, at least those of us who have tried the flat between being jerked over furrows every 3 paces whole attention required to keep your seat, and easily along over a nice flat field. In carting also, the loads are not so likely to dip down, and stoppage sometimes of half-an-hour, which is a fine day, besides very often pitching a load and hurting him. I do not say this is avoided by farming on the flat, but I know it is likely to occur.

From what I heard the owner of the stetch lately at Lavenham say, it was better for him where there were no furrows, as it kept a depth, and there was not so much strain on the I notice that many of our best and largest heavy land never have a small stetch, and there was anything to be gained by them they have. I can see clearly the flat system is the best and if all the modern implements and machinery best on the flat, the sooner we got into that system better. I believe the land may be kept clean if furrows are great harbours of Grass and they get ploughed but once in twice ploughed other part of the stetch.

The last advantage I shall notice in this saving of a ploughing in the spring time is often done to get land level, as a risk, if the unfavourable, of losing the winter mould, which means losing three or four coombs per acre. Now, if the land had been worked on the flat it would be level enough; and I must think in the spring for a crop on heavy land is the worst pieces of farming we can do. In conclusion would say, if I have made any random statements can easily be rectified by discussion: but I have endeavoured to keep as near the truth as my experience in flat farming has gone, which, on my heaviest fields, has been 10 years. I see it at present to alter my opinion; should I do so come at once and read you a paper on the stages of farming on the flat.

DISCUSSION.

Mr. WRIGHT said the occasional advantages in the stetch were out-balanced by the advantages of a system. Once in about seven years they get a rain, and then the soil on the flat was likely to be away.

The CHAIRMAN said if they agreed with Mr. Wright

not practice accordingly, for in this neighbourhood the greater part of the land was on the small stetch

Mr. Vincent said if they wanted to see ploughing on the flat down they must go into Kent. He believed by ploughing on the flat they sometimes made deeper furrows than they did on the small stetch. He thought they would find most of the better farms had not adopted the wide stetch. He was not at all surprised if they got their work done cheaper than he could believe they got an increased crop.

Mr. Vincent said he had got most of his land in the 1840s sown with all his Wheat was drilled atwart. He liked the atwart system very much indeed, and was what Mr. Vincent said of it that it getting deeper furrows than the system of sowing if they drilled atwart they would prevent that.

Mr. Vincent said during the last few years they had had a great deal of rain, and that the atwart system, if the soil was wet, would be better than the wide stetch. He was not at all surprised if they got their work done cheaper than he could believe they got an increased crop.

Mr. Vincent said if they were all farmed enough to get their work done directly after harvest they would be able to do it better than they could not; and when they got a wet season, they had a difficulty in getting the Wheat in. In Barley sowing there would be a good deal of stamping under the new system, and Barley was a crop of which they ought not to lose account, much more an acre. Mr. Edgar might be fortunate enough to have his land well drained, but his (Mr. Vincent) was a different description of land. He thought that if this was the case, it would be a great deal better than the atwart system.

Dr. White said there could only be a matter of degree of light and air get to the crop on what ever system the land was cultivated, and as far as respects these matters he did not think one system had any advantage over the other.

The Rev. Mr. Croker said it might seem presumptuous of him, being entirely ignorant of such matters, to offer an opinion on this subject. It appeared that the use of the small stetch was for draining the land, but now that they had got deep drainage, they might do away with them, and adopt the principle advocated by Mr. Edgar. This deep drainage, as Mr. Mechi said of them, caused a better percolation of the water, and it seemed to him that as they drained their land the more, so much they widen their stetches, and do away with surface drainage.

Mr. Vincent said Mr. Mechi at first put his land upon the large stetch system, but he had now got it on the small stetch. There was a peculiarity in the Essex land which did not exist in the Suffolk way. In some parts of Essex they would find that drainage was no use whatever, for the land was so water, and it would not percolate to the drains, and they used the small stetches to carry off the surface water. When there was heavy rain, the soil did not let the water get away, and it was a great deal of trouble.

Mr. Vincent said he had very little to say, for Mr. Edgar had said every great deal in his short paper. He was one of Mr. Vincent's best friends, but at the same time, the opinions of the two gentlemen were in one direction, and their practice was the other, for they would find three-fourths of the land in that district on the small stetch. Just perhaps many of them, like him, had hardly had time to carry out the alteration completely. He quite agreed with Mr. Croker that they should be used to meet the want of drainage, but now they could drain with tiles and stetches, and they could do it with more success, but it had turned out a great success. Mr. Vincent's opinion in that neighbourhood was authorized the opinion of their grandfathers, and did not investigate them. There was a vast deal of land between Maldon and the sea that did not produce what it would do if it were under-drained. In fact there was some of the best land in England, yet all that sandy was not cultivated on the large stetch. If the furrows were of great good in wet weather, at the same time they would be a great deal of trouble to the farmer, and they were very true, one would find it was a great deal of trouble to the farmer. He did not see that it was necessary to have the water on the large stetch, but the small stetch was a great deal of trouble to Mr. Vincent, but he could not see the reason. He stated that his crop was not much when he used the large stetch system, but when the small stetch system was in use. But taking into consideration the cutting and carting, Mr. Vincent admitted that the work could be done cheaper, therefore, if the crop was not less, it must be the best. But the question was, did they grow equally as much on the one as the other, and he thought they did. It was a most material point that they should have uniform samples. They must not neglect their Barley crops, therefore they must study what would suit that best.

Mr. Vincent said the land the Chairman referred to was a very peculiar heavy land in Dengie Hundred, as just that part it was a soil that percolated more freely than in any other part of the hundred. There was a farm in Southminster where it was 14 feet deep, and he had seen the water stand about as it was in the ground.

Mr. Vincent said that this Club is of opinion that heavy land should be farmed on the flat or large stetch in this district.

The resolution was seconded by Mr. Vincent, and carried unanimously.

Reviews.

Twenty-fifth Report of the Botley and South Hants Farmers' Club, Southampton Hampshire Agriculturalist, 1880.

Thanks to very efficient and public-spirited guidance the Botley Farmers' Club has now for many years issued an annual testimony to its usefulness, in the form of a pamphlet, containing reports of its monthly meetings. The present number contains papers on pedigree in cereals—on local taxation—on the rearrangement of farm buildings—and again on the possibilities of relieving agriculturists from the burden of local taxation. Besides these topics of general interest, there are reports of the local root show and the local cattle show. The whole is a capital example of the way in which local agricultural interests can be directly promoted by a few public-spirited men. It also shows how widely an interest in general agricultural interests can be indirectly promoted, and the preface contains the following account of the way in which the Southampton meeting of the Bath and Southern Counties Agricultural Society depended to some extent on the Botley Farmers Club:—

"In recording the debates and occurrences with which our Club has been occupied during the past session, we cannot forbear to mention the very successful meeting of the Bath and West of England and

Southern Counties Association in June last, because during many months preceding the show, throughout which the preliminary measures were being carried on, by far the greater part of the practical duties of the local committee were undertaken and successfully carried out by the members of this Club, who, besides taking with others their full share in obtaining subscriptions, formed the deputation to Bath, where they carried on a most successful negotiation with the general of the Society, and having secured more satisfactory terms than were first proposed, gave their personal guarantee for the amount of contribution and other conditions long before the sum was subscribed. They also secured and arranged the site for the showyard and also the lands required for the trial of implements, on fair and moderate terms, prepared the schedule of local prizes which contributed so much to the success of the meeting, and provided the horses and the materials for machinery in motion. These duties, which (without disparaging the meritorious exertions of the mayor for 1880, and of others) their agricultural knowledge and experience of former shows enabled them to render, involved no small amount of time and trouble; and attended as they were by great self-abnegation at the time, it is but fair to record them in this place, and the more so as the services of the local committee have remained unacknowledged from the neighbourhood, nor recognition from other sources."

Farm Memoranda.

WEST SUSSEX Dec 13 We are now near the end of the year, and so far as farming operations are concerned nearly at a standstill. Light land farmers are still sowing a little Wheat in some places, but the most common work is roadmaking and threshing, and the inducement to thresh is not great so far as Wheat is concerned. The price is low, and the yield in some cases far from good, less than was expected, and the quality of some of it very inferior, and I think this has been so mostly where it was sown thickly, so that those who are called thin seeders have the best of it this year, as much of the thickly sown crops were blighted as harvest commences.

Barley has turned out pretty well, and though there are not many very superior samples yet there is a large proportion of fair quality for malting, and the price has been about 10s. per qr. Oats yield fairly and sell well, and Peas are in demand at 10s.

We have had our fat cattle show at Chichester, but it was rather a small affair, and I think upon the whole we are rather losing ground; and this is rather to be wondered at, as we have such a good market, but the foot-and-mouth disease has been rather prevalent about us, and may have kept some back from being shown. We had only some half a dozen, and six or eight pens of sheep, and two pens of pigs, while our market for beef was very small, and beef is getting rather scarce, as many fat fewer now than they used to do; and the reason is clear enough, less stock has been very dear, and feeding stuff has been dear, and some of it not at all what it ought to be, and we have come to believe that there is no such thing as pure linseed-cake in the market, and as it is not linseed-cake it may be anything, and is not likely to do much good. I do not think that fattening will be so general for some time as it has been, and there is not much chance that Australian meat will take much in our markets; people now will rather go without meat than have it of a very inferior quality, and only beef of fair quality will be in demand, and prices are sure to keep up.

We have had some very sharp frosts and sudden thaws, and upon the whole damp and uncomfortable for cattle, but have not been obliged to be hard upon the root crops, as there has been a good deal of autumn Grass, and it, with a little of the roughest hay, keeps lean stock in fair order. The Wheat plant has come up slowly, but looks regular upon the ground, and as the soil below must be still up to the average heat, the roots are no doubt striking downward, and establishing themselves well, and will be all the better in the spring. The young Clovers are good, and appear to be well rooted, and we may expect them to hold on.

SUGAR-BEET GROWING AT LAVENHAM.—Mr. James Duncan, the large sugar factor of Mincing Lane, London, with a boldness and a faith that deserve and will command success, has erected a Beet-sugar factory at Lavenham. He says so in a report, between sent me to the Editor, in which he says with every exertion he has made to get the farmers that the new matter is a great deal better than the old one, and that they should try the crop. If it paid them well, or better than any other, of course they would continue to grow it and feed his factory, but if not—well, he did not expect them to grow it at a loss, and no farmer is under any obligation to grow it at all. There is no co-partnership in the matter. Should the venture prove a failure, no farmer will be a penny the poorer. If a fortune is made out of the sugar, no grower will directly participate in the profits. Indirectly, however, the industry promises substantial benefits to the farmer. He is left free either to grow Sugar Beet or not, as his interests prompt him, but his price, both as a seller of the root and a buyer of the pulp, is guaranteed. For every ton of roots delivered at the factory he receives one sovereign; and he carries back to his farm dry pulp or Beet bread at the rate of 12s. per ton.

In these two statements we have the prices of Sugar-Beet growing concentrated, as it were, into a single figure. The feeding value of common Mangel has been assessed at about 7s. per ton. It is worth about as much for conversion into beef. Of course, in the vicinity of towns, it has a pretentious value, for the use of milch cows, &c. But the above is a fair estimate of its

average worth. Sugar-Beet, weight for weight, is worth possibly for conversion into beef 10s. per ton. The excess of sugar makes it more valuable for feeding purposes. But, assuming its superiority, here is 10s. clear profit to the farmer, minus, however, the expense of cartage, by sending it to the sugar maker.

But this by no means exhausts the farmer's advantages derived from sugar growing. It is more when a farmer converts his Mangel or his Sugar Beet into beef there is an end of it. The farmer's profit per ton exhausts its value. But it is far otherwise with the roots sent to the sugar factory. Wood of Lavenham the other day, when his beet was at its maximum and his beet was at its maximum, Beet 1000 lbs. of nearly all the parts were sent to the factory. The Beet on, in the grass at 1 was carrying most of its flesh-forming matter back in detail. It requires eight tons of Beet to form one of soap and has put in the vegetable essence of the Beet used, in the water and, perhaps, four-fifths of its sugar. The experience of last season proved beyond all controversy that the pulp is most nourishing and grateful food. Stock of all kinds, including horses, eat it greedily, and do remarkably well upon it. Bullocks were found to fatten as rapidly on a peck of pulp mixed with chaff or cut straw as they were wont to do on a bushel of roots.

By sugar growing we thus get a double profit of say 10s. on the raw roots, and a further profit on a cheap material, as food which will keep sound and good for six or eight months, is growing converted by stock, and rapidly converted by them into beef or mutton, milk, butter, or cheese.

The expense of growing Sugar Beet need not exceed that of Mangel. The culture and treatment may be identical in their main features, only the Sugar-Beet may be grown closer together—18 inches by 9 inches is a good distance, and the root should be earthed up to the leaves.

On good soils and in favourable seasons 20 tons an acre may readily be grown. At Lavenham this year the best crop, on September 20, reached 21½ tons per acre, and 9½ tons of tops, or a gross yield of 31 tons. The average would be about 16 tons. But wireworms had been very destructive among the young plants, and an unusual quantity of the crop had bolted or run to seed. These runaways and the blanks played sad havoc with the gross returns. Had there been a full plant the average would certainly have reached 20 tons to the acre. By growing 200 roots to the pole, and cultivating them up to about 6 lb. per root, 10 tons per acre might be reaped. The latter weight seems quite within the range of possibility, as the exhibition of roots in connection with the Lavenham Farmers' Club last week the Sugar Beet shown averaged 5 lb. each root. The sugar factory is now in full work night and day with three ranges of tanks in the 24 hours, and about 100 tons of roots into sugar and pulp during that period. Already it has ordered thousands of new and perforce better machines. It is reported that about the produce of 400 acres will find its way to the factory this season. Operations are vigorously commenced for next year's sugars. Two steam cultivators have been tearing through the bottom of the furrow, and making deep tilth from field to field. Workmen are becoming more scarce. "They are all off to the factory," is the cry. Wages are looking up, money is flowing in, and the quiet old place, from genteel mansion to tottering garret, seems to feel the quickening pulse of the sugar factory and to be starting forwards on the road to agricultural improvement and social progress. Without any of the risks of manufacture the farmers seem about to reap many of its advantages, one of the chief possibly being an increase of their bankers' balances at the dead season. D. T. Fish, in the "Times."

The Poultry Yard.

THE BIRMINGHAM POULTRY SHOW (continued).

THE ancients said that when Greek met Greek then came the tug of war. The modern estimate of the Hellenes would be very different, but the saying remains a proverb. The tug of war at Birmingham laid heavily in the game classes, and the most potent warrior in the black-red classes was Mr Charles Chaloner, taking no less than two silver cups and four money prizes in the four classes. Following him were Messrs. Fether, Price, Matthews, Borden, &c. Every one will be prepared to learn that Mr James Wood, of Wigan, won both the 1st prize for brown-red cocks, and a grand money will be equally surprised to learn that he did not win so far hens and pullets. He was closely run in the class and class by Mr Stetter, who shows how to win and generally wins where he shows. Brown-red hens are very handsome, and the richness and softness, we might almost say depth of their body colour, makes them very attractive. Messrs. Burgess, Brierley, and Homsfay beat Mr Wood in this class. Brown-red pullets seldom show to advantage; the darkness of their face and comb militate much against their appearance. The class at Bingley much against their appearance. The class at Bingley much against their appearance. The class at Bingley much against their appearance. The class at Bingley much against their appearance.

Mr Samuel Matthews, always and everywhere a successful exhibitor, was 1st for ducking cocks. Mr Chaloner for cockerels, the Rev. F. Watson for hens, and Mr Parke for pullets. The classes for this very beautiful variety of game fowls were well filled, and we need hardly say formed one of the great attractions of the show. The black and brass-winged, with the white and pils, are the camp followers of the grand army. The golden-faced bantams were very handsome, better than have been exhibited for some years. Mr Harrison, of Hall, took 1st, and Mr Cruwys 2d. In silvers, which were not so clear as might be wished,

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New and Unadulterated Seeds. PRIZE MEDALS 1861 and 1862.

BUTLER, McCULLOCH, AND CO.'S SPRING CATALOGUE of above is in the Press, and will be ready the week of January. It contains every novelty desirable in ornamental Flower and Vegetable. South Row, Covent Garden Market, W.C. Established upwards of a Century.

New Catalogue of Dutch Bulbs, Plants, &c

ROBERT PARKER begs to announce that his NEW CATALOGUE, containing Select Descriptions and Priced Lists of Amaryllidaceae, Cycadaceae, Gadiaceae, Hyacinthaceae, Liliaceae, Narcissaceae, and other bulbs, Miscellaneous Plants, Fruit Trees, Sweet Vets, &c, is now published, and will be forwarded on application to Exotic Nursery, Tooting, Surrey, S.W.

Dutch and other Bulbs.

W.M. CUTBUSH AND SON are celebrated for HYACINTHS, TULIPS, CROCUSES, and other DUTCH BULBS. All the great Prizes, including the Two Special Prizes awarded by the Dutch Growers, awarded to their Connections again last Spring. They import only one quality, therefore Customers may rely upon having the finest Bulbs. CATALOGUES post free. Highgate Nurseries, London, N.

Chrysanthemums.

DAM FORSYTH, in answer to numerous applications, begs to offer 50 Pairs CUTTINGS, best varieties, from his great collection of Chrysanthemums, for £1, 25 Pairs ditto, from 25 Pairs POMPONS, 10s. 6d.; 12 Pairs best JAPANESE CHRYSANTHEMUMS, 6s. Any of the above forwarded post free on receipt of Post Office order or stamps for the amount. Brunswick Nursery, Stoke Newington, N.

New Geraniums.

JOHN KEYNES begs to announce that he has secured the stock of those two first-rate flowers which have excited so much admiration at the Royal Horticultural Society. First Class Certificates have been awarded them. They comprise COLESHILL (scarlet), bright scarlet Zonal, the finest of its class, and LADY EDITH, a bright purple pink Ivy-leaf. These are the two most valuable ones of the season. They will be sent out in April next, at 10s. 6d. each. Drawings may be had on receipt of 16 postage stamps. Castle Street Nursery, Salisbury.

JAMES CARTER AND CO. have a beautiful Stock of Seeds, in excellent condition, of their choicest Strains of CALCEOLARIA, CINCERARIA, and PRIMULA, in 60-pots, fit for sowing immediately for early Spring Blooming. Worthy the attention of those who have omitted to sow at proper time. Price, per 100, 3s. per dozen. JAMES CARTER AND CO., 237 and 239, High Holborn, W.C.; and Crystal Palace Nurseries, Forest Hill, S.E.

The Gardeners' Chronicle. SATURDAY, DECEMBER 25, 1869.

WHEN in 1841 the Gardeners' Chronicle was established, and when in 1844 the Agricultural Gazette was added to it, the object of the promoters was to secure to the Gardening and Agricultural world, as well as to country proprietors and residents, a Journal which, while supplying all the special wants of the classes for whom it was intended, should also give them, in a condensed form, a summary of the general events of the week. This was in the days before Penny Papers were in existence, at a time when the gardener, farmer, or bailiff, in country districts, could hardly procure without much expenditure and inconvenience, intelligence as to what was going on in the world. How much circumstances have altered this state of things every reader can judge for himself. The Proprietors, ever anxious to cater for the advantage of their subscribers, have, therefore, determined, in conformity with the expressed wishes of a very large number of their friends, to discontinue the newspaper matter at the commencement of the ensuing year. By so doing the Editors of the several departments will be enabled to devote more space to questions of Gardening and Agricultural interest and at the same time to introduce certain modifications which it is believed will meet with the general approval of their readers. Among the proposed changes, it may be mentioned that, by the adoption of an entirely new and more legible type, the appearance of the Paper will be materially improved; illustrations will be more freely supplied than has hitherto been the case; and many matters of general interest to country gentlemen, gardeners, farmers, and others interested in Horticulture or Agriculture, which have hitherto been excluded for want of space, will be introduced. The Editors believe that they may confidently refer to the past in support of their assurance that every effort will be made by them not only to maintain the high character of the Paper, but to increase its general interest and utility.

THE controversy which has been going on in our columns for some time past as to the question whether ROOT FORMATION and root

action precede LEAF DEVELOPMENT and leaf action, or vice versa, reminds us forcibly of that famous contest 'twixt eyes and nose of which COWPER sings. It seems to us that all the disputants, as was the case in that *cause celebre*, have more or less right on their side, and that if all could but be brought to see the facts of the case in the same light, there would be little room for further difference of opinion. As it is, we have fact added to fact, argument piled on argument, the facts being supposed to be antagonistic the one to the other, and the arguments in like manner to be reciprocally destructive. Now, so far as we can understand, mid the din of the contest, the facts adduced are not necessarily antagonistic, marshal them in another manner, and the apparent discrepancies disappear. For instance, these questions have been asked—Do Vines make roots without the action of leaves and branches? And, again—Do Vines make leaves and branches without the aid of roots, or of roots?—in other words, does top-action precede that in the roots, or vice versa? Each disputant has answered these questions for himself, and in some cases, at any rate, expressed his doubts as to the accuracy of his opponents' facts, without sufficiently considering the different conditions under which they were observed. For our own parts, we should be disposed to answer all the above-cited questions in the affirmative. As this statement involves a seeming paradox, we must enter into some explanations.

In the first place we would deprecate the idea of speaking dogmatically or *ex cathedra*. The present state of vegetable physiology is not yet sufficiently advanced to enable even the best-informed student or observer to assert his infallibility. An (Ecumenical Council of vegetable physiologists, we fear, would have no better claim to absolute accuracy. As within the limits of this article it would be impossible to refer at length to the facts on which our opinions are based, this caution seems the more necessary. We may, however, refer the reader to the facts as they stand recorded in our columns, and to those which may be found in any text-book. When we replied to the above questions affirmatively we should have added—provided that there be an available store of nutrient organisable matter at hand, out of which the new growths, whether of leaf, shoots, or roots, may be made. Now in a living Vine stem there is always such a store. This store is well furnished or nearly empty, according to season, temperature, state of growth and other conditions. Given a stem, a bud, a tuber, nay, even in some cases a leaf only, in which are stored up sufficient organisable materials, and given the requisite conditions, and forthwith new leaves, new shoots, new roots, one or all simultaneously, or one before, or one after the other, may be produced. In some cases under certain conditions roots will be formed; in other instances leaf action will predominate; in a third set of cases buds and tubers will be developed. We had illustrations of the latter kind this season, when many people complained that their Potatoes made no haulm, but produced small tubers in abundance. Similar occurrences happen now and then in the case of terrestrial Orchids, where years may elapse without the production of leaf and flowers, but where year after year new tubers are formed beneath ground ready when conditions alter to start into leaf and amaze the observer by their abundance where previously there had been none seen for many years.

The real difficulty is to know what are the precise conditions which determine root growth at one time, leaf growth at another. Sometimes these are obvious, but generally they are not so. For instance, when we have a Vine with its roots in an outside border, and its well ripened wood (well garnered store-house) inside, leaf growth and leaf action decidedly predominate over root action. In such a case probably root action to any great extent does not take place till the demands made on the store-house become so pressing that it is necessary to make provision for replenishing it. Many experiments have been made with Vines by passing the stems repeatedly into and out of a house, the roots being outside. In all these cases the parts of the stem inside the house push leaves, while those portions outside remain quiescent. If the growth of leaves and shoots in this case were dependent

absolutely on the outside roots, would there not be some attempt at least to form leaves on the portions of the stem outside the house as well as on those within? Of course there comes a time when the store is exhausted, or when it demands the influx of more water to make it soluble and available for growth, and then the roots are called into play to furnish what is required. Our knowledge is, unhappily, very defective upon this important point—the particular conditions which favour root growth or leaf growth respectively. Where a store exists, as we have said, we may have new leaves, new roots, or new buds formed without, in the first instance, any special demand being made on the existing roots. What we want to know more about is, as to the reasons why sometimes roots are produced, at other times leaves, at other times buds. We have some evidence on those points, but it is not enough. For instance, there is a well-ascertained relation between the degree of moisture and the formation of root-tubers—an almost equally well marked correspondence between the formation of tubers and the existence of drought. These are matters of cardinal importance to the gardener and farmer, and every fact bearing on them is important, and should be recorded. We cannot pursue the subject further in this article, but we may find occasion to revert to it in future. In the meantime, to avoid possible misapprehensions, we must not forget to state that, in order to establish and furnish such a store-house as we have above alluded to, the co-operation of root and leaf is, of course, absolutely essential, the formation of the root no less than its functional activity taking precedence of the leaf, as indeed may be seen in any germinating seed. Until the store-house is made, and filled with available material, all new growths, of whatever nature they may be, are dependent on the material absorbed by the roots, transmitted through the stem, and elaborated and rendered fit for their purpose they have to serve by passing through the leaves. In this case, then, divided action is useless, combined action, as in the nose and eyes question, all important.

THE BOTANICAL GARDENS AT GLASNEVIN are known to the majority of the visitors to Dublin; they are beautifully situated on the banks of the little river Tolka, and contain a large collection of rare plants. Some years ago the committee of botany of the Royal Dublin Society, acting on the advice of the director of the gardens, purchased a large iron shed, in which were displayed portions of a collection of plants and their products useful to man. This structure was from the first quite unfit for preserving the valuable collection placed in it; the specimens were necessarily crowded together, and any arrangement was impossible. Still, the large numbers that visited this room to study the contents of the cases, and oftentimes to take notes of the history of the specimens, as told on their labels, testified to the great and intelligent interest that was taken in the collection by the public. The special function of the Science and Art Department appears to be to provide for the improvement of the people in science and art, and they placed on the estimates for the four years between 1865 and 1869 a sum of 1000*l.* for building a museum at the Botanical Gardens, close to the front entrance gate, through which so many thousand visitors pass in the course of each year. This sum, small though it may appear, would have been sufficient to have built and cased a large plain building, which would have contained all the present collection, and the additions to it, for many years; but though the money was voted by Parliament for several years, it was never applied to this purpose and we think it but justice to the cause of science in Ireland, to call the attention of the Science and Art Department to this fact, and to urge them to have this sum inserted in the estimates for the coming year.

At a meeting of the Ashmolean Society, Oxford, Nov. 20, Prof. LAWSON read a short paper on CHLOROPHYLL. In speaking of the optical properties of chlorophyll, he called particular attention to the observations made on this branch of the subject by Professor STOKES; observations which had disproved the old theory that chlorophyll could be separated into two primary substances of a yellow and blue colour (the xanthophyll and cyanophyll of M. FRÉMY.) He dwelt also upon the fact that Mr. H. L. SMITH's careful comparison of the spectrum of the endochrome of diatoms with that of chlorophyll went far to prove the two substances to be identical. Chlorophyll had been formerly supposed to be a product of the vegetable kingdom only; but more recently a green colouring matter, closely allied to chlorophyll if not identical with it, had been detected in many of the lower forms of animal life. These discoveries illustrated in a striking manner how the supposed gaps between the two kingdoms were filled up.

At the meeting of the Royal Horticultural Society on Tuesday last, it was announced that W. E. HUBBARD, Esq., of Leonard's Lee, Horsham, offered a prize for the best Essay on the MANAGEMENT of COTTAGE GARDENS, to be printed on cards for display.

at a cheap rate to the members of Cottage Gardening Societies. The amount of the prize offered, the date upon which it is to be awarded, and the names of the judges, will be announced at a future time. Mr. BATEMAN suggested the desirability of having a similar kind of treatise on the management of Window Gardens in Towns. How much interest is felt in this subject is manifested by the large demand that still exists for that useful little book, "Paxton's Cottager's Calendar of Garden Operations."

In reference to the VEITCH MEMORIAL, it has been suggested that, as the late Mr. VEITCH was one of the most active promoters and supporters of horticultural exhibitions, both at home and abroad, the committees of the various Horticultural Societies throughout the country should be invited to further the movement now in progress for perpetuating his memory.

A new form of Entomological Society, called INSECT-DESTROYING SOCIETY, is being started in New Jersey, with a view to the more successful cultivation of Apples, Pears, Peaches, &c. The object (says *Scientific Opinion*) is to adopt a plan which will tend to clear orchards of injurious insects of every kind.

New Plants.

GODWINIA, Seem. (gen. nov. Aroidearum).

Spatha inferne convoluta, erecta, apicem versus fornicata, aperta, persistens. Spadix perigonanthus, stipitatus, spathe limbo multo superatus, cylindricus, liber, erectus, densi ac pluridulus. Florum perigonio 6 sepala, sepalis apicem versus dilatatis, fornicatis, vertice convexulis, in praefloratione irregulariter imbricatis; stamina 12, biseriata, exteriora sepalis alterna, interiora sepalis opposita, filamentis parum compressis, piceo repentino in connectivum tenue acuminatum angustata, pistillo multo brevioribus, antheris loculis suboppositis, linearis ellipticis, apice nulli praeditis, connectivum autem superantibus, rimuli apicali lateraliter dehiscentibus, extrorsum versis, pistillum elongatum, ovario ovoidico 3-loculari, in stylum longum subrepentum attenuatum, stigmatibus 3-partitis, e centro styli apicis partitionibus spathe lineari linearibus angustis pretense extensum, septis ovarii non ex toto perfectis, loculamentis 1-ovulatis, ovulis e placenta infra medium loculamenti ex axi exsertis, funiculis brevi suffultis, induratis. Fructus ignotus. — Foliis solitariis, hysteranthiis, petiolo longioribus elato aculeato maculato, vertice 3-lobato v. 3-lobis, cruribus in lamina trilocari, obtusis, partibus principalibus punctatis v. confluente punctatis, costa iterato-dichotoma. Spatha et spadix saturate violascentes, prior magis in brunneo rubrum, posterior magis in caeruleum. Species unica.

G. agas, Seem. Journ. of Bot., 1869, p. 273; Id. p. 113, tt. 97, 98. — Mountains of Chentales, Republic of Nicaragua, between the Javali Mine and the Quebrada de los Lajas (Seemann).

This is the largest Aroid of which we have any knowledge. [Dr. Welwitsch tells us of one still larger which he met with in Angola, and to which we may hereafter refer. Eps.] It was discovered in January, 1869, near to Javali Mine, in the Chontales Mountains of Nicaragua (see *Gardeners' Chronicle*, p. 220), where it grows in broken ground, near rivulets, amongst brushwood. I have never seen it in any other part of Tropical America, but I am led to believe that this, or a plant very much like it, is found in the mountains of neighbouring Central American republics.

The root-stock with its whorl of roots, turned topsyturvy, much resembles an old man's head, bald at the top; in the two specimens dug up it was 2 feet 2 inches in circumference, and weighed from 90 to 92 ounces. There are no roots whatever on the lower part of the corm, which is perfectly smooth and white; all are placed in a whorl around the top, and between them many young corms, by which the species propagates itself, are nestling. The plant has only one leaf at a time, and after that has died off the flower spathe makes its appearance, both being of gigantic dimensions. The petiole of the largest specimens measured in Nicaragua is 10 feet long, and 10 inches in circumference, covered with minute spiny projections, and with a metallic, beautifully mottled surface (brunstone-yellow, barred and striped with purple), giving it the appearance of a snake standing erect. The blade of the leaf (which is green on both sides), is 3 feet 8 inches long, so that the whole leaf is 13 feet 8 inches long (English measurement). The blade is divided into three primary sections, which are again repeatedly subdivided, the extreme divisions being ovate-acuminate. The peduncle is 3 feet long and 4 inches in circumference, mottled, and with minute spiny projections at the petiole, and furnished towards the base with several large bracts. The flower spathe is the greatest curiosity, measuring, as it does, 1 foot 11 inches in length, and 1 foot 8 inches in width. It is of a thick, leathery texture, outside of a dark bluish-brown, and inside of a dark brownish-red, with the exception of the base and those parts surrounding the spadix, which are whitish-yellow. The spadix is only 9 inches long and 9 lines across, and bears hermaphrodite flowers, the technical description of which is given above.

The plant grows with great rapidity—several inches during a single night—and the flowers emit the odour peculiar to many Aroideae and other dark-coloured flowers. The plant has nothing to do with *Amorphophallus* and kindreds with which it agrees in habit; it, however, is closely allied to *Dracontium*, both in habit and technical characters, but chiefly differs from that genus in having twice as many stamens as perigonal segments. It therefore constitutes a new genus, which I have great pleasure in dedicating to Mr. George Godwin, F.R.S., F.R.H.S., &c., a gentleman who has rendered much willing and substantial aid to literature, science, and art, and who, by his active support of window-gardening in the metropolis, has spread amongst even the humbler classes that taste and love for plants without which, after all, the race of botanists would soon become extinct.

Additional details will be found in the "Journal of Botany," vol. vii., p. 278, where also one of the specimens is described, which Mr. W. Bull, of King's Road, Chelsea (to whom the plant was consigned), exhibited at a meeting of the Royal Horticultural Society at Kensington. This specimen (leaf only) attained within a few inches the dimensions I noted in Nicaragua, and had it not begun to sprout during its passage to England, and suffered at the tip from pushing against the lid of the box in which it was planted, there can be no doubt that even this year it would have quite equalled them. Mr. W. W. Saunders having pointed out the interest attaching to the plant, the Royal Horticultural Society recorded its appreciation of it by awarding to this novelty an honorary distinction. B. Seemann, in "Journal of Botany."

FRENCH PLUMS.

THE culture of the French Plum is chiefly confined to the department of Lot-et-Garonne, and to some few portions of the adjacent departments. In 1811 the port of Bordeaux alone exported 2,709,500 francs worth of French Plums. Twenty years later (in 1861) the director of the customs at Bordeaux stated that the quantity exported had increased to about 7,200,000 francs worth. If to this quantity (forwarded by sea) be added that sent by rail, there cannot be a total of less value than 15 millions of francs. This largely increased quantity has not caused any reduction in the price. In 1806 the medium price was estimated at about 40 francs the 100 kilogrammes. In 1824 their value increased, although the quantity produced had doubled. In 1864 the value of French Plums was still greater, and it continues to increase, the medium price for the last year's being 70 francs per 100 kilogrammes.

There is no fruit tree more profitable to the cultivator, especially to those living far away from manufacturing cities, for while many kinds of fruit cannot be disposed of, on account of the distance they have to be sent, the cost of transit, &c., French Plums are always saleable. The Plums begin to ripen about the first fortnight in August, and are ready for gathering about the middle of September. Many hundred women are occupied during three or four months of the year in selecting Plums, and a great number of coopers are employed in the manufacture of the casks and barrels which are to contain the fruit, in order to ensure its safe carriage.

The trees grow very well in calcareous loam, especially when planted on an incline. They are placed in the vineyards in ranks, at a distance of from 15 to 20 metres one from the other, leaving a space of from 6 to 10 metres between each tree, and when the soil suits them it is not difficult to find shoots of from 1.5 to 2 metres in length the second year. Cultivators who pride themselves on the size of their fruit pay much attention to the trees, and every year, or at least every two years, fresh earth of good quality, or the scrapings of ditches, are placed in little hillocks round the base of the trees. It must, of course, be understood that when new earth is brought the old is taken away. These trees are pruned regularly every year, in winter, by men who attend to this department only, as the method pursued is very different to that adopted for other Plums. The trees are for the most part sent out from the nurseries, though many proprietors raise them themselves. At one time nurserymen did not graft Plums, but were content to plant suckers, to let these grow in a nursery for two years, after which time they were cut back, to induce them to throw out strong shoots about 2 yards in length, and the fourth year they were sent out. In this way it was soon discovered that there were many varieties of this Plum, and that it was very seldom one row consisted wholly of the true French Plum, or Robe de Sergeant, the remainder were of very little value. This defective system is never pursued now, cultivators having discovered that grafted trees produce much finer fruit. Many nurserymen use for stocks the common kinds of Plum, but preference is now generally given to the Myroholan, as a stock not only for the French Plum but for Greengages, Apricots, and even Almonds. They are obtained from seeds or from cuttings. One of the great advantages of this plan is that the trees never make long shoots, contrary to the habit of all other Plum trees. In order to succeed, the grafting should be done about the last fortnight in September, otherwise the result is unsatisfactory. It is not desirable that the French Plum trees should have very long stems. They are too much disturbed by the winds, and they seldom make good growth.

The production of French Plums has, however, its drawbacks, and their preparation has many difficulties. At one time all, and even now many persons engaged in this occupation, bake the Plums more than once in an oven. The oven is very slightly heated at first, and several trays covered with the fruit are placed in it. When the fruit is partially dry, the trays are withdrawn, the Plums are turned, the heat of the oven is increased, and the trays are replaced in it. This operation is repeated four, five, and sometimes six times. It is easy to understand how costly and tedious such a process is. The large proprietors possess 10, 12, or even 20 ovens, attended by a large number of women. But this is not the chief inconvenience the ovens rapidly cool; it is requisite, therefore, in order that the warmth may be maintained for a certain time, to heat them to a high degree at first, so that each time the Plums are placed in the oven they undergo a complete baking (*coupe feu*), which hardens the outer skin, and prevents the pulp from becoming converted into marmalade. The smaller fruits, too, are reduced to a stone covered with parchment, and are wholly valueless. The result of this is a great reduction in weight, and consequently in the profits of their sale, as the fruits are generally disposed of by the quintal (100 lb.). The

necessity of some other process has caused the introduction of stoves wherein the Plums are first steamed first, and afterwards dried in ovens. At present little these stoves have been brought into use. The Plum is placed in its fresh state and compressed heat, maintained by the action of a constant steam, and transformed into drying room. The Plum is then dried by means of a constant heat, maintained by the action of a constant steam, or the skin break. There is more weight. One woman can prepare 100 Plums a day, and the saving of fuel is enormous. The dimensions of the oven required will be 25 centimetres by 22). The apparatus will not cost more than 500 francs.

To sum up, the advantages of drying proved by statistics; generally, on the expense of labour and of firing, the value of the fruit. The stove dries six or eight ovens of the same diameter. They are better, and weigh heavier. *Revue Horticole.*

Home Correspondence.

Cones of the Wellingtonia.—Will correspondents kindly inform me what size of Wellingtonia ought to be when fit to take, or when they are fit for taking? Some of the men are this season producing cones here, though not from being to a standard size. Some were planted in the spring of 1863, being 2 feet high; many of them now measure 17 feet in height, and measure, within 6 inches of the ground, from 2 feet 10 inches to 3 feet 6 inches in girth. They are growing in a strong soil, which appears to suit them better than a lighter description. In other parts of the country several that I planted in 1857, they are specimens, but as yet they have not produced cones, neither are they growing so favourably situated, the soil is, however, a nature. R. Bowe *The Gardens, Chillingham*.

Removing a Greenhouse.—I have a greenhouse built next to my residence on a piece of ground back. It is entered at one end from a door formerly a window. It is built of wood, on pillars, the ground at back being lower than in front of the house. It is a span-roof, in any way supported by the house. Can I have the expiration of my lease? I have given to understand that all glass structures are entirely for the purposes of trade, and removable at tenant's option. Will any of your correspondents kindly enlighten me on the subject? M. G.

Growth and Sap Circulation.—The main question is the great question of connection, widened, like a good many other subjects, from its original bases until the whole field of Pomona is laid under contribution. I would again revert to the practical question adduced in reference to the Vine in its mode of growth, as opening up a field of inquiry to logists. No amount of declamation can establish facts. These facts, in so far as they appear until after leaves have been manufactured, case of deciduous or dicotyledonous plants, observers agree and others disagree as to the borne in mind that I look upon this, as the natural condition. As to certain facts that are recorded with reference to cuttings making out the evolution of buds, I cannot accept the testimony of a natural order of things, which appear in a variety of ways in the position of adventitious, secondary or abnormal, but shows the admirable provision of Nature in providing plants with the power to reproduce themselves. Because a twig of a Willow will strike root, might be called adverse circumstances, considered a good argument in favour of the presence of roots, in an established Willow, the elongation of stem or development of new presence of such dynamic forces as heat, I think not. We require to probe deeper into the mystery of fluid circulation and its elaboration at the natural history of root and branch. Hundreds of instances might be cited from a twig to a Ribes cutting, showing generally that action takes precedence of leaf formation, mere examples of adventitious root formation, no physiologist, in searching after a normal of the sap, would accept as safe evidence. I look upon all such illustrations as a mark, and only of secondary importance in the solution of the main question. Neither my testimony to the utterances of those who declare the possibility of a wide field of formation without some corresponding action, I look upon all such as either abnormal or brought about by an unnatural state of things, capable of being explained away, as in the case of bulbs and corns, which are formed, in some media, for the roots in the one instance, and its tributaries in the other, on the warmth accompanied by moisture, taking the instance, the sap is propelled with such force—as shown by Hale's and many other experiments—that it is not astonishing that it take priority of spongelets. I am, &c.

asserting that the ascending sap is manufactured in the leaves, and the descending sap into spongioles. The whole idea was that the elaborated sap did all the work. I did not mean that it did nothing else, but that its passage upwards and downwards. The organization of the vegetable fabric is so intricate, so much dependent upon the formation and congregation of the spongioles, that to go into the question satisfactorily would be beyond my means and power. Neither do I think it sufficient to say that I did not esteem it necessary to say anything about the absorbing surface of the spongioles, or the power and the metamorphosis of the fluid in its passage downwards to create new layers. It is not leaving this much I by no means wish to neglect, but the position I assumed. My observations, so far as they have gone, lead me to agree with Walker, Mohr, and Hoffman, who found the spring sap in its active state move from the root upwards, and there is no descent of sap until after the development of the leaves. But what about its after diffusion? There can be no doubt, from the various experiments which have been made, that it descends in the direction of the bark, and even when that is mutilated, finds its way through the cellular system of the stem of dicotyledonous plants, and, from its specific gravity, just travel to the root extremities. But what puzzles me most—and on this I should like to get some information—is to know what other auxiliary is present to attend root development, besides this returning sap, manufactured through the leaves, and without which vitality would become impaired. Is Siebaert's theory, "that each cell may direct the substances it holds in solution upwards, laterally, or downwards, according to the demands of the neighbouring cells?" I do not think the possibility of it, but is that its normal condition? Most probably. Eds.] That same authority further says the current of sap will be directed according to the wants and the degrees of vital activity of cells having different functions. On this leads me to comment upon the additional evidence of roots growing in autumn on deciduous trees when branch growth is at rest. The Vines I alluded to at p. 1137, as being root pruned 12 months ago, and which had given no symptom of spongiole formation a month after the buds burst into leaf, are now clad with spongioles six weeks after leaf-fall. (Of course, I ought to state that they are growing in an aerated order, protected from rain by tarred boards, and show moderate luxuriance among the plastic loam in which they have found a home. To tell the "whole truth," the roots in a 10-foot inside border were introduced at the time their outside fellows were crippled, and start new life. Nevertheless, here is an important fact, that these rootlets are only beginning to finish up the activity of the year, after the stems are as brown as nut, and the protoplasmic layers in the cells indurated and their particles impacted together by the attraction of cohesion. Does not this favour the idea of a spongiole sap being in a greater state of activity, as compared by the roots, than an ascending, as compared by the leaves? Any examples that I have met under similar demonstration of the roots of hardy trees in the dead of winter do not, it must be admitted, favour the same license of construction. I have occasionally seen young rootlets appear, but not at the extremity of the system; they were rather in a lateral position, and I looked upon their appearance more as the result of an extravagant flow of sap, than as a normal state of things. In the case of transplanting, and mutilating the roots of the Gooseberry bush, I believe what Mr. Fish calls the faculty of self-preservation will be the means of inducing new roots without corresponding elongation of tops; but it is just questionable whether new roots would have been generated if the plant or plants had remained in their growing position. It is very different, however, with evergreen plants, as I have seen over and over again with laurels, with Aucubas, and with Rhododendrons, although their roots are much more minute. The difference, however, is palpable, the leaves are always present, and exercise a mutual influence downwards and upwards on every blink of heat in an autumn or winter day. Even plants such as Ghent and other Azaleas, Tree Pæonies, and such plants as have large prominent buds to reciprocate a more active continuity of growth, have young rootlets in abundance even in the dead of winter. I have examined and seen this for myself more than once. One other fact I have to record, to show that the descending system is in a greater state of activity than the ascending system in winter. Let any one cut through large roots of almost any forest tree in a good state of health, and it will not only bleed, but to such a degree as is sometimes astonishing. This is a well-known fact, particularly commented on by Langley, who instanced the case of a Birch tree of the Hon. J. Stuart Wortley's, whose roots bled incessantly for a fortnight, and another was recorded by Mr. Spencer, of Bowood, who observed it during March and April, but any one may see it in autumn and winter, although not to the same extent. Roots will therefore bleed when stems and branches won't both at the so-called season of repose, and also during the height of growth, when, of course, the leaves compromise the fluid. More particularly have I observed this with the Ash, the Elm, and the Horse Chestnut. Times Anderson.

Sambucus racemosa.—It may be some satisfaction to your correspondent, "I. O. W.," to learn that the scarlet-berried Elder has had at least one trial in this country. About fifteen years ago I brought over to this country some of the berries, from which a healthy plant was raised. This was planted in a shrubbery a few miles from Canterbury, on a dry soil, at a moderate elevation on the chalk downs, where it grew to be a good sized bush, and produced its much-admired scarlet fruit. In reply to recent inquiries, I have been informed that it died many years ago, as is supposed, from the effects of cold. It was remarked that

nothing like it had been seen in that neighbourhood. The situation was, perhaps, as favourable as could be in this country, and it may probably be concluded that this highly ornamental shrub requires a hot summer, such as that of Germany, to ripen the wood against the cold of winter. It would surely else be as common with us as the Lilac and the Laburnum. S. S.

Salisburia adiantifolia.—We have heard lately a good deal about the large Maid-hair trees in this country, but little about their fruiting which, owing to the separation of the sexes in this genus, does not take place unless the one is grafted on the other. Indeed the only tree I have seen in fruit is that at the Botanic Gardens at Vienna, which, if I remember rightly what Dr. Penzl told me some years ago, was planted by one of the Jacquins, and began to fruit after Endlicher, when he was preparing his "Synopsis Coniferarum," published in 1847, had brought one of the sexes (I forget which from Italy. To what sex do the generality of trees in this country belong? I am sure Dr. Penzl would be only too glad to supply English gardeners with the sex they stand in need of. Berthold Seemann

Cyclamen hederifolium var. græcum.—I send flowers of *Cyclamen hederifolium* var. *græcum*—a variety well worthy of more extensive cultivation than it has yet received. It differs from the ordinary *hederifolium* in being much later and in continuing much longer in bloom. The leaves rise with the flowers, those of the ordinary variety grow up after them. The leaves are very various in shape, and beautiful in colour, the flowers are fragrant and continue very long in bloom. My orchard-house has been very gay with them for nearly three months, and at the dull season any flowers are an acquisition, they are quite hardy, and still in bloom in the open borders, though the late heavy rains have much injured their beauty. James Atkins, Painswick, Dec. 20. [Charming alike in flowers and foliage. Eds.]

Potting Liliums.—I firmly believe that these may be potted with success at any time from November till February. I have grown all the varieties of Lilium lancifolium with great success. I potted them about the end of January or in the early part of February. Much depends upon how the bulbs are kept through the winter; if in a warm place, they require earlier potting, being easily excited. When the stems of my bulbs began to turn yellow, they were placed in a cold shed; if hard frost set in I protected them by placing dry Fern or litter round the pots. In potting, I sometimes shook all the soil off, and placed the bulbs singly six or eight in a 12-inch pot. From others I shook most of the soil off, but left the bulbs in a mass, both did equally well, and were admired by every person that saw them. J. M.

The Heliotrope and Luculia.—Much as I admire the Heliotrope for decorative purposes, I think it out of place when tucked to the wall or rafter of a cold conservatory, filled with hard-wooded plants. I would advise Mr. Adis, see p. 1284, to do as I did many years ago. I tore up a Heliotrope plant that had been planted on the back wall of a conservatory here. In its place I planted two plants from the cutting-pot of *Luculia gratissima* close together. My object in planting the two together was to have a chance of keeping the strongest plant; but they grew away so rapidly that it was difficult to say which was the strongest, and they were both allowed to remain. The plants soon covered a back wall 30 feet long by 8 feet in height, and then took to the rafters, seven of which they soon covered 15 feet long, and are now sprawling about in a small half-circular dome. If room could have been given, the plants could have covered three times the space in the time. We have now given them three more rafters by removing other plants. The plants commenced to bloom in October, and will last to the end of February if all goes well. The number of heads of bloom open and coming into bloom is 700, or thereabouts, many of them measuring 4 inches across. This is a sight which no weedy Heliotrope can be compared to for a winter-blooming conservatory plant. The perfume, too, is stronger than any plant that I know grown in a cold house—equal to that of many of the Orchids. The foliage, in a healthy state, is very fine through the summer months, and is quite an ornament to any house. In the month of March the plant is spurred in just as Vines are pruned, without a leaf. It breaks into leaf in a very short time, and the shoots are thinned two or three times during summer to allow the shoots and leaves room to develop themselves. The *Luculia* is a very clean growing plant, it is seldom ever attacked by insects. William Calverley, Thorpe Perrow.

Vine Extension.—I have read with great interest your letters on Vine extension. Having some under my care, I should like to arrive at the best mode of treating them, and I therefore suggest that your correspondents should explain the summer treatment of their Vines, in regard to pinching the shoots, specifying how much foliage is left, and the mode of training during growth. I should also be glad to learn how far the Vines are apart, the time of ripening their crop, how old the rods are, and what they produce in pounds per rod per year, according to length. I am only a young hand, but I can tell of a houseful of Vines that were as bad as the Stortford Vines can be, but which were restored to produce good crops (or as good as common people grow without extending them in the least, as they had been to the back of the house for years; and these are still, I believe, in good health. I will give you the particulars, with dates, as, if you think them worth recording. If your readers would report on the matters above-named, much might be learned therefrom. Learner. [Statistics of this kind would be worth recording. Learner's other questions are reserved. Eds.]

Close Pruning.—The interesting statements made as to the Bishop Stortford Vines have set me a-thinking,

as to whether the same may not be said by and by of the trees trained on the system of Dubreuil. The same agencies seem to be at work there, and the question in my mind is, whether the unextended pinching and tearing of the shoots, or the production of frost buds may not have a similar effect on French trees. Pears, owing to the character of their roots, would not probably suffer, but might not Pears trees? None. There is this difference, that the Pear is not naturally a rampant grower like the Vine, and therefore sustains less check by a reasonable amount of stopping back. In all cases there should be as full leafage as can be through a good season under the circumstances. Eds.]

Grapes.—In the acquisition of Grapes we have certainly made considerable progress during the last few years. Moderate-minded people were well satisfied with the Muscat of Alexandria, but in size and quality it must suffer eclipse placed in opposition to the Golden Champion. The new black Grapes with Muscat flavour give us what was very desirable in that direction. That very trite truism, "Tastes vary," may here be illustrated, for however excellent the Muscat may be thought by some, others say that the Muscat is good for a *bonne bouche*, but the very intensity of sweetness and aroma it possesses tends to cloy the palate, which by a fruity freshness it should stimulate. Our Continental friends who are no bad judges of Grapes, and certainly eat more than we do, prefer as a rule these varieties, and have but little aversion, or rather a strong liking, for crisp juicy and refreshing. The Muscadine or Chasselas de Fontainebleau seems an established favourite, and when it ripens against a wall, in sunny France, and looks, as the people slyly say, as if the fox had been that way, it is a Grape that one does not soon tire of eating. It is, unfortunately, not big enough to make a show in our houses in England. If those gentlemen who are so industriously hybridising would give us a Muscadine as large and as easy to grow as the Hamburg, they would confer a boon on the world of Grape eaters. The absence of any decided flavour in the Hamburg, its juiciness and agreeable sweetness, size, and colour make it a Grape that is enjoyed by the most fastidious as well as the least discriminating consumer. But there is room here for something better, and in size our black Grapes are eclipsed by white. Let us at least match the Golden Champion with a black Grape with the flavour of Chasselas de Fontainebleau. It is not my intention to review all the Grapes grown in our hothouses, but while on the subject of new Grapes and flavour in Grapes, I am reminded of a result of successful hybridising obtained by Mr. Pearson, of Chelwell, who, employing the American Strawberry Grape as the parent on one side and the Royal Muscadine on the other, has secured a cross that combines in itself the qualities of both parents, and, what is of more importance, shows the advantages of the union in a vigorous habit, peculiar to the American Grapes. I regard this union as an immense step in the cultivation of Vines. The refusal of the vulgar of a newly cultivated perfectly healthy tree into an old, and partly exhausted stock, will, in all probability, lead to great results, both here and in the vineyards of Europe. The Grape, the produce of this union, is not of large size, and is white, or rather yellow. Those gourmands who seek after novelty will, in tasting this Grape, find a new pleasure; it has something of the Strawberry aroma of its American parent, and a little Muscadine and other flavours which I cannot describe. It has lost the peculiar pulpiness of the Grape from which it was raised. Mr. Pearson has happily called it after the great man of the day, Monsieur E. de Lesseps, who has united two seas, just as Mr. Pearson has brought together two great floods—the juicy tides of America and Europe. William Ingram, Brent.

English-made Cloches.—One Paris Cos Lettuce, grown under the French cloche (such as can be purchased early in the season in Covent Garden market) is nearly enough to fill a good sized salad bowl. These can be supplied from Paris at a price that ought to justify an attempt to cultivate them in a similar manner at home. I intend to try the cultivation of some of our best varieties of Cos Lettuce under the cloche, and have obtained some of the largest size at a moderate price from Messrs. E. Brecht & Co., Normanton Works, Yorkshire, for that purpose. I shall give them a fair trial, and I hope in due time to furnish you with a report of my success or failure. I grew some of the Grand Admiral Cabbage Lettuce, under ordinary bell-glasses last spring, which improved them in crispness very much. I believe that growing them in a confined atmosphere close to the glass, with plenty of light, is the main secret of success. J. M. [L. M. [L. M.]

French Mushroom Spawn.—Having had a consignment of this article, I was anxious to know whether any of your correspondents have given it a trial, and whether they have been more fortunate in obtaining a crop than I have been. When the French spawn came to hand I had a bed fit for spawning, composed principally of horse-droppings, with a mixture of cow dung and turfy loam. The bed was spawned in the usual manner, when the temperature declined to below 50°. The French flaky spawn was placed at one end, with English spawn, broken in small pieces, at the other. Care was taken that the temperature of the bed did not rise beyond the above with any change in the weather. Both ends of the bed were top-dressed and soiled alike. The temperature of the house ranging about 50°. At the temperature of the English end of the bed is quite a picture present the English end of the bed is quite a picture with fine fleshy Mushrooms, but upon the French with fine fleshy Mushrooms, but upon the French part there is not the slightest appearance of a Mushroom to be seen. The sample of French spawn which I received was very dry and dusty, which was probably for its being so long in showing before the English-made spawn, under the same treatment. I have no doubt but that the French spawn was good when it was first taken out of the salt-strewn quarries, although upon its arrival here it appeared to be only

composed of flaky straw and dust. Had it come to hand in a fresher condition, I believe that it would have "run" as quickly as our English spawn. The French principle of making and keeping spawn is often adopted in this country by some of our most successful Mushroom growers, by making a small bed in a corner of the Mushroom-house, and by breaking English-made Mushroom bricks into small pieces, and inserting them thickly in the bed, or mixing them promiscuously with the droppings when the temperature is not too hot. The mass shortly becomes a heap of spawn ready for immediate use. *J. M., Worktop Manor.*

Camellia Buds Dropping.—I have had under my charge for twelve months a number of sickly Camellias about 3 feet high, which drop their buds as they are about to expand. They have never been too dry since I have had them. Water was applied at a temperature of 60° during last winter, with a little weak manure-water in the spring, but there was no appearance of any improvement. I am now getting some fresh compost into the yard, not having had any before which was suitable for repotting, indeed they did not appear to be in want of it. Can you or any of your correspondents recommend any system of culture that would render such plants again worth growing? They are kept in a vinery from March 1 to the end of June, when they are placed outside until the end of September. *A. B., Strath Tay.* [We sent your letter to Mr. Pearson, of Chilwell, an able cultivator of Camellias, who kindly replies as follows:—] "If I had a lot of Camellias in the state described by your correspondent, I would get some nice turf from a good pasture, cut as thin as if it were intended to be laid down for a grass plat. I would cut such turf up by chopping it in pieces as small as nuts with a spade, and use it without any admixture, and quite fresh—unless it were from a clay or strong loam. In this case the chopped turf should be shook in a riddle to get rid of some of the soil, and the grass and grass roots mixed with as much fine white sand as will make it a sandy turf. I would then at once shake each plant free from soil, and wash its roots, removing with a knife any that were dead, and repot them in the fresh turf, in clean pots no larger in size than would comfortably contain the roots. As these unhealthy plants will require stimulating to make fresh roots, they should be kept in a warm greenhouse, not a stove, and be moistened every day with a syringe till they have made fresh roots and shoots; after which they ought to be kept in a cool house always, and never receive more heat than is necessary to prevent their roots being frozen. Of all the plants grown in our houses, none are so miserably managed as Camellias. Where, in the neighbourhood of London, can a collection of well grown plants be seen? A plant as hardy as a Laurel, or nearly so, is forced to death at one time of the year, and exposed to every change of temperature at another. It is generally potted in a mixture of loam and peat—one an acid soil, the other an alkaline one, which must in time produce a sour mixture. Forced in spring, dry or deluged by rain, as it may happen, in summer, exposed to the heavy dews and rains of autumn, and then treated to the dry and perhaps hot atmosphere of a vinery, is it any wonder the poor plants look miserable? Pot in sandy fresh turf, never give heat more than is required to keep out frost; keep them if possible in the house all the year, and if not possible, have a roof of some kind over them to preserve them from heavy rains. When they require potting, let it be done immediately they are out of bloom. When they require watering, be sure that every particle of soil is soaked. Keep the foliage as clean as a well washed face, and you will have no trouble to keep Camellias from dropping their buds. *J. B. Pearson.*

Cutting Down Strawberries.—In September last, I wrote to you about the practice of an old market gardener, in my neighbourhood, on the heights above Boulogne-sur-Mer, which was to walk into his Strawberry beds, and with a scythe remorselessly mow off the leaves of his plants; that he then threw this haulm over the plants so treated until they began to push, when he uncovered them, and that he was always rewarded with a good crop. I knew that my old friend Dr. Lindley and other good horticulturists condemned this as contrary to Nature, and in the *Gardeners' Chronicle* (p. 902) the Rev. Mr. Radclyffe denounced the practice in no measured terms—"ignorance" being among the number, if I remember right—and said the practice must have been used in dripping weather or under peculiar circumstances. I went down to my old neighbour shortly afterwards, and translated the opinion in England against him. The old man smiled, and looking shrewdly, said: "Monsieur, I have followed this practice 50 years, and have always had abundant crops of Strawberries; and as to dry weather, that would be all in their favour, as the plant would have less to support. No, I will tell you what the secret is—people cut their plants too late. Never cut them later than the second week in August, and you will find that my plan will succeed. Here is M— in the next garden, who cut his a few weeks later, and *voyez vous*!" I looked, and certainly the poor plants in October looked wretched enough, while my old friend's were in the utmost vigour. My landlord is trying in a little garden the two methods: very slight, as contrasted with wholesale pruning. In the summer it will be proved which plan is best, and if practice may not beat precept. *Querist, Boulogne-sur-Mer*

Root Action.—If you take a well-ripened branch of a Vine of the current year's growth, insert it in soil, and put it in a temperature of 80°, it will swell its buds, and put forth leaves, before it emits any roots. This shows that, under the influence of heat, a Vine can expand its leaves without the aid of roots: but how long it can continue to progress without such assistance is a problem not so easily solved. If, when pruning the Vine, you take a leading

shoot that has been allowed to extend itself during the summer, and then fasten the base of it in two or three coils, then pot it, and plunge it in a bed of fermenting materials in the open air, it will emit roots without any corresponding action in the part of the branch exposed. This shows that the Vine is capable of making roots while its branches remain dormant. Taking the latter circumstance into consideration, I thought it would be good policy to apply heat to the roots of permanent Vines during the whole of the winter months; but the only trial I ever saw did not bear out the opinion formed. We had a range of three vineries; the centre one of the three was pruned in November, and a bed of fermenting materials was put on the border, the house being kept cold for some time. When started the Vines did well. The canes in the adjacent house were pruned about a month later, with the exception of the one nearest the centre house; this bled so much (no doubt from part of its roots extending into the other border) that we were obliged to leave it, and disbud it when breaking. Now, speculating on my theory, this Vine should have grown better than the others, but I confess I could see no difference in them; this one was as good as, but no better than, the other Vines in the same house. No doubt the loss of sap helped to weaken it, as it was some time before we could succeed in stopping it. Another item against it was having to swell so many buds. No doubt if it had been pruned sooner, the sap being forced through its length would contribute something to its strength if concentrated in one bud, instead of being divided between at least a dozen. *G. B.*

Potato Grafting.—At p. 1281 Mr. Bennett states, that to raise true hybrids by this method, much more to change the colour of the tuber, is, he believes, impossible. Has he ever tried the experiment with a red or blue and white Potato? If not, I would advise him to do so next season, then perhaps he will prove for himself the fallacy of his own conviction. Last October I had dug up 14 grafted roots part were Paterson's Blue grafted in the Regent, and the others the Regent grafted in Paterson's Blue, simply to test the influence of stock on scion, and I found, on examination, at the one and same root tubers, some white, some purple, and others varying in colour between the two, i. e., of various shades from purple to white. I do not wish to enter into any discussion on the subject, as my time is too fully occupied; but what I state is a simple fact, and I feel convinced that Mr. Bennett can never have successfully tested the experiment himself. *T. C.* [Will our correspondent favour us with his name? *Eds.*]

Foreign Correspondence.

[THE subjoined extracts from a letter received in the early part of the month from our valued correspondent, M. Naudin, tell the same tale of drought in the Mediterranean district as alluded to in the communications of Mr. Hanbury and others from Mentone, p. 1258—

From Paris to Toulouse nothing but rain—soil saturated. At Castelnaudary, where the culture of the Olive begins in sheltered places, the soil was still moist, and the sky partly clouded over. At Carcassonne, a little nearer to the Mediterranean, the sky was cloudless and the drought frightful, the streams were dried up, the wheels sent up clouds of dust. Everything in the plant way was burnt by the sun; nothing remained but the remnants of herbaceous plants, and even the shrubs had their branches shrivelled and dead. *Spartium junceum* was the only shrub which had resisted this torridity. It grows on the borders of fields, and was as green as if it had been watered all the summer. The same state of things prevailed at Narbonne, Montpellier, Hyères, &c., in fact, the whole Mediterranean region has been subjected to a drought, the like of which has not been seen for the last 15 years. At Collioure (Eastern Pyrenees) not a drop of rain had fallen for six months. There, owing to the proximity to the sea and to the mountains, the drought was less injurious than it had been further to the north, the nightly dews compensating to some extent for the want of rain. At this place three plants were especially remarkable for their powers of resisting the drought—*Phillyrea angustifolia*, *Rhamnus Alaternus*, and an *Opuntia* (*O. inermis*?) which is naturalised, and grows everywhere on the rocks, propagating itself spontaneously by means of the joints of the stem when they fall on the ground. This *Opuntia* yields an abundance of fruit of the size of a medium-sized Fig, of a deep violet colour, and containing an abundance of bright purple-coloured juice. Although this plant attains a height of 3 feet, and forms large tufts, it cannot be confounded with *O. ficus indica*, which is arborescent, and the fruits of which are longer and better. In addition to these three plants, I may add the *Agave americana*, and some *Aloes*, as also preserving their succulence throughout this terrible season. I consider the *Phillyrea* and the *Alaternus* as valuable shrubs for making hedges in southern Europe.

On my way back to Paris I stopped at Bordeaux, in order to visit the public garden, directed by M. Durieu. I do not hesitate to say that this is the most interesting garden that exists in France, on account of its arrangement, its space, and especially in the variety and beauty of the trees it contains. Among these latter may be mentioned several fine specimens of *Chamaerops Fortunei* in flower and fruit. One of them last year produced 45,000 ripe seeds. This beautiful Palm is much appreciated here, and before 10 years are over it will be counted by thousands in the southern gardens. The hotter the climate the quicker is its growth. Thus at Perpignan I saw a tree five or six years old, 6 feet high, which had already produced an abundance of flowers.

I may add in conclusion that the wine made with the Grise Gris at Collioure has been recently the one of the best solvents for quinine, probably for the purpose even to Malaga. *Charles Nees.*

Societies.

ROYAL HORTICULTURAL. December 2. Saunders, Esq., F.R.S., in the chair. The business of the meeting being concluded, Mr. Dix announced the awards of the Floral Committee, and G. F. Wilson, Esq., those of the Fruit Committee. The Rev. M. J. Berkeley then stated, with reference to the species of *Abies* alluded to at the meeting under the provisional name of *A. japonica*, in comparison with specimens in the Herbarium, that he had ascertained that Mr. Standish's plant was a new form of *A. Pinsapo* as being a sterile tree, the blunt leaves being produced on a cone-bearing tree. A similar difference was observed in other Conifers, as in *Pinus*, a sterile form of which had been called *P. Berkeleyi* stated that 200 collections of *Crataegus* and allied genera had been collected for distribution among the Fellows. Attention was directed to some specimens of Maize grown in a full report upon which will be given in the Journal. The best variety was that known as Early Bronze, which was the same as that shown by Mr. Dancer at a former meeting. It was remarked that none of the trials made in the green cobs had been successful. *Williams* and *Lawn Mower*, which had been sent to the trial by the Editors of the *Gardeners' Chronicle* stated to have met with great approval from W. E. Hubbard, Esq., of Leonsart's, the prize alluded to at p. 1330, was then read by the Chairman and Mr. Bateman made a report on Mr. Bateman also alluded to specimens of a Cocoa-nut, *Lodoicea sechellarum*, and of a Palm, presented to the Society by Mr. Belsize Park, Hampstead, who also exhibited drawings of various tropical fruits grown in the garden. A few remarks were then made upon the including the beautiful white variety of *L. Dawsoni*, and a supposed new species of *Cycas*, proposed to be named after Professor Leopoldi, named after the King of the Belgians on the occasion of his recent visit to South Africa. Notice was given that the meetings in the year would be held on Wednesdays and Tuesdays, as heretofore.

Scientific Committee.—Mr. W. W. Saunders in the chair. The Secretary, Rev. M. J. Berkeley, read a paper on "Leaf of *Aerides*" "Fox-brush" with a peculiar character differing from any he had previously seen. Mr. Laxton sent specimens of *Pras* of a peculiar character, the result of a single cross particular of which will be given hereafter.

A very interesting paper on the Ferns and Grasses, from Dr R. Spruce, from which the following extracts, was communicated through the Secretary. The paper had reference to the statement of Dr. (see p. 1110), that Grasses are usually sterile while in the bud, and will be published in the Journal of the Society.

In gently flowing rivers of tropical America are found fine aquatic Grasses, species of *Luziola*, *Oryza*, &c. The following note is from my journal, under date 1840, when threading in my canoe among the mangroves of the Trombetas—"This channel was lined on both sides by a beautiful Grass—a species of *Luziola*—growing to a height of 2 or 3 feet. The large male panicle, the most delicate pink, streaked with deep purple, six long yellow stamens hanging out of them, was in a lax terminal panicle, while the slender female flowers grew on the bristle-like branches of the panicles springing from the inflated sheaths of the stem. As the Indians disturbed the panicles with the movement of their paddles, the pollen anthers in showers, and would, doubtless, cause the female flowers disposed for its reception.

A parallel case to the above is that of the *Zebrina* (*Zea Mays*, L.) where the male flowers are borne in a terminal panicle, and the female flowers are packed on spikes springing from the leaf-axis. The flowers must plainly expand before the pollen anthers can be shed on the female organs of the same or of a different plant. That there are cross marriages in Maize is evidenced by the varieties in cultivation in countries where it is not of food, as in the Andes of Ecuador, where nine of the colour of the grain (though white, yellow, or black,) in its size, consistency and flavour, are cultivated; besides many others less generally known.

In *Pharus scaber* (H. B. K.) another tall branched spikelet, and a stalked male spikelet.

In the fine forest Grasses of the genus *Olyra*, species, such as *O. mierantha* (H. B. K.), rise to a height of 10 feet, and have lanceolate leaves above 3 inches broad. The terminal panicle, with capillary branches, like *Ara-caspitosa*, it is the lower flowers that are large innate (not versatile) anthers, and the upper female, with two large stigmas, that are either divided or clad with branched hairs, thus exposing the surface to the access of the pollen. And as the panicle is pendulous, many of the male flowers, although down the axis, are actually suspended over the female flowers.

It is generally to be remarked of dichlamydeous flowers, either the male flowers are very numerous, as in *Leersia*, *Guadua*, &c., or the stigmatic apparatus of the flowers is enlarged, so as almost to ensure impregnation. *Olyra* and *Tripsacum*.

In the Bambusaceae I have gathered belonging to *Guadua*, *Merostachya*, and *Chusquea*, the flowers are less polygamous, and the stamens of the male flower are doubled. But there is scarcely a genus in the family which is not described as having some flowers neuter or male, and especially those that have large stamens, such as the *Panicum*. Some Grasses, of the pharodite genera, are not unfrequently truly

Suttons' Selected Stocks of Farm Seeds
UTTUN AND SONS are now prepared to make special ones for their selected stocks of FARM SEEDS, which give such satisfaction the past season, and which were so admired at the recent Smithfield Club Castle Show. Apply for quantities required, to
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 The forwardest known.
 Price 2s. per quart.

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 The earliest Potato in cultivation.
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EVER SAND and PEAT, from Bedfordshire, in any quantity. This Sand is acknowledged by Florists to be the best obtained. Price Lists on application to **MR. JOHN BOLD, Baker, 20, Curzon Square, St. Pancras, N.W.**

FOR SALE, a quantity of **COCOA-NUT FIBRE** REFUSE, 1 1/2 bags, 1 1/2 per cwt., less by the ton. Price to Nurseries, per ton, on application.
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 Have now ready for delivery, in fine condition,
CORN MANURE, for Spring Use
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SUPERPHOSPHATES OF LIME
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 Genuine **PERUVIAN GUANO**, and **NITRATE OF SODA**
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 43 1/2 per cent. of Ammonia
 21 per cent. of Soluble Phosphate
 6 to 7 per cent. of Alkaline Salts (chiefly Potash).
 A full Copy of Analysis by Dr. Voelcker, Consulting Chemist, Royal Agricultural Society of England; Professor J. T. Way, & other leading Chemists.
REES AND CO'S BIPHOSPHATED PERUVIAN GUANO can be obtained of the undersigned, in any quantity, in 2 cwt. bags upwards, at the following cash prices. Remittances in company order:—
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 Sole Agent for "Rees & Co's Biphosphated Peruvian Guano Company, Limited."
 Biphosphated Peruvian Guano combines the stimulating properties of Peruvian Guano with the nourishing properties of Superphosphate. It is sent out in sealed bags, and each bag is guaranteed to contain—
 6 to 7 per cent. of Ammonia (fixed).
 20 to 22 per cent. of Soluble Phosphates.
 6 to 7 per cent. of Alkaline Salts (chiefly Potash).
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NIGHTSOIL MANURE CONCENTRATED.
 Prepared under the direction of the Corporation of Rochdale. This Manure is in the state of a Powder, so that it can be used by Hand, Spade or Drill, and is free from the objectionable odour of Nightsoil.
 The preparation of Nightsoil is not used, and all the natural strength of Nightsoil and urine are retained. It is at least eight times stronger than the Nightsoil and ashes collected in towns; and the purpose of the Corporation, in the experiments it has made in the manufacture, not being purely a money profit, but to improve the sanitary state of the Town, and also to solve the problem of the preparation of Nightsoil so as to make it convenient and not offensive in use.
 The kinds of produce, Horticultural and Agricultural, its use is highly satisfactory. The Corporation is prepared to supply it at the Station at £1 per Ton, or to arrange for its delivery to any address.
Address: Mr. HARESCUGH, Town Hall, Rochdale.

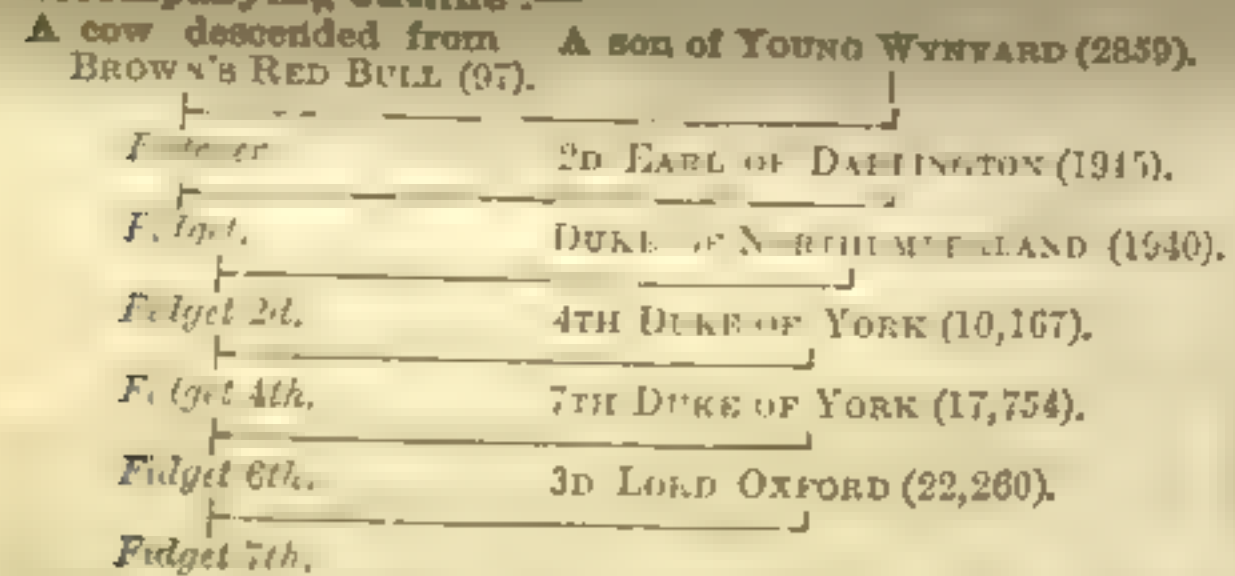
MR. ARCHER'S "FRIGI DOMO."
 Patented by Her Majesty the Queen for Windsor Castle, and by the Duke of Northumberland, Duke of Devonshire, and Earl of Devonshire, for the Crystal Palace, Royal Gardens, and for the Horticultural Society, &c.
 The best Shading is "Frigi Domo" Netting.
 It is made of prepared Hair and Wool, a perfect non-conductor of heat or cold, keeping a fixed temperature where it is used. It is adapted for Horticultural and Floricultural purposes.
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necessary to a manufacturing country. Where there is a population of 30 millions on a very limited area, the home farm must necessarily be made extremely productive, if the people are to be well fed. Even assuming—though we do not believe it—that sufficient corn can always be imported, bread alone is not a liberal diet; there are other articles which ought to be abundant, and which cannot be imported. Therefore, it is essential to the prosperity of this country that its agricultural production should be progressive, like its population. It has been said, "The more fodder, the more flesh; the more flesh, the more manure; the more manure, the more grain;" and if these common agricultural maxims were true, the necessities of life would all become more plentiful, and the increasing demand for both flesh and grain would be met by the resources of our own land. But they are only partly true. Cattle increase our manure-heaps in the first instance—they bring cake, feeding corn, and guano for Turnips, on our farms—but the moment the flesh is eaten by man the good results are all lost; our stock farming has become an elaborate mode of "robbing Peter to pay Paul." Hence the retrogression in the production of corn, which we have several times pointed out in these columns; and hence the complete falsification of agricultural maxims, which would be true if what we imported to serve our stock farming were not lost by that fearful system of waste to which we are all so blind that, at present, no serious attempts have been made to prevent it.

— WHEAT of home growth has sold freely at full prices, and American and Russian have advanced 1s. per quarter. Other kinds of grain, and pulse and feeding stuffs, remain without alteration.—With only 2128 beasts on Monday, and 615 on Thursday, beasts retained previous quotations. Sheep freely made 6s. and 5s. 10d., and best calves made 6s. 4d., per 3 lb.

OUR LIVE STOCK

ON Wednesday, the 15th inst., Shobnall Grange was the scene of an attractive Shorthorn sale, long looked forward to as an event of importance among breeders of pedigree stock. The cattle, and especially the cows and heifers, were in poor and low condition, nevertheless, blood will tell, and some high prices were given, as well as a respectable average obtained over the 38 animals disposed of. The first few lots went for ordinary figures, such as might be given in open market for unpedigreed cattle of fair quality, but on the appearance of *Charming Maid*, by LORD LIVERPOOL, and of the *Charmer* by LITTLE JOHN tribe, one of the same family as *Charmer 9th*, who made so poor a price at York last week, a change took place. This heifer, although light of flesh and very poor, is exceedingly sweet-looking, and withal a good milker; and after some competition was knocked down to Mr. F. Leney's bid of 170 gs. *Purity* (lot 9), from *Purity* by ROMAN, was a bargain for Mr. Parr at 26 gs.; and *Lady Geneva*, by DUKE OF GENEVA, having attracted the attention of Lord Dunmore, would doubtless have been bought at any price. She is a well-bred heifer, two-thirds gone in calf to GRAND DUKE OF ESSEX 5TH, and was sold for 75 gs. This was followed by another succession of low prices until *Fidget 7th* appeared in the ring. In our notice of the Shobnall Grange catalogue on the 27th ult., we expressed an opinion that *Charming Maid* and *Fidget 7th*, simply on account of their lineage, would provoke considerable competition, and the result has shown the truth of our surmise. *Fidget 7th* is not a beauty, but this is not altogether an unaristocratic family. She is described by an exceedingly competent eye witness as not particularly like a Shorthorn, as unattractive in appearance, wanting in symmetry, and deficient in milking properties. She is, however, *Fidget 7th* by 8D LORD OXFORD, and she is backed by a pedigree worthy of study, and of which we give the accompanying outline:—



This representative of pure Bates blood finally became the property of Mr. F. Leney, at 210 gs. Next came *Zeal* by MOUNTBANK, daughter of lot 1, and of good old Chilton blood; she was bought by Mr. W. Fowler for 52 gs., and the same purchaser secured *Lady Geneva 2d*, by DUKE OF CUMBERLAND, and a daughter of Lord Dunmore's *Lady Geneva*, for 50 gs. The bulls met with a less ready sale. OXFORD COMET was sold as fat for 43 gs.; KING CHARMING, a son of GRAND DUKE OF ESSEX 5TH and *Charming Maid*, above spoken of, was purchased by Mr. W. Fowler for 37 gs. The 27 cows and heifers realised 1140l. 6s., or an average of 42l. 4s. 9d. each; the 11 bulls brought 272l. 9s. 6d., or an average of 24l. 15s. 5d.; while the 38 animals averaged 37l. 3s. 7d.

— The following remarks upon abortion in cows, by Mr. McCombie, of Tillyfour, are of peculiar importance at this season of the year:—When a cow is with calf she has strong sympathetic feelings. The foetus and afterbirth from a cow that has slunk are very offensive, and if left within reach the other cows will sniff at it, and bellow around it; and in a short time many more of the cows will abort. Many reasons have been given as the cause of abortion; from my own observation, frosty Turnips are one great cause, and I never allow my cows to get these. If I happen to run short of fresh Turnips from the store, I order the cows straw and water, and perhaps a little cake or corn at the same time. I have paid dearly for this experience. I believe hove to be another cause of abortion, and that particular atmospheric conditions have a good deal to do with it. The skilful veterinary surgeon should be consulted: he will, probably, recommend physic to cool the system, the foetus and placenta to be buried, the animal to be separated, and the cow-house to be disinfected. The cow should be fattened and sold, unless she be a very valuable breeding animal, as the chances are she will slunk again.

— The Rev. W. Badclyffe writes as follows:—It may be of service or interest to the readers of the *Agricultural Gazette* to know that a great many cows and heifers have gone barren this year, and a great many have slipped their calf. Mr. Stickley, dealer, of Shillingstone, told me a few days ago that, on this account, cows and calves would be scarcer and dearer, and barrenness more plentiful, than ever known. Five cows and heifers round my own door have lately slipped calf. Mr. Phillips, of this place, who buys the butter and cheese of most of the dairies for many miles round for the London market, told me that he knew of one dairy of 30 cows in which 15 only were in calf.

Sheep.—Lord Bathurst is seldom or never an exhibitor of stock out of his own county, Gloucestershire, although for size of carcass and weight of fleece his Southdowns would give way to none. At Cirencester market (6th inst.) he showed 10 very superior 6-tooth wethers, which were not considered to be sold dear at an average of 5l. 3s. 6d. each. They became the property of butchers in the neighbourhood. Some exceedingly handsome Hampshire Down sheep were disposed of at the same market. They were fed by one of the best practical farmers of the neighbourhood (Mr. Hulbert), and had been living upon cotton-cake and roots without any linseed-cake. We mention this as a good example of successful feeding with cotton-cake. As an instance of what we believe to be mere prejudice, we may mention that this substance has been accused of causing the wool to come off sheep. The coats of the animals in question were in beautiful order, but if any of our readers have really observed the wool to have been injured by the use of cotton-cake, we should be glad to know the facts of the case. We believe cotton-cake, either alone or mixed with other feeding stuffs, to be an admirable food, as was pointed out some time since by Messrs. Lawes & Gilbert.

FARM CAPITAL.

[The following paper was read on Monday evening last by Mr. J. J. Meach, before the Framlingham Farmers' Club.]

ACCEPTING the invitation given to me by your intelligent club to say a few words about agricultural capital, I approach the subject with a full appreciation of the difficulty of removing long-cherished convictions based upon the practice of our forefathers, who were, no doubt, fully entitled to our respect and confidence, but the circumstances under which they lived are now changed, and are still rapidly changing, so that we, as landlords and farmers, must deal with these altered conditions in a commercial spirit, which always adapts itself to the peculiar influences that at the time surround it. Who would have thought in my time, some 60 odd years ago, that the smoke from coal would be made to flow in underground channels, and re-appear, almost magically, in our chambers as a blazing light, sending to the shades the gloomy flickerings of the venerable oil lamp, with its contemporary dips and moulds. Again, we have no longer to beat about for three weeks within sight of Dublin harbour in the face of an adverse wind, but can now make sure our voyage with almost unerring regularity. Lovers can exchange soft words, and merchants may buy or sell cargoes at lightning speed beneath the broad Atlantic. In fact, in my early days we had no ocean steamers or railways, no gas, no telegraphs or photographs, no penny post, no cabs, omnibuses, or police; but we had to booze over our port wine because the coaches could only accommodate 20 people, who had, in many cases, to book their places a day or two previously, and then to travel at 7 or 8 miles per hour. The now broad-sheets of daily news were then puny slips, as cramped as were then our general education and literary opportunities. But mighty steam has changed all this.

And we can and must advance at modern not ancient speed. I feel sure that you will agree with me in this view of our changed position, and that both you and your landlords will gradually but surely glide into the profitable stream of steam-driven progress. It is wrong to charge agriculture alone as prejudiced and attached to old customs, for, once upon a time, even the Lord Mayor and Corporation of enterprising London petitioned the King to prevent the introduction and consumption of coal, as its smoke created such a nuisance. Now, the supply to the metropolitan district exceeds 5,000,000 of tons annually. Our principal towns once opposed the approach of railways as a nuisance, and have since repented of their folly. Even now there are people who won't believe that the safest place you can live in all your life is in a first-class railway carriage.

It is, in my opinion, too much the custom, and a

great mistake, to congratulate ourselves upon the improvements that have been made in agriculture rather than to lament over the loss of the old system, and for which there can be no compensation. That there is no lack of customers for our produce, that third of our food comes from the soil, that our population is overflowing and rapidly increasing, that we encourage foreign enterprises, instead of our own, to the increased fertilisation of our soil, that we frequently brought to public notice in the past, are mere specks upon a most extensive and fertile ground of bad and imperfect farming. We should produce more per acre in average of less than 4l. Remember that the average of Suffolk, or any particular county, is 15 millions of available acres that are not cultivated area of the United Kingdom, and that 15 millions annually to the Board of Trade.

It is not in my nature to despise the means of increasing the food of the people by a profitable and enterprising capital. I am not a believer in the system of the tenant, a farm can never be so well managed as the tenant's capital is 20l. per acre, and the landlord has effected the necessary permanent improvements.

My own small farm of 170 acres, which what should be done—for with a 16l. per acre there has been, for 10 years, an annual surplus of more than 600l. per acre and profit, after paying every outlay, and in this case the landlord (myself) has a quarter 23l. per acre, and expended nearly 1000l. on building, roads, removal of trees, and other improvements, thus raising the rent to 16l. per acre.

The time will come when a landowner will be contented, not by the number of his tenants, but by the amount of his rent-roll, the latter being a rate of rent and a well-ordered estate.

Steam-power has so multiplied the amount of employment, that we are now in a primitive pastoral period, when the land was used for sheep and the acres many. All this is being done by the use of steam-power.

	Population.
In 1820	10,000,000
" 1860	32,000,000

These thriving and hungry manufacturing districts demand more capital, and a progressive increase of practice, and a progressive increase in accordance with the rapidly-enlarging population.

A considerable area of land is now being happily, in many cases, brought to bear upon the power of intelligence and capital. It is a previous attachment to antique customs that it a disgrace to us, that wanting to be foreign Wheat annually, besides the one-half of our acreage, we remain in primitive pasturage, and employ a minimum of food, and employing a minimum of labour. I know that there is a strong feeling in favour of permanent pasture, but when I see the land so frequently, realise on my poor farms, 15l. to 26l. per acre in corn and straw, those 22,000,000 of acres of permanent pasture be starving the people by producing more than 40s. to 50s. worth of food.

How much is the Capital of the Kingdom? I mean the landowners' and tenants' capital, the average of the kingdom, the amount returned to the Board of Trade, the amount would probably be 33l. per acre, besides the value of timber, possibly 10l. The average rent is probably 10l. 5s. 000,000l. annually.

The Farmers' Capital can hardly be estimated at 27,000,000l.—I have taken the Board of Trade returns, which would show that the farmers' capital may appear low, but we must not forget that 22,500,000 acres are in permanent pasture, much of which are employing little labour or no labour, and producing I estimate as under 4s. per acre, probably 3l. 12s. would be nearer the mark.

Additional landowners' capital is required in the matter of town and country land it must ultimately go. It is with (when landowners can agree) the great Pen drainage, by Acts of Parliament, commissioners. The London sewerage is a great affair, for it takes the annual amount of 20,000 acres, landlord's measure, of London for only one day, and is not fit to feed the horses of London.

One can judge from this how great is the manurial power and value of the soil. Farmers will then have sewer meters, and have water meters, and take the water to their requirements. If I am asked where the capital is to come from, I point to the unused capital, seeking for employment in a natural channel that remains, as the covered yards, cottages, and other buildings, &c., may be all effected even to 30l. per acre, without any outlay on the owner, and at a moderate annual

able proportions between landowner and tenant, both of whom it must prove a source of profit, as well as a boon to the nation.

When I purchased my poor land in 1841, it cost me per acre I invested nearly that sum in drainage, and buildings, clearances, and machinery, so I have to pay myself 40s per acre annual rent. In 1858, I sold one field of white Wheat for per acre, and the straw for an additional 3/ 10s. My farm capital is 16l. per acre, invested as follows on 31st of last December (see p. 35 of my book, published by Reutledge & Co., Ludgate Hill, London) —

Live stock	25 10
Farm buildings	1 1
Tillage, &c., &c.	1 1
Implement and machinery	2 1
Hay, &c., &c.	5
Per acre	418 1 7

This may appear to you a large sum, especially for stock and tilages, but I want you to believe that considerable amount invested in live stock, fed on purchased food, is the very key to my profit, to those large and frequent crops which many will hardly credit until they see them. The crops arise from very deep cultivation, and a larger dose of rich cake and corn manure than generally administered. It is thus that I grow 10 tons of Mangel per acre, as I have done this year. This, too, accounts for my frequently growing 6 to 8 quarters of Wheat per acre, and on high manured Clover less two heavy crops of Wheat in succession (the second crop Rivett Wheat). Some of you have on various occasions seen my crops, and can form your own opinions. Although this is a good season, my best two fields of white Wheat yielded 6 quarters per acre, and my Barley (grown on 6 quarters of white Wheat) was threshed last week, and yielded over 6 1/2 quarters per acre, sold at 38s 1/2 per quarter. The quantity of seed Wheat drilled was 1 bushel per acre, and of Barley 6 pecks per acre. This has not been a good year for arable land farmers, for the crops vary a good deal, and the price of Wheat is now very low. Stock breeders have the best of it this year, as the abundant crops of roots and hay have caused a large demand for their store stock at higher prices. My Barley, however, suffered severely in 1868 from the drought, while the arable farmers prospered, especially on heavy lands.

My experience has taught me that on such farms as will pay a much better profit on one acre on two. Poor farms require more manure, and consequently more live stock than rich farms, and, of course, much food must be provided that did not grow on the farm, thus adding to its fertility. Many Norfolk and Lincolnshire farmers have from 20l. to 30l. per acre capital. They are thus enabled to hold their corn proper time, keep plenty of stock, and purchase food at a low price. I should do better than I do now had I 20l. to 30l. per acre capital; 16l. is not enough. I presume, from my knowledge of Suffolk, that its general tenants' capital does not exceed 7l. to 8l. per acre, and that there is ample room for investment of landlords' capital in drainage, buildings, and other necessary improvements. It is true that you have more grass-land than I have, but I predict that the introduction of steam cultivation will annually diminish the amount of pasture, especially of poor pasture in heavy lands. Steam cultivation will place land in a more favourable position than it has hitherto had. The advantages of ample capital are obvious. You can buy when other people are obliged to sell, and sell when other people are compelled to buy, and can maintain ample stock and machinery. Ample capital sometimes leads farmers to hold their corn when they ought to sell it. As a safe maxim, I would say, always sell Wheat at 10s. per quarter, but sell when it is at 12s. I have known of a good deal of money lost by farmers who always hold their corn for a higher price than buyers are willing to give. We see, in consequence, old corn stacks riddled by rats and mice, and, when threshed, minus the grain. Capital with judgment is an immense power, and only fails when it is untrained.

If I am asked how I would employ additional capital, I reply that our subsoil, immediately below the ploughed soil, is now a mass of undisturbed poverty, unmanured, and unfit for the roots of our plants, we dare not, in its present unwholesome state, bring it to the surface and bury our top soil. We would, therefore, uncover the subsoil by ridging or ploughing together the top soil, and incorporate with the subsoil an immense quantity of rich manure. To obtain this additional manure, a large capital must be invested in live stock and purchased food. In fact, to farm to the greatest advantage, the soil and subsoil, to a depth of 3 feet, should be well manured; now, we only manure the top 5 or 6 inches. Our root and other crops can never be over manured, for they feed the deep subsoil when in a fit condition. Market gardeners understand this well, and around the metropolis they easily grow 70 tons of Mangel per acre, and other crops in proportion. This system of large capital and highly manuring has an immediate bearing upon the growth of Beet-roots, either for sugar or for distilling. In times to come, factories for both purposes will be greatly multiplied. Landowners are very anxious on this point. They say to me, "It is all very well for our tenants to pull off their roots, but how about the restoration of the soil?" My reply is, let them farm as they like, provided they invest a capital of 15l. to 20l. per acre, one-half of it invested in cake-fed live stock. The frequent growth of Red Clover and Swedes is rendered possible by the absence of manure in the subsoil. Baron Liebig, and the late Rev. Samuel Smith, of Lois Weedon, well understood this. Before

free trade, "Down corn, down horn" was the motto. Since then bread, milk, butter, and cheese have increased in price, and are free from the fluctuations that occasionally, as at present, depress the price of Wheat. Let us, therefore, go in for more live stock and more capital. The return of the Beet pulp to the soil restores most of its inorganic elements, and they to some extent prevent exhaustion.

Live stock purchased cheaply in July, when feed is scarce, pays well for carrying on with a little cut straw, cake, &c., until the root season commences. Poor land may be almost immediately made fertile by heavily folding with sheep, consuming 10l. or 15l. worth per acre of cake, corn, hay, roots, &c., not the produce of the land on which the sheep are placed — supposing that there should be a loss even of 3/ to 5/ per acre — great will be the after gain. This system requires capital, but where there is capital, it is by far cheaper than guano or other artificial manures. Where my 40 tons of Mangel per acre grew this year, the land was autumn-manured with shed manure at the rate of 20l. worth of cake, &c., consumed for every acre manured, and some guano in addition. This is what I call capital farming, as well as farming with sufficient capital. It is the true way to make land pay. The land of England is generally not one-third manured. One can never over-manure or over-manure, for a root crop especially when, like mine, it follows two Wheat crops, and is followed by another Wheat crop. There is no need for landowners to tie down tenants who farm with a capital of 20l. to 30l. per acre. Their land must improve.

Your Sugar-Beet land should be all richly manured and very deeply cultivated before Christmas, and only scarified and guanoed before sowing in April. This I find is the best plan for Mangel.

My farm is all arable except 14 acres of permanent pasture. I have no fences except an external one, and I am very glad to hear that some of your distinguished landowners have realised the propriety of removing many of those fences and pollard trees that disfigure the country and prevent the farmer from deriving the full benefit of his land, for you know he has to pay rent for the ground occupied by fences, trees, and their roots, besides suffering a diminution in his crops. A farmer of 600 acres told me the other day that he offered his landlord an extra 100l. per annum rent, provided he might clear the ground of those obnoxious and unprofitable obstructions to good tillage. Yet his offer was declined, although the growth of the timber did not come to one-fourth of the proffered annual increase of rent.

Now that 30-horse power steam-engines are cultivating 36 acres per day, we shall soon see such a clearance as at one time was never anticipated. Said an implement maker to me at the show last week, "A farmer declined to buy one of the great traction-engines because his gateways were too narrow." The implement maker wondered, smiled sarcastically, and thought many things — some of which he told me.

Remember, that while I advocate ample fields untimbered, I strongly urge the formation of plantations or belts at intervals, not only as shelter, but as breeding places for birds — the farmer's friends. We must remember that as we clear and drain the country, we not only produce a drier and warmer climate, but our buildings should be strong enough to resist the gales that will sweep less interruptedly over the country.

By the way, speaking of tillage, my trustworthy friend, the Rev. Mr. C., plumbed the depth of the cultivation at Buscot, near Farringdon, the other day, and found it to be 30 inches. It was done by two of Fowler's 30-horse power engines, and when the land is cross cultivated the depth is to be 3 feet — in preparation for Sugar-Beet. My shallow-drainage friends may as well take a hint, and consider whether even 4 feet will be deep enough when the 50-horse engines are put to work.

We are on the eve of many great changes — your middle-class college, so creditable to Suffolk, is doing much to enlighten the rising generation of agriculturists. The Royal Agricultural College at Cirencester, in which I, many years ago, took a great interest, has now become an established institution, granting diplomas for agricultural efficiency, and sending forth men learned in the theory as well as practice of agriculture. I begin therefore to hope that the peroration to a lecture which I delivered at Chelmsford in 1852 (17 years ago) may soon be in some degree realised. I therefore give it as a conclusion to this long paper, which you have heard so patiently, trusting that I may ultimately be found a true prophet.

"I see in perspective a railway activity pervading agriculture. The time is coming when farms will be squared, trees removed, and game moderated, when tramways will intersect estates, and one horse will draw to market the load of four; when the sewage of our towns will ebb back to its original source, when the waters of our rivers and drains will be applied to the irrigation of fields, when our millers will use steam instead of water, when our farmers and their children will be better educated and rank higher in the social scale, when our labourers will be better housed, taught, and fed. Then will the blundering rudeness and clumsiness of ignorance be exchanged for the watchfulness and thought of an enlightened intelligence, then will the fractional calculations of profit outweigh the fears of cost, then will antiquated territorial legalities be superseded by personal responsibility, identity, and possession.

"I see all this in the distance, it is a mere question of time. I see mighty engines on railwayed open fields, tearing up furrows a yard deep, making the land look like a sea. I see those hungry earthy masses saturated and immediately fertilised with the sewage of towns. I see ample evaporation and facile percolation. Tottering and dilapidated

farmeries will give way to permanent and convenient homesteads, the pinching enemy of a penurious and pernicious system will be exchanged for liberal views and large operations, capital will develop its giant strength, unfettered by seigniorial restrictions, agriculture, commerce, and manufactures will unite by the ties of a great common interest and common intelligence for the good of our people and for the honour of this great nation."

CONTINENTAL AGRICULTURAL NOTES. FROM BRITISH CONSULS' REPORTS.

Trebizond, Turkey — This province being mostly mountainous, the stock of horned cattle is neither large nor fine, nor is any attempt made by the peasants to improve the breed, but the sheep and goat stock is very abundant. A rough computation, based on the quota furnished by the yearly sheep-tax, gives about 1,500,000 head for the entire province. The wool is much esteemed and largely exported; it approaches that of Angora in quality. Cattle plague breaks out here from time to time, but, thanks to quarantine regulations, and still more perhaps to the difficulties and infrequency of local communication, seldom spreads.

France — The increased value of the imports of cattle during the year 1868 over previous years is worthy of remark, because of the stringent measures in force against the importation of cattle supposed to be infected with the prevalent disease. It is a singular fact also that the Government, while taking precautions against the introduction of a disease from foreign countries, is actually investigating the nature of an indigenous one, which has for many years caused great ravages amongst the live stock in some parts of France. As the Commission appointed for this purpose has not yet published its report, I can only state some general facts concerning it. This disease is peculiar to the Departments of the Cantal and Puy de Dôme in the centre of France, and is known by the name of "Mal de Montagne." It infects the cattle fed upon the highlands of these departments, which form a vast volcanic plateau about 3500 feet above the level of the sea. The Southern and Western Departments are supplied with cattle from these pastures, and almost all the young beasts which are fattened in Normandy are bred here. Large quantities of cheese are also made in these districts. It seems to be established that the malady consists in an affection of the viscera of the animals, caused by the presence in the blood of an undue quantity of carbon, whether produced by the peculiar properties of the flora or water remains doubtful. Although it does not extend to the neighbouring districts, and has not hitherto been considered contagious, it is, I think, questionable, whether cattle infected with it, and removed to the other pastures, may not reproduce it, under different conditions, in a more virulent and even contagious form.

Uruguay — With regard to the trade in fresh beef and mutton, and in Extractum Carnis, in Uruguay, the report says: — A new branch of exportation, which, if reduced to a certainty of success in the means applied to render it marketable in Europe, would soon become very extensive, is that of the preserved fresh beef and mutton; but as yet, of the many methods for its preservation of which experiments have been made, none appears to have effected the result desired, that of producing for European consumption an acceptable article. The meat of this country is without fat and comparatively insipid. Of the Extractum Carnis, or essence of meat, prepared on Baron Liebig's system, at the very complete works of the company at Fray Bentos, the exportation is on a large scale, 50,000 lb a month of the extract being the calculated amount to be shipped in 1869. With regard to the crops grown in the republic of Uruguay, Wheat and Maize are the only corn crops raised, for both of which the soil and climate are highly favourable. There is, however, compared with the amount of corn consumed, a very small extent of land in the republic under cultivation, though during the last few years Wheat growing has become more followed as a regular means of income than formerly. The introduction of American ploughs and other implements of husbandry having made the labour lighter, and the rapid increase of population in the towns requiring a supply far beyond the production of the country.

Harvest in Morocco — The prospects of the year were cheering, the rains having fallen at opportune intervals; crops of all kinds promise well, and there is great hope of an abundant harvest. The prices of Wheat and Barley are consequently unusually low. The pasturage is also very fine, and cattle are in an exceptionally fine condition.

Memel — The state of this part of the province of Prussia with respect to agriculture is by no means flourishing, and it is, therefore, not wonderful that the unprecedented distress which prevailed amongst most classes of the inhabitants, in consequence of the total failure of the harvest of 1867, has completely ruined a large number of landed proprietors.

Spain — The state of agriculture is said to be improving in Majorca, and cultivation increasing, and with few exceptions, the quantity of produce has increased, and the quality improved in this island. The climate of Minorca, although the island is exposed to strong and blasting winds from the north, is healthy and mild, its soil, full of rocks and with little vegetable earth, is dry and arid, yet in the years of sufficient rainfall it yields abundant crops, as in the case of the present year, when the prospect of an unusually good harvest has already tended to lower prices generally. The principal agricultural produce of Minorca consists of Wheat of excellent quality, and cattle. The Wheat is far superior to that imported, and commands a much higher price. It seems to retain its good qualities in other soils, a sample which was recently sent to the United States gave a most satisfactory result, and

an order now exists on the island for 1000 bushels to be sent to the States for seed. The pastures which this island naturally yield hitherto constituted almost the exclusive food of the cattle, which in the years of drought were left to perish of hunger, particularly in the northern part of the island, where this calamity is more frequent. This state of things occasioned considerable losses to the landowners, and has induced them of late to take new measures for the necessary feeding of the animals. Stalls have now been built on many farms, where the cattle are protected from the rigours of the winter or the heat of the summer, and the culture of a new plant has been introduced, which is likely to produce important beneficial changes. This plant, said to be a native of Spain, is named "Mover," or "Zulla," and appears to have been imported from England, where it is also cultivated, and known by the names of Spanish Trefoil and Clover-grass. It has proved on the island an excellent food for the cattle, and, as a proof of the good results of its culture, it will be sufficient to mention that on one farm it yielded 85 quintals of dry forage per acre.

The division of land into small lots by stone walls, which is so striking to the eye of the foreigner, is explained as a necessary employment of the rock in which the earth abounds; while serving to protect the crops from the effect of wind, it also renders unnecessary the employment of cattle-keepers.

The labour, care, and attention bestowed by the inhabitants of this island on the cultivation of its rocky soil are beyond all praise. It is hardly an exaggeration to say that every yard of land is highly cultivated and made the most of, while it is a matter of surprise that so much can be produced on ground which is in many parts rock hardly covered by an inch of earth. The farms in nearly all cases are cultivated by the peasantry, who live upon them, and who provide seed, &c., and pay the working expenses, dividing the profits with the landowners. This system, while it stimulates the energy of the farmer, seems to conduce to the apparent inactivity of the upper classes, who are the chief landowners, who, relieved of the cares of their estates, having no commercial pursuits, and removed from the active scenes in politics, which engross the attention of the continent, seem almost to rest in a prolonged "siesta," leaving the country people, with whom they share the profits of their estates, the fatigue almost of thought as well as of labour. But the number of proprietors in proportion to the population is extraordinary. At Mahon, for instance, with a population of 15,000 inhabitants, there are nearly 2000 landowners. The land is consequently divided into very small estates, which are in great demand, although not producing, as an investment, on an average above 3 per cent. on the capital. J. R. J.

STALL FEEDING.

To enter fully into the details connected with stall-feeding requires much knowledge, both theoretical and practical; but having last season successfully tried a system little used on this side of the water, I conceive I am only doing my duty towards those around me by making it generally known. In one of my out-buildings I had fixed two 60-gallon iron boilers; these were set in brickwork, with flues around them, and leading to the same chimney. In the same house were placed two large wooden tanks, 9 feet long by 3½ at the top and 2½ at the bottom; one had a lid to it; their height is about 3 feet. The above named are for the preparation of the night feed, which consists of a bushel of oaten straw mixed with from ½ lb. Locust beans and 1 lb. rape-cake to 1¼ of the former and 1 of the latter. It is cooked as follows.—About half a gallon per head of cattle is placed in one of the boilers, and when boiling, the cake and beans, previously broken into moderately-sized pieces, are added, and formed into soup; a foot deep of the chaff is then put into the tank, with a lid to it, and a portion of the soup ladled over it. The whole is stirred up and pressed down with an ordinary fork, another foot of the straw and more of the liquid poured over it, &c., till the bushel per head and the boiler's contents are mixed together; the lid is then closed till an hour before feeding time, and when the food is taken out it has a pleasant smell, and appears as if it had been steamed. At the morning and mid-day feeds each beast consumes 35 lb. pulped roots and a bushel of oaten straw chaffed. My feeding hours are 6 A.M. and 6 P.M., punctually. The other boiler and tank are for boiling pig's food. Labour is thus economized, for the same man and boy who attend my 20 stall-feeders look after an equal number of swine. The cost is, per 30-day month:—

8 lb. rape-cake a-day, or 6½ stones in 30 days, at 7½ 10s per ton	20 6 4
1 lb. Locust beans a-day, or 2 1-7th stones, in 30 days, at 8s. a ton	0 2 4
12 lb. oaten straw a-day or 3¼ cwt in 30 days, at 35s. a ton	0 5 8
5 stones roots a-day, or nearly a ton in 30 days, at 13s. 4d. a ton	0 13 4
Labour, each beast	0 3 0
Firing	0 1 0
	£11 8

You will perceive I have charged oaten straw at 35s., Turnips at 13s. 4d. a ton, and labour at full rate, thus obtaining that for the pigs gratis. The cake, firing, &c., is at cost price. I mix chaffed hay with the oaten straw during the last three weeks. This I have not charged in the above, but in the total, subsequently given, I debit myself with 2s. per head. The 20 beasts put into the stalls by me on November 3 were valued by a good practical farmer at 12l. 10s. each. On January 6 I sold the four smallest at 16l. 10s. each nett. Deduct 2 1-10th month's feeding at 1l. 11s. 8d., together with 2s. extra for hay, or 3l. 8s. 6d., and I had a profit of 11s. 6d. a head, or 2l. 6s. on the four.

On January 8 six more were disposed of at 20l. These were 2 1-16th months in the stalls—3l. 8s. 7d., and 2s. for difference between hay and oaten straw—3l. 10s. 7d. This left a balance in my favour of 4l. 1s. 5d. each, or 24l. 8s. 6d. on the lot. On March 11 five more realized in Dublin, clear of all expenses, 22l. 2s. 4d. each, four and a half months as before, and hay amounted to 6l. 14s. 7d., leaving me 2l. 17s. 9d. each, or 14l. 8s. 9d. on the five. The remaining five I kept till May 2, when they fetched only 21l. 6s. each clear, or 8l. 16s. more than cost price. Their feeding for six months was 9l. 12s., I therefore lost 16s. a head on these, or 4l. On January 21 I bought five heifers at 15l. 5s. These on May 2 made 21l. 6s., or a profit, after deducting 3 2-5ths months' keep, &c. (5l. 7s. 3d.), of 11s. 9d. a head, or 2l. 18s. 9d. Thus it will be seen that on the season I cleared over 40l., besides having all the manure for nothing, and this after using my roots at 19l. 17s. 6d., and my oaten straw at 2l. 12s. 6d. per acre. If we count the value of the dung as estimated by Lawes, viz:—

3 tons of rape-cake, at 4l. 18s.	.. ..	£14 14 0
1 ton of Locust beans, at 2l. 2s. 6d.	.. ..	2 2 6
108 tons of Swedes, at 4s. 3d.	.. ..	22 19 0
15 tons of oaten straw, at 13s. 6d.	.. ..	10 2 6
1 ton of hay, at 30s.	.. ..	1 10 0

It amounts to £51 8 0

I had 30 tons of Swedes to the acre. Thus, in round numbers, three and a-half acres gave me the profit of over 91l. I believe the usual custom in Ireland is to give from 10 to 12 stones of roots a day to each stall-feeder. If so, only half the number can be fattened. I contend, therefore, that if I can, with the addition of artificial foods, turn out fat double the number of cattle, off an equal extent of Turnips, than is done by the generality of my neighbours, and thus (for the sake of argument) with the same money profit, I am farming more successfully than they are. We all know that the manure formed from animals fed with rape-cake, &c., must be of a better quality than that obtained from roots and hay only. My land is receiving the benefit, and my subsequent crops must eventually be heavier. I use the word eventually advisedly, as there may be some around me who, in the course of discussion, and to prove the goodness of their own system, may challenge me to show an equal amount of grain off an acre of my lands to that grown by them last season; and, in all probability, I should be unable to do so. Their lands may be rank; mine is not, but will be, I hope, in the course of time. We should, therefore, not meet on equal terms. It may be urged that the system I am now advocating is troublesome. I will grant that it is for the first day or two, but when the men get into the regular routine all goes smoothly, and there is little difficulty in pulping and chaffing if you do it by intermediate motion affixed to your horse-power threshing-machine. Mr. O'Neill fixed mine at a slight expense, and one horse will cut and pulp enough for 20 beasts and 4 cows in about an hour. In England, where stall-feeding is carried out to a greater extent, the practice of the above system is, I am informed, yearly on the increase. Mechi, one of the most distinguished farmers of the day, speaks most strongly in favour of rape over linseed-cake. He says it has more fattening qualities, and the manure from a ton of the former is valued at 1l. 18s., while that from an equal quantity of the latter is only estimated at 4l. 12s. If such is the case, and one is 50 per cent. cheaper than the other, it is quite evident which is the most profitable to the farmer. Locust beans are mixed with the rape-cake to take away the flavour, which otherwise at first is distasteful. I found only two cases out of 25 where the beast did not take to the prepared food at once. A few gentlemen have inspected my mode of preparing food for cattle—I believe approving of it; and it will always give me great pleasure to demonstrate the working, or lay my accounts before anyone who will favour me with a visit at Raheenberry. [Captain Morgan, before the Athy Farmers' Club.]

Home Correspondence.

Draining.—I rent this place (about five acres and a house) of Lord Rivers. The field did not want draining, but the three gardens and lawn—about two acres—were a swamp. My residence and gardens are on the highest ground on Okeford Fitzpaine, which was so wet, that it was in vain to think of gardening till the land was drained. So I consulted Mr. Todd, yeoman, and tenant of Lord Rivers, of this place, and he and his men drained it thoroughly for me. The general depth of the drains is 3 feet 6 inches. In some places the drains are 6 feet deep. The materials used are tiles. The gardens are now healthy, and the lawn is full of Dutch Clover and Hop, of which, before draining, there was no sign. The lawn is now firm instead of being swampy. I elicited from him and his men the following.—"The head of the water is usually round the crown of the highest ground, where it is hard enough to thresh corn; the swampy part of a field is the subsidence the head of the water must be cut off; there is no settled depth for draining, at whatever depth the water lies, there you must put the drain; the under-water being carried off by the drain, the top-water subsides into its place, and is thus carried off. The distance at which drains are placed depends on the nature of the soil; swampy light lands will not bear such severe drainage as heavy lands, as they will "bleed" too much; after draining, all grass-land should be top-dressed; our forefathers cut the drains athwart the slope of the field, but experienced drainers cut the drains with the slope; if strong land is deeply broken up by steam-ploughing, the drains need not be so near as when the land is ploughed by horses. If land is very wet and very heavy, the drains should be 8 (or 18) feet apart; after the drain-tiles are put in, brushwood should be put over them, or the

clod reversed should be placed over them, to prevent the soil from running into the drains."
W. F. Radclyffe, Ross Hill House, Okeford Fitzpaine, Dorset.

Scientific Book-keeping.—In Morton's "Handbook of Agriculture," also Professor Wainman's "Farm Crops," tables are given showing the several crops grown by the farmer extract from the soil. Having, according to the instructions in the strong recommendation with which it is put up, made up an account against my constituents drawn from the soil, I am now showing what I have returned to the land, and a standstill for want of corresponding tables for the analysis of manures. I purchased Johnson's new work, "How Crops Grow," get the information I am in search of, and the preface I am doomed to disappointment.—"The modes in which plants absorb their food but partially discussed in the present work, the subject would, in fact, have involved the soil and manures, and consequently an entire new idea of the work." I hope the learned author send out another volume, containing what has of space, been crowded out. In the "Handbook," p. 144, it is shown that a crop of Wheat, 25 bushels, at 60 lb. the bushel, that is 1500 lb. the straw is generally twice the weight of the grain, its produce will be 3000 lb. On this the grain of Wheat containing 1.67 of straw, there will be carried away in 1500 lb. of the grain, 25 lb. of straw, or 3000 lb. of straw 153 lb.; total, 178 lb. For the sake of round numbers, the mineral matter in the straw may be taken as 10 per cent. Then, on the average of the analyses, the soil will be composed as follows:—

Potash	.. ..	25.00
Soda	.. ..	1.00
Magnesia	.. ..	3.87
Lime	.. ..	0.85
Phosphoric acid	.. ..	11.47
Sulphuric acid	.. ..	0.05
Silica	.. ..	0.84
Peroxide of iron and loss	.. ..	0.20
Chloride of sodium	.. ..	0.03
		52.31

Now, how much of these several constituents equivalent, do I return to the soil in 3 cwt. of average manure, or 3 cwt. of superphosphate and 2 cwt. guano, in mustard and other crops ploughed in, &c.? Such information may be already published, but any aid will lighten the one who has not had the advantages of Training.

Societies.

CIRENCESTER.

"The Landowners."—At the annual meeting of the Cirencester Agricultural Society the health of Lord Bathurst and the address given by Sir CRECIL BEADON, who addressed myself particularly to the tenants, and venture confidently to think that there are amongst us who does not regard the landed property, as it exists in these times, as the very foundation of agricultural progress and prosperity, the only system in which, by the application of science and capital to the soil, it can be made to yield all that the soil and labour can extract from it, and to contribute adequately towards the support of our increasing population. Perhaps it is the accumulation of land in the hands of a few, which may be carried to such an extent as to be injurious to the interests of the state. In my hand there can be no doubt it is perfectly possible, without large properties there would be no agriculture, and without such large farms as are possible, the existing system any considerable development of the productive powers of the land by means of steam cultivation would be practically impossible. We have only to look to France, where a deplorable extent the agriculture of the country is crippled and ruined by the subdivision of land, and we may draw from the spectacle a salutary conclusion. It may also, gentlemen, be remembered that if the rights of the greater landowners should under any circumstances be assailed, the position of the smaller tenant-farmers would be by no means what we should like to see. There are men in Ireland not only fixity of tenure, but a parliamentary grant of a property interest in the soil, where the position of a landowner would be reduced to every cottage and a plot of ground with perhaps a few acres of work at the cost of the State. This may appear to us chimerical and extravagant, but certainly are people who entertain them, and I think it is to be remembered that the whole of the United Kingdom is altogether inseparably connected, and its sustenance for its teeming population must be for the interests of all that the State be so disposed as to make it capable of the greatest possible return; and this is the effect of the present system. It seems to me, agriculturists or as taxpayers, is seen to concern us to protect the rights of the tenant, and I cannot for myself desire that the Parliament comes to deal with the Irish land, that, while it is ready to offer every facility

the tenant, it will peremptorily reject any measure which is calculated to disturb the rights of property, and which tends to the ruin of scientific agriculture, and the maintenance of proletarian peasantry by the general taxes of the country.

Mr. MASTER proposed "The Tenant's Bill." I may claim for the tenantry of this country the reciprocal feeling, that the land is a trust, and the interest for the welfare of the country which we consider very valuable in itself as well as for the land. I am not one of the standard-bearers of the bill, but I have considerable doubts whether the views of the proprietors or occupiers are prepared to endorse those views we read of continually, I may call them those views, advocated by a certain school in this country. With reference to the management and cultivation of our estates we must all rejoice, I think, at the increased interest manifested throughout the country in the agricultural labourer. Very much remains to be done. First and foremost, I believe, is the improvement in their dwellings. I can speak as a landowner, and I am sure every landowner will agree with me that this is a slow process. I wish it could get through it quicker, and perhaps we have somewhat disappointed others that we don't seem to progress more hastily. Then we have the question of education pressing upon us. I hope and trust that the present will set their faces against the godless education advocated by a certain school in this country. I don't see how we can make head against it if we give education without religion. How are you to make head against vice if you give no sound religious foundation to work upon? I know these remarks are somewhat stale, but nevertheless I think they cannot be too often repeated. I will now give "The Tenants," and I venture to express a hope that not only tenants but landlords will prove themselves fully equal to their increasing responsibilities.

Mr. RUCK said I beg to return you our best thanks for the honour you have done us in drinking our good health as tenants. There is an old saying that landlord, tenant, and labourer must sink or swim in the same boat. I am almost afraid that the old saying is so long forgotten that it is not always now adhered to; and the rule of life now seems to be everybody to take care of himself. Now, it so happens that word or two has been said about the agricultural labourer. This morning I looked over some of my books, and I find I have men living rent free, and taking wages from me of from 70% to 80% per annum. We just now a remark that the Irish were going to have a plot of land and a cottage to live in. Compare that with what the labourer takes from me. He takes from me five acres of the best Wheat I have grown in the county of Gloucester on eight acres a year, what I take from those little occupiers. They may chafe enough to keep their families, but what we do with those who don't live in a cottage at all? I can say I do wish the landlords would sweep away many of their restrictions from their statute books. I feel convinced that if the tenant had what property it is desirable he should have, he would not only improve his own estate but he would improve the land and the labourer and the country generally. On behalf of the tenants, I beg to thank you for your remarks.

"The Labourer"—Mr. BAZLEY gave this toast, the condition of the agricultural labourer, he said, is employment and subsistence for the great body of the people. Our population increases rapidly, and the opportunities for employment do not appear to increase in the same proportion. In passing through the country one can hardly be struck with the magnitude of the farms and the size of the farms. Now I am not going to say anything in contradiction of large farms, but here capital is available there is no doubt that large farms can be managed more profitably than small ones. I know more than one estate where the largest farm is managed on practically the best, but like the manufacture, like the railway, they must be conducted on commercial principles; and I venture to suggest whether it would not sometimes pay better for the farmer to be content with a less amount of acreage, to pay a less rent for that quantity, to cultivate it more fully, and to employ more labour and to pay more wages. But there are two kinds of capital required for the efficient cultivation. There is the man's capital, but there is also the landlord's capital, which is necessary for the erection of suitable buildings, and very often this latter capital is not forthcoming. I will venture to place my Lord Bathurst in a witness box on this occasion. You have heard his speech deplore that many landlords who are called upon to make improvements are really unable. But should this be so? The wealth of the country increases in a rapid ratio. The English people are able to invest their savings in all sorts of schemes, at home and abroad, limited and unlimited, but as a rule the spare capital of the country does not find its way to the land. For the existing laws with respect to the transfer of land are such that in their operation, in many instances, the legal difficulties are insurmountable in the way of investing money upon the land. I do not hesitate to avow my conviction that the laws of strict settlement and entail are those which have kept the land in an uncultivated state, which lend a shadow to the substance has gone which keeps the land in a state of stagnation and prevent an increase in the employment of the people. There is another point upon which I have a strong objection to the operation of the Game Laws. Generally, the gentlemen who object to the Game Laws are not themselves. I have myself a strong objection to them as they now stand, but then I am no sports-

man; and it is, therefore, no credit to me to say to Mr. Edmonds, when he complains of the great damage done by the rabbits, to tell him to shoot, ferret, or kill them to his heart's content. I am happy to see so eminent an agriculturist upon such reasonable terms.

"The Experimental Committee of the Cirencester Chamber of Agriculture."—In acknowledging this toast, Professor WILKINSON said I will not detain you with anything like a speech, but I may mention that between 110 and 120 experiments have been planned and treated in various ways by various gentlemen connected with the Chamber of Agriculture, at the suggestion of the Experimental Committee. I do not think there is any one in this room who will doubt the advantage of accurate experiments. Whenever we meet with farmers we hear them speak of various experiments which they have been undertaking, one has tried a certain method, another another, but those who have tried agricultural experiments in a more exact way find that little dependence can be placed upon results which are only judged by the eye, the crop may appear better, and the scales and balances may prove that it is really worse. On the other hand, in the Chamber experiments, the exact amount of manure has been known, its chemical constituents, and the exact weight of its produce ascertained. That has been the object of the gentlemen who have carried on the work of the experiments, and I may say that the results have been of a very interesting character, without troubling you with figures. We have tried experiments upon various kinds of tillage, we have had our Wheat drilled at various depths. The manures which had been used have been taken from the same sample, and subjected to analysis in the college laboratory. In trying experiments we make the conditions as simple as possible, and I believe that is a great point in trying agricultural experiments. Cirencester has been spoken of as the metropolis of the Cotswolds, and I should like to find co-operation with the sub-committee of this Chamber over the whole of the Cotswold hills, and farmers undertaking experiments in connection with the Cirencester Chamber of Agriculture. I think I may very briefly recount the system upon which we go. We endeavour to obtain as many practical farmers as possible to try the experiment—seven or eight—I should like to see 20 farmers—and the results are all the produce of one season. The experiments made in one season cannot be taken as an index of what would be the produce of the next, and this is the cause of the unreliability of many of the experiments made by solitary experimentalists. We are therefore careful to get the results all in one season, and if you have numerous experiments all accurately made in one season I think you have very good data to go upon.

"The Royal Agricultural College."—In returning thanks, Mr. HOLLAND said I remember when there were no Chambers. We had our own county agricultural meetings, but they were in the open air or under tents, and a strange history I could tell you of what had passed in the quarter of a century in which I have been connected with it. During that time many faces have disappeared, many faces have grown old, and in addition to that many faces are so covered with beards and moustaches that I do not recognise them. I have seen many curious things in this room. Twenty years ago no gentleman would sit in his chair without having his pipe and his brandy and water. I remember one gentleman—I won't say whom—making a speech about science and the march of intellect, and characterising the man of science as one who would walk after a cow with a teaspoon, and when the cow had a natural occasion would carefully taste the results with his teaspoon. On one memorable occasion the noble lord who now sits on the right of the chairman really was obliged to leave the room immediately. In that five and twenty years we have made many advances, and I do for myself feel proud of being one of the humble individuals who have been connected with that advance. Allusion has been made to the old saying that the landlord and tenant must sink or swim in the same boat, but the difference is that in those days the landlord was the sifter and the tenant the puller, and now they are working together for their mutual interest. The manufacturer has a great advantage over the agriculturist in one respect. He calls to his scientific man and orders him to prepare a certain dye—the dye is made, the pot is put on, but it boils over and the dye is lost. Well, he has only to call his scientific man and leave the pot fixed again, but the farmer if he has his crop must wait for another season, and therefore more than in any other branch of industry the farmer requires such knowledge as will prevent him from making any mistakes, which shows that he ought to have some knowledge of science. Since our land is limited we must make it as productive as we can, and I believe a great deal is to be done by deep cultivation.

Reviews.

"The Farmers' Almanac, 1870." By Cuthbert W. Johnson and W. Ridgway, 169, Piccadilly.
"Morton's New Farmers' Almanac, 1870." Edited by J. C. Morton. London and New York: Cassell, Petter & Galpin.
"The Illustrated Farmers' and Gardeners' Almanac, 1870." Fleet Street, London.
"The Rural Almanac and Sportsman's Illustrated Calendar, 1870." The Field Office, 336, Strand, W.C.
We name them in the order of their seniority. Johnson and Shaw's Almanac, now in its 30th year, is a tall and various, readable and sprightly, as ever. Mr. Cuthbert Johnson confers a real agricultural benefit on his generation by his annual publication. The "New Farmers' Almanac," already in its 15th year,

is a closely packed, but heavier-looking compilation, containing, however, a quantity of useful reading, some of which is provided expressly for this publication. We extract paragraphs on food for invalids, and on art milk, both of which are certain to do good by this publication of them.

"Food for Invalids."—In the preparation of a nutritive diet for invalids, the great object in view is the production of a material which shall contain all the constituents requisite for the support of life. It is not necessary that the diet should be composed of any particular food, with the exception of the indispensable elements of life, such as oxygen, hydrogen, carbon, and nitrogen. The diet should be such as to contain all the elements of life, and to be such as to be easily assimilated. It is absolutely necessary that a fresh quantity should be prepared every 12 hours, and it is scarcely necessary to add that the strictest cleanliness in all the vessels is indispensable. Many an infant at the point of death from prolonged diarrhoea has been saved by the use of this artificial milk.

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The "Illustrated Farmers' and Gardeners Almanac" contains 104 large quarto pages, of which pp 25-82 are republished from year to year, and sadly want re-editing. What kind of instruction is conveyed by telling the reader that "Wheat straw contains 70 lb." and "Barley-meal 84 lb. of real food in every 100 lb."? The remaining pages of this Almanac are fully illustrated with drawings of cattle, implements, and plants.

The "Rural Almanac" is a beautifully illustrated quarto, full of information and interest to the sportsman and naturalist, also serviceable often to the agriculturist. The following paragraph is the last bit of its last page—

"Cattle Rest."—A pole 7 inches square is sawed from corner to corner, thus forming two triangular pieces, with a base of nearly 7 inches each. These pieces are joined at one edge by common iron butt hinges, the number varying with the length of the poles, which have a handle at each end to open them. When open, with the angles downwards, there is a safe and easy foot bridge about 14 inches wide; but when shut, with the one flat surface on the top of the other, there is presented only the sharp angular projection, over which neither cattle nor sheep can pass, and which, moreover, throws off the wet, and protects the under run from the effects of the weather.

Farm Memoranda.

MR. ALLAN POLLOK'S ESTATES IN GALWAY.—Mr. Pollok's two estates comprise an area of some 32,000 acres, of which 25,000 are arable, and they were purchased some 15 years ago at a cost—I do not here pretend to accuracy—of not less than 500,000£. The lands when they came into Mr. Pollok's hands were in the condition of most Galway estates; that is, they were for the most part held by a peasantry of small farmers and cottiers, they had been much exhausted after the famine, and their resources had never been developed. It is easy to imagine what their look then was—rude tracts broken into narrow fields, ill-drained and divided by unsightly fences, with scanty crops and inferior cattle, and covered over with small dwellings inhabited by a dense population. Mr. Pollok's first care was to buy out almost every one of these petty holders, to convert some into farm-labourers, and to induce others to emigrate to the west, and having by a process, not ungentle indeed, yet rather painful, made a *tabula rasa* of this enormous area, he applied himself to improving the lands, to bringing them under thorough cultivation, and farming them upon the best Scotch system. It is unnecessary to say how dikes were levelled and fields squared into vast breadths, what miles upon miles of drains were opened; how, in the place of the Irish village, the huge solitary standing rose at wide distances; what

thousands of tons of artificial manures were lavished upon the hungry soil; what sheets of Turnips and masses of corn were grown where the plough had never been before; how the hills were covered with the finest kine and sheep; how, in a word, capital and science transformed these great tracts by degrees, as if by magic. The carrying out this social revolution cost not less certainly than the fee-simple of the soil, and the results have really been wonderful. I walked over a part of one of the estates, and admired the magnificent farm buildings, the huge mills with their lofty chimneys, as though husbandry had become a manufacture, the steam engines and perfect appliances of tillage, the vast spaces of corn that reached the horizon, the thoroughbred sheep in the immense pastures—the spectacle, in a word, of agriculture on the largest scale in the highest development. Yet the whole scene had a look of desolation in spite of the monotony of its splendour. I missed the smoke of the frequent house-top; and as my eye rested on the scanty cottages which here and there only dotted the rich expanse, I could not help thinking that this form of society had, like all human things, its imperfect side.

How opposite to this state of things is the condition of the village communities, which have reclaimed parts of the flats of the Shannon! How different is their primitive husbandry, how completely distinct the types of their life! In one case a lavish outlay of capital has suddenly raised a noble monument of cultivation of the most perfect kind, and has produced a splendid model of extensive farming. Yet you feel that this is an exotic growth, and that it anticipates the natural march of society; and you see that it is not without its drawbacks in its severance of the population from the soil. In the other case, the slow industry of ages, advancing with gradual but beneficent steps, has changed the barren waste into fruitfulness, has, with difficulty almost incredible, subdued the worthless swamp to fertility, has, too, not grandly or quickly, but quietly and peacefully, transformed the character of the landscape.

The circumstances of Mr. Pollok's experiment suggest considerations of great interest with reference to the Irish Land Question. First, perhaps, in importance is the inquiry whether this wonderful attempt to introduce Scottish agriculture on the largest scale into a district where it had been unknown before is remunerative, or is likely to be so; for, if it be, it can be hardly doubted that its author's example will be extensively followed. From all that I have heard, and my own calculations, this question must be answered in the negative. *Times.*

Miscellaneous.

Waterproof Packing Paper is thus made by some manufacturers:—The paper must first be covered with a resinous liquid, then painted over with a solution of glue and soot, as, without this, the paper will later show blotches. After this is dried, the actual waterproof coat is applied. This is prepared with 2 oz of powdered shellac, dissolved in two pints of water, which is gradually brought to boil, and stirred until the substance is perfectly dissolved and softened, when gradually one-third of an ounce of powdered borax is added, until an intimate union of the substances takes place. The liquid is then left to cool, and, while still hot, any mineral colour may be added, such as lamp-black, yellow ochre, red ochre, iron blue, or burnt umber, whereupon it is left to get entirely cold. It is then ready for use. The operation can be so quickly performed with a brush that two women can prepare 3000 feet in ten hours. *The Stationer.*

Calendar of Operations.

DECEMBER.—*Water Meadows:* Attend to these in southern counties as in November, in the north frost and snow frequently interfere with the operation. But in open weather it may be carried on successfully by carefully watching the weather, and an extra flow of water, where there is a command of it, will carry the waterman safely through a slight frost, when otherwise his labour would be locked up under ice. Not a little depends upon the natural temperature of the water used for irrigation and the mode of applying it, and also upon the temperature of the land over which, or through which, it flows in the carriers, and upon that of the meadows to which it is applied. Were the temperature of river water and the temperature of the earth to remain as high at Christmas as in the summer time, it would take a sharp frost of some days' duration to freeze the meadow. But the reverse of this is true, for both the water and the meadow are colder than they were in November; and with this fact watermen are familiar, and hence watch the changes in the weather accordingly, and the times of flooding. When the water has far to flow in open carriers and gutters, it will be colder when it reaches the meadow than when it left the river. If conveyed in underground stone or brick conduits, wooden or iron pipes, the reverse may be the case. In the summer time, however, the water in the open carriers acquires generally an increase of temperature, while that conveyed belowground loses heat. Of the importance of these facts in regulating the labours of the waterman at this fickle season nothing requires to be said, and with regard to the actual temperatures of the water and of the meadow, these should always be ascertained by a wet-bulb thermometer.

Irrigation Works.—Rivers are now sufficiently high to determine "the feed and tail levels," also "influx and efflux levels." Springs are likewise open, so that the season is favourable for laying out new works, more especially those where river or spring water only is to be applied to grass-land, whether lying in permanent meadow or underalternate husbandry. No doubt

there still exists much prejudice to the irrigation of land only lying one, two, or three years in Grass, but the thorough under-drainage of the land, with subsoiling to break moorland and let down the water to the drains, &c., has removed the practical objections of the olden time, so that this prejudice is fast dying out. River and spring water can be successfully applied to land only lying one year in Grass; but if several successive cuttings of Italian Rye-grass can be taken in one season, two years in Grass may be more profitable than one; and once so applied, it is only a question of time whether it cannot with equal success be applied to the corn and other crops of the rotation. As to the nature of the works, the water levels and surface of the land must be the rule in each case. Where the water can be applied to a plain sloping surface of permanent meadow on the ridge-and-furrow plan, or catch-water plan, at 1s. or so per acre, the gutters and drains being opened by a plough, the rule is plain.

Farm horses keep in active working order. There is something in the dulness of the season that is peculiarly depressing upon their physical energies which, if not counteracted, will lower them in condition. Tied up to the manger in a narrow sloping stall in a dark and badly ventilated stable during the long nights of winter is not in accordance with the natural requirements of this noble animal. In point of fact, the day is not far distant when a loose box will be considered as absolutely necessary for a farm horse, as for any of his race. Something more, too, is needed than the common prescription of a soft laxative diet to keep nerve and muscle in mettle. Feed and groom early and late, as the artificial habits of the horse require it.

Sheep, whether folded on the Turnips or housed in pens, or at large in the pastures in our midland and northern counties, require special attention during the whole of the month, more especially our improved breeds, whose constitutions, naturally and artificially, are severely tried by the peculiarities of the season. In the Turnip field or yard, dry frosty weather will not hurt them, but frozen Turnips are injurious; while rotten roots and tops, when the thaw comes, are many degrees worse. Turnips, therefore, should be stored and given clean and fresh daily, with corn and chaff. The sudden changes from wet to frost do much harm when their coats are soaked to the skin, and when their skins are thus wet they should be moved about gently when the rain ceases and the frost sets in until the wool next the skin becomes dry. On no account give frosty Turnips to the in-lamb ewes in the pastures, although lambing time may be March. If the old "faggage" is scanty, give hay-chaff with a little meal. The chaff should be slightly damped, so as to make the meal adhere to it. But an abundance of roots should always be in store for the ewe flocks of our midland and northern counties, and they should have a shed or hovel to go into during night and in rainy weather, of a size sufficient to permit of the whole flock being fed indoors without crowding. Small hovels with open strawyards in front are objectionable, as the weaker ewes will go outside in close wet nights and in frost and snow rather than breathe the polluted atmosphere within. And it is better to divide the interior of the hovel into pens, and to place so many ewes in each pen, than to allow the flock to run about promiscuously through the whole. The pens, or subdivisions, may be equal in size, but it may not always be advisable to put an equal number of ewes in each pen. The pens should open into each other, and the shepherd will know best how to separate his flock, both for feeding and rest. And we need hardly add, they both feed and rest better when thus subdivided than when flocking together. Thus kept during the winter months, fewer casualties occur at lambing time in spring. In Highland sheepwalks the rams are taken from their ewes during this month. When flocks remain on the hills they require corn and hay during snowstorms, and so do those sent to the lowlands.

Milch cows timed to calve during December require great attention, both as to dietary and household management. If fattening cattle should be housed in loose boxes, milch cows stand tenfold more in need of them; and if our milch cows were thus housed and fed on wholesome food, we should hear of fewer mishaps than we now do when they are tied up to a stake in a narrow sloping stall, and fed occasionally on frosty Turnips, rotten Turnips, dirty Turnips, mouldy hay and straw, with bad water! We should prefer cow-boxes to be cleaned out daily the same as horse-boxes, and kept every bit as clean. Fresh clean roots, steamed or pulped, with chaff and a little bean-meal, form an excellent dietary for newly-calved cows, and for all cows giving milk at this season; and if properly cooked it will produce rich milk, that will yield butter and cheese, provided always that the cowhouse and dairy are kept at the proper temperature, which at Christmas means artificial heat in the latter, and for the most part in the former. If we find it impossible to keep our farmhouses and labourers' cottages at a proper temperature and free from damp and a polluted atmosphere without artificial heat, how can it be otherwise with cowhouses and dairies in northern climates, where success depends upon a pure atmosphere, of a proper temperature? and in both these respects, purity and temperature, a milch cow is as sensitive and easily affected as is her milk. And from experience it has been found that cows and their milk pay handsomely for all the firing they require, at this season, when it is economically used. *W. B.*

Notices to Correspondents.

KOHL BABI: J. L. We think not. Fuller next week.
ROYAL AGRICULTURAL SOCIETY: Leicester. Get any member to propose you for membership, or write to the Secretary, and he will at once remove any difficulty.

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ROYAL HORTICULTURAL SOCIETY, 1868.

SCHEDULES FOR THE SPRING AND SUMMER EXHIBITIONS, TO BE HELD AT THE GARDENS, SOUTH KENSINGTON, W.

REGULATIONS FOR THE EXHIBITIONS.

I. The Prizes offered in the accompanying Schedules are open to all competitors complying with these Regulations.

II. Exhibitors must give at least five clear days' notice in writing of the Class or Classes in which they intend to compete, and of the average diameter of the plants to be exhibited.

This is to be done by filling up and forwarding to the Superintendent at South Kensington the printed forms provided for the purpose.

III. Cards corresponding with the entries will be furnished on the morning of the Exhibition at the Superintendent's office.

Exhibitors will be responsible for the proper placing of these cards, and they are requested to satisfy themselves that the cards correctly describe the objects exhibited.

The Society cannot correct, or be responsible for, mistakes arising from the non-observance of this or any other Regulation.

IV. No specimens will be received after half-past 8 o'clock on the morning of the Exhibition.

The Superintendent has instructions to refuse all Exhibitions which he considers unworthy of being shown.

V. Officers of the Society will direct the placing of all specimens.

It is necessary that all Flowers or Plants be carefully labelled with their scientific names, and, where practicable, with the name of the country whence introduced. Florists' Flowers must bear their customary names.

Seedling Flowers exhibited as novelties must be named.

VI. Only bona fide exhibitors, and such assistants as may be absolutely required for the arrangement of their specimens, will be admitted before the doors are closed at half-past 8 A.M., after this hour no person will be allowed to enter, and all persons must retire before 10 A.M., except such as may be officially retained by the Society.

VII. A clear passage-way to the stands and tables must be preserved during the hours of arrangement, and all persons obstructing it will be subject to immediate removal from the Garden.

The Judges will proceed to make their awards at 10 A.M., before which hour the exhibitors' arrangements must be completed.

VIII. One prize only can be awarded to an exhibitor in any class, except in the Miscellaneous Class, and in the case of Certificates granted to New Plants and Seedlings.

The Judges have the right of withholding the prize where specimens may be

considered unworthy of it, in order to prevent an inferior collection receiving an award.

The Judges will be at liberty to add to the number of prizes in cases of very decided merit, so long as they do not exceed the total in each class.

IX. All specimens must be the bona fide property of the exhibitor or they will not be eligible to compete for the prizes. At least one year's possession will be considered requisite to constitute ownership, except in ascertained cases of plants newly imported.

X. The decision of the Judges is final. Any prize fraudulently obtained is forfeited, and will be awarded to the competitor immediately succeeding in class; and the exhibitor proved, before a Committee of Exhibitors on Council, to have acted fraudulently, will be excluded from future Shows.

XI. For the Spring Exhibitions, exhibitors' pass-tickets will be as follows:—

For collections of 9 plants and upwards, 2 passes for 1st collection, each additional collection.

For collections of 6 plants and upwards, 1 pass for 1st collection, each additional collection.

But no exhibitor can have more than 4 passes.

For the Summer Exhibitions, including the Special Show —

Classes containing 9 plants and upwards, for 1st collection, 3 passes, each additional collection.

Classes containing 6 plants and upwards; for 1st collection, 3 passes, each additional collection.

No ticket will be given for a single Specimen Plant, or a single lot. No exhibitor can take more than 8 passes.

Breakfast tickets will be issued in equal numbers with the passes. Exhibition to be held on June 2d, for the first day only.

XII. The Exhibition on the 14th of March will close at 5, and on the 18th of April at 6 P.M., and the other Exhibitions will close at 6.30 P.M. All specimens will be given up to their owners, or to such persons authorized to receive them.

XIII. In awarding the prizes the Judges will be influenced by correct opinion. The Council will not be responsible for damage done to plants during the Exhibition, but all ordinary care will be taken of them.

Show of Hyacinths and Spring Flowers. SATURDAY, MARCH 14, 1868.

- CLASS. LIST OF PRIZES. 1. 18 Hyacinths, distinct (Nurserymen), £3, £2, £1. 2. 12 Hyacinths, 6 kinds (Open), £2, £1 10s., £1. 3. 6 Hyacinths, distinct (Amateurs), £1, 15s., 10s. 4. 6 Hyacinths, distinct, grown in windows in pots (Amateurs), £1, 15s., 10s. 5. 6 Hyacinths, new kinds, never before exhibited (Open), £1, 15s., 10s. 6. 6 Hyacinths, new kinds, introduced since 1865 (Open), £1, 15s., 10s. 7. 12 Pots of Tulips, distinct (Nurserymen), £1 15s., £1, 10s. 8. 12 Pots of Tulips, distinct (Amateurs), £1 15s., £1, 10s. 9. 12 Pots of Tulips, distinct (Amateurs), £1 15s., £1, 10s. Note.—Hyacinths and Narcissus in the above classes must have one bulb in each pot, Tulips, 3 bulbs in each pot. 10. Crocuses, collection of (Nurserymen), 15s., 10s. 11. Crocuses, 12 pots of (Amateurs), 15s., 10s. 12. 4 Forced Shrubs in flower (Open), £3, £2, £1. 13. 6 Pots of Lily of the Valley (Open), £1, 15s., 10s. 14. Collections of Cyclamens (Open), £1 15s., £1, 10s. 15. 6 Chinese Primulas, various colours (Open), £1, 15s., 10s.

Show of Roses and Spring Flowers. SATURDAY, APRIL 18, 1868.

- LIST OF PRIZES. 1. 9 Roses in pots, distinct (Nurserymen), £2, £1 10s., £1. 2. 6 Roses in pots, distinct (Amateurs), £2, £1 10s., £1. 3. 12 New Roses of 1866 or 1867, in pots, distinct (Open), £2, £1 10s., £1. 4. Rose, single specimen, in pot (Open), 15s., 10s. Note.—Roses to be grown and exhibited in Pots not exceeding 10 inches in diameter. New Roses are to date from the time when first put in commerce. 5. 6 Nectarines, distinct (Open), £1 10s., £1, 15s. 6. 6 Apricots, distinct (Open), £1, 15s., 10s. 7. 6 Amaryllids, distinct (Open), £1, 15s., 10s. 8. 12 Camellias, cut blooms, 6 kinds (Open), £1 10s., £1, 15s. 9. 6 Camellias in flower, distinct (Open), £2, £1 10s., £1. 10. 3 Camellias in flower, distinct (Amateurs), £1 10s., £1, 15s. 11. 6 Cyclamens in flower (Amateurs), 15s., 10s., 5s. 12. 6 Violets in flower, not fewer than 3 kinds (Open), 15s., 10s., 5s. 13. Miscellaneous Collection of Plants in flower (Open), £1 10s., £1, 15s.

Show of Early Azaleas and Spring Flowers. SATURDAY, MAY 9, 1868.

- LIST OF PRIZES. 1. 9 Azaleas, distinct (Nurserymen), £2, £1 10s., £1. 2. 6 Azaleas, distinct (Amateurs), £2, £1 10s., £1. 3. 6 Azaleas, distinct (Nurserymen), £1 10s., £1, 15s. 4. Azalea, single specimen (Open), 15s., 10s. 5. 6 Roses, distinct (Open), £2, £1 10s., £1. 6. 12 Auriculas, 3 grey-edged, 3 white-edged, 3 green-edged, and 3 self, distinct (Nurserymen), £1 10s., £1, 15s. 7. 8 Apricots, 2 of each class, distinct (Amateurs), £1 15s., £1, 10s. 8. 6 Apple Azaleas, distinct (Open), £1, 15s., 10s. 9. 12 Apple Azaleas, £1 15s., £1, 10s. 10. 6 Pansies, distinct (Open), £1, 15s., 10s. 11. 6 Rhododendrons, 3 kinds (Open), £2, £1 10s., £1. 12. Rhododendron, single specimen (Open), 15s., 10s. 13. 6 Pansies in Pots, distinct (Open), 15s., 10s., 5s. 14. 6 Pots of Lily of the Valley, £1 10s., £1, 15s. 15. Miscellaneous Collection of Plants in flower (Open), £1 10s., £1, 15s.

Grand Summer Flower Show. TUESDAY, JUNE 2, AND THREE FOLLOWING DAYS.

The Tender Plants at this Show will, if necessary, be placed in the Conservatory, and may be removed from the Exhibition after the second day.

- PLANTS SHOWN FOR THEIR FLOWERS. 1. 9 Greenhouse Azaleas, distinct (Open), £1, £10, £5. 2. 6 Greenhouse Azaleas, distinct (Nurserymen), £9, £4, £3. 3. 6 Greenhouse Azaleas, distinct (Amateurs), £9, £4, £3. 4. 15 Greenhouse Azaleas, in pots not more than 12 inches in diameter, not fewer than 5 varieties (Open), £7, £5, £3. 5. 9 Roses, distinct, in pots not more than 13 inches in diameter (Open), £12, £7, £5. 6. 6 Roses, distinct, in pots not more than 13 inches in diameter (Open for Exhibitors not showing in Class 6), £8, £5, £2.

- 7. 6 New Roses, not sent out previous to 1865, or 1866, in any sized lot (Open), £3, £2, £1. 8. 12 Roses, distinct, in pots not larger than 10 inches in diameter, (Open), £6, £4, £3. Note.—New Roses are to date from the time when first put in commerce. 9. 9 Show Pelargoniums, distinct, in pots not larger than 8 inches in diameter (Open), £10, £6, £4. 10. 6 Show Pelargoniums, distinct, in pots not larger than 8 inches in diameter (Nurserymen), £6, £4, £2. 11. 6 Show Pelargoniums, distinct, in pots not larger than 8 inches in diameter (Amateurs), £4, £3, £2. 12. 6 Fancy Pelargoniums, distinct, in pots not larger than 8 inches in diameter (Nurserymen), £4, £3, £2. 13. 6 Fancy Pelargoniums, distinct, in pots not larger than 8 inches in diameter (Amateurs), £4, £3, £2. 14. 6 Zonal Pelargoniums, distinct, Nosegays and Variegated sorts excepted (Amateurs), £6, £4, £2. 15. 6 Zonal Pelargoniums, distinct, Nosegays and Variegated sorts excepted (Nurserymen), £6, £4, £2. 16. 6 Nosegays or Hybrid Nosegay Pelargoniums, distinct (Open), £6, £4, £2. 17. Specimen Pelargonium, of any kind (Open), £1, £1 10s., £1. 18. 1 Fuchsia, distinct, in pots not larger than 13 inches in diameter (Nurserymen), £4, £3, £2. 19. 4 Fuchsias, distinct, in pots not larger than 13 inches in diameter (Amateurs), £4, £3, £2. 20. Specimen Standard Fuchsia (Open), £2, £1 10s., £1. 21. 6 Herbaceous Calceolarias (Open), £3, £2, £1. 22. 3 Pots of Lilium auratum, in pots not more than 10 inches in diameter (Open), £1, £2, £1. 23. 12 Early Pinks, in pots, three or more varieties (Open), £2, £1 10s., £1. 24. 12 Exotic Orchids, distinct (Open), £15, £12, £8. 25. 10 Exotic Orchids, distinct (Nurserymen), £12, £8, £6. 26. 6 Exotic Orchids, distinct (Amateurs), £9, £6, £4. 27. 6 Exotic Orchids, distinct (Nurserymen, not showing in Class 24), £9, £7, £5. 28. Specimen Exotic Orchid (Open), £3, £2, £1. 29. 12 Stove or Greenhouse Plants, distinct (Open), £15, £12, £10. 30. 6 Stove or Greenhouse Plants, distinct (Nurserymen), £7, £5, £4. 31. 6 Stove or Greenhouse Plants, distinct (Amateurs), £7, £5, £4. 32. Specimen Stove or Greenhouse Plant (Open), £3, £2, £1. 33. 6 Greenhouse Liriodendrons, distinct (Open), £6, £5, £4. 34. Specimen Standard Hardy Rhododendron (Open), £3, £2, £1. 35. 12 Amaryllids, distinct (Open), £4, £3, £2.

PLANTS SHOWN FOR THEIR FOLIAGE.

- 36. 9 Fine-foliated Stove or Greenhouse Plants, distinct, including Variegated Plants (Open), £10, £7, £5, £3. 37. 6 Fine-foliated Stove or Greenhouse Plants, distinct, including Variegated Plants (Amateurs), £7, £5, £3, £2. 38. 6 Caladiums, distinct (Open), £5, £3, £2. 39. 3 Anthuriums, distinct (Open), £3, £2, £1. 40. 1 Pair of Greenhouse Yuccas or Beaucarneas, &c. (Open), £4. 41. 1 Pair of Droseras or Cordylinas (Open), £4, £3, £2. £3, £2. 42. 6 Agaves, distinct (Open), £4, £3, £2. 43. 6 Variegated Zonal Pelargoniums, not fewer than 3 varieties (Open), £6, £4, £3. 44. 12 Stove or Greenhouse Ferns, distinct (Open), £10, £7, £5. 45. 6 Stove or Greenhouse Ferns, distinct (Amateurs), £7, £5, £4. 46. 6 Stove or Greenhouse Ferns, distinct (Nurserymen), £7, £5, £4. 47. 12 Hardy Ferns, peculiar varieties, distinct (Open), £3, £2, £1. 48. 12 Hardy Ferns, peculiar varieties, distinct (Amateurs), £2, £1, £2. 49. 12 Hardy Ferns, peculiar varieties, distinct (Nurserymen), £2, £1, £2.

NEW PLANTS AND SEEDLINGS.

- 50. 6 New Plants, of any description, in or out of flower, distinct (Open). Silver Flora Medal—Bronze Flora Medal—Certificate. 51. 1 New Plant, shown for the first time in flower (Open) Silver Flora Medal—Bronze Flora Medal—Certificate. 52. 1 New Plant, in or out of flower, not found in commerce (Open) Silver Flora Medal—Bronze Flora Medal—Certificate. 53. Seedling Florists' Flower, of any kind named (Open), Certificate. 54. New Garden Variety, named (Open), Certificate. Note.—The Certificate in the Cases of New Plants will be awarded by a Sub-Committee of the Floral Committee.

MISCELLANEOUS OBJECTS.

- 55. Miscellaneous Plants or Flowers, not specially invited in the preceding sections (Open), £4, £3, £2, £1 10s., £1, 10s.

- E. Nectarines, single dish, £3, £2, £1. F. Apricots, single dish, £4, £3, £2, £1. G. Figs, single dish, £1 10s., £1, 10s. H. Cherries, single dish, £1 10s., £1, 10s. I. Strawberries, single dish, £1 10s., £1, 10s. J. Melon, Green-fleshed, £1 10s., £1. K. Melon, Scarlet-fleshed, £1 10s., £1. L. Miscellaneous, for Fruit not mentioned in Schedule. Note.—A Dish of Grapes to consist of 5 lbs. Nectarines, Apricots, and Figs of 6 lbs. each, or 1 lb. each of 6 fruits each. The Classes are to open at 10 o'clock.

Special Prize Show. TUESDAY, JUNE 16, AND FOLLOWING DAYS.

- PRIZES OFFERED BY HIS GRACE THE DUKE OF BUCKLEUCH, PRESIDENT OF THE SOCIETY. The Society Prizes in Classes 1 to 7 are as follows: 1. The best cultivated Greenhouse Azalea, £10, £5. 2. The best cultivated Rose in Pots, in bloom, £10, £5. 3. The best cultivated Zonal Pelargonium, £7, £5.

- PRIZES OFFERED BY MR. W. WILSON SAUNDERS, MEMBER OF COUNCIL AND VICE-PRESIDENT. 4. The 1st best cultivated Orchids, in bloom (Open), £10, £5. 5. The 2d best Herbaceous Plants, in flower, 12 pots, £10, £5. 6. The best display of Bedding Plants, in square, 10 inches in 15 inches deep, £3, £1 10s.

- PRIZES OFFERED BY MR. G. F. WILSON, F.R.S. OF COUNCIL. 7. The best collection of plants, in pots (Open), £10, £5.

- PRIZES GIVEN BY THE SOCIETY. 8. The best 6 New Plants sent out in 1868 of 1st Class, Silver Flora Medal; Bronze Flora Medal. 9. The best 6 New Plants sent out in 1868 of 2d Class, Silver Flora Medal; Bronze Flora Medal. 10. The best New Plant shown for the first time in Britain (Open), Silver Flora Medal; Bronze Flora Medal. 11. The best New Pot Plant shown for the first time in Britain (Open), Silver Flora Medal; Bronze Flora Medal. 12. The best New Garden Seedling, of any kind, Silver Flora Medal; Bronze Flora Medal. Note.—Two Certificates of the Floral Committee awarded in Classes 1, 2, and 3, should the best lot prove worthy thereof. 13. The best Mixed Group of Foliage and Flowering Plants (Open), £10, £5. 14. The best 12 Stove and Greenhouse Plants, distinct, 13-inch pots (Open), £1, £1.

SUBSCRIPTION PRIZES FOR VARIETAL PELARGONIUMS.

- 15. 1 Golden Variegated Zonal Pelargonium, not in commerce (Open), £1, 15s., 10s., 5s. 16. 1 Silver Variegated Zonal Pelargonium, not in commerce (Open), £1, 10s., 5s. 17. 1 Golden or Bronze Zonal Pelargonium, not in commerce (Open), £1, 10s., 5s. 18. 1 Golden or Silver Pelargonium, not in commerce (Open), £1, 10s., 5s. 19. 1 Silver edged Pelargonium, not in commerce (Open), £1, 10s., 5s. 20. 3 Golden Variegated Zonal Pelargoniums, distinct (Open), £1 10s., £1, 10s. 21. 3 Silver Variegated Zonal Pelargoniums, distinct (Open), £1 10s., £1, 10s. 22. 3 Golden and Bronze Zonal Pelargoniums, distinct (Open), £1 10s., £1, 10s. Note.—In Classes 15 to 22 two plants of each variety to be shown, and the plants must be in pots not more than 9 inches in diameter. 23. 1 Zonal Pelargonium, distinct, in commerce (Open)—Variegated Zonal Gold and Bronze (Open), £4, £3, £2. 24. 2 Zonal Pelargoniums, distinct, in commerce (Open)—Nosegay (Open), £1, 10s., £1. (Nurserymen), £2, £1 10s., £1. 25. 6 Zonal Pelargoniums, distinct, in commerce (Open)—class unknown, in pots not exceeding 6 inches in diameter (Amateurs), £3, £1 10s., £1. 26. 6 Golden or Silver Variegated Zonal Pelargoniums, in commerce, in pots not exceeding 6 inches in diameter (Open), £4, £1 10s., £1. 27. 6 Gold and Bronze Zonal Pelargoniums, distinct (Open), £2, £1 10s., £1.

WHEELERS' LITTLE BOOK for 1868, "The Queen of Seed Lists," will be published on the 11th inst., price 6d.; gratis to customers.

WHEELERS' LITTLE BOOK for 1868, "The Queen of Seed Lists." published by Messrs. WHEELER & SON, of Gloucester, has become a favourite with all who take an interest in their gardens, and it is truly, as set forth in the title, a 'Select Seed List.' The object of Messrs. WHEELER has always been to confine their attention to what is really good, so as to secure their customers against disappointments and failures; and the extracts they are enabled to quote from communications addressed to them show how satisfactorily this has been accomplished.—*Midland Counties' Herald.*

J. C. WHEELER & SON, Seed Growers, Gloucester.

GLENNY'S GARDEN ALMANAC for 1868, Thirty-first Year, price 1s., post free for 13 stamps, contains Directions for the Management of Gardens throughout the Year, also a List of all the New Flowers.

T. T. LEMAN, Ivy Lane, Paternoster Row, E.C.

TAUNTON COLLEGE SCHOOL. Founded A. D. 1523, by Bishop Fox
President.—The Right Hon. Lord TAUNTON.
Head Master.—Rev. W. TREKELL, M.A., late Fellow of New College, Oxford

Boys prepared for the Universities, for Woolwich, for the Indian and Civil Service examinations.
The Course includes the Classics, the Mathematics, English and the Modern Languages, and Physical Science.
In addition to annual local Exhibitions, two Scholarships are offered to general competition by the College.

An ELECTION to TWO SCHOLARSHIPS of £30 a year each, tenable by BOARDERS who shall not at the time of Election be more than 16 years old, will be held at the College School on the 30th January, 1868. For Particulars apply to the Head Master.

The School is situated in the Vale of Taunton Dean, well known for its salubrity, and is one mile from a central station on the Bristol and Exeter Railway.
Terms and Prospectus forwarded on application to the Head Master.

EVENING LECTURES — ROYAL SCHOOL OF MINES, JERMYN STREET.

PROFESSOR RAMSAY, LL.D., F.R.S., will commence a COURSE of TEN LECTURES on GEOLOGY, on TUESDAY NEXT, January 7, at 8 o'clock, to be continued on each succeeding FRIDAY and TUESDAY, at the same hour. Tickets for the whole Course, price 5s.

TRENHAM REEKS, Registrar

FREE EMIGRATION to BRAZIL.—FREE and ASSISTED GOVERNMENT PASSAGES, with guaranteed employment at fair wages, are now offered to Men of good character (married or single), Mechanics, Farm Labourers, Shepherds, and others desirous of settling in this highly favoured country. Capitalists can purchase, at very cheap rates, TRACTS of superior LAND suitable for Agricultural and Pastoral purposes, and Passages secured for them at low rates in the ordinary Emigrant Ships.—Apply to Le Chevalier JOAQUIM DE ALMEIDA, Portugal Temporary Offices, 7, Westminster Chambers, Victoria Street, London, S.W.

Home News.

THE COURT.—The Queen and Royal family continue at Osborne. On Friday morning the Queen drove out with Princess Christian and Princess Henriette. Prince Arthur and Prince Christian went out shooting. In the afternoon the Queen drove in the grounds, accompanied by Princess Louise. On Saturday morning her Majesty walked out with Prince Arthur and Princess Beatrice, and in the afternoon drove out in the grounds, accompanied by Princess Christian. On Sunday the Queen and Royal family attended Divine service at Whippingham. The Rev. George Prothero officiated and administered the Sacrament. In the afternoon her Majesty drove out, accompanied by Princess Christian and Princess Henriette. On Monday morning the Queen walked and drove in the grounds with the Princesses and Prince Leopold. Prince Arthur and Prince Christian went out shooting. On Tuesday morning the Queen drove out with Princess Christian and Princess Henriette, and in the afternoon drove in the grounds with Princess Christian. On Wednesday morning the Queen drove out with Princess Louise, Prince Arthur, and Prince Leopold, and in the afternoon walked and drove in the grounds with Princess Christian. On Thursday morning the Queen, accompanied by Prince and Princess Christian and Prince Arthur, drove to Parkhurst, and inspected the troops under the command of Colonel Jeffreys.

THE PRINCE AND PRINCESS OF WALES.—The Princess has so far recovered her health that she was able on Christmas Day to attend Divine service in the church in the park, for the first time since her illness. On Monday the Prince and Princess left Sandringham for Holkham, on a visit to the Earl and Countess of Leicester, and have remained there during the week. On Tuesday the Prince had a day's battue shooting in the preserves of the park next to Lord Nelson's birth-place. On Wednesday his Royal Highness had a good day's partridge shooting on the Warham fields and marshes. The Princess and several other ladies from the hall drove out in the afternoon and witnessed the shooting. In the evening the Earl and Countess of Leicester gave a dance, at which the company staying at the hall and several of the neighbouring gentry and clergy were present. On Thursday morning the Prince went out in a snow-storm, and shot through the park preserves next the town of Wells.

ROYAL VISITORS TO KNOWSLEY AND LIVERPOOL.—Prince Arthur and Prince Christian will visit Lord Derby at Knowsley next week, and have accepted an invitation from the Mayor to visit Liverpool during their stay. A grand ball is to be given in that town in honour of their visit on the 9th inst.

THE ARMY.—Major General Balfour, C.B., at the request of the Secretary of State for War, has accepted the office of assistant to Sir Henry Storks, the newly-appointed Comptroller in Chief. In consequence of the retirement of Colonel Pipon from the office of Inspector General of Militia, and the transfer of Colonel Erskine from the Volunteer branch to the command of the Military Train, Sir John Pakington has determined to combine the whole of our local troops—the Militia, Yeomanry, Volunteers, and Enrolled Pensioners in one department, and under one head. It is understood that Major General the Hon. James Lindsay has accepted this office, with the title of Inspector General of the Reserve Forces.

THE DUTIES ON PORTUGUESE WINES.—The

Chancellor of the Exchequer has notified "that her Majesty's Government have, after full deliberation and inquiry, felt it their duty to decline the proposals for reducing the duty on Portuguese wines imported into Great Britain which have been submitted by the Portuguese Government as a basis for the negotiation of a commercial treaty between this country and Portugal."

THE REVENUE.—The Revenue returns for the year, nine months, and quarter, ended December 31, show a decrease of 806,955*l.* on the quarter, a decrease of 771,053 on the nine months, and a decrease of 122,116*l.* on the year. The Quarter's Account shows an increase in the Customs of 138,000*l.*; Post Office, 10,000*l.*; Crown Lands, 5,000*l.*; and a decrease in the Excise of 379,000; Stamps, 12,000*l.*; Taxes, 41,000*l.*; Property Tax, 429,000; Miscellaneous, 128,955. The Nine Months' Account shows an increase in the Customs of 327,000*l.*; Stamps, 177,000*l.*; Taxes, 16,000*l.*; Post Office, 160,000*l.*; Crown Lands, 7,000*l.*; and a decrease in the Excise of 715,000*l.*; Property Tax, 434,000*l.*; Miscellaneous, 309,052*l.* The Year's Account shows an increase in the Customs of 715,000*l.*; Stamps, 306,000*l.*; Taxes, 21,000*l.*; Post Office, 255,000*l.*; Crown Lands, 10,000*l.*; and a decrease in the Excise of 661,000; Property Tax, 192,000*l.*; Miscellaneous, 576,146*l.*

Foreign.

FRANCE.—The Emperor on Wednesday held the usual New Year's Day receptions at the Tuileries, when addresses were presented from the Senate and the Corps Législatif, the Corps Diplomatique, the clergy, and other bodies. The only replies of the Emperor of which any report has been published are those to the Papal Nuncio, who represented the diplomatic body, and to the Archbishop of Paris. In reply to the Nuncio the Emperor said:—

"I am happy to begin the new year as usual surrounded by the representatives of all the Powers. I am able to affirm once more my constant desire to maintain the best relations with them. I thank you for the wishes you have been good enough to express in their name for France, my family, and myself."

In answer to the Archbishop of Paris the Emperor said:—

"The prayers you address to Heaven for the Empress, the Prince Imperial, and myself, affect me deeply. They spring from a noble heart. I know that you do not separate religious interests from those of the country and of civilisation."

Count Von der Goltz, the newly accredited representative of the North German Confederation, had an audience of the Emperor on Tuesday, and spoke as follows:—

"Called upon by the Federal Constitution to represent the Confederation in its international relations, the King of Prussia eagerly desires to maintain and develop more and more the relations of good feeling and confidence between France and the Confederate States. This desire is at the same time conformable to the sentiments entertained towards your Majesty, and the orders of the King prescribe to me to fulfil my functions in that spirit."

The Emperor replied in these terms:—

"In fulfilling the same functions with which you are invested as the representative of the Confederation of the North, you renew the assurances of the friendship of the King of Prussia. I thank you for it. On my part I embrace the opportunity with pleasure to confirm the good understanding existing between the two Governments. I beg of you to be the interpreter of my sentiments to the King. Having been able to appreciate the high qualities which distinguish you, I do not doubt that you will continue as heretofore to exert all your efforts to maintain between the two countries that friendly understanding which is the pledge of their prosperity, and a guarantee for the peace of Europe."

In the sitting of the Corps Législatif on Friday the debate on the Army Bill was resumed as follows:—

"M. Rouher spoke against the amendment of M. Louvet, which, if adopted, would deprive the naval reserve of 24,000 men and the army of 60,000 men, in consequence of the clause permitting the marriage of men during the last two years of their belonging to the reserve. If the restrictions of the amendment were adopted, the effective strength of the army would not exceed that of the present moment—namely, 600,000 men, but France wanted 900,000 men. The experience of the Crimean and of the Italian wars had sufficiently proved that the present effective strength of the army was not sufficient. A comparison of the respective strength of the armies of Italy, of Austria, of Russia, and of the North German Confederation with that of France would demonstrate the imperious necessity of reorganising the military resources of France. Entering into the details of the amendment, he said that one year's more service in the reserve would be less onerous to the population than an additional contingent of 10,000 men, which would be the consequence of the adoption of the amendment. He concluded by asking the Chamber to reject the amendment. M. Buffet supported the amendment, and said that France was not willing to be implicated in a war contrary to her inclinations. M. Calvet Rogniat withdrew his amendment. On being put to the vote M. Louvet's amendment was rejected by 177 votes against 81.

In the sitting of Saturday M. Rouher, in reply to a question put by M. Pelletan, said that the new official list for the electoral districts would be published on the 31st of December. The discussion on the Army Reorganisation Bill was then resumed as follows:—

"The amendment of M. Parnaud permitting the marriage of the reserve was rejected. M. Calvet Rogniat moved an amendment to the effect that men on furlough might be allowed to marry after the expiration of the sixth year of their service. Marshal Niel opposed the amendment. He claimed the right of the Government to suspend permission for soldiers to marry. The Chamber, by 237 votes against 11, adopted the amendment of the Commission, asking that legal facilities to contract marriage might be granted to soldiers during the last three years of their service in the reserve force. M. Picard's amendment, which proposed that the daily sum of 1 franc should be allotted as an indemnity to the wives of soldiers of the reserve while on active service, was rejected by 188 votes against 31."

In the sitting of Monday the discussion commenced on the Bill respecting the Garde Nationale Mobile. The following is a summary of the debate:—

Article 1 was adopted without discussion. M. Desrotours moved an amendment on the 2d Article, demanding that the

sons of foreigners born in France should be subject to conscription. After a reply from General Fiala, who were adopted. M. Berger opposed the system of substitutes. He proposed to send back the question to the Committee to be reconsidered. M. Grévy, who was the committee, agreed to this proposal. M. Rouher replied that this question was a solution of the question of substitutes. The question was sent back to the Committee.

In the sitting of Tuesday M. Thiers proposed the organisation of the Garde Nationale Mobile. Marshal Niel, in reply, said that persons were costly, and that the National Guard of the future. Article 5 was adopted by 210 against 44. In the sitting of Thursday M. Rouher said that 10 or 12 newspapers had been ordered by the Juge d'Instruction for contravening a decree as to summaries of debates in the journals. The journals could estimate the debates, they to estimate public opinion without making it known? M. Rouher replied that the matter had been made an object of judicial inquiry. The question could not come before the Chamber. The Government rejected the suggestion to prevent free discussion. An opportunity naturally arise for the House to discuss the debate upon the Army Bill was then as follows:—

"On Art. 6 M. Javal brought forward an amendment that substitutes in the Garde Nationale Mobile be permitted. After a long debate the Chamber adopted 144 to 103 votes that the amendment should be in consideration. Art 7 of the Bill was adopted. Art 8, stipulating that the army should not interfere with the liberty of citizens to work, was accepted by the Government, and adopted. The remaining clauses of the Bill were passed."

The *Epoque* contradicts the rumour that a standing exists between Russia and France. It states that the relations between the two countries have been for some time past cool rather than warm. The *Patrie* contradicts the report that the alliance has been abandoned, and says that "the negotiations are already so far advanced that a decision is expected within a given period."

SPAIN.—The Cortes were opened on Friday by the Queen in person. In the Speech from the Throne Majesty said that the Spanish Government would endeavour to France both moral and material assistance it should be necessary to defend the interests of the Pope. The Government had requested the Chamber of Deputies in its sitting of Thursday to take part in the European Conference held for the purpose of guaranteeing the moral power in a firm and legal manner. The Chamber of Deputies in its sitting of Thursday the address in reply to the Royal speech was against 3. A Bill has been brought in to make education obligatory.

PORTUGAL.—Some disturbances have taken place in the provinces in consequence of the recent administrative reforms.

BELGIUM.—It is announced semi-officially that a Ministerial crisis will soon be at an end. M. Frere-Orban, the Minister of Finance, is charged with the formation of a new Cabinet.

HOLLAND.—The Session of the States-General closed on Friday by the Ministers of the Department of Finance in the name of the King. The King stated that his Majesty was about to convene the States-General, and order fresh elections in consequence of the rejection of the foreign loan.

PRUSSIA.—The *Provincial Correspondent* in an article reviewing the present position of the Monarchy, says that the year 1868 left behind it success, and a solution of a great and difficult problem. The first care of the Government was to settle internal disagreement. The restoration of peace between the Government and the Chamber of Deputies, lasting, since it had not proceeded from the nation of victory, but from a recognition of the interests of the country. No political difficulty now exists in the administrative provinces, and the new and enlarged Prussian every respect firmly united and fully developed. The same journal of Thursday says that the Germans feel themselves more united and powerful than have ever been before, that the separation between North and South is in fact overcome by the commercial alliances; that Germany's strength can throw the weight of her power into the scale; and that the spirit of the nation and the strength of the Government are of new strength, and serve above all for the maintenance of peace.

AUSTRIA.—According to reliable accounts the formation of a new Cabinet is now complete. The Emperor has made the respective appointments. The list of the new Ministry is believed to be as follows:—Prince Auersperg, President of the Council; Taaffe, Deputy-President; Herr von Plener, Minister of Commerce; Herr von Hasner, Minister of Agriculture and Public Worship; Count Potocki, Minister of Agriculture; Dr. Giskra, Minister of Agriculture; Dr. Herbst, Minister of Justice; Herr von Spreti, Minister of Finance; and Dr. Berger, Minister of Finance. A special train arrived at Vienna on Friday with the silver plate, relics, and other valuables belonging to the ex-King of Hanover. The frigate has arrived at Cadiz with the body of the Emperor Maximilian. The *Debatte* of Wednesday states that no enlistments for the Papal army will be made in Austria, as such proceedings would be in conflict with the home and foreign policy of the Government.

gated with a view of ascertaining whether such refusal arises from disloyalty and sympathy with the Fenian movement. An opinion is entertained that the Fenians have accomplices in the arsenal who have furnished information on the position, contents, and assailable of the different stores, and which influenced the Fenians in their recent intended attack.

PROTECTION OF HAMPTON COURT.—In consequence of the alarm of last week the military guard at Hampton Court has been increased by a full company of the 56th Foot from Portland, the detachment of Hussars from the head-quarters at Hounslow not being sufficiently strong in numbers to provide the number of sentries required. The cavalry keep to their old posts, the 56th doing the extra duty. The "specials," whose employment was noticed last week, are still kept on; the men being all armed with a stout cudgel at night, and changed every two hours. The day watching is principally left to the civilians, but at night sentries are placed all round the Palace, and in all the approaches. After dark no one is allowed to pass without giving the sign, and if not known is not allowed to proceed without a guard. Even in Frog Walk, facing the green, passengers are challenged, and have to come forward to the light so that they may be seen. That part of the Palace which faces the river is carefully guarded, and heavy iron gratings have been placed over the mouths of the sewers. The watchmen and sentries are so arranged that there is a complete cordon round the whole place, and no one is left unsupported.

ALARM AT THE CITY GAS WORKS.—Great alarm was caused on Wednesday among the men at the gas-works in Worship Street, by the discovery of a small parcel of gunpowder near the gasometer. A number of policemen were on duty at the works all night, and were relieved on Thursday morning by another batch of constables, fully armed with revolvers and outlasses. Ample precautions have been taken by the authorities to protect these, and all the other gasworks in the city.

THE CASE OF BURKE, CASEY, AND SHAW.—On Saturday Burke and Casey were again brought up on remand at Bow Street, when a third prisoner, who gave the name of Shaw, but is known also as Mullany or Mulledy, was placed at the bar with them. This was the man whom several of the witnesses from Birmingham described as being with Burke when the latter, who was passing under the name of Winslow, ordered revolvers, percussion caps, and other similar matters, to be used in the Irish rising last spring. The prisoners were again remanded for a week.

ATTEMPT TO FIRE A LETTER BOX.—On Sunday evening a woman gave information that she had seen three men putting something into the letter-box in the Commercial Road, St. George's-in-the-East, and that on putting her hand into the box it was burnt. On the box being examined, several lucifer matches were found, and the 31 letters in the box were spotted with vitriol or some other corrosive liquid, the addresses on two of them being completely obliterated.

THE SPECIAL CONSTABLES.—It is said that the number of special constables already sworn in in London and the suburbs, amounted up to Saturday last to 30,000. Of this number 5,120 were enrolled for the City alone, including 700 clerks of the Bank of England, 800 officers and servants of the General Post Office, and several of the City clergymen. Several of the more respectable Irishmen resident in the metropolis are also among those who have enrolled themselves. This large body of special constables are drilled regularly every evening in each district in the preliminary drill taught in the army and Volunteer force, such as facing, forming fours, right, left, deep, and about, and forming and marching in quarter-distance column; the Volunteers who have joined the ranks of the specials being formed into a separate company for the purpose of serving as a practical example to the others.

MR. GLADSTONE ON APPRENTICES AND TRADES' UNIONS.—The following letter has been addressed by Mr. Gladstone to Mr. W. Darragh, of Manchester, in reply to some objections he had made to a passage in the right hon. gentleman's speech at Oldham, condemning the restrictions imposed by workmen on employers, as to the number of apprentices they may employ:—

"Hawarden, December 28, 1867.
 "Dear Sir,—It is difficult for me to correspond individually with those who may notice anything said by me in public; but I fear you might misunderstand my silence. I therefore write to say my proposition is that all limitations on the number of apprentices are a direct attack upon the property of the working class, by diminishing the amount paid for their labour. Apprentices would be employed only when their labour was more efficient; the employer getting (relatively to cost) more efficient labour, would employ more of it, and pay more for it. If we consider them as paid in instruction, a larger number of skilled labourers would be reared, and the labour of adults would be more effective from having combined with it that amount of apprentice labour which fractions of a penny would dictate. I have seen what I consider a depressed class in this country, that is, the children kept in school, and not put to work at the expense of the community, all closely connected with this system of limiting, by arbitrary rule, the labour of the young. I apprehend there are also, in some of our trades, rules against piece-work, and rules preventing the best men from doing all the work they can in a given time. Such rules are utterly fatal as far as they go to the welfare of the labouring class, who indubitably in these matters sin much more against themselves than against the rest of the community.—I am, dear sir, yours obediently,
 W. E. GLADSTONE."

CRYSTAL PALACE.—At the recent meeting of the Crystal Palace Company an amendment was moved by Mr. Lidward that no free admissions be granted to admit non-shareholders to the Palace and grounds on Sundays. A ballot was demanded and was taken at the Palace on Tuesday. The result was as follows:—In favour of the amendment, 289 voters, 20,037 votes; against the amendment, 255 voters, 453 votes; majority for the amendment, 34 voters, and 15,234 votes.

FLOGGING OF GAROTTERS.—The punishment of the

cat was inflicted on Friday morning in Newgate on three prisoners, who were convicted at the recent session of the Central Criminal Court of street robberies, accompanied with violence. The culprits were William Turner, who was sentenced to 10 years' penal servitude with 39 lashes, and William Osborn and Michael Denwen, who were sentenced to five years' penal servitude with 20 lashes. The culprits were all young men, and had bad characters. The punishment was inflicted by Calcraft, in the presence of Alderman and Sheriff Stone, the Governor of Newgate, and the surgeon of the prison. The culprits bellowed lustily during the infliction.

RESPIRE OF THE HAMMERSMITH MURDERER.—The sentence of death passed upon John Thompson for the murder of George Frederick James, at the last sessions of the Central Criminal Court, has been respited. It is supposed that it will be commuted to penal servitude for life.

THE PUBLIC HEALTH.—The Weekly Return of the Registrar-General states that in the week that ended on Saturday, December 28, 3679 births and 3130 deaths were registered in London and in 12 other large towns of the United Kingdom. The annual rate of mortality was 26 per 1000 persons living, being 24 per 1000 in London, 30 in Edinburgh, 23 in Dublin, 21 in Bristol, 29 in Birmingham, 32 in Liverpool, 32 in Manchester, 23 in Salford, 29 in Sheffield, 25 in Leeds, 26 in Hull, 27 in Newcastle-upon-Tyne, and 32 in Glasgow. In London the births of 837 boys and 814 girls, in all 1701 children, were registered in the week. In the corresponding weeks of 10 years 1857-66, the average number, corrected for increase of population, was 1918. The deaths registered in London during the week were 1433. It was the 52nd week of the year, and the average number of deaths for that week, corrected for increase of population, was 1595. The present return is therefore less, by 162, than the estimated number.

Provincial.

ABERDARE.—A fatal accident occurred on Friday afternoon at the Bwlfa Steam Colliery, in the Aberdare Valley, by which six persons were killed, and four others narrowly escaped suffocation. It appears that a wooden ventilation pipe took fire and thus destroyed the means by which the atmospheric current was kept in motion.

AYLESBURY.—The two workmen, Meehan and Connerly, from the Wolverton works, who had been apprehended on a charge of Fenianism, were again brought up for examination on Saturday, when the magistrates, after taking some further evidence in their private room, were unanimously of opinion that the evidence was not sufficient to justify them in committing the prisoners for trial. They were, therefore, discharged, and on their departure by rail were cheered by the people who had assembled at the station.

BARNESLEY.—About noon on Saturday one of the boilers of the steam engine mill belonging to the executors of the late Mr. G. Jackson, situated almost in the centre of this town, exploded, killing the engineer and injuring more or less about 30 other persons, as well as doing a great deal of damage to the property in the neighbourhood. The boiler itself was blown 60 or 70 yards, and fell on the roofs of two shops in the main street, carrying away in its progress the roof of a cottage and demolishing an inn. All the windows throughout the neighbourhood were broken.

COWES.—The chairman of the West Cowes Local Board of Health last week addressed a letter to General Grey, expressing the regret of the inhabitants that the necessity had arisen to take more than ordinary measures to insure the safety of the Queen, and stating that nothing would be more gratifying to them than to join in any act or demonstration, either as special constables or otherwise, which should be the means of evincing their determination to secure her Majesty's personal safety. To this letter, General Grey replied as follows:—

"Osborne, December 22, 1867.—Sir, I have had the honor of receiving and submitting to the Queen the letter written by you to the chairman of the Local Board of Health in the name of the inhabitants of West Cowes, expressing their regret that any necessity should have arisen for the adoption of extra precautions to insure her Majesty's safety while resident at Osborne, an offering of their services, either as special constables or in any other way that may best prove their loyalty to her Majesty's person and family. Her Majesty commands me to say that she is deeply touched by these loyal assurances on the part of her subjects at Cowes, and very grateful for them. She has herself never entertained the slightest apprehension of her personal safety, though she has thought it right to yield to the representations of her Government by giving her sanction to the precautionary measures which they thought it prudent to adopt. It will be for the Government to consider whether anything more is necessary than has been already done, and I have, therefore, by her Majesty's command, forwarded your letter to the Home Secretary, who will judge how far it may be desirable to take advantage of the offer of their services by the loyal inhabitants of Cowes.—I have the honour to be, &c., C. GREY."

DEVONPORT.—James Lisk, one of the labourers employed in the engine department of Keyham Dockyard, was discharged last week on account of his Fenian proclivities. On the previous Saturday he was employed with a gang of labourers in putting machinery on board the Lapwing gun-vessel. In the course of conversation with his fellow-workmen he expressed strong Fenian sentiments, and said that it would have given him great pleasure to have been one of the number engaged in the Clerkenwell outrage, and would join any party to blow up all the churches in England. These remarks caused great indignation among the other labourers, who called upon him to retract them, and on his refusing to do so they all declined to work with him while he held such views. The circumstances were reported to the foreman, when Lisk expressed similar sentiments. The case was then

referred to the admiral superintendent of the dockyard. Lisk is an Englishman of age, who formerly worked at the Saltash during the building of the vessel, previously came from Sleernea, a Catholic, and has been about 15 months in the factory.

DROYLESDEN.—On Saturday afternoon the body of Mary Hammer, who was killed by an Irishman named Flaherty, the woman, about 35 years of age, employed at Droylesden, wished to pay, as a token of respect, she declined to have anything to do with the account of his drunken habits. On Flaherty called at her lodging to tell her of going to Ireland. Shortly afterwards he felled her to the ground, and killed her with the poker, and when she ran she was felled her to the ground, and killed her with blows before any one could come to her aid. She was committed for trial on the charge of murder.

ETON.—On Tuesday, after more than a week's sitting, the meeting of the Provost and Fellows of Eton assembled for the purpose of electing a new Headmaster of the Rev. Dr. Balston, resigned. The candidates were the Rev. James John Hornby, of St. John's College, Oxford, and Second Master of the same College; the Rev. H. Snow, of the Rev. A. F. Birch, and the Rev. W. W. Chester, was declared to be elected.

FEVERSHAM. On Saturday morning, at 11, an explosion took place at Messrs. G. & Co.'s mills near this town. The cause was a press-house, although separated by iron traverses which were intended as a means to communication, were destroyed, and including the best in point of skill and strength on the works, were blown to atoms. The thickness were blown down, elm trees in the fields torn up by the roots, and driven into the water. The houses in Feversham, at a distance, were rocked and shaken as by a wind. Windows were broken, and persons there, at Canterbury, eight miles off, the noise of the explosion alarmed the whole city. A thousand people were gathered to witness the explosion. Fenianism had been current for some time in these mills, the proprietors, Messrs. G. & Co., have written to say that they have a suspicion of anything felonious in the matter, and though, like others engaged in the trade, they have had hints and warnings of mischief, endeavoured by extra precautions and wide against it, they hope that, as a coincidence of this explosion with the anxieties and fears will prove to be nothing more. The inquest was held on Monday, and the jury returned the following special verdict:—

"It is the opinion of the jury that the explosion has been caused by accident; and they believe that no precaution had been taken by the proprietors, the management of their factory, and the careful oversight, and supervision to do the work."

GATESHEAD.—On Friday, in accordance with a recommendation of the Gateshead magistracy of nitro-glycerine, found at Tyneside, was destroyed. The liquor, which was contained in a wicker-covered canister, was conveyed in order of the colliery viewer, and a lighted candle was placed in the bung. The spot chosen was from any human habitation. When the canister was fired, a light blue smoke rose into the air, and a report like the roar of artillery. The explosion took place in the main street, while the top of an adjoining house was clipped. Seven pounds of the composition were found on Friday stored in the pantry at Chester Moor colliery, and were destroyed at Walbridge Fell. The canister was placed on a peaty character, and was not appraised, and an explosion at once took place, and a report was distinctly heard at a distance of six miles, and the effect of the explosion was to form a hole in the earth to the depth of five feet, six and a half feet in diameter.

HAWARDEN.—Mr. Gladstone, who has been at Christmas at Hawarden Castle, met with an accident on Monday week while watching the cutting of a tree in the grounds. A splinter flew and struck one of the eyes. The pain was very severe, and the accident having caused contusion and abrasion of the cornea. For a time the state of the eye was for alarm to Mr. Gladstone and his friends, but his medical attendant, Dr. Moffat, of Hawarden, not without doubt as to the consequences, on Monday last the right hon. gentleman returned to London, and it is understood that the functions of the eye are now as usual, and that the eye is now as usual.

MERTHYR.—A clever capture of a Fenian was made on Christmas-day. Superintendent having received information that the Fenian had been administered to a man at Dowling, he went and found the man, William Casey, who had been administered to him by Patrick O'Haggerty, a timman, with whom he lodged. He was then absent, but the house was watched, and at night, about half-past 10, the superintendent went up to the window, and looking through the window, in the midst of whom was a Fenian song in the chorus of which the words were "In a few minutes Casey ceased singing, and with his hand under the table drew forth a heavy hammer, then said he stood there demant of every one, any "peeler" had the temerity to lay hands on him would brain him on the spot. At that moment the superintendent burst into the room, and

in Mexico, directing him to express the sympathies of Switzerland with the Mexican Republic.

PRUSSIA—The Prussian Chambers re-assembled on Tuesday. In the sitting of the Chamber of Deputies on Wednesday, Deputy Lasker's motion, securing to the members liberty of speech during debate, was carried by 174 to 144. Count Arnim-Boitzenburg, formerly Prussian Minister of State, died on Wednesday evening at Boitzenburg, after a lengthened illness. The result of the Government investigation into the state of the population in East Prussia, confirms the fact that distress and the diseases arising therefrom prevail there, but no cases of famine typhus have yet appeared.

AUSTRIA—The Austrian frigate *Novara*, with the remains of the late Emperor Maximilian on board, arrived off Corfu on Tuesday. Dr. Giskra, the new Minister of the Interior, has received the heads of departments and addressed to them a speech, in which he laid stress upon the necessity of a spirit of conformity with the Constitution and fidelity to its stipulations being introduced into the administration, stating that he expected and required that the officials should support the new system. Herr von Hasner, the Minister of Education, in his reception of the chief officials in his department, said that it was his intention to grapple with the solution of the public questions falling within his province in the spirit of the Constitution, and expected that all his subordinates would be ready to fulfil their duties in a similar spirit. The *Debatte* states that Prussia has associated herself with the recommendations lately addressed to the Porte by Austria, France, and England for the extension to other provinces of the concessions made to the Cretans, while Italy and Russia have held themselves aloof. The *Debatte* considers the fact of Prussia having joined in these recommendations an important occurrence. The *Presse* of Wednesday states that the relations at present existing between Austria and Italy, and between Austria and France, are of the most friendly nature.

RUSSIA—An Imperial ukase has been published annulling the ukase of the 26th of May, 1857, whereby those inhabitants of the Western Governments of the kingdom of Poland, belonging to the lower classes, who had been compromised in the late rebellion or exiled, were permitted to emigrate. It is said that there is a crisis at the Court of St. Petersburg with regard to the future policy of Russia in the Turkish question. One party, called the moderate party, headed by Prince Gortschakoff, is in favour of a sympathetic neutrality on behalf of the Christians in the East, while the party of action, headed by General Ignatieff, is said to be in favour of an open war on behalf of the Christian subjects of the Porte. The *Vienna Presse* of yesterday, however, says that during his recent stay in that capital General Ignatieff took the opportunity of expressing himself to several diplomatists in a peaceful sense as to the policy of Russia in the Eastern question.

ITALY—The new Cabinet was formed on Saturday as follows—

General Menabrea, President, and Minister of Foreign Affairs; Senator Cardona, Minister of the Interior; Count Cavour, Minister of Finance; General Bissolati, Minister of War; Deputy de Filippo, Minister of Justice; Signor Braglia, Minister of Public Instruction and Cult; Count Cantelli, Minister of Public Works; Admiral Robotti, Minister of Marine.

The three new Ministers—Cardona, De Filippo, and Ribotti—took the oath of allegiance to the King on Sunday evening. Count von Usedom, the Prussian Ambassador, had a special audience of the King on Sunday morning, when he presented his credentials as Ambassador of the North German Confederation. The Count, in addressing the King, said—

"The King of Prussia believed that he was acting agreeably to his Majesty's wishes in following the same course with Italy as with the other great Powers in this matter. His Prussian Majesty trusted that King Victor Emmanuel would extend to the North German Confederation the same good will and friendly relations which the King of Prussia had always cultivated with Italy."

King Victor Emmanuel, in reply, expressed his satisfaction at the cordial sentiments conveyed by Count von Usedom, and declared his wish to continue on the same friendly footing with the North German Confederation as previously existed between Italy and Prussia. Count von Hompesch, the Bavarian Minister, afterwards presented his letters of recall, having been appointed Bavarian Minister to London. The Minister of War has issued orders to send to their homes on the 15th inst. all the soldiers of the class of 1841, called out shortly after the accession of General Menabrea to office. The Committee on the Budget met on Wednesday. It was resolved that the discussion on the Budget should be placed first on the order of the day upon the re-assembly of Parliament. A splendid banquet was given at Naples on the 2d inst. in honour of Signor Rattazzi. Several senators, many deputies, magistrates, distinguished citizens, and a few representatives of the Italian and English Press were present. Speeches were delivered by Senator Adrian Ombriani, Signor Rattazzi and others. Toasts were proposed in honour of the King, of Signor Rattazzi, of Piedmont, and of Naples respectively. The trial of the 62 Catholics of Barletta, for their outrages on the Protestants, has just been terminated before the Court of Assize of Bari. 24 were acquitted, 12 condemned to 18 years in irons, among whom were the Canon Postiglione and the Capuchin Father Vito Marie, 10 to 16 years in irons, and the rest to minor punishments. The eruption of Mount Vesuvius on Friday assumed alarming proportions. An immense current of lava overflowed the central cone, and skirting the hill on the west and north-west, descended towards the valley of Cercola. On Saturday the lava, following the same direction as during the eruptions of 1858, 1859, 1860, separated into two branches. The

northern branch passed close to the Observatory, approaching Resina; the southern branch took the direction of Torre del Greco. Great panic prevails in the villages on the slopes of the mountain.

PAPAL STATES—Two hundred fresh recruits for the *Autibes Legion* arrived at Rome on Tuesday, thus raising its strength to 1835 men. The *Papal States* number above 5000. The official journal of Tuesday publishes the retraction of Cardinal Andrea, dated the 26th December. The Cardinal asks pardon for having gone to Naples, notwithstanding the prohibition of the Pope; deplors the scandal he has caused, and his connexion with the *Examinatore* newspaper at Florence, the heretical doctrines of which he disapproves. He adheres to the address of the bishops assembled at Rome in June, 1867; withdraws his protest against the Pontifical brief of the 12th June, 1865, and asks pardon of the Pope and all those whom he has offended. In spite of this retraction the Cardinal has not yet been restored to favour with the Pope, nor has he been permitted to resume his benefices.

THE PRINCIPALITIES—The Government has obtained a great majority at the elections, 82 deputies being supporters of the Ministry, and 57 of the Opposition.

TURKEY—It is reported at Constantinople that although Russia has no intention of immediately attacking Turkey, a Christian rising will shortly take place under her auspices throughout the Ottoman empire. The Turkish Ambassador at Vienna, Haider Effendi, in compliance with an order from Constantinople, has left for London, on a mission connected with the present relations of the Russian and Turkish Cabinets. Her Majesty's ship *Terrible* has passed the Dardanelles, carrying two Armstrong guns as a present to the Sultan.

CANDIA—Letters from Canea state that the Turkish admiral has surprised a Russian corvette landing provisions at Arnino, and violating the blockade. The commander of the corvette proposed to suspend the landing till the decision of the Russian consul could be obtained, to which the Turkish admiral assented.

CHINA—The China mail brings details of the great fire at Hong Kong. It occurred principally among the Chinese Hong. Several "godowns" were burnt. The total loss is estimated at 800,000 dollars, of which only 100,000 dollars' worth was insured.

JAPAN—A political revolution has taken place in Japan. The Tycoon has resigned. It is supposed that the foreign relations of Japan will not be prejudiced by the change. An adjournment of the opening of the new ports for a few months is, however, considered probable. A line of steamers has been started by the Japanese, between Yokohama and Osaka. One of the Japanese *Daimios* is erecting at Yokohama a steam power-loom factory, for the manufacture of cotton piece goods. One hundred looms are to be started as a commencement. Six experienced Lancashire operatives are to superintend operations, and to train the Japanese. It is expected that the factory will commence business within a couple of months.

MALTA—A great boon has been conferred by Lord Carence Paget, the commander-in-chief, on the seamen of British men-of-war in the Mediterranean. His lordship having obtained the requisite authority from the Lords of the Admiralty, has organised a canteen for the use of English seamen, which was opened on New Year's Day, on Coradino Hill, a site admirably adapted for that purpose. The establishment is provided with rooms for reading and refreshment, where good liquors and refreshments may be had at a moderate cost, under certain regulations which provide for the comfort and convenience of the sailor, and at the same time secure the preservation of good order.

ABYSSINIA—The following telegram was received in London on Wednesday night from Senafe—

"The natives are very friendly towards us, and supplies are arriving. The troops are healthy. Letters have been received from the captives at Magdala, dated November 11, stating that they were then all well. The King of Sennaar and Waag shan Gidrya are reported to be near Magdala. There is still in an embarrassed position."

The establishment of a line of telegraph between Kosseir and Annesley Bay is contemplated. Advice received at Aden from Massowah state that the Egyptians appear determined to send a mission to King Theodore, notwithstanding the remonstrances of the British.

AUSTRALIA—His Royal Highness the Duke of Edinburgh, who arrived at Melbourne on the 23d November, has met with a most enthusiastic reception. The entire city was decorated, and upon the entrance of the Royal procession the road was strewn with flowers. Eleven thousand children sang the National Anthem. At Adelaide one thousand colonists were presented to his Royal Highness at a levee held in that city. The red rust has appeared in the growing wheat crops. A short harvest and much damage are anticipated.

NEW ZEALAND—Mrs Bunbury, a lady who arrived from Great Britain in the *William Davie*, has presented to the Acclimatisation Society a collection of skylarks, thrushes, blackbirds, starlings, goldfinches, and hawks, all of which were landed in excellent condition. Captain Logan also brought out 70 song birds, but only 10 or 12 survived.

UNITED STATES—President Johnson, after a Cabinet consultation, has determined to remove General Pope from the command of the Third Military District. General Canby has ordered the South Carolina Convention to assemble on the 24th of January. General Ord has sent General Gillem to Washington to represent to the authorities the starving and discontented condition of the freedmen in Mississippi, and the necessity for some national measure to feed them and avert a war of races. General Ord has

ordered the arrest as vagrants of all freedmen refusing to work. It is reported that around the negroes are committing excesses in the interior of Carolina. It is reported that disturbances occurred at Christmas at Greenville, Demopolis, and in Alabama, and troops were sent to them. No details have as yet been received from Virginia are committing depredations and robbery property of the whites, who are arming themselves. Great destitution is said to prevail in the States. The correspondents of several papers state that 3,000,000 of persons, mostly from Mississippi had occurred in Louisiana, and Hancock had asked permission to employ starving negroes to repair the levees at national expense. Mr Jefferson Davis wife have arrived at Havana, en route for Orleans. The Secretary of the Treasury his usual monthly statement of the Treasury and the cash in the Treasury of the United States. The total amount of debt on the 1st of December last, showing an increase of 3,000,000 dollars. The cash in the Treasury same date was 134,000,000 dollars, against 2 dollars at the corresponding period last year, being a decrease of 4,000,000 dollars. The Senate passed a Bill exempting from tax the cotton crop in 1868, and abolishing the importation of foreign cotton grown during the year ending April, 1869. The Military Commission has presented a report, recommending the Senate should not concur in the removal of the Secretary of War. The House of Representatives has passed a resolution authorising of 54 surplus naval ironclads. The Ohio and Western-Virginia Democratic State Conventions passed resolutions in favour of the nomination of Pendleton for the Presidency, and the ratification of the Five-Twenty United States' Bonds.

CANADA—The Canadian Parliament has adjourned to March 12. The authorities have apprehended a Fenian rising at Christmas. Troops were held in readiness to act in case of a revolt had occurred at Quebec, and Santa Anna, who was expected soon to arrive at Havana, had been proclaimed dictator by the hands of the insurgents, and was blockading the harbours of Juarez. It is reported that the Fenians intending to return to Mexico.

MEXICO—Juarez was to be inaugurated on the 1st of December. Advice from Sisal to the effect that a revolt had occurred at Yucatan, and Santa Anna, who was expected soon to arrive at Havana, had been proclaimed dictator by the hands of the insurgents, and was blockading the harbours of Juarez. It is reported that the Fenians intending to return to Mexico.

THE BRAZILS—Advice from the seat of the belligerents in Paraguay were that the president Lopez was disarming his order allies were strengthening their cordons round the blockade was perfect. Cholera was prevalent. The mission of Columbus to the Brazils has been postponed. Verela had retired where he was disarmed by the Bolivian General Arredondo was in revolt at Rio Grande. Fire has destroyed the workings of the Santa Rey mines. Eighteen lives were lost supposed to have been the work of an insurrection. The Princess Leopoldine gave birth to a son on the 6th inst.

City Intelligence.

MONEY MARKET, FRIDAY—British Consols closed at 92½ to 92½ both for Account; New and Reduced Three per Cent. at 92½; India Five per Cent. at 111 to 112; Stock, 240 to 242; Exchequer Bills, 2½ to 2½; FOREIGN. Spanish, 31½ to 31½; Mexican, 12 to 12½; Italian, 41½ to 41½; Greek, 12 to 12½; Brazilian 1865, 75 to 76. United States Bonds, 71½ to 71½; Erie Railway, 49 to 49 88 to 89.

Metropolis and its Environs.

REPORTED CAPTURE OF DEASEY—It is reported on Monday that there was reason to believe that Captain Deasey, the Fenian chief, whom that of Colonel Kelly, from the police, had captured on the 18th of September, had fallen into the hands of the police. It appears that a party of the attack on the police-van the person supposed to be Deasey engaged himself as a seaman on board an alteration with the captain, who had been wholly ignorant of the duties of a seaman, and being then in a vessel at Ladbarn, and being then in a vessel applied to the English Consul at that place, procured him a passage to London, under the name of Oriana, as a distressed seaman, under the name of Lionel Granville. The Oriana, after leaving Gibraltar, the last port she touched at prior to her arrival in London. Shortly after her arrival was noticed by the crew that the stranger was very peculiar in the case of one who reported himself to be an able seaman, and who was on board the vessel. The circumstances stated, being curious, the crew then became suspicious, and resolved to inquire into the matter. When they found that Lionel Granville was more than a landsman. As soon as this was ascertained Granville's manner changed, and he assumed a bravado, and became communicative. He spoke of piracy by sea, and of deeds of daring on the American continent. On being

facture in Leeds everything is stiffened into tradition and routine; old-fashioned forms are adhered to, and even when an enterprising wool-spinner introduces improved machinery into his factory he finds that his "hands" will not or cannot work it to the utmost advantage. "One result is that the spinners and manufacturers of Belgium are exporting woollen yarns and cloths valued at nearly two millions annually to this country, produced from wools, a great portion of which are first imported from our colonies into London and shipped thence to Antwerp." At Bradford the woollen manufacture is carried on with the newest appliances, by energetic masters and unprejudiced workpeople, and is consequently a most thriving branch of industry, which has nothing to fear from continental competition. Nottingham has suffered quite as much as Leeds; but in this case the chief cause has been the differences between masters and workmen. The trade here, in everything except cotton lace and net, is rapidly being transferred to France, and unemployed English lace machines of 100% to 800% in value have been bought by manufacturers from Calais, and are now in full operation in that town. In the hosiery and carpet trades of the Nottingham district, and in the steam coal trade of the north of England, "Boards of Conciliation" for the settlement of differences between masters and men have been established, and are working with the happiest effects, so that the hosiers of Nottingham compete successfully with the extremely low-paid labour of Saxony. In lace curtains there has been no decline at Nottingham; in fact, quite the reverse. The success in this branch is due to the excellent local school of art. Mr. Samuelson saw beautiful designs by pupils of the school, which were being executed in one of the factories, and he was informed that the English patterns in this branch are preferred to those of France. The thriving lace factories of St. Pierre les Calais contrast most favourably with the decaying establishments of Nottingham. One of the most successful Calais manufacturers said to Mr. Samuelson that the Nottingham lace-makers had relied too much on their acquired position, and had ceased to give that close attention to details without which the lace manufacture cannot be carried on. The manufacture of iron of the highest class, fit for the construction of British engines, is still almost a monopoly in England, but in France it can be obtained from a great variety of workshops, and at prices considerably below ours. "For instance," says Mr. Samuelson, "I found that the iron tires or hoops for the wheels of locomotive engines made at the great Yorkshire works ranged in price from 11*l.* 5*s.* to 19*l.* 16*s.*, while iron tires of equal quality and of corresponding weight and size, but made in France, cost only from 6*l.* 3*s.* to 13*l.* 4*s.*; and I have good reason for stating that the routine and prejudices of our railway superintendents alone prevent the latter from being more extensively introduced than they have yet been on our railways." At the great ironworks of Creuzot the coal and ores are raised on the spot, manufactured into iron, and this again into the most powerful and elaborate machinery. The works cover 300 acres, the workshops and forges 50 acres; the mines yield annually 250,000 tons of coal, and 300,000 tons of iron ore. The ironworks produce more than 100,000 tons of iron, machinery, locomotive, and marine iron bridges and viaducts; and even iron gunboats and river steamers, of an average yearly value of 600,000*l.*; 9950 workpeople are employed at the works of Creuzot, and receive in wages the sum, in all, of 370,000*l.* a year. The steam engines worked are equal to a duty of 10,000-horse power. The machinery in use is made after the best English designs; but no appliances for producing perfect work, or for economising the cost of production, have been omitted, and the great forge is "probably unequalled in the world." Excellent schools—both primary and special or technical—have been established in connection with the works, and, by means of these, unfailing supplies of skilled, scientifically-trained workmen are obtained. Mr. Samuelson went over the works of the Terre Noire Company, and saw the process of manufacturing Bessemer steel from the iron—a simplification of the Bessemer process, as compared with the practice in England—which involves such economy, that the Terre Noire Company are supplying one of the great French railway companies with 20,000 tons of steel rails at a price below their prime cost in England, in spite of comparatively dear fuel and ores. At these works no precaution is omitted that success may be insured, and measurement and qualities are looked upon with as much anxiety as if the great iron works was a chemical laboratory. "The most careful chemical daily analysis of all the raw material and products is one of the conditions of the success of Terre Noire in their manufacture. At the steel works of Firminy, near St. Etienne, another modification of the making of steel is followed, and steel rails are manufactured at an extraordinarily cheap rate. The ingots run from the furnace are simply rolled, and the rails produced are of so excellent a quality that the waste ends are used in the works for turning tools and chisels, without being re-melted or subjected to any other process except that of "tilting" or hammering. The works of Terre Noire and Firminy are unsurpassed in the world for economy in the production of ordinary steel. But the most marvellous steel works in the world are those of Krupp and Essen in the Wupper Valley, Westphalia. They consume 800 or 1000 tons of coal per day, raised from pits within the walls of the works or immediately adjoining, the cost of the coals being less than 5*s.* per ton. "The machinery of every department is as perfect as the magnificent products of the works would lead one to expect. The range of crucible furnaces is a sight of its kind unparalleled in the world, except, perhaps, at the neighbouring works of Bockum. At the time of Mr. Samuelson's visit, a steel 1000-pounder breech-

loading gun was nearly completed for Russia, and several 200 and 300 steel breech-loading guns, hooped and rifled for the German navy. Thousands of steel breech-loading guns were in course of manufacture for all nations." Besides these, Mr. Samuelson noted a number of cast-steel cranked axles—one of them of enormous size, for a transatlantic steamer then being built at Greenock by the Messrs. Caird. Eight thousand men are employed in these works, and 60,000 tons of steel—more than twice the entire export of steel from the United Kingdom—are produced annually. While the Continental workmen are better educated than the workmen of Britain, they are also apparently more peaceable in disposition. "Nowhere in France are the hindrances felt which the abuse of Trades' Unions is placing in the way of several trades in England; and this for the simple reason that Unions such as we have here do not exist. There are no Trades' Unions in the north of Germany." The workmen save their wages, buy a piece of land, which they and their families cultivate. Thus they become attached to localities, and are interested supremely in the preservation of amicable relations between them and their employers. Strikes do not enter into their heads, though it is undoubtedly true that, while as a rule they are better educated than British workmen, they work longer hours for considerably less pay.

THE MEMORIAL TO LORD PALMERSTON.—The committee of subscribers for the erection of a statue of Lord Palmerston in Palace Yard have commissioned Mr. Thomas Woolner to execute the work. The site fixed upon is at the corner of the new enclosure in Palace Yard, immediately opposite the Peel monument. The work is to be a single colossal figure, 8 feet high.

THE CORONERSHIP FOR WEST MIDDLESEX.—There are already four candidates for this office, vacant by the death of Mr. Bird. Mr. F. Hand, the deputy-coroner of the division; Mr. John F. Isaacson, the Conservative agent for the last Westminster election; Dr. Hardwick, the present deputy-coroner of the West Central Division; and Dr. Holt Dunn.

REBUILDING OF HER MAJESTY'S THEATRE.—The reconstruction of Her Majesty's Theatre has already commenced on a scale of grandeur which is intended to eclipse every other opera-house in Europe. The estimated cost of the new building is very nearly 250,000*l.* The houses fronting Pall Mall, the whole of the avenue formed by the Opera Arcade in the west, and the site, in Charles Street, of the United Hotel and Club to the north will, according to this design, be absorbed in the new opera-house. So complete are the plans and contracts under discussion that, according to the arrangements promised, the new theatre will be finished and ready for Mr. Mapleson's occupancy by Lady-day, 1869.

ANTI-RITUALISTIC DISTURBANCES.—On Saturday Mr. Charles Pembroke Langston, resident at Dalston, was summoned before the Lord Mayor for "violent and indecent behaviour" in the parish church of St. Ethelburga, Bishopsgate, during Divine service, on the 29th of December, by which he "molested, disturbed, and vexed" the Rev. J. M. Rodwell, the rector, and the preacher on that occasion. The case was proved by the testimony of the rector, who said that the behaviour of the accused during the reading of the communion service and the sermon was grossly irreverent and disgusting. Evidence was also given of similar conduct at St. Matthias Church, Stoke Newington, on the part of the defendant, who appeared to have adopted this mode of showing his dislike to ritualistic development. The Lord Mayor sentenced the accused to a month's imprisonment, and to pay the costs of complainant. Eventually, on being appealed to for the sake of defendant's wife and children, the appeal being warmly seconded by the counsel for the rector, the Lord Mayor reduced the sentence to a fine of 5*l.* and 5*s.* costs. The fine was paid.

ROMAN CATHOLICISM IN GREAT BRITAIN.—The "Catholic Directory" for 1868, just issued *permissu superiorum*, gives some details in reference to the present position of the Roman Catholic Church in Great Britain. There appears to be a considerable increase in the Catholic clergy, churches, chapels, convents, and monasteries since last year. The total number of Catholic bishops is the same—namely, one archbishop and 12 bishops (besides three retired bishops) in England, and four bishops in Scotland. The number of priests in Great Britain amounts to 1639, against 1608 last year; the number of churches and chapels is 1283, against 1207 when the last "Directory" was published. The convents of women are now 227 in number, whereas last year they were 220, and the monasteries number 67 against 63 last year. Total increase, 31 priests, 76 churches and chapels, seven convents of women, and four monasteries of men. Of the 76 churches and chapels, which are more this year than last, about a dozen are private chapels of convents and of various individuals. Of the four new monasteries, three are merely houses in which two or three of the regular clergy dwell together for missionary work; the fourth is the new Dominican priory at Haverstock Hill. In the convents, or religious houses of women, the increase has been very great during the last few years, but it has been altogether, or with very few exceptions, among the non-cloistered or active orders, such as Sisters of Charity, Sisters of Mercy, and the like. The cloistered orders hardly seem to increase at all, or very slightly, in this country. The number of colleges and large preparatory schools is 21. Of the 227 convents upwards of 200 are for the education of girls, either rich, poor, or middle class.

STORM WARNINGS.—It is understood that the Board of Trade and the meteorological committee appointed by the Royal Society at the request of the Government have decided on issuing cautionary signals to the ten following places.—Hayle, Grimsby, More-

cambe, Fleetwood, Aberystwith, Carnarvon, Liverpool, Goole, and Leith. These places are to be in applications to receive telegraphic signals respecting the weather, and have undertaken to have also applied whose applications are under consideration, and it is considered probable that applications will soon follow.

THE THAMES EMBANKMENT AND METROPOLITAN RAILWAY.—At the meeting of the Metropolitan Board of Works on Friday, Mr. Baxter, chief engineer, presented his report on the Thames Embankment. The report stated that between Westminster and Waterloo the portions thereof had already been removed on the face of the work, while between Waterloo and the Temple Gardens, a length of 1000 feet of parapet was complete, and there remained to be formed to complete the entire length a wall comprised in the contract. The report called the attention of the Board to a letter from Mr. Baxter, solicitor to the Metropolitan Board of Works, respecting the delay which had occurred in the construction of the Thames Embankment between the east end of the Temple Gardens and Cannon Street Bridge. In that letter Mr. Baxter stated that the fault did not rest with the company but with that Board, and that the Embankment works would take a longer time to complete, while those of the railway would be executed from end to end in six months. Mr. Baxter made an erroneous statement, for there was no delay on the railway company should not at once be taken into their works. Mr. Bazalgette, the engineer, made this statement, and said that there was no power ever to prevent the railway company from proceeding with their railway from Cannon Street Bridge to Blackfriars Bridge, and they could do so conveniently as at the present time. The Embankment to be more advanced than the railway would have to be done by the railway company now was the proper time when the railway works could go on without any injury to the Embankment. As to the work of making the Westminister Bridge to Cannon Street, Mr. Baxter believed that the shortest time that it would be 18 months, and if it was done in that time it would progress more rapidly than any other similar description. It was ultimately decided that the committee should publish their report on the whole facts of the case.

PURIFICATION OF THE THAMES.—The Metropolitan Board of Works are able to report that the requisite 13 months' notice for the removal of the sewers above Staines which emptied themselves into the river, or into any tributary stream, has been given. The notice was given 13 miles of the river, and at a later period of 10 miles they gave like notice with regard to the river above London. They have also served notice on the proprietors of paper mills, requiring the removal of the flow of sewage or other offensive matter into the water supply, the Conservators employing the water to pass up and down the river, for the purpose of removing all dead animals and other nuisances. The lock-keepers have also been required to remove all such nuisances.

SEWAGE IN THE THAMES.—Some reports have been published as a Parliamentary Commission to the large shoals forming in the Thames in the neighbourhood of the main drainage outfall at Cannon Creek and Crossness. The engineer of the Metropolitan Board of Works reports that the character of the water of the river shows clearly enough whence it has come, and that it is in a state of active putrefaction. He describes it as consisting of a mixture of sewage matter, with the remains of myriads of animalcules, and a large quantity of carbonate of lime in a partly crystalline state, together with the siliceous clay of the lower water of the Thames. He found the very large proportion of 14.8 per cent. of organic matter in the well dried mud, and states that "by undergoing putrefactive changes, this mud, which is accumulating in such quantities at the sewer outfalls, may be a cause of alarm, especially as it there meets with sulphates of which may, by their chemical action, occasion the evolution of a large quantity of much sulphuretted hydrogen, and set up a very offensive change which is characterized by the action of sewage upon sea water." Near Cannon Creek outfall the greatest accumulation is found in the stream, showing that the sewage is not so managed as to carry it down the stream. The survey made in June showed that the southern outfall a space of more than 100 acres of river covered by a deposit varying in depth from 7 feet; the deposit has been traced for 10 miles, and might be followed further down the river in decreasing amount. The surveyor of the Metropolitan Board of Works does not advise that accumulations are due to their works, and in a letter of the 11th of November, 1867, the Board of Works requested the Metropolitan Board of Works to cast all the sewage into the lower part of the river, and that the Metropolitan Board of Works should be required to take it out again if it is too much for the river.

THE FINSBURY ESTATE.—This estate, the rental of about 55,000*l.* per annum, passed on the 10th day to the Ecclesiastical Commissioners, and has previously been in the receipt of one of the Commissioners, the death of the late Bishop of Carlisle, who was the same in right of the Finsbury prebendary of Paul's Cathedral. The estate had been in the

Corporation of the City of London for upwards of 300 years, under successive leases from the prebendaries for time being, granted according to ecclesiastical custom, the lease now expired, which was granted in 1767, under an arrangement enabling the Corporation to grant new leases with the sanction of Parliament, for 99 years. As the time for the renewal of the lease was approaching to a large sum, one-sixth of the rents was reserved for the future prebendaries, and was given to Dr. Wilson, the prebendary of 1768, for his own share in the renewal fine. This fine was afterwards purchased by Dr. Wilson by the Corporation, who raised the purchase-money by bonds, which he repaid on Christmas day. This is the estate which during the last few years has had so much attention directed to it. The representatives of the locality have exerted in their endeavours to obtain a recognition of the principle that the districts from whence the rents have proceeded should largely benefit on a concession by the Commissioners, and a deputa- tion waited upon Mr. Gladstone, when Chancellor of the Exchequer, to ask his influence in furtherance of it. Other parties have also at times called atten- tion to the matter on several special occasions. The Bishop of London referred to it several times in his House of Lords. He described the rental as likely to be "fabulous in amount," and expressed his opinion that it would afford a pretext so dangerous to the funds, for an increased staff to manage it. The Corporation every description of house property, on the professional residence in Finsbury Square to the smallest tenements in the courts and alleys in St. Martin's Lane. The late Bishop Percy attended once every year at the Chamberlain's office to receive his one- fourth share of the rents, and spent several hours in carefully examining the accounts and vouchers show- ing the actual rents and disbursements.

PROPOSED NEW STREET.—It is proposed to make a new street from the New Kent Road, across the Dover Road, Kent Street, through St. George's New Town, to the Tower Street. This will break up a colony of the most desperate thieves in Southwark at a cost of nearly £100,000, to be borne by the parishes of St. George the Martyr, St. Mary Bermondsey, and St. Mary Abchurch.

NEW FIELDS BURIAL GROUND.—On New Year's Day Bunhill Fields Burial Ground fell into the possession of the Corporation by an Act of last year. The Corporation will now proceed to plan the ground, lay out walks, and preserve the tomb- stones, after which the ground will be thrown open to the public under proper regulations.

NOTH KENSINGTON MUSEUM.—The widow of the late Dr. Woolaston has presented to the Art Library of the Museum a valuable series of drawings of Greek and Roman inscriptions to be found in Spain, Prussia, Upper Prussia, Hibernia, Switzerland, Rome, Italy, Germany, Constantine, Carthage, and also in various parts of England, which had been executed by Dr. Woolaston.

ALMON FOR NEW ZEALAND.—At the request of the New Zealand Government, the Board of Conserva- tion of the Severn Fishery District recently gave per- mission to the agents of that Government to take from the river or its tributaries salmon ova for artificial propagation and transmission to New Zealand, with a view, if possible, of stocking the rivers in that country with salmon, which is at present unknown there. The operation of taking the ova was performed on Friday and Saturday last at Bransford and Powick on the river Teme, a tributary of the Severn, within two miles of Worcester. An abundant supply of spawning fish was found, and at one time there were more than twenty salmon in the net together. It was ascertained, however, that the greater portion of them had been duly spawned. The few unspawned fish were skil- fully operated upon, and then returned to the river. Thousands of spawn were secured and impreg- nated with milt from the male fish. Ova have also been obtained from Scotland and Ireland, and to-day a ship Celestial Queen will sail from London with 10,000 ova from British salmon for her destination.

UNJUST WEIGHTS AND MEASURES.—During the year 740 South London shopkeepers were fined for using or having in their possession unjust weights, or measures. The black list is made up as follows:—100 licensed victuallers and beer-retailers, 100 bakers, 100 chandlers, 83 butchers, 76 greengrocers, 100 coal-dealers, 100 grocers and cheesemongers, 11 oil- merchants, 4 confectioners, 10 fishmongers and poulterers, 100 druggists, 100 housekeepers, 5 corn chandlers, 13 marine- dealers, 1 furrier, 2 carriers, 2 glue and size makers, 2 ironmongers, 3 ham and beef dealers, 21 leather merchants, 2 iron merchants, 1 flock dealer, 4 glass merchants, 1 coal merchant, 1 soapmaker, and 1 general merchant. The total amount in fines was 10,707 15s. 6d. In the year 1846 there were 808 shopkeepers fined, which shows a decrease for the past year of 68.

PUBLIC HEALTH.—The Weekly Return of the Registrar-General states that in the week that ended on Saturday, January 3, 4722 births and 3468 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 28 per 1000 persons living, being 27 in London, 23 in Edinburgh, 32 in Dublin, 1000 in Bristol, 90 in Birmingham, 22 in Liverpool, in Manchester 33 in Salford, 22 in Sheffield, 27 in Bradford, 27 in Leeds, 27 in Hull, 29 in Newcastle-upon-Tyne, and 27 in Glasgow. The annual rate in Vienna was 30 per 1000 during the week ending the 28th ult. In London the births numbered 4190 boys and 1124 girls, in all 2318 children, were registered in the week. In the corresponding weeks of the years 1858-67, the average number, corrected for increase of population, was 2187. The deaths registered in London during the week were 1624. It was the first week of the year, and the average

number of deaths for that week, corrected for increase of population, was 1648. The present return is there- fore less, by 24, than the estimated number.

Provincial.

BARNSEY.—On Friday and Saturday two of the men implicated in the charge of murdering George Thirkell, head gamekeeper to Lord Wharncliffe, on the 11th ult., were taken into custody. Joseph English, who is said to be the man who fired the fatal shot, and who is a joiner, was apprehended in the neighbour- hood of Staveley on Friday evening. Joseph Beardshaw, or Beecher, a furniture-man, was appre- hended on the same night in the neighbourhood of Bradford. He and the deceased were well known to each other, and had met on several occasions in the characters of poacher and keeper. About two years ago Beardshaw, with others, was tried at the Leeds Assizes for night poaching, when the judge made some very strong remarks on the undue severity used by the keepers, and let the men off, in consequence, with a very short imprisonment. In connection with the same affair the deceased gamekeeper was charged with assaulting Beardshaw's father, whose house he searched for the same night for poaching implements. This case was tried in the County Court at Barnsey, when a verdict with 30/- damages was given against him. A third man, called Matthew Cutts, has also been taken into custody, and the police are in search of a fourth, called Joseph Gregory, a table fork maker. The three prisoners in custody were brought before the magistrates on Monday, and remanded for a week. Lord Wharncliffe has made ample provision for the family of the deceased keeper.

BOSTON.—An important anti-Fenian meeting was held in this town on Sunday evening. One thousand Irishmen and Roman Catholics were present, and resolutions were unanimously passed strongly denouncing all the recent Fenian outrages, and expressing the utmost loyalty to the Throne.

CHICHESTER.—Viscount Sydney, M.P., the Lord-Lieutenant of Kent, and several magistrates and other gentlemen, have forwarded the following memorial to the Archbishop of Canterbury:—

"We whose names are subscribed, being parishioners and owners of property in this diocese, to your diocese feel it to be our duty to bring under your notice the extent to which the teaching of doctrine of a Roman character and dogmas in the Ritual have been carried on in our parish of St. Andrew, and to appeal to your Grace to exercise, if it be possible, your episcopal authority to restore the services of our Church and the teaching of theology of this parish to that scriptural standard which is maintained in the Articles and Liturgy. The Ritualism to which we refer arises in our parish, from the views of our rector the Rev. F. H. Murray with regard to the Eucharist, the presence and the manner of the Sacrament which Mr. Murray has endeavoured to be in- dicated from a letter which was published in this diocese in 1856, and which was reprinted in the diocesan paper, and which has since been distributed in the parish, and recently distributed to young persons who received confirma- tion at your Grace's hands in a service held in November last, copies of which are transmitted herewith. In this letter and manual we submit to your Grace there is abundant evidence of doctrinal sentiments at variance with the standards of our Church. The Sacrament of the Lord's Supper is thereupon described as 'a sacrifice offered up to God the Father by the minister. The Lord's table is represented as an altar on which a sacrifice is offered, and the priest is assumed to have the office of a sacrificing priest. The doctrine of the real presence of the body and blood of Christ in the elements of bread and wine is also asserted, and the whole spirit and tone of the book and letter are in our judgment in close affinity to the doctrines of the Church of Rome, and calculated to undermine those principles for which the great Reformers of the Church shed their blood. Your Grace will, we believe, feel with us the great hardship of either having to listen to such teaching or to withdraw from our parish church. The latter course has been forced on this parish, who feel that our Reformed Church is a witness and bulwark for pure Scriptural truth against the errors of the Church of Rome, and who cannot consent to do just themselves and their families to teaching so injurious. We feel somewhat way that differences of opinion on matters of such vital importance tend to dishonour and a want of cooperation in those matters which affect the wellbeing of the parish, and many of those who desire to cooperate with their clergy on are prohibited from acting with our rector, and are compelled to withdraw from our various institutions, educational and otherwise, because we cannot lend our aid to the teaching or advancing of such principles as those referred to in our Protestant Church. We place these facts before your Grace, hoping that some means may be devised to relieve this parish from the grievous evils which at present prevail in it, and restore to us the invaluable blessings of our Reformed Church, both as to worship and instruction, of which we are now deprived.

The Archbishop of Canterbury, in acknowledging the address, says he has received a memorial from 24 other influential gentlemen in the parish, stating that Mr. Murray does not hold doctrines consistent with the teaching of the Church of England, and speaking in grateful terms of the privileges they enjoy through his ministry. He has, therefore, he says, no reason to think that the bulk of the congregation are dissatisfied with the existing order of the services. With regard to the Eucharistic Manual given by Mr. Murray to his parishioners, his Grace considers that it does not reflect the doctrines of the Church of England, and very strongly objects to its circulation in his diocese. His Grace refers to the doctrinal points mentioned by the memorialists, on which he thus remains:

"That the doctrine of the Real Presence in one way or another is the doctrine of the Church of England it would be impossible to deny. For her language clearly attests this. But it is a spiritual presence—a presence to be realised by faith, not a corporal presence of Christ's natural body and blood, Christ's body being eaten at the Holy Supper only after a heavenly and spiritual manner. It is, nevertheless, a real presence in the sense of its being effectual for all those intents and purposes for which Christ's body was broken, and his blood shed, just as the sun, though its bodily presence be in the heavens, is present on earth effectual for all the purposes of light and heat for which it was created. But in order to guard against any suppositions which might be drawn from the words which are used in the Eucharistic prayer, our Church warns us that 'no adoration should be offered either unto the

elements used, and wine or to any corporal presence of Christ's natural body or blood. And as to any local presence, except in the heart of the believer, she pronounces nothing. It became, therefore, necessary to avoid in his teaching any expressions which gave ground for the teachings and usage of the Church of England, and to regard of that nature which would avoid any imputation of idolatry or superstition of any formulae."

DAWLEY.—The report on Mr. Benjamin Zisman, the Barnetshire agricultural trader, who was murdered recently in Shropshire, on Wednesday night, when the jury returned a verdict of Wilful Murder against some person or persons unknown, at the same time censuring the Government for not offering a reward after the representations made at the last adjournment.

DOVER.—Lieut. Colonel Childs, commanding the Royal Artillery stationed at Dover Castle, was killed on Christmas night by falling into the area below the barracks while passing from the officers' mess room to his quarters. The gaslights had been extinguished for the night and the railing in front of the barrack was too low to be an effectual protection on a dark night. The jury returned a verdict of Accidental Death.

ERON.—Great alterations and improvements are being effected at the Cuckoo Weir bathing place of the Etonians near Long Bridge and Upper Hope. The ground and the stream have been excavated to a great width, and on the one side the stream, and with the earth thus obtained by embankment is being thrown up, which will support the battens from the passers-by on the footpath, and in the neighbouring lane piles and planking will be placed along the water's edge to prevent the action of the current on the land in flood time. The College watermen have been employed in executing this work.

FARNHAM.—A testimonial is about to be presented to Mr. S. Nicholson, chairman of the Farnham board of guardians, with an address to the members of the body, expressing the entire confidence of the rate- payers, their satisfaction at the manner in which the guardians have performed the duties of their office, and their extreme regret that they should have been sub- jected to the serious charges recently made against them.

HARTLEPOOL.—On Friday the screw-steamer *Gitana* arrived in this port from Hamburg, having among her passengers several Americans, who had come from New York, via Hamburg. It was currently reported that these Americans had come over to take part in the Fenian movement in England, and it appeared that they had conducted themselves disgracefully whilst on the passage across. As soon as the steamer reached West Hartlepool quay they all sprang ashore, two of them without paying their passage-money. Information was given to the police, and in a short time one of them was apprehended. He gave his name as David Steer, and was an Irish American of military appearance, wearing his beard after the fashion of "General Kelly," in whom he bore a great resemblance. He could give no satisfactory reason for coming to England, and was charged before the magis- trates on Saturday with defrauding the Company by not paying his passage. The bench fined the prisoner 20*l.* and costs, or in default one month's imprisonment in Durham Gaol, to which he was removed. It is supposed that the rest of the confederates have gone to Sunderland or Newcastle.

KNUTSFORD.—A report was circulated in this town on Sunday that a party of Fenians were coming in by the night train to attack the town and take it by storm. The people armed themselves with thick sticks and whips, intending to give the invaders a warm recep- tion, but their services were not required, and the night passed without disturbance. On Monday and Tuesday about 100 special constables were sworn in, to be ready for service if required.

LEEDS. The magistrates of this town have resolved to appoint a Roman Catholic chaplain for the borough gaol, at a salary of 100*l.* per year.

LICHFIELD.—After the ceremony of enthroning Dr. Selwyn, the new Bishop of Lichfield, at the cathedral on Thursday, the mayor and corporation of the city went in procession to the episcopal palace, and pre- sented the bishop with an address of welcome, specially expressing their satisfaction that his lordship had deter- mined to live at Lichfield. The mayor, in present- ing the address, observed that the palace had never been inhabited by a Bishop of Lichfield since the time of Bishop Wood, who built it 100 years ago. The bishop, in reply, said the reference was rather a bad omen, for Bishop Wood lived at Hackney, was cited by Archbishop Sancroft for neglecting his diocese, and fined, the fine being levied to the creation of the house.

LIVERPOOL.—Some weeks since a man named Chambers was arrested in this town, on suspicion of being concerned in the murder of Sergeant Brett, at Manchester. The arrest was regarded by the police as one of an important character, as Chambers was looked upon as one of the most dangerous men the police had to contend with in connection with Fenianism. After his arrest he was conveyed to Manchester, and, with others, was brought before the magistrate, but the evidence against him being incomplete he was discharged from custody, and returned to Liverpool. Finding, however, that he was closely watched by the police, he left Liverpool a few days since for America.

MERTHYR.—The 14 prisoners, the particulars of whose arrest were given last week, were brought up for examination before the magistrates at the Merthyr Police Court on Monday morning. The measures taken by the police were kept in the strictest secrecy up to the last moment, and the consequence was that up to the public, from whom, in the present excited state of this district, it was desirable to protect the prisoners, were completely thrown off their guard and knew literally nothing. The prisoners were brought from Cardiff by a special train, which left that town about half-past 3 o'clock, and arrived at Merthyr about 5 in

the morning. They were in custody of the Chief Constable, Colonel Lindsay, and a strong body of police, well armed, which was augmented *en route* by another detachment of county police. At Merthyr the whole available force of the district had been called in, and marched to the station to receive the prisoners. There were hardly a dozen people about the streets, and the prisoners were, therefore, conveyed to the station as quietly as ordinary prisoners. About half-past 9 o'clock, the time of the arrival of the first ordinary train, crowds of people went to the station, and were greatly disappointed to find that the prisoners were already in court. As if apprehensive of an attack, the Irish people, as a rule, kept out of sight. Coffey, the informer, arrived by the first train from Swansea, and was guarded by six policemen to the court. His examination occupied four hours, and at its close David Bury, Thomas M'Mahon, and David Cochlin were discharged, as there was no evidence to justify their detention, and the remaining prisoners, 11 in all, were then remanded till the 14th inst. The greatest excitement was manifested to see the prisoners as they were taken back to the train on their return to Cardiff. On Sunday, after morning service, a public meeting was held in the Roman Catholic Church, the Rev. Patrick M'Lea in the chair, at which resolutions, expressing abhorrence of the outrages at Clerkenwell and elsewhere, loyal attachment to the Queen and her throne, and disapproval of Fenianism and all other secret societies, were unanimously carried. There were about 700 Irishmen present at the meeting, which has already had a good effect, as showing that the great bulk of the Irish population had not become tainted with Fenianism. Information has reached the police of a character which leaves no doubt that had the Dowdais Circle been allowed to have its own way a few weeks longer, something of a desperate character would have been attempted in a Welsh country town not very far off.

MIDDLESBOROUGH.—On Friday night, as a man was posting a letter at the Post Office in this town, he observed something burning at his feet, which he picked up, and found it have the appearance of powder cartridges. He flung them down, trampled out the fire, and took them into the Post Office. The postmaster sent for the police; when the material that had been burning was found to consist of three firm paper tubes, 4 or 5 inches long, rammed hard down with powder, a fusee being attached to each, and all tied hard together. Letters of warning had previously been sent to the superintendent of police and to the postmaster, stating that an attempt to blow up the post-office was to be made. Had the rockets been thrown into the box, not only would the letters in it have been destroyed, but the box would have been blown to pieces, and the clerks in the office probably injured, if not killed, by the effects of the explosion. The police have got certain information, which they are making use of to trace the perpetrators of the outrage.

PLYMOUTH.—On Thursday afternoon an officer arrived in a ship's cutter, *Mant Wise*, to announce that the troopship *Himalaya*, which left the Sound on the previous afternoon with 300 artillerymen and 150 marines, for Dublin, had broken down off the Dodman through defects in her machinery. The Port-Admiral immediately despatched the iron paddlewheel steam-vessel *Bann* to lay by her during the night. The paddlewheel steam-sloop *Buzzard* followed in the evening; and the steam tug *Trusty*, and paddlewheel steam yacht *Black Eagle*, were to have left yesterday morning with a supply of provisions for the use of the troops. It appears, however, that their services were not required, for the Commander-in-Chief at this port received a telegram from the Lords of the Admiralty yesterday announcing the safe arrival of the *Himalaya* at Cork. Two seamen belonging to the receiving ship *Canopus*, in *Hamoaze*, are under arrest on board the flagship *Royal Adelaide* on a charge of Fenianism.

PORTSMOUTH.—A court-martial, under the presidency of Capt. Seymour, was held on Monday on board the *Victory*, for the trial of William Read, ordinary seaman, serving on board her Majesty's ship *Irresistible*, stationed in Cowes Roads. The prisoner was one of the crew of the captain's galley, and on being ordered to join the boat and arm himself with one of the revolvers which had previously been loaded and issued for the use of the crew, and proceed in the boat to row along the shore off Osborne at 10 o'clock at night, he refused to obey the order, declining to give a reason; but on the following day, on the quarter-deck, he stated that "he would not take up arms against the Fenians." The charge was fully proved, and the prisoner was sentenced to five years' penal servitude, which also involves his dismissal, at the expiration of that period, from her Majesty's service with disgrace. It is generally believed that the prisoner is insane.

SUNDERLAND.—It is stated that the Prince of Wales will honour Sunderland with a visit next month, to open the Hendon new locks, and will be the guest during his stay of Earl Vane, at Wynyard Castle.

TAUNTON.—A slight shock of earthquake was felt shortly after 5 o'clock on Saturday morning in that part of Somersetshire which lies between Langport and Ham Hill. At Martock a low rumbling noise was heard, which lasted for a few seconds, and beds and windows shook. At Tintinhull and Stoke-sub-Hamdon the shock resembled something flying rapidly past the windows. At East Lumbrook the houses appeared to shake, and people were awake by the rattling of the windows and the furniture in their bedrooms. Similar noises were heard at Machelney and Kingsbury. At Seavington the postman distinctly felt the shock, the noise of which resembled a train passing the house at full speed. At Compton, South Petherton, people were disturbed in their beds. At Curry Rival one gentleman describes it as being raised twice in his bed, the shock passing away with a whistling sound; another

as if the church tower had fallen down. One gentleman had various articles on his toilet table thrown down; the doctor's watch stopped at 5 10; several people had their curtains shaken, and another his bedroom door burst open; another his bells set ringing. The shock was also felt at Langport, Taunton, Bridgewater, and in various parts of West Somerset.

WIDNESBURY.—The coroner's inquest on Esther Buggott, who was murdered at Moxley on the night of the 22nd of November, whilst returning from taking her husband's supper, was concluded on Thursday. The evidence given related chiefly to the "whereabouts" on the night of the murder of Edward Caudwell, a boat builder, with whom the deceased was intimate, who, according to the evidence of the mother of deceased, called to see her just after she left to take the supper on the night of her death. The testimony of the man himself and several other witnesses, however, proved that he was in a public-house near his home during the evening up to a little before ten. The evidence threw no suspicion upon any one, and a verdict of Wilful Murder against some person or persons unknown was returned; and the jury recommended that the Secretary of State should be memorialised to offer a reward for information that would lead to the conviction of the murderer.

WHITBURN.—A great deal of angry feeling has been excited in Durham with regard to alleged false lights being exhibited on the coast near Whitburn. Masters of vessels bound for the Tyne, who found their vessels suddenly cast upon the rocks of that iron-bound coast, maintained that they had been decoyed there by lights which they mistook for Tynemouth, and the inhabitants as angrily denied that anything of the sort could have happened. Three or four vessels having been stranded on Whitburn rocks this winter, instead of reaching Shields harbour, to which their masters thought they were being guided by the lights, and the masters having alleged, as the others had done, that they were decoyed there by lights which they mistook for Tynemouth, Captain Kirby, of London, being on a visit to his friends in the north, determined to explore the coast, and try to solve the mystery of the lights. In the course of his wanderings he came upon a solitary hut in Freshwater Bay, near Souter Point, and though then uninhabited, he discovered traces that it had recently been occupied by some one, and upon looking up the chimney he found a piece of wreck timber about two and a half feet in length, but evidently broken off a piece of much greater length. On one end of it was a mass of rope yarn, pitch and tar, similar to a pitch mop used on board ship, but it had no appearance of having been in the water. He took it to Shields and gave it up to the secretary of the Tyne Pilotage Commission. The subject was brought before the Board at its meeting on Friday last, when it was unanimously resolved "that the attention of the Commander of the Coastguard, and the authorities of the county police, be drawn to the discovery of a torch of a suspicious character in a round hut near Souter Point, and to the fact that vessels have been misled by certain lights in that neighbourhood, and that a vigilant watch be maintained in the locality."

WORCESTER.—On Monday evening a public meeting, convened by the Roman Catholics of this city, was held in the school-room belonging to the Catholic Church, the Rev. H. Mahon in the chair, at which resolutions denouncing Fenianism as a secret society, protesting against the outrages recently perpetrated in London and elsewhere, and declaring devoted allegiance and faithful attachment to the Sovereign and constitution of these realms, were unanimously agreed to.

Ireland.

REINFORCEMENTS FOR IRELAND.—Two batteries of Royal Artillery from Plymouth, the 2nd Battery of the 13th Brigade of the Royal Artillery from Woolwich, with 150 marines from the Plymouth division, left Plymouth on Wednesday for Dublin in the steam transport *Himalaya*.

ROBBERY OF POWDER AT CORK.—The late Fenian robbery of revolvers was followed on Saturday night by a robbery of powder. The magazine of Mr. Murray, agent for Messrs. Curtis and Harvey, gunpowder manufacturers, situated a short distance outside the city, was broken into, and the entire stock, consisting of 10 cwt. of blasting powder, was carried off. Several persons must have taken part in the robbery and removal of the powder, for the store was strongly secured, and three doors, one of iron, one of wood, and one of copper, had to be forced open. Besides these, several bolts had to be wrenched or broken before the contents of the magazine could be reached. No clue whatever has been obtained to the perpetrators of the robbery, but two half casks of the stolen gunpowder were discovered on Sunday buried in a market garden adjacent to the magazine.

THE SUPPOSED FENIAN PRIVATEER.—The reports current last week respecting the alleged Fenian privateer which had been seen off the Irish coast are supposed to have arisen from the appearance of the southern coast of an exceedingly rakish-looking American-built barque, called the *Alaska*, 700 tons, bound from San Francisco to Cork. She was overhauled three or four times last week by different ships of the Royal navy, in consequence of her great speed and suspicious appearance; and while in chase of her the other day, the steam ram *Research* ran upon the Daunt Rock, and sustained some damage to her hull. Her powerful steam-pumps were immediately set in motion to keep her afloat, and she continued the pursuit until the barque had gained so much upon her that it became useless. She then returned to Haulbowline, where her damages, which are said to be slight, will be repaired. On Saturday night, a launch from her

Majesty's ship *Mersey*, with its crew, went alongside a collier which had been taken to Monkstown, county Cork, when the boat discharged a pistol which entered the captain's hoot and the officer and marines with drawn vessels and examined the papers. They left after a short time.

ALARM AT THE DUBLIN BARRACKS.—On Saturday morning a severe alarm was given at the Barracks, near Dublin, gave an alarm to the guard when it turned out that a man on the wall next the canteen. The man was taken to the place, observed a number of men on searching found Fenian documents given to have sentries posted round the barracks in future.

ATTACKS ON PRIVATE HOUSES.—The 2nd inst. a murderous attack was made on Forbes, a magistrate of the county of Wick, at Rusheen, Carna, a very remote part of the county, about 50 miles from Galway. His face blackened. Colonel Forbes is a very old man. His housekeeper was the perpetrator of the outrage made on Saturday night to blow up the house. Captain Otway, of Castle Otway, a quantity of gunpowder was placed in the walls, and an explosion took place, causing considerable damage. Mr. Otway is a very popular landlord. No cause can be assigned for the attack.

A SENTRY AT LIMERICK BARRACKS.—It is reported that on Thursday night a sentry of the 52d Regiment, on duty at the Barracks, was fired at from Thomas Street at 7 and 8 o'clock. There was a man where the soldier was walking, and he was enabled to see the assassin since been removed. Strict precautions taken in the barracks, which have been to be the object of suspicious attention on the side.

ARRESTS AT CORK.—Some arrests were made at Cork, but no importance is attached to them. The police have hitherto failed to detect many Americans known to be near the city. The four men committed from Cork for treason-felony are described as Colonel Kelly, Edward Finn, and John Baker.

IMPORTANT ARREST IN DUBLIN.—An important arrest in connection with the Fenian cause was made on Thursday night in Dublin. The prisoner is Lennon, and the police are investigating circumstances which will be of great importance. The capture is of importance as Colonel Kelly, the prisoner has been a leader of the 'Fallaunt rising, and a man to be indicted for high treason.

PROSECUTION OF THE "IRISH LIBEL."—A writ was issued on Wednesday, at the instance of the General, calling on Mr. Pigott, of the *Standard* newspaper, to appear on Friday before the magistrate, to show cause why a criminal prosecution should not be filed against him, for publishing that paper of certain seditious libels. The paper sets forth extracts from the recently published book headed "The Holocost," from the proceedings of the Manchester executions, &c., which were copied from American papers. The writ was issued yesterday before the magistrate, who has committed the prisoner for trial on the charge of publishing libels.

FENIAN SALES OF IRISH PROPERTY.—A Cork paper states, on the authority of a man who has recently returned from New York, that extensive transactions were being carried on the other side of the Atlantic in "the purchase of the Republic," and that its informant had been at an auction in New York where property was sold to an enterprising Yankee in lots of its one day falling into the hands of the Fenians.

STATE VISIT OF THE LORD MAYOR OF DUBLIN.—On Monday the Lord Mayor of Dublin, Dr. Carroll, proceeded to the Catholic Cathedral, Marlborough Street, in a carriage, attended by the officers of the Corporation and accompanied by several other members of the council in their robes. A procession of the Cardinal Cullen, who preached on the occasion, to the fact that it was the first time since the Revolution of 1688 on which the Lord Mayor had attended a session of the Council. This last relic of religious disability has been abolished by a Roman Catholic Lord Mayor, and how such rights had been obtained by secret societies and assassinations, or by the seizure of houses, not by violence or rebellion, but by able and constitutional conduct.

ATTEMPTED MURDER AT THE RED ABBEY.—William Butler, 15 years of age, was committed to the Cork magistrates a few days ago for attempting to murder Honora Harter at the Red Abbey, in that city, on the 22nd inst. Hurley had taxed the prisoner with having entrusted to him to put in the wall of the Red Abbey the money which he had earned. He then dug a grave in the Abbey and committed the prosecutrix to go down with him as a witness. She agreed to do so, and descended into the grave the prisoner with a hatchet, inflicting upon her several dreadful injuries, from which she is recovering. The prisoner was committed for trial.

Quotations are difficult to give, as buyers who want specially choice lots have to pay full rates, whilst any one wanting to clear the same on a day when there were no particular orders on the market might have to take 1d. or 1 1/2d.

Table with columns: CURRENT PRICES OF ENGLISH WOOL, per lb., s. d., and various types of fleeces and sorts.

METROPOLITAN CATTLE MARKET. MONDAY, Jan. 6.

The number of Beasts is small, but the average quality is good, and prices are scarcely as high as on Monday last; a fair clearance is, however, effected. We have a good supply of Sheep for the time of year; trade is heavy, and prices are lower, especially for ewes and middling qualities.

Table with columns: Best Scots, Herefords, etc., and Best Long-wools, Do. Shorn, etc., with prices in s. d. s. d.

THURSDAY, Jan. 9.

Although the number of Beasts is not very large it exceeds the demand. Trade is exceedingly dull, and only in choice qualities are our top quotations realised. Sheep are plentiful for the time of year, and there is scarcely any demand for them.

Table with columns: Best Scots, Herefords, etc., and Best Long-wools, Do. Shorn, etc., with prices in s. d. s. d.

MARK LANE.—MONDAY, Jan. 6.

There was a small supply of Wheat from Essex and Kent to this morning's market, which was disposed of at an improvement of 3s. to 4s. per qr. on the prices of this day se'nnight. There was a good attendance, and a fair amount of business transacted in foreign Wheat, at an advance of 3s. to 3s. per qr., the demand being chiefly upon red qualities.

Table with columns: PRICE PER IMPERIAL QUARTER, WHEAT, BARLEY, OATS, RYE, BEANS, PEAS, MAIZE, FLOUR, and various sub-categories with prices in s. s.

FRIDAY, Jan. 10.

Excepting a few dull days with sleet and snow, the weather during the past week has been frosty, with N. and N.E. winds; since yesterday the frost slightly increased. The upward movement of prices has made some further progress, and we have to report a total advance of 3s. to 5s. per qr. in the value of Wheat since Christmas.

ARRIVALS THIS WEEK.

Table with columns: Wheat, Barley, Oats, Flour, and various types of arrivals with prices in s. d.

LIVERPOOL, Tuesday, Jan. 7.—To-day's market was very well attended by both town and country millers and dealers, and there was a moderate demand for both Wheat, Flour, and Indian Corn at Friday's prices.

without change in price. Barley scarce, and 1d. per bushel higher.

FRIDAY, Jan. 10.—The market was moderately attended. Wheat a slow sale, and prices are irregular, in some cases 3d. to 4d. per cental lower than Tuesday. Flour dull, and 6d. cheaper, Beans rather lower. Peas steady. Oats and Oatmeal nominally unchanged. Indian Corn dull and 6d. per qr. lower; mixed, 4 1/2s. 6d.

AVERAGES.

Table with columns: Wheat, Barley, Oats, and rows for Nov. 23, Dec. 7, Jan. 4, and Agg. Average.

A MARRIED LADY, living at Tunbridge, Kent, who has had charge of an IMBECILE LADY for seven years, is willing to take another in the place of the deceased, at a moderate charge.

A MANUFACTURER of a MANURE, established 15 years, wishes to appoint a few respectable AGENTS. Good Commission.—Address, with occupation, &c., R. S., care of Mr. Bell, Printer, No. 85, Long Acre, London, W.C.

WM. WOOD AND SON are in IMMEDIATE WANT of a first-class IN-DOOR PROPAGATOR of ROSES, RHODODENDRONS, and CONIFERÆ.

WANTED, as FOREMAN and PROPAGATOR, a Single Man, to live on the Premises. One accustomed to Grow for market preferred.

WANTED, a good GARDENER, used to a single-handed place, with good character from his last employer.

WANTED, a GARDENER to take charge of Kitchen and Flower Gardens, &c., and willing to look after Poultry.

WANTED IMMEDIATELY, in a Forcing Establishment, a SECOND GARDENER, who thoroughly understands the Growing of Cucumbers for Market, also Soft and Hard-wooded Plants and Roses.

WANTED, a SHOPMAN to take the Management of a Retail Seed Business, in the High Street, Southampton.

WANTED, a YOUNG MAN of ability. One who has travelled in South Lancashire and North Cheshire preferred.

WANTED, for the Wholesale and Retail Seed Trade, a YOUNG MAN thoroughly acquainted with both departments, having had experience in London.

JAMES CARTER AND CO. are in WANT of an ASSISTANT SALESMAN in the Retail Shop.—None but thoroughly qualified hands need apply.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. F. G. Henderson & Son, Wellington Nursery, St. John's Wood, London, N.W.

Gardeners (Head, Foremen, and Under). JAMES CARTER AND CO. having many applications for the above, request those wanting Situations to send Name, Address, and Copies of Testimonials, for entry in their FREE REGISTER.

A TRAVELLER, of experience and ability, will soon be open to an engagement to represent a respectable House on the Irish road, over which he has travelled for some time.

ESTATE MANAGEMENT (age 40).—The Advertiser, who has been during the last five years in a Land Agency and Surveying Office of first-class practice in different parts of England, and who has had 17 years' experience in connection with the Improvement and Management of Estates, including the Planting and Rearing of Plantations, and the Reclamation of Waste Lands, is open for an engagement on a Gentleman's Estate.—D. M., Messrs. Peter Lawson & Son, 28, King Street, Chancery Lane, London, E.C.

STEWARD and PRIVATE SECRETARY, by a highly respectable business Man.—Age 31, married, no incumbrance. Testimonials as to ability, honesty, sobriety, respectability, and the highest qualification.—J. T., 1, Peckirke Villas, St. James's Road, Brixton, S.

GARDENER (HEAD), to any Lady or Gentleman.—Age 33, married, two children; a good practical Plantsman and general Gardener; 14 years' experience in all branches, Meadow Land, &c.—H. C. B., Ridgway Nursery, Thursley, Godalming, Surrey.

GARDENER (HEAD)—Married, no incumbrance; six years' good character as a first-rate Working Gardener. Understands the profession in all its various branches.—W. R. V., 13, Palace Road, Westminster Road, Lambeth, S.

GARDENER (HEAD).—Married, understands Gardening in all its branches. Can have the highest testimonials as to ability, industry, sobriety, and integrity.—C. E., Gordon House, Putney, Surrey, S.W.

GARDENER (HEAD).—Married, no incumbrance; thoroughly practical in all branches of his profession, including Forcing Grapes, Peaches, Melons, Cucumbers, Stoves and Greenhouse Plants, and is an excellent Kitchen and Flower Gardener. Wife can manage Dairy or Poultry if required. Good character.—C. L., Sergeant J. Auckland, The Armoury, Forest Hill, Kent, S.E.

GARDENER (HEAD), where one or two take Laundry work. Three and a half years' good character.—Mr. J. Baxter's, Fursley, Bramsham, Hants.

GARDENER.—Married, no incumbrance, and intelligence by documents from the last 10 years' good character from last place.—Gardener, Lee Green, Lee, S.E.

GARDENER (age 28, single).—J. F. W. Marillier, will be discharged on 7th inst. be glad to meet with a re-engagement in any branch. Thoroughly practical in all branches of the profession and testimonials unexceptionable, leaving no incumbrance being broken up.—Address, Huron Road, London, E.C.

GARDENER, SINGLE-HANDED or Nobleman's or Gentleman's family.—No incumbrance; perfectly understands the business, &c. Ten years' good recommendation. With generally useful.—G. L. B., Post Office, Bexley, Kent.

GARDENER, or GROOM and Gentleman, is anxious to obtain a steady married Man as above. Excellent character is sole reason for parting with him.—W. E. R., Worthing.

FOREMAN (GENERAL GROUND), a respectable Man, age 30, who perfectly understands in all its branches. Good character for years.—L. G. F., Post Office, Chesnut, N.E.

PROPAGATOR of Conifers, Roses, Clematis, &c.; and Bedding and Soft-wooded Plants.—S. H., 3, Marton Villas, Hatfield Road, Sevenoaks, Kent.

To Wholesale Rose Growers. PROPAGATOR, &c.—The Advertiser will engage to Propagate New Roses in pots or in the open ground, at so much per 100 or 1000. Would be glad to see the Cultivator's Catalogue. If required, would Superintend the Culture of the Roses. None need apply unless they can give testimonials.—Address ALFRED COLMAN, Post Office, Maidstone, Kent.

FARM BAILIFF, by an Aberdeenshire Man, married, no incumbrance. I've seven years' experience on a Farm of 200 acres. Can Farm on newest system. Cattle and Sheep, can Bus and Sell. Warm and temperate. £65 per annum.—B., Post Office, Greenock.

NURSERY SEED CLERK, a Correspondent.—Fully experienced in all its branches, as also references to late employers, the one of one of the most extensive English Nurseries, Stuart & Mein, Nurserymen and Seedsmen, East London.

To Seedsmen. ASSISTANT, &c., in a Wholesale Nursery.—B. D., Post Office, Newbury.

ASSISTANT (age 46)—A Person of experience in the Nursery and Flower Trade, who has for the last 20 years been engaged in Nurseries in the Eastern Counties—principally in Room and in Travelling—would be glad to see occupation. References are kindly permitted to the Fulham Nurseries.—Any communication to Post Office, Easton, N. W. Ch., will receive answer.

SHOPMAN.—Age 30; 14 years' experience in the Trade, with Agricultural, Vegetable, and Flower Trade, good knowledge of the Nursery and Flower Trade.—A. B. C., Mr. C. White's, Hillingdon Road, Uxbridge.

SHOPMAN or ASSISTANT.—Age 25, experience in the Seed Trade. Good references.—Office, 63, Edgware Road, W.

SHOPMAN (SECOND), or ASSISTANT.—Four years' good reference in the London Nursery Trade.—Post Office, Southwick Street, Cambridge Square.

To Nursery and Seed Trade. SHOPMAN or ASSISTANT.—Age 25, seven years' experience. Salary well recommended.—R. C., Gardeners' Chronicle Office, 2, Abchurch Lane, London, E.C.

WAREHOUSEMAN.—Age 18, with 10 years' Apprenticeship of four years with Messrs. Sons, Seedsmen, Dundee, to whom apply.

TO PARENTS and GUARDIANS.—The Youth to their respective Boarding Schools for their personal comfort and instruction. MACASSAR OIL, for accelerating the growth and beautifying the hair, ROWLANDS' KALONIA SKIN and COMPLEXION, and removing cutaneous eruptions, ROWLANDS' ODONTO, or Pearl Dentifrice, for the beautiful white, and preserving the gums, in possible accompaniments. Sold by Chemists and Perfumers. Ask for Dr. DINNERFORD'S FLUID.

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The Gardeners' Chronicle Newspaper.

SATURDAY, FEBRUARY 1, 1868.

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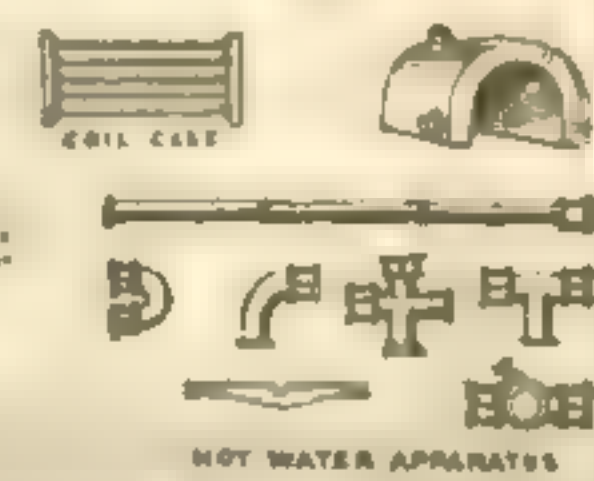


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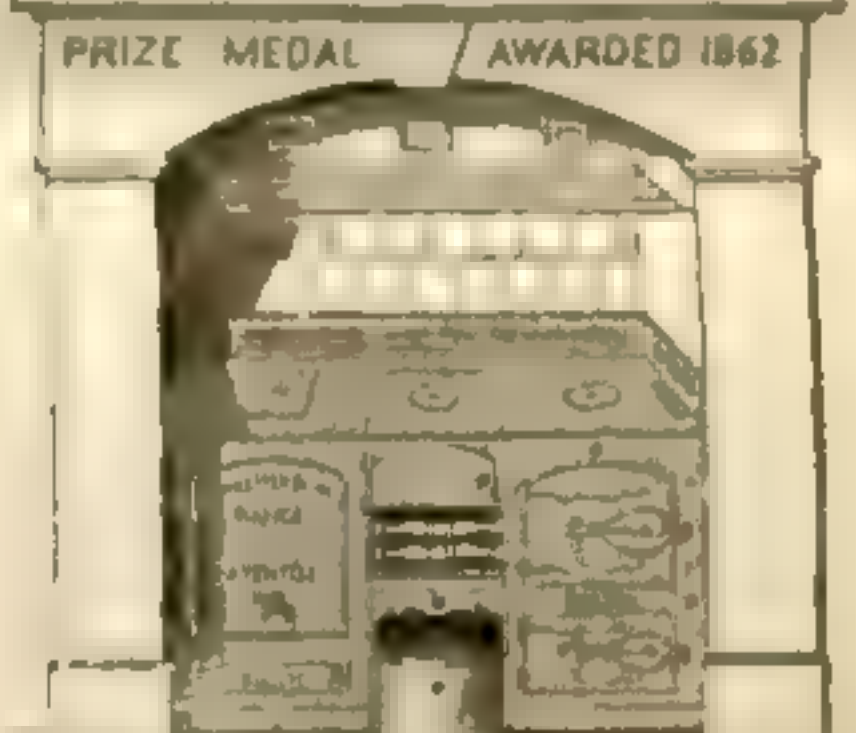
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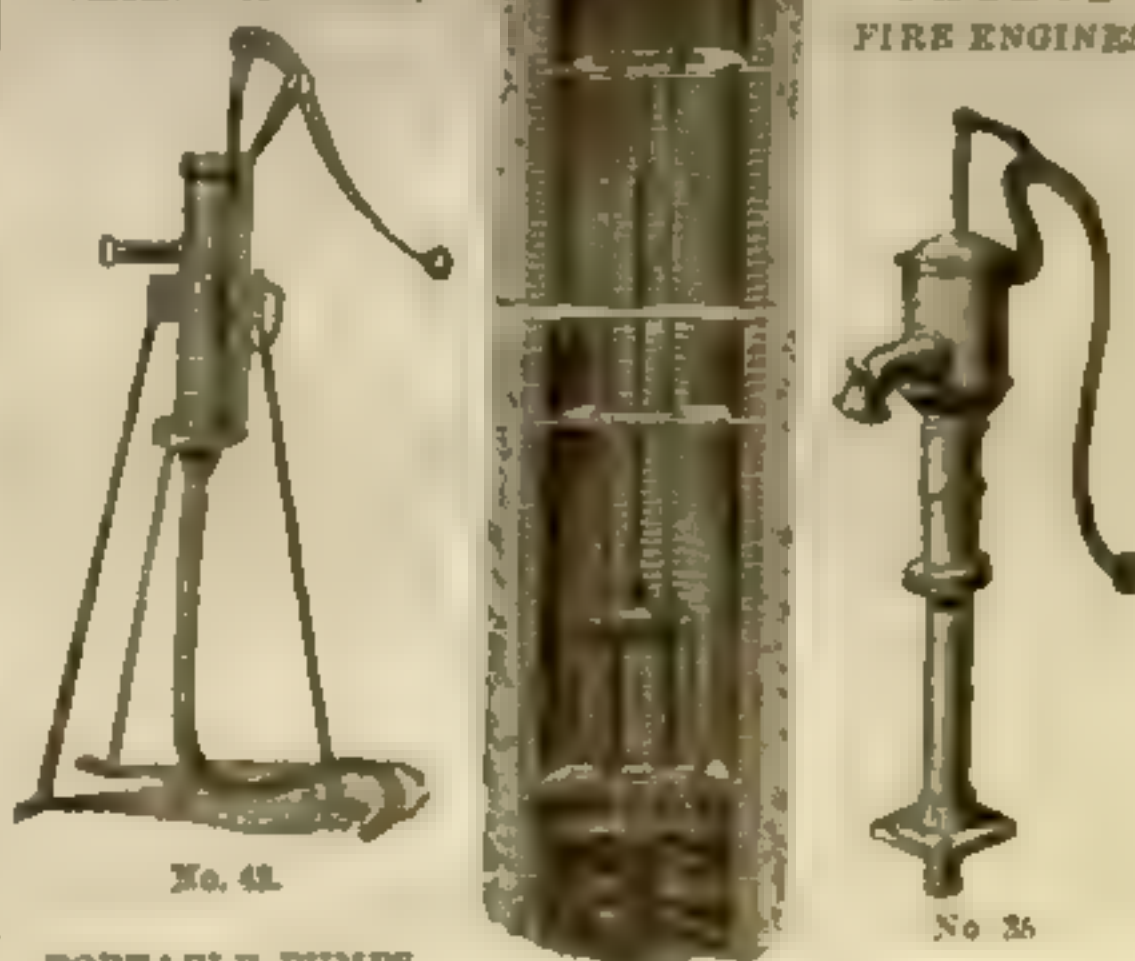


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HIGHLAND and AGRICULTURAL SOCIETY

AGRICULTURAL EDUCATION. THE EXAMINATION of CANDIDATES for the SOCIETY'S AGRICULTURAL CERTIFICATE and DIPLOMA will take place in the HALL, No. 3, GEORGE IV BRIDGE, EDINBURGH, on MONDAY, TUESDAY, and WEDNESDAY, March 16, 17, and 18.

Candidates must lodge intimation, on or before March 2, with the Secretary, from whom further information may be obtained. Edinburgh, January 29. F. N. MANN, Secretary.

ROYAL AGRICULTURAL SOCIETY of ENGLAND.

EDUCATIONAL PRIZES.

APRIL, 1868.

FORM of APPLICATION for CANDIDATE.

To be returned filled up on or before February 23, 1868.

Name of the Candidate at full length
Date of his Birth
Branch of Business followed by his family
Business intended to be followed by himself
Residence of Parents or Guardian
The Names of the Schools at which the Candidate has been educated, stating the number of years spent at each, accompanied by Certificates of general Education.
The Candidate has to state whether he will be examined in Land Surveying, or in Mechanics as applied to Agriculture, or in both subjects. He must likewise state in which of the following optional subjects he desires to be examined:
Botany
Geology
Veterinary Science

Copies of the above Form may be obtained on application to H. HAIL DARR, Secretary

12, Hanover Square, London, W

THE LANDS IMPROVEMENT COMPANY.

Incorporated by Special Act of Parliament in 1864. To LEASOLDERS, THE OLDEST, ESTABLISHED, SURVEYORS, &c., IN ENGLAND AND WALES, AND IN SCOTLAND.

For the purpose of improving the lands of the Company, and of carrying out and maintaining the same, the Company has been authorized to borrow money, and to take and sell any lands, and to do all such other things as may be necessary for the purposes aforesaid.

The Company has been authorized to take and sell any lands, and to do all such other things as may be necessary for the purposes aforesaid.

Farm Roads, Tramways and Railroads for Farming purposes.

Letters of Lading placed on the sea-coast.

The Company has been authorized to take and sell any lands, and to do all such other things as may be necessary for the purposes aforesaid.

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Home News.

THE COURT.—The Queen and Royal family continue at Osborne. On Thursday, the 23rd ult., the Queen drove out with Princess Louise and Princess Henriette of Schleswig-Holstein. The Right Hon. Benjamin Disraeli, Chancellor of the Exchequer, arrived from London on a visit. On Friday morning the Queen walked in the grounds with the Duke of Roxburghe, and drove out in the afternoon with Princess Christian, Princess Beatrice, and Princess Henriette of Schleswig-Holstein. On Saturday morning the Queen walked in the grounds with Princess Christian, and in the afternoon drove out with Prince Leopold and Princess Beatrice. Prince Arthur and Prince Christian went out shooting in Parkhurst Forest. The Chancellor of the Exchequer left Osborne for London. On Sunday the Queen and Royal family attended Divine Service at Osborne. The Rev. R. D. Webb officiated. On Monday morning the Queen walked in the grounds with the Duchess of Roxburghe, and drove out in the afternoon with Prince Arthur. On Tuesday morning the Queen walked in the grounds with Princess Louise, and drove out in the afternoon with Princess Christian and Princess Beatrice. Prince Arthur and Prince Christian went out shooting. Viscount and Viscountess Sydney arrived at Osborne on a visit. On Wednesday the Queen drove out with Princess Christian and Princess Louise. On Thursday the Queen walked in the grounds with the Duke of Marlborough, the Earl of Bradford, Lord John Manners, and Mr. Cave.

THE PRINCE and PRINCESS OF WALES.—The Prince and Princess of Wales arrived at Sandringham House, from visiting General Hall, at Six-mile Bottom. On Sunday the Prince and Princess attended Divine service in the church of St. Mary Magdalen, at Sandringham. During the week their Royal Highnesses have been entertaining a large and distinguished number of guests. On Tuesday the Prince, with his guests, went out shooting.

PRINCE LEOPOLD.—Since Monday last Prince Leopold has been confined to his room by severe indisposition. His Royal Highness was better on Thursday, and is progressing satisfactorily.

THE CABINET.—A Cabinet Council was held on Tuesday at the official residence of the First Lord of the Treasury, in Downing Street. Another Council was held yesterday. All the Ministers were present at these meetings except the Earl of Derby, who is still detained at Knowsley by the gout which attacked him last week. His lordship, however, is rapidly recovering, and is expected to be able to come up to town for the opening of Parliament.

PARLIAMENTARY MOVEMENTS.—Mr. W. H. Maxwell was elected for Kirkcubrightshire, in the room of the late Mr. Mackie, without opposition. The Conservative party in Bristol have selected for their candidate, when Sir S. Morton Peto resigns his seat, Mr. J. W. Miles, a local banker, and one of the directors of the Great Western Railway.

LORD LIEUTENANCY OF CHESHIRE.—Lord Egerton of Tatton has been appointed Lord Lieutenant of Cheshire, in the room of the Marquis of Westminster.

THE BISHOPRIC OF NATAL.—The consecration of Mr. Macrorie, as the new Bishop of the Church in Natal, which was announced for Saturday last, did not take place, and the Bishop of Grahamstown has been the Bishop of London an assurance that the intention of consecrating a new Bishop for Natal in England is abandoned. The Archbishop of York last week, following the example of the Bishop of London, addressed a letter to the Bishop of Capetown on the proposed consecration, from which the following are extracts:—

"As this step involves some important questions of English law, I venture to express a hope that some delay may be interposed to allow the best legal opinion to be taken upon the two questions—whether the Bishop of Natal was rightly and canonically consecrated, and whether such consecration can lawfully take place."

"The Archbishop of York has also expressed his opinion that the consecration of the Bishop of Natal is not lawful, and that the Bishop of London is not bound to consecrate him."

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school, issued prohibitions against the consecration in their dioceses; and three clergymen of the chief Episcopalian Church in Edinburgh, Dean Ramsay, the Rev. D. S. Sandford, and the Rev. H. M. Oswald, published a formal protest against the consecration in Scotland. On Thursday a meeting of the Bishops of the Scottish Episcopal Church was held at the residence of the Bishop of St Andrew's, at Perth, when the Primus announced that he had received a telegram from the Bishop of Capetown and the Archbishop of Canterbury recommending delay. The Bishops, thereupon, agreed that there was no immediate necessity for coming to a decision on the subject.

Foreign.

FRANCE.—The *Moniteur* of Monday publishes M. Magne's report upon the financial condition of France. According to this statement, on the 1st of December, 1867, the floating debt amounted to 936,000,000 francs. In consequence of events beyond control, the receipts of the Budget of 1867 show a deficit of 26,000,000 francs as compared with the estimates. Adding to this the extraordinary credit voted by the Corps Legislatif on the 31st May, 1867, of 158,000,000 francs, and the cost of the expedition to Rome, there is a total of 189,000,000 francs necessary to cover the outlay for 1867. The report details various augmentations of expense which will be felt by the Budgets of 1868 and 1869, and concludes that supplementary resources to the amount of 82,000,000 francs will be required to be shared between those two years. The report points out that it is necessary to reform the war *matériel* and the fleet in the interest of the defence of the country and of the national honour. From reports submitted by the Ministries of War and Marine a sum of 187,000,000f. ought to be devoted to that object. It would, however, be illusory to suppose that these resources would suffice to cover every requirement, but as regards the war *matériel* every essential would be therewith met. The details of less urgent importance would be completed in proportion to the annual resources. The report concludes by proposing a loan of 440,000,000f., which would meet all exigencies. The funds in the army dotation chest are not disposable. The loan will be negotiated by public subscription. The report proposes to divide the monthly payments of the loan into 20 instalments. In the Senate on Monday the debate on the Army Bill was resumed. M. Brenier said that he did not think the Bill sufficient to assure the independence and influence of France in Europe. General de la Rue supported the Bill exclusively on military grounds. M. Rouland insisted that the Bill when it had become law would not weigh so heavily upon the population as the newspapers asserted. In the sitting of Tuesday the debate on the Army Bill was continued by Admiral Willaumez, who delivered a patriotic speech which was received with applause. M. Michel Chevalier spoke in favour of universal peace, which he considered probable in the future. The Minister of War pointed out the advantages of the Bill, stating that it would place France in a position in which she would be secured from all eventualities. The Bill was then passed by 128 votes to 1, the solitary dissentient being M. Michel Chevalier. In the sitting of the Corps Legislatif on Monday, M. Lanjuinais brought forward his motion in opposition to Baron Hausmann's scheme of carrying a new boulevard through the cemetery of Montmartre. M. Genteur, in reply, said the cemeteries were by no means threatened with expropriation. In the sitting of Tuesday the order of the day was adopted, on M. Lanjuinais' motion, by 103 votes to 100. In the sitting of Wednesday the discussion of the Bill on the Press was commenced by M. Pelletan. In the sitting of Thursday M. Thiers said that there existed many subjects which ought to be prohibited from discussion by the public Press, for instance, the bases of society and matters of private life, and in constitutional countries the Sovereign was shielded by the responsibility of the Ministers. But beyond those limits all acts of the public authorities were open to discussion. It was impossible to define exactly the offences of the Press. Notwithstanding the improvements proposed by the present Bill, the liberty of the Press would still remain in the hands of the Government. He concluded that it was advisable to grant full liberty to the Press, and not to lose so decisive an opportunity for effecting that object. M. Pinard, the Minister of the Interior, replied as follows:—

"The Press is a power acclimatised in France. Its influence is good and evil at the same time. Its present tendency is towards violence, and a defence is, therefore, necessary, which must be placed under the guardianship, not of individuals, but of the law. The character of the Bill was liberal in principle, notwithstanding the caution money required, which was a necessary guarantee, and the stamp, which was merely a tax upon the circulation. The Bill was not stringent in the penalties it imposed, but vigilant in the course of procedure it laid down. It realised the promises of the 19th of January, 1867, which were not desired by the Conservatives, and had not been hoped for by the Liberals. These promises formed part of the logical consequences of a Constitution capable of improvement, and reconciled the natural movement towards progress with the instinct of preservation and with the Constitution of 1852. It was power which led to liberty. The Bill extended and did not restrict the promises of the 19th of January, but against violent attacks the Conservative party would find the Government entrenched behind the law."

This speech was received with cheers by the Chamber. The *Moniteur du Soir* in its bulletin of Wednesday says:—

"In the general attitude of the Powers there is a concurrence of conciliatory dispositions and pacific symptoms. Lord Stanley's speech at the Bristol banquet, the discussions in the Italian Parliament, and the good understanding now existing between Prussia and Austria all confirm this view. The more Governments and peoples reflect, the more will they guard against exaggerated ambition, and by wisely giving pledges of general security will see that in the present state

of European civilisation peace is for them at once their interest and their duty."

The workmen of Roubaix have petitioned the Emperor to abolish the treaty of commerce with England, on the ground that it is bringing on them distress and ruin. The responsible editors of the ten Paris newspapers which were prosecuted last week for having published illegal reports of the debates in the Corps Legislatif, have been sentenced each to a fine of 1000f., or six months' imprisonment, in case of non-payment of the fine. They are also condemned to pay the costs of the trial. The editors have resolved to appeal against the judgment. In the suit brought against the *Courrier Français* and M. Leon Mires by Captain Perrin, M. La Page has been sentenced to 1000f. fine, and M. Mirés to two months' imprisonment, and a fine of 500f. M. Dubuisson has been sentenced to a fine of 300f. In a second suit M. Vermorel has been sentenced, by default, to two months' imprisonment and 1000f. fine, and M. Mirés to one month's imprisonment and 1000f. fine. The second sentence of imprisonment against M. Mires will be added to the first. The brigands Coda, Quaranta, and Nardi were executed at Marseilles on Monday. Nardi and Coda asked pardon for their offences from Heaven and man, and died courageously. Quaranta maintained silence. The sentence on Mulatiero is reported to have been commuted. An immense crowd witnessed the execution, but no manifestation of popular feeling took place.

SPAIN.—In the sitting of the Senate on Friday, the Government presented a Bill proposing several reforms of the existing laws relative to concessions granted to companies for the execution of public works. The discussion of the Bill modifying the law relating to mines commenced on Friday. In the sitting of the Chamber of Deputies on Thursday the Minister of Finance brought in the Budget, which shows the expenditure to be 263,005,296 crowns, and the revenue 258,200,479. The Minister asks authority to effect reductions in several branches of the expenditure. A decree has been issued, granting the Royal pardon to all persons under sentence for participation in the insurrection under General Prim, except military men who have not surrendered for trial. Letters from Aragon and Catalonia are unanimous in considering probable a speedy Carlist rising in those provinces in favour of the eldest son of Don Juan. They also state that the widow of Don Carlos has forwarded 40,000,000 reals to promote the movement.

DENMARK.—The treaty with the United States, relative to the sale of the Danish West Indies, was finally passed by the Landsting on Thursday. Both Chambers of the Diet have, therefore, definitely given their assent to the project.

PRUSSIA.—The treaty between Prussia and France for releasing Mecklenburg from the special treaty with France was concluded at Berlin on the 26th ult. In the sitting of the Upper House on Wednesday, the Bill for the railway loan of 10 millions of thalers was adopted as passed by the Lower House. The treaties with Oldenburg respecting the admission of the Oldenburg Principality of Lubeck to the Customs' system of the Duchy of Holstein and the admission of Oldenburg to the Customs' treaty of the 28th of June, 1854, were also adopted, as well as the Bill on the treatment of the public debts of the new provinces and the issue of Treasury bonds to the amount of 2,407,653 thalers—all being agreed to in the form in which they came up from the Lower House. In the sitting of the Chamber of Deputies on Thursday Herr von Vincke's motion for the abolition of the taxes upon grinding and slaughtering was adopted almost unanimously; the Minister of Finance offering no opposition to the proposal upon financial grounds. Herr Bassenge moved that the newspaper stamp-tax should be abolished after 1869, and the Chamber adopted the motion by 166 votes to 150. All Prussian Ministers at Foreign Courts are now in possession of their credentials as representatives of the North German Confederation, and most of the Foreign Ministers at Berlin are accredited to the Confederation. The King recently received a deputation of Roman Catholics from Rhenish Prussia. In reply to their address his Majesty said:—

"It is well known that my forefathers and myself have carefully respected religious equality, and this fact has been openly acknowledged by the head of the Catholic Church. In the policy pursued by my Government I shall continue to watch over the interests of my Catholic subjects and the dignity and independence of the Pope."

According to telegraphic news from the provinces the subscriptions for the 12 million thalers 4½ per cent. loan amount to 22½ millions.

AUSTRIA.—The Emperor has appointed the Archduke Albrecht commander of the Austrian army and imposed upon him the duty of inspecting the army, of organising it in a manner fit to take the field, and of submitting the requisite proposals on the subject to the Minister of War, in whom the absolute responsibility is vested by the constitution. A special commission under the presidency of the Minister of War has been appointed to discuss reforms of the military organisation. The members of the Commission are Lieutenant-Field-Marshal Ramming, Harburg, Saint-Quentin, Gablenz, Chelippovich, Maroitrich, and Moring. A circular, in which the following is a summary, was despatched on Monday by the Minister of the Interior to the chief officials in the provinces:—

"As in future all members of the Administration are bound to swear to inviolably observe the fundamental laws of the Empire, so also must those who have already been sworn now make a fresh declaration swearing identity to the new Constitution. No body is to be forced to make this declaration. It is not a mere formality, but a political act of national importance. Besides inviolable fidelity to the Emperor, there will be required from all functionaries an unconditional observance of the Constitution and fundamental laws. The Minister the more emphatically requires sincere devotion and stainless fidelity to the Constitution since he is responsible

for all acts of the internal administration. He must be quite as grave a dereliction of duty as an act of the official oath. Mere indifference or neglect of the official strict punctuality, the conscientiousness, a thorough emancipation from all partiality, and the maintenance of an irreproachable private life then will be the most efficient interpreters of the Constitution."

HUNGARY.—The sum of 25,000,000 francs has already been subscribed in Hungary towards the construction of Hungarian railways. It is expected that 16,000,000 more will be subscribed in the country. It is thought probable that the Government will take up about a fourth of the entire sum. Subscriptions to a considerable amount have been received in Vienna from Galicia, Bosnia, and Trieste. The latest accounts from the quarters from Paris state that a large amount has been subscribed towards the loan in that country.

CROATIA.—The Croatian Diet has decided to send a deputation to Pesth, for the purpose of concluding an agreement with Hungary.

RUSSIA.—All the St. Petersburg papers contain articles extremely favourable to the maintenance of peace. The *Borsen Zeitung* and the *Russian Government*, as a strong supporter of peace, take the initiative in a general discussion. The *Journal de St. Petersbourg* of Friday contains an article in some French papers, says:—

"Russia is great and strong and is not to be freed from any desire of aggression. Her position of her frontiers, but which a severe peace is necessary for the maintenance of internal prosperity. Her progress and furtherance of industry, commerce and art throughout Europe. She has no interests which does not claim a preponderance of power. At the same time, will not suffer the arrogant attitude of a victor. Whoever renders war inevitable assumes responsibility, and will earn the execration of her people. At the present time would entail great misery."

An Imperial decree published on Tuesday, relative to the naturalisation laws hitherto in force, shall be superseded by the Russian laws on the subject. The Governor of Poland has been appointed to St. Petersburg. The new Minister of the Interior announces that all the Russian men of letters for service are being equipped for a foreign tour. It is understood that the Grand Duke will accompany this squadron to the Bosphorus to visit to his daughter, the newly-married Greek. Rear-Admiral Popoff has been appointed to the command of the Russian squadron in the waters, in place of Admiral Boutakof.

ITALY.—The betrothal of Prince Humbert, Prince of Italy, with the Princess Maria Theresa of the Duchess of Genoa, has been officiated. The object of the King's recent visit to Genoa was to demand the hand of the Princess. The following is a summary of the debates of the Chamber of Deputies during the past week:—

"On Friday Signor Cadorna, the Minister of War, replied to an interpellation made by Signor Cavour, the day respecting the appointment of the Minister of the post of Minister of the Royal Household. The Ministry could not accept the interpellation. Article 76 of the Constitution, it is asserted, places the King, beyond the control of the Chamber of Deputies. He therefore has the right to withdraw his interpellation. The Minister of War was countersigned by me of the Ministry. The example of England, where the Chamber has the right of controlling all the branches of the Government, Signor Cadorna maintained the right of the King, and after a stormy debate, he expressed a motion for closing the discussion. He withdrew his motion, in order to leave the Chamber to discuss the Revenue Budget for 1868. Signor Cavour's committee returned. Court Chamberlain, the Minister of Finance, gave some explanations, and had some questions were under contemplation, and had some questions very advantageous for Italian finance. It was necessary that confidence should be maintained at home and abroad. He should not wish to see the vote withdrawing the Government's responsibility for the proposed Budget of 1868. It is to be noted that the debate on the Budget of expenditure for 1868, the first 15 articles were passed. General Cavour's Bill for a Postal Convention between Italy and Austria, authorising the Government to conclude a Postal Convention with Austria, was discussed, and was rejected. The Revenue Budget of 1868 until the Budget of 1869 was approved by 241 votes against 117. The discussion of the Budget of 1868 continued. The proposed Budget for 1868, proposed by Signor Martinielli presented the Chamber of Deputies on the provisional exercise of the Budget for February proposed by the Minister of Finance. In the sitting of Tuesday the Chamber forward various financial Bills. The Chamber advised the conduct of a general election office notwithstanding the vote of the Chamber censured the foreign policy of the Government. The Chamber should grant a period of three months, so as to allow time for a general election, and for general elections. The Chamber should accept a three months' provisional exercise of the Budget for the next month. The Chamber should not be bound to swear to inviolably observe the fundamental laws of Italy, which recent events have shown Italy could not and would not do. Cavour declared that Signor Medama's account only. The party of the Chamber Ministerial crisis they were ready to accept the provisional exercise of the Budget. The Chamber should already condemned by the financial Ministers forward, but the Left would await the provisional exercise of the Budget for 1868."

In the sitting of Wednesday the discussion Budget was concluded, and an increase of 100,000 for the relief of the Roman tax...

City Intelligence.

MONEY MARKET, FRIDAY.—BRITISH FUNDS Consols closed at 92 1/2 to 93, both for Money and Account. New and Reduced Three per Cent, 92 1/2...

Metropolis and its Vicinity.

THE CLERKENWELL EXPLOSION.—On Tuesday night of the prisoners charged with white powder and rocket (G.D.) explosion, with the Clerkenwell explosion, were brought up at Bow Street for further examination...

over to the custody of a city police constable, who joined in the pursuit. The powder which he had was a fine quality, and on the receipt of Duffy...

THE ATTEMPT TO SHOOT TWO POLICEMEN.—The one against James Clancy, a deserter from the Royal Marines charged with attempting to murder two...

THE ALABAMA CLAIMS.—At an immense meeting held on Wednesday night in the Metropolitan Tabernacle Mr. Charles Cross, M.P., in the chair, a lecture was delivered by the Rev. Newman Hall on American affairs...

THE HOME SECRETARY AND THE CORONERS' COURT.—A letter has been addressed to the coroners for Middlesex from the Home Office, announcing that Mr. Secretary Hardy will for the future visit it to be his duty...

TECHNICAL EDUCATION.—On Friday a conference, which was attended by some very eminent public men, was held at the Council Chamber of the Society of Arts, to discuss various questions connected with technical education...

That to establish and maintain a system of technical education adequate to the requirements of art, manufactures, and commerce in the United Kingdom, the three following educational reforms should be effected...

Earl Russell, in a speech on the resolution, and said that he was delighted to find that Mr. Baines had been finally elected to the chair of political economy at Manchester...

Provisional Council of Canada wishing before departure to express their affection made a presentation of the foreign Press that the Southern States desired separation from the Kingdom of Great Britain...

Mr. Odo Russell, British Consul at Rome, has officially informed the Roman Government that the report of the Prince of Wales's mission to the Garibaldi fund is unfounded.

An Abyssinian Ambassador arrived at Addis Ababa on Tuesday, and is reported to be in the city of the Aboona, lately deceased. Prince Kassa is reported to be in the city of the Aboona, lately deceased.

The Imperial troops under the Pantar, or Pantar, have sustained a severe defeat at the battle of the Nank, near Y. H. Chen Foc in the province of Szechwan, with the loss of many guns and officers.

Two red-buttoned mandarins—Cheng and Wang, the one a Manchu and the other a Chinese—have been appointed ambassadors to accompany the Chinese Minister at Peking, has been appointed.

Mr. Stanton resumed possession of the War Department on the 13th ult., General Grant surrendering the keys on receipt of the Senate not concurring in the nomination of Mr. Stanton.

It is reported that Mr. Johnson has received notice of the action of the Senate in removing Mr. Stanton, and that he will issue all military orders in the name of General Grant.

Earl Granville expressed his great pleasure at finding that Lord Stanley had stated the readiness of the Government to bring forward "a wise, a large, and well-considered measure for the education of the people;" and he trusted that the Government would be kept up to that programme, especially as far as a "large" measure was concerned. After some remarks by Professor Thorold Rogers, Professor Livey, Professor Grace Calvert, Mr. Peel, chairman of the Birmingham Chamber of Commerce, and other gentlemen, the debate was adjourned. On Saturday Mr. Harry Chester spoke in favour of the resolutions, and was followed by Mr. T. D. Acland, M.P., Mr. Ayrton, M.P., the Hon. A. Herbert, Mr. Hyde Clark, Mr. Brocklehard, of Manchester. Professor Huxley objected to the resolution as putting science in an inferior position to other studies. Professor F. Jenkin, of University College, London, insisted on the necessity of improved primary education. The Rev. Arthur Rigg, principal of Chester College, said that every attempt to popularise science had been a failure. Mr. Clarke, North Cheshire Chamber of Agriculture, said that his experience led him to believe that workshops were advantageous as a means of education. Mr. Lucraft moved as an amendment the addition of words to the resolution providing for the establishment of museums of art manufactures in the great centres. Mr. G. Godwin, F.R.S., seconded the amendment, and it was at once agreed that it should be incorporated with the resolution. After some remarks by M. Meyer, of Hanover, in relation to the system of education adopted in the schools of Germany, and by Mr. Ayrton, M.P. in favour of science schools, the resolution, embodying Mr. Lucraft's amendment was carried, with two dissentients. Mr. H. Chester moved the next resolution.

"That in such measures as may be desirable for the general provision of the means of efficient primary education, it would be right to consolidate and improve rather than overthrow what has already been done, but that the voluntary principle requires to be supplemented by local rates for education."

The Right Hon. W. Cowper seconded the resolution, which was carried, with five dissentients. The Rev. W. C. Lake moved the next resolution:

"That while this conference acknowledges the benefits which have ensued from the educational clauses of the Factory Acts, it is of opinion that the Legislature ought now to declare that all children between certain ages, employed in remunerative labour of a certain character, should receive education during at least a minimum number of hours in each year, security being taken that the education be conducted in efficient schools."

Mr. Antonio Brady seconded the resolution. Mr. Harry Chester moved as an amendment that after the words "certain ages" in the resolution, the words "and not only those" should be inserted, making it compulsory to provide education for all children. Professor Thorold Rogers seconded the amendment. Mr. Bruce, M.P., said that he was not opposed to compulsion, but he wanted to have it adopted with the free consent of the people. Those in Parliament would have great difficulties in dealing with the local rating question, and he thought it would be unwise to press upon willing horses a load which might be too great for their strength. Mr. Dixon, M.P., thought that the conference ought to express itself strongly in favour of the amendment, and then to leave members of the Legislature to deal with it as they pleased. Sir J. Kay Shuttleworth suggested that in the resolution the word "now" should be struck out, and the words "as soon as practicable" substituted. The Rev. W. C. Lake, Mr. Chester, Mr. Bruce, and other gentlemen agreed to the alteration, and the amended resolution was submitted by the chairman as a substantive motion. Mr. Chester's addition also having been incorporated with it. Mr. Connolly, a well-known working man connected with agitation, then addressed the meeting in a speech which was received with vociferous applause. He said the working men were willing to submit to any fair arrangement that would secure education for their children, and contended that no man was entitled to the labour of a child to the injury of the moral and physical condition of that child. At the close of his speech several gentlemen cordially shook hands with him, and congratulated him on his success. The resolution, as amended, was then carried unanimously. Mr. Samuelson moved the next resolution:

"That the Council of the Society of Arts be requested to appoint a standing committee to take such steps as may give effect to the foregoing resolutions, to support all such well-adviced schemes for technical education as may be brought before it, to send such deputations to the Government as may seem expedient, and to re-assemble the conference when desirable."

He said he intended to move for a committee of the House of Commons on the subject when Parliament re-assembled, and the Committee of the Society of Arts would be of great assistance to it. The Rev. H. Solly seconded the resolution, which was adopted. On the motion of Mr. Bruce, M.P., seconded by Alderman Salomons, M.P., a cordial vote of thanks was accorded to Mr. W. Hawes for the manner in which he had presided over the conference.

ST ALBAN'S, HOLBORN.—The Rev. Dr. Hugh M'Neile, referring to the statement which appeared in the *Guardian* last week, that "he was present and communicated on Sunday at the high celebration at St. Alban's, Holborn," has written a letter to the *Record* (the Evangelical organ), contradicting the entire story. He says:—

"The most charitable supposition is that some contributor to the *Guardian* has published a mistake, and if I hope that this unfounded falsehood will put the *Record* on his guard for the future. I am a naturalist of Mr. O'Connell's maxim for defamation in this case. 'Throw mud enough and some of it will stick.' I am not a mid-proof. I have not been in London since November. You will oblige me by adding to this that I am so conscientiously persuaded that what is called the high celebration

at St. Alban's, Holborn, is idolatry, that I could no more consent to share in it than I could to be wilfully guilty of Sabbath-breaking, adultery, or theft."

THE PUBLIC HEALTH.—The Weekly Return of the Registrar-General states that in the week that ended on Saturday, January 25, 1819 births and 3724 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 27 per 1000 persons living, being 23 per 1000 in London, 31 in Edinburgh, 37 in Dublin, 27 in Bristol, 21 in Birmingham, 32 in Liverpool, 38 in Manchester, 28 in Salford, 26 in Sheffield, 31 in Bradford, 23 in Leeds, 23 in Hull, 27 in Newcastle-upon-Tyne, and 31 in Glasgow. The rate in Vienna was 30 per 1000 during the week ending the 18th inst. In London the births of 1157 boys and 1166 girls, in all 2323 children, were registered in the week. In the corresponding weeks of 10 years 1858-67, the average number, corrected for increase of population, was 2205. The deaths registered in London during the week were 1325. It was the fourth week of the year, and the average number for that week, corrected for increase of population, was 1716. The present return is, therefore, less by 321 than the estimated number.

Provincial.

ALDERNEY.—A charge of Fenianism was brought last week against Mr. Thomas Simon, the sheriff of this island, arising out of a very trumpety affair, which has made all concerned in it look very ridiculous. It appears that Mr. Simon was in a shop in Alderney, where there happened to be at the same time 10 women, natives of the island. A newspaper on the counter led the conversation to Fenianism and the Manchester executions, when Mr. Simon said in French that "the Government would do well not to hang any more, as England would suffer from these hangings, and it would serve her right," adding, "If the Fenians should come to Alderney, I'll show them the way." These words being repeated to the magistrates as they sat in court, they communicated with the Lieutenant-Governor, and asked his advice in the emergency. His Excellency declined giving any, and told the Court they might do as they pleased. They adopted the suggestion, and suspended Mr. Simon from his office, admitting him to bail, and referred the case to the consideration of the Royal Court of Guernsey. This tribunal, seeing the ridiculousness of the charge, at once quashed the proceedings, and ordered the liberation of Mr. Simon.

LEMINSTER.—The London police have now issued bills offering 500l. reward for the discovery of the Rev. Benjamin Speke, rector of Dowlish Wake, who disappeared so mysteriously while on a visit to town in the early part of last month. The bills state that the old hat which Mr. Speke had been wearing before he bought the new one in Warwick Street, Bimlico, was found on the morning of the 8th ult. in Birdcage Walk, but that appears to be the only clue that has been discovered.

LLANELLY.—On Wednesday evening the 22d ult. 19 vessels, chiefly brigs, brigantines, and schooners engaged in the coasting trade, left Llanelly with the hope of beating down channel. The sea was running very high over the bar, and as there was not sufficient water to float the vessels over it, they all took the ground and became partial or total wrecks, only six riding out the violence of the breakers. Of the crews of the vessels lost 42 were saved, but 52 were drowned. The jury at the inquest returned a verdict of Found Drowned, with a strong expression of opinion as to the necessity of signals and a lifeboat.

SHEFFIELD.—The report of Mr. Overend, Q.C., Mr. Barstow, and Mr. Chance, the examiners appointed under the Trades' Unions Commission Act of 1867, to inquire into the outrages asserted to have taken place at Sheffield and elsewhere with the support and connivance of associations of workmen, has just been issued, together with the evidence taken at Sheffield. The report is addressed by the examiners to the Commissioners appointed under the Act, and consists of a complete history of their inquiry, the facts of which received so much attention during its progress. The accompanying evidence, filling 450 folio pages, contains nothing of importance that has not already been published.

Ireland.

ANOTHER ATTACK ON A MARTELLO TOWER.—A martello tower, near Duncannon Fort, in Waterford Harbour, was attacked on Monday night between 9 and 10 o'clock. One of the guns of the fort had been spiked on the previous night by some person or persons unknown, and some of the other guns showed that they had been tampered with. When the attack was made on Monday night the alarm signals were fired, and a reinforcement of military sent from the fort. The marauders waited in regular array until the soldiery came within 70 yards of them, when they fired first, and wounded a soldier. Their leader called on them to stand firm, but on a volley from the soldiers, which it is believed shot two persons, they scattered and ran, carrying off the wounded men. Blood was seen on the ground. No arrests have yet been made. The sergeant of the guard and the sentry on duty on that part of the ramparts where the injured gun was mounted are suspected of having connived at the outrage, and are to be brought before a military court of inquiry.

PROSECUTION OF THE "WEEKLY NEWS" AND "IRISHMAN."—On Monday Mr. A. M. Sullivan appeared before Mr. O'Donnell, at Capel Street Police-office, to answer the summons for seditious libels in the *Weekly News*. Informations were taken against him, and the

case sent for trial. Bail was accepted. A committal order was granted on Monday by the Court of Criminal Bench to Mr. Richard Pigott, the proprietor of the *Irishman* newspaper, to remove any indictments may be found against him at the Commission of the Peace and Terminus into that Court, the ground for the committal being that he will not get a fair trial at the Commission. On Wednesday the Attorney-General moved for the discharge of the provisional order, and on Thursday the Court gave judgment on the motion. Mr. Justice Fitzgerald and Mr. Justice O'Brien were of opinion that the case was a special one, which ought to be tried by a jury of more than ordinary intelligence. On this ground they were for granting the application. Mr. Justice George and the Lord Chief Justice thought that no sufficient grounds had been shown, and that the *certiorari* should be refused. The being divided, the judgment was, no rule in the matter.

FURTHER ARRESTS.—Jonathan Allen, a schoolmaster, cousin of the convict of the same name who was executed at Manchester for the murder of Serjeant Brett, was arrested on Monday at a public house in county Limerick, for Fenianism. Others were vainly searched for, some of them Irish American. A supposed Fenian Head Centre was arrested at a public house last week and brought to Dublin under a Lord Lieutenant's warrant, and lodged in a military goal. The arrest is considered of much importance. A man who gave his name as John Whelan, and who arrived by the Minnesota from America, was arrested in Passage, on Friday, on suspicion of Fenianism. He had been behaving in a very swaggering way through the town, and, on being brought before the magistrates, refused to state where he had last seen or what was his business in Passage. He was retained for a week. An attorney's clerk named W. H. Head Centre, was arrested on Saturday evening at Waterford. At Skibbereen a soldier of the 10th Regiment is under arrest, awaiting a trial by court-martial for declaring himself a Fenian, and saying that in future he would serve, not the Queen, but the Republic. On Wednesday Marcus Adams, a Fenian, was allowed to stand out on bail for treatment since the Cork special commission, was retained at his residence, in North Main Street. A large party attempted to rescue him, but the armed police prevented them from doing so. He is known to hold a high position in the Fenian conspiracy. Other arrests are expected.

PASTORAL FROM CARDINAL CULLEN.—On the morning a new pastoral from Cardinal Cullen in commemoration of the festival of St. Brigid, was issued with St. Patrick the tutelage of Ireland, was read in all the Catholic churches of Dublin. After a eulogium upon the saint, the cardinal proceeded to consider the state of Ireland, of which he draws a gloomy picture. In no country in the world is misery to be witnessed comparable to that which prevails in Ireland. He describes the towns as filled with half-starved poor, destitute of shoes, stockings, and shivering in the winter blast for proper clothing. More squalid poverty of this kind to be seen, he says, in Dublin alone than in all the great cities of France, Austria, or Spain. Alluding to the compulsory emigration of the Irish people to seek food in foreign lands, he says that 100,000 cottages of the poor have been abandoned, the ground lest they should again afford shelter to their former inmates. He says that the aristocracy, the small Orange faction, the source of innumerable evils to Ireland and of weakness to the empire, is not maintained, and refers to recent articles in the *Quarterly Review* as a proof that no existing evils is to be expected. He then proceeds to condemn Fenianism. "To fill the cup of our misery," he says, "some misguided men, deceived by designing knaves, are endeavouring to excite the people to resistance to the laws and to the authority; to alienate them from the Protestant religion, and to initiate them in Fenian secret societies, where they are at the mercy of spies and subjected to the same spiritual penalties as the *Freemasons* and cut off as rotten branches from the tree of God, whether they be *Freemasons*, or *Orange* or *Ribbon* men." In conclusion he exhorts the people to seek redress of their grievances by constitutional means, and, with that view, members of Parliament who will demand from the Legislature the "disendowment of the Church Establishment," freedom of education, and readjustment of the relations between landlord and tenant as will secure to the agricultural labourer the fruits of their capital and labour.

FENIAN MEMORIAL CROSSES.—The last of the desecrated churchyards by the erection of crosses in honour of the men executed at Malinbeg has been promptly put down by the constabulary. A cross was put up last week in the graveyard at Rathowen; but it was immediately pulled down and cut to pieces by a constable, while an officer and members of the force stood by to protect him.

Scotland.

DESTRUCTIVE GALE IN EDINBURGH.—On the forenoon till 6 in the evening a terrific gale raged in Edinburgh, from 11 o'clock a block of chimneys in Duke Street was blown down, and fell through five flats of dwelling-houses in the upper storey, two clerks on the street below were killed, and a lady in the second floor was killed. Several persons were buried; one escaped unhurt, but was severely injured. Many minor accidents were reported. In proof of the violence of the storm the *Daily Review* states that on the following day 60 and 70 tons of lime, fragments of chimney-slates, and tiles were collected from the street.

Railways.

THE CALEDONIAN AND NORTH BRITISH.—Arrangements for working the traffic of these companies on a joint-purse for 20 years, have been agreed...

Law.

JUDICIAL BENCH.—The Queen v. Burke, Casey, and others. Arrangements on the rule granted by the Court, to show cause why the prisoners should not be tried at the Central Criminal Court...

THE LAMBETH MURDER.—At the Court a man named Thomas Clark pleaded guilty of the murder, by strangulation, of the child of a woman he lived in, in a little street off Kennington Lane. The Court postponed passing sentence, in order that the state of mind might be inquired into...

Obituary.

THE COUNTESS OF TYRCONNEL died at Kiplin Park, near York, Yorkshire, on the 23rd ult., in her 67th year, from cancer of the breast. Her ladyship was the only child and heiress of the late Earl of Tyrconnel...

wards he was elected a Fellow of Exeter. He became M.A. in 1802 and D.C.L. in 1812, when he succeeded the famous Mr. Justice Blackstone as Assessor of the Chancellor's Court. In 1813 he was appointed by Lord Grenville, at that time Chancellor of the University, to the Principality of Magdalen...

Dr. JOHN DAVY, M.D., F.R.S., the brother and biographer of Sir Humphrey Davy, and an eminent chemist, geologist, and physiologist, died on the 24th ult. at his residence, Lesketh How, near Ambleside. He was born at Penzance, in 1790. He studied medicine in Edinburgh, and took his M.D. degree in that University in 1814.

Markets.

COVENT GARDEN.—Feb. 1. Foreign imports continue heavy. A good demand still exists for Cucumbers, but other forced produce remains at former quotations. French goods include Lettuce, Endive, Asparagus, and Artichokes.

FRUIT. Apples, per bushel, 4s to 8s. Pears, per doz., 3s to 9s. Pine-apples, per lb., 6s to 8s. Chestnuts, per bushel, 10s to 12s.

VEGETABLES. Artichokes, per doz., 2s to 3s. Asparagus, per bundle, 8s to 20s. Beans, per doz., 3s to 4s. Parsnips, per doz., 2d to 1s.

NEWGATE.—Jan. 31. Best Fresh Butter 18s per dozen lb. Second do. 16s. Small Pork, 8s. 6d. to 4s. 2d., Large Pork, 3s. 0d. to 3s. 6d. per 8 lb.

HAY.—Per Load of 36 Trusses. SMITHFIELD, Thursday, Jan. 30. Best Green Hay 95s to 105s. Prime Meadow Hay 75s to 84s.

CUMBERLAND MARKET, Thursday, Jan. 30. Sup. Meadow Hay 84s to 90s. Inferior do. 65 74. New do. 30 36. Superior Clover 97 105.

LEADENHALL AND NEWGATE POULTRY, &c. THURSDAY, Jan. 30. A very small supply and scarcely any demand. Turkeys, cock, each 6 0-12 0. Turkey hens 5 0-10 0.

COALS.—Jan. 29. Buddle's West Hartley, 15s. 6d.; Hollywell Main 15s. 6d.; Lambert's West Hartley, 15s. 9d.; West Hartley, 15s. 6d.

POTATOS.—SOUTHWARK, Monday, Jan. 27. During the past week the arrivals both coastwise and by rail have been moderate, but more liberal from abroad. The trade steady for best samples.

Fife Regents, 110s. to 130s.; ditto Rocks, 110s. to 130s.; French and Belgian Whites, 90s. to 100s.

ENGLISH WOOL.

There has been a decidedly better tone in the wool market, and prices are, if anything, a shade stiffer. The business also is on a more extensive scale; and altogether, if we have no untoward political news for the next few weeks, we may fairly expect a slight improvement.

Table with columns: CURRENT PRICES OF ENGLISH WOOL, per lb.—s. d. s. d. Rows include: Southdown hoggets, Half-bred ditto, Kent Fleeces, Southdown ewes and wethers, Leicester ditto, Clothing, Combing.

METROPOLITAN CATTLE MARKET.

MONDAY, JAN. 27.

We have a large supply of Beasts, there is, however a fair demand, and late quotations are nearly realised; some inferior qualities remain unsold. The number of Sheep is large, but they are nearly all sold at about late rates.

Table with columns: s. d. s. d. Rows include: Best Scots, Herefords, Best Shorthorns, 2d quality Beasts, Best Downs and Half-breds, Do. Shorn, Best Long-wools, Do. Shorn, Ewes & 2d quality, Do. Shorn, Lambs, Calves, Pigs.

THURSDAY, JAN. 30.

Our supply of Beasts is rather larger than on Thursday last. Trade is by no means brisk, yet the favourable weather enables us to dispose of them at about Monday's quotations.

Table with columns: s. d. s. d. Rows include: Best Scots, Herefords, Best Shorthorns, 2d quality Beasts, Best Downs and Half-breds, Do. Shorn, Best Long-wools, Do. Shorn, Ewes & 2d quality, Do. Shorn, Lambs, Calves, Pigs.

MARK LANE.—MONDAY, JAN. 27.

The supply of Wheat from Essex and Kent to this morning's market was small, the condition very miserable, it was nevertheless disposed of at the extreme rates of this day's market.

Table with columns: s. s. s. Rows include: WHEAT, Essex, Kent, Suffolk, White, Red, fine selected rings, Talavera, Norfolk, Foreign, Barley, grind. & dist., Foreign grinding and distilling, OATS, Essex and Suffolk, Scotch and Lincolnshire, Irish, Foreign, RYE, Foreign, RYE-MEAL, Foreign, BEANS, Mazagan, Pigeon, Foreign, PEAS, White, Essex, and Kent, Maple, MAIZE, Foreign, FLOUR, best marks delivered, 2d ditto, Foreign.

FRIDAY, JAN. 31.

The weather in the early part of the week was very stormy and wet; we have since had some night frosts, followed by a milder temperature and frequent showers; yesterday fine. The advance in the value of Wheat which we reported last Friday has been well maintained throughout the week, and in many of our leading markets on the east coast and in the agricultural districts best samples have further improved 1s. to 2s. per qr., but the Scotch markets, Liverpool, and Birmingham were not dearer.

Table with columns: Wheat, Barley, Oats, Flour. Rows include: English, Irish, Foreign.

LIVERPOOL, Tuesday, Jan. 28.—At to-day's market we had a very moderate attendance, and in Wheat a tolerably business.

Earl Granville expressed his great pleasure at finding that Lord Stanley had stated the readiness of the Government to bring forward "a wise, a large, and well-considered measure for the education of the people;" and he trusted that the Government would be kept up to that programme, especially as far as a "large" measure was concerned. After some remarks by Professor Thorold Rogers, Professor Livey, Professor Crace Calvert, Mr. Peel, chairman of the Birmingham Chamber of Commerce, and other gentlemen, the debate was adjourned. On Saturday Mr. Harry Chester spoke in favour of the resolutions, and was followed by Mr. T. D. Acland, M.P., Mr. Ayrton, M.P., the Hon. A. Herbert, Mr. Hyde Clark, Mr. Brocklehard, of Manchester. Professor Huxley objected to the resolution as putting science in an inferior position to other studies. Professor F. Jenkin, of University College, London, insisted on the necessity of improved primary education. The Rev. Arthur Rigg, principal of Chester College, said that every attempt to popularise science had been a failure. Mr. Clarke, North Cheshire Chamber of Agriculture, said that his experience led him to believe that workshops were advantageous as a means of education. Mr. Lucraft moved as an amendment the addition of words to the resolution providing for the establishment of museums of art manufactures in the great centres. Mr. G. Godwin, F.R.S., seconded the amendment, and it was at once agreed that it should be incorporated with the resolution. After some remarks by M. Meyer, of Hanover, in relation to the system of education adopted in the schools of Germany, and by Mr. Ayrton, M.P., in favour of science schools, the resolution, embodying Mr. Lucraft's amendment was carried, with two dissentients. Mr. H. Chester moved the next resolution.

"That in such measures as may be desirable for the general provision of the means of efficient primary education, it would be right to consolidate and improve rather than overthrow what has already been done, but that the voluntary principle requires to be supplemented by local rates for education."

The Right Hon. W. Cowper seconded the resolution, which was carried, with five dissentients. The Rev. W. C. Lake moved the next resolution:-

"That while this conference acknowledges the benefits which have resulted from the education of the Factory Acts, it is of opinion that the Legislature ought now to declare that all children between certain ages, employed in remunerative labour of a certain character, should receive education during at least a minimum number of hours in each year, security being taken that the education be conducted in efficient schools."

Mr. Antonio Brady seconded the resolution. Mr. Harry Chester moved as an amendment that after the words "certain ages" in the resolution, the words "and not only those" should be inserted, making it compulsory to provide education for all children. Professor Thorold Rogers seconded the amendment. Mr. Bruce, M.P., said that he was not opposed to compulsion, but he wanted to have it adopted with the free consent of the people. Those in Parliament would have great difficulties in dealing with the local rating question, and he thought it would be unwise to press upon willing horses a load which might be too great for their strength. Mr. Dixon, M.P., thought that the conference ought to express itself strongly in favour of the amendment, and then to leave members of the Legislature to deal with it as they pleased. Sir J. Kay Shuttleworth suggested that in the resolution the word "now" should be struck out, and the words "as soon as practicable" substituted. The Rev. W. C. Lake, Mr. Chester, Mr. Bruce, and other gentlemen agreed to the alteration, and the amended resolution was submitted by the chairman as a substantive motion. Mr. Chester's addition also having been incorporated with it. Mr. Connolly, a well-known working man connected with agitation, then addressed the meeting in a speech which was received with vociferous applause. He said the working men were willing to submit to any fair arrangement that would secure education for their children, and contended that no man was entitled to the labour of a child to the injury of the moral and physical condition of that child. At the close of his speech several gentlemen cordially shook hands with him, and congratulated him on his success. The resolution, as amended, was then carried unanimously. Mr. Samuelson moved the next resolution:-

"That the Council of the Society of Arts be requested to appoint a standing committee to take such steps as may give effect to the foregoing resolutions, to support all such well-considered schemes for technical education as may be brought before it, to send such deputations to the Government as may seem expedient, and to recommend the conference when desirable."

He said he intended to move for a committee of the House of Commons on the subject when Parliament re-assembled, and the Committee of the Society of Arts would be of great assistance to it. The Rev. H. Solly seconded the resolution, which was adopted. On the motion of Mr. Bruce, M.P., seconded by Alderman Salomons, M.P., a cordial vote of thanks was accorded to Mr. W. Hawes for the manner in which he had presided over the conference.

ST. ALBAN'S, HOLBORN.—The Rev. Dr. Hugh M'Neile, referring to the statement which appeared in the *Guardian* last week, that "he was present and communicated on Sunday at the high celebration at St. Alban's, Holborn," has written a letter to the *Record* (the Evangelical organ), contradicting the entire story. He says:-

"The most charitable supposition is that some contributor to the *Guardian* was misinformed or mistaken, and if so I hope that this unfounded falsehood will put the editor of that paper on his guard for the future. I am not afraid of Mr. O'Connell's maxim for defamation in this case. 'Draw and enough and some of it will stick,' said the agitator. I am thankful to think that against a charge of Romanism I am mud-proof. It has not been in London since November. You will oblige me by adding to this that I am so contentiously persuaded that what is called the high celebration

at St. Alban's, Holborn, is idolatry, that I could no more consent to share in it than I could to be wilfully guilty of Sabbath-breaking, adultery, or theft."

THE PUBLIC HEALTH.—The Weekly Return of the Registrar-General states that in the week that ended on Saturday, January 25, 4819 births and 3724 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 27 per 1000 persons living, being 23 per 1000 in London, 31 in Edinburgh, 37 in Dublin, 37 in Bristol, 24 in Birmingham, 32 in Liverpool, 38 in Manchester, 28 in Salford, 26 in Sheffield, 31 in Bradford, 23 in Leeds, 23 in Hull, 27 in Newcastle-upon-Tyne, and 31 in Glasgow. The rate in Vienna was 30 per 1000 during the week ending the 18th inst. In London the births of 1157 boys and 1166 girls, in all 2323 children, were registered in the week. In the corresponding weeks of 10 years 1858-67, the average number, corrected for increase of population, was 2205. The deaths registered in London during the week were 1395. It was the fourth week of the year, and the average number for that week, corrected for increase of population, was 1716. The present return is, therefore, less by 321 than the estimated number.

Provincial.

ALDERNEY.—A charge of Fenianism was brought last week against Mr. Thomas Simon, the sheriff of this island, arising out of a very trumpety affair, which has made all concerned in it look very ridiculous. It appears that Mr. Simon was in a shop in Alderney, where there happened to be at the same time 10 women, natives of the island. A newspaper on the counter led the conversation to Fenianism and the Manchester executions, when Mr. Simon said in French that "the Government would do well not to hang any more, as England would suffer from these hangings, and it would serve her right." adding, "If the Fenians should come to Alderney, I'll show them the way." These words being repeated to the magistrates as they sat in court, they communicated with the Lieutenant-Governor, and asked his advice in the emergency. His Excellency declined giving any, and told the Court they might do as they pleased. They adopted the suggestion, and suspended Mr. Simon from his office, admitting him to bail, and referred the case to the consideration of the Royal Court of Guernsey. This tribunal, seeing the ridiculousness of the charge, at once quashed the proceedings, and ordered the liberation of Mr. Simon.

ILMINSTER.—The London police have now issued bills offering 500£ reward for the discovery of the Rev. Benjamin Speke, rector of Dowlish Wake, who disappeared so mysteriously while on a visit to town in the early part of last month. The bills state that the old hat which Mr. Speke had been wearing before he bought the new one in Warwick Street, Piccadilly, was found on the morning of the 8th ult. in Birdcage Walk, but that appears to be the only clue that has been discovered.

LLANELLY.—On Wednesday evening the 22d ult. 19 vessels, chiefly brigs, brigantines, and schooners engaged in the coasting trade, left Llanelly with the hope of beating down channel. The sea was running very high over the bar, and as there was not sufficient water to float the vessels over it, they all took the ground and became partial or total wrecks, only six riding out the violence of the breakers. Of the crews of the vessels lost 12 were saved, but 52 were drowned. The jury at the inquest returned a verdict of Found Drowned, with a strong expression of opinion as to the necessity of signals and a lifeboat.

SHEFFIELD.—The report of Mr. Overend, Q.C., Mr. Barstow, and Mr. Chance, the examiners appointed under the Trades' Unions Commission Act of 1867, to inquire into the outrages asserted to have taken place at Sheffield and elsewhere with the support and connivance of associations of workmen, has just been issued, together with the evidence taken at Sheffield. The report is addressed by the examiners to the Commissioners appointed under the Act, and consists of a complete history of their inquiry, the facts of which received so much attention during its progress. The accompanying evidence, filling 150 folio pages, contains nothing of importance that has not already been published.

Ireland.

ANOTHER ATTACK ON A MARTELLO TOWER.—A martello tower, near Duncannon Fort, in Waterford Harbour, was attacked on Monday night between 9 and 10 o'clock. One of the guns of the fort had been spiked on the previous night by some person or persons unknown, and some of the other guns showed that they had been tampered with. When the attack was made on Monday night the alarm signals were fired, and a reinforcement of military sent from the fort. The marauders waited in regular array until the soldiery came within 70 yards of them, when they fired first, and wounded a soldier. Their leader called on them to stand firm, but on a volley from the soldiers, which it is believed shot two persons, they scattered and ran, carrying off the wounded man. Blood was seen on the ground. No arrests have yet been made. The sergeant of the guard and the sentry on duty on that part of the ramparts where the injured gun was mounted are suspected of having connived at the outrage, and are to be brought before a military court of inquiry.

PROSECUTION OF THE "WEEKLY NEWS" AND "IRISHMAN."—On Monday Mr. A. M. Sullivan appeared before Mr. O'Donnell, at Capel Street Police-office, to answer the summons for seditious libels in the *Weekly News*. Informations were taken against him, and the

case sent for trial. Bail was accepted. A committal order was granted on Monday by the Court of Criminal Bench to Mr. Richard Pigott, the proprietor of the *Irishman* newspaper, to remove any indictments which may be found against him at the Commission of the Peace and Terminer into that Court, the ground for the committal being that he will not get a fair trial at the Commission. On Wednesday the Attorney-General moved for the discharge of the provisional order, and on Thursday the Court gave judgment on the motion. Mr. Pigott, Fitzgerald and Mr. Justice O'Brien were of opinion that the case was a special one, which should be tried by a jury of more than ordinary competence. Mr. Justice George and the Lord Chief Justice thought that no sufficient grounds had been shown, and that the *certiorari* should be refused. The committal order, being divided, the judgment was, no rule in the premises.

FURTHER ARRESTS.—Jonathan Allen, lately a schoolmaster, cousin of the convict of the same name, who was executed at Manchester for the murder of Sergeant Brett, was arrested on Monday at Ballyvaughan, county Limerick, for Fenianism. He had been vainly searched for, some of the Irish Army, supposed Fenian Head Centre was arrested at Ballyvaughan last week and brought to Dublin. A Lord Lieutenant's warrant, and lodged in the County Jail. The arrest is considered of much importance. A man who gave his name as John W. Lee, arrived by the Minnetota from America, was arrested in Passage, on Friday, on suspicion of Fenianism. He had been behaving in a very swaggering manner through the town, and, on being brought before the magistrates, refused to state where he had been for a week. An attorney's clerk named W. Lee, Head Centre, was arrested on Saturday at Waterford. At Skibbereen a soldier of the 10th Regiment is under arrest, awaiting a trial by court-martial for declaring himself a Fenian, and saying in the future he would serve, not the Queen, but the Republic. On Wednesday Marcus Adams, who has been allowed to stand out on bail for treason since the Cork special commission was re-arrested his residence, in North Main Street. An attempt was made to rescue him, but the armed police prevented him from doing so. He is known to hold a part in the Fenian conspiracy. Other arrests are expected.

PASTORAL FROM CARDINAL CULLEN.—On the morning a new pastoral from Cardinal Cullen, in commemoration of the festival of St. Brigid, was issued with St. Patrick the tutelage of Ireland, and all the Catholic churches of Dublin. After a glowing eulogium upon the saint, the cardinal proceeds to consider the state of Ireland, of which he presents a gloomy picture. In no country in the world is misery to be witnessed comparable to that which prevails in Ireland. He describes the towns as filled with half-starved poor, destitute of stockings, and shivering in the winter blast for proper clothing. More squalid poverty is to be seen, he says, in Dublin alone than in the great cities of France, Austria, or Spain. Allowing to the compulsory emigration of the Irish to seek food in foreign lands, he estimates 400,000 cottages of the poor have been abandoned, the ground lest they should again afford shelter to their former inmates. He says that the small Orange faction, the source of innumerable evils to Ireland and of weakness to the empire, is maintained, and refers to recent articles in the *Quarterly Review* as a proof that the existing evils are to be expected. He then condemns Fenianism. "To fill the cup of our misery," he says, "some misguided men, led by designing knaves, are endeavouring to excite the people to resistance to the laws and to the authority, to alienate them from the Protestant religion, and to initiate them in Fenianism, where they are at the mercy of spies and subjected to the same spirit of penal laws, and cut off as rotten branches from the Christian societies which are all alike condemned by the will of God, whether they be Freemasons, Orangemen or Ribbonmen." In conclusion, he says, "the people to seek redress of their grievances by constitutional means, and, with that view, members of Parliament who will demand of the Legislature the 'disendowment of the Protestant Establishment,' freedom of education, and readjustment of the relations between landlord and tenant as will secure to the agricultural labourer the fruits of their capital and labour."

FENIAN MEMORIAL CROSSES.—The first of the desecrate churchyards by the erecting of crosses in honour of the men executed at Manchester has been promptly put down by the constable. A cross was put up last week in the graveyard at Rathowen; but it was immediately pulled down and cut to pieces by a constable, while an officer and members of the force stood by to protect him.

Scotland.

DESTRUCTIVE GALE IN EDINBURGH.—A terrific gale raged in Edinburgh, from 11 o'clock in the forenoon till 6 in the evening. At 11 o'clock a block of chimneys in Duke Street was blown down, and fell through five flats of dwelling-houses. In the upper storey, two clerks on the street, and a lady in the second floor were killed. Several persons were buried; one escaped unhurt, but was severely injured. Many minor casualties were reported. In proof of the violence of the gale, the *Daily Review* states that on the following day 60 and 70 tons of lime, fragments of chimneys, and tiles were collected from the streets.

Railways.

WEDNESDAY, 1, 1868. THE GARDENERS' CHRONICLE AND NORTH BRITISH.—Arrangements for working the traffic of these companies on a joint-purse for 20 years, have been agreed...

Law.

THE QUEEN v. BURKE, CASEY, AND ANOTHER.—The rule granted by the Court, and the Crown to show cause why the prisoners and Shaw, should not be tried at the Central Criminal Court, were heard on Wednesday...

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Obituary.

Mrs. Elizabeth Walker Head, Bart., died on the 23rd ult., in her 67th year, from a long illness. Her husband was the only child and heiress of...

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wards he was elected a Fellow of Exeter. He became M.A. in 1802 and D.C.L. in 1812, when he succeeded the famous Mr. Justice Blackstone as Assessor of the Chancellor's Court. In 1813 he was appointed by Lord Granville, at that time Chancellor of the University, to the Principality of Magdalen, and in the same year he was nominated by the Lord Almoner of the time to the Readership in Arabic. These two offices he held till his death. He was most successful in raising the Hall of which he was head to a position surpassing that of many colleges. He had considerable reputation as a writer, having published a "Diatesseron" or "Harmony of the Gospels," which was at one time largely used as a text-book in the University, and also a work on Mahomedanism. In religious opinion he belonged to the Evangelical School, while in politics he was a moderate Conservative. In private life he was universally respected, while to those who knew him well he was greatly endeared by his kindness, sincerity, and warmth of heart. The poor Oxford rose in him a most liberal almoner, his high judicious and successful head, and the University one of the few links which still connected it with the manners, the scholarship, and the tone of thought that characterised the last century.

DR. JOHN DAVY, M.D., F.R.S., the brother and biographer of Sir Humphrey Davy, and an eminent chemist, geologist, and physiologist, died on the 24th ult. at his residence, Lesketh How, near Ambleside. He was born at Penzance, in 1790. He studied medicine in Edinburgh, and took his M.D. degree in that University in 1814. He entered the army as a surgeon, and at the time of his death held the rank of Inspector-general of Army Hospitals. He was a most copious writer, having been the author of several volumes on general subjects, and of a large number of papers ranging over the whole field of natural science. His physiological researches were principally published in the "Philosophical Transactions," the "Transactions" of the Royal Society of Edinburgh, and the Royal Medical-Chirurgical Society. He also wrote largely on meteorology, geology, and chemistry. One of his most recent works was a series of "Lectures on Chemistry," in which that science was regarded in its relations to the atmosphere, the earth, the ocean, and the art of agriculture. He was a Fellow of the Royal Societies of London and Edinburgh, author of "Life of Sir Humphrey Davy," and editor of his collected works.

Markets.

COVENT GARDEN.—FRUIT. Foreign imports continue heavy. A good demand still exists for Cucumbers, but other forced produce remains at former quotations. French goods include Lettuces, Endive, Asparagus, and Artichokes. Pears comprise Ne Plus Meuris, Easter Beurre, and Jean de Witte. St. Michael Oranges are still arriving in fine condition. The supply of Chestnuts is but limited. Spanish Chestnuts for planting are now at their best, and realise about 19s. per bushel. Spanish Hazel Nuts for planting fetch 16s. per bushel. Potatoes have not altered in price since our last report. Flowers chiefly consist of Orchids, Cyclamens, Chinese Primulas, Pelargoniums, Mignonette, Early Tulips, Hyacinths, Poinsettia pulcherrima, and Rosas.

FRUIT. Apples, per bushel, 4s to 8s; Cobnuts, per lb., 1s; Grapes, per lb., 4s to 8s; Lemons, per 100, 4s to 10s; Oranges, new, per 100, 2s to 7s.

VEGETABLES. Mint, per bunch, 1s; Mushrooms, p. bott., 1s 6d to 2s; Onions, per bushel, 2s to 4s; Parsnips, per doz., 2d to 1s; Parsley, per bunch, 2d to 4d; Potatoes, York Regents, p. ton, 130s to 160s; Rocks, do., 100s to 120s; Flukes, 110s to 160s; Other sorts, 75s to 80s; Seakale, p. pound, 1s 6d to 2s; Spinach, per bushel, 2s to 4s; Tomatoes, per doz., 2s to 3s; Turnips, per bunch, 4d to 6d.

NEWGATE.—Jan. 31. Best Fresh Butter .. 18s per dozen lb. Second do. do. .. 16s. Small Pork, 8s. 8d. to 4s. 2d.; Large Pork, 3s. 6d. to 3s. 6d. per 8 lb.

HAY.—Per Load of 36 Trusses. SMITHFIELD, Thursday, Jan. 30. Best Green Hay .. 75s to 84s; Prime Meadow Hay .. 55 to 70; Inferior do. .. 30 to 36; Straw .. 30 to 36.

CLIMBERLAND MARKET, Thursday, Jan. 30. Sup. Meadow Hay .. 84s to 90s; Inferior do. .. 65 to 74; New do. .. 30 to 36; Superior Clover .. 97 to 105.

LEADENHALL AND NEWGATE POULTRY, &c. THURSDAY, Jan. 30. A very small supply and scarcely any demand. Turkeys, cock, each .. 6 0-12 0; Turkey hens .. 5 0-10 0; Geese .. 6 0-7 6; Ducks .. 3 0-3 6; Ducklings .. 1 6-2 0; Wild Ducks .. 1 4-2 6; Tame Rabbits .. 0 9-1 0; Wild do. .. 8 0-10 0; Do Chickens .. 5 6-7 0; Barn-door Fowls .. 5 0-7 0.

COALS.—Jan. 29. Buddle's West Hartley, 15s. 6d.; Hollywell Main 15s. 6d.; Lambert's West Hartley, 15s. 3d.; West Hartley, 15s. 6d.; Wylam, 15s. 6d.; Eden Main, 16s. 6d.; Walls End Haswell, 18s. 6d.; Walls End Hetton, 18s. 6d.; Walls End Hetton Lyons, 15s. 6d.; Walls End Tunstall, 15s. 6d.; Walls End Hartlepool, 16s. 9d.; Walls End Kelloe, 16s. 9d.; Walls End East Hartlepool, 18s.—Ships at market, 33; sold, 23.

POTATOS.—SOUTHWARK, Monday, Jan. 27. During the past week the arrivals both coastwise and by rail have been moderate, but more liberal from abroad. The trade steady for best samples. The quotations as follow:—Yorkshire Flukes, per ton, 130s. to 170s.; do. Regents, 140s. to 150s.; do. Rocks, 110s. to 130s.; Kent and Essex Regents, 140s. to 160s.; Lincolnshire Regents, 130s. to 140s.; Dunbar and East Lothian Regents, 130s. to 150s.; Perth, Forfar and

Fife Regents, 110s. to 130s.; ditto Rocks, 110s. to 120s.; French and Belgian Whites, 90s. to 100s.

ENGLISH WOOL.

There has been a decidedly better tone in the wool market, and prices are, if anything, a shade stiffer. The business also is on a more extensive scale; and altogether, if we have no untoward political news for the next few weeks, we may fairly expect a slight improvement.

Table with columns: CURRENT PRICES OF ENGLISH WOOL, per lb.—s. d. s. d. FLEECES—Southdown hoggets, Half-bred ditto, Kent Fleeces, Southdown ewes and wethers, Leicester ditto, SORTS—Clothing, Combing.

METROPOLITAN CATTLE MARKET.

MONDAY, Jan. 27. We have a large supply of Beasts, there is, however a fair demand, and late quotations are nearly realised, some inferior qualities remain unsold. The number of Sheep is large, but they are nearly all sold at about late rates. Choice Calves are still scarce and dear. Our foreign supply consists of 715 Beasts, 2010 Sheep, 84 Calves, and 15 Pigs; from Scotland there are 390 Beasts; from Ireland, 50; from Norfolk and Suffolk, 1600; and 1175 from the Northern and Midland Counties.

Table with columns: s. d. s. d. Best Scots, Herefords, &c., Best Short-horns, 2d quality Beasts, Best Downs and Half-breds, Do. Shorn, Best Long-wools, Do. Shorn, Ewes & 2d quality, Do. Shorn, Lambs, Calves, Pigs.

THURSDAY, Jan. 30.

Our supply of Beasts is rather larger than on Thursday last. Trade is by no means brisk, yet the favourable weather enables us to dispose of them at about Monday's quotations. The number of Sheep is very small, the demand is also limited. Late prices are well maintained for all kinds. Choice Calves continue to be very dear. Our foreign supply consists of 190 Beasts, 420 Sheep, and 55 Pigs.

Table with columns: s. d. s. d. Best Scots, Herefords, &c., Best Short-horns, 2d quality Beasts, Best Downs and Half-breds, Do. Shorn, Best Long-wools, Do. Shorn, Ewes & 2d quality, Do. Shorn, Lambs, Calves, Pigs.

MARK LANE.—MONDAY, Jan. 27.

The supply of Wheat from Essex and Kent to this morning's market was small, the condition very miserable, it was nevertheless disposed of at the extreme rates of this day so far. The market was well attended, and foreign Wheat being held for an advance of 1s per qr., in some instances more, checked business the few sales made were only in retail. Barley and Peas were unchanged in value. Beans were 1s. dearer. The Oat trade was slow at about the prices of this day week. There was no alteration in the top price of Flour, but country marks brought 1s. per qr. more money, American 6d. per barrel.

Table with columns: PRICE PER IMPERIAL QUARTER, WHEAT, Essex, Kent, Suffolk, White, Red, fine selected runs, Talavera, Norfolk, Foreign, BARLEY, grind & dist, Scotch and Lincolnshire, OATS, Essex and Suffolk, Scotch and Lincolnshire, Irish, Foreign, RYE, RYE-MEAL, Foreign, BEANS, Mazagan, Pigeon, Foreign, PEAS, White, Essex, and Kent, Maple, MAIZE, FLOUR, best marks delivered, 2d ditto, Foreign.

FRIDAY, Jan. 31.

The weather in the early part of the week was very stormy and wet, we have since had some light frosts, followed by a milder temperature and frequent showers; yesterday fine. The advance in the value of Wheat which we reported last Friday has been well maintained throughout the week, and in many of our leading markets on the east coast and in the agricultural districts best samples have further improved 1s. to 2s. per qr., but the Scotch markets, Liverpool, and Birmingham were not dearer. Spring Corn of all descriptions was saleable at full rates, and in some instances a small advance was established on Oats and Beans. We observed no alteration in the value of Flour in the markets of the interior. The arrivals of grain and seed-laden vessels off the coast this week consisted of 14 cargoes, of which, with those left over from last week, there remained for sale last night 11 cargoes. Arrived Wheat was firmly held at late extreme rates, and Egyptian, which meets with favour, was 1s per qr. dearer. Barley commanded likewise 1s. per qr. more money. Of other articles the coast is entirely cleared, and prices nominal. For Wheat on passage and for forward shipment there was little demand; prices were without alteration. Paris, Jan. 30.—The Wheat and Flour markets show an improving tendency. The six marks are quoted at equal to 57s. 9d. per 280 lb. The stock at the Halls is estimated at 23,520 cwt. The arrivals of foreign Wheat this week have been to a fair extent, of all other foreign and English grain very limited. The attendance at this morning's market was small. Dry samples of English Wheat continue in request at Monday's prices, but other descriptions are very unsaleable; and the inquiry for foreign was of a very retail character, and its value unaltered. Our quotations for Spring Corn remain unchanged.

ARRIVALS THIS WEEK.

Table with columns: Wheat, Barley, Oats, Flour. English, Irish, Foreign.

LIVERPOOL, Tuesday, Jan. 28.—At today's market we had a very moderate attendance, and in Wheat a tolerable business.

Earl Granville expressed his great pleasure at finding that Lord Stanley had stated the readiness of the Government to bring forward "a wise, a large, and well-considered measure for the education of the people;" and he trusted that the Government would be kept up to that programme, especially as far as a "large" measure was concerned. After some remarks by Professor Thorold Rogers, Professor Lacey, Professor Craze Calvert, Mr. Peel, chairman of the Birmingham Chamber of Commerce, and other gentlemen, the debate was adjourned. On Saturday Mr. Harry Chester spoke in favour of the resolutions, and was followed by Mr. T. D. Acland, M.P., Mr. Ayrton, M.P., the Hon. A. Herbert, Mr. Hyde Clark, Mr. Brocklehard, of Manchester. Professor Huxley objected to the resolution as putting science in an inferior position to other studies. Professor F. Jenkin, of University College, London, insisted on the necessity of improved primary education. The Rev. Arthur Rigg, principal of Chester College, said that every attempt to popularise science had been a failure. Mr. Clarke, North Cheshire Chamber of Agriculture, said that his experience led him to believe that workshops were advantageous as a means of education. Mr. Lucraft moved as an amendment the addition of words to the resolution providing for the establishment of museums of art manufactures in the great centres. Mr. G. Godwin, E.R.S., seconded the amendment, and it was at once agreed that it should be incorporated with the resolution. After some remarks by M. Meyer, of Hanover, in relation to the system of education adopted in the schools of Germany, and by Mr. Ayrton, M.P., in favour of science schools, the resolution, embodying Mr. Lucraft's amendment was carried, with two dissentients. Mr. H. Chester moved the next resolution.

"That in such measures as may be desirable for the general provision of the means of efficient primary education, it would be right to consolidate and improve rather than overthrow what has already been done, and that the voluntary principle requires to be supplemented by local rates for education."

The Right Hon. W. Cowper seconded the resolution, which was carried, with five dissentients. The Rev. W. C. Lake moved the next resolution.

"That while this conference acknowledges the benefits which have ensued from the educational clauses of the Factory Acts, it is of opinion that the Legislature ought now to declare that all children between certain ages employed in remunerative labour of a certain character, should receive education during at least a minimum number of hours in each year, security being taken that the education be conducted in efficient schools."

Mr. Antonio Brady seconded the resolution. Mr. Harry Chester moved as an amendment that after the words "certain ages" in the resolution, the words "and not only those" should be inserted, making it compulsory to provide education for all children. Professor Thorold Rogers seconded the amendment. Mr. Bruce, M.P., said that he was not opposed to compulsion, but he wanted to have it adopted with the free consent of the people. Those in Parliament would have great difficulties in dealing with the local rating question, and he thought it would be unwise to press upon willing horses a load which might be too great for their strength. Mr. Dixon, M.P., thought that the conference ought to express itself strongly in favour of the amendment, and then to leave members of the Legislature to deal with it as they pleased. Sir J. Kay Shuttleworth suggested that in the resolution the word "now" should be struck out, and the words "as soon as practicable" substituted. The Rev. W. C. Lake, Mr. Chester, Mr. Bruce, and other gentlemen agreed to the alteration, and the amended resolution was submitted by the chairman as a substantive motion. Mr. Chester's addition also having been incorporated with it. Mr. Connolly, a well-known working man connected with agitation, then addressed the meeting in a speech which was received with vociferous applause. He said the working men were willing to submit to any fair arrangement that would secure education for their children, and contended that no man was entitled to the labour of a child to the injury of the moral and physical condition of that child. At the close of his speech several gentlemen cordially shook hands with him, and congratulated him on his success. The resolution, as amended, was then carried unanimously. Mr. Samuelson moved the next resolution.

"That the Council of the Society of Arts be requested to appoint a standing committee to take such steps as may give effect to the foregoing resolutions, to support all such well-advised schemes for technical education as may be brought before it, to send such deputations to the Government as may seem expedient, and to reassemble the conference when desirable."

He said he intended to move for a committee of the House of Commons on the subject when Parliament re-assembled, and the Committee of the Society of Arts would be of great assistance to it. The Rev. H. Solly seconded the resolution, which was adopted. On the motion of Mr. Bruce, M.P., seconded by Alderman Salomons, M.P., a cordial vote of thanks was accorded to Mr. W. Hawes for the manner in which he had presided over the conference.

ST. ALBAN'S, HOLBORN.—The Rev. Dr. Hugh M'Neile, referring to the statement which appeared in the *Guardian* last week, that "he was present and communicated on Sunday at the high celebration at St. Alban's, Holborn," has written a letter to the *Record* (the Evangelical organ), contradicting the entire story. He says—

"The most horrible supposition is that some contributor to the *Guardian* was misinformed or mistaken, and if I hope that this unfounded falsehood will put the editor of that paper on his guard for the future. I am not afraid of Mr. O'Connell's maxim for defamation in this case. 'Throw mud enough and some of it will stick,' said the agitator. I am thankful to think that against a charge of Romanising I am proof. I have not been in London since November. You will oblige me by adding to this that I am so conscientiously persuaded that what is called the high celebration

at St. Alban's, Holborn, is idolatry, that I could no more consent to share in it than I could to be wilfully guilty of Sabbath-breaking, adultery, or theft."

THE PUBLIC HEALTH.—The Weekly Return of the Registrar-General states that in the week that ended on Saturday, January 25, 1819 births and 3724 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 27 per 1000 persons living, being 23 per 1000 in London, 31 in Edinburgh, 37 in Dublin, 27 in Bristol, 24 in Birmingham, 33 in Liverpool, 38 in Manchester, 28 in Salford, 26 in Sheffield, 31 in Bradford, 23 in Leeds, 23 in Hull, 27 in Newcastle-upon-Tyne, and 31 in Glasgow. The rate in Vienna was 30 per 1000 during the week ending the 18th inst. In London the births of 1157 boys and 1106 girls, in all 2323 children, were registered in the week. In the corresponding weeks of 10 years 1858-67, the average number, corrected for increase of population, was 2205. The deaths registered in London during the week were 1375. It was the fourth week of the year, and the average number for that week, corrected for increase of population, was 1716. The present return is, therefore, less by 321 than the estimated number.

Provincial.

ALDERNEY.—A charge of Fenianism was brought last week against Mr. Thomas Simon, the sheriff of this island, arising out of a very trumpery affair, which has made all concerned in it look very ridiculous. It appears that Mr. Simon was in a shop in Alderney, where there happened to be at the same time 10 women, natives of the island. A newspaper on the counter led the conversation to Fenianism and the Manchester executions, when Mr. Simon said in French that "the Government would do well not to hang any more, as England would suffer from these hangings, and it would serve her right," adding, "If the Fenians should come to Alderney, I'll show them the way." These words being repeated to the magistrates as they sat in court, they communicated with the Lieutenant-Governor, and asked his advice in the emergency. His Excellency declined giving any, and told the Court they might do as they pleased. They adopted the suggestion, and suspended Mr. Simon from his office, admitting him to bail, and referred the case to the consideration of the Royal Court of Guernsey. This tribunal, seeing the ridiculousness of the charge, at once quashed the proceedings, and ordered the liberation of Mr. Simon.

ILMSTER.—The London police have now issued bills offering 500l. reward for the discovery of the Rev. Benjamin Speke, rector of Dowlish Wake, who disappeared so mysteriously while on a visit to town in the early part of last month. The bills state that the old hat which Mr. Speke had been wearing before he bought the new one in Warwick Street, Piccadilly, was found on the morning of the 8th ult. in Birdcage Walk, but that appears to be the only clue that has been discovered.

LLANELLY.—On Wednesday evening the 22d ult. 19 vessels, chiefly brigs, brigantines, and schooners engaged in the coasting trade, left Llanelly with the hope of beating down channel. The sea was running very high over the bar, and as there was not sufficient water to float the vessels over it, they all took the ground and became partial or total wrecks, only six riding out the violence of the breakers. Of the crews of the vessels lost 42 were saved, but 52 were drowned. The jury at the inquest returned a verdict of Found Drowned, with a strong expression of opinion as to the necessity of signals and a lifeboat.

SHEFFIELD.—The report of Mr. Overend, Q.C., Mr. Barstow, and Mr. Chance, the examiners appointed under the Trades' Unions Commission Act of 1867, to inquire into the outrages asserted to have taken place at Sheffield and elsewhere with the support and connivance of associations of workmen, has just been issued, together with the evidence taken at Sheffield. The report is addressed by the examiners to the Commissioners appointed under the Act, and consists of a complete history of their inquiry, the facts of which received so much attention during its progress. The accompanying evidence, filling 456 folio pages, contains nothing of importance that has not already been published.

Ireland.

ANOTHER ATTACK ON A MARTELLO TOWER.—A martello tower, near Duncannon Fort, in Waterford Harbour, was attacked on Monday night between 9 and 10 o'clock. One of the guns of the fort had been spiked on the previous night by some person or persons unknown, and some of the other guns showed that they had been tampered with. When the attack was made on Monday night the alarm signals were fired, and a reinforcement of military sent from the fort. The marauders waited in regular array until the soldiery came within 70 yards of them, when they fired first, and wounded a soldier. Their leader called on them to stand firm, but on a volley from the soldiers, which it is believed shot two persons, they scattered and ran, carrying off the wounded men. Blood was seen on the ground. No arrests have yet been made. The sergeant of the guard and the sentry on duty on that part of the ramparts where the injured gun was mounted are suspected of having connived at the outrage, and are to be brought before a military court of inquiry.

PROSECUTION OF THE "WEEKLY NEWS" AND "IRISHMAN."—On Monday Mr. A.M. Sullivan appeared before Mr. O'Donnell, at Capel Street Police-office, to answer the summons for seditious libels in the *Weekly News*. Informations were taken against him, and the

case sent for trial. Bail was accepted. An order was granted on Monday by the Court of Criminal Bench to Mr. Richard Pigott, the proprietor of the *Irishman* newspaper, to remove any inducements which may be found against him at the Commission of the Peace and Terminer into that Court, the ground for the order being that he will not get a fair trial at the Commission. On Wednesday the Attorney-General moved for the discharge of the provisional order, and on Thursday the Court gave judgment on the motion. Mr. Justice Fitzgerald and Mr. Justice O'Brien were of opinion that the case was a special one, which ought to be tried by a jury of more than ordinary intelligence, and that the *certiorari* should be refused. The order being divided, the judgment was, no rule to be made.

FURTHER ARRESTS.—Jonathan Allen lately a schoolmaster, cousin of the convict of the same name who was executed at Manchester for the murder of Sergeant Brett, was arrested on Monday at Bandon county Limerick, for Fenianism. Others were subsequently searched for, some of them Irish Army-supposed Fenian Head Centre was arrested in the derry last week and brought to Dublin. A Lord Lieutenant's warrant, and lodged in K. M. goal. The arrest is considered of much importance. A man who gave his name as John Whean arrived by the Minnesota from America, was arrested in Passage, on Friday, on suspicion of Fenianism. He had been behaving in a very swaggering manner through the town, and, on being brought before the magistrates, refused to state where he had last resided or what was his business in Passage. He was retained for a week. An attorney's clerk named W. H. Head Centre, was arrested on Saturday evening at Waterford. At Skibbereen a soldier of the 1st Regiment is under arrest, awaiting a trial by court-martial for declaring himself a Fenian, and saying that in future he would serve, not the Queen, but the Republic. On Wednesday Marcus Adams, who had been allowed to stand out on bail for treason since the Cork special commission was re-arrested his residence, in North Main Street. A large attempt to rescue him, but the armed police prevented him to go. He is known to hold a high position in the Fenian conspiracy. Other arrests are expected.

PASTORAL FROM CARDINAL CULLEN.—On the morning a new pastoral from Cardinal Cullen in commemoration of the festival of St. Brigid, with St. Patrick the tutelage of Ireland, was read in all the Catholic churches of Dublin. After a eulogium upon the saint, the cardinal proceeded to consider the state of Ireland, of which he drew a gloomy picture. In no country in the world is misery to be witnessed comparable to that which prevails in Ireland. He describes the towns as filled with half-starved poor, destitute of shoes, stockings, and shivering in the winter blast for proper clothing. More squalid poverty of this kind to be seen, he says, in Dublin alone than in all the great cities of France, Austria, or Spain. Alluding to the compulsory emigration of the Irish to seek food in foreign lands, he says that 400,000 cottages of the poor have been left the ground lest they should again afford shelter to their former inmates. He says that the small Orange faction, the source of innumerable evils to Ireland and of weakness to the empire, is maintained, and refers to recent articles in the *Standard* and "Quarterly Review" as a proof that no other existing evils is to be expected. He then proceeds to condemn Fenianism. "To fill the cup of our misery," he says, "some misguided men, devoted by designing knaves, are endeavouring to excite the people to resistance to the laws and to the authority; to alienate them from the Protestant religion, and to initiate them in Fenian secret societies where they are at the mercy of spies and subjected to the same spiritual penalties as the Free Societies which are all alike condemned by the God, whether they be Freemasons or Ribbonmen." In conclusion he exhorts the people to seek redress of their grievances by constitutional means, and, with that view, to support the members of Parliament who will defend the Legislature the "dis-endowment of the Church Establishment," freedom of education, and readjustment of the relations between landlord and tenant as will secure to the agricultural labourer the fruits of their capital and labour.

FENIAN MEMORIAL CROSSES.—The first of these desecrate churchyards by the erection of crosses in honour of the men executed at Malinbeg has been promptly put down by the constable. A cross was put up last week in the graveyard at Rathoven, but it was immediately pulled up and cut to pieces by a constable, while an officer and members of the force stood by to protect him.

Scotland.

DESTRUCTIVE GALE IN EDINBURGH.—On the 11th a terrific gale raged in Edinburgh, from 11 o'clock in the forenoon till 6 in the evening. At 1 o'clock a block of chimneys in Duke Street was blown down, and fell through five flats of dwelling-houses. In the upper storey, two clerks on the street were killed, and a lady in the second floor were killed. Several persons were buried; one escaped without injury, but was severely injured. Many minor casualties were reported. In proof of the violence of the storm the *Daily Review* states that on the following day 60 and 70 tons of lime, fragments of chimneys, slates, and tiles were collected from the streets.

Railways.

CALEDONIAN AND NORTH BRITISH.—Arrangements for working the traffic of these companies on a joint-purse for 20 years, have been agreed...

Law.

THE QUEEN v. BURKE, COSEN, and others.—The Queen v. Burke, Cosen, and others, on the rule granted by the Court, to show cause why the prisoners...

THE LAMBETH MURDER.—At the Court a man named Thomas Clark pleaded guilty to the murder of the child of a woman named...

Foreign imports continue heavy. A good demand still exists for Cucumbers, but other forced produce remains at former quotations.

FRUIT. Apples, per bushel, 4s to 8s; Pears, per doz., 3s to 9s; Pine-apples, per lb., 6s to 8s; Chestnuts, per bushel, 10s to 15s...

Obituary.

THE EARL OF TYRCONNEL died at Kiplin Park, near York, on the 23rd ult., in her 87th year, from a long illness.

HAY.—Per Load of 36 Trusses. SMITHFIELD, Thursday, Jan. 30. Best Green Hay 75s to 84s; Prime Meadow Hay 75s to 84s...

CUMBERLAND MARKET, Thursday, Jan. 30. Sup. Meadow Hay 84s to 90s; Inferior do. 65 74; New do. 35 40; Superior Clover 97 105...

LEADENHALL AND NEWGATE POULTRY, &c. THURSDAY, Jan. 30. A very small supply and scarcely any demand.

COALS.—Jan. 29. Biddle's West Hartley, 15s. 6d.; Hollywell Main 15s. 6d.; Lambert's West Hartley, 15s. 3d.; West Hartley, 15s. 6d.; Wylam, 15s. 6d.; Eden Main, 16s. 6d.; Walls End Haswell, 18s. 6d.; Walls End Hatton, 18s. 6d.; Walls End Hutton Lyons, 15s. 6d.; Walls End Tunstall, 15s. 6d.; Walls End Hartlepool, 16s. 9d.; Walls End Kease, 16s. 9d.; Walls End East Hartlepool, 18s.—Slips at market, 38, sold, 23.

wards he was elected a Fellow of Exeter. He became M.A. in 1802 and D.C.L. in 1812, when he succeeded the famous Mr. Justice Blackstone as Assessor of the Chancellor's Court.

DR. JOHN DAVY, M.D., F.R.S., the brother and biographer of Sir Humphrey Davy, and an eminent chemist, geologist, and physiologist, died on the 24th ult. at his residence, Lesketh How, near Ambleside.

Markets.

COVENT GARDEN.—FEB. 1. Foreign imports continue heavy. A good demand still exists for Cucumbers, but other forced produce remains at former quotations.

FRUIT. Apples, per bushel, 4s to 8s; Pears, per doz., 3s to 9s; Pine-apples, per lb., 6s to 8s; Chestnuts, per bushel, 10s to 15s...

VEGETABLES. Artichokes, per doz., 2s to 3s; Asparagus, per bundle, 8s to 20s; Beans, Kidney, p. 100, 2s to 3s; Beet, per doz., 1s to 2s; Cabbages, per doz., 1s 3d to 2s; Carrots, per bunch, 6d to 8d; Celery, per bundle, 1s to 1s 6d; Cucumbers, each, 3s to 5s; Endive, per score, 1s 6d to 2s; Garlic and Shallots, p. lb., 8d; Herbs, per bunch, 2d to 4d; Horse Radish, p. bunch, 3s to 5s; Lettuce, per bunch, 2d to 4d; Lettuces, per doz., 2s; Mint, per bunch, 1s; Mushrooms, p. pot., 1s 6d to 2s; Onions, per bushel, 3s to 4s; Parsnips, per doz., 9d to 1s; Parsley, per bunch, 2d to 4d; Potatoes, York Regents, p. ton, 130s to 160s; Rocks, do., 100s to 120s; Flukes, 130s to 160s; Other sorts, 75s to 80s; Seakale, p. pound, 1s 6d to 2s; Spinach, per bushel, 2s to 4s; Tomatoes, per doz., 2s to 3s; Turnips, per bunch, 4d to 6d.

NEWGATE.—Jan. 31. Best Fresh Butter 18s. per dozen lb. Second do. 16s. Small Pork, 3s. 8d. to 4s. 2d.; Large Pork, 3s. 0d. to 3s. 6d. per 8 lb.

HAY.—Per Load of 36 Trusses. SMITHFIELD, Thursday, Jan. 30. Best Green Hay 75s to 84s; Prime Meadow Hay 75s to 84s; Inferior do. 55 70; New do. 35 40; Straw 30 36.

CUMBERLAND MARKET, Thursday, Jan. 30. Sup. Meadow Hay 84s to 90s; Inferior Clover 75s to 88s; New do. 35 40; Straw 35 42.

LEADENHALL AND NEWGATE POULTRY, &c. THURSDAY, Jan. 30. A very small supply and scarcely any demand. Turkeys, cock, each 6 0-12 0; Turkey hens 5 0-10 0; Geese 6 0-10 0; Goslings 6 0-7 6; Ducks 3 0-3 6; Ducklings 3 0-3 6; Wild Ducks 1 8-2 0; Tame Rabbits 1 4-2 6; Wild do 0 9-1 0; Surrey Fowls 8 0-10 0; Do. Chickens 5 6-7 0; Barn-door Fowls 5 0-7 0; Pigeons 1 0-1 3; Partridges, young 1 0-2 0; Pheasants 3 0-4 0; Hares 3 0-3 6; Leverets 1 0-1 6; Snipes 1 0-1 6; Grouse 1 3-1 6; Teal 1 3-1 6; Plover 1 3-1 6; Fresh Butter, p. lb. 1 3-1 6; English Eggs, p. 100, 9 0-11 0; Foreign do. 9 0-10 0.

COALS.—Jan. 29. Biddle's West Hartley, 15s. 6d.; Hollywell Main 15s. 6d.; Lambert's West Hartley, 15s. 3d.; West Hartley, 15s. 6d.; Wylam, 15s. 6d.; Eden Main, 16s. 6d.; Walls End Haswell, 18s. 6d.; Walls End Hatton, 18s. 6d.; Walls End Hutton Lyons, 15s. 6d.; Walls End Tunstall, 15s. 6d.; Walls End Hartlepool, 16s. 9d.; Walls End Kease, 16s. 9d.; Walls End East Hartlepool, 18s.—Slips at market, 38, sold, 23.

POTATOS.—SOUTHWARD, Monday, Jan. 27. During the past week the arrivals both coastwise and by rail have been moderate, but more liberal from abroad. The trade steady for best samples. The quotations as follow—Yorkshire Flukes, per ton, 130s. to 170s.; io. Regents, 130s. to 150s.; do. Rocks, 110s. to 130s.; Kent and Essex Regents, 140s. to 160s.; Lincolnshire Regents, 130s. to 140s.; Dunbar and East Lothian Regents, 130s. to 150s.; Perth, Forfar and

Fife Regents, 110s. to 130s.; ditto Rocks, 110s. to 120s.; French and Belgian Whites, 90s. to 100s.

ENGLISH WOOL. There has been a decidedly better tone in the wool market, and prices are, if anything, a shade stiffer. The business also is on a more extensive scale; and altogether, if we have not untoward political news for the next few weeks, we may fairly expect a slight improvement. CURRENT PRICES OF ENGLISH WOOL, per lb.—s. d. s. d. FLEECES—Southdown hoggets 1 1 to 1 3; Half-bred ditto 1 2 to 1 3; Kent Fleeces 1 1 1/2 to 1 3 1/2; Southdown ewes and wethers 1 0 1/2 to 1 2 1/2; Leicester ditto 1 1 to 1 2; SORTS—Clothing 1 0 to 1 6; Combing 1 0 to 1 6.

METROPOLITAN CATTLE MARKET.

MONDAY, Jan. 27. We have a large supply of Beasts, there is, however a fair demand, and late quotations are nearly realised; some inferior qualities remain unsold. The number of Sheep is large, but they are nearly all sold at about late rates. Choice Calves are still scarce and dear. Our foreign supply consists of 715 Beasts, 1010 Sheep, 84 Calves, and 15 Pigs; from Scotland there are 390 Beasts; from Ireland, 50; from Norfolk and Suffolk, 1600; and 1175 from the Northern and Midland Counties.

Best Scots, Hereford, &c. 4 8 to 5 0; Best Shorthorns 4 6 to 4 8; 2d quality Beasts 2 8 to 3 6; Best Downs and Half-breds 4 10 to 5 2; Do. Shorn 4 4 to 4 6; Do. Shorn 3 4 to 4 0; Lambs 4 0 to 5 0; Calves 4 0 to 6 0; Pigs 3 4 to 4 8.

Beasts, 3930; Sheep & Lambs, 18,890; Calves, 102; Pigs, 310.

THURSDAY, Jan. 30. Our supply of Beasts is rather larger than on Thursday last. Trade is by no means brisk, yet the favourable weather enables us to dispose of them at about Monday's quotations. The number of Sheep is very small, the demand is also limited. Late prices are well maintained for all kinds. Choice Calves continue to be very dear. Our foreign supply consists of 190 Beasts, 420 Sheep, and 55 Pigs.

Best Scots, Hereford, &c. 4 8 to 5 0; Best Shorthorns 4 6 to 4 8; 2d quality Beasts 2 8 to 3 6; Best Downs and Half-breds 4 10 to 5 2; Do. Shorn 4 4 to 4 6; Do. Shorn 3 4 to 4 0; Lambs 4 0 to 5 0; Calves 4 0 to 6 0; Pigs 3 4 to 4 8.

Beasts, 810; Sheep and Lambs, 2990; Calves, 60; Pigs, 130.

MARK LANE.—MONDAY, Jan. 27.

The supply of Wheat from Essex and Kent to this morning's market was small, the condition very miserable, it was nevertheless disposed of at the extreme rates of this day's market. The market was well attended, and foreign Wheat being held for an advance of 1s. per qr. in some instances more, checked business the few sales made were only in retail. Barley and Peas were unchanged in value. Beans were 1s. dearer. The Oat trade was slow at about the prices of this day week. There was no alteration in the top price of Flour, but country marks brought 1s. per qr. more money, American 6d. per barrel.

PRICE PER IMPERIAL QUARTER. WHEAT, Essex, Kent, Suffolk, White 76-78 Red 68-76; fine selected rungs do. 73-84 Red 72-74; Talavera 80-84; Norfolk Red 65-87; Foreign 65-87; BARLEY, grind & dist. 37s to 40s Chey. 42-47 Malting 40-48; Foreign grinding and distilling 35-39 Malting 41-46; OATS, Essex and Suffolk 23-20; Scotch and Lincolnshire Potato 25-33 Feed 26-30; Irish 30-33 Feed 26-30; Foreign Poland and Brew 25-32 Feed 23-30; RYE 41-42; RYE MEAL, Foreign 41-42; BEANS, Mazagan 39s to 45s Tuck 41-42 Harrow 41-42; Pigeon 45s to 50s Winds Longpod 42-44; Foreign Small 45-48 Egyptian 42-44; PEAS, White, Essex, and Kent, Boilers 46-48 Suffolk 50-52; Maple, 41s to 43s Grey 44-47 Foreign 39-45; MAIZE 36-40; FLOUR, best marks delivered per sack 59-64; 2d ditto ditto 54-61 Country 54-61; Foreign per barrel 24-42 Per sack 45-56.

FRIDAY, Jan. 31.

The weather in the early part of the week was very stormy and wet; we have since had some night frosts, followed by a milder temperature and frequent showers; yesterday fine. The advance in the value of Wheat which we reported last Friday has been well maintained throughout the week, and in many of our leading markets on the east coast and in the agricultural districts best samples have further improved 1s. to 2s. per qr., but the Scotch markets, Liverpool, and Birmingham were not dearer. Spring Corn of all descriptions was saleable at full rates, and in some instances a small advance was established on Oats and Beans. We observed no alteration in the value of Flour in the markets of the interior. The arrivals of grain and seed in vessels off the coast this week consisted of 14 cargoes, of which, with those left over from last week, there remained for sale last night 11 cargoes. Arrived Wheat was finally held at late extreme rates, and Egyptian, which meets with favour, was 1s. per qr. dearer. Barley commanded likewise 1s. per qr. more money. Of other articles the coast is entirely cleared, and prices nominal. For Wheat on passage and for forward shipment there was little demand; prices were without alteration. Paris, Jan. 30.—The Wheat and Flour markets show an improving tendency. The six marks are quoted at equal to 57s. 9d. per 280 lb. The stock at the Halle is estimated at 22,520 cwt. The arrivals of foreign Wheat this week have been to a fair extent, of all other foreign and English grain very limited. The attendance at this morning's market was small. Dry samples of English Wheat continue in request at Monday's prices, but other descriptions are very unsaleable; the inquiry for foreign was of a very retail character, and its value unaltered. Our quotations for Spring Corn remain unchanged.

ARRIVALS THIS WEEK.

Wheat 610 qrs., Barley 300 qrs., Oats 110 qrs., Flour 1720 sks.; Irish 10,780 qrs., 980 qrs., 3710 qrs., 590 qrs.; Foreign 11,390 qrs., 1370 qrs., 3620 qrs., 590 qrs.

LIVERPOOL, Tuesday, Jan. 28.—At today's market we had a very moderate attendance, and in Wheat a tolerable business.

The Gardeners' Chronicle Newspaper.

SATURDAY, FEBRUARY 8, 1868.

"New Era in Bookselling."

THE TOWN and COUNTRY BOOK SOCIETY.—This Society has been formed for the supply of all the NEWEST Books...

HERBARY and SEED CATALOGUES.—The Leading Article of the Gardeners' Chronicle of 16th January...

DISCUSSIVE BOTANY: OR, THE ART OF DESCRIBING PLANTS correctly, in Scientific Language, for Self-Instruction and the Use of Schools. Price 2s.

SCHOOL BOTANY; OR, THE RUDIMENTS OF BOTANICAL SCIENCE. In One Volume, 8vo, half bound, with 400 Illustrations.

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EXTRACT FROM THE AUTHOR'S PREFACE.—The Vegetable Kingdom contains, among a large quantity of plants of no known importance to man, various useful species employed in medicine, the arts, or in the many branches of domestic economy.

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Mr. Darwin's New Work. NEWLY READY, with Illustrations, Two Vols, 8vo, 28s. THE VARIATION of ANIMALS and PLANTS UNDER DOMESTICATION. By CHAS. DARWIN, M.A., F.R.S., Author of "The Origin of Species," "A Naturalist's Voyage Round the World," "On the Fertilisation of Orchids," &c., &c.

FARM BUILDINGS: a Digest of the Principles recognised in the Construction and Arrangement of Farm Buildings, published separately from the "Farm Homesteads of England" by J. BAILEY DENTON, and A. BAILEY DENTON, Jun.

LABOURERS' COTTAGES. By the Same. DRAWING and SPECIFICATIONS, in Sets for 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130, 132, 134, 136, 138, 140, 142, 144, 146, 148, 150, 152, 154, 156, 158, 160, 162, 164, 166, 168, 170, 172, 174, 176, 178, 180, 182, 184, 186, 188, 190, 192, 194, 196, 198, 200, 202, 204, 206, 208, 210, 212, 214, 216, 218, 220, 222, 224, 226, 228, 230, 232, 234, 236, 238, 240, 242, 244, 246, 248, 250, 252, 254, 256, 258, 260, 262, 264, 266, 268, 270, 272, 274, 276, 278, 280, 282, 284, 286, 288, 290, 292, 294, 296, 298, 300, 302, 304, 306, 308, 310, 312, 314, 316, 318, 320, 322, 324, 326, 328, 330, 332, 334, 336, 338, 340, 342, 344, 346, 348, 350, 352, 354, 356, 358, 360, 362, 364, 366, 368, 370, 372, 374, 376, 378, 380, 382, 384, 386, 388, 390, 392, 394, 396, 398, 400, 402, 404, 406, 408, 410, 412, 414, 416, 418, 420, 422, 424, 426, 428, 430, 432, 434, 436, 438, 440, 442, 444, 446, 448, 450, 452, 454, 456, 458, 460, 462, 464, 466, 468, 470, 472, 474, 476, 478, 480, 482, 484, 486, 488, 490, 492, 494, 496, 498, 500, 502, 504, 506, 508, 510, 512, 514, 516, 518, 520, 522, 524, 526, 528, 530, 532, 534, 536, 538, 540, 542, 544, 546, 548, 550, 552, 554, 556, 558, 560, 562, 564, 566, 568, 570, 572, 574, 576, 578, 580, 582, 584, 586, 588, 590, 592, 594, 596, 598, 600, 602, 604, 606, 608, 610, 612, 614, 616, 618, 620, 622, 624, 626, 628, 630, 632, 634, 636, 638, 640, 642, 644, 646, 648, 650, 652, 654, 656, 658, 660, 662, 664, 666, 668, 670, 672, 674, 676, 678, 680, 682, 684, 686, 688, 690, 692, 694, 696, 698, 700, 702, 704, 706, 708, 710, 712, 714, 716, 718, 720, 722, 724, 726, 728, 730, 732, 734, 736, 738, 740, 742, 744, 746, 748, 750, 752, 754, 756, 758, 760, 762, 764, 766, 768, 770, 772, 774, 776, 778, 780, 782, 784, 786, 788, 790, 792, 794, 796, 798, 800, 802, 804, 806, 808, 810, 812, 814, 816, 818, 820, 822, 824, 826, 828, 830, 832, 834, 836, 838, 840, 842, 844, 846, 848, 850, 852, 854, 856, 858, 860, 862, 864, 866, 868, 870, 872, 874, 876, 878, 880, 882, 884, 886, 888, 890, 892, 894, 896, 898, 900, 902, 904, 906, 908, 910, 912, 914, 916, 918, 920, 922, 924, 926, 928, 930, 932, 934, 936, 938, 940, 942, 944, 946, 948, 950, 952, 954, 956, 958, 960, 962, 964, 966, 968, 970, 972, 974, 976, 978, 980, 982, 984, 986, 988, 990, 992, 994, 996, 998, 1000.

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DINNEFORD'S FLUID MAGNESIA.—The best remedy for Acidity of the Stomach, Heartburn, Headache, Gout, and Indigestion; and the best mild aperient for delicate constitutions, especially adapted for Ladies, Children, and the aged.

ASTHMA and BRONCHITIS.—A Gentleman, many years afflicted with Asthma, will be happy to afford others the information which he obtained their entire removal in a short period, by the use of any kind of medicine.—Forward address on a separate card to F. KINGSTON, Esq., Chemist, Surrey.

ELECTRICITY IS LIFE.—A SELF-ADJUSTING CURATIVE and ELECTRIC BELT, cures from nervous debility, indigestion, weakness, &c., can be used by the only "Guaranteed Remedy" in Europe, as recommended by Her Majesty's Great Seal.

MORE CURES OF ASTHMA and COUGHS by DR. LOCOCK'S PULMONIC WAFERS.—Lynn, Cheshire, cured from any irritation of the Chest or Lungs, checking all coughing, and promoting that estimable boon, a refreshing sleep, they certainly stand unrivalled in the relief of Asthma, Coughs, and all disorders of the Breath and Lungs, and are a pleasant taste. Price 1s. 1/2d., 2s. 6d., and 4s. 6d. per box.

APPEAL on BEHALF of the BLIND.—A Society, under the title of the "BRITISH ASSOCIATION of the BLIND," has for a long time past been the means of doing much good by assembling weekly a considerable number of Blind Needy Persons in a large room in East Street, Walworth...

THE LANDS IMPROVEMENT COMPANY, Incorporated by Special Act of Parliament in 1853. To LANDOWNERS, THE CLERGY, ESTATE AGENTS, SURVEYORS, &c., IN ENGLAND AND WALES, AND IN SCOTLAND. The Company advances Money, unlimited in amount, for the following works of Agricultural Improvement, the whole outlay and expenses in all cases being liquidated by a rent-charge for 25 years.

ROYAL AGRICULTURAL BENEVOLENT INSTITUTION. Patron—HER MAJESTY THE QUEEN. President—HIS GRACE THE DUKE OF RICHMOND. For the RELIEF of DECAYED FARMERS, their WIDOWS and ORPHAN DAUGHTERS; and for the MAINTENANCE and EDUCATION of their ORPHAN CHILDREN.

COLONY of NATAL. IMMIGRATION and FREEHOLD LAND GRANTS. GRANTS of GOVERNMENT LAND are given to Men familiar with Farming operations, and possessing sufficient means to turn their Land to account.

Home News.

THE COURT.—On Friday morning the Queen went out with Princess Christian, and in the afternoon drove out with Princess Louisa, Princess Beatrice, and Princess Henriette of Schleswig-Holstein, accompanied by Prince Arthur on horseback.

THE PRINCE and PRINCESS OF WALES.—On Saturday morning the Prince went to Marham for a day's shooting over Mr. Villebois' manor, returning by special train in the evening to Sandringham.

visit; and last evening another ball was to be given to the local Volunteers and their friends. This visit is probably the last of the kind the Prince will make during his present stay in Norfolk, as his Royal Highness and the Princess are expected to leave Sandringham for London about the 12th inst.

COURT ARRANGEMENTS.—It is announced that the Queen will hold a Court at Buckingham Palace on Tuesday, March 3rd, to receive the Diplomatic Corps, her Majesty's Ministers, and other official personages, with the ladies of their families, who will receive notifications of her Majesty's gracious intention through the Lord Chamberlain.

LAW APPOINTMENTS.—Sir Charles Jasper Selwyn, the Solicitor-General, M.P. for the University of Cambridge, has succeeded to the Lord Justiceship vacated by the resignation of Sir John Rolfe.

PARLIAMENTARY MOVEMENTS.—The elevation of Sir C. J. Selwyn to the bench has caused a vacancy in the representation of Cambridge University. A meeting of the principal members of the Conservative party in the University was held on Thursday, the Master of Peterhouse in the chair, when Mr. Anthony Cleasby, Q.C., late Fellow of Trinity, was selected as a candidate for the vacancy.

Mr. Beresford Hope's friends declined to accept the decision, and it was formally announced yesterday that Mr. Hope will contest the seat with Mr. Cleasby. It is said that Lord Sandon will be the Conservative candidate for Stoke-upon-Trent in the event of Mr. Hope's resignation, and that Mr. George Melly, of Liverpool, will be the Radical candidate.

civil service of India, and was the assistant of the late Mr. Wilson in the financial department.

NEW ADMIRALTY ADVOCATE.—Dr. Deane, Q.C., has been appointed Admiralty Advocate, in the place of Sir Travers Twiss, who resigned on his appointment as Queen's Advocate.

KNIGHTHOOD.—At the Council held at Osborne last week the Queen conferred the honour of knighthood on Charles Wheatstone, Esq., F.R.S.

THE ARMY.—The Colonelcy of the 1st Dragoon Guards, vacant by the death of Sir T. W. Brotherton, has been conferred on General Sir James Jackson; the Colonelcy of the 6th Dragoon Guards, vacated by this promotion, has been conferred on Major-General Sir John Rowland Smyth; the Colonelcy of the 7th Dragoon Guards, vacant by the death of Sir M. White, has been conferred on Major-General Lord George Paget; and the Colonelcy of the 106th Regiment, vacant by the death of Sir G. C. Whitlock, has been conferred on Major-General Pole.

THE NAVY.—At the Council at Osborne last week, an Order was issued appointing Admiral Sir James Alexander Gordon, G.C.B., Governor of Greenwich Hospital, to be Admiral of the Fleet on the Reserved List.

BISHOPRIC OF MAURITIUS.—It is rumoured that the bishopric of Mauritius, vacant by the resignation of the Right Rev. Dr. Ryan, will be conferred upon the Rev. John Postlethwaite, late incumbent of Coatham, near Redcar, who was nominated a year or two ago to the bishopric of New Westminster, which it was proposed to found out of the diocese of British Columbia, but which, from various circumstances, has not yet been formed.

Foreign.

FRANCE.—In the sitting of the Corps Legislatif on Friday the debate on the new Press Bill was resumed. The following is a summary of the debate:—

M. Jules Favre said that the Opposition would vote the Bill, in so far as it abolished the necessity for preliminary authorisation and the monopoly of publishing and printing; but there were other portions of the Bill which required modification. The subjection of the Press since 1852 had produced abroad the expedition to Mexico, and had made France play a secondary part in 1866, while at home it had caused a complete stagnation in public business, a new loan, anxiety and disasters. He blamed the blows which had been directed against the Press and which had condemned it to silence. He concluded that the system of a free Press ought to be adopted without apprehensions being entertained of the passing agitation which might result therefrom. M. Granier de Cassagnac asked why the Bill was presented. The majority did not ask for it, nor was it accepted by the Opposition. It would cause trouble to society in general, and would only contribute to give additional strength to the adversaries of the Government. He concluded by asking a postponement of the Bill until political passions being appeased and the violence of parties disarmed, it would be possible to adopt the system in force in England. In the sitting of Saturday, M. Baroche, the Minister of Justice, protested against the objections made against the Bill. It was, he said, in accordance with the liberal principles of 1789, but, nevertheless, it left in the hands of the Government sufficient power of censorship. The Government would carefully examine all the amendments proposed. It was necessary for the Chamber to subject the question before them to a thorough and searching discussion before deciding upon the fate of the Bill. He concluded by saying that the voice of the nation was not to be found in the opinions of the public Press, but in the electoral body, the representatives of which were about to pronounce their judgment. M. Picard regarded the adoption of the Bill as indispensable now that the decree of 1852 had been broken. He protested against the interdiction imposed on the Press, which would imply silence as regards the debates in the Chambers. The general discussion then closed. In the sitting of Monday M. Ollivier developed his amendment, which was opposed by M. Nugent St. Laurent, and rejected, as was also that of M. Bethmont. In the sitting of Tuesday M. Benoit opposed the first Article. M. Rouher in reply, referring to the Emperor's letter of the 10th of January, denied that any attempt had been made to obstruct the liberal movement, and said that the Government had honestly accepted the work intrusted to its care. A certain amount of anxiety had been shown respecting the opportunity of the Bill. They had carefully examined the question, and from that examination had come to the firm conclusion to sustain the Bill energetically. They had entered into an engagement, and a strong Government should never retreat from its engagements. They did not fear the Press. They had the means to keep it within bounds. He did not believe in the modification of party feeling, but in its impetuosity. The majority ought, therefore, to side with the resolutions of the Government, and not allow a division in its ranks. A new generation had arisen. Four millions of electors who made the first Empire were dead. Four millions of new electors had thrown a new life into the nation; they should not be stopped, but public Article 1 was then adopted by the large majority of 215 to 7. Article 2 was also adopted. In the sitting of Wednesday Article 3 was discussed. In the sitting of Thursday the amendments of M. Guéroult, Darmon, and Hautjean were rejected. An amendment by M. Joliet respecting the stamp upon pamphlets which are not periodical was adopted. Article 3 was then referred back to the committee.

The *Moniteur* of Wednesday, in its bulletin, says:— "On the occasion of M. Benoit's speech, the Emperor's Ambassador at Berlin, M. de Bismarck, has declared that the Emperor of France to the North German Confederation, the King of Prussia, and the Emperor of Austria, have all pledged themselves to friendly relations between the two Governments. He also spoke of the recent Franco-German Convention, and of the reception he met with at Paris from the Emperor and Empress of the French."

SPAIN.—An additional estimate has been laid before the Congress of 195,000 crowns for completing the armament of the fortresses already in existence. The report of the resignation of Senor Barzanallana is devoid of foundation. The *Official Gazette* of Sunday publishes the return of the first half-yearly revenue for the current Budget. In the taxes and town dues throughout the peninsula there is an increase of 401,398 crowns, and in the duties on imports an increase of 63,404 crowns. The Senate has adopted, without debate, a Bill reforming the law on the maintenance of public order. The laws relating to the rural gendarmerie and to the extraordinary credit granted to the

Government for the conversion of rifles were promulgated on Saturday.

PORTUGAL.—The King and Queen, with a numerous suite, left Lisbon on Friday for Villa Vicosa on a hunting excursion. On their return to Lisbon on Wednesday a tumult occurred near Braga, between the people and the troops escorting the royal party. The troops fired, and killed and wounded several persons. Viscount de Moura, Portuguese Minister at St. Petersburg, died in that city on the 23d ult. He was many years Secretary of the Portuguese Embassy in London.

SAXONY.—The Chamber voted on the 31st ult., in a secret sitting, a Bill authorising the Government to contract a Four per Cent. Loan of 8,000,000 thalers. The publication of the discussion was subsequently resolved upon. The Five per Cent. Debt of 6,000,000 thalers remains under the control of the Committee for the Public Debt. The Chambers authorise the Ministry to fix the price at which the new Four per Cent. Loan is to be issued. The new bonds will immediately be applied to the redemption of the former bonds. The Ministry are also authorised to re-purchase the Alberts Railway, and are invested with discretionary powers to settle the period and the conditions of the purchase. The financial committee recommend the Ministry to contribute 20,000 thalers towards covering the deficit in the balance account of the Industrial Exhibition of Chemnitz.

PRUSSIA.—In the sitting of the Chamber of Deputies on Saturday the debate on the Bill settling the amount of compensation to be granted to the King of Hanover, the Elector of Hesse, and the Grand Duke of Nassau was resumed as follows:—

Count Bismarck said it was requisite to look at the policy of the Government as a whole. The history of Germany showed similar arrangements to those now proposed. He was convinced that the Italian Government would willingly adopt the same course, provided it were in a position to do so. The present pecuniary compensation was unquestionably preferable to the territorial compensations formerly proposed. He would rather have expended much money, and have granted a large compensation to Austria for the Duchies, had that Power been inclined to accept such an arrangement. The peace concluded was favourable upon pecuniary point of view. The province of Hanover had brought with it a large amount of property in cash, and the transaction was advantageous to Prussia. Were the opportunity to occur again, he would not hesitate to adopt the same course, and if requisite grant even a larger sum. He was better able than the House to comprehend the political bearings of the question. The Government did not carry on public business if the Bill were rejected, nor would the Liberals be able to conduct the administration for such a long period as six months. He would therefore appeal to the House not unreasonably to excite the public mind with regard to these grants in presence of the distress existing in East Prussia. Public order would become disintegrated by raising up political questions of a different character. Herr von Twisten said that, notwithstanding serious misgivings, he agreed to the advisability of passing the Bill, on account of the pressure of accomplished facts. Even a different Ministry could not advise the King to withdraw his signature from the treaties. Count Bismarck denied the accusation of having disregarded popular rights. Herr von Waldeck severely criticised what he called the sham constitutionalism of the Government. The King could not be regarded as the Head of the Government, but as the Head of the State. The House should not be led astray by Count Bismarck's threat of resignation. Like all pretences, King George would renounce his claims to the throne. The debate being declared closed, the House voted by 264 to 130 votes the proposal of the Committee to adopt the Bill as proposed by the Government. In the sitting of Tuesday the proposal of the Government to establish a special fund for the province of Hanover by placing the former Royal Domain fund at the disposal of the Hanoverian Provincial Estates for provincial purposes was discussed. Count Bismarck said that the Government had introduced the Bill with the view of preparing the way for a greater extension of the system of administrative decentralisation. The Government entertained with the sanction of the King, the same intentions as regarded the other provinces, and intended even to devote a portion of the Budget to their special benefit. The Government firmly maintained the proposal to establish a provincial fund for Hanover. In the sitting of Thursday, in reply to objections raised by Herr Brauchitsch, Count Bismarck said that the Government had not abandoned their Conservative principles. Should this party not support the Government the formation of a Coalition Ministry would be the result. The Government did not fear a conflict with the Chamber. An amendment was proposed by Deputy Kerpapoly, specially assigning 500,000 thalers out of the revenue to the provincial administration of Hanover, and proposing that this amount shall henceforth be placed on the ordinary Budget. On the vote being taken by calling over the names of the members, the amendment was carried by 197 to 192. The general vote of the House on the entire Bill was postponed in accordance with the standing orders.

AUSTRIA.—In the sitting of the Hungarian Delegation on Saturday the answer of the Ministry to the interpellations made by Herren Ghyczy and Kerkapoly on the 30th ult. was read.

It stated that the title of Ministry of the Empire was only employed because verbally identical with the words "affairs common to both portions of the Empire." It had not been the object of the Ministry to attain thereby an enlargement of their sphere of action. As regarded Parliamentary reform, the Hungarian Delegation and the Ministry for the Empire were in agreement. The Ministry had no objection to the proposal of the Delegation to have the Ministry of the Empire referred to Austria in the Fundamental Law, and declared that the right of the Hungarian Legislature and Government to settle the defective system must not be infringed. Herr Kerkapoly expressed himself satisfied with the explanation. Herr Ghyczy said he would state his opinion shortly. In the sitting of Sunday, Herr Ghyczy said that he was satisfied with the reply of the Ministry to his interpellation as to the use of the title "Ministry of the Empire." The Delegation then elected a committee of 30 members to deliberate upon the Budget.

The Committee of the Cis-Leithan Delegation on the Estimates of the Ministry for Foreign Affairs proposes the voting of the secret service item of 550,000 florins without reduction, as an expression of the confidence of the Delegation in the policy of Baron von Beust. The Austrian Red Book was laid before the Delegation on Tuesday. It contains 158 documents, which are preceded by a statement of the position of the

Empire in regard to Germany, Prussia, and the Papal States, the Danubian Principalities, &c.

HUNGARY.—The Emperor and Empress arrived at Pesth on Wednesday evening, and were received with acclamations by the people. The Ministers of the capital were voluntarily sworn to the Majesties having declined an official reception.

ITALY.—In the sitting of the Senate on Friday the provisional exercise of the budget for 1869 was approved. Count Cambrey Digny announced that he would present the budget for 1869 in February. In the sitting of Saturday General Menabrea announced to both Houses the approaching marriage of Prince Humbert to Princess Margherita of Genoa. The House appointed a Commission to congratulate the King, the Prince, the Princess, and the Duchess of Genoa upon the happy event. General Menabrea's announcement was received with great applause. Congratulatory addresses to the King on the approaching marriage have since been arriving daily from all parts of the kingdom. In the sitting of the Chamber of Deputies on Friday the discussion on the budget of the Ministry of Commerce was continued. In the sitting of Saturday the committee nominated to examine the re-organisation of the National Guard presented its report. The committee proposed that the National Guard should be considered as the last reserve of the army, to be called into active service if required in time of peace as well as of war. In time of peace it would protect public order should it be disturbed, and in time of war it would act as a contingent in the defence of the State. The National Guard would consist of two categories, one of which would be called to serve out of the commune to which it belonged. It would have to serve permanently, the other would be appointed by the Government, and the army, the custody of the Government authorities. In the sitting of Monday the estimates of the Ministry of Justice were discussed. In the sitting of Tuesday Count Cambrey Digny presented Bills for reorganising the system of public accounts, the collection of taxes, and the unification of the tax on Government contracts. In the sitting of Wednesday the Estimates of the Ministry of Public Instruction were discussed. The first 11 Articles were voted. The Estimates of the Ministry of War for 1869 amount to 150,000,000 francs. The committee proposes a reduction of 12,000,000 francs. The Naval Estimates for 1869 amount to 50,000,000 francs. The committee propose a reduction of 10,000,000 francs. Addresses have been sent from Milan, Venice, and Modena to the Chamber of Deputies, requesting the Chamber to expedite the discussion on the administrative measures, leaving aside all other questions. Accounts from Naples state that a mountain which fell last week, and caused a great loss of life at Naples, was not a part of Vesuvius, which is only a few miles distant from the city, but the Pizzofrone, a mountain between the Castel del Uovo and the quay of Santa Lucia. Certain constructions were found a communication between the quay and the barracks on the top of the hill, have for some time past given indications of being undermined by infiltration of water, and want of necessary repairs. There is no doubt that they had been shaken by recent eruptions of Vesuvius. The loss of life, including 8 or 10 persons who were drunk at the canteen of the Castel del Uovo, is estimated at 25.

PAPAL STATES.—The *Nazione* contradicts a report that the Holy See had raised objections to granting a request for a dispensation removing the canonical impediment of consanguinity against the marriage of the Crown Prince with the Princess Margherita. On Sunday, being the festival of the Purification, the Pope assisted at high mass at St. Peter's in presence of the members of the Sacred College, and the high dignitaries of the Church. Members of the Diplomatic body were present. A French expeditionary corps in the Papal States has been reduced to a single division, under the command of General Dumont. A squadron of cavalry of Civita Vecchia on Wednesday for Toulon.

MONACO.—Letters from Tunis to the *Moniteur* state that 170 deaths occur daily from famine and apprehended that sickness will arise through a number of unburied dead. There is a severe famine at Beuhazi, and the cholera has broken out at Tangier, where, as well as at Tetuan, the population is suffering severely from scarcity of food. The dry seasons and a deficient harvest had led to the famine throughout Northern Africa.

GREECE.—Advices from Athens to the *Moniteur* state that the Ministry have resigned in consequence of a disunion that existed between them. Some Ministers desired a dissolution of the Chamber, but the others were opposed to such a step. It was reported that the King apprehended the effects of a resignation. The Ministry, before their resignation, had several officials, especially Prefects, from the Ministry of the Interior.

SERBIA.—The *Debatte* of Thursday reports the example of Prussia, Russia having reported the protests submitted by Austria, England to the Servian Government against the measures now being carried on by that Power.

THE PRINCIPALITIES.—The *Constitutionnel* publishes a letter from Bucharest, stating that three battalions of armed men, each band 450 strong, are assembled at different points of the Principalities. They appear to be under the command of foreign leaders, and are preparing to enter Bulgaria to set fire to the Turkish villages, and renew the scenes of brigandage which were suppressed last year.

CANDIA.—According to Greek accounts, published in the Athens papers, the Turks have been defeated by the Candiotas at Heraclium, Canea, and other parts of the island, leaving stores and munitions in the hands of the insurgents. Russian vessels continue to capture large numbers of Candian families to Greece.

amer Union has also made many successful
between Syria and Candia with ammunition and
between the Cretans.

SIR S. Northcote has received the fol-
lowing telegram from Sir Robert Napier, dated
Jan. 25—

114 carts with supplies proceed
towards Senafe. The most
are being established with Prince Kassal.
will proceed immediately towards Antala.
will be moved to the front. One shell
will accompany the advance troops. All well.

has received the following telegram from its
Correspondent with the Abyssinian Expedi-
tion, dated Jan 25, and forwarded from Alexandria,
12:10 P.M.—

Sir Robert Napier has started for the front. A brigade of
will start tomorrow from Senafe on Antalo.

On the 29th December an encounter took
place between our troops and a band of Wagheer insur-
gents. Our troops were led by Captains Hebbert and La-
ing. The 17th Bombay Native Infantry, were
led by Major Reynolds, of the same corps, who
was severely wounded. No
were killed on our side. Three leaders of the
insurgents were killed, one being Dewa Manik, the
chief leader of this expedition.
M. M. Manik, the dispossessed chief of Dwarka
At the date of the last advices from Cabul a
war was imminent between Shere Ali Khan and
Bahman Khan. It is expected that before the
monsoon the Godavery River will be opened for
navigation as far as the second barrier, 225 miles from

Intelligence from Hong Kong announces
that the ports of Higo and Osaka have been opened
to trade without difficulty. The abdication of
the Mikado is confirmed, the Foreign Representatives
have been officially notified of it. The Mikado is
regarded as the ruler of the country as regards foreigners.
The assembly of Daimios has been ordered by the
Government to deliberate on the government of the empire.
The Government has said to carry a manifesto from the
Government to the European Governments
concerning political affairs in Japan.

According to the New York
Mr Adams has resigned the post of United
Minister in London. President Johnson has
passed a Bill repealing the internal
duty on the import duty on
from the 1st of November, and also the
the sale of the surplus ironclads.
Contracting Bill, suspending Mr. McCul-
lough's authority to contract the currency, has
been agreed to by both Houses of Congress,
and is now law. The House of Representatives on
the 1st ult. passed, by 123 votes to 45, the Bill
for no valid civil government to exist in the
rebellious States, prohibiting the recogni-
tion of the National Executive or Judiciary,
and the powers of removal or appointment con-
ferred on the President by the Reconstruction Act,
and conferring them on the General of the Army, and
making it unlawful for the President to employ the
army and navy to enforce the authority of the
provisional State Governments, or oppose the
of the Reconstruction Act. On the 25th
the Committee of Foreign Affairs resolved to
introduce a Bill declaring that naturalised citizens
are entitled to the same protection as native-
born citizens unless such protection shall have been
withheld by crimes against the Federal laws or against
the Governments committed within their jurisdic-
tion or by desertion from actual service in or by
employment in a foreign army or navy, or by adoption
of a name beyond the limits of the United States for
more than one year. By this Bill the President would be
empowered to demand the release of citizens detained
in foreign Governments upon the ground of Federal
allegiance on not absolving them from allegiance
to their native country. Should the release be
denied or delayed the President would be autho-
rised to cause the arrest of any subject of such
Government as an indemnity and reprisal.
President Johnson has sent a message to Congress
stating that the Bill granting political equality in
the District of Columbia had failed because Congress
had adjourned before the expiration of the 10 days
allowed by the Constitution for the
passage of Bills. Mr. Stanton has announced
that he will not resign.

Accounts from Rio state that no further
fighting had taken place between the Brazilians and
Paraguayans to the 9th ult. A revolution had
broken out in the province of Santa Fé, in the Argen-
tine Confederation, and the insurgents, who had
been ordered for Urquiza, had taken the town of Rosario.

City Intelligence.

MARKET, FRIDAY.—BRITISH FUNDS:
Consols at 93½ to 93, both for Money and
New and Reduced Three per Cents, 93½
India Five per Cents, 111½ to 112½; Bank
of England, 250; Exchequer Bills, 20s. to 25s. pm.—
Egyptian (1864) Bonds, 90½ to 91½; Mexi-
can (1864) Bonds, 77 to 77½; Greek,
New Spanish, 36½ to 37; Turkish, 32½
Italian (1861), 48½ to 49½; Peruvian (1862),
United States 5-20 Bonds, 71½ to 71½; Erie
Railroad, 46½ to 47½; Illinois, 87 to 88.

Metropolis and its Vicinity.

THE GREAT STORM OF SATURDAY.—On Friday
evening and during the whole of Saturday the metropolis
was swept for several hours by a terrific gale, which
was also to have been equally felt by the whole

island, from Land's End to John o' Groat's. The force
of the wind reached a pressure of 35 lb. on the square
foot, or 6 lb. more than that of the great storm in
which the Royal Charter and so many other ships were
wrecked. Several lives were lost at Old Ford, Stepney,
Poplar, and other places at the East End by the fall of
chimney stacks, &c., and the damage to property
was immense, many losses of life from floods being
reported from the North, and the accidents of a
minor character being so numerous that we might fill
whole columns with the details. It is remarkable that
the shipping on the coasts appear to have sustained
less damage on this occasion than the buildings
on shore.

CLERKENWELL EXPLOSION RELIEF FUND.—The
committee of this fund has announced that having now
received a sufficient sum for the purposes contem-
plated by their present action, they have suspended
their appeals to the benevolent. The question of the
liability of the county to compensate the owners of
injured dwellings having been referred to the Court of
Queen's Bench, they have determined to await that
issue. If a decision adverse to the sufferers should be
given, they propose again to appeal to the sympathy of
the country.

THE CLERKENWELL OUTRAGE.—On Tuesday
Timothy Desmond, William Desmond, Jeremiah Allen,
John O'Keefe, William Barrett, James O'Neill,
Nicholas English, and Anne Justice, the persons
charged with murder, arising out of the Clerkenwell
outrage, were again brought before Sir Thomas Henry,
at Bow Street Police-court, for further examination.
The prisoner Patrick Mullany, who was formerly
charged with the other prisoners with murder, now
stands charged with the minor offence of treason-felony,
in consequence of his having turned Queen's evidence.
Mr. Odling, professor of chemistry at St. Bartholo-
mew's Hospital, gave evidence as to the deposit found
upon some of the staves of the exploded barrel, from
which it appeared that the material used was gun-
powder, the cask having been previously used for
storing petroleum or paraffin oil. The evidence of the
other witnesses went to strengthen the case against
Barrett as the man who fired the barrel. Sir Thomas
Henry said that he should commit all the prisoners for
trial on the capital offence except Mullany, who would
be committed for treason-felony. Another adjourn-
ment for a week then took place in order that the
depositions might be completed, but it is not expected
that any further evidence will be taken.

DISCOVERY OF HAND GRENADES NEAR COLDBATH-
FIELDS PRISON.—On Wednesday morning two hand
grenades were discovered in a timber yard, only a few
yards from the outward wall of the House of Correc-
tion, Coldbath Fields. At 8 a.m. a man called James
Stanlake, on going to his work at Mr. Birch's timber
yard, at the corner of Calthorpe Street, found con-
cealed among the timber two large hand grenades, both
in heavy iron shells, and of a spherical form. One of
them was empty, but the other was loaded, and quite
ready for use. The finding of these missiles was imme-
diately communicated to the police authorities in
Scotland Yard.

THE CASE OF SHOOTING AT TWO POLICEMEN.—
On Tuesday Sir Thomas Henry committed Patrick
Clancy to Newgate for trial on three charges of
shooting with intent to kill.

THE DEPTFORD FENIANS.—On Thursday Lytel-
ton, Macarthy, and Richardson, the three men charged
with endeavouring to administer a Fenian oath to
James Boutall, were again brought before Mr. Maude
at the Greenwich Police-court. After a long examina-
tion, all the prisoners were committed for trial, Rich-
ardson stoutly protesting his innocence, and declaring,
that being a special constable, he went out on that
night for the specific purpose of finding and arresting
Boutall, having been informed that he was a Fenian.
Lytelton complained bitterly of the usage they
received at Maidstone goal, where, he said, they were
fed like swine and treated like oxen.

DISTRESS AT THE EAST END.—After a full discus-
sion in a conference summoned for the purpose,
the various Societies now engaged in relieving the
distress at the East-end have agreed to unite and
to place the contributions they receive at the disposal
of a single committee, styled "The United Executive
Committee for the Relief of Special Distress at the
East-end of London." The first meeting of the united
committee was held on Monday, Mr. Corbett, jun., in
the chair, when arrangements were entered into to
secure a proper distribution of aid to the famished and
destitute.

TREASURE TROVE AT HIGHBURY.—A few days
since the gardener of Mr. Brogden, the jeweller, in
trenching some meadow land at Highbury, found a
vase containing nearly 7000 silver coins, consisting of
silver pennies of London, York, Middlesex, Bristol,
and Canterbury; groats and half-groats, halfpennies, &c.,
Irish and Scotch, Venetian and Teutonic; two gold
coins of Edward III., and an amber rosary. The
coins have been partially arranged by Mr. Vaux of the
British Museum, to which institution Mr. Brogden
intends to present them.

PERSONAL PAYMENT OF RATES IN SHOREDITCH.—
On Thursday week two justices of the peace for Mid-
dlesex sat at the Vestry Hall in Old Street Road,
Shoreditch, for the purpose of hearing appeals against
the payment of rates by weekly tenants under the
Reform Act, and which rates have hitherto been com-
pounded for and paid by the landlords. It was calcu-
lated that about 1600 persons were present, and the
utmost confusion prevailed, which grew in intensity
until it ended in a complete riot. All efforts to quell
the disturbance were unavailing, and messengers were
sent off to the nearest station-house for assistance.
Fortunately nothing serious occurred beyond an up-
roarious assemblage and threats of violence towards
the parochial authorities if the demands were enforced.

The police having arrived, consisting of one inspector
and 20 constables, they at once began to clear the place,
and the men, who were entirely of the working classes,
quietly dispersed to their homes. Of course, the magis-
trates had no alternative but to consider what should
be done for the future. There is in this district a large
number of workmen out of employ, who are utterly
unable to pay rent, and very little inclined to pay rates,
which have hitherto been paid by the landlords of
these small tenements.

THE LOYAL IRISH ADDRESS TO THE QUEEN.—It
is announced that the loyal address to the Queen, pre-
pared by Mr. Digby Seymour, has been signed by
13,000 Irish residents in London. It is to be presented
through the Home Secretary on the 10th inst.

STATUE OF SIR R. PEEL.—The statue of the late
Sir Robert Peel is now placed in New Palace Yard,
Westminster, but it is not yet decided when it is to be
uncovered.

TESTIMONIAL TO DR. JELF.—On Friday a meeting
was held at King's College, under the presidency of
the Bishop of London, for the purpose of presenting a
testimonial from the past and present scholars, and
other friends of the institution, to Dr. Jelf, who is
about to retire from the principalship, after having
held that office for 24 years. The right rev. chairman,
Dean Stanley, Professor Plumpton, Sir Thomas Watson,
Bart., Sir W. Fergusson, Rev. Prebendary Ball,
Professor Miller, Rev. Canon Robertson, and other
gentlemen, moved the various resolutions commemo-
rating the long services of Dr. Jelf, and a general
committee was formed to receive subscriptions for a
testimonial, to consist of a piece of plate or a portrait.

ROYAL ACADEMY.—Mr George D. Leslie and Mr.
W. G. Orchardson have been elected associates, and
Mr. Thomas Landseer associate engraver of the
Academy.

ROYAL ACADEMY OF MUSIC.—This institution,
having struggled for nearly half a century to support
itself on the voluntary principle, by subscriptions,
balls, concerts, &c., has been obliged to close its opera-
tions. The surrender of its charter has been offered to
the Government, and it is stated that the directors
will cease to act in March next.

CORONERSHIP FOR WEST MIDDLESEX.—Three of
the gentlemen who were announced as candidates for
the coronership of West Middlesex, vacant by the
death of Mr Bird, have withdrawn their names, viz.,
Dr. Whitmore, medical officer of health for Maryle-
bone; Dr. Dunn, and Mr. Isaacson, solicitor. There
are now five candidates in the field, viz., Dr. Hard-
wicke, deputy coroner for Central Middlesex; Dr.
Dylock, of Chelsea; Mr. George Brown, surgeon, of
Kensal Green; Mr. Hand, solicitor, of New Inn (the
late Mr. Bird's deputy); and Mr. Walter, solicitor, of
Clifford's Inn. No day has yet been appointed for the
election.

SOUTHWARK PARK.—The plans for laying out the
land recently acquired and fenced by the Metropolitan
Board of Works for the formation of a park for South
London have been approved of by the General Purposes
Committee of that Board, and will shortly be made
public, for the purpose of inviting tenders for the
execution of the work. The ground has been acquired
at a cost of 60,000l. Its area is 65 acres, but in order
to recoup a portion of the sum expended on its forma-
tion, belts of land skirting its wider parts will be
appropriated to the erection of 300 houses, of such a
class as to command a yearly rental of about 50l. In
all, the ground thus used will be about 15 acres.

MR. GLADSTONE AND THE TRADES' UNIONS.—A
meeting of the sub-committee of trades' delegates,
appointed to arrange the proceedings connected with
the approaching trades' unions' conference with Mr.
Gladstone, was held on Wednesday evening, Mr.
George Potter in the chair. The chairman said that
since the last meeting of the committee he had been in
correspondence with Mr. Gladstone as to the points to
be discussed at the conference, and those points had
been finally settled as follows.—The limitation of
apprentices, the minimum rate of wages, piecework,
and overtime, and the rules of the unions alleged to
be in restraint of trade. No doubt other and
collateral questions would arise out of these points,
but they would form the basis of the conference.
By Mr. Gladstone's request he had also furnished
that gentleman with the names of the trades repre-
sented by the general body of delegates, and the
aggregate number of members represented by those
delegates. The conference would take place on the
18th inst., at Mr. Gladstone's residence. The secretary
then laid a number of letters before the committee,
from trades not directly represented by delegates,
giving information to the committee as to their rules,
&c. The committee then proceeded to elect the
eight members who, with the chairman and secre-
tary, were to constitute the deputation to Mr. Glad-
stone, which resulted in the appointment of the
following:—Mr. Laurence (tailor), Mr. Dunning
(bookbinder), Mr. Squire (painter), Mr. Broadhurst
(mason), Mr. Cohen (cigar-maker), Mr. M'Namara
(plasterer), Mr. Upshall (joiner), Mr. Lewis (brush-
maker). The chairman said it would of course be
understood that the deputation would not go as repre-
sentatives of their respective trades, but as represent-
ing the whole body of delegates. He also stated that
Mr. Gladstone's arrangements admitted of only one
reporter being present at the conference. As it would
not be desirable to give any one paper a preference over
another, he would suggest that an experienced short-
hand reporter be specially engaged by the committee,
who should supply each of the morning papers with a
full report of the conference, free of any charge. After
some discussion, a resolution was carried to that effect.
The secretary was then instructed to prepare a report
from the sub-committee to lay before the next general
meeting of delegates.

WESTMINSTER ABBEY.—In consequence of con-

siderable inconvenience having arisen to the public from unauthorised persons in the neighbourhood of the Abbey assuming the character of guides, and thus misleading and exacting money from visitors, under the pretence of showing them the precincts and the entrance to the church, a notice has been published warning the public against such persons, and stating that the north door of the Abbey is always open on week days from 7 45 A.M. till dusk, and on Sundays, for the services, both this door and that by Post's Corner. On week days the latter door is closed for the present, in consequence of the works for the restoration of the Chapter House close by.

EXTENSION OF THE POST OFFICE.—Several of the houses in Aldersgate Street immediately opposite the principal entrance to the General Post Office in St. Martin's-le-Grand, have been purchased by the Government for the purpose of extending that establishment. The tradesmen who have carried on business there have removed, and the demolition of the houses will commence forthwith.

THE CAB QUESTION.—On Monday a deputation of hackney carriage proprietors had an interview with the Chancellor of the Exchequer, Alderman Lawrence, M.P., introduced the deputation, and said that it was impossible to have vehicles equal to those of the Continent so long as the proprietors had to pay 18*l.* 5*s.* per annum duty, and 1*l.* a year for a license for the working of each cab, or 19*l.* 5*s.* per annum for every 50*l.* worth of property. After some remarks by Mr. Crocker, Mr. Gower, and Mr. Fry, the Chancellor of the Exchequer said that personally he had a very great objection to taxing locomotion in any way, and was aware that the hackney carriage trade in London had many disadvantages that did not arise in foreign cities. The whole matter should receive the most careful consideration of her Majesty's Government and himself; but at the present time, seeing that there was a decreasing revenue and increasing expenditure, he was not prepared to say what the result of those deliberations might be, but he felt certain that, should there be a reduction in the duty, it would be for the mutual benefit of the proprietors and the public.

AERONAUTICAL EXHIBITION.—The Council of the Aeronautical Society have decided on holding an exhibition in London of objects connected with aeronautical science in June next. Arrangements have been made for the exhibition to be held at the Crystal Palace, where ample opportunity will be afforded it for experiments. The Shipwrecked Mariners' Society have allotted 50*l.* as a prize in connection with "the best form of kite, or other aerial arrangement or modification thereof, for establishing a communication from a wreck on shore or between two vessels at sea." The late successful experiments in Paris, conducted by M. Giffard with a captive balloon, have suggested their repetition upon the forthcoming occasion, when Mr. Glaisher will probably prosecute further experiments, and give an opportunity to inventors to propose means for controlling ascent and descent without loss of gas or ballast. The objects for exhibition, and for which prizes will be offered out of the funds now raising, are light engines and machinery, complete working aerial apparatus, models (working and stationary), plans and drawings, articles of interest commemorating previous experiments, kites or other similar apparatus proposed to be used in cases of shipwreck, traction, or in the attainment of other useful ends; paintings of landscape and cloud scenery as observed from a balloon. The interest excited among inventors in this and other countries has been manifested so strongly that, although the idea has only been made known through the members of the society, already many new inventions have been promised for exhibition.

THE DIGEST OF THE LAW.—Friday was the last day for sending in preliminary papers to the Digest Commissioners. The *Law Times* says that "a very large number of gentlemen have embarked in the competition, among whom are several Queen's Counsel. A considerable time must elapse before the Commissioners make their selection, and a long time must then pass away before the specimen digests themselves are completed, so as to enable any opinion to be formed respecting the ultimate success of the scheme."

A HORSE DINNER.—On Thursday evening a company numbering upwards of 100 gentlemen, assembled in the dining-hall of the Langham Hotel, and partook of a banquet the chief components of which were furnished by the horse. The chair was filled by Mr. Forsyth, Q.C., and among the company present were Mr. T. Hughes, M.P., Sir H. Thompson, Dr. W. H. Russell, Mr. Maule, Q.C., Sir J. Lubbock, F.R.S., Mr. Bicknell, &c. The promoters of the dinner stated that their object was neither the gratification of idle curiosity nor the desire to recommend a new epicurean luxury; but that, having been tacit observers of the partial success which had attended the French movement, they had thought it worth their while in the interests of the poorer classes of the English people, who are at the present moment too frequently debarred, by the high prices of beef and mutton, from participation in those articles of diet, to suggest the desirability of utilising a description of meat which, while little inferior in flavour to mutton and beef, has the advantage of being considerably cheaper than either. The meat was cooked and presented to the company in a variety of forms, as will be seen from the bill of fare, and the general verdict was decidedly favourable to the new dishes. The announcement that the *fillets de sole* were prepared in "horse-oil" was hardly calculated to provoke an eager demand for fish thus treated, but, as the proof is in the eating, those who were hardly enough to prefer sole to salmon were by no means disappointed with the result, and ate their fish with evident relish. The cuts from the solid joints received less praise than was awarded to the previous dishes. The meat was somewhat over-done, and

there was an absence of the fat which is so general with beef; the flesh, however, was anything but coarse or ill-flavoured, and some of the choicest portions of the *baron de cheval*, which was brought in upon the shoulders of four stalwart cooks, who were preceded by a trumpeter, playing, though not appropriately, "The Roast Beef of Old England," were tender, juicy, and well-flavoured. The following was the bill of fare.—

"Potages. Le consommé de cheval à l'A.B.C.; à la purée de deatriers. Amantillado. Poissons. Le saumon à la sauce Arabe. Les filets de soles à l'huile hippophagique, vin ou Rhin. Hors d'œuvres. Les terrines de foie maigre chevalines. Les saucissons de cheval aux pistaches syriennes. Xeres. Relais. Le flet de Pégase rôti aux pommes de terre à la crème, le flet aux châtaignes, l'Aloyau de cheval farci à la centaur aux Choux de Bruxelles, la culotte de cheval braisée aux chevaux-de-friso, Champagne Sec. Entrées. Les petites pâtes à la moelle Bucephale; Kromesky à la Glaciateur, les petits gâteaux à l'hippogriffe, les langues de cheval à la Trévigne, Château Perayne. Second Service.—Rôts. Les canards sauvages; les pluviers, Volnay; les mayonnaises de homard à l'huile Rostante, les petits pois à la Française; les choux fleurs au parmesan, Entremets. La gelée de pieds de cheval au marisqun, les zéphirs sautés à l'huile chevaleresque; le gâteau vétérinaire à la Dacrix, les feuillantes aux pommes des Hesperides; St. Paray. Glaces. De crème aux truffes, sorbets contre-pépiges. Liquors. Dessert. Vins fins de Bordeaux et Mûdres café. Buffet. Collard horse-head, bacon of horse, boiled withers."

Three horses were slaughtered for the banquet, of the respective ages of 4, 20, and 23 years. Two had been cart-horses; one had drawn a brougham, and in his prime had been worth 700 guineas. The baron was carved from the four-year-old. The chairman, Mr. Forsyth, Q.C., in proposing "Success to Hippophagy," reminded the company that they secured to the horse humane treatment in his latter days when they showed that his carcass was fit, not for dogs, but for men, Statisticians declared that in this realm 75,000 horses, free from disease and available for human food, were slaughtered annually. Here was animal food, palatable, nutritious, cheap. Should it be any longer wasted when animal food was so dear as to be practically beyond the reach of our poorer countrymen? He treated the horse question not as one for epicures, but as a practical question of the highest importance; and said that this dinner was intended not to gratify the palates of a few, or to introduce a new dish into the rich man's house, but to popularise a new article of food for the poor. "The horse; and meat at 2*d.* per pound," was the text on which he dwelt. Mr. Maule, Q.C., Sir Henry Thompson, Sir J. Lubbock, and Mr. A. S. Bicknell also spoke. Sir Henry Thompson said that to the latter gentleman was justly ascribed the merit of providing the banquet—a task, where the staple dish is horse, of considerable difficulty. It only now remained to convince the classes who have most to gain from the cheapening of animal food that horse-flesh is good to eat. In conclusion, he declared, as a surgeon, that for invalids equine tea was more nourishing than beef tea. Other medical authorities who were present at the dinner were ready, it was said, to corroborate Sir Henry as to the stimulating properties of the horse when treated in this way.

SALE OF BEER.—On Saturday a deputation from the Church Temperance Society waited on the Home Secretary to press upon him the advisability of repealing the Act of 1830 by which beerhouses were created. Mr. Hardy acknowledged the importance of the question, and thought that some remedy was wanting for the present unchecked sale of intoxicating liquors, but could not undertake any legislation on such a subject with an expiring Parliament.

FORTIFYING POLICE-STATIONS.—The Government have determined to fortify the police-stations in London, as the preliminary step to a scheme of general fortification of all the police-stations and barracks in the United Kingdom. The head office of the Metropolitan force in Scotland Yard will be the first to be placed in a state of defence, and with this object Messrs. Clarke and Co., of Rathbone Place, are manufacturing bullet-proof iron shutters for the windows of the station. The shutters will be so constructed that they can be closed almost instantaneously, and an apparatus adjusted inside which will make them proof against any fusillade of small arms. The doors will be similarly protected. When all the stations in the metropolis and suburbs are provided with the ball-proof shutters, the stations and barracks of the police in Ireland will be placed in a state of defence.

CONVICTION OF PRIZE FIGHTERS.—On Monday a pugilist named Michael Gannon was brought up at the Thames Police Court on remand, on the charge of attempting to murder Inspector Taylor of the metropolitan police, on the 22d ult. It appeared that Inspector Taylor received orders to stop a prize-fight about to come off in Long Reach, and that he and other officers went for that purpose on board a steamer at the Tunnel Pier. He found the vessel full of prize-fighters, their backers, and roughs. On warning the captain that he was assisting in an unlawful act, the prisoner Gannon and others seized him, and a cry being raised of "Throw him overboard," they lifted him off his legs for that purpose. The captain and one of the prize-fighters interfered and prevented his being thrown overboard, but he and his men were literally thrown out of the steamer upon the pier. The steamer then went its way, and the prize-fighters had "the Reach" all to themselves. The adjourned hearing on Monday lasted five hours, and the court was densely crowded with "the fancy." In defence it was alleged that Inspector Taylor had grossly exaggerated the case, and the magistrate appeared to think that this was partly true. Two of the leading pugilists were fined, the one 20*l.* and the other 30*l.*

ATTEMPTED ASSASSINATION BY A LUNATIC AT CLERKENWELL.—On Wednesday morning an attempt was made to assassinate a man in the public street near the Clerkenwell House of Detention, and was generally believed for a time to be another outrage by Fenians. The incident, however, although serious, had

no political significance whatever. A person named Thomas Chatterton was passing along the street near the House of Detention shortly before 9 a.m., when he was suddenly fired at by a man who held a revolver in his hand, of which he discharged four chambers with great rapidity. One shot only took effect, striking Chatterton in the neck just below the ear, and inflicting a dangerous although it is hoped not a mortal wound. A man called Robert Bass, of St. Luke's, who was passing by, seized the assassin with one hand and the revolver with the other, and held him till a policeman came up and took charge. The revolver was one of seven barrels, of which remained undischarged. The assassin was recognised as Robert Needell, an attorney well known among his companions as "mad Needell," also known to the police by his insane delusions respecting persons six feet and a-half high for lower about. He was taken before the magistrate at Whitechapel Police-court in the course of the day, and remanded. The wounded man, Chatterton, is now lying in St. Bartholomew's Hospital. The bullet entered the neck by the angle of the jaw on the right side, making a very small wound. It is supposed to be in the neck; but it is deemed inexpedient at present to search for it. No important structures were divided, and the patient is doing well.

THE LATE MURDER IN LAMBETH.—The sentence of death passed upon the prisoner Clark for the murder of his child, has been commuted to penal servitude for life.

THE PUBLIC HEALTH.—The Registrar-General's Weekly Return of births and deaths in London and in 13 other large towns of the United Kingdom states that in the week that ended on Saturday, February 1, 4712 births and 3182 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 26 per 1000 persons living, being 23 per 1000 in London, 27 in Edinburgh, 34 in Dublin, 28 in Bristol, 24 in Birmingham, 31 in Liverpool, 29 in Manchester, 33 in Salford, 25 in Sheffield, 24 in Bradford, 24 in Leeds, 24 in Hull, 25 in Newcastle-upon-Tyne and 32 in Glasgow. The rate in Vienna was 26 per 1000 during the week ending the 25th ult. In London the births of 1207 boys and 1157 girls, all 2364 children, were registered in the week, the corresponding weeks of 10 years 1850-59 the average number, corrected for increase of population, was 2283. The deaths registered in London during the week were 1394. It was the fifth week of the year at the average number of deaths for that week, corrected for increase of population, was 1629. The present rate is, therefore, 235 below the estimated number.

Provincial.

BIRMINGHAM.—At the adjourned inquest on the Milbourne, of Henage Street, on Friday, the jury returned a verdict of Wilful Murder against a person or persons unknown. On Tuesday morning the police-court, three men and a woman were charged with the murder. They were Joseph Beesley, 27, cooper-maker, a cripple, William Beesley, 27, coster, Charles Greyson, 35, hawkker; and Elizabeth, his wife, 28. They were arrested in their beds at half-past the morning by seven detectives. One of the Beesleys offered desperate resistance. The prisoners were remanded till Tuesday next. Another of the Beesley family, a brother of the other prisoners who had been calling himself Morley, was apprehended on Tuesday on suspicion of being one of the murderers. He was brought before the magistrates on Wednesday and remanded also until Tuesday. These proceedings have been made on the statements of an informant from which it appears that the step-mother of the Beesleys was from time to time employed to do household work for the deceased, of whom she was a cousin, and that her reports of the deceased having several hundred pounds in the house induced the prisoners to resolve on robbing the house. It is said, however, that they had no intention of committing murder, but that on seizing her by the throat the cart-liner was so brittle from age that death ensued almost immediately.

—On Tuesday evening Mr. Bright, M.P., addressed his constituents in the Town Hall of this town. His speech occupied upwards of an hour and was in the delivery, and was devoted exclusively to the Irish question, which he had selected, he said, because it was at present exciting great feeling, and would, before it is settled, will give rise to great heartburning, and in all probability cause the fall of ministries, or perhaps the dissolution of Parliament. The following is a summary:—

"He commenced by adverting to Lord Stanley's declaration of the Ministerial policy at Bristol, and expressing his disapproval of his protest against calling in questions the difficulties of the case after the regular procedure had been pronounced hopeless. He said that he had no remedy in the efficacy of the repeal of the Union, but that nothing to prevent the two countries being in harmony, and he would never consent to a separate statesmanship was dead and the principles of national unity had lost their influence. There were two questions considered—the Irish Church, and the relation of the landlords and Irish tenants. With regard to the latter would retain some portion of the endowments of the Established Church for its future clergy and another share he would allot to the Protestant clergy. To the other religious bodies of the Island he would grant a globe or some stipend to the Catholic funds already devoted to pious uses. But all these should, from the time of the distribution of the property among them, be disconnected from the land order to settle the land question, he would have the ballot. Grant the ballot, and leases would be given, leases, prosperity, good farming, and contentment the ballot, and auxiliary to it, he would place his power in the hands of the tenants, and assist them to buy the farms they hold from the English landlords. In conclusion, he deprecated the

Wednesday Mr Bright attended a public breakfast by Mr Wright, the chairman of the Chamber of Commerce in the borough, to the artisans who visited the Paris Exhibition. The Mayor presided, and speeches were delivered pointing out that the working men of the borough were slightly inferior to those of all other parts, and were slightly inferior to some, who not only excelled them in design and workmanship, but also in the wages in a more sensible and rational manner. Mr Bright then addressed the meeting as follows:—

He complained that, like some of their Conservative friends who were dragged on at a rate which almost bewilder them, he had been entrapped into an expression of opinion on the subject of education to which he had not for a long time past given attention. He therefore found it necessary to refer to what he used to say and predict years ago on the subject, when arguing upon the question of the suffrage. He considered the ignorance of the masses at the present time to be a very serious and far below that of Prussia and Switzerland, and he believed the principle that everything should be done by the Government, and ridiculed the feverish anxiety about education which had been manifested since the last election. He adduced practical reasons why the proposal to make compulsory education, however strictly narrowed, should be carried out on all sides before any attempt be made to carry it into execution. He suggested that the imposition of a great tax, supported by rates and supplemented by a police to enforce it, would be a people unable to weigh the burdens they laid against the advantages they did not understand, and might be followed by a dangerous reaction; and he recommended a gradual assault upon the ignorance of the uneducated classes, in which all existing educational machinery should be put to use. With respect to the fashionable cry for Technical Education he said that he understood this phrase to mean that, in the principles of trades and manufactures, but he was in the contrary convinced that if boys were to be taught the means of learning in ordinary schools—if, when they left them, they were able to read, to write, to perform the common operations of arithmetic, and to be left to acquire for themselves the principles of the work which might occupy them in later life. As regards the utility of invention shown by the inhabitants of the States, he attributed it to the absence in the States of a very rich class without stimulus to exert themselves in a very poor class without possibility of aspiration. He said that the true remedy for the alleged defect in the present system was to be found, not in the establishment of a school in the principle of South Kensington at the expense of the voluntary establishment of schools for apprentices and young workmen in the great manufacturing districts. In conclusion he said that he was sure those who thought he was slow and Conservative would advance for him as they could, and he was sure that whatever was offered to the public and to Parliament would be prepared to be likely in the smallest degree to the intellectual and moral elevation of the people, and would never be found unwilling to give it his cordial support.

BLACKBURN.—Considerable excitement has been caused in this town by the sudden disappearance of Mr Zarah Maudsley, who has been for some years manager of the Blackburn Branch of the National Savings Bank Company (Limited), and who is believed to be a defaulter. A few months ago the bank suspended payment, and at the present time its affairs are being wound up. The principal sufferers will be poor people who were induced to invest their earnings in the bank. Mr Maudsley has been for many years secretary of the Blackburn district of the W. M. F. Fellows.

WATERFORD.—In accordance with the sentence of the court-martial on Patrick Daly and James Molloy, two privates in the 24th Battalion of the 1st Royals, on the charge of having made use of Fenian and seditious language in the public streets of Chatham, the prisoners have been branded with the letters "B. C." and discharged from Her Majesty's service with disgrace. They were also sentenced to undergo five years' penal servitude and Molloy to be imprisoned and kept at hard labour for two years.

WATERFORD.—The court-martial which commenced on Saturday on James Anderson, of her Majesty's ship Canopus, for endeavouring to seduce a woman from his allegiance, was concluded on Sunday when the prisoner was sentenced to five years' penal servitude.

WATERFORD.—On Friday John Whetstone, compositor, was brought up for the fourth time on Monday before a full bench of magistrates, charged with being drunk on Sunday evening, the 19th ult. He was committed to the Prison, Private Cordner and others, of the 1st Battalion, stationed in the Citadel Barracks, to the Fenian Brotherhood. There was great excitement in connexion with the case in the town and county. After due deliberation the magistrates discharged the prisoner, partly on the good character borne by him, and partly on the ground of a doubt as to whether or not he was under the influence of drink at the time he conversed with the military.

WATERFORD.—A man named "Pinny" Loyd, who was sentenced to transportation for sheep-stealing in this town, lately confessed to one John Titchmarsh, when dangerously ill and not expected to live, that he was the murderer of Mr Titchmarsh, dealer, of Shepreth, whose death has been a matter of mystery. Mr Titchmarsh, at the time of his leaving Trumpton, had with him about 1000*l.* in notes, all of which were missed, and it was supposed by the jury at the inquest that Mr Titchmarsh met with his death by falling out of his window, but that supposition is cleared away by this confession. The notes, it is said, were burnt by Loyd to prevent detection.

WATERFORD.—A destructive fire broke out in the morning at Dr Steele's, a short distance from Douglas, on Saturday morning. The house and its contents were nearly destroyed, and a fireman of the brigade named Titchmarsh was burnt to death. There were 48 boarders at the school, principally sons of English and Scotch

gentlemen. The fire was discovered by a carpenter in the neighbourhood, who, about half-past 6 on Saturday morning, observed the window curtains of Dr. Steele's study on fire. Being unable to attract the attention of the inmates by ringing the bell, he burst the door open with a sledge hammer. As the flames were spreading with extraordinary rapidity, the inmates, in their anxiety to save themselves, left behind them all their clothing. The fire brigade arrived about 20 minutes to 8, and as by this time the front premises were a mass of flame, they directed all their attention to saving the back premises. While the deceased was trying to put out the fire in the school-room the ceiling fell, burying him and two other firemen in the ruins. The latter contrived to save themselves, one by springing out of the window into an adjacent quarry, and the other by holding on to the ledge of the window until rescued by a ladder. The deceased, being crushed by one of the falling beams, remained caged in the burning room, and though his cries for help were plainly heard, and a rope was thrown to him, it was impossible to reach him. The flames at this juncture reached his face, setting his whiskers and hair on fire, and he sank, face downwards, and perished. The flames made such rapid progress that by 9 o'clock the whole of the premises, valued at about 1000*l.*, were totally destroyed. The loss is only partly covered by insurance. About 11 o'clock a search was made amid the ruins for the body of the deceased, which, when discovered, was a more charred mass. An inquest was held the same evening, when a verdict of Accidental Death was returned.

LEICESTER.—On Monday evening an inquest was held in this town, on the bodies of Emma Stonecraft and Emma Preston, her daughter. The child was illegitimate by a man called Preston, of Grantham, with whom the mother had lived after her husband had left her owing to her dissolute conduct. On Wednesday, the 29th ult., she snatched it out of the arms of her sister, and, running to the canal, threw the child into the water and then jumped in herself. The jury returned a verdict of Murder and Suicide.

LIVERPOOL.—On Saturday the cab proprietors of this town struck against a new bye-law of the cab committee providing that the Manchester system of free trade—with the fare per mile painted outside each cab—should come into operation on the 1st of February. Only one man presented himself at the police-office to take out the new licence, but he did not venture to place his cab on any of the public stands. The "strike" commenced immediately after midnight on Friday, to the great disgust of several gentlemen away from their homes, and who did not relish a long stroll in the face of a gale of wind and showers of rain. As Saturday was fine though stormy, the cabbies made the most of their holiday by driving through the town in four-horse carriages, waggonettes, and other vehicles, all greatly overloaded, and driven at the fastest pace, simultaneously giving vent to their feelings by uproarious cheers and wavings of pocket-handkerchiefs. The "strike" still continues, to the great inconvenience of the public, and more especially to strangers arriving in the town by sea, and it is now stated that the omnibus proprietors are about to strike also, in order to support the cabbies, and bring the corporation more speedily to terms. In the meantime the corporation offer to licence any species of vehicle for conveyance of goods or passengers.—On Wednesday evening a fire broke out in the church of St. Nicholas, better known as the Old Church, in this town. The flames were got under, but not before considerable damage was done to the building.

MONMOUTH.—All the colliers in this county, with the exception of those at Risea, are now on strike, having come to the determination, after holding several meetings, not to accept the proposed reduction of 3*d.* per ton. The turn-out will probably have some effect on the district, although it is generally believed the strike will be of short duration, as the men are well aware that low prices and the smallness of the demand have led to the necessity of lessening the cost of production. At present precautions are being taken in the western valleys of the county for the prevention of any breach of the peace, and at Abercarn the police force has been strengthened with the view of affording protection to the enginemmen and others engaged at the Abercarn colliery. What step the other steam-coal colliers will pursue is not yet known.

ONGAR.—On the 30th ult. the body of a well-dressed man, apparently from 35 to 45 years of age, and 5 feet 8 inches in height, was found in the river Roding, near the mill in the parish of Stapleford Abbots, a few yards from the old Dunmow Road, between Abridge and Ongar. It had evidently been in the water for many days, and was much decomposed. The clothing, which was of a superior kind, was marked with the initials "P.L." in old English characters. An inquest was held on Saturday at Stapleford Abbots, but as no evidence was forthcoming to show how the body got into the river, the inquest was adjourned for a week. The body, which still remains unburied, was not identified up to Wednesday afternoon.

OXFORD.—The Earl of Derby as Chancellor of the University, has conferred the Principalship of Magdalen Hall, vacant by the death of Dr. Macbride, on the Rev. Richard Michell, B.D., formerly fellow and tutor of Lincoln, and for many years vice-principal of Magdalen, and public orator of the university.—The election to the vacant Professorship of Political Economy in the University took place on Thursday, when Mr Bonaux Price was elected by a majority of 127 over Mr. Rogers, the numbers being 620 to 193.—The long-looked-for challenge from the Cambridge University Boat Club reached the hands of Mr. Willan, the President of the Oxford University Boat Club, on Thursday afternoon. The fixture will remain for future consideration, but there is little doubt that the race will be rowed, according

to precedent, on the Saturday preceding Good Friday, viz., April 4. The difficult task of selecting the crew will at once be proceeded with.

PORTLAND.—On two occasions during the last few days the Portland magistrates have been called upon to investigate charges against warders of the convict establishment at that place for trafficking with prisoners. A warder named Morris de Young was charged with conveying letters out of the establishment. James Schlotz proved delivering notes which he had received from another convict named Milkienwicz to the warder, sewn up in a piece of cloth. He had attempted to deliver him another note as he was talking to the prisoner about a chain; but was prevented, by another warder coming up at the time, and was obliged to tear it up. This led to the prisoner being detected. The convict Milkienwicz proved that the prisoner had given him tobacco, and, to the best of his memory, he had received 2*lb.* in all, which the prisoner brought to his cell. Witness gave him two letters to post to his brother in Belgium, and one also to his brother-in-law. The prisoner pleaded guilty, and was sentenced to three months' imprisonment with hard labour. Peter Aldersley, warder, was next charged with attempting to introduce tobacco into the prison. He was overheard by some of the convicts under his charge arranging to fetch a parcel addressed to Mr. Thompson, at the parcel office at Weymouth Railway Station, and was taken into custody as he was in the act of taking it away. He also pleaded guilty, and was sentenced to four months' hard labour.

SHEFFIELD.—Two brothers named Marshall, who are scissor grinders, were rattened last week, no less than five bands being taken away. They were formerly members of the Scissor Grinders' Union, but in consequence of the depressed state of trade, and the class of work which they ground, they were unable to continue the contributions, and some few months ago ceased to be members of the Union. It is said that they have several times been warned by officials connected with the union that it would better for them if they paid. The place in which they worked was properly secured by the gatekeeper, and the ratteners, finding that to be the case, had to climb up a kind of funnel which is outside the wall and then got through one of the windows.

WALMER.—The ceremony of "drumming out" a soldier was performed at Walmer Barracks on Friday, the culprit being John Quin, a private of the 1st Battalion 7th Royal Fusiliers, who was convicted at a court-martial on the 3rd ult., of making use of treasonable and traitorous language towards the Queen, and also avowing himself a Fenian. Previous to being drummed out he was branded on the left breast with the letters "B. C.," and was then removed to Canterbury to undergo his sentence of two years' imprisonment.

WITHAM.—The cases of fever at Terling appear to be on the increase, notwithstanding the exertions of the medical men and the liberality shown by the board of guardians and by Lord Rayleigh, who is the owner of about one-half of the cottage property of the parish. The total number of deaths up to Saturday night was 80; six took place last week, four males and two females, varying in age from 17 to 78. Meanwhile the preparations for converting the national school-room into a temporary hospital have been actively going on under the direction of Dr Grimson, the bedding and all other requirements being supplied at the expense of Lord Rayleigh, who is said to have given *carte blanche* to Dr. Grimson to provide everything that is necessary in this respect. There are about 40 cases which it is considered necessary to remove to the hospital as soon as it is opened, which will probably be at an early date, as the arrangements are now nearly complete, and on Saturday two Protestant Sisters of Mercy, from East Grinstead, arrived at Terling to assist in removing the patients. Several of the old wells have been closed, and three new ones sunk, by direction of Lord Rayleigh, which will supply pure water from a higher level than the old wells which caused the outbreak by becoming contaminated by sewage matter. Many of the patients have been young people, and it is said that many able-bodied young men who assisted in cleansing the cesspools have since been struck down by the fever.

WORTLEY.—The adjourned inquest on George Thirkill, the head gamekeeper to Lord Wharcliffe, was resumed last week, and after several witnesses had been examined at some length, the jury returned a verdict of "Wilful Murder" against the three prisoners in custody, and also against a fourth man unknown.

Ireland.

GREAT PROTESTANT DEMONSTRATION IN DUBLIN.—A great meeting, organised by the Central Protestant Defence Association, was held on Wednesday in the Rotunda, and is said to have been attended by 3000 persons. On the motion of the Earl of Enniskillen, seconded by Lord Huntingdon, the chair was taken by the Earl of Bandon. Mr. Ion Trant Hamilton, M.P., read letters of apology from peers and others who could not attend. Deputations were present from various places. The speakers were the Chairman, the Marquis of Downshire, Lord Bective, Sir Benjamin Guinness, M.P., Lord Erne, Mr. Alexander Parker, D.L., Lord Oranmore, Colonel Knox Gore, Hon. Cavendish Butler, Mr. Bruen, M.P., Mr. Gamble, J.P., Lord Castlemaine, Mr. Denis Kelly, D.L., Sir Charles Lanyon, M.P., Mr. John Sibthorpe, Colonel McCintock, Colonel Leslie, Mr. Peel Dawson, M.P., Mr. John Vance, M.P., Mr. Traill, F.T.C.D., Lord Dunboyne, Sir Edward Grogan, and Lord Crofton. Resolutions were unanimously adopted in support of the Constitution and Church, and expressing attachment to the Throne; and a petition to the Queen was adopted.

praying her Majesty to continue her support to the Protestant Churches in Ireland, and condemning an Ultramontane ascendancy. A permanent association for the promotion of these objects was also inaugurated, which is to have branch societies in every district in the country.

TREASURY GRANTS FOR IRELAND.—The *Irish Times* states that the Treasury have granted 100,000*l.* for the purchase of the Exhibition Palace, the site for the Royal Irish Institute of Art; 100,000*l.* for the improvement of Cork Harbour; and 100,000*l.* for the construction of a harbour in Belfast Lough.

FURTHER OUTRAGES IN CORK.—On Saturday night a canister of powder, containing, it is stated, about 8*lb.*, was placed against one of the gates of the establishment of Messrs. Keatinge, bacon-curers, and exploded with a tremendous noise. The gate was shattered, the lock torn off, the iron bars which had been placed for additional security driven from their places, and some of the panels broken in. No person sustained any injury. It is supposed that the object was to try the effect of certain quantities of powder upon strong gates. Several similar canisters have been found in other parts of the neighbourhood. On the same night all the telegraph wires were simultaneously cut in a circle of four miles outside the city.

FENIAN PLOT TO ATTACK MACROOM CASTLE.—A Fenian plot to attack Macroom Castle and seize militia arms there deposited, was defeated on Tuesday at the moment an armed band was about to make the assault. The police having suddenly arrested two of the insurgents acting as scouts, they alarmed the main body, which dispersed. At the time the attack was to have been made the telegraph wires communicating with the city were cut.

ATTEMPT ON ATHLONE BARRACKS.—Some alarm was created in the barracks at Athlone on Friday night by a man who was discovered in the act of scaling the wall, and who is supposed to have been the leader of a party who intended, if they could have effected an entrance unperceived, to have plundered the stores of arms and ammunition. He was perceived by a sentinel, who at once turned out the guard, but before they could reach the spot he had made his escape, and no trace of him or his companions could be discovered. In consequence of this the armoury and magazine—which were situated near the walls—are to be removed to a more secure locality within the barracks. Twelve 56-pounder guns have been sent from Athlone to arm the forts on the Shannon.

THE REVOLVER ROBBERY AT CORK.—On Monday afternoon two men, named David Barry, a coach painter, and Cornelius O'Sullivan, a cooper, were arrested on the charge of being parties in the recent robbery of revolvers and ammunition from the shop of Messrs. Alport. The former was fully identified. Subsequently, Barry Fitzpatrick, after considerable resistance, was arrested for being concerned in the recent explosion of Greek fire, and was committed with the other prisoners to Bridewell, which is now strongly guarded.

DEFENCE OF CONSTABULARY BARRACKS.—A meeting of proprietors of constabulary barracks was held on Thursday, Lord Castlemaine in the chair, when it was resolved to co-operate with Government in providing suitable defences; the Land Improvement Act being extended, and the Government leasing barracks at a rent sufficient to cover instalments of loan.

FENIANISM AND THE ROMAN CATHOLIC CLERGY.—The *Kerry Evening Post* says that Bishop Moriarty and his clergy find great difficulty in collecting their customary dues from their Roman Catholic flock, owing to the Bishop's recent denunciation of Fenianism.

THE LATE MURDER IN QUEEN'S COUNTY.—A man who gave the name of Patrick Byrne was arrested last week at Baldoye, county Dublin, for the murder of William Dunne, at Ballyadams, Queen's county, on 19th December. He is supposed to be James Caffrey, who stands charged with the murder.

THE LOSS OF THE CHICAGO.—The Board of Trade inquiry on the loss of this ship has terminated in the suspension of the captain's certificate for six months, on the ground that he should have kept the ship's head off shore till the weather cleared up, and should have verified his assumed position by further casts of the lead. Jennings, the marine who fired upon and wounded one of the wreckers of the Chicago, has been committed for trial. Bail will be accepted for him when the wounded man is pronounced out of danger.

THE EDUCATION COMMISSION.—The names of the members of the Royal Commission upon Education in Ireland have been officially published. They are—The Earl of Powis, the Earl of Dunraven, the Bishop of Meath, Lord Clonbrock, the Right Hon. Michael Morris, Justice of the Court of Common Pleas; Sir Robert Kane, Kt.; Mr. William Brooke, one of the Masters in Chancery; the Rev. Dr. David Wilson; the Rev. R. J. Cowie, one of her Majesty's Inspectors of Schools; Mr. John Arthur Dease; Mr. James Gibson; Mr. Scott N. Stokes, one of her Majesty's Inspectors of Schools; Professor Sullivan, Professor of Chemistry in the Royal College of Science of Ireland; and Mr. Laurence Waldron. The Secretaries are Mr. G. A. Chichester May, Q.C., and Mr. J. B. Dunne.

Scotland.

PARLIAMENTARY REPRESENTATION OF SCOTLAND.—On Monday night a meeting, called by the Lord Provost, of the inhabitants of Edinburgh and others interested in securing adequate representation for Scotland in the House of Commons, was held in the Music Hall, and was largely attended. The first resolution, which affirmed that the share of representation assigned to Scotland, in proportion to other divisions of the kingdom, whether viewed with reference to their respective population or their contributions to the

Imperial revenue, is much too small, was proposed by Mr. McLaren, M.P. Other resolutions in support of the object of the meeting and demanding 15 additional members for Scotland, were also passed, and the Lord Provost was authorised to sign on behalf of the meeting a petition embodying the resolutions. It was also resolved that copies of the resolutions should be sent to the counties and burghs in Scotland for support.

MURDER IN DUMFRIESHIRE.—On Saturday evening a little girl, about 14 years of age, called Thomasina Scott, the daughter of a shoemaker at Cummeltrees, was sent by her mother to Annan to buy groceries. On her way she stopped to rest at the cottage of a woman named Paterson or Creighton. Sitting there was Robert Smith, or Colvin, a harvest labourer, who was well known in the district. He said he also was going to Annan, and left the cottage with the girl, who was never after seen alive. Three hours afterwards he returned to the cottage and attempted to cut Mrs. Paterson's throat and shoot her with a pistol—it is supposed to annihilate the evidence she would be able to give of his having been in company with the girl. A fearful struggle ensued, during which he attacked her with the fire-arms, when, just as she was exhausted and unable to offer further resistance, two lads came to the door. The murderer immediately rushed out of the house, left his intended victim, and ran away. Mrs. Paterson received several wounds in the throat, but is in a fair way of recovery. Smith was followed on account of his attack upon her, and was arrested at Carlisle on his way south. The murder of the little girl Scott was not then known, but her parents becoming alarmed towards evening at her not returning home commenced a search by lantern light, and late at night discovered her in a neighbouring wood outraged, murdered by strangulation, and robbed of about 10*s.* in silver with which she had been entrusted. There were marks of a violent struggle in the plantation, and the girl had been strangled by a thin ligature—probably a leathern boot-lace. The prisoner, Robert Smith, alias Colvin, is between 19 and 20 years of age, and is a native of Eaglesfield, near Kirtlebridge, in Dumfriesshire. He has been examined this week by the Sheriff-substitute, and committed for trial. The inquiry was conducted in private; but it is understood that the prisoner has confessed his guilt, stating that rape was the motive of his outrage upon the child, and that he attempted to murder the woman because she could have given evidence of his having left her cottage with the deceased at noon. It has further transpired that during the interval between the two crimes the prisoner purchased the pistol at Annan with which he fired at the woman when he first attacked her. The pistol was afterwards found in the cottage, and some percussion-caps were found upon the person of the prisoner.

THE OVERLOADING OF SHIPS.—The Board of Trade inquiry as to the loss of the *Ivanhoe* has terminated in a report that she was, when she left Leith, in every way seaworthy, and that as her deck cargo was included in her general cargo, and was not in excess of her carrying capacity, there was no proof that the cargo carried on deck was the cause of her loss. On Friday night a public meeting of "sailors and householders favourable to a conference regarding deck loading and overloading of ships, and the case of the *Ivanhoe*," was held at Leith, and was largely attended. Mr. John Adam, who presided, moved a series of resolutions to the effect—that the *Ivanhoe* was too deep when she left Leith on the first of December last; that the stowage of her cargo, with special reference to deck loading, rendered her unseaworthy; that the recent Board of Trade inquiry into her loss had not been properly conducted, particularly as the Court gave in its finding no decision relative to the stowage of the cargo; and that a properly qualified person under Government should be appointed to inspect all ships before leaving port. The resolutions were adopted, and it was agreed to send copies of them to the Lord Advocate and the Board of Trade.

BREACH OF PROMISE OF MARRIAGE.—An action for breach of promise of marriage, in which the Hon. William Bruce Ogilvy, son of the late Earl of Airlie, and formerly Captain in the Coldstream Guards, residing at Cowden House, Perthshire, was defendant, and Miss Fanny Pugh, residing at the North-Western Hotel, Stafford, was pursuer, was tried before Lord Barcaple and a jury, in the Court of Session, at Edinburgh, last week. The pursuer is daughter of the late Benjamin Pugh, of Treberth, Pembrokeshire, gentleman farmer, and 27 years of age. In 1865 she was managing the Crewe Arms Hotel, at Crewe, when the defendant became acquainted with her, and, as she alleged, not only promised marriage, but wrote to Mr. Halsey, in whose employment she then was, a letter announcing that he was to be married to Miss Pugh, and hoped he would be able to dispense with her services under the usual month's warning. The defendant subsequently broke off the engagement, and in 1866 married Sarah Boyden, daughter of the late Henry Boyden, of Birmingham, pew-opener at the Jewish Synagogue. Damages were laid at 5000*l.*; the jury returned a verdict for 1200*l.*

Railways.

OPENING OF THE NEW LINE OF THE METROPOLITAN.—This new line was opened last week for goods traffic only, when several heavy trains passed over it between the Great Northern and London, Chatham, and Dover Railways. The independent service which will be afforded to the Metropolitan line, owing to the separate communication between the Midland, Great Northern, and London, Chatham, and Dover will, it is thought, prove a great boon to the company. At the present time there are no less than

174 down and the like number of up trains between King's Cross and Farringdon Street during the day, and notwithstanding the rapid means of conveyance frequently happens that passengers are left behind at both stations. But when the new line is opened, passengers there will be little fear of want of accommodation. There will be little, if any, diminution in the number of the trains; and the convenience of passengers travelling for distant parts, and wishing to change carriages or shift their luggage, will be greatly increased.

FATAL ACCIDENT ON THE CAMBRIAN.—During a storm on Saturday morning a bridge over the line at Caersws, on the Cambrian line, broke down at an early hour while the mail train from Shrewsbury to Welshpool was passing over it. The engine, the driver and stoker were killed, and several passengers seriously hurt.

ACCIDENT IN THE PRESTON TUNNEL.—On Saturday afternoon while a goods train from London to the north was stopping at the exit from the Preston tunnel in water, another goods train passed through the tunnel and ran into it with such force that waggons and the engine of the second train were smashed to pieces. No lives were lost.

CALEDONIAN AND NORTH BRITISH.—A meeting of the North British Railway shareholders was held in Edinburgh on Monday, when the agreement between the Caledonian Railway was adopted. A motion for the withdrawal of the arrangement is not to be made without the shareholders' consent.

THE METROPOLITAN.—In the Court of Chancery, Friday, in the case of *Bloxam v. the Metropolitan Railway Company*, which was a motion to rescind a declaration and payment of a dividend out of which were alleged to be capital of the company, Vice-Chancellor Wood gave judgment to the effect that the earnings of the line from Paddington to Marylebone Street for the past half-year shall provide not only the charges of the management of that railway, but also for the interest of the money borrowed and expended thereon, but also for the charges incurred in the management of and for the payment of the interest of the money borrowed for and expended on the line in the course of construction which are now in progress and therefore wholly unremunerative. In consequence of this judgment the directors have announced that the dividend to be paid will be 2½ per cent. for the half-year, or at the rate of 5½ per cent. on the Capital Stock.

COMPENSATION CASE.—A jury were summoned six days since at York Castle, before the under-secy to assess the damages in the case of "*Crowthor v. Lancashire and Yorkshire Railway Company*," judgment having been allowed to go by default. The damages were laid at 2000*l.* The action had been brought to recover damages for injury and loss in business sustained in a collision in the Bowling tunnel, near Bradford, on the 7th of March last, whereby the plaintiff, Mr. Jonathan Crowthor, a wool and wool waste dealer of Elland, was very severely injured, and had not been enabled to attend to his business. The jury assessed the damages at 1100*l.*

Law.

COURT OF APPEAL IN CHANCERY.—The Court of Appeal in Chancery last week gave judgment in an appeal from Vice-Chancellor Wood, on an application under the Railway Companies' Act of 1867, to restrain proceedings by unpaid landowners against the Company, with a view to the scheme of arrangement with their creditors in pursuance of the Act. The Vice-Chancellor held that such proceedings might be restrained, the Act gave the Court power to restrain proceedings by unpaid landowners. His judgment was chiefly founded on section 23 of the Act, which provides that nothing "hereinbefore" shall be taken to prejudice the rights of landowners; and his lordship held that the word "hereinbefore" must be taken to refer to the preceding portion of the Act, and not merely to the provisions of the Act which are now in force. The Company appealed against the judgment of the Vice-Chancellor, and the Lord Justice Cairns, after reviewing the provisions of the Act at considerable length, came to the conclusion that the argument propounded in favour of the judgment which confined the application of the word "before" to section 23, and he therefore refused to grant the proper case the Court would have jurisdiction to restrain proceedings by unpaid landowners pending the completion of the scheme, though the landowners would not be bound by the scheme when finally confirmed. There remained the question whether this was a proper case for the application of the Act, and his lordship was clearly of opinion that it was. The scheme only provided for the payment of the debts by means of annuities, or securities, falling due at a future date. This would not be a proper provision for the non-payment, then for the payment of the landowners. His lordship, therefore, thought that the Vice-Chancellor's order was right, and that the appeal should be dismissed. As, however, he did not agree with the order on the face of the order an appeal, there was a dissent of the appeal.

COURT OF COMMON PLEAS: (Sittings at the Old Bailey.)—Chief Justice Bovill, and Justice W. W. Lushington.—**Stock Exchange Contracts.**—This case, which has excited some interest, was argued last November, and was given judgment. The plaintiff was Mr. Park, near Dorking, and at the time of the trial was partner in the firm of Overend, Gurney, and Co., was the plaintiff's company, upon which 15*l.* each had been paid, and the plaintiff instructed his brokers, Messrs. Park and Co., to sell the 80 shares, and they sold them to the defendants, who were stock jobbers and members of the Stock Exchange, at 11½ discount. The sale was for the sum of 1250*l.* There had, however, been a sale of the shares between Messrs. Park and Co. and the defendants, and they had bought 95 more Overend and Gurney shares, the number they had sold to defendants, and the shares were delivered to nominees of Messrs. Park and Co. in the practice of the Stock Exchange, and the shares were settled. The usage of the Stock Exchange is to give names to receive transfers of every party to the side or other on the settling day. The consequence

market was moderately attended, but buyers confined their purchases to their immediate necessities, and the business transacted in foreign Wheat was consequently in retail quantities, for which late rates were realised. Barley, Beans, and Peas brought last week's quotations. In Oats a fair amount of business was done at late prices. Flour sold slowly at about the rates of this day's night.

PRICE PER IMPERIAL QUARTER	WHEAT, Essex, Kent, Suffolk, White	70-78 Red	68-76
— fine selected runs do.	73-84 Red	72-78	
— Talavera	80-84		
— Norfolk		Red	
— Foreign	67-87		
BARLEY, grind & dist. 375 to 404 Chev.	42-47 Malting	40-43	
— Foreign, grinding and distilling	35-39 Malting	41-46	
OATS, Essex and Suffolk	23-29		
— Scotch and Lincolnshire, Potato	25-33 Feed		
— Irish	25-32 Feed	26-30	
— Foreign	Poland and Brew	25-32 Feed	23-30
RYE		Foreign	
RYE MEAL, Foreign			
BEANS, Mazagan	39s to 45s Tick	41-43 Harrow	41-43
— Pigeon	48s to 50s Winds	Longpod	
— Foreign	Small	41-48 Egyptian	42-44
PEAS, White, Essex, and Kent	Boilers	46-48 Suffolk	50-52
— Maple, 41s to 45s	Grey	44-47 Foreign	39-47
MAIZE		Foreign	46-52
Flour, best marks delivered per sack	50-64		
— 2d ditto	ditto	54-64 Country	54-61
— Foreign	per barrel	24-42 Per sack	45-50

FRIDAY, Feb. 7.

From the 31st ult. to the 5th inst. the weather has been very stormy, with occasional heavy rains, but the last two days were fine and seasonable. The Wheat trade throughout the kingdom has relaxed during the past week into a state of great inactivity, and any alteration in value was against sellers, but the decline did not exceed 1s. per qr. Feeding Barley, Beans, and Oats met a slow sale at former rates, Malting Barley and Peas were in some markets the turn cheaper. Maize in Liverpool gave way about 2s. per qr. for American, of which the arrivals were large. The demand for Flour was very slight, but we did not notice any change in value during the week, except at Birmingham, where a reduction of 3s. 4d. per sack was quoted. The arrivals of grain off the coast during the week consisted of 37 cargoes, of which, with those left over from last week, there remained for sale last night 26 cargoes. The floating trade has been throughout the week in a state of suspense, in the early part business in Wheat off the coast was much restricted on account of the few cargoes on offer, while, since the last day or two, the trade was waiting for box samples, the tendency of prices is downward, and for Saida Wheat 1s. to 2s. per qr. decline was accepted. Barley and Beans were in demand; of other articles the coast is clear. Wheat on passage and for forward shipment was little inquired after, Rye and Maize neglected, but Barley more in favour. Paris, Feb. 6.—Business in Wheat very limited, but prices remain without alteration. Flour is a slow sale at previous rates. The six marks are quoted at equal to 58s. per 280 lb. The stock at the Halle is estimated at 20,000 cwt.

The arrivals of all grain, both English and foreign, this week, have been unusually small. This morning's market was thinly attended, and millers showed little disposition to purchase either English or foreign Wheat, in some instances a slight reduction was acceded to for inferior descriptions. Spring Corn was firm at Monday's quotations.

ARRIVALS THIS WEEK.

	Wheat.	Barley.	Oats.	Flour.
English	270 qrs.	620 qrs.	310 qrs.	720 sks
Irish	"	"	"	"
Foreign	4160 "	510 "	10 "	{ 1430 "
				{ 1800 brls.
	4430	1130	400	

LIVERPOOL, Tuesday, Feb. 4.—There was a moderate attendance at to-day's market. Wheat rather slow, and prices have declined generally about 3d. per cental since Friday. Flour limited demand, and prices nominally unchanged. Beans and Peas without alteration. Oats and Oatmeal quiet. Indian Corn pressed, ex quay, at 1s. decline; mixed, 43s. 6d.

FRIDAY, Feb. 7.—A fair attendance at market. Wheat in rather better demand, at Tuesday's rates. Flour 6d. per barrel and sack cheaper. Beans 6d., and Peas 1s. 2d. lower than Tuesday. Oats and Oatmeal favour buyers. Indian Corn in moderate demand at late rates; mixed, 43s. to 43s. 6d.

AVERAGES.

	Wheat.	Barley.	Oats.
Dec. 23 ..	67s 9d	40s 11d	25s 4d
Jan. 4 ..	67 10	41 4	25 10
— 11 ..	69 6	41 6	25 5
— 18 ..	71 6	42 1	25 7
— 25 ..	72 4	42 6	25 6
Feb. 1 ..	72 6	42 4	25 11
Agg Average ..	70 3	41 9	25 7

To Nurserymen and Seedsmen.

A PARTNER WANTED in one of the oldest Trades in the South of England, in consequence of one of the Firm retiring from ill health. A first-class opportunity for a Young Man with £400 or £500 capital. The Nursery is well stocked with choice Shrubs, Roses, Fruit Trees, Strawberries, &c. the soil and climate being especially suited to the growth of Roses, Evergreen Shrubs, &c. A good Seed Trade is done, but which could be very much increased. For particulars, apply to A. B., care of J. Wrench & Sons, London Bridge.

AGRICULTURAL EDUCATION.—A Cotswold Farmer has room in his house for a respectable YOUNG MAN, who would have an excellent opportunity of becoming acquainted with the routine of Farm Work in all its branches, including a small Dairy. The Farm is situated near a good market town, and in a capital hunting country. For terms, &c., address A. B., Standard Office, Gloucester.

MR. WILLIAM BULL is in WANT of a thoroughly experienced PROPAGATOR and FOREMAN. Salary, £100 per annum. None need apply but those whose character and abilities will bear the strictest investigation. Address, stating where last employed, &c., Establishment for New and Rare Plants, King's Road, Chelsea, S.W.

MR. WILLIAM BULL is in WANT of a CLERK and BOOK-KEEPER. An unexceptionable character indispensable. State where last employed, and salary required. Establishment for New and Rare Plants, King's Road, Chelsea, S.W.

WANTED, in Mr. WILLIAM BULL'S Establishment, TWO ASSISTANT PACKERS, who are accustomed to Pack Pot Plants. Wages given, 18s. per week.—Establishment for New and Rare Plants, King's Road, Chelsea, S.W.

WANTED, a GROWER of SOFT-WOODED PLANTS, for Market.—REVUEZ BROS., Notting Hill, W.

WANTED, a GARDENER (Single-handed), to keep in good Cultivation a Kitchen and Small Flower Garden, and to look after a Cow. State wages, with references and address, H. W., Ollerton House, Ollerton, near Newark, Notts.

WANTED, by a Gentleman in the neighbourhood of Darlington, a thoroughly respectable married Man as **GARDENER.** Must understand the Management of Vines, Fruit, Vegetable, and Flower Garden. Must be well recommended.—Apply to A. H. C., Langton Grange, Gainsford, Darlington.

WANTED, a GARDENER for a Family House 20 miles from town, where another Man is kept.—Wages, £52 per annum, with a house and a fat pig. Must understand Kitchen Gardening, Grapery, Pruning, and Flowers for House and Conservatories. State particulars by letter.—X. D., Post Office, Gerrard's Cross.

WANTED, a WORKING GARDENER, in a London Garden; one who has held a Single-handed situation some years preferred. He will be required to produce a constant supply of Fruit and Flowers, Forced and otherwise. He will have assistance. None but neat tidy Gardeners need apply. State wages required, and full particulars. Apply by letter only, to C. R., Pittam's Library, King's College Road, Adelaide Road, Regent's Park, N.W.

A YOUNG MAN of ability as a GARDENER and GROUND-WORKMAN, and who is a good hand amongst Plants, may HEAR of a SITUATION by applying, by letter, to J. C., care of Mr. C. Hunt, Post Office, Loughton. Character must be unexceptionable, and stand strict investigation.

WANTED, a SECOND GARDENER to take charge of Houses Single, and not under 20 years of age; must have large experience in Propagating, and Forcing in every department. Wages, 16s.; house, firing, light, and milk and vegetables found.—Apply to A. B., Marlow, Bucks.

WANTED, a married MAN, to work in the Kitchen Garden. Wages, 10s a week, with cottage.—Apply to G. Currox, Bretton Gardens, Wakefield.

WANTED, near London, TWO YOUTHS to Learn the Growing of Fruits and Flowers for the London markets. They will live on the premises free, and have a wage. A small Premium required.—Apply, stating wage required, age, &c., to O. W., Post Office, Barnet, N.

WANTED, a NURSERY CLERK.—Must be thoroughly efficient.—Apply, stating age, wages required, and where last, or now employed, to "D., Messrs. Hurst & Son, 6, Leadenhall Street, London, E.C.

SHOPMAN WANTED.—Must be a good Salesman, and well up in Flower and Vegetable Seeds, and possessing a knowledge of Plants. He must be well recommended.—Address, stating salary and other particulars, BARR & SPOONER, 12, King Street, Covent Garden, W.C.

SHOPMAN WANTED.—A Young Man as UNDER SHOPMAN. He must have a good character and good address.—BARR & SPOONER, 12, King Street, Covent Garden, W.C.

WANTED, a good DAIRYWOMAN, and to take the Charge of Poultry on a Gentleman's Estate; age about 45. Also a steady MAN, to Milk and look after Stock.—Address, post paid, to A. B., 51, Jackson Road, Holloway, London.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. F. G. HANDBRICK & SON, Wellington Nursery, St. John's Wood, London, N.W.

Gardeners (Head, Foremen, and Under). **JAMES CARTER AND CO.** having many applications for the above, request those wanting Situations to send Name, Address, and Copies of Testimonials, for entry in their FREE REGISTER. Only those who can send unquestionable references need apply. Any Lady or Gentleman requiring Gardeners, as above, may rely upon J. CARTER & CO., adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c.—JAMES CARTER & CO., 237 & 238, High Holborn, W.C.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS and GARDENERS and BAILIFFS, of various qualifications, who are open to engagements.—The fullest particulars as to services required and wages given, should be forwarded with application. PAUL'S Nurseries, Waltham Cross, London, N.

GARDENER (HEAD).—Age 27, single; 10 years' first- class experience. Excellent character.—C. J., 222, Strand, Temple Bar, London, W.C.

GARDENER (HEAD).—Age 34, married, no incum- brance; has had considerable experience in the Cultivation of all kinds of Fruit, Flowers, and Vegetables, Early and Late Forcing, &c. Good character.—GARDENER, South Norwood Hill, Surrey, S.

GARDENER (HEAD).—Age 28, single; has had much experience in the various branches of his profession. Five years' unexceptionable character from last employer.—X. Y., Mr. Williams, Railway Nurseries, Watford, Herts.

GARDENER (HEAD).—Age 32, married; thoroughly competent in the various branches of the profession. Excellent character. Satisfactory reasons for leaving.—W. H. S., Springfield, Dulwich, S.

GARDENER (HEAD).—Thoroughly understands the Cultivation of Vines, Stove and Greenhouse Plants, Early and Late Forcing, and Flower and Kitchen Gardening. Good character.—E. W., Mr. Hughes, Eastgate Street, Winchester.

GARDENER (HEAD).—Seven years' Head Foreman in the Gardens of His Grace the Duke of Northumberland, Syon House, and Head Gardener in two other large and good places.—P. P., 3, Lily Terrace, Warwick Road, Kensington, London, W.

GARDENER (HEAD).—Age 36, married; understands the most approved Systems of Gardening in all its branches. Seven years in the Gardens at Bletton, Devon; and 11 years' character in last situation.—R. SNOW, Mr. Hill's, Mill Bridge, Stoke, Devon.

GARDENER (HEAD).—Age 32, married; understands Forcing Pines, Vines, Peaches, Melons, Cucumbers, Flower and Kitchen Gardening, and all parts of Garden operations. Good character.—A. A. EARL, Stroud, Gloucestershire.

GARDENER (HEAD), to any Nobleman or Gentleman.—Age 40, married, one child; thoroughly understands his profession in all its branches. Seven years in last situation. Good character.—R. J. S., 4, Temple Street, Leytonstone, Essex.

GARDENER (HEAD), to any Lady or Gentleman requiring a good practical Gardener in all branches of his profession, including both early and late Forcing, Planting and Laying-out New Grounds, &c. Can have the highest testimonials as to ability, sobriety, and integrity.—C. F. Gordon House, Putney, S.W.

GARDENER (HEAD).—Married, no incumbrance; has a thoroughly practical knowledge of his profession in all its branches. Five years' good character from last place, and highest testimonials from previous employers.—G. M., 9, Rose Cottages, Bath Road, Hounslow.

GARDENER (HEAD).—Age 30, married; understands Early and Late Forcing; also Stove and Greenhouse Plants, and Flower and Kitchen Gardening. First-class testimonials. Wages, £65 to £70 per annum, with cottage.—W. KEMP, Albury Gardens, Guildford, Surrey.

GARDENER (HEAD), to any Lady or Gentleman requiring an experienced Man in Grapes, Pines, Peaches, &c.—Married; is a successful Cultivator and Exhibitor of Stove and Greenhouse Plants, and good Kitchen and Flower Gardener.—ALPHA, Ridgeway Nursery, near Godalming, Surrey.

GARDENER (HEAD).—Age 30, married; thoroughly understands the Management of Stove and Greenhouse Plants, Vines, Peaches, Cucumbers, Melons, &c., and Flower and Kitchen Gardening. Five years' character.—W. W., Post Office, Wood Green, Hornsey, N.

GARDENER (HEAD).—Mr. WARREN, Gardener to St. John C. Charlton, Esq., Abercrombie, Wellington, Salop, can with confidence recommend his late Former Man who thoroughly understands Gardening in all its branches. Four years' reference.

GARDENER (HEAD), to any Lady or Gentleman requiring the services of a trustworthy and practical Man in the various branches of Gardening, and who thoroughly understands the Management of Land and Stock. Can be highly recommended. Leaving present situation through death of employer.—G. W., Oaklands, near St. Alban's, Herts.

GARDENER (HEAD).—No incumbrance; has practical knowledge of Stove and Greenhouse Plants, and Late Forcing of Grapes, Peaches, Melons and Cucumbers, and a thorough Kitchen and Flower Gardener. Wife can manage the Poultry if required. Character will bear the strictest investigation.—W. J., 12, Clyde Place, Forest Hill, Kent.

GARDENER (HEAD), to any Lady or Gentleman requiring the services of a trustworthy Man—Age 21, roughly versed in every branch of his profession; has had experience in first-class establishments. Can be highly recommended by the Gentleman he has been living with as Head Gardener.—Messrs. J. & C. Lee, the Royal Vineyard Nursery, Hammersmith.

Notice.

GARDENER (HEAD), age 31, married, with children.—Wm. Wood & Sox have now an opportunity of recommending a thoroughly competent, painstaking, and good Gardener to any Lady or Gentleman requiring the services of a good Gardener.—Address, Wm. Wood & Sox, Market Street, Uckfield, Sussex.

GARDENER (HEAD).—Scotch, age 41, married, respectable; practically acquainted with the various branches of his profession, and fully competent to conduct a regular establishment. Twenty years' experience as Head Gardener. It was his character from last employer.—Apply D. D., Mr. Clark, Messrs. J. Dickson & Sons, Nurserymen and Seedsmen, Inverness, Edinburgh.

GARDENER (HEAD).—Age 36, married, account of the Gentleman giving up the establishment which he has served 14 years, and given the greatest satisfaction in his general conduct and success in the Growth and Forcing of Vines, Peaches, &c., as well as the Culture of a large Stove and Greenhouse Plants, and skilful Decorations of the Garden. Will be at liberty after the 25th of March.—Apply to Mr. Rochford, Market Gardener, Page Green, Tottenham, S.

GARDENER (HEAD OF SINGLE-HANDED).—In single; thoroughly understands all branches of the profession. Four years' good character.—T. S., 22, New Grove Road, Putney.

GARDENER (HEAD OF SINGLE).—Married; stands Kitchen and Flower and Fruit Gardening, and is a good Forcing. Good character.—THE GARDENERS, 129, Ha. Fax, Hill, London, N.W.

GARDENER, with a Florist or private Gentleman's A young, well educated German, who has had several years' experience in first-class Flower Gardens both in France and Paris. Unexceptionable references.—E. J., 9, Road Lane, London, E.

GARDENER (WORKING), to any Nobleman or Gentleman requiring a thoroughly experienced Man—Age 30, single; can be highly recommended.—A. B., Mr. Cook's, Mortlake, S.W.

GARDENER (UNDER), or FOREMAN in a Establishment.—Has had good experience in large Establishments.—T. W., Post Office, Erdington, Birmingham.

GARDENER (UNDER), in a Nobleman's or Gentleman's family.—Young; wishes to improve himself in the routine of Gardening. Has had three years' experience in the Growing, &c. Can have first-class references for ability and honesty.—C. J., Stark's Cottage, High Street, Forest Hill, Kent.

To Nobleman's and Gentlemen's Gardens.

FOREMAN in a first-class Establishment.—A Man, age 25, is desirous of obtaining a situation as above. Has been out before in same capacity.—T. T., Messrs. Lee & Sons, Nursery, Hammersmith.

FOREMAN (GENERAL), or to take Charge of Houses in a Nobleman's or Gentleman's Garden. Age 30, W. F., Post Office, Thirsk.

NURSERY FOREMAN or PROPAGATOR.—Thoroughly well up in the business generally, having long experience, and would have no objection to Travel.—GARDENERS' CHRONICLE OFFICE, W.C.

ESTATE IMPROVER.—Nobleman and Gentleman contemplating Alterations, Reclaiming Waste Lands, &c., for Useful and Ornamental Effect, Laying-out Parks by the otherwise requiring Surveys, Plans, and Estimates for Agricultural and Horticultural Improvements, Making Lakes, Roads, &c., can have the aid of the Advertiser as AGENT or MANAGER for such improvements in any part of the Kingdom. Many works, now completed by him in all parts of the country, can be referred to.—Address, J. NEWTON, 74, Oxford Street, Hyde Park, W.

LAND STEWARD or BAILIFF.—Age 34, an Ayrshire farmer; has a thoroughly practical knowledge of Arable and Dairy Farming, including Breeding, Rearing, and managing Stock, Draining, Fencing, &c. Is well up in Accounts and Land-surveying; has also studied Chemistry. First-class testimonials.—A. B., Dairy, Ayrshire, N.B.

To Nobleman and Gentlemen.

FARM BAILIFF or GENERAL MANAGER.—Age 40, married; a Scotchman; has a thorough practical knowledge of Farming in every branch, also Gardening, Wood Management, Building, the Measurement of Land, Timber, Book-keeping, Stock Selling, and the Management of all kinds of stock. First-class testimonials and references.—Address, A. M., Post Office, London, E.

BAILIFF and MANAGER.—Age 47, married, incumbrance; thoroughly understands his business. First-class character and references. R. H., 235, Vauxhall Road, London, S.

FARM BAILIFF, or to take the entire Management of a Farm for a Gentleman.—Married, first-class references.—C. A., Stoke Nursery, near Coventry.

BAILIFF (WORKING).—A Man and his Wife, incumbrance. Man thoroughly understands Stock and Dairy Produce; Wife a thorough Dairy and Poultrywoman. Can have above three years' good character from last employer.—Mr. J. HITCHIN Bottom Farm, Hitchin Bottom, Bucks.

AGENT or RESIDENT STEWARD.—Any Lady or Gentleman requiring such a Person, on applying to A. B., 47, Vine Street, Liverpool, can be furnished with 15 years' testimonials, &c., collected on reasonable terms.

APPRENTICE to a Nurseryman and Seedsmen.—A well educated Youth.—Address, stating terms, to JAMES CARTER & CO., 237 & 238, High Holborn, W.C.

To Seedsmen.

SHOPMAN, or ASSISTANT SHOPMAN.—Ten years' experience. First-class references.—A. R., Droughda, Kilmallock, N.B.

ASSISTANT SHOPMAN (or OTHERWISE).—A four years in the London Seed Trade. Has a knowledge of Nursery business.—J. A., Post Office, 69, Edgware Road, London, W.

To the Seed Trade.

SHOPMAN (UNDER), in a Wholesale House.—A first-class references. Salary a secondary consideration.—Address, Post Office, King Street, Covent Garden, W.C.

To Seedsmen.

ASSISTANT, &c., in a Wholesale House.—Age 25.—B. D., Post Office, Newbury.

Gardeners' Chronicle Newspaper.

SATURDAY, FEBRUARY 15, 1868.

LANDS IMPROVEMENT COMPANY,

Incorporated by Special Act of Parliament in 1863. THE CLERGY, ESTATE AGENTS, SURVEYORS, &c., IN ENGLAND AND WALES, AND IN SCOTLAND. ADVANCES Money, unlimited in amount, for the purpose of Agricultural Improvement, the whole outlay and interest being liquidated by a rent-charge for 25 years. Cases being liquidated by a rent-charge for 25 years. Irrigation, and Warring, Embanking, Inclosing, Reclamation, Planting, for any beneficial purpose. Machinery for Drainage or Irrigation. Tramways and Railroads for Agricultural or other purposes. Landing-places on the sea-coast or on the banks of rivers or lakes. Erection of Farm Houses, Labourers' Cottages, and other buildings required for Farm purposes, and the improvement of the additions to Farm Houses and other Buildings for Farm purposes. Any other works assessed under the provisions of any Act of Parliament, or Commission, in respect of any public or private works of Drainage, or other improvements, may borrow the share of the cost, and charge the same with the interest thereon.

ROYAL SCHOOL OF MINES, Jermyn Street.—PROFESSOR WILLIS, M.A., F.R.S., will COMMENCE a COURSE OF THIRTY-SIX LECTURES ON APPLIED MECHANICS, on Monday, February 17, at 12 o'clock, to be continued on every Monday, Wednesday, Thursday, and Friday, at the same hour, but Saturday, at the same hour. Fee for the course, £3. TRENHAM REEKS, Registrar

Home News.

THE COURT.—The Queen and Royal family continue at Osborne. On Friday the Queen drove out with Princess Christian, Princess Beatrice, and Princess Henriette of Schleswig-Holstein. On Saturday the Queen went out in the morning with Princess Christian, and drove out in the afternoon with Princess Louisa. On Sunday the Queen, Prince and Princess Christian, Princess Louisa, and Princess Henriette, attended Divine Service in the parish church of Whappingham. On Monday morning the Queen went out with Princess Christian and Princess Beatrice and drove out in the afternoon with Princess Louisa and Princess Beatrice. On Tuesday morning the Queen went out with Princess Christian, and drove out in the afternoon with Princess Christian and Princess Henriette. Count Bernstorff left Osborne. On Wednesday morning the Queen went out with Princess Christian, and drove out in the afternoon with Princess Christian and Princess Henriette. Count Bernstorff left Osborne. On Thursday the Queen drove out with Princess Louisa.

THE PRINCE AND PRINCESS OF WALES, with Prince Albert Victor, Prince George, and the Princess Louise, arrived at Marlborough House on Tuesday, when they resided since November 14. It is stated that the Princess has derived the utmost advantage from the healthy atmosphere in which she has been living, and is now able to walk without the aid of the stick, and without any perceptible lameness. On Thursday the Princess rode out. In the afternoon the Princess drove out. In the evening their Royal Highnesses went to the Haymarket Theatre.

PRINCE LEOPOLD went out on Wednesday morning in a garden chair, and is progressing very satisfactorily. The British Medical Journal of yesterday says that the Princess has now suffered severely on more than one occasion, "one of those anomalous conditions which sometimes unaccountably affect persons otherwise perfectly sound in constitution, but it will undoubtedly, throughout life, require Prince Leopold to abstain from violent exertion of any kind, or from indulging in the more active departments of professional activity suggested by the Duke of Edinburgh and Prince

ARRANGEMENTS.—It is announced that Her Majesty's stay at Osborne being unavoidably prolonged in consequence of the late illness of Prince Leopold, the Court which was announced for Tuesday, March 3, is postponed till Friday, March 6th.

THE CABINET.—A Cabinet Council was held on Monday at the official residence of the First Lord of the Treasury in Downing Street. Another Council was held on Tuesday. The Earl of Derby, who is recovering from his attack of gout, is still so weak that he has been unable to leave Knowsley for the meeting of Parliament.

PARLIAMENTARY MOVEMENTS.—In the House of Commons on Thursday Mr. Finch took his seat for the first time in the room of Mr. Heathcote, called to the House of Peers by the title of Lord Aveland. Mr. Lowther also took his seat for Westmoreland, in the room of the late Colonel Lowther. A new writ

was ordered for Stoke-upon-Trent, in the room of Mr. Beresford-Hope, resigned; a new writ for the University of Cambridge, vacant by the appointment of Sir Jasper Selwyn to the office of Lord Justice; and a new writ for Helston, vacant by the appointment of Mr. Brett as Solicitor-General. Mr. Beresford Hope and Mr. Cleasby are in the field for Cambridge University, and committees to promote their election have been formed both in London and Cambridge. Mr. George Melly and Mr. Colin M. Campbell have come forward as candidates for Stoke-upon-Trent, the former in the Liberal, the latter in the Conservative interest. Mr. Brett, the Solicitor-General, will probably be re-elected for Helston without opposition, the Liberal party being divided in opinion as to contesting the seat on this occasion. Mr. Alison, the principal partner in the firm of Alison, Merry, and Cunningham, iron-masters, Glasgow, is announced as a candidate for Lambeth.

THE NEW SHERIFFS.—The following is a list of the Sheriffs appointed for the present year for all the English and Welsh counties excepting Cornwall:—ENGLAND: Bedfordshire—Sir John Montagu Burgoyne, of Sutton, Bart. Berkshire—Alexander William Cobham, of Leighton Park, Reading, Esq. Bucks—James Carson, of Spinfield, in Great Marlow, Esq. Cambridgeshire and Huntingdonshire—George Ebenezer Foster, of Brooklands, Cambridge, and Shippea Manor, Isle of Ely, Esq. Cheshire—John Coultis Antrobus, of Eaton Hall, Congleton, Esq. Cumberland—Sir Robert Brisco, of Crofton Hall, Bart. Derbyshire—Francis Westby Bagshawe, of The Oaks, near Sheffield, Esq. Devonshire—Sir Alexander Palmer Bruce Chichester, of Arlington Court, Bart. Dorsetshire—Charles Joseph Parke, of Henbury, Esq. Durham—Anthony Wilkinson, of Hulam, Esq. Essex—William Charles Smith, of Shortgrove, Saffron Walden, Esq. Gloucestershire—Hattil Foll, of Beckford Hall, near Tewkesbury, Esq. Herefordshire—Tomkyns Dew, of Whitney Court, near Hereford, Esq. Hertfordshire—Robert Pryor, of High Elms, Watford, Esq. Kent—Stephen Musgrave Hilton, of Bramling House, Ickham, Esq. Lancaster—Le Gendre Nicholas Starkie, Esq., of Huntroyde. Leicestershire—Ambrose Lisle March Phillipps de Lisle, of Garendon Park, Loughborough, Esq. Lincolnshire—John Wilson Fox, of Girsby House, Market Rasen, Esq. Monmouthshire—Frank Johnstone Mitchell, of Llanfrehfa Grange, near Newport, Esq. Norfolk—The Right Hon Thomas Heron, Viscount Ranelagh, of St. Faiths. Northamptonshire—Henry de Stafford O'Brien, of Blatherwycke, Esq. Northumberland—John Blenkinsopp Coulson, of Blenkinsopp Castle, Esq. Nottinghamshire—John Bagshaw Taylor, of Radcliffe-upon-Trent, Esq. Oxfordshire—William Earle Bischoe, of Holton Park, Esq. Rutland—Robert Heathcote, of North Luffenham, Esq. Shropshire—Charles Spencer Lloyd, of Leaton Knolls, Esq. Somersetshire—Inigo William Jones, of Kelston Park, Esq. County of Southampton—Sir Edward Hulse, of Breamore House, near Salisbury, Bart. Staffordshire—James Timmins Chance, of Handsworth, Esq. Suffolk—Sir Charles James Fox Bunbury, of Barton Hall, Bart. Surrey—Robert Carter, of the Grove, Epsom, Esq. Sussex—Henry Peter Crofts, of the Abbots, Sompting, Esq. Warwickshire—James Dugdale, of Wroxhall Abbey, Esq. Westmoreland—Thomas Taylor (commonly called Lord Kenlis), of Underley Hall, Kirkby Lonsdale, Esq. Wiltshire—Charles John Thomas Conolly, of Cottleshouse, near Melksham, Esq. Worcestershire—Charles Michael Berington, of Little Malvern Court, Esq. Yorkshire—Sir John William Ramsden, of Byram, Bart. Wales: Anglesey—Henry Lambert, of Tan-y-Graig, Esq. Breconshire—John Evan Thomas, of Penishapentre, Esq. Cardiganshire—Alban Thomas Davies, of Tyglyn Aeron, Esq. Carmarthenshire—Charles William Nevill, of Westfa, Llanelly, Esq. Carnarvonshire—Robert Sorton Parry, of Tan-y-Graig, Esq. Denbighshire—Sir Robert Alfred Cunliffe, of Acton Park, near Wrexham, Bart. Flintshire—Richard Pelham Warren, of Hope Owen, Esq. Glamorganshire—George Thomas Clark, of Talygarn, Esq. Merionethshire—Richard John Lloyd Price, of Rhiwlas, Esq. Montgomeryshire—William Fisher, of Maesfron, Esq. Pembrokeshire—George Richards Graham Rees, of Penllwyn, Esq. Radnorshire—Walter Thomas Mynors Baskerville, of Clyro, Esq.

Foreign.

FRANCE.—In the sitting of the Corps Legislatif on Friday the debate on the Bill on the Press was resumed. Articles 4, 5, and 6 were referred to the committee. Articles 7, 8, and 9 were adopted. On Saturday the debate was resumed on Article 10, which provides that offences against the Press shall be tried by the tribunals of Correctional Police. M. Jules Favre moved as an amendment that such offences should be tried by the Courts of Assize before a jury. After an animated debate, in which M. Pinard, M. Thiers, M. Nugent St. Laurent, M. Baroche, and M. Jules Favre took part, the amendment was rejected by 199 to 35. In the sitting of Monday M. Jules Simon moved and explained his amendment, which proposed that the lapse of time during which a journal could be prosecuted after the committal of an offence, should be three months, instead of three years. M. Jolibois, the Government Commissioner, opposed the amendment, which was rejected by 190 to 15. M. Schneider, the President of the Chamber, replying to M. Thiers, stated that the question of the rotation in which judges would sit at Press trials was reserved, and would form the subject of an additional article. Art. 10 was adopted, and Art. 11 then came under discussion. An amendment by M. Beauverger, asking that the penalty of imprisonment in cases of defama-

tion of private persons should be maintained, was taken into consideration. In the sitting of Tuesday, after speeches from MM. Picard, Jules Favre, Rouher, and Ollivier, the identical amendments of MM. Gueroult and Beauverger, proposing that the penalty of imprisonment should be maintained in cases of defamation of character, were rejected by 170 to 59. In the sitting of Wednesday Article 13 was adopted by 205 against 33 votes. The Epoque of Thursday evening says that a rumour is current that a complete administrative change is about to occur in a Liberal sense. The modification in question would be the establishment of a Parliamentary Cabinet, with M. Rouher at the head, supported by MM. Buffet, Segris, and De Lagueronniere. The Epoque adds that this rumour requires confirmation, but it is not unlikely to be correct. The Presse and the Liberte allude to a similar report. The Bill fixing the military contingent for the year 1868 at 100,000 men was presented to the Corps Legislatif on Saturday. The departmental journals publish a circular of the Minister of War, dated the 11th inst., enjoining the Prefects of the different Departments to order immediately a census to be made of the men called to compose the National Garde Mobile. The result of the census will be published between the 16th and the 23d of February. The circular points out that the object of the measure is simply to incise the names of the men on the lists, without there being any necessity for calling the men together at present. The Presse announces that the Exhibition building in the Champ de Mars, together with all the materials composing it, was sold on Saturday by private agreement to the agent of a company of foreign contractors, for the sum of 1,100,000 francs. The money is to be paid down. The printing establishment of the Abbe Migne has been destroyed by fire. The damages are estimated at 6,000,000 francs.

SPAIN.—The ceremony of the delivery to the Queen of the Golden Rose sent to her Majesty by the Pope took place on Wednesday in the Chapel of the Palace. The Bank Bill has been referred back to the Ministry of Finance. In consequence of Senor Barzanallana and Senor Belda having respectively resigned their posts in the Cabinet, Senor Sanchez Oscana has been appointed Minister of Finance, and Senor Marfors provisionally Minister of Marine. In the sitting of the Senate on Monday the Public Offices Bill came on for debate. All the Ministers were present during the discussion. In the sitting of Thursday the Bill relative to public functionaries was discussed. At the end of the sitting a royal decree was read appointing Senor Severo Catalina, at present director of Public Instruction, Minister of Marine. It is reported that Senor Cabezas y Montemayor will resign his post as Under Secretary of State for the Finances. A commission will shortly be appointed under the presidency of a General of Brigade to proceed to Abyssinia.

PORTUGAL.—The Count da Ponte de Santa Maria, Marshal of the Portuguese army, is dead. Several tumults have occurred in the provinces on account of the new taxes.

HOLLAND.—The second scrutiny of the elections to the Chamber of Deputies was completed on Friday. The result was the election of six Ministerial candidates, three of whom were old members; and five Opposition candidates, three of whom were in the former House. The general result has been the election of 35 Ministerial candidates, 27 of whom previously belonged to the House; and 38 Opposition candidates, 31 of whom were old members. One candidate of each party and Herr Vanreenen, the former President, having been nominated for double constituencies, three new elections will be necessary.

PRUSSIA.—The Crown Princess of Prussia gave birth to a prince at three o'clock on Monday morning. Her Royal Highness and the infant Prince are both doing well. Dr. Gream, who left London to be present at the accouchement, will remain in attendance for a few days. In the sitting of the Chamber of Deputies on Friday the Bill for establishing a special fund for the province of Hanover, and for including in the ordinary budget a yearly amount of 500,000 thalers for that purpose, was passed by a majority of 200 to 168. The King is said to be annoyed at the attitude of the Conservative party in this question. After the close of the sitting Count Bismarck requested leave of absence for an indefinite period, which the King granted. During Count Bismarck's absence he will be replaced in his functions by the Minister of Finance. The semi-official Provincial Correspondence of Wednesday evening says:—

"The abstinence of the Minister-President from official business will certainly continue until after the close of the Chambers. The preliminary deliberations in reference to a new arrangement of the provincial districts will now take place, the Minister of the Interior having resumed his post. The rumour of differences of opinion existing in the Cabinet on this point is entirely unfounded."

Preliminary arrangements are being made by the Ministry of the Interior for the establishment of a Central Association for the protection of German emigrants by directing them to certain societies and shipping agents.

AUSTRIA.—In the sitting of the Committee of the Reichsrath Delegation on the war budget on Friday, the Minister of War declared that a reduction of the effective strength of the army was as a general proposition impossible. Nevertheless it was possible to effect certain economies in the cavalry, the military, and bands. Baron von Beust, in reply to an interpellation on the political situation, explained the present foreign relations of the empire, and in conclusion said that he considered the foreign relations of Austria to be of so peaceful a nature that all danger of war must appear as a thing only to be brought about by extraordinary

events; although every effort was being made to ward off all dangers, and although there was every reason to hope that peace would be maintained, yet, on the other hand, it appeared necessary to maintain the army on such a peace footing as would enable Austria, if necessary, to assume an attitude inspiring respect, and at a short notice send her army into the field ready for action. In the sitting of Wednesday the Budget Committee of the Delegation resolved to add to their report upon the Estimates of the Ministry for Foreign Affairs the following paragraph:—

"Austria requires the preservation of peace as a condition of her consolidation and advancement. The Red Book shows that the present Minister for Foreign Affairs has recognised this necessity and acted upon it with as much prudence as dignity."

The Reichsrath reassembled on Monday, when Dr. Kaiserfeld was elected President of the Lower House. In acknowledging his election he alluded to the guarantees for the commencement of a constitutional system which had been afforded by the appointment of a Parliamentary Ministry, and said that a Ministry which was the interpreter of the sentiments of the Reichsrath would certainly receive the support of the House. Prince Auersperg, the President of the Council, asked the House to place confidence in the Ministry in order that the system now introduced might be strengthened. The Ministry had been appointed in order to carry out the principle of dualism, and was upon the most cordial footing with the Government of Hungary. Without trenching upon the principle of self-government, it would, in case of necessity, strictly enforce the observance of the laws. It desired to promote the strength of the State in unison with the Reichsrath. The Austrian Government has replied to the complaints of Prussia relative to the granting of Austrian passports to the members of the Hanoverian Legion. Austria promises that an investigation shall take place on the subject to ascertain whether any irregularities have occurred, and announces the adoption of strict preventive measures in future.

ITALY.—It is stated that the Pope has granted a dispensation for the marriage of Prince Humbert with the Princess Margharita. The Chamber of Deputies on Friday concluded the discussion of the Estimates of the Ministry of Public Instruction. The Estimates of the Ministry for Foreign Affairs were approved. On Saturday the first seven articles of the Estimates of the Ministry of Marine were voted. Signor Danneo moved an order of the day, which was accepted by the Ministry, and approved by the Chamber, engaging the Government to present within one year an organised scheme for the reorganisation of the army. Signor Cardona presented a Bill for the reorganisation of the Provincial Central Administration. The majority of the Committee on the grinding tax have decided to impose the tax upon the grinding of cereals, but rejected the proposal to extend the tax to other substances. It reduced the tax on wheat to 2 lire per quintal, and 1 lira on other sorts of grain. The Committee have also rejected the Ministerial proposal appointing tax collectors to be collectors of the grinding tax. In the sitting of Monday the President announced that the members deputed by the Chamber to congratulate the King on the approaching marriage of the Crown Prince had been received by his Majesty, who had expressed his heartfelt acknowledgments for the good wishes of the national representatives. The Chamber then resumed the discussion of the Estimates of the Ministers of Marine, and voted the first 23 articles. In the sitting of Tuesday the debate on the Estimates of the Ministry of Marine was concluded, and the House commenced the discussion of the Estimates of the Ministry of War. In the sitting of Wednesday the debate on these estimates was resumed, and was continued on Thursday. The representatives of the Italian and Swiss Governments have signed the final protocol of the treaty establishing the frontier line between the province of the Valtellina and the Canton Grisons. The King signed a decree on the 9th inst. authorising the retirement of the Marquis d'Azeglio from his post as Minister at the Court of St. James's. The Prefecture of Milan has been declined by the Marquis d'Affito, and subsequently accepted by Count Torre. General Cialdini has arrived in Florence. Brigandage prevails in the provinces of Velletri and Frosinone. The eruption of Vesuvius has broken out with fresh violence. On the morning of the 5th great quantities of ashes were ejected, together with lava, and in the evening some shocks of earthquake were felt.

PAPAL STATES.—General Dumont arrived at Rome on Friday, and assumed command of the French troops in Roman territory. A French steam transport arrived at Civita Vecchia on Saturday to embark another squadron of cavalry for France. On Thursday afternoon a grand review of the Papal troops took place at the Villa Borghese. General Kanzler distributed many decorations among the officers and men. The youthful Prince Salvador Iturbide, grandson of the Emperor Iturbide, shot in Mexico in 1823, has just entered the Pontifical Zouaves. A telegram from Munster, dated the 6th inst., has been published at Rome, announcing that the first address of the German students to the Pope has been enthusiastically despatched to Rome. In this address they announce that they will maintain 20 Zouaves for the service of the Pope. It is said that the negotiations of Austria with Rome for the revision of the Concordat encounter serious difficulties. Baron von Beust has demanded the complete abolition of the present Concordat as a preliminary step, but the Pope wishes that it should serve as the basis for the modifications proposed. On the other hand it is stated that Prussia is endeavouring to establish more intimate relations with Rome, and has taken steps to obtain the establishment of an Apostolic Nuncio at Berlin. On Wednesday last Baron von Arnim, the Prussian

Minister, presented his credentials to the Pope as representative of the North German Confederation to the Holy See.

GREECE.—A Royal decree has been issued dissolving the Greek Chambers. The elections are fixed for the 3d March. The new Chambers are to meet on the 3d May. A ball had been given at Athens by the English Minister, Mr. Erskine, at which the King and Queen of the Greeks were present. The new Ministry have published their programme, of which the following is an extract:—

"We fully understand the serious position of our internal affairs, and the necessity, dictated by pure patriotism, that our dear country should make earnest preparations for the future marked out for it by Providence. We consider ostentatious demonstrations too burdensome for the country, and believe that preparations for the future ought to advance in proportion to the well being of the present. Moved by the sufferings of a kindred people, which have enlisted the sympathies of the whole of Christendom, we will grant it all the assistance in our power."

TURKEY.—The *Levant Herald* states that an Imperial order was despatched to the Grand Vizier on the 11th, recalling him from Crete. The Egyptian Prince Mustapha Fazil has just been made a Freemason.

SERBIA AND THE PRINCIPALITIES.—It is asserted that France, England, Austria, and Prussia, have made representations to the Servian and Rouman Government on the subject of the armed bands assembled in the Principalities, which are said to consist of 2000 Servians, Russians, and Roumans. It is said that Prussia, in expressing her disapproval of any sort of incitement or protection being given to revolutionary intrigues against the Porte, at the same time declared her conviction that it was the duty of the Servian Government not to oppose the wishes of the European Cabinets in this respect. M. Cretzulesco, the Rouman agent in Paris, has been instructed to communicate to the Cabinet at the Tuileries a formal denial on the part of his Government of any participation, direct or indirect, in Russian or Servian manoeuvres.

CANDIA.—It is stated that at the urgent request of the British Ambassador, the Porte has consented to grant to the Cretans administrative regulations much more liberal than those originally introduced by the Grand Vizier. These new regulations amount to a true national representation, and to the participation of the population in the government of the country. The Greek steamer *Creto*, while on her way to Candia with provisions and munitions of war, was chased by two Turkish cruisers. She succeeded, however, in landing her cargo, and returned to Syra. Russian vessels continue to transport Cretan families to Greece.

EGYPT.—The Viceroy has imprisoned a number of Tunisian officers, suspected of having been concerned in a political intrigue. Contradictory rumours are afloat concerning the conclusion of an important financial transaction by the Viceroy.

ABYSSINIA.—Advices from Annesley to the 23d ult. announce a rapid movement of troops to the front. A battery of artillery left, on the 20th, for Senafé; the 25th Native Infantry on the 21st, and three companies of the 4th Europeans were to go forward immediately. Advices to the 29th ult. announce that Sir Robert Napier had arrived at Senafé, from which place a force of 1500 men, consisting of cavalry, artillery, and infantry, advanced upon Antalo on the 26th ult. It was reported that a skirmish had taken place between Abyssinian freebooters and a British reconnoitring party in the direction of Antalo, but the rumour has not been confirmed. Advices to Feb. 2 state that Sir Robert Napier is about to advance from Senafé to Antalo. It is reported that King Theodorus is at Magdala, and that all the captives are with him. Menelek has been defeated, and has retired to Ankobar. The 21st Bengal Infantry arrived at Annesley on the 2d inst. The Punjabees landed on the 23th ult. The native followers are to be sent back to India. The wells on the American principle have proved successful at Koomagloo, and good water had been obtained. The lighting of the Abyssinian coast was reported as complete. The Egyptian troops are pushing forward without the concurrence of the British authorities.

INDIA.—The *Times of India* states authoritatively that 238 vessels are employed in the Indian seas and for the Abyssinian expedition, and that the monthly freight, exclusive of coal, is 392,000*l*.

PERSIA.—According to intelligence received at Constantinople cholera has reappeared in Persia, and is especially virulent in the province of Mazanderan.

CHINA.—Mr. Burlingame, who has been appointed Minister Plenipotentiary for China to the foreign Courts of Europe, arrived at Shanghai on December 10th. The reports concerning the Nienfei are favourable to the Imperialists, the movement having received a considerable check. Shocks of earthquake were felt at Ningpo and Shanghai on the 17th and 18th December. Ale has been successfully brewed at Shanghai.

JAPAN.—The preparations for the opening of Osaka and Hiogo were being rapidly advanced, and the formidable fleet of 15 of 16 men of war assembled in Osaka Bay was considered to be a safe guarantee that the opening of the ports three months hence would be peaceably effected.

AUSTRALIA.—The Duke of Edinburgh continued to meet with a magnificent reception. He left for Tasmania on the 1th of January. The Judges of the Supreme Court had declared against the validity of Government payments under confessed judgments, without an Appropriation Act. A general election was to take place in January. The decision of the Home Government regarding the postal question had been received with great satisfaction.

MAURITIUS.—Advices from the Mauritius state that in a severe gale the British ship *Hammersmith* was totally wrecked. Three sailors were drowned and the

captain hurt. The epidemic had again made appearance.

UNITED STATES.—Mr. Edward Thornto, newly-appointed British Minister to the United States, was presented to President Johnson on the 7th inst. by Mr. Seward, and was cordially received. The New York papers contain contradictory reports from Washington regarding the Alabama, stating that the President has resolved a question to an immediate issue, while another states that the report has no foundation, but that correspondence on the subject of the claims will be opened through Mr. Thornton. The President's consent by arbitration is said to have been obtained. The House of Representatives has passed a resolution instructing the Judiciary Committee to report the truth of a report that a Judge of the Supreme Court had, in private conversation, denominated the Reconstruction Act as unconstitutional, and that the Supreme Court would so decide. The committee was also instructed to report whether an offence demands impeachment. The Freedmen's Bureau until July, 1863. The House has adopted a resolution asking the President for information relative to the trial of Father Mathew and Colonel Lynch by the British authorities. A Bill concerning the rights of naturalised citizens has been reported by the Committee of Foreign Affairs to the House of Representatives. The Senate has passed the Bill, previously passed by the House of Representatives withdrawing the sale of surplus lands with an amendment retaining 19 large tracts. At a Democratic mass meeting at New York, 1000 week resolutions were adopted denouncing the acts of Congress as revolutionary and partizan, and endorsing the course adopted by President Johnson. Speakers were in favour of Mr. Johnson as a candidate for the Presidency. The Connecticut Democratic State Convention has adopted similar resolutions endorsing the course adopted by President Johnson, and strongly denouncing that of Congress. The Tennessee Radical Convention has adopted a resolution in favour of the nomination of General Grant for the Presidency. It is officially announced at Washington that the treaty ceding the island of St. Thomas, Canby has issued an order exempting property in Carolina from legal executions for three months. A disastrous fire has taken place at Chicago, the destruction of property to the amount of \$2,000,000.

PERU.—News from Peru to the 12th ult. confirms the disastrous defeat of Prado by the revolutionists before Arequipa, and states that he fled in disorder upon Lima, narrowly escaping capture. Prado afterwards left for Chili. Intense excitement prevailed at Lima and Callao. The whole country is now held by the revolutionists.

Parliament.

BOTH Houses of Parliament met on Thursday first time since the Christmas recess. In the attendance of peers was numerous, but not of any public importance was transacted. The Duke of RICHMOND laid on the table respecting railways. No public business was transacted. In the Commons on Thursday, after notices of motion had been given, the CHANCELLOR of the EXCHEQUER announced that the Scotch Bill would be introduced on Monday, and promised to fix an early day for the Irish Bill. Metropolitan Foreign Cattle Market Bill was read a second time, Lord R. MONTAGU having moved at the suggestion of Mr. MILNER GIBSON that it should be referred to a Select Committee. The Public Departments (Extra Revenue) Bill was also read a second time. The CHANCELLOR of the EXCHEQUER moved for leave to bring in a Bill to amend the laws relating to election petitions, providing more effectually for the prevention of practices at Parliamentary elections. He stated that the Government had intended to give full effect to the recommendations of the Select Committee in Session in favour of a transfer of the jurisdiction of the House from a Select Committee to the Court of Queen's Bench. The judges were, however, opposed to the policy of the measure on constitutional grounds, and had declared that it would impose upon them an utterly inconsistent with their duty and the oaths of office. Though they had received the sanction of the judges with mortification and indignation, the Government did not think it right to therefore proposed to create a new Court of election petitions, consisting of three judges with salaries of 2000*l*. a-year, to which would be referred all appeals from revising barristers. Mr. KNATCHBULL-HUGHESSEN, Mr. WHITBREAD, and R. P. COLLIER took constitutional objection to the proposed change, contending that it was reasonable to suppose that the duty of election petitions could not be performed by members of the House. Mr. RUSSELL and Mr. SANDFORD deprecated part of the portion of the jurisdiction of the House. Mr. SANDFORD doubted whether the Judges had more right than other public servants to refuse duties imposed upon them by Parliament, and thought that Parliament should not be deterred by their remonstrances from imposing this duty upon them. Lord CHANBORNE, in reply to the conduct of the Judges, and argued that it was more had been active party men, and might still be so to retain party predilections, to throw these political duties upon them would be to weaken unlimited confidence at present reposed in them. Mr. PALMER thought the Judges had done their duty if their motive for protesting

function was a belief that it would public confidence in their administration of But he denied altogether that the fact of been active party men would affect their Judges in any matter. Mr. HENLEY as strong jealousy of the proposed transfer of to a court of law, fearing that the end to give the House of Lords the decision in election matters. Mr. AYBION the Judge by their protest had saved the trouble of discussing an un- position. After some remarks by Mr. Mr M BEACH, and Mr. H BEBBLIEY, pointed out two considerations in a transference of jurisdiction—one that could only deal with the questions two candidates, and could not enter on the examination of the manner in which the franchise had been exercised in a particular the other, that by the present system the advantages of a local inquiry were sacri- the principle of a transference of juris- did not object, but it must be to the Judges. The question he held to be— the House give this power to the highest of the law, or retain it in its own hands. of the present system would be raised to by the creation of an inferior tribunal. Mr. denied that the case was so desperate as to the House to give up this important privilege; of the prevention of bribery he preferred to trust to the inevitable enlargement of constituencies, adoption of the Ballot. After some remarks Mr. LEAR, Mr. BONHAM CARTER, Mr. GOLDNEY, Mr. D. GRIFFITH, the Bill was brought in and a first time—Yesterday, in reply to Mr. W. E. CHANCELLOR of the EXCHEQUER said the Government intended to bring forward a on the subject of National Education during the present Session. On the motion that the Public Bill be read a second time, Mr. WALPOLE that the schools which would be affected by the were Winchester, Eton, Shrewsbury, Rugby, Westminister, and Charterhouse. The House sitting.

City Intelligence.

MONEY MARKET, FRIDAY. — BRITISH FUNDS: closed at 93½ both for Money and Account; and Reduced Three per Cents., 93½ to 93½; Five per Cents., 111½ to 112½; Bank Stock, to 250 Exchequer Bills, 18s. to 23s. pm. — FOREIGN Egyptian Loan (1864), 89 to 90; Peruvian 92 to 92½, (1865), 75½ to 76½; Mexican Bonds, 101 to 101½, Greek, 12½ to 13, New Spanish, 35½ to 36½; Turkish, 43½ to 44½; United States 5-20 Bonds, 72½ to 73½; Erie Railroad, 49 to 50; Illinois,

Metropolis and its Vicinity.

THE Loyal IRISHMEN'S ADDRESS TO THE QUEEN. On Tuesday afternoon a very numerous deputation, introduced by Mr Digby Seymour, Q.C., waited on the Home Secretary, at the Home Office, to present an address, signed by 22,608 Irishmen in London expressing their devotion to the Crown and their disapproval of Fenianism. The deputation consisted of about 70 or 80 persons, and included Mr J E Naghtan, barrister-at-law, Captain Fitzgerald Studdert, Lieut.-General Sir G. Lawrence Dr Rytter, Captain Cairnes, Mr. J. T. Westropp, Mr Arthur G O'Connor, Mr. T. de Courcy Atkins, Captain Edward Hoare, the Hon. Campbell Fair, Hon J. J. O'Connell, Dr Dempsey, Dr. Parke Latty, Dr. Fitzgibbon, Colonel Haly, Mr. J. J. Ridley, Mr. Joseph C. E., Mr. James Walker, Major Cooke, Mr. Duffy, Mr J H. Allen, Mr. E. Loney, Mr. T. T. Boylan, Mr. M. B. Talbot, Mr. Roger Seymour, Mr. A. F. Jackson, Mr. E. J. Maguire, &c. Mr. Digby presenting the address, said that it was devoted to the expression of their indignation at the Clerkenwell outrage, and a ready determination, without reference to party, to support her Majesty's Ministers, whoever they might be, in their efforts to put down and effectually suppress all conspiracies and attempts to disturb the peace of the country. He added that he had received from the heads of many large firms in London an address, and that he had placed himself in communication with Archbishop Manning and Dr. Roman Catholic bishop of Southwark, who had given him their hearty support, and stated their belief that this step would have more weight if the religious feeling and influence were kept as far as possible. He had also received the support of many Roman Catholic priests of London, and many Protestant clergymen. He expressed his belief that the Government would introduce remedial measures for Ireland, and an opinion that there was in the country very little disloyalty but very great disaffection. In conclusion he warmly denounced the address having been presented, and Mr. Digby replied as follows:—

glad of an opportunity of declaring, under peculiar and trying circumstances, their loyalty to the Crown and institutions of the country. It will, of course, be my duty to lay this address at the earliest moment before her Majesty. I cannot doubt of its favourable reception, and I will afterwards communicate her Majesty's gracious answer to Mr. Seymour, whom I presume you wish should be the medium of communication. On my own part, and on the part of the Government, I beg to thank you for the moral assistance which is afforded to us by the address in our efforts to uphold the law and preserve the tranquillity of the country in a period of great difficulty. I assure you nothing could have caused me to discharge the duties which have devolved upon me during the last few months if I had not felt certain that I was thoroughly supported by the loyalty of both Englishmen and Irishmen. I do not wonder that, with the misconception which may have arisen in the minds of the humbler classes of Englishmen, as well as the humbler classes of Irishmen, there should have been a desire on the part of many who feel deep and true affection to her Majesty, and a deep loyalty towards the institutions of the country, to afford a rallying point to the humbler classes of their countrymen for joining with those who might otherwise be deterred by the supposition that there was more disaffection than existed. I have no doubt that without that many who have affixed their signatures to this address would have had no opportunity of rallying round their countrymen in London, in their expression of loyal and true affection to the Crown. I will take care that the address is presented to her Majesty as early as possible."

CONFERENCE ON CHURCH EDUCATION.—On Wednesday afternoon a conference of Churchmen was held at Will's Rooms to discuss the resolutions drawn up by Archdeacon Denison, on the question of National Education, and long since put in circulation by him. The Hon C. L. Wood presided, and there were present Mr Hubbard, M.P., Mr. Dinsdale, M.P., Sir Alfred Slade, Bart., Sir W. Denison, the Hon. and Very Rev. the Dean of York; the Rev. Canon Melville, Rev. G. D. Boyle, of Kidderminster; Rev. Canon Gover, of Worcester; Archdeacon Denison, and several of the London clergy. The chairman, in introducing the subject, said that education had now resolved itself into the question of the day, and had become of especial interest to members of the Church of England. Their duty on that occasion was to consider the state of education in England, how the difficulties connected with it might be met, and the consequences involved in the adoption of the various plans before them. He would leave it to others to bring forward in detail the plans of the present scheme. What did they mean by education? Did they mean mere reading, writing, cyphering, and scientific instruction? If so, the State could supply it; but he considered that mere intellectual learning, without religious instruction, might become a curse. He held that morality could not properly be taught apart from the doctrines of religion—that was in fact to impart merely secular instruction. Much public attention had been directed to Mr Bruce's Bill, which seemed to be capable of flexibility, and to the propositions laid down at Manchester. With reference, however, to the conscience clause, they must remember that the apparent illiberality of enforcing the conscience clause was only apparent. It left the British and Foreign Schools alone, involving only Church schools and schools in a somewhat similar position. The Church could not assent to eliminate a part of the truth in order that she might be allowed to teach the remainder. He asked that absolute and influential position for the Church of England which they accorded to others—the right to proclaim public those eternal truths which could alone satisfy the heart as well as the intellect. Archdeacon Denison then moved the first resolution:—

"That it appears to this meeting that it is necessary that aid be given out of the public funds towards building and maintaining sufficient schools for the education of the poor." He said this was the first of a series of resolutions which had been drawn up to be submitted to the meeting. The turning point of the whole scheme was that the civil power should confine itself in respect of conditions annexed to its grants to the national and secular parts of education, leaving religious teaching in the schools to the several religious bodies, and all manner of regulations connected with it unconditionally free to the managers of each school. The second proposition was that those who preferred a purely secular school should be entitled to the same assistance from the civil power as those who preferred a school of religious education. Nothing was more unphilosophical than to go about to meet momentous difficulties by discarding differences, or treating them only as deserving the contempt and pity of the educated mind. The mistake of a partnership between the Church and the civil power was a natural one, but after 20 years' reflection he was convinced that it was a mistake. The old formal identity between Church and State was now gone, and under the new order of things the State was in no position to touch the religious part of education. With regard to secular education he did not, indeed, profess to understand the principle or the practice of education in a purely secular school. It seemed, however, to him to lack the one thing needful in the training of a child, and he regretted that there should be such schools. But he apprehended that what they might approve or not was not the question. The question was about the universal application of the principle of unconditional freedom. As citizens they had a right to ask that this principle should be applied in their own case, because they saw that this was the only way by which true religion could be saved in such of their schools as were aided by the State. They were content that it should be applied in the case of all other citizens, and they would take care that there should be no mistake about being so content. He did not ask the State to assist religious or secular schools as such, but to assist all citizens alike. He did not, however, understand by a secular school one where the children were to ridicule or to deny the truth of religion, and which was avowedly hostile to all religions. In places where local resources fell very short, he should not be sorry to see the State undertaking the greater part or even all

of the original outlay in building and starting a school, and then placing it on the hands of either the Church or some sect. A great struggle was impending, and while he did not disguise on which side present success was likely to be, present success was often a miserable thing. Even now the fidelity of the Church of England was trembling in the balance in respect of great doctrines of the faith, and why did it so tremble? The reason, he believed, was to be sought in the prevalence of the evil principle of comprehensive religion within, and in the action of the State without. Mr Kenyon, Q.C., seconded the resolution, and said that the whole question arose out of that which he might designate as the danger which they incurred by their unhappy differences. Amid every difficulty he would hold by this principle, that every kind of education to be real must be based on religion. The Rev. A. D'Orsey moved an amendment to the effect that the clergy should teach religion, and that the schoolmaster should limit himself to imparting other branches of instruction; but the Chairman ruled that the amendment was out of order at that stage of the proceedings. Sir W. Denison believed that this resolution would not prove effective, because he did not believe the House of Commons would vote the sums necessary for education. He held that the education of the people was not to be trusted to the nation in any way, but that it should devolve on the members of the different religious communities to whom the children were attached, and who should devote a tithe of their property for purposes of religion. He concluded by moving, by way of amendment, "That each religious community should provide for the education of its own people, and should furnish out of its own means the money required for the purpose." Archdeacon Denison briefly replied. He approved of the principle of devoting a tenth of property to sacred uses, but did not think it calculated to meet the difficulty with which they had now to deal. The amendment was not seconded, and, on the resolution being put, it was carried, there being only one dissentient. Sir Alfred Slade, Bart., moved the second resolution:—

"That such aid be not by rate, local or general, but by parliamentary grant, to be administered by the Committee of Council of Education as Parliament shall direct." The bad effect of the proposed system would be unduly to burden landed property, passing over funded property. He appealed to all religious bodies to oppose the system of local rating for schools, for the religion taught there would never be satisfactory to anybody. Mr. Thomas Plumer seconded the resolution. However well the system might answer for democratic America, it would not work well in constitutional England. The principle of local rating would work very unfairly, as it would fall upon the labouring classes on account of the inequality with which the rates fell on the poor and the rich families of metropolis. The Rev. Mr Fowler opposed the resolution. Local rating would come to help the clergyman from one of the most unnatural and unreasonable burdens that could be laid upon him that of securing the necessary funds. Mr. Winkley protested against their being robbed of their educational endowments, like those of Harrow, by the Public Schools Bill, and then of there being a prospect of a rate being laid upon them. The Rev. Mr. Mayow would like to know how long the denominational system would stand after compulsory rating were resorted to. Within three years there would result absolute disarrangement. The resolution was agreed to, with only six dissentients. Archdeacon Denison moved the third resolution:—

"That such aid be applied to assist in building schools of all religious bodies upon sites legally conveyed, secured for the purposes of education, and open to all children, whose parents are willing to accept the education, and to comply with the rules and regulations of the school. Religious teaching therein and all manner of regulation connected with it, to be left unconditionally free to the managers of each school."

The Rev. Mr. Mayow seconded the motion. The Rev. Mr. Melvill moved as an amendment:—

"That, in the present crisis of the educational question, for the Church to abrogate its position as a national institution would, besides the impulse given to the secular system, depress its influence and narrow its sphere." The Rev. Mr. Boyle seconded the amendment. The Rev. Dr. Miller thought it was untenable that if the clergy took State money they should look upon these schools as missionary positions from which they were to reinforce the ranks of the Church. They should endeavour, as administering a national fund, to meet the case of those Nonconformist children who were under their care. The pinch of the case was where there was only room for one school. He had never known the case of a parish where a clergyman had done his duty to Dissenters that he was not fairly met by them. He looked upon this as the last chance for the Church of England to take her fit place as a national educator, and this depended on the existence of a liberal conscience clause. After some further discussion, Archdeacon Denison briefly replied. The amendment was put and lost, and the resolution was then agreed to.

THE CLERKENWELL OUTRAGE. — On Tuesday morning William Desmond, Timothy Desmond, Nicholas English, Jeremiah Allen, James O'Neill, William Barrett (alias Jackson), John O'Keefe, and Anne Justice, the eight persons charged with wilful murder arising out of the Fenian explosion at the House of Detention, were again brought before Sir Thomas Henry at Bow Street, for the purpose of hearing the remaining depositions read, after which it was expected that they would have been formally committed to take their trial on the capital charge. It appeared, however, from the statement of Mr. Giffard, Q.C., the counsel for the Crown, that some very important information had been unexpectedly received during the week, and that instead of having the prisoners committed on that day, a further remand for a week would be necessary. The depositions were then read

and attested by the witnesses, after which the prisoners were again remanded till Tuesday next. The prisoner Nicholas English has, since Mullany turned Queen's evidence, evinced a great desire to do likewise, and on Monday he sent for one of the detective officers at Scotland Yard, to whom he made a lengthy statement. This was submitted to the proper quarter for acceptance, but was rejected as Crown evidence; though it may probably be taken as a confession.—On Wednesday evening Dr. Lankester held an inquest on the body of Eliza Leeland, aged 60, the wife of a journeyman baker, living at 43, Skinner Street, in the immediate neighbourhood of the House of Detention at Clerkenwell, and who at the time of the late outrage was pursuing her usual domestic duties, and was knocked down by the force of the concussion. From that time her health declined, and on the 21st of January she was taken into the Clerkenwell Infirmary, suffering from paralysis produced by shock to the system and fright, and died there on Sunday last. The medical officer of the Infirmary deposed to the admission of the deceased in a low and weak state, suffering from paralysis of the left side, and afterwards insensible. On the 1th and 5th inst her intellect returned, but on the 6th stupor again set in, and she died on Sunday from disease of the brain and spinal cord, accelerated by the shock to the nervous system, arising from the explosion. He had no doubt that the shock and fright from the explosion in the weakly condition of the deceased produced the paralysis. The jury returned a verdict of "Death from paralysis, accelerated by the explosion which took place at Clerkenwell on the 13th December, 1867."

METROPOLITAN MUNICIPAL GOVERNMENT.—On Wednesday a deputation representing nearly the whole of the metropolis waited upon Mr. Gathorne Hardy at the Home Office, for the purpose of expressing the decided hostility of the representative bodies of the metropolis to the two Bills introduced into Parliament by Mr. Stuart Mill, with the view of establishing municipal corporations within the metropolis. The deputation, which consisted of members of the vestries and district boards of St. George, Hanover Square; St. Marylebone, St. Pancras, St. Olaves, Southwark, St. George, Southwark, Clerkenwell, Kensington, Whitechapel, Greenwich, Lewisham, Plumstead, Lambeth and other parishes, was introduced by Mr. Harvey Lewis, M.P., Mr. Thomas Chambers, M.P., Mr. Locke, M.P., and Colonel Hogge, M.P. Major Lyon, of St. George, Hanover Square, referred to the large rateable value of the metropolis, which was, exclusive of the city of London, 14,000,000*l.* He referred to this for the purpose of showing that the district of Westminster, which by a majority of one had decided not to join the deputation, represented but a very small portion of this, its rateable value being only 450,000*l.* The Metropolitan Municipal Association, which advocated the adoption of the Bills in question, was a self-elected body, not representing any particular portion of the metropolis, and yet it had presented itself before Mr. Hardy as representative of the metropolis, and offered to call an aggregate meeting, and forward to the Secretary of State the resolutions there passed. That offer had not been carried out, for at the meeting which was held he moved as an amendment to the motion in favour of the Bills, that the proposals contained in Mr. Mill's Bills did not meet the requirements of the metropolis, and while four only voted for the original motion, the whole of the rest of the meeting was in favour of his amendment. After the passing of his amendment the meeting had become uproarious, and a motion was made to throw the chairman out of window, upon which he left, thinking discretion the better part of valour. The City of London expressed no objection to the first Bill of Mr. Mill, but it made the most determined opposition to the second, which subjected it to a central municipal authority. The Vestry of St. George, Hanover Square, were most decidedly opposed to the Bills, which, if passed, would involve great expense in the erection of town halls and the keeping up of a certain sort of state, as at the Mansion House. The rates of the metropolis were rapidly increasing, and would necessarily continue to do so as long as the parishes carried out those improvements and repairs which were demanded; therefore to pass the Corporation Bills would be to increase the expenses to an unbearable degree, and destroy what remained of local self-government. They trusted the Bills would meet with the opposition of the Government, who in that event would receive the thanks of the whole metropolis. Mr. Carr, of St. Marylebone, said the government of the metropolis under the present Local Management Act had been much improved. St. Marylebone would decidedly object to go to the expense that corporations would entail. Mr. Jonathan Salter, of St. Pancras, said that the parish to which he belonged was thoroughly opposed to the Municipal Bills. Mr. Collinson, of St. Olaves, Southwark, was satisfied with the present law. During the last 12 years, since the passing of Hall's Acts, there had been a great improvement in the government of the metropolis. A great deal of the business transacted by local boards was business of detail, which could only be carried out in the parish immediately affected, and if it was spread over a larger area local self-government would be done away with entirely. He considered that the Acts at present in existence were ample, if properly carried out, and the duties under them demanded of vestrymen were great and onerous. After hearing several other speeches, Mr. Hardy said that his attention had already been called to the proposals made in the Bills introduced by Mr. Mill—first, by a deputation of those who called themselves the Metropolitan Municipal Association; and secondly by Mr. Ayrton's committee on the subject of the local government of the metropolis, that had been sitting for two years, and had made three voluminous reports. He felt it had been admitted by all present that some slight amendments were

required in the present Acts for the government of the metropolis. He also gleaned from their observations that they would not object, where vestries and district boards did not carry out that which the law required them to do, that there should be legislation to force them to carry out their duty, and he thought that such an Act was necessary. Local institutions best considered their own interests when they carried out that which was committed to them. He felt at the same time that the introduction of new corporations would not have that effect. His personal opinion was not at all favourable to the federal corporations for the government of the metropolis, as proposed by the Bills of Mr. Mill. Although municipal government existed in most of the large provincial towns, and was well adapted for them, he was not aware of the existence of any system of federal corporations, and he was quite sure that in the metropolis it would cause constant conflicts and contentions. The deputation must understand that he spoke entirely for himself, and not for the Government. He was not prepared to accept Mr. Mill's Bills, and would urge his colleagues to oppose them, as not desirable for the metropolis (Cheers.) The deputation had admitted by cheers—that they would not have any objection to pressure being put on those districts of the metropolis where existing Acts were not carried out, and that he thought, would be sufficient. Major Lyon tendered Mr. Hardy the thanks of his colleagues for the favourable reception they had met with.

EAST LONDON MUSEUM.—On Wednesday afternoon a deputation waited upon the Duke of Marlborough, at the Council Office, for the purpose of asking his support, and that of the Government, to the Bill which has passed the House of Commons, and is now before the House of Lords, and to which Lord Redesdale, in his official position, has raised certain objections, which, however, are mainly of a technical character. The deputation was introduced by Mr. Ayrton, M.P., and was a very numerous one. Amongst those present were Sir R. Murchison, the Revs. T. J. Rowse, Dr. Mullar Solly, Dr. Hewlett, J. C. Canning, W. Bramley Moore, J. B. Reed; Messrs. A. Brady, Briscoe, M.P., A. Kinnaird, M.P., G. Godwin, N. S. Powell, Charington, and others. Mr. Ayrton, in introducing the deputation, explained that as a commencement of the East London Museum, it was to be constructed of spare materials from South Kensington, offered by the Government, or a space at Bethnal Green, which had been left by the donor to the district, but with such restrictions that rendered it useless. To get over the restrictions by which the bequest was hampered, application had been made to Parliament, and the House of Commons had passed the necessary Bill, and it was now before the Lords, and certain technical objections having been there raised to it, those interested in this movement had formed this deputation, with a view of giving such explanations as they thought would remove all objections to the bill. Mr. Connolly (a working man), the Rev. Mr. Hansard, Mr. Briscoe, M.P., and some other gentlemen, having said a few words, the Duke of Marlborough said the views of the Government on this matter would be well known to the deputation, as they had been clearly indicated by the course they had hitherto taken. In 1865 the desirability of establishing museums in different parts of London was admitted, and an offer was made of certain materials, which had been in use at South Kensington, for the purpose, at a nominal price, and the reply from the Government was considered most satisfactory. In 1866 and 1867 a correspondence was carried on relative to the sanction of the Treasury to certain expenditure, and, on the estimate that 20,000*l.* would be required, 5000*l.* was granted. Difficulties arose, to remove which a Bill was passed through the House of Commons with the sanction and approval of the Government. In the House of Lords fresh difficulties had arisen, but he did not think they were by any means insuperable; and he had very little doubt that, with the assistance of the Government, the Bill would pass the Lords. He assured the deputation the Government fully appreciated the importance of the subject, and would endeavour to get the Bill passed as soon as possible.

THE REFORM ACT AND RATES.—A large number of weekly tenants have been summoned before Mr. Maude at Woolwich, who have been called on for the first time to pay rates under the provisions of the Reform Act. The plea they made was that the landlords would not deduct the rates from the rent. Mr. Maude said there would no doubt be a great deal of hardship felt for some time to come until the new law went on smoothly. If the landlord originally agreed to pay the rates he believed he was still liable to do so, though the tenant was made responsible to the parish.

REPORT OF THE METROPOLITAN BOARD OF WORKS FOR 1866-67.—In this report the Metropolitan Board of Works dwell with satisfaction upon the various improvements which have been effected in the appearance and sanitary condition of London during their eleven years' administration. The main drainage system, which they commenced, and have now almost completed, has been attended with results whose beneficial operations cannot yet be fully calculated. Already the general health of the metropolis, and especially the health of those who inhabit the low-lying districts near the river, has perceptibly improved. It will be long enough before the water of the Thames is transparent, but it is certainly not half so muddy as it was two years ago, and fish are now found in those places which were previously the most polluted. New thoroughfares have been formed in different districts, with the result not only of facilitating communication with, but increasing the circulation through our crowded neighbourhoods. The embankment of the river has been commenced, and is making fair progress; new

parks have been opened, and old ones have been maintained and beautified. The Board desire to effect, and perhaps more important improvements, but which urgently require funds for these purposes. As the occupiers of property, they express the opinion that a portion at least of this heavy burden should be borne by the owners. Since 1859 it appears that the area of 117 square miles, with a population of three millions. The sewage, which is now accepted on its way to the Thames, amounts to about millions of cubic feet on the north and four millions on the south side of the river. The only outlet required to complete the main intersecting sewer, is the northern low level sewer, which is now in process of construction, and is intended to form a main outlet for the western district. Its total length will be 12½ miles. The delay which has occurred in the completion of this sewer to the failure of the Metropolitan District Railway to commence their works when arranged under a portion of the Thames Embankment Act. The Abbey Mills Pumping Station at West Ham, soon to be completed, will be provided with engines, equal to 1140 horse-power, for lifting the sewage and ordinary rainfall from the low level to the outfall sewer a height of 36 feet. The most important of these works in the purification of the Thames will be the conversion of the sewage into a point where it will be harmless, until by the Essex Reclamation Company it is either used on the farm lands of Essex, or distributed on the reclaimed sands of Maplin. The Board believe that the completion of the Thames Embankment will conduce to the purification of water by quickening its flow and increasing its scouring power; and in addition to this there will be the "important improvement" which will result from the conversion of foul and wholesome mud banks into useful and ornamental thoroughfares." For some time the necessity of preventing the discharge of sewage into the Thames from town or village above the metropolis has been upon the Legislature, and the result has been that Acts of Parliament have been passed, from the execution of which very excellent results may be expected. The Board, however, were not successful in presenting their claims to be represented at the Thames Conservancy Board. With respect to the utilization of sewage, the report states that the Essex Reclamation Company have commenced the formation of a culvert for taking the sewage down to the Sands, and for the distribution of so much of it as may be required by the neighbouring farmers in the range of their experiments with considerable success. The sewage has proved most valuable as a manure for the growth of mangels, potatoes, flax, cabbage, and strawberries. One of the most promising experiments was in the case of a wheat crop. The growth of the field in which the sewage had been down could be easily distinguished from the rest by the strength and length of the straw, and the size of the ears. The grass on the company's farm is used in the feeding of milk cows, and leaves a considerable surplus which is sold to stable keepers in the metropolis. The Board have had some difficulty in deciding upon tenders received for the utilization of sewage on the south side of the river, but up to the date of the report they had not come to any definite arrangement. Improvements have been effected by the covering of sewers in different districts. Plans for the construction of 66 miles of brick and pipe sewers by local vestries have been under consideration. Some attention has been given to the plans proposed for abating the nuisance caused by the escape of offensive gases from the sewers. Experiments are still being carried out for the purpose of thoroughly testing the alleged efficiency of charcoal ventilators. Having fully described the improvements effected in the drainage of the city and condition of the river, the report goes on to the Thames Embankments. That portion of the Embankment extending from Westminster Bridge to Waterloo Bridge has made considerable progress. Temple not only is the river wall constructed to full height, but the subway and sewers are completed. The Embankment between the Temple and Blackfriars Bridge has not yet been commenced. The delay caused by negotiations with the Metropolitan District Company and the City Gas Company in the Southern Embankment from Westminster to the Blackfriars Bridge progresses satisfactorily. The Embankment on the site of the proposed street between Blackfriars Bridge and the Mansion House was demolished at the time when the report was issued. Since then Middle Row, Holborn, has been reconstructed, and the Board are taking steps for the construction of a new street to connect the Commercial Road, Whitechapel, and which may fairly be characterized as an important improvement. In another part of the metropolis, the Embankment of Finsbury and Southwark Park. Efforts have been made to preserve for the public open spaces which have for so long been regarded as commons, but much regret is expressed that the negotiations regarding Hampstead Heath have been totally unsuccessful—a fact which the Board attribute to Sir Thomas Maryon Wilson's statement of no interest in the heath is worth from 5000*l.* to 10,000*l.* acre. The report points also to the increase in the numbers and efficiency of the Fire Brigade, and various stations. Temporary stations have been erected in many populous districts, and efforts are being made to procure suitable sites for permanent stations. A new floating steam-engine, 120 feet in length, breadth, 108 tons burden, capable of steaming at the rate of 11½ knots an hour, and, moreover, of so light

that it will never be liable to be stranded, is at present being constructed for the more effectual protection of the wharves in the river. The Society for the Protection of Life from Fire have transferred all their escapes and other property to the Board, and their conductors have entered the Fire Brigade. The brigade is quite as well as it can be rendered, but complaints are still frequently made as to the loss of property, arising from the want of water to work the engines, and the report is strongly in favour of the establishment of a constant high-pressure service instead of the present intermittent supply. Many pages are devoted to the discussion of the gas question, on which the Board say that from the first they have strongly urged the necessity of a substantial reduction in the price of gas, and a considerable increase of illuminating power.

THE BOARD OF WORKS AND MR. DOULTON.—At a meeting of the Metropolitan Board of Works on Friday, the report of the committee appointed to consider the charges against Mr. Doulton in reference to the sureties provided by Mr. Furness, the contractor, was brought up for consideration. The charge was that Mr. Doulton received 3000*l.* for having procured two gentlemen to become sureties for Mr. Furness. The report having been read, Mr. Silas Taylor moved a resolution declaring that the Board, having investigated the evidence of Mr. Furness, given before the Registrar of the Bankruptcy Court on oath, and adhered to by him, were of opinion that the statements made by him had been proved. Mr. Le Breton moved an amendment, deprecating the taking part, by its members, in business or professional transactions, with parties connected with the works of the Board in matters relating thereto, as calculated injuriously to affect the character of the Board in the conduct of its business. After a very long discussion a vote was taken, when there appeared—For the amendment, 15; against it, 15. The Chairman gave his casting vote in favour of the amendment, and then vacated the chair, which was taken by Mr. Savage. It was afterwards stated that the name of a voter present had not been recorded, and after some discussion the chairman ruled that it must be inserted, which negatived the amendment. On the original motion being put, Mr. Cook moved an amendment to the effect that, the Board having no power to summon witnesses, to compel the production of books and papers, or to examine on oath, did not feel that the evidence given by Mr. Furness in the Bankruptcy Court had either been confirmed or disproved by the statement laid before the committee, and must therefore leave Mr. Doulton to meet those charges in the way in which he deemed best. This amendment, on being put, was also negatived. Some other amendments were moved, and great disorder prevailed. Eventually the original motion was put, when 7 voted for it and 20 against it, so that no decision whatever was come to upon the subject, although it had been discussed for upwards of five hours. Mr. Doulton declared that he had not profited to the extent of a penny by the transaction, and handed in a protest concerning the proceedings which had been taken against him. It was then moved that the protest be entered on the minutes, and Mr. Richardson moved as an amendment, that the protest do lie on the table, and that the receipt of it be not recorded in the minutes. On a division, the amendment was carried by 15 to 6. The meeting lasted seven hours.

THE METROPOLITAN POOR ACT.—The metropolitan district board formed under Mr. Hardy's Act, have already obtained sites for two imbecile asylums, each of which is to contain accommodation for 1500 inmates; and before the summer is over another asylum will be begun. The sites are in the neighbourhood of Watford and Caterham. Large plots of land have been purchased on each site, in order that the sewage of the asylums may be disposed of by irrigation on the land. More difficulty has been found in obtaining sites for the Fever and Small-pox Hospitals, which must necessarily be in the vicinity of London. One site, on which both a small-pox and a fever hospital may be erected, has already been obtained for the north district, and sites are also to be provided for similar hospitals in the East-end and on the Surrey side. In addition to these improvements arrangements are in progress for the effectual separation of the sick poor from the ordinary inmates of workhouses, and for the opening of dispensaries for the sick poor.

HOUSES OF PARLIAMENT.—The most recent improvement at the new palace of Westminster is the completion of the members' private entrance. The passage leading from the Houses of Parliament to Westminster Bridge is lighted inside by ornamental gas burners in unison with those inside the House, and they are suspended from the centres of the various arches. The stained windows of this arcade are also completed, and have a good effect in the Speaker's chamber contiguous to the Speaker's official residence. The pavement of this arcade will be completed in the Easter recess. In New Palace Yard, parallel to Westminster Hall, turf has been temporarily laid out with flowers, &c. In addition to the statues of William the Conqueror and King John, which are placed in front of this arcade, four other royal statues will be added shortly.

MR. THEODORE MARTIN was sufficiently recovered from a recent accident to leave Osborne last week, but is still unable to move about except on crutches. The Queen presented Mrs. Martin (Helen Faucit) with a magnificent ruby and diamond bracelet, as a souvenir of her visit to Osborne.

FIRE AT THE OXFORD MUSIC HALL.—Between 10 and 11 o'clock on Tuesday morning a destructive fire occurred at the Oxford Music Hall, near the Tottenham Court Road end of Oxford Street. At the close of the performances on Monday night the gas was

turned off at the main, and everything seemed safe but at about a quarter past 3 o'clock the police on duty in Oxford Street observed a great deal of smoke hovering over the tops of the houses, and while they were instituting an examination, a body of flame burst forth; from the roof of the Oxford. In a few minutes the roof, from end to end, was in flames, and the fire was descending to the main body of the hall, having laid hold of the stage and the balcony boxes, and it was thought that no portion of the edifice could be saved. However, on the arrival of the brigade, seven steam-engines were brought into play, and although at times the heat and smoke nearly overcame the men, they succeeded after great exertion in finally extinguishing the flames. The roof by that time had been burned off, the balcony and stage severely damaged by fire, and the rest of the premises injured by fire, water, and breakage. The cause of the fire is at present unknown.

THE SHOOTING OF THE BANDSMAN.—It may be remembered that, while the inquest was pending on Macdonald, the bandsman of the Guards, Police-constable Saunders was shot at in New Church Mews, Euston Road, at 3 o'clock in the morning, and wounded in the thigh, as well as about the head. He is now reported as hopelessly insane in consequence of the injuries to his head, and he has been sent to Stamford, in Lincolnshire—an idiot for life.

HIGH TIDES.—Considerable damage was done along the Thames on Saturday by an unusually high tide. The water rose three feet higher than the usual spring tides, and it is some years since such an influx of water has taken place. The water overflowed the Thames Embankment as well as the vacant space which is being reclaimed from the river. Other damage to property has resulted on the Surrey side. Several streets were partially inundated.

THE THAMES SHIPWRIGHTS.—The shipwrights of the Isle of Dogs have not yet been able to make up their minds to any reduction in their demands, and have consequently lost the chance of bringing back to the Thames some of the shipbuilding business which is now being transferred so completely to the northern ports. Mr. Bullivant at the recent meeting stated that iron and wood of the kinds required for shipbuilding can be procured quite as cheaply on the Thames as on the Clyde, and, in some instances, more cheaply; the difference in the price of coal is only about 7*s.* per ton in favour of the Scotch yards, or on a ship of 1000 tons about 1*s.* per registered ton. At the same time he offered to get orders for a couple of iron ships at 5*l.* a ton, but the men would not answer at once, and while they were hesitating, the shipowner, who could not afford to lose time, sent his commission to the builders in the north.

A "SHILLING DISPENSARY" has been opened in Walworth, for the benefit of such inhabitants as may be unable to afford the charges usually made for attendance by surgeons, and yet are unwilling to accept hospital or parochial medical aid.

THE CONTAGIOUS DISEASES ACT.—It has been resolved by the military authorities to apply the provisions of the Contagious Diseases Act to Colchester, Shorncliff, Canterbury, and the Curragh.

HIPPOPHAGY.—Mr. A. S. Bicknell, the promoter of the recent dinner at the Langham Hotel, delivered a lecture at the Crystal Palace on Thursday, on the subject of hippophagy; and a few days previously his brother, Mr. Herman Bicknell, gave a horse dinner at the Falstaff Inn, Ramsgate, to between 30 and 40 tradesmen and others of that town. The bill of fare included the following:—"Soup. Flying-horse. Side dishes: Racehorse patties, Shetland pony, with salad. Joints: Roast fillet of war-horse, royal charger stew. The horseflesh was sent from Paris for the purpose, and was prepared by a French cook.

GREAT CAPTURE OF STOLEN WATCHES.—A few days ago the police made a great capture of receivers of stolen watches. Three officers of the F division, in plain clothes, placed themselves to watch a certain house at Hackney. While so doing they became aware that three men were also anxiously on the look-out for some arrival, and the movements of the latter were closely observed. At length a railway van arrived, and a small box was delivered. By a ruse one of the officers approached without suspicion, and saw one of the men sign the delivery book. A signal having been given, the other policemen came up, and the three men and the wife of one of them were taken into custody. The box, which came from Liverpool, contained 21 gold watches and some chains, all the produce of robberies. In the cellar of the house was another box of exactly the same size, and addressed in the same handwriting; while on one of the prisoners was found a letter invoicing the lot at 29*l.* 18*s.*, and expressing a hope that the transaction would be completed without any such squabbling as occurred on the last occasion. A number of pawnbrokers' duplicates, representing watches and chains, were also found on the prisoners. On Saturday the men were brought up at Bow Street, and some evidence having been taken as to the ownership of the property, they were remanded until Monday, when some additional confirmatory evidence was taken, and the prisoners were again remanded. The woman, having acted under the direction of her husband, was discharged from custody. It was stated incidentally that all the stolen watches had their bows broken, showing that the robberies had been accomplished by professional thieves.

THE HAMMERSMITH MURDER.—The sentence on the prisoner William Thompson, who was convicted of the murder of a man at Hammersmith, at the last session of the Central Criminal Court, and left for execution, has been commuted to penal servitude for life.

THE PUBLIC HEALTH.—The Registrar-General's Weekly Return of births and deaths in London states that in the week that ended on Saturday, February 8, 4831 births and 3088 deaths were regis-

tered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 25 per 1000 persons living, being 23 per 1000 in London, 29 in Edinburgh, 32 in Dublin, 28 in Bristol, 21 in Birmingham, 29 in Liverpool, 29 in Manchester, 26 in Salford, 24 in Sheffield, 26 in Bradford, 21 in Leeds, 20 in Hull, 34 in Newcastle-upon-Tyne, and 29 in Glasgow. The rate in Vienna was 33 per 1000 during the week ending the 1st inst. In London the births of 1162 boys and 1235 girls, in all 2397 children, were registered in the week. In the corresponding weeks of 10 years 1858-67, the average number, corrected for increase of population, was 2301. The deaths registered in London during the week were 1394. It was the sixth week of the year, and the average number of deaths for that week, corrected for increase of population, was 1560. The present return is, therefore, 166 below the estimated number.

Provincial.

BAENSBLEY.—At the police court in this town on Monday, Joseph Gregory, the fourth man concerned in the murder of Lord Wharncliffe's head gamekeeper, was brought before the magistrates on the charge of wilful murder and night poaching. It will be remembered that the prisoner escaped at the time of the murder, and eluded the vigilance of the police up to Monday, when he gave himself up. The murder was committed on the 11th of December last. No evidence was offered, and the prisoner was remanded for a few days.

BIRMINGHAM.—On Tuesday morning the three Beesleys and Grayson and his wife, charged with the Heneage Street burglary and murder, were again brought before the magistrates. There was no evidence offered against Grayson and his wife, but the detectives said they had enough to justify a re-arrest should they be discharged. They were not ready to go into the case as regards the Beesleys, who were shown to have been in Heneage Street—but, so far as appeared, not together—about the time of the murder. The prisoners were remanded till Tuesday next.

CANTERBURY.—The *Kent Herald* states that on Monday week the church of Godmersham, near this city, was broken into, and the candlesticks taken from the high altar; a scrap of paper being left in their place, on which was written a threat that if such things were put there again the church would be blown up.

CHATHAM.—The new iron-clad frigate Hercules was unlocked on Monday in this dockyard in the most successful manner. She carries on her sides out of the water an armour-plating of, at least, 6 inches in thickness, a line of 8-inch plates over her main box-battery, and a belt of 9-inch plates along the water-line. The First Lord of the Admiralty and other distinguished visitors arrived a little before 2 o'clock, when Miss Corry performed the ceremony of naming, and the ship glided slowly into the river, as the men on board hoisted the capstans upon the hawsers. The Hercules is said to be the most powerful iron-clad which has yet been built.

GRIMSBY.—On Thursday week a collision took place in the Wolds off Hasborough, between the Sea Gull, from Hull to Rotterdam, with a general cargo and six passengers, and the Swan, from London to Newcastle. The Swan struck the Sea Gull abaft the main rigging, and cut her nearly in two. In about a quarter of an hour the Sea Gull had disappeared. One passenger was drowned. The other passengers and the crew were saved by getting on board the Swan, which sustained damage in her bows.

HELSTON.—A deplorable state of affairs exists in this parish. Within three years there have been three vicars, the last of whom, the Rev. Dr. Hayne, has just been appointed to the professorship of music at Eton College, and has consequently resigned the living, worth about 450*l.* per annum. Owing mainly to religious differences in the parish, the churchwardens are left entirely without funds; the roof of the church is in such a state that the organ has been rendered useless by rain, and the evening service on Sundays has been discontinued for want of light, the gas company having cut off the supply of gas in consequence of their inability to get their account settled.

HULL.—On Saturday a remarkably high tide was experienced in this town, the water having risen to a height of 30 feet, or about 3 feet higher than the usual heavy tides. Houses, cellars, and streets were flooded; and Messrs. Davis & Co., drapers, Market Place, suffered a loss of 7000*l.*, in consequence of injury done to large quantities of flannels stored in their cellars.

LIVERPOOL.—The cab strike in this town, after existing for about a week, terminated on Saturday last. On the previous day, Mr. Graves, M.P., the mayor, and the head constable, induced the car owners and the watch committee to make certain concessions, and on Saturday, after another conference, the car proprietors agreed to give the amended regulations a fair trial for six months. Cabs were consequently plying as usual on Saturday evening and Sunday to the manifest satisfaction of the public.—On Friday, at the annual meeting of the Liverpool Chamber of Commerce, Mr. Horsfall, M.P., moved that the views in the report as to alterations in the bankruptcy laws should be inserted in the Bankruptcy Bill rather than be afterwards proposed as amendments. Mr. Graves, M.P., seconded the motion, and urged that every trader who gave a lien upon his trading property should be made to register it. Mr. Goschen, M.P., supported the motion. He feared that the present commercial depression was owing to commercial disrepute. The Bankruptcy Bill now being prepared embodied the new, radical, and stringent change of the future acquired property of the debtor being appropriated for the payment of his debts. He had formerly resisted the idea, but he had now come to

the conclusion that short of that they had no chance of doing away with the disgraceful system which now prevailed.

MANCHESTER.—On Monday morning a meeting of the citizens, convened by the mayor on a requisition signed by about 300 gentlemen of the advanced Liberal party, was held in the Town Hall, to consider the present state of the Irish Church Establishment and the duty of Parliament in relation thereto. The Mayor presided. The Rev. G. W. Couder (in the absence of Alderman Heywood) moved the first resolution, declaring the opinion of the meeting that in view of the gross injustice involved in the establishment of the Church of England in Ireland, and of the lamentable disaffection now existing in that country, it was the duty of Parliament to give its immediate attention to the subject of the Irish Church. He was interrupted several times while reading the resolution, and again while speaking in its support, so that it was necessary for the mayor to interpose to secure him a hearing. Alderman Rumney seconded the resolution, and quoted some statistics to show that the Protestants in Ireland formed only a small minority of the population of that country. The Rev. Dr. Garrett moved an amendment, to the effect that the meeting declined to pronounce an opinion in favour of destroying the Established Church in Ireland, because it had not evidence before it to justify such a proceeding, and also because it had no desire to excite the angry passions of controversy throughout the kingdom. He said the question before the meeting was one which made it the bounden duty of every Christian man to come forward and speak words of truth before the nation. Mr. W. Touchstone seconded the amendment. Mr. Jacob Bright, M.P., supported the resolution, and said, amidst continual interruptions, that it seemed to him that the Irish Church was in danger, and if it were in real danger he should regard it as a favourable sign of the times. If a majority of the people of the United Kingdom had their will, the Irish Church would cease to exist as a political institution; and if that meeting had been held in the evening when everybody could attend, it would not be possible to carry the amendment. The conclusion of his speech was inaudible in consequence of the clamour. The meeting was subsequently addressed by Mr. Ambrose, and at the close of his address it was decided to have no more speeches. The Mayor then put the amendment, which was carried by a majority of about five to three, amid great cheering from the opponents of the meeting.—On Tuesday a conference of the members and friends of the National Reform Union was held in the Town Hall, Mr. George Wilson, the president, in the chair. There was a very large attendance, delegates being present from various branches of the union in all parts of the kingdom. The chairman, in opening the proceedings, congratulated the members of the Union on the results they had achieved, by the agitation which they had carried on since its formation by the working men of Leeds. But only one portion of its programme had been, and that only partially, accorded to them. The following resolution was then passed on the motion of Mr. Bazley, M.P.:

"This conference is glad to recognise the homage paid to the principle of household suffrage in the Reform Act of last session, but regards that Act as an instalment only of Parliamentary Reform. This conference condemns the redistribution of seats as totally insignificant and worthless—the rate-paying clauses as unnecessary and vexatious—the representation of minorities as absurd, unjust, and unconstitutional, and is of opinion that energetic action is more than ever required in order to remove the highly objectionable enactments in the Bill, and to secure the remaining and still more important objects for which the National Reform Union has so long contended."

A second resolution was moved by Mr. Jacob Bright, M.P., and carried—

"This conference considers it the duty of Reformers everywhere to demand and put forth renewed efforts to obtain—1st The repeal of the rate-paying clauses; 2d. The abolition of the representation of minorities; 3d. The assimilation of the county to the borough franchise; 4th. The protection of the voter by means of the ballot; 5th. A just and equitable redistribution of seats, in proportion to population and property; 6th The shortening of the duration of Parliament to three years."

Another resolution was passed calling upon the branches of the League to further its objects by every means in their power. A Miss Wilson then moved—

"That this conference is of opinion that any household rated to the relief of the poor ought not to be excluded from the franchise."

Mr. Carrier seconded the motion, which was supported by Mr. Jacob Bright, M.P., but after an explanation from the chairman as to the rules governing the Reform Union, which rules restricted the suffrage to male occupiers, the resolution was withdrawn, three cheers being given for Miss Wilson. Mr. Jacob Bright, M.P., said he had been informed by Mr. Lings, of the overseer's office, that under the new Reform Bill there would be about 7000 female householders in Manchester, as near as he could guess.—On Tuesday afternoon, at the City Police-court, a young man, of respectable exterior, named Patrick Mullady, was charged with taking part in the attack on the prison van and the murder of Serjeant Brett, in Hyde Road, on the 18th September. The prisoner arrived in Kirtland, to whose custody he had been given at Bow Street Police-office, London, under a warrant granted for his apprehension. The prisoner said that he knew nothing about the offence with which he was charged, but the Superintendent stated that he had already been identified by three witnesses, and that there were besides other reasons for asking for a remand. The magistrate then remanded him for three days.

MARLBOROUGH.—The experiment made by the Marchioness of Ailesbury in establishing a cottage

hospital at Savernake, near this town, appears to have succeeded admirably. At the annual meeting held a few days ago, under the presidency of the Marquis of Ailesbury, the report showed that during the past year an addition of 144 had been made to the endowment fund, and that 79 cases had been received into the hospital (making up nine beds only), 40 of which were discharged cured, 28 were relieved, two pronounced incurable, and two fatal.

MONMOUTH.—All the colliers in this county, with the exception of those at Risca, are now on strike, having come to the determination, after holding several meetings, not to accept the proposed reduction of 3d. per ton.

OXFORD.—The New York papers publish a letter from Mr. Goldwin Smith, stating that there is no truth in the report that he is about to become a naturalised citizen of the United States. He intends, however, to devote himself to the study, and, if after due study he feels equal to the task, to the composition of American history. With this view he will probably take up his abode in the United States in the course of the summer, at some place where there are books and records, and where he can obtain permission to use them. His undertaking, he adds, necessarily implies a prolonged residence in the country where it must be carried on.

YORK.—At the meeting of Convocation for the province of York last week, the business of chief interest was the discussion of the question of promoting a reunion between the Wesleyan body and the Church of England. It was at first moved by Archdeacon Hamilton, and seconded by the Archdeacon of Carlisle, that the Wesleyan Conference should be invited to nominate a committee to meet a similar committee appointed by Convocation, with the object of considering this question; but subsequently the House adopted a modified resolution, moved by the Bishop of Ripon, to the effect that whereas the union of all faithful Christians was earnestly to be desired, and many of the causes which originally led to the separation of the Wesleyans from the Church of England were sensibly diminished, that House would cordially welcome any practical attempt to effect brotherly reconciliation between the Wesleyan body and the Church of England.

Ireland.

ORDER OF ST. PATRICK.—The Marquis of Drogheda was invested as a Knight of the Order of St. Patrick on Friday in Dublin Castle, by the Grand Master, the Lord Lieutenant, in the presence of the other members of the chapter. There was a distinguished attendance.

PURCHASE OF RAILWAYS.—An influential meeting on the question of railway reform in Ireland was held on Friday at the Mansion House, the Lord Mayor in the chair. Speeches were made by the Marquis of Clanricarde, Lord Bandon, and Sir Benjamin Morris. Resolutions urging the purchase of the railways by Government were adopted.

OPENING OF THE DUBLIN COMMISSION.—The ordinary spring Commission of Over and Terminer was opened on Monday by Judge Fitzgerald, who in his charge to the grand jury referred at great length to points at law connected with the Press. He gave it as the opinion of himself and his colleague that the publication of seditious or libellous articles from American or other foreign newspapers could not be justified or excused by law. In reference, however, to all such publications, the time, the object, and all the surrounding circumstances were to be taken into consideration, as they might be such as to rebut the inference of criminal intention on the part of the publisher. True bills were returned against Mr. Sullivan, the publisher of the *Weekly News*, and Mr. Pigott, the publisher of the *Irishman*, for seditious libel. True bills were also found against Patrick Lennon for high treason and for the murder of Constable Keena; and also against Mr. John Martin and others for walking in the recent Fenian processions. On Tuesday Patrick Lennon was tried for treason-felony. Constables were examined, who identified him as leader of the party who took some of the police prisoners and attacked the barracks at Stepaside and Glencullen. The jury, after 10 minutes' deliberation, returned a verdict of Guilty. He was tried on Wednesday for firing at Sergeant Kelly, with intent to murder. The defence was that the evidence of Kelly and other witnesses as to identity was not to be relied on. The case was not concluded at the rising of the Court, and the jury were conveyed to a hotel. On Thursday a witness for the defence swore that he spent the evening of the occurrence in company with the prisoner in a public-house, and at a quarter to 12 returned with him to his lodgings, where he remained until half-past 5 in the morning, sleeping in the same bed. On cross-examination he said he never slept with Lennon before, but he was shut out of his own lodgings that night. Other witnesses corroborated the evidence. At the close of the case Judge Fitzgerald charged the jury. He pointed out the discrepancies in the testimony of the Crown witnesses as to the identification. The jury, after deliberating three-quarters of an hour, acquitted the prisoner. The Attorney-General stated that he would not proceed with the indictment for murder. Yesterday morning the prisoner was brought up for sentence on the conviction for treason-felony, and was sentenced to 15 years' penal servitude. The prisoner declared his belief that the Government would be overthrown before the expiration of that term, and boldly stated that, if again free, he would act as he had done. In the case of Mr. Pigott, the Attorney-General applied to have the traverser transferred to the sheriff of the county, or arraigned under the County Commission. Mr. Heron objected,

and said that the legal course had not been pursued. The Court reserved judgment on the point. Yesterday Mr. Pigott, on learning that a warrant from the Bench was necessary to compel his appearance for trial, left the Court, and the police have since been unable to execute the warrant. The Attorney-General expressed a hope that Mr. Pigott would be advised to appear in Court this morning.

ARREST OF CAPTAIN MACKAY AT CORK.—Friday evening Captain Mackay, a notorious Fenian, was arrested by the constabulary in a public-house in Cork, with the tavern-keeper and several others. The prisoners made a desperate resistance. One of them got on the head constable's back and endeavoured to choke him; they struggled for about 20 minutes, and were frequently up and down on the ground. Mackay caught the head constable's revolver by the muzzle and tried to wrest it from him. He then got the constable's revolver and fired, wounding another constable in the leg. Eventually the police were reinforced, and conveyed the prisoners to Bridewell. A large, excited crowd assembled, and the police charged with bayonets wounding one man. Mackay, while going to prison, said he pitied such a fine body of constabulary for being loyal to an oppressive Government. More than 100 police guarded the gaol at night against a mob. On Saturday Mackay was brought up at the police court with six other prisoners, named Cronin (a public-house keeper), Mannix, Walsh, Hinchin, and White. The prisoner Hartnett, a draper's assistant, Mannix a fisherman, the others are labourers. All the prisoners were remanded except Cronin, who was discharged. Since the investigation Mackay, who is a very young man, has been identified as the leader of the party who attacked the market tower at Fota.

ATTEMPTS TO MURDER IN CORK STREET.—On Friday night, shortly after Mackay's arrest, Mr. Hilliard, a book-keeper, was returning home on Sundays Well, Cork, when he noticed a man behind him on the footpath who, as he approached, stepped into the road and presented a revolver at his head. The night was clear. After staring into Mr. Hilliard's face and seeing that he was not a detective, the man returned the revolver into his pocket and made off. On Sunday night Constable Courtney, of the detective force, when in company with two other policemen, was fired at four times from a revolver, by one of two men who had followed him for some time. None of the shots took effect, and the assassins escaped, the police being provided with fire-arms. On Monday afternoon Patrick O'Brien, stone mason, lately from America, and John Eddy, boiler maker, from England, were arrested on suspicion of being the guilty parties. The former was positively identified. On removing the prisoners a large mob assailed the police with stones, and attempted to rescue the prisoners. At length the mounted and foot police charged the mob with drawn swords and fixed bayonets, wounding several of the rioters, and effected a secure retreat to the police station. The rioting, however, continued until after midnight, without cessation for more than nine hours. The Riot Act was read late in the night, and the police were again obliged to charge the mob with drawn swords and fixed bayonets. Many of the rioters were wounded. One of them, a lad named O'Leary, died in the hospital on Tuesday morning. Two of the rioters were brought before the magistrates during the day, and committed for trial before the Recorder. On Tuesday evening two policemen arrested a suspicious-looking man in Cork, and were proceeding to search him, when he presented a revolver and fired. The police returned the fire and shot him. They went for medical aid, and on returning found that he had been removed to the hospital. A six-barrelled revolver, with two barrels discharged, was subsequently found near the man, and in a house adjacent a man named Dineen was discovered under a bed with his nose recently shot through. He was identified by the police as having fired at them. He has been committed for trial. On Thursday the waggons which conveyed powder from Ballincollig Mills for shipment were escorted by a large body of lancers and infantry. The police were on street duty day and night with loaded rifles.

ATTACK ON A PRIVATE HOUSE.—On Tuesday night the house of Mr. Hugo, in Pope's Road, Cork, was attacked by three men, who demanded arms, and obtained a gun. At the Police Office, on Wednesday, two men named Bullen and Hynes were charged with the illegal possession of arms. Bullen had concealed the barrel of a gun loaded, and Hynes had the stock. The gun was identified by Mr. Hugo as the one fired from him.

Scotland.

THE SCOTCH ROMAN CATHOLICS AND FENIANISM.—On Sunday, in all the Roman Catholic churches throughout Scotland, the *Glasgow Free Press*, a Roman Catholic organ, which has lately been devoted to columns to the propagation of Fenianism, was denounced from the altar, in accordance with instructions received from Cardinal Barnabo, Prefect of Propaganda. The Cardinal, in his letter, dated Rome, January 16, says that it has been reported to the Sacred Congregation "that the journal edited by the *Glasgow Free Press* does not desist from disseminating writings which cause great scandal to the Catholics of Scotland." In carrying out the instructions of his Eminence the vicars apostolic framed a pastoral address, in which they forbade ecclesiastics under their jurisdiction from taking any share in the publication of the paper in question, and require of them, under pain of suspension, to abstain from writing or in any way whatever contributing to it.

THE LOUDOUN ESTATE.—The Ayr papers state

week have been small, of Barley good. This morning's market was well attended. English Wheat was taken at the full price of Monday, and a good business was transacted in American spring and Australian, at an improvement of 1s. per qr. upon late rates, other descriptions were comparatively neglected. There was no change in the value of Barley, Beans, or Peas. Oats continue scarce, and in some instances brought rather higher prices.

ARRIVALS THIS WEEK.

	Wheat.	Barley.	Oats.	Flour.
English ..	790 qrs	2620 qrs.	— qrs.	2110 sks.
Irish ..	— " "	— " "	890 " "	— " "
Foreign ..	5980 " "	7370 " "	450 " "	{ 1690 " "
	6770	9990	1250	— brls.

LIVERPOOL, Tuesday, Feb. 11.—To-day's market was well attended, and in white Wheat an extremely large business took place, at an advance of 4d. per cental on the week. Other kinds steady at previous rates. Flour in moderate demand, and prices unchanged. Indian Corn in better request, at 6d. per qr. advance on the week. Oats and Oatmeal unchanged. Egyptian Beans in fair request at previous rates. Canadian Peas 6d. dearer. Malt and Barley unchanged.

AVERAGES.

	Wheat.	Barley.	Oats.
Jan. 4 ..	87s10d	41s 4d	25s10d
— 11 ..	69 6	41 6	25 5
— 18 ..	71 6	42 1	25 7
— 25 ..	72 4	42 6	25 8
Feb. 1 ..	72 6	42 4	25 11
— 8 ..	73 4	42 7	26 0
Agg. Average ..	71 2	42 1	25 8

WANTED, as HEAD GARDENER, for a Gentleman's place near London, where several hands are employed, a thoroughly experienced Man, who understands all branches of his business as Head Gardener, and also to take charge of about 40 Acres of Land. House, coals, vegetables, &c. are found. A married Man, from 28 to 35 years of age, preferred.—Address, stating age and number of family, with full particulars of former service, qualifications and wages required, to C. H., care of Burrup & Sons, Stationers, 12, Royal Exchange, London, E.C.

WANTED, a HEAD WORKING GARDENER.—Must thoroughly understand the Cultivation of Vines, Peaches, Stove and Greenhouse Plants, and the Management of a large Flower Garden. Two Under Gardeners and Two Labourers kept. Wages 5s. a-week, with house and fuel.—Address F. D. G., Park Hatch, Godalming.

WANTED, a GARDENER (Single-handed), to keep in good Cultivation a Kitchen and Small Flower Garden, and to look after a Cow. State wages, with references and address, H. W., Ollerton House, Ollerton, near Newark, Notts.

WANTED, a WORKING GARDENER, in a London Garden, one who has held a Single-handed situation some years preferred. He will be required to produce a constant supply of Fruit and Flowers, Forced and otherwise. He will have assistance. None but neat tidy Gardeners need apply. State wages required, and full particulars.—Apply by letter only, to C. R., Fitzcain's Library, King's College Road, Adelaide Road, Regent's Park, N.W.

WANTED, as PROPAGATOR and FOREMAN over about 12 Greenhouses, &c., an active and energetic Man. Will be required to propagate principally Soft-wooded stuff, with a few Azaleas, Roses, Camellias, &c.—Apply to W. C., Post Office, Norwich.

WANTED, a first-class Man as HARD-WOODED PROPAGATOR, one that has been accustomed to extensive practice, and can produce large quantities. Must have excellent references for ability and sobriety.—Apply by letter only, Messrs. Hoopes & Co., Centre Avenue, Covent Garden, W.C.

WANTED, as PROPAGATOR, a married Man, who understands Roses, Rhododendrons, and Conifers, &c.—State wages and references to CHARLES NOLTE, Bagshot.

WANTED, a steady and energetic MAN, who well understands working Fruit Trees and Roses. State wages required, and references as to ability, &c.—Apply, by letter, to J. Hous, Eastgate Nursery, Peterborough.

WANTED, a competent MAN, to undertake the Propagation and Growing of Stove Plants and Ferns, and willing to make himself useful.—None but competent parties need apply. One from a nursery preferred.—Apply, stating wages required, experience, &c. to J. & R. THUR, North Woodside Nurseries, Glasgow.

WANTED IMMEDIATELY, a Young Man quick at propagating Bedding Plants, and to make himself useful as SALESMAN. Must have a good character.—Apply, 374, Kingsland Road, N.

ROBERT T. VEITCH is in WANT of a thoroughly competent NURSERY FOREMAN and SALESMAN with an unexceptionable character.—Apply, stating references and wages required, to New North Road Nursery, Exeter.

WANTED, a YOUNG MAN, to Assist in the Houses, where Fruit and Flowers are grown for Market.—R. CLARKE, Market Gardener, Twickenham.

WANTED, a YOUNG MAN (who has filled a similar situation), about 20 years of age, to be under and assist our Hard-wooded Propagator in Grafting and putting in Cuttings, &c. State where last employed and wages required.—Apply to GEORGE JACKMAN & SON, Woking Nursery, Surrey.

JAMES CARTER and CO. are in WANT of SEVERAL YOUNG MEN, used to Gardening, and wishing to improve themselves in the various departments of Horticulture in and out doors; also YOUNG MEN used to PACKING SHEET WORK. Wages and advancement according to ability and energy displayed. Age from 18 to 25. Must have good references.

MESSES. F. AND A. SMITH are in WANT of a COUPLE of YOUNG MEN as IMPROVERS in the Propagating Department.—Apply, with references as to sobriety and integrity, at The Nurseries, West Dulwich, S.

MR. WILLIAM BULL is in WANT of a CLERK and BOOK-KEEPER. An unexceptionable character indispensable. State where last employed, and salary required.—Establishment for New and Rare Plants, King's Road, Chelsea, S.W.

WANTED, a SHOPMAN.—Must be thoroughly acquainted with the Wholesale Trade, of good character, &c.—Apply, in own handwriting, stating salary and other particulars, to Mr. S. H. CLARKE, 65, Connaught Terrace, W.

SHOPMAN WANTED.—Must be a good Salesman, and well up in Flower and Vegetable Seeds, and possessing a knowledge of Plants. He must be well recommended.—Address, stating salary and other particulars, BARR & SCODEN, 12, King Street, Covent Garden, W.C.

SHOPMAN WANTED.—A Young Man as UNDER SHOPMAN. He must have a good character and good address.—BARR & SCODEN, 12, King Street, Covent Garden, W.C.

WANTED, IMMEDIATELY, a young Man as ASSISTANT, 16 to 20 years of age, possessing a fair knowledge of the Seed Trade, willing to make himself generally useful and improve. Board and lodgings would be provided. None need apply whose character will not bear the strictest investigation.—Apply in own handwriting, stating terms, age, experience, and referring to last employer, FARRS, GRAY, Seed Merchant, &c., Biggleswade.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. F. G. HENDERSON & SON, Wellington Nursery, St. John's Wood, London, N.W.

Gardeners (Head, Foremen, and Under).

JAMES CARTER and CO. having many applications for the above, request those wanting Situations to send Name, Address, and Copies of Testimonials, for entry in their FREE REGISTER. Only those who can send unquestionable references need apply. Any Lady or Gentleman requiring Gardeners, as above, may rely upon J. CARTER & CO., adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c.—JAMES CARTER & CO., 237 & 238, High Holborn, W.C.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS and GARDENERS and BAILIFFS, of various qualifications, who are open to engagements.—The fullest particulars as to services required and wages given, should be forwarded with application. PAUL'S Nurseries, Waltham Cross, London, N.

GARDENER (HEAD), to any Lady, Nobleman, or Gentleman.—Age 40, married; 14 years in last situation. Practically conversant with the various branches of Gardening.—J. D., 16, Lucretia Road, Kennington, S.

GARDENER (HEAD).—Age 27, single; 10 years' first-class experience. Excellent character.—C. J., 222, Strand, Temple Bar, London, W.C.

To Noblemen and Gentlemen.

GARDENER (HEAD).—Age 30, married, no incumbency.—Apply to Mr. MERRITT, The Vineyard, Garston, near Liverpool.

To Noblemen and Gentlemen.

GARDENER (HEAD).—Age 35, married; has a good practical knowledge of Gardening in all its branches.—Apply to Mr. MERRITT, The Vineyard, Garston, near Liverpool.

GARDENER (HEAD).—Age 30, married; understands Early and Late Forcing; also Stove and Greenhouse Plants, and Flower and Kitchen Gardening. Wages, £65 to £70 per annum, with cottage.—B. C., W. Kemp, Albury Gardens, Guildford, Surrey.

GARDENER (HEAD).—Age 25, married; understands Early and Late Forcing, Stove and Greenhouse Plants, Flower and Kitchen Gardening. Good character given from last employer.—J. S., Mrs. Lambert, Belvidere, Kent.

GARDENER (HEAD).—Age 34, married, no incumbency; has had considerable experience in the Cultivation of all kinds of Fruit, Flowers, and Vegetables, Early and Late Forcing, &c. Good character.—Gardener, South Norwood Hill, Surrey, S.

GARDENER (HEAD).—Middle-aged, married; thoroughly understands his profession in all its branches. Five and a-half years in present situation. No single-handed place accepted.—Wm. NEWSHAM, Gr., Cliffe Hall, Darlington.

GARDENER (HEAD).—Age 32, married; understands Pines, Grapes, Hothouse and Greenhouse Plants, Early and Late Forcing, and Fruit, Flower, and Kitchen Gardening. Good character.—A. Z., Mr. Cole, Florist, &c., High Street, St. John's Wood.

GARDENER (HEAD).—Age 27, married, no incumbency; well up in Vines, Pines, Stove and Greenhouse work, and Kitchen and Flower Gardening. Good character from present employer.—W. B., 2, Nottingham Terrace, Upper Tooting, S.

GARDENER (HEAD).—Thoroughly understands the Cultivation of Vines, Stove and Greenhouse Plants, Early and Late Forcing, and Flower and Kitchen Gardening. Good character.—E. W., Mr. Hughes, Eastgate Street, Winchester.

GARDENER (HEAD).—Age 29; thoroughly practical in the different branches, including Pines, Orchids, Stove and Greenhouse Plants, Orchard Trees, &c. Four and a-half years' good character.—G. C., Park Hill Gardens, Streatham, S.

GARDENER (HEAD).—Age 27, married, no incumbency; thoroughly understands Gardening in all its branches. Good character and testimonials.—Address, 8, Paradise Row, Halloway, Bath.

GARDENER (HEAD).—Age 26; thoroughly understands his profession in all its branches. Five years' character from last situation.—J. M., Mr. Wm. King's, High Street Nurseries, Lincoln.

GARDENER (HEAD).—Age 33, married, no incumbency; thoroughly experienced in the various branches of Gardening, and the Erection of New Houses and Hot-water Apparatus. Six and a-half years' good character.—W. T., The Lodge, Haling Park, Croydon.

GARDENER (HEAD).—A highly respectable married Man, Gardener to G. F. Holroyd, Esq., late of Hatton Hall; has had 25 years' experience in all the various branches of his profession. Unexceptionable references.—W. WILLIAMSON, The Garden, Hatton Hall, Wellingborough.

GARDENER (HEAD).—Married, no incumbency; has had great experience in several of the best Gardens in England, including the Forcing of Fruit, Vegetables, and Flowers. Can be highly recommended.—A. B., Mr. Lamb, Colston Basset, Bingham, Notts.

GARDENER (HEAD).—Age 32, single; well experienced in the Forcing of Fruits, Flowers, and Vegetables, the Cultivation of Orchid, Stove, and Greenhouse Plants, and the Management of Flower and Kitchen Gardens. No objection to Land and Stock Character will bear strict investigation.—G. W., The Nurseries, Pine-apple Place, Edgware Road, London, W.

GARDENER (HEAD), or FOREMAN in a good Establishment.—JOHN GALLACHER, Gr to J. R. Hall, Esq., The Grange, Sutton, Surrey, can with confidence recommend his late Foreman to any Lady or Gentleman in want of a sober, steady persevering young Man, who thoroughly understands Gardening in all its various branches. First-class references.

GARDENER (HEAD WORKING).—Age 30, married, no incumbency; thoroughly acquainted with all branches of the profession. Good references as to character and ability.—E. M., 6, New Church Street, Brompton, S.E.

GARDENER (HEAD), where two or more hands are kept.—Age 25, married, no incumbency; thoroughly understands Forcing in all its branches and the general routine of Kitchen and Flower Garden operations. Unquestionable references from present and past employers. No single-handed place accepted.—F. W., Post Office, Stamford, Lincolnshire.

GARDENER (HEAD OF SINGLE-HANDED).—Age 26, single; understands Kitchen, Flower, and Fruit Gardening, and general Forcing. Good character.—A. B., 1, Lavender Cottages, Black's Road, Hammersmith, W.

GARDENER (HEAD OF SINGLE-HANDED).—Age 27; thoroughly understands the profession in all branches. Four years' good character.—H. W., 3, Rifle Cottages, Crown Road, Fulham, S.W.

GARDENER (HEAD, or SINGLE-HANDED), to any Lady or Gentleman.—Age 30, married; practical, working. Has had 13 years' experience in the various branches of his profession, is a total abstainer, and can produce good references as to character, ability, &c.—S. M., Post Office, Streatham, S.

GARDENER, in a Gentleman's Family.—Age 44, married, one child, aged 12; has a thoroughly practical knowledge of his profession in all its branches. Unexceptionable references, with nine years' character. Leaving through death of employer.—R. M., Post Office, Manningtree, Essex.

GARDENER (SINGLE-HANDED or OTHERWISE).—Age 28, married, one child. Testimonials good.—5, Grove Terrace, Hampstead Heath, Middlesex.

GARDENER (SINGLE-HANDED or SECOND).—Age 28, married, no incumbency; understands his profession in all its branches. Ten years' recommendation.—W. B., 53, Long Street, Brompton, London, S.E.

GARDENER (SECOND).—Age 24; has had considerable practice in the Early and Late Forcing of Flowers, Fruit, and Vegetables, the Cultivation of Pines, Vines, Melons, Peaches, and Greenhouse Plants, also in the Management of Orchard Trees. Four years' good character.—For particulars, address T. D., Seedman, Market Hill, Royston, Herts.

GARDENER (UNDER).—Age 22; has a good knowledge of House-work, Growing of Cucumbers and Melons, &c. months' good character.—G. C., 82, Bromell's Road, Chesham, Bucks.

GARDENER (UNDER).—Would not object to a situation under a Foreman in a large Establishment. Can be well recommended.—W. P., Trinity Church, East Peckham, Kent.

GARDENER, under a Foreman, in any Nobleman's or Gentleman's family.—Has had good experience in the Growing; good references.—A. B., 13, Wellington Street, Street, Camden Town, London, N.W.

NURSERY FOREMAN or MANAGER.—Good references.—T. A., Messrs. Thos. Davies & Co., Watlington Series, Liverpool.

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Home News.

THE COURT.—The Queen and Royal Family continue at Osborne. On Friday morning the Queen went out with Princess Beatrice, Prince and Princess Christian, Princess Louisa, and Princess Henriette...

THE PRINCE AND PRINCESS OF WALES.—The Prince hunted with his harriers near Slough on Friday. The Princess drove out. On Saturday the Prince presided at a meeting of the Council of the Duchy of Cornwall...

COURT ARRANGEMENTS.—It is announced that the Prince of Wales will hold Levées at St. James's Palace, on behalf of the Queen, on Tuesday, March 3, and Tuesday, March 17.

THE CABINET.—A Cabinet Council was held on Saturday at the official residence of the First Lord of the Treasury, in Downing Street.

THE ILLNESS OF LORD DERBY.—In the course of Sunday night Lord Derby experienced a relapse, and on Monday Lord Stanley and Dr. Miller were summoned by telegram. Dr. Miller arrived at Knowsley in the course of the afternoon...

PARLIAMENTARY MOVEMENTS.—Mr. Brett, the Solicitor-General, was re-elected for Helston on Wednesday, without opposition, the two Liberal candidates, Messrs. Rogers and Lea, having declined to go to the poll...

the well-known Nonconformist, will be the Liberal candidate for Bristol on the retirement of Sir Morton Peto from Parliament

THE SHERIFFALTY.—At the Council of the Duchy of Cornwall, on Saturday, the Prince of Wales directed letters patent to be passed under the Seal of the Duchy appointing Edward Coode, of Saint Austell, Esq., Sheriff of Cornwall for the year ensuing.

NEW MEDICAL BARONETCY.—It is announced that the Queen has signified her intention of conferring a baronetcy on Dr. Jenner, who has for some years been Physician in Ordinary to her Majesty and the Royal Family.

CONVOCAION.—Both Houses of Convocation reassembled on Tuesday after the recess. In the Upper House the Bishop of London said he had been asked by the Archbishop to move the following resolutions—

"That this House, viewing with anxious concern the increasing diversity of practice in regard to ritual observance, as causing disquiet and contention, and perceiving with deep regret that the resolutions adopted at the Convocations of Canterbury and York have failed to secure unity, deems it expedient for the peace of the Church—1. That the limits of ritual observance should not be left to the uncontrolled discretion of individual clergymen, and ought, therefore, to be defined by lawful authority.

The Bishop of Winchester seconded the motion, and after some remarks by the Bishop of St. David's in support of the resolution, and by the Bishop of Oxford against them, the debate was adjourned. Immediately afterwards the Archbishop of York, the Archbishop of Armagh, the Bishop of Chester, and other bishops from Ireland and the northern province, entered and sat in consultation with the bishops of the province of Canterbury. On Wednesday the debate on the Bishop of London's resolutions was resumed by the Bishop of Llandaff, who spoke in their support.

"That the limits of ritual observance cannot be left to the unrestricted discretion of individual clergymen and ought, therefore, to be defined by rightful authority, and that, therefore, means should be provided for enforcing the due observance of the same but I own at the end of the service concerning the services of the Church, with a view of duly interpreting diversely taken common rules, and if necessary, for removing anomalies in the existing law.

In the Lower House on Tuesday Archdeacon Wordsworth and other members presented gravamina and petitions on the state of the Church in Natal, the object of which was to induce Convocation to take any further steps in its power to enforce the sentence of deposition and excommunication passed by the African bishops against Dr. Colenso. The discussion on the question was postponed. Canon Woodford then moved that the President be asked to direct the encyclical letter adopted by the Lambeth Conference to be read in that house.

"This House acknowledges with thankfulness the act of his grace the President in writing to the Eastern Patriarchs, and in communicating to them the episcopal address of the Lambeth Conference."

Dr. Fraser seconded and Chancellor Massingberd supported the motion. The Dean of Westminster said that while the letter attacked the Mariolatry of the Church of Rome, it held out the right hand of fellowship to the Eastern Churches, who were practically as guilty of undue exaltation of the Virgin. He did not, however, object to the motion, because by giving the sanction of Convocation to that letter they repealed, as it were, the damnatory clauses of the Athanasian creed. After a few words from Archdeacon Mackenzie, the motion was adopted. The remainder of the sitting, which was very lengthy, was occupied by a debate upon the Colenso question. On Thursday, in the Upper House, a discussion took place on a petition in favour of allowing, in cases of sickness, the Sacrament to be conveyed from the church to the house of the sick person. Several of the bishops expressed their opinion that the practice would be attended with danger, and the Bishop of London showed that by the Rubric it was not a matter of absolute necessity that the Sacrament should be administered to sick persons who were unable to attend church. The Bishop of Oxford moved the adoption of the report of the Committee of the Lower House recommending the increase of the number of proctors to be sent to that House, and for enlarging the constituency by admitting curates to vote at the election of proctors. The motion was agreed to. The Bishop of Gloucester and Bristol moved the adoption of the report of the Committee of the Upper House on the question of diocesan Synods. After considerable discussion the debate was adjourned. In the Lower House, the debate on Canon Seymour's motion on the South African Church and Bishop Colenso was resumed. The Dean of Ely moved an amendment expressing sympathy with the Bishop of Capetown, but declaring that it was unable to adopt the grava-

men proposed by Canon Seymour as an *articulus cleri*, because it involved questions of law upon which the House did not feel itself competent to decide. The Dean of Canterbury seconded the amendment. A long debate ensued, at the close of which the amendment of the Dean of Ely was rejected by 45 to 25. Another amendment by Archbishop Wordsworth was withdrawn. Canon Seymour's gravamen was then made an *articulus cleri*, and ordered to be presented to the Upper House.

INTERNATIONAL COINAGE COMMISSION.—Her Majesty has been pleased, on the recommendation of the Government, to appoint the following Royal Commissioners to examine and report upon the proceedings and recommendations of the International Conference, held in Paris last year, under the auspices of the French Government, relative to the establishment of a universal system of international coinage.

Viscount Halifax, chairman. Right Hon. C. P. Villiers, M.P., Right Hon. Steph. A. Cave, M.P., Right Hon. J. Wilson Patten, M.P., Right Hon. M. Longfield, Sir J. Lubbock, Bart., Baron Lionel de Rothschild, M.P., the Governor of the Bank, Mr. T. Baring, M.P., Mr. Thomson Hankey, M.P.; Mr. Hubbard, M.P., Mr. J. B. South, M.P., the Astronomer Royal, and the Master of the Mint. Mr. Rivers, W. Esq., of the Treasury, who was deputed, with the Master of the Mint, to attend the Paris Conference, will act as secretary of the Commission.

Foreign.

FRANCE.—In the sitting of the Legislative Body on Friday, the debate upon the Press Bill was resumed. Article 16 was referred back to the Committee. M. Berryer made a speech in favour of the amendment proposing that Press offences should be tried by different tribunals in rotation. M. Baroche, the Minister of Justice opposed this amendment. M. Berryer again pressed it, and an excited discussion ensued, during which M. Pelletan was called to order by the President. The amendment was finally rejected, by 175 to 48 votes. In the sitting of Saturday a Bill was introduced proposing to abolish definitively the extra tax upon corn and flour imported in foreign bottoms. The extra tax was already temporarily suspended on the 13th of November last. In the sitting of Monday the debate on the Press Bill was resumed. An amendment relative to the system of advertisements in the public journals respecting legal proceedings came under discussion. M. Pinaré, the Minister of the Interior, said that the Government was determined to exercise its rights in this matter, and would not give these advertisements to papers which desired the overfavour of the Government. M. Olivier, referring to a remark of M. Pinaré, expressed astonishment at the Minister's qualifying as enemies such men as M. Latour-Dumoulin and others, who certainly did not desire the overthrow of the dynasty. M. Latour-Dumoulin characterised the expression made use of by M. Pinaré as a calumny. Great excitement prevailed in the Chamber. When M. Pinaré resumed his speech, and that the Government in distributing the accounts kept strictly in view the requirements of the public. It had, indeed, given advertisements to 17 newspapers which belonged to the Opposition Press, but were not actually hostile to the present Government. The amendment was rejected by 186 against 47 votes. M. Berryer then spoke in favour of an amendment proposing that the judicial authorities should designate the journals in which legal advertisements should be published. M. Rouher opposed this amendment, which was defeated by 126 against 193 votes. In the sitting of Tuesday M. Garnier Pages explained the object of his amendment, proposing the abrogation of the second article of the decree of 1852, which requires that preliminary permission be obtained before foreign journals can enter France. M. Nogent, the reporter of the committee, said that the free admission of foreign journals would be detrimental to the French newspapers, and place them on an unequal footing. M. Jules Favre maintained that there was an absolute incompatibility between the restriction upon the admission of foreign journals and the suppression by the present Bill of the preliminary authorisation hitherto required to establish a newspaper. The state of affairs placed France in a position of inferiority unworthy of a free people. The amendment of M. Garnier Pages was rejected, as was also an amendment moved by M. Pelletan, respecting the penalties to which journals are to be liable. Another amendment respecting the sale of newspapers in the public streets was defeated, by 194 against 33 votes. In the sitting of Wednesday the amendment demanding the abrogation of the 8th article of the law of 1817, which renders a journal liable to fine for any attacks upon public morals or religion, was rejected. The amendment proposing to abrogate the provision of the decree of 1852 which prohibits the press from publishing reports on Press trials then came under discussion. MM. Pinaré and Jules Favre spoke in support of the amendment. In reply to M. Jules Favre M. Pinaré, the Minister of the Interior, said that the publicity of trials before the Courts was a necessary guarantee, but that the publication in the newspapers of the proceedings in cases against the Press was a danger without any compensation. The amendment was rejected by a majority of 204 to 39. In the sitting of Thursday, M. Puchon's amendment, proposing to grant to the law courts the right of authorising the publication in the journals of reports of their proceedings in Press cases, came under discussion. MM. Baroche and Pinaré opposed the amendment, which was rejected by 164 votes against 58. Another amendment was discussed demanding the abrogation of the decree of August, 1848, which renders newspapers liable to prosecution on the charge of endeavouring to bring the

Government into hatred and contempt. MM. Baroche and Rouher opposed the amendment, which was also rejected. Another amendment, proposing to abrogate Articles 14, 15, and 18 of the decree of 1852, was rejected without debate. The Chamber then began the discussion of M. Janz's amendment, which proposes that the journals should be allowed to publish analyses and criticisms of the debates which could not be classed with the prohibited reports of the sittings. M. Schneider, the President of the Legislative body, is suffering from complete loss of voice, but his health is not seriously affected. M. Magne, the Minister of Finance, is said to have submitted to the Council of State the draft of a Bill authorising the Suez Canal Company to all lottery drawings to their loan of 100,000,000fr.; the prizes not to exceed each year 1 per cent. of the borrowed capital. The Commercial Treaty between France, Mecklenburg, and Prussia was ratified on Saturday. The Zollverein will reduce the duties on French wine in cask and bottle to 20 francs. The arrangement will be put in force after the treaty between Austria and the Zollverein has been signed. The Hanoverian Legion in Switzerland passed over into France last week, without the knowledge or permission of the French Government. They were provided with Austrian passports, granted by a mistake of the subordinate police authorities. As soon as the French Ministers were informed of the fact they took the necessary measures to locate the officers and men separately, and at a considerable distance from the eastern frontier. According to the *Etendard*, the court of honour instituted to try the charges of corruption, made by M. Kerveguen against certain Paris journals, has terminated its labours. Its decision is said to be a complete dismissal of the charges preferred.

SPAIN.—A Carlist band of about 50 men have made their appearance in Navarre. They are said to have had a skirmish on the 16th with the Civic Guard, in which several were wounded. The police in Navarre have seized 3000 copies of the portrait of Don Juan's eldest son, whom his partisans denominate Charles VII. The Minister of Finance announced on Tuesday in the Cortes that he proposed to make several reductions in the Budget. The Senate continued on Wednesday the debate on the reform of the Courts of Justice. The Count of Paris arrived at Madrid on Wednesday.

NORWAY.—The new postal treaty between Norway and the North German Confederation is concluded. The correspondence is sent by steamer from Copenhagen to Christiania twice, and from Kiel to Christiania once a week: postage, 3½ sh.

BELGIUM.—A vessel laden with 200 barrels of petroleum oil caught fire on Saturday in the Antwerp Docks, and with another vessel laden with petroleum was consumed by the flames. The property destroyed is estimated at 150,000fr., but is covered by insurances.

DENMARK.—The Crown Prince will leave Copenhagen in a few days on a visit to England. The Copenhagen papers state that the Princess of Wales has been invited to be present at the inauguration of a new railway line in the vicinity of the city of Copenhagen, but has been unable to accept the invitation.

SWITZERLAND.—The Federal Council officially states that no reclamations have been received from Prussia respecting the Hanoverians who had repaired to Swiss territory. The Council left to the respective Cantons the right of affording asylum to those persons, but they suddenly quitted Switzerland of their own accord with Austrian passports after their position as residents in the country had been settled.

HANOVER.—The Vienna papers publish an account of the dinner given by the King of Hanover on Tuesday, in celebration of his silver wedding, the 25th anniversary of his marriage. They state that in the toast his Majesty proposed he returned thanks to those who had come from a distance to be present at this family meeting, held to show the intimate connection of the House of Guelph with the Hanoverian people. He entertained the conviction that he should return to Hanover as a free King. His ancestors had been compelled to leave the country, but found upon their return a larger Guelphic kingdom. Providence justified him in the belief that he, too, would go back to the country as a free and independent Sovereign. His Majesty concluded by drinking prosperity to Hanover and a speedy reunion in the land of the Guelphs. The dinner was attended exclusively by Hanoverians.

BAVARIA.—The illness of the ex-King of Bavaria has taken an alarming turn. The doctors propose making a second incision in his leg.

PRUSSIA.—In the sitting of the Chamber of Deputies on Saturday the Government asked that the sum fixed in the estimates for the police administration in Hanover should be voted. This amount had been reduced by the committee, but, owing to the agitation at present prevailing in Hanover, the whole amount requested by the Government was now granted. The Minister of the Interior presented a Bill relative to the closing of the gambling establishments at Wiesbaden, Ems and Homburg, which will take place, at the latest, by the 31st of December, 1872. They may, however, be closed at an earlier period by Royal decree. No compensation is to be granted to the proprietors. The Finance Minister brought in a Bill to increase the funds for removing the distress existing in East Prussia. The Bill provides that the Treasury shall grant loans by way of advances for agricultural purposes, the money being raised by the issue of interest-bearing bonds. The Bill was referred to a Committee. In the sitting of the Upper House on Monday the special debate commenced on the Bill based upon the proposal of the Committee, that members of the Diet should be arraigned before a court composed of members of both Chambers when prosecuted for expressions used while engaged in the performance of their duties as representatives. On the votes being taken, by calling over the names of the

members, paragraph 1 was rejected by 65 to 10. The Bill was therefore thrown out. In the sitting of the Upper House on Tuesday the Bill relating to compensation to the deposed German King, whether the Government still adhered to the treaty with the ex-King of Hanover after the incidents which had occurred in connection with the Hanoverian Legion. The Finance Minister replied in the affirmative. The Government had taken the measure into serious consideration. If after the Bill had been introduced into law and promulgated King George would attach his property, and not deliver it to the Emperor until it was convinced the treaty was fully observed. The House then unanimously rejected the Bill. The Bill relating to the establishment of a provincial fund for Hanover then came under discussion. The Bill was supported by the Minister of Finance, and adopted by 127 against 14 votes. It was in which it passed the Lower House.

AUSTRIA.—Letters from Vienna state that the sequence of the remonstrances of Prussia against the 500 Austrian passports delivered to the Hanoverian Legion to go from Switzerland to France, the Government has addressed to Count Platen, Minister of the ex-King of Hanover, a despatch, blaming the connivance of the direction of police with the Hanoverian refugees in Austria. In the sitting of the Reichsrath Delegation Monday the estimates of the Chancellery Imperial Cabinet were voted without alteration. The estimates of the Ministry for Foreign Affairs were passed, only a slight reduction being made in the amount of secret service money, namely 150,000fr., being left intact. The proposal to abolish the unimportant legations was rejected in consequence of the declarations of Baron Von Beust. In the sitting of the Upper House of the Reichsrath on Tuesday all the Archdukes were present. Prince Camillo Mansfield, the President, welcomed the new members on behalf of the House, assuring them of the full confidence in their endeavours. Prince Auersperg, the Minister President, requested the support of the House, which had, he said, so faithfully fulfilled its mission, and supported the Ministry in a spirit of patriotic impartiality. The Government, on its part, would leave no effort untried to uphold the Crown in undiminished splendour, and at the same time firmly adhered to the principles of Liberal institutions. In the sitting of the Reichsrath Delegation on Thursday Herr Schindler brought forward an interpellation, asking the Chancellor of the Empire for information respecting the Austrian passes granted to the Hanoverian refugees, and the festivities which recently took place at the Court of King George of Hanover. Baron Beust gave a reply at once, in order, as he said, to dispel any uneasiness. He declared that there was no reason either of home or foreign policy to disturb the recently festive celebration of the 25th anniversary of King George's wedding-day. Every measure had been taken to keep its celebration within the bounds of the family residence. He added that the statement recently published on this subject in official journals was the whole truth, and that the contrary assertions were false. He dwelt upon the exertions which the Austrian Government had made to prevent any interruption of the understanding with Prussia, even when there had been good ground for suspicion on the part of the Austrian Cabinet. The Government had limited itself to granting hospitality, would not suffer that efforts should be made to mine, by illegitimate acts, the edifice of peace which had been so laboriously erected. A circular had been issued by Dr. Giskra, the Minister of the Interior, to the provincial governors of Upper Austria and Styria. The Minister calls attention to the agitation of the clergy in those districts against the nation, and instructs the governors to watch against encouraging intrigues. They are to inform the bishops that the Government has no intention of interfering with the clergy in the exercise of their spiritual duties, but that it also demands that they should not consider themselves as above the law. In case of non-compliance, the Government is compelled to bring the disturbers of the public peace before the tribunals.

ITALY.—It is stated that the Italian Government has instructed the Chevalier de Nigra to inform the French Cabinet of its intention to honourably carry out the terms of the Convention of the 15th September; and also that it has made the most necessary arrangements to pay the interest of its portion of the Pontifical debt on the 1st April. In the sitting of the Chamber of Deputies on Friday the debate upon the Estimates of the Ministry of War was concluded. Count Cambrey, the Minister of Finance, promised to present a Bill abolishing the Government monopoly of the manufacture of gunpowder, and imposing a tax on that article. The Chamber approved a proposal to suppress the debate on the Estimates of the Ministry of Finance for 1868, and commenced the discussion of separate articles. In the sitting of Saturday the Articles of the Estimates of the Ministry of Finance were voted. Count Cambrey Deputé stated that the issue of Treasury Bonds was authorised, and promised to present a Bill increasing the amount of bonds in circulation, to be moving in March. The Minister for Prussia stated that the Adriatic Railway line would be completed by July, 1869. In the sitting of Sunday the debate on the Financial Estimates was continued. The President announced the return of the deputation sent to the Princess Margharita of Genoa, at Turin.

Primo Humbert, at Milan, to congratulate their
 on their approaching marriage, and said
 In the Senate on Sunday the President
 announcement. In the sitting of the
 of Deputies on Monday the Ministerial
 the immediate continuation of Public
 for the parts of Southern Italy was adopted
 to 1868. Count Cambray Digny presented
 the provisional exercise of the
 during the month of March. The report
 of the Ministry of Finance for 1868 was continued.
 referring to the interest of 4,180,000 lire on
 contracted with the National Bank in 1866.
 discussion. Signor Rossi moved an order
 engaging the Ministry to present, among
 for the restoration of the finances.
 Bank, in order to remove the forced currency.
 Count Cambray Digny said that he was not
 the order of the day. He requested
 to fix a day for the discussion. The
 proposal, and the Chamber approved the
 of the debate until after the conclusion
 of the Estimates of 1868. In the
 of Thursday the Committee on the Estimates
 Ministry of Finance relinquished their proposal
 29 millions as the amount of premium for gold
 abroad. The Committee decided to propose
 that the Minister of Finance should be autho-
 rized to make the necessary payments on this account.
 Chamber approved the provisional exercise of the
 for March by 194 votes against 32. The
 of 600,000 lire to the Princess Marg-
 was passed by 207 votes against 20. This con-
 the discussion on the financial estimates.
 on the Estimates of the Ministry
 of Public Works then commenced. A banquet
 on Friday evening to Admiral Farragut by
 of Italian senators and deputies. The Mi-
 of Marine presided. On the previous day a
 was given in honour of the Admiral, at
 the superior officers of the Italian army and

Reactionary intrigues are very active
 and disturbances have occurred at Grotte and
 The Government have taken the necessary
 to put down any further attempts.

The Carnival commenced on Satur-
 day. The Corso was very animated. Although few
 were observed, large crowds filled the streets.
 order prevailed.

It is said that the Great Powers acted
 information when they made representa-
 and Bucharest. Prince Michael has
 considerable energy in resisting the warlike
 of the population.

The Patrie, of Thursday,
 under reserve, news from Ibrala announcing
 of Russian troops near Konzas and
 other villages on the frontiers of Bessa-
 and Moldavia. The Patrie adds that these
 do harm in giving an apparent confirma-
 of the operations of the committees who are
 to rouse the Bulgarian populations from
 by affirming that, if a rising were effected,
 would come to their aid.

Moscow journals announce the death in
 from inflammation of the lungs, of the
 of Georgia, Anna Paulowna, wife of the
 Emperor, daughter-in-law of the late Czar
 George XIII, born Countess of Koutaissof.
 known for her great erudition, and
 acquainted with all the remarkable personages
 of the 18th century; was a pleasing writer, and so
 a composer that Meyerbeer, in speaking of
 said, "I should like to have produced them."
 resided for some years before her death in
 where she was much esteemed.

The British troops occupied Addis-
 on the 31st ult. The Deral and Talanta
 are reported to have submitted to Theodore.
 body of the troops cannot advance until the
 have been formed at Senafe, which will require
 time, as each mule's burden upon reaching
 is reduced to an average weight of 10 lb.
 of piping for the conveyance of water
 through Egypt for Abyssinia. Annesley
 of transports, which were lying idle, the
 weather rendering towage impossible. Colonel
 has been killed at Senafe by the accidental
 discharge of a forling-piece. A great scarcity of water
 prevailed at Annesley, and the daily allowance was
 three quarts.

Accounts from Table Bay
 to the 29th ult., state that the rate of mortality at Cap-
 town from fever still continued very high. Exertions
 were being made to suppress the disease. The harvest
 proved a bounteous one, though less favourable than
 expected. From a return just published marked
 revenue and the extent and prospects of
 were more favourable than for years before.
 entertained of a surplus revenue in the
 of the present year. It had been
 to open the docks in Table Bay
 to excavate eight acres of the inner dock, to a
 depth of 25 feet of water. More coal fields
 were found in Port Natal, and the prospects
 of further brightening. Gold quartz and
 also been discovered in the Trans-
 country, and a large party was in course

of organisation to explore the neighbourhood
 A German mineralogist, Herr Mauch, who has been
 exploring Moselkutsso's country, reports that he
 has found gold—not in small, scarcely visible specks,
 but in great veins of quartz, one of them more than 60
 miles long, the other about 20 miles broad, besides
 numerous small parallel veins. The Cretaceous Theatre
 has been totally destroyed by fire. Accounts from
 Natal of Jan 13, state that judgment has been de-
 clared in the suit of Bishop Colenso against Dean
 Green. The Supreme Court has set aside the judg-
 ment of the Privy Council, and declares that Natal
 was a Crown colony when the plaintiff's patent was
 issued; that Dr. Colenso is therefore trustee of all the
 buildings, and has ecclesiastical jurisdiction. The
 judgment further ejects Dean Green from the deanery,
 and prohibits him from officiating in any of Dr
 Colenso's churches. The friends of the dean have
 since held a meeting, at which it was resolved not to
 appeal against the judgment, but to erect or hire tem-
 porary churches, and that Dean Green should at once
 proceed to England.

INDIA.—Letters from Bombay of the 29th ult. state
 that nearly 30 vessels have left Bombay for Abyssinia
 during the previous fortnight with troops and animals
 and the 3d Brigade field force. The departure of the
 4th Brigade is indefinitely delayed. Great and success-
 ful exertions have been made by the Bombay Govern-
 ment to meet the requisitions of the Commander-in-
 Chief for more animals and stores. The task has only
 been accomplished through a great strain being put
 upon the Executive branch department. Over
 13,000,000 lb of cotton were shipped from Bombay in
 December. The new lighthouse was brought into use
 on the 15th of January. The prisoners in the Janna
 Gaol recently rose against the gaoler, but were over-
 powered and three of them were killed. A large gang
 of Wahger prisoners overpowered the guard of the
 Rtnagberry (?) Gaol and escaped, after killing and
 wounding several and arming themselves. Bhootan
 continues in a most disturbed state, the chiefs con-
 tending with each other. Emir Sher Ali has retired
 to Herat and abandoned Balkh, which has been peace-
 ably occupied by Abdul Rehman.

Intelligence from Japan, dated the
 27th January, announces that the Daimios have
 revolted, and made the Mikado prisoner. The Saigoon
 had fled to O-saca, where he was organising a force to
 attack the Daimios. The town of Hogo and two
 palaces at Jeddo had been burnt. The Foreign
 Ministers refused to interfere. Rear Admiral Bell,
 commanding the United States squadron in China and
 Japan, and his Flag-Lieutenant Reid, with a boat's
 crew of 10 men, were drowned at O-saca, on the
 11th January, while attempting to cross the bar.

Mr Thornton, the new British
 Minister to the United States was presented to
 President Johnson by Mr Seward on the 7th inst. and
 cordially received. In his address to the President
 Mr Thornton commended the course of the
 Queen's friendship towards the country over which
 Mr. Johnson so worthily presided, and said that her
 Majesty's Government felt deeply grateful for the
 sympathy shown by America on account of the death
 of Sir Frederick Bruce. Mr. Thornton concluded by
 declaring that it would be his endeavour to strengthen
 the friendship between the two countries. President
 Johnson replied that the Queen, more than any other
 Sovereign, enjoyed the respect and the sympathy of
 the American people. Her Majesty's kind message
 encouraged him to hope for a speedy adjustment of the
 existing differences between the two Governments. Sir
 Frederick Bruce had won the respect and friendship of
 the American Government and nation, and the same
 consideration and confidence would be extended to
 Mr Thornton. It was reported at Washington that
 President Johnson had selected General McClellan to
 succeed Mr. Adams as United States Minister to
 England. There was much doubt, however, whether
 General McClellan, who is at present in Europe, would
 accept the offer. Mr. Dickens had been cordially
 received at the Executive mansion by President
 Johnson. The Bill suspending the contraction of the
 currency became law on the 4th inst., the President
 not having signed or vetoed it within the 10 days
 allowed by the Constitution for its consideration by
 him. A resolution has been referred to the Com-
 mittee for Foreign Affairs requesting the President
 to demand the release of Nagle and other American
 citizens arrested by the British authorities for words
 spoken and actions done in this country, and should
 the release be refused to cease diplomatic intercourse
 with Great Britain. The correspondence furnished to
 the House by the Secretary for War, in response to the
 resolution of inquiry, has been published. It shows
 that President Johnson, on the 29th ult., ordered
 General Grant to disobey the orders issued by Mr.
 Stanton unless authorised by the Executive, and that
 General Grant replied that he should regard Mr.
 Stanton's orders as authorised by the Executive unless
 actually countermanded. The Reconstruction Com-
 mittee have refused by a majority of 6 to 3 to
 recommend the impeachment of President Johnson for
 violating the Tenure of Office Bill by his opposition to
 the reinstatement of Mr Stanton as Secretary for War.

Advices from Canada announce
 that a motion has been made in the Nova Scotian
 Parliament that the province should withdraw from
 the Confederation.

In Lima the political events of the past two
 months had been of the greatest importance. The Presi-
 dent, Colonel Prado, sustained an ignominious defeat
 before Arequipa in an attack on the city made under
 his directions on December 26, when he displayed great
 want of military skill. Subsequently, on a false rumour
 that his army was in revolt and clamorous for his life,
 he fled and returned to Lima. The public indignation
 was unbounded, and, after a revolutionary combat of

five hours, he was obliged to resign the Presidency and
 take refuge under the flag of the United States.

Parliament.

In the House of Lords on Monday, in answer to the
 Earl of ARLIE, the Earl of LONGFORD said that the
 Defence Commissioners had recommended the destruc-
 tion of floating batteries, but he feared that there was
 no immediate prospect of carrying out their recommen-
 dations unless Parliament granted a special vote of
 money, of which at present there seemed to be little
 probability. The East London Museum (Site) Bill
 passed through committee. The Bishop of OXFORD
 brought in a Bill for amending the Consecration of
 Churchyards Acts Bill, which was read a first time.
 On Tuesday the LORD CHANCELLOR moved the
 second reading of the Promissory Oaths Bill, the object
 of which was to abolish several of these oaths, and to
 prescribe that five only should be taken, namely,
 the oath of supremacy, and the judicial, official,
 military, and constable oaths. The Bill also substituted
 a short and simple form of oath for the quaint and
 obsolete ones now in use. After a short discussion, in
 which Lord LYVEDEN, Earl RUSSELL, the Bishop of
 OXFORD, and Lord WESTBURY took part, the Bill was
 read a second time and referred to a Select Committee.
 In reply to a question from LORD STANLEY, LORD ALFORD
 relative to the East London Museum Site Bill, the
 Duke of MARLBOROUGH explained its provisions, and
 added that the Government were under no engage-
 ments whatever beyond the cost of the erection of the
 building, which was only one of the now disused
 "Brompton Boilers." After some remarks by the
 Dukes of CLEVELAND and SOMERSET LORDS REDFERN
 and STANLEY of ALDERLEY, the report of the
 amendments was agreed to. On Thursday the Habeas
 Corpus Suspension (Ireland) Act Continuance Bill
 was brought up from the Commons, read a first time,
 and ordered for second reading on Monday. The Select
 Committee on the Promissory Oaths Bill was nomi-
 nated, and the East London Museum Site Bill was
 read a third time and passed. Yesterday the House
 sat only for a few minutes, and no public business was
 transacted.

In the Commons on Friday, on the motion of Mr.
 WALPOLE, the Public Schools Bill was read a second
 time. The Earl of MAYO obtained leave to bring
 in a Bill to renew for one year the Habeas Corpus
 Suspension (Ireland) Bill, stating that it was the
 earnest conviction of the Government that it was
 absolutely necessary for the preservation of the peace
 of Ireland to frustrate the efforts of the Fenian con-
 spiracy. The Bill was then brought in, and was read a
 first time. On Monday the Earl of MAYO gave notice
 that he should ask leave to bring in the Irish Reform
 Bill on the 9th of March. Mr. HUNT said that he
 hoped in a few days to introduce a Bill for the regu-
 lation and working of the electric telegraphs in the
 United Kingdom. The motion for a second
 time the Habeas Corpus Suspension (Ireland) Con-
 tinuance Bill was agreed to, and the Bill was ordered
 to be committed. The LORD ADVOCATE moved for
 leave to introduce a Reform Bill for Scotland. He
 said that it was not proposed to disfranchise any exist-
 ing constituency. The borough franchise would be
 similar to that in England, and every man who occu-
 pied a house and paid rates would be entitled to vote.
 In the counties the freehold franchise would be
 reduced to 5/., and the occupying franchise to 12/.
 As the Government were of opinion that there was
 no superfluity of representation in Scotland, but
 that, on the contrary, she was entitled to more
 members, they were prepared to increase the number
 by seven. It was proposed to give two to the
 universities, one each to Lanarkshire, Ayrshire, and
 Aberdeenshire, one to Glasgow, and one to a new
 group of boroughs to include Ardrossan, Coatbridge,
 Wishaw, Barrhead, Johnstone, Helensburgh, Pollok-
 shaws, and Kirkintilloch. It was also proposed to
 group the towns of Hawick and Galashiels and
 add them to the Haddington district, and to
 add Alloa to Stirling. After some remarks by
 Mr. BAXTER, Mr. SMOLLETT, Sir J. OGILVY,
 Mr. LAING, Mr. MONCREIFF, Colonel SYKES,
 Mr. M'LAGEN, Sir T. E. COLEBROCKE, and Sir J.
 FERGUSON, the CHANCELLOR of the EXCHEQUER
 described the measure as the most magnificent offer which
 had ever been made to the people of Scotland. He
 owned he was surprised that it had not been received
 with greater favour, but promised that whatever sug-
 gestions might be made by the Scotch members would
 be considered by the Government in a spirit of candour,
 and with a desire to make the Bill as satisfactory
 as possible to the people whom they represented.
 After some further remarks leave was given to bring
 in the Bill, which was subsequently read a first time.
 On Tuesday Mr. DODSON moved a series of resolutions
 for amending the Standing Orders relating to private
 Bill legislation, with a view to facilitate, simplify, and
 economise the future proceedings of the House in that
 respect. Mr. CAVE assented to the motion on behalf
 of the Board of Trade, but Lord HOTHAM, as chairman
 of the Standing Orders Committee, having expressed a
 hope that time would be given them to consider the
 scheme, the debate was eventually adjourned for a fort-
 night. In reply to Mr. FAWCETT, SIR NORTHCOTE stated
 that representations having been made to the Viceroy
 of Egypt, to the effect that any movement of his troops
 in Abyssinia might create prejudice against the British
 mission to that country, his Highness had at once
 promised to recall them. Mr. SEELY called attention
 to the cost of building and repairing ships in the dock-
 yards, and moved for a select committee to inquire
 and report—1st, as to the application of moneys voted
 by Parliament for the use of the Admiralty; and, 2d,
 as to the accounts of the department, and more espe-

cially as to the method in which they should be prepared for presentation to the House. Mr. CORRY said that he was willing to accede to a Select Committee on the condition that it was confined entirely to accounts, and did not enter into questions of general policy. After some remarks by Mr. CHILDERS, Mr. SAMUDA, and Lord H. LENNOX, the motion, limited in accordance with Mr. Corry's suggestion, was agreed to. Lord ENFIELD obtained the reappointment of his Select Committee on the law and practice relating to the summoning, attendance, and remuneration of Special and Common Juries. Mr. COLERIDGE brought in a Bill to repeal certain tests and alter certain statutes affecting both Universities and the colleges therein, and stated that it was an amalgamation of his own and Mr. Bouverie's Bills of last year. In Committee on the Habeas Corpus Suspension (Ireland) Act Continuance Bill, Mr. BAGWELL moved the insertion of a clause providing that no warrant granted under the Act should continue more than three months, and that no prisoner be detained longer, unless a new warrant were issued for his detention. The clause was supported by Mr. REARDEN, Major GAVIN, and Mr. WHALLEY, and opposed by the Earl of Mayo and Mr. HARDY. On a division the clause was rejected by 31 to 18. The Bill then passed through Committee. On Wednesday Sir C. O'LOGHLEN's Bank Holidays Bill, the object of which was to make bills due on Bank holidays payable the day after instead of the day before, and to provide that St. Stephen's Day (the day after Christmas Day), and any day fixed by Royal proclamation, should be a Bank holiday, was read a second time, and referred to a Select Committee. Mr. SHAW-LEFEVRE's Life Policies Nomination Bill, the object of which was to enable persons who have effected insurances on their lives to assign them to their wives and children by endorsement simply, without the necessity of creating a trust, was read a second time. Mr. GLADSTONE moved the second reading of his Compulsory Church-rates Abolition Bill, the object of which was to abolish hereafter all legal proceedings for the recovery of Church-rates, except in cases of rates already made, or where money had been borrowed on the security of the rates, but to permit voluntary assessments to be made; all agreements to make such payments on the faith of which any expenditure had been incurred to be enforceable in the same manner as contracts of a like character in any court of law or equity, and no one who had not paid to be able to vote on any question relating to assessment. Mr. HENLEY said that the Bill would be an aggravation of the evils of total abolition, and would put so many difficulties in the way of collecting voluntary subscriptions that he preferred the Bill of Mr. Hardcastle. He also objected to the Bill because it made it quite clear that any man who agreed to pay a rate might be made a party to a Chancery suit if somebody else failed to carry out their agreement. Lord CRANBORNE was prepared to consider the Bill with a sincere desire to get the best terms he could for the Church, though he preferred that of Mr. Hubbard. As, however, Mr. Gladstone's measure offered certain advantages to the Church by continuing the machinery for collecting the rate, and by giving a voice in the expenditure of the money to those who subscribed it, he should accept it, on the principle that he might "go further and fare worse." Mr. NEWDEGATE opposed the Bill, and preferred total abolition. Mr. HARDCASTLE (who has charge of the Bill for total abolition) said that he was so anxious to see the question settled that he would not stand in the way of what seemed to offer a satisfactory compromise. Mr. HUBBARD, who has also introduced a Bill on the subject, said that he would not oppose the second reading of the Bill, as its principle was the same as his own—to relieve Dissenters from liability. Mr. HARDY said that although he was as hostile as ever to the principle of total abolition, he was prepared to assent to the second reading of the present Bill in the hope that in committee it might be moulded into a measure which would reconcile the prejudices of all sections of the House. After some further discussion, the Bill was read a second time. The Habeas Corpus Act (Ireland) Suspension Bill was read a third time and passed. On Thursday Lord STANLEY, in reply to Mr. B. POTTER, said that the subject of abolishing the agencies in the Foreign Office was now under consideration. Mr. HUNT, in answer to Mr. BAXTER, said that notice had been given by her Majesty's Government to that of the United States to terminate the new postal treaty between the two countries, with a view to the revision of the treaty in certain particulars. The ATTORNEY-GENERAL, in reply to Mr. MOFFATT, stated that a Bankruptcy Bill would be introduced into the House of Lords in a short time. The CHANCELLOR of the EXCHEQUER, in reply to Mr. WHALLEY and Mr. D. GRIFFITH, said that he had no reason to believe that the general estimates for the Abyssinian expedition which he had laid before the House in November had been exceeded. Leave was given to Mr. M'EVROY to introduce a Bill for the repeal of the Ecclesiastical Titles Act, to Mr. HARDY to bring in a Bill to provide for the carrying out of capital punishment within prisons, to Mr. CAYE to bring in Bills for the improvement of the River Lea, and to enable the Board of Trade to give further time for making certain railways; to Mr. HUGHES to bring in a Bill to amend the laws relating to the sale of goods in the metropolis on Sunday, and to Mr. AYRTON to bring in a Bill to regulate the construction of subways in the metropolis. Yesterday, in answer to Mr. R. MILLS, Mr. ADDERLEY said that the Government intended, as soon as possible, to introduce a Bill to relieve the Consolidated Fund from the charge of 20,800*l.* for the ecclesiastical establishments in the West Indies. In answer to Mr. T. BABING, Lord STANLEY said that there were no diplomatic relations at present between

this country and Mexico, but he hoped that a more satisfactory condition of things might shortly be brought about. Mr. GOSCHEN called attention to the last report of the Metropolitan Board of Works, and to the continuous increase of the burdens laid for various purposes on the occupiers of rateable property in London and elsewhere. The House was left sitting.

City Intelligence.

MONEY MARKET, FRIDAY.—BRITISH FUNDS: Consols closed at 93 to 93½ both for Money and Account, New and Reduced Three per Cents., 93½ to 93½; India Five per Cents., 111½ to 112½; Bank Stock, 248 to 250; Exchequer Bills, 12s. to 17s. pm.—**FOREIGN:** Egyptian (1860), 88 to 89; Do. Railway Loan, 92 to 92½; Peruvian (1865), 76 to 76½; Mexican, 15½ to 16½; Greek, 12½ to 13; New Spanish, 36½ to 36½; Turkish (1865), 32½ to 32½; Italian (1861), 41½ to 41½; United States 5-20 Bonds, 72½ to 72½, Erie Railroad, 47 to 48; Illinois, 88 to 89.

Metropolis and its Vicinity.

THE LONDON IRISH ADDRESS TO THE QUEEN.—Mr. Digby Seymour has received a communication from the Home Secretary stating that he has had great satisfaction in laying before the Queen the loyal and dutiful address of her Majesty's Irish subjects residing in London and its vicinity, and that her Majesty has been pleased to receive the same most graciously.

THE CLERKENWELL OUTRAGE.—On Tuesday William Desmond, Timothy Desmond, Nicholas English, James O'Neill, John O'Keefe, Jeremiah Allen, Michael Barrett, and Anne Justice, were again brought before Sir Thomas Henry at Bow Street on the charge of wilful murder of the persons killed by the Clerkenwell explosion. Mr. Giffard, on the part of the Crown, said the evidence was complete as against some of the prisoners, whom he should ask the magistrate to commit for trial; but with regard to Allen, though at first there were very strong grounds of suspicion against him, the evidence of Mullany had put another feature on some of the facts, and there was no doubt that Allen had been in communication with the police, and was at the prison not with the intention of aiding and abetting in the explosion, but with a view of obtaining evidence against the others. The magistrate concurred in this view, and Allen was ordered to be discharged. On leaving the court, however, he was again arrested by Inspector Potter, the coroner's jury having returned a verdict of wilful murder against him. The other seven prisoners were remanded for a week.

THE INQUEST ON THE CLERKENWELL SUFFERERS.—The adjourned inquest on two of the persons killed by the explosion at the House of Detention was brought to a close yesterday, when the jury, after an hour and a quarter's deliberation, returned a verdict of wilful murder against Michael Barrett, Timothy Desmond, Wm Desmond, Nicholas English, John O'Keefe, Patrick Mullany, Anne Justice, and other persons not in custody. They also presented a resolution expressive of their opinion that sufficient precautions had not been taken by the police at headquarters to prevent the explosion. The foreman said the jury were divided with respect to Allen. The Coroner, in compliance with the request of the jury, promised to send a copy of the resolution to the Home Secretary.

DISCOVERY OF AMMUNITION OUTSIDE GAS WORKS.—At a late hour on Thursday week a parcel, containing 12 ball cartridges and 23 percussion caps, was found secreted under some grass by the towing-path of the Surrey Canal, and near the South Metropolitan Gas Works, in the Old Kent Road. It appears that for several weeks past extra watch has been kept, both day and night, by the police, in consequence of a communication having been made that it was the intention of a body of Fenians to fire the place; but what the object of the person could be in concealing the ball cartridges and percussion caps, as stated, is a matter of conjecture. The ammunition was handed over to the police, and conveyed to Scotland Yard.

TRADES UNION CONFERENCE WITH MR. GLADSTONE.—On Tuesday a deputation from the London trades' societies delegates had an interview with Mr. Gladstone, at his private residence on Carlton House Terrace, for the purpose of explaining to him the actual working of trades' unions, and of refuting the alleged incorrect statements made by him in his speech at a public meeting at Oldham on the 18th December last. The deputation was composed of Mr. George Potter, chairman of the delegate meeting, and of other delegates. Mr. Potter, who was the chief speaker, avoided altogether all mention of the recent occurrences at Sheffield and Manchester, and argued that the trades' unions fostered skill, while competition extinguished it, that all the bad work was done by outsiders, by so-called apprentices, and men who had never learnt their trade; that the employments in which there were no unions, or which the unions could not control, fell into the hands of women and boys, who worked for just what they could get; and that such competition naturally drove away skill to other countries, where it was better protected. Mr. Gladstone in reply, after alluding to the points upon which he said they must all be agreed, admitted in all its breadth the right of combination. It was true that rights might be exercised to an improper extent, as if a landowner should give all his tenants notice to quit, and eject them accordingly. But if labour and skill would sometimes push their rights a little too far, capital sometimes did the same. If any change in the existing laws had to be made, he was not sure that the trades' unions did not deserve recognition by the State upon natural principles, without its enforcing a compliance with arti-

ficial conditions. The present state of indicated an undue jealousy, and fraud was a danger to be checked, against whomsoever it was committed, even if it be a trades' union with injudicious laws, and not very ascertainable operation. On the other hand, he agreed with Mr. Potter that the best organized were liable to abuse. He had heard of some unions which seemed open to objection—rules, restrictions, apprenticeships, rules against piece-work, against working stone at the quarry, against employing "dressing off," to the injury of adult bricklayers, against lime-washing except by skilled plasterers, against extra hours, and so forth. Such rules were said that it appeared to him that the best course for the labouring community was that in which the law upwards was the easiest and the most open. Mr. Lawrence, one of the delegates, said that the evidence inquiry would show that the limitation of apprenticeship had acted beneficially on those trades in which it was carried out, and that the principle of no limitation dragged down tailors, shoemakers, weavers, and others to the lowest point of starvation. Mr. Lawrence said that they considered that those who had spent years in acquiring a particular trade ought to live by it. The other members of the deputation expressed different points in connection with their trade, and controverted statements made to their prejudice.

METROPOLITAN BOARD OF WORKS.—At the meeting of this Board on Friday Colonel Hoze moved the standing order requiring that copies of proceedings minutes be sent to the vestries and district Boards of the metropolis, be suspended so far as regards the evidence contained in the minutes of the Board of the 21st inst. in relation to Messrs. Doulton and Roche, and that complete copies of the minutes be sent to the members of the Board only. He urged that it would be a breach of confidence on the part of the Board to publish communications which were obtained as private and confidential, and protested against any matter being made public against the advice of their solicitor. Mr. Lawrence seconded the motion, and said that if they published the evidence taken in the Bankruptcy Court it would amount to contempt of court. Mr. Collinson moved as an amendment that the minutes of the meeting be sent as usual to the vestries and district Boards. Mr. Howse seconded the amendment. Mr. Shaw said that nothing marked private and confidential had been brought before the Board, and that a letter written by Mr. Doulton himself in his own defence. Mr. Cook said that in the evidence in the affairs of persons who had nothing to do with the transaction had been introduced, and it would be unfair to publish them. Mr. Bidgood said he was aware that the Board had obtained any evidence, and the understanding that it was not to be published. They were not under a pledge of secrecy to the public, and he could see no harm in sending the whole of the evidence to the vestries and district Boards. Mr. Saunders said that after the report had been given upon the minutes every ratepayer could, under the Act of Parliament, go to the offices of the Board, read and copy it. He believed it to have been a mistake to have taken the evidence at all, and that if they decided to take it, they had made a greater mistake in taking it in private. Mr. Collinson said that he found that it was unnecessary to pass a special resolution in order that the minutes might be sent to the vestries and district Boards, and he therefore withdrew his amendment. Mr. Freeman pointed out that the Board represented the public as well as the vestries, and if they withheld from the public the evidence which they had taken, their character would be injured. There really was no reason why the evidence should not be made public. Mr. Richardson said it was the duty the Board owed to the public to put the evidence. Mr. H. L. Taylor said that Mr. Doulton and Mr. Roche were anxious that the whole of the evidence should be published. Mr. Evans said that the evidence was obtained by the solicitor from the Bankruptcy Court on the understanding that it was for the private use of the Board, and not to make public. Mr. Howse said that if they published that portion of the evidence which would clearly be a breach of confidence, he would say that Mr. Furness had stated in a letter that if the evidence were published he should look upon it as a breach of faith. On a division the motion was carried by 30 to 9. The evidence will, therefore, be published in the usual way.

RETIREMENT OF MR. DOULTON FROM THE BOARD OF WORKS.—On Wednesday night Mr. Potter, chairman of the Metropolitan Board of Works, received a communication from Mr. Doulton, M.P., resigning his seat at the Board as one of the members for Lambeth. It is understood that this resignation has been made in the discussions on the Furness contract for the Tamesis Embankment, and that the decision to withdraw Mr. Doulton has arrived will materially simplify the proceedings of the Board in reference to the contract.

EXPERIMENTS AT SHOEBOURNE.—The 10-inch (400-pounder) and 12-inch (600-pounder) guns were tried on Friday at Shoeburness, and with very favourable results, especially in respect to the latter, with which the target was hit at very long ranges. The turntable designed by Mr. Inglis, for traversing guns within segments, was used in conjunction with Mr. Cunningham's gear for the purpose of working the 600-pounder gun, and answered admirably.

ELECTION OF A CORONER FOR WEST MIDDLESEX.—The nomination for the vacant coronership of West Middlesex took place on Wednesday, in the Hall, Brentford. The candidates were Dr. Hanbury, Dr. Diplock, and Mr. Walter, the two former being medical men, and the latter a member of the legal profession. The proceedings were characterized by all the uproar and licence of a county election.

of the candidates being put to a show of majority was slightly in favour of Mr. Walter having only one hand in his favour. Dr. Hardwicke formally took the poll, and the proceedings, which throughout were marked by the greatest disorder, were then brought to a close. The polling commenced yesterday.

MR. PEABODY'S GIFT.—The last annual report of the Peabody gift to the poor of London shows that the original fund has been increased by interest on unexpended capital to the extent of £170,042l. 6s. 4d. The buildings at Islington continue fully occupied, with demand in anticipation of vacancies. At the four ranges of buildings forming Peabody Square are slow in filling. The total population of buildings erected by the trustees is 1583. The Chelsea and Bermondsey are not yet built and the trustees are negotiating for a new site in Westminster. Mr. Peabody's second gift of 100,000l. is available in 1869. The cost of the general management during the year was 268l. 15s. 4d.

ITALIAN OPERA.—It is understood that there is no longer to have two rival opera houses, but the establishment of Her Majesty's Theatre and the Royal Italian Opera are to be united under the management of Mr. Mapleson. This arrangement had been determined upon in consequence of a wish very generally expressed by many influential supporters of the Opera since the destruction of Her Majesty's Theatre, and of the desire of Mr. Gye to be relieved of the arduous duties of management which he has borne for 20 years at the Royal Italian Opera, Garden. It is hoped that the arrangement will be carried out, because it affords a promise of one complete grand Opera. It is stated that Mr. Mapleson will be supported by powerful influence, and that the Opera, under the new arrangement, will be conducted, if possible, on a grander scale than hitherto.

THE WIDENING OF LUDGATE HILL.—At the meeting of the Metropolitan Board of Works on Friday a report from the Works Committee recommending the Board to contribute 11,756l.—one-half of an improvement proposed at the western end of Ludgate Hill, was brought up by Mr. Freeman. Mr. Newton opposed the recommendation. The motion was eventually carried.

THE "EVENING MAIL."—The *Evening Mail* newspaper was disposed of by auction last week, and an order from the Court of Chancery. The purchase was put up at 1500l., and it eventually realised 2000l. The *Mail* was established in 1789, and the number of its proprietors varied from 1450l. in 1800 to 800l. in 1866; its circulation averaging a little more than 3000 each issue. The name of the purchaser will not transpire.

THE OLD FLEET PRISON.—On Monday, by instruction of the London, Chatham, and Dover Railway Company the materials of several houses at the corner of Ludgate Hill and Farringdon Street, including the boundary wall of the old Fleet Prison, were disposed of, in order to carry out the long-contemplated improvements in that locality, and in a few days the residue of the prison will remain.

MEASLES AT WOOLWICH.—A very serious outbreak of smallpox has taken place in the Woolwich district. The *Lancet* states, as the result of personal inquiry, that about five weeks ago 60 cases had occurred among the paupers alone, and that in the subsequent weeks cases amounted respectively to 30, 80, and 100 for the week ending February 12, 10; the total amounting to 15, or thereabouts. A calculation from the known number of cases under the care of the present men of the neighbourhood indicates that there must be in and around the district very nearly 300 persons stricken with measles under medical care. It is stated that the patients have applied to the Metropolitan Asylum for special hospital accommodation, but that request has been refused.

AT THE CHABING CROSS STATION.—On Tuesday afternoon an alarming fire broke out at the terminus of the South-Eastern Railway, and first some apprehension for the safety of the station itself with its hotel and surroundings, and then excitement in the immediate neighbourhood. The terminus, outside the area covered by the Custom House department, and the siding or arrival platform at which the passengers from the Continent was overhauled. The roof was supported on a series of iron columns, and the structure stretched away in a curve from the station along the western side of the Thames towards the first signal station. The roof was first visible on the roof shortly before 2 o'clock, and it advanced with alarming rapidity, shooting upwards in masses of smoke and flame. In a short time fire engines were on the spot, with 120 men, and the floating engine was brought from the New River. By 3 o'clock the fire had entirely destroyed the detached building in the rear, and by 4 o'clock it was subdued beyond the possibility of doing further mischief. Before, however, it could be extinguished it had done considerable damage to the roof of the station, especially at the west end, and masses of glass of which the roof is composed were falling for some time afterwards, to the great alarm of the men engaged below. As soon as the fire was under control the telegraph was put in motion, and all the general traffic of the line flowing westward was stopped at the Cannon Street station. During the fire dense masses of smoke were wafted in the direction of the Strand, but the hotel was never regarded as being in any danger. Meanwhile, enormous crowds were attracted to the spot, especially on the Strand, and a powerful body of police, mounted and on

foot, was called into requisition to maintain order. Thousands of people assembled on the bridges and in the immediate neighbourhood to witness the spectacle, and for some hours the carriage traffic was diverted from all the principal thoroughfares leading to Charing Cross. The river steamers were also prohibited for the time from landing passengers at Hungerford pier, and foot-passengers were prevented passing along the footway attached to the railway bridge from Villiers Street to York Road. In the half-yearly report of the South-Eastern Company, issued on Thursday, the directors state that the cost of restoration and improvements (by the use of unflammable materials and otherwise), as estimated by the engineer, will not exceed 4000l.

THE CLERKENWELL SHOOTING CASE.—On Wednesday James Needall was again examined before the magistrates, on the charge of attempting to murder Thomas Chatterton, by shooting at him with a revolver, in Compton Street, Clerkenwell. Chatterton, who received a wound in the neck, was brought from the hospital to give evidence, and after detailing the circumstances of the attack, deposed that he did not know the prisoner, and had never spoken to him in his life. The surgeon said the wound was a dangerous one, and the bullet was still in the man's neck. The prisoner was committed for trial.

THE PUBLIC HEALTH.—The Registrar-General's Weekly Return of births and deaths in London states that in the week that ended on Saturday, February 15, 4910 births and 2977 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 21 per 1000 persons living, being 23 per 1000 in London, 26 in Edinburgh, 26 in Dublin, 26 in Bristol, 24 in Birmingham, 31 in Liverpool, 33 in Manchester, 22 in Salford, 22 in Sheffield, 21 in Leeds, 24 in Hull, 22 in Newcastle-upon-Tyne, and 29 in Glasgow. The rate in Vienna was 35 per 1000 during the week ending the 8th inst. In London the births of 1238 boys and 1114 girls, in all 2352 children, were registered in the week. In the corresponding weeks of 10 years 1858-67, the average number, corrected for increase of population, was 2236. The deaths registered in London during the week were 1307. It was the seventh week of the year, and the average number of deaths for that week, corrected for increase of population, was 1519. The present return is, therefore, 212 below the estimated number.

Provincial.

BARNSELEY.—On Monday the fourth man charged with being concerned in the murder of George Thirkill, head gamekeeper to Lord Wharcliffe, on the 11th of December last, was brought before the borough magistrates for final examination. The evidence was simply a repetition of what was produced when the other men were committed. The witnesses were subjected to a severe cross-examination, but their testimony was not shaken in any material point. The prisoner was committed to take his trial at the assizes on a charge of murder and night poaching.

BRAINTREE.—Dr. Thorne has supplemented his original report on the epidemic of typhoid fever at Terling with some additional particulars relative to the more recent progress of the disease. It appears that up to the 31st of January upwards of 200 cases and 28 deaths had occurred, and that the disease has now attacked the able-bodied men and boys, who have comparatively escaped hitherto. Dr. Thorne states that the village is honeycombed with cesspools, the contents of which must in due course find their way into the soil, while the peculiar flatness of the district makes it difficult, except at great cost, to carry out an effectual system of drainage so as to remove the sewage out of the way of the streamlets. It has been suggested that Moule's earth-closet system, which would allow the closing up of every cesspool in the place, should be introduced, and the plan is at present under the consideration of the Home Secretary.

CAMBRIDGE.—The untimely death of the Hon. J. Gordon, of Trinity College, has not only caused the postponement of the second division boat races to the 26th, 27th, 28th, and 29th inst., but has led to a discussion as to the propriety of Cambridge sending a boat at all this year against Oxford. It is no secret that Mr. Gordon was the great hope of the light blues for stroke oar; and he was to have taken his seat the day after the accident by which he lost his life. There was much difference of opinion as to whether the races should be rowed; a number of old university oars advising the president to withdraw from the contest, while others considered that it would be a bad precedent. A meeting of the captains was held on Monday, at which it was resolved that no race should be rowed against Oxford this year in consequence of the death of the proposed stroke oar, and this decision was at once communicated to Mr. Willan, the President of the Oxford Club. Mr. Willan forthwith called a captains' meeting, the result of which was an answer from the Oxford committee, expressing the severe disappointment felt by the withdrawal of the challenge, with an earnest hope that Cambridge would reconsider the matter. This they have done, and an overwhelming majority of the Cambridge captains have decided to row against Oxford this year as usual. The day is not definitely fixed, but it is considered probable that the race will take place on Saturday, April 4th.

CARLISLE.—Dean Close made a long speech at the anti-ritual meeting in this city on Friday, which he delivered sitting, in consequence of an attack of the gout. He vehemently denounced the English Church Union, and the attempt of the bishops, with the primate at their head, to fraternise with the Greek Church. "Mr. Graham has told you," said the dean, "of an Archbishop of Canterbury who gathered together men of different denominations. That good archbishop prayed with them in his palace

of Lambeth, and held out his Christian hands to all faithful Protestant believers. What a contrast now, when the present amiable prelate has presumed, writing in the name of the Archbishop of Canterbury—which as an individual I deny he had a right to do—to address a letter to the false and corrupt Greek Church, which is unsound in her doctrine of the Trinity, and whose worship is debased and degrading and superstitious in the extreme. Sooner be my hand withered than that I should hold it out to the Eastern or Western Churches. I expect next to see a letter from the archbishop to the Pope, asking for reconciliation, and I hope that the Pope will deal with Dr. Pusey's 'Eirenicon,' and nail it on his church door as farmers nail weasels, rats, and other vermin."

MANCHESTER.—The Secretary of State for the Home Department has granted a free pardon to James M'Master, who was convicted at the last Manchester Assizes, along with two others, of an alleged conspiracy.

OXFORD.—In a Convocation held on the 13th inst. it was agreed, after a protest from Mr. Goldwin Smith, who held that the vote would be a legal nullity, that a grant of books from the University Press, amounting in value to 150l., should be made to the University of the Southern States of America. A decree was then brought forward to grant from the University chest the sum of 350l. towards restoring the buildings of the said University, which were destroyed during the late war. The proposition was opposed by Mr. Goldwin Smith, Professor Conington, Mr. Kitchen, of Christ Church; Professor Rawlinson, Professor Rolleston, and Mr. Neate, of Oriel. It was supported by Mr. Liddon, of Christ Church; Mr. Burgo, of Oriel; Professor Pusey, and Professor Burrows. Dr. Acland expressed a wish that it could be withdrawn without being put to the vote. On a division the decree was rejected by a majority of 3, the numbers being 63 to 60. The opposition seemed to rest partly on general financial grounds, partly on the fear that such a vote would be taken in America as an expression of sympathy with the South. The Heads of Houses at their meeting on Tuesday resolved not to allow the Oxford and Cambridge Athletic Sports to be held at Oxford this spring.

PEMBROKE.—A sergeant in the 9th Regiment, named George Keating, has been dismissed her Majesty's service in this port. He had been tried at the Fort Barracks on charges of being absent without leave and of insubordination, of having struck his superior officer in the face, and of making use of the following language—"I am an Irishman and a Fenian, and to — with the British Government; I am a Fenian, and will not be ruled by the British Government. He was found guilty on all the charges, and sentenced to five years' penal servitude, to be branded with the letters "B.C.," and to be discharged from her Majesty's army with ignominy.

RAMSGATE.—On Sunday night a collision occurred in the Gull stream between the *Lena*, screw steamer, from Odessa to London, and the ship *Superior*, from London to Carthage. The steamer cut the ship down to the water's edge, and the latter immediately sank, with two of the crew. The captain and the others saved themselves by getting on board the steamer.

SHREWSBURY.—An inquest was held last week at Pontesbury on the body of a child three months old, the illegitimate son of a domestic servant. The child had been farmed out to a woman by the mother, at the rate of 2s. per week, and it was proved that it had been very much neglected, and that death had been partly caused by the want of proper food and nourishment. A verdict of Manslaughter was returned against the nurse, who was committed for trial.

TENBY.—The Bishop of St. David's has addressed a long letter to some of the inhabitants of this town who have protested against the ritualistic practices of the Rev. George Huntington, recently presented by the Earl of Derby, on the part of the Crown, to the vicarage of the parish. In reference to his proceedings 248 parishioners memorialised the Bishop—1, against the use of the surplice in the pulpit; 2, against his not reading the exhortation to Holy Communion (there being a weekly celebration); 3, against his omitting the long exhortation at the celebration; 4, against introducing a hymn after the third collect; 5, against his using Hymns, Ancient and Modern; 6, against his bringing in the elements after service has begun, and standing during parts of the service with his back to the people; 7, against his not using a collect after the sermon, but leaving the pulpit after there is a late celebration without prayer, public or private; 8, against his introducing choral services, and having a procession round a chapel of ease, on a harvest festival, of persons in surplices; 9, against his attempting to introduce the offertory; 10, against his introducing a lection; 11, against his giving out the psalms and lessons improperly, *e.g.*, day one, and the Acts of the Holy Apostles. The following is the substance of the Bishop's reply:—

"I consider the alleged novelties in themselves perfectly harmless, and some positively commendable. I cannot condemn the practice of preaching in the surplice in the morning service. It is the practice of my own parish church, and I believe it to be the right one, and that the black gown was never intended to be used at that service. I cannot consistently require Mr. Huntington to read the whole exhortation to Communion, as I do not do it myself, and till I came to the diocese I never heard it done by others. With regard to the diocesan exhortation, which I do not remember ever to have known omitted, I am glad to find that Mr. Huntington invariably reads it at the monthly late sacrament, and still more that he estimates its theological value most highly, and only omits it at the early sacrament, and that merely to save time and labour. I should, indeed, be very loth to increase the burden of a labour of love freely undertaken; but, on the other hand, the theological value of the exhortations seems to me so great at a time when so much pains is taken to misrepresent the character of our Communion office, as well as actually to assimilate it to the Romish Mass, that I should myself certainly feel a conscientious scruple which would prevent me from omitting either the whole or even a part of it."

either of these cases the debentures could be... capital contrary to law? The third... referred to the... extension shareholders from the... out of the agreement of the contractors...

It, therefore, being clear that... not free from doubt, must arise at the... to be considered whether there were any... the injunction personal to Mr. Bloxam himself...

It was afterwards determined that it had been... declared, it could never be recovered from those to... The decree affirmed—costs to be costs in...

EXCHEQUER.—Crossley v. Stworthy.—This was an... by Mr. Joseph Crossley, of Halifax, against the... director of the London and Colonial Company...

Mr. Crossley... the London and Colonial Company... the plaintiff's brother, for... "We have as many applications for... Our profits during the past year... We had an... friend, who has known us many years, to... of our debentures." Fifth count.—That, in... plaintiff would accept from the... of the defendant's... the said docu-... the London and Colonial Company...

character and reputation of the defendant. Having... briefly explained the points which they might dismiss... from their consideration, he said the only question... was, whether the defendant fraudulently... with the... intention of inducing the plaintiff to embark his capital in... the company, led him to believe that it had for several... years paid a uniform dividend of 12 1/2 per cent., and had... assets amounting to 80,000l., which the... were in a condition to distribute among the share-... holders, knowing at the time that such representations were... untrue and illusory. His Lordship then pointed out the state... of the accounts as it had been shown in evidence, and told... the jury that if they thought the defendant really believed in... the truth of what appeared in the prospectus and abstract of... the balance sheet of June, 1865, and in his own letters to the... plaintiff, or had been misled himself by others into making... the statements complained of, they would find a verdict for... him; but if they were of opinion that those statements were... fraudulently made with an intention to deceive, the plaintiff... was entitled to a verdict with the amount he had paid upon... his shares. The jury, after a 20 minutes' absence from Court, returned a verdict for the plaintiff—damages, 35,000l.

Obituary.

LADY CRANWORTH died on Saturday, in Upper Brook Street, in her 61st year. She was the youngest daughter of the late Mr. Thomas William Carr, of Froggall, Hampstead.

LADY HENRY SPENCER CHURCHILL died on Friday last, at her house in Park Street, Grosvenor Square. She was the eldest daughter of the Rev. Dr. Nares and Lady Charlotte Spencer, and after the death of her first husband, the Rev. Lord Henry Spencer Churchill, in 1828, she married Mr. Whateley, Q.C.

MR. JUSTICE SHEE, one of the judges of the Court of Queen's Bench, died on Wednesday morning in Sussex Place, Hyde Park Gardens, after an illness of several days, from an attack of apoplexy. He was the eldest son of Joseph Shea, Esq., of Thomastown, Kilkenny, who settled at Belmont Lodge, South Lambeth, and became a London merchant of repute and opulence, by the daughter of John Darell, Esq., of Sootney Castle, one of the old Roman Catholic families of Kent. He was born at Finchley, in 1804, and was therefore in his 63d year. He was educated at the Roman Catholic College of St. Cuthbert, Durham, and remained throughout his life an earnest and sincere, although by no means bigoted, member of that communion. He was called to the bar in 1828, and soon distinguished himself as a sound lawyer and a successful pleader. He went the Home Circuit, of which he became the leader. In 1840 he was created serjeant-at-law. In 1847 he unsuccessfully attempted to enter Parliament by contesting Marylebone; but was more fortunate in 1862, when he was returned for Kilkenny in the Liberal interest. He was, however, defeated on reappearing for reelection after the dissolution of 1857, and also in 1859. At this time he had received the rank of Queen's Serjeant, which was conferred upon him in 1858. His last attempt to enter Parliament was at Stoke-upon-Trent, in 1862, but he was again defeated. In 1864 he was appointed one of the judges of the Court of Queen's Bench, and was the first Roman Catholic who in modern times has been raised to the English bench. He received at the same time the honour of knighthood. He married, in 1837, the daughter of Sir James Gordon, of Gormstown.

ADMIRAL LOCH died at Cheltenham, on the 13th inst., in his 80th year. He entered the navy in 1799, and served in various operations on the coast of Italy and Genoa. In 1801 he co-operated with the army in Aboukir Bay, and on Lake Merlotis, and in 1805 was present in action with a large flotilla, under the batteries of Fecamp. He afterwards served at the capture of Mocha, and in the expedition of Buenos Ayres. He was actively employed on the coast of Spain after the siege and surrender of St. Sebastian, at the mouth of the Bidassoa, and during the naval demonstration at Socoa. In 1814 he sustained a partial action with the French frigates Sultane and Etoile, which were afterwards taken by the Hobbins and Hannibal. He commanded the Eden in the expedition against the pirates at Ras al Khyma, in the Persian Gulf, in 1819-20.

MR. HERAPATH, the well-known toxicologist of Bristol, died last week in that city from diabetes, in his 72d year. He was the son of a maltster, and for some little time followed the occupation of his father. He had, however, a strong inclination for scientific pursuits, and devoted himself to the study of chemistry. Nearly 40 years ago he gained a reputation by his analysis in a case in which a woman named Burdock was convicted at Bristol upon circumstantial evidence of poisoning. In the more celebrated case of Palmer, of Rugby, he was a witness, and he was concerned in many other important criminal and civil trials. He was also a decided politician. In the Reform Agitation of 1831 he was the president of the "Political Union," and exerted such power as he possessed to stop the Bristol riots. On the passing of the Municipal Reform Act he became a member of the Town Council; but with advancing years he ceased to be a democrat, and was at last expelled from the Radical ward he had long represented. He was in the commission of the peace, and was the senior magistrate for Bristol.

MR. CHARLES E. STEWART, who filled the office of secretary to the London and North-Western Railway Company for nearly 20 years, and who has been chairman of the Anglo-American Telegraph Company since its formation about two years since, died suddenly in the board-room of that company on Wednesday evening. He suffered from a dangerous illness last summer, and, though his health had been apparently restored, it is feared that the close attention with which he devoted himself to the duties of his office accelerated his death. He had been occasionally ailing of late, but his friends had no reason to anticipate so early a termination to his career.

WILLS.—The will of Lady Salusbury, widow of Sir T. R. Salusbury, Bart., has been sworn under 4000l. personalty; Lady Preston, relict of Sir B. Preston, Bart., 90,000l.; Colonel Clark Kennedy, C.B., 6000l.; Colonel Home Purves, 2000l.; Lieut.-Colonel J. Hyde, 16,000l.; Dr. Daubany, of Oxford, 25,000l.; Dr. Sutherland, M.D., F.R.S., 43,000l.; Dr. Lloyd Morgan, M.D., of Haverfordwest, 25,000l.; Dr. Knox Vado, M.D., 18,000l.; Mr. Thomas Lawrence Ward, of the Foreign Office and Wimbledon, 45,000l.; Mr. Charles Dymley, of the Prerogative Court, 8000l.; Mr. Frederick Slight, secretary of the London and Brighton Railway, 5000l.; Miss Elizabeth F. Wyatt, of Oxford Terrace, Hyde Park, 25,000l.; Miss Jane Chapman, of Biney House, Clifton, 30,000l.

Markets.

COVENT GARDEN.—FEB. 22. Oranges are arriving in considerable quantities from the Azores, Valencia, and Palermo; they are slightly improving in price, and very much in quality. Seville Oranges for marmalade are still in perfection. Pine-apples are in better demand than they were last week, and hothouse Grapes continue good; they consist of Lady Downes', Barbarossa, and Foster's Seedling. A few Strawberries have made their appearance this week, but not in sufficient quantity to enable us to quote a price for them. Spanish Chestnuts for planting realise about 10s., and Spanish Hazel Nuts for planting 16s. per bushel. Potatoes have not altered in price since our...

last report. Flowers chiefly consist of Orchids, Cyclamens Chinese Primulas, Pelargoniums, Mignonette, Early Tulips, Hyacinths, Poinsettia pulcherrima, and Roses.

Table with 2 columns: Fruit and Price. Apples, per bushel, 4s to 8s; Cob nuts, per lb., 1s; Grapes, per lb., 8s to 12s; Lemons, per 100, 4s to 10s; Oranges, new, per 100, 2s to 7s; Pears, per doz., 3s to 9s; Pine-apples, per lb., 6s to 8s; Chestnuts, per bushel, 10s to 16s; Walnuts, per bushel, 10s to 20s.

Table with 2 columns: Vegetables and Price. Mint, per bunch, 1s; Mushrooms, p. pott., 1s 6d to 2s; Onions, per bushel, 3s to 4s; Parsnips, per doz., 9d to 1s; Parsley, per bunch, 2d to 4d; Potatoes, York Regents, p. ton, 190s to 195s; Rocks, do., 100s to 120s; Flukes, 13s to 160s; Other sorts, 7s to 80s; Seakale, p. punn., 1s 6d to 2s; Spinach, per bushel, 2s to 4s; Tomatoes, per doz., 3s to 5s; Turnips, per bunch, 4d to 6d.

Table with 2 columns: COALS.—Feb. 19. Cowpen Hartley, 15s. 6d.; Walker Primrose, 11s. 6d.; Wylam, 15s. 3d.; Eden Main, 15s. 6d.; Walls End Braithwaite, 15s. 9d.; Walls End Russell's Hetton, 16s. 9d.; Walls End Haavel, 17s. 6d.; Walls End Hetton, 17s. 6d.; Walls End Hetton Lyons, 15s.; Walls End Cassop, 16s. 3d.; Walls End South Hetton, 17s.; Walls End Garadoc, 17s.; Walls End Kelloe, 15s. 6d.; Walls End Tunstall, 10s.; Walls End Hartlepool, 17s. 6d.; Walls End Hough Hall, 16s.; Walls End East Hartlepool, 16s. 9d.; Walls End Tees, 15s.; Walls End Thorpe, 15s.—Ships at market 6s. 6d. to 2s.

Table with 2 columns: ENGLISH WOOL. The rapid rise in cotton, the more peaceful aspect of politics, and a slow though steady improvement in general business, have not been without a beneficial effect on Wool, and prices are now generally 1d. to 1 1/2d. per lb. dearer, the better grades still taking the lead. Should speculation step in, as appears not unlikely, we may go up another 2d. to 3d. per lb.

Table with 2 columns: CURRENT PRICES OF ENGLISH WOOL. per lb.—s. d. s. d. FLEECES—Southdown hoggots .. 1 2 1/2 to 1 3; Half-bred ditto .. 1 3 —; Kent Fleeces .. 1 2 — 1 3 1/2; Southdown ewes and wethers .. 1 1 1/2 — 1 2 1/2; Leicester ditto .. 1 1 —; SORTS—Clothing .. 1 0 1/2 — 1 6 1/2; Combing .. 1 0 1/2 — 1 8 1/2.

POTATOS.—SOUTHWARK, Monday, Feb. 17. During the past week the arrivals coastwise and by rail have been moderate, and trade steady at the following rates:—Yorkshire Flukes, per ton, 140s. to 170s.; do. Regents, 130s. to 160s.; do. Rocks, 120s. to 130s.; Kent and Essex Regents, 140s. to 160s.; Lincolnshire Regents, 130s. to 150s.; Dunbar and East Lothian Regents, 140s. to 160s.; Perth, Forfar and Fife Regents, 120s. to 140s.; ditto Rocks, 110s. to 120s.; French and Belgian Whites, 100s. to 110s.

Table with 2 columns: NEWGATE.—Feb. 21. Best Fresh Butter .. 18s. per dozen lb.; Second do. do. .. 16s.; Small Pork, 4s. 0d. to 4s. 4d.; Large Pork, 3s. 8d. to 4s. 0d. per 8 lb.

HOPS.—BOROUGH MARKET, Friday, Feb. 21. Messrs. Patten & Smith report a steady demand for middling and choice descriptions, prices ruling firm at the reduction. The stock of good qualities on sale is very limited.

Table with 2 columns: HAY.—Per Load of 36 Trusses. SMITHFIELD, Thursday, Feb. 20. Best Green Hay .. 95s to 100s; Prime Meadow Hay 75s to 80s; Inferior do. .. 70 — 90; Inferior do. .. 55 — 70; Prime new Clover .. — —; Inferior do. .. — —; Straw .. 30 — 36; CHARLES JAMES FAYTON.

Table with 2 columns: CUMBERLAND MARKET, Thursday, Feb. 20. Sup. Meadow Hay 84s to 92s; Inferior do. .. 65 — 75; New do. .. — —; Straw .. 30 — 43; Superior Clover .. 95 — 107; JOSHUA BARRETT.

Table with 2 columns: METROPOLITAN CATTLE MARKET. MONDAY, Feb. 17. The supply of Beasts is again short, and consequently prices are rather higher for the choicest descriptions. Inferior qualities are not very readily disposed of. The supply of Sheep is about the same—a usual one for the time of year. There is a fair demand, and the quotations are well maintained. Good Calves remain still dear. Our foreign supply consists of 520 Beasts, 1290 Sheep, 61 Calves, and 45 Pigs; from Scotland there are 580 Beasts; from Ireland, 150; from Norfolk and Suffolk, 1200; and 730 from the Northern and Midland Counties.

Table with 2 columns: Best Scots, Herefords, &c. 4 10 to 5 0; Best Shorthorns 4 6 — 4 10; 2d quality Beasts 2 8 — 3 6; Best Downs and Half-breds .. 5 0 — 5 4; Do. Shorn .. — —; Beasts, 3150; Sheep & Lambs, 17,500; Calves, 66; Pigs, 460.

Table with 2 columns: THURSDAY, Feb. 20. We have a large number of Beasts on offer, and a dull trade, consequently prices on the average are rather lower, and it is difficult to effect a clearance. The supply of Sheep is also larger, and the demand very limited; they cannot all be disposed of at our quotations. Good Calves are still scarce and dear. Our foreign supply, consists of 65 Beasts, 720 Sheep, and 60 Pigs.

Table with 2 columns: Best Scots, Herefords, &c. 4 8 to 4 10; Best Shorthorns 4 6 — 4 8; 2d quality Beasts 2 8 — 3 4; Best Downs and Half-breds .. 5 0 — 5 2; Do. Shorn .. — —; Beasts, 600; Sheep and Lambs, 5030; Calves, 47; Pigs, 140.

MARK LANE.—MONDAY, Feb. 17. The supply of Wheat from Essex and Kent to this morning's market was small, the choice samples brought an advance of 1s per qr. upon the prices of this day se'nnight, but the qualities are unaltered in value. The market was fairly attended, and a moderate business was transacted in foreign Wheat, at full prices, Australian and American descriptions being 1s. per qr. dearer. Barley was a very slow sale. Beans were very firm, and rather dearer. Peas unaltered in value.

For Oats there was a moderate demand, and needy purchasers paid an advance of 6d. per qr. For Flour there was a fair inquiry at last week's rates.

PRICE PER IMPERIAL QUARTER	s. s.	s. s.
WHEAT, Essex, Kent, Suffolk. White	70-78	Red 68-78
— fine selected runs do	73-84	Red 72-78
— Talavera	80-84	
— Norfolk		Red 68-78
— Foreign	63-87	
BARLEY, grind & dist., 37stolols Cher.	42-47	Malting 40-43
— Foreign, grinding and distilling	35-39	Malting 41-46
OATS, Essex and Suffolk	23-29	
— Scotch and Lincolnshire	25-33	Feed 26-30
— Irish	30-32	Feed 26-30
— Foreign	25-32	Feed 23-30
RYE MEAL, Foreign		Foreign
BEANS, Mazagan	39s to 45s	Tick 41-43 Harrow 41-43
— Pigeon	43s to 50s	Winds Longpod
— Foreign		Small 41-48 Egyptian 42-44
PZAB, White, Essex, and Kent	46-48	Suffolk 50-52
— Maple, 41s to 45s	Grey 44-47	Foreign 30-45
MAIZE		Foreign 46-52
FLOUR, best marks delivered	per sack 59-64	
— 2d ditto	ditto 54-61	Country 54-61
— Foreign	per barrel 24-42	Per sack 49-56

FRIDAY, Feb. 21.

The weather during the past week has been fine in places, though not without occasional high winds and frosts. The trade throughout the kingdom has shown considerable firmness, leading to a slight increase in the value of Wheat in all the chief markets; the general improvement has, however, not exceeded 1s. per qr. Spring Corn of all sorts met a good sale at about late rates, feeding Barley, Beans, and Oats being slightly dearer in a few of the local markets, while prices of malting Barley were against the sellers. The transactions in Flour were limited, and did not lead to any quotable advance in value. The arrivals of grain and seed laden vessels off the coast during the early part of the week were good, consisting of 111 cargoes, of which, with those left over from last week, there remained for sale last night 39 cargoes. In arrived Wheat a large amount of business has been transacted, at 1s. to 3s. per qr. advance, fine qualities of Ghirkas particularly were in active demand for U.K., the secondary sorts of red and finest white for the Continent. Barley was firm, at the extreme prices of last week. Rapeseed continues steady. Cottonseed commanded more money. Cargoes of Wheat on passage and for forward shipment were sought after at improving rates. Maize was a very dull trade. Barley steady. Rye without alteration. Paris, Feb. 20.—The demand for Wheat is active, with improving prices. Flour unaltered, but firm. The six marks are quoted at equal to 60s. 3d. per 260 lb. The stock at the Halle is estimated at 21,615 cwt.

The arrivals of English and foreign Oats this week have been small, of foreign Wheat moderate, and of Barley good. This morning's market was thinly attended. English Wheat was inquired after at the extreme prices of last Monday. Foreign met a moderate demand at late rates. Spring Corn was firm at our last quotations.

ARRIVALS THIS WEEK.

	Wheat.	Barley.	Oats.	Flour.
English ..	990 qrs.	420 qrs.	520 qrs.	1570 ska.
Irish ..	—	—	30	—
Foreign ..	13,230	4430	740	{ 1120 3700 brls.
	14,220	4850	1260	

Liverpool, Tuesday, Feb. 19.—To day's market was well attended by buyers, but the inquiry for Wheat was somewhat checked by the advance in prices demanded by holders; the rates obtained, however, were 3d. to 4d. per cental higher for white, and 1d. per cental for red descriptions on the week. Flour experienced a moderate request at recent extreme figures. Indian Corn met a fair demand at previous quotations. Egyptian Beans moderately active, and prices unchanged. Oatmeal without alteration. Peas quiet at former rates.

FRIDAY, Feb. 21.—A thin attendance at market. There was a fair demand for Wheat, at 1d. to 2d. per cental over Tuesday's rates for all descriptions. Flour in moderate request at extreme rates. Beans, Oats, and Oatmeal unchanged in value. Peas held for 1s. per qr. advance. Indian Corn slow; new mixed, 43s. to 43s. 6d.

AVERAGES.

	Wheat.	Barley.	Oats.
Jan. 11 ..	69s 6d	41s 6d	25s 5d
— 18 ..	71 6	42 1	25 7
— 25 ..	72 4	42 6	25 6
Feb. 1 ..	72 6	42 4	25 11
— 8 ..	73 4	42 7	26 0
— 15 ..	73 0	42 5	25 9
Agg. Average ..	72 0	42 3	25 8

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Florist and Stove.
WANTED, an active and thoroughly capable MAN, to take entire charge of Floral Department and Stove Plants, also several large houses of Camellias, upwards of 2000 Liliun auratum bloomed in the houses. Must give long reference to known Gardeners. None but most efficient need apply.—Address, Walsley, near Brighthelm.

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WANTED IMMEDIATELY, an active YOUNG MAN who can turn out Soft-wooded Plants in large quantities.—Apply, with copies of testimonials, to E. A., Fort Prospect Nurseries, Limerick.

JOHN SHAW, Stamford Nursery, Bowdon, Cheshire, is in WANT of an ASSISTANT PROPAGATOR for the Glass department.

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WANTED, a steady, persevering YOUNG MAN, to Assist in the Houses, and make himself useful in Potting, Tying, Watering, &c. One used to Growing for Market preferred.—Apply, with references, &c., to Messrs. ROGERS & Co., Clapham Rise Nursery, Clapham, S.

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WANTED, in a Country Seed Shop, a YOUTH to ASSIST at the COUNTER, who has had some previous experience in the Trade.—Address W. B., care of Hurst & Son, 6, Leadenhall Street, London, E.C.

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The Gardeners' Chronicle Newspaper.

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J. WILKINSON, Principal Librarian. British Museum, February 27, 1868.

Home News.

THE COURT.—The Queen has deferred her departure for Windsor from the 28th inst. to the 3rd of March, in consequence of the medical attendants on Prince Leopold having reported that his Royal Highness is deriving much benefit from the sea air. On Friday the Queen went out with Princess Louisa. On Saturday morning the Queen drove out with Princess Louisa. The Prince of Wales arrived from London. The Queen went out with his Royal Highness and Princess Louisa. The Prince of Wales afterwards left Osborne. The Queen drove out with Princess Beatrice. Dr. Jenner kissed hands on being created a baronet. On Sunday the Queen and Princess Louisa attended Divine service at the parish church, Whippingham. The Rev. G. Prothero officiated. On Monday morning the Queen went out with Princess Beatrice. Sir William Jenner left Osborne. In the afternoon the Queen drove out with Princess Louisa. On Tuesday morning the Queen drove out with Prince Leopold. In the afternoon the Queen drove out with Princess Louisa. On Wednesday morning the Queen went out with Princess Louisa. In the afternoon the Queen drove out in a landau and four. Sir William Jenner arrived on a visit. On Thursday morning the Queen went out with Princess Louisa. Sir William Jenner left for London.

THE PRINCE AND PRINCESS OF WALES.—On Saturday morning the Prince went to Osborne on a visit to the Queen, and returned to Marlborough House in the afternoon. The Princess drove out. On Sunday the Prince and Princess attended Divine service at the Chapel Royal, St. James's. The Rev. Dr. Vaughan preached the sermon. On Monday the Prince rode out. The Princess drove out. In the evening their Royal Highnesses went to the Lyceum Theatre. On Tuesday morning the Prince left Marlborough House for Badminton on a visit to the Duke and Duchess of Beaufort. The Princess drove out. On

Wednesday the Prince hunted with the Beaufort foxhounds. The Princess drove out.

THE CABINET—A Cabinet Council was held on Saturday at the official residence of the First Lord of the Treasury, in Downing Street.

RESIGNATION OF LORD DERBY.—The Earl of Derby, on Tuesday, by the advice of his medical advisers, tendered his resignation to the Queen, who accepted it. Her Majesty at the same time commissioned Mr. D. S. ... the Chancellor of the Exchequer, to reconstruct the Cabinet, and on Thursday afternoon the new Prime Minister left town for Osborne, to submit to Her Majesty the names of the members of the new Cabinet. It is understood that the changes in the Ministry will be as follows. Mr. D. S. ... resigns the office of Chancellor of the Exchequer, and will be succeeded by Mr. Ward-Hunt, Secretary to the Treasury. Lord Chelmsford vacates the Lord-Chancellorship, and will be succeeded by Lord Cairns, one of the Lords Justices of Chancery. Overtures were made to Viscount Cranborne and General Peel to join the Administration, the one as Secretary of State for India and President of the Indian Council, the other as Secretary of State for War, but they were not successful. Sir Stafford Northcote and Sir John Pakington will therefore retain their present offices. Mr. Walpole retires from his position as a Cabinet Minister without office. The Lord Justiceship, vacated by the elevation of Lord Cairns to the Chancellorship, has been conferred on Vice-Chancellor Sir William Page Wood. It is understood that Mr. Ward-Hunt's successor at the Treasury will be Mr. Selater-Booth. A meeting of the Conservative party will be held at the official residence of the First Lord of the Treasury on Thursday, on which day the new Premier will indicate in the House of Commons the policy of his Government.

PARLIAMENTARY MOVEMENTS—The majority in favour of Mr. Beresford Hope, at the election for Cambridge University, had increased on Saturday evening to 536, the numbers being for Mr. Hope, 1933, for Mr. Cleasby, 1397. The committee of Mr. Cleasby, feeling then that they had no farther prospect of success, issued a notification that the contest would not be continued. Mr. Beresford Hope, therefore, was formally declared on Monday to have been duly elected as member for the University. In consequence of the announcement that the Marquis of Hartington will become a candidate for North Lancashire at the next general election, the Conservatives have got up a requisition to the Hon. F. Stanley, M.P. for Preston, to offer himself for the same division. Mr. Laurence Oliphant has announced his intention not to offer himself again for the Stirling Burghs, on account of ill-health.

MEETING OF LIBERAL STATESMEN.—A meeting of the leading statesmen of the Liberal party was held on Monday, at the residence of Mr. Gladstone, on Carlton House Terrace. There were present Earl Russell, Mr. C. P. Villiers, the Earl of Kimberley, Mr. Milner Gibson, Mr. C. B. ... the Marquis of Hartington, Mr. G. ... the Duke of Argyll, Mr. C. ... Mr. B. ... and Mr. G. ... A discussion extending over an hour and a half was held on Irish questions, but no definite line of policy was decided upon.

THE BARONETCY.—The *Gazette* of Tuesday announces that the Queen has directed letters patent to be passed under the Great Seal granting the dignity of a Baronet of the United Kingdom to William Jenner, Esq., of Harley Street, Cavendish Square, Doctor of Medicine, one of Her Majesty's Physicians in Ordinary, and the heirs male of his body lawfully begotten.

THE VACANT JUDGESHIP.—Mr. James Hannen, of the Home Circuit, has been appointed one of the Judges of the Court of Queen's Bench, in the room of the late Mr. Justice Slade.

COMMISSION ON COURTS-MARTIAL.—A Royal Commission has been appointed to inquire into the system of Courts-martial, their powers and practice, and into the nature of military punishments generally. The Commissioners have been instructed to suggest such improvements as they may think desirable.

CONVOCAION.—In the Upper House on Friday the debate on the report on diocesan synods was resumed by the Bishop of Bangor, and after some remarks by the Bishop of Rochester and the Archbishop of Canterbury, was unanimously adopted. The Prolocutor brought up the *articulus cleri* on the case of Bishop Colenso, agreed to on the previous evening by the Lower House. The Bishops sat in consultation nearly three hours, during which time the matter was fully considered. On the readmission of the reporters, the Bishop of Capetown was admitted at the same time as "a stranger." The Bishop of Oxford, after a lengthened review of the *articulus cleri*, said that the canonical difficulties of the case had been greatly increased by the new judgment of the colonial court, the effect of which, stated the plaintiff, seemed to be to render any appeal from the matter, that it would be wrong to proceed to an immediate decision. He therefore moved the following resolution:—

"That a committee of this House be appointed to inquire into the expediency of the deprivation referred to in the *articulus cleri*, and to examine and report on the merits of the writings of Dr. Colenso. That his Grace the President be prayed to take such measures as he may see fit to remove the existing scandal from our church. That these resolutions be communicated to the Lower House, with the expression of our thanks for the aid they have exhibited in protesting against false teaching, and our assurance that we are striving to strengthen to the utmost the bonds of the Bishop of Capetown in his noble efforts for the maintenance of the truth of Christ. But that, in view of the canonical difficulties of the case, aggravated as we feel them to be by the announcement of the new judgment in the Supreme Court at Natal, the particulars of which are not yet in our hands, we think it right to postpone our decision on the matters laid before us."

The Bishop of London seconded the motion. After some remarks by the Bishop of St. David's, the Arch-

bishop, and the Bishop of Salisbury, the resolution was unanimously adopted. By direction of his Grace, Convocation was then prorogued to the 28th of April. In the Lower House on Friday Archdeacon Hale presented a gravamen against so much of the decision of the House on the preceding evening as related to the approval by the House of certain proceedings by the Bishop of Capetown in his metropolitan court and provincial synod on certain days in the year 1863. The Dean of Chichester moved the adoption of the resolutions on Ritualism, sent down from the Upper House, as follows:—

"That the limits of ritual observance cannot be left to the untrammelled discretion of individual clergymen, and ought to be defined by rightful authority, and that therefore means should be provided—A. For enforcing the due observance of the rule already laid down at the end of the Rubric 'concerning the service of the Church,' with the view of duly interpreting all diversely taken common rules, B. And if necessary for removing ambiguities in the existing law. That this resolution be held to apply to deviations from the rule and directions of the Book of Common Prayer as well as defect as in excess."

Archdeacon Mackenzie seconded the resolution. Archdeacon Denison moved the following amendment:—

"That this House earnestly desires that it may be able to co-operate with the Upper House upon the whole matter now submitted for its consideration; but having regard to the fact that two formal inquiries by authority are now pending, one before a Royal Commission, the other before the highest ecclesiastical court, the issue of both which inquiries will supply materials now lacking but indispensable for a sound decision by this House upon the whole case, this House humbly represents to the Upper House that it does not appear to this House to be expedient to proceed by way of any abstract resolution at this time."

The amendment was seconded by Archdeacon Allen, and supported by Canon Woodgate, Chancellor Massingberd, the Rev. J. W. Joyce, and others. The original motion was supported by the Rev. Messrs. Sumner, Oxendon, &c., and after an animated debate it was found necessary to adjourn their further consideration. The House was then prorogued to the 28th of April.

Foreign.

FRANCE.—In the sitting of the Corps Législatif on Saturday the discussion of the Bill on the Press was continued. M. Rouher said that the prohibition against publishing any other but official reports of the debates in the Chambers did not imply the prohibition of the right of discussing the debates. The Senate had left it to the courts of law to fix the limits of that right. The Legislative Body could not fix how far that limit extended. It would be assuming to itself unconstitutional powers, which would give rise to a confusion of prerogatives. If the Government thought it advisable to introduce a constitutional modification, it would submit the question to the consideration of the Senate. M. Gueroalt replied that the proposers of the amendment would withdraw it if the Government would promise to bring the question before the Senate; otherwise the point must be decided by the Legislative Body itself, so that no doubt should remain on the subject. MM. Thiers and Rouher respectively addressed the Chamber. The amendment was then put to the vote, and rejected by 155 votes against 66. M. Darimon's amendment, to the effect that a discussion by the papers of the debates in the Legislative Body should be allowed on condition of its being accompanied by the official report, was rejected by a majority of 129 to 62. In the sitting of Monday two amendments, one proposed by M. Janzé, the other by M. Richard, asking for a reduction of the penalties established by two *Senatus Consulta* against offences of the Press, were brought forward. M. Nogent moved the previous question, on the ground of the incompetency of the Legislative Body to amend a *Senatus Consultum*. MM. Janzé and Lanjuinais replied that it was the Senate that had overstepped the limits of its competency. M. Rouher supported the motion for the previous question. M. Janzé's amendment was then rejected, through the adoption of the previous question, by 187 against 17 votes. The other amendment on the same subject was also rejected. The Chamber then discussed the interpellation of M. Janzé respecting the refusal of the Government to investigate the charges of malversation and immorality made against a Judge of Loudeac. After some observations from M. Baroche, the Minister of Justice, the Chamber passed to the order of the day over the interpellation. M. Havin subsequently ascended the tribune, and attempted to read the sentence of the jury of honour appointed to decide upon the charges of corruption made by M. Kerveguen against certain Paris newspapers. Loud interruptions prevented him from proceeding, and the President declared the sitting to be closed and withdrew. Great excitement ensued, and the Opposition members protested against the close of the sitting. The *Presse* says that the sentence of the jury of honour was that there was neither proof nor presumptive evidence that M. Gueroalt or M. Havin had received money from the Italian or Prussian Governments. The jury also censured M. Kerveguen for having brought an accusation of which no proof could be adduced against his colleagues in the Legislative Body. The Minister of War has fixed at 2500 francs the amount necessary this year to obtain exoneration from military service. The *France* of Thursday evening gave a denial to certain disquieting reports spread on the Bourse during the day respecting the relations between France and Russia, and said that the movement on the Bourse ought to be attributed rather to commercial than political causes. An important article on the causes which led to the easy victory by Prussia over Austria, and containing some reflections on the new French Army Bill, from the pen of the Prince de Joinville, appears in the present number of the *Revue des Deux Mondes*.

SPAIN.—The debate on the Spanish railway companies will shortly be begun in the Congress in March. The golden rose which has been a remarkable work of art, representing a rose tree, with the thorns and buds having at the extremity a flower of Papal arms among its ornaments. The only, is about 100l. The last golden rose of the Prince Imperial, in 1870, was sent to the Queen of Naples, in 1871.

PORTUGAL.—Accounts from Lisbon, of Portugal state that great agitation prevails in that country. The troops had been called out, and several had taken place, resulting in some men and wounded. The resignation of the Duke of Loule to office was expected.

HOLLAND.—The Session of the States opened on Tuesday by a Royal Commission of the Ministers of the Interior and Finance. King's Speech says that the Government conduct of foreign policy to have been advantageous to the country. It was with regret, but after reflection, that it decided on dissolving the Chamber. There was at present a new Chamber of which consisted of new members Government and the representatives had a guarantee that agreement between the Executive and Legislative powers which was necessary confidence in their public institutions. If the Government received the support of the States, the Session would be fruitful. Let them address people, and the country would profit by their reflection towards the Sovereign and in care for the people, and the country would profit by their reflection.

BELGIUM.—In the sitting of the Chamber of Representatives on Saturday, the general debate on the Army Reorganisation Bill was concluded. M. de ... amendment, proposing that the army should be composed of volunteers, was rejected by a majority of 71 to 18. M. Couvreur did not vote in the division. Another amendment, proposing to do away with the system of drawing lots, was rejected by a majority of 71 to 22. M. de ... Chamber then adjourned till the 3d of March.

DENMARK.—The Crown Prince of Denmark left on Thursday for London, on a visit to the Queen and Princess of Wales. His Royal Highness has revived rumours of his marriage.

THE DUCHIES.—It is rumoured that Prussia demanded of Denmark the cession of an island in the Baltic as a condition of the return of the Danish portion of North Schleswig to Denmark. Prussia is directing her attention to the creation of strategical lines opposite to the northern side, or to prevent a landing in the north. Some hesitation is felt as to the execution of the works of Alsen-Duppel-Ba., of Kiel, Rendsburg, and Friedriehstadt. In the old Dannewerk, which was used as a defence by the Danes in the Schleswig campaign, also as an advanced line for the Prussians on the peninsula. In another quarter several arsenals were armed and organised in the early spring at Stettin, Neisse, and Wesel. Schleswig and Holstein are henceforth to have but one Government, the Government of Schleswig being chosen as its seat.

HANOVER.—The semi-official Prussian *Presse* on Wednesday published an article headed "The Proceedings of King George of Hanover," in which it stated that the Government will take measures to prevent means being supplied from Prussia in enterprises against the Prussian Monarchy, a course of action which would be the ruin of former subjects.

PRUSSIA.—In the sitting of the Chamber of Deputies on Saturday the Bill for augmenting the relief of the distress in the districts of Gumbrecht, Königsberg was adopted in accordance with the draught of the Committee, which had been prepared by the Government. According to the Bill of interest may be made to those districts of the State Treasury to provide seed for the sowing, and in cases of urgent necessity other means may be made to alleviate the distress. To cover the cost made by the Treasury the Minister of Finance is empowered to issue State bonds to the amount of 3,000,000 thalers, bearing interest and redeemable in one year. A motion of Deputy ... further issue of bonds by the loan banks ... the sufferers was negatived. On the other hand, the proposition by the Committee that during the now prevailing in the eastern provinces of Prussia the Prussian Bank should be authorised to place of the loan banks was adopted. During the debate the Minister of Finance stated that the required for the advances in question were ... hand. In the sitting of Wednesday Herr ... a question to the Government, signed by members of all parties, to ask whether, after the recent ... at Hietzing, and in view of the formation of a ... persist in carrying out the pecuniary arrangements accorded to King George. The Minister of Finance replied that the Government considered it its relative duty to put a stop to any further ... the part of King George, and that such measures were considered necessary for that purpose would be previously concluded the Government would ... the said Bill during the present Session.

apply at the reopening of the Diet for the measures as they might have thought to adopt. This statement was received by the Emperor with applause. The Bill brought forward by the Emperor of the gambling banks at Ems, Homburg in 1872 was then adopted, and it is intended that the rooms are to be shut up for holidays. An amendment moved by the Emperor that the period fixed for the Diet in 1868, instead of 1872, was rejected by a majority of two votes. The Diet will be closed on the 1st of March in person. A Convention is to be held Saturday between Prussia and the Emperor respecting the treatment of emigrants and fulfilled their military obligations in the country. The main stipulations of the treaty are as follows:

Germany and Prussia will consider as German in America as American citizens residing in that country, with the exception of deserters from their flag. If a German returns to his native country without a passport, he will be regarded as having forfeited his naturalization rights. This clause applies to Germans who may reside for more than six months in North Germany after returning from America. The Extradition Treaty of 1854 is extended to the whole of North Germany. The duration of the treaty is fixed at 10 years, and it is to be exchanged within six weeks.

BRITAIN.—The term for closing the gambling saloons at Baden and Homburg having been fixed by the Emperor's Government, the proprietors of those establishments are looking out for new quarters, and have made a brilliant offer to the municipality of Geneva. They propose, in return for the privilege of opening a gambling-house in Geneva, to pay the whole of the municipal debt, complete the construction of the quay on the lake, and make a large street in the town. The Administrative Council has not yet given a reply to this offer, but there is no doubt that it will be declined.

AUSTRIA.—In the sitting of the Upper House Committee of the Reichsrath on ecclesiastical affairs on the 24th inst. the draft of the Marriage Laws Amendment Bill was adopted. The Bill proposes a restoration of certain clauses of the civic code in existence before the conclusion of the Concordat, and renders the celebration of marriage before the civil authorities a matter of necessity, coinciding thus with the vote of the Lower House. The minority of the Committee announced its intention of submitting separate proposals to the House. In the sitting of the Lower House of the Reichsrath on Thursday the President of the Ministry introduced a Bill relative to the abolition of the Council of State. The Minister of Justice presented a Bill on the disciplinary treatment of the Judges, and their obligation to take the oath of allegiance to the Empire.

HUNGARY.—The editor and publisher of the Radical paper published Kossuth's letter to the electors. Wartenberg has been condemned by the jury to one year's imprisonment and a fine of 2000 florins.

RUSSIA.—In consequence of representations made to the Committee of the Ministers, an Imperial decree has been issued, ordering the immediate establishment of a newspaper, which is to be the organ of the ultra-absolute and absolute Protectionist parties. The Comptroller of the Empire has presented to the Council of the Empire the Budget for 1868. The extraordinary expenses for the Ministry of War are estimated at 100,000,000 roubles, for the Ministry of Public Works 100,000,000, and for the Ministry of Marine 1,500,000.

ITALY.—Admiral Farragut has left Milan for Genoa. The Mayor and the principal inhabitants of the latter city presented a special, friendly demonstration in honor of the Admiral. The Marquis Oldini, the Italian Minister at Munich, has been appointed Italian Minister at Lisbon, and has left for Munich, presenting to the King his letters of recall from the Emperor's Court. He will be succeeded at Munich by the Marquis Magliorati.

FRANCE.—At the reception of the preachers of the Holy Spirit, the Pope delivered an allocution in which he expressed the wish that Rome might not be visited any more. The French Ambassador delivered to the Pope an autograph letter from the Emperor of the French thanking his Holiness for having sponsored Prince Bonaparte to the cardinalate. On Wednesday, being Ash Wednesday, the Pope took part in the usual ceremonies in the Sistine Chapel. His Holiness blessed the ashes and distributed them to the members of the Sacred College and Diplomatic Body who were present.

SPAIN.—It is said that there is great agitation in the parts of Sicily, and that an outbreak is imminent. Thirty-eight bags, containing 100,000 roubles with the effigy of Francis II., and containing several merchants of Palermo, have been found on board the steamer Electrico.

MALTA.—A slight shock of earthquake was felt at Malta on the 24th inst.

THE PRINCIPALITIES.—The French papers state that in spite of the declarations of the Roumain Government, Servian and Bulgarian intrigues are still carried on in the territory of the Principalities, and that 100 rifles and 10 cases of revolvers, destined for Roumania, have been delivered at Bucharest. The Roumain Government is reported to have sent M. Cantacuzene to St. Petersburg, to present the Roumain Government's project for procuring the absolute independence of Roumania on the 1st of May next, and expresses a hope that the project will be without foundation.

THE LOWER DANUBE.—A telegram from Constantinople, dated 24th inst., asserts that Omar Pasha, who has been expressly ordered by the Sultan to hasten on his journey to take the supreme command of the army on the Danube, has left Constantinople for Rustchuk.

TURKEY.—It is said that the Minister of Finance has concluded a loan of 120,000,000 with two London financial firms. The terms are stated to be about 18 per cent per annum, redeemable in four years, and guaranteed by the Adrianople tith revenue. The commander of the Russian squadron in the Levant has demanded from the Grand Vizier an explanation respecting the reports circulated by the *Times* and the *Levant Herald* that the Russian squadron had given material assistance to the insurgents in Candia. The Turkish Admiral has made a report, in which he brings no charges of that kind against the Russian squadron, and the Turkish Government has expressed its disapproval of the reports published by the above-mentioned journals. Mr. Calvert, late English consul at the Dardanelles, has been convicted by the Supreme Court of Constantinople of an attempt to defraud the underwriters at Lloyd's of 12,000*l.* In 1862 he insured, in the name of Hussein Aga, a ship which he called the *Poseidon*, laden with oil, and which he alleged was destroyed by fire in Turkish waters. The claim was backed by official documents, signed by him as consul, and sealed with the consulate seal, and included bills of lading, certificates of the departure of the vessel, and of the fire. Suspicion being aroused inquiry was made, when it turned out that no such ship as the *Poseidon*, and no such person as Hussein Aga ever existed. He was sentenced to two years' penal servitude.

EGYPT.—The Daira Bonds, which had been protested, have been paid, and the Daira has offered to take up the bonds falling due on the 8th of March at a discount of 12 per cent. The coast of Egypt has been visited by a furious gale. The Peninsular and Oriental Company's steamer *Ripon*, from Marseilles, was kept two days outside the harbour of Alexandria, and was finally piloted in by Captain Roberts, the company's agent. A shock of earthquake was felt on the night of the 20th. Sir Thomas Gabriel, the late Lord Mayor, Alderman Sir Sidney Waterlow, Mr. Deputy Virtue, and some other citizens of London, are now in Egypt as guests of the Viceroy. They first visited Pompey's Pillar, Cleopatra's Needle, and the other historical sights of Alexandria, and were attended by the viceregal interpreter. They then visited the Pacha at his Palace of Gizeh, after which his highness placed a steamer at their disposal to convey them up the Nile to Thebes, Luxor, and the first Cataract.

ABYSSINIA.—Sir Stafford Northcote has received the following telegram from Sir Robert Napier, dated the 6th inst.—

"Major Grant, whom I had deputed to Prince Kassal, has been well received by the Prince. My letter and presents were suitably received in an open Durbar, attended by 2000 chiefs and people. Owing to the Prince being engaged in certain ceremonies, a private interview has not taken place. The people around the Prince seem to be well disposed towards us, and the woman of Alwa received the mission in its entry to the town with a hearty cheer in honour of its arrival. No complaints are to be apprehended."

AUSTRALIA.—Accounts from Melbourne of the 5th inst. state that His Royal Highness the Duke of Edinburgh had visited Tasmania, and was then at Sydney. The elections were being held, and the new Parliament was expected to meet on the 8th of March. Storms had prevailed along the coast. Agricultural prospects were favourable.

CHINA.—Much adverse discussion continues in China regarding Mr. Burlingame's appointment as envoy from the Chinese Government to the various European Courts and the United States. An earthquake had occurred in Formosa, which lasted 32 minutes. Much damage was done.

JAPAN.—A Japanese vessel arrived here from Hiogo has reported the due opening of that port and of Osaka, on the 1st of January, without any difficulty. Twelve British, six American, and one French war vessels were present.

UNITED STATES.—President Johnson has nominated General McClellan as Minister to Great Britain. President Johnson last week issued an order removing Mr. Stanton from the post of Secretary for War. Mr. Stanton, however, declined to vacate the office, and, having referred the President's order to the Senate, that body passed a resolution declaring that his removal was illegal, and referred the matter to the Reconstruction Committee. A resolution for the impeachment of the President was introduced in the House of Representatives, and referred to the same Committee. On Tuesday, in accordance with the recommendation of the Committee, the House of Representatives appointed Mr. Thaddeus Stevens and Mr. Kingham formally to impeach President Johnson at the bar of the Senate, and a committee of seven to prepare the articles of impeachment. Mr. Stevens and Mr. Kingham afterwards impeached the President formally at the bar of the Senate. The Senate ordered the appointment of a Select Committee to consider the subject. President Johnson has sent to the Senate the nomination of Mr. Thomas Ewing as Secretary of War, with a message maintaining that the removal of Mr. Stanton was no violation of the Tenure of Office Act, and expressing the wish that the constitutionality of the Act should be tested before the Supreme Court. The President has also asked the Courts for a writ to oust Mr. Stanton, who remains at his post. The President has sent to the House of Representatives copies of his letter of the 10th to General Grant, the latter's reply, and letters of Secretaries Seward, Welles, McCulloch, Browning, and Postmaster-General Randall, corroborating the President's version of the interview with General Grant in presence of the Cabinet relative to the reinstatement of Mr. Stanton. The President's letter accuses General Grant of insubordination, and of accepting the portfolio of War in the interest of Mr. Stanton, and with intent to circumvent the President. General Grant replies that the circumstances justified his asking written instructions from the President relative to his disobeying the orders of

Mr. Stanton. He disclaims any intention now or hereafter of disobeying the orders of the President when legally and distinctly communicated. The Senate has passed a Bill for effecting the gradual reduction of the army. The House of Representatives has voted an appropriation of 50,000 dollars for the relief of American citizens imprisoned in foreign countries and subsequently discharged. The House has passed a Bill authorising the surrender of foreign convicts who escape from justice and seek asylum in America. Mr. Seward has issued a circular advising all American citizens visiting Great Britain and Ireland during the suspension of the Habeas Corpus in Ireland to procure passports from the State Department. Mr. Sumner has presented a memorial from the citizens of Boston to the Senate, praying the abolition of the presidency. General Grant has appointed General Sheridan to the temporary command of the department of Missouri, the President having prohibited the appointment of any permanent commander. It is reported that General Sherman has declined his nomination as General by brevet. The Peterhoff prize case has been finally settled in the United States District Court, and the moneys paid over to the English claimant's agent. It is reported that Mr. Seward has requested Messrs. Charles O'Connor and J. T. Brady to go to Europe, in order to defend American citizens prosecuted by the British authorities for Fenianism. The President has created a new Military Department, named the Atlantic, comprising the Department of the East and the Lakes, the headquarters of which are to be at Washington. Lieutenant-General Sherman has been assigned to the command. Saturday the 22d being Washington's birthday, was observed as a holiday throughout the States.

BRAZILS.—President Lopez was fortifying his position and making a road in the Chaco. The allied army under the Marquis de Caxias was inactive. Sickness prevailed in the army and fleet. Some anxiety was beginning to be felt in Rio as to the result of the war, there appearing to be no hope of an immediate termination. The cholera was still very bad at Buenos Ayres, and had spread to all parts of La Plata. Business was completely paralysed at Buenos Ayres. The revolution in the province of Santa Fé was very serious.

Parliament.

In the House of Lords on Monday Lord ST. LEONARDS brought in a Bill to provide that the Lords Justices should sit together and not separately on appeal motions. The Marquis of CLANRICARDE, in introducing his Bill relating to the tenure of land in Ireland, contended that the only mode of improving the land of Ireland was the introduction of capital, which could only be profitably employed in farming on a large scale. He would therefore recommend his Bill as a measure calculated to secure to the tenant fair remuneration for his improvements, and to deal fairly with the rights and interests of both landlord and occupier. Lord ST. LEONARDS saw no necessity for fresh legislation unless it could be shown that the Act of 1860, which appeared to be a most fair and business-like measure, had failed. The Earl of KIMBERLEY also thought that the proposed Bill might clash with previous legislation, and said that what was required was a moderate and practical measure, sweeping revolutionary remedies being likely to produce worse evils than now existed. The Earl of MALMESBURY, on behalf of the Government, assented to the introduction of the Bill, and said that the general policy of Ministers would be fully explained in the course of the debate in the House of Commons on Tuesday evening by the Chief Secretary for Ireland. The Bill was then read a first time. The Earl of MALMESBURY moved the second reading of the Habeas Corpus Suspension (Ireland) Act Continuance Bill. Earl RUSSELL, while admitting the necessity of the measure, said that it was no light thing for the Government to ask leave for the third time to suspend one of the most important liberties of the subject, and contended that they ought not to have come unprepared with any statement as to how they meant to conciliate the disaffection which undoubtedly existed largely in Ireland. No man knew what the future might bring forth, or how dangerous to the security of the Empire the disaffection of Ireland might prove if our relations with the United States should become suddenly complicated. Above all, relief must be given in the matter of the Irish Protestant Church, which had no parallel in Europe, Asia, Africa, or America, and immediate legislation was necessary to remedy that and other grievances, of which the Irish people most justly complained. The Earl of HARDWICK asked Earl Russell how, with the opportunities he had so often enjoyed while in office, he could account for his inaction in what he called such a vital matter. In his opinion there should be perfect equality between the Protestant and Roman Catholic Churches in Ireland; but to merely abolish the Irish Establishment would be to raise up more enemies in Ireland than the Government had there even now. Earl GREY agreed with the views of Earl Russell, and insisted upon the abolition of the Irish Church, which he held to be an insult and degradation to the people of Ireland. The Duke of RICHMOND, on behalf of the Government, declined to anticipate the statement to be made on Tuesday in the House of Commons as to the course of legislation which they proposed for Ireland. The Earl of ELLENBOROUGH agreed with Lord Hardwicke that there should be a perfect equality of religions in Ireland, as a measure demanded by justice and dictated by the soundest policy. At the same time it must not be forgotten that the Protestants were the civil garrison of Ireland, and the Government were bound to that extent to stand by them. After a few

words from the Marquis of WESTMOUTH and the Bishop of Killaloe, the Bill was read a second time. On Tuesday the Earl of MALMESBURY repeated the formal announcement made by Lord Stanley in the Commons at an earlier hour, that the state of Lord Derby's health had necessitated his resignation of the Premiership; that Mr. Disraeli had received the commands of the Queen to form a Ministry; and that the right hon. gentleman was at that time occupied with the task. He then moved that the House should adjourn to Thursday for the third reading of the Suspension of the Habeas Corpus (Ireland) Act Continuance Bill, and should meet again on Friday for the Royal assent to the Bill, which must be passed before Sunday. EARL RUSSELL said that there could be no objection to the arrangements proposed, and warmly expressed his sympathy with the Government at the loss they had sustained. Often as he had differed, and long as he might now differ from Lord Derby on public questions, he could never fail always to entertain for him those sentiments of regard and esteem which his great qualities were so calculated to inspire, and he hoped that the noble lord would soon be again in the House to give their lordships and the country the benefit of his experience and undoubted talent. The Habeas Corpus Act Suspension Bill then passed through Committee. On Thursday the House had a formal sitting, at which the Habeas Corpus Act Suspension Bill was read a third time and passed. Yesterday the Royal Assent was given by Commission to the Habeas Corpus Suspension (Ireland) Act and the East London Museum Site Bill.

In the Commons on Friday Mr. GOSCHEN, in calling attention to the continuous increase of the burdens laid for various purposes on the occupiers of rateable property in London and elsewhere by the Metropolitan Board of Works, stated that the expenditure of that Board had gone on increasing year by year, until in 1866 it had amounted to the enormous sum of 1,970,000*l.*, and a total expenditure between that year and 1857 of nearly 11,000,000*l.* He showed that the taxation of the occupier had been carried to its extreme point, had driven away capital from the building trade, and had made it impossible to house our poor, inasmuch as it was only by overcrowding and by the neglect of sanitary regulations that cottage property could be made remunerative. With a view to meeting the state of circumstances, he recommended that there should be an equalisation of rates over the metropolis, a rate on the owners instead of the occupiers of rateable property, and a municipal income-tax of one penny, which the Board might hand over to the Government in exchange for the house-tax, which would produce about the same amount. After some remarks by Colonel HOGG, Colonel SYKES, Mr. AYRTON, Colonel R. N. GRENVILLE, and Mr. H. LEWIS, the House was counted out. On Monday the Public Departments (Extra Receipts) Bill was read a third time and passed; the Railways (Extension of Time) Bill was read a second time; and the Lords' amendment to the East London Museum Site Bill were agreed to. Bills were brought in, by Mr. W. EWART, to introduce into this country the metric system of weights and measures; by Mr. CAVE, to carry into effect a Convention between her Majesty and the Emperor of the French concerning the fisheries between the French and English coasts, and to amend generally the laws relating to the British sea fisheries; by Lord J. MANNERS, to further continue and appropriate the London Coal and Wine Duties; and by the LORD-ADVOCATE, to amend the procedure and the judicial arrangements in the Scotch Courts of Justice. On the motion of Mr. AYRTON, all Bills relating to gas companies in the metropolis were ordered to be referred to a Select Committee of 10 members. On Tuesday the rumours of ministerial changes which had been afloat all the afternoon attracted the first large audience of the session. After the private business had been disposed of, Lord STANLEY rose and announced that Lord Derby, in consequence of the state of his health, which made absolute repose for a considerable period essential, had tendered his resignation, which had been accepted; and that, acting on her Majesty's commands, Mr. Disraeli was now engaged in forming an Administration. He therefore moved that, following the invariable course, in order to give time for the necessary arrangements, the House should adjourn to Friday. Much as Mr. Disraeli regretted to delay the discussion of Mr. Maguire's most important motion on the condition of Ireland, he had no option. Mr. GLADSTONE remarked on the singular destiny which had imposed upon Lord Stanley the duty of making this announcement, and expressed his deep regret that a career so long, so active, and in many respects so distinguished and remarkable as that of Lord Derby, should have been brought to a close by bodily illness. He agreed that the adjournment proposed was most appropriate under the circumstances. Mr. VICTOR pressed that some Government night should be appropriated for his motion on Irish affairs. Lord STANLEY in reply said that the Government were quite as anxious as any one could be that the great subject referred to should be fully and fairly discussed. The motion for adjournment was then agreed to. Yesterday Lord STANLEY, on behalf of Mr. Disraeli, who was still at Osborne, stated that it was necessary to ask the House to sanction a further adjournment till Thursday next, when the day for the postponed debate on Ireland would be arranged. Mr. GLADSTONE, for the special reasons caused by Lord Derby's illness, assented to the adjournment, which was agreed to. The House then adjourned to Thursday.

City Intelligence.

MONEY MARKET, FRIDAY.—BRITISH FUNDS: Consols closed at 92½ to 93 both for Money and

Account; New and Reduced Three per Cents., 93½ to 93½; India Five per Cents., 112 to 112½; Bank Stock, 249 to 251; Exchequer Bills, 11s. to 15s. pm.—FOREIGN: Mexican, 15½ to 15½; Greek, 12½ to 12½; New Spanish, 35½ to 36½; Italian, 15 to 15½; Turkish, 32½ to 32½; Brazilian (1865), 74 to 75; Peruvian (1865), 75½ to 76½; Russian (1862), 84 to 85; Egyptian (1864), 86 to 87; Do. Railway Loan, 90½ to 91½; Viceroy's Seven per Cents., 73½ to 74; Do. Nine per Cents., 88½ to 89; United States 5-20 Bonds, 71½ to 71½; Erie Railroad, 44 to 45; Illinois, 87½ to 88½.

Metropolis and its Vicinity.

DISCOVERY OF THE REV. MR. SPEKE.—Sir Richard Mayne on Monday requested the evening papers to make known that information had been received that morning of Mr. Speke's safety. He was found at Padstow in Cornwall, dressed as a drover, with other disguises and a large sum of money in his possession. He was arrested by the police on suspicion of being a bankrupt who had absconded from Hull. As, on further examination, he answered the description of Mr. Speke, he was taxed with being that gentleman, and confessed that he was. Mr. Murdoch, his brother-in-law, left London for Cornwall on receipt of the intelligence, and with Mr. W. Speke, his brother, and Detective-Sergeant Williamson, arrived at Bodmin on Tuesday morning by the London mail. They had an interview with the Chief Constable, Colonel Gilbert, and subsequently left with Mr. Speke for London. Mr. Speke gave them a full account of his proceedings since leaving London. On the night of his departure he went to Basingstoke, and next day walked to Winchester, a distance of 18 miles. The day following he proceeded to Bishopstoke, and thence to Southampton, Gosport, and Portsmouth, and remained in the neighbourhood of Portsmouth till the 29th of January, occupying himself by visiting various places in the locality. He arrived at Plymouth by steamboat on the 30th, and stayed there till February 16, during which time he visited Saltash, Cotehele, Egg-Buckland, St. Germans, Tamerton, Roborough, Ivybridge, and other places in the neighbourhood. On Sunday, the 16th of February, he attended church at St. Germans; the next day he proceeded to Powey, on the south coast, and thence to Lostwithiel on the 20th. He then went to Bodmin, and put up at a second-rate inn, the Queen's Head. On the 21st he went to Padstow, where he was arrested, having left his luggage at Bodmin. His luggage was in several small bags enclosed in one large bag. The money found in his possession amounted to 200*l.* in notes and gold. He was somewhat excited when taken to Bodmin, but talked quite rationally to the Chief Constable. He appeared, however, to entertain peculiar religious views, and said his great object in leaving home was to get to some country where nobody knew anything about him, so that he might work for his living and preach the Gospel to his fellow-labourers. He had obtained, he said, much greater insight than heretofore into the principles of the Bible by his lonely study of it on the rocks by the sea-shore. When asked why he did not go abroad at once, instead of roaming about the country, he said he knew it would have been of no use to attempt it, for the telegraph would have been set to work and detectives placed on the watch to stop him. He hoped by moving about the country from place to place to keep them off the scent, and that after a time he would be able to embark from a seaport without being suspected. His plans for the future were to return to Bodmin and attend church there on Sunday, and then to visit various places of interest on the Cornish coast; after which he proposed to proceed to Ilfracombe, and cross by steamboat thence to Swansea. With that view he had ascertained the times of sailing of the steamers. On getting to Swansea he intended to walk through Wales to Liverpool, and there embark for America. He admitted having read the newspapers daily, but said the excitement caused in the country by his disappearance had no effect in altering his determination to carry out his scheme. He acknowledged, however, to his brother that he was now ashamed of what he had done, and seemed affected by his position. On leaving Bodmin for town he was calm and composed, but appeared dejected. On arriving in London Mr. Speke at once placed himself under medical care. Dr. Gull and Dr. Tuke, the physicians consulted, recommend an entire cessation from clerical duty for some time longer, rest of mind and body, and change of climate. Mr. Speke will, therefore, proceed in a few days to the south of France, probably with his relative, Mr. Murdoch. The *Western Morning News* states that the Cornish police are to have the reward promised by his friends for his discovery.

THE JAMAICA OUTBREAK.—On Thursday morning, at Bow Street Police Court, Sir R. P. Collier, on behalf of Mr. John Stuart Mill, the president, and Mr. Peter Taylor, the treasurer of the Jamaica Committee, applied to Sir Thomas Henry for a warrant against Governor Eyre for the murder of Mr. Gordon, in Jamaica, after the outbreak of 1865. Mr. Mill and Mr. Taylor occupied seats on the bench. Sir R. Collier said that he was instructed to apply for a warrant against Mr. Eyre, on the charge of having been accessory to the murder of Mr. Gordon, at Morant Bay, in Jamaica, on the 23rd Oct., 1865. It might be said that these proceedings were taken at a somewhat late period, considering the date at which the offence took place. Upon that point he must mention that at the time when the warrant was applied for and obtained against General Nelson and Lieutenant Brand as principals, it was intended to make the application against Mr. Eyre as accessory, but it was found that he was not at that time within

the jurisdiction of the court. It was a common knowledge that an application made to the magistrates in Shropshire, within the jurisdiction Mr. Eyre was; but he presumed that Thomas Henry would not consider himself bound by their decision, but would exercise his own discretion. Moreover, that decision was given prior to the of the charge of Chief Justice Cockburn to a jury in reference to the case of "Nelson and Brand." That charge had since been published by the Chief Justice, with notes, and with a lucid statement of martial law. It was no disparagement of Justice to say that if they had been acquainted with all the learning and authority upon the subject, would have come to a different conclusion. The peculiarity of English law—and he, for one, would think it a defect—that there was no prosecutor, no official person charged with bringing offenders to justice, but it was the action of private individuals, and they do it frequently from a sense of duty, and even without investigation. Many great crimes would escape without any personal motives, but by a very judiciously instructed him were certainly not induced by any personal motives, but by a very judiciously of duty, believing that a great crime had been committed—that a British subject had been put to death without warrant, and under circumstances constituted what the law called murder, and consider that a most important matter, as a tenure under which every man in the British dominions, held his property. He then gave an outline of the instances under which the execution took place the legal grounds upon which it was considered amounted to murder. His arguments were to a great extent identical with those of Mr. Fitzjames Stephen, in the case of "Nelson and Brand," and he supported them by references to authorities, and especially to the charge of the Chief Justice. Having contended that it was not necessary to prove express malice, he went on to say that there was evidence on which he would submit that Mr. Eyre would be justified in finding that Mr. Eyre was actuated by express malice. There had been a feud between Mr. Eyre and Mr. Gordon; and in an instance Mr. Eyre's conduct had brought down severe censure from the Duke of Newcastle, entering into the details of the disputes between Eyre and Mr. Gordon, and quoting largely from correspondence, he proceeded to contend that of indemnity passed in Jamaica did not bar Sir Thomas Henry here. Sir Thomas Henry said it was not necessary to argue that point, as it had been decided in the "Nelson and Brand" case. Sir R. Collier proposed to ask that it should be executed, and Mr. Eyre would voluntarily attend, as General and Lieutenant Brand had done. He concluded by reminding Sir Thomas Henry of his own words in summing up that case. Sir Thomas said that was before the delivery of the charge to by Sir R. Collier. In that charge all the evidence used by Sir R. Collier had been so put that it was impossible to state them more forcibly, and the jury had thrown out the bill. He was not aware there had ever been a case there—certainly not during the 28 years that he had presided on the bench, in which, after the grand jury had returned a bill against the persons charged as principals in a murder, a magistrate had issued a warrant as accessory. He did not think that he ought to grant such a precedent, and he therefore refused to grant a warrant. That, however, would not prevent the prosecutors from preferring a new bill against another grand jury if they thought fit.

THE EASTER VOLUNTEER REVIEW.—On Monday the largest meeting of metropolitan Volunteer officers held met at the rooms of the National Rifle Association to consider what steps should be taken regarding the of metropolitan Volunteers usually held at Easter. Mr. Truro occupied the chair. The first resolution that was carried unanimously, that the usual review should take place at Easter, a long discussion ensued as to the respective merits of Brighton, Dover, and Portsmouth as the site of the review. A deputation, consisting of the Mayor of Portsmouth and several Volunteer officers and gentlemen from that town, were appointed in favour of that place being selected. Mr. Knight, who represented the interests of the Volunteer companies of Chatham, and Dover and South-Eastern, stated that those companies would carry the review to and from Dover with the same facilities as given last year for 1*s.* 6*d.* each. After various resolutions had been proposed, it was agreed to appoint a committee of officers, consisting of Lord Ranelagh, Colonel the Hon. Loyd Lindsay, Colonel Taylor, Colonel Warde, and Colonel Gordon, should be appointed to report as to the best arrangements for the review, and the facilities offered by the companies.

THE CORONERSHIP FOR WEST MIDDLESEX.—The election concluded on Saturday in the person of Dr. Diplock. On Monday the sheriff declared the numbers to be as follow:—Dr. Diplock, 112; Dr. Hardwicke, 113; Mr. Walter, 55, 200. Dr. Diplock had been elected by a majority of 100. A protest was entered against the return by Dr. Hardwicke, but Dr. Diplock took the requisite office.

THE CLERKENWELL OUTRAGE.—On Monday morning William Desmond, Timothy Michael Barrett (alias Jackson), Nicholas James O'Neill, and Anne Justice were examined before Sir Thomas Henry at Bow Street for the examination. Mr. Giffard, Q.C., having taken the case for the Crown was closed, Mr. Desmond should reserve the defence on behalf of the

Barrett, and Justice, but as no evidence had been produced against O'Neill, he hoped that the court would discharge him. Sir Thomas Henry could not do that, but should send the prisoner to jail. Mr. Lewis then asked if he would take Sir Thomas Henry's reply, certainly not. Mr. Justice should also reserve the defence of his witnesses were then formally bound over to appear at the March sessions of the Central Prison, but will probably be taken next week. Mullany was afterwards placed at the bar and remanded on the charge of treason.

STRESS IN THE EAST-END.—On Monday the Executive Committee, formed for the relief of the exceptional distress in the east of London, met at the Mansion House, when their proceedings took a very unexpected turn, and resulted in a unanimous resolution to suspend their relief for two days. Mr. Samuda, M.P., called the attention of the committee to a letter which appeared in the Times of that morning, from Messrs. Pontifex Wood, builders, stating that 30 carpenters, engaged temporarily by them at their works at Millwall on the agreed wages of 5s. 6d. a day, to which they had offered to add an additional shilling on that day, but to work till 4 o'clock, in common with their regular hands, had on Saturday struck. They had given no previous notice of their intention, but simply intimated that they would resume work unless they were paid 8d. per hour on the Saturday half-holiday. Messrs. Wood added that some of these men were unwilling to come to work with them until they had been paid. Mr. Samuda said that with such a letter before them it became them, as a committee for the purpose of mainly relieving the exceptional distress among the labouring classes in the east of London, to reconsider their position. He observed that the men in this case, earning 33s. a week, had been wiled away from their work by the influence of unions, and that the course they had taken had been at the dictation of a trades' union. It was a question, therefore, for the consideration of the committee—with that fatal influence at work among the labouring classes—whether they were right in seeing that the committee might thus become an instrument, with the funds placed in their hands for benevolent purposes, of enabling those who were under restraint of trade and to carry out their agency. The Rev. Septimus Hansard, Secretary of Bethnal Green, said that, before the committee arrived at a conclusion on the letter of Messrs. Pontifex, they ought to hear the men themselves. The Rev. T. J. Rowsell dissented from the opinion that, by reason of the conduct of those who were the real distress, which was widespread and had found it among a great many classes connected with ship-building—such as cooper, cobbler, and others. Mr. Ravenhill said that the Labour Committee of the Poplar Board of Health last week, finding that a number of bricklayers were at work in the stoneyard, proposed that they should be set to work to build a new boundary wall, which was wanted, instead of being kept at the Labour Committee expressed a strong opinion that the Union was at the bottom of the refusal, at the same time, that they did not ask to lay the full number of bricks they would be satisfied with some work of that kind as a test. Mr. Scrutton, the head of a deputation from the East Central Relief Association, said that the bricklayers had not up to that time begun the work, though everything was in readiness for them to do so. He believed it was a matter of pride with them. A dispensary was being opened in the neighbourhood, and they apprehended violence if they did the bricklaying they had been asked to do by the Labour Committee. They had required being 500, he believed. The Rev. S. Rowsell said the men might think in doing the work that they were being used as a lever for the labour market. The Lord Mayor observed that their notion was that the committee was taking advantage of their necessity. After a long discussion, a resolution was passed, on the motion of Mr. Cazenove, adjourning the committee on Wednesday to afford time for their being better informed on the subject of certain strikes which had taken place, and which had tended, in their opinion, to the unnecessary aggravation of the existing distress. The secretaries, in the early part of the proceedings, had stated that the public subscription had been raised to 3000l. by the committee up to that morning, including 800l. by an anonymous donor, and that they had a balance in hand of 1673l. A meeting on Wednesday, the secretaries alleged to have struck for higher wages, but on being questioned denied that they had done so, and that they had asked for 8d. per hour and to work till 4 o'clock, because the bricklayers did so, and they understood they were to be on the same terms as the bricklayers. In short, they affirmed that the strike had arisen out of a misunderstanding, and that they were willing to resume work at 5s. 6d. Other explanations followed, and the com-

mittee resumed its duty of administering relief to cases of exceptional distress.

MR. GLADSTONE ON THE CO-OPERATIVE MOVEMENT.—Messrs. Jones, Evison, and Barter, of the Borough, wrote to Mr. Gladstone last week, calling his attention to the spread of the co-operative movement, and especially to the Civil Service stores, and stating that a feeling of irritation has arisen among the trading class at seeing the Civil Service, which costs the country so much, and the Estimates for which have grown so rapidly of late years, doing their utmost to destroy the trader altogether, and, in fact, becoming traders, although retaining their situations at the country's cost. They ask how, if this goes on, the trader is to meet the heavy taxation he has to bear, and express the hope that he will use his great influence in the correction of this tendency, which is, they say, "being viewed with great anxiety by many, and which is, probably, doing more than any movement has yet done to set class against class." In reply Mr. Gladstone writes as follows:—

"11, Carlton House Terrace, Feb. 18.
Gentlemen,—I cannot wonder either on the one hand that consumers should endeavour to adopt means for buying in the cheapest market, or that tradesmen should feel sore when their regular means of an honourable livelihood seem likely to be impaired. It is scarcely likely that the fundamental law, so to call it, of society which has given the retail trader, or distributor of commodities, his place in it ever since it was organised, is erroneous, and, if so, the tendency at any given moment to replace that important class by a contrivance for the purpose may be indicative of some defect, removal of which would restore things to their natural course. I speak even without the authority of a private housekeeper, for my engagements do not allow me to give due and proper attention to these matters. But I have the impression that there is a prevailing vice in the practice of retail trades which might be cured—I mean the system of dealing upon long credits, and of allowing no discount for ready money payments. This system prevails, I believe, in most trades connected with the supply of families, and with many other traders of this great metropolis. Long credits mean large loans by men in business out of their trading capital to men out of business. These loans must be paid for at the rates usually current for trading capital, which are, of course, high. Here we have a total inversion of the natural order, which is that men in business should be borrowers from, and not lenders to, men out of business. This system also aggravates the risk of bad debts, which form an additional charge to a good debtor; and it is connected with a general irregularity and uncertainty, which must also be paid for. I do not doubt that we, the consumers, are much in fault; but I cannot help thinking that traders are in fault also, and that much might be done by a vigorous effort, and by combination among traders in favour of ready-money dealings, either absolutely or as encouraged by discounts. As you state that others as well as yourselves are disposed to appeal to me in this matter, although I have no specific to propose, I am quite willing that, if you think fit, you should give publicity to this letter. I am, &c.
W. E. GLADSTONE."

METROPOLITAN BOARD OF WORKS.—At a meeting of the Board on Friday, Mr. Le Breton moved the following resolution:—

"That it is proved that Mr. Roche, acting on behalf of the Lundy Granite Company, obtained from Mr. Furness a written agreement to purchase from that company the stone which might be required on the Thames Embankment works for which he had made a tender, the acceptance of which was then under the consideration of the Board, and that Mr. Doulton consented to act as referee in the event of differences arising between the parties to such agreement; that the taking part in such matter by members of this Board is most reprehensible, and calculated injuriously to affect its character."

Mr. Adams seconded the motion. Mr. Elt then moved the following amendment:—

"That the Board extremely regrets that any of its members should have taken part in business or professional transactions, with contractors of the Board, in matters connected with its contracts; and it strongly deprecates such conduct, as calculated to affect injuriously the character of the Board in public estimation."

After some remarks by Mr. Shaw and Mr. Howes, Mr. Roche entered into a long explanation of the course he had taken, and said that he had acted, not as a member of that Board, but as a professional man. Mr. Turner objected both to the resolution and amendment, and moved the following:—

"That the Board is of opinion that the charge against Mr. Roche, of having promised to support Mr. Furness in his application for the Embankment contract, on condition of Mr. Furness contracting to take the granite he might require from the Lundy Granite Company, is destitute of foundation. 2. That the only connection of Mr. Roche with the transaction consists in his having, in his character as a solicitor, employed by the Lundy Granite Company, drawn up and obtained the signature of Mr. Furness to a contract, to take his granite from that company, in pursuance of an arrangement previously made with the company by Mr. Doulton. 3. That the course taken by Mr. Roche was not intended by him and did not, in fact, operate to the prejudice of the public interest. 4. That such course is, nevertheless, objectionable in itself, inasmuch as any connection whatever, whether of a business or professional character, between a member of the Board and a party who has contracted or is in treaty for a contract with the Board, in reference to the subject matter of such contract or treaty, is calculated to shake the confidence of the public in the integrity of its proceedings."

Mr. Le Breton withdrew his motion in favour of Mr. Turner's, and Mr. Elt declining to withdraw his amendment, it became the original motion, and Mr. Turner's resolution the amendment. After a long discussion the amendment was put, when there were, on a division, for the amendment, 19; against, 7; majority for the amendment, 12. The original motion was therefore lost. Mr. Richardson then moved that the last paragraph of the amendment, which expressed the disapproval of the Board of any of its members acting for contractors in a professional or other manner, be omitted. The resolution was seconded, but was negatived, on a division, by 20 to 2.

ROYAL ACADEMY OF MUSIC.—Several of the public papers having recently stated that the Royal Academy of Music was about to close, Mr. Sterndale Bennett, the principal, has announced that the institution will open its summer session, as usual, on the 9th of March, with an increase in the number of its students.

SECESSIONS TO ROME.—The Rev. E. G. Shapcoote, Rev. G. Akers, and Rev. F. M. Wyndham, of St. George's Mission, St. George's-in-the-East, seceded last week to the Roman communion. The superior and some of the branch sisterhood of St. Mary's Priory, Hackney, seceded last week to Rome, but one of the sisters has since returned to the English Church. It is said that the superior, who led the secession, was originally a Roman Catholic, and has now returned to her mother communion.

LIGHT WEIGHTS AND SHORT MEASURES.—Forty South London shopkeepers were last week fined for knowingly or unknowingly cheating their customers by using unjust weights and measures. The fines amounted to 56l. The black list included 11 licensed victuallers and beer retailers, 8 chandlers, 1 eating-house keeper, 3 grocers and cheesemongers, 1 confectioner, 2 butchers, 6 coal and potato dealers, 5 bakers, and 2 milkmen.

DEMOLITIONS IN THE CITY.—Another of the old landmarks, which have of late been destroyed to give place to modern improvements, is doomed to immediate demolition. The Saracen's Head Hotel, in Skinner Street, Snow Hill, celebrated in the old carrier and coaching days, was disposed of by auction a few days since, by instructions of the Improvement Committee of the City of London.

FIRE IN PORTMAN MARKET.—On Saturday night, soon after midnight, an extensive fire took place in Portman Market, opposite the Marylebone Theatre, by which about 20 houses and shops were destroyed, and many families rendered homeless. The fire broke out soon after midnight in a shoe shop, and spread with such rapidity from shop to shop, that in less than an hour the whole pile was in flames. It is said to have been the result of carelessness. It appears that at 11 o'clock on Saturday night the side blind in the shoe shop was blown by the gale against the gas jet outside and caught light. The shop was being closed at the time, and the flames having been hurriedly extinguished, the blind was rolled up and put under the counter. About an hour afterwards the counter of the shop was found in a blaze, and it is supposed that some sparks of fire must have remained in the blind when it was rolled up, and smouldered until they burst into a flame.

FATAL FIRE IN COVENT GARDEN MARKET.—On Tuesday morning, at half-past 2, a fire broke out at Mr. Bocking's, basket maker, at the corner of King Street, Covent Garden, immediately opposite Evans's Hotel. In a very short space of time several steam fire-engines arrived, and water was poured upon the burning houses in great quantities, but from the inflammable nature of the stock the progress of the fire was very rapid, and the interior of the building was completely destroyed. Mr. W. J. Lobjoit, a well-known grower in the market, residing at Barnes, was in the habit of sleeping in the top-floor front, over Messrs. Bocking's shop, in order to be early in the market each morning, and was unfortunately occupying his usual quarters when the fire occurred. He could have been saved by the escape, but suddenly remembering that he had left some money in a carpet-bag in his bed-room, he went back for it, in spite of the warnings of the escape man. He had no sooner set his foot upon the floor than it fell in, and he was precipitated into the burning mass below. The flames rushed out of the window of the room as though from a furnace, and compelled the fireman to retreat. He was so burned about the head and face, that he had to be sent to the hospital in a cab. The charred remains of Mr. Lobjoit were found at half-past 8 o'clock. It is understood that he had a wife and family, and that he was 59 years of age. At the inquest on Thursday the jury returned a verdict that he died from suffocation, and that the fire was accidental.

ATTEMPTED BURGLARY AT WANSTEAD.—On Friday night a daring burglary was attempted at the house of Alderman Finnis, Park Gate, Wanstead. About 3 o'clock in the evening a maid servant went to the Alderman's bed-room and lighted the fire. At a quarter to 9 she went up again, and found the room-door locked. Hearing a scuffle of feet she became alarmed, and called the butler, who went up and forced the door open, and then found that it had been barricaded from within. The room was in the greatest confusion and disorder. Burglars had effected an entrance by means of a rope ladder fastened to the balcony, and had cut a pane of glass out of the window, and with a jemmy prised off all the fastenings. They had also opened the door of the strong room in which the Alderman kept his plate, by cutting round the lock, and had brought out four chests containing plate, the contents of which, amounting in value to above 2000l., had been abstracted and placed in sacks ready for removal. Fortunately only a few small articles were missing.

THE PUBLIC HEALTH.—The Registrar-General's Weekly Return of births and deaths in London states that in the week that ended on Saturday, February 22, 4655 births and 2955 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 24 per 1000 persons living, being 22 per 1000 in London, 25 in Edinburgh, 33 in Dublin, 24 in Bristol, 21 in Birmingham, 28 in Liverpool, 28 in Manchester, 26 in Salford, 21 in Sheffield, 23 in Leeds, 23 in Hull, 20 in Newcastle-upon-Tyne, and 23 in Glasgow. The rate in Vienna was 33 per 1000 during the week ending the 15th inst. In London the births of 1159 boys and 1156 girls, in all 2315 children, were registered in the week. In the corresponding weeks of 10 years 1858-67, the average number, corrected for increase of population, was 2251. The deaths registered in London during the week were 1336. It was the eighth week of the year, and the average number of deaths for that week, corrected for increase of population, was 1579. The present return is, therefore, 243 below the estimated number.

Provincial.

BIRMINGHAM.—On Friday Thomas Beesley, alias Marlow; Joseph Beesley, William Beesley, Louis Bee, alias Grayson, and Elizabeth Bee were again brought before the magistrates on remand, charged with being concerned in the murder of Miss Mary Melbourne, on the 21st of January. Further evidence, implicating the prisoners, having been adduced, William Beesley, Thomas Beesley, and Louis Bee were committed for trial at the Assizes on the charge of Wilful Murder; and all the prisoners were committed on the charge of feloniously breaking into the house of deceased and stealing money.

HOLYHEAD.—The breakwater at Holyhead extends nearly two miles seaward. At the extremity a lighthouse is in course of erection. A terrific north-wester on Sunday made a great breach between the lighthouse and the breakwater, demolishing the machinery and cranes. A breach that was repaired last week was also again broken through, and the lights put out.

LIVERPOOL.—On Monday, about noon, much excitement was caused in this town by the report that a merchant had been attacked by two men in his own office, and savagely assaulted. It appears that Mr. Adolphe Kasel, a wine merchant, having offices in No. 58, Tower Buildings, was alone in his office, both his clerks having gone out on business, when two persons presented themselves, one of them dressed as a young woman, chignon and all complete, and the other as a young man, with heavy beard and moustache. The man produced an advertisement, and said, "You have these wines to sell, I want to see some," and with that stepped inside the counter. Mr. Kasel turned round to enter his inner office, when the man sprang on his back and commenced beating him about the head, when the other joined, and they got him down. He then cried out "Murder," and managed to get to the door, which he found locked. Some one having then knocked loudly from the outside, the men desisted from beating him, and Mr. Kasel succeeded in opening the door. The occupant of the next office and his clerks came in and secured the men, who were given into custody. A variety of small articles were found on them, including a jemmy a foot long, and on the floor of the office was found the loaded end of a whip. Mr. Kasel was taken to the dispensary, where it was found that he had sustained severe contusions on the head and that his right arm was broken. The prisoners were at once taken to the Central Police-station and examined. They are both young men, of less than the average build. One of them—the "lady"—is named John Wilson, and is in the employment of Mr. Wood, confectioner, of Bold Street, and the other, David Harris, is a clerk in the office of Mr. R. S. Williams, solicitor, in Moor Fields. On Tuesday the prisoners were brought before the magistrates, and as Mr. Kasel was unable to attend were remanded for a week. Two clerks of Mr. Kasel have also been taken into custody, charged with collusion with the prisoners. A room in which the present witness was concealed for a short time had a floor covered with saw-dust, and on his being removed it was found that he had written with his finger in the saw-dust the words, "Forsake us not, O Lord, in this our hour of sorrow."

MAIDSTONE.—About 3 A.M. on Tuesday the 18th inst., the watchman at Linton Place, the seat of Viscount Holmesdale, M.P. for West Kent, noticed a light in the mansion which excited his suspicions. He examined the windows from the outside, and found that of the butler's pantry open. He entered, and had just crossed the room and gained the passage, when he met two men with blackened faces. A scuffle ensued, in which the watchman used his stick somewhat freely. One of the men had a life preserver, and the other a pistol. The watchman was so severely cut about the head that he was forced to give in, the blood which was running down his face almost blinding him. The men then ran upstairs into a long corridor. They entered a room occupied by two female servants, and locked the door. The servants were, of course, alarmed, and the burglars, producing a pistol each, threatened to blow their brains out if they made a noise. The men then jumped from the window to the gravel walk in front of the mansion, a height of 15 feet, and made off. The watchman was found to be dreadfully cut about the head, but his wounds are not likely to prove fatal. The housebreakers had been disturbed at the commencement of their operations, and had secured no booty. They have not yet been apprehended.

MANCHESTER.—On Friday the suspected Fenian, Patrick Mulcahy, who was apprehended in London, and charged with an attack on the police van at Manchester and the murder of Sergeant Brett, was again brought before the magistrates of this city. The witnesses swore positively to his identity, and he was committed for trial.

PRESTON.—During the past week a cotton-mill in this town has received a large consignment of spinning machinery from Belgium, which, notwithstanding the cost of transit, has been supplied at 15 per cent less than the English prices. Preston was once a noted place for the manufacture of machinery, and supplied a great part of Lancashire, now its machinery is being actually imported from the Continent.

SHEFFIELD.—The Corporation of this town, following the example of the Corporation of Liverpool, have adopted the use of Aveling & Porter's 30-ton steam road rollers for making the streets and roads of Sheffield.

SUNDERLAND.—The fine iron steamship Norfolk was totally lost on the French coast, between Cherbourg and Brest, during the late heavy gales, while on her way from the Tyne to Barcelona with a cargo of coals. It is supposed that the crew, numbering 18 persons, must have been washed off the vessel. The Norfolk was the property of Mr. R. Young, M.P., and was of about 600 tons register.

TROWBRIDGE.—The local papers report the discovery of coal on the estate of Earl Manners, near this town. Boring operations are to be commenced, with the view of testing the extent of the seam.

WALSALL.—On Thursday week a young woman named Mary Jane Youngman, who, during the past fortnight, has been exhibited as a curiosity, was interred in the cemetery of this town. She was born in New South Wales in 1850, and was 35 inches in height, being 2 inches less than Tom Thumb, and feet 6 inches round the body.

Ireland.

THE LORD MAYOR'S DINNER.—The inaugural banquet of the Lord Mayor of Dublin took place on Tuesday night. The Lord Lieutenant, who was enthusiastically received, spoke at considerable length. He regretted that a seditious spirit was rampant in Cork and other localities, but it was utterly powerless except to annoy and irritate the local authorities. The number of the conspirators was contemptuously few, and the leaders sooner or later would be brought to justice. Two-thirds of Ireland was sound to the core. He was sorry that the exceptional state of Cork should be considered too much on the other side of the water, and that the Quixotic attacks on martello towers and the plundering of gunshops should be set down as characteristic of the condition of the whole of Ireland, rather than as the peculiarly exceptional character of the remotest corner. There was, he added, a universal desire to consider the grievances of Ireland, and to examine the condition of the people. This feeling was independent of temporary Fenian alarms, and was rapidly gaining ground every day in the sister isle. He held out hopes that the result of the Railway Commission would greatly advance the commerce of the country, and said that the returns showed a decrease of 19,000 in emigration last year, and an expected further decrease this year, while the tonnage of Dublin had increased from 890,000 in 1857 to 1,436,000 in 1867, and the revenue from 26,000*l.* to 44,000*l.*

THE DUBLIN COMMISSION.—The first instance of failure in the Crown prosecutions against the Fenian agitators occurred on Friday. The jury empanelled for the trial of Messrs. Martin, Sullivan, and others, on the charge of taking part in an illegal procession in Dublin (that in honour of the men executed at Manchester), were unable to agree on a verdict after four hours' deliberation, and were, therefore, discharged. Ten of the jury are said to have been in favour of a verdict of guilty, and two for acquittal. The Attorney-General said he would not proceed to re-try the case this Commission. On Saturday morning Mr. Sullivan, proprietor of the *Nation*, and Mr. Pigott, proprietor of the *Irishman*, who had been convicted of publishing seditious libels on the Government, were brought up for sentence. Mr. Justice Fitzgerald, in passing sentence on Mr. Sullivan, said that it was the grossest folly or the most flagrant misrepresentation to say that the Fenians at Manchester were not legally and righteously executed not for a political offence, but for murder, and that government would be impossible if the administration of justice were to be so grossly libelled as it had been by the defendants. The sentence of the Court was that Mr. Sullivan be imprisoned for six calendar months from the present time, and at the end of that period that he give security, himself in 500*l.*, and two securities in 250*l.* each to be of good behaviour for two years, or in default of such security being given that he be further imprisoned for a second period of six calendar months. Baron Deasy, in passing sentence on Mr. Pigott, said that it was painful to deprive of their liberty gentlemen of education, intelligence, and ability, but the duty was imperative, and his colleague and himself had come to the conclusion that they could not consistently with their duty pass upon him a less sentence than that he be imprisoned for 12 calendar months, and at the expiration of that time enter into recognisances to be of good behaviour for two years, himself in 500*l.* and two securities in 250*l.* each, or in default be further imprisoned for six months.

THE FENIAN TRIALS AT SLIGO.—The Grand Jury at Sligo Assizes yesterday found true bills against Captain Nagle and other Fenian prisoners. Mr. Heron moved for the postponement of the trial of Nagle.

DEATH OF CONSTABLE CASEY AT CORK.—Constable Casey, who was shot by William Mackay, the Fenian captain, on the night of his arrest, died on Sunday morning, after suffering amputation of his leg. At the inquest on Monday the jury returned a verdict of Wilful Murder against Mackay, Timothy Mannix, Walter Walsh, and David Spillard. At the funeral, which took place in the evening, many Protestant magistrates, but no Roman Catholic, though Casey was of that faith, attended the funeral. When the corpse was brought out of the hospital the mob hooted triumphantly.

ATTACK ON THE HOUSE OF A CORK MAGISTRATE.—On Monday night the house of Mr. Newenham, a magistrate at Douglas, two miles from Cork, was attacked by five armed men in disguise, who demanded arms. Mr. Newenham, who was in the drawing-room, pretending compliance, went to the bed-room, locked himself in, and going to the window with a double-barrelled gun, fired at a man outside. The Fenians returned the fire, striking the window. Mr. Newenham again fired, but without effect. The house-keeper rushed into the hall exclaiming "Police!" and the men then ran off.

ANOTHER FENIAN OUTRAGE IN CORK.—On Thursday night the house of the Rev. Leshe Wilmount was attacked by an armed party of 25 men. Mr. Wilmount refused them admittance, rang the alarm bell, and fired on the assailants, who fired in return. The police hearing the alarm came out, and the Fenians decamped.

ARREST OF A HEAD CENTRE IN LIVERPOOL.—The Fenians in Limerick, alleged to be the headquarters of that city. In his house were found a "torpedo," or torpedo, capable of being used on land or under water, and some machinery which may render necessary his trial. A torpedo, the *Cork Examiner* states, has been discovered by Captain Kennedy, of HMS *Thetis*, and several other naval officers, and is of a similar form to those employed in the Black Sea, or those more recently used in the Baltic.

ANOTHER FENIAN OUTRAGE IN LIVERPOOL.—Monday night an outrage, supposed to be of a Fenian character, was perpetrated at 15, Great George-street, having arisen, one of the party named Brown, in the groin; the others escaped. A revolver was found in the street, which exploded; the others were loaded. Some time has been made in connection with the affair. His dying depositions, stated that he could not identify the party who shot him.

THE PARTY PROCESSIONS ACT.—The Government announce that the Government have commenced prosecutions against a large number of the party for trial for breaches of the Party Processions Act. Eighteen of the Protestant processionists of July and 28 Roman Catholics were drunk and charged with riot on Lady-day have received that effect. The 17 July processionists and 17 day rioters will be put on their trial.

PROTESTANT MEETING IN DUBLIN.—At the Protestants of Dublin, was held a meeting in the Metropolitan Hall, Mr. Verner, in the chair. Resolutions were passed in support of the Irish Established Church and its attachment to the throne and Constitution, and that subversion of the Church would be dangerous to the revolutionary; and that its maintenance was necessary for civil and religious liberty, the meeting determined to resist all attacks against it. The meeting was large and enthusiastic. There was great cheering on the assembly leaving the hall.

THE PURPLE FEVER IN DUBLIN.—The journals state that the cases of cerebro-spinal meningitis are becoming more numerous in Dublin, to be found at present both among the military population.

Scotland.

NATIONAL EDUCATION IN SCOTLAND.—A meeting was held in Glasgow on Friday night, for the discussion of the question of national education. The Provost occupied the chair, and in the evening resolutions were passed in favour of a comprehensive measure of national education, of a compulsory education, of an unsectarian character, that the system should be partly supported by rates. A committee was appointed to confer with the Lord Advocate, and to watch the progress of any educational measure that may be introduced in Parliament.

OVERSTOCKING OF GAME.—On Wednesday of last week a case was tried in the division of the Jury Court, Edinburgh, in which Mr. George Syme, farmer, estate of the Earl of Moray, Fifeshire, sued to the extent of 270*l.* from the trustee of the late earl, with whom he had entered leases. The issue laid before the jury was, during the year 1865, the late earl had overstocked by the pursuer an "unreasonable stock of game" beyond what existed at the dates of entering into the leases, to the loss of the pursuer. In the course of his evidence the pursuer stated that one evening in 1865, between 70 and 80 hares in a field of 100 acres, the pheasants were "so numerous that it was impossible to count them." He had seen on occasions 70 or 80 pheasants in a field of 100 acres. The loss was alleged to have been sustained in the mansion of Donibristle, that they were taken by coverts, and in a situation where it was expected to abound. Evidence was adduced that the farms had been let at a low rent, and their being liable to injury from game was a tenant taking them must necessarily have incurred 197*l.* damages.

RATTENING IN GLASGOW.—On Wednesday at Camlachie Foundry, a number of machines had been prepared by non-union men, were found to be partly filled with water, with the view to injure the workmen who had accepted the employer's terms. The design would doubtless have been realised had the water not been discovered by the iron being poured into the moulds. The officers, who investigated the circumstances, named John Stewart, an apprentice moulder, charged of being concerned in it. Stewart, 20 years of age, confessed to the crime, and was committed to the Sheriff.

Railways.

FATAL COLLISION IN SCOTLAND.—A collision place on Thursday morning between a mineral train near Arncliffe Colliery and a passenger train from Edinburgh, on the North British Railway, guard of one of the trains, a driver, and a passenger killed. The bodies, which were terribly mangled, were taken to Edinburgh to await the inquest.

COMPENSATION CASES.—In the Court of

ature for the time of year. The Wheat trade throughout the country has been less animated than of late, but the continued inquiries from the Continent have prevented any adverse change of quotations, which remain unaltered, and we notice no decided pressure to sell. Excepting an advance of 3d. to 6d. per qr. on Egyptian Beans at Liverpool, and on Oats in one or two of the parts of the east coast, we observe no change in the value of spring corn of any description. Flour moved off slowly at barely former prices. The arrivals off the coast during the week consisted of 71 cargoes, of which, with those left over from last week, there remained for sale last night 42 cargoes. The floating trade ruled steady in the early part of the week, but during the last two days arrived cargoes of Wheat have been less sought after, and the last prices paid show a decline of 1s. to 2s. per qr. from the highest price. Malt met with a slow sale. Barley and Beans were steady. Rye a fraction dearer. For Wheat on passage and for forward shipment late rates are asked, but the demand has abated. Malt was cheaper to sell. Barley firm; Rye quiet, Rapeseed and Cottonseed steady. Paris, Feb. 27.—The supply of home-grown Wheat continues small. Flour shows a downward tendency. The six marks are quoted at equal to 58s. per 250 lb. The stock at the Halle is estimated at 20,530 cwt.

The arrivals of English grain this week have been most trifling, of foreign Wheat and Barley large, but small of Oats. This morning's market was thinly attended. English Wheat met a slow sale at Monday's quotations. Business in foreign was very restricted, partly owing to the disinclination of holders to make any concession in prices. Spring Corn was unaltered in value.

ARRIVALS THIS WEEK.

	Wheat.	Barley.	Oats.	Flour.
English ..	280 qrs.	300 qrs.	— qrs.	670 sks.
Irish ...	— " "	— " "	— " "	510 " "
Foreign ..	26,680 " "	8680 " "	7180 " "	500 brls.
	26,960	9070	7180	

LIVERPOOL, Tuesday, Feb. 25.—To day's market was fairly attended by buyers, but for Wheat there was only a limited inquiry, at prices about 1d. above those of Tuesday last. Flour steady, and prices unchanged. Indian Corn quiet, at 9d. to 1s. 3d. per qr. lower on the week. Egyptian Beans quiet at former rates. Canadian Peas dull and unchanged. Oats and Barley unchanged.

FRIDAY, Feb. 23.—The market was moderately attended. Wheat was in limited request, and prices of fine old red are about the same as Tuesday; white is 2d. to 3d. per cental dearer. In Flour there was little doing, and quotations nominal. Beans 6d. per qr. cheaper. Oats and Oatmeal a slow sale at late rates. Indian Corn in slow demand at 6d. per qr. decline, mixed American, 42s.

AVERAGES.

	Wheat.	Barley.	Oats.
Jan. 18 ..	71s 6d	42s 1d	25s 7d
— 25 ..	72 4	42 6	25 6
Feb. 1 ..	72 6	42 4	25 11
— 8 ..	73 4	42 7	26 0
— 15 ..	73 0	42 5	25 9
— 22 ..	75 11	42 9	26 2
Agg. Average ..	73 1	42 5	25 10

HOPS.—BOROUGH MARKET, Friday, Feb. 23.

Messrs. Pattenden & Smith report an improvement in the demand for Hops of all descriptions, at the late reduction in prices.

WANTED, in a Market Garden, an active Man as FOREMAN, who thoroughly understands the Forcing of Cucumbers, Melons, Pines, Strawberries, &c. A married Man preferred, not under 30 years of age.—Address, stating wages required, Mr. Smart, Market Gardener, Back Common, Turham Green, W.

Florist and Stove.

WANTED, an active and thoroughly capable MAN, to take entire charge of Floral Department and stove Plants, also several large houses of Camellias, upwards of 2000 Lilium auratum bloomed in the houses. Must give long reference to known Gardeners. None but most efficient need apply.—Address, naming wages, to Thomas Morham, Head Gardener to Major Walter, Walsley, near Birkenhead.

WANTED, a GARDENER, where two men and a boy are kept.—He must thoroughly understand the Cultivation of Vines, the Management of a Stove, Cucumber House, Orchard House, Conservatory, and the regular routine of a Vegetable Garden. Wages, £60 per annum, with good house and garden.—Apply to Mr. William Birley, The Larches, near Preston.

WANTED, an active YOUNG MAN.—One who can Pot and Water well, and attend to Air and Fires. Wages 12s. per week, with bothy lodgings.—Apply to Joseph Meredith, The Vineyard, Garston, Liverpool.

WANTED IMMEDIATELY, a YOUNG MAN (about 20 years of age), who has had experience in the routine of Gardening generally.—Apply, stating reference as to ability, to E. Brooks, Gardener, Seedman, and Florist, Cheddar, Weston-super-Mare.

WANTED, a respectable YOUNG MAN, to assist in a first-class Florist's in the West-end. He must be active and obliging, with a good address, and willing to make himself useful.—W. B. Mozley, 9, Queen's Road, Bayswater, W.

WANTED, an active, energetic Young Man as ASSISTANT PROPAGATOR, principally Soft-wooded Plants, Azaleas, and Camellias, and to make himself generally useful in the House. Must have good references for ability and sobriety.—Apply to F. R. Kinsman, Broom's Barn Nursery, Richmond, S.W.

WANTED IMMEDIATELY, a Young Man as ASSISTANT, 16 to 20 years of age, possessing a fair knowledge of the Seed Trade, willing to make himself generally useful and improve. Board and lodgings would be provided. None need apply whose character will not bear the strictest investigation.—Apply in own handwriting, stating terms, age, experience, and referring to last employer. FRANK GEE, Merchants, &c., Bagginsale.

WANTED, an IMPROVER in a large Forcing and Plant Establishment, to take charge of several Houses and assist in the general Work with other young Men. A Premium required, and a good character indispensable.—G. R., 13, George's Terrace, Blue Anchor Road, Bermondsey, S.E.

WANTED, a SHOPMAN.—Must be thoroughly acquainted with the Wholesale Trade, of good character, &c.—Apply in own handwriting, stating salary and other particulars, to Mr. S. H. CLARKE, 65, Cannon Street, W.

WANT PLACES.—Letters to be Post Paid.

Gardeners (Head, Foremen, and Under).
JAMES CARTER AND CO. Having many applications for the above, request those wanting Situations to send Name, Address, and Copies of Testimonials, for entry in their FREE REGISTER. Only those who can send unquestionable references need apply. Any Lady or Gentleman requiring Gardeners, as above, may rely upon J. CARTER & Co., adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c.—JAMES CARTER & Co., 237 & 238, High Holborn, W.C.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. F. G. HENDERSON & SON, Wellington Nursery, St. John's Wood, London, N.W.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of various GARDENERS and GARDENERS and BAILIFFS, of various qualifications, who are open to engagements.—The fullest particulars as to services required and wages given, should be forwarded with application. PAUL'S Nurseries, Waltham Cross, London, N.

GARDENER (HEAD), to any Lady, Nobleman, or Gentleman.—Age 40, married, 14 years in last situation. Practically conversant with the various branches of Gardening.—J. D., 16, Lucretia Road, Kennington, S.

To Noblemen and Gentlemen.

GARDENER (HEAD).—Age 30, married, no incumbence.—Mr. MARSDEN, The Vineyard, Garston, Liverpool.

GARDENER (HEAD).—Age 26; thoroughly understands his profession in all its branches. Four years' unexceptionable character.—J. S., Castle Gardens, Sherborne, Dorset.

GARDENER (HEAD).—Age 25, understands Pines, &c. Melons, Cucumbers, Vines, Kitchen Garden, Greenhouses, &c. Leaving in consequence of a death in family. Thirteen months' good character.—A. Y., Post Office, Southend, Lewisham, Kent, S.E.

GARDENER (HEAD).—Age 26; thoroughly understands his profession in all its branches. Five years' character from last situation.—J. M., Mr. Wm. King's, High Street Nurseries, Lincoln.

GARDENER (HEAD).—Age 28, single; thoroughly understands his profession in all the various branches. Two and a-half years' good character.—Mr. M. HISS, Putney Heath, Surrey, S.W.

GARDENER (HEAD).—Age 33, married, no incumbence, thoroughly experienced in the various branches of Gardening, and the Erection of New Houses and Hot-water Apparatus. Six and a-half years' good character.—W. T., The Lodge, Haling Park, Croydon.

GARDENER (HEAD), to a Nobleman or Gentleman.—Age 30, married, no incumbence; thoroughly experienced in all branches of his profession. Highly recommended, with good character from two last situations.—S. P. R., Post Office, Watford, Herts.

GARDENER (HEAD).—Age 30, married, one child; has a thorough practical knowledge of Gardening in all its branches; is also well versed in Land and Stock. Three years' first-class testimonials.—HORRUS, Mr. Cutbush, Newsagent, Highgate, London, N.

GARDENER (HEAD).—Age 30, married; a good practical Man, who thoroughly understands his profession in all its branches, including Early and Late Forcing.—Unexceptionable testimonials as to ability, sobriety, and integrity.—J. R. NONCROSS, Cawthorne, Barnsley.

To Noblemen and Gentlemen.

GARDENER (HEAD).—Age 35, married, no incumbence; thoroughly understands his profession in all its branches. Reduction in the establishment, cause of leaving. First-class character from present and previous employers.—A. GOODWIN, the Gardens, Holmbush House, near Crawley, Sussex.

To Noblemen and Gentlemen.

GARDENER (HEAD).—Age 30, married; thoroughly understands his profession in all its branches. Unexceptionable references from previous and present employer. No Single-handed place accepted.—JOHN SAAY, Gardener, Appleby Hall, Brigg, Lincolnshire.

GARDENER (HEAD).—Age 40, married, two children, aged 10 and 8, thoroughly understands his profession in all its various branches, and can undertake the Management of Land if required. Seven years' character from last situation, and the highest testimonials from previous employers.—W. W., John Perkins, Sen., 52, Market Square, Northampton.

GARDENER (HEAD).—A Gentleman wishes to recommend his Gardener to any Lady or Gentleman requiring a good practical Gardener in all branches of his profession, including both Early and Late Planting and Laying-out New Grounds, &c. Can have the highest testimonials as to ability, sobriety, and integrity.—C. E., Gordon House, Putney, S.W.

GARDENER (HEAD).—Age 40, married, no incumbence. Thoroughly practical knowledge of his profession; is specially qualified for Forcing and producing first-class Grapes, Pines, Peaches, &c. Has had much experience in Orchard Houses, and the Cultivation of choice Fruits, as well versed in the Management of Kitchen Gardens, possesses a thorough knowledge of Plant Growing, and is acquainted with the Laying-out and Management of Ornamental Flower Gardens. Five years' character from a Gentleman he has served as Head Gardener.—W. H., Post Office, East Sheen, near Richmond.

GARDENER (HEAD).—Age 36, married, with family; leaving on account of the Gentleman giving up his establishment, in which he has been 14 years, giving the greatest satisfaction in his general conduct and success in the Cultivation and Forcing of Pines, Vines, Peaches, Orchard-house Trees, also miscellaneous collection of Stove and Greenhouse Plants, the Decoration of the Flower Garden, Management of the Kitchen Garden, Forcing Early Vegetables, &c. The above will be certified by the Gentleman he is about leaving.—C. STANLEY, Mr. Rochford, Market Gardener, Page Green, Tottenham, Middlesex, N.

GARDENER (HEAD WORKING).—Age 31, married, no incumbence; understands Early and Late Forcing of Fruits, Flowers, and Vegetables, Flower and Kitchen Gardening, &c. Good references, and can be recommended by several Noblemen's gardeners.—P. W. S., Denmark Villas, East Ham Gate, Essex.

GARDENER (FOREMAN).—Age 25; first-class testimonials from Noblemen and Gentlemen's Gardeners.—C. C., Post Office, Chester.

GARDENER (SECOND, or FOREMAN) in a Nobleman's or Gentleman's Garden.—Age 24. Good character.—F. FOX, Skeffington, Leicester.

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To Noblemen and Gentlemen.

ESTATE FOREMAN.—Age 40, married, no incumbence; a pushing Man, of great practical knowledge of Homestead and Cottage Building, with a good System of general Management, wishes a re-engagement soon. Good character.—M. 149, Pentonville Road, London, N.

FOREMAN, in a large Establishment.—EDWARD BENNETT would be happy to recommend his late Foreman to any person requiring the services of an energetic Young Man. Has had charge of 16 Houses, besides Pits, &c. Excellent moral character, &c.—Osberton Hall, Worksop, Notts.

FOREMAN.—Age 26; eight years' experience in Noblemen's Gardens; is desirous to engage as above.—Y. Z., Forest Bank Cottage, Lyndhurst, Hants.

FOREMAN, in a medium Establishment, where a Foreman where Forcing is carried on extensively.—A. B., Post Office, Dunstons, Godalming, Surrey.

FOREMAN, PLANT-GROWER, PROPAGATOR, and Market Trade.—Experienced in all Trade.—HORRUS, 4, The Terrace, Ash Grove, Hackney.

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To Noblemen and Gentlemen.

AMBROSE SANDERS, having completed 12 years with Sir Henry Meux, Bart., at Theobald's Park, N., begs to offer his services to any Nobleman who may require a first-class GARDENER, or GARDENER and BAILIFF. At Theobald's Park he has Managed the Forcing Establishment and Flower Garden, to the perfect satisfaction of his employer, and has had the care of the Greenhouses, which were very successful in the Purchase and Management of stock, give unexceptionable references as to character and ability. Present address, Theobald's Park, Waltham Cross, N.

ESTATE or FARM BAILIFF, otherwise.—Age 36, married, can undertake the Management of a Farm of any extent. Understands the Breeding and Stock, Management of Woods, and the various Works of a Good references. No objection to being sent to—Haverhill, Stadmington, near Wallingford, Herts.

To Noblemen and Gentlemen.

HOME STEWARD and BAILIFF.—Has 12 years had the Management of a Home Farm, including Draining, Repairs of Farm Buildings, Road Making, Measurement and Sale of Timber, &c. Unexceptionable character.—C. M., Stevanage.

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CARPENTER, JOINER, and PAINTER.—Man's or Gentleman's Estate.—Age 44, many years of great practical experience, having a thorough knowledge of Measurements, Setting out and Constructing Agricultural or Horticultural Buildings in Brick, Stone, &c. Wife a first-class Launderess and Dairymaid, and management of either. First-class testimonials, and 20 years.—W. R., Post Office, Eaglefield Green, Staines, Bucks.

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ROWLANDS' MACASSAR OIL.—This fragrant Oil is universally in high repute for its success in promoting the growth, restoring, preserving, and beautifying the Human Hair. It is patronized by the Aristocracy of Europe, whilst its introduction to the Courts of Royalty, and those of the Upper Classes, is a sufficient merit. Price 3s. 6d., 7s., 10s. and equal to 1 lb. each bottle. Sold at 20, Hatton Garden, and by Chemists and Druggists. Ask for "Rowlands' Macassar Oil."

Sauce.—Lea & Perrins' Worcestershire Sauce.

W This delicious Condiment, pronounced by "THE ONLY GOOD SAUCE," is prepared solely by Lea & Perrins, and is respectfully cautioned against imitations, and should see that LEA & PERRINS' Names are on the Bottle and stopper. Ask for LEA & PERRINS' Sauce. Sold Wholesale and for Export by the Proprietors, Messrs. CROSS & BLACKWELL; Messrs. BARCLAY & CO., and by Grocers and Oilmen universally.

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NORTON'S CAMOMILE PILLS are recommended as a simple but certain remedy. They act as a powerful L.T. and general Aperient, and operate safely under any circumstances, and the effect can now bear testimony to the benefits to be derived. Sold in bottles at 1s. 1d., 2s. 6d., and 11s. each. Kingdom. CAUTION.—Be sure to ask for "NORTON'S" and do not be persuaded to purchase the various imitations.

DR. ROBERTS' POOR MAN'S FEELING PILULE ANTISCROPHULA. have been proved by experience, successful in the Cure of Eruptions and various descriptions. Sold wholesale by the Proprietors, Bland's Dispensary, Bidport, and by the leading Retail by all respectable Medicine Vendors in the Colonies, and the Colonies, in pots and boxes, 1s. 1d., 2s. 6d., and 22s. each.

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LIGHT-BROWN COD LIVER OIL.
 Invariably pure, palatable, and easily taken. Prescribed as the safest, speediest, and most effective remedy for CONSUMPTION, CHRONIC BRONCHITIS, ASTHMA, AND DEBILITY OF ADULTS AND CHILDREN. Universally recognised by the highest Medical Authorities as INCOMPARABLY SUPERIOR TO EVERY OTHER.

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Sole Consignees.

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 "Gentlemen.—A remarkable case of Rheumatism has been published to-day, and as I have permission to send a publication, I do so, hoping it may benefit some of you. I am, Sir, Captain of the schooner Mary Mary, of the Tyne, at present taking in cargo at Portrush, where I was obliged to use crutches to enable me to walk. I suffered greatly from Rheumatism. A friend of mine, before this sad state, advised him to try PARR'S PILLS. He had before he had finished taking the first box, and was able to rest. Since he commenced taking the Pills, he has lost weight, looks younger, and feels better. I am, Sir, your obedient servant, GENTLEMEN, yours truly, T. ROBERTS & Co., 5, Crane Street, London, E.C.
 PARR'S LIFE PILLS may be obtained of any Druggist in boxes, 1s. 1d., 2s. 6d., and in Family Packets, 1s. 6d., with each box.

The Gardeners' Chronicle Newspaper.

SATURDAY, MARCH 7, 1868.

CARSON'S ANTI-CORROSION PAINT.
 Patronised by the Nobility and Gentry, is extensively used for all kinds of OUT-DOOR WORK, and is proved, after a test of 20 years, to surpass any other Paint. It is especially applicable to Wood, Stone, Brick, Compo, and is the only Paint that will resist the rays of the sun upon Conservatories, Greenhouses, Frames, &c. Is twice as durable as genuine White Lead, so that a small quantity will do the work of a large one. For cwt. of Paint, 2 cwt. of Lead, and 1 cwt. of Oil.

WHITE, LIGHT STONE, BATH, and LIGHT PORTLAND 30s.
 CHOCOLATE, RED, PURPLE, BROWN, and BLACK 20s.
 BRIGHT GREEN, DEEP GREEN, and BLUE 42s.
 Prepared OIL MIXTURE for the ANTI-CORROSION.
 PENETRATION, VARNISHES, BRUSHES, &c.
 Free to all Stations in England and Wales, and most Ports of Scotland and Scotland. Patterns and Testimonials sent post free.
WALTER CARSON & SONS,
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 Cheques - A. Cash should bear the Trade Mark. No Agents.

THE PATENT ABERDEEN PRIZE LEVER CORN DRILL.
 Combines simplicity and strength with best material and workmanship, sows in the most accurate manner, and is by far the cheapest Drill ever offered to Agriculturists.
 Price of 10-Row Drill, to sow 5 feet, £14 15s. Other sizes in proportion. Price and Testimonial Lists on application.
Barrett & Co., Bon Accord Implement Works, Aberdeen, Sole Manufacturers.

REGISTERED SELF-ACTING HAND SEED-DRILL.
 By simply turning a screw, this Drill can at once be adapted for sowing Mangold Wurzel, Barley, Wheat, Mangel, Turnips, Carrots, Flax, and Carrot Seeds. It is an invaluable implement for the Market Gardener, and to all who possess a Kitchen Garden; and for the Farm it will be found useful for the purpose of filling up the places where the Horse Drill has missed.
 Full directions sent with each Drill. On receipt of stamps or Post Office Order, made payable to **JOSIAH Lx BUTT,** Patentee and Manufacturer of the Champion Haymaker, Bury St. Edmund's, a Drill



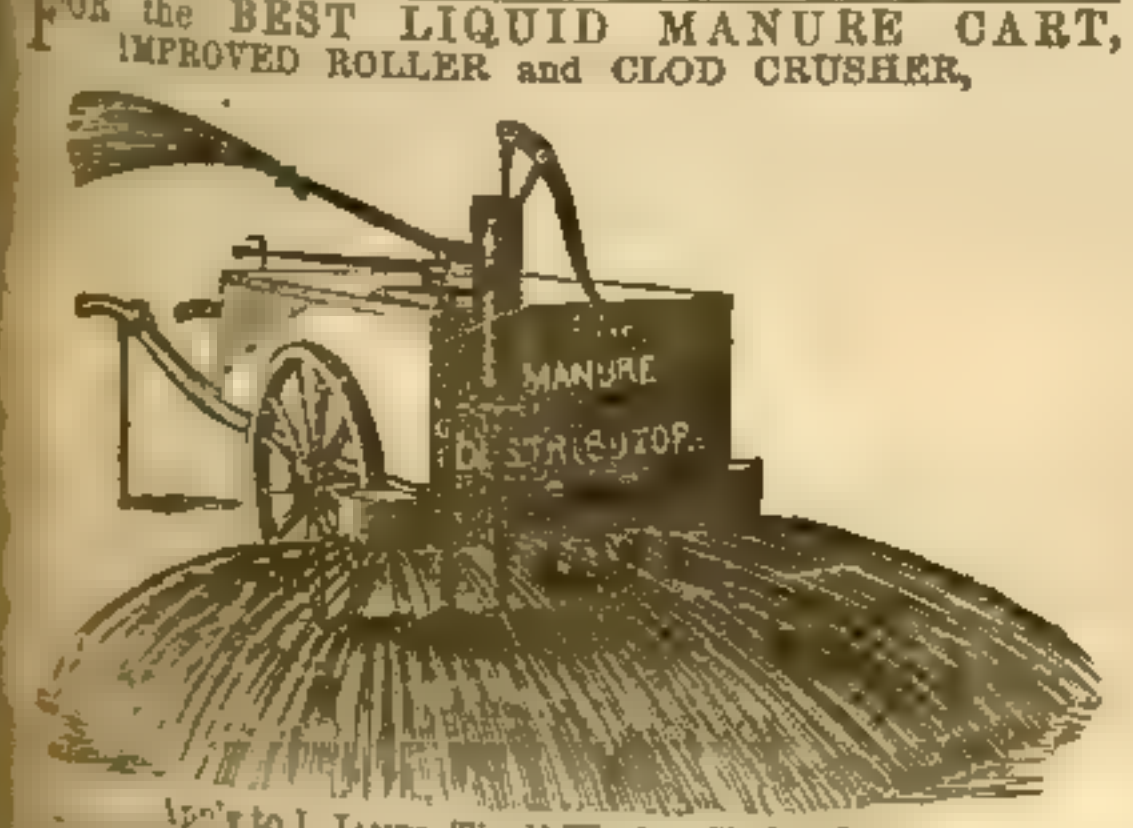
... immediately, price 12s. 6d.
 Josiah Lx Butt has had the honour of supplying this useful implement to Her Majesty's Farm and Garden for use at Windsor.
 The Gardeners' Chronicle and Agricultural Gazette of Dec. 7, 1867, in referring to the novelties in the Implement Department of the Birmingham and Southfield Cattle Show, says - "Among other novelties we may refer to a very simple and apparently efficient Hand Seed Drill, such a Garden as a Farm tool, the invention of a working man, and brought out in a cheap form by Mr. Lx Butt, Inventor and Manufacturer, Bury St. Edmund's, Suffolk."
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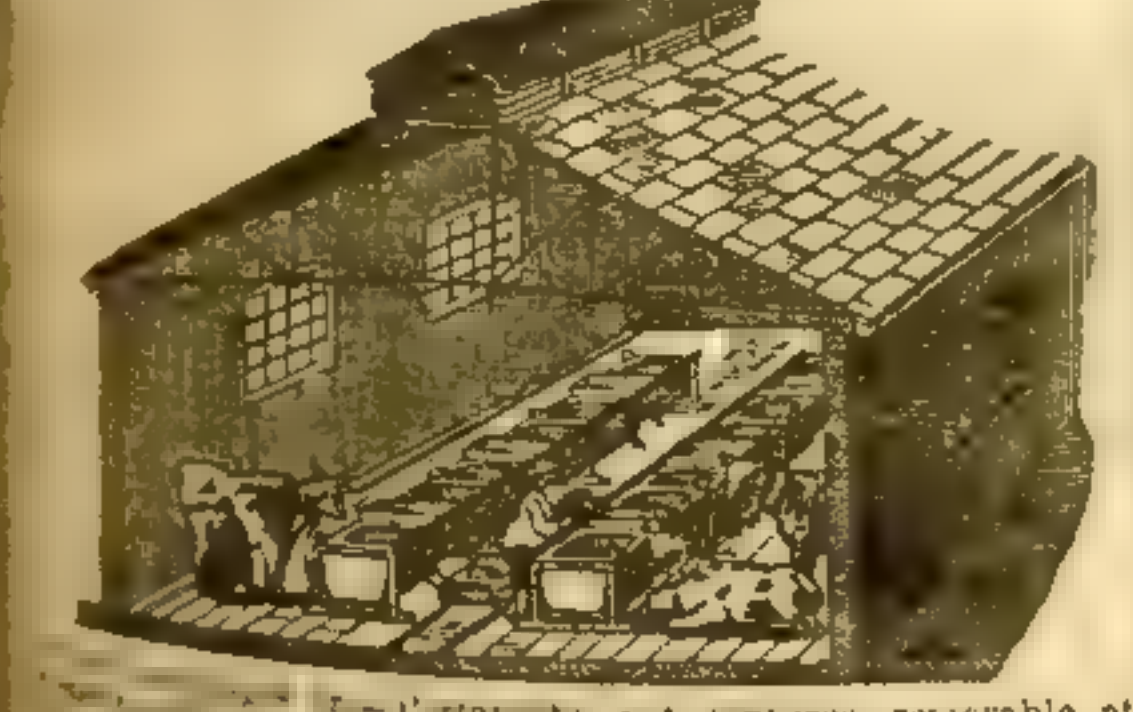
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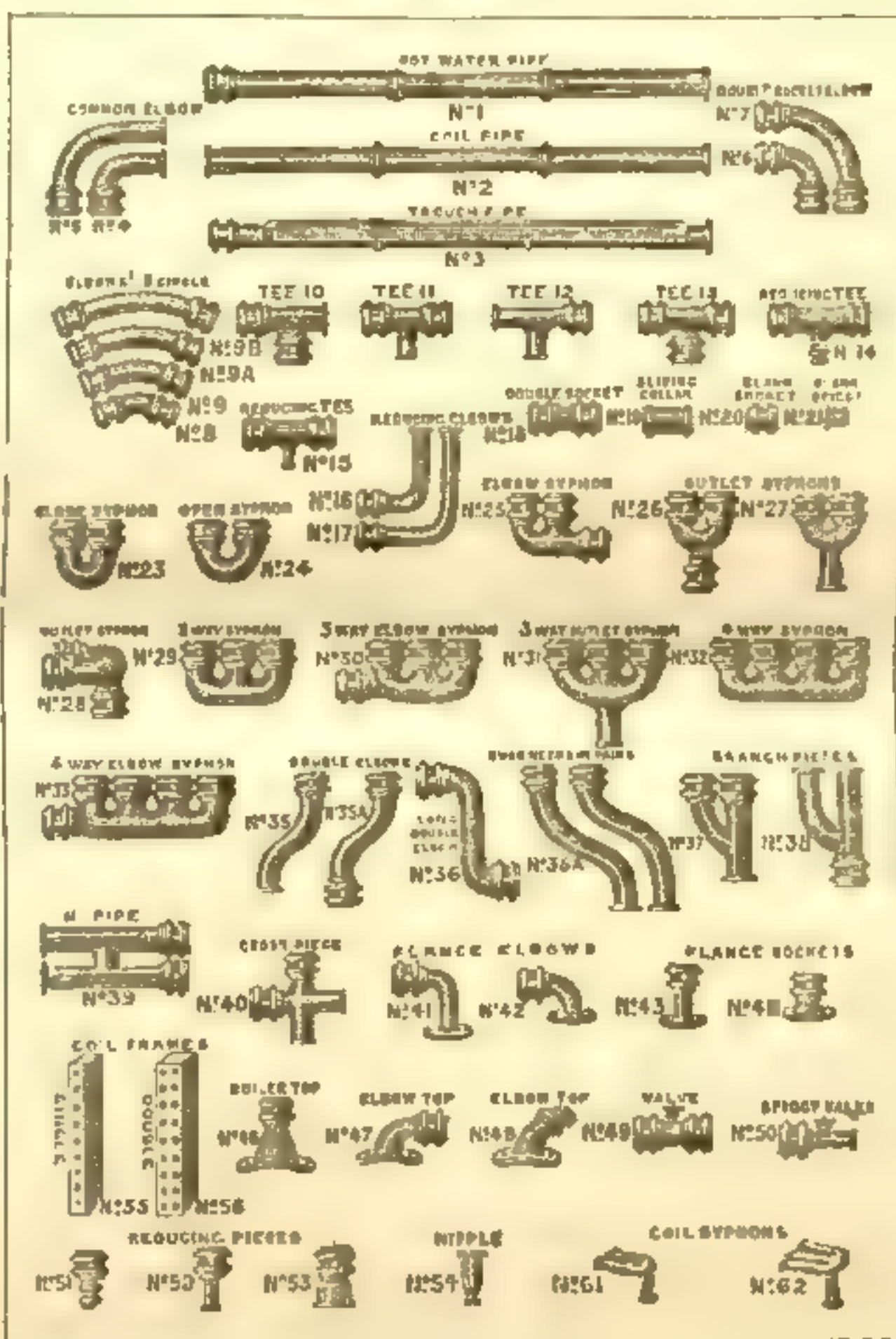
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... of the most improved ventilation or breed feeding troughs, Water Cistern, and Patent Drop ... of Iron. Cleanly, durable, and impervious to ... of **JAMES & CO., Iron Works, 2, Winsley Street, Eastham, Oxford Street, London, W.,** where the ... together with several important Improvements ... just secured by Patent.

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(BEST QUALITY.)



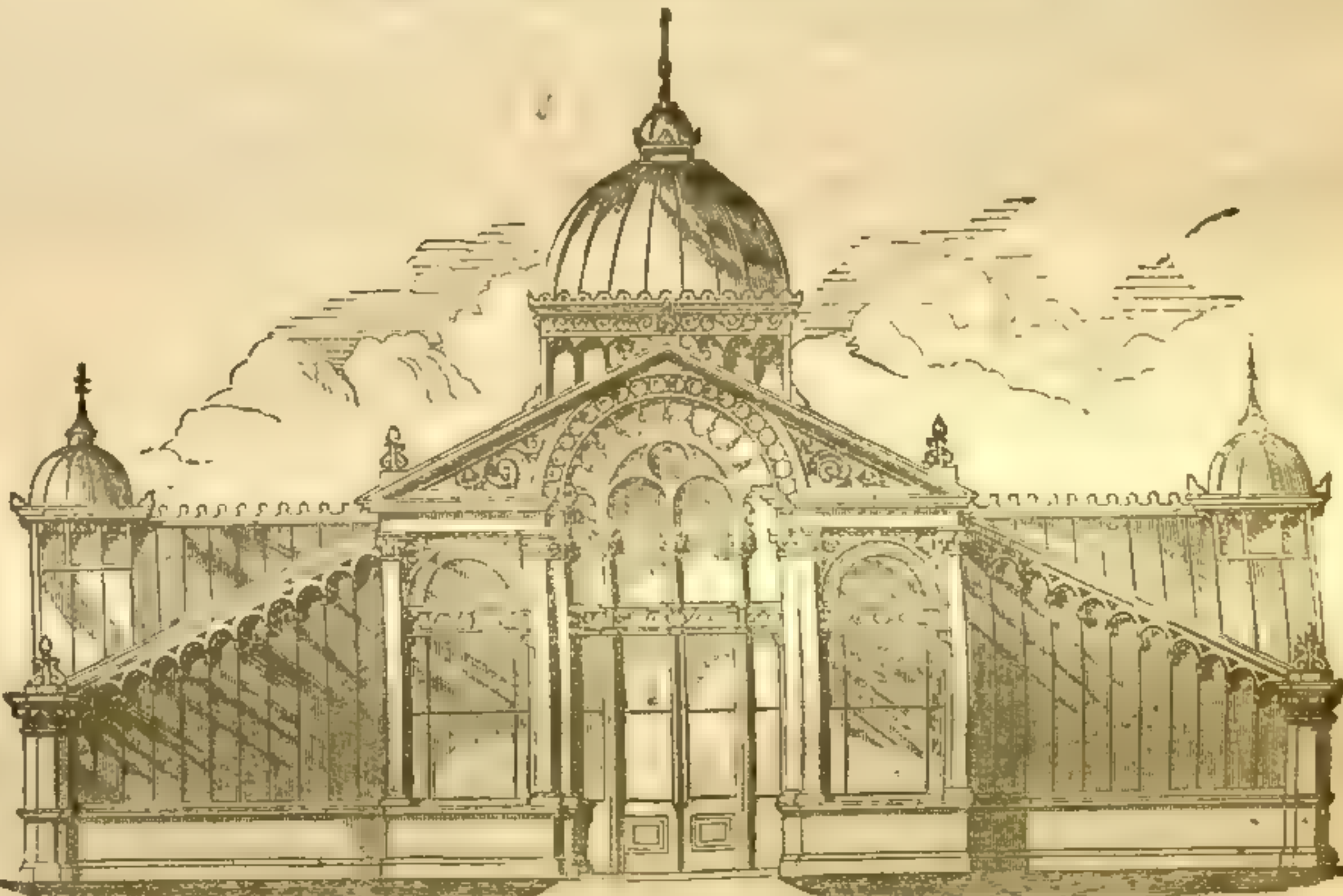
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	2-inch.	3-inch.	4-inch.
PIPES	per Yard 1s. 0d.	1s. 6d.	2s. 0d.
ELBOWS	1 6	2 3
TEES	2 6	3 6
SYPHONS	2 6	3 6
VALVES	10 0	11 6

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 NO CREDIT. NO DISCOUNT OR ABATEMENT. NO DELIVERY.
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 Specially designed to meet the various requirements of Horticulture, and adapted to any situation. Manufactured by the aid of Steam-Power Machinery. Glazed, Painted, and Fixed complete.
GARDEN BOXES, PIT LIGHTS, VERANDAHS, AND GLASS STRUCTURES
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CUMMING & EDMONDS' PATENT TUBULAR ARCHED SADDLE BOILER,
 Described in a Report of the Royal Horticultural Society, as being "very effective and economical," and also awarded the First-class Certificate at the Bury Horticultural Show, July, 1867.

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RALPH WALLER AND CO., 45, Dale Street, Manchester. Manufacturers of all kinds of GARDEN NETTING, &c. The serious injury done every spring to fruit crops by frost, has proved to every gardener the absolute necessity of providing some protection to the trees early in the year. If the blossom, in its earliest development, be not slightly weakened by frost, the vitality of the fruit germs is destroyed, and the fruit is lost. In this climate, on the average of a season, there is not more than one year in 10 when the protection is unnecessary. Many fabrics have been tried for this purpose of protection, with more or less success; and we may now say, without fear of contradiction, that we have succeeded in manufacturing the only fabric which is altogether unobjectionable for this purpose. Without unduly nursing, it effectually protects the young germ, and does not impede the action of light and due circulation of air. Some other fabrics do this, and thus weaken the vitality of the tree altogether. Almost every large grower in the three kingdoms can testify to these facts.

The Nettings also make a beautiful shading for Hothouses in summer, and are cheaper than other fabrics on account of their great durability.

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PRICES OF NETTING, 24 INCHES HIGH.

Size of Mesh	Proof against	Light, per Yard.	Medium, per Yard.	Strong, per Yard.	Extra strong per Yard.
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100 Yards and upwards carriage free.

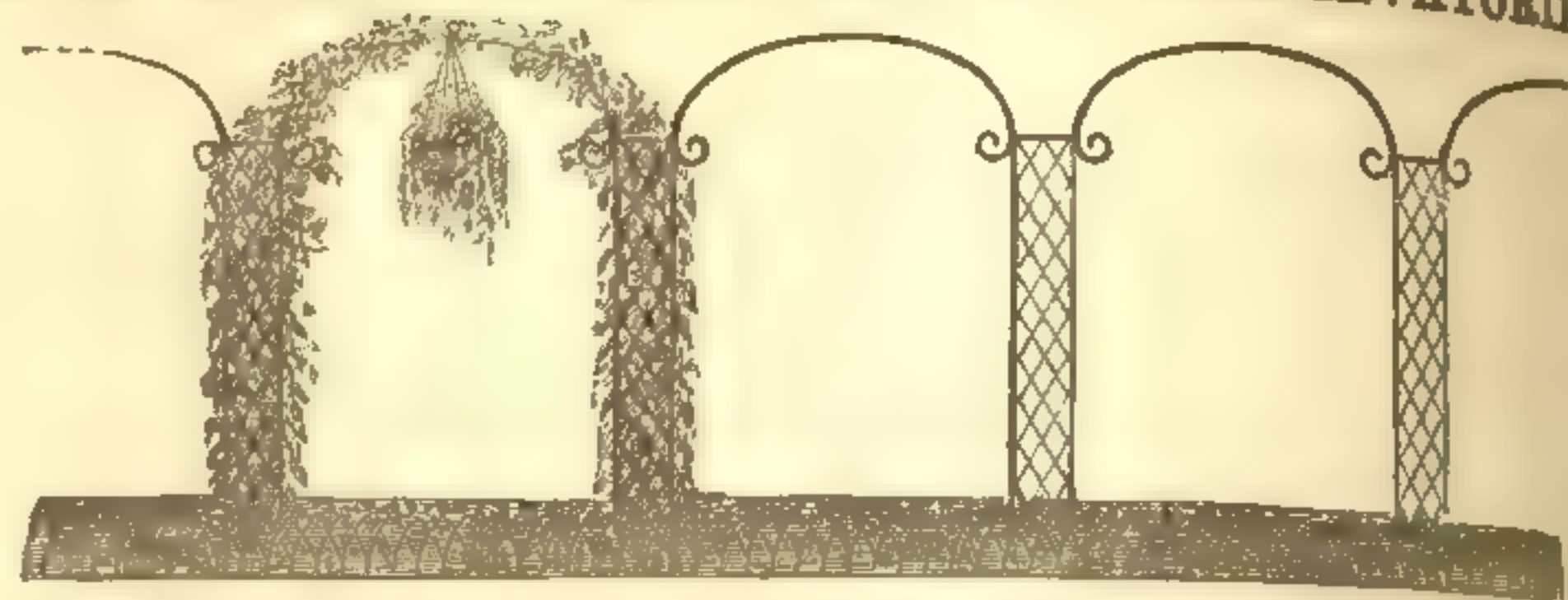


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Begs to state that the immense number of APPARATUS annually Designed and Erected by him in all parts of the kingdom, and for the ROYAL HORTICULTURAL SOCIETY at SOUTH KENSINGTON and CHISWICK with unrivalled satisfaction, is a guarantee for skill of design, superior materials, and good workmanship. The great advantages obtained by his IMPROVED SYSTEM cannot be over-estimated, consisting of perfect joints with neatness of appearance; EFFECTS A SAVING OF 25 PER CENT. on cost of Apparatus compared with other systems; facility for extensions, alterations or removals without injury to Pipes or Joints can be erected by any Gardener; an ordinary size Apparatus erected in one day, and PERFECTLY DESIGNED SUPPLIED, INSURING NO EXTRAS. Complete Apparatus, of the best materials, with Suction Pipe delivered to any Railway Station in England, and Erected at the following prices. Erection beyond 25 miles London, railway fare for one man additional. Considerable reduction on large works.

TWO FOUR-INCH PIPES ALONG ONE SIDE AND ONE END OF HOUSE.

Size of House.	Apparatus Complete.	Erection.	Size of House.	Apparatus Complete.	Erection.
20 feet by 10 feet	£9 0 0	£2 0 0	50 feet by 15 feet	£17 10 0	£2 10 0
30 feet by 12 feet	11 15 0	2 10 0	75 feet by 15 feet	20 0 0	2 10 0
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Horticultural Buildings of every description from 1s. 6d. per foot superficial, inclusive of Brickwork.

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3 " " .. 2 1 0
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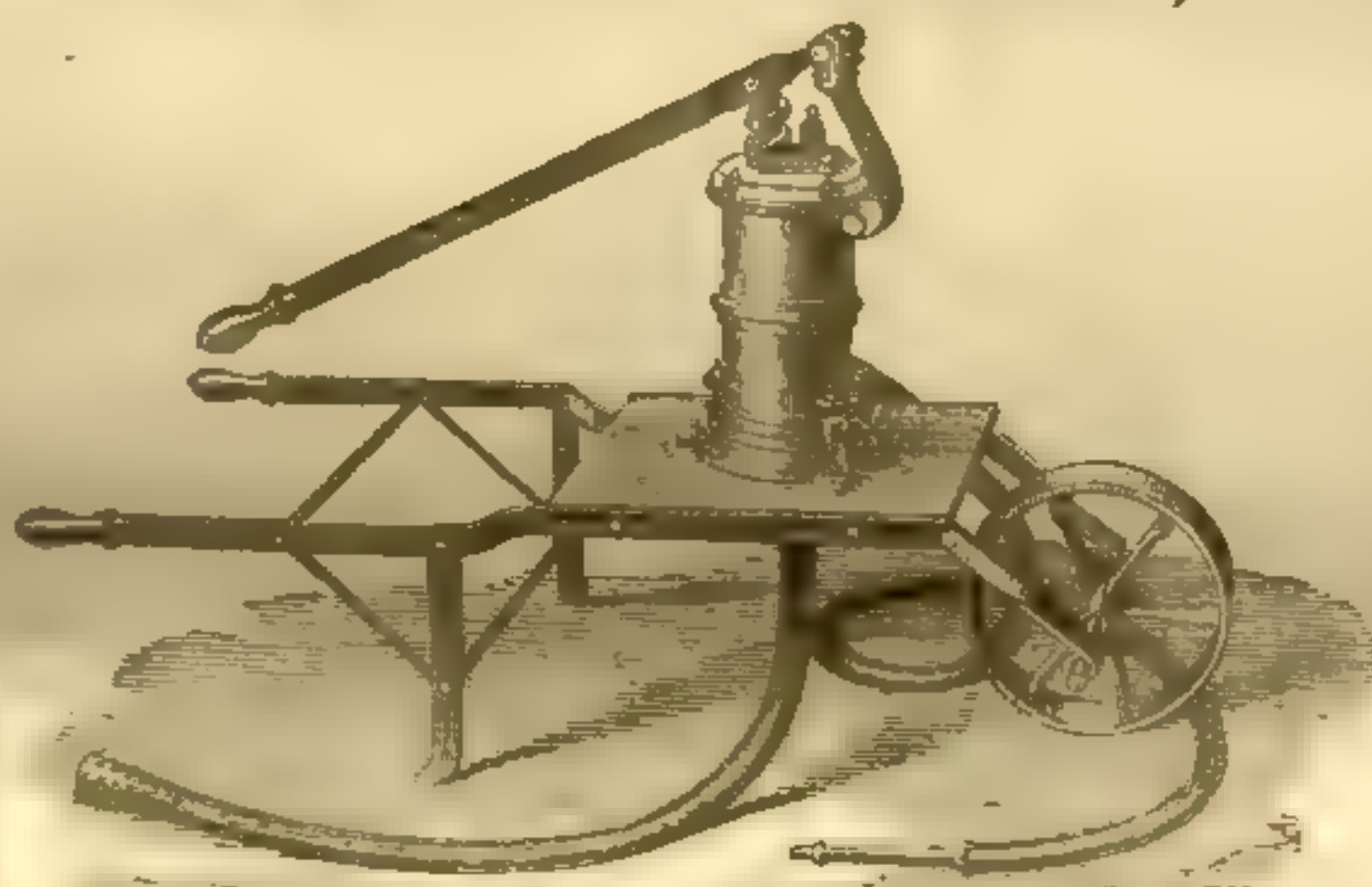
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28 Gals. .. £5 10
24 " .. 4 19
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1 1/2-in. 2-ply Rubber Suction Pipe, per foot, 2s. 2d.

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50 Gals. .. £5 12
38 " .. 3 17
30 " .. 2 13
20 " .. 2 2



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MARCH 7, 1868.]

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ORCHARD-HOUSE SIZES. Table with columns for 4ths, 3rds, 2nds, Best.

SMALL SHEET SQUARES, 15 oz., per 100 feet. Table with columns for 4ths, 3rds, 2nds, Best.

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MILLED LEAD and PIPES. OLLED LEAD Bought or taken in exchange.

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ROUGH PLATE GLASS, ROLLED PLATE, CROWN, &c.

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Home News.

RETURN OF THE COURT TO WINDSOR.—The Queen, accompanied by the Princesses and Prince Leopold, left Osborne on Tuesday afternoon at 3 o'clock, and arrived at Windsor Castle shortly after 6. Her Majesty crossed over to Gosport in the Royal yacht *Alberta*. On Wednesday morning the Queen drove in the grounds with Princess Louisa, and in the afternoon drove out with Princess Christian. Mr. Gathorne Hardy arrived from London. Sir James Clark arrived from Bagshot. On Thursday morning the Queen drove out. Yesterday morning her Majesty came to town, with Prince and Princess Christian and Princess Louisa, and drove from Paddington Station to Buckingham Palace, escorted by the 3rd Hussars.
THE COURT AT OSBORNE.—On Thursday the 27th the Queen, accompanied by the Princesses and Prince Leopold, was present at some sports performed by the detachment of Scots Fusilier Guards doing duty at Osborne. The Right Hon. Benjamin Disraeli arrived from London, and kissed hands on his appointment as First Lord of the Treasury. Mr. Disraeli remained at Osborne on a visit. On Friday the Queen drove out in the morning and afternoon with Princess Louisa. On Saturday morning the Queen drove out with Prince Leopold. In the afternoon the Queen held a Privy Council, at which Lord Chelmsford had an audience, and delivered up the Great Seal. Lord Cairns had an audience on being appointed Lord Chancellor, when her Majesty delivered to him the Great Seal. Mr. Disraeli had an audience, and delivered up the seals of office of Chancellor of the Exchequer. The Queen then delivered the seals to Mr. Ward-Hunt, who was sworn in as a Privy Councillor. Her Majesty conferred the honour of knighthood on William Bahol Prett, Esq., M.P., Solicitor-General. Mr. Disraeli and the other Ministers afterwards left for London. Sir William Jenner arrived on a visit. On Sunday morning the Queen, accompanied by Princess Louisa, attended Divine service at Whippingham Church; the Rev. G. Prothero officiated. In the afternoon the Queen drove out with the Princesses. On Monday morning the Queen walked and rode with the Princesses and Prince Leopold.
THE PRINCE AND PRINCESS OF WALES.—The Prince returned to Marlborough House on Saturday afternoon from Badminton. The Princess drove out with Princess Mary of Teck. In the evening their Royal Highnesses dined with Prince and Princess Mary of Teck, at Kensington Palace. On Sunday morning the Prince and Princess attended Divine service at the Chapel Royal, St. James's. The Bishop of Rochester preached the sermon. On Monday the Prince hunted with Her Majesty's stag-hounds. The Princess drove out. On Tuesday morning the Prince rode out. The Princess drove out. In the afternoon the Prince held a Levee at St. James' Palace on behalf of her Majesty. In the evening their Royal Highnesses dined with the Duke and Duchess of Sutherland, at Stafford House. On Wednesday the Prince rode out. The Princess drove out. On Thursday the Prince hunted with Baron Rothschild's stag-hounds. The Princess drove out. In the evening their Royal Highnesses dined with the Duchess of Cambridge at St. James's Palace.
COURT MOURNING.—It is announced that the Court will go into mourning to-morrow for the ex-King of Bararia, but that the Queen has been pleased to dis-

pense with it at her Majesty's Drawing Room on the 12th inst., excepting for her Majesty's Household, on account of the injury which might be occasioned to trade.

THE CABINET.—A Cabinet Council was held on Monday at the official residence of the First Lord of the Treasury, in Downing Street. Another Council was held on Tuesday.

CONSERVATIVE MEETING.—A meeting of the supporters of the Government in the House of Commons was held on Thursday at the official residence of the First Lord of the Treasury, in Downing Street. Upwards of 160 members of the party were present. Mr. Disraeli, who was received with enthusiastic cheers, addressed the meeting as follows:—

"He began by alluding briefly to the loss the country, the Conservative party, and he personally had suffered in Lord Derby's retirement. But he was glad to be able to state that they would still have the benefit of the noble lord's council, and that in a short time he would be able to return to his old seat in the House of Lords. He admitted the difficulties that lay in their path as a minority having to deal with the great questions now pressing on their attention. But the past two years had given them great triumphs, and he had every confidence that with a firm front they might add to them fresh triumphs in 1864. He next alluded to the Scotch Reform Bill, which, he said, must be carried with its main features intact, in order that the whole question of Reform might not be reopened. To the Irish Reform Bill, which would be introduced at once; and to the report of the Boundary Commissioners, which, as the result of the deliberations of a thoroughly impartial tribunal, must be respected. In regard to the treatment of Irish questions, he left the secretary of Ireland to make the ministerial statement on the occasion of the discussion on Mr. Maguire's motion. He concluded by expressing his confidence in the future, and reiterating his expressions of gratitude for the warm support he had experienced."

Sir John Trollope, as the oldest member of the House present, assured Mr. Disraeli of the cordial satisfaction with which the party hailed him as their leader, and Sir Stirling Maxwell, Bart., expressed the same sentiments on behalf of the Scotch Conservatives.

ILLNESS OF THE BISHOP OF WINCHESTER.—On Wednesday afternoon the Bishop of Winchester was attacked by paralysis on entering his carriage at Farnham Castle. Dr. Sloman, his Lordship's medical attendant, immediately telegraphed for Dr. Gull, of London, who arrived at Farnham in the evening. The case was pronounced a severe attack of paralysis, rendering one side completely powerless, and depriving his Lordship of the power of speech. The accounts yesterday stated that there was no improvement. His Lordship, although speechless, is completely aware of everything passing around him. He was born in 1790, and has been Bishop of Winchester for more than 40 years.

Foreign.

FRANCE.—Prince Napoleon left Paris last week, after a private interview with the Emperor, on a journey through North Germany. His absence is expected to extend over several weeks, and a rumour is current that he is entrusted with a diplomatic mission to the Court of Berlin. Public opinion in Paris has connected the Prince's journey with an alleged estrangement between France and Russia on the Eastern question, the mere mention of which has again given rise to rumours of war. The *Patrie* of Saturday, however, in reference to these reports, says, that it is enabled to state positively that Prince Napoleon has not been entrusted with any mission whatever. The *France* of Friday says that Baron de Budberg, the Russian Ambassador, had a long interview on that day with the French Minister of Foreign Affairs, and that since the Baron's return, in interviews with many political personages, he has energetically proclaimed the sincerity of the political sentiments of Russia, and her firm resolution not to separate from the other cabinets in the questions concerning the condition of the Christians in the East. The *Presse* says that Marshal Regnault de St. Jean d'Angely, Commander of the Imperial Guard, has issued a circular ordering the recall of the soldiers belonging to the Guard who have received leave of absence till the 31st of March, and prohibiting any leave of absence being granted without a report first being made to the superior authorities. The *France* says that this recall of the Imperial Guard is not the result of exceptional circumstances, but simply the execution of an annual regulation. In the sitting of the Corps Législatif on Monday M. Havin said that he did not intend to read to the Chamber the verdict of the Jury of Honour in the case of the charge brought by M. Kerveguen, but should simply state that the jury had declared the allegations of M. Kerveguen to be false and calumnious. M. Havin was repeatedly interrupted during the delivery of his observations. When this incident had subsided, M. Jules Simon requested an explanation respecting the regulations of the Chamber as interpreted by the President at the termination of the last sitting. M. Jerome David replied that, as President he could not have acted otherwise than he had acted. The report of the previous sitting was then read and passed. The Committee's report on the Bill relative to the contingent of 100,000 men and the third supplementary report of the Committee upon the Press Bill were laid upon the table. In the sitting of Wednesday the election of M. Estournel, the deputy for Peronne, was annulled. The Bill fixing the contingent at 100,000 men then came on for discussion. M. Rouher, in reply to M. Picard, said that the relations of France with foreign Powers were excellent, and that the clouds which had begun to appear, and had caused various alarming reports, were now entirely dispelled. Marshal Niel made a speech, in which he

will be more economical. Next spring the whole army will be armed with the new rifle, the most known. In consequence of its adoption in France other Powers are obliged to reform their armaments. It has a two years' start of them, which is a great consideration the events which have been accomplished. Protected by this strong organisation, the country is itself in security to the labours of peace.

M. Picard's amendment was rejected by a majority of 220 to 29. Another amendment by M. Haubert was also rejected. An amendment by M. Picard, to apply to volunteers and substitutes to the military standard height, which has been lowered to 55, was opposed by Marshal Niel, but was rejected by a majority of 122 to 104. An amendment by M. Breton, proposing to organise a contingent of 10,000 eastern departments, consisting of battalions of Chasseurs, whose duty it would be to guard the forests of the Ardennes and the Vosges, was rejected. In the sitting of Thursday the debate on the Press was resumed. Various amendments were proposed to reduce the stamp duty on newspapers, and were brought forward and successively rejected. Article 3 of the Bill then passed. An Imperial Decree of the 18th article of the Commercial Treaty between France and Mecklenburg. Another decree approving a ratification signed on the 21st ult. between France and Italy, concerning the privileges granted to French subjects in Italy, and to Italian subjects in France. It provides that the subjects of either country shall respectively be exempt from all service in the national guard, or militia; from all judicial, administrative functions, forced loans, and military requisitions. A Ministerial ordinance, signed by Marshal Niel on the 18th ult., fixes the price of exemption from military service for 1869 at 2500*fr.* The *Moniteur*, in its issue of Wednesday, alluding to the retirement of Lord Derby, says that few statesmen have so much deserved the popularity and the respect of his fellow-countrymen, both on account of the greatness of his talents, and the celebrity of his talents. It adds that the selection of Mr. Disraeli has been favourably received, and that the desire is felt to do justice to a man who has surmounted so many difficulties to arrive at the position he now occupies. The Council of Ministers has decided that the Boulevard project projected by Baron Haussmann to traverse a corner of the cemetery of Montmartre shall not be made. The Emperor reported to have said:—"Public opinion respects the project, which, besides, is not of indispensable necessity. Satisfaction should be given to the feelings which animate the population of Paris on the subject." A ship, the *Devonshire*, Captain Clark, from Alexandria, with grain, was lost, with all hands, on the 16th ult., and a passenger called Epps, on the 19th, nine miles north of Boulogne, at 10 P.M. on the 16th. She has gone to pieces.

BELGIUM.—The English schooner *Mary*, Captain Marshall, laden with naphtha and pitch, was caught fire at Antwerp on Tuesday morning, and in consequence of an explosion on board the ship was destroyed, and the captain and crew perished.

HANOVER.—A Royal decree was issued at Berlin on Tuesday relative to the sequestration of the property of King George of Hanover, and announced that the Supreme Court had decided to proceed against Count Platen, King George's Minister at Hietzing, on the charge of high treason. The official *Provincial Correspondence* of Berlin of Wednesday says:—

"The proceedings taken by the Government against the ex-King of Hanover will undoubtedly meet with the approval of the Prussian people. The European Powers regard them as being inevitable, being determined by justice and by policy. The Government's measures they have adopted will not entirely prevent the continuance of those senseless enterprises, which are really dangerous to Prussia. Nevertheless, the measures taken will put a stop to the abuse of Prussia's good-will, and the furtherance of criminal plans hostile to the King. It will also cause the adherents of the ex-King to be the Powers most immediately concerned, France as well as England. They have this time equally shown what value they attach to the continuance of good relations with Prussia."

PRUSSIA.—The King of Prussia closed the sitting of the Chambers on Saturday with a Speech from the Throne, of which the following is a summary:—"His Majesty expressed his satisfaction that the measures had been passed, mainly by the just action of the Government and of the representative bodies of the country, which had placed the Chambers of the Diet in a position to have displayed in voting additional guarantees for the maintenance of the dignity of the Crown. The King then alluded to the measures which had been adopted to allocate the contingent in the province of East Prussia, and for the establishment of a provincial fund for Hanover. His Majesty then alluded to the unanimity of views displayed by the Chambers and the Government respecting the compensation of the former rulers of Hanover, and concluded as follows:—"My Government has endeavoured to maintain the relations, has incessantly endeavoured to preserve the influence for the preservation and consolidation of Europe, and I may state with satisfaction that these endeavours, inasmuch as they were pursued in the Governments of foreign Powers in the most judicious manner, bore within themselves the seeds of success. I may, therefore, express the confidence that the family based general confidence in the good-will and material welfare, and the prosperity of Europe will bear the desired fruits."

Prince Napoleon arrived in Berlin on Wednesday night, travelling under the title of Count Mecklenburg, and will remain for 10 days. On Thursday the Prince of Prussia paid a visit to Prince Napoleon at the Hotel Royal. His Imperial Highness afterwards proceeded to the Royal Palace in one of the King's carriages to visit the King. His Majesty returned the visit of his Imperial Highness. Princes Carl Albrecht and Aualbert, Duke of Wurtemberg, and Count Bismarck also visited Prince Napoleon, who had previously visited the Prince and the Queen Dowager at Charlottenburg. Prince Napoleon dined with the King at a Court

"The Opposition will soon have reason to regret having attacked the new military organisation of France, that organisation will be a pledge of safety for the country, it will fall less heavily upon the population than the former one, and

more than half his life. He then explained that the policy of the new Administration was identical with that of Lord Derby's Cabinet, that their foreign policy would be that which had obtained for Lord Stanley the approbation of the country and the confidence of Europe—a policy of peace, but not a policy of peace at any price, nor of selfish isolation, but a policy of sympathy with foreign nations as well in their anxieties and troubles as in their prosperity. In domestic affairs, he said with much emphasis, they would follow "a Liberal policy" (a remark which was received with loud cheers from below the gangway on the Opposition side, followed by counter-cheers from the Ministerialists) when he added—"a truly Liberal policy," which would not shrink from any changes required by the wants of the age, but always bearing in mind that this was an ancient historic country, rich in traditionary influences, which were the best security for order and liberty, and the most valuable elements of our national life and strength. He next touched on the Irish question, and while regretting the necessity of the suspension of the Habeas Corpus Act, said that in the approaching debate on the condition of Ireland, Lord MAYO would take the earliest opportunity of stating the Irish policy of the Government in detail. He concluded by expressing regret at the delay of public business caused by the ministerial changes, and assured the House that his Government would spare no labour to advance public business, and would give every facility in their power to the motions of the Opposition. Mr. BOUVERIE asked whether the Government meant to adopt the policy of Lord Derby when he came into office, or that which inspired the Reform Bill. The new Administration, like the last, did not possess sufficient Parliamentary power to carry on the business of the country satisfactorily; and while he admitted that the Liberal party did not deserve the name of a party, and was little better than a rabble, he regretted that Mr. Disraeli, in reconstructing the Government, had not invited the co-operation of some of the leading members of the Opposition, in order that a strong and united Ministry might have been formed. Mr. HARDY moved the second reading of the Capital Punishment Within Prisons Bill, the object of which was to put an end to public executions. Mr. Serjeant GASELER moved as an amendment that the Bill be read a second time that day six months. After some discussion, the amendment was negatived by 181 to 25, and the Bill was read a second time. Mr. DISRAELI, in moving the second reading of the Election Petitions and Corrupt Practices at Elections Bill, said that it was proposed to establish a new tribunal for the trial of election causes, to consist of two judges of the Superior Courts, to be nominated by the Crown, and to cease to be ordinary judges. It would be their duty to investigate controverted elections on the spot, and also to act as members of the Judicial Committee of Privy Council and of the Exchequer Chamber, or any other Court of Appeal which might be established in its place. After some remarks by Mr. GLADSTONE, the Bill was read a second time. Yesterday Mr. SHAW LEFEBVRE called attention to the failure of the negotiations with the United States Government for arbitration of the Alabama claims, and expressed his regret that Lord STANLEY, although expressing himself as willing to submit the matter to arbitration, had excepted the question of the recognition of the Southern States. Lord STANLEY believed that, however strict had been the neutrality of this country, it would have fallen short of what was expected of them by the Northern Americans. In his opinion the question was one which time would greatly simplify. The House was left sitting.

City Intelligence.

MONEY MARKET, FRIDAY.—BRITISH FUNDS: Consols closed at 93 to 93½ both for Money and Account; New and Reduced Three per Cents., 91½ to 92 ex div; India Five per Cents., 112½ to 113½; Bank Stock, 249 to 251; Exchequer Bills, 10s. to 15s. pm.—**FOREIGN:** Italian, 45½ to 46; Orel-Vitebsk Railway Loan, 77½ to 78; Viceroy's Seven per Cent. Bonds, 74½ to 75; New Spanish, 36½ to 36¾; Turkish, 32½ to 33½; Egyptian Railway Debentures, 90½ to 91½; Mexican Bonds, 15½ to 15¾; Greek, 12½ to 12¾; Egyptian (1864), 71½ to 75; Brazilian, 71 to 72; United States 5-20 Bonds, 71½ to 71¾; Erie Railroad, 46 to 47; Illinois, 88½ to 89½.

Metropolis and its Vicinity.

THE EASTER VOLUNTEER REVIEW.—On Tuesday a meeting of Volunteer commanding officers was held at the rooms of the National Rifle Association in Pall Mall, Lord Truro in the chair, for the purpose of determining the locality in which the Easter Monday Review for 1868 should be held. Three places had been proposed—Dover, Brighton, and Portsmouth, and the report of the committee which had been appointed to visit the several places, and make inquiry as to the suitability of the ground, as well as to the sufficiency of the means of transport and accommodation, was presented by Lord Ranelagh. The committee had decided to recommend Portsmouth, on account of the advantages it presents for a combination of regular troops with the Volunteers in the manoeuvres, and because it will allow a great many country corps to join which had not hitherto had that privilege. An amendment in favour of Brighton was moved and lost, and a resolution adopting the recommendation of the committee as to Portsmouth was carried by a large majority. It is understood that the Volunteers on their arrival at Portsmouth will rendezvous on the glacis of the town fortifications of Portsea and Portsmouth, and afterwards march past the reviewing officer on Southsea Common. The after manoeuvres

will commence where the Hilsea defensive lines guard the entrance to the island of Portsea from the mainland over the tidal channel which unites the harbours of Portsmouth and Langston. Portdown Hill and forts will be supposed to be in possession of the enemy, who has successfully landed on the Sussex coast, and who has now, as the next step towards the capture of Portsmouth Dockyard and Arsenal, completely invested the Hilsea position. The defenders determine upon a sortie, and this will be made in great force in pontoons and other bridges at three points, supported by gunboats, &c. The battle will be fought out over the ground between the Hilsea lines and the crest of Portdown Hill, and will eventually terminate with the defeat of the enemy and the relief of Portsmouth.

THE CLERKENWELL OUTRAGE.—On Tuesday morning Timothy Desmond, William Desmond, Nicholas English, James O'Neill, John O'Keefe, Michael Barrett, and Anne Justice were again brought before Sir Thomas Henry, and finally committed to Newgate for trial at the April sessions of the Central Criminal Court, for the wilful murder of the persons killed by the explosion at the House of Detention at Clerkenwell. The prisoners were brought from Millbank Prison in a police van, attended, as usual, by a strong escort of mounted and armed police, arriving at the court at the early hour of 8 o'clock. They were at once taken before the chief magistrate, who had attended specially for that purpose. They were placed at the bar and finally committed. The two Desmonds and English complained that they were not in possession of funds to pay the expenses of their defence, and were referred by Sir Thomas Henry to the Sheriffs, who would no doubt see that proper steps were taken. They were then removed back to the van, which drove away with them at 5 minutes past 8, and conveyed them direct to Newgate. In the afternoon Mullaney was brought up, and was also fully committed on the charge of treason-felony.

ATTEMPT TO MURDER TWO POLICEMEN.—On Tuesday, at the Clerkenwell Police Court, an Irishman, named Thomas O'Horan, aged 22, who described himself as a shoemaker, and refused his address, was charged with discharging a loaded revolver at John Henry Hill and Porteus Maley, police-constable 216 S, with intent to murder them, at Whitecross Street, St. Luke's. It appeared that Hill, who was formerly a constable of the A division but is now retired, and living on an independent income, was turning out of Finsbury Square into Chiswell Street, on his way home, when the prisoner suddenly appeared in front of him, and presenting a pistol at his head, fired from a distance of six yards. The bullet passed his right ear, and a second shot followed, which also whizzed by his right ear. A third shot was then fired, when shouts of "Murder!" and "Police!" bringing assistance, the prisoner made off up Whitecross Street. One of the two men who came up was a policeman named Maley, who on being told what had happened ran after the man with the revolver, who was walking quietly along as though nothing had happened. Maley and Hill seized him, and a desperate struggle ensued. The prisoner struggled to get his right arm free, and at last succeeded, fired over Hill's shoulder two shots at Maley, both of which missed him, but a piece of one of the caps went into Hill's eye, whose face, as well as that of Maley, was blackened by the powder. Another man then came up, with whose assistance the prisoner was secured and taken to the lock-up, where he expressed his willingness to "do 10 years for this." The revolver in his possession was a new one with five chambers, all of which were empty, which was accounted for by the five shots that had been fired. The police-sergeant, after the prisoner had been secured, went back and examined the spot, and on a gate-post, exactly opposite the spot where the first shot was fired, found the dent of a bullet. The prisoner, who treated the matter with the greatest indifference, made no defence, and was committed for trial, but will be brought up again on Tuesday next for the completion of the depositions. The police have reason to believe that he was engaged in the Fenian rising in Ireland in the early part of last year, and that since he came to this country he has been actively employed in the movement. It is said that Hill, one of the persons shot at, has been engaged in watching the Fenians, and that, it is considered, is the reason why he was attacked.

THE PUBLIC HEALTH.—The Registrar-General's Weekly Return of births and deaths in London states that in the week that ended on Saturday, February 29, 4865 births and 3017 deaths were registered in London and in 18 other large towns of the United Kingdom. The annual rate of mortality was 25 per 1000 persons living, being 21 per 1000 in London, 31 in Edinburgh, 27 in Dublin, 26 in Bristol, 27 in Birmingham, 29 in Liverpool, 32 in Manchester, 28 in Salford, 20 in Sheffield, 21 in Leeds, 27 in Hull, 23 in Newcastle-upon-Tyne, and 33 in Glasgow. The rate in Vienna was 35 per 1000 during the week ending the 22d ult. In London, the births of 1206 boys and 1118 girls, in all 2324 children, were registered in the week. In the corresponding weeks of 10 years 1858-67, the average number, corrected for increase of population, was 2223. The deaths registered in London during the week were 1266. It was the ninth week of the year, and the average number of deaths for that week, corrected for increase of population, was 1551. The present return is, therefore, 285 below the estimated number.

Provincial.

DOVER.—The Belgian mail steamer Rubis, from this port to Ostend, ran on shore near Ostend on Thursday. The mails and passengers, with their baggage, were

saved; but the vessel was a total loss. The papers state that during the last winter one of the fishing boats that usually work off Dunkirk, Calais was driven by stress of weather as far as the fisherman had let down his nets to retrieve the progress of his vessel, on taking it up, it contained magnificent oysters. He kept it to himself for some weeks, sending lots of them to London; but at last the other fishermen found the place, and now the whole fleet of from 200 to 200 boats have quitted the Calais banks of Ostend. This new bank is reported to be as broad as leagues in breadth, and is within sight of Blackenbergho. It is said that the quantity of oysters is "incalculable," and that new beds are discovered.

MARKET WRIGHTON.—On Sunday morning a man was found murdered in a drain adjoining the railway leading from Cliff Common station on the railway to Weighton turnpike road, where it meets. The neighbourhood is very lonely. A man named William Jackson, a groom, in the employ of Mr. Micklethwaite, of Blackwood house, was going at a quarter past 9 on Sunday morning last when at a place about 500 yards from the four-mile he found a bundle, a hat, and a trowel in the middle of the road, and a little further on the right hand of the road he found a thick hedgestake, about five feet long, and bloody at one end. On searching he discovered the body of a man in the nearly covered with water, his head only protruding the side of the drain. The arms were raised in an attitude of defence; the head presenting a horrid spectacle. In addition to a dreadful wound on the side of the eye, which was sufficient to cause death, there was another at the back of the head, under the chin, and a very severe one on the right side of the head, dividing the ear. Alarm was immediately given, and the rural police, together with several constables were immediately on the spot. The body was taken out of the water and conveyed to South Driffield. The deceased was dressed as a working man, and much like a bricklayer, but not of a common class, every part of his attire being good. He was a man of about 28 years old, well built, and of a height. His name is not yet known, nor his residence be discovered, but in his pocket were found two letters; one addressed from "Mrs. Driscoll, Tottenham, Middlesex," "My dear mother," and ended "Your affectionate son, Daniel Driscoll." To every appearance he had been robbed.

TODMORDEN.—On Monday night a murder was committed in this place by a weaver of chevise named Miles Wetherill. It appears that for some time Wetherill had been paying his addresses to Sarah, a servant living with the Rev. A. J. Plow, at the sonage, and in consequence of his visits the woman had been discharged, and went back to York, where her parents lived. On Saturday and Sunday Wetherill appeared to have resolved on taking vengeance on her late master and mistress, as well as upon the maid, who was supposed to have told of his visits to his fellow servant. About half-past 10 o'clock on Monday night Mr. Plow, who was preparing to retire to his bedroom, heard a noise at the back door, and proceeded to the back of the house, where he met Wetherill with a pistol and hatchet in his hand. Wetherill immediately snapped a pistol at him, which missed fire. He next attacked Mr. Plow with the hatchet, but Mr. Plow closing with him, fell backwards struggling into the lobby of the house through the back door. The noise alarmed the servants, and the housemaid, cook, and nurse, who saw what was the matter. Some of them seized Wetherill by the hair and clothes to hold him in the hall door, but not until he had received two or three wounds at the back of the head, and another on the top of the head, several cuts on the forehead, and torn from top to bottom, and other wounds on the women also got out of the murderer's way. Wetherill, having locked the front and back door, and having sought shelter in the dining-room, and kept the murderer at bay by placing her back to the door; Wetherill, however, managed to get his right arm through the door, and discharged a pistol, shooting her dead. He next went into the lobby, armed himself with a poker, and proceeded to a bedroom in which Mrs. Plow, who had just given birth to a child, was lying. The murderer told her he could not go there, but he told her to get up as he had finished those below, and forced her to get up. Stripping down the bed-clothes, he fired at Mrs. Plow, but the ball did not take effect. He then attacked her savagely with the poker, inflicting severe scalp wounds, breaking her nose, and injuring her. While in the act of striking her, a blow at her his arm was arrested by Mr. Plow, who was church organist, who had seen Mr. Plow, and accompanied by two other men. He was removed and given over to the police. It is reported he was armed with three pistols and a hatchet. He went to the house. He behaved with great coolness in custody, remarking that he had done his best to do it, and was only sorry the pistol had not done better. The lobby of the house was marked with blood like a slaughter-house. The housemaid and nurse are lying in a precarious state, but it is thought that their injuries are not fatal. At the inquest on Wednesday the jury returned a verdict of Murder against the prisoner, who made a confession, and said he committed the murder because he would not allow him the privilege of being a sweetheart.

Ireland.

FENIAN TRIALS AT SLIGO.—On Friday at Sligo the bills were found against Captain Nagle and other Fenian prisoners charged with treason. Captain Nagle, an American officer of some repute, was charged with having been one of the chiefs of the Fenian expedition. As it is known as the Jacknell expedition. As an American citizen, he had a right to a jury half composed of Americans, and his case having excited much interest, the Government of that country had incurred the expense of his defence. On the jury returning a verdict for the defence, applied for a writ of habeas corpus to remove the trial to the Queen's Bench, on the ground that six Americans could not be found in Sligo. Judge Fitzgerald refused, and the prisoner was entitled to a mixed jury, but the Government might be of any country. Nagle was arraigned. Mr. Heron asked that the indictment be quashed, on the ground that six of the jurors were not resident in the county. The Court decided against the objection. The Court repelled the interference of Mr. Heron, through whom the offer was made. Saturday Nagle was again placed at the bar, when a jury panel, containing the names of twelve of whom were Prussian seamen, was called, only six answered, and three of these, being members of the Sligo Rifles, were objected to. Mr. Heron applied for a postponement of the trial. The Attorney-General consented, and Judge Fitzgerald ordered that the proceedings should be removed by writ into the Queen's Bench, and the prisoner be committed to custody. On Monday a juror having been called during the trial of Nugent, the prosecution was postponed, and the trial concluded.

THE CASE OF CAPTAIN MACKAY.—The American Government has declined to aid by counsel Captain Mackay whose true name is Lomasney on his trial, on the ground that he violated British law on British soil. He was born in Boston in the United States.

THE LATE OUTRAGE AT CORK.—It appears that the late attack on the house of the Rev. Mr. Mackay, near Cork, between 36 and 40 bullet marks have been counted about the hall-door and the rest of the house. Of these, 14 were found in the hall-door, which is strong that none of them actually penetrated it. The entry is entered by a door only a quarter of an inch thick, and through this three bullets were fired.

ATTEMPT TO FIRE THE BUTTEVANT BARRACKS.—An attempt was made on Wednesday week to burn the magazine at the military barracks of Buttevant, in the county of Cork. A loud explosion alarmed the military and villagers, and the next morning the magazine wall adjacent to the magazine was discovered perforated by some explosive missile.

ATTEMPT TO BURN A WAREHOUSE AT LIMERICK.—An attempt was made on Monday night to burn the drapery establishment of Messrs. Cannock, in Limerick, by throwing a bottle of explosive into the rear of the premises. The fire was soon discovered, and extinguished before any damage was done.

AN OUTRAGE IN DUBLIN.—On Thursday week, a young man named Briscoe was shot in the house in Gregg's Lane, off Sackville Street, under mysterious circumstances. A bullet entered his thigh, but he recovered from the wound. The owner of the house and four or five young men who were seen remanded. A song, reprinted from one of the "National" papers, and headed "God save Ireland," was sung by one of them. Shortly after the occurrence the attention of a passer-by was attracted by a man shouting in the kennel, and on examination was discovered to be a revolver, one of the chambers of which had been recently discharged. The wounded man was removed to the hospital, where he died on Saturday from the result of the wound. He adhered to the statement first made by him, that he did not give any information concerning the revolver until the inquest, found that he was accidentally

MR. JOHN MITCHELL ON THE PROSPECTS OF THE FENIAN ORGANISATION IN AMERICA.—Mr. John Mitchell, to whom the leadership of the Fenian organisation in America was lately given, has written a long letter to Mr. John Martin, Secretary of the Fenian Society in Dublin, explaining his reasons for declining to accept the position. He says that in the United States there is a "confusion and disarray;" that the Fenian element, therefore, is completely paralysed, and, for any Irish purpose, utterly ineffective. This is not, however, because of the disunity of the original vice of the organisation itself, but because of the wrong basis by that wretched organisation upon the project of immediate insurrection in Ireland while England was at peace. The Fenian project, he adds, was in itself wild, and could only be made to look feasible by systematic "posture." False pretences have been used to deliberately cheating each other on opposite sides of the Atlantic. The Fenian army was for ever on the point of fighting the Fenian army, and "the men at home were carefully

taught to believe that in America there was a great and powerful Irish nation, with unlimited resources, and army and navy both willing and able to give their important aid in troops and arms, with the connivance, or even in spite of the United States Government." He asserts, however, that there is zeal and patriotic devotion enough, if properly directed, to "go where the work lies ready for it," but this cannot be done, simply because the "government of the country in which his fellow-countrymen and himself reside will not suffer that, and is able to hinder and bound to hinder that." The American Government, he further states, "has its hand firmly upon the whole movement, but it has made use of it, by holding it up in *terrorem* before the eyes of England, to induce her to be more compliant in the diplomatic discussions which are going on between London and Washington."

THE ORANGE PROCESSIONS IN THE NORTH.—At the Downpatrick Assizes on Friday, a number of Roman Catholics and Protestants pleaded guilty to a breach of the Party Processions Act, and were discharged on their own recognisances, to come up for sentence when required. Mr. William Johnston, of Ballykilbeg, Grand Master of County Down and Grand Secretary for Ireland, who was charged with participating in the Bangor procession on the 12th of July, refused to plead guilty, and was put on his trial, declining to take a seat elsewhere than in the dock. The jury found him guilty, and on Saturday he was sentenced to a month's imprisonment. Judge Morris in passing sentence stating that his not pleading guilty had prevented the Crown from dealing with him as it had done with other traversers, against whom it did not press for punishment. Mr. Johnston has since memorialised the Lord-Lieutenant, and agreed to enter into recognisances, and he will at once be discharged from custody. Before they separated the grand jury passed a resolution, expressing disapprobation of party processions, as calculated to create disturbances and perpetuate animosities among her Majesty's subjects, and pledging themselves to discourage such illegal acts.

ARREST OF MR. TRAIN IN DUBLIN.—Mr. Train, who was to deliver a lecture in Dublin on Tuesday night, was arrested in Nassau Street, as he was going to the Rotunda, for an old debt on a judgment obtained by Messrs. Crickmer & Co., of London, for goods supplied to him in connection with his tramway scheme. About 500 persons had assembled to hear his lecture, and when the arrest was announced to them by Train's agent, the audience demanded their money and the agent refused. The audience became greatly excited and denounced Train as a swindler. The agent promised to make some arrangement. Train has been taken to the Four Courts, Marshalsea.

Obituary.

HIS EXCELLENCY BARON BENTINCK, Minister of State, Chamberlain of the King of Holland, and Minister Plenipotentiary at the Court of St. James for more than 16 years, died at the residence of the Legation in Eaton Square, on the 2d inst., in his 70th year. He was formerly Secretary of Legation at Copenhagen, Stockholm, Berlin, and Vienna, and for seven years Councillor of Legation in London; he afterwards became successively the Netherlands Minister in Bavaria, Baden, and Wurtemberg, and subsequently in Belgium and Great Britain. He also held the post of Minister for Foreign Affairs at the Hague for a short period in 1848, which post he resigned after having taken a distinguished part in the measures which led to the modification of the Constitution of the country. He was a Knight Grand Cross of the Order of the Netherlands Lion, of the Luxembourg order of the Oaken Crown, and of several foreign Orders.

THE EARL OF ROSEBERY, K.T., died on Wednesday last at his town residence in Piccadilly, from an attack of apoplexy, in his 85th year. His Lordship, the Right Hon. Archibald John Primrose, fourth Earl of Rosebery, was the eldest son of the third Earl, by his second wife, the only daughter of Sir Francis Vincent. He was born in 1783, and succeeded to the Scotch honours on the death of his father in 1814. He was twice married—first in 1808, to the second daughter of the Hon. Bartholomew Bouverie (which marriage was dissolved in 1815), and secondly, in 1817, to the Hon. Anne Margaret Anson, eldest daughter of the first Viscount Anson. By his first marriage he leaves surviving issue a daughter, Lady Harriett Dunlop, widow of Sir John Dunlop, and a son, the Hon. Bouverie Francis Primrose, Receiver General of the Post Office in Scotland; and by his second marriage he leaves an only daughter, Lady Louisa, who is unmarried. The late Earl was created a peer of the United Kingdom in 1828, by the title of Baron Rosebery, of Rosebery, county Edinburgh, and was a baronet of Nova Scotia, created in 1851. For some years he was Lord-Lieutenant of Linlithgowshire, but resigned the office a few years ago. He was one of the senior knights of the Order of the Thistle. He is succeeded in his titles and estates by his grandson Archibald, Lord Dalmeny, eldest son of Lord Dalmeny (who died in 1851) by Lady Wilhelmina Stanhope, now Duchess of Cleveland. The present peer is a minor, having been born in May, 1847.

ADMIRAL LORD BYRON died on Monday last, after a long illness, in his 79th year. He was born in 1789, and entered the navy at 11 years of age. He was the son of Captain George Anson Byron, R.N., second son of the Hon. Admiral Byron, who was the second son of the fourth Lord Byron, by the daughter of Mr. Robert Dallas, of Dallas Castle, Jamaica. In 1816 he married the daughter of the late Mr. Sacheverell Chandos Pole, of Radbourne, Derbyshire, by whom he leaves a numerous family. He succeeded to the title in April, 1824, at the death of his cousin, the celebrated poet. He was an Admiral on the reserved half pay list, having attained the rank of Rear Admiral in 1849, Vice Admiral in 1857, and Admiral in 1862. He was one of the Lords in Waiting to the Queen for several years, but resigned in 1860, when he was appointed an extra Lord in Waiting. He is succeeded in the family honours by his eldest son, George Anson, born in 1818, and married in 1843 to the eldest daughter of the late Rev. William Wexcomb, rector of Langford. He was formerly in the army, and, as Captain of the 19th Foot, retired in 1843.

WILLS.—The will of Vice Admiral Sir William Dickson Bart, R.N., has been sworn under 16,000*l.* personally Dr. Mcbride, D.C.L., principal of Magdalen Hall, Oxford 20,000*l.*; Mr. Peter Saramanga, of 22, Hyde Park Gardens 150,000*l.*; Mr. John Vickers, of the Victoria Street Distillery, Westminster, 350,000*l.*; Mr. Henry Slundell, of Devonshire Place, Balham, 50,000*l.*

Markets.

COVENT GARDEN.—MARCH 7.

Prices, supply, and quality have altered but little since our last report; foreign produce is, however, a little in excess of the demand for it. Fine-apples are now realising good prices, as are also hothouse Grapes. Strawberries continue to make their appearance. Spanish Chestnuts for planting realise about 10*s.*, and Spanish Hazel Nuts for planting 16*s.*, per bushel. Cornish Broccoli is plentiful and good. Potatoes have not altered in price since our last report. Flowers chiefly consist of Orchids, Cyclamens, Chinese Primulas, Pelargoniums, Mignonette, Early Tulips, Hyacinths, Poinsettia pulcherrima, and Roses.

FRUIT.

Apples, per bushel, 4*s* to 8*s* | Pears, per doz., 6*s* to 10*s*
Cob nuts, per lb., 1*s* | Pine-apples, per lb., 6*s* to 10*s*
Grapes, per lb., 8*s* to 12*s* | Chestnuts, p. bush., 10*s* to 16*s*
Lemons, per 100, 4*s* to 10*s* | Strawberries, p. oz., 3*s*. 6*d.* to 5*s*
Oranges, new, per 100, 2*s* to 7*s* | Walnuts, per bushel, 10*s* to 20*s*

VEGETABLES.

Artichokes, per doz., 2*s* to 3*s* | Mint, per bunch, 1*s*
Asparagus, per bundle, 8*s* to 20*s* | Mushrooms, p. pott., 1*s* 6*d* to 2*s*
Beans, Kidney, p. 100, 2*s* to 3*s* | Onions, per bushel, 3*s* to 5*s*
Beet, per doz., 1*s* to 2*s* | Parsnips, per doz., 9*d* to 1*s*
Cabbages, per doz., 1*s* to 1*s* 6*d* | Parsley, per bunch, 2*d* to 4*d*
Carrots, per bunch, 6*d* to 8*d* | Potatoes, York Regents, p. ton, 130*s* to 160*s*
Celery, per bundle, 1*s* to 1*s* 6*d* | — Rocks, do., 100*s* to 120*s*
Cucumbers, each, 3*s* to 5*s* | — Flukes, 130*s* to 160*s*
Endive, per score, 1*s* 6*d* to 2*s* | — Other sorts, 75*s* to 80*s*
Globe and 8*d* ditto, p. lb., 8*d* | Sea-kale, p. punn., 2*s* to 3*s*
Herbs, per bunch, 2*d* to 4*d* | Spinach, per bushel, 2*s* to 4*s*
Horse Radish, p. bund., 3*s* to 5*s* | Tomatoes, per doz., 3*s* to 5*s*
Leeks, per bunch, 2*d* to 4*d* | Turnips, per bunch, 4*d* to 6*d*
Lettuces, per doz., 2*s*

POTATOS.—SOUTHWARK, Monday, March 2.

During the week the arrivals coastwise and from abroad have been more than equal to the demand, and trade slow, at the following quotations:—Yorkshire Flukes, per ton, 140*s.* to 170*s.*; do. Regents, 130*s.* to 160*s.*; do. Rocks, 120*s.* to 130*s.*; Lincolnshire Regents, 130*s.* to 150*s.*; Dunbar and East Lothian Regents, 140*s.* to 160*s.*; Perth, Forfar and Fife Regents, 120*s.* to 140*s.*; ditto Rocks, 110*s.* to 120*s.*; French and Belgian Whites, 90*s.* to 105*s.*

COALS.—March 4.

Hollywell Main, 15*s.* 6*d.*; Walker Primrose, 11*s.* 6*d.*; Wylam, 15*s.* 3*d.*; Eden Main, 15*s.* 6*d.*; Walls End Gosforth, 15*s.* 3*d.*; Walls End Haswell, 17*s.* 6*d.*; Walls End Hetton, 17*s.* 6*d.*; Walls End Hawthorn, 16*s.* 3*d.*; Walls End South Hetton, 17*s.* 3*d.*; Walls End Braddyll's Hetton, 16*s.*; Walls End Hartlepool, 16*s.* 6*d.*; Walls End Hough Hall, 16*s.* 9*d.*; Walls End Kelloe, 16*s.*; Walls End East Hartlepool, 17*s.*; Walls End South Kelloe, 16*s.* 9*d.*; Walls End Tees, 17*s.*—Ships at market, 46; sold, 35.

ENGLISH WOOL.

Consumers having stocked themselves pretty freely, for the moment the upward tendency of prices has received a check. We believe, however, that this will not last long, and that we shall soon see a further improvement.

CURRENT PRICES OF ENGLISH WOOL. per lb.—s. d. s. d.

Half-bred ditto	1 2 1/2	1 3
Kent Fleeces	1 2 1/2	1 3 1/2
Southdown ewes and wethers	1 1 1/2	1 2 1/2
Leicester ditto	1 2 1/2	1 3 1/2
Sorts—Clothing	1 0 1/2	1 6 1/2
Combing	1 0 1/2	1 8 1/2

HAY.—Per Load of 36 Trusses.

SMITHFIELD, Thursday, March 5.

Best Green Hay	—	Clover, old	95 <i>s</i> to 100 <i>s</i>
Prime Meadow Hay	75 <i>s</i> to 80 <i>s</i>	Inferior do.	70
Inferior do.	55	Prime new Clover	—
New do.	—	Inferior do.	—
Straw	30	CHARLES JAMES EASTON.	

CUMBERLAND MARKET, Thursday, March 5.

Sup. Meadow Hay	84 <i>s</i> to 92 <i>s</i>	Inferior Clover	76 <i>s</i> to 90 <i>s</i>
Inferior do.	65	New do.	—
New do.	—	Straw	36
Superior Clover	98	105	JOSHUA BAKER.

METROPOLITAN CATTLE MARKET

MONDAY, March 2.
The number of Beasts is exactly the same as on Monday last. Trade is by no means brisk, but that day's quotations are pretty well maintained. The supply of Sheep is about the same as last week; the demand has, however, improved, and on the average prices are better. Calves are not quite so dear. Our foreign supply consists of 820 Beasts, 1300 Sheep, 92 Calves, and 30 Pigs; from Scotland there are 381 Beasts; from Ireland, 110; from Norfolk and Suffolk, 1500; and 579 from the Northern and Midland Counties.

Best Scots, Herefords, &c.	4 8 to 4 10	Best Long-wools	4 8 to 5 0
Best Shorthorns	4 6—4 8	Do. Shorn	—
2d quality Beasts	2 8—3 4	Ewes & 2d quality	3 6—4 6
Best Downs and Half-breds	5 0—5 4	Do. Shorn	—
Do. Shorn	—	Lambs	—
Beasts, 3390; Sheep & Lambs, 16,850; Calves, 95; Pigs, 410.		Calves	3 8—5 8
		Pigs	3 4—4 8

THURSDAY, March 5.

We have a short supply of Beasts, and they are consequently readily disposed of at fully Monday's rates. We have a fair supply of Sheep, but the demand is also good, and prices are well supported. The tone of the market generally has improved. Choice Calves are scarce and dear. Our foreign supply consists of 14 Beasts, 145 Sheep, 34 Calves, and 5 Pigs.

Best Scots, Herefords, &c.	4 8 to 4 10	Best Long-wools	4 8 to 5 0
Best Shorthorns	4 6—4 8	Do. Shorn	—
2d quality Beasts	2 8—3 4	Ewes & 2d quality	3 6—4 6
Best Downs and Half-breds	5 0—5 4	Do. Shorn	—
Do. Shorn	—	Lambs	—
Beasts, 500; Sheep and Lambs, 4560; Calves, 85; Pigs, 110.		Calves	4 0—6 0
		Pigs	3 4—4 8

MARK LANE.—MONDAY, March 2.

The supply of Wheat from Essex and Kent to this morning's market was moderate, the sale could only be proceeded with at a decline of 1*s.* to 2*s.* per qr. from the price of this day.

tonight, consequently the greater proportion remained unsold towards the close of the market. There was not a large attendance, and but very little business was transacted in foreign wheat; we do not alter our quotations, but in some instances a slight concession was accorded to on secondary qualities. Maltng Barley brought fully last week's rates; grinding, also Beans and Peas, were unchanged in value. The Oat trade was quiet at late quotations. In Flour there was very little business doing.

PRICE PER IMPERIAL QUARTER	s. s.	s. s.
WHEAT, Essex, Kent, Suffolk. White	70-78	Red 68-76
— fine selected runs do.	73-84	Red 72-78
— Talavera	80-84	
— Norfolk		Red
— Foreign	63-87	
BARLEY, grind & dist., 37sto40s Chev.	42-47	Maltng 40-43
— Foreign, grinding and distilling	35-39	Maltng 41-46
OATS, Essex and Suffolk	23-29	
— Scotch and Lincolnshire..Potato	25-33	Feed 26-30
— Irish	30-33	Feed 26-30
— Foreign	Poland and Brew 25-32	Feed 23-30
RYE		Foreign
RYE MEAL, Foreign		
BEANS, Mazagan	39s to 45s	Tick 41-43 Harrow 41-43
— Pigeon	48s to 50s	Winds
— Foreign		Small 41-48 Egyptian 42-44
PEAS, White, Essex, and Kent..Boilers	46-48	Suffolk 50-52
— Maplo, 41s to 45s	Gray 44-47	Foreign 39-45
MAIZE		Foreign 46-52
LOUR, best marks delivered, per sack	59-64	
— 2d ditto	54-61	Country 54-61
— Foreign	per barrel 34-42	Per sack 48-56

FRIDAY, March 6.

We have experienced repeated gales, accompanied by heavy rain, during the early part of the week; but since then we have had a few fine days with a high temperature for the time of year. The dullness in the trade throughout the country, noticed at the close of the preceding week, has continued and even increased, resulting in a general decline of 1s. to 2s. per qr. on wheat, both for home grown and foreign, business being most inanimate. All descriptions of spring Corn have been equally neglected, and prices were in most instances against sellers. Flour moved only in retail, the tendency of prices having continued downwards. The arrivals of grain and seed-laden vessels off the coast during the week consisted of 122 cargoes, of which, with those left over from last week, there remained for sale last night 80 cargoes. Hoping to enforce a further serious reduction in the value of wheat cargoes off the coast, buyers held back in the early part of the week, but as the French markets showed more tone, and a few Continental orders were executed, the trade showed during the last day or two more disposition to purchase, so that a fair business resulted, at a decline of 2s per qr. on the week. Of Malze there was nothing on offer. Barley and Rye commanded barely late rates. Beans 1s. per qr. dearer. On passage and for forward shipment, wheat was very quiet, Malze a dull sale, Barley and Rye nominally unaltered, Linseed, Rapeseed, and Cottonseed quiet.

The arrivals of grain, both English and foreign, this week have been moderate. There was only a small attendance at this morning's market, and English stands were tolerably cleared at fully the prices obtained on Monday; rather more disposition was evinced to purchase foreign, and previous quotations were realised on the business transacted. Several cargoes off the coast were disposed of at extreme rates, some being destined for the Continent. Spring Corn was steady at late rates.

ARRIVALS THIS WEEK.

	Wheat.	Barley	Oats.	Flour.
English	1090 qrs.	420 qrs.	60 qrs.	910 sks.
Irish	"	"	"	"
Foreign	7540 "	2480 "	12,350 "	{ 4420 "
				{ 3190 brls.
	8530	2900	12,410	

LIVERPOOL, Tuesday, March 3.—To-day's market was only very moderately attended, and in wheat very few transactions took place, at a decline of 3d. to 4d. per cental on the week. Flour inactive, and 1s. to 1s. 6d. per sack cheaper on the week. Indian Corn in limited request, at a decline of 1s. 6d. per qr. from the rates of this day week. Oats rather dearer. Oatmeal 3d. per load easier. Egyptian Beans in fair request, at 6d. per qr. decline. Peas, Barley, and Malt unchanged.

FRIDAY, March 6.—The market was moderately attended. Wheat and Flour slow sale, at barely Tuesday's rates. Beans, Oats, and Oatmeal without alteration. Indian Corn in better request, at 1s. per qr. advance; mixed, 41s. 6d. to 42s.; white, 41s.

AVERAGES.

	Wheat.	Barley.	Oats.
Jan. 25 ..	72s 4d	42s 6d	25s 6d
Feb. 1 ..	72 6	42 4	25 11
— 8 ..	73 4	42 7	26 0
— 15 ..	73 0	42 5	25 9
— 22 ..	75 11	43 9	26 2
— 29 ..	73 4	42 5	26 9
Agg. Average ..	73 5	42 6	26 0

HOPS.—BOROUGH MARKET, Friday, March 6.

Messrs. Pattenden & Smith report that the demand for the best descriptions continues steady, prices being the turn dealer.

NEWGATE.—March 6.

Best Fresh Butter .. 17s. per dozen lb.
Second do. do. 15s.
Small Pork, 4s. 4d. to 4s. 6d.; Large Pork, 3s. 8d. to 4s. 0d. per 8 lb.

WANTED, a HEAD GARDENER (WORKING), where five others are kept. He must thoroughly understand the profession in all its branches, and have filled a similar situation before. Apply by letter, stating full particulars of the different situations held during the last 10 years, if married, age, wages required, &c.—R. BORSARIAN, Lamorby Park, Bexley, Kent.

WANTED IMMEDIATELY, a FOREMAN in a Nursery of about 40 Acres; he must thoroughly understand his business in all its branches. He will have the option of PARTNERSHIP, by giving a cash security for say £150. One who has a connection with London Nurseries would be preferred.—CARTER & Co., 237, Holborn, W.C., London.

WANTED, a WORKING FOREMAN, to take charge of a Nursery in the vicinity of London, he is required to be married, and to have had good experience in the Propagation and Management of Fruits, Roses, and out-door Nursery Stock in general. The position is one of trust, and liberal remuneration will be given, therefore none but those who can furnish good references need apply.—GEOFFREY CLARKE, Nurseryman, Streatham Place, Brixton Hill; and Motttingham, Kent, &c.

WANTED, a respectable YOUNG MAN, to take charge of the Houses, and to assist in the Budding and Grafting in a Small Nursery; he must be well up in Propagating (Soft-wooded principally), and be competent to conduct the Establishment in the absence of the Principal. None need apply unless they can be well recommended, and have served for some time in a Nursery.—Address, stating wages, &c., to Mr. E. HILLIER, Nurseryman, Winchester.

WANTED, as GARDENER, a practical Man who thoroughly understands the Kitchen Garden.—Apply to HENRY CLARKE & Sons, 39, King Street, Covent Garden, W.C.

WANTED, a GARDENER, used to Glass, not over 40, married, no incumbrance. Wife good Laundress. Both willing to assist. Place light. Wages, £62 the two, with house, coals, and gas. One year's personal character.—Address, post paid, H. C., 31, South Bank, N.W.

WANTED, a Young Man as HARD-WOODED PROPAGATOR and PLANT GROWER.—Wages progressive, to commence at 20s per week. Address, in own handwriting, Mr. Gosse, Nursery, Landport, Portsmouth.

WANTED, a steady, active YOUNG MAN, well up in Jobbing and general Nursery Work.—Apply to W. MZADMORE, Romford, E.

WANTED, a BAILIFF, to take charge of Garden, Hothouses, and to Manage a Farm of 150 Acres.—No one need apply who is not thoroughly competent in every department, or prepared to perform his duties in a strictly conscientious spirit.—X. Y. Z., Post Office, Bromley, Kent.

WANTED, on an Estate in Wilts, a HEAD CARPENTER. A person acquainted with the Erecting and Repairing of Agricultural Buildings preferred. The duties include the control of Masons and Plasterers, so that a knowledge of their work is necessary. Wages, one guinea per week, house, and garden.—J. L. F., Wotton Hill, Gloucester.

WANTED, a MAN and WIFE, without incumbrance, about 10 miles from London.—The Man as COACHMAN, and willing to make himself generally useful, wife to undertake the LAUNDRY for a small family. There is a comfortable cottage. A person who understands Cattle would be preferred.—Address, by letter only, A. B., Mr. Stevens, Stationer, 42, Tottenham Court Road, W.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. F. G. HENDERSON & Sons, Wellington Nursery, St. John's Wood, London, N.W.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS and GARDENERS and BAILIFFS, of various qualifications, who are open to engagements.—The fullest particulars as to services required and wages given, should be forwarded with application. PAUL'S Nurseries, Waltham Cross, London, N.

To Gardeners and Bailiffs (Head, Foremen, or Under). JAMES CARTER AND CO. having many applications for the above request that those wanting situations will send name, address, and copies of Testimonials for entry in their FREE REGISTER.

Only those who can send unquestionable references need apply. Any Lady or Gentleman requiring Gardeners or Bailiffs may rely upon J. CARTER & Co. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c.—JAMES CARTER & Co., 237 and 238, High Holborn, London, W.C.

To Noblemen and Gentlemen.

AMBROSE SANDERS, having completed a service of 12 years with Sir Henry Meux, Bart., at Theobald's Park, Waltham, N., begs to offer his services to any Nobleman or Gentleman who may require a first class GARDENER, or GARDENER and BAILIFF. At Theobald's Park he has managed an extensive Forcing Establishment and Flower Garden, to the perfect satisfaction of his employer; has had the care of the Gasworks, and has been very successful in the Purchase and Management of Stock. He can give unexceptionable references as to character and ability; and he is leaving solely in consequence of Sir Henry's quitting the place.—Present address, Theobald's Park, Waltham Cross, N.

A LADY is anxious to find a situation for a GARDENER (HEAD).—High testimonials and references.—A. C. L., Cliff House, Dawlish, South Devon.

GARDENER (HEAD).—Age 25; thoroughly understands his profession in all its branches. Three years' good character.—W. F., Post Office, Sheet, Hants.

GARDENER (HEAD).—Age 30, married, no incumbrance, has a thoroughly practical knowledge of his profession. Good reference.—B. A., 18, Dove Street, Kingsdown, Bristol.

GARDENER (HEAD).—Age 30, married, one child; thoroughly understands his profession in all its branches. Three years' good character from present situation.—A. M., 17, Boone's Road, Lee, Kent.

GARDENER (HEAD).—Age 26; thoroughly understands his profession in all its branches. Five years' character from last situation.—J. M., Mr. Wm. King's, High Street Nurseries, Lincoln.

GARDENER (HEAD).—Seven years' Head Foreman in the gardens of the Duke of Northumberland, Ston House, and Head Gardener in two other large and good places.—P. F., Lily Terrace, Warwick Road, Kensington, London, W.

GARDENER (HEAD).—Age 46, married, no incumbrance; has a practical knowledge of his profession. Wife can take charge of Poultry or a small Dairy.—A. M., 53, Westmoreland Street, Pimlico, S.W.

GARDENER (HEAD).—Age 28, single; thoroughly understands the Cultivation of Vines, Stove and Greenhouse Plants, Early and Late Forcing, Flower and Kitchen Gardening, also a general knowledge of Ferns. Six years' good character.—A. B., Post Office, Dulwich.

GARDENER (HEAD).—Age 30; thoroughly understands the Forcing of Vines, Peaches, &c., Stove and Greenhouse Plants, also Flower and Kitchen Gardening. Three years' good character. No single-handed place accepted.—E. M., Grove Road, Wallasey, Birkenhead, Cheshire.

GARDENER (HEAD).—Age 30, married, no incumbrance; thoroughly understands his profession in all its branches. Four and a half years' first class character. Can be highly recommended by the Gentleman he is leaving.—A. Goodwin, Gardener, Heston House, Crawley, Sussex.

GARDENER (HEAD), to any Lady or Gentleman requiring a thoroughly competent person.—Age 42, married; understands the Management of Land and Stock. Can be highly recommended.—A. Y., Messrs. W. Robinson & Sons, The Nurseries, Tooting, London, S.

GARDENER (HEAD).—Age 36, married, small family; thoroughly understands the Management of Vines, Peaches, Melons, Cucumbers, Strawberries, Stove and Greenhouse Plants, and Kitchen and Flower Gardening. Seven years' good character.—J. H., Bowden Park, Chippenham.

GARDENER (HEAD), to any Nobleman or Gentleman.—Married; understands the Management of Vines, Peaches, Melons, and Stove and Greenhouse Plants. Leaving present situation through a reduction of the establishment. Good testimonials.—PETER LOW, Lydney Park, Gloucestershire.

To Noblemen and Gentlemen.

GARDENER (HEAD).—Age 30, married; thoroughly understands his profession in all its branches. Unexceptionable references from previous and present employer. No single-handed place accepted.—JOHN BEAT, Gardener, Appleby Hall, Briggs, Lincolnshire.

GARDENER (HEAD).—Age 40, married, two children; thoroughly understands his profession in all its branches, and can undertake the Management of the Garden. Seven years' character from last situation. Testimonials from previous employers.—W. W., Jones Street, 62, Market Square, Northampton.

GARDENER (HEAD).—JOHN GOODE, Esq., to the Right Hon. the Earl of Antrim, G. Esq., Ireland, is at liberty to treat with any Nobleman or Gentleman requiring a thorough Gardener, will be engaged for the highest testimonials can be given. To save trouble, no be made as above.

GARDENER (HEAD).—Messrs. BUNDY & Co., Seedsmen, Barton, Southampton, can recommend a Nobleman or Gentleman a first-class Gardener, experienced in the Cultivation of Pines, Vines, Peaches, Greenhouse Plants, Flower and Kitchen Garden, &c. Character will bear the strictest investigation as above.

GARDENER (HEAD), or BAILIFF.—Age 27, children, over six years old; understands his profession in all its branches. Two and a half years' good character.—A. B., Wobham Manor, near Reigate, Surrey.

To Noblemen and Gentlemen.

GARDENER (HEAD), or GARDENER and BAILIFF.—Age 45.—HENRY MITCHELL, for 10 years Gardener to the Right Hon. Viscount Falkland, of Skutterelke, Yorkshire; had the whole charge of his Lordship's Parks and Plantations, Repairs to Farm Buildings, Drainage, and Management of his Lordship's Estates. After the death of his Lordship's son, continued as Gardener and BAILIFF to the Duke of Devonshire, at his Lordship's Hall to Major Elwton, continued as Gardener and BAILIFF to the Duke of Devonshire, for 10 years; has the privilege of referring to him, perfect testimonials will give very satisfactory reasons for his leaving his situation, highly recommended by Gentlemen of high standing. Address, Extension House, Ormesby Road, Middlesbrough, Yorks.

GARDENER (HEAD WORKING).—Age 27, no incumbrance; understands Early and Late Forcing, Flowers, and Vegetables, Flower and Kitchen Gardening, and can be recommended by several gardeners.—P. W., 8, Denmark Villas, East Ham, Essex.

GARDENER (HEAD WORKING).—Age 31, no incumbrance; a practical Man. Thoroughly understands his profession in all its various branches. Good character.—2, York Terrace, Oxford Road, Clewer, Berks.

GARDENER (HEAD or SINGLE-HANDED).—Age 27, understands his profession in all its branches.—A. B., Post Office, Aylesford, Kent.

GARDENER (HEAD or SINGLE-HANDED).—Age 27, single; understands Kitchen, Flower, Fruit, and general Forcing. Excellent character.—A. B., 1, Lavender Black's Road, Hammersmith, W.

GARDENER (HEAD), where two or more are required.—Age 29, married, no incumbrance, thoroughly understands his profession in all its branches. References good.—House, Wootton Bassett, Wilts.

GARDENER (HEAD), where one or two are required.—Age 25, single; understands the Management of the Kitchen Gardens. Two and a half years' good character.—Post Office, Mickleham.

GARDENER.—Age 30, married, two children; thoroughly experienced in every branch of his profession. Excellent character. Wife a good Manager of a Dairy. Worplesdon Post Office, Guildford, Surrey.

GARDENER, in a Gentleman's Garden.—Married, one child, aged 12, has a thorough practical knowledge of his profession in all its branches. Excellent testimonials, with nine years' character. Leaving through employment.—R. M., Post Office, Manningtree, Essex.

GARDENER, or FOREMAN, to Landscap Nurseryman, &c., to carry out New Works.—Church Street, Paddington, W.

FOREMAN, in any good Garden Establishment.—J. R., The Gardens, Rowton East, Cheshire.

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FOREMAN (WORKING).—A steady, industrious, and experienced man, with 20 years' extensive practice of Irrigation and Drainage in England and Wales, conveying Water for Machinery, Mansions, &c., with a thorough practical knowledge of repairing Ponds. Gentlemen having work of the kind to be done, should apply to him for a man of sound practical knowledge. References to Noblemen.—C. E., Post Office, Knottingly, Yorks.

FOREMAN (or SECOND).—Age 27, single; 10 years' first-class experience in Vine and Flower Gardening. Thoroughly understands the Management of Out-door Gardening. Good character.—U. G., 22, Strand, Temple, W.C.

STEWARD (to Gentleman Farmer).—Age 27, thoroughly proficient in every department, theoretical, Flock and Breeding Farm preferred. Full management would be expected. Share of profits, and part salary, and security given. Recommendations of character, for sobriety and strict integrity, from present and former Farmers, Eaton Farm, Cobham, Surrey.

BAILIFF.—A practical Man in every branch of Farming and Stock Management. Wife can take charge of the Dairy and Poultry if required. Employment.—A. B., Mr. R. Robins, Land Agent, Woodford Green, Essex.

FARM BAILIFF.—Thoroughly understand his business in all its branches. Wife can take charge of a Dairy if required. Good references.—F. F., King's Langley, near Watford, Herts.

ESTATE or FARM BAILIFF, under a Nobleman.—Age 38, married; can undertake the Management of a Farm of any extent. Understands the Breeding and Stock, Management of Woods, and the various Works of a Farm. Good references. No objection to Dairy.—HASTINGS, Stadmington, near Wallingford, Berks.

TO NOBLEMEN, GENTLEMEN, and AGENTS.—The Advertiser, who has been for 12 years in the Improvement and Management of Estates, in the Planting and rearing of Plantations, is in want of employment, is well acquainted with Estate Accounts, and the general routine of a Land Agent's Office.—D. Y., Lawson & Son, Nurserymen, Seedsmen, &c., 20, Bedford Street, London, E.C.

FARM BAILIFF (WORKING).—Married, has had the management of a Gentleman's Farm for 15 years. Wife a good Dairy woman. Has the care of 25 cows, cheese and butter-making.—L. M., Post Office, near Derby.

ASSISTANT, &c., to take charge of Horticultural Establishment where Gardening is carried on. —Age 20; has had eight years' experience in a Nursery. Good references.—W. D., Wilton House Gardens, Wiltshire.

SHOPMAN.—Age 30, single, has 10 years' experience in all branches of the Seed Trade, and knowledge of the Nursery and Florist business.—D. D., Chas. White's, 11, Angel Court, Uxbridge.

SHOPMAN or WAREHOUSEMAN.—Has a knowledge of the Seed Trade.—N. R., Finsbury, Long Acre, W.C.

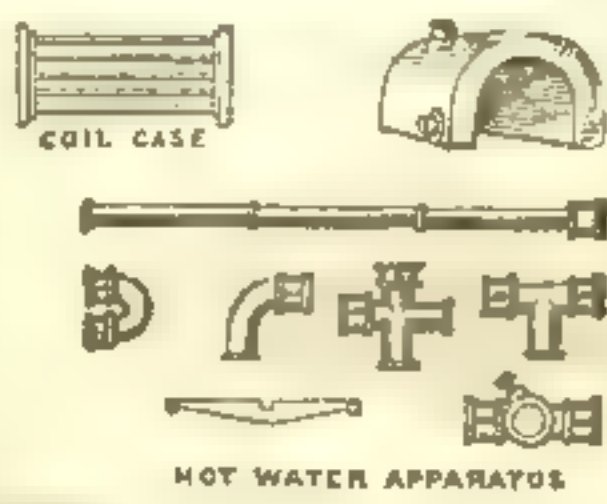
JUNIOR CLERK (or OTHERWISE).—Age 20, factory references. Salary required, 4s. per week, to country.—E. L., Elcho Lodge, Stone Road, Birmingham.

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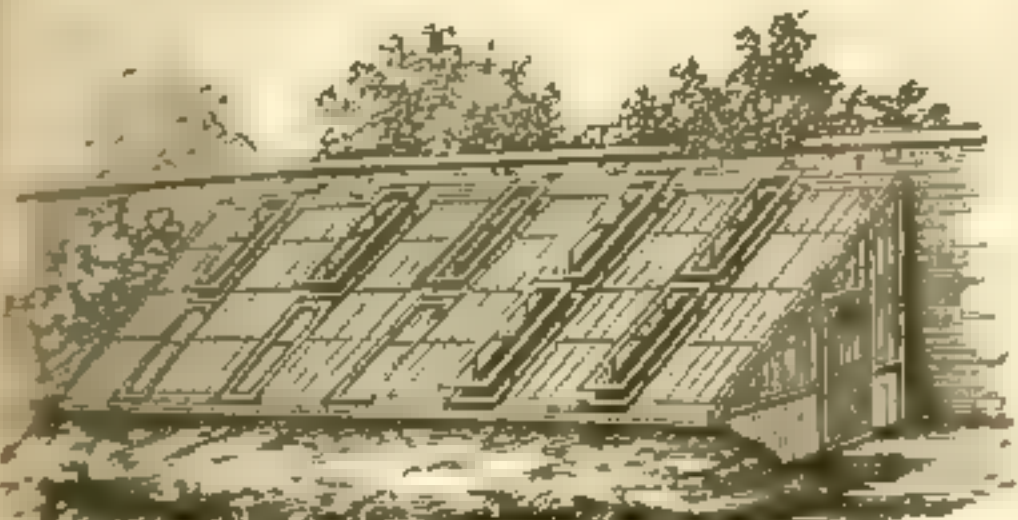
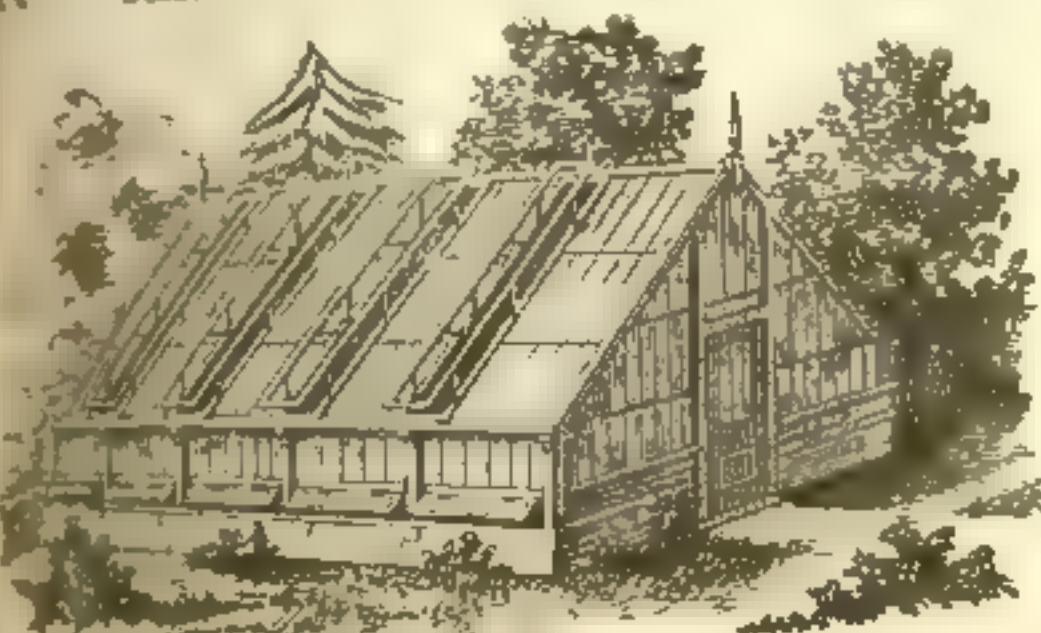
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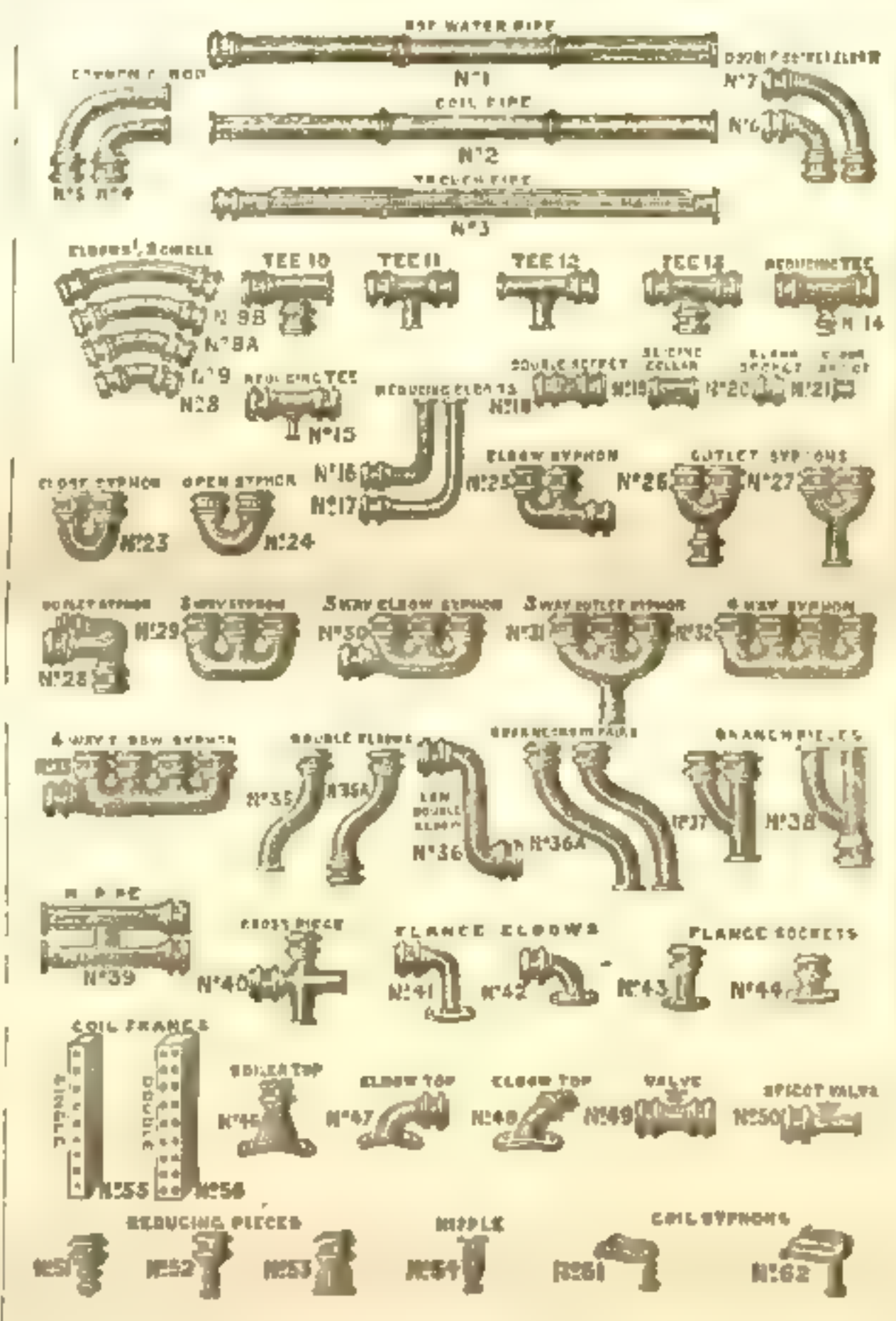
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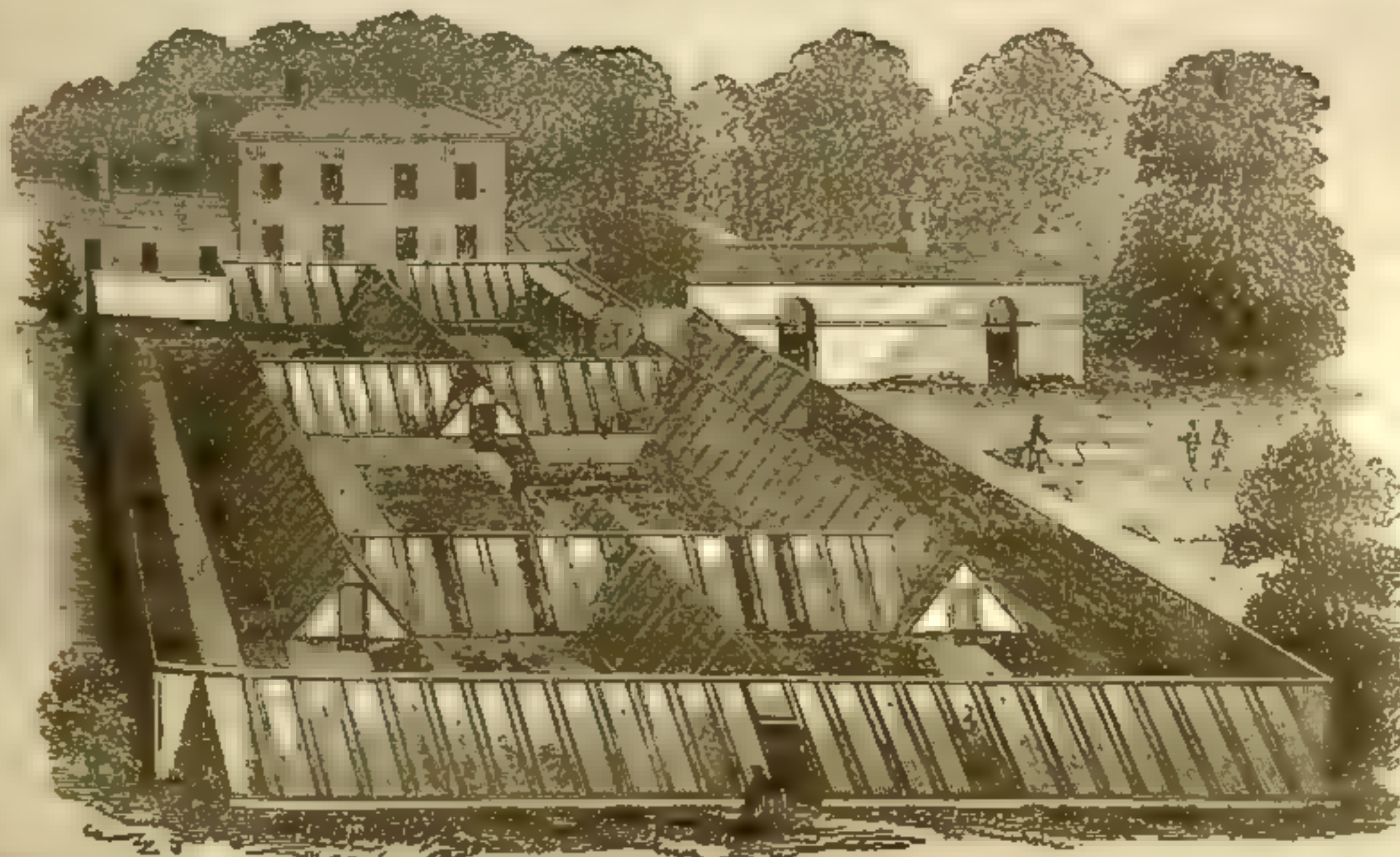
REDUCED
PRICES
FOR
CASH
PAYMENT.

	2-inch.	3-inch.	4-inch.	
PIPES	per Yard	1s. 0d.	1s. 6d.	2s. 0d.
ELBOWS	Each	1 6	2 3	3 0
TEES	"	2 6	3 6	4 6
SYPHONS	"	2 6	3 6	4 6
VALVES	"	10 0	11 6	13 0

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ARE SUBSTANTIAL, CHEAP, AND EASILY FIXED.**

SPAN-ROOF HOUSES, of well-seasoned Red Deal, Glazed with good English Sheet Glass, and Painted three coats, with complete Ventilation all over Roof, necessary
Ironwork, and Water Gutters, put on Rail in LONDON, GLOUCESTER, COVENTRY, ULVERSTONE, PAISLEY, or ABERDEEN.
10 to 16 feet wide inside, at 16s. to 24s. per foot run; to 26 feet wide in one Span, £2 per foot. Glazed Ends, from £3.
ILLUSTRATED CIRCULARS, with full particulars, definite prices, and sizes, free on application.



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&c. &c.,

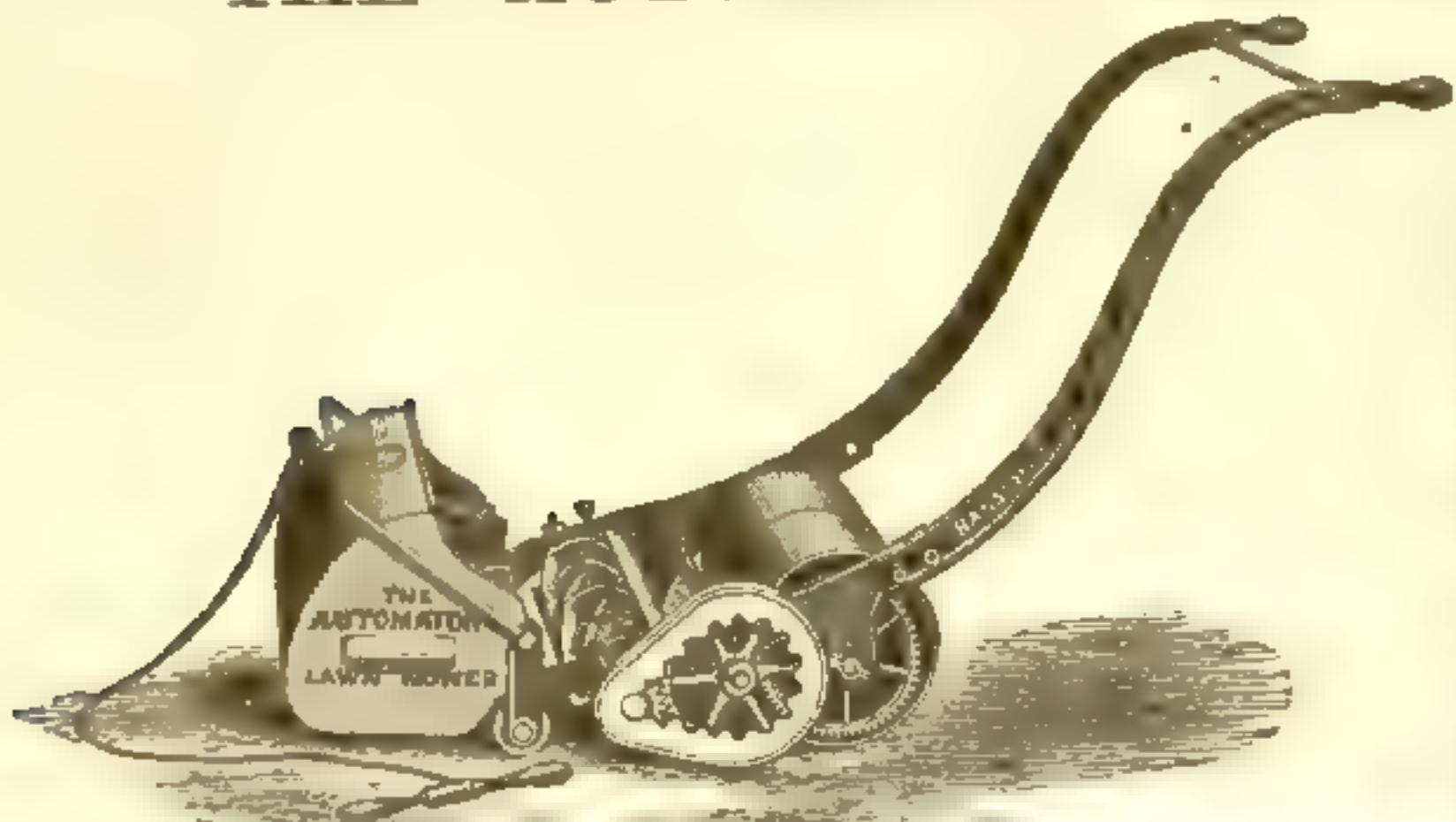
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This system of Building has been extended to form large WINTER GARDENS, covering a great area, at a low cost; the produce of which, in a few years' time, would
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Gentlemen about to form New Gardens can be advised the best method of arranging these Glass Roofs for all Horticultural purposes, and as Boundaries in place of Walls,
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Estimates given for every description of Horticultural Building, and for Heating Apparatus complete.

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12 "	...	4 10 0
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18 "	...	7 10 0
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Home News. THE COURT.—On Friday the Queen held a Court at Buckingham Palace, at which the Marquis d'Azeglio, Italian Minister, presented his letters of recall.

THE PRINCE AND PRINCESS OF WALES.—On Saturday evening the Prince went to the conversazione of the Royal Society at Burlington House.

VISIT OF THE PRINCE OF WALES TO IRELAND.—It is announced that the Prince of Wales will pay a visit to Ireland during the Easter recess.

THE CABINET.—A Cabinet Council was held on Saturday at the official residence of the First Lord of the Treasury in Downing Street.

THE PRIME MINISTER AND EARL RUSSELL.—Mr. Disraeli on Friday addressed the following letter to the morning papers.

"Sir,—Lord Russell observed last night in the House of Lords that I 'boasted at Edinburgh that, while during seven years I opposed a reduction of the borough franchise, I had been all that time educating my party, with the view of bringing about a much greater reduction of the franchise than that which my opponents had proposed.' As a general rule, I never notice misrepresentation of what I may have said; but as this charge against me was made in an august assembly, and by a late First Minister of the Crown, I will not refrain from observing that the charge has no foundation. Nothing of the kind was said by me at Edinburgh. I said there that the Tory party, after the failure of their Bill of 1859, had been educated for seven years on the subject of Parliamentary Reform, and during that interval had arrived at five conclusions, which, with their authority, I had at various times announced, viz.—1. That the measure should be complete. 2. That the representation of no place should be entirely abrogated. 3. That there must be a real Boundary Commission. 4. That the county representation should be considerably increased. 5. That the borough franchise should be established on the principle of rating. And that these five points were accomplished in the Act of 1867. This is what I said at Edinburgh, and it is true. I am, Sir, your obedient servant,
"Downing Street, March 6.
B. DISRAELI."

THE PEERAGE.—The Rev. W. O'Neill, of Shane's Castle, Antrim, has been created a Peer of the United Kingdom, by the title of Baron O'Neill.

PARLIAMENTARY MOVEMENTS.—Mr. Ward Hunt was re-elected on Saturday for North Northamptonshire, without opposition. The Marquis of Lorne was elected last week for Argyshire, without opposition. There is a vacancy for Huddersfield, caused by the death of Mr. Crosland, Mr. E. A. Leatham is a candidate for the vacant seat in the advanced Liberal interest. It is said that Lord Amberley will be the Liberal candidate for South Devon at the next general election.

THE NEW VICE-CHANCELLOR.—Mr. George Markham Giffard, Q.C., has been appointed Vice-Chancellor, in the room of Sir W. Page Wood.

THE FINANCE MINISTER OF INDIA.—Sir Richard Temple has telegraphed his acceptance of the office of Finance Minister in India, vacant by the resignation of Mr. Massey.

Foreign.

FRANCE.—The *Moniteur* of Wednesday praises the language held by Lord Stanley on the 6th inst., relative to the Alabama question, and says that "Lord Stanley dwelt in very wise terms on the considerations of every nature which render desirable a complete harmony between England and the great American Republic, and it is to be hoped that a friendly solution of the question will not be long delayed." The same paper in its bulletin says:—

"International tendencies of a peaceful nature become daily more evident. As was declared by M. Rouher in the Legislative Body on the 4th inst., the relations of France with foreign States were never of a more cordial character. The wisdom of the European Cabinets, in harmony with the general interests, will produce salutary effects towards strengthening confidence and maintaining tranquillity."

In the sitting of the Legislative Body on Friday the debate on the Press Bill was resumed. A new article (Article 11), concerning punishments to be awarded for libel with regard to affairs of private life, was adopted by a majority of 135 to 105. In the sitting of Saturday M. Gueroult, in consequence of the accusations made by the *Pays*, asked for explanations respecting the relations between that journal and the Government. The Chamber declined any further discussion on the subject. In the sitting of Monday the debate on the Press Bill was resumed. After the rejection of several amendments, and the adoption of Articles 15, 16, and 17, the whole Bill was voted by 242 votes against 1. The Bill relative to the Army Contingent was then passed by a majority of 230 to 12. In the sitting of Thursday the President communicated a notification from the Procureur-Général, demanding authority to take proceedings against the *Figaro* and *Situation* for articles offensive to the Legislative Chamber. The Chamber then formed itself into a secret committee, at which it was resolved to authorise the proceedings against the above journals. The discussion on the Bill relative to the right of holding public meetings then commenced. M. Garnier Pagès spoke against the Bill. The Bills relative to the supplementary credits for 1868 and the Budget for 1869, were laid on the table on Monday. The supplementary credits for the ordinary Budget of 1868 amount to 61 millions, of which 49 millions are for military expenses. The supplementary credits for the extraordinary Budget of 1868 amount to 100 millions, of which 57 millions are for military and 26 for naval purposes. The excess of expenditure over revenue for 1868 is estimated at 128 millions. In the ordinary Budget of 1869 the expenditure for military purposes is fixed at 381 millions, or 33 millions more than in 1868. In the extraordinary Budget the total expenditure amounts to 184 millions, of which 37 millions are for military and 21 for naval purposes. On Tuesday the Bills relative to the Press and the military contingent were laid before the Senate. The *Pays* on Saturday published the documents on which it grounded the charge of receiving advocacy money against several of the Paris papers. They entirely failed to substantiate the charge, and the principal document, which mentioned the names of these papers, has proved to be a forgery, two of the papers not having had an existence till five years after the date of the document. The *Débats*, *Liberté*, *Avenir National*, and *Revue des Deux Mondes* have consequently addressed a letter to M. Kerveguen, summoning him to publish fresh documents in justification of his recent assertions. As he has not complied with their summons, they have demanded permission of the Legislative Body to prosecute him before the Correctional Tribunal of Police, which has appointed Friday,

the 27th inst., for the trial. There have been some disturbances at Toulouse, caused by recruiting for the National Garde Mobile. The *Moniteur* says they were soon suppressed by the energy and promptitude of the authorities, and adds that in all other places the recruiting measures have been conducted in a peaceful and quiet manner.

ALGERIA.—Letters from Algiers state that the famine which has prevailed so long in Northern Africa still continues in Algeria. Marshal M'Mahon had left for France with the intention of urgently demanding the sum of 1,000,000 francs in aid of the distressed.

DENMARK.—The Crown Prince of Denmark leaves Copenhagen to-morrow by way of Hamburg, Munich, and Trieste, for Athens, where he intends to remain for a month, after which he will visit London.

PRUSSIA.—Prince Napoleon visited Potsdam on Tuesday, and in the evening dined with Lord Augustus Loftus, the English Ambassador, who gave a grand banquet in his honour. On Wednesday the Prince dined with Prince Charles, and on Thursday with Count Bismarck. His Imperial Highness has abandoned his intention of visiting Vienna, and will return to-day direct from Berlin to Paris. The Federal Council of the North German Confederation held a sitting on Monday. The Customs and Commercial Treaty with Austria was signed on Monday at the office of the Chancery of the North German Confederation. The ratification of this treaty will be effected within two months. The treaty is intended to come into operation by the 1st of June, by which time it is expected that Mecklenburg will have joined the Zollverein. The legal committee of the North German Federal Council on Wednesday discussed the recent treaty with the United States respecting the nationality of emigrants. On the same day the committee charged with the preparation of a uniform law of civil process throughout the North German Confederation took the subject of the abolition of imprisonment for debt into consideration. Count Bismarck has addressed a report to the King, stating that, on account of the late period at which the elections in Hesse and Wurtemberg to the Customs' Parliament have been fixed to take place, the opening of the Parliament in the latter half of March cannot be recommended. At the same time he proposes that the Federal Council shall be convoked for the 7th inst., and the North German Parliament for the 23d. The report is followed by a Royal decree approving these proposals.

AUSTRIA.—The Delegation of the Austrian Reichsrath adopted on Saturday the motion by Herr Pravo-bevera, granting 996,000 florins, instead of 672,440, as recommended by the Committee for the new fortification works. The Minister of War thanked the Delegation for this vote, and for the amount granted for providing new firearms, and said that the army would know how to use the new weapons should the constitutional development of Austria be mischievously interfered with. The Delegation voted the supplementary Budget of expenditure, the amount being 26,181,674 florins. In the sitting of the Delegation from the Hungarian Diet on Saturday, the proposals of the Committee for maintaining the Legation in Saxony and the Embassy at Rome were adopted. During a debate lasting two hours on the Roman Embassy, Court-Councillor Falke, the Government Commissioner, combated the opinion which had been expressed that the maintenance of the post of Ambassador at Rome could be looked upon as implying hostile intentions towards Italy. He declared that at the present time the best understanding existed between Austria and Italy, and that the greatest importance was attached to the future preservation of the same. In the sitting of Wednesday, in a debate on the military estimates, Councillor Falke, the representative of the Government, replied as follows, in the name of the Minister for Foreign Affairs, to the censure cast by several previous speakers upon the Government for the policy it had pursued in the German and Eastern questions:—

The Government had never desired or attempted to recover its former position in Germany. With the exception of the mission of Count Tauffkirelin, which was directly at variance with the peaceful efforts attempted, no sign had yet been displayed by Prussia of a wish for more intimate relations with regard to the eastern policy of the Government. All the justifiable wishes and demands of the Christian subjects of the Porte had met with the most emphatic support upon the part of the Government. In the event of an unrelenting enforcement of the demands made upon the Porte by any individual Christian population, the Government would not remain passive. It was essential to the preservation of European peace that the reforms in Turkey and the concession of the just desires of the Christian population should be effected peacefully and without any interference on the part of a foreign Power. He laid stress on the impossibility of the Government remaining passive in the case of a one-sided active intervention of any Power in the affairs of Turkey, but he trusted that the policy intended to bring about the maintenance of peace would be crowned with successful results in this question also. He advocated the grant of the supplies asked by the War Ministry, because to deprive the country of the means of defence required was the indispensable minimum by the Government would not only nullify in advance the efforts made for the maintenance of peace, but would remove every chance of that success which it might otherwise hope would be achieved.

In the sitting of the Lower House of the Reichsrath, on Thursday, the Minister of Justice brought in a Bill for abolishing imprisonment for debt. The Bills for the abolition of the usury laws and the dissolution of the State Council in the sense proposed by the Government were read a third time and passed.

HUNGARY.—The Hungarian Diet was opened on Monday with the usual ceremonies.

ITALY.—The debate in the Chamber of Deputies on Signor Rossi's motion for the abolition of the forced currency was resumed on Friday and continued until Tuesday. The following is a summary of the principal speeches:—

Count Cambray Digny, Minister of Finance, said that economy alone was insufficient to meet the present wants of

the State. If the proposed taxes were not voted in the first six months of the present year, a catastrophe would longer be avoided. Those who imposed the taxes would be responsible for the failure of the State. He was opposed to an immediate proposal for the abolition of the forced currency, and the proposal to nominate a Committee of inquiry to inquire into the best suited to effect the abolition. In the Budget of 1869 showed a deficit of 100,000,000 francs. That deficit would be reduced 25 millions if the taxes and the measures proposed were voted. Signor Fenzi supported the arguments of Deputies Majorana and Calabroni presented for the abolition of the forced currency. In the sitting of Signor Doda censured the policy of the Government, the banks, and moved an order of the day for the Ministry to bring forward a Bill limiting the day of the issue of money. After some remarks by Count Cambray Digny, the Chamber approved the order of the day. Signor Rossi's motion. Signor Ferraris moved that a Committee of inquiry should be instituted to inquire into the causes of the deficit. Several speakers supported their schemes for the abolition of the forced currency. In the sitting of Monday Count Cambray Digny would accept an order of the day signed by Signor Ferrara, Rossi, Fenzi, and Correnti, engaging the Government to present, as an indispensable condition of financial measures, a Bill for procuring the abolition of the forced currency. Meanwhile he would appoint a committee of seven members to inquire into the question of the forced currency, and to report on the 15th April on the best means of effecting its abolition. Depretis moved an amendment that the Chamber should embody their recommendations in a resolution, simply reporting upon the subject. Signor Depretis and the members of the Left concurred in the amendment, and withdrew their own proposals. The Minister of Interior declared that the amendment was in accordance with the views of the Government. Signori Crispi and Rattazzi opposed this view. Count Digny said that the Ministry could not accept the amendment. An animated discussion followed relative to putting the order of the day and the amendment. The Left refused to allow the President to proceed, and a violent tumult ensued, during which the President put on his hat and closed the sitting. On Tuesday Signori de Sanctis and Correnti gave an order of the day to justify the position taken on the previous day by the Left on the forced currency. Signor Depretis stated that he did not support his amendment with the object of raising a political question. Signor Rattazzi objected to the matter being raised as a question. Signor de Sanctis disclaimed any intention on the part of the Left. Count Cambray Digny declared that the Ministry could not accept the amendment, and not undertake to present a Bill to remove the forced currency at a fixed period. The first paragraph of the order of the day signed by Signori Corsi, Rossi, and others, was the vote and adopted by a majority of 111 to 138. Signor de Sanctis withdrew his amendment to the Senate, instructing the Committee to draw up a Bill for the abolition of the forced currency, and the second paragraph was then approved. The other orders of the day were then withdrawn. Count Cambray Digny presented a Bill on the income tax. In the sitting of Wednesday Ricciardi questioned the Ministry relative to the position in the French Senate respecting the Italian Company. He asked what were the intentions of the Government on the question. General Menabrea, after the embarrassments and failure of the company, stated nevertheless, the Italian Government had no intention of withdrawing its claims, and would continue to do so. The company claim rights which it did not possess. An appeal was made to a court of law. Justice existed for all. Florence as at Paris or London. Signor Correnti stated that the Italian Government was released from its obligations by the failure of the company to carry out the conditions of the contract. The Minister of Public Works stated that the company had not fulfilled the conditions which entitled it to the concession. The Chamber, in consideration of the declaration of the Minister, passed to the order of the day. Signor Depretis and other members of the Left, presented a motion for the amendment of the discussion upon the grinding tax. Administrative reforms had been voted. In the sitting of Thursday Signori Minghetti and Cevinati opposed the amendment which was supported by Signori Crispi and Depretis.

PAPAL STATES.—The Italian and Papal authorities met last week at a village on the frontier, and concluded an arrangement for the provisions of the conventions for the suppression of brigandage on the Italian and Papal frontiers. General Pallavicini will direct the operations on the Neapolitan frontier. At the Consistory of yesterday for the creation of nine Cardinals, Lucien Bonaparte was first to receive the appointment in a special and separate ceremony. Companies of Zouaves have been despatched to the frontier province of Campagna. They have been given to expedite the completion of the fortifications of Castel St. Angelo and Mount Aventine. It is expected that Signor Guglielmi, the Director-General of the Monte di Pietà, will be appointed Minister of Commerce and Public Works. Enrolments of volunteers for the Pontifical army continue to increase. Those who lately returned to France have engaged themselves to return to Rome whenever summoned. A marriage has been arranged between the Countess Caserta, younger brother of ex-King Francis II, and the Princess Marie Antoinette de Bourbon, daughter of Count Trapani. The ex-Queen of Naples has left Rome for Vienna, to be present at the approaching confinement of the Empress of Austria. The Canadian Volunteers arrived at Rome on the 10th and were received on the same day by the Pope, who expressed his satisfaction at their devotion, and bestowed upon them his benediction.

RUSSIA.—It is reported that the Emperor will pay a visit to St. Petersburg in June. By the Emperor's orders a review of 100,000 men will be prepared for his Majesty's reception. It is understood that the Budget for 1868 is about to be published. The revenue of the year is stated at about 280,000,000 roubles, and the expenditure at 175,000,000. The surplus amount 35,000,000 roubles are intended to be applied to railway works. As compared with last year, the revenue shows an increase of 35,000,000 roubles, and the expenditure of 30,000,000 roubles.

MOROCCO.—Accounts from Tangier state that thousands of families from the Rif, in a state of destitution, have flocked into that city and are augmenting the distress, which was already very great.

of the famine and the exorbitant provisions. To the ravages of hunger are these of typhus, dysentery, and cholera. Typhus fever of an aggravated character in Tunis, in consequence of the famine are not allowed to land at Malta. Several secondary nominations have been made in the Administration at Constantinople. Captain Hobart, who was Councillor of the Turkish Admiralty, has been promoted to the rank of Pacha, with a salary of 3000. It is said that the Powers are settling the Cretan question by their Ambassadors, now being held at Constantinople, with the assent of the Porte. Two steamers, with 30,000 lire on board, have left the port for the purpose of transporting emigrants to return from Greece to Crete, and of carrying with funds for their immediate wants. A dispute has taken place off Sinope, between the French steamer Benjamin Attwood and the French steamer, both English built. The former went to the aid of the latter, and upwards of 30 of the crew were drowned. No Egyptian troops have yet returned from the Sudan. A reinforcement, consisting of 2000 men, left Suez a few days ago for Mas-sowah, and 2000 more were to leave in three or

Letters from Magdala to January 17. King Theodore was within one day's march. The King had sent a friendly message to the British, and an assurance that he was only waiting until he should meet his countrymen. The British forces had not then entered the British forces had occupied Antalo. On the 21st February Sir Robert was two marches beyond Attegerat, and was likely to remain for several days, the advance of more troops, and of which were delayed by the deficiency of the transport Corps. Kassai was to meet Sir Robert on the 20th ult., but it was doubtful whether he would be able to do so. It was again asserted that Menek had advanced on Magdala, and that the British were close to Losta, and advancing on Magdala. A British officer, who was engaged as Amharic dragoman, has been ordered to quit the expedition and return to England, having lost his health in the performance of

AFRICA.—The Government has resolved to send Mr. Angelo, the African traveller, to the district of Moshesh, to inquire into the alleged existence of slaves in that district. Mr. Angelo will be accompanied by means with which, if possible, to effect the liberation, and will go out as the paid agent of the Government, but it is not yet decided whether or not he should be accredited in an official capacity. Mr. Angelo, however, is willing to bear the whole responsibility, as far as his own personal safety is concerned, of meeting with a good reception from the natives of the tribe, to most of whom he is known.

GOOD HOPE.—News has reached the Cape that Her Majesty's Government are determined to maintain British protection and control over the territory. It was understood that the protectorate was established by the appointment of a British Resident at Moshesh's capital, and that the Basutos would be taxed to a sufficient extent to defray the revenue for maintaining the protectorate. Mr. Woodhouse had required Mr. Brand, the British Resident, to suspend hostilities against the Basutos until matters could be arranged. The news has been received of the death of Mr. Anderson, the traveller, in the wilds of the interior near Oyampo Land, bordering on the Orange Possessions.

The Government have contracted for the construction of four jetties in the river Hooghly. It is reported that Captain Cunningham's sentence has been remitted and the prisoner released. The British invasion of Burmah proper by Shans has spread alarm at Mandalay. The expedition to explore the new route to Western China has been abandoned. Unsatisfactory arrangements have been given as to the good faith of the King of Siam with respect to the new treaty. It is reported that extensive military preparations are being made, and that a great movement of the Russians is expected in the spring. The Nizam has consented to the construction of a branch railway from Hyderabad to a distance of 130 miles. Dr. Fennelly, the Roman Catholic bishop in Madras, is dead.

STATES.—The Select Committee of the House of Representatives adopted the rules of procedure for the trial of the President at the approaching session. Chief Justice of the Supreme Court will preside. The trial will be conducted with open doors, and the proceedings will commence on the day following the presentation of the articles of impeachment by the House of Representatives. President Johnson is summoned to appear in person or by counsel. In the event of his non-appearance, the trial will proceed on the assumption that the defendant pleads "Not Guilty." The final argument will be conducted by counsel on each side, and closed by the prosecution. The votes of members of the Senate will decide the final judgment. The articles of impeachment will be tried as four in one, and charge the President with violations of the Constitution and Tenure of Office Act, and also with holding the seals of the War Office. General Stanton attended a meeting of the Cabinet on the 28th

ult., at the invitation of President Johnson as Secretary of War *ad interim*. On the 26th ult., the President delivered a speech at a delegation of Conservatives from Baltimore. He declared that he would consider no personal sacrifice too great to bear in defence of the constitution, and expressed a belief that the intelligence and patriotism of the people would yet rescue the country from the threatened ruin. Both Houses of Congress have passed the supplemental Reconstruction Bill, providing that the majority of votes cast, instead of the majority of registered voters, shall decide elections under the Reconstruction Act. The Bill will now be submitted to the President. Mr. Stanton, who still holds his position at the War Office, had General Thomas arrested on the 22d ult., on the charge of having threatened to seize the War Office by force. General Thomas was released on bail, but Mr. Stanton failed to appear against him on the 26th ult., whereupon the Court discharged General Thomas, who immediately instituted proceedings against Mr. Stanton for false and malicious imprisonment, laying the damages at 150,000 dollars. The Loyal League Clubs in the principal cities have been firing salutes in honour of the President's impeachment. The Pennsylvania Senate, the Mississippi Convention, the Wisconsin Republican Convention, and a Republican mass meeting at Chicago have approved the impeachment, while on the other hand the New Jersey Legislature and the Californian Legislature and a mass meeting at New York have adopted resolutions approving President Johnson's course, and denouncing that of Congress. It is also reported that the Maryland Militia have tendered their services to President Johnson. The Keystone Club, in Pennsylvania, the Military Club at St. Louis, and numerous other Democratic bodies are effecting military organisation in opposition to a Republican military organisation called the "Grand Army of the Republic." The New Jersey House of Representatives have passed resolutions inquiring, in view of the peril in which the country is placed, into the condition of the State armament.

BRITISH COLUMBIA.—The *New York Herald* states that the citizens of British Columbia apprehend a Fenian attack from San Francisco.

Parliament.

In the Lords on Monday the Duke of Richmond, in answer to the Marquis of Clanricarde, said that the report of the Commissioners on Irish Railways would be published soon after Easter. The Lord Chancellor laid on the table various Bills on the Law of Bankruptcy. On Tuesday the Court of Appeal Chancery (Despatch of Business) Bill passed through committee; the Public Departments (Extra Receipts) Bill, the Registration of Writs (Scotland) Bill, and the Railways (Extension of Time) Bill were read a third time and passed. On Thursday, on the motion of the Marquis of Clanricarde, the Tenure of Land (Ireland) Bill was read a second time and, after some discussion, was referred to a select committee. The Ecclesiastical Commissioners (Orders in Council) Bill was read a second time, and the Court of Chancery (Despatch of Business) Amendment Bill was read a third time and passed. Yesterday the Earl of Devon brought in a Bill for the amendment of the Poor Law. The Duke of Argyll called attention to the rate-paying clauses of the Reform Bill, for the purpose of referring to the letter of the Prime Minister in answer to a recent speech of Earl Russell. The House was left sitting.

In the Commons on Friday Lord Stanley, in replying to the speech of Mr. Shaw Lefevre on the Alabama claims, said that upon all doubtful questions of fact and law the two Governments were prepared to abide the decision of any impartial arbitrator; but the question now at issue was, whether the English Government would consent to include in the reference the question whether we were right or wrong in recognising the Confederates as belligerents. Her Majesty's Government could not see what bearing this had upon the main subject of dispute, although as a matter of fact and history England had not recognised the Confederates as belligerents until after Mr. Seward had announced that the United States had accepted the civil war as an inevitable necessity, and until the Southern army was almost at the gates of Washington. The money consideration was inappreciably small, and we had claims which might be set off against those of the United States. He hoped that upon consideration the United States Government would admit the justice of the reasons put forward by her Majesty's Government against raising the irrelevant issues with respect to the recognition of the belligerents. From various circumstances he argued that an improved feeling had sprung up as regards England in the United States, and he was sanguine in the hope that, either by the machinery of a mixed Commission or by some other means, a satisfactory solution would be arrived at of the only point now remaining undecided. So far as the policy of the Government was concerned in declining to give way upon that point, he was satisfied to leave their conduct to the judgment, not only of the House of Commons, but of all candid and impartial persons on both sides of the Atlantic. Mr. W. E. Forster and Sir G. Bowyer expressed their satisfaction at the conciliatory tone of Lord Stanley's speech. Mr. Sandford suggested that Mr. Bright should be appointed a Commissioner to settle the matter. Mr. Mill concurred in this suggestion. Mr. Gladstone said that Lord Stanley's remarks were conceived in a spirit of thorough equity, not only towards those who had preceded him in office, but towards all those with whom he had been brought into connection in reference to the matter. With respect to the only subject really in dispute between the two countries—the recognition by England

of the belligerent rights of the Confederates—he believed that the country would support the view which the late as well as the present Government had taken of it. After some discussion on the arrangement of the Irish business, Sir W. Gallway and Mr. Wyle obtained leave to bring in Bills to establish county financial boards, and Mr. C. Forster obtained leave to bring in a Bill to amend the law relating to appeals from the Court for Divorce and Matrimonial Causes in England. On Monday, on the motion for the second reading of the Fines and Fees (Ireland) Bill, General Dunne moved, as an amendment, that it be read a second time that day six months. After some remarks by Mr. Disraeli in favour of the second reading, the amendment was carried without a division. The Lord Advocate moved the second reading of the Scotch Reform Bill. Mr. Hatfield moved as an amendment that the Bill be read a second time that day six months, on the ground that it increased the numbers of the House of Commons, and that if additional seats were required for Scotland they should be provided by disfranchising the smaller English boroughs. After some discussion, in which Sir W. Scott, Mr. B. Cochrane, Mr. Smollett, Mr. McLaren, Mr. Moncrieff, Sir J. Ferguson, the Lord Advocate, and other members took part, Mr. Hatfield withdrew his amendment, and the Bill was read a second time. The Sea Fisheries Bill passed through Committee. The Metropolitan Subways Bill was read a second time, and the Railways (Extension of Time) Bill was read a third time and passed. On Tuesday Mr. Maguire moved that the House of Commons should resolve itself into Committee, with the view of taking the condition and circumstances of Ireland into immediate consideration. Deprecating at the outset the treatment of the question in a party or sectarian spirit, he sketched in the gloomiest colours a picture of the political and material condition of the country. He contended that there had been a large falling-off in the live stock of Ireland, that the acreage under cereals had diminished, and that the productive power of the country had gone back—the farmers, by reason of the insecurity of their tenure, having lost heart, and begun to despair of the wisdom and honesty of Parliament and of statesmen. The discontent which had its root in the memories of past misgovernment and penal legislation, was rapidly growing into disaffection and alienation. The land question, he said, lay at the root of Fenianism, and without the sympathy of the tenant class the conspiracy would speedily collapse. Passing to the Church question, he emphatically refused for the Roman Catholic bishops and priests any share in the Church revenues, or payment by the State, and declared that nothing short of disestablishment and the disendowment of the Establishment, which they regarded as a badge of conquest, would satisfy the Irish people. He contended that Ireland should have a fair share of the public expenditure, the existence of a Royal residence, and frequent visits of Royalty. With regard to emigration as a means of relief, he said that the people who now left the country did so with a bitter feeling of hatred against England; and the only way to make that emigration harmless was, in brief, to settle the Irish question upon broad principles. In conclusion he said, that if the British Parliament would do justice and legislate for the Irish people as they would legislate for themselves, they would produce a better state of feeling, and would restore the prosperity of the country. Mr. Neate moved an amendment declaring that the constant recurrence of impracticable resolutions, and the proposal of extravagant and impossible remedies, were the great obstacles to the pacification and prosperity of Ireland. The proposition, however, was withdrawn in favour of an amendment, moved by Sir F. Heygate, to the effect that, before the consideration of constitutional changes in the laws and institutions of Ireland, it was both just and expedient to inquire into the causes of alleged discontent and the best mode of remedying the same. Lord A. Clinton next moved an amendment in the form of a series of resolutions, affirming that Parliament ought to legislate on the subject of education, the Established Church, and the system of land tenure, entirely in accordance with the ideas of the Irish people. The Earl of Mayo stated the view taken by the Ministry of the condition of Ireland, and the policy by which they proposed to deal with it. Not denying that much disaffection and even disloyalty existed in Ireland, he pointed out that those feelings were of foreign growth and confined to a much lower class than had ever before been known in similar times of discontent. Adverting to the charge that Ireland was governed on an English system, and that its people were oppressed by Englishmen, he appealed to the character of the Executive Government, to the judges, to the constabulary, and to the municipal authorities, to show that the country was practically governed by Irishmen, and in accordance with the feelings of the great majority of the people. He quoted numerous statistics to disprove the statement that Ireland was a decaying country, and showed that during the present generation there had been a great increase in the acreage under cultivation, in the value of live stock, and in other agricultural produce. He laid considerable stress on the general diminution of crime and pauperism, and on the large extension of education, and referred to official returns to prove that the material prosperity of the people had improved also. Having enumerated at some length the various remedial measures suggested by Mr. Bright, Mr. Mill, Sir John Gray, and others, he proceeded to the policy of the future, and said that he proposed next week to bring in a Land Bill, containing provisions to enable limited owners to charge their estates for improvements, and to encourage written contracts between landlords and tenants, instead of the present verbal agreements. In addition to this, it was proposed

at the earliest possible moment to institute a solemn inquiry by Commission into the relations between landlord and tenant. The Irish Reform Bill would be introduced in a few days, and steps would be taken to increase the efficiency of Irish railways. The question of education was already under consideration by a Royal Commission, but the Government, without disturbing the existing arrangements of Trinity College or the Queen's University, proposed to confer a Charter on a new Catholic University. Finally, with regard to the Irish Church, he said that a Commission at the instance of Lord Russell was now inquiring into the Establishment, and that it would be premature to attempt any hasty legislation upon such a question. On the motion of Mr. HORSMAN, the debate was then adjourned to Thursday. In reply to Mr. GLADSTONE, Lord MAYO said that the Government, as at present advised, intended to oppose both the original motion and the amendment. On Wednesday Mr. HUBBARD moved the second reading of the Church Rates Regulation Bill. A long discussion ensued with regard to three other Bills on the paper—Mr. Hardcastle's Church Rates Abolition Bill, Mr. Newdegate's Church Rates Commutation Bill, and Mr. Gladstone's Compulsory Church Rates Abolition Bill. Mr. HARDCASTLE and Mr. NEWDEGATE postponed their Bills until the 8th of April, but Mr. HUBBARD desired to have his Bill read a second time, in order to have it referred to the same Committee as the Bill of Mr. Gladstone. This suggestion was supported by Mr. B. HOPE and Sir S. NORTHCOTE; but Mr. GLADSTONE strongly objected to it, on the ground that in principle the two Bills were diametrically opposed to each other, and that there was no hope of welding the clauses of the two into one Bill. Ultimately, on the advice of Mr. WALPOLE, Mr. HUBBARD consented to postpone his Bill until April 8; and the House then went into Committee on Mr. Gladstone's Bill. On Clause 1, providing for the abolition of compulsory Church-rates, Mr. HENLEY insisted on a division, when the clause was carried by 167 to 30. Clause 5, which provided the machinery of a poll in cases of difference, was struck out on the suggestion of Sir S. NORTHCOTE, with the consent of Mr. GLADSTONE, and the remaining clauses were agreed to, with verbal amendments. The Bill then passed through Committee. The Artisans' and Labourers' Dwellings Bill was read a second time. Mr. M'LAREN brought in a Bill to abolish the Edinburgh Annuity Tax. On Thursday, in answer to Mr. FAWCETT, Lord MAYO promised that nothing should be done to create a new Catholic University until Parliament had had an opportunity of giving an opinion upon it. Mr. CLIVE stated that the Irish Church Commission had made some progress, and would probably report in two or three months. The adjourned debate on the condition of Ireland was resumed by Mr. HORSMAN, who expressed his thorough disappointment with the Irish policy of the Government, contending that it was on the Church question inaction, on the land question procrastination, and on education retrogression. Mr. LOWE maintained that the Irish question ought to be considered apart from the temporary phenomenon of Fenianism. He considered the proposal to create a Roman Catholic University as a pyrotechnic display, intended merely to conciliate an Ultramontane prelaty for election purposes. He regretted the determination of the Government not to touch the Irish Church, which he regarded as the flagrant, manifest injustice of Ireland, and as the last link of a galling fetter, the prolonged existence of which was a disgrace to Englishmen and a degradation to Parliament. After some remarks by Mr. T. HUGHES and Mr. VANCE on the land question, and by Mr. JACOB BRIGHT on the anomalies of the Irish Church, Mr. MILL spoke at some length in defence of the views put forth in his recent pamphlet. Mr. HARDY defended the Government programme, and pleaded the example of preceding Governments as a proof of the difficulty of dealing with the endowments of the Irish Church. The debate was then again adjourned. Yesterday, in answer to Colonel KNOX, the Earl of MAYO said that Mr. Johnston, being in bad health, had been offered his release if he would find recognisances. He had, however, refused, stating that he considered it as a matter of principle to do so, and consequently he had not been released. The adjourned debate on the state of Ireland was resumed by Mr. CRICHTON-FORTESCUE, who opposed the programme of the Government. The House was left sitting.

City Intelligence.

MONEY MARKET, FRIDAY.—BRITISH FUNDS: Consols closed at 93 to 93½ both for Money and Account; New and Reduced Three per Cents, 91½ to 92; India Five per Cents, 114½ to 115; Bank Stock, 249 to 251; Exchequer Bills, 10s. to 15s. pm.—FOREIGN. Mexican, 15½ to 16; Greek, 12½ to 12¾; New Spanish, 35½ to 36; Italian, 45½ to 46; Turkish, 33 to 33½; Orei-Vitetske, 78 to 78½; Peruvian, 76½ to 76¾; Brazilian (1865), 71½ to 71¾; Egyptian (1864), 86½ to 87½; Do. Railway Debentures, 90½ to 91; Viceroy's Nine per Cents, 88½ to 89; Do. Seven per Cents, 73½ to 74; United States 5-20 Bonds, 71½ to 72; Erie Railroad, 49 to 50; Illinois, 89½ to 90.

Metropolis and its Vicinity.

THE DISTRESS IN THE EAST-END.—On Monday the Executive Relief Committee for the East-end Distress met at the Mansion House, under the presidency of the Lord Mayor. At the close of their meeting on the previous Monday they had barely a balance of 100l. in hand, but they had since received 500l. from an anonymous donor, 500l. from Miss Courts, and nearly 150l. more from about 50 persons. After some discussion it was urged that the absence of more extensive contri-

butions from the general public was an indication that their administration must be brought to a close, and eventually it was agreed to adjourn for a fortnight.

COURT OF COMMON COUNCIL.—At a meeting of the Common Council on Friday, a report was read from Mr. Cubitt, the engineer of the new bridge at Blackfriars, describing the progress made, and stating that the work was expected to be finished in a year or a year and a-half. It was also stated that the new meat market at Smithfield would be completed and opened before Christmas, and that the thoroughfare along the viaduct over Holborn valley would be opened at the close of this year or the beginning of next.

THE OPERA.—It is announced that Mr. Mapleson has taken Drury Lane Theatre for performances of Italian opera during the approaching season. His tenancy commences on the 28th of this month.

OPENING OF THE HYDE PARK DRINKING FOUNTAIN.—A drinking fountain, erected at the expense of the Maharajah Murza Vijeram Gujaputty Raj Munca Sooltan Bahadoor, of Vizianagram, by the Metropolitan Drinking Fountain Association, was formally opened a few days since by the Duke of Cambridge. It is about 12 feet square and 47 feet high, and in style is early Gothic. There are four bowls and four jets. On two sides are the portrait and arms of the Maharajah, and on the two other sides the portrait and arms of the Queen. The top is surmounted by a conventional crown. The material used is Box ground stone, the columns being blue pennant, and the bowls polished granite. The entire cost is about 1200l. It is erected near Stanhope Place Gate, not far from the Marble Arch. A large number of ladies and gentlemen assembled to witness the ceremony, including several native gentlemen of India residing in London.

THE FENIAN PROSECUTIONS.—The Fenian prisoners Burke, Casey, and Shaw, who were committed for trial at the Warwick Assizes, but who are to be tried at the Central Criminal Court, arrived on Friday at Newgate, having been brought from Warwick Castle by night train.

THE FIRING AT TWO POLICEMEN.—On Tuesday Thomas O'Haran, the Irish shoemaker, charged with having discharged five barrels of a revolver at two policemen in the neighbourhood of Finsbury Circus, was brought up for re-examination at the Clerkenwell Police Office. The question having been distinctly put to the police, it was stated that there was no reason for supposing that the prisoner was connected with Fenianism. He was committed for trial.

DISHONEST TRADESMEN.—A return has been issued of the convictions for false weights and measures in the metropolis for the first six months of 1867. In Finsbury 78 persons were convicted, 75 of them for the first time; in Marylebone 19 were convicted, all for the first time; St. Pancras, 30 were convicted; but the return does not say in many cases whether the convictions were first, second, or third offences. In Westminster there were 110 convictions, mostly for first offences.

FALL OF A HOUSE IN THE STRAND.—On Saturday morning, shortly before 12 o'clock, the house formerly occupied by "Professor" Holloway, in the Strand, near Temple Bar, fell with a crash. During the morning it had been noticed that the house, one of a row in course of demolition to make way for the new law courts, had cracked across the centre, and threatened to fall every instant. The traffic in the Strand was forthwith stopped by the police, all carriages and other vehicles coming from the eastward being obliged to go up Chancery Lane, and no one being allowed to walk along the north side of the Strand near Temple Bar. At a few minutes before 12 the front wall swayed outwards and fell into the street between Temple Bar and Twining's Bank. No accident happened in consequence of the excellent arrangements made by the police. A dog which had run into the house just before it fell was buried in the ruins, and of course killed.

THE PUBLIC HEALTH.—The Registrar-General's Weekly Return of births and deaths in London states that in the week that ended on Saturday, March 7, 1655 births and 2996 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 24 per 1000 persons living, being 22 per 1000 in London, 30 in Edinburgh, 27 in Dublin, 23 in Bristol, 24 in Birmingham, 26 in Liverpool, 30 in Manchester, 32 in Salford, 26 in Sheffield, 20 in Leeds, 27 in Hull, 25 in Newcastle-upon-Tyne, and 29 in Glasgow. The rate in Vienna was 40 per 1000 during the week ending the 29th ult. In London, the births of 1187 boys and 1082 girls, in all 2269 children, were registered in the week. In the corresponding weeks of 10 years 1858-67, the average number, corrected for increase of population, was 2222. The deaths registered in London during the week were 1331. It was the tenth week of the year, and the average number for that week, corrected for increase of population, was 1610. The present return is, therefore, 279 below the estimated number.

Provincial.

DERBY.—On Saturday evening a desperate attack was made upon the life of Mr. W. G. Fox, chief constable of Derbyshire. Between 5 and 6 o'clock Mr. Fox was walking towards his office at the top of Station Street, when he was met by a man named James Connor, who was recently discharged from the county force. Connor said, "Is that you?" and became very abusive. At length he said, with an oath, "I will shoot you," and, pulling from his pocket a pistol, presented it at Mr. Fox's head. Mr. Fox tried to persuade the man to go towards the office, but he said, "No, sir, I shall not go with you; I will shoot you at once," and thereupon fired the pistol. The pistol was

heavily charged, and Mr. Fox was wounded in the hands and legs. Ten or 12 shots were aimed at one leg, and eight or 10 from the other. Several of the shots were also extracted from his hands. Mr. Fox succeeded in wrenching the pistol from the assailant, and in dragging him to his office. On Monday he was brought before the county magistrates and committed for trial.

ETON.—A circular has been addressed to the heads of Eton boys by the new head master Mr. Fox, informing them that from this time the practice of giving leaving books at Eton will be discontinued. The order for leaving books will be given by the school, and that boys will not be allowed to receive or return leaving books in any of the houses, or in College. Mr. Fox asks for their co-operation and support in putting the school to a system which presses very heavily on the minds of boys. He has since informed the boys that he has determined to deal with another abuse of the school himself—that of "leaving money." He said that the resolution of course did not bind his colleagues, but he wished the school distinctly to understand that he should not henceforth take any leaving money.

LIVERPOOL.—At the Police Court on Friday, Wilson, David Harris, Walter Ford, and Jackson, the young men remanded on Tuesday for conspiring to rob and murder Mr. Adair, a well-known merchant, of this town, were brought up for re-examination. The prosecutor made his deposition from the witness-box with his head bandaged up, and his arm in a sling, and seemed to be in a very weak state. He described the assault of Mr. Adair, who had been the victim, and the prisoners were committed for trial. The Town Council last week gave the Committee authority to borrow 71,000l. for the purpose of the conversion of privies into water-closets, and for sanitary improvements.

SHELBY.—The adjourned inquest on the body of Daniel Driscoll, bricklayer, who was murdered at Duffield, on the night of February 19, was held in this town on Tuesday. The evidence showed that a man named Frederick Parker, who was discharged from Beverley House of Correction the day before, that they travelled together to Duffield, and that Parker was dealing with Driscoll, and watch the day after the murder. The jury returned a verdict of "Wilful Murder" against Frederick Parker, who was committed for trial. On Wednesday the magistrates also committed the prisoner to the capital charge.

TODMORDEN.—On Friday Miles Weatherill, who was committed for trial on Tuesday for the murder of Jane Smith, at Littleborough, was again brought before the court. The principal witnesses were the Rev. Mr. Bell, the girl whom the prisoner courted, and a mistress disapproved. At the close of the evidence the prisoner confessed that it was his intention to take the life of Jane Smith. He was then committed for trial at the assizes. Mr. Plover, on returning to his home, became gradually worse, and died on Thursday in great agony from inflammation of the brain, by the wounds he received on the head. He was born three weeks before the murder, and died on Thursday at Littleborough, where it had been after the attack in the care of the wife of Mr. Molesworth, the brother of Mrs. Plover. His removal from its mother is supposed to have been the cause of its death. Mrs. Plover remains in a very weak and precarious condition. The trial of the prisoner commenced yesterday at Manchester. The court was densely crowded, and thousands of people were present to obtain admission. The funeral of Jane Smith took place on Friday morning, and was attended by a large concourse of people. She was buried in the churchyard of the parish church, which adjoins the house where she was murdered.

Ireland.

THE FENIAN TRIALS AT CORK.—The trials were opened on Monday by Baron Deasy, Chief Justice O'Hagan. Peculiar precautions were taken in conveying the judges into the city. In passing the streets they were protected by a force of Lancers and mounted constabulary. Mr. O'Hagan charged the grand jury, who afterwards returned true bills for the wilful murder of Constable Mackay, Thomas Mackay, Thomas Walsh, and David Spillard. On Tuesday, the grand jury challenged on behalf of the prisoner Captain O'Hagan, who was given in charge to the jury for the wilful murder of Constable Casey. The Attorney-General appeared for the Crown, and the evidence for the prosecution occupied the Court to its retirement. The Court was locked up for the night, and the judges were taken to and from the Court by a large cavalry force of Lancers and constabulary. On Wednesday, the case for the Crown, Mr. Heron, Q.C., presented the jury for the prisoner. He contended that the prisoner committed no felony and the police had not a Lieutenant's warrant with them. He stated that the pistol was discharged by the hand of the prisoner, Geale while endeavouring to strike the prisoner, and that if there had been proper instruments in the infirmary Casey's life might have been saved. The evidence was examined for the defence, and the jury returned a statement by Casey that the explosion was accidental; and to an observation by the prisoner that he could have shot him twice. Geale and Spillard were recalled, and positively contradicted the evidence of Casey. Sir C. O'Loughlin having replied for the Crown, Chief Justice O'Hagan charged the jury, who returned a verdict of guilty.

in, and holders were more inclined to make concessions in the prices of secondary qualities. Maize has improved in value. Barley was a slow sale; in Rye nothing doing. In cargoes on passage and for forward shipment the business is at a standstill. Linseed was somewhat easier to purchase. Rapeseed unaltered. Paris, March 12.—The supplies of Wheat are limited, and with an active demand prices exhibited an improved tendency. Flour meets with a steady sale at improved rates. The six marks are quiet equal to 60s. 9d per 280 lb. The stock at the Halle is estimated at 20,000 cwts.

The arrivals of English grain this week by water have been small, also of foreign Wheat and Oats, but large of Barley. This morning's market was thinly attended, and business transacted in either English or foreign Wheat limited, but on the sales effected late prices were maintained. Spring Corn was quiet at Monday's quotations.

ARRIVALS THIS WEEK.

	Wheat	Barley	Oats	Flour
English	700 qrs.	440 qrs.	70 qrs.	560 sks.
Irish	"	"	"	"
Foreign	12,130 "	8650 "	8710 "	1140 "
	12,910	9110	8780	

LIVERPOOL, Tuesday, March 10.—To-day's market was very well attended by both town and country buyers, and Wheat experienced a moderate demand, white kinds and the better sorts of red realising the currencies of this day week. Flour steady at the full rates of Tuesday last. Indian Corn in fair request, at 1s. 6d. to 1s. 9d. per qr. advance since this day week. Oats and Oatmeal unchanged. Egyptian Beans active, and 6d. to 9d. per qr. dearer. Canadian Peas slow and unchanged. Malt and Barley without alteration.

FRIDAY, March 13.—The market was moderately attended. Wheat and Flour in moderate demand at Tuesday's rates. Beans, Peas, Oats, and Oatmeal in retail demand. Prices nominally unchanged. Indian Corn very slow sale, at 1s. per qr. decline; mixed, 42s.

AVERAGES.

	Wheat	Barley	Oats
Feb. 1	72s 6d	42s 4d	27s 11d
8	73 4	42 7	26 6
15	73 0	42 5	25 9
22	75 11	42 9	26 2
29	73 4	42 5	26 9
Mar. 7	73 8	43 1	27 2
Agg Average	73 7	42 7	26 3

To Nurserymen, Market Gardeners, &c.
PARTNERSHIP.—WANTED, a PARTNER, with £300, to take the Management of a Nursery of about 40 Acres. Fused, Land Agent, East Grinstead, Sussex.

PARTNERSHIP.—A Person with a knowledge of the Seed Trade, and a Capital of £1500 to £2000 can have an opportunity of joining an Established Firm, where a large and profitable business may be done.—Address A. M., Gardeners' Chronicle Office.

WANTED, a WORKING FOREMAN, to take charge of a Nursery in the vicinity of London.—He is required to be married, and to have good experience in the Propagation and Management of Fruit and Roses, and Out-door Nursery Stock in general. The position is one of trust, and liberal remuneration will be given, therefore none but those who can furnish good references need apply. A young Man who has served under a good Rose and Fruit Foreman, where Roses are grown extensively, would be treated with preference.—J. CLARK, Streatham Place Nursery, Brixton Hill, and Metchingham Kent, S.E.

WANTED, as GARDENER, in Sussex, a respectable married Man, without family, who understands Vines, Fruit, Flowers, and Vegetables; one who understands Meadow Land and Stock, and whose Wife is a good Laundress, will be preferred.—Apply to No. 128, at the Langham Hotel, on Wednesday next, between 10 and 2 o'clock.

WANTED, at ONCE, TWO or THREE good PLANTERS of Nursery Stock; also a good PROPAGATOR of Soft-wooded Plants and Roses,—one used to Growing Plants for Market preferred.—THOMAS J. CARR, Nurseryman, Newark-on-Trent.

WANTED, as GARDENER (for a Single-handed place), a married Man who thoroughly understands a Flower and Kitchen Garden, and can take care of a small Greenhouse. His Wife to act as Laundress.—Apply to P. S. H., Post Office, Buxton.

MR. WILLIAM BULL is in WANT of an ASSISTANT PROPAGATOR. Wages, 18s. per week Establishment for New and Rare Plants, King's Road, Chelsea, S.W.

Clerk, Traveller, Orchid Grower.

M. LOUIS VAN HOUTTE, NURSERYMAN, Ghent, Belgium, is in WANT of a First-rate CLERK. Must be thoroughly acquainted with his business, and a good, clear penman.

TRAVELLER.—M. LOUIS VAN HOUTTE, Nurseryman, Ghent, Belgium, is in WANT of an experienced TRAVELLER, with a first-rate character for efficiency and respectability.

ORCHIDS.—A first-rate ORCHID GROWER, of great experience, is WANTED in LOUIS VAN HOUTTE'S Nursery, at Ghent, Belgium.

WANTED IMMEDIATELY, in the Seed Business, an active, trustworthy YOUNG MAN, who thoroughly understands the Retail Department; one who has some knowledge of the Nursery Trade will be preferred.—Mr. WILLIAM HATCHAM, Soedman, &c., Christchurch, Hants.

WANTED, a SHOPMAN.—Must be thoroughly acquainted with the Wholesale Trade, of good character, &c.—Apply, in own handwriting, stating salary and other particulars, to Mr. S. B. CLARK, 65, Connaught Terrace, W.

WANTED, an UNDER SHOPMAN in the Retail Seed Trade; one who has some slight knowledge of Plants would be preferred.—Must be active, honest, industrious, and of good address.—Apply by letter, stating terms, &c., to A. B. C., Post Office, Norwich.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs F. G. HENDERSON & SON, Wellington Nursery, St. John's Wood, London, N.W.

To Gardeners and Bailiffs (Head, Foremen, or Under). JAMES CARTER AND CO. having many applications for the above request that those wanting situations will send name, address, and copies of Testimonials for entry in their FREE REGISTER.

Only those who can send unquestionable references need apply. Any Lady or Gentleman requiring Gardeners or Bailiffs may rely upon J. CARTER & CO. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c.

JAMES CARTER & CO., 237 and 238, High Holborn, London, W.C.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS and GARDENERS and BAILIFFS, of various qualifications, who are open to engagements.—The fullest particulars as to services required and wages given, should be forwarded with application. PAUL'S Nurseries, Waltham Cross, London, N.

To Noblemen and Gentlemen.
AMBROSE SANDERS, having completed a service of 12 years with Sir Henry Meux, Bart., at Theobald's Park, Waltham, N., begs to offer his services to any Nobleman or Gentleman who may require a first-class GARDENER, or GARDENER and BAILIFF. At Theobald's Park he has Managed an extensive Forcing Establishment and Flower Garden, to the perfect satisfaction of his employer; has had the care of the Gasworks, and has been very successful in the Purchase and Management of Stock. He can give unexceptionable references as to character and ability; and he is leaving solely in consequence of Sir Henry's quitting the place.—Present address, Theobald's Park, Waltham Cross, N.

To Noblemen and Gentlemen.
GARDENER (HEAD).—Age 30, married, no incumbrance.—Mr. MERRITT, The Vineyard, Garston, Liverpool.

GARDENER (HEAD).—Age 26, single; thoroughly understands Vines, Stove and Greenhouse Plants, Early and Late Forcing, &c.—S. J., Mr. Humby, Jun., Lyndhurst, Hants.

GARDENER (HEAD).—Age 30, single; thoroughly understands the Forcing of Grapes, Peaches, &c., Stove and Greenhouse Plants, also Flower and Kitchen Gardening. Three years' good character.—J. A. Major Waters, Wotton, Wallasey, Birkenhead.

GARDENER (HEAD).—Age 25; thoroughly understands the Management of Vines, Cucumbers, Melons, Stove and Greenhouse Plants, Kitchen and Flower Gardening. Three years' excellent character.—W. F., Post Office, Sheet, Petersfield, Hants.

GARDENER (HEAD).—Age 32, married; well understands the profession in all its branches. Can be highly recommended by the Gentleman he is now leaving. Wages about 25s. per week. Three years' character.—E. M., 18, Templar Road, Clapton.

GARDENER (HEAD).—Age 28, married, no incumbrance; has a thoroughly practical knowledge of his profession in all its branches. Is sober, and thoroughly trustworthy. Can be highly recommended.—H. G., Mr. A. Venn, Westcott, Dorking.

GARDENER (HEAD).—Age 40, no incumbrance; has had 20 years' practical experience. No objection to take the Management of Land and Stock. Wife a good Laundress or Dairywoman if required. First-class character.—T. D., Gardener, Loughton Lodge, Hurst Green, Sussex.

GARDENER (HEAD).—JOHN GOODE, Head Gardener to the Right Hon. the Earl of Antrim, Glenarm Castle, North Ireland, is at liberty to treat with any Nobleman or Gentleman requiring a thorough Gardener; will be disengaged the 1st of April. The highest testimonials can be given. To save trouble, none but a first-class place and liberal salary will be accepted.—Applications to be made as above.

GARDENER (HEAD).—Age 44, married, two children; a highly successful Cultivator and Exhibitor of Fruits, Plants, Flowers, and Vegetables. Has a thorough knowledge of the general routine of Gardening, great experience in Plan Drawing and the Laying-out of Pleasure-Grounds, and is one of the most extensive Growers and successful Exhibitors of Roses in England. Eighteen years Head Gardener in the Nobleman's place he will leave on the 3d of April. None but a first-class situation and liberal salary will be accepted. First-class references.—A. M., The Gardens, Easton Lodge, Dunmow, Essex.

GARDENER (HEAD), or GARDENER and BAILIFF. —Age 33, married, no incumbrance.—Has had 17 years' practical experience in all the various branches; can take charge of Forest and Covert Planting. Wife, Dairy and Poultry if required. Good character and testimonials.—K. Y. Z., Cutbush's Nursery, Highgate.

GARDENER (HEAD), or GARDENER and BAILIFF. —Age 30.—SAMUEL FOOTE, Head Gardener to J. B. Hankey, Esq., Fitcham Park, Leatherhead, is at liberty to treat with any Nobleman or Gentleman requiring a thorough Gardener; will be disengaged by the end of March. Unexceptionable character.

GARDENER (HEAD WORKING).—Age 39, married, no incumbrance; first-class practical knowledge of his profession. Excellent character.—T. B., Mrs. Scott, Wood Broker, Woodside, Croydon.

GARDENER (HEAD WORKING).—Age 30, married; understands Early and Late Forcing of Fruits, Flowers, and Vegetables, also the general routine of Kitchen and Flower Gardening. Three years' character from present employer.—Mr. J. WALKER, Nurseryman, &c., Thame, Oxon.

GARDENER (HEAD WORKING), to any Lady or Gentleman.—Married, one child; Foreman in last two places (quantity of Glass in last place, 300 feet lineal measure); is well versed in the growth of Pines and Vines, in Stove and Greenhouse Plants, Flower and Kitchen Gardening, Pleasure Grounds, and is willing and obliging. Good testimonials from last three places.—B. L., 31, Ordinance Road, St. John's Wood, London, N.W.

GARDENER (HEAD OF SINGLE-HANDED).—Age 24, married; well understands Vineries, Stove and Greenhouse, and Flower and Kitchen Gardening. Year and a-half's good character.—M. O. VERRILL, High Street, Bromley, Kent.

GARDENER (HEAD OF SINGLE-HANDED).—Age 26, single; understands Kitchen, Flower, Fruit Gardening, and general Forcing. Excellent character.—A. B., 1, Lavender Cottages, Black's Road, Hammersmith, W.

GARDENER, or FOREMAN in a large Establishment. —EDWARD BENNETT would be happy to recommend his late Foreman to any person requiring the services of an energetic young Man; has had charge of 18 houses, besides Pits, &c. Excellent moral character.—Osberton Hall, Worksop, Notts.

GARDENER.—Age 48, married, no incumbrance; good reference can be given.—Y. Z., Post Office, Andover, Hants.

GARDENER.—A Gentleman wishes to recommend his Gardener, with whom he is parting on account of giving up his country house. He is competent to take charge of the Flower and Kitchen Gardens, also understands Vines and Fruit. The Gentleman can confidently recommend the Man (and his Wife also) as thoroughly trustworthy and most respectable.—E. E. DRAKE, Esq., 18, Elvaston Place, W.

GARDENER (SINGLE-HANDED).—Age 38, no incumbrance; understands Flower and Kitchen Gardening, and can Milk. Two and a-half years' good character.—S. B., 45, Campden Street, Notting Hill, W.

GARDENER (UNDER), in a Nobleman's or Gentleman's Garden.—Age 22. Two years' character from last situation.—T. G., 15, Arpley Road, Pease, Surrey.

GARDENER (UNDER).—Age 18; strong, steady young Man, with three years' good character from last employer.—Mr. TROTTER, Gardener, Stockgrove, Leighton Buzzard, Beds.

GARDENER (UNDER).—Age 23; two and a half years in present situation. Good character.—Apply, stating wages, &c., W. E., Revely Abbey Gardens, Boston, Lincolnshire.

GARDENER (UNDER).—A Gentleman wishes to recommend a Youth, nearly 16. He bears a first-rate character, and has been well trained for two years under an experienced Gardener.—Address Rev. W. HAZARDER, Great Bookham, Leatherhead.

FOREMAN.—Age 26; has had several years' experience in Nobleman's Gardens. Good character.—J. H., Ovington, Aylesford, Hants.

FOREMAN, PROPAGATOR, or SALESMAN.—Has had 15 years' experience.—J. C., The Nurseries, Withington, Manchester.

FOREMAN (or SECOND), in a Nobleman's or Gentleman's Garden.—Has had six years' experience. Good character.—A. H., Post Office, Richmond, Surrey.

FOREMAN, or under a Foreman, in a large Establishment.—Age 23; understands Vines, Stove and Greenhouse Plants. Three years in present situation. Good character.—A. B., Dunsfold Post Office, Godalming, Surrey.

JOURNEYMAN.—Age 18; four years' experience in general Gardening. First-class character.—W. BALCHIN, Broughton Castle, Banbury.

IMPROVER or SECOND GARDENER, in a Garden, where Pines, Stove Plants, &c., are grown.—Write, stating terms, to THOMAS WOOD, Stanswell Hill, Edenbridge, Kent.

IMPROVER.—Age 18; has had five years' experience in Gardening. An adequate Premium given.—Florist, Nottingham.

IMPROVER, in a Garden where he can acquire a knowledge of the various branches.—Young. A Premium given.—W. H., Post Office, Alton, Hants.

To Gentlemen's Gardeners.
IMPROVER, in the houses.—Age 22. Two years' experience in Gardening. A Premium given.—R. BECKETT, Honingham, Norwich.

APPRENTICE (age 20), under a thorough Gardener, where he will acquire a good knowledge of his profession in all its branches. A Premium given to particulars to J. A. FRASER, 5, Mill Place, Kings Cross, London.

A RESPECTABLE FARMER, who has been in the occupation, would be glad to devote his time to Superintending the Business of a Gentleman who has been in places of trust, he can show strong recommendations. Wife would not object to Superintend the Laundry.—Bookseller, Norwich.

BAILIFF.—Age 27; has at present the Management of nearly 500 Acres of Arable and Pasture Land. Can be highly recommended.—FARMER, Thomas Gibbs & Co., Half-Moon Street, Piccadilly, London, W.

FARM BAILIFF.—A thoroughly practical Man who has a general knowledge of his business in all its branches. Wife understands Poultry and Dairy. Good references.—Farm, Leavesden, Watford, Herts.

LAND STEWARD and BAILIFF.—Married. Well qualified; has been nine years in the service of an employer in Scotland. Every information communicated.—8, Prince of Wales Terrace, Kensington, W.

STEWARD or BAILIFF (SUPERIOR).—A thoroughly practical Man; well experienced in Breeding Cattle and Sheep, and the Cultivation of all Crops, including the Garden.—M. M., 5, Howard Place, Brighton.

To Noblemen and Gentlemen.
STEWARD, FARM BAILIFF, or MANAGER, or to Superintend an Estate. An experienced Man; no incumbrance; has a thorough practical knowledge of his business in all its branches. Well experienced in all branches of Farming, viz. the Management and the Buying and Selling of all kinds of Farm Produce, &c., and a practical knowledge of the Buildings, Draining, the Measurement of Land, Taxes, of Rents, and Book-keeping, &c.; also Gardening. Good testimonials and references, with personal character.—A. C., 88, Washington Road, Sheffield.

MANAGER or SHOPMAN.—Age 24. A thoroughly experienced Man, having completed a term of nine years with Messrs M'ulloch, is now open to an engagement as above. Good references.—A. O. R., Gardeners' Chronicle Office, W.C.

SHOPMAN, in a Seed or Florist and Fruit Shop.—A thoroughly experienced Man.—L. B., Mr. Geo. Parsons, Western Road, Brighton.

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A Pamphlet of Prices, Illustrations, Engravings of Cups, Goblets, &c., be forwarded gratis, and post free, on application to the Lithographic Drawings of Flower Stands, &c., have been prepared for use of Committees and other Presentation Plates, and will be forwarded on application to the Goldsmiths' Alliance (Limited), 11 & 12, Cornhill, London, opposite the Bank of England.

Notice of Removal.
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This delicious Condiment, pronounced "THE ONLY GOOD SAUCE," is prepared solely by Lea & Ferrins. The public are respectfully cautioned against cheap imitations, and should see that Lea & Ferrins' Names are on the Bottle and Stopper. Ask for Lea & Ferrins' Sauce. Sold Wholesale and for Export by the Proprietors, Messrs. CROSS & BLACKWELL; Messrs. BARCLAY & CO., and by Grocers and Oilmen universally.

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Recommended as a simple but certain remedy for Indigestion. They act as a powerful Tonic and general Aperient, and their operation; safe under any circumstances; and thousands can now bear testimony to the benefits to be derived from Sold in bottles at 1s. 11d., 2s. 6d., and 11s. each. Kingdom. CAUTION.—Be sure to ask for "NORTON'S PILLS" do not be persuaded to purchase the various imitations.

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The Gardeners' Chronicle Newspaper.

SATURDAY, MARCH 21, 1868.

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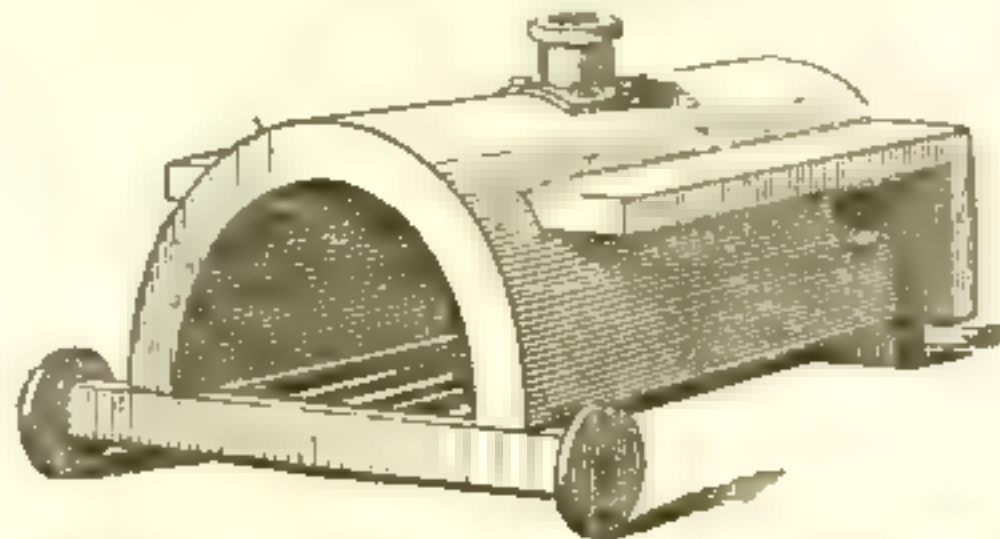
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various improvements in the Ventilation, Construction, and
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New Patent **TENANT'S GREENHOUSE**, THE NOVELTY,
is portable, easily fixed, does not require painting, is adapted
for all purposes, and is the most perfectly ventilated house of the
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£24 10s.; 40 ft., £20 to £35 0s.; 50 ft., £27 12s. to £54 3s. 6d.; 60 ft.,
£34 10s. to £71 12s. to £84 10s. Span Roofs, double price.
Plans for our New Patent **WALL-TREE COVER** are now
ready. They save their cost in one season. Prices, with 16-oz.
glass, 2s. 6d., 3s., 4s., and 5s. per foot run.
In **HEATING** we are pre-eminent, and have pleasure in referring
to works in all parts of the kingdom which have been executed by us.
Careful personal attention is given to all orders; and from our
own practical experience, we are willing to guarantee that
our arrangements shall perfectly answer the pur-
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Patented arrangements may be seen "on models," and every
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Messrs. & Sons, Hot-Water Engineers, Patentees, and general
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Great Flower Show, Manchester, June, 1867.
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J. Will.
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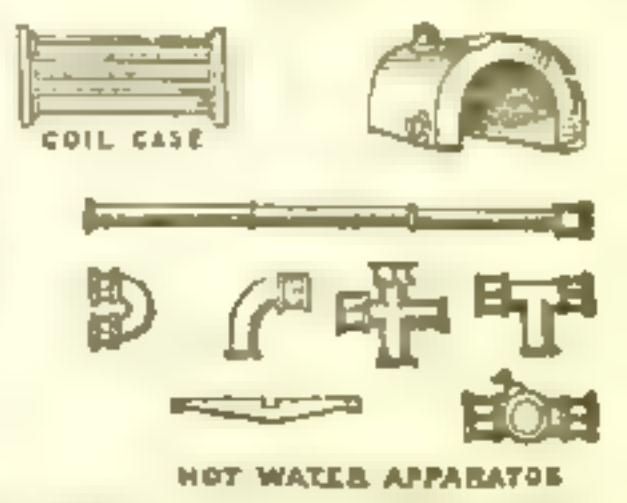
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"Dry Glazing without Putty."
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Highly Commended by the Royal Horticultural Society, South
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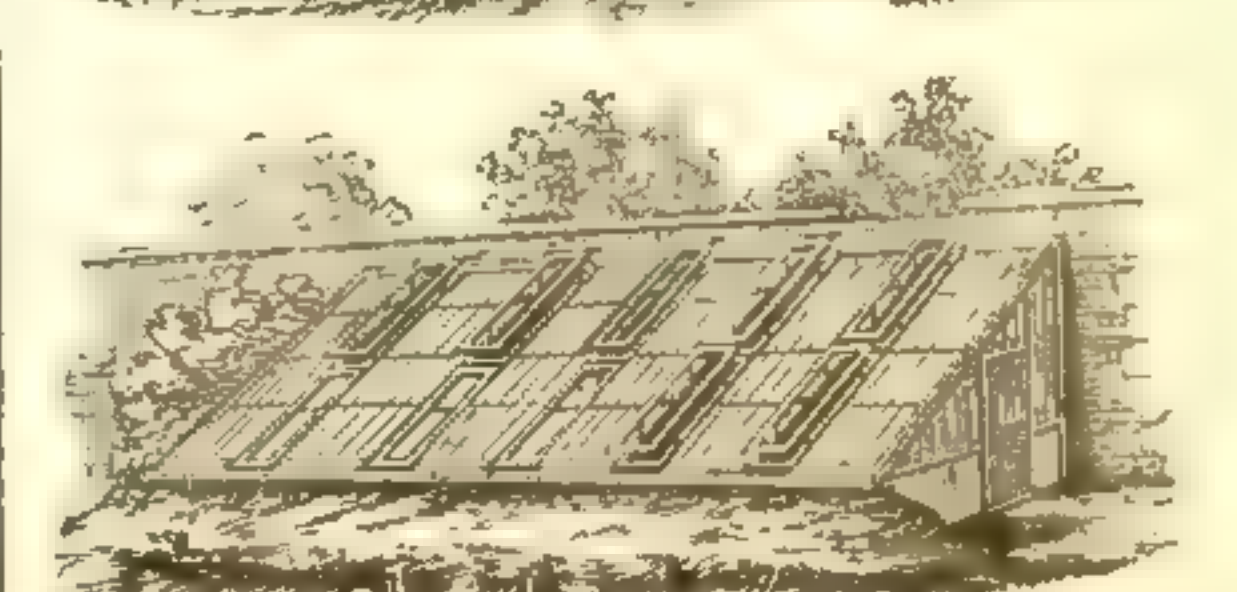
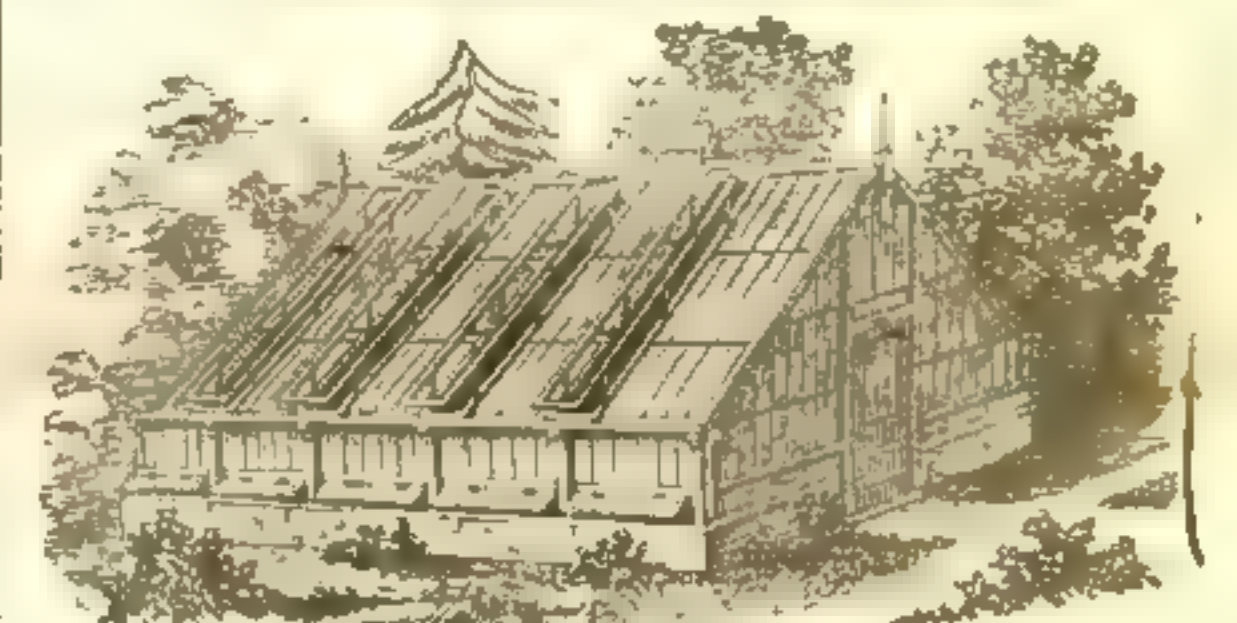
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Table with columns for pipe types (PIPES, ELBOWS, TEES, SYRPHONS, VALVES) and sizes (2-inch, 3-inch, 4-inch) with corresponding prices per yard.

No credit will be given when Pipes, &c., are invoiced at the above prices. J. Watts & Sons, 6, Bankside, Southwark, London, S.E.

Heating by Hot Water. W. J. HOLLANDS, IRON MERCHANT, 31, Bankside, London, S.E. HOT WATER PIPES, from Stock, per yard: 2-inch, 1s. 1 1/2d.; 3-inch, 1s. 6d.; 4-inch, 1s. 10d.

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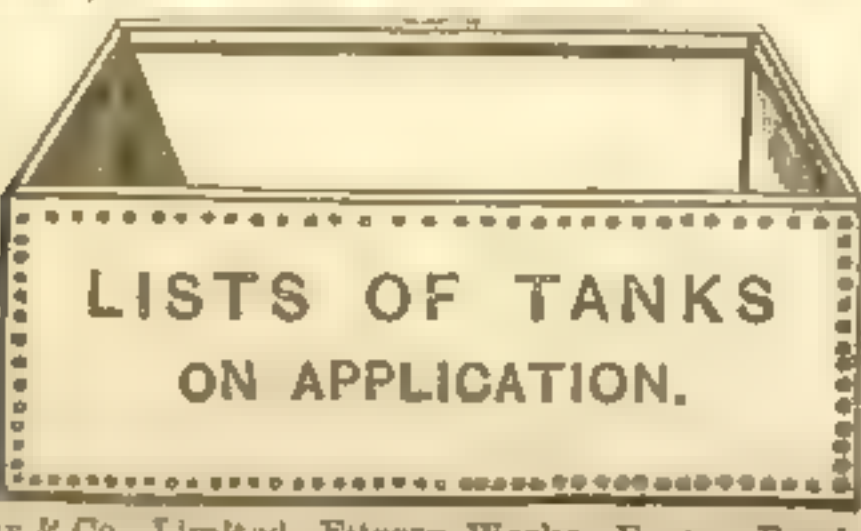
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TO BE SOLD, Cheap, an IRON DOME CONSERVATORY, 62 feet 8 inches long, 9 feet 4 inches wide. Would make an excellent Peach House or Covered Way.

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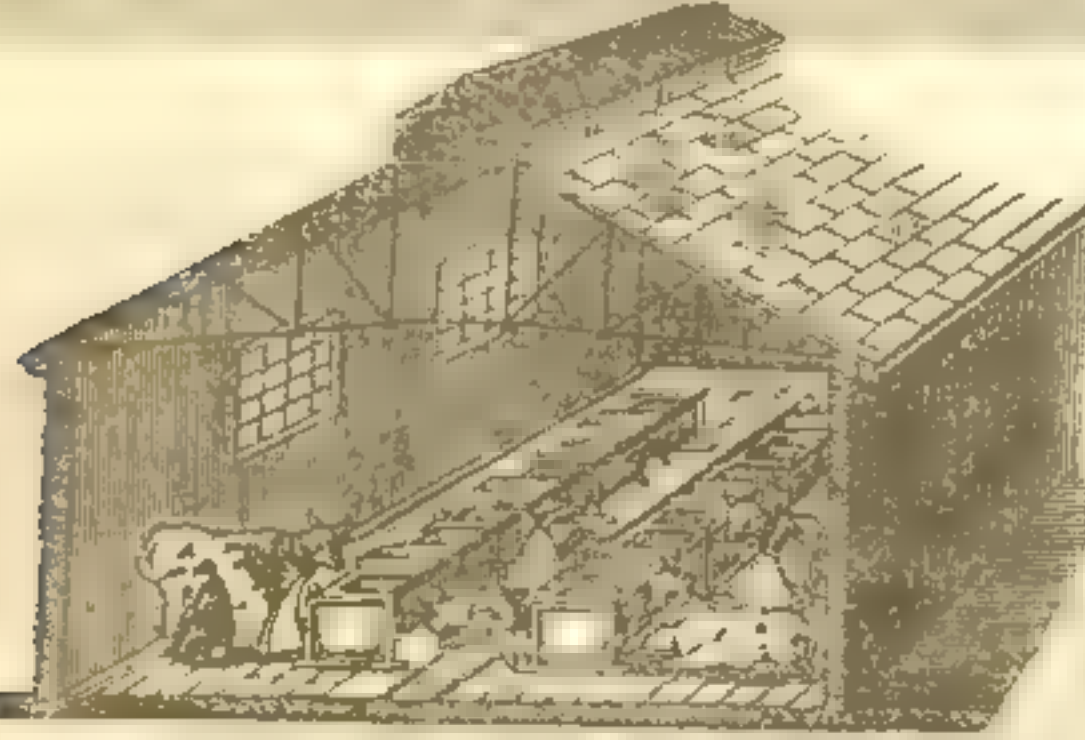
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RALPH WALLER AND CO., 45, Dale Street, Manchester. Manufacturers of all kinds of GARDEN NETTING, &c. The serious injury done every spring to fruit crops by frost, has proved to every Gardener the absolute necessity of providing some protection to the trees early in the year.

JAMES PHILLIPS AND CO.

beg to submit their prices as follows:— GLASS FOR ORCHARD HOUSES, As supplied by them to Mr Rivers, to the Royal Horticultural Society, and to most of the Nobility, Clergy, and Gentlemen of the United Kingdom.

Table showing prices for horticultural glass in various sizes (11 by 9, 12 by 9, 13 by 9, 14 by 9) and qualities (4th, 3rd, 2nd).

SMALL SHEET SQUARES. In 100 feet Boxes. 6 by 4, 8 by 6, 7 by 5, 9 by 7, 10 by 8, 10 1/2 by 8 1/2.

Horticultural Glass Warehouse. THOMAS MILLINGTON AND CO., 87, Bishopsgate Street Without, London, E.C.

NEW LIST FOR ORCHARD-HOUSE GLASS as supplied to Her Majesty, the Nobility, Gentry, Mr. Rivers, and the leading Horticulturists of the United Kingdom.

Table showing prices for orchard-house glass in various sizes (20 by 12, 20 by 13, 20 by 14, 20 by 15, 20 by 18) and qualities (4th, 3rd, 2nd, Best).

SMALL SHEET SQUARES, 15 oz., per 100 feet. 6 by 4, 7 by 5, 8 by 6, 9 by 7, 10 by 8, 10 1/2 by 8 1/2.

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SHEET GLASS. In Sheets for Cutting up, averaging from 6 to 9 feet super. 4ths quality, 3s. 6d.; 3ds, 4s. 6d.; 2ds, 5s. 6d.; Best, 6s. 6d.

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PAINTS, COLOURS, VARNISHES, &c. STUCCO PAINT, 2s. per cwt. This Paint adheres firmly to the walls, resists the weather, and is free from the glossy appearance of Oil Paint.

WHITE ZINC PAINT, 3s. per cwt. One hundredweight of pure Zinc Paint, with three gallons of Linseed Oil, will cover as much as one hundredweight and a half of White Lead and six gallons of Linseed Oil.

IMPROVED ANTI-CORROSION PAINT, 2s. to 3s. per cwt. Anti-corrosion Paint is extensively used for all kinds of work in exposed situations, on Brick, Stone, Compo, Iron, Iron Bridges, Conservatories, Greenhouses, &c., and is easily laid on by any ordinary workman.

GENUINE WHITE LEAD 32 0, SECONDS WHITE LEAD 30 0, GROUND PATENT DRYERS 3d to 4d per lb, OXFORD OCHRE, 3s. to 4s. per lb, RAW UMBER, 4d to 6d per lb, BURNT DO., 6d. to 8d., GREEN PAINT, all shades, 2s. to 3s. 0, BLACK PAINT, 2s. to 3s. 0, RED PAINT, 2s. to 3s. 0.

LINSEED OIL, 3 1, BOILED OIL, 3 0, TURPENTINE, 3 0, LINSEED OIL PUTTY, 6s. to 8s. per cwt, FINE OAK VARNISH, 10s. to 12 0, CARRIAGE DO., 12s. to 14 0, PAPER DO., 10s. to 12 0, COPAL, 10s. to 12 0, KNOTTING, 10s. to 12 0, Patent GOLD SIZE, 10 0, BLACK JAPAN, 12 0, GLAZIER'S DIAMONDS and TOOLS, MILLED LEAD and PIPES, OLD LEAD Bought or taken in exchange.

The above are Net, for Cash, and as such cannot be booked. Lists of any of the above on application.

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IRON HURDLES (Silver Medal). Agricultural Society. SHEEP, 3s. 6d.; CATTLE, 4s. 2d. List by post. GATES and FENCING of every description. St. Pancras Iron Work Company, Old St. Pancras Road, London, E.C.

To the Trade and Gentlemen's Gardeners. TO BE SOLD, Cheap, ONE MILLION of LABELS for Pots and Suspended, made of wood. For Price and Samples, apply to W. H. & S. W. Ltd.

BROWN'S FLORAL SHADING. For Shading Trees under Glass from the Sun, and protecting the Trees from Frost. Sold by Nurseriesmen and Seedsmen. No. 1. 38 inches wide, 20 yards long, at 4s. 6d. per yard. No. 2. 38 " " " 20 " " 4s. 10d. per yard. No. 3. 38 " " " 18 " " 7s. 6d. per yard.

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NETTING FOR FRUIT TREES, SEED BEDS, STRAWBERRIES &c. TANNED NETTING for the above from Frost, Blight, Birds, &c., 2 yards wide, 100 yards, 20s.; 4 yards wide, 6d. per yard, or 4 yards wide, TANNED NETTING, suited for any of the above purposes. Fence for Poultry, 2 yards wide, 6d. per yard, 4 yards wide, 1-inch mesh, 4 yards wide, 1s. 6d. per yard. Quantity of EATON & DALLER, 6 & 7, Crooked Lane, London Bridge.

Preserve your Trees from Frost. TANNED NETTING for FRUIT TREES, COTTON NETTING and BUNTING FRIGIDITY for GREENHOUSE BLINDS, &c. Samples and Price List free on application.

BENJAMIN EDGLINGTON, TINT and ENGRAVER. MAKER to the Queen and Prince of Wales, &c. Southwark, S.E. A large stock of NEW and REPAIRED and other material for the protection of Fruit Trees, Seed Beds, &c. MARQUEES and TENTS of various dimensions. Address, BENJAMIN EDGLINGTON, only, 2, Duke Street, London Bridge, S.E. No other Establishment.

GARDEN NETTING (at Reduced Price). Protection of newly-sown Seeds from Frost, Blight, &c. also as a Fence for Poultry, Rabbits, and Sheep, and per square carriage free, in quantities of 200, 500, or 1000 yards.

SCRIM CANVAS, for Wall Fruit, Greenhouse Shades, &c. HAYTHORN'S and WALLER'S NETTING, sample & price free on application. PERUVIAN GUANO, and every other kind of Artificial Manure in Stock. Be particular. FREDERICK EDGLINGTON & Co., Marine Tent, &c., Manufacturers, 60 and 62, Old Kent Road, London, S.E. A Liberal Discount if the Trade.

AGRICULTURAL HORTICULTURAL PRIZES. A Palmette of Prizes, including a number of Cups, Goblets, Tazettes, &c. for the reward of the best and most improved agricultural implements and drawings of 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100. Flower stands, &c., have been prepared for the use of Committees and other bodies. Presentation Plates, and will be forwarded on application to the G. SMITHS' ALLIANCE (Limited), Manufacturing Silversmiths, 11 & 12, Cornhill, London, opposite the Bank of England.

Notice of Removal. WILKINSON AND SADDLERS TO HER MAJESTY, AND HER THE PRINCE OF WALES. Have REMOVED the Establishment from the Corner of Street, Oxford Street, to 6, HANOVER SQUARE, W. (Adjoining the Queen's Concert Rooms) Established 1786.

WHITE and SOUND TEETH. A personal attraction, and to be had in every proper indication of food. ROWLANDS' DENTIFRICE, preserves and imparts a pearl-like whiteness, eradicates tartar and spots of the teeth, and gives a pleasing fragrance to the breath. Its fragrant aromatic properties have obtained the sanction of Her Majesty the Queen, and the Sovereigns and Princes of Europe. Price, 2s. 6d. per box. Sold by Chemists and Perfumers. Ask for "Rowlands' Odonto".

DINNEFORD'S FLUID MAGNET. The best remedy for Acidity of the Stomach, Headache, Gout, and Indigestion, and the best for delicate constitutions, especially adapted for Ladies and Infants. Dinneford & Co., 172, New Bond Street, London, and of all Chemists throughout the World.

CORNS and BUNIONS.—A Gentleman, tormented with Corns, will be happy to afford information by which he obtained their entire removal in a few days without pain or any kind of inconvenience.—Forward stamped envelope to F. KINGSTON, Esq., Chancery, Surrey.

IN THE SPRING PARR'S LIFE PILLS. Thousands They clear from the system all humors, promote Appetite, and Digestion, purify the Blood, and Bowels regular. PARR'S LIFE PILLS may be had of any Medicine Vendor, in boxes, 1s. 1/2, 2s. 6d., and in Family 11s. each. Directions with each box.

ELECTRICITY IS SELF-ADJUSTING CURATIVE and ELECTRIC. Sufferers from nervous debility, indigestion, weakness, &c., now cure themselves by the only "Guaranteed Remedy" protected by Her Majesty's Great Seal. Free for One Month, by H. JAMES, Esq., Medicine Examiner, the London Hospital, 1, Clergy House, Bedford Square, London. N.B.—Medicine and fees supplied.

DR. ROBERTS'S POOR MAN'S FRIEND. PILULE ANTISCROPHULES: Have been proved an experience, successful in the Cure of Eruptions, &c., and are sold wholesale by the Proprietors, B. & W. at their Dispensary, Bridport, and by the London Dispensary, and all respectable Medicine Vendors in the Kingdom, and the Colonies, in pots and boxes, 1s. 1/2, 2s. 6d., and 22s. each.

In One thick Volume, the Thirteenth Edition of MODERN DOMESTIC MEDICINE. Symptoms, Causes, and correct Treatment of the large Collection of approved Prescriptions, &c., &c., &c. A comprehensive Medical Guide for the Clergy, Families, &c. By T. J. GRAHAM, M.D., Fellow of the Royal College of Physicians, Edinburgh. "Of all the Medical Guides that have come into the world, by far the best is the one which is published by the London Dispensary."—"The Lancet." "Far exceeding every publication of its class."—"The British Medical Journal." London. Published by SIMPKIN, MARSHALL, & Co. Booksellers.

Germany in his quality of Protector of 30 millions of North Germans.

SAXONY.—Prince Napoleon arrived at Leipsic on Sunday morning. A great crowd had assembled to witness his arrival. His Imperial Highness partook of a *dinner* at the residence of the French Consul, to which the authorities were invited. In the evening the Prince was present at the theatre. He left on Monday for Cassel.

AUSTRIA.—In the sitting of the Hungarian Delegation on Friday, a statement was made in the name of the War Minister, correcting a declaration made in his name a few days before by Herr Griviciz. The Minister stated that he interprets the Hungarian law respecting the organisation of the general army of the empire as meaning that the command, officering, and internal organisation are to be in common, but that the settlement and modifications of the military system can only take place with the consent of the Legislature. The Minister admits the duty of strictly adhering to the law. The delegation thereupon resolved to enter on the consideration of the War-office estimates in detail, and the report of the committee on the subject was ultimately adopted. In the sitting of Saturday the Hungarian Delegation agreed to the Naval Estimates and to the extraordinary supply asked for the army and the fleet. In the sitting of Monday the Hungarian Delegation adopted the report of the Committee declaring that the expenditure for the Chancellery of the Imperial Cabinet is not common to both portions of the Empire but must be voted separately by the Hungarian Diet. The report declares, moreover, that the payment of any of the above expenditure out of the Hungarian quota is incompatible with the dignity of the country and the respect due to the King. In the sitting of the Lower House of the Reichsrath on Wednesday, the Bill relative to the constitutional position of the Judges was read a third time and passed. In the sitting of the Upper House of the Reichsrath on Thursday, the debate on the Civil Marriages Bill commenced. After the reporters of the Committee had read the proposals of the majority and minority, the general discussion was opened. The Minister of Public Instruction, Herr von Hasner, announced that the Government sided with the report of the majority, and proceeded to say:—

"The Ministry considered the present Bill an unavoidable necessity. Referring to the negotiations opened at Rome for the revision of the Concordat, he said the Government was convinced that if a good will were shown these negotiations might be speedily concluded. Unfortunately this did not seem to be the case. The Concordat obstructed the action of every department of the State."

Counts Rechberg and Blome and Cardinal Rauscher defended the proposals of the minority. On the motion of Baron Mensdorff, the discussion was adjourned. Great excitement prevails as to the issue of the debate. The Committee on the new Press Bill have concluded their deliberations, as have also the Committee on the Bankruptcy Bill. The Budget Committee of the Reichsrath Delegation have agreed to the decisions of the Hungarian Delegation on the greater number of the points upon which they were at variance. The Government has nearly completed a new Army Bill, introducing a uniform system for both portions of the Monarchy. The Austrian and Hungarian Ministers will shortly deliberate together on introducing the Bill in an identical form in the Reichsrath and the Hungarian Diet.

RUSSIA.—The *Courrier de la Russie* of Monday, referring to the rumours of Prince Napoleon visiting St. Petersburg, says:—

"We hope these reports may be true. Prince Napoleon might then judge for himself of the falsity of the ideas circulated in France respecting the institutions, policy, and aspirations of Russia, and we have no doubt that a change in his personal sentiments would have an influence upon public opinion in France."

ITALY.—The Chamber of Deputies resumed on Friday the debate on Signor Crispi's motion for deferring the discussion on the grinding tax until reforms had been voted for diminishing the expenses and increasing the revenue of the State. Count Cambray Digny opposed the motion, and numerous speakers proposed other orders of the day. In the sitting of Saturday Signor Crispi's motion was rejected by 213 votes against 103. The Chamber then adopted by a large majority an order of the day moved by Signor Minghetti, inviting the Ministry to present within a month a Bill for effecting certain savings and modifications which would produce a gain of 100 million lire to the Treasury in the Budget of 1869. The Chamber also approved Signor Bargoni's order of the day proposing that the grinding tax should be discussed, but that the House should reserve its final approval of the tax until after all other financial measures had been discussed. Count Cambray Digny accepted these orders of the day. The debate on the grinding tax then commenced, and has continued daily during the week. The King has nominated 14 new senators, including Signor Antonio Panizzi and the Marquis di Pepoli. Prince Amadeus has been created Vice-Admiral. A grand banquet was given on the 12th to Admiral Farragut, Commander of the American squadron in the Mediterranean, by Admiral Provana, Commander of the Second Naval Department of Italy. Generals Pettinego and Carrano, the prefect, and the principal military, civil, and municipal authorities were present. The greatest cordiality prevailed. The commercial community are organising another banquet in honour of Admiral Farragut, to be given in the name of the citizens of Naples. Admiral Farragut left for Rome on Monday. He was accompanied to the railway station by many of the principal citizens of Naples. Mount Vesuvius is again extremely active, throwing up an enormous quantity of incandescent matter to a great height. Dejections are very loud and frequent, but the flow of lava is not abundant.

PAPAL STATES.—Monsignor Lucien Bonaparte, Gonella, Barili, Berardi, Moreno, Borromeo, Ferrieri, La Valetta, and Capatti were created Cardinals in secret Consistory on Friday. The Pope pronounced a short allocution on the occasion. Several bishops were appointed to various dioceses in Spain, Hungary, New Grenada, Holland, and the United States. Monsignor Pacca was appointed Major-Domo of the Pope; Monsignor Marini, Under-Secretary of State; Monsignor Franchi, Nuncio at Madrid; Monsignor Origlia, at Lisbon; Monsignor Cattani, at Brussels; Monsignor Bianchi, Internuncio at the Hague; and M. Agnozzi, Chargé d'Affaires at Berne. On Monday the Pope held a public Consistory in the presence of the members of the Diplomatic Corps and other distinguished personages. After having taken the oath the new Cardinals received their hats. The Pope afterwards held a private Consistory, at which he pre-ordained bishops for the dioceses of Quito, Louisville, Erie, and Buffalo, and appointed other bishops *in partibus*. His Holiness then conferred the ring and titles upon the new cardinals. Cardinal Bonaparte received the title of Saint Pudentius, and was appointed member of the congregations of Bishops and Regulars. The ceremonies concluded with the usual rites and the granting of indulgences. Count de Sartiges, the French Ambassador to the Holy See, gave a reception in the course of the day.

GREECE.—Russian vessels arrived at Athens on the 7th inst. with upwards of 1000 refugees from Candia. A Russian corvette arrived on the 12th with 500 refugees from Candia. The total number of refugees now exceeds 60,000. Many deaths have occurred among them, and sickness prevails to a great extent. The coming elections promise to be attended by considerable political excitement.

SYRIA.—In compliance with a telegram from the Chancellor of the North German Confederation, the Consul of the Bund at Constantinople has visited Jerusalem, to investigate in person the persecutions of the Jews, stated to have occurred at Jerusalem. The Consul has procured the release of Rabbi Aye from confinement, and has removed Dragoonian Dahud, the Prussian consular representative, from his post.

ABYSSINIA.—Sir Stafford Northcote has received the following telegrams from Sir Robert Napier:—

"Camp, Arranrein, Feb. 16.
"Prince Kassal met me yesterday, with about 10,000 followers. His demeanour was extremely friendly. We conversed together for many hours, and our intercourse was most gratifying and satisfactory. The Prince accompanied me in the afternoon to a parade of my troops, after which himself and his army escorted me to the Prince's own tent where the Prince entertained me till night. He has promised to arrange for the supply of necessaries for our army. I am about to arrange this important matter with the Prince's brothers, and shall march to-day towards Antalo."
"Antalo, March 2.
"I arrived here to-day, with the wings of four regiments, and four horsed guns of G Battery, 14th Brigade, Royal Artillery. The advance column moves towards Ashangi to-morrow, the 3d March."

MAURITIUS.—The fever is on the increase in Mauritius, and there is much sickness among the better classes of society. The death rate in Port Louis is 30 daily, out of a population of 60,000. The north of the island is now free from fever, which on the other hand has at length reached the south, and now prevails to a limited extent for the first time at Savanne and Grand Port. The total mortality in the island from the 1st to the 14th inst. was 1012.

JAPAN.—Intelligence from Japan announces that the Tycoon has been totally defeated by the Daimios, and has fled to Yeddo. The intestine war paralysed trade. The Mikado had addressed a note to the foreign ministers declaring that the treaties would be respected. All the foreigners, however, at Hiogo and Osaka had embarked for safety in consequence of the prevailing hostilities. A French or American vessel of war had been fired into; it was not known whether by the rebels or by the troops of the Japanese Government.

CHINA.—A great fire has occurred at Foochow. The loss is estimated at 200,000 dollars.

AUSTRALIA.—Lord Belmore, Governor of New South Wales, arrived at Sydney on the 7th ult.

UNITED STATES.—The House Committee presented to the Senate on the 14th inst. 12 articles of impeachment against President Johnson, charging him with high crimes and misdemeanours in violating the Tenure of Office Law by attempting the removal of Mr. Stanton from the War Office and the appointment of General Thomas without the advice and consent of the Senate, in conspiring forcibly to seize the public property in the War Department; in violating the Army Bill by trying to induce General Emery to obey orders not sent through General Grant; in denying the legality of Congress; in attempting to devise means to defeat the execution of the Reconstruction Laws; in denouncing Congress in public speeches in terms unbecoming the chief magistrate; and in generally violating the Constitution by not enforcing laws specified. On the 5th the Senate organised itself as a Court of Impeachment. Chief Justice Chase, who presided, and all the Senators, took an oath to do President Johnson impartial justice. Senator Hendrick, a Democrat, objected to Mr. Wade having a voice in the trial, on the ground that he was directly interested in the result. After a debate the objection was withdrawn, and Mr Wade was sworn. The managers of the impeachment on the part of the House formally demanded that President Johnson should put in an appearance. The Senate, in response, ordered the President to be summoned to appear on the 13th of March, to which day the Court adjourned, after authorising the impeachment managers to summon witnesses, administer oaths, and to take testimony. The Senate Court met on the 13th for the trial, when Attorney-General Stanberry, Judges Black, Nelson, and Curtis, and the Hon. W. M. Evarts

appeared as counsel for the President. The Court ordered the President to file an answer to the articles of impeachment on or before the 23d inst., and has refused to receive a protest from the Democratic members, declaring that the majority of the House in limiting the debate upon the impeachment, and with indecent haste in passing impeachment under a strict party vote, was announcing the impeachment as a partisan act. The Democrats have carried the election in New York and Rochester by increased majorities. Jefferson Davis has been enthusiastically elected in New Orleans. A riot has occurred on Wall Street, New York, between the German and Irish clubs. About 1500 men were engaged, pistols, clubs, and clubs being freely used. More than 80 persons were wounded, four of them fatally. Ex-Senator B. Delaware, is dead. The Hon. Joseph R. Ingersoll, Philadelphia, who was American Minister in London from 1850 to 1853, died in Philadelphia on the 14th ult., at the age of 82.

MEXICO.—Advices from the city of Mexico, 15th February, state that Yucatan had been reconquered and had recognised Juarez.

BRAZILS.—Advices from the seat of war state that after a conference between the Admiral and Generalissimo of the allied forces, the intended attack upon the Paraguayan position at Humaita was postponed. Upon receiving information that the Brazilians refused to attack at once, the Brazilian Government proposed his dismissal, but this was opposed by the Emperor.

Parliament.

In the House of Lords on Friday the Duke of ARGYLL, after calling attention to the inconvenience arising out of the ratepaying clauses of the Education Act of last year, referred at great length to the subject. Mr. Disraeli to the newspapers as a result of an explanation of his speech at Edinburgh. He stated that the Conservative party were exceedingly anxious to endure the process of education to which the nation had been subjected, and said that he could not see how public life on the terms to which it had been virtually lowered by the public conduct of the policy of the First Minister of the Crown. The CHANCELLOR defended the Reform Bill, and expressed a strong opinion that the "rating" which the Duke had given to Mr. Disraeli would have been honestly repaid had the Minister of the Crown happened to have been in that House. EARL RUSSELL maintained that the public confidence could not be given to the party after they had asserted one policy in opposition and reversed it when in power. The EARL OF MANSFIELD vindicated the conduct of Ministers, and stated that they had only at last succeeded in settling the reform question by treating it no longer as one subject of its own reconstruction. After some remarks by EARL GREY and EARL GRANVILLE on the clauses, the EARL OF DEVON expressed his belief that the distress at the East-end of London arose from the working of the ratepaying clauses, and would be advisable to simplify the process of the poorer class of householders were excused payment of rates. On Monday the Duke of MARRIOTT gave notice that on Tuesday the 24th inst. he would call attention to the subject of elementary education in England and Wales, and would introduce a reference to it. The Railways (Extension Bill and the Ecclesiastical Commissioners (Council) Bill were read a third time and passed. Tuesday the LORD CHANCELLOR said, in answer to the Marquis of CLANRICARDE, that the Government had no objection to the appointment of a Commission to inquire into the constitution, jurisdiction, and procedure of Quarter Sessions Courts in Ireland. Thursday the Bishop of LONDON, in presenting a petition against the admission of Nonconformists to the full privileges of members of the University, declared his opinion that no danger would be incurred by the admission of persons dissenting from the Church to the Senate and to professorships, provided they were not also admitted to the government of colleges. In reply to LORD TAUNTON, the Archbishop of CANTERBURY stated that the second report of the Ritual Commissioners would shortly be published. Representation. Yesterday the Duke of Devon moved the second reading of the Regulation of Accounts Bill, and said that it provided for the accounts, annual returns of capital, official correspondence, and communication with guards and passengers. The great grievance of the companies with respect to collections of small parcels being sent to the colonies. LORD REDESDALE made some remarks on the Bill. The House was left sitting.

In the Commons on Friday the adjournment of Ireland was resumed by Mr. C. FORBES. He denounced the Ministerial programme as insulting to the real grievances of Ireland. Mr. M'KENNA, The O'DONOGHUE, Lord C. HANCOCK, Mr. H. A. HERBERT, and Mr. NEWDEGATE supported Mr. BRIGT's contention that the land and the tenantry were at the root of all the mischief in Ireland. In reference to the former, he would not discuss the rights of property, but if the Government were to raise money at 3½ per cent and purchase Irish land to be divided among tenant-farmers, who would be 5 per cent. for 31 years, tenant right would be secured, and each tenant would, at the expiration of 31 years, become the freeholder of the land he had cultivated. The Church question, he considered

His trial is said to have lasted a year... The jury accordingly again returned... Mr. Justice then left the... Mrs. Weston... The jury... sentenced to 15 years' penal servitude.

OBITUARY: WARWICK.—The Birmingham Murder.—*William Beesley*, and *Louis Bee* were indicted for the murder of *Mary Milbourne*, at Birmingham, on the 1st of January. The facts of this case were fully noticed in the *Chronicle*, and it will be remembered that the body was found from strangulation and the chief evidence to connect the prisoners was given by a man called *Mack*, who stated that he had seen *Beesley* and *Bee* at the time of the murder, who lived at *Deritend*, when they were both employed as labourers for an old man named *Marlow*, and in turning over an old house in *Deritend*, some Bank of England notes were discovered. The result was a conviction of *Beesley* and *Bee* in the perpetration of which they were charged intentionally, but the pressure being applied to her neck, or the threat of the witness's evidence, though it was confirmed by the jury, the defence was contended, as it was that *Mack's* evidence could not be relied upon, and an *alibi* was given for the benefit of *Beesley* and *Bee*. Mr. Justice then said that if satisfied that the prisoners had a common purpose to rob *Miss Milbourne*, and were prepared to use such force as might be necessary, and further committed the robbery, they were then charged, in connection with *Joseph Beesley*, with having stolen the property of *Miss Milbourne*. To this charge the others not guilty. *Marlow* made his own share in the robbery, but the prisoners had never been in the house of the former *Mack*, and a man who was seen at the scene was sentenced to 14 years' penal servitude.

AVLESBURY.—The Luton Murder.—*Blocker*, and *Levi Welch*, blocker, were indicted for the murder of *William Bradberry*, at Round Church, Luton, on the 3d of August. A man named *Day* was committed for trial with the charge of having murdered *Bradberry*. No evidence was given against *Welch*, and he was therefore acquitted on the 31st of August left his home to buy some clothes, and purchased a pair of trousers, a blue waistcoat, and a waistcoat, which he put in a bag. At 10 o'clock at night he went to a public house and had some beer. On leaving the house he was followed by *Welch* and *Day*, who were found lying murdered in the road, and a blow in the head, inflicted by *Day*, the prisoner had borrowed his brother's gun, and liberating for about 20 minutes, found the body of *Bradberry* then sentenced the prisoner to 14 years' penal servitude. *Levi Welch*, who had been charged with robbing the body of *Bradberry*, and the judge said he would not see he could, which was one of penal servitude. *Mack*, of a *Gambler*.—*James Mack*, the wilful murderer of *John White*, a servant of *Captain Swanbey*, of *Wavendon*, and another man, who now came forward pleading, when deceased and another man. The other man ran away, and the prisoner was shot into the body of *White* and killed. It was argued that the gun went off by accident, and the prisoner guilty of manslaughter, and sentenced to 2 years' penal servitude.

Obituary.
On Tuesday at his residence in *London* was the only son of *Robert Smith*, first Lord of the first marriage with the eldest daughter of *Richard*, of *Cave Castle*, *Yorkshire*. He married first, in 1822, the second daughter of *Richard*, who died in 1832; and the third daughter of *Lord Willoughby* of *Parham*. He was a Liberal, and was a member of the House of Commons from 1832 to 1839, when he first married. From 1839 to 1850 he represented *Weymouth* and was a strong advocate for the reform of the House of Commons. He represented *Weymouth* when he succeeded his father in the family. He was a strong Liberal, and took an active part in politics. He was a member of the *Buckinghamshire*, and *Colonel* of the *54th Regiment*. He is succeeded in the family by his son *Charles Robert Carrington*, born in 1834, who was elected *Major-General* of the *54th Regiment*, and *Colonel* of the *54th Regiment*.

was killed on the 12th inst by a fall from his horse, while hunting in the neighbourhood of *Fulbeck Hall*, his seat in *Lincolnshire*. He fell on his forehead, and broke his neck. His death was therefore instantaneous. He was the fifth son of the *Hon. Henry Fane*, second son of the eighth Earl of *Westmoreland*, and was consequently brother of the late *General Sir Henry Fane GCB*, the *Rev. Edward Fane*, prebendary of *Fulbeck*, and of *Sidbury*, and of the late *Bankrupt Commissioner Cecil Fane*. He was born in 1764, and was unmarried. He entered the army in his 16th year, and served in the *Peninsula* from 1812 to 1814, including the battle of *Vittoria*, assault and capture of *San Sebastian*, and battles of the *Nive*. He served also the campaign of 1815, including the battles of *Quatre Bras* and *Waterloo*, at the former of which he was severely wounded. He had received the war medal and three clasps for *Vittoria*, *San Sebastian*, and *Nive*, and the *Waterloo* medal. In 1855 he was appointed colonel of the *96th Foot*, from which he was removed in 1860 to the colonelcy of the *54th Regiment*.

MAJOR-GENERAL GEORGE KING died on the 11th inst., at *Bradford Abbas, Dorset*, in his 55th year. He entered the army in 1811, and served throughout the campaigns in *Afghanistan*, from 1838 to 1842 inclusive, including the storm and capture of *Ghuznee*, storming the *Khoord*, *Cabul Pass*, affair of *Tesien*, forcing the *Jugdulluck Pass*, reduction of the fort of *Mamoo Khail*, defence of *Jellalabad* and sorties, general action and defeat of *Akbar Khan* before *Jellalabad*, storming the heights of *Jugdulluck*, general action of *Tesien*, and recapture of *Cabul*. He also served in the Crimea from June, 1855, and was at the siege and fall of *Sebastopol*. He served in the Indian campaign, and commanded the left wing of the *10th Light Infantry*, in the operations under *Colonel Kelly*, in *Turkistan* and the *Indus*, including the actions at *Bootwab* in 1849, in which he was awarded the *Order of the Bath*, a medal for *Jellalabad*, and one for the recapture of *Cabul*, he received a medal and clasp for *Sebastopol*, was made a *Knight of the Legion of Honour*, and of the *Order of the Medjidie*, 5th class, and received the *Turkish* medal for his services in the Crimea. He retired a few years back on full pay, with the rank of major-general.

THE REV. PROFESSOR CHRISTMAS died on the 11th inst., in *Charing Cross Hospital*. He engaged a *Hansom* cab between 12 and 1 o'clock on the previous morning, near the *Marble Arch*, and ordered the driver to take him to the *Haymarket*. On arriving there he was found to be insensible, and was taken to the hospital, where he died, 12 hours after admission, from apoplexy. At the inquest on Monday, Mr. S. G. Grady, Recorder of *Gravesend*, identified the body as that of the *Rev. Henry Christmas*, or as he recently called himself, the *Rev. Henry N. Fearn*, having assumed his mother's name in lieu of his patronymic. He was about 55 years of age, and resided at *S. Danes Inn, Strand*. He was formerly Librarian of *Ston College*, and was a few years ago Professor of *British History and Archaeology* to the *Royal Society of Literature*. He had latterly been suffering from gout. The medical evidence showed that death arose from natural causes, and a verdict to that effect was returned.

THE REV. DR. ROBERT LEE, minister of *Old Greyfriars' Church, Edinburgh*, and well known in connexion with endeavours to introduce into the Church of Scotland what are called "innovations," died at *Torquay* on Saturday last, in his 63rd year. He never recovered entirely from a severe shock of paralysis by which he was attacked in May last, and he left *Edinburgh* for the south in October for the benefit of his health. *Beesley* being minister of *Old Greyfriars, Dr. Lee* was Professor of *Biblical Criticism* in the University of *Edinburgh*, and one of the *Deans* of the *Chapel Royal*.

THE VERY REV. CANON O'NEAL, Vicar General of the Roman Catholic diocese of *Westminster*, died on Sunday night. He had been for many years one of the priests of the Church of *Our Lady in Grove Road, St. John's Wood*. He was one of the leading men among the Roman Catholic clergy of the metropolis, and a zealous promoter of all works of charity connected with that communion.

MR. C. J. ANDERSON, whose death was reported by the last mail from the *Cape of Good Hope*, was well known as an intrepid traveller in *South Africa*. He was the author of "Lake Ngami or Discoveries in South West Africa, and also of "The Orange River: A Narrative of Travel." A few years since he settled in *Damaraland*, and became a cattle breeder on an extensive scale, but in an engagement with the *Namaquas* to recover a very large herd of cattle which had been stolen, he received a gunshot wound, which splintered the thigh bone and rendered him a cripple for life. Notwithstanding this, after staying some time at *Cape Town* for surgical aid, he returned up the country, and, aided by some eminent zoologists in *England*, proposed to publish "An Illustrated Fauna of South West Africa." He died in the wilds of *Onodoga*, near *Ovamba Land*, bordering on *Portuguese possessions*.

Mrs. GEORGE COMBE died at *Nice* on the 19th ult. She was the daughter of the great *Mrs. Siddons*, and widow of the author of the "Constitution of Man," whom she married in 1833. During the 25 years between that time and his death, she was his companion in all his journeys, spending three years with him in a tour through *America*, where he lectured in most of the principal towns, and collected materials for his work on the *United States*, to which *Mrs. Combe* contributed a description of the shore scenery near *Portland*, in *Maine*. *Mrs. Combe* was the last survivor of her family.

WILLS.—The will of *Sir Norton Joseph Knatchbull, Bart.*, has been sworn under 25,000*l.* personally; *Mr. Samuel Eyres*, of *Armley, Leeds*, 1,200,000*l.*; *Mr. Henry Tull*, of 18, *Cork Street, Burlington Gardens*, 140,000*l.*; *Miss Ann Lockwood*, of *Betchworth*, 40,000*l.*

Markets.

HAY.—Per Load of 36 Trusses.

SMITHFIELD, Thursday, March 19.			
Best Green Hay	—	Clover, old	95 to 100s
Prime Meadow Hay	75s to 80s	Inferior do.	70 90
Inferior do.	55 70	Prime new Clover	—
New do.	—	Inferior do.	—
Straw	30 36	CHARLES JAMES EASTON.	
CUMBERLAND MARKET, Thursday, March 19.			
Sup. Meadow Hay	86s to 92s	Inferior Clover	78s to 86s
Inferior do.	65 76	New do.	—
New do.	—	Straw	39 43
Superior Clover	96 105	JESSE BAKER.	
WHITECHAPEL, Thursday, March 19.			
Fine Meadow Hay	75s to 80s	Prime 1st cut Clover	92s to 93s
Inferior do.	60 70	Inferior do. do.	60 70
Prime New Hay	—	Prime 2d cut do.	—
Inferior	—	Inferior do.	—
Straw	30 36	Rowen	—
COVENT GARDEN —MARCH 21.			

Foreign imports, consisting of *Asparagus*, *Green Peas*, *Artichokes*, *Lettuces*, *Endive*, and *Carrots* are still heavy. Good *English Peas* are difficult to obtain, and but few *French ones* can be had. Some good new *Grapes* have made their appearance, and are fetching as much as 30s. per lb. *Pine-apples* are still realising high prices, those quoted at 6s. per lb. being inferior sorts, chiefly employed in confectionary. *Strawberries* continue to make their appearance. *Cornish Broccoli* is still plentiful and good. *Potatoes* have not altered in price since our last report. *Flowers* chiefly consist of *Orchids*, *Cyclamens*, *Chinese Primulas*, *Pelargoniums*, *Cinerarias*, *Deutzias*, *Mignonette*, *Early Tulips*, *Hyacinths*, *Poinsettia pulcherrima*, and *Roses*.

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FRUIT.

Apples, per bushel	4s to 6s	Oranges, per 100	3s to 6s
Cob nuts, per lb.	1s	Pears, per doz.	6s to 10s
Filberts, per lb.	1s	Pine-apples, per lb.	6s to 12s
Grapes, per lb.	10s to 20s	Strawberries, p. oz.	2s. 6d. to 4s
Lemons, per 100	6s to 12s	Walnuts, per bushel	10s to 20s

VEGETABLES.

Artichokes, per doz.	2s to 3s	Mint, per bunch	1s
Asparagus, per bundle	8s to 16s	Mushrooms, p. pott.	1s 6d to 2s
Beans, Kidney, p. 100	2s to 5s	Onions, per bushel	3s to 5s
Beet, per doz.	1s to 2s	Parasim, per doz.	8d to 1s
Cabbages, per doz.	1s to 1s 6d	Parsley, per bunch	2d to 4d
Carrots, per bunch	6d to 8d	Potatoes, York Regents, p. ton	130s to 160s
Celery, per bundle	1s to 1s 6d	— Rocks, do.	100s to 120s
Cucumbers, each	2s to 4s	— Flukes, 130s to 160s	—
Endive, per score	1s 6d to 2s	— Other sorts, 75s to 80s	—
Garlic and Shallots, p. lb.	8d	Seakale, p. punn.	1s to 1s 6d
Herbs, per bunch	2d to 4d	Spinach, per bushel	3s to 4s
Horse Radish, p. bund.	3s to 5s	Tomatoes, per doz.	3s to 5s
Leeks, per bunch	2d to 4d	Turnips, per bunch	4d to 6d
Lettuces, per doz.	2s		

POTATOS.—SOUTHWARK, Monday, March 16.
During the week the arrivals coastwise and from abroad have still been in excess of the demand; trade very dull at the following quotations:—*Yorkshire Flukes*, per ton, 140s. to 170s.; *do. Regents*, 130s. to 160s.; *do. Rocks*, 120s. to 130s.; *Lincolnshire Regents*, 130s. to 150s.; *Dunbar* and *East Lothian Regents*, 140s. to 160s.; *Perth, Forfar, and Fife Regents*, 120s. to 140s.; *ditto Rocks*, 110s. to 120s.; *French and Belgian Whites*, 90s. to 95s.

HOPS.—BOROUGH MARKET, Friday, March 20.
Messrs. Pattenden & Smith report the market firm at the advance, with a very limited supply of choice descriptions, which continue to meet a steady demand.

COALS.—March 18.
Hollywell Main, 15s. 6d.; *Walls End Caradoc*, 17s. 6d.; *Walls End Wharfedale*, 15s. 3d.; *Walls End Caspob*, 17s.; *Wylam*, 15s. 6d.; *West Hartley*, 16s. 6d.; *Walls End Gosforth*, 16s. 3d.; *Walls End Haswell*, 18s. 6d.; *Walls End Hetton*, 18s. 6d.; *Walls End Tunstall*, 15s. 6d.; *Walls End Russel's Hetton*, 16s. 3d.; *Walls End Braddyl's Hetton*, 16s. 6d.; *Walls End Hartlepool*, 17s. 3d.; *Walls End Keppier Grange*, 16s. 3d.; *Walls End Kelloe*, 16s. 3d.; *Walls End East Hartlepool*, 17s. 6d.; *Walls End Original Hartlepool*, 18s. 6d.; *Walls End Heugh Hall*, 17s. 6d.—Ships at market, 39; sold, 22.

ENGLISH WOOL.
There has been a good demand, and prices are again dearer. A fair amount of orders has been placed at *Bradford* and elsewhere for goods to be made from *English* and similar grades of wool, and the prospects are for firmness for some months to come.

CURRENT PRICES OF ENGLISH WOOL. per lb.—s. d. s. d.

FLUCCES—Southdown hoggets	.. ..	1 4	to	1 5
Half-bred ditto	.. ..	1 5	—	1 6
Kent Flucces	.. ..	1 4	—	—
Southdown ewes and wethers	.. ..	1 3½	—	1 4
Leicester ditto	.. ..	1 4	—	1 4½
SORTS—Clothing	.. ..	1 0	—	1 9
Combing	.. ..	1 2	—	1 10

NEWGATE.—March 20.
Best Fresh Butter 17s. per dozen lb.
Second do. do. 15s.
Small Pork, 4s. 6d. to 5s. 6d.; Large Pork, 3s. 6d. to 4s. 2d. per 8 lb.

METROPOLITAN CATTLE MARKET
MONDAY, March 16.
There are a few more *Beasts* than on *Monday* last; the average quality is very middling, consequently choice qualities are readily disposed of. On the whole there is a fair demand. *Sheep* are more plentiful, and trade is not quite so active, yet prices are scarcely any lower. Good calves continue scarce and dear. Our foreign supply consists of 540 *Beasts*, 3790 *Sheep*, 107 *Calves*, and 5 *Pigs*; from *Scotland* there are 382 *Beasts*; from *Ireland*, 153; from *Norfolk* and *Suffolk*, 1800; and 845 from the *Northern* and *Midland Counties*.

Best Scots, Herefords, &c.	4 8 to 5 0	Best Long-wools	4 8 to 5 0
Best Shorthorns	4 6 — 4 10	Do. Shorn	4 4 — 4 6
2d quality Beasts	3 0 — 3 8	Ewes & 2d quality	3 6 — 4 0
Best Downes and Half-breds	5 0 — 5 4	Do. Shorn	—
Do. Shorn	4 4 — 4 8	Lambs	—
		Calves	4 0 — 6 0
		Pigs	3 4 — 4 8
		Beasts, 3720; Sheep & Lambs, 2,780; Calves, 113; Pigs, 360.	

THURSDAY March 19.
The supply of *Beasts* is very small, but the demand is very limited, and consequently prices have not advanced from *Monday* last. The number of *Sheep* is much larger, and trade is dull, consequently prices are lower, and a clearance cannot be effected. *Calves* are still dear, owing to a short supply of choice qualities. Our foreign supply consists of 33 *Beasts*, 1910 *Sheep*, 151 *Calves*, and 23 *Pigs*.

Best Scots, Herefords, &c.	4 8 to 5 0	Best Long-wools	4 8 to 5 0
Best Shorthorns	4 6 — 4 10	Do. Shorn	4 2 — 4 4
2d quality Beasts	3 0 — 3 8	Ewes & 2d quality	3 6 — 4 0
Best Downes and Half-breds	5 0 — 5 4	Do. Shorn	—
Do. Shorn	4 4 — 4 8	Lambs	—
		Calves	4 0 — 6 0
		Pigs	3 4 — 4 4
		Beasts, 520; Sheep and Lambs, 6740; Calves, 222; Pigs, 130.	

MARK LANE.—MONDAY, March 14
The supply of *Wheat* from *Essex* and *Kent* to this morning's market was very small, and met a slow sale at the quotations of this day's night. The market was moderately attended, and foreign *Wheat* was taken in retail only at last week's prices. *Fine malting Barley* was in demand at extreme rates, grinding and white *Peas* difficult of sale. In the value of *Beans* there was no change. *Oats* sold slowly at

about late prices. For Flour the demand was limited, and there was no alteration in the value.

PRICE PER IMPERIAL QUARTER.	S. S.	S. S.
WHEAT, Essex, Kent, Suffolk. White	70-78 Red	68-76
— fine selected runs do.	73-84 Red	72-78
— Talavera	60-84	
— Norfolk	Red	
— Foreign	63-87	
BARLEY, grind & dist., 35 to 40% Chev.	42-47 Malting	40-43
— Foreign, grinding and distilling	35-39 Malting	41-46
OATS, Essex and Suffolk	23-29	
— Scotch and Lincolnshire. Potato	25-33 Feed	
— Irish	Potato 30-32 Feed	26-30
— Foreign	Poland and Brew 25-32 Feed	23-30
RYE	Foreign	
RYE MEAL, Foreign		
BEANS, Mazagan	30s to 45s Tick 41-43 Harrow	41-43
— Pigeon	48s to 50s Winds	Longpod.
— Foreign	Small 41-48 Egyptian	42-44
PEAS, White, Essex, and Kent	Boilers 45-47 Suffolk	50-52
— Maple, 41s to 45s	Grey 44-47 Foreign	39-45
MAIZE	Foreign	46-52
FLOUR, best marks delivered, persack	59-64	
— 2d ditto	ditto 54-61 Country	54-61
— Foreign	per barrel 21-42 Persack	45-56

FRIDAY, March 20.

Excepting some showers the weather has been fine and spring like from the 13th to the 17th inst., since then it has been colder, with slight frost at night. The supplies of home-grown Wheat during the past week having been small in the agricultural districts, it has been impossible for buyers to gain an advantage in price for such, in the import markets, however, the supply has been good, and in order to realise, sellers had to make a concession of 1s. per qr. on foreign Wheat, but business was far from active. We notice no special change in the value of spring corn. Flour was very slow, and to effect sales holders showed willingness to submit to a reduction, but buyers would not be tempted. The arrivals of grain and seed-laden vessels off the coast during the week consisted of 83 cargoes, of which, with those left over from last week, there remained for sale last night 73 cargoes. Fine cargoes of arrived Wheat have in the early part of the week been in free demand for home consumption, as well as for Continental requirements, secondary qualities were neglected, but during the last two days the demand abated, and as the number of cargoes left unsold appeared to decrease but slowly, owing both to fresh arrivals and to the fact that some cargoes sold to speculators appeared again in the list for resale, the trade became dull, and prices fully 1s. per qr. lower. Malze lost the advance obtained last week. Barley a dull sale. In Rye nothing doing. In cargoes on passage and for forward shipment the business is at a standstill, and prices nominal.

The arrivals of English grain and foreign Barley during the week by water have been small, but fair of foreign Wheat and Oats. This morning's market was thinly attended. The little English Wheat on sale was taken at Monday's prices; for foreign the demand was in retail only, at that day's quotations. Barley, Beans, and Peas were unaltered in value, but Oats were purchasable upon rather easier terms.

ARRIVALS THIS WEEK.

	Wheat.	Barley.	Oats.	Flour.
English	1110 qrs.	570 qrs.	530 qrs.	740 ska.
Irish	"	"	"	"
Foreign	29,490 "	6960 "	29,490 "	12411 "
	31,600	7,530	10,660	

LIVERPOOL, Tuesday, March 17. — Today's market was moderately well attended by town and country dealers, and for Wheat there was a fair demand; white descriptions unchanged, but red kinds were 1d. per cental easier than on Tuesday last. Flour quiet and unchanged. Oats steady. Outmeal 6d. per load dearer on the week. Indian Corn neglected, and 2s. to 2s. 6d. per qr. cheaper on the week. Egyptian Beans dull, and 8d. per qr. lower. Canadian Peas slow. Other articles unchanged.

FRIDAY, March 20 — The market was thinly attended. Wheat a rather slow sale, and prices in favour of buyers. Flour continues dull. Beans and Peas unaltered. Oats and Outmeal steady, at Tuesday's rates. Indian Corn mixed a shade better, white rather cheaper; sales at 41s. for the former, and 39s. 6d. to 40s. for the latter.

AVERAGES.

	Wheat.	Barley.	Oats.
Feb. 8	73s 4d	42s 7d	26s 0d
— 15	73 0	42 5	25 9
— 22	75 11	42 9	26 2
— 29	73 4	42 5	26 9
Mar. 7	73 8	43 1	27 2
— 14	73 1	43 3	27 2
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The Gardeners' Chronicle Newspaper.

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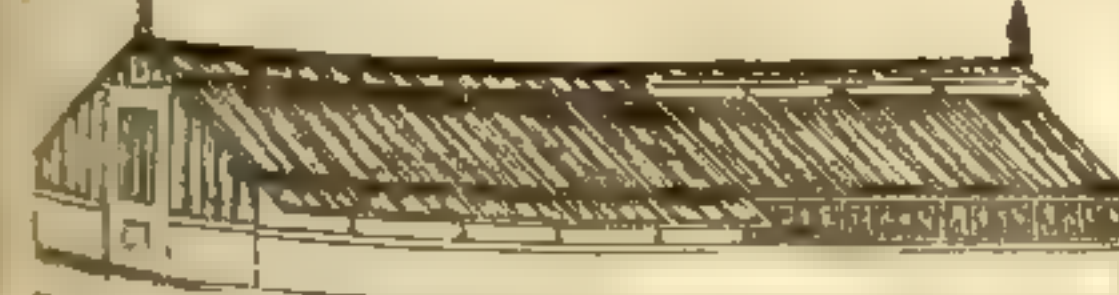
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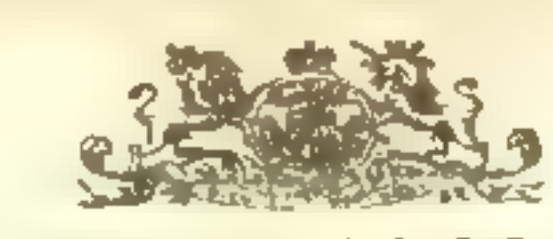
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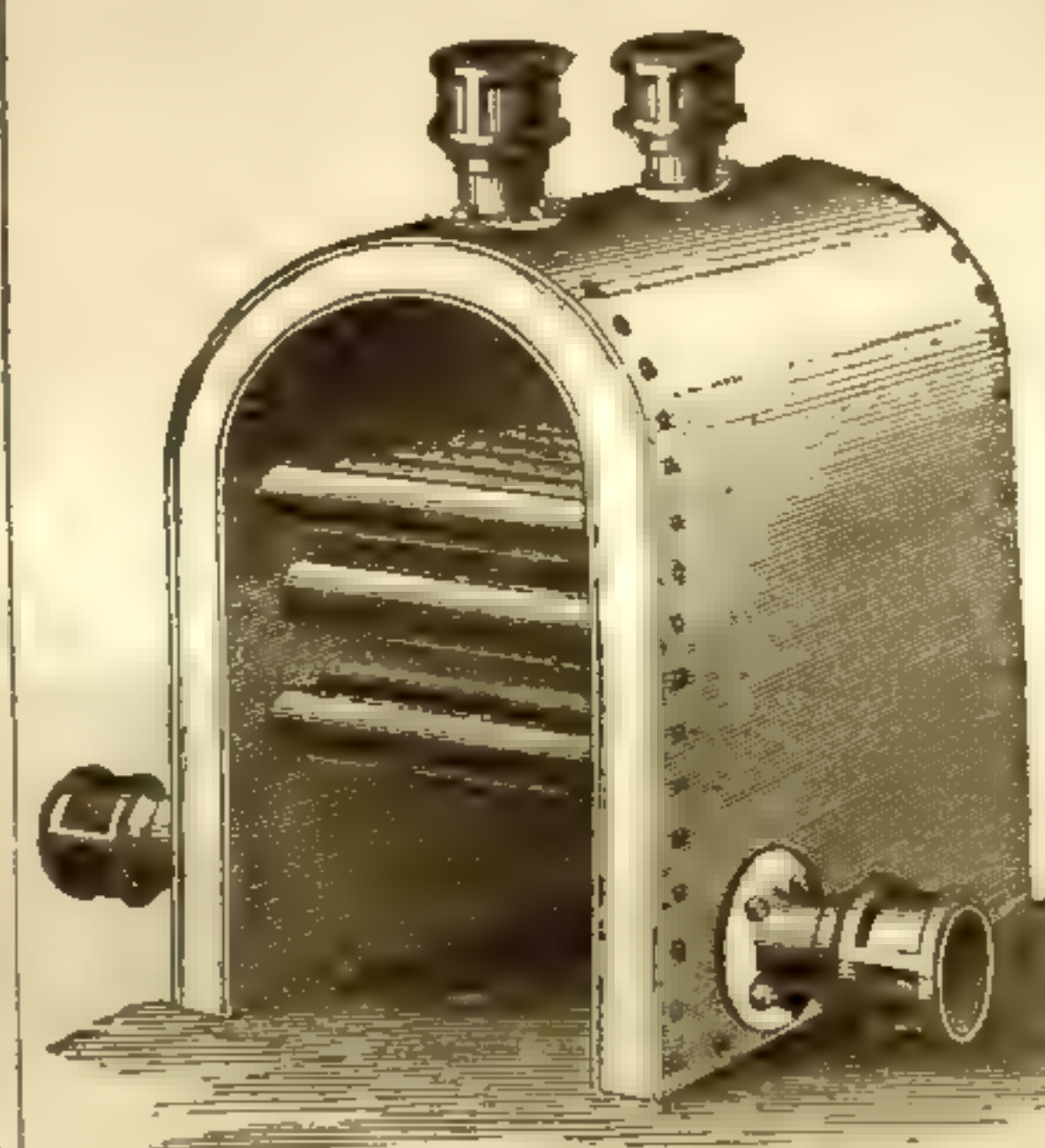
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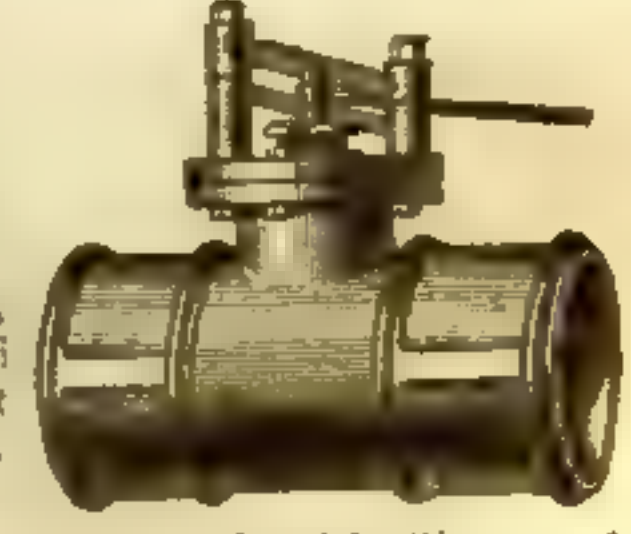
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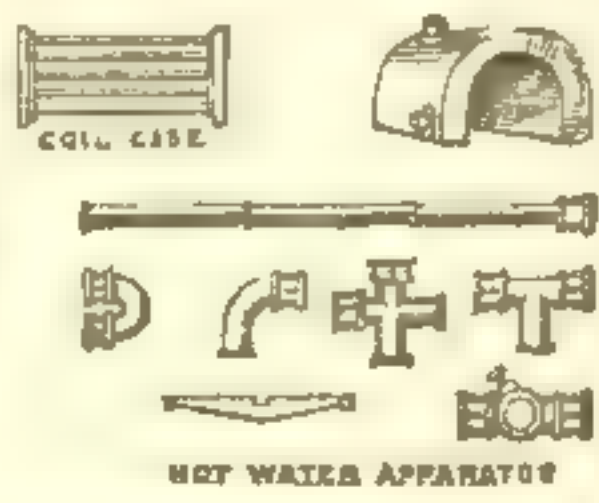
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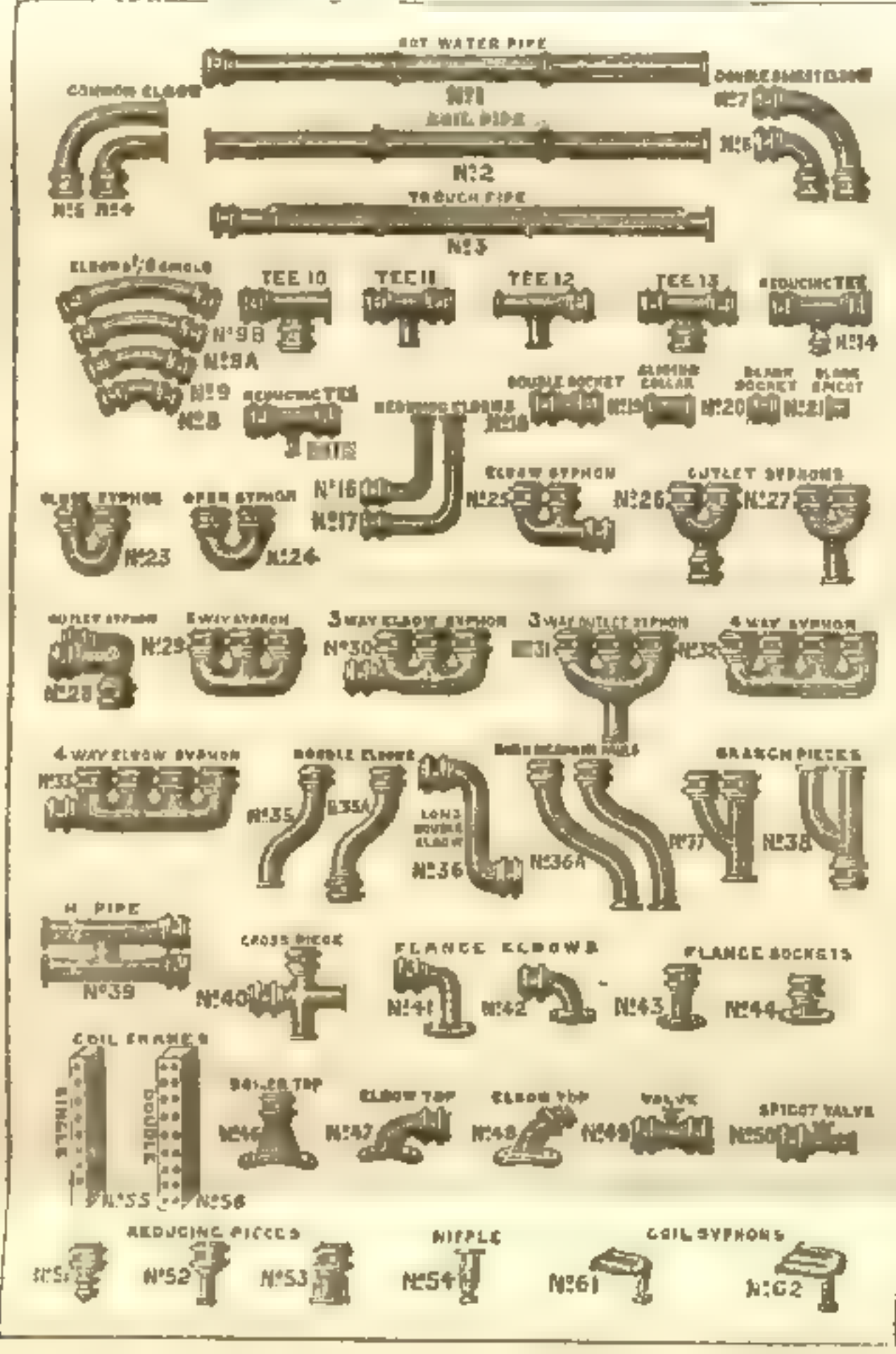
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MARCH 29, 1868.

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Home News.

THE COURT.—On Friday morning the Queen walked in the grounds of Windsor Castle, and drove out with Princess Louisa. In the afternoon the Queen drove out with Prince Leopold and Princess Beatrice. Princess Louisa, accompanied by Prince and Princess Christian, went to London and dined with the Duchess of Cambridge, and returned afterwards to the Castle. On Saturday the Queen drove out with Princess Louisa and Prince Leopold. Prince Arthur arrived from Greenwich Park. The Lord Chancellor, Mons. Mde., and Miss Van de Weyer arrived at the Castle on a visit. On Sunday the Queen and Royal Family attended Divine service in the private chapel. The Rev. W. H. Brookfield preached the sermon. On Monday morning the Queen drove out. The Duke and Duchess d'Aumale visited the Queen and remained to luncheon. Prince Arthur left the Castle for Greenwich Park. The Lord Chancellor also left the Castle. In the afternoon the Queen walked in the grounds and drove with Princess Louisa. On Tuesday morning the Queen went out with Princess Christian. Countess Blucher arrived at the Castle on a visit. The President and Secretary of the Royal Academy arrived at the Castle and presented for her Majesty's sanction the transactions of the Academy for the past year, and laid before her Majesty the diplomas of the four Academicians last elected for her Majesty's signature. Sir James Clark arrived on a visit. In the afternoon the Queen drove out with Prince Leopold and Princess Beatrice. Princess Louisa went to London, and dined with the Prince and Princess of Wales at Marlborough House. Her Royal Highness afterwards accompanied Prince and Princess Christian to a Ball given by M. and Madame Van de Weyer, in Arlington Street. On Wednesday morning the Queen went out with Princess Beatrice. Princess Louisa returned from London. In the afternoon the Queen drove out with Princess Louisa. On Thursday morning her Majesty went out with Princess Beatrice. The Prince and Princess de Joinville and the Duke and Duchess de Chartres visited the Queen, and remained to luncheon.

THE PRINCE AND PRINCESS OF WALES.—On Friday the Prince hunted with her Majesty's stag-hounds. The Princess drove out. In the evening the Prince went to a lecture at the Royal Institution. On Saturday the Prince visited Mr. Leighton's studio. The Princess drove out. In the evening their Royal Highnesses went to the Princess's Theatre. On Sunday the Prince and Princess attended Divine service at the Chapel Royal, St. James's. The Bishop of Lichfield preached the sermon. On Monday the Princess drove out. In the evening the Prince attended a meeting of the Royal Geographical Society, at Burlington House. On Tuesday afternoon their Royal Highnesses drove out, and in the evening were present at a dance given by M. and Madame Van de Weyer, at their residence in Arlington Street. On Wednesday the Prince visited the studios of Mr. John Bell and Mr. Watts, R.A. The Princess drove out with Princess Christian. In the evening the Prince and Princess were present at Mrs. Disraeli's reception at the New Foreign-office. On Thursday the Prince hunted with his harriers near Windsor. The Princess drove out.

PRINCE ARTHUR.—It is stated that arrangements are making for a tour by Prince Arthur, which will include most places of interest in Italy and the East.

PRIVY COUNCIL.—The Queen will hold a Council at Windsor Castle to-day.

THE CABINET.—A Cabinet Council was held on Saturday at the official residence of the First Lord of the Treasury in Downing Street. Another Council was held on Tuesday, and another yesterday.

PARLIAMENTARY MOVEMENTS.—The Coventry election terminated on Thursday in the return of Mr. Carter, the Liberal candidate, by a majority of 281 over Mr. Staveley Hill, the numbers being 2415 to 2134. The following letter has been addressed by Mr. Disraeli to the Earl of Dartmouth, in reply to a memorial from the Council of the National Union, and of the Constitutional Association connected with that body.—

My Lord,—I have received with much pleasure the Memorial of the Council of the National Union of the Constitutional Association, connected with that body, in which they express their confidence in me, and their thorough determination to support me in their power the Government I have formed by the aid of and with the approval of Her Majesty. Such expressions of feeling on the part of influential bodies of the country are encouragingly opportune. We have heard a stirring cry of the crisis of Ireland. In my opinion the crisis is lodged is rather at hand, for the purpose is now achieved, and that by a powerful party, of destroying that sacred union between Church and State which has hitherto been the chief means of our civilisation, and is the only security for our religious liberty. I have the honour to remain, my Lord, yours sincerely, B. DISRAELI.

THE ARMY.—The Colonelcy of the 54th Foot, vacant by the death of General Midway Fane, has been conferred on Major General Hodgson.

Foreign.

FRANCE.—The *Moniteur* of Friday published, without comment, long extracts from the pamphlet entitled—"Les Titres de la Dynastie Napoléonienne," with the motto, "Vox Populi vox Dei." In the sitting of the Legislative Body on Friday, the Government laid on the table the demand for a grant of 2,000,000 francs for the succour of the starving population in Algeria. M. Jules Simon opened the discussion on his interpellation relative to the councils for the settlement of disputes between masters and workmen. After some debate the Chamber passed to the order of the day. In the sitting of Wednesday the debate on the Public Meetings Bill was resumed. After Article 9 had been voted, the House adopted the entire Bill by 209 votes to 22. The orders of the day being thus finished, the Chamber adjourned on the motion of the President. The date of the next sitting is not fixed. The Committee has reported in favour of authorising proceedings against M. de Kervezac, and the Chamber has agreed with the conclusion of the Committee. The trial of M. Grenier, editor of the *Situation*, and M. Jules Richard, one of the most popular writers in *Le Figaro*, for attacking the majority of the Corps Legislatif, took place on Friday before the Police Correctional. M. Jules Richard was sentenced to the maximum fine imposed by law, 5000 francs, and two months' imprisonment. M. Grenier was sentenced to a fine of 1000 francs. The *Proces* of Monday says that placards of an anarchical nature have been posted up at Rennes. The Imperial Procureur ordered the arrest of three young men charged with the offence. On their examination it was found that their object was to foment agitation. Sir Roderick Murchison has been elected by the French Academy of Sciences Foreign Member, in place of the late Professor Faraday.

SPAIN.—A sum of 1,353 crowns has been included in the Budget as indemnity for the ship Queen Victoria. The Cortes has adopted the Bill for the suppression of tribunals of commerce. The official gazette says that with a view to improve the financial position of the colonies, the Government has contracted with MM. Bischoffshelm and Goldschmidt, of London and Paris, a loan of 2,200,000l. guaranteed upon the revenues of the colonies. The Government will pay annually for the interest and sinking fund 13 per cent. on the amount received. The Cortes has appointed a commission to inquire into the proposed establishment of a foucier bank.

PORTUGAL.—The elections have resulted in the almost complete triumph of the Government candidates. Tranquillity prevails everywhere.

DENMARK.—The Danish Minister of War has applied to the Chambers for a credit of 438,000 crowns for the fortification of Copenhagen. The Danish Government has made known to the Great Powers its fears of an attack by Prussia.

BELGIUM.—Disturbances have taken place in the coal districts of Charleroi, in consequence of the strike of the colliers. At Chantelaineau a lieutenant of the Gendarmerie was seriously wounded. At Montigny 10 or 12 rioters were killed or wounded. General Thibaut left Brussels on Thursday for Charleroi with a regiment of Carabiniers, two battalions of the Line, and a detachment of cavalry. A serious conflict took place at midnight at Chateau de Charleroi between the troops and the rioters, in which eight men were killed and ten wounded. The Council of Ministers assembled twice in the course of the evening.

HOLLAND.—In the sitting of the Second Chamber on Friday the discussion on the report of the committee appointed to investigate the diplomatic documents concerning the questions of Limburg and Luxemburg was continued. The Minister of the Interior demanded that the conclusion of the committee's report should distinctly lay down an issue for the Chamber to vote on the foreign policy of the Government, so that the Ministry could make it a Cabinet question.

SAXONY.—A man called Siebert, an umbrella maker of Dresden, attempted to shoot the Prince Royal of Saxony last week. He was immediately arrested and has since been declared, after a careful medical examination, to be insane. He has consequently been ordered into permanent confinement in a lunatic asylum.

HANOVER.—Count Platen, ex-Minister of King George, has been summoned to appear on the 5th of July before the criminal court of Berlin. He is charged with high treason, for having, being a Prussian

subject, attempted in 1867 and 1868 to separate the province of Hanover from the kingdom of Prussia.

HESSE DARMSTADT—It is rumoured that the Queen of England will visit, this summer, the Princess Alice at Darmstadt, and will thence go to Gottra.

HESSE CASSEL—The statue of Napoleon I., one of the *chefs-d'œuvre* of Canova, which under the reign of Jerome stood in the Salle des Etats of Westphalia, has been found in a hay-loft of the garrison of Cassel. In 1812 it had been thrown down and broken. As soon as this discovery came to the knowledge of the French Consul at Frankfort, he hastened to apply to the Prussian authorities, claiming these mutilated parts.

PRUSSIA—The North German Parliament was opened at Berlin on Monday by the King of Prussia in person. The members were assembled in the White Saloon. His Majesty in his Speech from the Throne announced the further development of the domestic institutions which had recently been founded, and mentioned the modification of the postal arrangements with several countries, and the conclusion of the postal treaty with the United States of America. The King expressed his satisfaction at the manner in which the representatives of the North German Confederation had been received at foreign Courts, and in conclusion said he was convinced that the blessings of peace would rest upon the labours of the Parliament. The sitting of Tuesday was adjourned, owing to an insufficiency of members being present to form a quorum. In the sitting of Wednesday Dr. Simson was re-elected President by a large majority. Duke Ujes was elected first and Herr von Bennigsen second Vice-President. It is semi-officially stated that the Prussian Government has addressed a Circular to its representatives abroad in reference to the recent visit of Prince Napoleon to Berlin. It is added that this is not an unusual step, but in conformity with the diplomatic custom that when a distinguished personage visits a foreign Court the Government should explain the visit by a Circular to its diplomatic representatives. In the present instance the Circular expressly states that Prince Napoleon had no political mission. The baptism of the youngest son of the Crown Prince of Prussia was celebrated on Sunday afternoon. He received the names Joachim Frederick Ernest Waldemar. The godfathers and godmothers present were the King, Queen, and Dowager Queen of Prussia, Princes George and Adalbert, the Cesarewitch, the Crown Prince and Princess of Saxony, Prince Augustus of Wurtemberg, Prince Henry of Hesse, and the Grand Dukes of Saxe-Weimar and Oldenburg. The King has appointed Count Bismarck hereditary member of the Upper House of the Diet.

AUSTRIA—In the sitting of the Upper House of the Reichsrath on Friday, the debate on the Civil Marriage Bill was resumed. Count Hartig, Lieutenant Field Marshal von Gablenz, Herr von Kraus (formerly Minister of Justice), and Count Anton Auersperg spoke in favour of the Bill, which was opposed by Professor Arndt, Cardinal Schwarzenberg, and Prince Halm. The close of the general discussion was then agreed to. In the sitting of Saturday, a proposal of Count Mensdorff that the debate upon the Civil Marriage Bill should be adjourned was defeated by a majority of 65 to 45, and the proposals of the minority of the Committee were then rejected by a majority of 69 to 31. The Bill then passed by a large majority. In the sitting of the Committee of the Upper House on Saturday on the Public Schools Bill the majority agreed to all the principal features of the Bill as passed by the Lower House. The minority proposed that the Bill should be referred to a Committee, which should be instructed to draw up a new Bill having for basis the preservation of the influence of the Roman Catholic Church over the religious and moral education of the young, and the maintenance of the denominational system in the popular middle schools. In the sitting of Monday Cardinal Rauscher and his political friends addressed a document to the President, announcing that, in consequence of the vote of Saturday on the Civil Marriage Bill, they were no longer able to take part in the discussion of the House. After this document had been read, the order of the day for the special debate on the Civil Marriage Bill was brought up, and the Bill, with a verbal alteration, agreed to by the Government, was read a second and third time without debate, only 17 members voting against it. In the evening Vienna was spontaneously illuminated by the inhabitants in consequence of the vote of the Upper House on the Civil Marriage Bill. Immense crowds congregated in the streets, and made enthusiastic demonstrations in front of the residences of some of the Ministers, and also in front of the monument of Francis Joseph II. No disturbances or accidents occurred. In the sitting of the Lower House of the Reichsrath on Tuesday the Finance Minister brought in a Bill providing for a continuance of the provisional levy of the taxes from April until the end of June. The Minister then proceeded to explain his financial Bills for covering the deficit. He said—

The deficit for 1868 would amount to 52,000,000 florins, exclusive of an extraordinary amount of 18,000,000, which could be covered out of the sum remaining in hand from the revenue of 1867. The Government considered the permanent regulation of the finances necessary, because the credit of the country had sunk to a low ebb. The deficit coverable during the next three years would amount upon the average to 150,000,000. The reform of taxation now being attempted could only be expected to produce results in some years time, and it was therefore essential to make provision from other sources for the next few years. The Government would avoid loans. It considered the conversion of the State debt a useful measure, and that a saving of 30,000,000 would be effected thereby in three years, thus reducing the deficit to be met to 12,000,000. The Government would also obtain from increasing the issue of paper money, as although the prospects of peace were at present favourable, yet the general situation of Europe did not admit of the possibility of Austria being suddenly called

upon to take military measures, and in that case it would undoubtedly be necessary to have recourse to an increased issue of notes. Hungary was paying 12,000,000 less than her share of the common expenditure, and the Government therefore considered itself entitled to ask her to consent to a 10 per cent. tax upon the coupons. He next explained the operation for the conversion of the State debt, stating that he hoped to obtain from that source, from the taxation upon capital, and from the sale of the Crown lands a sufficient amount to cover the deficit during the next three years. He estimated the amount obtainable in three years from the tax upon capital at 60,000,000. The Government admitted the heaviness of the burden these measures imposed upon the country, but hoped by these means, coupled with all possible economy and a more equitable distribution of taxation, to remove the deficit within the space of three years, provided no extraordinary circumstances intervened.

The Bill for the abolition of the imprisonment for debt passed the final reading without debate. In the sitting of Thursday the modifications of the Civil Marriage Bill, proposed by the Upper House, were adopted. The Government Bill relative to the provisional levy of the taxes until the end of June was also passed. In the sitting of the Hungarian Delegation on Tuesday an Imperial rescript having been read, sanctioning the close of the Session, the Government Commissioner, Von Falke, rose on the part of the Chancellor of the Empire to thank and salute the Delegation in the name of the Emperor. The President then in an eloquent speech took leave of the members, and closed the sitting. At the final sitting of the Reichsrath Delegation on Tuesday Baron Beust, in reply to a question, said that he hoped the Austrian expedition to Eastern Asia would leave in the course of the summer. The Chancellor of the Empire then announced the Imperial sanction to the resolutions adopted by the Delegation, adding that he was commissioned by the Emperor to express his Majesty's satisfaction at, and grateful recognition of, their labours. He also thanked the Delegation in the name of the Ministry, and said that the misgivings as to the success of the Delegation had not been realised. Their proceedings had quite come up to the expectations entertained. By endorsing the decisively expressed peace policy of the Government the Delegation had imparted to that policy a redoubled emphasis. The President of the Delegation then delivered the closing speech, in which he laid stress upon the fact that peace was based on the establishment of a constitutional state of things and on the concord existing between the national representatives and the Crown. The Session was closed with three cheers for the Emperor.

RUSSIA—An Imperial decree, dated the 29th of February, was made public on Saturday, by which the Government Commission for Internal Affairs in the Kingdom of Poland was abolished, and its administrative jurisdiction handed over to the respective authorities of the Empire. The complete union of the province of the Kingdom of Poland with the other portions of the Empire is hereby effected.

ITALY It is announced that the Queen of Portugal, Prince Napoleon, the Princess Clotilde, and the Crown Prince of Prussia, will be present at the marriage of Prince Humbert. The Archduke Louis Victor and several German princes are expected. In the Chamber of Deputies on Sunday Count Cambray Digny presented the Budget for 1869. It estimates the ordinary revenue at 775,531,835, and the extraordinary revenue at 28,984,031 lire; the ordinary expenditure at 941,611,031, and the extraordinary expenditure at 62,651,221 lire. The total deficit would therefore be 199,745,509 lire, or 8,331,918 lire less than in 1868. The estimates for the Budget of 1869 are made according to the existing laws. In the sitting of Tuesday the debate on the Grinding Tax was continued as follows.—

Signor Correnti, speaking in the name of the members of the third party, declared that they could only accept the Grinding Tax as the ultimate complement of Radical reforms, and of other measures destined to restore the public credit and a financial equilibrium. The third party had lately supported the Government, and would continue to support it, if its policy was just and advantageous to the country, but it could never consent to an alliance with the Church. Count Cambray Digny replied to the objections made by various speakers to his financial proposals. He refuted the accusation of exaggeration in his description of the gravity of the financial condition of Italy, and demonstrated that not more than 574,000,000 of ecclesiastical property were available to remove the deficit of 1868 and the forced currency. He deemed it necessary, therefore, to meet the deficit of 1869 by new taxes. In the sitting of Wednesday Count Cambray resumed his speech. He denied that the Income-tax Bill was intended to prejudice the question of deducting a tax from the interest of the public debt. He considered it unjust to subject to this tax foreigners who had neither interest nor domicile in Italy. He proposed, therefore, to authorise foreign holders of Italian stock to exchange the scrip payable to bearer for scrip bearing their names. Count Cambray Digny acknowledged the necessity for economy in the public administration, and stated that the Ministry associated themselves with Signor Minghetti's order of the day on this subject. The Minister of Finance further promised to consider the proposed tax upon alcoholic liquors, opposed a general tax upon production, and defended the Grinding Tax, as being much less onerous than direct taxation. He repelled any idea of reducing the interest on the public debt, as being dishonourable and ruinous to Italian debt. In the same sitting General Menabrea, replying to an interpellation of Signor Sgarbi, stated that the Government had determined to send the frigate *Clotilde* to Japan for the protection of Italian commerce. In the sitting of Thursday Count Cambray Digny concluded his speech on the Grinding Tax by pointing out the necessity for the tax, and showing that the people were able to support it. Other members then addressed the Chamber. The general debate continues.

The Minister of Public Instruction has suspended three Professors of the University of Bologna, in consequence of their having publicly expressed Republican sentiments. The University has not been closed as reported, but the students have protested against the suspension of the professors, and have refused to continue their studies. General Pallavicini has assumed the command of the troops for suppressing brigandage in the provinces of Molise, Benevento, the Upper

Abruzzi, and in the Terra di Lavoro Saturday evening the remains of Daniel Manin were conveyed by water from the railway to the Grand Canal of San Zaccaro, followed by the State barges and representatives from the Italian Senate and Chamber of Deputies, the members of the Municipality and foreign Commissioners. An immense number of gondolas followed. The Grand Canal and the houses in the procession were illuminated, thus forming a magnificent spectacle. The houses displayed various draperies.

PAPAL STATES—Mr Odo Russell has obtained an extension of the provisions of the Franco-Prussian Treaty of Commerce to England, the arrangement date retrospectively from the 1st of November. It is believed that the North German Confederation, Austria, and perhaps Italy, will obtain the same conditions. The French brigade Pothier has been ordered to return to France. Four transports have been ordered to Civita Vecchia to embark the brigade. The Russian Admiral Farragut had an audience of the Pope on Saturday, and was very graciously received. He proceeded to Sicily, Malta, and the Levant. The Pope blessed the Golden Rose on Sunday in the church of the Vatican.

TURKEY—The Grand Vizier has presented to the Sultan a very able and detailed report on his operations in Crete. The report explains the origin and causes of the revolt, the measures adopted, and the concessions granted. In conclusion, the Grand Vizier says he considers the submission of the Creteans completed, provided the Russian transport fleet and the open aid afforded by the Greeks are stopped. Aldermen Gabriel and Waterlow were admitted to an audience of the Sultan on the 15th, and on the 16th they dined at the Grand Vizier's with the members of the Embassy. The Duke and Duchess of Saxe-Coburg arrived at Constantinople on the 14th from Aleria. The Grand Marshal Rakki Pasha is dead.

ABYSSINIA—A telegram from Suez dated the 1st inst., announces that advices had been received from Abyssinia, stating that King Theodore had entrenched on the Talanta Plateau, and was intending giving battle. The Filtis (2^d Fifth Brigade) was to advance on Ashangi on the 11th inst. All the troops are now on the high lands. Large quantities of supplies have been collected in the neighbourhood of Antalo. Letters received from an officer at Antalo state that Theodore was said to have 13,000 men at Magdala, and was storing the place with provisions. He was also said to have 10,000 disciplined troops, and to be quite determined to fight. The British officers and men were anxious to storm the fortress. Special Correspondent of the *Times*, under the name of Antalo, March 8, telegraphs as follows—

"The advanced guard has arrived at Attala, about 10 miles north of Lake Ashangi. The roads are extremely bad, and a detachment is opening a mule road. The only provisions to be found in the country are flour and meat. The British will be at Ashangi by the middle of March. All well."

CAPE OF GOOD HOPE—By the Cape mail of February we learn that Parliament will not assemble in the middle of May, as the Governor will not be able to return to the north-east frontier until late in the month. The communications addressed by Governor Brand to the house of Moshesh, the Basuto chief, and to the President of the Free State, notifying the intent of the English Government to annex Basuto Land, have been very differently received. The Basutos were jubilant, but President Brand had refused to discontinue the operations of his commanders against the Basutos. The fever in Cape Town has disappeared. The death-rate, which during the worst phase of the epidemic was nearly 100 per week, has fallen to 19, and the average for the last four weeks was 20. The *Eastern Province Herald* reports that some of the working classes and small tradesmen are about to emigrate to Monte Video or to return to their country. Herr Mauch had arrived at Durban with exhibited specimens he had collected of gold nodules embedded in pure white quartz. He has revealed to the Government for 2000/ the site of the goldfields, and says he believes that some of them prove richer than those of California or Australia. The ship *Tugela*, of the Aberdeen Copper Company, was stranded at Durban, Natal, on Feb. 2, in consequence of the parting or slipping of her cable, and since been condemned.

INDIA—Mr. Massey made his financial statement in the Legislative Council on the 14th. The account for the present financial year show a surplus of 2,000,000 and a surplus of 230,000/ is anticipated in the next year. The licence-tax is abolished, and a tax on professions is substituted. There will be no new taxation. The proposed to increase the session duties are totally rejected. Public works are being energetically prosecuted. The latest news from Burmah states that the exploring party is proceeding. Telegrams from Peshawur state that Azim Khan has been killed. Lady Lawrence left Calcutta on the 14th for England. Dr. Norman Macleod, who was returning home on account of ill health, accompanied her.

CHINA—A great fire has occurred at Foochow. The loss is estimated at 200,000 dollars.

JAPAN—Intelligence from Japan announces that the Tycoon had been totally defeated by the French and has fled to Yeddo. The intestine war between the Mikado and the Tycoon has addressed a note to the Foreign Ministers declaring that the treaty would be respected.

UNITED STATES—It is reported that Mr. Cameron, apprehending a guerilla raid upon the War Office in Virginia, has ordered the garrison of Washington to be held in readiness. General Thomas has been ordered to

tion consisted of Dr. Hooker, Professor Huxley, Mr. Busk, Mr. Bentham, Mr. Selater, and the following officers of the British Association:—Mr. Spottiswoode, treasurer; Messrs. Galton & Hirst, secretaries, and Mr. Griffith, assistant secretary.

NATIONAL PORTRAIT EXHIBITION.—The arrangement of the third and final collection is now making good progress at South Kensington. There is no want of portraits; indeed the great difficulty is to find space for those already received. The exhibition will consist of portraits of eminent persons who have lived during the present century, and of many others who flourished prior to that time, forming a supplement to the whole series. In all there will be about 900 portraits, and efforts are making to open the exhibition, which promises to be of greater popular interest than its predecessors, on Easter Monday.

SPECIAL CONSTABLES.—The period for which special constables were sworn in last December, after the alarm occasioned by the Clerkenwell outrage, has in many instances expired; and the warrants of others will expire in the course of the present month. It is not intended to ask for any fresh powers, but to rely on the ordinary powers of the City and Metropolitan police force for the preservation of the peace. The justices in special sessions will meet next week, to order payment to special constables of reasonable allowances for their trouble, loss of time, and expenses.

BRITISH ASSOCIATION.—Mr. Gladstone has consented to preside over the statistical section at the approaching meeting of the British Association at Norwich, and Professor Huxley will also address the working classes.

RATING OF CHARITIES AND SCHOOLS.—A deputation of more than 200 gentlemen waited upon the Prime Minister on Tuesday to urge the importance of exempting the various charitable institutions of the country from rating. The Earl of Harrowby introduced the deputation as one which represented nearly all the charities in England and Scotland. His Royal Highness the Duke of Cambridge addressed the Premier on behalf of Christ's Hospital, and was followed by Mr. Barnes, M.P., for the Leeds Infirmary and Schools; by Mr. Gurney Hoare for Guy's Hospital; the Rev. Mr. Lingham for the Church Schools at Lambeth; Archbishop Manning for the Roman Catholic charities and schools; Dr. Jobson for the Wesleyan schools; Alderman Salomons, M.P., for the Jews' schools; Rev. Dr. Sailes (vicar of Sheffield), for the Ragged schools; Mr. Thomas, for the Bristol charities; and the Hon. and Rev. Mr. Yorke, for the charities and schools of Birmingham. Mr. Disraeli, in reply, said the subject was deeply interesting to the Government and the people, and was one of the deepest social importance. Lord Derby had brought the subject before his colleagues, but his illness intervened, and though it had not been lost sight of, the Ministers had been prevented from coming to a decision upon it. The question should be again brought before the Cabinet without delay, and should receive all the consideration which its gravity demanded.

DECORATION OF HOSPITALS.—The governors of Guy's Hospital have just been presented with 10 pictures by Mr. John Absolom, painted expressly by him for the decoration of the sick wards. These are chiefly enlarged duplicates of the artist's previous works, painted in pure water colours, mixed with a powerful preservative material. The pictures average 8 feet by 7 feet each, and are remarkable for their homely and cheerful character. To allow the public an opportunity of judging of the merits of the gift, the pictures will be exhibited at the Gallery of the Institute of Painters in Water Colours, 53, Pall Mall, for a fortnight.

THE DISTRESS AT THE EAST-END.—The Mansion House Executive Committee for the relief of exceptional distress in the east of London, met at the Mansion House on Monday, and adjourned *sine die*, handing over a small balance to the East-end Emigration Fund, which they commended to the confidence and support of the public. The report stated that the Committee had raised and expended 5000*l.* since the 1st of February.

CITY IMPROVEMENTS.—A great improvement is now in progress at the corner of Fenchurch Street and Gracechurch Street. The church of St. Benet is nearly demolished, and a large space of the opposite corner of Fenchurch Street has been rounded off and added to the roadway, affording room for another line of vehicles. The width of the roadway will be further increased when the materials of the church are cleared away and the ground arranged.

THE STEAM ROLLER IN PARK LANE.—On the 19th inst. the powerful steam roller, just completed by Messrs. Aveling and Porter, of Rochester, for the Sheffield Local Board of Health, was subjected to a public official trial in Park Lane, previous to being forwarded to its destination. For some days past Park Lane had been closed to vehicles to enable its entire surface to be covered with granite. At nine o'clock the steam roller commenced its work, and before two o'clock in the afternoon fully one-half of the side of the roadway presented a hard uniform smooth surface. The trials were witnessed by a number of the leading officials connected with the public departments.

THE THAMES EMBANKMENT.—It is announced that the whole of the completed part of the Thames Embankment will be forthwith prepared for public traffic. At the meeting of the Metropolitan Board of Works on Friday Mr. Freeman moved the adoption of the recommendation of the committee of works, that the contract for that portion of the Embankment between the Temple and Blackfriars Bridge be at once proceeded with. A letter from Messrs. Baxter, Rose, & Norton, the solicitors of the Metropolitan District Railway, was read, suggesting that the railway should carry on its works with the embankment, so as to give a solid embankment and a road 100 feet wide to the public, the amount of compensation to be paid by

the Board and the railway respectively to be settled by arbitration, the reference being to Lord Stanley and any one he might call in to assist him. Mr. Freeman said no doubt this was a very fair proposal, but what guarantee had they that the railway would do this? All their experience of the Company was that it was without funds. However good its intentions, he regarded the letter as mere waste paper unless it was accompanied by some material guarantee. Sir John Thwaites suggested that if the Company were in earnest they should deposit a certain sum, and the Board should deposit a certain sum, in the hands of some bank, and they would then have a substantial guarantee. If any other course were adopted, the Board would find itself primarily liable for compensation to the wharfholders, and any amount of compensation they paid they would have to get from the railway company as best they could. The duty of the Board, having put its hand to the plough, was that it should go on, and although no doubt the letter was a perfectly *bond fide* one, it was certainly calculated to put the Board in the wrong. He suggested that a letter, proposing a mutual deposit, be sent to the solicitors of the railway. After some discussion the report of the Committee was adopted, and the letter was referred to the Committee to answer.

WORKHOUSE INFIRMARIES.—On Saturday a large deputation from the Workhouse Infirmaries' Association, headed by the Archbishop of York, and 40 members of Parliament, waited on the Earl of Devon, Sir M. H. Beach, M.P., and the other members of the Poor-law Board. The Archbishop stated the object of the deputation, which was to suggest the provision of a more complete inspection of workhouse infirmaries by properly qualified officers, in order that the arrangements for the accommodation of sick paupers might be more consistent with the conditions of convalescence, and that such cases of inhumanity and cruelty as now were continually revealed might be impossible. The Earl of Devon said that the Board felt its hands strengthened by the opinions of such an influential deputation, and that their representations would receive every attention.

FENIAN RECRUITING.—On Monday Peter Morgan, alias Mohan, was again brought before Sir Thomas Henry, at Bow Street, on the charge of inducing soldiers to desert, and enlist in the so-called Fenian army. The charge, it will be remembered, was made by a man named John Malony, who, in November, 1865, the time of the alleged transaction, was a soldier at Woolwich. His evidence was corroborated on Monday by Richard M'Carthy, a sapper in the Royal Engineers at Chatham, and the prisoner was remanded.

THE PUBLIC HEALTH.—The Weekly Return of the Registrar-General states that in the week that ended on Saturday, March 21, 4743 births and 2934 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 24 per 1000 persons living, being 22 per 1000 in London, 28 in Edinburgh, and 24 in Dublin, 19 in Bristol, 23 in Birmingham, 25 in Liverpool, 30 in Manchester, 31 in Salford, 21 in Sheffield, 25 in Leeds, 27 in Hull, 27 in Newcastle-upon-Tyne, and 31 in Glasgow. The rate in Vienna was 37 per 1000 during the week ending the 14th. In London, the births of 1183 boys and 1111 girls, in all 2299 children, were registered in the week. In the corresponding weeks of 10 years 1858-67, the average number, corrected for increase of population, was 2218. The deaths registered in London during the week were 1298. It was the twelfth week of the year, and the average number for that week, corrected for increase of population, was 1599. The present return is, therefore, 301 below the estimated number.

Provincial.

ACCRINGTON.—At the Police-court in this town on the 19th, Mr. Murphy, the anti-Popery lecturer, was fined 20*s.* and costs for firing his revolver in the streets of Accrington on the 29th February, prior to starting a "Protestant procession" in the town.

ALRESFORD.—The funeral of the Dowager Lady Tichborne took place on Thursday morning, the 19th, in the family vault in the Lady Chapel of Tichborne parish church. The preparations for it were arranged by the Australian claimant to the title and estates, and a controversy has arisen in the daily papers between his solicitor and the relatives of the deceased lady as to what actually occurred on the occasion. It appears to be undisputed that at 10 o'clock on the morning of the funeral Lord Arundell of Wardour, nephew of the deceased lady and uncle of the infant at present in possession of the title and estates, and Mr. Alfred Seymour, M.P., her brother, accompanied by the Hon. Hubert Dormer, Colonel William Greenwood, and Mr. M. Higgins, her nephews by marriage, and by Colonel George Greenwood and Mr. Stourton, entered the chapel at Tichborne House, to which the body had been removed from London. Shortly afterwards the Australian claimant arrived, accompanied by his solicitor, Mr. Holmes, by Messrs. Guildford Onslow, M.P., Scott, Marx, and Benson, and by a number of professional men and tradesmen from Alresford and Winchester. As soon as the service for the dead had been performed and a short sermon preached, the bearers raised the coffin, and proceeded to carry it to the parish church, distant about a quarter of a mile, when Lord Arundell and Mr. Seymour wished to assume the position of chief mourners, but finding that the Australian claimant had taken that position, they withdrew from the procession, as did all the other relatives and connections of the family, and walked on to Tichborne Church, where the rector provided them with seats, from which they witnessed the conclusion of the ceremony. For centuries past it has been the custom of the Tichborne

family, at the funeral of a member of that family, to distribute a dole of bread to the poor, consisting of as many gallon loaves as the deceased numbered years. At the funeral last week the double dole—one being distributed by the priest's house by the Hon. Mr. Stourton, and the other by the Hon. Mr. Bowker, the steward, of Winchester; the mansion, on behalf of the claimant, the mansion being at present occupied by Colonel Leveson, there 59 loaves were given, but at the priest's such being the discrepancies as to the number deceased.

ASHFORD.—Shortly before midnight a fire broke out at the residence of the Earl of Ashford, at Eastwell Park. The flames were first issuing from the roof over the north front of the house, and owing to the high wind then blowing the spread. The floor above the dining-room afterwards the glass dome over the chief staircase in, destroying much valuable property. Lord Ashford and one from the neighbourhood, Richard Tufton were quickly on the spot, and was confined to the north front of the house. Very valuable pictures were totally destroyed, and is estimated at 12,000*l.* Both the house and contents were insured.

BIRMINGHAM.—A serious accident happened at the performance of the Birmingham Concert Hall, in this town, on Friday. The performance concluded with a ballet, and in one of the scenes, representing the "Home of the Fairies," a number of dancers arranged round the stage while the principal dancer, a *pas seul*. One of the dancers accidentally struck the lamp with her wand, and the wick falling on the dress of another of the dancers she was immediately enveloped in flames. She rushed on and on, but none of the officials rendered any assistance. A man jumped from the side gallery on to the stage, pulling off his coat, enveloped the sufferer with it, and extinguished the flames. She was taken to the Queen's Hospital, where it was found that a particle of clothing had been burnt off her face, and her injuries were so severe that she died on the morning. The proprietor had pieces of hair cut at the wings in order to be used in case of accident, but the men whose duty it was to look after them were either absent or neglected their duty.

DERBY.—The colliery strike in South Derbyshire has at length terminated, the men having been to accept the masters' terms, after a struggle which has extended over 12 months, and has been disastrous to them in its effects, the loss alone being estimated at 25,000*l.*

LEEDS.—On Saturday a deputation, representing the locked-out workpeople of Messrs. Salt, Sons & Saltaire, waited upon the firm to represent their grievances and suggest remedies, in relation to wages in some departments. Messrs. Salt received the deputation with courtesy and kindness, and in reply that they were quite ready to consider the case of their workpeople in the most favourable manner, and also to give them wages equal to those given by other firms, and even higher, but an independent condition preparatory to an arrangement of this kind was that the workpeople should at once resume work. The deputation accepted the condition, and it was that the engines ran as usual on Monday, and work was resumed.

LIVERPOOL.—A meeting was called for the evening of the 19th at the Concert Hall, to meet Mr. Maude, C.B., of the London Free Labour Association, and to consider the question of organising a Free Trade Association for this town, but in consequence of the action taken by the trades' unionists in the afternoon, the room from an early hour, the object of the meeting was entirely defeated. Before the chairman's speakers appeared on the platform, the hall was filled with yells, groans, and cries of all kinds, and the speakers were so much interrupted by hisses and shouts that the chairman was ultimately compelled to discontinue the meeting. Police-officers were present, but no violence was attempted.

MANCHESTER.—The governor of the County of Lancashire on Sunday received a communication from the Government, announcing that a respite had been granted to the condemned Fenians Thomas Mullady. It has since been announced that the sentence has been commuted to penal servitude for life. The execution of Miles Weatherill for the murder of a sweetheart at Droylesden, is fixed for Saturday, 4th of April.

SALFORD.—On Thursday morning a man was arrested in this town on the supposition of being "Captain" Deasy who was rescued with a woman from a prison van at Manchester, which resulted in the murder of Sergeant Brett, and the subsequent execution of Allen, Gould, and Larkin. He was found in bed with a loaded pistol and dagger under his pillow. On being taken to the police station he was found to be Deasy, but a man named Russe.

SELBY.—Frederick Parker, who was executed at York of the murder of Daniel Deane, 12 miles from this town has confessed in a letter to the governor of York Castle and the Secretary of State, that he was guilty of the murder and that his execution was a just one.

TODMORDEN.—Mrs. Plow continues to improve, and is able to leave her bed. The Queen's physician, Lord Stanley, written a letter of condolence to Mrs. Plow, and kindly inquired as to the state of her health.

WIGAN.—At an early hour on Saturday the policeman on duty in that portion of Wigan, as Whelley heard the noise of breaking glass, and a loud report. Proceeding about 40 yards, he saw that an attempt had been made to injure the

116; from Norfolk and Suffolk, 1400; and 771 from the Northern and Midland Counties.

	s.	d.	s.	d.	s.	d.	s.	d.	
Best Scots, Herefords, &c.	4	10	5	2	Best Long-wools	4	6	5	2
Best Shorthorns	4	8	5	0	Do Shorn	4	2	4	6
2d quality Beasts	3	4	3	8	Ewes & 2d quality	3	8	4	6
Best Downs and Half-breds	5	2	5	4	Do Shorn	..	..	..	..
Do Shorn	4	8	4	8	Lambs	..	..	..	..
					Calves	..	4	0	6
					Pigs	..	3	4	4

We have a few more Beasts than on Thursday last, the demand is, however, good, and Monday's quotations are well supported. The number of Sheep is rather smaller; trade is not very active for them, but choicest descriptions are readily sold at fully late rates. The trade is not quite so good for Calves as of late. Our foreign supply consists of 80 Beasts, 500 Sheep, 103 Calves, and 30 Pigs.

	s.	d.	s.	d.	s.	d.	s.	d.	
Best Scots, Herefords, &c.	4	10	5	2	Best Long-wools	4	10	5	2
Best Shorthorns	4	8	5	0	Do Shorn	4	2	4	6
2d quality Beasts	3	4	3	8	Ewes & 2d quality	3	8	4	6
Best Downs and Half-breds	5	2	5	4	Do Shorn	..	..	..	..
Do Shorn	4	6	4	8	Lambs	..	..	..	..
					Calves	..	3	8	5
					Pigs	..	3	4	4

MARK LANE.—MONDAY, March 23.

The supply of Wheat from Essex and Kent to this morning's market was very short, and met a quicker sale than last week, at the full prices of this day's night. There was a fair attendance, and foreign Wheat was also rather more inquired after at our late quotations. Barley, Beans, and Peas brought last week's prices. For Oats there was a fair demand, at a reduction of 6d. to 1s. per qr. There was no alteration in the value of Flour.

PRICE PER IMPERIAL QUARTER.	s.	d.	s.	d.
WHEAT, Essex, Kent, Suffolk. White	70	78	Red	68
— fine selecte runs do.	73	84	Red	72
— Talavera	80	84	Red	..
— Norfolk	..	..	Red	..
— Foreign	63	87	..	..
BARLEY, grind & dist., 37 to 40s. Chev.	42	47	Malting	40
— Foreign, grinding and distilling	35	39	Malting	41
OATS, Essex and Suffolk	23	29	..	..
— Scotch and Lincolnshire.. Potato	25	33	Feed	..
— Irish	30	32	Feed	26
— Foreign .. Poland and Brow	25	32	Feed	22
RYE, Foreign	..	..	Foreign	..
RYE-MEAL, Foreign	..	..	..	..
BEANS, Mazagan	39s	45s	Tick	41
— Pigeon	48s	50s	Winds	..
— Foreign	..	..	Small	41
PEAS, White, Essex, and Kent.. Boilers	45	47	Suffolk	50
— Maple, 41s to 45s	..	..	Grey	44
MAIZE	..	..	Foreign	46
FLOUR, best marks delivered, persack	50	64	..	..
— 2d ditto	..	..	ditto	54
— Foreign	..	..	per barrel	24

FRIDAY, March 27.

During the past week the weather has been changeable. The Wheat trade throughout the kingdom since the 20th inst. has (owing to colder weather and increased Continental demand, coupled with serious discussions as to future supplies to meet our estimated consumption till harvest), gradually emerged from the state of inactivity which we had to repeat during the first week of this month, and prices have assumed an upward tendency, without, however, leading to a greater advance than 1s. 6d. per qr. from the late West rates in some markets. Malting Barley and samples fit for seed were in good demand at extreme prices, grinding qualities remained a slow sale. Beans and Peas met more attention, and prices were in sellers' favour. Oats, which were very depressed at the beginning of this week, are again firmer. Prices of Flour have hardly undergone any change, but we notice a better inquiry than of late. The arrivals off the coast during the week consisted of 16 cargoes, of which, with those left over from last week, there remained for sale last night 34 cargoes. In arrived Wheat a large amount of business has been transacted, at an improvement of 2s. per qr., fine qualities being principally inquired after. Barley was a dull sale. Rye rather lower. In Maize no business transpired. Wheat on passage and for forward shipment was in strong demand at improving prices, and a large business is reported to have been concluded in Black Sea qualities. Paris, March 26.—Wheat is held for an advance, the business done is not extensive. Flour is firm. The six marks are quoted equal to 60s. per 280 lb. The stock at the Halle is estimated at 21,200 cwts.

The arrivals of English grain by water continue to be small, those of foreign, particularly of Barley and Oats, during the week have been large. This morning's market was moderately attended, and English Wheat, being scarce, was inquired for at the extreme rates of last Monday; in foreign the business was less extensive than on Monday or Wednesday, but the rates of the latter day were fully supported. Barley was scarce, and brought full quotations. Beans and Peas were unchanged in value. Fine Oats brought Monday's prices, but inferior were rather cheaper.

	Wheat.	Barley.	Oats.	Flour.
English	1070 qrs.	500 qrs.	50 qrs.	1350 sks.
Irish	..	..	20	..
Foreign	20,370	16,990	58,460	770
				1510 bris.
	21,440	17,490	58,530	

LIVERPOOL, Tuesday, March 24.—The market was fairly attended, and there was a large demand for Wheat, at 1d. per cental over Friday's rates, chiefly for California. Flour was in good request, at late rates. Beans unchanged. Peas is dearer. Oats and Oatmeal in moderate demand. Indian Corn brisk, and 6d. to 1s. per qr. advance.

	Wheat.	Barley.	Oats.
Feb. 15	73s 0d	42s 6d	25s 9d
— 22	75 11	42 9	26 2
— 29	73 4	42 5	26 9
Mar. 7	73 8	43 1	27 2
— 14	73 1	43 3	27 2
— 21	72 5	43 4	26 9
Agg. Average	73 7	42 10	26 7

POTATOS.—SOUTHWARK, Monday, March 23.

During the past week the arrivals both coastwise and from abroad have been greater than the demand, and trade dull at a decline of 10s. to 15s. per ton on most sorts. The following are this day's quotations.—Yorkshire Flukes, per ton, 10s. to 16s.; do. Regents, 130s. to 140s.; do. Rocks, 110s.

to 120s.; Lincolnshire Regents, 120s. to 140s.; Dunbar and East Lothian Regents, 130s. to 150s.; Perth, Forfar, and Fife Regents, 120s. to 130s.; ditto Rocks, 105s. to 120s.; French and Belgian Whites, 80s. to 90s.

WANTED, to Superintend Property, near London, coming into Building, an active, experienced SURVEYOR. who understands making Roads, Ornamental Planting, Brick-making, Draining, &c.—Apply to E. F., Post Office, Temple Bar.

MESSRS. F. AND A. SMITH are in IMMEDIATE WANT of a thoroughly competent MAN, to Manage and Propagate Stove Plants, and Vines from Eyes—Apply at the Nurseries, West Dulwich, S.E.

WANTED IMMEDIATELY, an active, intelligent GARDENER, to Superintend and Assist in the Jobbing department. Wages, 21s. Also ONE or TWO good JOBBING HANDS. Apply to MICHELL & Co., Nurserymen, William Street, New North Road, London, N.

To Landscape Gardeners.

WANTED, a MAN of good address, who thoroughly understands the Laying-out and Planting of New Grounds, Preparing Plans and Estimates, &c. Enclose terms and full particulars to H. E., Mr. Cooper, 152, Fleet Street, London, E.C.

WANTED, as GARDENER, in a small Village west of London, a respectable and competent Man (without family preference), who thoroughly understands Vines, Fruits, Flowers, and Vegetables, and would undertake the Management of a Horse and Carriage. When necessary, help will be given. The party engaging must procure his own lodging in the village.—Address, stating age, wages, reference, &c., C. D., Post Office, 28, Oxford Street, W.

WANTED, a steady, WORKING PROPAGATOR, where the Proprietor takes some interest in the House. State age, wages, and if married.—JAMES HUDDART, Farrington Hall Nursery, Preston

WANTED, a SALESMAN, married or single, for Nursery Stock, Seeds, Fruit, &c.—State wages, reference, &c., to H. H. DAVIS, Nurseryman, Bournemouth.

WANTED, as SHOPMAN, a young Man who has some knowledge of the Seed Business, and is willing to make himself useful—Apply, in own handwriting, to Mr. Scott, Northgate Nursery, Chichester.

WANTED, an ASSISTANT SHOPMAN.—Must be thoroughly acquainted with the execution of Vegetable and Flower-Seed Orders, especially the latter, and must be well educated, and of good address.—Apply, stating fullest particulars, where last employed, salary required, age, &c., FRANCIS & ANTHONY DICKSON & Sons, 106, Eastgate Street, Chester.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. F. G. HENDERSON & Son, Wellington Nursery, St. John's Wood, London, N.W.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS and GARDENERS and BAILIFFS, of various qualifications, who are open to engagements.—The fullest particulars as to services required and wages given, should be forwarded with application. Paul's Nurseries, Waltham Cross, London, N.

To Gardeners and Bailiffs (Head, Foremen, or Under). JAMES CARTER AND CO. having many applications for the above request that those wanting situations will send name, address, and copies of Testimonials for entry in their FREE REGISTER.

Only those who can send unquestionable references need apply. Any Lady or Gentleman requiring Gardeners or Bailiffs may rely upon J. CARTER & Co. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c. JAMES CARTER & Co., 237 and 238, High Holborn, London, W.C.

GARDENER (HEAD).—Age 30, married, no incumbence; has a thoroughly practical knowledge of his profession. Good references.—GARDENER, Thomas's Library, Stockcroft, Bristol.

GARDENER (HEAD).—Seven years Head Foreman in the Gardens of the Duke of Northumberland, Ston House.—P. P., 4, Blyth Lane, Hammermith, W.

GARDENER (HEAD).—Age 29, married, understands Pines, Vines, Stove and Greenhouse Plants, &c.—W. J., 4, Denham Cottages, Pridham Road, Thornton Heath, Surrey

GARDENER (HEAD).—Age 25; understands the Management of Vines, Cucumbers, Melons, Stove and Greenhouse Plants, and Flower and Kitchen Gardening. Three years' good character.—W. F., Post Office, Shest, near Petersfield, Hants.

GARDENER (HEAD).—Age 26, thoroughly understands his business in all its branches. Can be highly recommended from last two places.—A. B., Mr. Wm. King's, High Street Nurseries, Lincoln

GARDENER (HEAD).—Age 28, has a thorough practical knowledge of his profession in all its branches; has had 14 years' experience, unexceptionable references.—A. B. PROVIDER, Faversham, Kent, S.E.

GARDENER (HEAD).—Married; perfectly understands his profession. Wife a good Laundress. Also a Young Man as UNDER GARDENER, aged 19. Excellent references.—A. B., Kings' Stenables, Buxton, Derbyshire.

GARDENER (HEAD).—Age 40, married, no incumbence; 15 years' experience in the general routine of Gardening, including Early and Late Forcing of Fruits, Flowers, and Vegetables. Wife can undertake a Dairy or Laundry. Three years' first-class character from present employers.—For particulars, Mr. W. K. KNIGHT, Floral Nursery, Hailsham, Sussex.

GARDENER (HEAD).—Messrs. BUNDY & CHAPLOW, Seedsmen, Barton, Southampton, can recommend to any Nobleman or Gentleman a first-class GARDENER, thoroughly experienced in the Cultivation of Pines, Vines, Peaches, &c. Stove and Greenhouse Plants, and Flower and Kitchen Gardening. First-class references; character will bear the strictest investigation.—Address as above

GARDENER (HEAD).—JOHN GOODE, Head Gardener to the Right Hon. the Earl of Antrim, Glenarm Castle, North Ireland, is at liberty to treat with any Nobleman or Gentleman requiring a thorough Gardener; will be disengaged the 1st of April. The highest testimonials can be given. To save trouble, none but a first-class place and liberal salary will be accepted.—Applications to be made as above

GARDENER (HEAD).—Middle-aged, one child seven years old; late Gardener at Conover Hall, Salop, ten years. Has a good knowledge of Forcing Pines, Grapes, Peaches, and Melons; a good Cultivator of Orchids, Ferns, Stove and Greenhouse Plants, of great experience in Flower Gardens and Pleasure Grounds, and well versed in the Kitchen and Fruit Gardens. Can be well recommended. J. MIDDLETON, 48, Elgin Terrace, Maidstone, Kent, W.

GARDENER (HEAD).—Age 38, married; two boys, ages 1 and 11, first-class Grape, Fruit, Plant, Flower and Vegetable Grower, experienced in Early and Late Forcing of every description, in erection of Glass Structures, and in Woods, Coppices, Land Fences, Drainage, Laying-out and Planting; has had charge of over 30 men, including Masons, Carpenters, Painters, Woodmen, Sawyers, &c. 12 years as above with H. Clay, Esq., and highly recommended by him.—Wm. Cox, Pierceland, Choptow.

GARDENER (HEAD).—Age 33, married, understands his profession in all its branches, and all classes of Fruit, Kitchen and Flower Gardening, and good character.—C. H., 5, Park Terrace, Corvay, East Devon

GARDENER (HEAD).—Age 33, married, six years Head Gardener to Sir Edward Bouverie, leaving on account of the place being at Frimley, T. GATLEY, Ranston, Blandford, Dorset

To Nobleman and Gentlemen GARDENER (HEAD).—Age 33, married, understands his profession in all its branches, and all classes of Fruit, Kitchen and Flower Gardening, and good character.—S. B., Post Office, Chester

GARDENER (HEAD).—Age 30, understands Forcing of Grapes, Peaches, &c. Stove and Kitchen Plants, also Flower and Kitchen Gardening. Three years' good character from present situation.—J. A., Major, Wallasey, near Birkenhead

GARDENER (HEAD), age 33.—T. J. A., with confidence recommend his Foreman to any Nobleman or Gentleman in want of an honest, sober, active, and experienced man who has lived under him over six years, and has a good ledge of his profession

GARDENER (HEAD), or FOREMAN GARDENER, Nurseryman, &c., to carry out. Thoroughly understands the Management of Men.—E. H. Landscape Gardener, 74, Oxford Terrace, Hyde Park, W.

GARDENER (HEAD), or GARDENER, in all its branches. Has a practical knowledge of Stove and Kitchen Gardening. In present situation at Ashby Lodge, Rugby.

GARDENER (HEAD, WORKING, where two kept, or a single-handed place vacant, understands Vines, Melons, Cucumbers, and Flower Gardening in all its branches. Eight years' experience, 12 months' good character.—E. W., 22, Devonshire Street, W.

GARDENER (HEAD, WORKING).—Age 30, H. GILBERT, Easthamstead Park, Wokingham, with confidence recommend to any Lady or Gentleman who has lived with him two years. Understands Kitchen Fruit Gardening; also Forcing.—Direct as above

GARDENER (HEAD, WORKING).—Age 30, well understands the Forcing of Flowering Fruits, including Vines, Strawberries, Cucumbers, &c. Must be highly recommended. Three years' character from employer.—H. T. B., Post Office, Woking, Surrey

GARDENER (HEAD, WORKING).—Age 30, no incumbence; understands Early and Late Forcing of Flowers, and Vegetables, Flower and Kitchen Gardening, to be highly recommended by several Nobleman's Gardens, good character from last places.—P. W., 3, Leaze Road, Ham Gate, Essex.

GARDENER (HEAD, or SINGLE-HANDED).—Understands Kitchen and Flower Gardening and Fruit Cook or Laundress.—THE GARDENER, 129, Hal Place, East London

GARDENER.—Understands his business as a respectable young Man, and with his wife, home so well as to make it an agreeable neighbour. This advertisement is put in by an employer.—Mr. Everard, St. Ives, Huntingdonshire

GARDENER.—The Advertiser is desirous of sending to any Nobleman or Gentleman a Gardener, who is well up in the Culture of Stove and Kitchen Plants, Orchids, Pines, Vines, and all the Horticultural first-class Establishment.—E. F. FAIRBANKS, East London, Carlisle.

GARDENER (SINGLE-HANDED).—No incumbence. Understands Flower and Kitchen Gardening. Two years' good character.—A. B., 48, Camden Place, W.

GARDENER, where one or more are required, age, married, no incumbence, having a thorough knowledge of his business, and with an unexceptionable character required, not less than 21s. per week, with cottage.—Sutton & Sons, Reading Nurseries

GARDENER (UNDER), or Improver, in a Garden.—Age 19, good character from present employer.—A. Z., 1, Howard Park Cottages, Perry Hill, Forest Hill, Kent

GARDENER (UNDER).—Age 24, good character from present employer.—Edwards, 1, Thomson, Esq., J. P., Kenfield Hall, Petham, near Canterbury

GARDENER (UNDER).—A young Man, in a Conservatory, and Flower Garden. A place in department, near London, preferred. Good references.—1, Trinity Buildings, Great Tower Street, E.C.

GARDENER (UNDER).—Wishes for a situation, chiefly in the Kitchen and Fruit departments, four years under glass. Good references.—G. W., near Halstead, Essex.

GARDENER'S ASSISTANT.—Age 24, a respectable young Man. Has no objection to a single-handed place. Good character and references.—A. B., Cottage, Bushey Heath, Watford, Herts.

KITCHEN GARDENER and ROUGH COOK.—The Wife good Cook, Dairy and Baking. Three years' no incumbence, quick and active. Good character.—9, Grove Cottages, North End, Fulham, S.W.

FOREMAN, in any Nobleman's or Gentleman's Garden.—Age 26, highest testimonials as to character.—A. B., 10, South Street, West Brompton, W.

FOREMAN, in a Gentleman's Establishment.—Thorough knowledge of Forcing in all its branches, well recommended by late employer.—H. W., stone, Middlesex

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BAILIFF, or GARDENER, is open to an employer, lived with Nobleman and Gentleman in England, Ireland, and Wales. Five years in present situation, the usual up Farming the reason for leaving. Good references.—W. FAIRLEE, Hogman's Barn, N. cup, Kent

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To the Seed Trade. TRAVELLER or JUNIOR PARTNER.—A young Man who has had several years' experience in Kitchen and Flower Gardens.—R. E. D., Gardeners' Chronicle Office, W.

To Market Gardeners. SALESMAN, or FOREMAN and BAILIFF.—A young Man.—Z. A., Town Road, Lower Edgware, W.

To NOBLEMEN, GENTLEMEN, and MEN.—A YOUNG MAN offers his services. Had four years' experience in Greenhouse Building and General Gardening, &c. Can make himself useful in any branch. Moderate wages expected.—Barnet, N.

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The Gardeners' Chronicle Newspaper.

SATURDAY, JANUARY 2, 1869.

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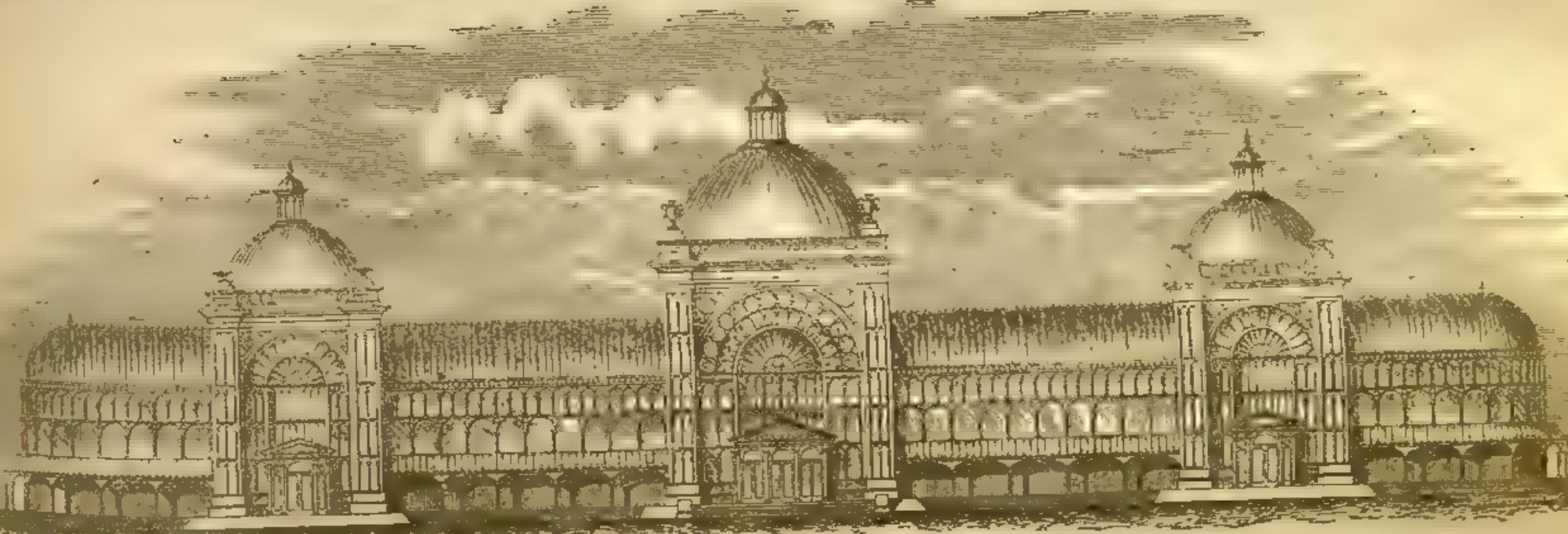
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THE SOCIETY of PAINTERS in WATER COLOURS.—The WINTER EXHIBITION of SKETCHES and STUDIES by the MEMBERS is NOW OPEN, 5, Pall Mall East. Ten till five. Admission 1s. Gas on dark days.
WILLIAM GALLOW, Secretary.

Home News.

THE COURT AT OSBORNE.—On Christmas Eve the Queen distributed Christmas gifts to the labourers on the Osborne estate and their wives. Her Majesty was assisted in the distribution by the Crown Prince and Princess of Prussia, Princess Charlotte, and the Royal family. The Right Hon. Edward Cardwell left Osborne for London. On Christmas Day the Queen and Royal family attended Divine service at Whippingham Church. The Rev. George Prothero officiated. On Saturday the Queen walked in the grounds in the morning, and drove out in the afternoon with Prince Leopold. Sir Edwin Landseer arrived at Osborne on a visit. On Sunday morning the Queen, the Crown Prince and Princess, Princess Charlotte, and the Royal family, attended Divine Service at Osborne. The Rev. R. Duckworth officiated. On Monday morning the Crown Prince and Princess, with their children, Princess Charlotte, Princess Victoria, and Prince Waldemar, took leave of her Majesty, and left Osborne for Dover, where they embarked for Calais, on their return to Germany. Prince Arthur accompanied their Royal Highnesses to Portsmouth. The Earl and Countess Spencer arrived from London on a visit. On Tuesday morning the Queen walked in the grounds with Princess Louisa, and drove out in the afternoon. On Wednesday morning the Queen drove in the grounds with Princess Louisa. Prince Arthur shot in the preserves at Swainston with Sir John Simeon. The Earl and Countess Spencer left for London. The Earl and Countess Granville and the Right Hon. John Bright arrived on a visit. On Thursday morning the Queen walked out with Princess Louisa. Prince Arthur went out shooting. Sir Edwin Landseer left for London.

THE CABINET.—A Cabinet Council was held on Tuesday in the Foreign Office.

PARLIAMENTARY MOVEMENTS.—It is understood that on the reassembling of Parliament, on the 16th of February, the session will be formally opened by a Speech from the Throne. At the sitting of the House of Commons on Tuesday, Mr. Gladstone, Mr. Lowe, Mr. Bright, Mr. Cardwell, Mr. Foster, Mr. Childers, Mr. Goschen, Mr. Stanfield, Mr. Layard, Sir R. Collier, Sir J. D. Coleridge, Lord John Hay, and Captain Vivian, all of whom were re-elected last week without opposition, took the oaths and their seats, and were formally presented to the Speaker. New writs were issued for the seats vacated by the other appointments in the Administration. There is a vacancy for Renfrewshire, caused by the death of Captain Speirs. There are two candidates in the field for South Derbyshire, vacant by the death of Sir T. Gresley—Colonel Wilnot, Conservative, and Mr. T. W. Evans, of Alltree Hall, Liberal. The day of nomination has been fixed for Tuesday, and the polling for Thursday next.

CONFIRMATION OF THE ARCHBISHOP OF CANTERBURY.—The ceremony of confirming the election of Dr. Tait, Bishop of London, to the Archbishopric of Canterbury, took place on Wednesday in the church of St. Mary-le-Bow, in the presence of the Bishops of Lincoln, Rochester, Hereford, Gloucester, and Peterborough. The see of London being now vacant, the *congé d'élire* will be at once issued for the election of Dr. Jackson, the Bishop of Lincoln, to the See of London; and on his confirmation the same steps will be taken for the election of Dr. Wordsworth to the See of Lincoln.

THE BISHOP OF SALISBURY is slowly improving, but it will be some time before he will be able to resume his diocesan duties. The Bishop of Sodor and Man has been confirming for his Lordship, and his other official duties are performed by the Commissary.

THE CANONRY OF PETERBOROUGH.—Dr. Magee, the new Bishop of Peterborough, has conferred the canonry in Peterborough Cathedral, vacant by the death of Dr. James, on the Rev. Brooke Foss Westcott, B.D., formerly Fellow of Trinity, and for many years one of the assistant-masters of Harrow School.

ORDER OF THE STAR OF INDIA.—The Queen has appointed the Right Hon. Sir William R. Seymour V. Fitzgerald, Governor of Bombay, to be a Knight Grand Commander of the Star of India; the Rajah of Parri-cood; James Duncau Sim, Esq.; Pundit Mumphool;

Robert Henry Davies, Esq.; the Nawab Gholam Hussein Khan; John Clark Marshman, Esq.; Major-Gen. Cotton; Sahib Khan Tawanna Khan Bahadour; Col. A. Broome; Col. A. Fyche; Col. C. H. Dickens; Col. E. T. Dalton; Lieut.-Col. O. E. Rothney; Lieut.-Col. L. Pelly; Lieut.-Col. James B. Dunsterville; Lieut.-Col. T. Rattray; Major F. R. Pollock; Dr. Fyler, M.D.; J. H. Oliver, Esq.; and F. H. Souter, Esq., to be Companions of the Order.

THE ARMY.—The Colonelcy of the 13th Hussars, vacant by the death of General Maclean, has been conferred on General Lawrence. The Colonelcy of the 8th Hussars, vacated by this appointment, has been conferred on Major-General Gibbons. Major-General T. P. Flude has been appointed Colonel-Commandant of the Royal Artillery, vacant by the death of Field Marshal Sir H. D. Ross.

THE REVENUE.—The Revenue returns for the year and quarter ended December 31, show an increase of 3,197,161*l.* on the year, and an increase of 1,553,115*l.* on the quarter. The year's account shows an increase in the Excise of 259,000*l.*; Property Tax, 3,148,000*l.*; Crown Lands, 22,000*l.*; Miscellaneous, 412,161*l.*; and a decrease in the Customs of 144,000*l.*; Stamps, 423,000*l.*; Taxes, 70,000*l.*; Post Office, 70,000*l.*. The quarter's account shows an increase in the Excise of 339,000*l.*; Property Tax, 1,133,000*l.*; Crown Lands, 12,000*l.*; Miscellaneous, 309,115*l.*; and a decrease in the Customs of 104,000*l.*; Stamps, 76,000*l.*; Taxes, 80,000*l.*; Post Office, 30,000*l.*

BOARD OF INLAND REVENUE.—The vacancy in the Board of Inland Revenue caused by the death of Mr. James Disraeli, will not be filled up, the office having been abolished.

THE CIVIL SERVICE.—It is reported that Mr. Frank Ives Scudamore will shortly be removed from his position as second assistant-secretary to the Post Office, to the Treasury; where his administrative talent and powers of organisation will have a more ample field for their exercise, in the preparation of a great scheme which the Premier, aided by Messrs. Childers and Stanfield, is said to have in contemplation for the reform and reorganisation of the whole civil service. Mr. Scudamore is at present engaged, in conjunction with Mr. Forster, by commission from the Treasury, in revising several of the offices of account at the Custom House. It is expected that by a simplification of the cumbrous machinery now in use, and a redistribution of the duties of several of these departments, increased efficiency and greater economy in their administration will be effected.

CIVIL SERVANTS AND THEIR DEBTS.—A Treasury minute has been issued relating to the bankruptcy or insolvency of members of the Civil Service. It lays down the following rules for general observance:—

1. That it is to be understood that serious pecuniary embarrassment, from whatever cause, must be regarded as a circumstance which necessarily has the effect of impairing the efficiency of a public servant, and rendering him less valuable than he would otherwise be.
2. That such embarrassment, if occasioned by imprudence or other reprehensible cause, will be held to be an offence, as affecting the respectability of the service and the trustworthiness of the individual; any person who has thus conducted himself will be considered to have forfeited that honourable position in the service which is necessary to give him a claim to promotion or increase of salary from length of service; and these benefits will not be permitted to accrue to him again until he shall have relieved himself from the discredit of such a position. Aggravated cases of this description will be noticed whenever they become known; and such measures will be taken, either in the manner above adverted to, or in a manner more summary and severe, as the circumstances may appear to deserve.
3. That the mere fact, under whatever plea, of becoming a party to accommodation bills, whether for his own purposes or for another person, and whether resulting in pecuniary embarrassment or not, will subject a civil servant to the consequences described in the preceding paragraph.
4. That in the event of any civil servant being arrested, or being adjudicated bankrupt, or entering into a composition with his creditors under the Bankruptcy Act, he will, on the fact being known, be suspended from duty and salary, and will not be reinstated unless, after examination of the facts and of the schedule prepared by the court, it shall appear that his difficulties have been occasioned by unavoidable misfortune, and not by extravagance or culpable improvidence, or unless the case shall be characterised by previous circumstances of extenuation.
5. That any person who shall not immediately, on his being arrested, or proceeding being taken with a view to bankruptcy, inform the head of his department of the fact, shall, upon its becoming known, be removed from the service without expectation of being reinstated.

Foreign.

FRANCE.—A Cabinet Council was held at the Tuileries on Saturday, at which it was ordered that the Senate and the Legislative Body should meet on the 18th January, and the *Moniteur* of Sunday published a decree convening the Chambers for that day. The negotiations for the proposed Conference on the Turko-Greek question are proceeding, and it is understood that the first meeting will take place in Paris to-day. The Great Powers have agreed that the discussion should be limited to the examination of the Turkish ultimatum. The integrity of the Ottoman territory and the maintenance of the *status quo* with regard to Crete are to be the bases of the Conference, and England only accepts the invitation on those conditions, the Earl of Clarendon having declared that the principle of the integrity of the Turkish empire must not form the subject of discussion. The official papers state that all the Great Powers are animated by the most conciliatory intentions on the subject. Prince Napoleon has been suffering from indisposition for some days past, and the accounts of M. Moustier's health continue very unfavourable. Mr. Jefferson Davis is expected in Paris, on his way to Nice. The Tribunal of Commerce has prohibited M. Whittersheim from publishing a newspaper bearing the title *Moniteur*, that title being the exclusive property of M. Panckouke. The paper which M. Whittersheim intended to bring out under that title

on the 1st of January is the new official organ of the French Government. M. Rouher has since then decided that the new journal shall be called *Journal Officiel de l'Empire Français*. The offices in Paris, and seized their books and papers, a measure is supposed to be a preliminary step to the suppression of these establishments.

SPAIN.—The journals publish a manifesto from the Duke de Montpensier, dated Lisbon, the 19th inst. The Royal Highness explains the purpose of his recent journey to Spain, which he justifies on the plea that he was anxious, as a citizen, to exercise his rights as a soldier, in order to aid in its defence against an enemy which he believed had been instigated by the reactionary party. He simply intended to serve as a volunteer, and gave no official notice of his step, as he had no intention to throw off his *incognito* as soon as he should have reached the scene of contest. Upon his arrival at Cordova he discovered that the true aim of the expedition was not of a reactionary character, and he returned to Portugal. The letter declares that certain accusations which had been raised against him, and proceeds to recall the fact that he had never as could be proved from official documents further, that he and his Consort, the Infanta Isabella in 1859 and in 1866 to follow a liberal course—efforts which unfortunately had been unavailing. He respects the principle of universal suffrage as a source of the legitimate claim of a nation to share in the political administration of a free country. The Duke says that, notwithstanding the fact that he himself is a devoted Catholic, he wishes that every one should worship God according to the promptings of his conscience with as much liberty as is enjoyed by Spanish residents in London, Edinburgh, and Geneva. The letter concludes with the assurance that the writer is not influenced by ambition, that he covets nothing, save once more to belong to the new Spain of liberty. The *Liberté* of Spain publishes a letter, dated Paris, December 21, from Her Majesty's brother of the ex-King of Spain, addressed to the Provisional Government. The writer attacks vigorously the ambition of the Duke de Montpensier, declares that the glory of Washington is far more enviable than that of Cesar, and asks to be permitted to return to Spain as a more citizen, and again to serve in the Spanish navy. In consequence of a letter of the Duke de Montpensier, the leaders of the Republican party had a meeting to consider the advisability of renouncing for the present the Republican form of government, and of putting Marshal Espartero forward instead as candidate for the throne. They resolved, however, to maintain the programme of their party. A commission of six members of the Monarchical Committee has been appointed to act with the Government to re-establish and support liberty and moral integrity at the elections. The army, under the command of General Caballer de Rodas, arrived at Cordova on Tuesday. The National Guard of Seville surrendered its arms without opposition. General Caballer de Rodas was to enter Malaga yesterday, and had announced beforehand that he did not intend to take any hostile steps, as he considered in the good sense of the citizen militia. Rear-Admiral Mendez Nunez has resigned the rank of Vice-Admiral, and his resignation has been accepted by the Government. Marshal Pezuela, who is in Paris, and General Gasset, have refused an order of banishment to the Canary Islands, and have resigned their ranks in the army. The semi-official newspapers state that the Provisional Government will not entertain any proposal for selling Cuba to the United States. Ten thousand soldiers will leave Cadix this month to reinforce the garrisons of Cuba and Porto Rico.

PORTUGAL.—Senor Samedanos has been appointed Minister of Finance. The stability of the Cabinet is thought doubtful. At a meeting of the principal capitalists and bankers of Lisbon and Oporto, convoked by the Government, the Ministers explained the necessities of the Treasury, chiefly to meet the Portuguese funds, due in London on the 15th inst. It was stated that they could not accept the exorbitant terms asked in Paris for a loan, or yield in honor to the exigencies of foreign railway companies. These statements were well received, and the meeting, expressing confidence in the Ministers, appointed a committee for the purpose of providing funds for the present necessities of the Treasury. Her Majesty's frigate *Warrick* has arrived at Lisbon. Her Majesty's despatch vessel *Helicon*, with Admiral Warden on board, has sailed for Cork.

BELGIUM.—The Prince of Wales arrived at Antwerp on Tuesday, and visited the citadel, accompanied by four officers of the British army. The Crown Prince and Princess of Prussia arrived at Brussels on Monday evening. Their Royal Highnesses were received at the railway station by the King, and dined with the Royal family at the Castle. On Wednesday they left Brussels for Berlin. The Court of Appeal at Brussels has given judgment in the Doune case. The Court admits the competency of the lower Court, but declares that the facts brought forward at the trial, however irregular in their character, do not constitute an offence within the Penal Code.

PRUSSIA.—The Crown Prince and Princess of Prussia arrived at Berlin on Thursday from Osborne with their children. In consequence of a rumour that a Bill had been submitted to the North German Federal Council to authorise subjects of Baden and Prussia to enter the armies of North Germany and Prussia respectively having caused a fall on the Paris Bourse on Monday, it is semi-officially declared that the proposition which proceeded from the Government of Baden, was

communicated to the President of the Com-
mission as far back as June, 1868. The agreement
at on this point owes its origin solely to a desire
to facilitate the performance of military service as much
as possible for the subjects of the two states. Twenty-
three export firms have requested the senior Board
of the Berlin Trade Association to urge the Federal
Government to take steps for establishing a North
German Consulate in British Columbia. It is said that
Miss Hamilton-Douglas, sister of the Duke of
Hamilton, is about to be married to Prince Hohenzol-
lern, brother of Prince Charles of Roumania.

HANOVER.—The former officers of the late kingdom,
bound from their oaths by King George, and who receive
a pension from the Prussian Government, have been
called upon by the latter to sign a declaration that in
case of war they would only take service in the Prus-
sian army. In case of refusal, their allowance is to be
withdrawn.

AUSTRIA.—Archduke Albert, generalissimo of the
Austrian army, and chief of the war party, has published
a pamphlet, only 50 copies of which have been printed.
The Archduke expresses his conviction that Austria
can secure years of peace before being able to em-
brace a campaign, with an army equal to her situation
as a first-rate Power. He vehemently reproaches the
Austrian army for having led the monarchy into an
adventurous attitude without
preparing previously, as was its duty, if the Austrian
army was in a position to efficaciously support their
projects. From 1815 to 1830 Austria was almost with-
out an army. He says that it was only during the
twelve years which preceded the revolution of 1848
that Marshal Radetzky succeeded in forming one; and
that to form a good army such a period is strictly
necessary, and diplomacy would be wise never to
forget it.

BOHEMIA AND GALICIA.—The negotiations with the
Poles have been broken off, and M. Rieger has left
Vienna to return to Prague. M. Giskra has promised
some concessions to the Poles.

HUNGARY.—The Minister of the Interior, on the
20th ult. issued an order to the municipalities of the
kingdom to make the customary preliminary arrange-
ments for the elections to the Diet within 20 days.

CROATIA.—A conference, called together by the Ban
of Croatia to deliberate on the organisation of an inde-
pendent Government for the country, was opened on
the 20th ult. The Emperor and Empress are expected
to arrive to be present at the installation of the Ban.

RUSSIA.—It is announced that the Russian Grand
Duchess Maria, who is to be married to the King of
Bavaria, is to become a Roman Catholic, and that M.
Wagner's mission to Rome was connected with that
circumstance. Her Imperial Highness is the first
member of the Russian Imperial family that has ever
abandoned the Greek religion for Catholicism. The
semi-official papers publish an article, of which the
following is a summary, on a speech delivered by the
Württemberg Foreign Minister in the debate on the
address:—

"We consider that this speech demonstrates the good
standing existing between Wurtemberg and Bavaria,
and their consent to enter into an offensive and defensive
alliance. The Customs' Treaty was a national duty, but
there is no occasion to proceed further on the course
indicated by that Treaty; nor has Prussia made any attempt
at any suggestion in favour of overstepping the boundaries
which have been internationally settled. In the case of a
foreign war the South German army will be with and for
Germany."

RUSSIA.—A letter from St Petersburg states that
Prince Sergius, third son of the Grand Duchess
Maria, and who is only 19 years of age, is about to
marry, at the example of his elder brothers, by making a
marriage of inclination. The lady is the Princess
Zubovskoi, a lady of honour at the Russian Court,
and cousin to the Duchess di Sesto. The Emperor has
already given his consent.

ITALY.—The semi-official papers contradict the
reports of Italian interference in Spanish affairs, and
state that it is untrue that Prince Carignano intends
to visit Spain.

ITALY.—Sunday being the Pope's *fete*, his
Holiness presided at the mass at the Vatican, and
wards received the congratulations of the Sacred
College, the Diplomatic body, the public functionaries,
municipal authorities, and officers of the army. In
returning thanks, the Pope expressed confidence in
the Providence.

GREECE.—A circular note has been addressed by the
Government to its representatives abroad, in
which it is declared that the Cabinet of Athens was
satisfied that portion of the Turkish complaints
which was supported by all the Powers. The Turkish
representations at Athens, it is added, was made aware of this
and the demands of the Sublime Porte were, never-
theless, repeated in the form of an ultimatum, so that
the only answer which could be given.

The Government has issued a proclamation, asking to
be supported by the people in the present diffi-
culty. The Chamber has granted to the Govern-
ment a credit for 100 million drachmas, and
at the same time accorded to them full power
to employ other financial resources, and to make an
extraordinary levy of men for the army and navy.
The Turkish Commander, Hobart Pasha, who
arrived at Syra with nine vessels, had demanded the
surrender of the *Enosis* or her disarmament, and
until Sunday for compliance with his ulti-
matum. The Greeks refused to accede to his demands,
and, according to one account, sunk the vessel, but it
is now said that she is merely detained pending the
decision of the Greek tribunals. The Greek Minister
at Constantinople arrived at Athens on Tuesday. A
Danish frigate has arrived at the Piræus.

TURKEY.—The public belief at Constantinople has
turned in favour of peace, in consequence of the

expected meeting of a Conference. The Turkish Govern-
ment has issued a circular to its representatives abroad,
stating that the Sublime Porte does not admit the
necessity of the Conference, but has nevertheless agreed
to it, on the understanding that the five points of the
Turkish ultimatum are to form the basis of the discus-
sion, and that the Cretan question is not brought
forward. The Turkish representative is to withdraw
in the event of the introduction of other questions. The
time for the departure of the Greek residents from
Turkish territory has been again extended, and the
British and Austrian ambassadors, acting on behalf of
the shipping interest, have represented to the Porte
the desirability of the non-expulsion of the Greek pilots
on service at the mouth of the Danube. The 3d and
4th Dragomans and an unpaid *attaché* of the Hellenic
Legation have changed their nationality, and become
subjects of the Porte. The Russian authorities have
suspended the facilities granted to Greek ships to
assume the Russian flag. The Turkish army in Thessaly
is about to be raised to 50,000 men.

CANDIA.—Official information has been received
from Crete announcing that Petropoulaki, with 900
Greek Volunteers, the Provisional Government, and
all the insurgents in the island, have surrendered to
the Turkish forces.

THE PRINCIPALITIES.—Above 20 ships, carrying
Greek fugitives, have arrived from Turkish territory in
Roumanian ports. They have received permission to
stay, provided they implicitly obey the law of the land,
and pledge themselves to abstain from all political
manifestations.

WEST COAST OF AFRICA.—The cholera has arrived
at St. Louis, the capital of the French possessions in
the Senegal, the inhabitants dying at the rate of 100 a
day. This is the first occasion on record of the disease
having reached the West Coast. Its advent is much
dreaded among a people so underfed as the natives.

CAPE OF GOOD HOPE.—Accounts from the Cape to
the 19th ult. state that the colonial border relations
were very unsatisfactory, and from Namaqualand to
Victoria West the country was being kept in perpet-
ual embarrassment by small hordes of plundering
Bushmen and Korannas. On the north-east border
there was a disturbance with the Tambookies, but
nothing very serious was apprehended. The Basuto
dispute remained as before, the Basutos distinguishing
themselves as formerly by their zeal and skill in cattle
theft. Mr. Erskine, a son of the Colonial Secretary
of Natal, had discovered the mouth of the Simpopo
river, in 24.55° S., 84.10° E. Herr Malich had dis-
covered gold in another locality during his journey
to the north-west. The natives stated they used to
dig there for copper, but it was of a different colour
to that now obtained. A Government commission
had not been sent to investigate those discoveries.
The Bishop of Capetown had been enthusiastically
received by the members of the English Church on
his return to the colony. The movement for improving
the quality of Cape wines, and opening up foreign
markets for their sale, was progressing, and a company
was formed with a capital of 100,000*l.* for carrying out
those objects. Ostrich farming was proving very
successful, and its adoption extending among farmers.
Very bad weather had prevailed along the coast of
South Africa, and considerable damage had been done
among shipping.

INDIA.—The Earl of Mayo landed on the 20th ult. at
Bombay, under the usual salutes, and was received by
the military and civil authorities. Extensive prepara-
tions had been made to give him a brilliant reception.
Lord Napier has also arrived, and assumed the com-
mand of the Bombay army. The *Friend of India* says
that the Viceroy proposes, at the instance of the Maha-
rajah of Cashmere, to withdraw Dr. Cayley from
Ladakh. It regards this step as one threatening ruin
to the trade with Cashmere, which promised well upon
the appointment of a British agent in that country. It
is authoritatively stated that no battle had occurred in
Afghanistan before the evening of the 26th of last
month, but the Ameer of Maimana had made a diver-
sion in favour of Shere Ali, by advancing towards Bal-
hand, and seizing Siri Pool. The *Bombay Gazette*,
however, publishes news in confirmation of its previous
announcement that a battle had been fought. Several
shocks of earthquake—some of them severe—have been
felt in Northern and Central India. A Hindoo, named
Ramadheen, not quite 21 years of age, has confessed
that for the last twenty months he has followed the
calling of a poisoner, and has during that time poisoned
twenty-seven persons, mostly Brahmans or Faquirs.

JAPAN.—Advices from Yokohama confirm the news
that the Mikado's power had been completely estab-
lished. He had taken up his residence at the capital,
Yeddo. Her Majesty's gunboat *Gnat* has been lost.

AUSTRALIA.—Recruits are being enrolled in Victoria
to assist in suppressing the rebellion in New Zealand.
A conference is expected to be held at Sydney in
February next, to discuss the question of inter-colonial
free trade. The Anti-Ritualist party in Australia
have formed what they designate a "Free Church of
England," and have elected Dr. W. F. Bailey to be its
first bishop. He went through the form of conse-
cration, took the oaths of supremacy, and on the follow-
ing Sunday held a general ordination. Mr. Robert-
son is the new Premier of Sydney, and Sir William
Manning the Attorney-General. Mr. Bagot is the
chief of the new Ministry at Adelaide, and Mr.
Strangways the Attorney-General. The Treasurer's
budget has been approved by the South Australian
Parliament. The Northern Territory is to be sur-
veyed forthwith. The new land policy has been
generally approved. The goldfields are yielding mode-
rately. In a recent discussion at Melbourne, before
the Royal Society, relating to the South American
earthquake, it was stated that the great wave which
rolled on the coasts of New Zealand and all the eastern
and southern shores of Australia on the 15th August,

must have rolled over the Pacific Ocean in 18 hours, or
at the rate of 383 miles an hour.

NEW ZEALAND.—Advices from New Zealand state
that the rebel Maories have committed frightful atroci-
ties. Fifty Europeans with their families have been
massacred. Titokowaru has forwarded some potted
meat, made of the flesh of our fellow-countrymen who
fell in the late disaster at the front, to the natives
of the interior, from whom he expects assistance,
and also to the Waikato district and the tribes near
Lake Taupo. The Government is accused of being
lamentably incompetent. Auckland papers of the 26th
of October report the occurrence of an earthquake.
The earth seemed convulsed by a perpetual pulsation
for six hours, and for 48 hours afterwards sleep was
hardly possible, as the constantly recurring shocks were
very violent. It is supposed that there were no less
than forty shocks, and some were felt more than two
days after the occurrence of the first.

UNITED STATES.—President Johnson issued a pro-
clamation on Christmas Day granting an unconditional
pardon to all Confederates heretofore unpardoned,
including Mr. Jefferson Davis, General Lee, General
Breckenridge, Mr. Benjamin, Mr. Mason, and Mr.
Slidell, with restoration of all their rights, privileges,
and immunities under the Constitution, and the laws
enacted in pursuance thereof. It is considered prob-
able that Congress will not recognise this pardon, but
it will relieve those named from legal penalties, and
the frequently adjourned trial of ex-President Davis
will now stand over *sine die*. Mr. Johnson
has sent the Senate a Message, declining to
furnish copies of the correspondence respecting
the Alabama claims, on the ground that its publi-
cation was inexpedient. The Senate, by 42 votes
to 6, has passed a resolution disapproving the Presi-
dent's suggestion that the interest on the public debt
should be applied to liquidate the principal. The
House has passed a Bill allowing women in Govern-
ment employ the same pay for the same work as men.
The report that Mr. Caleb Cushing has been sent to
Spain to negotiate the purchase of Cuba is officially
denied. It is now reported that he has left for New
Granada to negotiate on behalf of the United States
for a grant of the right of way for the purpose of making
an inter-oceanic canal. It is reported that Samana Bay
has been bought by a party of New York capitalists, with
power to sell to the United States' Government for the
establishment of a naval station. A mutiny has
occurred on board three monitors recently sold to
Peru, and awaiting transfer, below New Orleans.
It is rumoured at Washington that these monitors
were intended for the use of the Cuban insurgents.
General Grant was the guest of the Union League Club
of New York at a banquet on the 8th ult. Being called
upon to return thanks for the toast of "Our Guest, the
General of the Army and the President Elect," he
made the following speech:—

"Gentlemen,—It is with extreme regret that I find myself
unable to respond in appropriate language to the warmth of
feeling with which this toast has been received. You all know
how unaccustomed I am to public speaking, how undesirable
a talent I think it is to possess, how little good it generally
does, and how desirous I am to see more of our public men
follow the good example which I believe in this particular, if
in no other, I have set them. I must, however, express my
acknowledgments to the Union League of this city, as well as
to the Union Leagues of other cities, for the great benefits
they conferred upon the Government during the rebellion
through which we have passed of late years. I wish to
acknowledge their liberality toward myself and toward the
soldiers serving against the rebellion, and to thank them for it."
This speech was interrupted and followed by hearty
laughter and uproarious applause, which continued for
several minutes.

CANADA.—The Canadian Assembly has adjourned
until the 6th of January. Whelan has been respited
until the 1st of February. The Toronto Court of
Queen's Bench has refused to grant him a new trial.

NEWFOUNDLAND.—A strong agitation is being got
up by the Press and at public meetings in Newfound-
land, in favour of annexation with the new Dominion.

BRITISH COLUMBIA.—The Governor of British
Columbia has announced to the Legislature that the
Confederation project will be held in abeyance pending
the settlement of the Hudson's Bay question.

CUBA.—Intelligence from Havannah states that the
insurrection is assuming greater proportions, that the
Spanish garrison of 200 men is besieged at Santiago,
and that their communications are all cut off. Villa
Delcobre has been recaptured by the insurgents, who
have destroyed Lucretia Point Lighthouse. General
Balmaseda had been obliged to abandon Puerto
Principe, and has sent to Madrid for reinforcements.

BRAZILS.—On the 15th November the allies made
an attack upon Villeta, and were repulsed with a loss
of 1,500 men. It is recommended that the American
Minister, Mr. M'Mahon, be charged with the task of
offering mediation between the belligerents with the
assent of M. Sarmiento, the President of the Argentine
Republic. It was said that the Emperor of Brazil would
withdraw his representative from Buenos Ayres.

PARAGUAY.—The Foreign Office received yesterday
the following list of British subjects who had been re-
leased from their detention in Paraguay, and arrived
at Buenos Ayres on the 13th November.—Dr. John
Fox, M.D.; Mrs. Nesbit, Miss Nesbit, and an infant
child; Mrs. Short, Misses Harriet and Maria Short;
Alfonso Cambridge, Mary Ann and Margaret Cam-
bridge, orphan children; John and Emily Wright,
orphan children; John Trudgeon, aged 16; William
and Mary Ann Chartress, orphan children. Some
British subjects, who might have been brought off,
preferred to remain in Paraguay.

HAYTI.—Salave has organised a renewal of the
attack on Jacmel, and has captured and pillaged
Miragoane.

SAN DOMINGO.—The Revolutionary forces have been
disbanded, the revolt against President Baer being
abandoned.

CHILI AND PERU.—The ports of Chili are again opened to Spanish vessels. A revolution was imminent both in the north and south of Peru, and financial affairs were unsatisfactory. The release of the ironclads at New Orleans, which were purchased from America, had caused general rejoicings.

Parliament.

THE House of Commons met by adjournment on Tuesday, to enable the Ministers who have just been re-elected to take their seats, and to move new writs for the re-election of members of the Government representing Scotch or Irish constituencies. Several members having taken the oaths and their seats, new writs were issued for county Clare, on Sir Colman O'Loughlin's acceptance of office as Judge Advocate General, the Wigton burghs, on Mr. Young's appointment as Solicitor-General for Scotland; county Kerry, on the acceptance by Lord Castlerosse of the post of Vice-Chamberlain of the Royal Household; county Kildare, on Lord Otho Fitzgerald becoming Comptroller of the Household; county Louth, on the appointment of Mr. C. Fortescue as Chief Secretary for Ireland; the borough of Mallow, on Mr. Sullivan's promotion to the office of Attorney-General for Ireland, the counties of Clackmannan and Kinross, on Mr. W. P. Adam's acceptance of a lordship of the Treasury; the county of Westmeath, on the nomination of Captain Neville-Nugent as Groom-in-Waiting to the Queen; and for the Border district of burghs, on the appointment of Mr. G. O. Trevelyan, Civil Lord of the Admiralty. A new writ was also ordered for South Derbyshire, vacant by the death of Sir Thomas Gresley. Lord BURY took the opportunity of protesting against the inconvenience of these re-elections, and signified his intention of moving to repeal the statute of Anne which makes them necessary. Other notices of motion were given, and the House adjourned to Tuesday, February 16, when the business of the session will be commenced.

City Intelligence.

OVEREND, GURNEY AND CO.—At the Mansion House yesterday, Mr. Henry Edward Gurney, Mr. Robert Birkbeck, Mr. Henry George Gordon, Mr. William Rennie, Mr. Henry Lord Barclay, and Mr. William Henry Gurney, the directors of Overend, Gurney & Co. (Limited), were charged before the Lord Mayor, Alderman Sir C. T. Gabriel, Alderman Sir R. Carden, Alderman Sir S. Phillips, and Alderman Cotton, with wilfully conspiring together, and by false pretences inducing the public to take shares in the said company, with intent to defraud them. At the conclusion of the speech of Mr. Lewis for the prosecution the case was adjourned, the defendants being admitted to bail.

MONEY MARKET.—Yesterday being New Year's Day the Stock Exchange was closed. The following are extracted from Thursday's quotations. — **BRITISH FUNDS:** Consols closed at 92½ to 93, both for Money and Account; Bank Stock, 240 to 242; Reduced and New Three per Cents., 92½ to 92¾; India Bonds, 10s to 20s. pm; Exchequer Bills, 1s. to 6s. pm. — **FOREIGN.** An active demand prevailed for foreign stocks, and the tendency of prices was decidedly upwards, owing to the satisfactory character of the advices from abroad. Turkish Stocks were in especial request, at higher quotations. United States 5-20's (1882), 74½ to 74¾; Erie's, 26½ to 26¾; Illinois, 95 to 95½.

Metropolis and its Vicinity.

THE CHIEF COMMISSIONER OF POLICE.—It is understood that the appointment which has become vacant by the death of Sir Richard Mayne will not be filled up at present, it being more than probable that a fusion of the Metropolitan and City forces will take place, and be under one controlling power.

THE "PEEL" STATUE IN NEW PALACE YARD.—It is now settled that this statue, which was removed some time since, shall not be placed again where it formerly stood, the pedestal on which it stood having been taken down. Where it will be eventually placed, is a matter for further consideration.

LECTURES TO LADIES.—Several Professors of University College have expressed their willingness to give courses of lectures to ladies on the plan which has been carried out with such success at Edinburgh, Manchester, Clifton, and other towns. The lectures will be given under the auspices of an association, including many influential names, which is at present being formed. It is proposed to commence in February with two courses, a literary and a scientific; but the scheme may be greatly extended next winter.

ST. ALBAN'S, HOLBORN.—On Sunday morning there was a large attendance at St. Alban's, attracted by the expectation of seeing some result of the judgment of the Judicial Committee of Privy Council. The two points decided in opposition to Mr. Mackonochie were the use of lighted candles at the celebration of the Communion, and kneeling or prostration during the Consecration prayer. Disregarding the judgment altogether, Mr. Mackonochie had the candles lighted at the usual time, and knelt before the altar both at the end of the prayer for the consecration of the bread, and of that for the wine. It was said, though not publicly, that Mr. Mackonochie had not received any official notice of the judgment of the Privy Council, and therefore considered himself at liberty to adopt the practices to which he has been accustomed. The sermon was preached by the Rev. Arthur H. Stanton, from the Epistle of the day, "Truly our fellowship is with the Father, and with his son Jesus Christ." He said that a grievous wrong had been done them—whether by the Judicial Committee or by the promoters of the late suit he did not say—

but it had not marred their sacred joy, and, perhaps, this was the happiest Christmas they had ever spent or should spend. Their aim, he said, was not to obtain power, or to master the intelligence of England, but to win the hearts of the people, and this they were doing. Since the wrong they had sustained had become known they had received the warmest demonstrations of sympathy, and in hundreds of Christian homes St. Alban's had been remembered this Christmas with love and prayer. After observing that patient endurance of wrong was one of the means by which the world was to be won for Christ, the preacher, without any formal conclusion, descended the pulpit stairs, and resumed his place in the chancel. The Bishop of London has addressed the following letter to Mr. Mackonochie:—

"Fulham Palace, S. W., Dec. 29.
"My dear Mr. Mackonochie,—I have received from the Privy Council Office a copy of the judgment which has now with authority explained the law on the various points of ritual observance in the service at St. Alban's, Holborn, respecting which there has been so much contention. I expect that this will be the last day of my tenure of the see of London, otherwise I should have invited you, at a personal interview, to arrange with me what is the best mode of giving effect to such changes in your services as will at once bring it into conformity with the simplicity enjoined by the Rubric, and at the same time be the least distasteful to a congregation like yours, which has become accustomed to a form of worship more ornate than it is now ascertained the law of the Church has sanctioned. Probably before you receive formal notification of what is now required of you through the proper officers of the Bishop's or Archbishop's Court I shall have ceased to be your diocesan. But I will take upon myself, as my last act in that capacity, to advise you and all others of the London clergy who may now feel themselves placed in a difficulty by their having conscientiously, though I believe unwisely, thought it their duty hitherto to act against the advice and judgment, I believe I may say, of all the bishops, in introducing novelties of worship, to do now what I am sure all true Church principles must suggest—viz., to take counsel with those directly set over them in the Lord as to the mode in which their services are henceforward to be conducted, in conformity with the ascertained law of the Church. Some weeks must elapse before my successor has entered fully on the duties of his office, but I can have no doubt he will be ready to give you his best advice at once, and to approach the subject of your present difficulties with that same appreciation of your devotedness and zeal which I have ever myself entertained. You are quite at liberty to make any use you please of this letter, which I shall myself make public.—Believe me to remain yours faithfully,
A. C. LONDON."

DR. PUSEY ON THE JUDGMENT OF THE JUDICIAL COMMITTEE.—The following letter has been addressed by the Rev. Dr. Pusey to the *Times*, on the effect of the recent judgment on the Ritualist party:—

"Sir,—I agree with yourself so far that, since the judgment against Mr. Mackonochie does not (at least, to any outward appearance) turn on any matter of faith, but is simply an exposition of Acts of Parliament, it does not affect the consciences of Churchmen in itself. It only tells us the law under which, in the opinion of the Judicial Committee, we live. We who believe in the Real Objective Presence are bound in all honesty to let the Church know what we do believe. The belief showed itself, of necessity, in our way of celebrating, without our adopting any of the acts which the Judicial Committee has condemned, and it will still. The author of the 'Christian Year' was no Ritualist, whatever sympathy he had with the piety, devotion, and faith visible in many Ritualists. Yet no one who saw him celebrate could doubt as to his belief. The loss of modes of outward expression of belief (if so be) only drives pious souls more inward, and the inward devotion shines the more through. But will you allow me to remark on one statement which forms no legal part of the judgment since it was made in support only of a point which was ruled? The judgment runs—'In the rubric, as to the reception of the sacramental bread and wine, the words, all "meekly kneeling," apply, as their Lordships think, to the celebrant as well as to other clerks and people.' Now the rubric is—'Then shall the minister first receive the Communion in both kinds himself, and then proceed to deliver the same to the Bishops, priests, and deacons in like manner (if any be present), and after that to the people also, in order, into their hands, all meekly kneeling.' Now, if this clause, 'all meekly kneeling,' applied at all to the celebrant, it would grammatically involve the direction that he should kneel while administering to others. A direction which occurs after the mention of two acts of a person cannot (if it applies to him at all) be limited to the first of those two acts, to the exclusion of that the mention of which immediately precedes that direction. If this (as it would) involves an absurdity, then the whole construction is faulty, and it follows that the direction can apply to neither. Yet, although this is only an argument, and so not binding in law, the charge against Mr. Mackonochie could not have been substantiated without it. For, apart from this construction, it could not have been alleged that any offence had been committed by his kneeling at the end of the prayer of consecration. Now, even allowing that the construction were doubtful, we all of us remember how carefully Dr. Lushington, in the 'Essays and Reviews' case, laid down again and again that, it being a criminal cause, the doubt was in each case to be given in favour of the respondent. I need not say what effect it will produce in the minds of English Churchmen if the Supreme Court of Appeal is at one time stringent in its construction of words, at another lax, and both alike in criminal causes. For, however the accuser's costs, which are thus laid upon Mr. Mackonochie, may be paid by others, the law knows nothing of this. It has not only condemned him of doing an unlawful act in the most solemn part of public worship (which is the most sensible wound it could inflict on any clergyman), but has laid a considerable fine upon him. The world would call this 'playing fast and loose'—'loose' whenever it is the question of allowing any matter of faith to be disbelieved; 'fast' when it is the question of not allowing anything to be believed which popular prejudice disbelieves. If the union of Church and State involves this ultimate laxity and more than rigidity in the construction of our formularies, involving the denial of true doctrine and the prohibition of practice which represents doctrine, it certainly will be the earnest desire and prayer of Churchmen that the precedent now being set as to the Irish Establishment may be speedily followed as to the English.—Your obedient servant,
E. B. PUSEY."

MR. MILL AND WOMEN'S SUFFRAGE.—The following letter has been addressed by Mr. Mill to Mrs. M'Laren, of Edinburgh, in answer to an address from the Edinburgh branch of the National Society for Women's Suffrage, expressing their regret at the result of the Westminster election:—

"Dear Madam,—Few things could be more gratifying to me than the letter with which I have been honoured by you and your committee, and I beg you to accept and to convey to the committee my warmest acknowledgments. Of all my recol-

lections connected with the House of Commons, that of having had the honour of being the first to make the cause of women to the suffrage a Parliamentary question is the most gratifying, as I believe it to have been the most important public service that circumstances made it in my power to render. This is now a thing accomplished, and the cause has sufficient number of supporters among the best minds of the House of Commons to carry on as much of the contest as can be conducted there. It remains for the intelligent and patriotic country to give their moral support to the cause, and to be engaged in urging their claims, and to operate as an effectual remedy for the evils which in that respect are that women suffer. Whatever power I may have in this cause outside the House of Commons I shall exert to the utmost. Your expressions of sympathy, feelings, and approbation of my conduct on the subject of Jamaica atrocities, are peculiarly grateful to me, and I have been with especial sorrow that I have seen so many of our women cold and unmoved at the recital of sufferings which have been supposed would at least have excited womanly pity and generous indignation against the traitors. It is peculiarly among women who are engaged in politics that the severest condemnation of Mr. Fox's instruments should have been found; for if a woman possessed the warmth of heart which all women are entitled to feel, and they would have been revolted at the thought which these were attempted to be palliated as a necessary province. As it is, the conduct of so many of our women afforded one more evidence that the renunciation of the line of intelligence gives no security for womanly conduct. I am, dear Madam, very sincerely yours,
J. M. MILL."

PROPOSED EMIGRATION OF LONDON ARTISANS TO THE UNITED STATES.—A deputation of workmen, who are shareholders in the Mutual Emigration and Colonisation Company, waited on the American Minister on the 24th ult., for the purpose of soliciting his advice and co-operation with reference to an emigration scheme which had been devised by the company with the view of ameliorating the condition of the artisans of this country. Mr. E. G. Johnson, having stated the purport of a letter which he had addressed to the Governor of Nebraska on the 14th of October, and to which he has as yet received no reply, Mr. Johnson replied as follows:—

"I need no further information to make me feel as I do in the object you have in view. That interest which has been diminished, but, on the contrary, increased, by the fact that you are a portion of the working men. Men of your position are always welcome in the United States, and in the same way as any other class. The United States belong to that class and I do not think it has any motive to live at all who has no work to do, and is incapable of working. I cannot help thinking that the Governor of Nebraska has not answered your letter, but he has not received it, but if you give me a copy of your prospectus, I will see that it falls into his hands. Whether you can accomplish your purchase of land I am not entirely sure. Under the present law each of you can become the proprietor of a tract, and then you might unite and establish yourselves as proprietors of all the sections. I regret very much that your condition is a distressing one, but more than that I hear that you think that it is owing to mismanagement at home. Whether that is so or not it is not for me to say. You leave and go to the United States, as you propose, with the non-interference of the Government. There may be a misgovernment from time to time, but it is affecting all classes alike, but sooner or later the Government is sure to be corrected, because with us the measure it must be so with you—the Government of the United States rests altogether on the opinion of the people. I do not mean the opinion of any class or class of people, but the opinion of all the people. As you of course know, the suffrage which exists there enables one man to exercise his voice to his Government, what any other man can do, such a class as yourselves—the working class—constitutes a large majority of the people in your country, have a voice in the Government, it is perfect, they cannot suffer from any misgovernment, or from any measure which it is in the power of Government to take, and substitute another for. If you go to the United States you may be sure that the prosperity of yourselves and your children will be secured beyond doubt. We have here you have not here to the same extent—a comprehensive system of education. All children are educated, and they are not by contributions from individuals, but by means raised from a tax upon all. I conclude by saying that I may be able to do to further your object with the greatest possible pleasure."

OPENING OF THE BOYS' COUNTRY HOME.—The Earl of Shaftesbury last week opened the 'Country Home' established by the Society for the Protection of the Homeless and Destitute Children of the Metropolis, as an addition to their Refuge in Great Street, and their establishment on board the 'Country Training Ship.' The Home consists of a farm of 100 acres at Busley, near Woking, to which it is proposed to transfer the young and weakly boys from the Refuge, so that they may be trained to look after the land, grow vegetables, and till the land, and by this means fitted for service at home or in the colonies. The building, which is designed in the Early Gothic style, is constructed of brick, and is capable of accommodating 100 inmates.

DULWICH COLLEGE.—Public meetings have been held by the inhabitants of Camberwell and Dulwich for the purpose of opposing the proposal of the Corporation of Dulwich College to double the present scale of the school fees, which would raise them to 14/ an 1/6. A considerable discussion a resolution was passed unanimously, disapproving of the proposed increase of capitation fees, deprecating the secret mode of conducting the affairs of the college, and urging the probability of combining the upper and lower schools into one. A deputation was also appointed to urge the reconsideration of their proposal.

READING-ROOM AT THE NATIONAL GALLERY.—The acquisition of Sir Charles Eastlake's art collection, recently purchased by the National Gallery, and the removal of the library of the Royal Academy to Burlington House, have induced the trustees to form a collection embracing every attainable work relating to the fine arts, and to establish a library of reference and reading-room for the use of students, and for the public under certain regulations.

SOUTH LONDON WATER.—It is stated that in the water supplied by the Lambeth and Southwark and Water Companies there are 20 grains of organic matter per gallon, of which half a grain is organic.

POISSONS IN THE RIVER.—During the recent months of porpoises have made their appearance near London Bridge; some of them were seen in pursuit of the fish, and later in the day they were seen between Hungerford and Waterloo. On Monday morning one of them ascended the river, and was chased to Battersea, where he

DISTRACTIVE STORM.—On Saturday, Sunday, Monday, and Tuesday, the metropolis and suburbs were visited by a severe storm, which did a great deal of damage to house property, made it dangerous to walk in the streets, uprooted trees or broke down branches in the parks and other places, and caused great damage to the shipping on the river, attended in some cases with loss of life. Along the lines of railway the telegraph posts and wires suffered severely, not to such an extent as to stop communication. In the storm of Monday a house was blown down at Lambeth, two were unroofed at Wandsworth, and one at Battersea. Much damage was done to shipping which had run in for shelter into the mouths of the Thames and Medway. The Great Bermuda was again dragged her anchors for some distance, but was safely brought up. The accounts from the provinces and the outports show that the storm was felt with equal severity along the coast as well as in the island towns.

FALSE WEIGHTS AND MEASURES.—Thirty-nine persons were convicted at the recent special sessions for using and possessing defective weights and measures. The list comprised 3 licensed victuallers, 4 beer-house-keepers, 2 butchers, 1 confectioner, 3 grocers, 3 greengrocers, 1 dairywoman, 4 coal dealers, 2 coal and potato dealers, 2 cheesemongers, 2 bakers, 2 grocers, 1 chandler and coal dealer, 1 tobacconist, 1 sausage seller, and 1 dog's-meat man. The fines amounted to the gross sum of 50*l.*, 10*s.*, the heaviest being 5*l.*, and the lowest 5*s.*

COLLISION OF A PICKFORD VAN WITH AN OMNIBUS.—On Thursday of last week an omnibus from Epsom was proceeding along the Gray's Inn Road at its usual pace, when one of Pickford's vans drawn by two horses turned suddenly out of a side street, and the driver of the omnibus, the pole of the van breaking through its panels and striking Mr. Heintz, a well-known member of Lloyd's, in the face, completely smashing his lower jaw, and inflicting other injuries of a frightful character. Mr. Herbert Street, of Highgate Hill, who was on the box of the omnibus, was thrown by the shock on the pavement, sustaining a severe dislocation of the shoulder and other injuries. The driver of the van was taken into custody, and was remanded on Thursday for a week.

ATTEMPT TO BLOW-UP A POLICE-STATION.—An attempt took place at about one o'clock on Friday morning at the Albany Police-station, which is attributed by rumour to a Fenian origin. There is nothing, however, to connect the affair with that organisation, except that its recklessness as to consequences had something of a Fenian character. Many of the windows of the station were smashed, and on the reserve men rushing out they saw a man looking over the railings of the area, where there was a great deal of smoke and a smell of gunpowder. The superintendent found the remains of a hand-grenade that had exploded, and another grenade that had not exploded, the latter having gone out. There being no other person near the spot the man, who gave the name of Barton, was apprehended. He gave a correct address, and stated that he happened to be passing when the explosion took place. He was brought up at the Marlborough Street Police-office in the course of the day, and, after a preliminary examination, was remanded.

FATAL EXPLOSION IN BETHNAL GREEN.—On Wednesday a serious explosion took place at the house of a manufacturer of ships' blue-lights, in Cambridge Road Bethnal Green, by which the premises were destroyed. On searching the ruins, the remains of a man were found lying across some of the charred woodwork, and it was found that he had entered the house in a view of saving any of the workpeople who might have been in danger. He was seen in several of the rooms while the explosion was going on, and it is supposed that his retreat was cut off by the continuous explosions of rockets and fireworks. He was a common traveller called Sandwick, and his remains were identified by his wife from a button she had sewn on the previous day, and some marks on the remains of a pocket-handkerchief.

CAPTURE OF HOUSEBREAKERS.—A few days since, at the Metropolitan Police Court, William Summers, 31, Henry Street, and John Bennett, 20, each being known by various names, were charged with being in Percy Circus, Clerkenwell, with intent to commit a felony, and were further charged with violently assaulting the police. The prisoners were seen by two policemen together about Percy Circus, but as they were doing anything which enabled the officers to apprehend them, although well known as convicted offenders, they were allowed to pass on. The officers proceeded to take them into custody. The prisoners then commenced a most violent assault upon the policemen, and injured one of them very seriously. It was proved that Summers had been convicted of burglary on one occasion, and Smith 3 times, Bennett 11 times, and Bennett 11 times, and Smith 3 times, Bennett 11 times, and Smith 3 times, Bennett 11 times. On being asked what they had to say in answer to the charge, Summers said his character was bad for him to say anything; Bennett denied that

he had committed any assault; and Smith said he should reserve his defence. They were committed to the Sessions for trial on all the charges.

ATTEMPTED MURDER AND SUICIDE IN SOUTH-WARK.—About three years ago a woman named Lack, residing in Southwark, murdered two of her youngest children, and attempted the life of a third. She was tried and acquitted on the ground of insanity, and is now confined in a penal asylum. What the history of the family has been since that time is not known; but on Monday evening the attention of the police was called to their house, when it was found that the father had given poison to his son in the form of laudanum and rum, had taken a dose himself, and had also cut his throat in several places. The father was taken to the hospital, where he lies in a dangerous state; and the stomach-pump was applied to the son with such effect that he was able to appear before the magistrates at the Southwark Police Court on Tuesday, when he was remanded for a few days.

MURDER AT BARNSBURY.—On Thursday night, the 24th ult., a young man named John Moir, about 23 years of age, living in Alfred Street, Barnsbury, was shot dead by a man called George Campbell, an upholsterer, residing in the same house. It appears that a party of Scotchmen were keeping holiday on Christmas eve, when Campbell, after having in vain challenged deceased to wrestle with him for 4*s.*, loaded a rifle, and shot Moir through the head, killing him on the spot. He was taken into custody, and after a long examination at Clerkenwell Police-court on Saturday, was remanded until yesterday, when he was committed for trial on the charge of Wilful Murder. At the inquest, which was held yesterday, the jury returned a verdict of Manslaughter.

THE PUBLIC HEALTH.—The Registrar-General's weekly return states that in the week that ended on Saturday, Dec. 26, 3630 births and 2970 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 24 per 1000 persons living, being 21 per 1000 in London, 29 in Edinburgh, 19 in Bristol, 18 in Birmingham, 26 in Liverpool, 30 in Manchester, 32 in Salford, 24 in Sheffield, 21 in Bradford, 23 in Leeds, 26 in Hull, 33 in Newcastle-upon-Tyne, and 34 in Glasgow. The rate in Vienna was 27 per 1000 during the week ending the 19th ult. In London the births of 803 boys and 856 girls, in all 1664 children, were registered in the week. In the corresponding weeks of 10 years, 1858-67, the average number, corrected for increase of population, was 1893. The deaths registered in London during the week were 1262. It was the 52d week of the year, and the average number of deaths for that week, corrected for increase of population, was 1595. The present return is therefore 333 below the average.

Provincial.

ABERDARE.—Thomas Morris, charged with attempting to blow-up the house of Mr. Richards, farmer, at Cwmdare, on the 5th ult., ten persons being in the house at the time, was brought before the magistrates for re-examination on Wednesday. The prisoner, who had been badly burnt from head to foot by the powder, which he had put through the dairy window and exploded, was closely wrapped up, and his features were almost indiscernible. He was also unable to stand, and was allowed to lie down in the dock. The inquiry was conducted in private, it being deemed essential to the ends of justice that the proceedings, which implicated several others, should not be published. The prisoner was charged with stealing four casks of powder, and with feloniously committing damage with intent to murder. After hearing evidence the bench remanded the prisoner for a week.

ARUNDEL.—The Duke of Norfolk attained his majority on Monday, and the event was celebrated at Arundel Castle with becoming splendour. There was a grand banquet in the baronial hall, at which the nobility and gentry of the neighbourhood were present, and addresses from the inhabitants of Arundel and Littlehampton were presented to the duke in the presence of his trustees—Lord Edward Howard, Mr. Hope-Scott, Mr. J. Abel Smith, and Serjeant Bellasis. The four following days were devoted to the entertainment of the smaller tenants, cottagers, school children, and husbandmen on the extensive family estates in Sussex.

BIRMINGHAM.—On Saturday night, and again on Sunday, a large number of thieves and depredators of every description assembled in Park Street, Glover Street, and neighbouring localities; their object being evidently a disturbance, with accompanying plunder. Their preliminary movements indicated an attack upon the Irish, but the police assembled in force, and managed to disperse them. Two of the ringleaders were brought up before the magistrates on Monday, and sentenced each to two months' imprisonment.

BLACKBURN.—A weaver named Compstead, living in the village of Ribchester, some miles distant from this town, was recently found lying with his head and shoulders out of bed, his throat fearfully cut, and quite dead. A good deal of blood was sprinkled about, and the constable suspected that a robbery had been committed, from the fact that the apartment was in a disorderly condition, and that there were two boxes in the room which appeared to have been broken open. No one lived in the house but the deceased and a lodger, an old man named Clayton. Suspicion fell upon him, and, as he was nowhere to be found, the police proceeded to trace him, and at last found him, lying drunk and asleep, at a public-house in Ribchester. He was taken before the magistrates, and remanded until the coroner's inquest has been held.

BRIGHTON.—On Christmas Eve a midnight celebration was held at St. James's, in this town. The

church was partly filled by a respectable auditory; the building itself profusely decorated with laurels, holly, and flowers. The altar was decorated with flowers, and on a side table was the usual light burning, surmounted by a carved figure of the infant Saviour. The usual display of embroidered dresses was exhibited by the officiating priests and choristers. The proceedings commenced with an imposing procession, during which and throughout the entire service, incense was freely used. In fact, notwithstanding the recent decision of the Privy Council, lights, incense and bowings were on the usual excessive scale. Many slightly suppressed sounds of discontent were heard throughout the service, both within and without the building; but at the commencement of the offertory sentences a gentleman cried out, "It is perfect bosh; I say perfect rubbish." Immediately some of the vergers, with their oaken staves, rushed to the pew in which he was sitting; the priests looked aghast, and the choristers and the congregation seemed terror-stricken. The gentleman proceeded to say, when efforts were made to expel him, "I expected this. I am not afraid to repeat my words; it is all perfect rubbish. Leave me alone; I will go away without help." The vergers again attempted to take hold of him, when he again said, "It is perfect rubbish; I came here to worship God according to the tenets of the Church of England, not of the Church of Rome. This is all mockery and rubbish, Mr. Purchas." The last words he uttered while crossing the church and nearing the altar. On reaching the door two or three vergers rather roughly pushed him into the outer lobby and thence into the street. The service was then resumed, though the voice of the officiator was very tremulous, and side-long glances were taken by those in the choir at every murmuring sound from without. Many persons immediately left the building; some ten or a dozen only remaining to partake of the Communion, in the celebration of which excessive bowings, lightings, and incensings were freely indulged in. The congregation separated about 1 A.M.; but as a detachment of police were stationed without, the crowd offered no personal violence to them as they dispersed.

COLCHESTER.—In the storm of Monday evening the spire of the Congregational Chapel in Lion Walk fell with a loud crash, breaking through the roof and doing considerable damage to the interior. The chapel, which is in the Gothic style, has been built only five years, at a cost of about 5000*l.*

COVENTRY.—On Wednesday morning a married woman named Holmes, living in the village of Allesley, two miles from this town, murdered her youngest child, nine months old, by cutting its throat almost from ear to ear. She is the wife of a wheelwright in the village, and both parties have been much respected by the neighbours. She is the mother of three children, but the other two were at the village school at the time the murder was committed. At the inquest on Thursday, the evidence threw no light on the cause of the deed, and it is supposed she was labouring under insanity at the time. The jury returned a verdict of wilful murder. The prisoner, who seemed to be in a very despondent state, wept bitterly when the verdict was communicated to her.

ELY.—The fens between this place and Peterborough are under water, several thousands of acres being submerged. From all directions complaints are heard both of the heaviness and long duration of the rains.

FEVERSHAM.—A third of the sufferers from the recent gunpowder explosion at Messrs. Hall's works died on Wednesday. Five out of the six survivors remain in a dangerous condition.

HEXHAM.—The "Countess of Derwentwater" is preparing for a new trial in London, to set aside the decision of the magistrates of this town as to "her being an obstruction on the highway." She has recovered from the illness caused by the fatigue and wet whilst encamped at Dilston, and now occupies her time in arranging the "family papers" for this new attempt to recover her estates.

LANCASTER.—The recent heavy rains have partially, and in some places completely, flooded the low-lying districts of north and north-east Lancashire. In the neighbourhood of Garstang, St. Michael's, Eccleston, &c., a large tract of land has been under water, and on Saturday towards midnight the Ribble overflowed its banks in several of the low-lying districts around Preston. At Croston, Rufford, Mawdesley, &c., the drains, sluices, and ditches have not been sufficient to carry off the immense quantity of rain which has fallen, so that hundreds of acres are submerged, and the district has the appearance of a great lake.

LINCOLN.—Priscilla Biggadyke, who was convicted at the recent assizes of the murder of her husband by poison, was executed on Monday in Lincoln Castle. The execution took place within the castle-yard, and was witnessed only by official and other persons, as provided by the recent Act of Parliament. The culprit fainted away while being pinioned, but soon recovered, and walked to the drop with a firm step. She declared her innocence to the last, although the facts disclosed at the trial left no doubt as to her guilt.

MAIDENHEAD.—On Tuesday a man of independent means, named Henry Miller, residing at Hurley, near this town, was brought before the mayor and other magistrates on several charges of forgery. It was proved that the prisoner gave a bill of exchange for 35*l.* to Mr. Dawson, of the White Hart, which bore the signature of "E. Riggall, Queen's Road, Bayswater." Mr. Riggall, who is a medical man, living at that address, attended the sitting, and deposed that the signature was a forgery. There were two other cases, the amount of one bill being 80*l.*, and the other 18*l.* 10*s.* When apprehended, the prisoner said there was an action pending in which he was plaintiff, and he hoped to have realised the amount necessary to meet the bills before they became due. The magistrates committed him for trial at the assizes, and consented to accept

week, for the purpose of organising an... to the proposed railway from the Marble... Post Office, underneath Oxford Street, Cheapside. Resolutions were unani-... declaring that the line would be of little... advantage; that it would be highly... the inhabitants of Oxford Street and to the... both sides of the street; and that during... its construction it would be a public... causing great obstruction to the traffic and... to the public, as well as serious loss to houses of... It was also resolved to invite the co-opera-... concerned in opposing the Bill, and a com-... appointed to take the necessary steps for... the opposition.

ON THE LONDON AND NORTH-WESTERN... Christmas Day an accident, fortunately un-... with any loss of life, took place near the... Station, being the fourth that has occurred... Coventry branch within a very short time... left the rails, but as the speed had been... none of the carriages were upset and no one... beyond a severe shaking.

ON THE LONDON AND NORTH-... On Wednesday afternoon a third-class... from Manchester, ran into an engine... standing on the main line of rails near... The carriages were much damaged, and... injured. Nine of them were taken... infirmary, and, with their exception... of a railway clerk, who had his leg fractured, ... of Leek, who was much shaken, the... of the passengers proceeded on their journey... On Tuesday night a collision took... at the Springs branch junction on the same... Manchester express ran into some coal... was shunting to an adjacent line. Two... were smashed, and the first passenger... was thrown across the other line, passing... the rails. Several of the passengers were... shaken and bruised, but no lives were lost.

ON THE LONDON AND NORTH-... At Birmingham on Wednesday, Thomas... in the service of the railway company, ... brought up on the charge of assaulting... a railway guard, under circumstances... already been described. It was proved... had bought crocote at a chemist's shop in... on the day of the robbery, that the lid of... found in the van, was his property, that footsteps... to his own were found upon the guard's... reading to his residence, and that a bag which... a portion of the money was discovered on the... a ptey along the road he had passed. The... was again remanded till Thursday, when he... to the assizes for trial.

Law.

MAIDSTONE.—Attempted Wife Murder.—... in the army, and for some time... of the County Gaol, was charged with... murder his wife, from whom he was separated... that he met her in the street, and inflicted several... on her throat with a razor, and would have... in his purpose but for the aid of some... They had been married 11 years, and had had four... A child named Samuels, aged 17, was... of the child, and having had a... returned to his old home, and... collected wandering about the... desperate condition he begged... Maidstone, and on being refused... light to a waggonful of wheat left... be carried. The waggon and corn... The prisoner received an excellent... of the training ship, and Mr. ... sentenced him to seven years' penal... at Maidstone, and was sentenced to... —LEWES.—The Murder near... as Martin Henry Vinall, 22, was... of David Baldy, at Kingston, ... It will be remembered... agricultural labourer, had been to... weekly wages on the evening of... He did not return home, and his... on leaving home before daybreak, ... had been killed, and his death had... wound. The evidence against the... at Baldy's, and I know his habits, ... at the main point established... found near the body, pointed out various... he recognised the gun as the same he had... Mr. Baldy, for the defence contended... evidence was not sufficient to bring the... prisoner. The jury, after deliberating for... the prisoner guilty. On being... whether he had anything to say why... should not be passed upon him, he replied... tone, "I did not do it." Baron Channell... cap, and, addressing the prisoner, said... and careful inquiry, and a most able... very point that was possible had been urged... had felt themselves constrained to find... crime; and it appeared to him that they... to any other conclusion upon the evidence... that he had waylaid the unfortunate... purpose of robbing him, and had sent him to... a moment's warning. It was a most... exhorted him to employ the short time... world to endeavour, by sincere repent-... the only quarter where he might... the sentence of Death in... prisoner, who did not exhibit the least... from the bar.

STAFFORD.—Child Murder.—Mary Manley, ... with the wilful murder of her infant... and her Guilty, but recommended her to... Bramwell promised to forward the recom-... to the proper quarter, and passed sentence of Death... in the usual form. The prisoner seemed quite unaffected by... the sentence. WORCESTER.—The Attempt to Murder at Old-... William Power, saddler, was indicted for shooting, ... with intent to murder, George Kettle, at Oldswinford, on the... of August last. Prosecutor is a tailor, living at Stour-... bridge, and the prisoner, his wife, and children, lodged at his... house. The prisoner owed prosecutor money, and when... spoken to on the subject he drew a pistol from his pocket and... shot prosecutor in the face. The jury found him guilty, ... and Baron Bramwell sentenced him to penal servitude for life.

MIDLAND CIRCUIT LEICESTER.—John Green, labourer, ... a ted for setting fire to the stackyard of his master... Mr Lee, a large farmer at Thorne whereby 14 stacks, consist-... of wheat, barley, oats, hay, and straw, to the value of... 1300l., were destroyed. The defence was that the fire might... have been caused by accident from the ashes of a pipe, which... the gamekeeper had been smoking in the vicinity of the... stackyard. The jury, after deliberating for two or three... minutes, found the prisoner Guilty. The prisoner said that he... could truly declare that he was innocent. Mr Justice Brett... said it seemed impossible it could have been set on fire ac-... dentally, or by any one else than the prisoner. He quite... agreed with the verdict of the jury. After commenting on the... gravity of the offence, his lordship sentenced the prisoner to... 15 years' penal servitude. John Green was charged with setting... fire to certain premises. The prisoner had been a tenant of... the prosecutor's, but had refused to quit when required. He... used expressions to the effect that he would have his re-... venge, and the prosecutor's buildings were set on fire, and... property to the amount of 1000l. destroyed. The jury found... him Guilty and his lordship sentenced him to 11 years'... penal servitude. Street H., Blair, J., and Able H., 20, ... 38 tailor, were in hotel for lodging on the 27th Septem-... ber a stack of hay at Bothriam. The prisoners were last-... ing the feed, and, on being apprehended, each made a statement... denying his own guilt and criminating his companion. The... evidence showed that the prisoners had fired the stack in a... most deliberate and wanton manner, and they were both... found guilty. Both of them had been several times convicted... and the Judge, in passing sentence, referred to the list of their... past offences, and sentenced them to penal servitude for seven... years. John Nolan, 40, labourer, pleaded guilty of having, on... the 5th September, set fire to a stack at Beauford. The pris-... oner, in mitigation of sentence, alleged that he had done the... act, not from any malice towards anybody, but because of his... utter destitution, and in order that he might be taken into... custody, and that, in fact, immediately after he had... committed the offence he gave himself up to the... police. The Judge remarked that in 1863 the prisoner was... convicted of a precisely similar offence, and sentenced to... five years' penal servitude, and yet almost as soon as he came... out of prison he was at the same work again. Arson was rife... in this county, and it was necessary that persons guilty of... this crime should be severely punished. As that was not the... prisoner's first offence he did not feel justified in passing upon... him a less sentence than 10 years' penal servitude.—Garot-... ting.—John Edwards, 38, tailor, and Solomon Robinson, 19, ... dyer, were indicted for having, on the night of the 27th Sep-... tember, at Leeds, assaulted David Naylor, and robbed him, ... with violence, of his purse and its contents. There were three... men engaged in the robbery, and their victim was severely... injured that he was not able to lie in bed for some time. The... prisoners were captured by two policemen as they were run-... ning away, when Robinson made a desperate resistance, ... endeavouring to stab the policeman. The third man got away... His lordship sentenced Edwards to 15 months' hard labour, ... and to receive 25 lashes with a "cat." Robinson, who had... been previously convicted, was sentenced to seven years' penal... servitude and to receive 25 lashes.—The Attempted Murder... Child.—Mar. Stood was charged with attempting to suffo-... cate her child. The child had been "farmed" out, but was... returned to the mother, who said she would not have it, but... should send it back again. The prisoner's master afterwards, ... attracted by the cries of the child, found it at the bottom of a... privy, half suffocated in the soil. The child died five weeks... ago at the union. The jury found the prisoner Guilty, with a... recommendation to mercy. His lordship sentenced her to... penal servitude for five years. FROTHINGHAM.—Richard... Thomas Moore, 28, blade striker, Robert Morton, 21, cutter, ... and Norman Hall, 41, blade forger, were indicted for violently... assaulting with sticks and bludgeons John Smith, and also... with stealing certain money from his dwelling house, and... putting him in bodily fear on the polling-day, during the... recent election. The jury found them Guilty, and they were... sentenced to 12 months' imprisonment each. Edward Gillett, ... 21, spring-knife manufacturer, was convicted on a similar... charge, and sentenced to six months' imprisonment.

NORTHERN CIRCUIT MANCHESTER.—Burglary.—John Ken-... worthy and Samuel Worrall were indicted for having... burglariously entered the house of George Simmons, at... Ashton under Lyne, and stolen a quilt, a rug, a pair of... blankets and a pair of sheets. The prosecutor's house had... been broken into and robbed, and the prisoners were after-... wards found in possession of the property, and trying to dis-... pose of it. The evidence against Worrall was slight, and he... was acquitted, but Kenworthy was found Guilty, and, having... been four times previously convicted, was sentenced to... 10 years' penal servitude. DURHAM.—The Attempted Murder... at Bishopwearmouth.—Richard Alderson was charged with... wounding John Hardacre with intent to murder him, at... Bishopwearmouth, on the 11th of July, by stabbing him in... the chest with a pocket knife. The motive for the attack was... jealousy on the part of the prisoner with regard to Hardacre's... wife, who had lived with him up to the very day of her... marriage. The jury returned a verdict of wounding with... intent to maim and disfigure, and he was sentenced to penal... servitude for six years.

CENTRAL CRIMINAL COURT.—Alleged Forgery of a Will.—... Henry Spong, maltster, residing in the Weald of Kent, was... charged with forging and uttering a will purporting to be the... last will and testament of Henry Trimmer, with intent to... defraud. The case was one of some intricacy, which was not... lessened by the fact that the prisoner had apparently no... beneficial interest in the document alleged to be forged, ... though it was suggested by the prosecution that, if successful, ... he was to receive half the amount obtained for the party to be... benefited by the will. The jury returned a verdict of Guilty, ... but recommended him to mercy on account of his family. ... Sentence was deferred until next session.

THE HON. ARABELLA CATHERINE WOLSTENHOLME died on... Christmas Day. She was aunt of the fourth Viscount Bangor, ... and married in 1811 the late Mr. Edward Wolstenholme, of... Clarence House, Southampton. SIR RICHARD MAYNE, K.C.B., Chief Commissioner of Metro-... politan Police, died on Saturday in Chester Square, in his... 72nd year. He was a son of the Hon. Edward Mayne, one of... the Judges of the Court of King's Bench in Ireland from 1817... to 1820, a member of an old Kentish family which migrated... into Ireland in the reign of Elizabeth, and established itself... in the counties of Fermanagh and Monaghan. He was born in... Dublin in 1748, and was educated at Trinity College, Dublin, ... afterwards at Trinity College, Cambridge, where he took his... B.A. degree in 1817, and proceeded M.A. in 1821. He was... called to the Bar at Lincoln's-inn in the following year, and at... one time went the Northern Circuit. He was nominated in

1829 by Sir Robert Peel, then Home Secretary, to the post of... Chief Commissioner of Metropolitan Police, on the establish-... ment of that force in lieu of the antiquated parish constables... to whom the custody of our streets by night had been pre-... viously entrusted. He was nominated a Companion of the... Bath in 1847, in recognition of his official services, and was... advanced to the dignity of a K.C.B. at the time of the Great... Exhibition of 1851. He married, in 1831, the eldest daughter... of Mr. Thomas Carwick, of Wyke, Yorkshire, and of Meot... Mount, Highwood, Middlesex, by whom he had four sons and... two daughters. His eldest son, Richard Charles, is a Captain... in the Royal Navy, and is at present at Rio in command of her... Majesty's ship Nassau.

THOMAS ESMONDE, BART., of Johnstown Castle, county... Wexford, died on Thursday. He was 82 years of age, and was... the defendant in the great will case of "Brown v. Esmonde." ... SIR WILLIAM MACKENZIE, BART., died a few days ago, at... Coal House, his seat in Ross-shire. He was the second son of... Sir George Stuart Mackenzie, F.R.S., vice-president of the... Royal Society of Edinburgh, by his marriage with the fifth... daughter of Mr. David MacLeod of Gairloch, and was born... at Coal House in 1786. He was educated at the High School... and University of Edinburgh, and at the early age of 14... entered the naval service of the East India Company. He... served in the Bombay and China country service, afterwards... the Peninsula and Oriental Company's steam transport Manilla... during the late war. He succeeded his brother as ninth... baronet in 1856, and married in 1858 the second daughter of... Mr. Ross Thompson Smyth, of Ardmore, Londonderry. He... is succeeded by his brother, Robert Ramsay Mackenzie, born... in 1811, and married in 1816 to the daughter of Mr. Richard... Jones, of Sidney, New South Wales.

H. E. HAMLIN FANE, of Avon Lymington, and... Clerical Court, Devon, died on the 27th ult. He was the eldest... son of the Rev. Edward Fane, of Finesand, and was born in... 1817. He was for some years colonial commandant of the... South Lancashire Militia, and Conservative M.P. for South Hants. ... He succeeded by royal licence, in 1867, the additional name of... Hamlyn, in consequence of his marriage with the eldest... daughter and co-heiress of the late Sir James Hamlyn-... Williams, of Clavely and Ewinsford. MR. ABRAHAM COOKER, R.A., died on the 24th ult. at... Greenwich, in his 86th year. He was born in a humble en-... vironment of life in Red Lion Street, Holborn, in 1787, and at one... time kept an inn at Holloway. He was elected an associate... of the Royal Academy in 1817, and full academician in 1820. ... In early life he passed much of his time among horses, and... to this circumstance must be ascribed the first notion taken by his... artistic talent. His first picture was the portrait of a... favourite old horse belonging to the late Sir Henry Mux, ... Bart., who recommended the young painter to study art, and... became his friend and patron. The only studio frequented... by him was the stable or the grass field, and the only books... he consulted were some old numbers of the Sporting Magazine, ... illustrated with portraits of horses drawn by Marshall, a well-... known animal painter of that time. His first exhibited... picture, "Lam o' Shanter," sent to the British Institution in... 1814 was bought by the then Duke of Marlborough. He was... afterwards a constant exhibitor both at the Royal Academy... and at the British Institution. He was the chief "battle... painter of the English school, and among his principal... pictures may be mentioned "Blucher at the Battle of Ligny," ... "Cornwall at Marston Moor," "Lord Arundel Capturing a... Turkish Standard," "Lord Arthur Capel defending Colchester... during the Civil War," "The Battle of Shrewsbury," "Sir... William Russell at the Battle of Zepherin," "The Death of... Harold," "Richard I. at Saladin at Ascalon," "The Battle... of Assaye," and "Battle of Waterloo." Several of these... pictures have been engraved. MR. JOHN SIMMONS, one of the senior clerks in the Legacy... Duty Department at Somerset House, died on Christmas Day. ... He had been upwards of 40 years in Somerset House. MR. CHALMERS, the inventor of the Chalmers target, and... projector of the Channel Railway, died on Saturday, just as... his second target ordered by the authorities was on the eve of... completion, for further experiments. He leaves a widow and... family in very straitened circumstances. MR. JOHN PRITCHARD, the tragedian, died of fever, on the... 24th ult., at his residence, Nursery Cottage, Newcastle-on-... Tyne, at the age of 41. Mr. Stanley first introduced Mr. ... Pritchard to Newcastle at the celebration of the Shakespearean... tercentenary in the Town Hall, when they gave selections from... "Othello." Mr. Stanley sustaining the character of Iago and... Mr. Pritchard that of Othello. This and Virginia were his... finest impersonations. He appeared as Othello at the New-... castle Theatre two seasons ago, and continued a great favourite... until he took his final farewell, shortly after the close of last... season. He leaves a young widow, herself a great favourite in... Newcastle.

Markets.

COVENT GARDEN.—Jan 1.

We have had a very quiet week here, and no change that... would command attention or lead to business, the only... article being in rather more request is Kent C. Be. which... realise 95s. per 100 lb. Fruit and Vegetables are abundantly... supplied, and prices are barely kept up. Almeida Grapes... are exceedingly fine, and worth from 8s to 10s. per dozen... pounds. American New Town Pippins of excellent quality... have arrived, and fetch 50s. per cask, there are also arrivals... of Reinette de Bordeaux and Duchesse Apples from... Bordeaux, realising from 12s. 6d to 15s. per cask. Oranges... are very plentiful. French Asparagus may now be had, at... 15s. to 20s. per bundle. Very fine Onions are arriving from... Bordeaux, at 12s. to 14s. the cwt. Potato trade is dull, except... for best samples, of which there is a scanty supply in general, ... though there are large arrivals of Kidney Potatoes of fine... quality from Belgium, realising 90s. per score bags of about... 110 lb. each. Flowers chiefly consist of Orchids, Primulas, ... Hyacinths, Tulips, Heaths, Mignonette, Poinsettias, Cytisus... roeemosa, Cyclamens, Deutzias, Lantanas, and Camellias.

FRUIT.

Apples, per bushel, 4s to 8s
Grapes, per Doz., 3s 6d to 6s
Kent Cobs, per lb., 1s
Lemons, per 100, 4s to 8s
Melons, each, 2s to 4s
Pears, per doz., 4s to 8s
Pine-apples, per lb., 6s to 8s
Oranges, per 100, 2s to 7s

VEGETABLES.

Beet, per doz., 1s to 2s
Cabbages, per doz., 1s to 2s
Carrots, per bunch, 6d to 10d
Celery, p. bund., 1s 6d to 2s 6d
Cucumbers, each, 1s to 2s
Endive, per doz., 1s 6d to 2s
Garlic and Shallots, p. lb., 9d
Herbs, per bunch, 2d to 4d
Horse Radish, p. bund., 3s to 5s
Leeks, per bunch, 2d to 4d
Lettuces, per score, 1s to 2s 6d
Mint, per bunch, 6d to 8d
Mushrooms, p. pott., 1s 6d to 1s 9d
Onions, per bushel, 6s to 7s
Parsley, per bunch, 4d to 6d
Potatoes, York Regents, p. ton
120s to 150s
Flukes, do., 120s to 160s
Shaws, do., 120s to 180s
Seakale, p. punn., 2s to 3s
Spinach, per bushel, 2s to 3s
Turneps, p. bunch, 2d to 4d

HOPS.—BOROUGH MARKET, Friday, Jan 1.

Messrs Patten & Smith report that trade has been... quiet during the week, quotations remaining unchanged. ... Stocks of good Hops, both English and foreign, are very... limited.

bail in 600*l*. The bail not being forthcoming, the prisoner was conveyed to Reading Gaol.

MONMOUTH.—A special session was held last week at Newport, to consider the claims made by 91 persons for damage done to their houses during the election riots in that town on the 17th and 18th November. The claimants sought to obtain compensation from the High Constable of the hundred, but as the Act under which the claim was made, according to the interpretation of the judges, required that, to prove a felonious intent, there must be such a demolition of property as rendered the houses unfit for habitation, the magistrates decided that as it could not be shown that the rioters had any felonious intent the claims could not be sustained. They said that they sympathized greatly with the sufferers and others similarly situated, and regretted their inability to give relief.

NORTHAMPTON.—On Saturday night, James Kemp a detective policeman in this town, seeing a young man in the street with a double-barrelled gun, approached him with the view of ascertaining what he was doing, when the man called out, "Keep back, or I'll shoot you." The detective still advanced, upon which the man fired the gun, and lodged the charge in the officer's left breast. The perpetrator of the outrage was pursued and taken. He is a shoe machinist, named Bridgwater, who had come from Wellington-borough to spend Christmas with his parents in this town. The officer was removed to the hospital, and died from the effects of his wound on Tuesday morning. The prisoner was taken before the magistrates on Wednesday, and committed for trial on the charge of Wilful Murder.

NOTTINGHAM.—Many parts of Nottinghamshire, Derbyshire, Lincolnshire, and Leicestershire are deeply flooded. The Trent, Derwent, and other rivers have completely overflowed their banks, and several bridges have been damaged by the extraordinary volume of water. Near this town the works of the new bridges over the Trent have been altogether stopped, and one part of the old bridge over that river leading into the town by the London road has given way. On Monday afternoon rain and snow were still falling heavily, and the water was rapidly rising.

OXFORD.—The floods are higher at Oxford at present than they have been for some years past. The meadows adjacent to the Isis and Cherwell are completely covered for miles. Christ Church meadow is quite submerged, the water encroaching upon the gravel path. In the walks of Magdalen College the flood is also very high, and the lands in the vicinity of the New Park are quite inundated. Port Meadow has entirely disappeared beneath the water, and for some distance below Oxford the country looks like one vast lake.

PICKERING.—On Monday a girl named Isabel Scates, under 13 years of age, was charged with attempting to poison a family in which she was a servant. The crime was committed on Sunday week at a farmhouse in Thornton Marshes, the poison having been mixed with the sugar, of which Mr. and Mrs. Dodsworth, three children, and two farm lads partook. Six of these have now recovered, but Mrs. Dodsworth is not sufficiently well to give evidence. The prisoner was remanded.

PLYMOUTH.—During the storm of Monday two ships at anchor in the Sound were driven on Mount Batten rock, but were got off and towed into harbour. Owing to the boisterous weather which has for some time prevailed in the Channel the Trinity tender has not been able to communicate with the Eddystone Lighthouse for eight weeks, so that it has been impossible to relieve the keepers whose turn it is to be ashore. The tender has several times run within hailing distance of the rock, but the terrific sea running over it has rendered nearer approach impossible. The light-keepers board themselves, but have in store at the lighthouse a supply of Government provisions provided for such an emergency.

READING.—On Sunday morning, before daybreak, eight poachers made a desperate attack upon four gamekeepers in the employ of Mr. Benyon, M.P., at Mortimer, in which Mr. Newman, the head keeper, was wounded in his head, and a keeper named Duffin was treated in such a brutal manner that his skull was broken in several places, and he lies in a very precarious state. The police have apprehended four men, who have been brought before the magistrates and remanded.

ROCHDALE.—During the storm of Sunday last a shocking calamity occurred in this town. A new building, constructed for a Sunday-school, was opened in the afternoon, and about 400 persons assembled to take part in the special religious services which were to mark its dedication to the intended work of religious instruction. Shortly afterwards the wind blew out one of the windows, but notwithstanding this warning the congregation remained. About an hour later the gale lifted the roof, the walls fell inwards, and a great number of persons were seriously injured. Six of them had their legs or arms broken, and one of them, a young woman called Nuthall, has been obliged to have her leg amputated.

SALFORD.—A murder was committed on Saturday evening in one of the main thoroughfares of this town. A young man about 20 years of age, named Johnson, who was partially intoxicated, went to a public-house where dancing was going on, and became so noisy and troublesome that the landlord ejected him. He then drew a knife, and tried to stab the landlord, but did not succeed. Shortly afterwards he forced his way into the house, knife in hand, and, threatening to stab somebody, thrust it into the thigh of a waiter named Nurney, who died in a few minutes. The murderer, after remaining about the spot a short time, was allowed to walk quietly away, the bystanders being afraid to interfere with him. Nothing was seen of him until Sunday afternoon, when he was apprehended concealed underneath a bed in a house belonging to his cousin.

SALTASH.—A burglary was committed late on the night of Saturday week, or early on the following morning, at Trematon Castle, the seat of Admiral Tucker. The admiral's father and the admiral himself have been collectors of coins and other antiquities, which were placed in the "square tower," a building some hundred yards distant from the main part of the castle. On the Monday morning it was discovered that the door of the tower had been broken open with a crowbar, and a large number of coins and articles of *virtu* stolen. None of the plate was touched, the reason for which is a mystery, as the articles stolen were those most likely to be easily traced.

SCARBOROUGH.—On Monday, in consequence of information that a robbery had been planned to take place at the house of Mr. Leadley, at Hayburn Wyke, the superintendent of police sent three constables to Mr. Leadley's assistance. On their way they fell in with three notorious poachers, called Johnson, Holland, and Walker, by whom the robbery had been planned, and who immediately fired upon the officers, bringing them all three to the ground. The prisoners were apprehended on their return to their homes, and have been remanded until the officers, one of whom is severely shot in the face, are able to appear against them.

SHEFFIELD.—The storm of Sunday was felt with great severity in this town. The roof of the steel melting-house and coke-shed at the Cyclops Works, constructed of iron girders, covered with slates, and supported on massive iron pillars, was blown down, the girders having snapped asunder. Some workmen were just leaving; four had got out of the house, and two were going out, when they were crushed by the falling roof, and killed on the spot. At New Grimesthorpe a house fell down, and seven persons were precipitated, beds and all, into a yard 12 feet below, but without sustaining any serious injury.

STONEHOUSE.—On Tuesday Colonel Penrose, commanding the Plymouth Division of Royal Marines, issued an order on parade forbidding any officer or private of the division to attend the Christmas pantomime at the Plymouth Theatre until further orders. Pickets of Marines were placed at night at the entrances to the theatre, apparently on duty, to see that the order was obeyed. A Government Arsenal policeman was also said to have been present. The order is said to have been caused by the fact that part of the pantomime is considered to throw ridicule on the corps, particularly on the officers. In addition to the diminution of the audience caused by this order, several Marines employed at the theatre were obliged to resign their appointments. The order was revoked yesterday.

SWANSEA.—A desperate poaching affray took place on Sunday at Pentregar, on the land of Mr. J. D. Llewelyn, one of the magistrates. At about 2 o'clock in the morning his five keepers came in contact with five poachers and their dogs, and a fight ensued, in which the keepers, who had been prohibited from carrying any defensive weapon, were so severely injured that two are not expected to live. Four of the poachers have been apprehended and identified. Another sitting of the coroner's inquiry has been held upon the body of John Morgan, the aged farmer of Velindre, who was shot through the head while sitting before the fire in his cottage, and whose body was subsequently found lying dead upon the floor in a pool of blood. The pockets had been rifled, but nearly 40*l*. remained undiscovered in an inside waistcoat pocket. The evidence proved that shot and slugs had been found in the house of the accused, Henry Evans, a nephew of the deceased, hitherto considered a respectable young man of the district. The inquiry was again adjourned until Dr. Taylor, the analytical chemist of London could attend and state the result of his examination of portions of the clothes of the accused which had been sent him by the police authorities. On Tuesday Dr. Taylor gave evidence to the effect that on the trousers of the accused, and also on the hair of his dog, there were traces of blood of recent date, but the quantity was not sufficient for him to be able to state with certainty whether they were the spots of human blood or not. There was nothing inconsistent in their appearance from that of human blood. He had carefully examined the small pieces of lead taken from the wound in the head of the deceased, and his opinion was that these slugs were made from flattened lead, and were not the usual gun shot. Previous witnesses proved that the accused had borrowed a piece of flattened lead some time previously, as he had then said for the purpose of killing a bull. The coroner, in summing up, pointed out the various suspicious circumstances which weighed against the accused, but urged the jury to give a most careful investigation to the facts. The jury, after a short consultation, returned an open verdict of Wilful Murder against some person or persons unknown. The accused was consequently discharged, but on Wednesday he was taken before the county magistrates in petty session at Swansea, and charged with the wilful murder of John Morgan. After some preliminary evidence he was remanded.

WELLS.—On Sunday the governor of Taunton Gaol received from the Home Secretary a respite for Robert Sweet during her Majesty's pleasure. This is doubtless attributable to the fact that he has all along protested his innocence, and declared his belief that God would not allow an innocent man to be hung. Bisgrove, the other convict, remains in the same sullen state, and still persists that the confession he made the day after his conviction was true—that he, and he alone, was the murderer, although Sweet was sitting on the stile almost close to him at the time. The execution of Bisgrove will therefore take place, as already fixed, on Monday morning within the walls of the prison.

WIGAN.—On Thursday of last week a party of searchers, accompanied by the Government Inspector, succeeded in recovering the bodies of the two men, Cheetham and Sharrock, who were killed by the recent

explosion at Norley Colliery. They were taken down the shaft, and the bodies were frequently brought to bank.—On Wednesday another terrible explosion took place at the Pit, in the Haydock Colliery, near St. Helens, 12 miles from this town, in which 22 lives were several men severely injured. Mr. Government inspector, said that the mine was ably managed, and the cause of the disaster is known. It is rumoured that an illegal brattice cloth interfered with the air, and the explosion was most violent, shattering rails into splinters.—The murderer of the girl Aimee, at Th'Aokhurst, near this town, is still at large, notwithstanding the arrest of suspected persons in different parts of the country. At the inquest on Wednesday a returned a verdict of Wilful Murder of a person unknown.

WINDSOR.—The Thames has been so much by the heavy rains of the last few days that meadows on either side are flooded, and having entered the lower floors of the banks, has caused great damage to property. Cookham and Windsor the towing path is part under water, and very dangerous for the stream being in many places very swift.

YORK.—The first general fall of snow for the year commenced at noon on Tuesday in the North Riding. The wolds and moors, as well as the country, were soon covered, and at night falling heavily. Frost occurred during the day, and the flood waters have run in considerably.

Ireland.

THE IRISH PEERAGE.—The *Dublin Gazette* contains the official announcement that the Earl of Devon has been chosen by a majority of votes to be the peer in the House of Lords in the room of the late Earl of Farnham.

LAW APPOINTMENT.—Mr. Lane Joyce has been appointed Crown and Treasury Solicitor in the room of the late Mr. Kemnitz.

THE LATE LORD-LIEUTENANT.—Before his departure from Dublin, the Duke of Abercorn addressed a letter to the Commander of the Forces, and the military authorities, expressing his high appreciation of their loyalty, discipline, and conduct under trying circumstances which occurred during the late war. His Lordship's daughter, the Countess Mount Edgumbe, is considerably better, and a telegram received from Cannes, and is pronounced of danger. In consequence of this change, the Duke of Abercorn is expected to return home in the latter part of the week.

THE LATE DR. COOKE.—The memorial to Dr. Cooke has been definitively decided upon. Assembly Hall is to be erected in Belfast as part of the memorial, and, in addition, a statue, mounted on a column or pedestal, is to be erected on the most suitable site that can be procured.

THE TUSKAR LIGHTHOUSE.—In consequence of the recent storm signals of distress have been sent from Tuskar Lighthouse during the past few days, a light tender has been sent down to render assistance to those on the rock. It appears that the boats were in distress for water.

THE AGRARIAN OUTRAGE IN MEATH.—It is reported that the attack on Mr. Rotheram, in the county of Meath, did not occur at the town of Athby, but at a distance of three miles from it. Three shots were discharged from a carriage, at the distance of a few paces. The slugs took effect, wounding Mrs. Rotheram in the forehead. Mr. Rotheram's escape is extraordinary, the marks of no fewer than 20 slugs being discovered in the carriage. There were at least two persons engaged in the outrage, and they must have been perfectly aware of Mrs. Rotheram's presence.

AGRARIAN OUTRAGE IN TIPPERARY.—On Wednesday morning, at six o'clock, Mr. George Coe, Justice of the Peace for the county of Tipperary, was shot dead near his own house. It is said he had served some ejection processes.

Scotland.

INVERCAULD FOREST.—It is reported that the pine forest of Ballochbuie, the most superb natural-grown Scots Firs in all Scotland, has been granted on a lease of 19 years to the Queen by Mr. Farquharson, of Invercauld, the proprietor, during the period of the lease, is to have the forest, with the stipulation that no more than the timber are to be cut or sold further than the down trees, and such as are considered to be of importance. It is also rumoured that Ballochbuie is to be an important section of the royal deer forest on the lease.

Railways.

OPENING OF THE WESTMINSTER BRANCH OF THE METROPOLITAN.—That portion of the Metropolitan District Railway which extends from Westminster Bridge to Gloucester Road, Bromington, is about a fifth part of the entire circuit, and is nearly 13 miles in length, starting from the City and returning to a given point. The trains are to be running between 5 and 6 o'clock in the morning, and continued to run between Westminster and the City with great regularity, at intervals of 15 minutes.

THE PROPOSED HYDE PARK AND CITY RAILWAY.—The inhabitants of Oxford Street held a meeting

last week, for the purpose of organising an... to the proposed railway from the Marble... to the Post Office, underneath Oxford Street...

Christmas Day an accident, fortunately un-... with any loss of life, took place near the... Station, being the fourth that has occurred...

On Wednesday afternoon a third-class... from Manchester, ran into an engine... standing on the main line of rails near...

On Tuesday night a collision took... at a distance south of the Wigan passenger... The Manchester express ran into some coal...

At Birmingham on Wednesday, Thomas... in the service of the railway company, was... brought up on the charge of assaulting...

Law.

Maidstone.—Attempted Wife Murder.—... in the County Gaol, and for some time... his wife, from whom he was separated...

in the usual form. The prisoner seemed quite unaffected by... Worcester.—The Attempt to Murder at Old...

MIDLAND CIRCUIT LEEDS.—Arms.—John Fowler, labourer, was indicted for setting fire to the stackyard of his master, Mr. Lee, a large farmer at Thorne, whereby 13 stacks, consisting of wheat, barley, oats, hay and straw, to the value of 3000l., were destroyed.

Arson was rife in this county, and it was necessary that persons guilty of this crime should be severely punished. As that was not the prisoner's first offence he did not feel justified in passing upon him a less sentence than 10 years' penal servitude.

Garotting.—John Edwards, 36, tailor, and Solomon Robinson, 19, dyer, were indicted for having, on the night of the 27th September, at Leeds, assaulted David Naylor, and robbed him, with violence, of his purse and its contents.

Election Riot at Sheffield.—Thomas Moore, 28, blade striker; Robert Morton, 21, cutler; and Norman Hall, 41, blade forger, were indicted for violently assaulting with sticks and bludgeons John Smith, and also with stealing certain money from his dwelling-house, and putting him in bodily fear on the polling-day, during the recent election.

Burglary.—John Kenworthy and Samuel Worrall were indicted for having burglariously entered the house of George Simmons, at Aslton under Lync, and stolen a quilt, a rug, a pair of blankets and a pair of sheets.

Richard Alderson was charged with wounding John Hardacre with intent to murder him, at Bishopwearmouth, on the 11th of July, by stabbing him in the chest with a pocket knife. The motive for the attack was jealousy on the part of the prisoner with regard to Hardacre's wife, who had lived with him up to the very day of her marriage.

Alleged Forger of a Will.—Henry Spang, maltster, residing in the Weald of Kent, was charged with forging and uttering a will purporting to be the last will and testament of Henry Trimmer, with intent to defraud.

Obituary.

THE HON. ARABELLA CATHERINE WOLSTENHOLME died on Christmas Day. She was aunt of the fourth Viscount Bangor, and married in 1811 the late Mr. Edward Wolstenholme, of Clarence House, Rochester.

1829 by Sir Robert Peel, then Home Secretary, to the post of Chief Commissioner of Metropolitan Police, on the establishment of that force in lieu of the antiquated parish constables to whom the custody of our streets by night had been previously entrusted.

SIR THOMAS ESMONDE, BART., of Johnstown Castle, county Wexford, died on Thursday. He was 82 years of age, and was the defendant in the great will case of Brown v. Esmonde.

SIR WILLIAM MACKENZIE, BART., died a few days ago, at Coul House, his seat in Ross-shire. He was the second son of Sir George Stenart Mackenzie, F.R.S., vice-president of the Royal Society of Edinburgh, by his marriage with the fifth daughter of Mr. Donald MacLeod, of Geanies, and was born at Coul House, in 1806.

MR. ABRAHAM COOPER, R.A., died in the 4th ult. at Greenwich, in his 82nd year. He was born in a humble condition of life in Red Lion Street, Holborn, in 1787, and at no time kept an inn at Holloway. He was elected an associate of the Royal Academy in 1817, and full academician in 1820.

MR. JOHN SIMMONS, one of the senior clerks in the Legacy Duty Department at Somerset House, died on Christmas Day. He had been upwards of 40 years in Somerset House.

MR. CHALMERS, the inventor of the Chalmers target, and projector of the Channel Railway, died on Saturday, just as his second target ordered by the authorities was on the eve of completion, for farther experiments. He leaves a widow and family in very straitened circumstances.

MR. JAMES PRITCHARD, the tragedian, died of fever, on the 24th ult., at his residence, Nursery Cottage, Newcastleton-Tyne, at the age of 45. Mr. Stanley first introduced Mr. Pritchard to Newcastle at the celebration of the Shakespearean tercentenary in the Town Hall, when they gave selections from 'Othello'. Mr. Stanley sustains the character of Iago and Mr. Pritchard that of Othello.

Markets.

COVENT GARDEN.—Jan. 1. We have had a very quiet week here, and no change that would command attention or lead to business; the only article being in rather more request is Kent Cobs, which realise 9s. per 100 lb. Fruit and Vegetables are as abundantly supplied, and prices are barely kept up.

Table with columns for FRUIT and VEGETABLES. Includes items like Apples, Grapes, Kent Cobs, Lemons, Melons, Peas, Pine-apples, Oranges, Beet, Cabbages, Carrots, Celery, Cucumbers, Endive, Garlic and Shallots, Herbs, Horse Radish, Leeks, Lettuces, Mint, Mushrooms, Onions, Parsley, Potatoes, Turnips, etc.

HOPS.—BOROUGH MARKET, Friday, Jan. 1. Messrs. Pattenien & Smith report that trade has been quiet during the week, quotations remaining unchanged. Stocks of good Hops, both English and foreign, are very limited.

ENGLISH WOOL.

Markets have partaken of the holiday character of the season, but there is every appearance of firmness, and much confidence is expressed in the prospect of better business and higher rates as the season advances.

CURRENT PRICES OF ENGLISH WOOL.	per lb.—s. d.	s. d.
FLEECES—Southdown hoggets	1 4	to 1 5
Half-bred ditto	1 4½	— 1 5½
Kent Fleeces	1 5	— 1 5½
Southdown ewes and wethers ..	1 3	— 1 4
Leicester ditto	1 4	— 1 5
Sorting—Clothing	1 0	— 1 6
Combing	1 2	— 1 10

COALS.—Dec. 30.

Cowpen Hartley, 15s. 6d.; Walls End Braddyl's Hetton, 17s. 3d.; Walls End Hetton, 18s.; Walls End Hetton Lyons, 15s. 9d.; Walls End Hawthorne, 15s. 9d.; Walls End Russel's Hetton, 16s. 6d.; Walls End Gosforth, 15s. 9d.; Walls End Original Belmont, 18s. 3d.; Walls End Hartlepool, 17s. 6d.; Walls End South Hartlepool, 16s.; Walls End South Hetton, 17s. 9d.; Brancepeth Cannel, 18s.—Ships at market, 62; sold, 38.

HAY.—Per Load of 36 Trusses.

SMITHFIELD, Thursday, Dec. 31.	
Best Green Hay	Clover, old .. 110s to 126s
Prime Meadow Hay 105s to 115s	Inferior do. .. 85 100
Inferior do. .. 85 95	Prime new Clover
New do.	Inferior do.
Straw 26 34	

CUMBERLAND MARKET, Thursday, Dec. 31.

Sup. Meadow Hay 114s to 120s	Inferior Clover .. 105s to 114s
Inferior do. .. 100 107	New do.
New do.	Straw 34 40
Superior Clover .. 126 134	

WHITECHAPEL, Thursday, Dec. 31.

Fine Meadow Hay 105s to 110s	Prime late cut Clover 118s to 126s
Inferior do. .. 90 100	Inferior do. do. .. 90 105
Prime New Hay	Prime 2d cut do.
Inferior	New Clover
Straw 28 32	Inferior do.

METROPOLITAN MEAT MARKET.—Dec. 31.

Best Fresh Butter	10s. per dozen lb.
Second do. do.	17s. "
Small Pork, 4s. 4d. to 5s. 0d.; Large Pork, 4s. 0d. to 4s. 4d. per 8 lb.	

METROPOLITAN CATTLE MARKET.

MONDAY, Dec. 29.

We have a fair supply of Beasts for the day as to numbers, but the average quality is very middling. Choice qualities are consequently in demand at high prices. The number of Sheep is very small, and the demand is by no means large; best descriptions are, however, readily disposed of, at fully late rates. Choice Calves are scarce and dear. Our foreign supply consists of 337 Beasts 34 Calves, and 5 Pigs; from Scotland there are 232 Beasts; from Ireland, 280; from Norfolk and Suffolk, 120; and 1100 from the Midland and Northern Counties.

s. d. s. d.	s. d. s. d.
Best Scots, Herefords, &c. .. 5 4 to 5 6	Best Long-wools 5 0 to 5 4
Best Shorthorns 5 2 — 5 4	Do. Shorn
2d quality Beasts 3 8 — 4 6	Ewes & 2d quality 4 0 — 4 6
Best Downs and Half-breds .. 5 4 — 5 6	Do. Shorn
Do. Shorn	Lambs
	Calves 3 8 — 5 10
	Pigs 3 4 — 5 0

Beasts, 2030; Sheep and Lambs, 10,340; Calves, 85; Pigs, 90.

THURSDAY, Dec. 31.

We have a good supply of Beasts, and but a small demand, consequently prices are lower for all descriptions, and several lots remain unsold. The number of Sheep considerably exceeds the demand; choice descriptions, however, are comparatively scarce, and find purchasers at about late rates. Long-wools and ewes are lower, and a clearance cannot be effected. Good Calves are scarce and dear. Our foreign supply consists of 125 Beasts and 38 Calves.

s. d. s. d.	s. d. s. d.
Best Scots, Herefords, &c. .. 5 2 to 5 4	Best Long-wools 4 10 to 5 0
Best Shorthorns 4 10 — 5 2	Do. Shorn
2d quality Beasts 3 4 — 4 0	Ewes & 2d quality 3 10 — 4 4
Best Downs and Half-breds .. 5 2 — 5 6	Do. Shorn
Do. Shorn	Lambs
	Calves 3 8 — 5 0
	Pigs 3 4 — 5 0

Beasts, 1130; Sheep & Lambs, 5070; Calves, 97; Pigs, 60.

POTATOS.—SOUTHWARK, Monday, Dec. 28.

During the past week the arrivals have again been in excess of the demand, and trade continues in a languid state. The following are this day's quotations:—York Regents, per ton, 70s. to 120s.; do. Flukes, 100s. to 140s.; Lincolnshire Regents, 60s. to 90s.; Dunbar and East Lothian do., 80s. to 120s.; Perth, Forfar, and Fife do., 60s. to 105s.; do. Rocks, 60s. to 70s.; French Belgian Whites, 40s. to 80s.

MARK LANE.—MONDAY, Dec. 28.

The little English Wheat fresh up to this morning's market was sold at the rates of this day's night. There was a poor attendance, and but little business transacted in foreign Wheat, prices remaining as on that day. Spring Corn of all descriptions was firm at our last quotations.

PRICE PER IMPERIAL QUARTER.	s. s.	s. s.
WHEAT, Essex, Kent, Suffolk. White	33—57 Red	47—53
— fine selected runs do.	57—60 Red	49—57
— Talavera	62—65	
— Norfolk	Red	
— Foreign	48—60	
BARLEY, grind. & dist., 40s to 42s. Chev.	45—52 Malting ..	44—47
— Foreign, grinding and distilling	31—33 Malting ..	42—47
OATS, Essex and Suffolk		
— Scotch and Lincolnshire .. Potato	25—33 Feed	
— Irish	Potato 30—32 Feed	26—30
— Foreign	Poland and Brew 25—30 Feed	21—26
RYE	40—42 Foreign ..	
RYE-MEAL, Foreign		
BEANS, Maragan .. 40s to 44s .. Tick	44—48 Harrow ..	44—48
— Pigeon .. 48s to 52s .. Winds.	— Longpod ..	
— Foreign	Small 41—46 Egyptian ..	42—45
PEAS, White, Essex, and Kent .. Boilers	45—48 Suffolk ..	50—32
— Maple, 41s to 47s .. Grey	44—45 Foreign ..	40—46
MAIZE	Foreign ..	36—40
FLOUR, best marks delivered .. per sack	43—47	
— 2d ditto	ditto, 34—44 Country ..	34—44
— Foreign	per barrel 24—36 Per sack ..	48—56

FRIDAY, Jan. 1.

Owing to the Christmas holidays and the approaching new year the Wheat trade throughout the country was slow and inactive; prices, however, have been well maintained, and

during the last day or two an advance of 1s. per qr. has been realised in many leading markets. Malting Barley met a steady demand at 1s. to 2s. per qr. advance; in the value of grinding and distilling qualities we observe no quotable change. Oats moved off steadily, and were the turn dearer. Beans and Peas continued a slow sale at former prices. Flour met more attention at fully late rates. The supplies of grain off the coast since the 18th ult. consisted of 77 cargoes, of which, with those left over from last week, there remained for sale last night 47 cargoes. The floating trade has been firm during the last fortnight, but business, owing to the intervening holidays, although at fully previous rates, was far from active. For arrived Wheat 1s. per qr. higher bids were made within the last day or two. Maize was a dull sale, but closed firm. Barley in steady demand. Rye and Beans about unaltered. In cargoes on passage and for forward shipment the trade is slow.

The arrivals of English grain are small, and moderate of foreign. There was a poor attendance at this morning's market, and the little English Wheat on offer was taken at rather over Monday's quotations; foreign was generally held for an advance, with which millers were unwilling to comply, but the business done was at full rates. Spring Corn of all descriptions was very firm. Flour brought rather more money.

ARRIVALS THIS WEEK.

	Wheat.	Barley.	Oats.	Flour.
English ..	190 qrs.	1110 qrs.	— qrs.	— sks.
Irish	— "	20 "	1680 "	— "
Foreign ..	13,120 "	5970 "	28,410 "	140 bris.
	13,310	7100	30,090	

LIVERPOOL, Tuesday, Dec. 29.—There was a very fair attendance at to-day's market. Wheat met a good average demand, at the extreme rates of Tuesday last. Flour steady, at previous rates. Indian Corn met but a moderate request, at a decline of from 3d. to 6d. per qr. from last Tuesday's rates. Peas dull, and 6d. to 1s. lower. Oats and Oatmeal quiet, and unchanged. Beans dull and rather easier.

AVERAGES.

	Wheat.	Barley.	Oats.
Nov. 21	51s 6d	47s 3d	28s 4d
— 26	51 0	47 0	27 4
Dec. 5	50 1	46 3	29 8
— 12	49 8	45 9	27 3
— 19	49 5	45 3	27 7
— 26	50 7	46 1	26 2
Agg Average ..	50 4	46 3	27 9

SEED MARKET.

Our seed markets have this week been thinly attended, and quite of a holiday character. The amount of business done has, in consequence, been limited; values have, nevertheless, continued very firm, with decidedly an upward tendency. Fine new English Red Clover Seed is exceedingly scarce, and is held at very high rates, of French Red there is but little offering, new German is in fair supply, and sells readily at enhanced prices; in White Clover Alsike, and Trefoil Seed, values are unchanged. Some heavy transactions have recently taken place in French Italian Rye grass, at an advance of 1s. to 2s. per cwt.; of choice quality seed the supply is very scanty. Rape and Mustard Seed sell slowly at last week's quotations. We have a fair inquiry for Canary and Hemp Seed. Seed Peas and Beans meet with a brisk den and at high rates. Orders continue to come to Land for English winter Tares. Konigsberg spring meet with a small speculative demand. The Clover trade is generally rather inactive about Christmas; nevertheless, for the time of year a very fair amount of business has lately been transacted in agricultural Seeds.—JOHN SHAW & SONS, 10, Water Lane.

WANTED IMMEDIATELY, a HEAD GARDENER.

—One who thoroughly understands Forcing all descriptions of Fruit and Flowers, and Growing Pines, Grapes, Melons; also all kinds of Vegetables. Will have six or seven men under him. Must be a middle-aged married Man, without incumbrance, or if with children, not more than two, and they not under 10 or 12 years of age. Wages, £70 per annum, an excellent house, milk, and wood-firing.—Apply to Mr. WILLIAM BELL, Establishment for New and Rare Plants, King's Road, Chelsea, S W

WANTED, by a Gentleman in Gloucestershire, an unmarried Man, as WORKING HEAD GARDENER and BAILIFF. All the outdoor men will be under him, including the Woodman, Cowman, &c. He would have the charge of the Vineries, Peach-house, Forcing-house, Greenhouse, &c., and would be required to live in the family.—Apply, giving age, wages, references, &c., to A. Z., Post Office, Painswick.

To Market Gardeners.

WANTED, a hardworking, trustworthy, and competent MAN, to take charge of a large Market Garden, and who understands the Management of Forcing Houses. None need apply who cannot produce first-class testimonials as to ability, honesty, and sobriety.—Address, stating wages, Box 43, Post Office, Newport, Monmouthshire.

WANTED, a BAILIFF and GARDENER, where the Farm consists of about 100 Acres, chiefly Grass; and about Five Acres of Kitchen and Flower Gardens and Shrubberies, Vinery and Brick Pitts. Knowledge of Plantations, Ground-work, Live Stock, and Poultry required. House found. Applicant to state wages and requirements, also references for character and ability, whether married or single, and what family.—Address H.P., 328, Regent Street, W.

WANTED, a Young Man, as GARDENER, who well understands Grooming a Pony. Wages, 18s. per week. Also a SERVANT of all WORK, in a Small Family.—Apply, only in own handwriting, Mr. HEDLEY, 41, Cannon Street, London, E.C.

WANTED, a Married Couple, without incumbrance, where the Man is as GARDENER, and to be generally useful, the wife as LAUNDRESS.—Rev. J. HART-DAVIES, Glasburn Vicarage, Skipton, Yorkshire.

WANTED, in a London Nursery, a good general GROWER and PROPAGATOR.—Apply by letter, stating wages and references, to G. F. V., Doiling's Library, 44, Edgware Road, Maida Hill, W.

WANTED IMMEDIATELY, in the Seed Trade, an IMPROVER, about 17. One with some knowledge of the business preferred.—Apply, stating terms and experience, to J. SCOTT, The Seed Stores, Yeovil, Somerset.

WANTED, as IMPROVER, at a Gentleman's Place, seven miles from London, an active Lad, from 17 to 20, under a Head Gardener. Wages low; no premium required. Must be able to Mow.—Address Rev. J. E. GRAY, Wembly Park, Middlesex.

Seed Business.—Shopman Wanted.

WANTED, a YOUNG MAN, who thoroughly understands the Seed Business. He must write a good hand, and produce unexceptionable testimonials from his former employers. A liberal salary will be given.—Apply by letter to A. B., 68, Welbeck Street, Cavendish Square, London, W.

WANTED IMMEDIATELY, a YOUTH, about 17 or 18, who has some knowledge of the Seed Trade, as JUNIOR ASSISTANT in the Seed Department, and during the summer months to assist in the Nursery.—Apply, in own handwriting, stating references, terms, &c., to Mr. F. J. PEAR, The Nurseries, Banbury.

WANTED, in a Nobleman's family, a MAID, who can also make good Household Expenses by letter, to M. C., Post Office, Linton, Staplehurst.

WANT PLACES.—Letters to be Post

EXPERIENCED GARDENERS (or as GARDENERS and BAILIFF), of various qualifications, recommended by letter, to M. C., Post Office, Linton, Staplehurst.

To Gardeners and Bailiffs (Head, Foreman, or JAMES CARTER AND CO. having nearly 20 years' experience will send NAME, ADDRESS, and COPIES of their REGISTER for ENTRY in their FREE REGISTER. Only those who can furnish unquestionable references need apply.

Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & Co., adopting the most strict regulations in reference to testimonials as to ability, honesty, &c. JAMES CARTER & Co., 237 and 238, High Holborn, London, W.

GARDENER (HEAD).—Married; understands both Indoor and Out; would not object to being Can have a good character.—J. C., Post Office, Harlow.

GARDENER (HEAD).—Age 30; had 12 years' experience in Forcing, &c., and the general Management of Flower and Kitchen Gardens. Unexceptionable character and class references.—G. H., Leyton.

GARDENER (HEAD).—Age 28; thorough knowledge of the Management of Stove and Greenhouse Plants, Vines, Melons, Cucumbers, Kitchen and Flower Gardens. Three years and three months' good character.—A. W., Plumpton, Roshampton, S.W.

GARDENER (HEAD).—Age 29; had 12 years' experience; has a good practical knowledge of the business, and is well experienced in all its branches. Situation through a change in the establishment, is recommended.—F. S., Mr. A. Clark, Nurseryman, Gosport.

GARDENER (HEAD).—Age 40, married, 17 years' experience in Forcing Vines, Fruit, Flowers, &c., in Kitchen Gardening, the Management of Land and the disengagement February 1. Leaving through employment in neighbourhood. Good references for three and a half years.—A. B., Mrs. H. T. Bettesworth, Horadon, Hants.

GARDENER (HEAD), where one of the best Melons, Cucumbers, and all branches. Four years' experience from last place.—B. W., Post Office, Sunning Hill, Bucks.

To Noblemen and Gentlemen.

GARDENER (FIRST-CLASS), is now engaged.—He is thoroughly competent to manage an extensive Garden in every department. First-class testimonials in reference to his ability, honesty, &c. Apply, in first place, to Mr. BARRON, Superintendent of the Agricultural Society, Chiswick, W.

GARDENER.—Middle-aged, married; had 12 years' practical experience; thorough master of his business, recommended by his late Employer, with whom he has no objection to the charge of Land in connection with a Garden.—A. R., Mr. Lord's Farm, Ashford, Buy St.

GARDENER (SINGLE-HANDED or DECORATED).—Married; understands his profession in all its branches. Can Manage a small Farm. Wife as Lau dress, &c. Dairy. Good character.—F. G., Post Office, Brentford, Bucks.

To Noblemen, Gentlemen, and Landed Proprietors. LAND AGENT, or MANAGER of an Estate. Farm.—Age 30; thoroughly understands Estate Management in all its branches, also the Management of Stock and Agriculture. First-class references and testimonials.—Office, Shiffnal, Salop.

BAILIFF, or to Manage a Dairy.—A Farmer. A. Z., Post Office, Bradford-on-Avon, Wilts.

FARM BAILIFF.—Married, no incumbrance, a good Dairywoman.—W. C., Joseph Co emsa, Iwer, Bucks.

FARM BAILIFF, or LAND STEWARD.—Married; has had great experience in Farming, Improvement of Estates; also a thorough knowledge of Haying, Selling, &c. Wife understands Dairy, &c. Seven years' references.—B. L., Post-office, Worplesden, Surrey.

TRAVELLER, in the Nursery and Seed Trade. Information, with particulars, on application to HURST & SON, 6, Leadenhall Street, London, E.C.

A YOUTH wishes for a situation in the Nursery or Office. Has had some experience.—A. T., Sunning Hill, Bucks.

DINNEFORD'S FLUID MAGNET.

The best remedy for Acidity of the Stomach, Headache, Gout, and Indigestion; and the best for delicate constitutions, especially adapted for Ladies and Infants.

DINNEFORD & Co., 172, New Bond Street, London, and of all Chemists throughout the West.

HALE'S GALVANIC APPARATUS.—The best Cures of Paralysis, Rheumatism, Loss of Motion, Indigestion, Debility, Tic, Asthma, &c. Send two shillings to HALE, No. 40, Addison Road, Kensington, for his pamphlet, which contains the particulars of the most extraordinary cures. Will be astonished at its contents.

ELECTRICITY IS THE SELF-ADJUSTING CURATIVE AND ELECTRIC buffers from nervous debility, indigestion, weakness, now cure themselves by the only "Guaranteed Remedy" protected by Her Majesty's Great Seal.

Free for One Stamp, by H. JAMES, Esq., Medical Electrician, the London Hospitals, Percy House, Bedford Square, W. N.B.—Medicine and Fees superseded. A Testimonial details. Established 1840.

Galvanism and Medicine Superstitions.

NEW METHOD OF CURING DYSPEPSIA.—The aid of doctors and their drugs, by study of the human mind and Nature. Invalids can't too carefully avoid the use of life droppers, and other dangerous medicines, as they contain poisons, which act on the delicate tissues of the stomach, destroy the receptacle of our daily sustenance, and render it pronourced incurable, but, acting in accordance with the now offers, has, by God's blessing, been restored to strength; and with sympathy for like sufferers, the medicine will be sent, post paid, on receipt of address, and a few shillings. PHILIP GANPEY, Esq., 20, York Buildings, S.W.

CORNS and BUNIONS.—A Gentleman, who has been tormented with Corns, will be happy to give information by which he obtained their complete removal, without pain or any inconvenience.—Forward your stamped envelope to F. KINGSTON, Esq., Ware, Herts.

The Best Remedy for Indigestion.

NORTON'S CAMOMILE PILLS.—Recommended as a simple but certain remedy for Indigestion. They act as a powerful Tonic, and in certain cases, after their operation, safe under any circumstances, and persons can now bear testimony to the benefits of their use. Sold in bottles at 1s. 1½, 2s. 6d., and 5s. 6d. in the Kingdom. CAUTION.—Be sure to ask for "NORTON'S PILLS," and do not be persuaded to purchase the name.

general use and benefit. That, in their judgment, it is better that the necessary expenses of church and churchyard, and of public worship, should be provided for by assessment made under the authority of the new Act, than by pew-sitting rents, or by money collected at the offertory. That the provisions of section 7, enabling all bodies corporate, trustees, guardians, and others, to pay church-rates, and the provisions of section 8, enabling the owner, on condition of the payment of the assessment, to stand in the place of the occupier who makes default of payment, after one month's demand, are valuable, and ought in every case to be adopted. Lastly, they recommend the adoption of the provisions of section 9 for appointment of trustees for the purpose of accepting by bequest, donation, contract, or otherwise, and holding any contributions which may be given to them for ecclesiastical purposes, by the parish.

The document was signed by W. H. Hale, Archdeacon of London (chairman), and by the Archdeacons of Canterbury, Middlesex, Maidstone, Cleveland, Northumberland, Durham, Lindisfarne, Surrey, Winchester, Bangor, and Anglesey, Merioneth, Taunton, Bath, Wells, Carlisle, Westmoreland, Chichester, Lewes, Ely, Sudbury, Bedford, Huntingdon, Exeter, Cornwall, Totnes, Barnstaple, Bristol, Gloucester, Derby, Salop, Stafford, Stow, Nottingham, Monmouth, Llandaff, Norfolk, Norwich, Suffolk, Oxford, Buckingham, Berks, Northampton, Leicester, Richmond, Essex, Colchester, Sarum, Wilts, St. Asaph, Montgomery, Brecon, Cardigan, Worcester, Westminster, Sodor and Man, and of Salop, in the diocese of Hereford.

ELECTION ADDRESSES.

MR. G. O. TREVELYAN, the new Lord of the Admiralty, at his re-election for the Border Burghs, on Monday, spoke as follows on the reduction of naval and military expenditure—

"In the appointment of several members under Government he had no doubt that Mr. Gladstone had recognised the services rendered by Scotland during the recent election. With regard to the question of economy, he confidently hoped that the next few years would witness a continuous and very sensible reduction in the public burdens. The admirers of the late Government said the reduction would be effected by diminishing the fighting strength of the country, that was not the case. The spirit in which they were going to work was one of careful economy, which would aim at saving public money without neglecting the public security. For that purpose they wanted men who were thoroughly imbued with public spirit, men who were born British in the best sense of the term. These who were at the head of the War Department had a terrible task before them. They had opposed to them two tremendous influences—the influence of the aristocracy, and the influence of the Court. He would not speak against any member of the Royal family, whom they all affectionately esteemed, but he maintained that it was not right that a Royal duke should be placed permanently in such a position as that of Commander in Chief. According to the present system in the army, they had wealth barring the door very closely against merit and moderate means. In regard to the Admiralty, he believed the public would see, in the first Estimates laid before Parliament, a marked indication that a change for the better had been made in the management of that department."

MR. GEORGE YOUNG, Solicitor-General for Scotland, at his re-election for the Wigton Burghs, on Monday, spoke as follows on the business of the coming session:—

"Before the general election there was a great variety of opinion as to what the result would be. Extremes men on the one side predicted that the Tory party would find a certain class—and that a large class—of the newly enfranchised prepared to do their bidding to such an extent as to return a Tory majority to Parliament. Extremes men on the other side predicted that a vast number of the newly enfranchised would distinguish themselves and signify their independence by returning to Parliament men of another order, who have not hitherto appeared there; that we should, in fact, have an extremely diverse and Radical Parliament, consisting, to a large extent at least, of different men from those hitherto familiar within the walls of St. Stephen's. Both these parties have been entirely disappointed. On more than one occasion in the course of the recent election I took occasion to express my own belief that the Parliament of the new constituency would have the strongest possible family likeness to its predecessors, that it would consist to a great extent of the same men, and altogether of the same order of men; and that while a large majority of Liberals would be returned, yet that they would be Liberals of that order who show their moderation to all men. And accordingly, the Parliament which we have is a Liberal Parliament, with a large majority of Liberals and of moderate Liberals; and I venture to think that even those who were most alarmed with the prospect of the effects as they anticipated them—if the recent great extension of the franchise, have had their fears appeased, and laid by the Parliament which has been returned. The election was a glorious election for the Liberal party. The very report of the result of it before Parliament met in the late Government to resign in a manner certainly unprecedented for they resigned by circular—the first time, so far as I can remember, in the history of the country in which a Government resigned in that somewhat undignified manner. Yet I don't doubt that upon the whole it was the wisest and most dignified course. It has saved a great deal of time. It has saved the discussion, the debate, the division which was anticipated before Christmas as the testing contest between the one party and the other, and Parliament will be able as soon as it meets next month to proceed with the business of the country. We know what the first business will be. It must be the carrying out practically of that great measure on which the last Parliament closed itself so gratefully, and upon whose judgment and against whose judgment the late Government appealed to the country, and upon which appeal the country pronounced its judgment at the last election. Probably the carrying out of that great measure by the present Parliament will occupy a great deal of the present session, so as to render it impracticable to introduce many of those other measures for which there is pressing, but not so pressing, occasion. I am not to detain you on this winter day by attempting to speculate or draw a programme of the future. A Liberal Parliament has been returned—a Liberal Government has been formed under Mr. Gladstone, of whom I have always spoken as in my judgment one of the greatest statesmen of the day—and we may all have confidence that those great and beneficent Liberal principles which have hitherto guided the legislation of the men who are now in the majority and in power will not be allowed to rest there, but will be advanced further and further in the legislation of the immediate future."

SIR COLMAN O'LOGHLIN, at his re-election for Ennis on Wednesday, made the following remarks on the Irish Church and land questions.—

The first act of Mr. Gladstone's policy will be to settle the question of religious equality. My friend Mr. O'Connell has

alluded to that question, and he has told you it lies at the root of all the evils from which Ireland suffers; and I agree with him that it has rendered this country a prey to factions which are a disgrace to the empire at large; and it is only by settling the question in the manner proposed by Mr. Gladstone that this country can be made prosperous and happy. It has been said that this question was taken up merely as a party question, and that Mr. Gladstone would find some way of settling it when it had answered his purposes. Those who made that accusation did not know Mr. Gladstone. In his speech to the electors of Greenwich everything he said while out of office he repeated and had pledged himself to carry out in office the principles he had before recommended. The first blow to religious ascendancy was struck in this country when O'Connell was returned the champion of the gentleman who has secured my nomination to-day, and I, too, in Parliament have been obliged to assist in that work, as I have been instrumental in carrying a Bill which has enabled the present Lord Chancellor of Ireland, Judge O'Hagan, to occupy that post, and I have no doubt he will occupy it in a distinguished manner. Although the question of religious equality will be the first to occupy attention, there is another question behind it in which you are all deeply interested—the land question. Mr. Gladstone in his speech at Greenwich said that it was only settling the question of religious equality, and that as far as he could he was determined to settle it. He may not be able to do so at this session, but he gave the electors of Greenwich to understand it would be taken up eventually, and you may rely upon it he will not retract. I do not wish to detain you longer—but I will just observe that as far as I am acquainted with the feeling of the majority of the Government they are inclined in every possible way to do justice to Ireland. If you think they do not go fast enough, you must remember that there are difficulties to overcome, and that above all only one thing can be done at a time. Probably you will have no land Bill this session, but you will have a grand jury measure which will embody the principle of the Bill brought in by Captain Stacpoole last session, and no doubt the Irish railways will be taken up by Mr. Gladstone, and settled in a satisfactory manner. No man is more competent to deal with that question than the Premier, who is a recognised authority upon all financial subjects. With regard to taxation, though the late Government had, it was stated, not left the country in a worse condition than it had been with respect to its revenues, two millions more, contrary to expectation, will have to be provided for the late Abyssinian expedition, and consequently no reduction in taxation can be anticipated for the present."

Foreign.

FRANCE.—The Emperor received the Diplomatic Body and the Ministers of State at the Tuileries on New Year's Day. His Majesty made the following reply to the congratulations of the Diplomatic Body:—

"I am happy to say that a spirit of conciliation animates all the European Powers, and that the moment a difficulty arises they agree among themselves to smooth away and avert complications. I hope the year now commencing will contribute, like the one just expired, towards removing many apprehensions and strengthening the bonds which should unite civilised nations."

To the congratulations of the Deputies his Majesty replied—

"Every year the co-operation of the Legislative Body becomes more indispensable to the preservation in France of that real liberty which can only prosper through respect for the laws and a just balance of power. It is always, therefore, with lively satisfaction that I receive the expression of your devoted and patriotic sentiments."

To the members of the Court of Cassation the Emperor addressed the following:—

"The sense of justice must penetrate now more than ever our national customs; it is the most sure guarantee of liberty."

His Majesty spoke as follows to the clergy:—

"The congratulations of the clergy move me deeply; their prayers sustain and console us. From what is going on in the world we can see how indispensable it is to assert the great principles of Christianity, which teach us virtue, that we may know how to live, and immortality, that we may know how to die."

All the Paris papers agree in interpreting these speeches in a peaceful sense. The *Constitutionnel* says:—

"Peace has been maintained in spite of all the insidious predictions which have been made during the year just expired. This fact is to be attributed to the good faith and conduct, as firm as it has been prudent, of the French Government in its relations with all the Great Powers, and especially with the North German Confederation. To preserve peace without sacrificing the dignity and the legitimate influence of France, is the great and difficult problem which the Government is endeavouring to solve without unsteadiness or weakness."

The *Official Journal of the French Empire*, which appeared for the first time on New Year's Day in lieu of the *Moniteur*, says—

"After the diplomatic rupture between Turkey and Greece the Cabinets of Europe showed themselves animated by the desire to prevent serious consequences. Prussia proffered the advice that friendly relations should be resorted to on the part of the Powers which signed the Treaty of Paris assembling at a Conference. The Government of the Emperor recognised the opportuneness of this proposition, and recommended it without delay to all the Courts of Europe, with a view to obtain their assent, agreeing with them that the intended deliberations should be confined to the sole and well-defined purpose of examining to what extent compliance ought to be made with the demands of the Turkish ultimatum. A telegram has been received from M. Bourée, the French Ambassador in Constantinople, dated the 31st of last month, announcing that the Porte has declared its readiness to join the Conference. It has also been agreed to admit a Greek plenipotentiary as merely taking part in the discussion, without a vote. Complete harmony therefore exists between the Powers as regards the assembling of a Conference at Paris."

The first sitting of the Conference will take place in Paris to-day, the request of Turkey that the meeting should be postponed for eight days, to enable the Ottoman Cabinet to forward instructions to the Turkish Minister at Paris, having been withdrawn, at the suggestion of the French ambassador, who has induced the Porte to consent to transmit its instructions by telegraph. The Marquis de Lavalette, Minister of Foreign Affairs, will preside over it, and the representatives of the Powers who are to take part in it are as follows—Austria, Prince Metternich; Great Britain, Lord Lyons; Italy, Count Marnier; Prussia, Count Solms; Russia, Count Stackelberg; Turkey, Djemil Pasha; Greece, M. Rizo Rangabé. The report that the ships belonging to the bankrupt estate of Messrs. Arman & Co., of Bordeaux,

have been purchased by Greece, and that a Greek legion is being formed in Paris, is contained in Prince Napoleon is suffering very severely from a complaint. The Emperor went down to Mantes Monday to see him. The Marquis de Morny, Minister of Foreign Affairs, lies in an ambulance at the Foreign Office. The election of a member for the Department of la Manche took place Monday, when M. Auvray, the Government candidate, was elected by 17,648 votes. His opponent, Lenoel, polled 10,751 votes. Mr. Jefferson, Messrs. Slidell, Mason, Dudley Mann, &c. Southerners now in Paris, will leave shortly for the United States. Baron Seguiet, Premier of Toulouse, has published a letter in the papers in which he has resigned his functions in consequence of M. Baroche's reproaches for his conduct in the matter of Press prosecutions. This resignation has been followed by M. Tarquette, Premier Imperial at Vervins, who has also resigned. A very severe sentence was pronounced on Wednesday against the *Diablo à Quatre* for an article on the Emperor's person contained in the number of that publication of the 19th ult. M. L. Krantz was condemned to four months' imprisonment and a fine of 3000f.; M. Pfeiffer, the manager, to two months' imprisonment and a fine of 3000f., and M. Dubouché, printer, to a month's imprisonment and a fine of 3000f. Marshal Vaillant, Minister of the Emperor's Household and of the Fine Arts, has given a site on the left bank of the railway bridge from Calais to Boulogne. The Civil Tribunal of Marseilles has just given judgment on the interpretation to be given to the will of Mr. Robert Gower, a wealthy English merchant of that city, and on which depended a considerable fortune. The deceased, who was unmarried, leaving a valuable gallery of pictures in his collection, museums in England and France, disposed of the remainder of his property in the following terms:—"I give and substitute as my heirs, my brother Henry Gower, or his children, and my other brothers and nieces who shall exist at the date of my death, their representatives." The Court decided in favour of the construction of this phrase indicated two meanings, the designation of the brother by name, and the exclusion of all others, and the inference from the word *or*, which implied that, in case of predecease, his children then would be merged in the category of nephews and nieces mentioned in a general manner, that Mr. George Henry Gower, being living at the date of the universal legate, a verdict in accordance with the view was in consequence given.

SPAIN.—The insurgents at Malaga having refused to obey the proclamation of General Caballero, the latter, supported by the ships of war stationed in that city, attacked them on New Year's Day in the quarter of Santa Trinidad, where they had entrenched themselves, while General Pavía, the Military Governor, attacked their stronghold from another quarter. The insurgents were completely beaten, and the latter the line took possession of all the districts around them. The greatest enthusiasm prevailed in the ranks of the regular army. In General Pavía's corps 1000 men were killed, but, on the whole, the troops of the line did not suffer much. The losses in the insurgent force were 100 killed and wounded, and 800 prisoners. Of these General Caballero has released 200, and detained the 230 others, who will be tried before military tribunals. Two battalions of the National Guard remained faithful to the Government, the others having taken part with the insurgents, but were now armed. The last advices announce that General Caballero now occupies every part of the territory that the insurrection is completely suppressed. Carlist conspiracy has since been discovered at Logona, with ramifications in Saragossa, Pamplona, Tortosa, and Lerida. Several military men have been arrested, and compromising papers have been seized from the authorities. Republican movements have been taken place at Cadiz and Seville. At Cadiz a Communist conspiracy has also been discovered. It was considered necessary to proclaim martial law, but the state of siege has now been raised. Sagosta, Minister of the Interior, has issued a decree in which he attributes these conspiracies to the Reactionary party, and says that the Government is resolved to preserve intact the sacred deposit of the National Sovereignty, and to maintain it until the assembling of the Cortes, whose assembling it respectfully awaits, and does not desire to hasten. Advices from Corunna state that 6000 men washed in from the sea were picked up between Finisterre and Cape Ortagal, on December 28th.

PORTUGAL.—The King opened the Cortes on Monday. His Majesty in his speech briefly alluded to the disaster which had occurred at Mozambique, and that the Government had taken energetic measures to retrieve it. The state of the finances was stated to be good order in the administration, and by the reduction of the expenditure and self-sacrifice, his Majesty said the difficulty might be overcome. The President of the Chamber of Deputies took the oath on Monday, and resulted in the defeat of the Government, the successful candidate being Senhor Mendes. On Thursday the President of the Chamber of Deputies resigned, which the King had accepted.

GIBRALTAR.—A discussion has been going on some days past in the London papers, respecting the surrendering Gibraltar to Spain in exchange for the Spanish settlement of Ceuta, on the opposite side of the Straits. It originated in a letter from Admiral George Grey, formerly Governor of the port at Gibraltar, advocating the exchange of the ground that, in spite of the vast sums which have been expended by England on the fortifications of the place, it is now unable to resist the attacks of the

...while experience has proved that it will never be possible to render its harbour safe or commodious for the use of a fleet in time of war. To these arguments other naval and military officers have added that Ceuta, though possessing a better harbour, is not equal in strength to Gibraltar, and that when it will be commanded, in the present state of modern artillery, by hills behind it; that Gibraltar has been dearly purchased by English blood in the memorable sieges it has sustained during the long period of 150 years in which it has been in our possession; that, if the principle of restoring places of equal force be applied to India and most of our possessions. It is also contended that Spain has as much right to expect Spain to restore Gibraltar as England, that Morocco might likewise object to our settlement at Ceuta, and that we should be unwilling to see the English flag planted on any part of the Mediterranean coast of Spain, where we could have no security that, in the distracted state of Spanish politics, Gibraltar would not fall into the hands of some other Power capable of using it against us, and not likely to give it to Spain or any other nation, unless compelled to do so by force of arms. The Madrid papers are in great exultation at the very possibility of England regaining Gibraltar for Ceuta, and almost all of the articles of the London papers on the subject.

DENMARK.—A Court ball was given at Copenhagen on Tuesday evening in honour of the Prince and Princess of Wales. The ball was opened at a quarter to 10 by the polonaise, the King dancing with the Princess of Wales, the Prince of Wales with the Queen of Denmark, and the Danish Crown Prince with the Countess of Frisenborg. The English, French, Russian, and Swedish Ministers, were among the guests, who numbered in all about 1500. The Princess of Wales wore a blue dress, with a diadem of brilliants.

BELGIUM.—The Crown Prince, whose immediate recovery was declared inevitable months ago, is much improved in health, although the water from time to time makes its appearance, and baffles the skill of the doctors, who, however, still cling to the hope that by treatment adopted they may ultimately be able to conquer this obstinate enemy, the real source of the illness. A Royal order has been issued granting to the Belgian Minister in London honourable relief from his post, and appointing Baron Beaulieu, Minister of the Hague, as his successor.

SWITZERLAND.—Mr. Fell, the English engineer, has been selected by the Swiss Federal Council to undertake the construction of three railroads over the Alps for a guarantee of interest of 600,000*fr.* annually. He estimates the cost of that over the Simplon at from 11 to 12 millions, of the St. Gothard at from 13 to 14, and of the one at Cham at from 15 to 16 millions.

PRUSSIA.—In the sitting of the Lower House of the Reichstag on Wednesday, the Minister of Finance brought in a bill as a supplement to the budget, whereby the Emperor is asked to approve the expenditure incurred in the regular adoption of the budget as that of the land. It is officially contradicted that Prussian officers had been authorised to enter Roumania with power on their return to form a Prussian army. The Landwehr is being reorganised and increased by 167 battalions. The *New York Times* publishes an article on the subject recently delivered by Herr von Varnbubler, Minister of Finance of Wurtemberg. It expresses great satisfaction at the tone of the speech, and says that the Prussian Government will continue, as heretofore, to adhere to existing treaties in its attitude towards the other German States. Professor Ewald has been appointed to the charge of high treason against the King. The acquittal was based on the ground that it had not been proved that the King was persecuted in the Professor's pamphlet, and that no evidence had been brought to show that the Professor intended his remarks to be defamatory. The Prussian court received the decision with loud applause. The Monastery of Newstadt, the closing of which was postponed until its inmates should die off, has been discovered to be secretly recruiting its members. The Berlin Chamber of Deputies has now passed the establishment, which was the last of the class of houses in the kingdom.

SAVON.—The Savon Landwehr is now going through military manoeuvres. It is the first time that such assistance has occurred in winter.

BAVARIA.—The proposal of the Minister of War to divide the Bavarian army into two corps of four divisions in unison with the military system of the German Confederation, has received the approval of the King.

AUSTRIA.—It is rumoured that Count Beust is to be appointed by Count Andrassy, but that he will remain in charge of foreign affairs; the rumour, however, is not confirmed. In accordance with an announcement of the committee for the Control of the Public Debt, the conversion of the debt commenced on Thursday. Count Mensdorff, a relation to Queen Victoria, has been created a Prince, and assumed the name of Prince Mensdorff, having married a daughter of the late Prince Dietrichstein. A long train of goods arrived a few days back at Tschakow, the first train to appear in Austria on the railway from Prussia to Cracow. There was nothing remarkable in the appearance of their contents, which were registered as agricultural implements in transit to Moldavia, but one of the railway servants having had suspicions excited by the weight of the packages, the wagons were searched and were found to contain

small mountain guns, with their carriages, hidden beneath straw and parcels of goods of less importance, and covered over with tarpaulins. The whole weighed about 150 tons. The convoy was at once detained, and an inquiry has been opened at Cracow and Vienna.

HUNGARY.—Herr Deak has consented, on the invitation of the Central Electoral Committee, to come forward again as a candidate for the Chamber of Deputies. The agitation for the elections has commenced throughout the country. A Jewish congress, composed of delegates from Hungary and Transylvania, convoked by the Minister of Public Worship, is now sitting at Pesth. The object of it is to draw up a special statute relative to religious and communal affairs, and for the administration of the funds constituting the endowments of the Hebrew schools. An appeal has been issued to the inhabitants of Servian nationality, calling upon them to render assistance to the Greeks in their conflict with the Turks.

CROATIA.—The Conference convoked by the Ban of Croatia has decided in favour of establishing a responsible Government, similar to that existing in Hungary.

RUSSIA.—Advices from Tauris state that a violent earthquake was felt there on the morning of the 3d inst. which took its direction from north to south. No disasters are reported.

ITALY.—In the provinces of Verona, Cuneo, Modena, Piacenza, Arezzo, Bologna, Cremona, Parma, and Pavia, there have been popular assemblages and demonstrations against the Grist-tax. At first the people were dispersed, and order restored without bloodshed, except at Campegine, in the province of Rizzio, and at Pelago, in the province of Florence, where some of the rioters were killed and several wounded. A renewal of the disturbances has since occurred in the vicinity of Parma, where the rioters have burnt the prefectural archives of San Donnino. The province of Reggio is also agitated, and disturbances are threatened at Bologna. A Royal decree was consequently issued on Tuesday, charging Cadorna, the commander of the troops of Central Italy, with the mission of restoring order and tranquillity in the provinces of Bologna, Parma, and Reggio, and ordering the prefects of those provinces, and of Modena, to place all their available forces and means at his disposal. General Cadorna has fixed his head-quarters at Parma, and has issued a proclamation warning the rioters of the consequences that will attend any further violation of the law. The *Official Gazette* states that the disturbances were promoted by political parties adverse to the national institutions. The ringleader of the rioters at Campegine was an ex-ducal gendarme. Seditious placards have been posted in various towns in the province of Verona, where shouts have been raised of "Viva l'Austria!" "Viva il Papa."

PAPAL STATES.—Archbishop Manning arrived at Rome on Tuesday from London.

GREECE.—Hobart Pasha's demand against the Enosis has been brought to trial before a mixed naval commission. The *Levant Herald* of Saturday announces the landing at Syra from a Turkish vessel, on the 31st ult., of 650 of Petropulaki's Greek Volunteers from Crete, and their enthusiastic reception by the population and troops.

TURKEY.—The Porte, on the representation of her Majesty's Ambassador at Constantinople, has decided that all Greek vessels which might be loading in Europe before the rupture of the relations between Turkey and Greece should be exceptionally allowed to enter the Ottoman ports to discharge their cargo. The Porte has also modified the order for the expulsion of the Greeks; all Greeks by birth or of Greek parentage, provided the latter be born in Turkey, are to be allowed to remain in the country, subject to Turkish laws, but the expulsion of all persons who were formerly Ottomans but have become Greeks by virtue of adoption, is insisted on unless they resume their allegiance. The *Turquie* publishes an article under the head "The Meeting of the Conference," in which it says:—

"Russia having taken initiatory steps towards effecting a diplomatic decision, has done so under the veil of exaggerated Liberalism; nevertheless, her designs are sufficiently apparent. Ever since the year 1856 it has always been Russia who sought to revive the Eastern question, and now Russia, aware that the insurrection in Crete has terminated owing to the energetic attitude of the Porte, proposes a Conference, which it is impossible for the Porte to refuse to join without incurring heavy responsibilities. Russia hopes that the result of such Conference will be the abandonment of the measures adopted by the Porte for the expulsion of the Hellenes. The Turkish Government, however, will not submit to the discussion of her legitimate acts of self-defence. Should such a step be taken, its Plenipotentiary would at once retire, and the Conference would collapse. The article concludes by advising Russia to be careful, since another war might be more disastrous than the Crimean war."

Mr. Morris, the diplomatic agent of the United States, has received orders from Washington not to take Hellenic subjects under his protection. The mosque of Foundoukly, at Constantinople, has, by order of the Sultan, been lit with gas, and the other Mussulman places of worship are likely to be shortly lighted in the same manner.

TURKEY IN ASIA.—About midnight on the 17th ult. at a place called Carabournou, about 41 miles from Smyrna, the steamers Galliou and Charkeich, belonging to a Turkish company, came into collision. The Galliou, which had a very valuable cargo and a large quantity of specie on board, foundered almost immediately, only 80 passengers out of 250 being saved. The Charkeich was so much damaged that she had to be run ashore to prevent her from sinking.

CAPE OF GOOD HOPE.—Accounts from the Cape to the 14th ult. state that the result of the mission of the Rev. Mr. Vandewall and Commandant de Villiers, the deputation from the Free State to England, is that all the later and angry correspondence between Sir Philip Wodehouse and President Brand will be considered as cancelled, and that the negotiations with respect to the

Basuto boundary will be commenced afresh. The Korannas, on the northern border, are still giving much trouble. A band of them recently came down upon a party of farmers, and carried away stock and other property worth 6000*l.*

INDIA.—The Earl of Mayo arrived at Madras on Saturday evening, and met with an enthusiastic reception. An influential committee has been formed at Calcutta for the purpose of erecting a statue commemorating the Indian career of Sir John Lawrence. The Maharajah of Edur died on December 26. The Cashmere authorities have expressed their readiness to facilitate trade with Yarkund, *via* Ladakh. Colonel Ortasoff, the Russian agent, is now at Cabul. Government news from Peshawur of December 3 states that no battle has been fought in Afghanistan.

CHINA.—It is stated that three more Chinese ports will be opened to foreign trade at the end of 1869. Consul Swinhoe has been appointed to visit and report upon them. A notification of Sir Rutherford Alcock promulgates revised pilotage regulations. They are to be applicable to British subjects only, but it is supposed that other foreign representatives will issue similar notifications. The first Protestant church was dedicated at Hankow by the Bishop of Victoria on November 27. Colonel Meadows is dead. Mr. Cooper has been unable to penetrate into Thibet, and has returned to Hankow. Lieut. Dunlop has surveyed the Grand Canal 60 miles northward of Yangtse, and found the water very shallow. A torpedo has been successfully constructed at Nankin, by which the Arsenal junk was blown up two miles distant from the operator, Dr. Macartney. The foreign diggers in Chefoo have armed themselves, and intend resisting Chinese interference.

JAPAN.—It is credibly reported that the rebellion has collapsed, and that the Northern party have unconditionally surrendered to the Mikado's authority. Preparations were in progress for the Mikado's visit to Jeddo. The British garrison troops at Yokohama had attended a general parade, and fired a Royal salute to commemorate the Mikado's coming of age. They marched past before two of the Mikado's representatives. A conference was sitting respecting the opening of Jeddo to foreign commerce. Decisive official information will be published shortly.

UNITED STATES.—Armed bands of negroes have plundered the plantations near Savannah. They rescued some negro prisoners from the custody of the Sheriff, picketed the roads, and defied the authorities. Federal troops, under General Sibley, were sent to quell the disturbance, and the latest news states that the insurgents have abandoned their resistance, and that the Sheriff, aided by the military, has arrested the ringleaders. Mr. Sumner has presented to the Senate a memorial asking that the word "white" be struck out of the Naturalisation Law.

CUBA.—Telegrams from Havannah announce that General Dulce has arrived there, and assumed the government of the island. General Lersundi has left for Spain.

PARAGUAY.—Accounts dated the 28th of November state that an attack had been made on Villeta, which ended in the repulse of the Allies. Three Brazilian iron-clads were injured.

BUENOS AYRES.—A decree has been issued by the Argentine Government, offering a prize of 1600*l.* to the inventor or importer of the best method of preserving meat on a great scale.

HAYTI.—Accounts from Port-au-Prince to Dec. 11 state that Nonuil, the President of the South, is dead, and that Miragoun and the adjacent places had fallen into Salnave's power. Severe fighting occurred before the surrender. It is reported that Jacmel and Jeremie, in the South, and St. Mark, in the North, are in favour of Salnave.

City Intelligence.

OVEREND, GURNEY & Co.—At the close of Mr. Lewis's address in the case of Overend, Gurney & Co., at Guildhall, on Friday, the sitting, which had lasted four hours, was adjourned to Saturday, the defendants being bound over to appear, themselves in 2000*l.* each, and one surety in 2000*l.* For Mr. Gordon, Mr. Kirkman Hodgson, a Governor of the Bank of England, became security; for Mr. Barclay and Mr. H. E. Gurney, Sir Thomas F. Duxton; for Mr. J. H. Gurney, Mr. Fowell Buxton; for Mr. Rennie, Mr. Robert Gillespie; and for Mr. Birkbeck, Sir John Lubbock. Baron Rothschild had tendered himself as surety for the Messrs. Gurney and Mr. Birkbeck, but was unable to attend personally. At the sitting on Saturday Dr. Thom, Mr. Peek, of Liverpool, and Mr. Clark, of Haverstock Hill, shareholders, gave evidence as to their having been induced to take shares by the statements put forth by authority of the directors. Mr. Howell, accountant, then gave an account of his investigation of the affairs of the old firm and the limited company under the direction of a committee of shareholders. The object of the evidence, so far as it went, was to show that the old firm was insolvent to a large amount. The inquiry was then adjourned to Wednesday, when further evidence was taken as to the insolvent condition of the old firm. Mr. Slater, who was temporary secretary from July, 1865, to February, 1866, was examined as to the launching of the new company, and the remainder of the sitting was taken up with a continuation of the evidence of Mr. Howell, who proved that nearly 9,000,000*l.* consisting of irretrievable bad debts lost by the old firm, were carried to the credit of the new firm, and that 125,000*l.* were also carried to the credit of the new firm as interest due upon that amount, the whole transaction being, of course, a myth. The proceedings were then adjourned to yesterday, when Mr. Howell's examination was continued. He stated that liabilities to the amount of 9,319,000*l.* were not at all debited to the new company, and were kept altogether out of its accounts, and that

the old firm, for five or six years previous to the transfer, lost 500,000l. a year. This concluded Mr. Howell's examination-in-chief, and the inquiry was then adjourned to Friday next.

MONEY MARKET, FRIDAY — BRITISH FUNDS
 Consols closed at 92½ to 92¾ for Money; and 92½ to 92¾ for Account; New and Reduced Three per Cents, 92½ to 93; India Five per Cents, 112 to 112½; Bank Stock, 240 to 242; Exchequer Bills, 1s. to 6s. pm.—**FOREIGN**
 Mexican Bonds, 15½ to 15¾; Spanish, 30½ to 31; Italian, 5½ to 5¾; Tobacco Loan, 1 to 1½ pm; Turkish Five per Cents, 10½ to 10¾; Ditto Six per Cents, 60½ to 60¾; Egyptian (1864), 85 to 86; Ditto (1868), 74 to 74½; Viceroy's Seven per Cents, 77½ to 78½; Ditto Nine per Cents, 90 to 90½; Russian (1862), 85½ to 86½; Orel, 80½ to 80¾; Nicolas, 66 to 66½; Moscow, 78½ to 79½; Charkof, 78½ to 79; Peruvian, 76 to 76½; Portuguese, 36 to 36½; United States 5-20 Bonds, 74½; Erie Shares, 27; Illinois, 95½.

Metropolis and its Vicinity.

ADDRESS TO THE NEW LORD CHANCELLOR—A public meeting of the inhabitants of the precincts of St. Peter and of the united parishes of St. Margaret and St. John, Westminster, was held on Saturday at the Westminster Palace Hotel, for the purpose of presenting to Lord Hatherley (late Sir W. Page Wood) an address of congratulation on his elevation to the office of Lord High Chancellor of England. The meeting, which was of the most influential character, was densely crowded, and the most lively interest was manifested throughout in the proceedings. Dr. Stanley, Dean of Westminster, took the chair, and after opening the proceedings in a brief speech, read the address, which expressed the grateful and affectionate sympathy of the parishioners, and said that during an unbroken residence of 35 years the new Lord Chancellor had been the foremost among the residents of Westminster; a never-failing stay to its inhabitants, whether as a judicious and munificent patron of all good works, a zealous defender against misrepresentations, a wise counsellor and helper in all difficulties. It said that the abbey claimed him among the earliest and most punctual of its daily worshippers. St. Margaret's owned him as amongst its most faithful parishioners; St. John's had received his constant and cordial co-operation. The Free Library of Westminster, first of its kind in the metropolis, looked back to him as its founder. The Sunday schools of the district had enjoyed, week after week, the encouragement of his presence and instruction. The Westminster Spiritual Aid Fund, with its important consequences, was fostered, in great measure, by his generous interest. But, more than all, the parishioners desired to acknowledge the blessing experienced from his personal influence and character, drawing out from each one whatever there might have been of good, uniting them by genial sympathy and neighbourly kindness, and keeping alive in the midst of them a constant sense of the duty of upright dealing and of unwearied continuance in well-doing. The Lord Chancellor, on rising to reply, was received with great cheers, and appeared greatly moved by the enthusiastic reception given him. He said:—

"He deeply felt the feeling manifested towards him by his fellow parishioners, for he was convinced that whatever position in life a man might attain there was none more desirable than that of reciprocating the kindly sentiments of those with whom he was closely associated. If there were anything in that day's proceedings of which he had to complain it was the fact of their not allowing him a longer time of association with the parishioners of Westminster. His father lived in Great George Street in 1827, and in that year he was called to the Bar. He reviewed the history of the country politically, but more especially the parochial and religious history of the district, and the spread which had taken place in the religious and moral education of the people. Much had been done in this respect by the dean and clergy of Westminster. Schools which formerly only afforded accommodation for 30 or 40 scholars had been replaced by those which accommodated hundreds. They had now eight churches, the clergy had increased to 27, and this had been accomplished by good, earnest, and solid work. Much had been done by the clergy in augmenting, and by the laity in aiding, the movement, and nothing had contributed more to the elevation of the great masses of the people than the establishment of evening services in the Abbey for the great masses of the people. After referring to the subject of the free library and other points in the address, he alluded to the subject of his elevation to the high position he then held, and to the former one when he was in Parliament as Solicitor-General. On the former occasion he found, when placed by the Liberal party in that position, that it entailed upon him so large an amount of late work, and so interfered with his duties of domestic life and comfort of home that he felt bound to relinquish his honourable position. Of course, he knew that he was on the road of promotion, but he begged to assure them that he never had the least hope that he should ever occupy the high and distinguished position he then held. It had, however, pleased her Majesty to confer upon him this high honour, and when he was informed by his political friends that this was to be for the benefit of the State he should assume it, although he felt that it was almost time that he should retire from public life, and not hesitate to accept the honor. He trusted that, having been blessed with the opportunity of health for 4 years, he might be spared a little longer time to discharge the high duties which had devolved upon him, and he should still continue to carry out that precept which had been instilled into his mind in early life, and which he should always endeavour to instill into the minds of any one who came to him for advice, namely to do his duty in that state of life to which it had pleased God to call him."

Mr. Justice Williams then moved a vote of thanks to the Dean of Westminster for presiding on the occasion. The Rev. Canon Jennings seconded the resolution, which was carried by acclamation, and acknowledged by Dean Stanley in a few appropriate sentences.

ADDRESS OF THE WORKING MEN OF SOUTH LONDON TO THE AMERICAN MINISTER.—A crowded gathering of working men assembled at the South London Baths on Saturday evening to present an

address to Mr. Reverdy Johnson, the American Minister. The presentation arose out of a desire on the part of the working men to show they had no sympathy with the proceedings of those connected with the Reform League, who a short time since withdrew the invitation they had given to Mr. Johnson to meet the working men at a banquet. The large hall in which the presentation was made was densely crowded, and the proceedings were marked throughout by the greatest enthusiasm. The chair was taken by the Rev. Newman Hall, who was supported by Mr. Locke, M.P., and Mr. M'Arthur, M.P. The Chairman and the Rev. Mr. Murphy having addressed the meeting, the address was read. It said that the working men of South London desired to convey to his Excellency, and through him to their brethren of the great republic he represented, their sincere respect and hearty goodwill, that they recognised in him the representative of a free and a kindred nation, that they had watched his course since his arrival in this country with the liveliest interest and the intensest satisfaction; and believing as they did that any rupture of the relations between Great Britain and America would be the direst calamity and the most heinous crime, they esteemed more highly than they could express his zealous endeavours to remove all misunderstanding, and to lay a secure basis for friendly and fraternal relations in coming years. In conclusion, he said that, during the late civil war in America they needed no laboured arguments to convince them on which side their sympathy was due. Their brother workmen in the cotton districts were prepared to starve rather than support a slave empire, and they were ready to stand by them; and now, with him and them, they rejoiced and thanked God for the triumph of law and order, of union and of liberty. Mr. Reverdy Johnson, who was received with enthusiastic cheers, replied as follows:—

"I had occasion a week or two since to say that I believed I stood well with the working men in London. The manner in which you have received me to night satisfies me that in that belief I was not mistaken. If there be any persons present who were sceptical at that point before, their scepticism will assuredly remain no longer. If they are not blind they will see that your looks betoken confidence; if they are not deaf they will have heard that your cheers bespeak confidence. Under the impression, therefore, that I stand to you in the relation of friend to friend, I propose to address you as a friend should address friends. When I was first told that it was the desire of some of the working men of your city to entertain me at a banquet, it was accompanied by the suggestion that some persons thought I might be unwilling to accept such an invitation. If that suggestion was in fact made, be it they who made it do not know my character, or the nature of the political institutions under which we respectively reside. They did not know my character, for I have been all my life a working man, and a very hard-working man too; and all that in my character is of any value is owing to the fact that I have been a man of that class, and have associated with men of that class. I have not laboured with my hands—except, perhaps, while speaking, but many and many hours of the night when you were resting from your more active toil, and I were reposing in your beds, I have been obliged to sit up until the dawn of day to prepare the address to the chamber. And for the first time I can't imagine how any man can be so contentedly happy who has nothing to do. But the suggestion to which I have referred showed an ignorance of the political character of the institutions under which we live. These institutions rest upon public opinion. And what class in your country—what men have more power in forming that public opinion than the working classes? The drones who skim over the surface and do nothing for themselves, but expect everything to be done for them, not only have not the means of forming public opinion, but they are utterly incapable, as a rule, of taking a rational view of public opinion. With you, as with us, public opinion is the law. It may fail for a time, but it never fails in the end. I forbear to illustrate this by referring to incidents in my own country, but you will pardon me if, for the purpose of illustrating it, I refer to some incidents in your own career. At a time when mind was dark and ignorant, and, what is still worse, was bigoted, a Roman Catholic was permitted to hold office or to vote. Great men of the time, standing infinitely in advance of those to whom that policy owed its existence, and the people of England, began to agitate, and from year to year continued to agitate, Government from year to year refusing to yield, until at last public opinion was triumphant, and that spot upon English honour and English justice was wiped off. Next came meetings held all over the country for the purpose of inducing Parliament to reduce the duty on corn, so as to put cheap bread within the reach of the poorest man. This also was resisted from year to year, but at last it triumphed, and, like every just measure, benefited the labouring and working man—and I do not think it has injured the farmer. Next came the extension of the suffrage. The man of the iron will, and certainly of patriotism—his who gave you such immortal fame upon the plains of Waterloo—resisted the proposed measure; but he had to yield, and finally all the lords who were associated with him gave up the ghost. But you were not satisfied with what was done in 1830, and, as you had a right to do, you began to agitate again. That went on for a considerable time, but at last it ended, and you have recently had an election. I know nothing personally, but the impression seems to be very general that the result of this election has not done irreparable mischief to the greatness and honour of England. The fact is, that the Government which undertakes to try its strength with the opinion of its people fights at great odds. If the rev. chairman will permit me to use the language of the pugilist I would say that the Government which has the hardihood to enter the ring to try its strength with public opinion is sure, sooner or later—and generally sooner—to throw up the sponge. My friends in whose hands the government of this country recently was, and whom individually I honour, as I have cause to honour, when they found that if they entered the ring they would be compelled to throw up the sponge, refused to enter the ring or fight at all. This was brought about by the power of the people of England. Now, this being your power, I know you are intelligent enough to feel that it is your duty to your country and to your God to prepare yourselves to discharge your duty with honour and credit to yourselves and to your country. Do not believe there is any difference in your skulls and those of other people. We in America thought at one time that there was a difference—not in the white skulls, but between the black and the white ones. We have changed that opinion now, for we have evidence in the colony of Liberia, settled by blacks rescued from slavery 20 or 30 years since, that they are fully equal to the whites. And I have seen State papers written by the President, a black man, which would do honour to any that your Mr. Disraeli or Mr. Gladstone could write. It is idle, therefore, to tell me that we run any risks in emancipating our blacks. The stain of slavery was almost universally admitted, but it was said that the peril of emancipating so

many as four or five millions, grossly ignorant as they are at once, and without giving to them the means of providing themselves for the discharge of the duties of citizenship, would be so great that, however humane the intention, it would be suffered to remain God willed it. Why, the fact is, the only charge made since I have been here is that I have made too much. As regards yourselves and those of your greatest men your nation and the world have sprung from the working men. Next to Washington, the country stands the name of one who is held in highest esteem, as a general leading his army to victory—I mean Greene, the blacksmith. He was an apprentice to the printer, became the world's printer, your own country you have a Burns, who, in his poverty and privation, produced poetry which, for its patriotism, will live for all ages. Well, be it that others have obtained it, but do not imagine that inferior to others because of the condition in which they were born.

"Honour and shame from no condition come. Act well your part—there all the honour lies."

You have rights and liberties of which you can be deprived unless you violate some law of the land. You have the right secured to you of acquiring property, and when that right is small or be it great, it stands protected by the law which protect the palace of the prince or the cottage of the poor. It is your duty, and the duty of freedom, to guard your country like yours and mine, to guard as carefully the rights of property as the rights of liberty and life. Liberty and life if they be not accompanied by the security of acquiring property for the support of yourselves and your families I have not language sufficient to thank you for the banquet in which you have received me; but of this you may be sure that I am grateful. Referring to the invitation to a banquet of the working men, he said that he had much preferred meeting them as he did, when their heads were cool and unaffected by the wine of a seen some banquets—they were, of course, not in the least where a good many of these present preferred anything else. No man should know better than you were to break out it would fall the heaviest burden upon you. You form the rank and file, your bones would be in battle fields, while the honour, if gained, would be to one who does not belong to your class. While, therefore, sure that if your country at any time should have its rights violated, and its honour attempted to be tarnished, a should be found impossible to protect the one or the other except by war, that you would rather die than which for more than 1000 years has braved the barbaric breeze. Yet, as you value life, as you value the lives of your families, as you value the precepts of wisdom, you value the higher precepts of your God, so that war shall occur which can be averted without a sacrifice of rights or impairing the honour of England. If there be any circumstances be a calamity to be averted, it would be the character of a war between your country and mine. Why, I would as soon think of raising my arm against my own country as against this country. I know the difference between us. I would ask you, after the war, over, to ask yourselves what is the difference between myself and an Englishman. I am unable to detect the slightest difference between any Englishman and myself, except, as I stated a few days ago as a joke (and I hope you will take it as such), that in America, speak English a little better than you do yours. In America we have lived 1000 years during the last 100 years we have pressed centuries into years, and we were wise now as we should have been if these centuries had been the ordinary course of time. We know the good and valuable relations between Great Britain and the United States, and we know that such relations are not to the interests and welfare of both countries, but to the interests of the world. With the flags of the two countries every ocean as friends, what have we to fear from each other? We shall be able to keep the peace, and if we fail we shall be able to punish those who shall dare to shoulder to shoulder the two countries will rear up the pioneers of Christian civilisation, to exchange the shackles of freedom, to break down the trammels which have fettered the members of the world, and sooner or later to be free, but by example, the world will come to be what England and the United States now are—not only the freest, but the most powerful of the habitable globe, but the happiest and the most powerful. He then briefly touched upon the subject of a uniform ocean penny postage, the effect of which would be to bring the people into closer and more frequent communication with each other, and, in conclusion, said, I have my best wishes for each of you, and your families, and the assurance of a heart full of gratitude for the kind manner in which you have received me. I bid you all good night."

CONVERSION TO ROMANISM.—After the death of which took place a few months ago at Cardiff in the Buteshire on the coming of age of the Marquis Bute, it was reported that he had abandoned the religion of his ancestors, and become a convert to Catholicism. The report was at once contradicted, on the authority of Lord Bute himself. It is now announced by the *Westminster Gazette*, the organ of Archbishop Manning, that the Marquis has just been received into the Catholic Church, by Monsignor Capel, at Nice, and that his lordship is on his way to the Holy Land.

THE RECENT JUDGMENT ON RITUALISM.—Mackonochie, in acknowledging the receipt of Archbishop Tait's letter on the recent judgment, says:

"The subject of it is one which deeply concerns the clergy and laity, and not myself alone. It is at this time the matter of their most serious anxiety. Under these circumstances I feel sure that you will excuse me from entering into any details of the question. I cannot, however, cease this day specially thanking you for the great personal consideration which I have received from you in the last ten years."

A meeting of those aggrieved at the recent decision of the Judicial Committee was held last week at the Freemasons' Tavern. The Archdeacon of Exeter presided, and read a paper, which had been prepared by Dr. Pusey, counselling submission, but was opposed by Mr. Bennett, of Frome, and Mr. Nugee were in favour of opposing the court. Mr. Bennett, of Frome, said that as he had pleaded before the court, and that he remained for him but to submit to it, and that he would do, without wishing to prejudice others. The Rev. Mr. Cowie, Rev. C. W. Page, Rev. J. Oakley, the Rev. D. Wood, Rev. J. G. Cowan, and others counselled submission, while Dr. Lee, Dr. Littledale, Mr. Perry, and other pronounced Ritualists took a

but it is said that the depressed tone of the... generally formed a striking contrast to the... confident language used in ultra-Ritual... No fear of secession, except among... to be entertained. A committee was... among others, the Hon. C. L... Revs. T. T. Carter, T. W. Perry, Dr... Dr. Littleale, Mr. R. Brett, and Mr... to consider the matter, and report to an... meeting on the 12th inst. On Sunday... Walworth, of which the Rev. John... incumbent, the Communion service... in a manner which, perhaps, more... resembled the external rites observed in the... of High Mass in Roman Catholic churches... which has yet marked Ritualistic services in... Church. Two practices, specially... by the Privy Council—those of using lights... of prostration or genuflection—were adopted at... the altar, in the centre of which was a... had all the appearance of those in Roman... churches at festival seasons. The sermon was... by the Rev. G. Abbott. Immediately after... the Rev. G. Abbott, who wore a surplice... white stole embroidered with gold crosses, said... they should remember that if a Church was to... strengthened it was through persecution it should... done. They had not yet resisted unto blood, but it... would not be forgotten that the blood of the martyrs... was the seed of the Church. Let them adopt the prin... of non-resistance, which had been the weapon of the... Let them give a passive resistance, for true it was,... true it always would be, that they who took up... the sword perished by the sword. At All Saints, Margaret Street, the Rev. Upton Richards, in his... sermon, said he doubted not that days of prosecution... persecution were in store, and that some would... their confession with their blood. He considered... the judgment of the Privy Council on the altar... was an attack on one of the great Christian... one which he had always taught and inculcated... that Church, and one which he would always... the doctrine of the real presence. The day,... however, would surely come, and come soon, when the... of the Church would be triumphant. He... that in future his congregation would join with... the rest of the faithful in kneeling in the Creed at the... words "and was incarnate and was made man," and in... prostrating themselves as in the words of the psalm—... "the worship and fall down"—during the prayer of... in the office of the holy eucharist, and... especially never to sit down, but to kneel or to stand... our blessed Lord lies on the altar. At the cele... after the sermon, the candles on the altar were... and remained so during the service. Prostra... and genuflections as desired were also performed. At the parish church of St. Mary's, Atherstone, on... the Rev. Edward Husband preached a sermon... the recent judgment, in which he denounced the... "rites of a purely secular and worldly court of law,"... the absurd anomaly of a Presbyterian lord... to dictate to Catholics what the Ritual of... Divinity-instituted Church should be to which... to wise belongs." He said that as an individual... he most earnestly and fervently hoped that the... army of Catholics throughout the land, as a body,... would decide to ignore the judgment altogether, at all... and he concluded by adding that, "if by this act... should happen, as many anticipated, that they... should be driven from the Church of England as an... Establishment, God would then build up for them a... Catholic Church, exempt from the tyranny of... state interference, and endowed with the liberty which... pure religion afforded, to worship Him in the... way in which their saintly forefathers loved to... worship."

A WEEK OF SPECIAL PRAYER.—The past week has been observed, according to the practice which has prevailed for some years past among the various branches of the Evangelical Alliance, as a season of special prayer. In London, besides meetings at various places of worship, there have been daily assemblies for prayer and addresses at the London Tavern and Freemasons' Hall. Lord Radstock presided at the latter place on Monday morning, and in his opening address referred to the circumstances which had principally affected religion during the past year, expressing deep thankfulness for the means which had been provided in many countries, and especially in Spain, for extending the Gospel. Prayers were offered up for an actress, "an unconverted," and afflicted with a mortal disease, and for many persons who had made special requests, after which an address on "Confession" was delivered by the Rev. T. Nolan, of Regent Square Church. The chairmen for the remaining days of the week were General Walker (in the absence from illness of Mr. Harry Verney, Bart., M.P.), Mr. Lockhart Gordon, Mr. Mackelod Wylie, magistrate of Calcutta, Sir Robert Lytton, and Mr. S. R. Pattison. Mr. R. C. L. Baker, banker, presided at the London Tavern on Monday, and the Rev. Dr. Edmond, of Highbury, delivered the address.

THE THAMES EMBANKMENT.—The planting of trees on the North Embankment, as recommended some time since at a meeting of the Metropolitan Board of Works, has been commenced, nearly 50 trees being now in the ground. The trees are placed at intervals of about 20 feet from each other, and already the line of ground between Westminster Bridge and Hungerford has been thus planted. The new piers—at Hungerford and Waterloo Bridges and the Temple—are fast approaching completion, and are expected to be opened in the course of a short time.

UNIVERSITY TEACHING FOR WOMEN.—The University of London proposes to hold its first examinations for women in May next, and to continue the examinations annually in the same month. Under the title

of "Regulations relating to the examinations for Women," it has published the details of its plan of procedure, so far as it has yet been settled, and it appears from them that there are to be two sets of examinations—the one a "general examination," pretty nearly equivalent to the matriculation examination for young men; the other "examinations for certificates of higher proficiency."

THE SPECIAL SERVICES AT ST. PAUL'S.—On Sunday evening the special services under the dome of St. Paul's cathedral were resumed. The preacher was Dr. Atlay, Bishop of Hereford. The congregation was overflowing large, and the service appeared to create much interest.

MR. MILL ON WORKING-CLASS REPRESENTATION.—Mr. G. Howell, who unsuccessfully contested Aylesbury at the late election, has addressed a letter to Mr. John Stuart Mill, thanking him for a contribution of 10*l*. towards his election expenses, and expressing the wish that he had been successful, in order that he might have had the honour of placing the seat at his disposal. To this letter Mr. Mill has sent the following reply:—

"Avignon, Dec. 30, 1868"

"Dear Sir,—I cannot leave unacknowledged the concluding sentence of your letter. If you had been returned for Aylesbury, and had made the public spirited offer of retiring in my favour I could not possibly have accepted it. I attach far too much importance to the representation of the working classes—in some cases at least by the electors themselves—to have consented to put myself in the place of one of them if he had been fortunately elected. The defeat of all the working class candidates and of most of those of any other class in whom the working classes take especial interest, would have made my presence in the House of Commons of far less use than it might perhaps have been if I had been one of a phalanx of men of advanced opinions. I hope the working classes will learn from their present failure a lesson on organisation; and, as the Liberal party can never succeed at a general election without their active support, will henceforth make such support conditional on being allowed an equal voice in the election of the Liberal candidates, so that wherever a constituency returns two members, one of them may be a man designated by, and specially acceptable to, the interests of the working classes—I am, dear sir, yours very truly, J. S. MILL."

LONDON FOG.—On Thursday morning a dense fog hung over the metropolis, enveloping it almost in darkness. In the busiest hours—from nine till twelve—all offices and shops were lit up, and much inconvenience was caused. The traffic of steamers on the Thames was interrupted for several hours. In the City and in North London the fog cleared away about noon, but in the southern districts, and more especially in those which adjoin the river, it lasted till nearly two o'clock.

THE RELIEF OF VAGRANTS.—An important circular has been issued by the Poor Law Board to various Unions throughout the country, drawing the attention of the Guardians to the existing system of relieving vagrants, and suggesting several reforms. In order to distinguish between professional tramps and those whose real destitution gives them a claim to relief, the Board suggests that the name and occupation of each applicant, with the place whence he comes, and the place whither he is going, be recorded in a book of reference; that the applicant should forthwith (except when ill) be put in a bath; that as far as practicable he should be lodged in a separate cell; and that the performance of a sufficient task should be required before he sets out in the morning. For reasons which the recent publication of certain workhouses make manifest, the Board point out the advantage of providing a uniform scale of diet and taskwork in the casual wards throughout the country. With a view to the attainment of such uniformity, the Board append to the circular a scale of food and work which they submit for the consideration of the several Boards of Guardians, and ask for an expression of opinion as to its desirability. The scale proposes to give for breakfast to male tramps above 15 years of age either 6oz or 8oz. of bread (at the discretion of the Guardians), and one pint of gruel; women to have an equal quantity of gruel, but only 5oz. of bread. In return for this food and lodging male tramps will be required to break from 1½ cwt to 3 cwt. of stone, or to pick 1 lb. of oakum, and women to pick ½ lb. of oakum or to perform such other task as the Guardians may deem more suitable, and the Board may sanction. The Board intimates that when the answers from the various Unions have been received and considered, an order embodying these suggestions, or such modifications of them as may seem desirable, will be issued.

LOSS OF THE CALUMET.—The Court gave judgment on Monday in the case of the ship Calumet, which was abandoned at sea on the 16th November, on her voyage from Liverpool to Calcutta. They considered that Captain McGavin had prematurely abandoned the ship, and that sufficient exertions had not been used by him to keep the men at the pumps. They therefore suspended his certificate for twelve months. As to the boatswain, Thomas Breen, who in his evidence deposed to the ship having been scuttled by the captain, the Liverpool magistrates on Wednesday committed him for trial on the charge of perjury.

RESUMPTION OF MILITARY DRILL BY THE POLICE.—On Thursday an order, signed by Colonel Labalmondiere, acting chief commissioner of the metropolitan police, came into operation, directing some of the inspectors and sergeants to attend at Wellington Barracks to undergo a course of instruction in military drill.

SENDING DISEASED MEAT TO THE LONDON MARKET.—At Guildhall on Monday, Mr. James Kingsley, a farmer, of Longford, Bedfordshire, was brought before Alderman Finnis for sending four quarters of beef to the London market for sale as human food, the same being diseased, unsound, and unwholesome. Mr. James Newman, the inspector, and other officers of Newgate Market, proved that the meat was totally unfit for human food. It had

evidently been killed while it was suffering from disease and near the point of death. Alderman Finnis fined the defendant 20*l*. and 5*l*. costs, or in default of payment one month's imprisonment. The fine and costs were paid. Mr. Robert Philip Dodd, a farmer, of Great Ryburgh, in Norfolk, occupying 700 acres of land, was then charged with sending four quarters of unwholesome beef to the London market. Evidence having been given to this effect, Alderman Finnis said this was one of those cases in which a fine ought not to be inflicted, for here was a man of position in the country, farming 700 acres of land, and a man of wealth, to whom a fine would be no punishment at all. He therefore felt it to be his duty to send him to the House of Correction for one month.

THE DIFFERENT FORMS OF FEVER IN ENGLAND.—A committee appointed by the Royal College of Physicians of London has prepared a nomenclature of diseases suitable to England and to all countries where the English language is in common use. This nomenclature recognises the following forms of common fever—1, typhus fever; 2, enteric fever; 3, relapsing fever; and 4, simple continued fever. Neither cerebro-spinal fever nor plague need be referred to, as they do not prevail here; nor febricula, as it is never fatal. The majority of the fatal fever cases in England may probably be designated either as typhus or as enteric fever. The two forms are thus defined by the committee—Typhus Fever. A continued fever, characterised by great prostration, and a general dusky mottled rash, without specific lesion of the bowels. Enteric Fever: Synonym, typhoid fever (or typhus). A continued fever, characterised by the presence of rose-coloured spots, chiefly on the abdomen, and a tendency to diarrhoea, with specific lesion of the bowels. Enteric fever occurring in the child is often named infantile remittent fever. The Registrar-General has issued a notice requesting medical practitioners to use these names, in order that the Registrar-General may distinguish the several forms of fever in the returns of the ensuing year.

EMBEZZLEMENT BY THE ACCOUNTANT OF THE BOARD OF WORKS.—At Bow Street on Saturday Mr. Edward Hughes was brought up on the charge of having embezzled the sum of 2005*l*., the moneys of the Metropolitan Board of Works, at which he was chief accountant. The prisoner, who was elected a few years ago out of numerous candidates at a salary of 800*l*. a-year, had every confidence placed in him, and was intrusted with various amounts from time to time for payment of weekly wages, petty cash, and other miscellaneous matters on behalf of the Board. These sums had not been accounted for, and the evidence went to show that the prisoner had appropriated them to his own purposes. Two cases were partly proved, one for 1140*l*., and the other for 665*l*. 13*s* 8*d*., and Mr. Vaughan deemed the evidence sufficient to justify him in remanding the prisoner for a week, taking bail in two sureties for 500*l*. each. It appeared that the whole loss will not fall upon the Board, as they hold a surety for 1000*l*. from the Guarantee Society, which, when applied to, was unable to comprehend the matter, and "expressed their astonishment at the position in which the accountant was placed."

THE FATAL EXPLOSION OF A FIREWORK FACTORY.—The inquest on Mr. W. Londbeck, a commercial traveller, who lost his life in the recent explosion at the firework factory of Messrs. Baker, in the Cambridge-heath Road, was concluded on Wednesday, when the jury returned a verdict of Accidental Death, with the expression of their opinion that there was too great a quantity of combustible materials kept in the house, and that all places where fireworks are manufactured ought to be regularly visited by Government inspectors.

THE EXPLOSION AT ALBANY STREET POLICE COURT.—The young man who was arrested on the spot at the moment of the recent explosion, was brought up on remand before the magistrate at Mary-le-bone Police Court on Friday, and as it appeared that he was a person of good character, and there was no reason to suspect that he had thrown the explosive matter into the area, he was discharged. The police do not appear to have any clue by which this singular occurrence may be explained.

THE PUBLIC HEALTH.—The Registrar-General's weekly return states that in the week that ended on Saturday, Jan. 2, 5076 births and 3429 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 28 per 1000 persons living, being 27 per 1000 in London, 30 in Edinburgh, 25 in Bristol, 25 in Dublin, 24 in Birmingham, 29 in Liverpool, 31 in Manchester, 28 in Salford, 23 in Sheffield, 27 in Bradford, 24 in Leeds, 21 in Hull, 32 in Newcastle-upon-Tyne, and 34 in Glasgow. The rate in Vienna was 29 per 1000 during the week ending the 26th ult., and in Berlin 31 per 1000 during the week ending the 31st ult. In London the births of 1303 boys and 1202 girls, in all 2505 children, were registered in the week. In the corresponding weeks of 10 years, 1858-67, the average number, corrected for increase of population, was 2037. The deaths registered in London during the week were 1629. It was the 53d week of the year, and the average number of deaths for that week, corrected for increase of population, was 1660. The present return is therefore 31 below the average.

Provincial.

CAMBRIDGE.—The following regulations respecting examinations for women were issued by the University authorities on Monday:—

"There will be an examination, commencing on Monday, the 5th July next, open to women who have completed the age of 18 years before the 1st January, 1869. Such candidates may be examined in such places as the synodics appointed by the University may determine. The synodics will entertain applications from places where 25 fees at the least are

guaranteed. Before any application for an examination be approved the syndicate must be satisfied as to the following points—1. That there is a committee of ladies who will efficiently superintend the examination, one of whom will undertake to act as local secretary. 2. That this Committee will see that suitable accommodation will be provided for candidates who are strangers to the place. 3. That a responsible person will be at hand to receive the examination papers from the conducting examiner and to collect the answers. Committees wishing to have examinations held in their several districts may obtain all necessary information from the Rev. T. Murky, Trinity Hall, Cambridge. No application will be considered which is received after the 1st May, 1866."

DONCASTER.—At the annual meeting of the Corporation on Friday, a report from the race committee was read, recommending them to increase their grant to the September race meeting from 1500*l.* to 2000*l.* annually. The grant has been repeatedly increased in the course of years, the receipts from the races increasing, however, in a far greater ratio, until they have reached 8000*l.* at one meeting. After the recommendation had been read, a letter was read from Dr. Vaughan, the vicar of Doncaster, who is also chaplain to the Corporation, protesting against the attempt to lay a heavier burden upon the borough fund for the encouragement of races, which are usually accompanied by immorality and crime. Alderman Hatfield said that, but for the races, the Corporation would have been unable to make the grants they had made towards charitable and religious objects, including a contribution of 10,000*l.* for the repair of the parish church, and Alderman Sir Isaac Morley moved that the vicar's letter be simply entered on the minutes. Councillor Clark moved as an amendment that no notice should be taken of the letter. This amendment was carried by a small majority, and the grant to the race fund was then unanimously increased to 2000*l.* a year.

FEVERSHAM.—Two more men have died from the injuries sustained by the recent explosion at Messrs. Hall's powder mills, making six deaths altogether. One of the two now dead, a millwright named Gutteridge, was the man for whose evidence the inquest on the 26th ult. was adjourned, as it was he who was driving an iron rod home when the explosion occurred.

LEEDS.—At the recent assizes three garroters were sentenced to receive 25 lashes each, in addition to their terms of penal servitude. The flogging was inflicted on Tuesday in Armley Gaol, in the presence of the governor, the surgeon and his assistant, the town clerk, three of the borough prosecutors, several representatives of the Press, and about a dozen of the more refractory prisoners, who by way of warning were made spectators of the scene. Two of the delinquents groaned and howled dreadfully during the infliction. The third and youngest never uttered a sound from the descent of the first stroke to the last.

LICHFIELD.—Bishop Selwyn has safely arrived in this city from New Zealand, and will at once enter on active official work in his new diocese. His lordship was accompanied on the voyage home by Dr. Abraham, Bishop of Wellington, in New Zealand.

LIVERPOOL.—At the Borough Police Court, on Saturday, a tobacco-pipe maker, named Garbert, was charged with the wilful murder of his wife. From the evidence it appeared that the prisoner and deceased had not lived together for some time, and that he was aware that his wife had an improper intimacy with another man, by whom she was pregnant. On New Year's morning he went to her lodgings, and, during a quarrel, knocked her down and cut her across the abdomen in a frightful manner. She died from the injuries the same night. The case was adjourned until after the inquest, which took place on Tuesday, when the jury returned a verdict of Wilful Murder against the prisoner.

MONTGOMERY.—The magistrates at Machynlleth, in this county, have had before them an extraordinary case of burglary and attempted arson. The accused was a lady-like person, named Mary Jane Grey, who until recently was governess in the family of a gentleman resident in that neighbourhood. His house had been broken into, a quantity of silver stolen, and an attempt made to fire the place. The evidence against the prisoner was purely circumstantial. She was committed for trial.

NORWICH.—On Saturday a gentlemanly-looking man, who said his name was William Sheward, and that he was 57 years of age, was brought before the magistrate at Lambeth Police Court, charged on his own confession with the murder of his wife, on the 15th June, 1851, in this city. He stated that he cut her throat with a razor and then dismembered the body, parts of which were subsequently found in different places in the neighbourhood, and preserved for some time in spirits at the Guildhall, in the expectation that the mystery would be unravelled; but no suspicion had ever attached to him. He had since married again, but had suffered much from remorse, and had more than once attempted to commit suicide, and being now no longer able to bear the reproaches of his conscience, he had determined to give himself up to justice. He was remanded to give time for inquiry, and on Tuesday information was received from Mr. Hitchman, Chief Constable of the Norwich Police, stating that he and other members of the force had investigated the circumstances of the murder, and that there was no reason to doubt the accuracy of the confession made by the prisoner. It appears that in June and July, 1851, severed limbs and portions of a human body were picked up in various places in and around Norwich. On the 21st of June a hand was found, and the next day a foot, near the same spot. On every day for a week other remains were found, and, when the whole were collected together, they were pronounced by a board of surgeons to be those of a young adult female. No clue was ever obtained towards a solution of the mystery, and no suspicion ever attached to Sheward, who passed among his neighbours

for a quiet, inoffensive man, and who explained the disappearance of his wife by stating that she had left home on a long journey. After July, 1851, the matter appears to have excited scarcely any notice, and it had become forgotten, when the news of the present confession arrived. In consequence of the communications which have passed between Mr. Hitchman and the metropolitan police, the prisoner has been removed to Norwich, for examination before the local magistrates.

PICKERING.—On Friday, a servant girl, named Isabel Scales, was brought up on remand, charged with attempting to poison the family of Mr. John Dodsworth, a farmer of Pickering Marshes. The prisoner, who is only twelve years old, having some cause of complaint against two boys of the family, obtained some tartar emetic and nitre, which was used on the farm as a horse medicine, and put it into the sugar with which the coffee at breakfast was sweetened, and of which the whole family partook. Several were seriously affected, but fortunately there was not enough to destroy life. The girl, who admitted her knowledge that the stuff was poison, was committed for trial at the sessions.

PORTSMOUTH.—The new iron-clad screw frigate Hercules, Captain Lord Guilford, made her trial of speed at the measured mile on Friday with great success, the mean speed attained being at the rate of 14.691 knots, or 17 statute miles per hour. The turning power of the ship proved equally satisfactory, a complete circle being made in four minutes, a shorter time than the same evolution was ever before performed in by a ship of the same length.

SWANSEA.—The investigation in reference to the murder of John Morgan at Velindre, after having occupied the attention of the county justices for three entire days, upwards of 20 witnesses having been examined, was brought to a close on Friday, when the chairman announced that the magistrates were unanimous in committing the prisoner for trial at the next assizes.

WELLS.—Bisgrove, the man under sentence of death at Taunton, and who was to have been hanged on Monday for the recent murder in this city, has been respited. It appears that a number of persons living in Taunton and the neighbourhood forwarded a memorial to the Home Secretary praying for the respite, on the ground that the murder was unpremeditated, and without malice, and that fits of epilepsy, to which Bisgrove was subjected, might have impaired his intellect. No answer was received by the memorialists for several days, but on Friday evening a Queen's messenger arrived at the county gaol with a respite, Mr. Bruce having satisfied himself, by inquiry, that the man's mind had been impaired by repeated attacks of epilepsy. It is understood that Bisgrove will pass the remainder of his life in penal servitude. The respite has occasioned great dissatisfaction in Taunton, and more so in Wells and Shepton Mallet, on the ground that the culprit had confessed to the perpetration of a foul and deliberate murder.

WIGAN.—The list of persons killed by the recent explosion at Haydock Colliery has been further increased by the death of a lad of 13, who was very badly burned. This increases the number of the dead to 25. The inquest was opened on Monday, and adjourned.

WINDSOR.—A meeting of the Corporation has just been held, for the purpose of considering the report of Colonel Ewart, R.E., the gentleman appointed by the Home Secretary to give advice on the drainage of the towns in the Thames Valley, when the following recommendations were discussed and finally adopted—

1. That the separate system be the system of drainage adopted in all future dealing with the sewerage of Windsor.
2. That Messrs. Ripley and Simmonds be retained to draw the plans for the drainage works, provided that their terms for doing so are satisfactory to the Board.
3. That notice be given to all parties whose drainage is connected with the sewerage of the town that a further arrangement must be made relative to the connection of their drainage.
4. That the Board be requested to obtain an advance from the Public Works Loan Commissioners to carry out the works, at 3 per cent. The expenses of carrying out the contemplated drainage of Windsor and Eton, exclusive of Windsor Castle, are estimated—for Eton, 6,000*l.*, and Windsor, 10,000*l.*

Ireland.

THE NEW LORD-LIEUTENANT.—Earl Spencer, accompanied by the Countess, will arrive at Dublin, to enter upon his duties, either on the 23d or 25th inst.

THE MURDER IN TIPPERARY.—At the inquest held on Mr. Baker, at Ballydavid, on Friday, an open verdict was returned. It appeared that Dwyer, a yearly tenant, holding 12 acres, had received notice of ejection, and called on Mr. Baker the day before the murder, to request the withdrawal of the ejection, which was refused. Shortly after six o'clock on Thursday morning the deceased left his residence to visit his father, the Rev. Mr. Baker. A woman in the neighbourhood heard shots fired, and found the deceased lying dead on his own avenue, shot through the head. The skull was fatally fractured, and the body bore the marks of heavy blows. Thomas Dwyer, the tenant, and his son were both arrested, and remanded for eight days, but no fresh information has yet been obtained to lead to the arrest of any other persons. The feeling of the people is stated to be divided on the subject of his assassination. Those residing in the immediate neighbourhood, who knew the murdered gentleman and esteemed his good qualities, feel indignant at the outrage; but in more remote localities, even in the adjacent town of Tipperary, the first announcement of the murder was received by many with an expression of satisfaction at the doom of another tyrant landlord.

RIOTOUS PROCEEDINGS IN CORK.—The installation of Mr. Dan O'Sullivan as mayor for the coming year took place on New Year's Day, and was a true and noble tribute of admiration for his national opinions and emphatic condemnation of the policy of the Government in depriving him of the office. The peace for subscribing to the fund for the families of the Manchester "martyrs" had been invested with the insignia of office, and formally presented with a green flag by Mr. O'Sullivan, who obtained some notoriety by her conduct at the Cork election, and has been a heroine. Mr. O'Sullivan, holding the flag in his hand, delivered the following speech—

"I think any man, an Irishman, an Englishman, or a Frenchman, is bound to pay attention to the interests of his country, and not to pay attention to the interests of a foreign nation at all. About a year ago some of our men were butchered at Manchester by the Government of another land. I considered it was my duty to subscribe a fund for the benefit of their families. Some of the people here have taken exception to my doing so, and the Government have appointed a commission of the peace for saving lives, and I am an honest Irishman, and that they suffered for their native land. I think it is the duty of every Irishman in his own country to express his opinion on the subject, as it is the birthright of every man to be free, and to pull together, ought to be sister countries. The people of one country should be equal to the rights of another—no one should have no greater right than the other. The armies of England and Ireland should have the same footing, and the armies of Ireland have equal rights with the armies of England. They battled for the English nation, and they won the greatest victories—they planted the standard of the highest hills of India—they conquered the islands of 140 or 150 millions, and the finest cities of the world, the walls of Seringapatam, and the city of Calcutta, and they have been led by the great general of England, the Duke of Wellington. They fought under Wellington in Spain. They that in 1808 landed in Spain, and those that marched to the walls of Paris—the bravest troops that won the victory of Wellington—he himself, though no friend of Ireland, acknowledged that his bravest men were Irish soldiers. The fact is, if the two nations stand together, they will be stronger than if the Irish soldier and the English soldier fight against each other. England and her dominions in distant lands, and not the country that supplies these troops, why should not she, instead of a trampled nation, be treated as a sister nation? I have no objection to the English people are secured by the arms of the nation in more regions than in Ireland—water, and again by the Irish people in England. I believe that that action is a change of opinion on the other side of the water. I am sure, will be beneficial to this country. I doubt that the days of Ireland's servitude are far away. I have no doubt that the people of Ireland are dispersing, and I am certain that as Lord Scannell in her natural colour to-day that Ireland will yet wave in Ireland. When I was a boy, I never heard that some Irishmen wanted to see Napoleon and clanked his interference in Ireland. The answer was that the Orange flag should be pulled down, and the green flag of Ireland flourish once more. It will be brought about, and I am confident that it will be brought about by the action of the Irish people. I am confident that at the other side of the water there are men like Bright and Gladstone, who would wish to see a new policy in this country—statesmen who are wishing to see this country trampled by the minority, supported by the armies of England, would, I am sure, wish and desire that the national ideas should be carried in this country. We are, please God, arriving at a point, I am sure that, as far as my year of office goes, I will be quiet in the city. He concluded by declaring that he would give 25*l.* to the funds for supporting the families of Fenian prisoners."

He then subscribed the usual declaration, but did not take the usual oath of office, and was patriotically cheered by the populace. At night there was a torch-light procession in honour of the new mayor, and an assault on Protestant houses, being anticipated the military were under arms, and the police force was strongly augmented from the out districts. The commotion prevailed in the city during the night, and the Government magistrates were on duty. The extensive military and police arrangements, and the threatened violence, and the night passed without any serious outrages. Mr. O'Sullivan has since been making use of his restored magisterial powers, and is less calculated to stimulate the zeal of the police than to gain for him the favour of the people. Some publicans were on Saturday summoned before the police-court in which the mayor presided, for having their houses open at illegal hours, harboured persons of improper characters, and similar offences; but in the case the mayor took the part of the accused, and believed the evidence of the constables, and reorganised the police administration as part of an improved system.

AGRARIAN OUTRAGE IN MEATH.—Mr. Pearce, a gentleman who holds on lease considerable property on the estate of Lord Darnley, some of which he has been driving home from the sessions of Tralee on Tuesday evening, when he was fired at by two men. Four slugs and some shot lodged in one of his shoulders; but the wounds are not dangerous, and was accompanied by his son and a tenant, and supposed that his escape from assassination is due to the desire to avoid injuring the man who sat next him. Mr. Pearce is stated to have provoked hostility by serving notices to quit upon two tenants.

REMOVING GUNS FROM THEIR CARRIAGES.—A carriage containing guns in the park at Waterford were found on Monday morning to have been overturned from their carriage and lying on the ground. They were restored to their former position in the course of the day by direction of the mayor. A reward of 20*l.* has been offered for the discovery of the offenders.

DISTURBED STATE OF MEATH.—Mr. Robertson, who was recently fired at in the County Meath, attended divine service on Sunday last, armed with a new-barrelled gun, and attended by a servant also armed.

and a gentleman who was recently attacked in the same county, is now going about armed and guarded by a man who had been in the police.

Scotland.

MURDER OF A POLICE INSPECTOR AT GREENOCK. On New Year's Day an "Irish Yankee," named ... a confectioner's shop in Hamilton ... and was creating a disturbance. Mr. ... owner of the shop, tried to get him out, and a blow on the mouth which knocked out teeth. A young man standing by offered ... a policeman was sent for; but, ... he received a stab in the arm. ... He was speedily caught, how- ... M'Kinnon, of the police, who then ... persuade him to go home. Instead ... aimed a blow with his clasp- ... and struck him with great ... The wounded man was ... where he died in 10 ... The murderer was ... taken to the police ... he was brought before the magis- ... Inspector M'Kin- ... had the reputation ... best behaved men in ...

ATTENDED MURDER AT KILMARNOCK.—On New Year's Day a man named James Drummond bought ... of gunpowder, and on going home told his ... would give her three minutes to prepare for ... and at the expiration of that time threw the ... into the fire. The explosion threw his ... severely burnt ... with only a slight scorching. ... hearing the explosion, ran in and ... assistance to the wife, who is now recovering. ... taken into custody, and charged with ... commit murder. He admitted the charge, ... himself as sorry that both he and his ... blown into eternity. Both were ... worse for liquor. He is about 34 ... and has a grown-up family.

Railways.

NEW REGULATIONS AT STATIONS.—On New Year's Day the following provision in the new Railway Regulation Act took effect:—

"On and after the 1st January, 1869, every company shall be exhibited in a conspicuous place in the booking-office of each station on their line a list or lists, painted, or written in legible characters the fares of passengers on the trains included in the time-tables of the company from that station to every place for which passenger tickets are here issued."

OPENING OF THE NEW SUBURBAN LINES.—The Kensington and Richmond and the Kingston and Wimbledon lines of railway were opened for public traffic on New Year's Day, bringing into direct communication the systems of the London, Chatham, and Dover, London and South-Western, North London, Metro-land and London, Brighton, and South Coast lines. By the Kingston and Wimbledon line trains run from London Hill to Herne Hill, Tulse Hill, Streatham, Wimbledon, Maldon, Surbiton, and Kingston. By the opening of the new line from Kensington (Alison Road) to Richmond, trains run from Kensington, Chelsea, Ludgate Hill, Clapham, and Richmond to Kensington, Turnham Green, Brentford, and Kew Gardens. The advantages of this extension to the Metropolitan line, as passengers may be taken to the latter can, by changing at Hammersmith, go on direct to Richmond, Twickenham, Teddington, and Kingston. By the line from Acton to Richmond, trains run direct between Richmond, Kew Gardens, Brentford, and Broad Street, Dalston, Highbury, Camden Road, Kensal Town, Willesden, and all stations on the North London and Hampstead Junction. Consequently this arrangement the train service to and from Richmond, Twickenham, and Kingston, by Kew and Barnes, was discontinued. A new and improved service of trains, connecting Victoria Station with the London and North-Western and North London systems, was also commenced on Friday. At Willesden Junction these trains were brought in connection with the express trains to Birmingham, Liverpool, Manchester, and the north. The opening of Waterloo Junction Station, which likewise took place on Friday, brought the South-Western and South-Eastern lines into direct communication, and gave to South-Western passengers access to Charing Cross and London Bridge. More than 300 additional trains will be run on the united lines in consequence of these important changes.

METROPOLITAN.—It appears from the report of the Metropolitan Railway Company, that the number of passengers on the Metropolitan, the Metropolitan District, and the Hammersmith and City lines during the Christmas holidays, from the 24th to the 31st of December, inclusive, was 800,072. Of this number 174,251 were passengers on Boxing Day, the 26th ult.

DISASTERS ON THE MIDLAND.—A somewhat serious accident occurred on the 31st ult. on the Midland and Rotherham branch of the Midland. As a passenger train was shunting to the siding leading to the Rotherham works, it was run into by a train of empty trucks. The passengers were very much shaken, considerable damage was done to the rolling stock, and some time elapsed before the line was clear.

ACCIDENT NEAR STREATHAM JUNCTION.—On Sunday a passenger train was approaching Streatham Junction when the engine and tender left the rails, and the passengers were much shaken, but none seriously injured. On being released from the carriages they

found their way to the station at Streatham Common. The accident is supposed to have been caused by the recent heavy rains having loosened the sleepers.

Obituary.

LADY GRANVILLE SOMERSET died on the 4th inst., in Cadogan Place, after a short illness. She was the widow of Lord Granville Somerset, second and youngest son of the sixth Duke of Beaufort, and brother of the late Duke. She was the youngest daughter of the first Lord Cromwell, a sister of the late Lord, and aunt of Earl Stanhope and the Duchess of Cleveland.

LADY HANRIET HAGEMANN died at Copenhagen on the 27th ult. She was the sister of the sixth Earl of Buckinghamshire, and died in 1830, General Jasper Scityn Hagemann, of the Dutch army, who died some years since.

THE HON. AND REV. JOHN FORBES, Canon of Worcester, died at his residence in that city on Sunday, at the age of 73, his death having been preceded by that of his wife less than a week. He was the fourth son of the first Earl of Bessborough, by the sister of the first Marquis of Buckingham, and great-grandfather of the present Duke. He was appointed to a canonry in Worcester Cathedral by the Government of Earl Grey in 1831, and also held the rectory of Poltimore, in Devonshire, to which he was presented in 1835. He was born in 1796, and in 1842 married the daughter of the Rev. H. Neville, rector of Cottesmore, Rutland. He leaves a son and two daughters.

SIR JOHN RALPH MILBANKE HUSKISSON, BART., died on the 3rd ult. at Arthara House, Sussex, after a short illness. He was the only son of Sir John P. Milbanke, the seventh baronet, by the youngest daughter of Mr. James Heron, and was born in 1801. He entered the diplomatic service in 1823, and, after probationary service at the Foreign Office, was appointed Secretary of Legation at Frankfurt in 1829, and during his residence there had occasion to fill the post of Chargé d'Affaires. He was transferred to the Embassy at St. Petersburg in 1835, where he was Minister from June, 1837, till October, 1838, when he was transferred to Vienna, where he remained till 1843, when he was appointed Minister Plenipotentiary at the Hague. He succeeded to the baronetcy on the death of his father, in 1850, and in 1866, in compliance with the will of the widow of the Right Hon. William Huskisson, he obtained permission to take the name of Huskisson. He married, in 1843, the third daughter of the late Mr. John Mansfield, of Diggeswell House, Northamptonshire. He is succeeded in the title and estates by his eldest son, John, who was born at the Hague in 1847.

ADMIRAL WARDE, K.H., died at Squerryes Court, West- ham, on the 5th inst., in his 83d year. He entered the navy in 1798, and was present at the blockade of Malta, the capture of the Ganéureux, the expedition to Egypt, and at the capture of the Danish West India Islands. He subsequently rendered important services in sounding round the world, and in making a plan of the sea defences of Algiers, previous to the bombardment, in 1816. He became rear-admiral on the retired list in 1821, and a full admiral in 1852.

LIEUT. GENERAL GOLD, Colonel of the 53d Regiment, died a few days since. He had seen considerable service in India, where he served as Lieut. Colonel of the 53d in the campaign on the Sutlej, including the affair of Buddial, the battles of A. and S. where he was wounded. He commanded the regiment during the subsequent operations, and received a medal and cross for that campaign. He was appointed Colonel of the Regiment in 1867. He attained the rank of Lieut. General in 1868.

MAJOR GENERAL WALTER HAMILTON, C.B., died on the 30th ult., aged 65. He entered the army in 1812, and for some time commanded the 78th Highlanders. He commanded a brigade during the Persian war in 1837, and was present at the bombardment of Mohumrah. He commanded the 78th High- landers in Havelock's column from its first taking the field in 1857, including the actions at Fattehpore, Aoung, Pandoo Nuddee, Chawpore (where his horse was shot under him), Gung, Buscorut Gunge (where his horse was killed by a round shot), Boorbaokchowree, and Bythoor; commanded the Left Infantry Brigade in the several actions ending in the relief of the Residency at Lucknow and its subsequent defence, and served in the force under Gen. Outram at Alnabagh, including the repulse of the numerous attacks. He was frequently mentioned in despatches, and for his distinguished services was made a Companion of the Bath in 1858. He was also in receipt of a pension for distinguished and meritorious services.

CAPTAIN SAMUEL GODDARD, a Military Knight of Windsor, upon the Royal foundation, died on Sunday at his residence in the Lower Ward of Windsor Castle. He was formerly in the 14th Regiment, in which he was present at the storming of Cambray, and the battle of Waterloo, and afterwards served in the East Indies, being present at the siege of Hatties, and in the campaign of 1817-18 in the Deccan. Besides the Waterloo and Indian medals, he received a reward for distinguished service. He originated the measure by which the nominal rank of captain was accorded to meritorious quartermasters of long service.

CAPTAIN WALLING EVERARD, Attaché of the Vice-regal Court, and Private Secretary to the late Lord-Lieutenant, died suddenly on Wednesday, at the Vice-regal Lodge, Dublin. He had been for some time in bad health, and fell on entering his breakfast-room, and before assistance arrived he was dead. He had been attached to the Vice-regal Court for nearly 20 years.

MR. ALEXANDER CAMERON CAMPBELL, the head of the clan of that name, died on Tuesday night, at Markham House, Leamington. He possessed extensive estates in Perthshire, and on more than one occasion was honoured with visits from the Prince Consort and her Majesty at his seat at Monzie, during their Highland sojourns. In her Majesty's "Journal," Mr. Campbell is several times referred to, and it was with him that the Prince Consort made his first deer-stalking excursion. He was a thorough sportsman, but had been so long in failing health that his death was not unexpected.

MR. GEORGE SIMON HARGRETT died on the 29th ult., at Bedford, at the age of 72. He was formerly in the army, having held a commission in the 6th Foot, and afterwards in the 1st Dragoons, and was one of the few remaining officers who served at the battle of Waterloo.

PRINCIPAL FORBES, D.C.L. and LL.D., late Principal of St. Andrew's, died on the last day of the old year, at 11, Aston, where he was residing for the benefit of his health. He had attained his 60th year, having been born in Edinburgh in 1808. He was the youngest son of the late Sir William Forbes, of Pitsligo, by the only child and heir of Sir John Stuart, of Fettercairn, and was educated at the University of Edinburgh, where he was appointed in 1836 to the Professorship of Natural Philosophy. He had already made his name known in Scotland as a student of natural philosophy, and at an early age wrote some papers on "Heat," and other kindred subjects, and while holding his Professorship at Edinburgh he published his "Travels in the Alps of Savoy," "Norway and its Glaciers," "Papers on the Theory of Glaciers," and other works on Physical Science. He also received the Keith Medal of the Royal Society of Edinburgh, and the Rumford and other Medals of the Royal Society of London, for various papers contributed by him to the "Transactions" of those bodies. He resigned his Professorship at Edinburgh in 1860, on being appointed to the Principalship of St. Andrew's, which he held till within the last few months. He married, in 1843, the

daughter of Mr. George Wauchope, of Edinburgh, by whom he had a family.

THE REV. DR. KRAMMACKER, of Berlin died in that city, last week. He was Court preacher in the time of the late King, and warmly supported his Majesty in his various schemes for extending Protestant principles. He was the most distinguished clerical member of the religious party known in Germany as Pietists, and in England as Evangelicals, and wrote a number of books, which have been published in England under the sanction of the Religious Tract Society. Among the best of these works are "The Bible," and "The Protestant Faith." Dr. Krammacker was a Prussian lord, and was greatly distinguished by the Liberals.

THE REV. DR. SHEPPARD, head master of the Kidderminster Grammar School was seized with apoplexy on Wednesday week, and died on the evening of New Year's Day, in his 52d year. He was a fellow and tutor of Wadham College, Oxford, and was the author of a work on the "Fall of the Roman Empire and the Rise of the New Nationalities."

WILLS.—The personal estate of the Dowager Duchess of Sutherland, who died intestate, has been sworn under \$1,000,000; Don Christobel de Murrisset, 600,000; Right Hon. Sir Richard Pakenham, K.C.B., 15,000; Hon. Walter Berwick, Senior Judge of the Bankruptcy Court, Ireland, who perished in the Abercromby Railway accident, 14,000; General Sir Thomas Monteach Douglas, K.C.B., 46,000; Lieut.-General Blichley, R.A., 15,000; Major-General Sir Robert Honour, K.C.B., 35,000; Lieut.-Colonel Reeve, of the Coldstream Guards, 100,000; Mrs. Ann Morris, of Monmouth, 45,000; Miss E. Mockett, 20,000; Rev. Thomas Carter, 35,000; Mr. James Block, of Charlton, Wilt., 50,000; Mr. Henry Lewin, of South- ampton Street, Strand, and Field Sussex 60,000; Mr. Henry Scott Turner, 14,000; Mr. James Oakes, 10,000; Mr. Thomas Jones, 6,000; Mr. Philip May, 3,000; Mr. Henry Morris, 5,000; Mr. William Lushon, 1,000; Mr. Lincoln a Inn Fields, 14,000; Mr. Charles Stewart Parker, merchant of Liverpool, 60,000; Mr. Henry Bacon, of Lincoln's Inn, barrister-at-law, 30,000; Dr. Henry Brown, M.D., surgeon to the Queen's Royal Household at Windsor, 45,000.

Markets.

COVENT GARDEN.—Jan. 9. We are still very quiet here, no changes having taken place that would command attention; the only article rather more in request is Kent Cobs, which realise 95s. per 100 lb. Fruit and Vegetables are abundantly supplied, and prices barely kept up. Alcinra Grapes are exceedingly fine, and worth from 8s. to 10s. per 12 lb. American New Town Pippins of excellent quality fit for export, there are also arrivals of Reinctte de Bordeaux and Dieu Donne Apples from Bordeaux, realising from 12s. 6d. to 15s. per cask. Oranges are very plentiful. French Asparagus may now be had, at 15s. to 20s. per bundle. Very fine Onions are arriving from Bordeaux, at 12s. to 14s. the cwt. Potato trade is dull, except for best samples, of which there is a scanty supply in general, though there are large arrivals of kidney Potatoes of fine quality from Belgium, realising 2s. per score bags of about 110 lb. each. Flowers chiefly consist of Orchids, Primulas, Hyacinths, Tulips, Heaths, Mignonette, Pansies, Cytisus racemosa, Cyclamons, Deutzias, and Solanum Capsastrum.

Table with 2 columns: Fruit and Vegetables. Apples, per bushel, 4s to 5s; Grapes, per lb., 3s 6d to 6s; Kent Cobs, per lb., 1s; Lemons, per 100, 4s to 5s. Melons, each, 2s to 4s; Pears, per doz., 4s to 8s; Pine apples, per lb., 6s to 8s; Oranges, per 100, 2s to 3s.

Table with 2 columns: VEGETABLES. Beet, per doz., 1s to 2s; Cabbages, per doz., 1s to 2s; Carrots, per bunch, 6d to 10d; Celery, p. bund., 1s 6d to 2s 6d; Cucumbers, each, 1s to 2s; Endive, per doz., 1s 6d to 2s; Garlic and Shallots, per lb., 8d; Herbs, per bunch, 2d to 4d; Horse Radish, p. bund., 3s to 5s; Leeks, per bunch, 2d to 4d; Lettuces, per score, 1s to 2s 6d. Mint, per bunch, 6d to 9d; Mushrooms, p. pott., 1s 6d to 1s 9d; Onions, per bushel, 6s to 7s; Parsley, per bunch, 4d to 6d; Potatoes, York Regents, p. ton, 120s to 150s; Flukes, do., 120s to 160s; Shaws, do., 120s to 180s; Seakale, p. punn., 2s to 3s; Spinach, per bushel, 2s to 3s; Turnips, p. bunch, 2d to 4d.

Table with 2 columns: HAY.—Per Load of 36 Trusses SMITHFIELD, Thursday, Jan. 7. Best Green Hay, 11s to 12s; Prime Meadow Hay, 10s to 11s; Inferior do., 8s to 9s; New do., 9s to 10s; Straw, 2s to 3s. Clover, old, 11s to 12s; Inferior do., 8s to 9s; Prime new Clover, 10s to 11s; Inferior do., 8s to 9s. CHARLES JAMES EASTON.

Table with 2 columns: CUMBERLAND MARKET, Thursday, Jan. 7. Sup. Meadow Hay, 11s to 12s; Inferior Clover, 110s to 112s; New do., 110s to 112s; Straw, 34 to 42. Superior Clover, 123 to 134. JOSHUA BAKER.

Table with 2 columns: WHITE HAY, Thursday, Jan. 7. Fine Meadow Hay, 11s to 11s; Inferior do., 9s to 10s; Prime New Hay, 10s to 11s; Inferior do., 8s to 9s; Straw, 2s to 3s. Prime stout Clover, 12s to 12s; Inferior do., 8s to 9s; Prime 2d cut do., 10s to 11s; New Clover, 10s to 11s; Inferior do., 8s to 9s.

Table with 2 columns: METROPOLITAN MEAT MARKET.—Jan 6. Best Fresh Butter, 17s per dozen lb.; Second do., 17s. Small Pork, 4s. 4d. to 4s. 9d.; Large Pork, 3s. 8d. to 4s. 4d. per 9 lb.

HOPS.—BOROUGH MARKET, Jan 8. Messrs. Patten and Smith report a continued steady demand for consumption, for both English and foreign, late rates being fully maintained.

POTATOS.—SOUTHWARK, Monday, Jan. 4. During the past week the arrivals have been coastwise and by rail, and with the exception of best samples of Regents, the trade continues in a very sluggish state. The following are this day's quotations.—Yorkshire Regents, per ton, 70s. to 120s.; do. Fines, 100s. to 140s.; Lincolnshire Regents, 60s. to 90s.; Dunbar and East Lothian do., 80s. to 120s.; Perth, Forfar, and Fife do., 60s. to 110s.; do. Rocks, 60s. to 70s.; French and Belgian Whites, 40s. to 80s.

Table with 2 columns: ENGLISH WOOL. There has been a steady business doing, and prices are gradually creeping upwards. CURRENT PRICES OF ENGLISH WOOL. per lb.—s. d. s. d. FLEECES.—Southdown hoggets, 1 4 to 1 5; Half bred ditto, 1 4 to 1 5; Kent Fleeces, 1 5 to 1 5; Southdown ewes and wethers, 1 4 to 1 4; Leicester ditto, 1 1 to 1 5. SORTS.—Clothing, 1 0 to 1 8; Combing, 1 2 to 1 10.

COALS.—Jan. 6. Walls End Braddyl's Hutton, 17s. 6d.; Cowpen Hartley, 15s. 9d.; Walls End Hawthorne, 15s. 9d.; Walls End Russel's Hutton, 16s. 6d.; Walls End Gosforth, 15s. 9d.

Walls End Original Belmont, 18s. 3d.; Walls End Hartlepool, 17s. 6d.; Walls End Hetton, 18s.; Walls End Hetton Lyons, 16s. 9d.; Walls End South Hartlepool, 16s.; Walls End South Hetton, 17s. 9d.; Brancopeth Cannel, 18s.

LEADENHALL AND NEWGATE POULTRY, &c.

THURSDAY, JAN. 7.

Table with 4 columns: Item, s.d., s.d., s.d. s.d. Items include Geese, Turkeys, Ducks, Wild Ducks, Surrey Fowls, Do. chickens, Barn-door Fowls, Partridges, Tame Rabbits, Wild Rabbits, Pigeons, Pheasants, Grouse, Teal, Snipes, Plover, Hares, Leverets, English Eggs, Foreign do.

Fresh Butter, 1s. 4d. to 1s. 7d. per lb.

METROPOLITAN CATTLE MARKET.

MONDAY, JAN. 4.

We have a good supply of Beasts, and trade is by no means brisk; choicest qualities are making about the same as of late, but inferior are lower. The number of Sheep is considerable; trade is, however, active for best descriptions, and prices are quite as good as last week. Calves are very scarce and dear. Our foreign supply consists of 710 Beasts and 13 Calves; from Scotland there are 548 Beasts; from Ireland, 410; from Norfolk and Suffolk, 750; and 1262 from the Midland and Northern Counties.

Table with 4 columns: s. d. s. d., s. d. s. d. Items include Best Scots, Herd-fords, Best Shorthorns, 2d quality Beasts, Best Downs and Half-breds, Do. Shorn, Beasts, 3690; Sheep and Lambs, 10,890; Calves, 27; Pigs, 210.

The number of Beasts is small, but quite equal to the demand. Prices on the average are about the same as on Monday. Several inferior qualities, however, remain unsold. The supply of Sheep is small, they are disposed of at Monday's quotations, but trade is slow. Good Calves are scarce and dear. Our foreign supply consists of 184 Beasts and 29 Calves.

Table with 4 columns: s. d. s. d., s. d. s. d. Items include Best Scots, Herd-fords, Best Shorthorns, 2d quality Beasts, Best Downs and Half-breds, Do. Shorn, Beasts, 970; Sheep and Lambs, 4610; Calves, 91; Pigs, 90.

SEED MARKET.

We had an average attendance of buyers at our market today, and a fair amount of business doing. There is a good speculative demand for red Clover seed, at the late advance; new samples of home-grown seed are exceedingly scarce, and are held at extreme rates; of French red there is but little on offer, the quality of which is very inferior; new German meets with a ready sale at enhanced values, white and Alayke Clover seed are without quotable change. For Trefoil seed the trade is quiet, but firm. Now French Italian Rye-grass experiences a brisk inquiry, at full currencies. Rape seed is in better request, at an improvement of 1s. per qr. Mustard seed has a slow sale at last Monday's prices. For bird seeds we have a fair inquiry. Small orders continue to come on hand for English winter Tares; Konigsberg spring excite just now but little attention on the part of speculators. Garden Peas and Beans of all sorts are in lively demand, and command high values. On the whole the tone of the agricultural seed trade is exceedingly firm, and in spite of the holidays a good business has recently been transacted. Our advices from the Continent, and also from New York, all speak of great firmness in the Clover trade, with prices tending upwards.

JOHN SHAW & SONS, 16, WATER LANE.

MARK LANE.—MONDAY, JAN. 4.

There was a short supply of English Wheat fresh up to this morning's market, which was sold at an advance of 1s. to 2s. per qr. on the prices of last Monday. There was a fair attendance, and foreign Wheat was generally held for an improvement of 1s. per qr., but the business done, which was to a moderate extent, was at the extreme prices of last week. Fine English malting Barley was 1s. per qr. dearer, foreign and grinding unchanged in value. Beans and Peas brought late quotations. The Oat trade was firm, and in some instances an advance of 3d. to 6d. per qr. was established. Flour was rather dearer.

Table with 4 columns: Item, s. s., s. s., s. s. Items include WHEAT, BARLEY, OATS, RYE MEAL, BEANS, PEAS, MAIZE, FLOUR.

FRIDAY, JAN. 8.

The advance quoted last Friday has made further progress, and we have to report an improvement of 1s. to 2s. per qr. on Wheat throughout the markets of this kingdom; but this rise led to renewed duress, millers and dealers, being once more in stock, though probably for a short time only, will no longer operate at existing rates. Malting Barley has continued scarce, and a further advance of 1s. to 2s. per qr. has resulted, other qualities maintain late rates. We have no alteration of moment to report in the price of Beans, Peas, and Oats. Flour has continued a slow sale, but in some instances prices favoured holders. The supplies of grain off the coast this week consisted of 18 cargoes, of which, with those left over from last week, there remained for sale last night 13 cargoes. The absence of fresh arrivals of Wheat cargoes off the coast made holders very firm, and in the few sales effected late rates were paid. We estimate that about 50 Wheat cargoes are overdue and held back by the late storms. For cargoes on passage and for forward shipment prices are, in the absence of business, merely nominal.

The arrivals of all grain since Monday have been moderate.

There was a fair attendance at this morning's market, and the few samples of English Wheat on offer were taken at about the rates current on Monday: the transactions in foreign were to a limited extent, at the quotations of that day. There was no change in the value of Barley, Beans, or Peas. Oats were in fair demand at a slight advance.

ARRIVALS THIS WEEK.

Table with 4 columns: Wheat, Barley, Oats, Flour. Items include English, Irish, Foreign.

LIVERPOOL, Tuesday, Dec. 5.—Wheat in moderate consumptive demand, and 2d. to 3d. per cental dearer. Flour in fair request, at 1s. advance. Beans and Peas steady. Oats and Oatmeal unchanged. Indian Corn dull, at 9d. to 1s. per qr. decline; new mixed, 36s. 6d.; old, 37s. 6d.; round, 35s. 6d. to 38s.

AVERAGES.

Table with 4 columns: Wheat, Barley, Oats. Items include Nov. 28, Dec. 5, 12, 19, 26, Jan. 5, Agg. Average.

WANTED, for the Royal Belfast Botanical and Horticultural Gardens, a first-rate HEAD GARDENER, who fully understands his business in every department in the Propagation, Treatment, and care of Trees, Plants, and Shrubs, also in the Superintendence of Workmen and the general Supervision, Arrangement, and care of the Garden Conservatories, Store Houses, &c., of the Garden. None need apply whose age exceeds 40 years, and whose conduct will not bear the strictest scrutiny as to character, experience, and energy. State wages expected.—For particulars, apply to the SECRETARY.

WANTED, by a Gentleman in Gloucestershire, an unmarried Man, as WORKING HEAD GARDENER and BAILIFF. All the outdoor men will be under him, including the Woodman, Cowman, &c. He would have the charge of the Vineries, Peach-house, Forcing-house, Greenhouse, &c., and would be required to live in the family.—Apply, giving age, wages, references, &c., to A. Z., Post Office, Painswick.

WANTED IMMEDIATELY, a HEAD WORKING GARDENER and BAILIFF, in the county of Middlesex.—One who well understands the duties of both, with good management, Forcing of Grapes, Melons, &c., care of Greenhouses and Pleasure Grounds, with four or five men under him, including cowman; good grower of Wall Fruits and Vegetables, with experience in the culture of extra Produce of all kinds. Age 35 to 40; no incumbrance; live in the Lodge. Wages, £70, with vegetables, milk, and wood firing. Character must bear strict inquiry.—Apply by letter, in own handwriting, with all particulars of former services, to L. D. Metcalfe & Crawford, Grocers, Southampton Row, London, W.C.

WANTED, an active, steady, industrious Young Man, to act as FOREMAN and PROPAGATOR of SOFT-WOODED PLANTS, &c.; he must have a good address, and be able to write a good hand. Wages, 25s. per week.—Address in own handwriting, stating where last employed, &c., to A. B., Post Office, Stoke Newington, N.

WANTED, a strong YOUNG MAN, accustomed to Inside Nursery Work, Potting, Tyng, &c. Wages, 15s. per week.—H. MESS, Prescot Nurseries, near Liverpool.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. E. G. HENDERSON & SON, Wellington Nursery, St John's Wood, London, N.W.

To Gardeners and Bailiffs (Head, Foremen, or Under). JAMES CARTER AND CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in the FREE REGISTER. Only those who can send unquestionable references need apply. Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & CO. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c. JAMES CARTER & CO., 237 and 238, High Holborn, London, W.C.

GARDENER (HEAD).—Age 39, married, no incumbrance; has a good practical knowledge of his profession, and is well experienced in all its branches. Leaving present situation through a change in the establishment. Can be highly recommended.—F. S., Mr. A. Clark, Nurseryman, Gravesend, Kent.

GARDENER (HEAD).—Married, two children; has a thorough knowledge of Stove and Greenhouse Plants, Vines, Melons and Cucumbers, Kitchen and Flower Gardening, &c. Leaving through a change in the establishment. Four years' good character.—A. B., 1, Adelaide Cottages, London Lane, Enfield.

GARDENER (HEAD).—Age 33, married, no incumbrance; has a thorough practical knowledge of Early and Late Forcing, Grapes, Peaches, Cucumbers, and Melons, Stove and Greenhouse Plants, Flower and Kitchen Garden. Good reference.—B. T., Belmont Hill House, Lee, Kent.

GARDENER (HEAD).—Age 40, married, two children; understands Forcing Vines, Fruit, Flowers, &c., Flower and Kitchen Gardening, the Management of Land and Stock. Will be discharged February 1. Leaving through employer leaving the neighbourhood. Good reference for three and a-half years.—Apply, A. B., Mrs. H. T. Bettlesworth, Horndean, Hants.

GARDENER (HEAD).—Age 36, married, no incumbrance; has a thorough practical knowledge of Gardening in all its branches, including Early and Late Forcing of Vines, Figs, Peaches, Cucumbers, Melons, Stove and Greenhouse Plants; also the Management of Land and Stock. Wife a good Dairywoman. Six years' character from the gentleman he has just left.—S. OSBORN, Grove Road, Hounslow, W.

GARDENER (HEAD, WORKING).—Thoroughly understands Pines, Vines, Stove and Greenhouse Plants, Early and Late Forcing, Flower and Kitchen Garden &c. Good character.—W. E. H., Ovington, Alresford, Hants.

GARDENER (HEAD), where one or more are kept.—Married, no incumbrance. Two years and eleven months' good character.—Mr. C. CORRY, Dane-John Lodge, Canterbury.

To Noblemen and Gentlemen.

GARDENER (where assistance is given).—Age 31, married; has lived in a Lady's service four years, where the Kitchen Gardening, &c., was carried on; also Flower and Sober, Steady, and Persevering. Can be highly recommended, references as to character.—O. POWERS, Woodgrove House, Wakefield.

To Horticultural Builders, &c.

MANAGER or FOREMAN.—Could introduce many improvements; has had vast experience, and been Manager of a Patent Horticultural Works for the last three years. Would be willing to become a WORKING PARTNER in a sound concern. Twenty years' unexceptionable reference.—C. J. H. F., 31, Sutherland Place, Bayswater, W.

To Market Gardeners and others. FOREMAN or MANAGER.—Age 34; an experienced Man, capable of all kinds of Forcing and Stocking. Good character.—W. J., 11, Mary Terrace, Tottenham, N.

HOUSE FOREMAN and PROPAGATOR. GENERAL MANAGER.—Amos May has extensive knowledge of the Propagation and Cultivation of Stock, both Hard and Soft-wooded, having succeeded in raising as above for the last 15 years. Was nearly 8 years in last situation. W. J. (can leave before if required). Highest references. Exceptionable.—16, E. g. n Terrace, M. la. v. e. l.

CHRISTOPHER SCOTT, seven years' experience. Propagator to Messrs. John Palmer & Son, &c., Shire, and latterly (four years) to Messrs. Foreman, Rhododendrons, &c., at Messrs. Peter Lawson & Co. is now open to a re-engagement. References to highest order. Liberal wages expected.—18, C. v. e. l. King's Road, Chelsea, S.W.

FOREMAN, or otherwise, in a Gentleman's Garden. Age 23. Good character.—Address W., the Green, Hall, Sunderland.

FOREMAN, in a Nobleman's or Gentleman's Garden. Age 25, nine years' practical experience. Generally first-class references.—J. C., Great Northampton.

FOREMAN, in the Flower Garden Department. Age 24, practically acquainted with all branches of the profession. Nine years' experience. Character.—N. B., Stanley Bridge Post Office, Farnham.

To Nurserymen. FOREMAN, or FOREMAN and PROPAGATOR. Wm. Kew, late foreman to Messrs. J. & R. Thompson, is open to an engagement as above. Is well up in the Grafting; has a thorough knowledge of the Growing and Propagation of Stove and Greenhouse Plants, Ferns, Vines, &c. is a good hand at making up Hoop-jets. First-class references. Address, care of Mr. Gilbert, Nurseryman, Ipswich.

NURSERY FOREMAN and PROPAGATOR. Thoroughly experienced, satisfactory references as to character and ability.—H. RAMSAY, 2, Croft Cottage, Warwickshire.

FOREMAN, PROPAGATOR, or SALESMAN. and Soft-wooded Plants, and could take the management of Seed Business.—A. B., 11, James Street, Covent Garden, W.

PROPAGATOR.—Age 23, can grow Stove and Greenhouse Plants for Market or otherwise.—A. B., the Hall Nursery, Preston, Lancashire.

PROPAGATOR (IN-DOORS).—Age 26, active. London experience. Unexceptionable character.—A. B. B., 19, Welington Road, St. John's Wood, N.W.

FARM BAILIFF.—Married; thoroughly experienced in all kinds of Live Stock, as well as the Tillage of Land. References.—B. C., Post Office, Brockenhurst, near Luton.

FARM BAILIFF.—Married, no incumbrance. Good Dairywoman. Good references given.—W. J., the Road, South Norwood, Surrey, S.

IMPROVER.—Used to the Forcing of Stove and Greenhouse Plants, Pines, Vines, and Peaches, and the routine of a large establishment.—G. FERRIS, West Lane, W.

IMPROVER, in a Gentleman's Garden.—Age 25, One year and nine months' good character.—E. W., the Blackheath Village, S.E.

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CLERK, in a Nursery or Seed Warehouse.—Age 25, 8 years at present place.—FRANK GRAY, WALKER, Oldfield, Chilwell, near Nottingham.

SHOPMAN (ASSISTANT, or otherwise).—Reference in a first-class Retail Seed Warehouse.—56, Gwyn Street, Bedford.

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CORNS and BUNIONS.—A Gentleman, who has been tormented with Corns, will be happy to afford information by which he obtained their complete removal in a short period, without pain or any inconvenience.—Forward stamped envelope to F. KIRKSTON, Esq., Ware, Herts.

HALSE'S GALVANIC APPARATUS.—Cures of Paralysis, Rheumatism, Loss of Muscular Power, Indigestion, Debility, Tic, Asthma, &c. Send two stamps to HALSE, No. 40, Addison Road, Kensington, for his pamphlet, which contains the particulars of the most extraordinary cures. Will be astonished at its contents.

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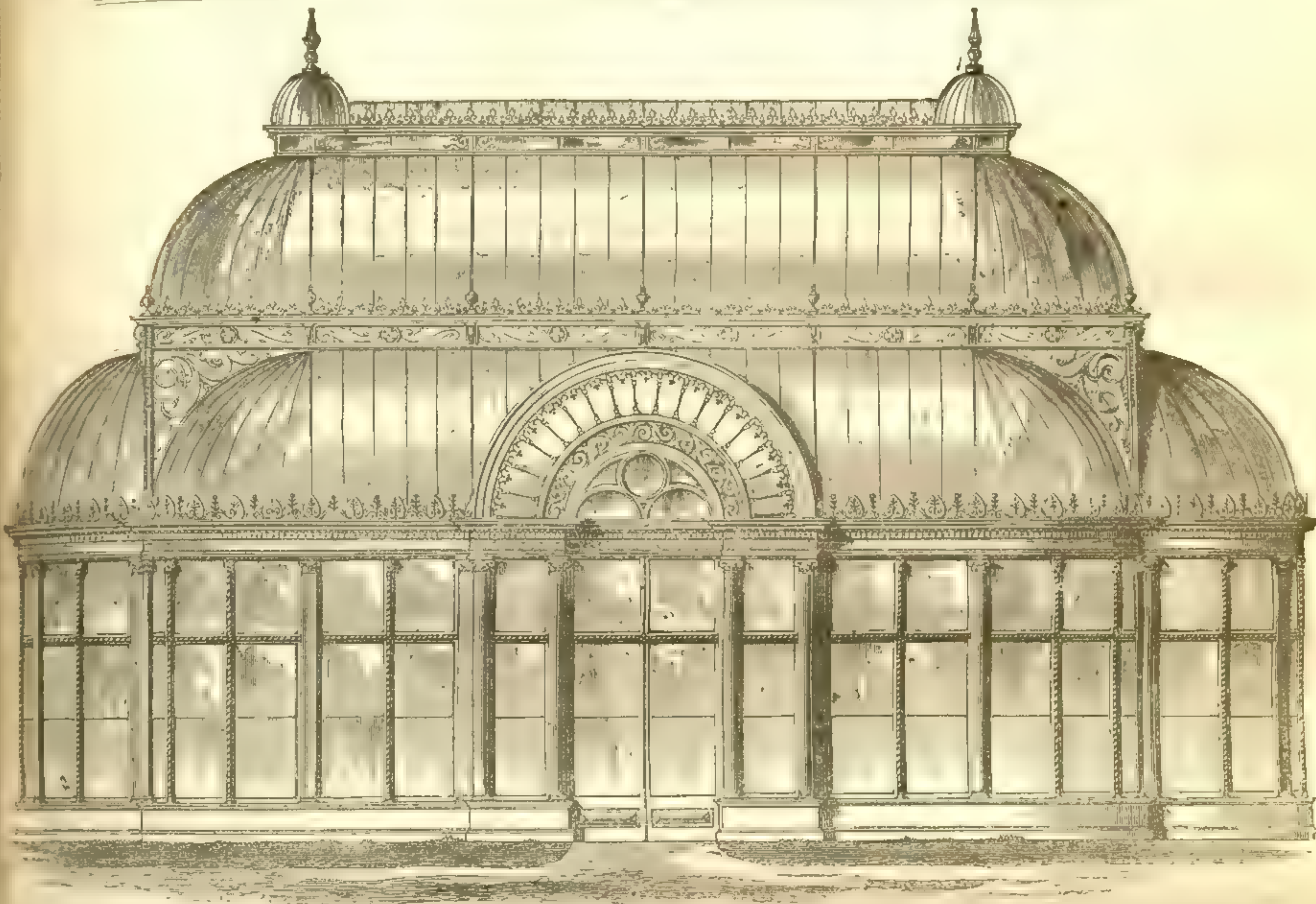
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The Gardeners' Chronicle
Newspaper.

SATURDAY, JANUARY 16, 1869.

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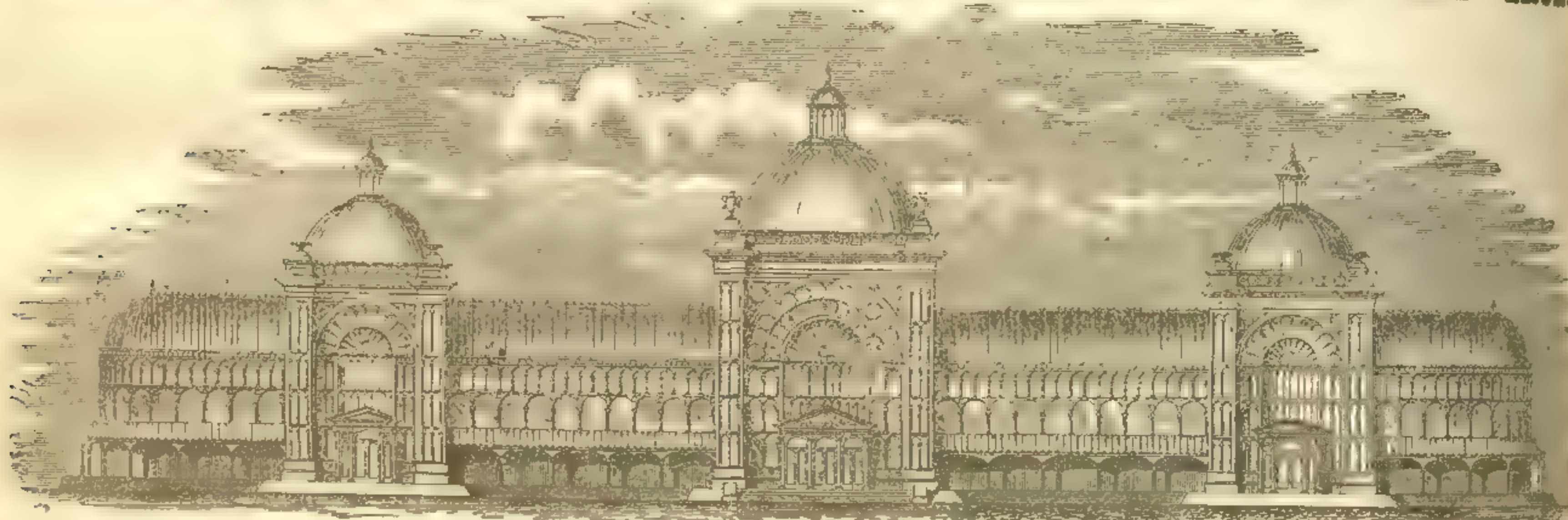
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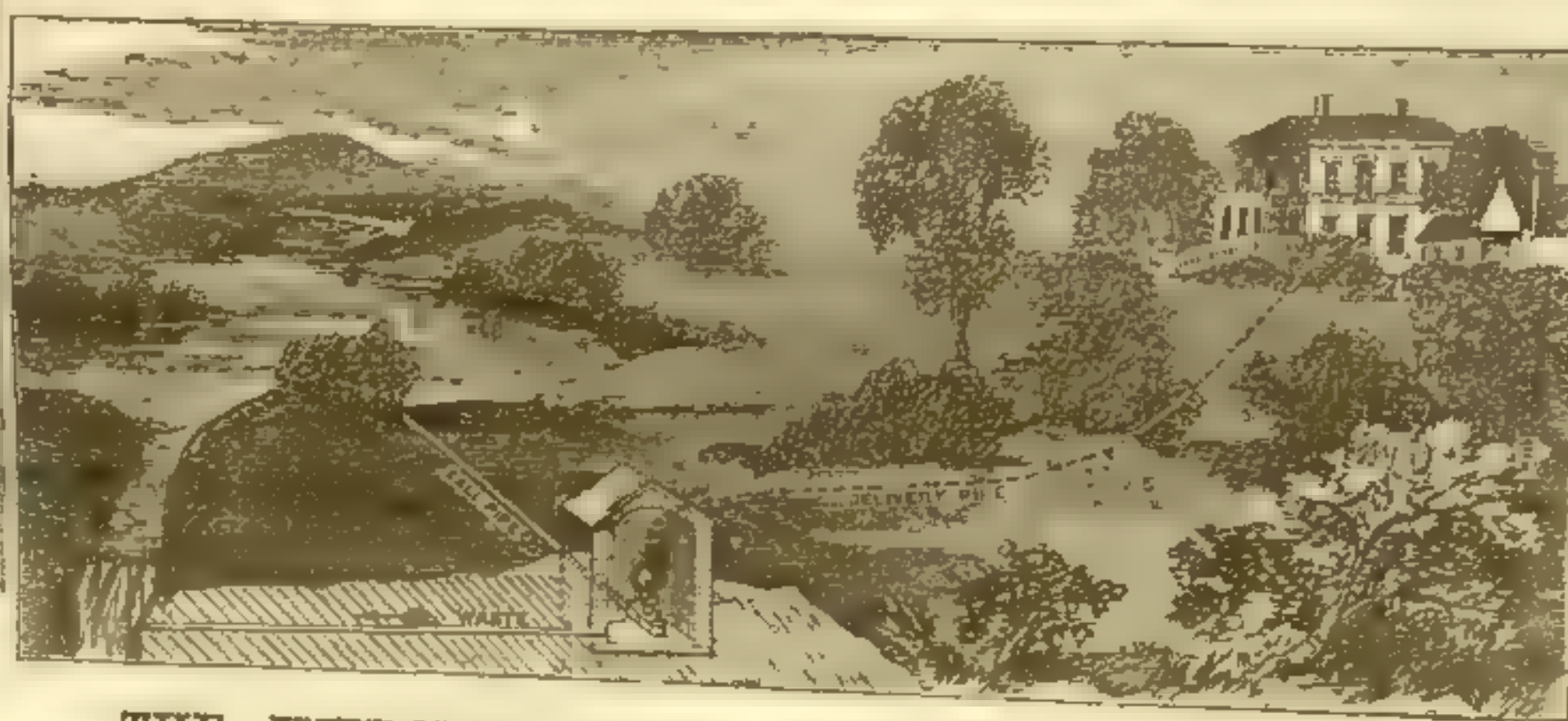
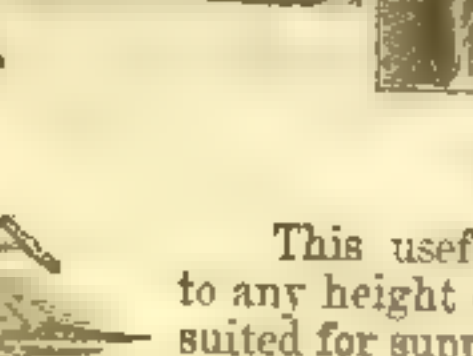
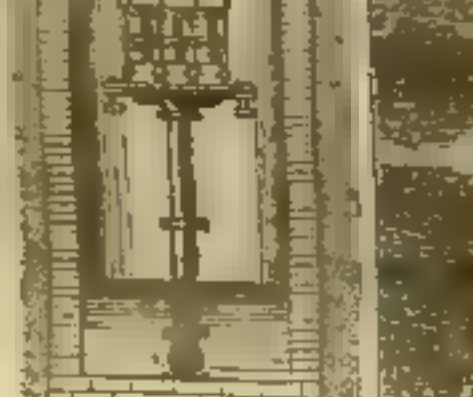
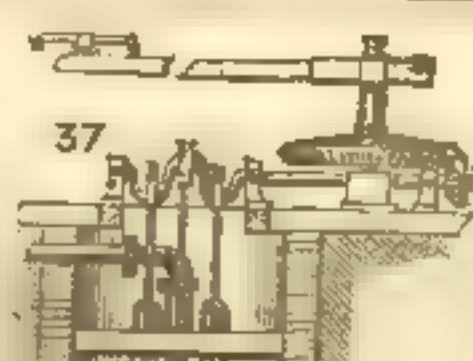


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THE SOCIETY of PAINTERS in WATER COLOURS.—The WINTER EXHIBITION of SKETCHES and STUDIES by the MEMBERS is NOW OPEN, 5, Pat. Mal. East. Ten till five. Admission 1s. Gas on dark days. WILLIAM CALLOW, Secretary.

GEOLOGY.—KING'S COLLEGE, LONDON.—Professor TENNANT, F.G.S., will COMMENCE a COURSE of LECTURES on GEOLOGY on FRIDAY, January 22, at 9 A.M. They will be continued on each succeeding Wednesday and Friday, at the same hour. A shorter Course will be given on Thursday evenings from 8 to 9. First Lecture, January 21. Text-book, Lyell's "Elements of Geology." Professor Tennant accompanies his students to the Public Museums and to places of Geological interest in the country. He gives PRIVATE INSTRUCTION in Mineralogy and GEOLOGY at his residence, 149, Strand, W.C.

Home News.

THE COURT at OSBORNE.—On Thursday, the 7th, the Earl and Countess of Clarendon arrived at Osborne on a visit. The Archbishop of Canterbury and Mrs. Tait, the Right Hon. Henry Bruce, and the Dean of Westminster left for London. On Friday morning the Queen walked in the grounds with Princess Beatrice, and in the afternoon drove in the grounds with Prince Leopold and Princess Beatrice; and on Saturday the Queen, accompanied by their Royal Highnesses, drove to Bonchurch and took luncheon with Lord and Lady Alfred Paget. The Earl and Countess of Clarendon left Osborne for London. Earl and Lady Constance Grosvenor and Lady Elizabeth Grosvenor arrived on a visit. On Sunday morning the Queen, with Prince Leopold and Princess Beatrice, attended Divine service at Whippingham Church. The Rev. G. Prothero officiated. On Monday the Queen walked and drove with Princess Beatrice. On Tuesday morning the Queen walked and drove in the grounds with Princess Louisa, and went out in the afternoon with Princess Beatrice. The Countess Dowager of Carnarvon, the Countess of Suffolk, and Lady Fanny Howard had an interview with her Majesty. On Wednesday morning the Queen walked and drove with Princess Louisa. Lady Augusta Stanley arrived from London on a visit. On Thursday the Queen held a Council, at which the Duke of Norfolk was introduced by the Lord Chamberlain, and took the oaths as Earl Marshal; and Baron du Jardin, Belgian Minister, presented his letters of recall. After the Council Mr. Matthew Digby Wyatt was introduced to her Majesty by the Lord Chamberlain, and received the honour of knighthood. Earl de Grey and Ripon and Viscount Sidney had audiences of her Majesty. The Duke and Duchess of Abercorn arrived from London on a visit.

THE PRINCE and PRINCESS of WALES left Copenhagen yesterday for Trieste, where they will embark for Egypt in the Ariadne frigate. In consequence of the hostile relations between the Porte and Greece, the Prince has determined not to pay his intended visit to the Court of Athens. Prince Albert Victor, Prince George, and Princess Louisa of Wales, are expected at Marlborough House on Monday next from Denmark.

ARRIVAL OF THE DUKE and DUCHESS of SCHLESWIG-HOLSTEIN.—On Monday afternoon the Duke Frederick of Schleswig-Holstein, the brother of Prince Christian, with the Duchess and the Princess Henriette, arrived at Frogmore on a visit to Prince and Princess Christian, and are expected to remain their guests for two or three months.

ACCIDENT TO THE DUC DE GUISE.—On Thursday, the 8th inst., the Duc de Guise, only son of the Duc d'Aumale, was thrown from his horse while hunting, and broke his leg. His Royal Highness was at once conveyed to Orleans House, Twickenham, where the broken limb was set, and the duke has since been progressing favourably.

ELECTION OF A BISHOP of LONDON.—On Thursday morning the Dean and Chapter of St. Paul's assembled in the Chapter-House, and, in accordance with the Queen's recommendation, elected Dr. Jackson, Bishop of Lincoln, to the Bishopric of London, vacant by the elevation of Dr. Tait to the See of Canterbury.

THE NEGOTIATIONS WITH AMERICA.—The Times of yesterday announced that a Convention was signed on Thursday by Lord Clarendon and Mr. Reverdy Johnson upon almost precisely the terms agreed upon between Lord Stanley and the American Minister. Lord Clarendon took up the conduct of the negotiation exactly as it was left by Lord Stanley, and Mr. Seward has accepted and approved the negotiations completed by the United States' Minister. "Nothing," it adds, "has been altered, save some practical arrangements, involving nothing which can give rise to a difference of opinion."

PARLIAMENTARY MOVEMENTS.—Mr. Chichester-Portescue, Chief Secretary for Ireland, has been re-elected for county Louth, and Lord Otho Fitzgerald, Comptroller of the Household, has been re-elected for county Kildare, without opposition. The election for South Derbyshire terminated on Thursday in the return of Colonel Wilmot, the Conservative candidate, by a majority of 29, according to the numbers published by the Liberal committee, over Mr. Evans: the Conservative return gives the majority as 40. Colonel Mure, of Caldwell, has withdrawn from the candidature for Renfrewshire, in favour of Mr. Bruce, the Home Secretary, who is expected to be returned without opposition.

THE TRIAL OF ELECTION PETITIONS.—The first trial under the new Act for the suppression of corrupt

practices at elections commenced on Tuesday. Mr. Justice Willes, in the Town Hall, Windsor, the member petitioned against was Mr. Roger Evers. The seat was claimed for Colonel Gardner the Conservative candidate, on the grounds of bribery. The examination of witnesses occupied the day yesterday, when Colonel Gardner abandoned the feeling bound in honour to admit that no bribe he had expected had been made out against Mr. Justice Willes then said that he should inform the Speaker that Mr. Eykyn was not guilty of his agents of corrupt practices, that the practices did not extensively prevail in the country, and that the costs of the trial must be borne by the petitioner, Colonel Gardner, although the petition opened the commission at Norwich. Mr. Bruce began yesterday the inquiry into Mr. Tillet's bribery against the seat of Sir H. Stracey. During the day each to induce them to vote for Sir H. Stracey. Court of Common Pleas on Monday had before it a question whether the amount of security required in disputed election cases in which the seats of members are attacked by one petition, should be 10 or 2000l. The Lord Chief Justice granted a writ against the petitioners in the case of Beverley, to show why the decision of Justice Willes, that security given is sufficient, should not be set aside in elections affected by this decision are Beverley, Hereford, Wigan, Preston, Southampton, Bradford, Coventry, Penryn, and Oldham. On Tuesday the Court gave judgment on an application by Mr. Smith, the sitting member for Westminster, who claimed that the petition against him should be taken off the file, because it did not furnish the names of persons said to be bribed or the agents who bribed them. The Lord Chief Justice refused a writ of Habeas Corpus, and the Court adhering to the orders laid down in the Second Division of the Scotch Court of Session. On Tuesday, rejected the reclaiming note presented by Mr. Grieve, [the sitting member for Greenock] against the decision of Lord Cowan, refusing to grant the petition against his return because it did not comply with the regulations laid down. The Court of Common Pleas gave judgment on Tuesday on the petition against the return of Mr. Dew for Wexford. It appeared that at the election Mr. Motte had the show of hands, and Mr. Devereux demanded a poll. Mr. Motte afterwards drew from the contest, and the Sheriff then declared Mr. Devereux elected without going through the formality of polling a few votes. The Court held that the election was null and void, that Mr. Devereux was not entitled to the seat, that there must be a new election, and that both parties must pay their own costs.

THE CONSERVATIVE PARTY.—Mr. Whitmore for Bridgnorth, has resigned the office of Conservative Whip, to which he was appointed by Mr. Disraeli in 1855, as successor to Lord Mandeville, now Lord Manchester.

NEW BARONET.—The Queen has granted the dignity of a Baronet of the United Kingdom to the Right Hon. Maziere Brady, of Hazelbrook, county of Dublin, in recognition of his services as three times Lord Chancellor of Ireland under successive Liberal Administrations.

POLICE MAGISTRACY OF GIBRALTAR.—The Queen has appointed Nicholas Kendall, Esq., of Penryn, M.P. for East Cornwall, to be police magistrate of the city and garrison of Gibraltar.

OFFICE OF WORKS.—Mr. Layard, the new Commissioner of Works, has appointed Mr. Fergusson, the architect, to the secretaryship of the Board, in the room of Mr. Alfred Austin, resigned.

RECORDERSHIP OF LYNN.—Mr. Douglas, Recorder of the Norfolk Circuit, has been appointed Recorder of Lynn, in the room of Mr. M. J. West, who has resigned in consequence of his age and infirmities.

THE ARMY.—The colonelcy of the 53rd Regiment, vacant by the death of General Gold, has been offered to Major-General Trollope. Major-General Grant has been appointed Colonel Commandant of the Royal Artillery, in the room of the late General. Major-General Moore has been appointed Colonel Commandant, in the room of the late General. Major-General Moore has been appointed Colonel Commandant, in the room of the late General.

REDUCTIONS IN THE DOCKYARDS AND ARMY.—It is understood that Mr. Childers, Secretary of the Admiralty, will close the dockyards of Woolwich and Deptford, with a little delay as is compatible with the execution of the service. The Steam Department has been re-organised. Mr. Lloyd, the Engineer-in-Chief of the Navy, will be succeeded by Mr. Murray, chief Engineer of Portsmouth Dockyard, whose appointment will be filled up. Mr. Eden, the chief clerk of the Admiralty, will be succeeded by Mr. Lang, the chief clerk of the Steam-office, who is superannuated. The Storekeeper-General of the Navy will also retire, and the office will be filled up by that of the Controller. The writers in the departments at Whitehall and Somerset House will be reduced in number or altogether abolished, and it is expected that many of the junior clerks on the establishment will be dismissed, with the view of retaining only the efficient public servants. It is also expected that reductions are to be made in the Coastguard.

Foreign.

FRANCE.—The first sitting of the Conference of the Turco-Greek question was held on Saturday. After the formalities had been completed, the plenipotentiaries were drawn up and despatched to the Cabinets of Constantinople and Athens, requesting them to state the status quo pending the duration of the Conference. The Greek Plenipotentiary then claimed to sit at

Ali Khan had become possessed of the territory in Turkistan, where his nephew, Abdul Rahman, had previously ruled. It is rumoured that Colonel Orstasoff, a Russian agent, is now in Cabul, and that Russian Cossacks have been seen on the southern side of the Hindoo Koosh. Meer Hajeer has been convicted at Delhi of the murder of Captain Douglas, commanding the Palace Guards, on the 11th May, 1857. A kind of Maine liquor law has been introduced into the State of Rampore by its Nawab, who has forbidden the use of all intoxicating drugs throughout his dominions.

CHINA.—A despatch from Hong Kong, dated the 20th ult., states that her Majesty's gunboat Guat, after going ashore on the coast of Balabac, one of the Philippine Islands, was struck by lightning and blown up. No lives were lost.

JAPAN.—Hakodadi has been besieged and taken by a rebel fleet of seven vessels. The assault was headed by foreigners. Her Majesty's ships Satellite and Argus, and the French war vessel Venus, have proceeded to Hakodadi. The foreign community are in safety, and have not been molested.

UNITED STATES.—The Bill for repealing the Tenure of Office Law was passed by the House of Representatives on Monday. The vote was 119 for, and 47 (all Republicans) against. The Democrats unanimously voted in the affirmative. In the sitting of the House on Wednesday a Bill was introduced by General Banks, for establishing an American Protectorate over Hayti, and after a debate it was ordered to be laid on the table. The vote was 121 to 36. In pursuance of President Johnson's Amnesty, a *nolle prosequi* has been entered in the cases of Messrs. Davis and Breckinridge, and Attorney-General Evarts has instructed the district attorneys to discontinue all prosecutions for treason and rebellion. The Republican Press generally condemn Mr. Reverdy Johnson's acts and conduct in England, and without stating anything definite, appear to believe that he is sacrificing American interests. The Democratic journals at first supported Mr. Johnson, but are now silent.

WEST INDIES.—A severe shock of earthquake was felt at St. Thomas on December 23. A tidal wave had been experienced on the east coast of Trinidad.

CUBA.—Accounts from Havannah state that General Dulce, the new Governor, has proclaimed liberty of the Press, and has offered a free pardon to all insurgents surrendering within 40 days. Cespedes, the leader of the insurgents, has proclaimed the emancipation of the slaves. The insurgents still menace Puerto Principe. General Dulce has asked for a reinforcement of 4000 men, who will be sent off by the Minister of War during the present month.

MEXICO.—An earthquake took place on the 20th ult. in the cities of Colima and Manzanillo. Several persons were killed, many houses destroyed, and nearly all the buildings in both places more or less damaged.

PARAGUAY.—The Paraguayan army was completely routed on the 11th of December at Villeta. Three thousand prisoners were taken by the Brazilians, and Lopez escaped with only 200 men. The Brazilian squadron was ascending the river Paraguay to take possession of Assumpcion. The war was considered to be at an end. The Earl of Clarendon has received a despatch from Mr. Stuart, her Majesty's Minister at Buenos Ayres, dated the 21st November, reporting that, as far as can be ascertained, there are two British subjects in prison in Paraguay, named Alonso Taylor and F. G. Masterman, who, it is believed, are suspected of complicity in an extensive conspiracy. Mr. Stuart had also been informed that four others, named W. Newton, W. Eden, G. Miles, and G. Higginbotham, who were in Government employ, have been dismissed from it, and that the three former of them were then at San Lorenzo and the latter at Paraguari. Mr. Stuart further reports that the commander of her Majesty's ship Beacon had received from President Lopez himself a positive assurance that every British subject in Paraguay should receive the best possible treatment.

City Intelligence.

OVEREND, GURNEY & Co.—The case for the prosecution was concluded yesterday at Guildhall, and the inquiry was adjourned to this morning.

MONEY MARKET, FRIDAY.—BRITISH FUNDS: Consols closed at 92½ to 93½, both for Money and Account; New and Reduced Three per Cents., 92½ to 93; India Five per Cents., 112½ to 112½; Bank Stock, 241 to 243; Exchequer Bills, 8s. to 8s. pm.—FOREIGN: Mexican Bonds, 15 to 15½; New Spanish, 30 to 30½; Italian (1861), 52½ to 53½; Tobacco Loan, ½ to 1 pm.; Turkish Five per Cents., 37½ to 37½; Ditto Six per Cents., 60½ to 60½; Egyptian (1864), 86½ to 87½; Ditto (1868), 74 to 74½; Honduras, 85 to 87; Peruvian, 76½ to 76½; Portuguese, 35½ to 36½; Danubian Eight per Cents., 80 to 81; Brazilian, 79½ to 79½; Russian (1862), 85½ to 86½; Orel, 80 to 80½; Nicolas, 66½ to 66½; Moscow, 78½ to 78½; Greek, 11½ to 12½; United States 5-20 Bonds, 71½ to 75½; Erie, 26½ to 26½; Illinois, 92½ to 93½.

Metropolis and its Vicinity.

MEETING OF RITUALISTS.—On Tuesday afternoon a great meeting of Ritualists, clergy and laity, was held at Freemasons' Hall, to receive the report of the committee appointed at the meeting on the 30th ult. on the steps to be taken in reference to the recent judgment of the Judicial Committee of Privy Council in the case of "Martin v. Mackonochie." Archdeacon Denison presided, and said that though he was not what was called an "advanced Ritualist," and his taste inclined rather to simplicity than to complication of ceremonial, he was in favour of the preservation, in all their integrity,

of all and each one of the many links which bound the Church of England to the Church Primitive and Catholic, and for the liberty of Churchmen as established at and by the Reformation. And he would say, that they should never cease the work of all their hands, and minds and hands, till they had rid the Church of God in this land of the Court of Final Appeal as now existing by law. Mr. Turner then read a lengthy and elaborate report from the committee appointed on the 30th ult., criticising under various heads and in great detail the recent report, and recommending that a memorial from clergy and laity be addressed to the archbishops and bishops of England and Wales, and, *mutatis mutandis*, to both Houses of the Convocations of Canterbury and York, praying their lordships to vindicate the Primitive and Catholic character of the Church of England, disparaged by the recent judgment, and to claim for Churchmen the lawful liberty now invaded and denied, and so far as in them lay, to relieve them from the contradictions, the difficulties, and the dangers in which they were placed by the late interpretation of the law. Mr. Turner moved and Lord Ehot seconded the adoption of the report, which was carried unanimously. The Rev. M. W. Mayow moved and Mr. H. J. Barehard seconded the adoption of the memorial, which was also carried unanimously. The Rev. J. W. H. Molyneux, vicar of St. Peter's, Sudbury, then moved and the Hon. C. L. Wood seconded the following resolution:—

"That this meeting does not recognise the existing Court of Final Appeal as a Court competent to declare the law of the Church of England upon either doctrine or ceremonial. That with respect to this particular judgment of the said Court in 'Martin v. Mackonochie' the meeting finds, among other things, that that judgment disregards the Church of England's fundamental principle of connection with and reference to the practice of the Church Primitive and Catholic. Nevertheless it acknowledges the duty of submitting, under protest, to the law of the land, upon that law being put in force, so far as such law is expressed in the decree of the said judgment, and until such law shall be further declared or amended."

The Rev. W. J. E. Bennett, Vicar of Frome, expressed his regret at being obliged to differ from many of his friends, but though he might be placed under the stigma of being a disobedient subject, he preferred to obey the law of God and His Church rather than the law of the Queen. He objected entirely to the "miserable conclusion" of the resolution, and moved as an amendment, that all the words from "nevertheless" should be struck out, and the following words inserted:—

"And therefore it is unable to reconcile submission to the present decree with its paramount and primary duty of obedience to the Church, and can only wait in patience the Providence of God."

The Rev. C. J. Le Geyt seconded the amendment, which was supported by the Rev. T. T. Carter, vicar of Clewer; the Rev. G. Nugee, vicar of Wymering; and the Rev. Orby Shipley, and others. The Rev. T. W. Perry, one of the Royal Commissioners on Ritual, the Rev. Dr. Littledale, and the Rev. M. W. Mayow opposed it, on the ground that they had no other course open to them than to submit under protest. The Rev. J. W. H. Molyneux, vicar of St. Peter's, Sudbury, also opposed it, and said that though it was his conviction that the judgment was unjust, he had reluctantly removed the altar lights, which he had used for twelve years, in spite of the remonstrances of Bishops Turton and Browne; and he had done so because, as long as the clergy retained their position as ministers of the Church of England, they were bound to obey the law of the land while the highest Court of Appeal declared it to be binding. On a division Mr. Bennett's amendment was lost. The Rev. T. W. Perry then moved to omit from the resolution the words, "Upon that law being put in force." The Rev. Canon Cooke seconded the motion, which was agreed to. The Rev. C. F. Lowden, vicar of St. Peter's, St. George-in-the-East, moved as an amendment that they should strike out of the resolution all the words from "nevertheless" to the end. Mr. Beavan seconded the resolution, which was carried with but few dissentients. The Rev. C. A. Fowler, rector of St. Margaret's, Canterbury, moved, and Mr. Goldney seconded, an amendment that a deputation should wait upon the Church Association (the Evangelicals), to ascertain whether the two bodies might not act together. On a division it was lost. The Rev. F. G. Lee moved to add, after the word "ceremonial," these words:—

"But sees no alternative for Mr. Mackonochie but obedience. At the same time this meeting maintains that if the unprecedented principles embodied in the judgment be applied by the spiritual rulers, it should only receive general obedience when applied impartially."

The Rev. J. Edwards seconded the amendment, which was lost. The Chairman said that the resolution as it now stood was nonsense, and he hoped that something would be added which would make sense of it. The Rev. M. W. Mayow then moved that there should be added to what was left of the resolution these words:—

"But at the same time, this meeting, feeling the great difficulty of the present case, and that there are many who have used the ceremonial now condemned by the Judicial Committee, who may be anxious to wait rather than give immediate effect to the decision now pronounced, considers that it is a matter which is best left to the individual judgment and circumstances of each priest who has been accustomed to the practices or ceremonial in question."

The Rev. T. W. Perry seconded the motion. After some remarks from the Rev. Orby Shipley, the Hon. C. L. Wood, and Mr. Carter, the Chairman said that the original resolution, which had been passed by a large majority of the committee, and embodied, in the most unexceptionable terms, the great duty of obedience, was now, by the words being left out, rendered capable of only one construction—namely, that that great meeting would not consent to any obedience at all. If the amendment now proposed was rejected, he must,

having regard to his own honour, leave the amendment was then put, and carried almost unanimously. The Rev. A. H. Mackonochie, of St. Alban's, moved the next resolution:—

"That the clergy and laity present at this meeting lament the late decision of the Judicial Committee of Privy Council, and see in it a call to use all possible positions in the Church and in the world, and in all possible ways the doctrine of the Real Presence."

Mr. Turner seconded the motion. The Rev. T. W. Perry moved the following amendment:—

"That this meeting deeply laments the late decision of the Judicial Committee of Privy Council, which has extinguished two lighted candles on the Lord's table during the celebration of the Holy Communion, though it was an ancient custom retained by the Church of England as signifying that it was the very true light of the world, and that it is the more important to use, as circumstances may require, other lawful means in their power of teaching the doctrine sought to be impugned by this prosecution."

This amendment was accepted by Mr. Mackonochie, and it was carried instead of the original resolution. Mr. R. Brett moved, and Mr. Le Geyt seconded, the following resolution, which was carried with a large majority:—

"That the meeting, having regard to the experience of the Church of England for the last 20 years, rejoices to see that all manner of denial or depreciation of the Sacraments has issued only in the truer interpretation and the wider and heartier acceptance of the doctrine of the Real Presence. The Earl of Limerick moved the last resolution, which follows:—

"That having regard to the circumstances of the case, and to precedents of the Court, the condemnation of Mackonochie in all the courts, both of the original and the appeal, appears to this meeting to be a severe and exceptional severity, inasmuch as the defendant originated the litigation, inasmuch as the defendant was testing the legality of the ceremonial which had never been condemned, in one part of which—namely, the two lights—he was upheld by the opinions of the highest counsel, and inasmuch as the defendant had yielded immediate submission as to the points on which he had not been so sustained."

Mr. J. Shaw Stewart, in seconding the resolution, said that Mr. Mackonochie had undertaken, if necessary, to pay the costs of the Bankruptcy Court for the costs of the English Church Union had borne a heavy share of the expenses, and he thought an appeal should be made to the country generally. The resolution was adopted, the Rev. J. L. Fish moved, and the Rev. Upton Richards seconded, a vote of thanks to the Archdeacon, who dismissed the meeting with a benediction. The proceedings lasted five hours. On Wednesday another meeting of Ritualists was held at Freemasons' Hall, composed almost exclusively of those who are in favour of continuing the altar lights and other practices condemned by the Judicial Committee of Privy Council. There was a very earnest discussion, in which the Rev. Mr. Bennett, Rev. Orby Shipley, Rev. J. Edwards, Rev. C. F. Lowden, and other gentlemen joined. It was generally admitted it would be very unwise to bind the clergy as a body, to any particular course, inasmuch as circumstances differed in various parishes, and many might feel it to be their duty explicitly to obey the law of the Church on those points where it differed from the law of the land as expounded by the Judicial Committee. It was stated that several clergy had determined to continue the lights—at all events until they received a monition from a superior authority. A question arose in reference to the decree of the Judicial Committee, and it was generally admitted that the bishop of the diocese should necessarily proceed by monition or otherwise against a clergyman who used the practices and ceremonies condemned. Any person, it was said, might bring an indictment against a clergyman so offending, and it was not likely that the Church Association would be the real promoters of the suit "Martin v. Mackonochie" would allow such an opportunity. The question of the prosecution of Mr. Bennett on doctrinal matters was alluded to, and it was generally admitted that, in the event of the Judicial Committee decreeing that the Real Presence in the Eucharist is antagonistic to the doctrines of the Church of England, the High Church party must, as a matter of course, secede.

THE FRENCH ATLANTIC CABLE.—The Eastern commenced shipping the deep-sea cables for the French Atlantic telegraph cable at Southampton on Thursday morning. The total length of cable shipped up to Thursday night was 1,000 nautical miles.

STREET ROBBERY IN THE DAYTIME.—An elderly gentleman, was robbed of his watch and pocket-money in Everilda Street, Islington, by a young man who asked him the time. No policeman being near, the thief escaped, although he was afterwards traced through the intervention of a pawnbroker to a chapel, at whose shop a female confederate was brought up at Clerkenwell Police Court on Wednesday, and committed for trial.

THE PUBLIC HEALTH.—The Registrar-General's weekly return states that in the week ending on Saturday, Jan 9, 1871 births and 3944 deaths were registered in London and in 13 other large towns in the United Kingdom. The annual rate of mortality was 27 per 1000 persons living, being 25 in London, 40 in Edinburgh, 27 in Dublin, 22 in Birmingham, 30 in Liverpool, 36 in Manchester, 29 in Salford, 23 in Sheffield, 27 in Bradford, 24 in Hull, 31 in Newcastle-upon-Tyne, and 35 in Glasgow. The rate in Vienna was 25 per 1000 during the week ending the 22nd inst. In Berlin 32 per 1000 during the seven days ending the 7th inst. In London the births of 1243 boys and 1243 girls, in all 2406 children, were registered in the week ending on Saturday, Jan 9, 1871.

The corresponding weeks of 10 years, 1859-68, the average number, corrected for increase of population, was 156. The deaths registered in London during the week were 1501. It was the 1st week of the year, and the average number of deaths for that week, corrected for increase of population, was 1681. The present return is therefore 180 below the average.

Provincial.

ARKLARE.—The proceedings against Thomas Morris, charged with the outrage at the house of a woman called Richard Richards, at Cwmdare, on the 6th ult., were resumed at the Police-court of this town on Tuesday. The prisoner had a bag of powder from a mining magazine in the neighbourhood, placed it inside the kitchen of the farmhouse and fired it. The roof was blown, and the windows blown into the garden, and one of the ten persons in the house was hurt. The prisoner, however, was found at some distance, his clothes burnt off his body, and frightfully injured. He has been in the hospital ever since, and is still suffering, was sufficiently recovered to be brought before the magistrate, by whom he was committed for trial.

LAW.—Martin Brown, who was convicted at the assizes of the murder of an old shepherd, called near Brighton, has made a full confession of the crime and the circumstances connected with it. He admits the supposition that he committed the murder for the sake of the paltry sum of money that he had, and asserts that he had a stronger motive than this, with the other circumstances now known by the convict, will, at his own request, not be put to the test after the execution on Monday next.

WIMBORNE.—The remains of the body which were buried near Norwich in June and July, 1851, were exhumed on Tuesday from the vault in the Guildhall, which they had been deposited, when it was found that they had been put into the jar of spirits of wine for their preservation. The result of this is that the flesh has been destroyed, and nothing now remains but bones. It appears also that the medical man who examined the remains when they were first found came to the conclusion that they were those of a young woman, whereas, at the time of the murder, the Sheward must have been approaching her sixtieth year, and the witnesses examined on Friday, when the body was brought before the borough magistrates, stated to her as an "old woman." The prisoner was committed until the medical men had completed their examination of the remains; but in consequence of the difficulty of identifying the remains with the body of the woman, it is supposed that he will retract his statement, and that he and his friends will endeavour to show that when he made his statement he was under monomania.

WIMBORNE.—A court-martial has been sitting for several days on board the Victory, for the trial of Captain Wilmshurst, R.N., acting Governor of Isle of France, for having saved on his own account a large quantity of cotton from a wrecked ship called the "Hesperus," and afterwards sold the ship and articles for his own benefit. The Court, after hearing a defence from Mr. Vernon Harcourt on behalf of the prisoner, found on Wednesday that neither of the charges had been proved, and that Captain Wilmshurst was fully and honourably acquitted. Admiral Thomas S. Passey, as President of the Court, then presented Captain Wilmshurst his sword, and expressed his satisfaction at doing so.

WIMBORNE.—The governor of the county gaol received a letter through the clerk of assize, a free pardon for the prisoner, who received the intelligence with great delight, and again asserted that he had had no part in the Wells murder. Bisgrove, who is at present in Taunton gaol, has had a successful epileptic fits, evidently affecting his already weak mind. It is said that he attempted suicide on Monday by hanging himself, but was unable to carry out his intention.

WIMBORNE.—On Thursday week the shaft pillars near the No. 7 pit of the Rainford Coal Mine were found to be on fire. A stream of water was sent into the downcast shaft, and eight men went down to extinguish the fire; seven of the number were killed, and the eighth, who was the only one who escaped, was killed upon them, by the reversal of the shaft. A few seconds, and inflicted such severe injuries that six of them have since died, and the seventh is not expected to recover. A still more singular accident occurred on Friday, when a strong jet of steam was driven down upon the flames, the shafts being stopped by platforms of iron. The men jumped, as they thought, upon one of the platforms, a distance of about 2 feet, but they fell into the bottom of the shaft and fell down the shaft, and nothing can be done to recover the bodies. The fire is extinguished. The inquest was held on Friday, and it was stated that it might be expected that the bodies could be recovered in a few days. The inquest was adjourned for a month. Another inquest was held on Thursday, when the jury found that the explosion was caused by a "blown out shot," but the explosion arose from a gradual accumu-

lation through deficient ventilation, or from a sudden escape of pent-up gas from the body of the coal, there was no evidence to show.

Ireland.

THE IRISH CHURCH.—The Executive Committee of the Central Protestant Defence Association held a meeting on Saturday, Sir Edward Grogan in the chair, and adopted a series of resolutions in favour of organising at once an extensive plan of deputation to bring before the English and Scotch people the momentous questions impending, and to take other means for the defence of the Irish Church. Another resolution advised the branch associations to hold meetings in their several localities for obtaining signatures to a petition and declaration, and also for collecting funds and enlisting the co-operation of the clergy and laity in support of the movement. The last resolution declared that the proposed disestablishment and disendowment of the Established Church in Ireland contained the seeds of incalculable disaster to the country, and that it is the duty of the Protestant laity to resist it as a grievous political mistake, an injustice, and a wrong.

CARDINAL CULLEN ON THE IRISH CHURCH QUESTION.—At a meeting of the National Association on Tuesday letters were read from Cardinal Cullen and a number of Roman Catholic bishops, declaring against any compromise on the Church question, and claiming thorough disestablishment and complete disendowment.

THE REGIUM DONUM.—The authorities of the Presbyterian Church have been officially informed that the office of distributor of the Regium Donum, which was held by the late Dr. Cooke, has been abolished, and that the stipends will in future be paid through the Bank of Ireland.

CASE OF THE FENIAN CONVICT COSTELLO.—The Court of Queen's Bench have granted a new trial in the case of Augustus Costello, the Fenian convict, on his assignment of error on the record of his conviction at the late Special Commission. The argument is to commence on the 24th inst.

Scotland.

DESTRUCTION OF A GLASGOW THEATRE.—On Wednesday evening, shortly after the closing of the Prince of Wales Theatre, it was found to be on fire. The flames spread with great rapidity, and terminated in the total destruction of the building, which has only been built within the last 18 months.

Obituary.

VISCOUNT STRANGFORD was found dead in his bed on Saturday at his residence in Cumberland Place. He was but little more than 43 years of age. His lordship, Percy Ellen Frederick William Smythe, was the youngest of the three sons of the sixth Viscount Strangford, who was many years Ambassador at the Courts of Stockholm, St. Petersburg, Lisbon, and Constantinople, and who acquired considerable literary fame as the translator of the lesser poems of Camoens, by the youngest daughter of Sir Thomas Burke, of Marble Hill, and widow of Mr. Nicholas Browne, of Mount Hazel, Galway. He was born in 1825, at St. Petersburg, during his father's residence in that capital. He was educated at Harrow School, and was afterwards one of the "Postmasters" of Merton College, Oxford. In 1845 he entered the diplomatic service, being appointed an Attaché at Constantinople, where he acted as Oriental secretary in 1857 and the following year. His father died in 1855, and his second brother having died young, he succeeded to the title on the death of his eldest brother, the seventh viscount, in 1857. He was by inheritance a grandee of the kingdom of Portugal, and, besides his Irish peerage of Strangford, enjoyed the English barony of Penhurst, which had been conferred on his father in 1825, in recognition of his diplomatic services; but these honours have both become extinct by his early and unexpected death. He married, in 1862, the youngest daughter of the late Admiral Sir Francis Beaufort, by whom, however, he has no issue. Lord Strangford was probably the best and most varied linguist this country has ever produced. His knowledge of Oriental languages was almost equally accurate and varied. A Persian would have recognised in him a perfect scholar, and in all the dialects, as well as the languages of the East, he was completely at home.

LORD HAWKE died on Friday at Womersley Park, near Pontefract, aged 60. His lordship, on the death of his father, the third baron, in 1824, succeeded to the title, which was conferred in 1776 on Sir Edward Hawke, the celebrated admiral. He was born in 1799, and was educated at Eton. He married, in 1821, the second daughter of Sir John Ramsden, and afterwards, in 1848, the oldest daughter of the late Walter Featherstonhaugh, Esq., of Chester-le-Street, and has issue one daughter. His lordship's death was caused by gutt in the throat, resulting from an accident he received from being thrown off his horse a short time ago whilst hunting, a sport to which he was particularly attached, having been no less than 42 consecutive seasons master to the Badsworth, a thing unparalleled in the annals of sporting. He is succeeded in the title by his brother, Captain the Hon. Stanhope Hawke, who has been for some time so seriously ill that little hope is entertained of his recovery. He was born in 1804, and became captain in the army in 1825.

ADMIRAL SIR LUCAS CURTIS, K.C.B., Senior Admiral of the Fleet and of the British Navy, died on Thursday at his residence at Portdown Hill, near the village of Cosham, at a very advanced age. He entered the service in 1785, and was present at the reduction of the Isle of Bourbon, and in the unsuccessful operations of Commodore Pym's squadron off the Isle of France. He was taken prisoner and kept for several months in captivity. He afterwards commanded frigates in the channel and other stations. He became Rear Admiral in 1839, and full Admiral in 1855.

ADMIRAL SIR JAMES ALEXANDER GORDON, G.C.B., governor of Greenwich Hospital, died on Friday last, at the age of 86. He was the third son of Mr. Charles Gordon, of Wardhouse, and Kildrinning, Aberdeenshire. He was born in 1782, and entered the navy in 1793, so that he had served for the extraordinary period of 75 years, and was the last survivor of Nelson's captains. He was in the actions fought under Lord Howe, Lord Bridport, and Lord St. Vincent, and at the battle of the Nile. He served in the West Indies, Mediterranean, and Adriatic; and commanded the Active frigate at the battle of Lissa, and at the taking of the French frigate Pomone, at Pelagos, in the same year, when he lost a leg. He commanded the Seahorse frigate in North America in 1814, was made Governor of the Royal Naval Hospital, Plymouth, in

1827; Superintendent of Chatham Dockyard in 1832, Lieutenant-Governor of Greenwich Hospital in 1840, and Governor in 1853. He was created K.C.B. in 1857 for services in the Adriatic, and G.C.B. in 1854, and became Admiral of the Fleet a few years ago. In 1812 he married the daughter of Mr. John Ward, of Marlborough, by whom he had an only son, who died in command of Her Majesty's ship Wolf, off the coast of Borneo, in 1846, and seven daughters, who survive him. The eldest is married to Mr. J. C. Toulger a Master in the Exchequer; the second to the Rev. Dr. Huntington, of Wimbledon; and the third to the Rev. William Barnett, rector of Boxgrove, Sussex.

CAPTAIN WHITLEY, a Peninsular veteran of the old school, died last week at his residence in Kingstown, at the age of 69. He was one of that small band who on the night of the retreat from Corunna took part in the burial of Sir John Moore. He afterwards served with honour through all the Peninsular campaign. He was the inventor of many projectiles of great efficacy in warfare.

Markets.

COVENT GARDEN.—Jan. 16.

There are still no changes of any importance; the only article rather more in request is Kent Cobs, which command a higher price. Fruit and Vegetables are abundant, and prices barely kept up. Almonds Grapes are exceedingly fine, and worth from 8s. to 10s. per 12 lb. American New Town Pippins of excellent quality fetch 50s. per cask; there are also arrivals of Reinette de Bordeaux and Dieu Donne Apples from Bordeaux, realising from 12s. 6d. to 15s. per cask. Oranges are very plentiful. French Asparagus may now be had, at 15s. to 20s. per bundle. Very fine Onions are arriving from Bordeaux, at 12s. to 14s. the cwt. Potato trade is dull, except for best samples, of which there is a scanty supply in general, though there are large arrivals of kidney Potatoes of fine quality from Belgium, realising 90s. per score bags of about 110 lb. each. Flowers chiefly consist of Orchids, Primulas, Hyacinths, Tulips, Heaths, Mignonette, Poinsettias, Cyclamens, and Solanum Capsicastrum.

Table with columns for Apples, Grapes, Kent Cobs, Lemons, Melons, Pears, Pine-apples, Oranges, Beet, Cabbages, Carrots, Celery, Cucumbers, Endive, Garlic and shallots, Herbs, Horse Radish, Leeks, Lettuces, Mint, Mushrooms, Onions, Parsley, Potatoes, Spinach, and Turnips.

Table for HAY—Per Load of 36 Trusses, SMITHFIELD, Thursday, Jan. 14. Columns include Best Meadow Hay, Prime Meadow Hay, Inferior do., New do., Straw, Clover, and Prime new Clover.

Table for CUMBERLAND MARKET, Thursday, Jan. 14. Columns include Sup. Meadow Hay, Inferior do., New do., Superior Clover, Inferior Clover, New do., and Straw.

Table for WHITECHAPEL, Thursday, Jan. 14. Columns include Fine Meadow Hay, Inferior do., Prime New Hay, Inferior do., Straw, Prime 1st cut Clover, Inferior do., Prime 2d cut do., New Clover, and Inferior do.

Table for METROPOLITAN MEAT MARKET.—Jan. 16. Columns include Best Fresh Butter, Second do., Small Pork, and Large Pork.

HOPS.—BOROUGH MARKET, Jan. 15. Messrs. Pattenden & Smith report that the demand for both English and foreign continues of a retail nature, consumers purchasing in small quantities to supply immediate requirements. Quotations are unchanged.

ENGLISH WOOL.—There has been a fair business done at rather better prices, and the tendency is still upwards, though the unsettled state of Continental politics has somewhat checked the manufacturers from going deeply into stock.

Table for CURRENT PRICES OF ENGLISH WOOL, per lb.—s. d. Columns include FLEECES—Southdown hoggets, Half-bred ditto, Kent Fleeces, Southdown ewes and wethers, Leicester ditto, and SORTS—Clothing, Combing.

LEADENHALL AND NEWGATE POULTRY, &c.

THURSDAY, JAN. 14. The London markets are just now very scantily supplied with home-grown Poultry, but large quantities arrive daily from Ireland and the Continent. Turkeys have been very scarce since Christmas. The arrival of the American Grouse adds greater variety to the bill of fare, and Norway is now sending Capercaillie, Black Game, Ptarmigan, and Gallinotia. The great glut of English Game seems over, but the market is still heavy for it. The real trade is very dull indeed.

Table for Geese, Goslings, Turkeys, Ducks, Ducklings, Wild Ducks, Surrey Fowls, Do chickens, Barn door Fowls, Partridges, Pigeons, Tame Rabbits, Wild Rabbits, Pheasants, Teal, Snipes, Hares, Leverets, English Eggs, and Foreign do.

METROPOLITAN CATTLE MARKET.

MONDAY, JAN. 11. We have a fair supply of Beasts, and trade is dull; the choicest qualities, however, are selling about the same as of late, but several inferior descriptions remain unsold. The number of Sheep is about the same as Monday last, and the average quality is pretty good; trade is scarcely as good as last week, yet in best qualities there is not much difference. Good Calves are still scarce and dear. Our foreign supply

consists of 920 Beasts and 22 Calves; from Scotland there are 530 Beasts; from Ireland, 430; from Norfolk and Suffolk, 800; and 940 from the Midland and Northern Counties.

	s. d.	s. d.	s. d.	s. d.
Best Scots, Herefords, &c.	5	2 to 3	6	Do. Shorn
Best Shorthorns	5	0 to 5	4	Ewes & 2d quality
2d quality Beasts	3	4 to 4	0	Do. Shorn
Best Downs and Half-breds	5	4 to 5	6	Lambs
Do Shorn	3	4 to 5	0	Calves
Beasts, 3620; Sheep and Lambs, 19,150; Calves, 36; Pigs, 270.				Pigs

THURSDAY, JAN. 14

We have a good supply of Beasts, and trade is dull, consequently prices are lower, and a clearance cannot be effected. The number of Sheep is in excess of the demand; choicest qualities are rather under Monday's quotations. Good Calves are still scarce and dear. Our foreign supply consists of 436 Beasts and 89 Calves.

	s. d.	s. d.	s. d.	s. d.
Best Scots, Herefords, &c.	5	0 to 5	2	Do. Shorn
Best Shorthorns	4	10 to 5	2	Ewes & 2d quality
2d quality Beasts	3	0 to 3	8	Do. Shorn
Best Downs and Half-breds	5	2 to 5	4	Lambs
Do Shorn	3	4 to 5	0	Calves
Beasts, 1290; Sheep and Lambs, 5340; Calves, 152; Pigs, 50.				Pigs

SEED MARKET.

We have had an average attendance of buyers on our markets during the past week, and a fair amount of business doing. The seed trade continues to exhibit great firmness, and prices are rapidly tending upwards. New English Red Clover seed is exceedingly scarce, and the quality is very poor, being unusually small, and having quite a foreign appearance. From France the arrivals are small, and a large proportion of the imports from that country is in reality German seed. Advices from America speak of a deficient crop, so that it is probable we shall not obtain much from that source. Of Belgian seed there is but little on offer, and that at high rates. If it had not been for Germany we must have been poorly off for Clover seed; under these circumstances it is not surprising that the seed trade rules extremely firm. Alsike and White Clover seed are somewhat slow of sale at last week's currencies. For Trefoil we have a better demand. An extensive business has recently been done in French Italian Rye-grass, at an improvement of 2s. to 3s per cwt. Our letters from France state that the yield this season is only half an average one. As the stocks thus side are very light, we shortly anticipate a considerable advance in this article. New English Dwarf Rape seed is in fair request. There is no alteration in the value of Mustard seed. As now Scarlet Runner Beans are this year very dear, a lively demand has sprung up for Dutch White Runners, which are being largely used in the place of Red. Lentils for feeding are 2s. per qr. dearer. Canary and Hemp seed are slow of sale, at about last Monday's quotations. We have a brisk inquiry for Windsor and Longpod Beans, and seed Peas. There is a good demand for feeding Linseed. Königsberg spring Tares are advancing in price.

JOHN SHAW & SONS, 16, WATER LANE.

MARK LANE.—MONDAY, JAN. 11.

The supply of Wheat from Essex and Kent to this morning's market was very short, the condition generally much affected by the weather; the dry parcels were taken at the quotations of this day's night, but the remainder was difficult of sale, and remained on hand till a late hour. In foreign the business transacted was limited, but the sales made were at about the prices of last week. Malting Barley was rather easier to purchase, but grinding met a good inquiry at extreme rates. There was no change in the value of Beans or Peas. The Oat trade was steady, and prices unaltered. Flour remains as last quoted.

PRICE PER IMPERIAL QUARTER.	s. d.	s. d.	s. d.
WHEAT, Essex, Kent, Suffolk. White	55	58	Red
— fine selected runs, do.	57	60	Red
— Talavera	62	65	Red
— Norfolk	—	—	Red
— Foreign	43	69	—
BARLEY, grind. & dist. 40s to 42s Chev.	47	54	Malting
— Foreign grinding and distilling	31	33	Malting
OATS, Essex and Suffolk	—	—	—
— Scotch and Lincolnshire. Potato	25	33	Feed
— Irish	20	32	Feed
— Foreign Poland and Brew	25	30	Feed
RYE	40	42	Foreign
RYE-MEAL, Foreign	—	—	—
BEANS, Mazagan .40s to 44s. Tick	44	48	Harrow
— Pigeon .48s to 52s Winds	—	—	Longpod
— Foreign Small	41	46	Egyptian
PEAS, White, Essex, and Kent Boilers	45	48	Suffolk
— Maple 41s to 47s. Grey	44	45	Foreign
MAIZE	—	—	Foreign
FLOUR, best marks delivered per sack	43	47	—
— 2d ditto ditto	34	44	Country
— Foreign per barrel	24	36	Per sack

FRIDAY, JAN. 15.

The trade throughout the kingdom has been very dull since the 8th inst., and a decline of 1s. to 2s. per qr. on Wheat has been generally submitted to, without leading to any increase in business. Malting Barley has not maintained the extreme rates lately realised, and we have to report a reduction of 1s. to 2s. per qr. in several markets. Grinding qualities are also the turn against sellers. Beans, Peas, and Oats have not undergone any quotable change in value. Flour was difficult to sell, and prices slightly easier. The supplies of grain off the coast this week consisted of 159 cargoes, of which, with those left over from last week, there remained for sale last night 117 cargoes. The floating trade remained inactive throughout the week the fresh arrivals off the coast have not led to an increase in business. Buyers are waiting for the sample boxes and reports of the cargoes. Arrived Wheat has been held for late rates; Maize, Barley, and Beans were unaltered in value, and Rye in steady demand for the Continent. For cargoes on passage and for forward shipment business continues at a standstill.

The arrivals of all grain this week have been moderate. The attendance at this morning's market was very small, and the little English Wheat left over from Monday was offered at a decline of 1s. to 2s per qr. and a part of it only was sold. For foreign there was scarcely any demand, but factors would have accepted a similar reduction to have effected sales. Spring Corn of all descriptions met a dull sale, at rather under Monday's prices.

ARRIVALS THIS WEEK.

	Wheat.	Barley.	Oats.	Flour.
English	640 qrs.	1690 qrs.	— qrs.	700 sks.
Irish	—	600	3200	—
Foreign	11,000	6230	19,899	1870
	11,700	8520	23,080	960 brls.

LIVERPOOL, Tuesday, Dec. 12.—The market is well attended. Wheat in limited demand, at 2d. to 3d. per cental decline.

Flour dull and unchanged in value. Beans steady; Saidi, 41s. 6d. to 41s. 9d. Oats and Oatmeal quiet, at late rates. Indian Corn slow at the decline of Friday last; new mixed, 33s.; old, 37s. to 37s. 6d.; round, 35s. to 35s. 6d.

AVERAGES.

	Wheat.	Barley.	Oats.
Dec. 5 ..	50s 1d	46s 3d	29s 8d
— 12 ..	49 8	45 9	27 3
— 19 ..	49 5	45 3	27 7
— 26 ..	50 7	46 1	26 2
Jan. 2 ..	50 11	47 2	26 0
— 9 ..	51 5	48 1	26 4
Agg. Average ..	50 4	46 5	27 3

POTATOS.—SOUTHWARK, Monday, Jan. 11.

During the past week the arrivals coastwise and by rail have again been in excess of the demand; trade continues dull. The following are this day's quotations:—Yorkshire Regents, per ton, 70s. to 120s.; do. Flukes, 100s. to 140s.; Lincolnshire Regents, 60s. to 90s.; Dunbar and East Lothian do., 50s. to 120s.; Perth, Forfar, and Fife do., 60s. to 110s.; do. Rocks, 60s. to 70s.; French and Belgian Whites, 40s. to 80s.

WANTED, a PARTNER, who can introduce Capital into an old and well-established Seed Business. Remuneration guaranteed.—Apply, S. D. WORSNIP, Solicitor, Dale Street, Liverpool.

WANTED, a MARRIED COUPLE, middle-aged, without incumbrance, the Man as GARDENER, and to be generally useful, the Wife as LAUNDRESS.—Rev. J. HART DAVIES, Gilsburn, Skipton, Yorkshire.

WANTED, a MARRIED COUPLE, no objection to one child; Husband as GARDENER, Wife to take charge of the LAUNDRY.—Apply to ARTHUR HENDERSON & Co., Pine-apple Place, Maida Vale, London.

WANTED, a GARDENER and his WIFE, without children, at a Cottage residence, in Surrey, 10 miles from town—Garden under 2 acres, two-thirds of which is Lawn. The Gardener must have a thorough knowledge of his business, and will, if required, have to live in the house when the family is absent, and keep the same clean and tidy. Wages £40 per annum, and two unfurnished rooms over stables. Unexceptionable references required. No person under middle-age need apply.—Address F. C. H. May's General Advertising Office, 78, Gracechurch Street, E.C.

WANTED, an IMPROVER, in a first-class Forcing Establishment.—A young Man who has had some experience in Gardening. Premium required.—A. B., 20, St. James Street, Bermondsey, S.E.

SHOPMAN.—WANTED, a Young Man, as SECOND SHOPMAN; must be accustomed to Packing at the Counter. State where last employed and salary required.—H. CLARKE & Sons, 39, King Street, Covent Garden, W.C.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. E. G. HENDERSON & Son, Wellington Nursery, St. John's Wood, London, N.W.

To Gardeners and Bailiffs (Head, Foremen, or Under). JAMES CARTER and CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those who can send unexceptionable references need apply. Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & Co. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c. JAMES CARTER & Co., 237 and 238, High Holborn, London, W.C.

GARDENER (HEAD).—Age 32, married, no incumbrance; three years' character. Can be highly recommended.—Address, J. B., Post Office, Hayes, Middlesex.

GARDENER (HEAD), age 32; married.—The Advertiser wishes to recommend his Gardener, now about to leave his services. Active and thoroughly practical, with good character in every respect.—W. H., Post Office, King Street, near Wokingham.

GARDENER (HEAD).—Age 42; thoroughly practical, experienced in Pines, Vines, Peaches, and Mushrooms. Wife, Cook, Dairy, or Laundress. Several good references.—S. D. N., 2, Burrow Road, Merton Road, Wandsworth, Surrey.

GARDENER (HEAD), to a Gentleman requiring the services of a first-class Gardener.—Married; is a thorough practical, working, energetic Man, and understands Gardening in all its branches, also Land and Stock. Good character.—G. W., Post-office, Bromley, Kent.

GARDENER (HEAD).—Age 40, married, two children; understands Forcing Vines, Fruit, Flowers, &c., Flower and Kitchen Gardening, the Management of Land and Stock. Will be discharged February 1. Leaving through employer leaving the neighbourhood. Good references for three and a-half years.—Apply, A. B., Mrs. H. T. Bettesworth, Horndean, Hants.

GARDENER (HEAD).—Age 38, married, no incumbrance; has a thorough practical knowledge of his profession, including all kinds of Forcing, Fruits, Flowers, and Vegetables, also Kitchen Gardening, Laying out Grounds, and Planting, and the Management of Land and Stock. First-class references.—W. T., 1, Hopewell Cottages, Choumert Grove, Rye Lane, Peckham, S.E.

GARDENER (HEAD, WORKING), age 28, married.—JAMES HAZLOCK, Gardener to the Right Hon. Lord Lilford, can with confidence recommend his Foreman to any Nobleman, Lady, or Gentleman in want of a thorough practical, steady, energetic Man.—E. W., Lilford Hall, Oundle, Northamptonshire.

GARDENER (HEAD), where one or more kept.—Married, no incumbrance; understands Gardening in all its branches. Good character.—Address H. H., Miss Eaise, St. Dunstan's, Canterbury.

GARDENER (HEAD), where two or three are kept.—Understands Fruit, Flowers, Early and Late Forcing, and Kitchen and Flower Gardening. Character unimpeachable.—137, Portland Road, Notting Hill, N.W.

GARDENER.—Age 19; a respectable Young Man wishes for a situation as Improver in the House. Good references.—W. W., St. Mary's Terrace, Stone Bridge, Willesden.

GARDENER.—Age 27, single; understands Forcing, &c., also Land and Stock if required.—A. M., 4, Portadown Place, Kilburn.

GARDENER.—Age 23, single; would take a place where two are kept; or would not object to a single-handed place. Can have three years' good character from his last situation.—A. D., W. Morgan, Stationer, Rushy Green, Lewisham.

GARDENER.—Married, no incumbrance; experienced; thoroughly understands his profession in all its branches; can take charge of a farm if required. Can be highly recommended as to character and ability by present and past employers.—GARDENER, Steephill Castle, Ventnor, Isle of Wight.

GARDENER (UNDER), in a Gentleman's Family.—Age 22, single; good character.—X. Y. Z., Post Office, Marshfield, Gloucestershire.

GARDENER, or GARDENER and BAILIFF.—Age 35, married; has been in present situation, with a Clergyman, six years, and possesses an excellent character. Is thoroughly up in his business as a Gardener, and in the Management of a Small Estate.—ROBERT F. DARR, The Nurseries, Cirencester.

To Noblemen and Gentlemen. ESTATE MANAGER, or FARM STEWARD. Age 40; has had 20 years' practical experience in Road-making, Quicking, and Management of Woods and Collecting Rents, and Office Work, on the estates of the Duke of Bedford; also, well understands the Management of Stock, and the Cultivation of Light and Heavy Soils, and otherwise, Refers to the Duke of Bedford's private Secretary, Thomas Bennett, Esq., and to Viscountess Bessborough, Taylor, Steward to Sir A. de Rothschild, Bart., &c., Tring, Herts.

To Horticultural Builders, &c. MANAGER or FOREMAN.—Could improve a Patent Horticultural Works for the last three years, willing to become a WORKING PARTNER in a new and extensive Place, Bayswater, W. Twenty years' unexceptionable reference.—C. J. H. P., &c.

To Nurserymen. MANAGER, or GROUND FOREMAN. GATOR (WORKING).—Thoroughly practical, understands the Propagation and Cultivation of Hardy Trees and Shrubs, Fruit Trees, Roses, &c., Grafting, Inarching, Layering, &c., and the Value of General Nurseries well versed in the management of Workmen; for terms and the above capacity. Character for general ability, sobriety, will bear the most strict investigation.—E. J. P., Nursery, St. John's Wood, N.W.

HOUSE FOREMAN and PROPAGATOR. GENERAL MANAGER.—Amos May has had 20 years' services to any requiring a thorough practical Man, with knowledge of the Propagation and Cultivation of Garden Stock, both Hard and Soft-wooded, having successfully done as above for the last 15 years in three large Nurseries. Was nearly 8 years in last situation. Will be discharged if (can leave before if required). Highest reference. Unexceptionable.—18, Elgin Terrace, Maida Vale, London, W.

NURSERY FOREMAN and PROPAGATOR.—Thoroughly experienced; satisfactory references for character and ability.—H. RAMSAY, 2, Croft Cottage, Warwickshire.

To Nurserymen. FOREMAN (GROUND).—Age 33, married; good experience in some of the principal London Nurseries.—A. B., Vauxhall Nursery, near Canterbury.

FOREMAN (or OTHERWISE), in a Gentleman's Nursery.—Age 23; good character.—W., The Gardens, Sunderland.

PROPAGATOR, or FOREMAN and PROPAGATOR.—A Man of considerable practical experience in the Propagation of Hard and Soft-wooded Plants, Roses, Rhododendrons, general collection of Plants appertaining to the Glass House, open to a re-engagement.—G. F., Skerton Nurseries, Kent.

PROPAGATOR (INDOOR).—Age 26, steady, London experience. Unexceptionable character.—19, Wellington Road, St. John's Wood, N.W.

To Nurserymen. PROPAGATOR (INDOOR).—Age 22; good experience in a London Nursery.—F. B., Post Office, Green, London, W.

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To Nurserymen. GRAFTER and BUDDER, and A 1 in grafting Roses, and Conifers; in fact, thoroughly competent to manage a Nursery upon a large scale.—Age 30, married, and in boyhood in the largest Provincial Nursery in the Kingdom; good knowledge of Orchard-houses and general Nurseries. Quite an acquisition.—B. H. A. F., Post Office, Herts.

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JUNIOR SHOPMAN.—Has had six years' experience in Nursery and Seed Business. Can be well recommended.—Z., Gardeners' Chronicle Office, W.C.

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DINNEFORD'S FLUID MAGNESIA. The best remedy for Acidity of the Stomach, Headache, Gout, and Indigestion, and the best for delicate constitutions, especially adapted for Ladies and Infants. DINNEFORD & Co., 172, New Bond Street, London, and of all Chemists throughout the Kingdom.

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HALSE'S GALVANIC APPARATUS.—Cures of Paralysis, Rheumatism, Lame, Indigestion, Debility, Tic, Asthma, &c. Halse, No. 40, Addison Road, Kensington, for his particulars of the most extraordinary cures which will be astonished at its contents.

The Best Remedy for Indigestion. NORTON'S CAMOMILE PILLS. Recommended as a simple but certain remedy. They act as a powerful Tonic, and generally relieve their operation, safe under any circumstances, persons can now bear testimony to the benefit of their use. Sold in bottles at 1s. 1/2, 2s., and 3s. in the Kingdom. Caution.—Be sure to ask for "NORTON'S CAMOMILE PILLS," and do not be persuaded to purchase any other.

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DESIGN FOR A NOBLEMAN'S OR GENTLEMAN'S KITCHEN GARDEN OF TWO ACRES.

The Gardeners' Chronicle Newspaper.

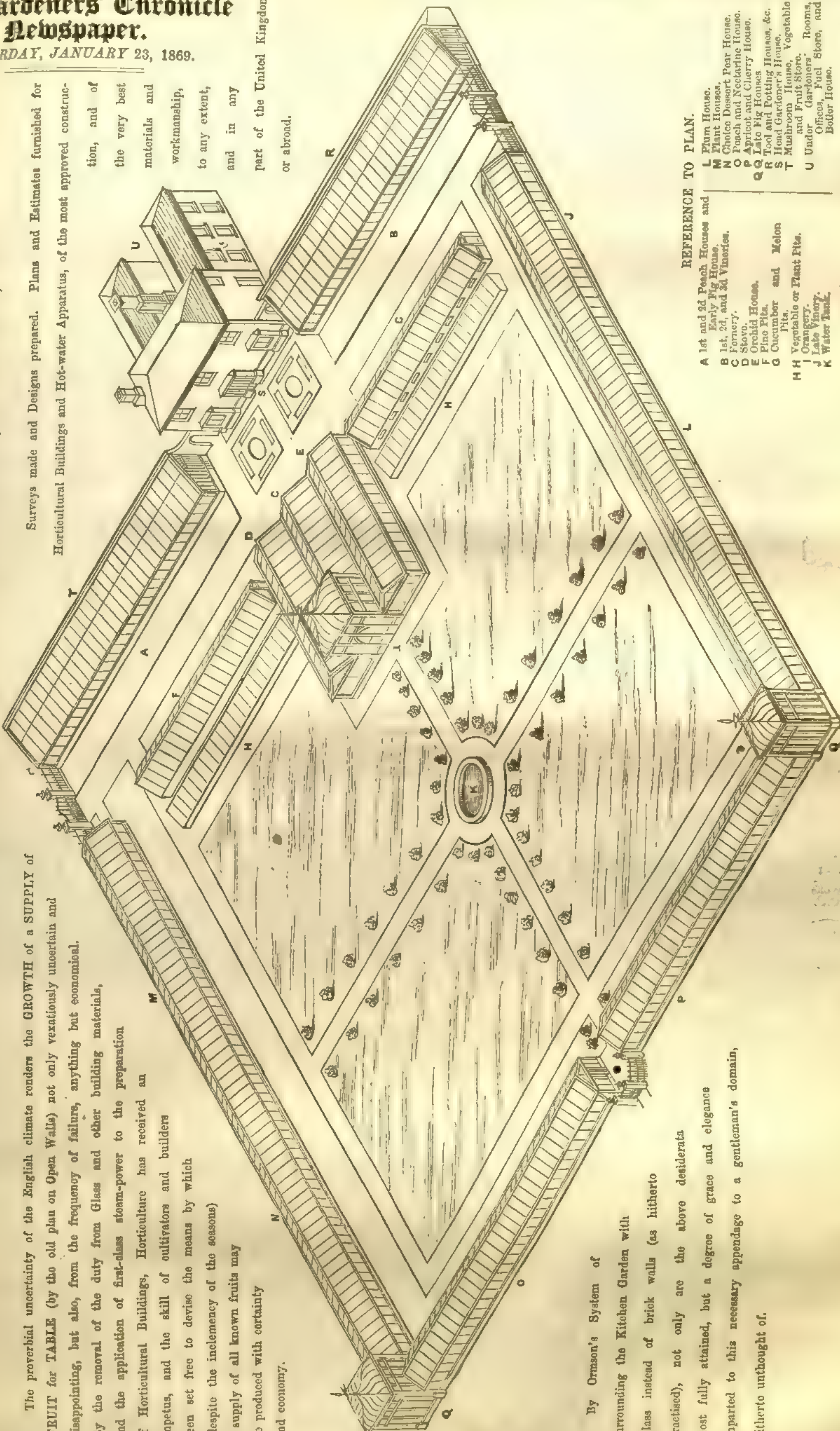
SATURDAY, JANUARY 23, 1869.

DESIGN FOR A NOBLEMAN'S OR GENTLEMAN'S KITCHEN GARDEN OF TWO ACRES, WITH HEAD GARDENER'S HOUSE, UNDER GARDENERS' ROOMS, OFFICES, &c., &c. BY HENRY ORMSON, HORTICULTURAL ARCHITECT, BUILDER, &c.

The proverbial uncertainty of the English climate renders the GROWTH of a SUPPLY of FRUIT for TABLE (by the old plan on Open Walls) not only vexatiously uncertain and disappointing, but also, from the frequency of failure, anything but economical.

By the removal of the duty from Glass and other building materials, and the application of first-class steam-power to the preparation of Horticultural Buildings, Horticulture has received an impetus, and the skill of cultivators and builders been set free to devise the means by which (despite the inclemency of the seasons) a supply of all known fruits may be produced with certainty and economy.

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 - G Cucumber and Melon Pits.
 - H Vegetable or Plant Pit.
 - I Orangery.
 - J Late Vinery.
 - K Water Tank.
 - L Plum House.
 - M Plant House.
 - N Chelsea Dessert Pear House.
 - O Peach and Nectarine House.
 - P Apricot and Cherry House.
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8 ft. by 4 ft.	Lights, 2 ins. thick, unglazed	£0 5 0
" "	Primed and Glazed with 16 oz. Sheet	0 11 0
" "	with stout Portable Box, not Painted	1 3 0
" "	Painted four coats, and Handles on	1 8 0
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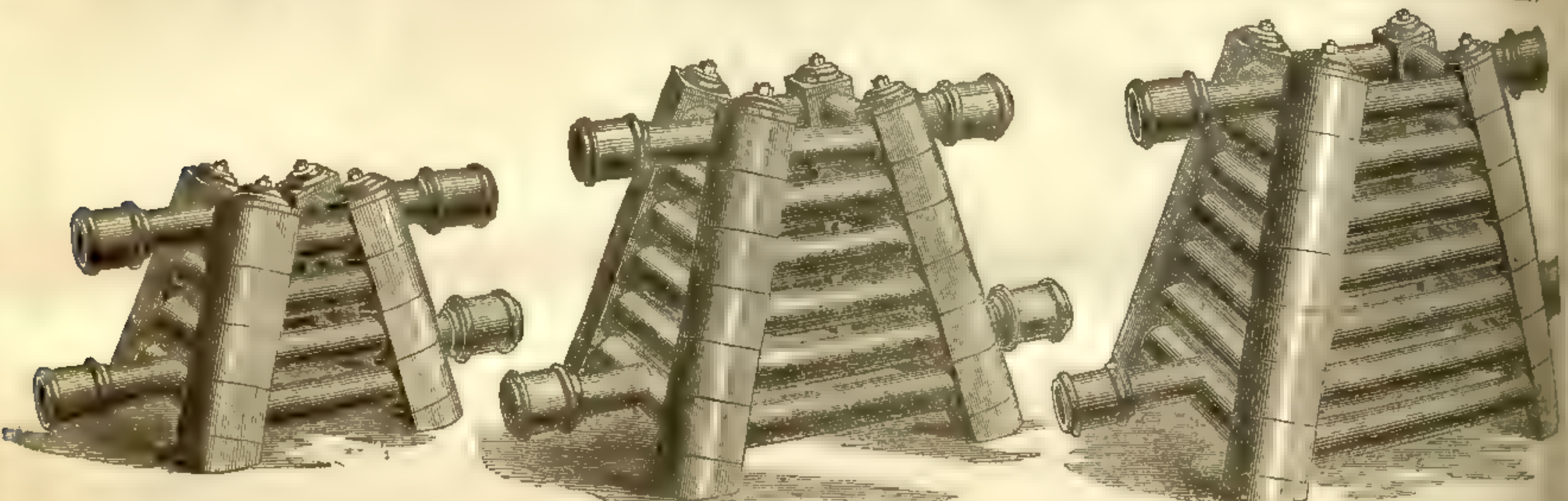
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 HOT-WATER PIPES, from stock—per yard
 ELBOWS for ditto each
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 Cash remittance with order
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 Estimates given, and orders punctually attended to the end of the year.

HOT-WATER PIPES, BOILERS, &c.
 delivered in London, Liverpool, Bristol, or elsewhere.
 Large stock kept at the Works.

	2-inch	3-inch	4-inch
HOT-WATER PIPES—per yard	6 11	1 5	4 4
ELBOWS each	1 4	2 1	1 5
TEES	2 0	3 6	3 4
SYPHONS	1 9	3 0	2 6
VALVES	10 0	11 6	12 0

Nett cash price on receipt of invoice.
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 THIS IS THE MOST POWERFUL AND IN EVERY RESPECT THE BEST BOILER YET MANUFACTURED.



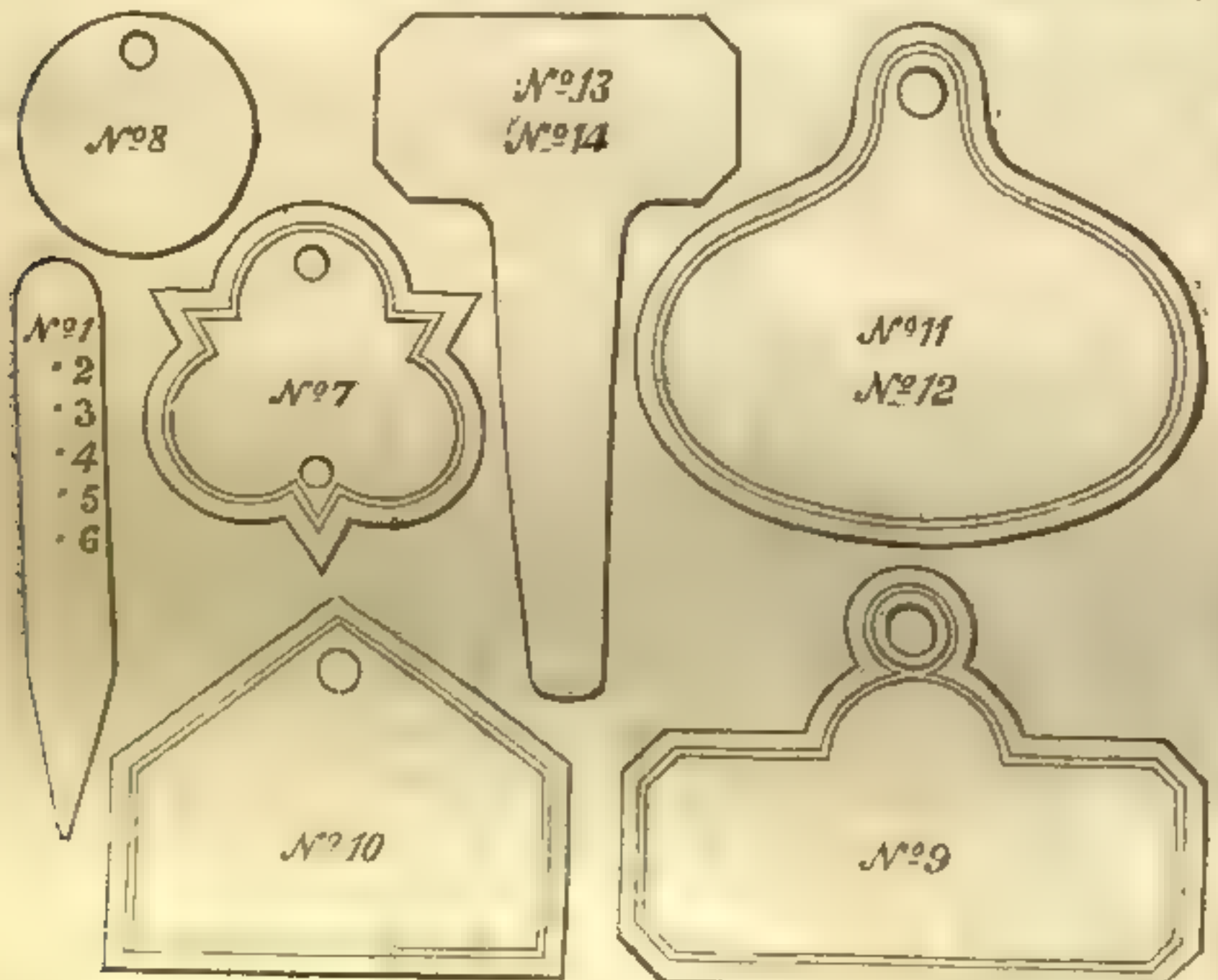
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 HORTICULTURAL ENGINEERS, PATENTEES, AND GENERAL HORTICULTURAL BUILDERS IN WOOD OR IRON.
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BY HER MAJESTY'S ROYAL LETTERS PATENT.

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MAW & CO.'S PATENT IMPERISHABLE TERRA-COTTA PLANT MARKERS

Are offered as a cheap and permanent substitute for WOODEN and ZINC TALLIES for the Labelling of Plants in Pots, and in the Open Border, and for suspending Roses, Orchids, Ferns, Fruit Trees, &c. These Labels, unlike Wood and Zinc, combine perfect durability with a lasting legible inscription, and form an elegant adjunct to the Garden and Conservatory for the naming of Horticultural and Botanical Collections. They are also invaluable for the labelling of Wine Cellars and for general use in situations where other materials are perishable by damp.



Commended by the Editors of the *Gardeners' Chronicle*, and the Floral Committee of the Royal Horticultural Society. (See *Gardeners' Chronicle*, July 11, 1868.)
 Can be procured from the Manufactory, or through any Nurseryman, Seedsmen, or Ironmonger.

Specimens sent Post Free on application.

No. 1	3 1/2 by 1 inch.	No. 8	1 1/2 inch diam.
No. 2	4 1/2 " "	No. 9	3 1/2 by 2 1/2 inches.
No. 3	5 1/2 " "	No. 10	2 1/2 " 2 1/2 "
No. 4	6 " "	No. 11	3 1/2 " 3 "
No. 5	7 " "	No. 12	5 " 4 1/2 "
No. 6	8 " 1 "	No. 13	2 " 4 "
No. 7	2 1/2 " 2 "	No. 14	3 " 5 "

Can be seen in use at the Royal Gardens, Kew; the Gardens of the Royal Horticultural and Royal Botanic Societies, Battersea Park, the Royal Botanic Garden, at Edinburgh, and Botanic Gardens, Glasnevin, near Dublin, &c.
 Directions for Writing on the Labels with Black-lead Pencil.—Apply a little white paint thinly over the part to be written upon, and whilst wet, write with a hard fine-pointed black-lead pencil. The writing will be perfectly indelible and unaffected by wet immediately the paint is set.
 Black Enamel Writing on the Labels.—All the above sizes can be supplied in several colours, ready written upon, with black enamel, having the appearance of jet black and perfectly permanent. On receipt of Lists of Names, Estimates of Cost will be sent for quantities of Pot or Border Labels, Suspending Labels for Orchids, Roses, Ferns, Fruit Trees, &c. Consecutive Sets of Numerals printed on the Labels, and Labels for Writing ready written with Enamel, kept in stock.

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 FOR CONSERVATORIES, GREENHOUSES, ENTRANCE HALLS, VERANDAHS, DAIRIES, &c.

Printed Patterns of various Designs suitable for the above will be forwarded on application, and Drawings, free of charge, of any of the Designs adapted to the given dimensions of spaces proposed to be Paved, will be supplied, accompanied by estimates of cost, including the expense of laying or otherwise. Applications for Estimates should be accompanied by an exact plan of the space drawn to scale, with all the dimensions marked in figures, and care should be taken that the size and position of all door-ways and recesses that have to be paved are correctly represented; and when the walls are not exactly parallel, the measurements between the opposite angles, as well as the height of each wall, should be given.

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HOT-WATER APPARATUS of every description, and complete in any part of the country, for Warming Green-houses, Conservatories, Forcing Pits, &c.

HOT-WATER PIPES. CASH PRICES.

Table with 4 columns: Pipe size (2-inch, 3-inch, 4-inch), Unit (per yard), and Price (1s. 6d., 2s. 3d., 3s. 0d.).

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J. C. AND J. S. ELLIS, HORTICULTURAL BUILDERS. Greenhouses, Conservatories, for Heating, Hot-houses, Churches, Public Buildings, Private Residences, &c.

CRANSTON'S PATENT BUILDINGS for HORTICULTURE. "Dry Glazing without Putty," "Glass without Laps," "Ventilation without Moving Lights."



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THE "WORCESTERSHIRE," pronounced by Connoisseurs "THE ONLY GOOD SAUCE," improves the Appetite, and Aids Digestion.

CORNS and BUNIONS.—A Gentleman, many years tormented with Corns, was happy to afford others the information by which he obtained their complete removal in a short period, without pain or any inconvenience.

THE QUARTERLY REVIEW, No. 252, will be published NEXT TUESDAY.

- I CAMPBELL'S LIVES OF CLYDEHURST and BROUGHAM. II REALITIES OF IRISH LIFE. III DEAN MILMAN and ST PAUL'S. IV EARTHQUAKES. V MR GLADSTONE'S APOLOGIA. VI THE ULTRA-RITUALISTS. VII EFFICIENCY OF THE NAVY. VIII LORD LIVERPOOL and his TIMES. IX ANIMALS and PLANTS. X POLITICS as a PROFESSION.

Advertising in Ireland. THE GARDENERS' RECORD, the only Horticultural Paper published in Ireland—a first-class Paper. Specimen Copy and Tariff for four stamps.

THE NEW METHOD OF GROWING FRUIT, by the Rev JOHN FOUSTAIN, Southacre, Brundon. A Full Description of this approved system of growing all kinds of Stone Fruit and Grapes, in the same house, of the very highest flavour and perfection.

New School Botany. Just published in fcap. 8vo, price 3s. 6d. ELEMENTS OF BOTANY. By J. H. BALFOUR, M.D., Professor of Botany in the University of Edinburgh, &c.

MR. DUCKHAM respectfully informs the Breeders of Herefordshire that he is now preparing for Publication the SEVENTH VOLUME of LYTON'S HERD BOOK, which will contain Pedigrees of Cows and Halls, with their Produce, to December 31, 1858, price 12s.

Nesbit's Practical Mensuration. A thoroughly revised Edition, augmented by a Treatise on Levelling, price 6s. bound.

A TREATISE ON PRACTICAL MENSURATION. In Ten Parts; containing—The most approved Methods of Mensuration of Haystacks, Drains, Drawing Geometrical Figures, Mensuration of superficies, Land Surveying, Mensuration of Solids, The Use of the Carpenter's Rule, Timber Measure, in which is shown the Method of Measuring and Valuing Standing Timber, Artificer's Works, Illustrated by the Dimensions and Contents of a House.

KEY to NESBIT'S PRACTICAL MENSURATION, containing Solutions to all Questions which are not answered in that work; with Reference to the Problems, Rules, and Notes, by which the Solutions are obtained.

A FARMER, in Wiltshire, wishes to receive Two Young Gentlemen as PUPILS in PRACTICAL AGRICULTURE. The system is Corn, Sheep, and Bullock Farming.

GEOLOGY—KING'S COLLEGE, LONDON.—Professor TENANT, F.G.S., COMMENCED A COURSE OF LECTURES on GEOLOGY on FRIDAY, January 22, at 9 A.M.

THE SOCIETY of PAINTERS in WATER COLOURS.—The WINTER EXHIBITION of SKETCHES and STUDIES by the MEMBERS is NOW OPEN, 5, Pall Mall East.

Home News. THE COURT.—On Thursday, the 14th, the Duke and Duchess of Abercorn arrived at Osborne on a visit to the Queen.

THE PRINCE and PRINCESS OF WALES arrived at Vienna on Thursday evening from Copenhagen and Berlin, on their way to Trieste, where they will embark for Egypt. The infant children of their Royal Highnesses arrived at Osborne on Thursday morning from Copenhagen.

PRINCESS CHRISTIAN.—The accouchement of Princess Christian may be expected shortly. Her

Royal Highness's outdoor exercise is now principally confined to carriage drives within the park and Frogmore grounds.

AN ORDER OF MERIT FOR THE COLONIES.—A despatch from the Duke of Buckingham has been published, in which he states that her Majesty has sanctioned such a modification of the statutes of the Orders of St. Michael and St. George, with such an enlargement of its numbers, as will render it available as a reward of distinguished merit or services in any part of her Majesty's colonial possessions.

ILLNESS OF M. VAN DE WEYER.—M. Van de Weyer, late Belgian Minister at the Court of St. James's, is lying seriously ill at his residence, New Lodge, Windsor Forest.

THE BISHOP OF SALISBURY, though he has rallied to some extent within the last few days, is said to be in a precarious condition, the affection of the heart from which he is suffering having become worse since his arrival in London.

THE NEW CANON OF WORCESTER.—Mr. Gladstone has conferred the canonry of Worcester, vacant by the death of the Hon. and Rev. John Fortescue, on the Rev. James Bowling Mozley, B.D., Vicar of old Shoreham.

PARLIAMENTARY MOVEMENTS.—The declaration of the poll for South Derbyshire gives Colonel Wilmot a majority of 33 over Mr. Evans, the numbers being 3511 to 3478.

THE ELECTION PETITIONS.—In the Court of Common Pleas on Thursday judgment was given on the question of the securities required for election petitions. The question raised was whether on a petition attacking two seats, it was sufficient that there should be one security for 1000*l.*, or whether two such securities were required. The Lord Chief Justice said that the Court had found great difficulty in deciding what was the real meaning of the Act, but had unanimously come to the conclusion that one security was sufficient. This case, which arose on the Hull petition, decides, of course, all others of a like nature. The trial of the Norwich election petition concluded on Monday, when Baron Martin gave judgment that Sir Henry Stracey was not duly elected. He considered that Sir Henry had not been guilty of personal bribery, but that bribery by agency had been proved against him. Mr. Tillett, the petitioner, did not proceed with the scrutiny, and, consequently, does not obtain the seat. Baron Martin reserved certain questions as to costs, and also the question whether he should report to the House that there was reason to believe that extensive bribery prevailed at Norwich at the last election. The trial of the Guildford petition concluded yesterday, when Mr. Justice Willes decided that Mr. Onslow was duly elected, and that corrupt practices did not extensively prevail; but he considered the petition very properly brought, and refused to allow the sitting member's costs. The trial of the Bewdley petition commenced on Monday before Justice Blackburn. Baron Martin will try the two Bradford petitions on Monday next, and the trial of the Lichfield petition is appointed to be heard by Justice Willes on Tuesday. The Second Division of the Court of Session at Edinburgh on Wednesday refused an application by Mr. Grieve, M.P., asking leave to appeal to the House of Lords against the recent judgment of the Court refusing to dismiss the petition against his election. The Court held that the appeal was both incompetent and inexpedient. Major Walker has lodged an intimation in the Court of Session that he proposes to withdraw altogether his petition against the election and return of Sir Sydney Waterlow for Dumfriesshire. Justice Keogh gave judgment on Tuesday in the Drogheda petition to the effect that Mr. Whitworth was not duly elected, that the system of intimidation and undue influence of voters was organised, and that Mr. Whitworth must pay the costs. The trial of the Limerick petition commenced on Tuesday in that city before Baron Fitzgerald. The trial of the Dublin petition is fixed for to-day, and that of Cashel for the 11th of February. The Carlow, Athlone, and Enniskillen petitions will be withdrawn.

Foreign.

FRANCE.—The French Chambers were opened on Monday by the Emperor in person. The following is the text of his Majesty's speech from the Throne:—
"Messieurs les Sénateurs, Messieurs les Députés.—The speech which I address to you every year at the opening of the Session is the sincere expression of the thoughts which guide my conduct. To explain frankly to the nation before the great bodies of the State the progress of the Government is the duty of the responsible chief of a free country. The task which we have undertaken together is arduous. It is not, indeed, without difficulty that, on a soil shaken by so many revolutions, a Government is founded sufficiently impressed with the wants of the age to adopt all the benefits of liberty, and sufficiently strong to bear even its excesses. The two laws which you passed during the last Session, and the object of which was the development of the principle of free discussion, have produced two opposite effects, which it may be useful to point out. On the one hand, the Press and public meetings have created in a certain quarter a factious agitation, and have caused the reappearance of ideas and passions which were believed to be extinguished; but, on the other hand, the nation remaining insensible to the most violent incitement, and relying upon my firmness for the maintenance of order, has not felt its faith in the future shaken. Remarkable coincidence! The more adventurous and subversive minds sought to disturb public tranquillity, so much the more profound became the peace of the country; commercial transactions reassumed a fruitful activity, the public revenues increased considerably, the public interests were reassured, and the greater part of the recent elections gave a new support to my Government. The Army Law and the subsidies granted by your patriotism have contributed to strengthen the confidence of the country, and in the just consciousness of its pride it experienced a real satisfaction the moment it

learnt that it was in a position to confront every eventuality. The land and sea forces, strongly constituted, are upon a peace footing. The effective strength of the active army does not exceed that which existed under former systems, but our armament rendered perfect, our arsenals and our magazines filled, our reserves well trained, the National Guard Mobile in course of organisation, our fleet reconstructed, and our strongholds in good condition, give to our power a development which was indispensable. The constant object of my efforts is attained, and the military resources of France are henceforward on a level with its destiny in the world. In this position we can loudly proclaim our desire to maintain peace. There is no weakness in our saying so when we are ready to defend the honour and the independence of our country. Our relations with foreign Powers are most friendly. The revolution which has broken out beyond the Pyrenees has not altered our good relations with Spain, and the Conference, to stifle a threatening conflict in the East, is a great act of which we should appreciate the importance. This Conference approaches its termination, and all the Plenipotentiaries have agreed upon the principles calculated to bring about a reconciliation between Greece and Turkey. If, therefore, as I firmly hope, nothing shall arise to disturb general harmony, it will be our fortune to realise many projected improvements, and we shall endeavour to solve all the practical questions raised by the agricultural investigations. Public works have been sufficiently endowed; parochial roads are being constructed. Education of all classes continues to be successfully developed, and, thanks to the periodical increase of the revenue, we shall soon be able to devote all our solicitude to the diminution of public burdens. The moment is drawing nigh when, for the third time since the establishment of the Empire, the Legislative Body will be constituted afresh by a general election, and each time it will have attained the limit of its legal duration—a thing hitherto unknown. This regularity is due to the harmony which has always existed between us, and to the confidence which I feel in the sincere exercise of universal suffrage. The popular masses are staunch in their faith as in their affections, and if noble passions are able to rouse them, sophism and calumny scarce ruffle the surface. Sustained by your approbation and your concurrence, I am thoroughly resolved to persevere in the course which I have laid down—that is to say, to adopt all real progress, but also to maintain, without discussion, the essential bases of the Constitution which the national vote has placed under shelter from all attacks. 'A good tree is known by the fruits it bears,' says the Gospel. Well, if we cast a glance at the past, which is the Government that has given to France 17 years of ever-increasing quiet and prosperity? Certainly every Government is liable to error, and fortune does not smile upon all enterprises, but that which constitutes my strength is the fact that the nation does not ignore that for 20 years I have not had a single thought, I have not done a single deed, of which the motive was other than the interest and greatness of France. Nor is it ignorant of the circumstance that I was the first to desire a rigorous control over the conduct of affairs; that I with this object increased the powers of the deliberative Assemblies, persuaded that the real support of a Government is to be found in the independence and patriotism of the great bodies of the State. This session will add fresh services to those which you have already rendered to the country. Soon the nation, called together in its *comitia*, will sanction the policy which we have pursued. It will once more proclaim by its votes that it does not desire revolution, but wishes to rest the destinies of France upon the intimate alliance of power with liberty."

The Corps Législatif held their first sitting on Tuesday, when the President, M. Schneider, delivered a short inaugural address, which contained no allusions to politics. The budget for 1870 was laid on the table. In the sitting of Wednesday M. Bethmont moved for permission to question the Government concerning the recent events in the Ile de la Réunion. The Blue-book was communicated to the Deputies during the day. The chapter relative to the relations of France with foreign Powers recalls the fact that the Emperor expressed last year his firm confidence in the maintenance of peace, and that his hopes have not been deceived. The military chapter states the total force of France, including the reserve and the national guard at 1,028,980 men. The Conference held its sixth sitting on Wednesday, and after signing the protocol, decided that it should be transmitted by the President to the Greek Government, and that the Conference should await a reply from Athens before definitively closing its deliberations. Count Walewski, son of the late Minister, will leave Marseilles to-morrow for Athens, with the protocol. The following is stated to be its substance:—

"The rupture between Greece and Turkey, and the events which occasioned it, have determined the Powers which were signatories to the Treaty of Paris, desirous of maintaining peace in the East, to meet in order to define exactly again the principles of international law. The Plenipotentiaries have solemnly declared that every State encouraging insurrection on the territory of another State, opening its ports for privateers engaged in breaking a blockade legally established, or lending its connivance to the formation on its territory of expeditions destined to invade the territory of another State where insurrection may have broken out, is guilty of a violation of international law."

If Greece accepts this declaration, Turkey will withdraw her ultimatum, and if she refuses it the Powers have resolved to preserve the strictest neutrality in the events which may ensue. The Marquis de Lavalette, Minister for Foreign Affairs, received Mr. Burlingame, the Chinese Ambassador, on Wednesday; and it is believed that the Emperor will receive him to-morrow. The case of M. Caron, prosecuted for having in his possession seditious placards, came before the Tribunal on Saturday. M. Caron was sentenced to eight months' imprisonment and a fine of 1000*l.*, and Messrs. Felix Pyat and Poirier, both residing in London, were condemned *in contumaciam* to five years' imprisonment, and fines of 10,000*l.* each. The *Constitutionnel* formally denies a rumour that France had notified the English Government that at the expiration of the Treaty of Commerce of 1860 important modifications of its provisions should be demanded. It declares that the French Government never entertained any intention of the kind. The Marquis de Moustier was transferred on Friday to his private house from the Ministry of Foreign Affairs, where he has been lying since he was taken ill.

SPAIN.—The general elections for the Cortes commenced on Saturday, and have terminated in a large majority for the Monarchical party. The ascertained results of the elections to the Cortes up to Wednesday

were as follows:—Monarchists, 223; Republicans, 15; doubtful, 10. In Madrid the Monarchical majority was more than 2 to 1. In Barcelona, Saragossa, and other cities in Catalonia, Aosta, youngest son of the King of Italy, is to be proposed by the Monarchists as a candidate for the throne. General Prim has ordered General de Camarillo to be struck off the rolls of the army, for having, in an address to the electoral body, General Pezuela and Gasset have also been cashiered.

PORTUGAL.—The President, Vice-President, Secretaries of the Chamber of Deputies have resigned their posts. The Duke of Saldanha has telegraphed the King from Rome, declining the task of forming a new Ministry. The King has consequently summoned the Marquis Sa da Bandeira, and instructed him to present Ministers to continue in office. It is expected that one of the first acts of the Ministers will be to dismiss the Chambers.

SWEDEN.—The Session of the Diet was opened Monday. The speech from the Throne expressed belief that the marriage of the Princess Louise of Sweden with the Crown Prince of Denmark would unite more intimately the three northern countries. Further announced that some new proposals submitted to the Chambers in reference to the constitutional relations between Sweden and Norway together with a Bill for the re-organization of the Army, and a loan of three million six dollars for way purposes. There will be no necessity for an increase in the taxation.

BELGIUM.—The Prince Royal died on Thursday night. His Royal Highness's state had somewhat changed for the worse since the 14th inst. Dr. Jenner, who had been summoned from London, Dr. Koepf, who had been sent for from Germany, abandoned all hope on Wednesday. The King is said to be indescribable. The demolition of the fortifications of Ostend has been commenced, workmen being engaged in filling up the northern part. The whole is to be completed by the 1st of July. MM. Jecker, the banker, and Odysse Barot, a writer on the *Liber* at Paris, have been condemned by the Correctional Tribunal of Brussels to a month's imprisonment and a fine each, for having fought a duel some time ago at Boisfort near Brussels. The seconds were acquitted. The significance of the judgment lies in the fact that this is the first attempt made to put a stop to the practice of Frenchmen choosing the territory of Belgium as a place of settling their "affairs of honour." A question charged, on the proposition of the Royal Academy of Medicine in Belgium, with an inquiry into the propriety of employing women in mines, has sent a report, which expresses the opinion that females are to be excluded from such occupations.

PRUSSIA.—The Prince and Princess of Wales arrived at Berlin on Sunday evening from Copenhagen, and were received at the railway station by the King and Queen of Prussia. Their Royal Highnesses took their residence at the palace of the Crown Prince on Monday, at a chapter of the Knights of the Order of the Black Eagle, his Royal Highness received the order, which had formerly been worn by the Prince Consort. On Wednesday evening the Prince and Princess left Berlin for Vienna. It is said that the North German Confederation will conclude a treaty with Bavaria and Wurtemberg similar to that of Baden, with the object of enabling subjects of Prussia and South Germany to go through their military service in the armies of either North or South Germany. The ordinance confiscating the private property of the King of Hanover will come on for discussion before the full sitting of the Lower House next week, as reported on by the Committee.

TRANSYLVANIA.—The delegates of the Transylvanian municipalities have assembled, to make the necessary preparations for the elections to the Hungarian Diet. The Roumanian members have announced that they will take no part in these elections.

BAVARIA.—The proposal of the Minister of War dividing the Bavarian army into two corps of divisions, in unison with the military system of the North German Confederation, has received the sanction of the King.

AUSTRIA.—The Prince and Princess of Wales arrived at Vienna on Thursday evening. Their Royal Highnesses were received by the Emperor at the railway station, and escorted by him to the palace. On Friday, the Minister of Finance brought forward a bill for amending the tax on trades and introducing an income-tax. The Minister of Commerce has signed the German-Austrian Telegraph Convention on the part of the House.

HUNGARY.—The Emperor and Empress are expected at Pesth at the beginning of February. It is understood that their Majesties will also visit Croatia and Transylvania. The Hungarian party in Prussia are agitating for the recall of the Royal Commission in that town. M. Szemere, Minister of the Interior in 1849, and President of the Ministry in 1849, died on Sunday. The trial of Prince Kara Georgewicz for complicity in the assassination of the late Prince of Serbia is to come publicly before the tribunals on the 8th February.

ITALY.—It is semi-officially denied that the Cambray Digny has opened negotiations for a financial operation on ecclesiastical property. The requirements of the Italian Treasury do not necessitate such an operation at the present time. It is the intention of the Minister to reserve this property for providing means to remove the forced currency.

PAPAL STATES.—Monday being the anniversary of the establishment of the Pontifical See, the Pope celebrated High Mass at St. Peter's.

surrounded by his whole Court. His Holiness enjoys perfect health.

TRUFTY.—The Turkish Government on Tuesday adopted the resolutions of the Conference, and instructed its plenipotentiary in Paris to sign the protocol.

WEST COAST OF AFRICA.—A slight earthquake was felt at Accra on December 21.

CAPE OF GOOD HOPE.—Accounts from Cape Town to the 20th ult. state that the Parliament stood prorogued till January 12, then to be prorogued till the end of February, and eventually would not meet for business till May. The relations between the Orange Free States and the Basutos continued unsatisfactory, and there were frequent skirmishes. Governor Wadehouse had arranged to pay another visit to Basutoland about February 1, with the hope of settling the difficulties. Hopes were indulged in Cape Colony that the Imperial Government might be induced to resume a sovereign sway northward of the Orange River, and that before long British rule would extend to Damaraland and Zambuni. Much discoveries of gold in small quantities have been made in Natal; five more diamonds have been obtained from the Orange and Vaal Rivers; a quantity of silver ore from the newly-explored mine of Namaqualand, and a gem, supposed to be a ruby, had been found near Hopetown.

INDIA.—The Earl and Countess of Mayo left Bombay on the 30th ult. for Madras, via Bejapoor, where they were to be met by Lord Napier of Magdala. Sir John Lawrence was to leave Calcutta for England on the 19th inst. A sharp shock of earthquake was felt on the 10th inst. in Calcutta, and generally throughout the Bengal Presidency. At Bekrar many buildings were damaged, and at Silchar and Cachar it was of a terrible character. Many natives lost their lives, and the destruction of property was very considerable, the Bazar being completely engulfed, and all brick buildings demolished. The earthquake extended to Assam and Dargeeling. The defeat of Abdul Rahman Khan is confirmed. The battle was fought at Ghuznee subsequent to the 24th of December. The exact date is not yet known. The troops of Abdul Rahman have joined Ameer Sheer Ali.

ISLE OF REUNION.—Letters from Bourbon, dated the 30th ult. state that riots had occurred at St. Denis, caused by the collection of the taxes. The College of the Jesuits was attacked, but the Governor succeeded in pacifying the people. On the 2d ult. a demonstration was made in front of the Hôtel de Ville, originating, it is believed, in a misunderstanding. After the crowd had been thrice summoned to disperse the troops fired on the people, and killed or wounded 80. The Governor received on the following day a deputation of influential inhabitants. Explanations were exchanged, and the maintenance of order was then intrusted to the Militia, the troops being confined in the barracks. The Governor, however, proclaimed a state of siege, which was raised the next day. A petition had been presented asking for the expulsion of the Jesuits. A decree was issued by Governor Dupré on the 14th, forbidding the colonial newspapers to publish articles or news of a political character. Authority was subsequently given for the publication of such political matter, on condition that the Editors abstained from attacking the Constitution of the colony, and from alluding to the events which had given rise to the state of siege. They were also ordered not to carry on any controversies calculated to keep up excitement in the public mind. Other letters estimate the number of persons killed or wounded at only 26.

CHINA.—The settlement of the Yangchow outrage has been completed, and the indemnity has been paid to the missionaries. A review of British troops at Yangchow had created a great sensation among the Chinese. Lieutenant Cooper is about to try the route to China from India via Simechow. Sir R. G. Macdonnell has returned from his trip to the north.

JAPAN.—The Mikado made his entry into Jeddo as arranged. A place was reserved for foreigners to witness the procession.

AUSTRALIA.—The Victoria Customs Union has proposed that a Conference should be held, at which delegates from all the colonies should assemble. It will probably be held in Sydney in February. The new Ministry at Sydney has been re-elected, and Parliament has re-assembled. The proposition to hold an Intercolonial Exhibition, after 18 months, has been favourably received at Adelaide. The financial policy of the new Government at Adelaide has been approved. The Surveyor-General is about to proceed on a survey of the northern territory.

NEW ZEALAND.—Advices from New Zealand state that the rebels had surprised the settlers in Poverty Bay, where they had massacred several European families, and committed horrible atrocities. Men were burnt alive, children mutilated, and the dead bodies of women thrown to the pigs. Great mismanagement is attributed to the authorities. The colonial forces on the West Coast have retreated before the rebels, and a large tract of territory had been abandoned. The latest news was more encouraging.

UNITED STATES.—The Treaty between Great Britain and the United States respecting the Alabama claims was sent on Friday by the President to the Senate for its consideration. The Senate on Tuesday had not yet considered the Treaty. In the House a joint resolution of the Vermont Legislature protesting against any renewal of the Canadian Reciprocity Treaty was presented and referred to a Committee. A resolution was offered by Mr. Kelsey, Republican, of Pennsylvania, for an inquiry into the expediency of abolishing or modifying the treaty with Great Britain for the suppression of the slave trade. The House refused to make any appropriation for the mission to Rome. A small military force sent by General Stoneman to assist the Sheriff of Princess Anne county,

Virginia, to execute some writs of ejection upon negroes, was resisted by the blacks, and a sergeant was killed. The negroes were thereupon attacked by the troops, and three of them were killed. It was reported that the blacks were organising to renew the attack. General Porter, of General Grant's staff, reports that the rebels in Arkansas had committed outrages on the Unionists, and that he had organised a militia for his protection, and had authorised them to subsist upon the property of the rebels. George Francis Train, under the auspices of the Fenian Brotherhood of New York, delivered a lengthy address in the Cooper Institute, on the evening of the 5th, on the subject of the wrongs of himself and Ireland, and assured his auditors that he would be the President of the United States for 1872. The steamer Gulf City was wrecked off Cape Look Out, on the coast of North Carolina, on Monday week. Twenty-five persons were drowned, and three were saved.

CANADA.—The Parliament of the Dominion of Canada has been prorogued until February 25.

CUBA.—The Government of Madrid has received a telegram from Havana announcing the capture of Bayama and other important points in the island. The insurgents were obliged to resort to pillage in order to obtain the means of subsistence, and were flying to the mountains. It is hoped that the insurrection will end as soon as reinforcements arrive. General Dulce has ordered all statues of Isabella and other Bourbon symbols to be removed from the public places in Havannah.

PARAGUAY.—Further accounts from Paraguay state that the success of the allies in the recent battle, which ended in the defeat of the Paraguayans and the flight of Lopez, was the result of a flank movement on Villeta, which is now occupied by the Brazilians. The war is generally considered to be at an end.

City Intelligence.

OVEREND, GURNEY & Co.—At Guildhall on Friday, in the case of Overend, Gurney & Co., Mr. Ernest Robins, a clerk in the Bankruptcy Court, was called, for the purpose of officially proving the bankruptcies of a number of firms who, at the time of the transfer of the business, were all largely indebted to the old firm, and whose liabilities were transferred, as valuable securities, to the limited company. Further evidence of a similar nature as to other cases was taken, and the remainder of the sitting was occupied with the cross-examination of Mr. Howell, the accountant. On Saturday the principal witness was Mr. Harding, one of the official liquidators, who gave evidence of a long list of unrealised and valueless securities and debts, the aggregate of which is an enormous sum, handed over from the old to the new firm as worth 20s. in the pound. The hearing was then adjourned for a week. Mr. Harding in the course of his evidence stated that the liquidators had determined on the previous day to make an additional call of 5s. per share, having found it impossible to realise the remaining assets in time to meet the promissory notes which will fall due in March next; and intimated the possibility that in August next a further call of some amount may be necessary to meet the promissory notes which fall due in September. The liquidators have since issued a circular announcing that under the advice of eminent counsel they have "filed a bill against the directors of the company, with a view of making them responsible for the losses sustained by the shareholders arising out of the purchase of the business of the 'old firm,' and the mode in which the arrangements for effecting that purchase were carried out." The inquiry was resumed yesterday, and after several witnesses had been examined, was again adjourned to to-day.

MERCHANTS' COMPANY (LIMITED).—At the Mansion House on Monday Mr. Richard Stuart Lane, Mr. Horace Edward Chapman, and Mr. Frederick John Helbert, three of the directors of the Merchants' Company, were charged with conspiring to defraud Mr. John Somerville, of Glasgow, Mr. Lund, of Litchurch, Derbyshire, and others, by the issue of a prospectus, knowing it to be false. The case appeared to excite extraordinary interest, and the Justice-room was crowded during the hearing. After several witnesses had been examined the investigation was adjourned for a week, and the defendants were admitted to bail—themselves in 1000l. each, and one surety in 1000l. each.

MONEY MARKET, FRIDAY.—BRITISH FUNDS: Consols closed at 93½ to 93¼, both for Money and Account; New and Reduced Three per Cents., 93¼ to 93½; India Five per Cents., 112½ to 112¼; Exchequer Bills, 3s. to 8s. pm.—FOREIGN: Brazilian, 76½ to 80½; Egyptian (1864), 87½ to 88½; Ditto Railway, 95½ to 95¾; Ditto Nine per Cents., 91½ to 92½. Ditto Seven per Cents., 74½ to 75½; Ditto (1868), 71½ to 72½; Greek, 11½ to 12; Mexican, 15½ to 15¾; Peruvian, 76½ to 76¾; Portuguese, 36 to 36½; Italian, 58½ to 58¾; Spanish, 31½ to 31¾; Turkish Five per Cents., 38½ to 38¾; Ditto Six per Cents., 60½ to 61; Russian (1862), 85½ to 86½; Oreil-Vitebsk, 80 to 80½; Nicolai, 66½ to 66¾; Moscow, 78½ to 78¾; Charkof, 78½ to 79½; Honduras, 86 to 87; United States 5-20 Bonds, 75½ to 75¾; Erie, 26½ to 26¾; Illinois, 92½ to 93¼.

Metropolis and its Vicinity.

THE ST. ALBAN'S CASE.—An Order in Council on the appeal of "Martin v. Mackonochie" from the Court of Arches to the Queen in Council was published in the Gazette of Friday. After reciting in detail the report of the Judicial Committee, stating that Mr. Mackonochie ought to be admonished to abstain for the future from kneeling or prostrating himself before the consecrated elements during the Prayer of Consecration,

and also from using lighted candles on the communion table during the celebration of the Holy Communion at times when such lighted candles are not wanted for the purpose of giving light; the Order announces that her Majesty, having taken the said report into consideration, had been pleased by and with the advice of her Privy Council to approve thereof and of what was therein recommended, and to order that the same be duly and punctually observed, complied with, and carried into execution. "Whereof all persons whom it may concern are to take notice and govern themselves accordingly." On Wednesday Mr. Mackonochie was served with a motion from the Privy Council, admonishing him to abstain from the practices condemned by the recent judgment. Mr. Mackonochie had previously addressed a long letter to the daily papers on the subject of the judgment, in which he complains of the manner in which the Ritualists are "outraged" by its injustice, and of the "marked and deliberate way in which the argument on which the decision is based cuts them off, as far as the act of a mere civil court can do so, from Catholic tradition." He says that they are to stand quiet, though in danger of being called upon to break their ordination vows on some matter which to the world looks trivial, though to them essential, and that "by a Court which has no spiritual jurisdiction over them, and whose decrees, therefore, cannot bind them in foro conscientie in matters spiritual." He calls upon Churchmen to "begin at once and stick to the work of insisting upon properly-constituted ecclesiastical Courts, in which Church law may be impartially and equitably administered by men really learned in the matter on which they are called to adjudicate." He says that the conviction is gaining ground that the time has come for the Church to claim deliverance from the yoke of State control, and that the union of Church and State is an anachronism, and ought to be swept away. "What right," he says, "has the Spouse of Christ to ally herself with the powers of the world? Surely to do so is to commit that terrible spiritual adultery against which her Lord has so often warned her." He calls upon the Ritualists, as citizens as well as Churchmen, to move every power to obtain a dissolution of this "ungodly alliance" and says that, once free from State control, they will begin to feel as a body, and not merely as individuals, that they belong to a kingdom which "is not of this world." He concludes by saying that it is a great blessing to find that "secession" does not appear to suggest itself to the minds of people generally as a possible solution of the present difficulties, and that they should have no faint-hearted desertion, but take courage out of defeat, and rally themselves in their proper posts for "the glorious contest which is before them—freedom for the Church of their fathers." At All Saints', Lambeth, on Sunday, the Rev. Dr. G. F. Lee, on entering the pulpit read the following protest against the recent judgment:—

"I, George Frederick Lee, vicar of All Saints', Lambeth, having in mind the provisions of Magna Charta, and the terms of my ordination, do hereby solemnly protest against the said judgment, and against the imposition of pains and penalties in matters of Church discipline by the said Privy Council."

The altar lights and the use of incense were discontinued at St. Mary Magdalene's, Munster Square, and St. Paul's, Walworth, on Sunday, but there was kneeling and prostration by the officiating ministers after the consecration at the latter church, as well as at All Saints', Lambeth. The Rev. W. J. Bennett, M.A., vicar of Frome, the leader of the party who intend to resist the decree of the Judicial Committee, has issued a statement of his views, and invited all who agree with him to join in the following "declaration":—

"We, the undersigned priests and deacons of the English Church, yielding to none in devoted loyalty to her Majesty the Queen, and the Crown of these realms, as in all cases ecclesiastical and civil supreme, are nevertheless constrained, by prior obedience to the Catholic Church of Christ, to repudiate the authority of the Court of the Judicial Committee of the Privy Council, which has lately pronounced a judgment in regard to the rites and ceremonies of the Church. We feel ourselves bound to continue as heretofore in our several churches those rites, ceremonies, and usages of the Primitive Church which have been condemned by a court purely secular and contrary to the English constitution. And this we do according to our Divine Lord's precept, which, while it enjoins us to obey Cæsar in the things of Cæsar, clearly enjoins us to obey God in the things that are God's."

Archdeacon Denison, at a meeting of the clergy at Taunton on Monday, expressed himself rather strongly on the untenable position of the Ritualists. He said that he was an advanced Ritualist himself, but it was impossible for him to understand how men could be content to hold their position by the law, and yet refuse to obey the law. This had led him to draw himself quite clear of men who would not obey the law. He would not say, "This is the law, but because it is against me I will not obey it." The Archbishop of York has sent the following reply to Canon Trevor, who made inquiry of his Grace respecting assertions which had been circulated as to the opposing votes, the neutrality, and the casting voice of certain members of the Judicial Committee at the recent sitting:—

"Bishopsthorpe, Jan. 2. My dear Canon Trevor,—I suppose your question refers to a letter of Dr. Littledale's in the Daily News, quoting an avowal of the mode in which the judgment of the Privy Council in the Mackonochie case was arrived at. The whole story is an invention, with no ground of truth. More you will not expect me to say. If I said less you might, perhaps, infer assent from my reserve.—I am, ever yours truly, W. Ebor."

THE CASE OF THE REV. MR. BENNETT.—The report of the commissioners appointed by the Bishop of London on the alleged charge of heresy by Mr. Bennett, of Frome, has been sent to the Bishop of Bath and Wells, and the case will forthwith be sent, by letters of request of his lordship, to the Arches' Court.

SECESSIONS TO ROME.—The Record states that both the curates of St. Mary's, Soho, have been received into the Church of Rome. The junior curate was ordained only on last Trinity Sunday.

...that the visiting justices of Taunton gaol had had a medical inquiry into the case; that the result of the inquiry was that he had been pronounced totally insane, and that an application had been made to the Home Office to have him removed to the asylum. He put it to the meeting if they would have acted otherwise than he did. The power lodged in the great responsible power, was exercised, it seemed to him, under circumstances exactly those for which it was intended, and he would have been acting an unworthy part if, on account of any fear of offence to the public, he had not exercised that power in the manner he had done.

Ireland.

THE NEW LORD-LIEUTENANT.—The public entry of Earl Spencer, the new Lord-Lieutenant, into Dublin took place on Saturday, but the unfavourable weather rendered it a very uninteresting spectacle. On Tuesday addresses were presented to his Excellency by the Corporation and the University of Dublin. The Corporation expressed the hope that his term of office would be marked by measures of conciliation and justice, producing tranquillity in this distracted and unhappy country, and that it would be the beginning of a new era in Ireland. It also stated that an amnesty of the Fenian prisoners would be much satisfaction to the country. His Excellency, in reply, said that England desired to mete out to Ireland the same measure of justice as she herself enjoyed, and he was sure that the Corporation would help the Government in carrying out such measures as were necessary in the interests of justice, respect for constitution, and personal liberty. The proposition of an amnesty, he said, would receive the anxious attention of the Government.

THE FENIAN CONVICTS.—The Dublin Corporation are about, in co-operation with other municipalities, to send a deputation to London to present a petition to the Queen in favour of a Fenian amnesty.

THE MURDER OF MR. BAKER.—A reward of 300l. has been offered by the Government for information likely to lead to the discovery of the murderer of the late Mr. Baker.

Scotland.

LORD-LIEUTENANCY OF LANARKSHIRE.—It is understood that the Earl of Home will be appointed to this post, vacant by the death of Lord Belhaven.

EDINBURGH UNIVERSITY.—On Monday the Right Hon. James Moncreiff, the Lord Advocate for Scotland, was installed as Lord Rector of the University of Edinburgh. The ceremony took place in the Music Hall at 10 o'clock, in the presence of the students of the University and a large company of ladies and gentlemen.

THE BOARD OF TRADE AND BOTTLE-NOSED WHALES.—A curious correspondence has taken place between Mr. Alexander Drew, of Nairn, and Mr. James M. Bright, President of the Board of Trade. Mr. Drew writes a scheme for clearing the seas of bottle-nosed whales and of porpoises, which, he says, are great destroyers of fish. In a letter to Mr. Bright he said:—"I beg to direct the attention of your great mind to the subject, and to state that it may be satisfactorily solved for the public benefit, and the nation at large. You see that I suggest a royal bounty be offered at the commencement of the enterprise, so as to induce parties to enter into the venture, which I have no doubt whatever will pay. In this I hope you will concur, and that you will use your influence with Parliament to grant such a bounty to patronise the laudable object in view—to clear the seas of these pests, which are depriving our fisherman of their living, by devouring and destroying the greatest quantity of the fish." Mr. Bright replied:—"I do not think Parliament is likely to grant any sum of money for the purpose to which you allude. If your facts are correct, would it not be better to employ some of your fishermen to make the attempt to capture those sea poachers, as you call them? If a single fisherman succeeded, and the venture proved successful, others would follow, and you would not need to apply to Parliament." Mr. Drew did not accept Mr. Bright's suggestion, and he wrote in answer:—"I think you take a far too contracted view of the great national problem which I propose—the clearing the seas of those whales and porpoises which have been feasting in luxury on the population of the three kingdoms have been, to a certain extent, fasting, not for their sins, but for want of food. You would not believe that it is a problem to our fishermen how to catch a porpoise. It will take a long training how to learn the art, and it will not do to depend upon single fishermen. The project I propose would be a company, of capital; but that would be useless unless patronised by the Government offering a small bounty at the commencement, so as to start the project, and would give a stimulus for other companies to other parts of the British nation. As I see it, instead of that if there were any redundancy it might be employed in this national undertaking, and confine their energies to the capture of bottle-nosed whales and other ponderous monsters." A subsequent letter from Mr. Drew elicited the following reply from Mr. Calcraft, the private secretary:—"I have your letter of the 26th of December, transmitting copies of a correspondence between Mr. Loch, and yourself upon the bottle-nosed whale."

Railways.

THE PROPOSED LINE UNDER OXFORD STREET.—The Hyde Park and City Railway has been abandoned in the present session, in consequence of the opposition offered to the scheme by the Oxford Street Railway.

FATAL ACCIDENT AT THE COPENHAGEN TUNNEL.

—In the fog of Monday a fatal accident took place at the Copenhagen Tunnel, Caledonian Road. The driver of a coal train from Holloway to King's Cross was unable to see the signals, and ran off the line to the siding, dashing eventually, at the rate of 20 miles an hour, against a brick wall 10 feet thick. The engine was knocked to pieces, and the driver and stoker were killed on the spot. The guard in the van at the end of the train jumped out and escaped with a few bruises.

COLLISIONS ON THE NORTH LONDON.—On Monday night as a train from Broad Street to Richmond approached the Acton Junction, the driver failed to perceive, in consequence of the fog, that the "danger" signal was on, and proceeded to cross the Kew and Broad Street line, when the Broad Street train to Richmond dashed into its centre. The shock to both trains was very serious, and great damage was done to the carriages. Six ladies and gentlemen, who were riding in the first-class carriages of the Kew train, were injured, but not to a very serious extent. Mrs. Morgan, who was in the carriage dashed into by the Broad Street train, had both legs broken, and is now lying in St. George's Hospital. On Tuesday morning another collision on this line took place at the Waltham Green Station between two trains, by which several passenger carriages were shattered and overturned, and several people more or less injured. Surgical aid was procured at the station for the wounded passengers, who were despatched to their homes as soon as possible.

COLLISION ON THE GREAT NORTHERN.—On Monday afternoon a collision occurred at the Ardsley station between Leeds and Wakefield. A coal train consisting of 30 waggons was emerging from a siding at the moment when a London fast train was running past. The engine-driver of the latter laid himself on the plates of his engine, while the fireman jumped off, to escape the consequences of the collision, which was disastrous in its effect upon waggons and material, but neither engine-driver nor fireman was seriously hurt.

ATTEMPT TO BURN A STATION.—At the Leeds Town Hall on Friday a young man named John Clay, who said that he came from Cleckheaton, was charged with setting fire to the Central Railway Station. The prisoner was sentenced to be imprisoned with hard labour for two calendar months.

Law.

CENTRAL CRIMINAL COURT.—The Barnsbury Murder.—George Campbell, the young Scotchman charged with shooting a fellow-countryman at a Christmas party at Barnsbury, was acquitted on the capital charge and found Guilty of manslaughter only. Mr. Justice Keating sentenced him to 12 months' hard labour.—The Leicester Square Fire. Joseph M. Morris was acquitted on the charge of attempting to defraud the Gas Light and Coke Company by undue claims arising out of the Saville House fire.—Fraud on the Paymaster-General.—Walter Ball and William Rutter, two clerks, were found Guilty of defrauding the Paymaster-General of £367, by uttering a forged cheque, and were sentenced—Ball to 10 years', and Rutter to 7 years' penal servitude.

MIDDLESEX SESSIONS.—The late Attack of Burglars on the Police.—William Summers, 30, Henry Smith, 28, and John Bennett, 20, were charged with assaults on several police-constables while endeavouring to take them into custody for attempting to commit burglaries in Percy Circus. It will be remembered that these men were well-known burglars, who had all been frequently convicted, and that one of them had been sentenced to six years', and the two others to four years' penal servitude, but had been released on tickets-of-leave. The Court sentenced Summers to five years' penal servitude, Bennett and Smith to two years' imprisonment, with hard labour.

Sporting.

THE CASE OF DAY v. ROUS.—Since the death of the Marquis of Hastings Mr. John Day has withdrawn the action brought by him against Admiral Rous, who has consequently withdrawn his letter published in The Times on the 16th of June, with an intimation that he does not consider himself justified in desiring it to be published.

Obituary.

SIR HENRY ELLIS, K.H., one of the oldest of our public servants, who held for nearly 30 years the post of Principal Librarian of the British Museum, died on Friday last, at 24, Bedford Square, in his 92d year. He came of an old Yorkshire family, and was born in 1777. He received his early education at Merchant Taylors' School, whence in due course he passed as a scholar to St. John's College, Oxford. He took his degree at the end of the last century, and was elected to a Fellowship, which, however, he vacated before he had held it many years, by his marriage in 1805 with Frances Jane, daughter of the late Mr. John Frost, of Ashurst Wood, Sussex. He was appointed principal librarian of the Museum in 1827, and was for many years was one of the most active officers of the Society of Antiquaries. In middle life he was indefatigable as an author, among the most valuable of his publications are his "Original Letters Illustrative of English History, with Notes and Illustrations," mainly from the autograph originals in the British Museum, the State Paper Office, and other sources. This work bears the reputation of being a most interesting repository of important facts, which his industry brought to light. He was also the responsible editor of an enlarged edition of Dugdale's "Monasticon Anglicanum," in several volumes folio. He was also the author of the General Introduction to "Domesday Book;" besides which he edited several volumes for the Record Commission, and edited revised, and introduced to the public numerous important publications on the history and antiquities of England. He will long be remembered, both in the Museum and among a large circle of attached friends, as one of the most learned and industrious of antiquaries. In recognition of his literary merits, the Hanoverian Guelphic order of knighthood was bestowed upon him in 1833.

MR. CHARLES R. WELD, late assistant secretary to the Royal Society, died on Friday, from a sudden attack of disease of the heart, at his residence, New Bridge Hill, near Bath, in his 56th year. He was born in 1813 at Windsor, and was the son of Mr. Isaac Weld, of Dublin, where he was educated. He was called to the Bar at the Middle Temple in 1844. In 1847 he was appointed assistant secretary and librarian to the Royal Society, and held that post for upwards of 15 years. He was known as the author of "The History of the Royal Society," published in 1847; "Auvergne, Piedmont, and Savoy," in 1848; "A Vacation Tour in the United States and Canada," in

1854; "A Vacation Tour in Brittany," in 1855; "A Vacation in Ireland," in 1858; "The Pyrenees, East and West," in 1859; "The Highlands, Orcadia, and Skye," in 1860; "Sketches in India," in 1862; "A Winter in Rome," in 1865; "Florence, the New Capital in Italy," in 1867, and of several pamphlets on subjects connected with Arctic explorations. He took an active share in the arrangement and management of the Philosophical Department of the International Exhibition of 1862; he also represented this country at the Paris Exhibition as one of the Assistant Commissioners, and produced an elaborate Report on the Horological Department.

Markets.

COVENT GARDEN.—Jan. 23.

No change of any importance has taken place. Kent Cobs are still in request, and command a good price. Fruit and Vegetables are abundant, and prices barely kept up. Almonds Grapes are exceedingly fine, and worth from 8s. to 10s. per 12 lb. American New Town Pippins of excellent quality fetch 50s. per cask, Reinette de Bordeaux and Dieu Donne Apples from Bordeaux realise from 12s. 6d. to 15s. per cask. Oranges are very plentiful. French Asparagus may be had, at 15s. to 20s. per bundle. Very fine Onions from Bordeaux, at 12s. to 14s. the cwt. Potato trade is dull, except for best samples, of which there is a scanty supply in general, though there are large arrivals of Kidney Potatoes of fine quality from Belgium, realising 90s. per score bags of about 110 lb. each. Flowers chiefly consist of Primulas, Hyacinths, Tulips, Heaths, Mignonette, Poinsettias, and Cyclamens.

FRUIT.

Apples, per bushel, 4s to 8s | Melons, each, 2s to 4s
Grapes, per lb., 3s 6d to 6s | Pears, per doz., 4s to 8s
Kent Cobs, per lb., 1s to 1s 3d | Fine apples, per lb., 6s to 8s
Lemons, per 100, 4s to 8s | Oranges, per 100, 2s to 7s

VEGETABLES.

Beet, per doz., 1s to 2s | Mint, per bunch, 6d to 8d
Cabbages, per doz., 1s to 2s | Mushrooms, per pott., 1s to 1s 3d
Carrots, per bunch, 6d to 10d
Celery, p. bund., 1s 6d to 2s 6d
Cucumbers, each, 1s to 2s
Endive, per doz., 1s 6d to 2s
Garlic and Shallots, per lb., 8d
Herbs, per bunch, 2d to 4d
Horse Radish, p. bund 3s to 5s
Leeks, per bunch, 2d to 4d
Lettuces, per score, 1s to 2s 6d

HAY.—Per Load of 36 Trusses.

SMITHFIELD, Thursday, Jan. 21.

Best Green Hay 120s to 130s
Prime Meadow Hay 110s to 120s
Inferior do. 85 95
New do. 26 36
Straw 26 36

CUMBERLAND MARKET, Thursday, Jan. 21.

Sup. Meadow Hay 112s to 120s
Inferior do. 100 105
New do. 26 36
Superior Clover .. 128 135

WHITECHAPEL, Thursday, Jan. 21.

Fine Meadow Hay 108s to 114s
Inferior do. 75 90
Prime New Hay 28 33
Inferior do. 28 33
Straw 28 33

COALS.—Jan. 20.

Cowpen Hartley, 15s. 6d.; Hollywell Main, 16s.; Walls End Haswell, 17s. 6d.; Walls End Pittington, 16s.; Walls End South Hetton, 17s. 6d.; Walls End Tunstall, 15s. 8d.; Walls End Original Hartlepool, 18s.—Ships at market, 17; sold, 13.

METROPOLITAN MEAT MARKET.—Jan. 23.

Best Fresh Butter 19s. per dozen lb.
Second do. do. 17s.
Small Pork, 4s. 4d. to 5s. 0d.; Large Pork, 3s. 8d. to 4s. 2d. per 8 lb.

HOPS.—BOROUGH MARKET, Jan. 22.

Messrs. Pattenden & Smith report the trade quiet, quotations being nominally unchanged. The stock of choice Hops, both English and foreign, is very limited.

ENGLISH WOOL.

There has been a brisk demand for wool, and prices in most instances must be quoted 1/4d. dearer. Consumption is going on freely, and with peace, and every prospect of a dear cotton market, rates will probably yet materially advance.

CURRENT PRICES OF ENGLISH WOOL. per lb.—s. d. s. d.
FLEECES—Southdown hoggets 1 4 to 1 5
Half-bred ditto 1 4 1/2 to 1 5 1/2
Kent Fleeces 1 5 to 1 5 1/2
Southdown ewes and wethers .. 1 4 to 1 4 1/2
Leicester ditto 1 1 to 1 1 1/2
Sorts—Clothing 1 0 to 1 8
Combing 1 2 to 1 10

POTATOES.—SOUTHWARK, Monday, Jan. 18.

During the past week the arrivals both coastwise and by rail are still more than equal to the demand; trade is extremely dull, and second rate samples were neglected. The following are this day's quotations.—Yorkshire Regents, per ton, 70s. to 120s.; do. Flukes, 70s. to 140s.; Lincolnshire Regents, 60s. to 90s.; Dunbar and East Lothian do., 70s. to 120s.; Perth, Forfar, and Fife do., 60s. to 110s.; do. Rocks, 60s. to 75s.; French and Belgian Whites, 40s. to 80s.

LEADENHALL AND NEWGATE POULTRY, &c.

THURSDAY, Jan. 21.

Trade dull; supply in general good, but a singular deficiency of English Ducks and Geese.

Geese, French, each 5 0-7 6 | Pigeons .. each 1 0-1 3
Goslings 8 0-10 0 | Tame Rabbits .. 1 4-1 8
Turkeys 7 0-15 0 | Wild Rabbits .. 0 9-1 3
Ducks 2 6-3 6 | Pheasants .. 2 6-3 6
Ducklings 3 6-4 6 | Teal 1 2-1 6
Wild Ducks 2 0-2 6 | Snipes 1 3-1 6
Surrey Fowls, couple 7 0-11 0 | Hares 2 6-3 0
Do. chickens .. 5 6-7 0 | Plovers 1 0-1 3
Barn-door Fowls .. 5 6-8 0 | English Eggs, p. 100, 10 0-12 0
Partridges .. each 1 0-1 6 | Foreign do .. 10 0- ..
Fresh Butter, 1s. 4d. to 1s. 6d. per lb.

METROPOLITAN CATTLE MARKET.

MONDAY, Jan. 18.

The supply of Beasts is rather larger than on Monday last. Trade is by no means brisk, and some kinds are rather lower; choice English Beasts are not very plentiful, and find purchasers at about late rates. The number of Sheep is small; an early clearance is effected at higher rates. Calves are still scarce and dear. Our foreign supply consists of 1645 Beasts

and 30 Calves; from Scotland there are 540 Beasts; from Ireland, 376; from Norfolk and Suffolk, 600; and 819 from the Midland and Northern Counties.

Table with columns for 'Best Scots, Herefords, &c.', 'Best Shorthorns', '2d quality Beasts', 'Best Downs and Half-breds', 'Do. Shorn', and 'Best Long-wools', 'Do. Shorn', 'Ewes & 2d quality', 'Do. Shorn', 'Lambs', 'Calves', 'Pigs'.

THURSDAY, Jan. 21.

We have had a short supply of Beasts, and consequently trade is rather brisk; prices for all kinds are quite as good as on Monday, and in a few instances are exceeded.

Table with columns for 'Best Scots, Herefords, &c.', 'Best Shorthorns', '2d quality Beasts', 'Best Downs and Half-breds', 'Do. Shorn', and 'Best Long-wools', 'Do. Shorn', 'Ewes & 2d quality', 'Do. Shorn', 'Lambs', 'Calves', 'Pigs'.

SEED MARKET.

Firmness of tone continues to characterise the agricultural seed trade. New English Red Clover seed is much inquired for, but choice qualities are exceedingly scarce.

MARK LANE.—MONDAY, Jan. 18.

There was only a moderate supply of English Wheat to this morning's market, the condition of which was much affected by the weather; millers, consequently, were reluctant purchasers.

Table with columns for 'WHEAT, Essex, Kent, Suffolk, White', 'Norfolk', 'Foreign', 'BARLEY, grind. & dist. 38sto40s. Chev.', 'OATS, Essex and Suffolk', 'RYE', 'BEANS, Mazagan', 'PEAS, White, Essex, and Kent', 'MAIZE', 'FLOUR, best marks delivered'.

FRIDAY, Jan 22.

The business in Wheat has been slow, and the condition of home-grown being much affected by the weather, we have to report a further general reduction of 1s. to 2s. per qr. in the value of this article throughout the markets of this kingdom.

The arrivals of all grain and foreign Wheat this week have been small, of foreign Barley and Oats moderate.

ARRIVALS THIS WEEK.

Table with columns for 'Wheat', 'Barley', 'Oats', 'Flour', and rows for 'English', 'Irish', 'Foreign'.

LIVERPOOL, Tuesday, Jan. 19.—We had a fair attendance at our Corn Exchange this morning, who showed more disposition

to purchase Wheat than of late, but holders being unwilling to make the concession demanded, a moderate extent of business was ultimately transacted, at a decline of 4d. per cental on the currencies of this day se'night.

AVERAGES.

Table with columns for 'Wheat', 'Barley', 'Oats' and rows for 'Dec. 12', '19', '26', 'Jan. 2', '9', '16', 'Agg. Average'.

To Landscape Gardeners, Surveyors, and Others. CORPORATION of MANCHESTER.—ALEXANDRA PARK.—The Corporation invite Landscape Gardeners, Surveyors, and others, to send in DESIGNS in Competition for Laying-out the Alexandra Park.

WANTED, a HEAD GARDENER, married, without children.—R. V., Oldbury Court, Fishponds, Bristol.

WANTED, a single Man, who is accustomed to general NURSERY WORK, and a good PROPAGATOR.—Apply by letter, stating wages and other particulars, to J. E. ROBERTS, 7, Piazza, Denbigh.

WANTED, a SALESMAN, for Covent Garden Plant Market. Unexceptionable references required.—HENRY BAILEY, Royal Nursery, Feltham, Middlesex.

WANTED, a sharp, active SHOPMAN, to Superintend the Seed Trade in all its branches.—Must be strictly honest, trustworthy, and used to the business.—Apply to FLINTHAM & SON, Market Place, Rotherham, Yorkshire.

WANTED, an ASSISTANT SHOPMAN, who writes a good hand and is quick at counter work.—Character must bear the strictest investigation. A young Man would find this a good opportunity for improvement.—Address, with terms and experience, Y. Z., Messrs. Hurst & Son, 6, Leadenhall Street, London, E.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. F. G. HENDERSON & SON, Wellington Nursery, St. John's Wood, London, N.W.

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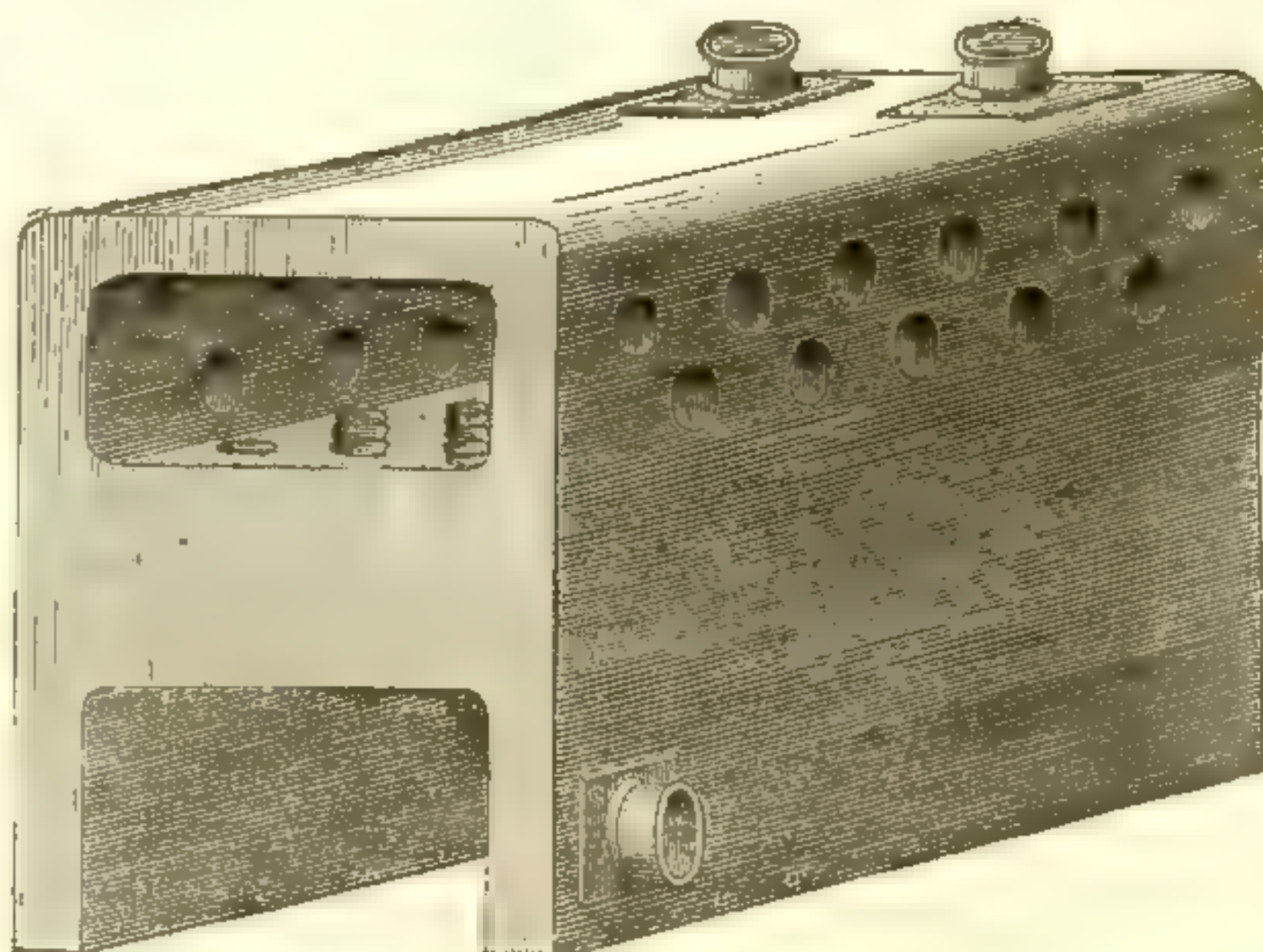
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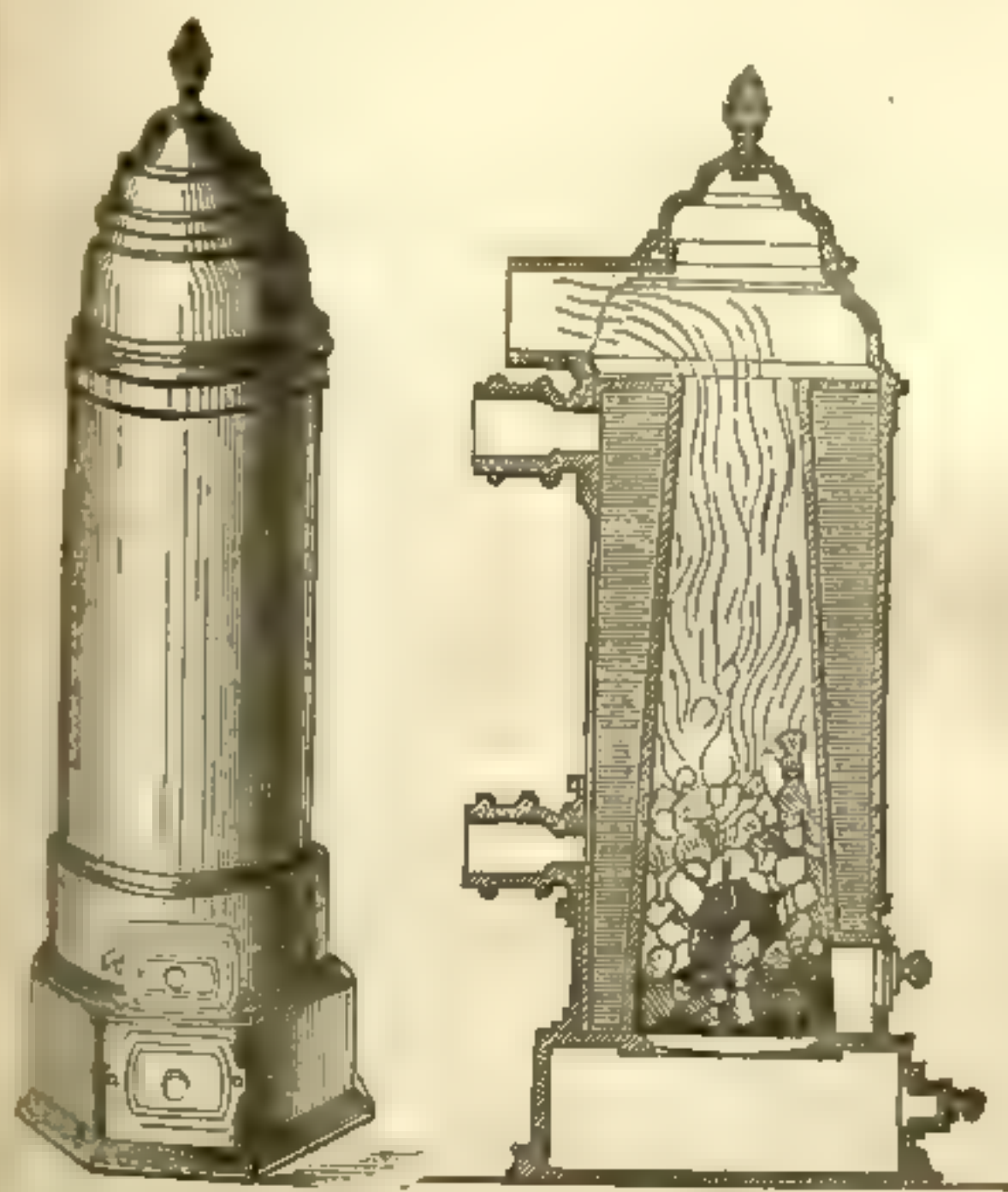
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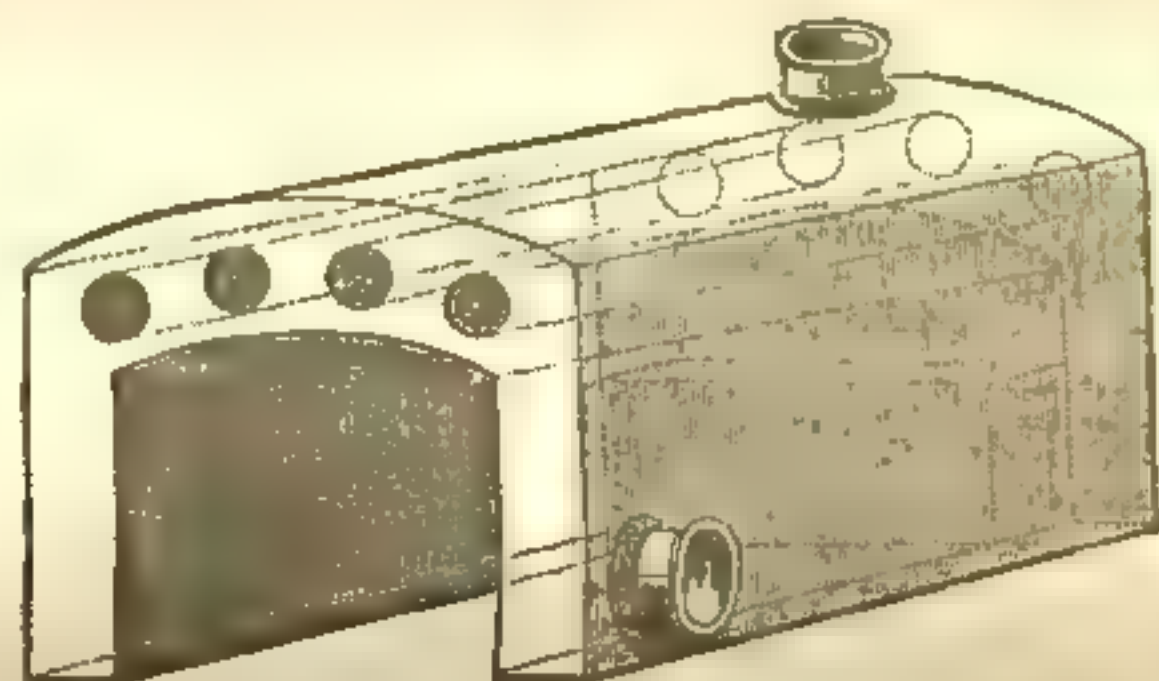
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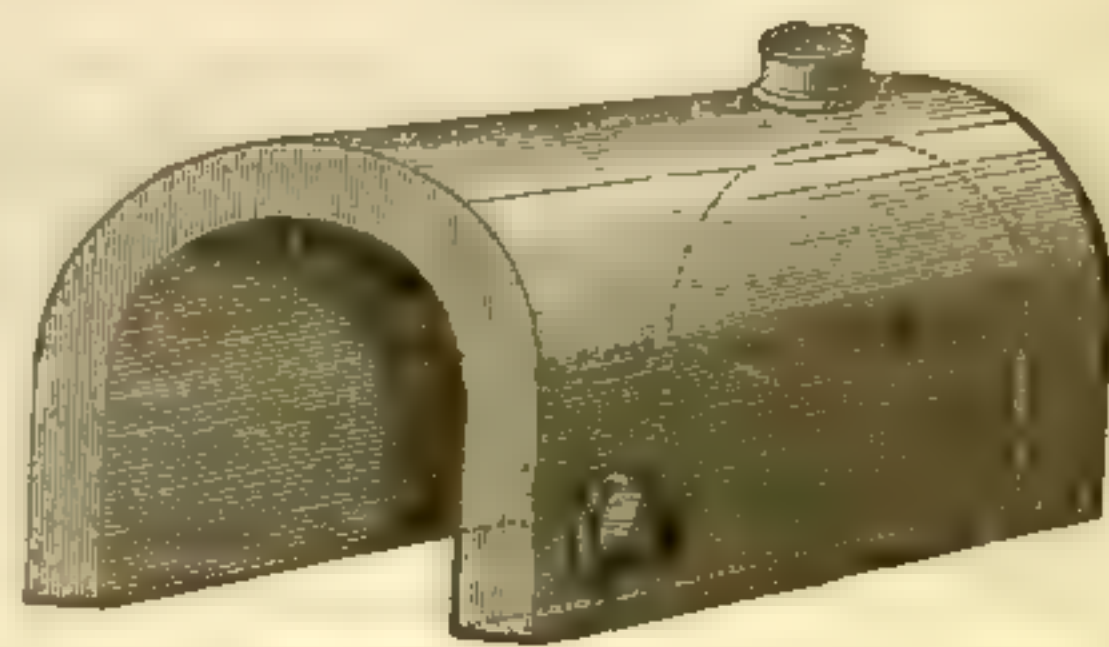
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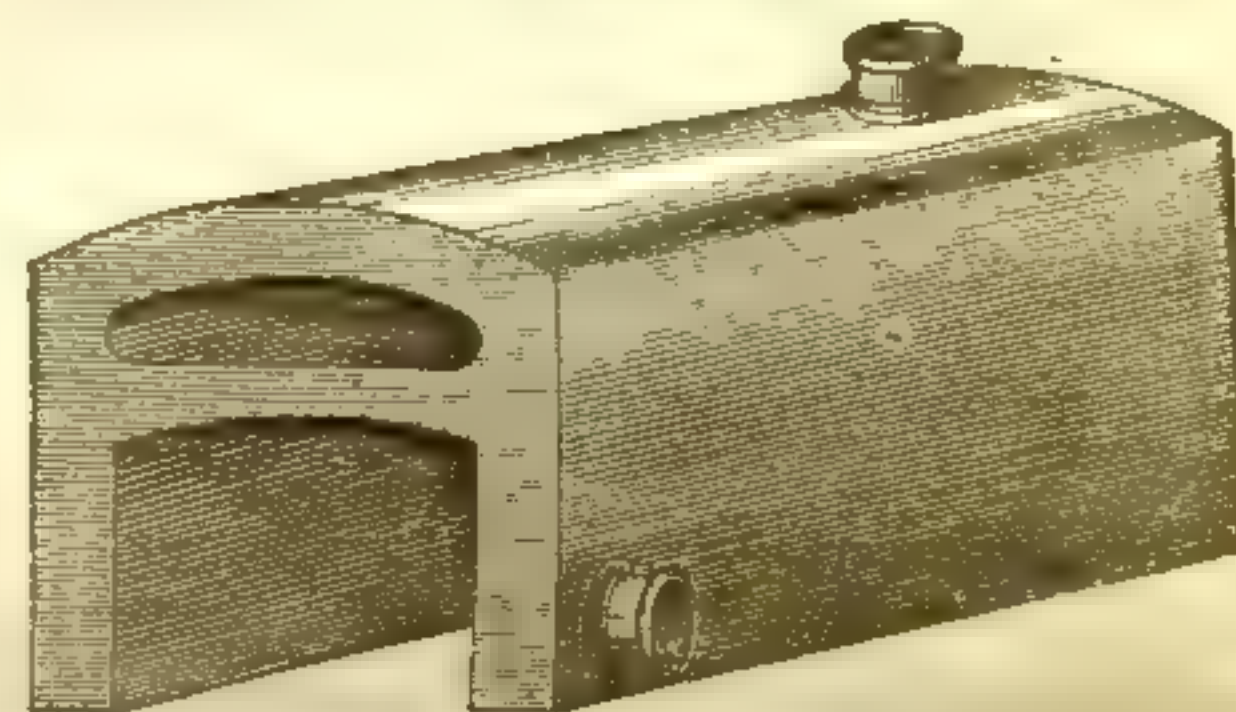
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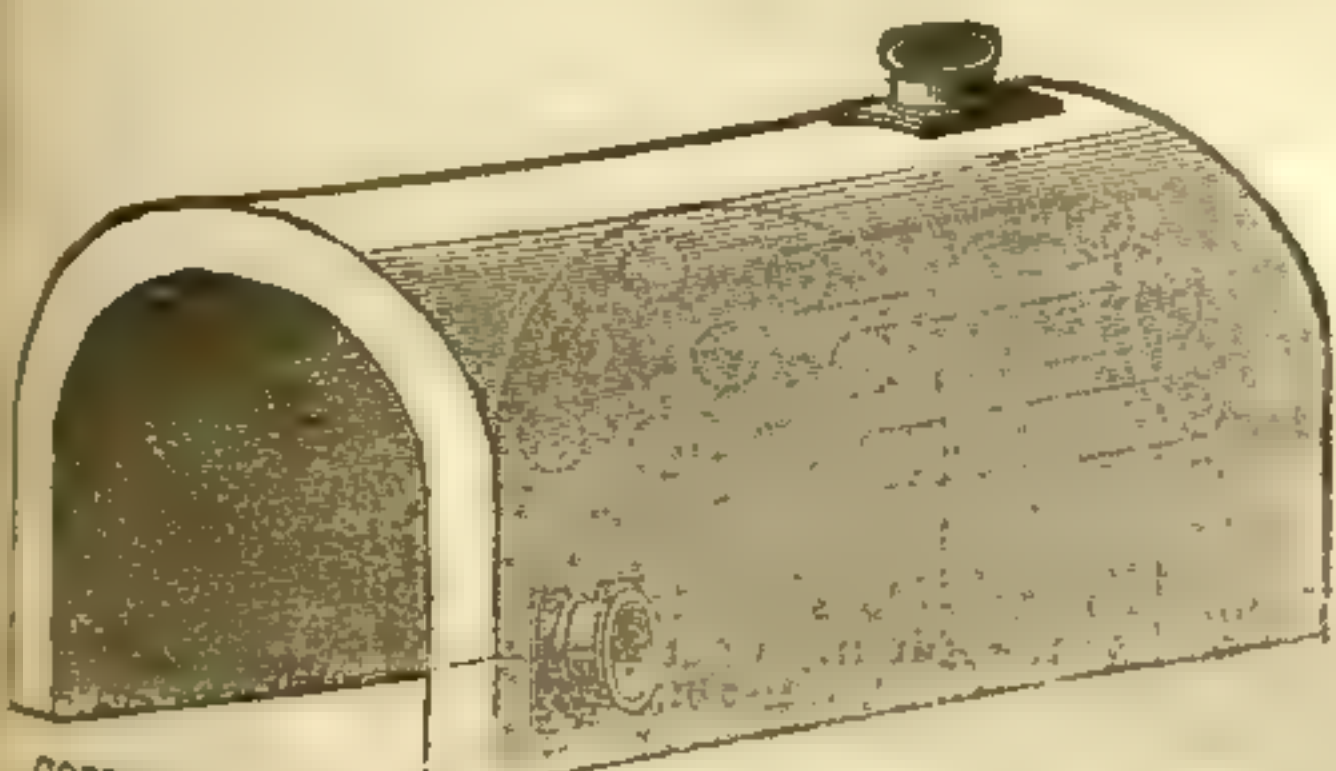
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VI. EFFICIENCY OF THE NAVY.
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Home News.

THE COURT.—On Thursday the 21st the Queen, accompanied by Princess Louisa and Prince Leopold, drove round by Black Gang Chine and the Undercliff to St. Lawrence, and visited Earl and Lady Constance Grosvenor. On Friday morning the Queen, accompanied by Princess Beatrice, walked and drove in the grounds. Prince Albert Victor, Prince George, and Princess Louisa of Wales arrived from the Continent, and will remain with her Majesty during the absence of the Prince and Princess of Wales. On Saturday the Queen walked and drove. Mr. and Mrs. Gladstone arrived from London on a visit. On Sunday the Queen, with Princess Louisa, Prince Leopold, and Princess Beatrice, attended Divine service at Whippingham Church. On Monday morning the Queen went out in the grounds with Princess Beatrice. Mr. and Mrs. Gladstone left for London. In the afternoon the Queen drove out with Prince Leopold and Princess Beatrice. General and Lady Alice Peel and Miss Macgregor arrived on a visit. The Judge-Advocate-General had an audience of the Queen. On Tuesday morning the Queen walked and drove in the grounds with Princess Beatrice, and drove out in the afternoon. On Wednesday morning the Queen walked and drove in the grounds. In the afternoon the Queen, accompanied by Princess Beatrice, drove to Carisbrooke, and visited the Roman Catholic convent, which has been founded there by Lady Clare. On Thursday morning the Queen drove out with Princess Beatrice. Princess Mary of Teck arrived from London on a visit. It is expected that the Queen will return to Windsor Castle on the 19th or 20th of next month. Her Majesty afterwards intends to pay several short visits to Claremont, and during the London season the Queen will reside for a time at Buckingham Palace.

COURT ARRANGEMENTS.—It is announced that the Queen will hold a Court at Buckingham Palace, on Tuesday, the 3d of March, to receive the Corps Diplomatique, her Majesty's Ministers, and other official personages, with the ladies of their families, who will receive notification of her Majesty's intention through the Lord Chamberlain. The Queen will hold a Levee at Buckingham Palace on Friday, the 5th of March; a Drawing-Room on Wednesday, the 10th of March; and more Drawing Rooms later in the season, the dates of which will be hereafter announced. Levees will be held at St. James's Palace by Prince Arthur, on her Majesty's behalf, on Friday, the 12th, and on Friday, the 19th of March.

THE PRINCE and PRINCESS OF WALES left Vienna on Wednesday for Trieste, and there embarked for Alexandria.

ACCOUCHMENT OF PRINCESS ALICE.—A telegram from Hesse Darmstadt states that the Princess Louis of Hesse has given birth to a son, who will be named Ernest Louis.

THE CABINET.—A Cabinet Council was held on Tuesday at the official residence of the First Lord of the Treasury in Downing Street.

PARLIAMENTARY MOVEMENTS.—It is understood that the Queen will herself deliver the Speech from the Throne on the re-assembling of Parliament. Mr. Bruce, the Home Secretary, was elected for Renfrewshire on Monday, in the room of the late Mr. Spiers, without opposition. Mr. Greer Price has vacated his seat for the Radnor Boroughs, in favour of the Postmaster-General, the Marquis of Hartington, who will

be opposed in the Conservative interest by Mr. H. Phillips. Mr. Edward Warner has been declared vacant at Norwich, which he represented for some years.

THE TRIALS OF ELECTION PETITIONS.—Mr. Willes on Friday gave judgment in the election petition, to the effect that Mr. Ouseley was duly elected, and that corrupt practices did not prevail in the borough, but he considered the petition very properly brought, and released the sitting member's costs. On Monday Mr. Blackburn gave judgment in the Bewdley petition, and declared that the election was void, that Mr. E. had no personal knowledge of corrupt practices, that his agent and his clerk were guilty of corrupt practices, that extensive corruption and corrupt practices prevailed, but not what was called "popular bribery," and that all the costs, except those incurred in the petition of a scrutiny, must be paid by the respondent. Mr. Lloyd, the petitioner, having withdrawn his petition for the seat, the scrutiny will not be proceeded in. Baron Martin gave judgment yesterday in the Brockton petition, and declared that Mr. Ripley's election was void on the ground of treating, but that corrupt practices did not extensively prevail; the costs to be paid by Mr. Ripley. The trial of the Lichfield petition is in progress. The trial of the Gloucester petition has been fixed for the 18th of February. Baron P. gave judgment in the Limerick petition on Monday, declaring that Messrs. Gavin and Russell were elected, and that the charges of bribery, treating, and intimidation had not been proved. At the same time he denounced the system of hiring one mob to punish another, regretted that the law did not provide for punishing such a system, and expressed the strongest terms of disapprobation of magistrates and clergymen taking part in such a proceeding. Mr. Justice O'Brien gave judgment on Tuesday in the Carrickfergus petition, declaring Mr. Dalway to be elected. The trial of the Dublin petition commenced on Saturday. The trial of the Belfast and Derry petitions commenced on Wednesday. The Carrickfergus Athlone petitions have been withdrawn. The Wick County petition will also be withdrawn. The petition against the election of Sir Sydney Waterlow for Denbighshire was withdrawn on Friday.

THE CONSERVATIVE PARTY.—The Earl of Salisbury has resigned the leadership of the Conservative party in the House of Lords. No peer has yet been chosen to succeed to the post. Mr. Hart Dugdale, for Mid-Kent, has been appointed assistant whip to the Conservative party in the House of Commons in the room of the Hon. Mr. Noel, who has succeeded Colonel Taylor as head whip.

ORDER OF THE THISTLE.—The vacancy in the Order of the Thistle, caused by the death of Lord Southesk, has been filled up by the appointment of Lord Southesk to be a Knight of that Order.

LORD-LIEUTENANCY.—Sir T. E. Colebrooke, Bt. M.P., has been appointed Lord-Lieutenant of Lancashire, in the room of the late Lord Belhaven.

THE BISHOPRIC OF LONDON.—The Confirmation of Bishop Jackson as Bishop of London took place yesterday, at Bow Church, Cheapside, with the usual ceremonies. The Gazette of last evening announced that the Queen has appointed his lordship to be Bishop of the Chapels Royal.

THE BISHOP OF SALISBURY.—It is stated during the last few days there has been a marked improvement in the health of the Bishop of Salisbury. Some of the more urgent symptoms have subsided, his condition is still regarded as precarious.

THE RITUAL COMMISSION.—The Earl of Carnarvon, the Bishop of Chester, and Mr. Charles Butler, M.P., have been appointed members of the Ritual Commission, one vacancy having been caused by the death of the late Archbishop of Canterbury, and another by the withdrawal, on taking office, of Mr. Charles Butler and of the Lord Chancellor.

GOVERNORSHIP OF GREENWICH HOSPITAL.—It is not the intention of the Government to fill the vacancy caused by the death of Sir James Alexander Gordon, who was in receipt of 3000l a year from the Hospital funds. It is stated that the infirmary will be removed to Netley in October next, and Greenwich will be occupied for military purposes.

REDUCTIONS IN THE CIVIL SERVICE.—The Lords of the Admiralty have determined on abolishing several offices of the Admiral-Superintendent of the dockyards, the Captain-Superintendent of several dockyards, and victualling-yards, the Master-Attendant of several victualling-yards, one of the two offices of Master-Attendant at the dockyards, and the Second Master-Shipwright, and on a general reduction in all the offices of the yards. A number of clerks have already been placed on the reduction list, and others are to follow, with a view to their ultimate discharge. No more clerks are to be entered for the civil department of the dockyards, and no promotions are to be made until further notice. At the Admiralty offices in London several clerks of the established list have received notice to quit on a certain date. Six clerks are to be dismissed unnecessary for the business of the office. Copy presses have been introduced for the first time in the Admiralty and dockyard offices, as a means of reducing the number of copyists. The Coastguard establishment in Spring Garden is to be broken up, and the offices of Controller-General and Deputy Controller-General are to be abolished, preparatory to an amalgamation with the corresponding branches of the Admiralty at Whitehall. At the Custom House Mr. Scudamore and Mr. Forster, of the Treasury, are engaged in simplifying the work and amalgamating the offices, with a view to the dismissal of some of the writers, and probably

newspapers highly censure the address. The Diplomatic Body have addressed a note to the Minister of State, protesting against the manifestation against the Papal Nuncio, and waited on the President of the Provisional Government, who replied that he had seen with pain the manifestation in question, and was resolved to uphold public order and the inviolability of the representatives of friendly nations. The rumour that the Papal Nuncio had quitted the city is denied but it appears that he is in hiding. The Editor and staff of the *Pensamiento* and *Espanol* have been arrested. A Protestant religious service was performed on Sunday in Madrid for the first time in public. The statement that negotiations have commenced between the United States and the Provisional Government for the purchase of Cuba, is categorically denied. The Provisional Government, as interpreter of the wishes of the nation, declares that it will never agree to any proposal of such a character. A decree has been issued, granting a complete amnesty, without any exception, to all Spanish subjects implicated in the insurrection of the 23d September at Porto Rico.

PORTUGAL.—The Marquis de Sa da Bandeira announced officially in the sitting of the Cortes on Friday that the King had empowered the Ministers to remain in office. He added that the Council of State had determined to dissolve the Chambers immediately. On Sunday the Chamber of Deputies was dissolved by Royal decree, and the new Cortes are summoned for the 4th of May. The King has assigned to the Treasury eight per cent. of the annual income of the Royal family, in consequence of the financial difficulties of the country.

DENMARK.—The Folkething has rejected a resolution to authorise the purchase of a large ironclad abroad, and has decided that a vessel of that description shall be built instead in Denmark. Notice has been given of a motion for the appointment of a committee to inquire into the conduct of the Commandant at Alsen at the time of the surrender of that place to the Prussians.

BELGIUM.—The funeral of the Prince Royal of Belgium took place on Tuesday, at the Palace of Laeken. The King and his brother, the Count of Flanders, were present at the ceremony, the Archbishop of Malines performing the funeral service. The deepest sympathy was shown by the people generally. Brussels was entirely in mourning. On Wednesday a solemn funeral service was held at the Cathedral in honour of the late Prince, at which all the different bodies of the State were present. The King did not attend, but the Count of Flanders and an immense crowd of persons were present. The Archbishop of Malines officiated. On Thursday the King received a deputation from the Legislative Chambers, who presented him with an address of condolence upon the death of the Duke de Brabant. His Majesty was deeply affected, and expressed his gratitude in lively terms.

HANOVER.—The Berlin papers state that the property of King George of Hanover, at present placed under the administration of the Prussian authorities, amounts to 2,074,800*l.*, which, placed in the Prussian funds, would bring in an annual revenue of about 88,200*l.* The expense of management, which is under the direction of the Superior President of the Council of Hanover, reaches 27,000*l.*

PRUSSIA.—The session of the Prussian Diet will probably be closed in the last week of February, and it is expected that the North German Parliament will be convoked for March 5. The Editors and journalists of Berlin have adopted, on the suggestion of Herr Berthold Auerbach, an address to General Grant, to be presented to him on his assuming the office of President of the United States, requesting him to take the initiative in a Bill for the mutual protection of literary and artistic property in America and Germany. The various literary societies of Germany have also been invited to unite with the Berlin Editors in this matter.

SAXONY.—The King of Saxony received on Sunday the Prussian Order *Pour le Mérite* for Arts and Sciences, awarded to his Majesty by means of an election in which the Knights of the Order entitled to vote took part.

HESSE DARMSTADT.—Several shocks of earthquake were felt in the duchy on the 21st. The strongest, which was accompanied with a subterranean rumbling sound, lasted twelve minutes. In many places bells were set ringing, plates thrown down, and plaster detached from the walls.

AUSTRIA.—The Prince and Princess of Wales left Vienna on Wednesday morning for Trieste, where they arrived at 10 P.M., and left at midnight for Alexandria. The Vienna papers state that the Bishop of Trieste, being hurt at a demonstration made against him by the Ultramontanes of that city, had gone to Capo-d'Istria, where, the day after his arrival, he ascended the pulpit, and taking for his text the words, "My kingdom is not of this world," demonstrated that the temporal authority of the Pope was incompatible with spiritual powers. The railway station at Trieste was burnt down on Thursday evening.

ITALY.—In the Chamber of Deputies last week the Opposition moved a resolution charging the Government with violating the Constitution in the application of the Grist-tax, and censuring the measures taken by them in levying the tax in the central provinces. Count Cambray Digny, on the part of the Government, declined to accept any resolution implying censure, and required, on the contrary, an explicit vote unreservedly approving the whole course taken by the Ministry, stating that the authority of the Government would otherwise be fatally weakened, and it would be impossible to collect the tax. The debate occupied the whole of Sunday, Monday and Tuesday, when Signor Ferrari modified his motion by withdrawing the accusation against the Government of violation of the Constitution, but censuring the Administration for its mode of levying the tax. Signor

Rattazzi supported the motion in its modified form. Baron Ricasoli then moved that the Chamber should pass to the order of the day on all the motions introduced, thus manifesting their opinion that the Government had done its duty, and had upheld the authority of the law. The Ministry accepted the motion of Baron Ricasoli in that sense, and the Chamber adopted it by a majority of 207 to 157. A resolution, moved by Signor Torrigiani, was afterwards adopted, requesting the Government to institute an inquiry into the recent disturbances in the central provinces, and to propose such measures as they may consider most expedient under the circumstances.

PAPAL STATES.—Accounts from Rome state that Archbishop Manning will be made a cardinal before his return to England, and that the Archbishop of Paris will also be raised to the same dignity.

RUSSIA.—The budget of the Empire for 1869 shows a large increase of revenue, which the Minister of Finance ascribes to an unusually good harvest and the stimulus given to commerce by the extension of the railway system. He expresses his conviction that nothing but a peaceful development of the moral and material interests of Russia can consolidate the finances of the country.

GREECE.—The decision of Greece relative to the declaration of the Conference is still unknown. It is asserted that the King recently intimated to his father his intention to abdicate, in consequence of the deep discouragement caused him by the disorder and anarchy of his Government; but, yielding to the pressing solicitations of his family, he has for the present abandoned his intention.

THE PRINCIPALITIES.—The Minister of the Interior at Bucharest has addressed a circular to the prefects, enjoining them scrupulously to watch over the maintenance of order, and to prevent any political agitation which might compromise the neutrality of the country in the event of an armed conflict between Turkey and Greece. The leaders of the bands which attempted to invade Bulgaria last summer have been tried, and condemned to six months' imprisonment. It is believed that this sentence will have the effect of greatly discouraging similar undertakings in future.

TURKEY.—The Porte has suspended the expulsion of Greek subjects from Turkish territory pending the reply of Greece to the declaration drawn up at the Conference. The report of the departure of Hobart Pasha's fleet from Syra is contradicted. The Turkish Government has purchased the British steamer *St. Lawrence* for 28,000*l.*, and the two iron-clad corvettes built at Bordeaux for the Chilean Government, but rejected for alleged non-compliance with the contract, for 180,000*l.*

EGYPT.—The Viceroy of Egypt has placed 50,000 men at the Sultan's disposal, and has suspended diplomatic relations with Greece by ordering the Greek Consul at Cairo to leave that capital immediately. The approaching arrival of the Prince and Princess of Wales has brought a large number of tourists into Egypt; and excursions have been organised for enabling the visitors to join the Royal party before they reach the first cataract. A party of 40 English has already arrived at Alexandria under the guidance of Mr. Cook, the well known manager of the autumnal railway excursions; and a steamer is advertised to leave Marseilles for Alexandria on the 5th February with another party of excursionists, under the guidance of Messrs. Chailau, of Paris, for a fixed price of 120*l.* out and home.

INDIA.—Sir John Lawrence was to leave India on the 16th inst. The construction of a permanent road bridge over the Hooghly has been officially sanctioned. The small force left at Huzara has been recalled. Meer Hajeer, the murderer of Captain Douglas and of other persons in the mutiny of 1857, has been hanged at Delhi. It is stated that 33,000 cattle have perished near Delhi for want of fodder. News from Burmah states that the health of Captain Sladen had improved, and that the King of Burmah had apologised for beating Niven, the Agent's servant. It is authoritatively announced that Azim Khan and Abdul Rahman Khan have arrived at Dour, and requested an asylum in British territory. The Government of the Punjab have consented conditionally to their request. Accounts continue to be received of the serious extent of, and the extensive damage done by, the recent earthquake in Assam. Troops have been despatched to Silhet and Cachar in consequence of depredations by the hill tribes in those districts. A frightful railway accident occurred on Monday last at Bhor Ghat. The train dashed into the embankment, smashing five carriages. Fifteen natives were killed, and thirty-six wounded.

BORNEO.—On the 28th November, the Mukah Fort at Sarawak, under charge of the resident, Mr. Rodway, was surprised and plundered by a party of six convicts (one Chinaman and five Malays) who were under sentence of imprisonment for trivial offences. Mr. Bain, late engineer of the Borneo Company, who was lying sick in the resident's apartments, and the sentry, were murdered, and the treasure, amounting to 1000 dollars, was stolen. After holding the fort for a few hours the convicts made off, but the inhabitants pursued them, killed four (including the murderer of Mr. Bain) out of the six, and recovered the treasure. The two others were being pursued in all directions.

AUSTRALIA.—The Victoria Parliament will assemble in February. The Government is considering an application for a subsidy from a new company which proposes to buy five steamers belonging to the Panama Company, and run a fortnightly mail to Galle. Four of the steamers of the Panama line have already been sold. The Government of New South Wales has formally cancelled the Panama contract. The new Governor of South Australia, Sir James Fergusson, and his family have arrived at Sydney. Her Majesty's ships *Challenger*, *Blanche*, and *Rosario* have gone to New Zealand in consequence of the recent outbreak.

NEW ZEALAND.—The following telegram from the Governor of New Zealand has been received from Granville, via Colombo.—

"The rebels on the East Coast of this island, after having engaged in several engagements with severe loss. It is now impossible to concentrate the greater part of the military force on the West Coast, with the object of putting down the rebellion in that quarter. The so-called Maori King is still in the colony."

From the details brought by the overland mail, respecting the recent massacre and atrocities committed against the Maories, it appears that on November 23, 1868, 35 persons—men, women, and children—were minutely massacred, neither sex nor age was spared. Returned prisoners from the Chatham Islands were killed every one that they could reach. The houses and herds of the settlers were destroyed, and the finest districts in New Zealand entirely covered with blood. Among those massacred were Major and Mrs. Wilson and their infant child, Lieutenant Walsh, Mr. and Mrs. Wilson who refused to leave her husband, and Lieutenant Wilson, Mr. and Mrs. Mann, Messrs. Dodd, Peppard, and Cadle. The wife of Lieutenant Wilson was also supposed to have been killed, but after being three days in the scrub, with her son, eight years old, who supplied her with eggs and a few potatoes, she was found by some hours still alive, but suffering from a wound in the abdomen, another through the leg, and five in other parts of her body. Two of the settlers are missing, three of whom—Messrs. Poynton, and Kempthorne—are believed to have been killed. Captain Westrupp, who was in command of the Tarananui Redoubt, subsequently was killed and buried the dead. Thirty bodies of Europeans were discovered, many of them dreadfully mutilated. Of Major and Mrs. Biggs were almost devoured and animals. Two Hau-hau spies were seen and shot down by Captain Westrupp and his men whilst engaged in burying the bodies. Mrs. and her little son were removed to the house of a deacon Williams, at Tarananui, and would have left for Napier on the 24th ult. The most sanguine hopes were entertained of Mrs. Wilson's recovery. Captain Westrupp made an attack on the post of Tamihana on November 23, with 300 men, and Europeans and natives, and defeated him in Poverty Bay rebels. Patea and other settlements since been abandoned. Particulars have also been received of Colonel Whitmore's repulse from the position occupied by Tito Kowaro at Okutuku, on the Whenuikuru and Waitokura rivers. This was made on November 7, with a force of 300 Europeans and 80 natives—the majority of the natives not being out when required. The encampment was forced occupied by a strong and well-posted force of rebels, finding his casualties very heavy, and there being no prospect of his gaining any advantage by continuing the attack, Colonel Whitmore was carrying away all the wounded that could be saved. Among the killed were Major Hunter, Mr. Kirwan, Constables Charles Lee and G. Stone, and three others. Among the wounded were Mr. Cole, Constables D. Dolan, Monk, Eastwood, Mr. son, Wesley, Williams, Cooksley, Kelly, Foot, Vance, Keane, Kapa, Lynden, and five other natives. In the following week the Hau-hau attacked the Wereroa redoubt, held by about 40 of the militia, under Captain Wilmot P. W., who was repulsed with the loss of several of the men killed and wounded. The bodies of a scouting party had been sent out under Karaitiana, a friend of the Hau-hau, had been discovered, killed with the tomahawk, and fearfully mutilated. An earthquake had occurred at Taranaki, which destroyed about 5000*l.* worth of property.

UNITED STATES.—Congress has passed a Bill raising the district commanders in Virginia, Missouri, and Texas to remove all civil officers unable to take the oaths of office prescribed by the Reconstruction Acts, and, moreover, to appoint their successors.

CUBA.—It is said that the Captain-General has been consulted by the Madrid Government by telegraph as to the advisability of declaring that all vessels engaged in the slave trade will be treated as pirates.

PARAGUAY.—Intelligence from Buenos Aires, 27th ult., states that Angustura was attacked on the 21st and 22d ult., and was reported to have been captured by Lopez escaped with 500 followers, the Argentine army being in pursuit.

City Intelligence.

OVEREND, GURNEY & CO. (LIMITED)—The charge against the directors of Overend, Gurney & Co., at Guildhall, before the Lord Mayor and Alderman Gabriel, was brought to a close on Saturday, so far as the evidence and the arguments counsel were concerned. The chief event of the day was the cross-examination of Mr. Edward Edwards, an official assignee in the Court of Bankruptcy, who, after stating that he had "a very good memory as to dates," that his memory was "entirely fail" him on other matters, and that he was not like to swear positively at all to anything, admitted that from 1859 to 1864 he had been a receipt of 5000*l.* a year from the old firm of Overend, Gurney & Co., to which he was first introduced by Mr. David Ward Chapman, at that time a partner in the firm. This sum was to be paid "in consideration of his services" as act for the firm in all matters in which they might ask for his advice and assistance.

The agreement was suddenly terminated in 1864 by Mr. Birkbeck, one of the partners, who told Mr. Edwards in rather strong language that he had been the cause of their heavy losses. Mr. Edwards thereupon demanded the sum of 20,000*l.*, being 5000*l.* for services rendered during 1864, and 15,000*l.* for the three ensuing years. This demand was granted by the firm on condition that the money should remain in the house on deposit at 6 per cent., but the firm having reduced the interest when the new firm was established Mr. Edwards withdrew the money. He also stated that, in the first instance, he lent privately the whole of the salary he received from the firm to Mr. Chapman, the partner who introduced him; that while he was receiving it, and acting as the nominee of Overend & Gurney in the transaction of a loan for 144,000*l.* to Mr. Stefano Xenos, the manager of the "Greek and Oriental Company," he was also receiving 500*l.* a year from Mr. Xenos, and was, moreover, presented by that gentleman with a yacht, "not for services rendered, but as a friendly gift." He also received a sum of 3000*l.* from Mr. Pearson, with whom he negotiated the sale of two ships on behalf of Overend & Gurney; 300*l.* from Lascaridi & Lever, both of whom were indebted to Overend & Gurney, and the usual fees as a director of the Atlantic Royal Mail Steam Company, which was largely indebted to Overend & Gurney. In addition to this he was the sleeping partner in a firm called Edwards & O'Beirne, which obtained advances from Overend & Gurney after he had left them. He would not swear that he did not receive money in connection with the Millwall Ironworks and other concerns, and said that his "memory was an entire blank on the subject." At the conclusion of this examination the case was again adjourned to Wednesday. On that day the court was crowded to excess long before the hour appointed for the sitting, and the approaches to Guildhall were besieged by an eager and excited crowd of well-dressed people, eager to obtain admittance. When the Lord Mayor and Sir Thomas Gabriel took their seats the bench was crowded by aldermen, magistrates, and merchants of the City, though not forming part of the Court. Upwards of two hours were occupied in reading and authenticating the written depositions which had been taken at the previous examinations. The Lord Mayor then said:—

"Since the last adjournment the most anxious and careful consideration has been given to the evidence adduced in support of this charge, with the view of determining how that evidence affected the several defendants. Due weight has also been given to the arguments put forth on the last occasion by the able counsel who represent the several defendants, and I have now to announce the decision at which the Court has arrived. That decision is, that there is evidence sufficient to prolong their trial John Henry Gurney, Henry Edmund Gurney Robert Birkbeck, Henry Ford Barclay, Harry George Gordon, and William Bennie. I have, therefore, to commit the several defendants for trial on this charge."

A burst of cheers followed this announcement, upon which the Lord Mayor said, "I must remark that in a matter of this grave character affecting so many individuals there ought to be silence befitting the occasion and a court of justice." This reproof had scarcely been administered from the Bench when the crowd outside, who by that time had heard the result, raised an enthusiastic cheer, which was audible within the court. Mr. Edwards, official assignee, who was hissed in Court while his depositions were read, was hooted on leaving the hall, and only escaped rough usage by taking refuge in a cab, under the protection of the police. The Lord Mayor then intimated that he was prepared to admit the defendants to bail, each of them in 10,000*l.*, and two sureties of 5000*l.* each. The defendants entered into the requisite recognisances, the sureties being—for Mr. J. H. Gurney, Mr. John Gurney Hoare and Mr. Charles Thomas Lucas; for Mr. Henry E. Gurney, Mr. George Moore and Mr. Henry Edmund Buxton; for Mr. Birkbeck, Sir John Lubbock and Mr. Joseph Hoare; for Mr. Barclay, Mr. R. C. L. Bevan and Mr. Joseph Gurney Barclay; for Mr. Rennie, Mr. W. Burnley Hume and Mr. Henry M'Chlery; and for Mr. Gordon, Mr. Kirkman D. Hodgson and Mr. Charles Oppenheim. The aggregate bail tendered and accepted amounted to the large sum of 120,000*l.* Dr. Adam Thom, the complainant, was bound over to prosecute in the sum of 5000*l.*

THE MERCHANTS' COMPANY (LIMITED).—On Tuesday Messrs. Stuart Lane, Chapman, and Herbert, directors of the Merchants' Company, underwent a second examination at the Mansion House on the charge of uttering false and fraudulent prospectuses, with a view to induce persons to become shareholders in the company, which is now under official liquidation. After some further evidence had been taken in support of the charge, the hearing was again adjourned until to-day. On Thursday another charge was preferred against Mr. Stuart Lane, in conjunction with one of the other directors, Mr. Childs, for issuing a call circular, which alleged that the company had suffered to some, and made other statements which it was submitted were utterly untrue, and known by the defendants to be untrue. The Lord Mayor remanded the accused, but admitted them to bail.

MONEY MARKET, FRIDAY.—BRITISH FUNDS: Consols closed at 93½ to 93¼, both for Money and Account. New and Reduced Three per Cents., 93½ to 94. India Five per Cents., 112 to 112½; Bank Stock, 24½ to 24; Exchequer Bills, 5s. to 10s. pm.—**FOREIGN:** Peruvian, 75½ to 76; Turkish Five per Cents., 38½ to 38; Ditto Six per Cents., 61 to 61½; Egyptian 1864, 87 to 88; Ditto (1863), 72½ to 73½; Italian, 54 to 54½; Tobacco Loan, 2½ to 2½; Spanish, 54 to 54½; Greek, 11½ to 12½; Mexican, 15½ to 16; Honduras, 86 to 89; Danubian Eight per Cents., 81½ to 82. Brazilian, 80 to 80½; Russian (1862), 85 to 86½; Ore, 80½ to 81. Nicolai, 66½ to 66½; Moscow, 79 to 79½; Charkof, 79½ to 80; United States 5-20 Bonds, 75½ to 75½; Erie, 26 to 26½; Illinois, 92 to 92½.

Metropolis and its Vicinity.

ABOLITION OF WOOLWICH AND DEPTFORD DOCKYARDS.—An Admiralty order was received at Woolwich Dockyard on Friday, directing the yard to be finally closed on October 1st next. An order has also been received at Deptford Dockyard, directing all the warehouses in the yard to be cleared by April 1st.

REDUCTION OF WOOLWICH ARSENAL.—It is stated that another reduction will shortly take place at the Royal Arsenal. A fixed limitation has already been made as to the hours of working, all overtime having been abolished, and a number of the old hands have been placed upon the superannuation list.

THE LATE RITUALIST TRIAL.—The *Church Times* states that the Council of the Church Association have come to the determination of paying their own costs in the recent suit of Martin v. Mackonochie, and consequently will not attempt to recover them from Mr. Mackonochie. The Church Association, who were the prosecutors in the suit, have made arrangements for a course of addresses in London on the subject of Ritualism. Among those who have consented to deliver addresses are the Rev. Dr. Taylor, vicar of St. Silas, Liverpool; the Rev. E. Garbett, vicar of Christ Church, Surbiton; the Rev. Aubrey C. Price, vicar of St. James's, Clapham; the Rev. J. F. Richardson, vicar of Bury St. Edmund's; the Rev. J. C. Ryle, vicar of Stradbroke, and the Rev. M. Hobart Seymour.

A NEW ECCLESIASTICAL PROSECUTION.—The Church Association, the promoters of the suit "Martin v. Mackonochie," have announced their decision to submit the question of vestments to a legal tribunal. They say they are confident that, neither as a consequence of the present nor of any other legal decision, will anything become obligatory upon the clergy which has the slightest reference to Romanizing symbolism, and which is not entirely in accordance with the spirit of the Reformers and the doctrine and teaching of our Protestant Church.

ARCHBISHOP MANNING AND THE ECUMENICAL COUNCIL.—A pastoral letter from Archbishop Manning has been read in all the Roman Catholic churches throughout London on the Ecumenical Council to be held in Rome towards the close of the present year. It said that during the last few months the Pope had written three Apostolic letters, of vital importance to the Catholic church and to the whole Christian world. The first was the Bull convoking an Ecumenical Council to be opened in the Vatican on the Feast of the Immaculate Conception in this year; the second was a paternal invitation to the patriarchs, archbishops, and bishops of the Eastern Churches, now unhappily, in schism; the third was a loving appeal to those who in the Western world have been separated during the last 300 years from the unity of the faith and of the Church. Archbishop Manning solicits the prayers of the clergy and laity of his diocese for the happy issue of the Council, and enjoins the clergy to hold special services each week for the same purpose. The council will be called the "First Council of the Vatican," as it will be held in the right transept of St. Peter's. The transept will, it is said, accommodate upwards of 2000 persons, and will be so arranged that the voice of each speaker may be distinctly heard throughout the whole council chamber. The stalls erected for the accommodation of the prelates will cost 9000*l.* or 10,000*l.*, and to make up this sum, as well as to meet the other enormous expenses which the Pope will incur, subscriptions are being actively raised in many Continental nations, as well as among the Roman Catholics of England. The labours before the Council are so immense that it is considered six months will not suffice to complete them.

THE LATE PERVERSIONS TO ROME.—In reference to the recent announcement that the two curates of St. Mary's, Soho, had been received into the Church of Rome, it is stated that the older of those curates, after residing for a time at the Brompton Oratory, applied to the Bishop of Rochester, and was readmitted by his lordship into the Church of England.

SHELL EXPERIMENTS AT SHOEBURYNES.—On Friday arrangements were made for testing a new shell patented by Mr. Fitzmaurice Palmer, at Shoeburyness. Considerable interest was manifested in the experiments, the result of which was expected to be of a very important nature, but after three rounds were fired it was discovered that the ordinary service fuse was unfitted for the shell. The experiments were thereupon adjourned to afford the inventor an opportunity of fitting the projectiles with suitable fuses. A satisfactory trial of Lieutenant Nolan's instrument for measuring the distances to inaccessible objects, for the use of coast and field batteries, in comparison with the usual service method of guessing similar distances, took place on Monday.

THE VAVASSEUR STEEL GUN AND CARRIAGE.—A gun-carriage and slide of a novel construction, by Messrs. Vavasseur, of the London Ordnance Works, for a 7-inch steel built-up rifled gun, was tested on Saturday at Yarmouth, with complete success. The compressor, which is the most important feature, consists of a cone and drum, working under a brake-strap, this friction gear being attached to the head of a long screw-shaft, actuated by a nut under the carriage, moving along it and turning it round. The great value of the system is that the compressor is always ready to be acted upon by the recoil, and is automatically put into gear the moment the gun-carriage begins to move.

INDIAN CIVIL SERVICE.—A deputation from the retired members of the India Civil Service—headed by Sir R. Hamilton, Bart., Sir H. Harington, Sir H. Ricketts, and Sir G. Harvey—had an interview with the Duke of Argyll a few days since, for the purpose of supporting their claims on the India Government, as set forth in a memorial they had presented to Sir Stafford Northcote, praying for a refund of the excess of the

accumulated subscriptions above one-half the value of their several annuities. The Duke of Argyll promised to give a careful consideration to the memorial, and has since informed the deputation that he sees no reason to depart from the decision of his predecessor, which was adverse to their claim. It is understood that a public meeting on the subject is to be called, preparatory to bringing the matter before the House of Commons.

THE VOLUNTEER FORCE AND THE GOVERNMENT.—A meeting of Volunteer commanders is about to be held, for the purpose of taking measures for bringing before Parliament the difficulties with which the movement has now to contend. It appears that on the 8th inst a deputation of the commanding officers of metropolitan and other volunteer corps waited on the Secretary of State for War to urge upon his consideration the necessity for an increased grant to the force. The deputation represented nearly the whole of the volunteer commanding officers throughout the kingdom, and was headed by Earl Spencer, Lord Elcho, Lord Gerald Fitzgerald, Lord Truro, and Lord Ranelagh. Lord Elcho stated that the present capitation grant, which is 1*l.* for each efficient member of corps, and 30s. for the "extra efficient," is not sufficient to pay the necessary expenses, the officers and men, and chiefly the officers, having to pay charges arising from the training of the regiments, the charges of head-quarters, drill-grounds, rifle-butts, and conveyance to and from drill. Several other commanding officers pointed out that 1*l.* a year only represented the charge entailed upon corps for uniform. Mr. Cardwell, in reply, expressed a great admiration for the volunteer force, and said he placed a very high value indeed upon the services so patriotically given; but he was of opinion that the present grant was sufficient to meet all necessary expenses of corps, and could hold out no hope of an increase. In consequence of this decision, the 4th Lancashire Artillery, which has been in existence nine years, is about to be dissolved. The commanding officers, in a circular they have just issued to their men, declare that this step is rendered necessary by the inadequacy of the sum of money granted by the Government in aid of the expenses of the corps.

THE EASTER VOLUNTEER REVIEW.—Lord Truro, chairman of the committee of metropolitan officers, in answer to letters addressed to the Mayors of Portsmouth and Dover, inquiring if the same facilities could be given to the volunteers as at former Easter reviews, has received letters from both places, offering the same hearty welcome to the volunteers, and all the facilities before accorded.

THE BECKFORD MONUMENT AT GUILDHALL.—At the last meeting of the Court of Common Council it was resolved to restore the inscription which had been removed from the monument to Alderman Beckford in Guildhall. The mover of this resolution took occasion to allude to a statement recently made in one of the daily papers, that it was very doubtful whether the speech reported to have been made by the Alderman to George III. in 1770, had ever been uttered by him, and read some extracts from the "Annual Register" of that date, and the minutes and journals of the court, which, he said, left no doubt that the speech really was made as represented by the inscription.

MONUMENT TO SIR HERBERT EDWARDES.—The Secretary of State for India has made known the unanimous resolution of the India Council to erect a monument to the memory of Major-General Sir Herbert Edwardes, as a mark of their high sense of the ability, daring, and resource which he displayed in times of great difficulty and great peril, and of their appreciation of the example which Sir Herbert Edwardes has left to all the servants of the Crown in India.

THE BRUNEL WINDOW IN WESTMINSTER ABBEY.—A new painted window has been erected in the north aisle of Westminster Abbey, in memory of Mr. Isambard Kingdom Brunel, the railway engineer. It consists of two lights, containing allegorical figures of Fortitude, Justice, Faith, and Charity. The upper part consists of six panels, representing three subjects from the Old and three from the New Testament.

ECLIPSE OF THE MOON.—On Wednesday night there was a partial eclipse of the moon, which had been announced as the only eclipse visible in England in the year 1869. Those, however, who took the trouble to watch for the eclipse were disappointed by the rain, which rendered the moon wholly invisible to the inhabitants of the metropolis. It appears also that no portion of the eclipse was visible in any part of England or Scotland, the moon being everywhere hidden by rain or thick clouds.

THE BOATS OF THE HIBERNIA STEAMER.—There is now little hope that the boats of the steamer Hibernia have been found. It appears that the 39 shipwrecked seamen of the Hibernia, who were reported as being on board the America, a Bremen barque, bound to New York, did not belong to the steamer Hibernia, but partly to a sailing vessel of that name and to another called the Cuthberts. The sailing vessel Hibernia left Quebec on the 10th November, was wrecked and abandoned, the crew being taken on board a passing vessel, called the Cuthberts. Bad weather continued, and the Cuthberts being in a sinking state, her signals were seen by the America, which picked up the united crews, when the Cuthberts went down.

PROPOSED TRAMWAY ON THE EMBANKMENT.—In consequence of Mr. Bazalgette's statement at a recent meeting of the Metropolitan Board of Works, that the works of the railway company on the Thames Embankment, if carried on at the present rate, would not be finished in six years, proposals have been made to complete the roadway along the embankment at once, and to lay a tramway along the embankment and the new street to be formed between the Mansion House and Blackfriars Bridge.

DEMOLITION OF FIFE HOUSE, WHITEHALL.—This

mansion, situated in the line of the Thames Embankment, is now being demolished by order of the Commissioners of Works. In a few days the entire building, with a portion of the premises of the United Service Museum, several adjacent houses, and the Tudor arched entrance to the Palace water-stairs, will be gone.

THE EPSOM COURSE.—The Grand Stand Association have offered to purchase for 15,500*l.* Six Mile Hill, which includes a portion of the Derby course between the mile post and Tattenham Corner, but Mr. Studd has declined to sell at any price. Mr. Baylis, his agent, has entered into an arrangement with the Epsom trainers for the use of the Six Mile Hill for training purposes, at an annual charge of 2*l.* per horse. Mr. Studd undertaking to keep the galleps in order, to grub up the furzes between the racecourse and Six Mile Hill, and destroy the rabbits, by which means a large extent of new training ground will be obtained and reserved for the exclusive use of the subscribers. The Epsom trainers have expressed their thanks to Mr. Studd for this arrangement.

FRENCH AND ENGLISH TRADE STRIKES.—At a meeting of the London Trades' Council on Saturday night Mr. Jeffery, of the Bricklayers' Society, called attention to the existing strike of the yarn and twist-spinners of Rouen (France), against a reduction of wages. After some discussion it was resolved that the case was well worthy the sympathy and support of the trade societies of the United Kingdom. The dispute which has arisen between the master masons and their men relative to the rough dressing of stone was then discussed for some time, each member expressing a hope that it would be settled without a strike. Eventually the secretary was instructed to write to the Masons' Executive for full information on the subject.

METROPOLITAN CONFERENCE ON THE INEFFICIENCY OF THE POLICE.—The delegates appointed by the whole of the metropolitan vestries and district boards to consider and take action upon the alleged inefficiency of the police, have adopted a memorial to the Secretary for the Home Department, showing that the force is in a very unsatisfactory condition, and praying for a parliamentary inquiry. They have also resolved to request the co-operation of all the parliamentary members for the districts concerned.

THE EMBEZZLEMENT AT THE BOARD OF WORKS.—The charge of embezzlement against Mr. Hughes, accountant to the Metropolitan Board of Works, was concluded on Wednesday at Bow Street Police Court, when the accused was committed for trial.

THE PUBLIC HEALTH.—The Registrar-General's weekly return states that in the week that ended on Saturday, Jan. 23, 4761 births and 3412 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 27 per 1000 persons living, being 26 per 1000 in London, 38 in Edinburgh, 23 in Dublin, 29 in Bristol, 21 in Birmingham, 28 in Liverpool, 29 in Manchester, 23 in Salford, 23 in Sheffield, 27 in Bradford, 28 in Leeds, 26 in Hull, 28 in Newcastle-upon-Tyne, and 38 in Glasgow. The rate in Vienna was 28 per 1000 during the week ending the 16th inst., and in Berlin 29 per 1000 during the week ending the 21st inst. In London the births of 1125 boys and 1151 girls, in all 2276 children, were registered in the week. In the corresponding weeks of 10 years, 1859-68, the average number, corrected for increase of population, was 2286. The deaths registered in London during the week were 1578. It was the 8d week of the year, and the average number of deaths for that week, corrected for increase of population, was 1773. The present return is therefore 195 below the average.

Provincial.

ALNWICK.—A few nights since a room at Alnwick Castle, now used as a study for Lord Algernon Percy, was discovered to be on fire. The stove and hot-air pipes, being overheated, had ignited a portion of the flooring. The fire, however, was discovered and extinguished before it had done any serious damage.

BIRKENHEAD.—It was announced some time ago that St. Aidan's College would be closed at the end of 1868. It is now proposed, however, to continue the institution, under new management, as a place for the training of candidates for holy orders, and to give it more of a diocesan character than heretofore.

BOLTON.—On Friday afternoon a destructive accident occurred at the establishment of Messrs. Martin and Johnson, manufacturers in this town. The mill locomotive engine ran away, making the whole engine-house a wreck of machinery. Two engines of 50-horse power each were smashed into fragments. The fly-wheel, weighing 30 tons, was broken up, and the fragments thrown about, doing injury in all directions. No lives were lost. Seven hundred people are thrown out of work, and it will take six months to repair the damage. The loss in machinery and property is stated at 6000*l.*

CONGLETON.—On Saturday, at a special court of magistrates in this town, Mr. Joseph Clewlow Washington, late manager of the Congleton branch of the Manchester and Liverpool District Bank, a town councillor and magistrate of the borough, and who has twice served the office of mayor, was charged with embezzlement, arising out of certain bill transactions, in which, while acting on behalf of the bank, he received various sums of money by way of discount and interest, portions only of which he credited to his employers. The magistrates committed him for trial, but accepted bail, himself in 200*l.*, and two sureties in 100*l.* each.

EXETER.—On Friday Earl Fortescue presided at the annual meeting of the Devonshire Chamber of Commerce in this city. There was a long discussion on the proposal to have a national poor rate. The Somerset Chamber had requested that a deputation from the

Devon Chamber should be sent to the Central Chamber in favour of a common fund, raised through the income-tax assessment, for a national poor-rate. A resolution was unanimously passed, declining to comply with the request of the Somerset Chamber, at the same time admitting that an alteration was required in the incidence of local taxation.

ISLE OF MAN.—On Saturday morning the mail steamship Prince Alfred, belonging to the North Lancashire Navigation Company, was totally wrecked on Manghold Head, Isle of Man, on her passage from Fleetwood to Belfast. The mails and passengers numbering about 120, with the crew, were rescued, and landed at Douglas. The ship afterwards went down in about 20 fathoms.

LUTON.—The new Corn Exchange and Straw Plait Halls in this town were opened on Monday week by Earl Cowper, Lord-Lieutenant of the county, assisted by Mr. Reverdy Johnson, the American Minister; Sir J. Burgoyne, High Sheriff of the county; Lord Charles Russell, Colonel Gilpin, M.P.; Mr. H. Cowper, M.P.; Mr. H. Russell, M.P.; Mr. H. Brand, M.P.; Sir J. Sebright, &c.

MANCHESTER.—For the purpose of determining whether Mr. Ernest Jones or Mr. Milner Gibson shall be adopted as a candidate for the representation of Manchester, in the event of a vacancy occurring by the unseating of Mr. Birley, against whose return a petition has been presented on the ground of his being a Government contractor, a ballot organised by the United Liberal party commenced on Friday, and was concluded on Saturday, when the result was 4772 votes for Mr. Ernest Jones and 2193 for Mr. Milner Gibson. Besides being taken as a test as to the selection of a candidate, the ballot was regarded as an experiment to show the practicability of voting by ballot, the promoters of it believing that its result would have an important influence on any future discussion with regard to the adoption of this system of voting. There were 22 polling places, each of which was fitted up with the necessary apparatus, which was exceedingly simple. The ballot was confined to those electors who voted for Messrs. Bazley, Bright, and Jones at the late election.

NORWICH.—The prisoner Sheward underwent another examination on Monday, in reference to the murder of which he is charged on his own confession. The evidence was of a similar character to that given before, but does not appear to have greatly strengthened the case against him. The prisoner was again remanded, and an intimation was given that the case for the prosecution would probably be closed on the next occasion.

PEMBROKE.—In consequence of a letter which appeared in the *Times* of the 15th inst., stating that there existed on the coast of Wales a barbarous practice of stripping corpses washed ashore after a shipwreck, and that some of the bodies of the crew of a French vessel recently lost near St. Ann's Head had been so treated, the Board of Trade have directed strict inquiries to be made in the matter, and the results have satisfied the department that the statement was unfounded. It appears that ten naked bodies were found on the shore, but they were washed ashore in that state, and it is supposed that the men had stripped themselves before leaving the wreck for the purpose of being better able to swim ashore. All the bodies received proper burial. There are, however, no coastguards at the spot to prevent plunder in case of wreck.

PLYMOUTH.—The Portuguese screw corvette Bartholomew Diaz, from Greenhithe to Lisbon, came into collision at 6 A.M. on Saturday, 30 miles off the Eddystone Lighthouse, with the brig Magnet of Brake, from Savanalo to Bremen, with a cargo of coffee. The corvette put into the Sound to repair damages. The brig was picked up derelict, and towed into harbour by the Cunard steamer Balbec.

READING.—On Monday four poachers, charged with committing a most violent assault upon several gamekeepers in the employ of Mr. Benyon, M.P., at Mortimer, last month, were brought up for final examination and committed for trial at the assizes. The under-gamekeeper, who was seriously injured in his head by heavy blows from a piece of iron or some other blunt instrument, is still in a dangerous condition.

RIPON.—It has been resolved to erect a memorial to the late Dr. Longley, Archbishop of Canterbury, in the west front of the cathedral of Ripon, of which diocese his grace was the first bishop.

SHEFFIELD.—The Duke of Norfolk, who recently came of age, has entertained this week, at the Cutlers' Hall, his tenants, and gentlemen holding official positions in this town. The first entertainment took place on Tuesday, the second on Thursday, and the third will take place to-day. Upwards of 1100 invitations were issued. — A file-cutter called Edmund Barker, has been committed for trial on the charge of having attempted to poison his father, mother, a brother, and three sisters, by mixing vermin powder in the broth. Mr. Allan, chemist, who analysed a portion of the broth into which the prisoner had thrown the poison, discovered a quantity of strychnine, and other ingredients used in the manufacture of Battle's Vermin Killer.

SWANSEA.—For five whole days the magistrates of this district have been engaged in investigating a poaching affray which occurred on the preserves of Mr. Llewelyn, J.P., at Penllergare, on the night of the 26th ult. The delay in the examination has been in consequence of the serious injuries which two of the keepers received, and which prevented their attendance before the Bench. Eight men had been apprehended by the police, but the first four were discharged. The wounded keepers were examined on Friday, and were still suffering so much from the effects of the injuries they had received, that they were accommodated with seats. They all stated that the prisoners were four of the five men by whom they were

attacked. A large number of witnesses were called in the defence, the purport of whose evidence was to prove an *alibi* on the part of the prisoners. The case was again adjourned to Monday, when several other witnesses were called on behalf of the prisoners to prove the *alibi*. After hearing their evidence the magistrates retired to consider their decision, and in the absence of an hour the chairman said they had come to the conclusion that the prisoners were discharged. The case has created more excitement throughout the locality than any other of the last years past. It is reported that a large sum of money had been contributed from the various workhouse districts for the defence of the prisoners, the belief being that the police had not got hold of the right men, and the fact that four men had already been discharged in the offence favoured the idea that the keepers could not identify their assailants. Every day the court was densely crowded, scores having been unable to obtain admission.

TAUNTON.—The convict Bisgrove, the murderer of George Cornish, at Wells, in August last, was transferred on Tuesday from the County Prison to the Government Lunatic Asylum at Broadmoor. He appeared perfectly quiet and tractable, and his health did not seem to have suffered much during his imprisonment.

WEST BROMWICH.—On Wednesday the boiler of the steam-engine at the head of the shaft, which supplied the motive power by which the men were raised and lowered at Whitehall Colliery, exploded. Ten or eight men were at work below and some hours elapsed before they could be rescued. They all escaped without injury, but a man on duty in the engine-house was killed, and another seriously injured by the explosion.

Ireland.

THE NEW LORD-LIEUTENANT.—The inaugural address of the Statistical Society was delivered on Friday evening, the Lord Chancellor in the chair. The Lord-Lieutenant was present, and there was a brilliant attendance. His Excellency delivered a long speech. On Tuesday his Excellency received deputations from the Dublin Chamber of Commerce, the Royal Horticultural Society, and the Royal Agricultural Society of Ireland. In replying to the latter his Excellency said:

"On behalf of her Majesty I thank you heartily and kindly welcome which you have given to me as her representative here. I am not insensible to the value of societies of yours, which have for their object the advancement of useful arts. It is the province of horticulture, in addition to other useful works, to beautify our great cities, to give new charm to our squares and public parks, to adorn our streets and courts. It thus imparts to those whose labour confines them within a town a refreshment and a new pleasure in daily life. It will interest me to see you and myself to attend your exhibitions. I accede to your request that I should become a patron of your society."

EARL RUSSELL ON THE IRISH CHURCH.—Earl Russell has addressed a third letter to Mr. Charles Fortescue on the Irish Church question. His letter contained a plan for distributing the revenues of the Irish Church among Protestants, Episcopalians, Presbyterians, and Roman Catholics. His letter withdrew that plan. The present proposal is a sum of 120,000*l.* a-year shall be set aside out of the revenues of the Irish Church for the maintenance of the churches and parsonages of the clergy of the established Church, and that similar sums shall be assigned to the Presbyterians and to the Roman Catholics. The members of the Board of Charitable Bequests be applied towards the building and repair of Protestant and Roman Catholic places of worship, and dwelling-houses for their respective clergy, and for such other purposes as Parliament may determine. These grants if adopted would leave an undrawn balance of 200,000*l.*, or more, annually available for further purposes, and his lordship proposes that a small portion of this sum shall be applied to the maintenance of aged Irish peasantry in almshouses, of decayed married couples unable to pay their rent, of too old to emigrate, might live together, and of a small portion to the support and education of children who, by the fault or misfortune of their parents, are lodged in workhouses, and to the assistance of convents whose inmates minister to the less children; and the remainder to the improvement of the land of Ireland.

THE NEW MAYOR OF CORK.—Mr. O'Connell, the Mayor of Cork, loses no opportunity of expressing his political sympathies from the bench. On Tuesday a man called Daniel Morrissey having been brought on the charge of using seditious language, he said that he was a member of the Fenian Brotherhood, and that he did not care who heard him say so, and that he would "die for it." Whereupon the Mayor from the bench said, "That is good national language." Constables were not to think a man a Fenian because he says he is one. I do not hold the language of seditious. After all, the man was drunk and was answerable for what he said. He committed a breach of the law, nor did he incite any one to sedition. Some days before, while witnessing the pantomime at the theatre, at one of the local allusions, referring to Mrs. Scannell's shout at the election, "Down with the Tories," the Mayor rose and said, "Hear, hear, right; down with the Tories, down with the Fenian men." These words produced the utmost commotion and loud hissing, mingled with cries of "Turn him out." The Mayor, greatly excited, said, "I will not be quiet. Up with Gladstone, down with the Tories! Down with the Orangemen, down with the Tories! Down with them!" On the following day at the meeting of the City Justices, the Mayor referred to the observations he had made on a former day, and gatory to the police, and complained that persons

The following are this day's quotations:—Yorkshire Regents, per ton, 70s. to 120s.; do. Flukes, 70s. to 140s.; Lincolnshire Regents, 60s. to 90s.; Dunbar and East Lothian do., 70s. to 120s.; Perth, Forfar, and Fife do., 60s. to 110s.; do. Rocks, 60s. to 75s.; French and Belgian Whites, 40s. to 80s.

HOPS.—BOROUGH MARKET, Jan. 29

Messrs. Pattenden & Smith report the trade without alteration since Monday; the demand for consumption continues steady at firmer prices, with a scarcity of choice samples.

METROPOLITAN CATTLE MARKET.

MONDAY, Jan. 25.

The number of Beasts is considerably larger than on Monday last; there is, however, a fair demand, and prices are scarcely altered. There is rather a larger supply of Sheep; the demand is very good, and they are readily disposed of at higher rates. Good Calves are dearer. Our foreign supply consists of 2018 Beasts and 112 Calves; from Scotland there are 340 Beasts; from Ireland, 210, from Norfolk and Suffolk, 830; and 1092 from the Midland and Northern Counties.

Table with columns for s. d. s. d. and categories: Best Scots, Herefords, &c.; Best Shortborns; 2d quality Beasts; Best Downs and Half breeds; Do. Shorn; Beasts, 4490; Sheep and Lambs, 18,270; Calves, 127; Pigs, 210.

THURSDAY, Jan. 28

The supply of Beasts to-day exceeds the demand; trade is very dull indeed, and prices on the average are decidedly lower. Although the number of Sheep is not large, it is about as usual at this time of year, and quite equal to the demand. Trade is by no means brisk, yet for choice qualities Monday's quotations are maintained. Calves are not quite so dear as on Monday. Our foreign supply consists of 443 Beasts and 47 Calves.

Table with columns for s. d. s. d. and categories: Best Scots, Herefords, &c.; Best Shortborns; 2d quality Beasts; Best Downs and Half breeds; Do. Shorn; Beasts, 1010; Sheep and Lambs, 4550; Calves, 108; Pigs, 30.

SEED MARKET.

In the absence of a consumptive demand the agricultural seed trade is quiet, prices are, nevertheless, very firm, and fine new bold purple seed is held for more money. New English Red Clover seed meets with a brisk inquiry, but there is little on offer, and that mostly of an inferior quality; for one parcel, the quality of which was unusually good for the season, the owner refused a bid of 95s. per cwt. Samples of yearling home grown seed are held for long values. Of French and Belgian Red there is but little on our market, and the high prices asked prevent business in those descriptions. New German Red Clover seed is in fair supply, but it is for the most part weak and pale, there is no new American Red offering, and it is believed that on account of the deficiency of the crop on the other side of the Atlantic, no supply will be obtained this season from that quarter. Alsike Clover seed is in abundant supply, and realises moderate rates; it can now be bought at a little over the cost of white. White Clover seed is dull, without alteration. Fine new Trefoll seed is a little firmer. For fine new French Italian Rye grass seed the trade rules extremely firm, and prices, in sympathy with the advance in France, are daily hardening. Rape, Mustard, and bird seeds, are without change. Königsberg spring Tares are scarce and dearer. JOHN SHAW & SONS, 16 Water Lane.

MARK LANE.—MONDAY, Jan. 25.

There was a short supply of English Wheat to this morning's market, and the condition being somewhat improved, factors were enabled to obtain an advance of 2s. per qr. upon the prices of this day's evening. There was a fair attendance at market, and a moderate demand for foreign Wheat at about the prices current a fortnight since. Cargoes of Wheat off the coast brought an advance of 1s. per qr. on last Monday's prices. Barley brought the extreme rates of last week. There was no change in the value of Beans or Peas. The Oat trade was firm, at an advance of 3d. to 6d. per qr. Flour was without alteration.

Table with columns for PRICE PER IMPERIAL QUARTER, s. s., and categories: WHEAT, Essex, Kent, Suffolk, White; Talavera; Norfolk; Foreign; BARLEY, grind. & dist., 38s to 40s Chev.; Foreign, grinding and distilling; OATS, Essex and Suffolk; Scotch and Lincolnshire; Irish; Foreign; POLAND and Brew; RYE; RYE MEAL, Foreign; BEANS, Mazagan; Pigeon; Foreign; PEAS, White, Essex, and Kent; Maple; MAIZE; FLOUR, best marks delivered; 2d ditto; Foreign.

FRIDAY, Jan. 29.

During the past week a better tone has prevailed in the trade, and our country markets have reported in many instances a recovery of 1s. per qr. on Wheat from the depressed rates lately current; but in the seaport towns where the coast cargoes are arriving the trade has not been animated, dealers and millers appearing more inclined to pause in their operations, hoping for easier rates through increased farmers' deliveries. Malting Barley has not undergone any quotable change, but feeding qualities were dull and cheaper. Beans and Peas remained slow and inactive, at barely former rates. Oats have been sold at 6d. per qr. decline. Flour continued a difficult sale in the southern markets, but in Scotland a slight advance was realised. The supplies of grain off the coast this week consisted of 35 cargoes, of which, with those left over from last week, there remained for sale last night 70 cargoes. The floating trade exhibited firmness throughout the week. Arrived Wheat continued in fair demand at about last week's rates. Maize met with a slow sale at reduced prices. Barley sold at a further decline of 1s. per qr. and Rye was steady at our last quotations. Paris, Jan. 28.—The trade in Wheat as well as Flour was very limited, and prices unaltered. The eight marks are quoted at equal to 37s. 6d. per 280 lb. The stock at the Halle is estimated at 12,000 cwt. The arrivals of English grain, foreign Wheat and Oats are

willingly have accepted Monday's prices for the English Wheat on sale, but millers were disinclined to purchase except at a reduction. For foreign there was but little inquiry, and the few sales made were at barely late quotations. Barley was difficult of sale and rather cheaper. For Oats there was no change in prices, and trade was dull.

ARRIVALS THIS WEEK.

Table with columns: Wheat, Barley, Oats, Flour. Rows: English, Irish, Foreign, and totals.

LIVERPOOL, Tuesday, Jan. 26.—We had a good attendance at our Corn Exchange this morning, and for Wheat a fair demand at last Friday's rates. Flour also in fair request at previous rates. Indian Corn in limited request at the figures of last Friday. Beans dull and rather easier. Peas unchanged. Oats and Oatmeal slow, and slightly easier.

AVERAGES.

Table with columns: Wheat, Barley, Oats. Rows: Dec. 19, 26, 27; Jan. 2, 9, 16, 23; and Agg. Average.

To Landscape Gardeners, Surveyors, and Others.

CORPORATION OF MANCHESTER.—ALEXANDRA PARK.—The Corporation invite Landscape Gardeners, Surveyors, and others, to send in DESIGNS in Competition for Laying-out the Alexandra Park. A Plan of the Park, with printed instructions containing all necessary particulars, may be obtained on application to the City Surveyor, Town Hall, Manchester, on or after Monday, the 25th inst. The Designs must be sent in on or before Monday, March 8 next.—By order, JOS. HERON, Town Clerk. Town Hall, January 19, 1890.

WANTED, a good CLERK; one who knows something about Drawing, and Planning Gardens and Hothouses, preferred. State particulars as to wages, &c.—J. MEREDITH, The Vineyard, Garston, near Liverpool.

WANTED, IMMEDIATELY, in a Retail Seed Establishment, a steady, energetic young MAN—Must have a good knowledge of the Business, be willing to make himself generally useful, and be thoroughly trustworthy.—Address, in own handwriting, stating age, experience, salary required, and references, T. BEADWOOD, Jun., 16, Lune Street, Preston, Lancashire.

WANTED, an ASSISTANT SHOPMAN, who writes a good hand and is quick at counter work.—Character must bear the strictest investigation. A young man would find this a good opportunity for improvement.—Address, with terms and experience, Y. Z., Messrs. Hurst & Son, 6, Leadenhall Street, London, E.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. E. G. HENDERSON & SON, Wellington Nursery, St John's Wood, London, N.W.

To Gardeners and Bailiffs (Head, Foremen, or Under). JAMES CARTER AND CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those who can send unquestionable references need apply. Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & CO. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c.—JAMES CARTER & CO., 237 and 238, High Holborn, London, W.C.

GARDENER (HEAD), age 32, married.—The Advertiser wishes to recommend his Gardener, now about to leave his service. Active, thoroughly practical, with good character in every respect.—W. H., Post Office, King Street, near Wokingham.

GARDENER (HEAD).—Age 34, single; thoroughly understands his profession in all its branches, no objection to the Management of Grass-land. Is leaving present situation through death of Employer.—G. M., Fetcham Park, Leatherhead, Surrey.

GARDENER (HEAD).—Age 28, married, no family; thorough practical conversant with all branches of Horticulture. Good reference.—E. K. P., Mr. Sim, Nursery, Foot's Cray, Kent.

GARDENER, (HEAD).—Age 35, married, one child (age 13 years); thorough practical, understands Forcing Fruits, Flowers, and Vegetables, also Flower and Kitchen Gardening.—F. W. B., Messrs. Sutton & Sons, Royal Berkshire Seed Establishment, Reading.

GARDENER (HEAD).—Age 43, married, no inebriance; thoroughly understands Vines, Early and Late Forcing, Stove and Greenhouse Plants, Kitchen and Flower Gardening. Six years' good character.—A. D. SAVAGE, Twickenham, Middlesex, W.

GARDENER (HEAD), where trust and confidence are required.—Age 36; understands the management of Vines, Early and Late Forcing, Kitchen and Flower Gardening. Has been in a Nobleman's Garden. Three years' unimpeachable character.—T. R., 16, Talbot Grove, Notting Hill, W.

GARDENER (HEAD), age 28, married.—Having served as Foreman to Mrs. P. Arkwright, of Willersley Castle, can be highly recommended to any Lady or Gentleman that requires an active energetic Man, who has had great experience in Forcing all kinds of Fruit and Vegetables, also in the Cultivation of Stove and Greenhouse Plants, with a thorough knowledge of Flower and Kitchen Gardening. Three and a half years' excellent character.—T. B., Willersley Gardens, Matlock, Derbyshire.

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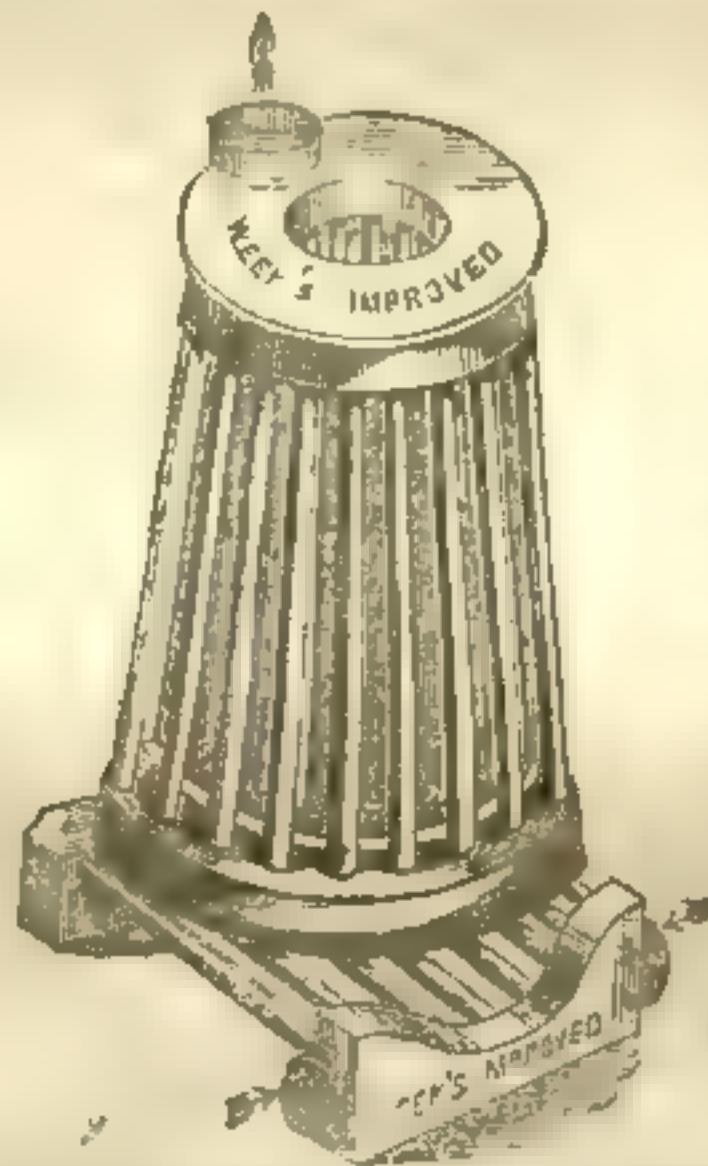
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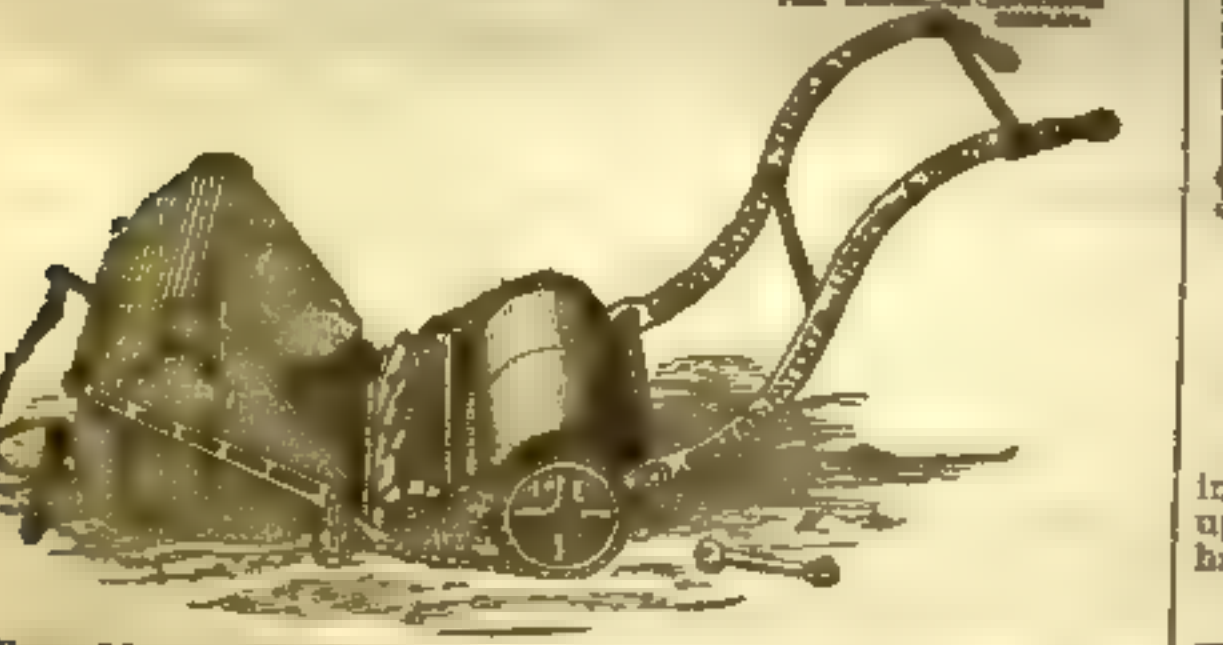
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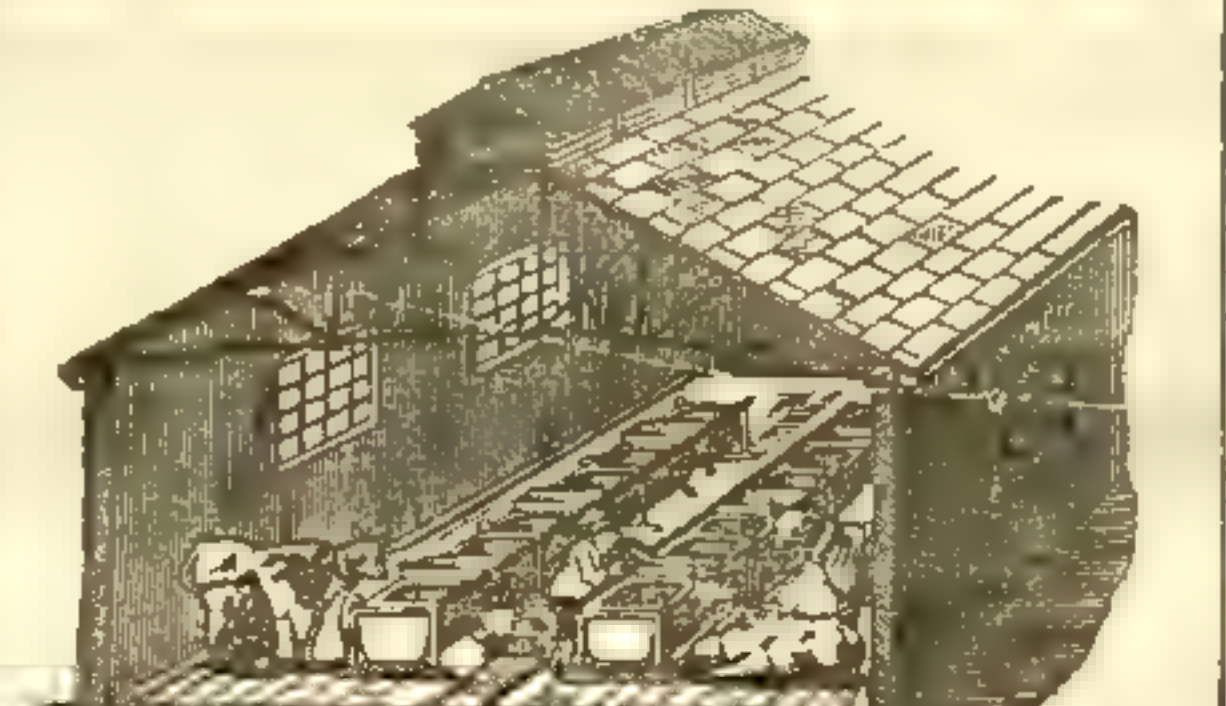
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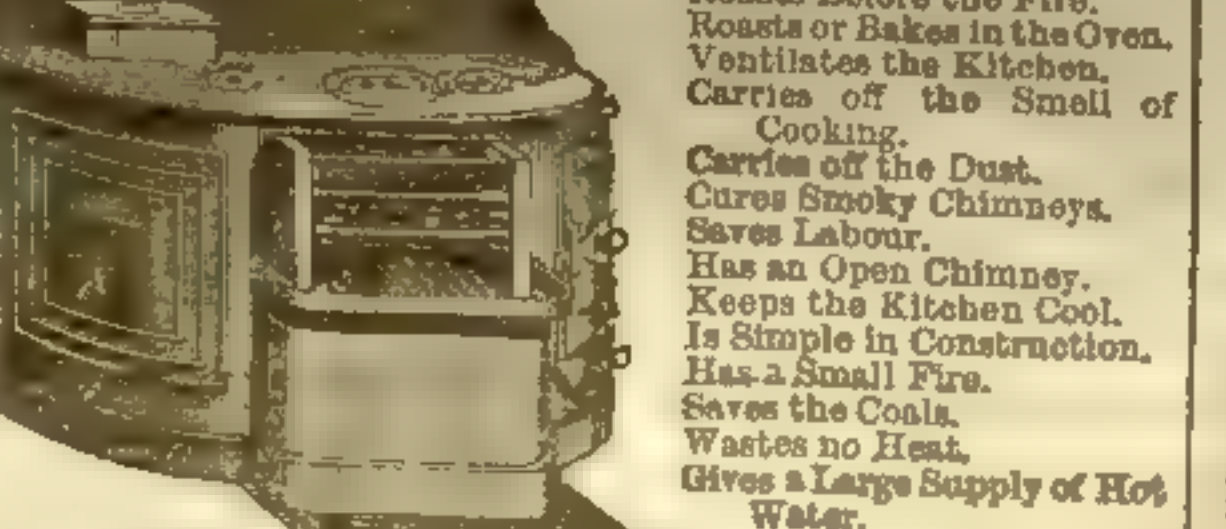
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20 by 14	15 oz.	14s 3d.	15s 6d.	18s 6d.
20 by 15	15 oz.	14s 3d.	15s 6d.	18s 6d.
20 by 16	15 oz.	14s 3d.	15s 6d.	18s 6d.

SMALL SHEET SQUARES, 15 oz., per 100 feet.

in. in.	in. in.	in. in.	in. in.	4ths.	3ds.	2ds.	1st.
6 by 4	7 by 5	8 by 6	9 by 7	12s 3d.	13s 3d.	14s 6d.	16s 6d.
6 1/2 by 4 1/2	7 1/2 by 5 1/2	8 1/2 by 6 1/2	9 1/2 by 7 1/2	12s 3d.	13s 3d.	14s 6d.	16s 6d.

LARGE SHEET SQUARES, 15 oz., per 100 feet.

in. in.	in. in.	in. in.	in. in.	in. in.	4ths.	3ds.	2ds.	1st.
16 1/2 by 10 1/2	14 1/2 by 12 1/2	17 by 13	19 1/2 by 14 1/2	21 1/2 by 16 1/2	14s 3d.	15s 6d.	18s 6d.	21s 6d.
16 1/2 by 11 1/2	14 1/2 by 13 1/2	17 1/2 by 14 1/2	19 1/2 by 15 1/2	21 1/2 by 17 1/2	14s 3d.	15s 6d.	18s 6d.	21s 6d.
16 1/2 by 12 1/2	14 1/2 by 14 1/2	17 1/2 by 15 1/2	19 1/2 by 16 1/2	21 1/2 by 18 1/2	14s 3d.	15s 6d.	18s 6d.	21s 6d.
16 1/2 by 13 1/2	14 1/2 by 15 1/2	17 1/2 by 16 1/2	19 1/2 by 17 1/2	21 1/2 by 19 1/2	14s 3d.	15s 6d.	18s 6d.	21s 6d.
16 1/2 by 14 1/2	14 1/2 by 16 1/2	17 1/2 by 17 1/2	19 1/2 by 18 1/2	21 1/2 by 20 1/2	14s 3d.	15s 6d.	18s 6d.	21s 6d.

The above Prices are only for the Sizes stated; if a quantity of other Size be required, a Special Price will be given.

SHEET GLASS.
In Sheets for Cutting up, averaging from 6 to 9 feet square.
16 oz. 21 oz.
4ths quality, per 300 feet case, 36s. 4ths quality, per 300 feet case, 36s.
3ds " " " 42s. 3ds " " " 42s.
2ds " " " 60s. 2ds " " " 60s.
Best " " " 76s. Best " " " 76s.

SHEET GLASS is made only in the following substances, viz., 21 oz., 28 oz., 32 oz., 36 oz., and 42 oz.
HARTLEY'S IMPROVED ROLLED ROUGH PLATE in 1-8th in., 3-16th in., 1-4th in., and 3-8th in. substances.
BRITISH PLATE GLASS for Windows and Silvered for Lining Glasses, Coloured Glass, Glass Shades, Striking Glasses, &c., &c.

PAINTS, COLOURS, VARNISHES, &c.
STUCCO PAINT, 2s. per cwt. This Paint adheres firmly to the walls, resists the weather, and is free from the glossy appearance of Oil Paint, resembling a stone surface, and can be made up required shade. It is mixed with rain or pure river water.
WHITE ZINC PAINT, 30s. per cwt. One hundredweight of pure Zinc Paint, with three gallons of Linseed Oil, will cover as much as one hundredweight and a-half of White Lead and six gallons of Linseed Oil. Special Dryers for this Paint.

IMPROVED ANTI-CORROSION PAINT, 2s. to 3s. per cwt. Anti-corrosion Paint is extensively used for all kinds of work exposed situations, on Brick, Stone, Compo, Iron, Iron Brackets, Conservatories, Greenhouses, &c., and is easily laid on by any ordinary workman. Prepared Oil for ditto, 4s. per gallon.

GENUINE WHITE LEAD 30 0	LINSEED OIL
SECONDS WHITE LEAD 28 0	BOILED OIL
GROUND PATENT DRYERS 3d. to 4d. per lb.	TURPENTINE
OXFORD OCHRE, 3d. to 4d. per lb.	LINSEED OIL PUTTY
RAW UMBER, 4d. to 6d. per lb.	Fine OAK VARNISH, 10s. 6d. per cwt.
BURNT DO., 6d. to 8d. per lb.	CARRIAGE DO., 12s. 6d. per cwt.
GREEN PAINT, all shades, 2s. to 3s. 0	PAPER DO.
BLACK PAINT, 2s. to 3s. 0	COPAL
RED PAINT .. 2s. to 3s. 0	KNOTTING
GROUND BRUSHES, 2s. to 3s. 0	Patent GOLD SIZE
DUSTERS, 2s. to 3s. 0	BLACK JAPAN
DISTEMPER BRUSHES, 2s. to 3s. 0	GLAZIER'S DIAMONDS
	TOOLS
	MILLED LEAD and PIPES
	OLD LEAD Bought or taken in exchange.

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As supplied by them to Mr. Rivers, to the Royal Horticultural Society, and to most of the Nobility, Clergy, and Gentlemen of the United Kingdom.

Each Box contains 100 feet. The prices only apply to the sizes stated.

Squares 20 by 12, 20 by 13, 20 by 14, 20 by 16	21s.
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Third ditto	18s. 6d.
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English	20s. 6d.

The above prices include the boxes, which are not returnable.

HORTICULTURAL GLASS.
Stock sizes, 16-oz., in 100 feet boxes, boxes included. These prices only apply to the sizes stated.

11 by 9	12 by 9	13 by 9	14 by 9	4ths.	3ds.	2ds.	1st.
12 " 10	13 " 10	14 " 10	16 " 10	13 6	15 6	18 6	21 6
13 " 11	14 " 11	15 " 11	16 " 11	15 0	16 0	18 0	21 0
14 " 12	15 " 12	16 " 12	17 " 12	16 0	17 0	18 0	21 0
18 " 13	17 " 13	18 " 13	19 " 13	18 0	19 0	21 0	24 0
18 " 14	19 " 14	20 " 14	21 " 14	18 0	19 0	21 0	24 0

SMALL SHEET SQUARES.
In 100 feet Boxes.
6 by 4 6 1/2 by 4 1/2 7 by 5 7 1/2 by 5 1/2 .. 12s. 6d.
8 by 6 8 1/2 by 6 1/2 9 by 7 9 1/2 by 7 1/2 .. 12s. 6d.
10 by 8 10 1/2 by 8 11 by 9 .. 12s. 6d.

Boxes 2s. each returnable at full price. Painted and Glazed with 16-oz. Sheet Glass.
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BRITISH PLATE, PATENT PLATE, ROLLED PLATE, SHEET SHEET, HORTICULTURAL, ORNAMENTAL, COLOURED, and every description of **GLASS**, of the best Manufacture, at the lowest terms. Lists of Prices and Estimates forwarded on application.
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Home News.

THE COURT at OSBORNE.—On Thursday, the 23rd ult., the Princess Teck, the Princess Mary of Teck, and the Prince of Leiningen arrived at Osborne on a visit. On Friday the Queen drove out with Princess Teck. Prince Arthur, Prince Christian, and the Archbishop of Canterbury arrived on a visit. General and Lady Alice Peel left for London. On Saturday the Confirmation of Prince Leopold took place at Whippingham Church, in the presence of the Queen and Royal family and the members of the Household. The Archbishop of Canterbury performed the ceremony. Prince Christian, Prince Leiningen, and the Archbishop afterwards left for London. On Sunday evening the Queen, Princess Louisa, Prince Arthur, Prince Leopold, and the Princess of Teck attended Divine service at Whippingham Church. The Rev. George Prothero officiated, and administered the sacrament. On Monday morning the Queen drove out with Princess Teck, and in the afternoon drove out with Princess Teck, Princess Louisa, and Princess Beatrice, accompanied by Prince Arthur on horseback. On Tuesday morning the Queen walked and drove in the grounds, accompanied by Princess Teck and Prince Leopold. In the afternoon the Princesses Teck and Princess Mary of Teck left for Kensington Palace. The Duke and Duchess Frederick of Schleswig-Holstein arrived from Frogmore on a visit to her Majesty. On Wednesday Prince Arthur left for Woolwich. Mr. and Mrs. Theodore Martin arrived from London on a visit. On Thursday morning the Duke Frederick of Schleswig-Holstein visited her Majesty's ship Hector in Cowes Roads. In the afternoon the Queen held a Council, at which Lord de Tabley, Sir George Markham Gifford, Lord Justice; and Mr. James Stansfeld, Third Lord Commissioner of the Treasury, were sworn as Privy Counsellors, and took their seats at the Board. The Lord President of the Council, Earl Granville, and the Lord Chamberlain had audiences of her Majesty. After the Council, Vice-Chancellor William Milborne James was introduced by the Lord Chamberlain, and received the honour of knighthood. Lord de Tabley and Lord Otho Fitzgerald kissed hands on their appointments as Treasurer and Comptroller of the Household.

THE PRINCE and PRINCESS OF WALES IN EGYPT.—Their Royal Highnesses and suite landed at Alexandria at an early hour on Wednesday morning, and left at mid-day for Cairo. According to the Levant Herald, it is now definitively arranged that the Prince and Princess will visit Constantinople after their tour in Egypt.

THE CABINET.—A Cabinet Council was held on Tuesday at the official residence of the First Lord of the Treasury. Another is summoned for this afternoon.

PARLIAMENTARY MOVEMENTS.—The following circular has been issued by the Prime Minister to his supporters in the House of Commons:—

"11, Carlton House Terrace, Jan. 30, 1869. "Sir,—I venture to express the hope that you may find it convenient to attend the House of Commons on the 16th of February, when the Address will be moved in answer to the Speech from the Throne. Very shortly afterwards business of great importance will be submitted to Parliament.—I have the honour, &c., W. E. GLADSTONE."

The following circular note has been addressed by Mr. Disraeli to the members of the Conservative party:—

"Grosvenor Gate, Feb. 2, 1869. "Sir,—I have to remind you that Parliament will meet on Tuesday, the 16th of February, and to express my hope that you may find it convenient to be in your place on that day, as business of importance may be expected.—Believe me, your faithful servant, B. DISRAELI."

It is generally understood that her Majesty will open Parliament in person. The Hon. Henry Cowper, member for Herts, will move, and Mr. Mundells, member for Sheffield, will second, the Address in the House of Commons. The executive committee of the united Liberal party at Manchester have resolved, almost unanimously, that, in the event of Mr. Birley being unseated, Mr. Milner Gibson shall be adopted as their candidate. Mr. Tillett, the unsuccessful Liberal candidate for Norwich at the general election, has declined an invitation to come forward for the seat

declared vacant by the recent election inquiry. Mr. Milner Gibson has also declined a similar invitation. Mr. E. Stracey, who has been selected as the Conservative candidate, has not yet issued his address. The Marquis of Hartington and his Conservative opponent, Mr. Philips, of Abbey Cwmner, have been actively pursuing their canvass for the Radnorshire Burghs during the past week.

TRIAL OF ELECTION PETITIONS.—Mr. Justice Willes gave judgment on Saturday on the Lichfield petition, stating that he should report to the Speaker that Colonel Dyott was duly elected and returned; that no corrupt practice was proved to have been committed by or with the knowledge and consent of any candidate; and that it did not appear from the evidence that corrupt practices prevailed at the late election. On Tuesday Baron Martin gave judgment in the second of the Bradford petitions, stating that he should report to the Speaker that Mr. Forster's election was valid, the costs to follow the event. On Thursday Baron Martin gave judgment in the Warrington petition, and decided that the election was not voided by the irregularities caused by the neglect or incapacity of a poll-clerk, and that Mr. Rylands was duly elected. The petitioners thereupon declined to proceed with the case, and abandoned the petition for a scrutiny. Mr. Justice Willes gave judgment yesterday on the Westbury petition, to the effect that the election of Mr. Phipps was void, on the ground of intimidation by Mr. Harrop, as his agent; that neither candidate was personally guilty of corrupt practices, and that it had not appeared that corruption extensively prevailed at the last election. The trial of the Wallingford petition commenced on Tuesday, and is still in progress. The two Stockport petitions have been withdrawn. The trial of the Westminster petition is fixed for Feb. 12; Coventry, Feb. 15. Gloucester, Feb. 18, Bridgewater, Feb. 23; Taunton, March 2; Hereford, March 9; Oldham, March 15; Preston, March 22. In Ireland, on Saturday, Baron Fitzgerald gave judgment in the Belfast petition, declaring that Mr. McClure had been duly elected, and condemning the petitioners to pay all costs. Mr. Justice Keogh gave judgment yesterday on the Dublin petition, declaring the election of Sir Arthur Guinness to be void, though not by his own corrupt acts, and ordering him to pay all costs. The Eniskillen petition has been withdrawn, with consent of the Court, the petitioners being ordered to pay Viscount Crichton's costs. The cross petitions against the return of Mr. Denis M. O'Connor and Sir R. Gore Booth, for county Sligo, were withdrawn on Monday with consent of Court. The Cashel petition will be tried on the 11th inst.; that of Sligo Borough on the 19th; Youghal, on the 19th; and Galway on the 24th.

ENTHRONEMENT OF THE ARCHBISHOP OF CANTERBURY.—The ceremony of enthroning the new Archbishop of Canterbury took place on Thursday, in the cathedral of that city, in the presence of between 2000 and 3000 persons from all parts of the kingdom, and was conducted on a more imposing scale than any former proceeding of the same kind that has occurred for very many years. The procession, consisting of the Archbishop, the Bishops of London, Oxford, St. David's, Ely, Peterborough, Hereford, and Honolulu; the Deans of Canterbury and Westminster, the Archdeacons and members of the Cathedral body, the Mayor and Corporation of Canterbury, assembled in the cloisters at 11 o'clock, and proceeded along the nave to the choir, at the entrance to which the party formed into file, along which the Archbishops, Bishops, Deans, and Archdeacons passed, and were conducted to the space within the rails at the east end of the cathedral, where the ceremony of induction was performed by the Ven. B. Harrison, Archdeacon of Maidstone, as proxy of Dr. Croft, Archdeacon of Canterbury, who, from his great age, was incapable of officiating. The Dean of Westminster represented by proxy four Bishops connected with the Cathedral who were unable, from illness or other cause, to attend—the Bishop of Winchester as Provincial Sub-Dean, the Bishop of Lincoln as Provincial Chancellor, the Bishop of Salisbury as Provincial Precentor, and the Bishop of Rochester as Provincial Chaplain. After the ceremony, the Archbishop and Mrs. Tait, the Bishops, the Dean of Westminster, Lady Augusta Stanley, and about 200 visitors were entertained at luncheon in the new library of the cathedral.

THE BISHOPRIC OF LINCOLN having become vacant last week by the confirmation of Dr. Jackson's translation to the see of London, the Gazette of Friday contained the usual conge d'elire and recommendation to the Dean and Chapter for the election of Dr. Wordsworth to the vacant see.

THE BISHOP OF SALISBURY was removed from Claridge's Hotel on Saturday to his brother's residence in Grosvenor Street. Since his removal he has not improved, and he is still in a very precarious condition.

CONVOCAION.—A meeting of the new Convocation for the Province of Canterbury was held on Friday at the Jerusalem Chamber, in order to have the approval and consent of the Archbishop to the election of a Prolocutor of the Lower House. The Convocation having been opened in due form, Dr. Bickersteth, Archdeacon of Buckingham, who has held the office for many years, was presented as unanimously chosen by the Lower House, by Archdeacon Denison, who made a Latin speech on the principal matters which are now interesting the clergy. The Archbishop, in complimentary terms, expressed his approval of the election of Archdeacon Bickersteth, and the new Prolocutor having replied, Convocation was formally adjourned to the 23d inst.

COLONIAL OFFICE.—Sir Francis R. Sandford, assistant-secretary of the Education Office, has been appointed to be Assistant Under Secretary of State for the Colonial Department.

HOUSE OF COMMONS.—Mr. Henry Lay, Second

Clerk Assistant of the House of Commons, has resigned his office, and Mr. Reginald Palgrave, who has recently been one of the Examiners for Standing Orders in both Houses of Parliament, has been appointed his successor.

Foreign.

FRANCE.—In the sitting of the Corps Legislatif on Monday, Baron de Benoist explained his reasons for questioning the Government respecting the Bill on public meetings passed last session. M. Baroche replied on the part of the Government, and after M. Ollivier and M. Pelletan had spoken, the motion of Baron de Benoist was withdrawn. The Princess Bacciochi, a relative of the Emperor, died on Wednesday, at her model farm of Korn-et-Ouet, near Rennes in Brittany.

ALGERIA.—A telegram from Algiers reached Paris on Tuesday announcing a rising of the tribes who have never given in their submission to the French. They were advancing in numerous bands towards Tell, and columns of troops were being organised to march against them. A subsequent telegram, dated Feb. 2, says:—

"At 9 a.m. to-day the French commander-in-chief in Laghouat, Colonel Soums, at the head of 1200 men, encountered near Ayn Madhy, 3000 horsemen and 800 foot soldiers belonging to the tribe of Ouled-Sidi-Cheik. The latter were completely defeated, and left 70 dead on the field of battle, besides carrying away many killed and wounded. The French loss is stated to be two officers and eight soldiers wounded. Colonel Soums is pursuing the rebels in a westerly direction. The engagement, it is hoped, will re-establish in the south the tranquillity which had been momentarily compromised. Marshal MacMahon is expected in Algiers on the 4th inst."

Another telegram, dated Thursday last, says that the enemy has been completely routed, and that the French are in full pursuit.

SPAIN.—The *Gaulois* of Monday published a telegram from Madrid, stating that in consequence of the attitude of the reactionary party, and the difficulty of choosing a candidate to the Throne acceptable to the whole nation, all the fractions of the Liberal party had decided to place the supreme executive power in the hands of a triumvirate, which would probably consist of General Prim, Marshal Serrano, and Senor Rivero. The news that General Espartero will not accept his election to the Cortes is confirmed. On Sunday afternoon a manifestation was made at Madrid in favour of religious liberty. Perfect order prevailed throughout. General Prim and Senor Ortiz, Minister of Public Worship, addressed the people, and repeated their former declarations that freedom of worship was an accomplished fact, but added that the Provisional Government preferred leaving to the Cortes to decide the question of separation between Church and State. The second Protestant service took place in Madrid on Sunday. Hundreds of persons were unable to obtain admission from want of room. The owner of the house in which the services are held has received an anonymous letter threatening him with assassination. The Government has authorised the erection of a Jewish synagogue. The Papal Nuncio has returned to the Nunciature accompanied by Senor Rayero, and was received by the Civil Governor of the Province of Madrid on his arrival. It is asserted that five individuals guilty of complicity in the assassination of the civil governor of Burgos will be executed this week. A decree has been issued granting a pension of 1500 crowns to the widow of the murdered governor. The authorities of Saragossa have arrested several persons known to belong to the Carlist party. The two Tristani Carlist chiefs have entered Catalonia by the Valley of Andorra. Troops have been sent to oppose their further advance.

BELGIUM.—The King and Queen, accompanied by the Royal children, left Brussels on Monday for the Château d'Ardenne, where they will remain for some time. The Prussian *Cross Gazette* of Wednesday, in a leading article headed "The future of Belgium," declares that it is to the interest of all the Great Powers that the independence and neutrality of that country should be preserved, adding that if, contrary to expectation, she should be threatened from any other quarter, allied Germany must vigorously undertake her defence.

SAXE COBURG-GOTHA.—The jubilee in honour of the 25th anniversary of Duke Ernest's accession to the Throne was opened on the 29th ult. by the reception of the National Representatives and Foreign Ministers at the Castle of Friedenstein. The President of the Diet presented an address, in which he laid stress upon the Duke's national labours, and said that his Government had been one constant development of liberal progress and undisturbed unity between the duke and the country. His Highness, in reply, gave a retrospective sketch of his career in the Government of the duchy, and of his conduct as a German patriot. In the afternoon a banquet was given to Duke Ernest by his subjects.

BADEN.—The Procurator-General has been instructed by the Minister of State to enter a prosecution against Bishop Kubel, coadjutor of the archbishopric of Freiburg, and Herr Burger, parish priest, for abuse of clerical power, in having excommunicated Burgomaster Stromeyer.

PRUSSIA.—The Chamber of Deputies on Friday deliberated on the ordinance for the confiscation of the private property of the ex-King of Hanover. A committee of the House brought forward a resolution, approving the ordinance with the following addition—"The decree of confiscation cannot be annulled except by means of legislation." A long debate ensued, in which the former Hanoverian Minister, Herr von Windhorst opposed the committee's proposals, and demanded protection for the private property of King George. He denied that the projected confiscation was either justifiable or constitutional, arguing that independent judges only, and not Legislative Assemblies,

were competent to decide on such a question. He, moreover, alluded to the absence of any proof of the alleged existence of a Hanoverian Legion or of a Committee of Agitation. Count Bismarck, in reply, proved by reports from the Prussian Ambassador in Paris, that the Legion really does exist, and, moreover, numbers 1400 men, and costs in maintenance 300,000 thalers a-year. The Prussian Government, in concluding the arrangement with King George, exhibited due regard for the Courts friendly with or related to the King of Hanover, and had not overlooked the fact that a large subsidy was made to his Majesty by the English Government. Count Bismarck further expressed hopes that King George would now abandon a useless pretendership; adding—"As his Majesty, however, considers himself in the light of a belligerent, and conspires with foreigners to injure the fatherland, the Prussian Government is under the obligation to defend itself, and acts according to the laws of war." The proposals of the committee were then adopted by a majority of 256 to 70. The members who voted against the proposals belong to the Party of Progress. Nine deputies abstained from voting. In the sitting of Saturday the Government Bill for confiscating the property of the Elector of Hesse Cassel, was passed by a large majority. Count Bismarck, on introducing the measure, pronounced it to be one of political necessity. It is expected that the Government will convoke the Customs Parliament for the month of May.

AUSTRIA.—The Upper House on Saturday adopted, with slight modifications, the measure allowing Press prosecutions to be tried by juries. In the Lower House the Bill was introduced by the Minister of Justice.

ITALY.—The Chamber of Deputies on Friday approved the treaty of commerce concluded with Switzerland. The King left on Saturday for Ancona and Naples. It is asserted that, in the event of hostilities between Turkey and Greece, the whole Italian ironclad squadron will be sent to Greek waters. Order and tranquillity have been restored in the provinces of Parma, Bologna, and Reggio. A decree was consequently issued on Saturday terminating the mission of General Cadorna. The Government on Tuesday definitively settled the convention for the concession of the Calabro-Sicilian lines with Messrs. Waring and M. Lowinger. It has also promised to the latter a concession for a direct line of railway from Florence to Naples. Both lines are to be constructed on Fell's system.

RUSSIA.—The Government has raised Kiew, chief town of the province of Little Russia, to the rank of third capital of the empire, placing it next to St. Petersburg and Moscow. In consequence of this resolution an Imperial palace is to be constructed there without delay. An Imperial ukase has been issued, approving the formation of a private company to commence the levelling works for the projected railway line from the Caspian Sea to Lake Aral.

GREECE.—Count Walewski, bearer of the Protocol of the Conference, and also of an autograph letter from the Emperor Napoleon to King George, arrived at Athens on the 28th ult. The declaration of the Conference was delivered to the Government by the French minister on the same day, eight days being allowed for an answer. On Tuesday it was announced that the Bulgarian Ministry, being unwilling to sign the Protocol, had resigned. The King, after accepting their resignation, entrusted M. Zannis and M. Deligeorgis with the formation of a new Ministry. These statesmen, however, declined the task, and the members of the Bulgarian Cabinet offered to retain their portfolios on condition that the protocol of the Conference be rejected. King George then sent for M. Faimis, a member of the Chamber of Deputies, who accepted the task of forming a new Ministry, and has constituted a Cabinet which assents to the protocol of the Conference. In this new Cabinet M. Faimis will hold the office of Minister of the Interior, and M. Delyannis that of Minister for Foreign Affairs. Great excitement prevails in Athens and in the provinces.

TURKEY.—Mr. Seward has authorised the American Minister at Constantinople, during the rupture between Turkey and Greece, to offer informally his good offices as a channel of communication between the Greek Government and the Porte.

THE PRINCIPALITIES.—The French Government has recalled the members of the French Military Commission after five years' service at Bucharest.

EGYPT.—The Prince and Princess of Wales arrived at Alexandria about 7 o'clock on Wednesday morning, disembarked at the Railway Wharf, and proceeded at mid-day for Cairo, accompanied by the Viceroy's son, Cherif Pasha, and Colonel Stanton.

INDIA.—The farewell dinner given to Sir John Lawrence on the 12th ult., was very successful. Many native chiefs are at present in Calcutta, for the purpose of taking leave of Sir John, and welcoming the new Viceroy. It is stated that the Lieutenant-Governor of the Punjab will shortly come to Calcutta for the purpose of arranging the terms of the alliance with the Ameer of Afghanistan. It is stated that the subsidy given by the Indian Government to Ameer Shere Ali Khan consists of 120,000*l.* An outbreak of the Coolie tribes on the frontiers of Sylhet and Cachar is reported. The Government of India has adopted very active measures to meet the famine. The octroi duties upon grain are to cease for the present in those districts where scarcity exists. A most seasonable fall of rain had greatly improved the prospects of the crops. The order for the commencement of the irrigation works at Behar has been issued.

CHINA.—A meeting of the leading merchants has been held at Foochow in reference to the fraudulent practices of the Chinese in mixing and packing teas. Every assistance has been promised by the consuls at Shanghai to prevent the fraud.

JAPAN.—The Japanese Government has notified the representatives of foreign Powers of the opening of the port of You deegas (Yokohama) to foreign trade. The advices relative to the annexation of Hakodadi are conflicting. The northerners have notified their intention of confiscating every foreign vessel conveying troops or contraband of war.

UNITED STATES.—The House of Representatives on Monday, by a majority of 110 to 62, tabled a resolution in favour of the annexation of the Republics of Hayti and San Domingo to the United States. The House of Representatives on Saturday, by a vote of 147 to 42, adopted a resolution amending the constitution so as to prohibit the denial of the suffrage to any person on account of race or colour. A bill has been introduced, and referred to a Judiciary Committee, providing that the jurisdiction of the Federal Court of Claims shall extend to the claims of loyal citizens in rebel States. Rumours of an again current in Washington that negotiations were being held with Spain for the purchase of Cuba have been denied by the part of the United States by Secretary Seward.

CANADA.—The Hon. Joseph Howe has been appointed President of the Privy Council of the Dominion of Canada. The case of Whelan, an assassin of Mr. D'Arcy M'Gee, was argued at the Court of Error and Appeals, at Toronto, on the 22d ult. The judges delivered judgment on the case, four for and two against granting a new trial. The prisoners were ordered to apply for leave to appeal to the Privy Council. The Court decided that it had no power to grant leave. The prisoner was sent back to Ottawa under the law to take its course, and if a reprieve is granted he will be executed on the 11th inst.

CUBA.—General Dulce has telegraphed to the Provisional Government that a riot of an insurrectionary character has broken out at Havannah, but that order has been restored, and that the insurrection on the island is diminishing.

PARAGUAY.—Several combats took place against the last Paraguayan fortifications between the 21st and the 27th December. On that day Lopez's headquarters were assaulted, and the chief redoubt taken. Terrible losses were sustained on both sides. The Paraguayans fled into a wood, and were completely surrounded, but Lopez was supposed to have escaped. Angostura was still untaken.

City Intelligence.

OVEREND, GURNEY & Co (LIMITED).—At the Central Criminal Court on Tuesday, the grand jury returned true bills against all the directors of Overend, Gurney & Co. (Limited), who were charged with fraud and conspiracy in the recent investigation of the Guildhall. The witnesses for the prosecution were under examination before the grand jury for several hours. The Court of Queen's Bench had previously granted a writ of *certiorari* for removing into that court any indictment that might be found at the Central Criminal Court against the directors. Lord Chief Justice expressing an opinion that in consequence of the excitement prevailing on the subject in the City, the case had better be tried in Westminster. On Saturday the defendants appeared before the Lord Mayor, at the Mansion House, with their sureties, and entered into fresh recognisances to appear for trial on the 15th of April, in the Court of Queen's Bench, at Westminster, and to be responsible in the event of conviction for the costs of the prosecution to the period of the bill being found by the grand jury. The bail amounted in all to 120,000*l.*, being 10,000*l.* each of the defendants, and 5000*l.* for each surety, 12 in number. It is rumoured that some of the leading members of the bar have already been retained for the defence, including Sir Esmond Palmer, Sir J. D. Coleridge, Sir John Karslake, Sir Mellish, Q.C., Serjeant Ballantine, Serjeant Parry, Giffard, Q.C., and Serjeant Sleight. The case is recently stated to be necessary to meet the promissory notes due on the 15th of March, has been ordered by Vice-Chancellor Malins to be paid on the 15th of March.

THE CASE OF MR. EDWARDS.—In compliance with a requisition from the Lord Chancellor, Mr. Edwin Watkin Edwards attended on Thursday at the Court as solicitor before Mr. Commissioner Holroyd, in a case in Bankruptcy he is official assignee. The purpose of giving an explanation of his recent conduct at the Overend, Gurney & Co. examination. Mr. Edwards stated that, as his connection with the case ceased in 1861, and his papers relating to it had been handed over to them, he was without documents to refresh his memory, and therefore asked for ten days to enable him to recall the facts, and to collect the evidence of others as far as possible in support of them. Mr. Holroyd consulted with the other Commissioners, and the ten days were granted.

THE MERCHANTS' COMPANY (LIMITED).—A charge of conspiracy to defraud brought against the directors of "the Merchants' Company," now in liquidation, was again heard at the Mansion House on Saturday. The principal witness was Mr. Capel, official liquidator, and at the close of the sitting the investigation was again adjourned.

MONEY MARKET, FRIDAY.—BRITISH FUNDS.—Consols closed at 93 to 93½, both for Money and Account; New and Reduced Three per Cent. at 93½; India Five per Cents. 112 to 112½; Stock, 24½ to 24½; Exchequer Bills, 8½ to 8½; FOREIGN.—Spanish, 30½ to 30½; Italian (1861) 55½; Tobacco Loan, 4½ to 5 pm; Turkish Five per Cents. 39½ to 39½; Ditto Six per Cents. 39½ to 39½; Egyptian (1864), 87 to 88; Ditto (1863), 87 to 88; Mexican, 15½ to 15½; Honduras, 86 to 88; Portugal, 75½ to 76½; Portuguese, 36 to 36½; United States Bonds, 76½ to 76½; Erie, 23½; Illinois, 96½.

for the season, and the general inferior quality, owing to the second growth in most lots, diminishes consumption. Trade dull and prices lower. This day's quotations:—Yorkshire Regents, per ton, 70s. to 120s.; do. Flukes, 70s. to 140s.; Lincolnshire Regents, 60s. to 90s.; Dunbar and East Lothian do., 70s. to 120s.; Perth, Forfar, and Fife do., 60s. to 110s.; do. Rocks, 50s. to 75s.; French and Belgian Whites, 40s. to 80s.

WANTED, an active, honest, intelligent, and industrious Man, as FOREMAN and CULTIVATOR of Greenhouse and Stove Plants.—He must be zealous and energetic, capable of Managing Labour economically, with good address, and be able to write a good hand.—Address, by letter, to ASHRA HENDERSON & Co., Pine Apple Place, Malda Vale, London, W.

WANTED, as GARDENER, a Single Man, who is capable of Managing Pigs and Cows also. Wages according to age, character, and ability.—Apply by post to Mr. G. NZAMU, Surrey House, Littlehampton.

WANTED, a YOUNG MAN, who can be well recommended, and who has been accustomed to Wall Trees; must be a good Nailor, and quick at his work; he will at times have to work in the Houses, and take his turn with the Fires. A Premium required. Wages, 12s. to 14s. per week, with lodgings.—Mr. W. FROMOW, Nurseryman, Turnham Green, Middlesex, W.

Servants for a Gentleman's Family.

WANTED, a middle-aged Couple, without incumbrance, the Man as GARDENER, the Wife as LAUNDRESS.—A. B., Post Office, Gisburn, Yorkshire.

GARDENER and PORTERESS WANTED.—The Guardians of the Poor of the Parish of St. Leonard's, Shoreditch, Middlesex, require the services of a respectable MARRIED COUPLE, without incumbrance, not less than 25 nor more than 45 years of age, the Man as Gardener and the Wife as Porteress, at the Industrial School of the Parish at Brentwood, Essex. The Man must be a good Kitchen Gardener, competent to instruct Boys in Gardening, and his Wife must be able to read and write well. The salary of the Man will be £30 per annum, and that of his Wife £10. The parties elected will reside in the lodge, which is furnished, and rations, coals, washing, &c. are allowed. The appointments will be made subject to the approval of the Poor-law Board. Applications, in the Candidates' own hand-writing, with testimonials as to character and ability, must be sent to the undersigned at Shoreditch Workhouse, London, N.E., endorsed, "Application for the Office of Gardener," not later than the 16th day of February next. By Order of the Board, Wm. NIGHTINGALE, Clerk.

WANTED IMPROVER, with Premium, and having some knowledge of Glass.—Age 19 to 20; good opportunity. S. S., Gardeners' Chronicle Office, W.C.

WANTED, a YOUTH, about 18, to work under the Foreman in the Greenhouses.—Apply personally to R. CHILDS, Richelm Nursery, Rye Lane, Peckham.

WANTED, a HEAD SHOPMAN, in the Seed and Nursery Department.—Apply to THOMAS MCKENZIE & SONS, 34, Dawson Street, Dublin.

WANTED, a steady, active, energetic YOUNG MAN, to assist at Counter Work, and make himself generally useful. To an Improver this will be found advantageous.—Apply, stating age, qualifications, salary required, and where last engaged, to HARRISON & SONS, Midland Seed Warehouse, Leicester.

WANTED, as COWMAN, a Married Man, without incumbrance, to attend to Cows, Pigs, and Poultry, also to serve the House with Fuel and Pump-water; he must thoroughly understand the Management of a valuable Herd of Alderney Cows, and have an unexceptionable character. Wife to attend to Lodge Gates. Wages, 16s., and lodge residence, to be raised to 18s. if found competent.—Apply by letter to J. ANDERSON, Esq., Wraybury, Staines.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen. Further particulars given on application to Messrs. E. G. HENDERSON & SONS, Wellington Nursery, St. John's Wood, London, N.W.

To Gardeners and Bailiffs (Head, Foremen, or Under). JAMES CARTER AND CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those who can send unquestionable references need apply. Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & Co. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c. JAMES CARTER & Co., 237 and 238, High Holborn, London, W.C.

GARDENER (HEAD), or SUPERINTENDENT in a Public Park or Garden.—The Advertiser is about leaving a large place, where he has served 12 years, and is now at liberty to engage with any Nobleman or Gentleman requiring the services of a first-class practical Gardener. He has had great experience in Planting, and the Management of Woods and Forests, can Measure Timber, Ground, and Brickwork, and is well qualified to fill a position similar to the above. Testimonials of the highest class as to character and ability can be had from present and late employers, also references ad libitum to many who are personally known to the Advertiser.—A. D., Sudbury Park, Derby.

GARDENER (HEAD), age 25, married.—A Gentleman wishes to recommend his second Gardener. Thoroughly competent. Four years' good character.—W. F., Post Office, Street, near Petersfield, Hants.

GARDENER (HEAD), in a Gentleman's Establishment.—Married, thoroughly understands Fording in all its branches, and has a good knowledge of Kitchen and Flower Gardening. Good references.—T. A., Post Office, Aylesbury, Bucks.

GARDENER (HEAD).—Age 27, thoroughly understands the Management of Stove and Greenhouse Plants, Vines, Melons, and Cucumbers, Kitchen and Flower Gardening, &c.—W. W., Mr. E. Jones, Seedsman, Henley-on-Thames, Oxon.

GARDENER (HEAD).—Age 27, thoroughly understands Pines, Vines, Stove and Greenhouse Plants, and Early and Late Forcing. Good character.—Y. R. 5, Mr. J. Head, sen., Petersfield, Hants.

GARDENER (HEAD).—Married, no incumbrance; experienced in Vines, Peaches, Stove and Greenhouse Plants, Forcing, and Kitchen and Flower Gardening, can Manage Land, if required. Seven years' excellent character.—W. S., Post Office, Cwastrey.

GARDENER (HEAD), in a Nobleman's or Gentleman's Establishment, where a first-class practical Man is required.—Age 36, married, no incumbrance, will be disengaged on March 1, where he has served seven years. First-class testimonials.—T. F., Fairthorn Gardens, Botley, Southampton.

GARDENER (HEAD).—J. C. NIVEN, Curator, the Botanic Gardens, Hull, will be glad to recommend a middle-aged married Man, without incumbrance. Steady, honest, industrious; practical experience in all departments in extensive establishments. J. C. N. will be glad to answer any further inquiries.

GARDENER (HEAD).—Single: has a thorough knowledge of Early and Late Forcing of Grapes, Cucumbers and Melons, Stove and Greenhouse Plants, and Flower and Kitchen Gardening. Three years in present situation. Character will bear the strictest investigation.—R. C., T. Hepburn, Esq., Clapham Common, Surrey.

GARDENER (HEAD).—Age 35, married, no incumbrance; as a producer of Fruits, Flowers, and Vegetables, and as regards the general Management of Gardens and Pleasure Grounds, Advertiser possesses a thorough knowledge of the profession, including the most approved methods of modern Horticulture. High references and testimonials as to character and ability.—WILLIAM TAYLOR, Winter Garden, Kew Gardens, Surrey.

GARDENER (HEAD).—Age 36, married, no incumbrance; has a thorough practical knowledge of Gardening in all its branches, including Early and Late Forcing of Vines, Figs, Peaches, Cucumbers, Melons, Stove and Greenhouse Plants; also the Management of Land and Stock. Wife a good Dairywoman, Six years' character from the Gentleman he has just left.—S. OSOBY, Grove Road, Hounslow, W.

GARDENER (HEAD).—Age 35, married, no incumbrance; thoroughly understands Fording all kinds of Fruits, Flowers, and Vegetables; great experience in Erecting and Heating Horticultural Buildings, Remodelling and Planting New Grounds, also the Management of Land and Stock. Unexceptionable reference as to character and ability from present employer.—R. W., Rose Cottage, Upper Teddington, Middlesex.

GARDENER (HEAD).—Age 44, married, with five children; thoroughly understands his profession in all its branches. Is a first-class Grape and Pine Grower; has had much experience in Early and Late Forcing of Fruits and Vegetables, also Stove and Greenhouse Plants, has also a thorough knowledge of Flower and Kitchen Gardening. Wife an experienced Cook 14 years' good character from present employer.—Mr. G. CAIRNS, Lugwardine, Hereford.

GARDENER (HEAD or SINGLE).—Understands Kitchen and Flower Gardening, and Forcing. Wife a good Cook, Laundress, or can take charge of Dairy. Good character.—A. B., 129, Hall Place, Malda Hill, Edgeware Road, London W.

GARDENER (HEAD, or SINGLE-HANDED).—Age 33, married; active, industrious, well understands Flower and Kitchen Gardening. Five years' unexceptionable reference.—X. Z., 2, Elizabeth Place, Upper Richmond Road, Putney, Surrey.

GARDENER (HEAD, or SINGLE-HANDED).—Age 32, single; understands Vines, Cucumbers, Greenhouse Plants, Kitchen and Flower Gardening, &c. Good character.—J. A., Post Office, Leatherhead, Surrey.

GARDENER (HEAD, WORKING), age 28, married.—JAMES HARLOCK, Gardener to the Right Hon. Lord Lilford, can with confidence recommend his Foreman to any Nobleman, Lady, or Gentleman in want of a thorough practical, steady, energetic Man.—E. W., Lilford Hall, Oundle, Northamptonshire.

GARDENER (HEAD), or GARDENER and FORESTER.—Age 36, married, first-class references from present and former employers. Thirteen years in present situation.—J. E. B., Manor House, Rodborough, Stroud, Gloucestershire.

GARDENER (HEAD), or GARDENER and FORESTER, to any Nobleman or Gentleman.—Middle-aged, married, had extensive practice in many first-class establishments. Unexceptionable references as to character, &c.—GARDENER, Mr. Muir, No. 7, Cockburn Street, Edinburgh.

GARDENER (FOREMAN), in a large place.—Eight years' experience in two first-class places. Can be highly recommended.—A. B., Mr. Wm. King, Nurseryman, Lincoln.

To Noblemen and Gentlemen.

GARDENER (FIRST-CLASS).—Thoroughly competent to Manage an extensive Garden in every department. First-class references.—Apply, in the first place, to Mr. HANCOCK, Superintendent, Royal Horticultural Society's Garden, Chiswick, W.

GARDENER, in a Nobleman's or Gentleman's Family.—Age 33, satisfactory references as to character and abilities. W. PATL, Post Office, Lower Tolke Hill, Brighton, Surrey, S.

To Noblemen and Gentlemen.

GARDENER.—Age 34, married; thoroughly practical in all branches of Floriculture and Horticulture. The highest reference as to ability and character can be produced. Wages not less than £80, with house, fuel, vegetables, &c.—Address, in first instance, A. B., care of Mr. J. Wills, F.R.H.S., Ashburnham Park Nursery, King's Road, Chelsea, S.W.

To Noblemen and Gentlemen.

GARDENER, or GARDENER and BAILIFF.—Age 36, many years' experience. A very successful Grape and Pine Grower, understands Land, Woods, and Stock.—H. R. O., Post Office, Wantage, Berks.

GARDENER (SECOND), in a good Establishment.—Age 33, six years' experience. Good character.—GARDENER, Ravenswood, West Hill, Putney Heath, S.W.

GARDENER (where two or three are kept).—Thoroughly practical, has served several years in one of the best establishments in Middlesex. Most strongly recommended. Moral character will bear the strictest scrutiny.—J. C., Post Office, Barnet.

GARDENER (UNDER).—Has been accustomed to the Indoor and Outdoor work of a Nobleman's Gardens. Good references.—R. C., Post Office, Blyth, Worksop, Notts.

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MANAGING GROUND FOREMAN, PROPAGATOR, and SALESMAN, in any large Firm where energy and skill are required, and where Nursery Stock is wanted in large quantities. Thoroughly practical, energetic, and business-like; most successful in the Propagation and Cultivation of Hardy Ornamental Trees and Shrubs, Fruit Trees, Roses, &c., and the general routine of Outdoor Nursery Work for several years in the above capacity; well versed in the Management of Workmen, and understands the full value of Nursery Stock, can take the whole responsibility of the Outdoor Department to any extent, if required. Character for general ability, integrity, and sobriety, will bear the most strict investigation.—A. B., 7, Camellia Street, South Lambeth, London, S.

FOREMAN, in a private Establishment.—Nine years' practical experience; active and intelligent, with first-class character in every respect.—M. M., 57, Blandy Street West, Chelsea, S.W.

FOREMAN, in a Nobleman's or Gentleman's Garden.—Age 27, has had good experience in the Management of Orchids, Stove and Greenhouse Plants, Fencing, Hedges, and Specimen Planting for Exhibition. Good references.—F. B., Mr. Moss, Gardener, Sheffield Lodge, Wexham, Hants.

FOREMAN and GROWER, or SALESMAN.—Age 35, married; has a practical knowledge of Plant, Fruit, and Vegetable Growing, Forcing, &c. Has been for the last eight years employed in a London Nursery as Salesman and Grower for Current Garden. Good character.—G. G. 44, Rutland Street, Brompton, W.

FOREMAN and PROPAGATOR (Plant Department).—Thoroughly experienced; fully competent to take the Management of a large Nursery. Has filled situations as above for several years. First-class references as to character and ability.—Beta, Clapton Nursery, Upper Clapton, London, N.E.

FOREMAN (UNDER), in the Houses.—A Young Man, has been brought up to Gardening; used to Glass. Good character.—O. M., Post Office, Harmondsworth, Middlesex.

BAILIFF (WORKING), or FOREMAN.—Age 40, thorough & trustworthy, understands Stock. Wife excellent Dairywoman and Laundress.—N. G., Post Office, Reigate.

BAILIFF, or FOREMAN.—Age 39, married; has had great experience upon large Farms, Estate Work, Repairs of Farm Buildings, Management of Woods, Land and Timber Measurement. Six and a half years with late employer.—A., 43, Upper Stone Street, Maidstone, Kent.

BAILIFF.—Age 32, married; will be shortly disengaged, owing to a change in the property. Thoroughly practical in the everyday Management of Light and Heavy Land, Woods and Plantations, Root and Hop Culture, and Steam Cultivation and all modern Machinery. Good Accountant. Reference to Employers. BARNET, Wrexlesham, Farnham, Surrey.

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IMPROVER, for two years; Fruit department preferred.—Age 30; four years' experience. Good reference. A Premium will be given.—A. B. C., Post Office, Brook's Bar, Manchester.

WANTED, to place a respectable YOUTH, as Gardener, with a Nobleman's or Gentleman's Garden, or as a bridge, Bookseller, Hertford.

CLERK, or otherwise.—Age 21; country preference. Object to go abroad. First-class testimonials.—J. B., Shepherd's Bush, W.

SEEDSMAN, SHOPMAN, or WAREHOUSEMAN. Young Man; seven years' experience in the Wholesale Retail Trade. First-class testimonials. Moderate salary.—G. A., 7, Drumrynan Street, Edinburgh.

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Dry and Warm Feet. PATENT MOULDED INDIA RUBBER CLUMPS for BOOTS and SHOES.—A new invention, ensuring durability, economy, and comfort. These Clumps wear as Leather, are impervious to Damp, not affected by Heat, and any handy man can easily attach them. Full particulars are sent with the Clumps.

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To ensure a fit, a Paper Pattern, giving exact size of the Boots, should be sent with order. JAMES LYKE HANCOCK, Vulcanised India-Rubber, 205, Goswell Road, London, E.C.

BREAKFAST.—EPP'S COCOA. GRATEFUL and COMFORTING. Only in 1/2 lb., 1 lb., and 1 1/2 lb. Packets.—See Brand and label. Sold by the Trade in all Parts. Prepared by JAS. EPPS & Co., Homoeopathic Chemists, London.

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DINNEFORD'S FLUID MAGNESIA. The best remedy for Acidity of the Stomach, Headache, Gout, and Indigestion, and the best for delicate constitutions, especially adapted for Ladies, Children, and Infants. Dinneford & Co., 172, New Bond Street, London, and of all Chemists throughout the World.

CORNS and BUNIONS.—A Gentleman, who has been tormented with corns, will be happy to afford others information by which he obtained their complete removal, without pain or any inconvenience.—Forward a stamped envelope to F. KROSTOV, Esq., Wars, Bera.

HALE'S GALVANIC APPARATUS.—Extensive Cures of Paralysis, Rheumatism, Loss of Motion, Indigestion, Debility, T. C. Asthma, &c. Send two shillings to H. Hale, No. 40, Addison Road, Kensington, for the particulars of the most extraordinary cure ever witnessed. Be satisfied at its contents.

ELECTRICITY IS SELF-ADJUSTING CURATIVE and ELECTROLYTIC. Sufferers from nervous debility, indigestion, weakness, &c. now cure themselves by the only "Guaranteed Remedy" protected by Her Majesty's Great Seal. Free for one stamp, by B. JAMES, Esq., Medical Electrician, the London Hospitals, Percy House, Bedford Square, W.C. N.H.—Medicine and Fees superseded. A Test gratis on details. Established 1840.

Galvanism and Medicine Superadded. NEW METHOD OF CURING DYSPEPSIA. The aid of doctors and their drugs, by studying the laws of Nature, cannot too carefully avoid the use of life-drops, and other dangerous medicines, as they contain poisons, which act on the delicate coatings of the stomach, destroy the receptacle of our daily sustenance. The liver pronounced invariable; but, acting in accordance with the new offers, has, by God's blessing, been restored to its strength, and with sympathy for like sufferers, the remedy will be sent, post paid, on receipt of address and one shilling. FRUIT GARDEN, East, 30, York Buildings, Strand, London.

WHEN A PERSON TAKES COLIC, which is a consequence of a cold, a natural effort is made for its relief. The only safe and prudent remedies to be adopted, which assist Nature in her work, by removing the cause of the complaint, and restoring the system to its normal state, are SPENCER'S PULMONIC ELIXIR, which is admirably adapted to the cure of colic, and other ailments of the stomach, and the chest; and for a temporary relief, a few drops of the Elixir will be sent, post paid, on receipt of address and one shilling. FRUIT GARDEN, East, 30, York Buildings, Strand, London.

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The Gardeners' Chronicle Newspaper.

SATURDAY, FEBRUARY 20, 1869.

J. H. CARRINGTON, LANDSCAPE GARDENER, GARDEN ARCHITECT, LAND SURVEYOR, &c., Mile End, Stockport.

To Florists and Others.

BOUQUET PAPERS and HOLDERS, in paper, flat or mounted, plain, gilt, or silvered, also in real lace. Many fine varieties. Wicker Bouquet Holders reduced to 30s. per gross.

CLOCHES A JARDINS.—These invaluable articles must entirely supersede and are vastly superior to Hand Glasses. See many recent notices in the Gardeners' Chronicle. Price, 2s each; 6s per case of 25, package free. They may be obtained of Hooper & Co., Covent Garden, London, W.C.

JAMES PHILLIPS AND CO. beg to submit their prices as follows:—

GLASS FOR ORCHARD HOUSES, As supplied by them to Mr. Rivers, to the Royal Horticultural Society, and to most of the Nobility, Clergy, and Gentlemen of the United Kingdom. Each Box contains 100 feet. The prices only apply to the sizes stated.

Table with 4 columns: Quality (Fourth, Third, Second, English), Price per foot, Price per box (21 oz. to the foot), and Price per box (16 oz. to the foot).

HORTICULTURAL GLASS. Stock sizes, 16 oz., in 100 feet boxes, boxes included. These prices only apply to the sizes stated.

Table with 4 columns: Size (11 by 9, 12 by 9, 13 by 9, 14 by 9), Price per foot, Price per box (16 oz. to the foot), and Price per box (21 oz. to the foot).

SMALL SHEET SQUARES. In 100 feet Boxes. Boxes 2s. each returnable at full price. Painted and Glazed with 16-oz. Sheet Glass.

London Agents for HANLEY'S IMPROVED PATENT ROUGH PLATE.

LINSEED OIL, Genuine WHITE LEAD, CARSON'S PAINTS. SHEET and ROUGH PLATE GLASS, SLATES of all sizes, BRITISH PLATE, PATENT PLATE, ROLLED PLATE, CROWN SHEET, HORTICULTURAL, ORNAMENTAL, COLOURED, and every description of GLASS, of the best Manufacture, at the lowest terms. Lists of Prices and Estimates forwarded on application to James Phillips & Co., 150, Bishopsgate Street Without, E.C.

Horticultural Glass Warehouse. THOMAS MILLINGTON AND CO., 87, Bishopsgate Street Without, London, E.C. NEW LIST for ORCHARD-HOUSE GLASS as supplied to Her Majesty, the Nobility, Gentry, Mr. Rivers, and the leading Horticulturists of the United Kingdom.

Table with 4 columns: Size (in in.), Price per 100 feet, Price per 100 feet (15 oz.), and Price per 100 feet (21 oz.).

Table with 4 columns: Size (in in.), Price per 100 feet, Price per 100 feet (12s 3d), and Price per 100 feet (13s 3d).

Table with 4 columns: Size (in in.), Price per 100 feet, Price per 100 feet (14s 3d), and Price per 100 feet (15s 6d).

The above Prices are only for the Sizes stated; if a quantity of any other Size be required, a Special Price will be given.

Table with 4 columns: Size (in in.), Price per 300 feet case, Price per 200 feet case, and Price per 100 feet case.

SHEET GLASS is made only in the following substances, 15 oz., 14 1/2 in., 3-16th in., 1-4th in., and 3-8th in. substances. BRITISH PLATE GLASS for Windows and Silvered for Looking Glasses, Coloured Glass Shades, Striking Glasses, &c., &c.

PAINTS, COLOURS, VARNISHES, &c. STUCCO PAINT, 2s. per cwt. This Paint adheres firmly to the wall, resists the weather, and is free from the glossy appearance of Oil Paint, resembling a stone surface, and can be made any required shade. It is mixed with rain or pure river water.

WHITE ZINC PAINT, 3s. per cwt. One hundredweight of pure Zinc Paint, with three gallons of Linseed Oil, will cover as much as one hundredweight and a-half of White Lead and six gallons of Linseed Oil. Special Drivers for this Paint.

IMPROVED ANTI-CORROSION PAINT, 2s. to 3s. per cwt. Anti-corrosion Paint is extensively used for all kinds of work in exposed situations, on Brick, Stone, Compo, Iron, Iron Bridges, Conservatories, Greenhouses, &c., and is easily laid on by any ordinary workman. Prepared Oil for ditto, 4s. per gallon.

Table with 2 columns: Item (GENUINE WHITE LEAD, GROUND PATENT DRYERS, OXFORD OCHRE, RAW UMBER, SASS PAR, GREEN PAINT, BLACK PAINT, RED PAINT) and Price (Per cwt. or Per gallon).

GROUND BRUSHES, DUSTERS, SASH TOOLS, DISTEMPER BRUSHES. The above are Net, for Cash, and as such cannot be booked. Lists of any of the above on application.

SHAW'S STIFFANY.

For Samples and Prices apply to J. Shaw & Co., 39, Oxford Street, Manchester.

BROWN'S FLORAL SHADING, for Shading Plants under Glass from the Sun, and protecting the Bloom of Wall Trees from Frost. Sold by Nurserymen and Seedsmen.

TANNED GARDEN NETTING, for Preserving Seed Beds, Fruit, Strawberries, from Frost, Blight, Birds, &c., and as a Fence for Fowls, &c. One yard wide, 1 1/2, two yards, 3d, three yards, 4d; and four yards 6d per yard, many quantities. May be had of Messrs. WRIGHT & Co., William Street, Newark-on-Trent, or their Agents, Messrs. HOOPER & Co., Covent Garden Market, London, W.C.

NETTING FOR FRUIT TREES, SEED BEDS, RIPE STRAWBERRIES, &c.—TANNED NETTING for Protecting the above from Frost, Blight, Birds, &c., 2 yards wide, 3d per yard, or 100 yards, 20s.; 4 yards wide, 6d per yard, or 50 yards, 20s. NEW TANNED NETTING, suitable for any of the above purposes, or as a Fence for Fowls: 2 yards wide, 6d, per yard; 4 yards wide, 1s. per yard; 4-inch mesh, 4 yards wide, 1s. 6d. per yard. Can be had in any quantity of Eaton & DeLler, 6 and 7, Crooked Lane, London Bridge, E.C.

Preserve your Trees from Frost. TANNED NETTING for FRUIT TREES. COTTON NETTING and BUNTING, FRIGI DOMO, SCRIMS for GREENHOUSE BLINDS, &c. Samples and Price List from on application to BENJAMIN EDGINGTON, TENT and RICK CLOTH MAKER to the Queen and Prince of Wales, 2, Duke Street, Southwark, S.E. A large stock of NEW and REPAIRED NETTING, and other material for the Protection of Fruit Trees, Strawberry Beds, &c. MARQUEES and TENTS of all dimensions on Sale or Hire. Address, BENJAMIN EDGINGTON, (only), 3, Duke Street, London Bridge, S.E. No other Establishment.

RALPH WALLER AND CO., 45, Dale Street, Manchester. Manufacturers of all kinds of GARDEN NETTING, &c.—The serious injury done every spring to fruit crops by frost has proved to every Gardener the absolute necessity of providing some protection to the trees early in the year. If the blossom, in its earliest development, be but slightly weakened by frost, the vitality of the fruit germ is destroyed, and the fruit lost. In this climate, on the average of a century, there is not more than one year in 10 when the protection is unnecessary. Many fabrics have been tried for this purpose of protection, with more or less success; and we may now say, without fear of contradiction, that we have succeeded in manufacturing the only fabric which is altogether unobjectionable for this purpose. Without unduly nursing, it effectually protects the young germ, and does not impede the action of light and due circulation of air. Some other fabrics do this, and thus weaken the vitality of the tree altogether. Almost every large grower in the three kingdoms can testify to these facts. The Nettings also make a beautiful shading for Hothouses in summer, and are cheaper than other fabrics on account of their great durability. Netting (qualities) Nos. 1, 2, 3, in pieces of 30 yards long, 1 1/2 yard wide. Tiffany in pieces 20 yards long, 30 inches wide. For prices, &c., apply to the above address—45, Dale Street, Manchester.

H. BROOK AND CO., Sole Manufacturers of the H. CHELTENHAM GARDEN ENGINE, which weighs on 3 lb 1 oz., throws water in a continuous stream over 35 feet. To be had of all Ironmongers, and Wholesale only at 10, Featherstone Buildings, Holborn, London, W.C. GARDEN HOSE and BRANCHES in great variety. Established 1833. HANCOCK'S INDIA-RUBBER ROSE and TUBING. CARRIAGE, GIG, and DOG-CART APRONS. HORSE SINGING APPARATUS, with GAS BURNERS, and INDIA-RUBBER TUBING. Improved INDIA-RUBBER DOOR STOPS. WATERPROOF CART and WAGGON COVERS made any size. HORSE-LOIN COVERS (Waterproof), with Straps complete. BELTING for SAW MILLS, THRESHING MACHINES, and FLOUR MILLS. IMPROVED INDIA-RUBBER WEDGE-SHAPED GAS BAGS, for Microscopes and Dissolving Views; any size to order. FLANGE TUBING, for excluding Draught and Dust, and preventing the Slamming of Glass Doors. VULCANISED INDIA-RUBBER BILLIARD CUSHIONS. WATERPROOF BILLIARD TABLE COVERS. Illustrated Price Lists on application. JAMES LYNE HANCOCK, Vulcanised India-Rubber Works, 266, Goswell Road, London, E.C.

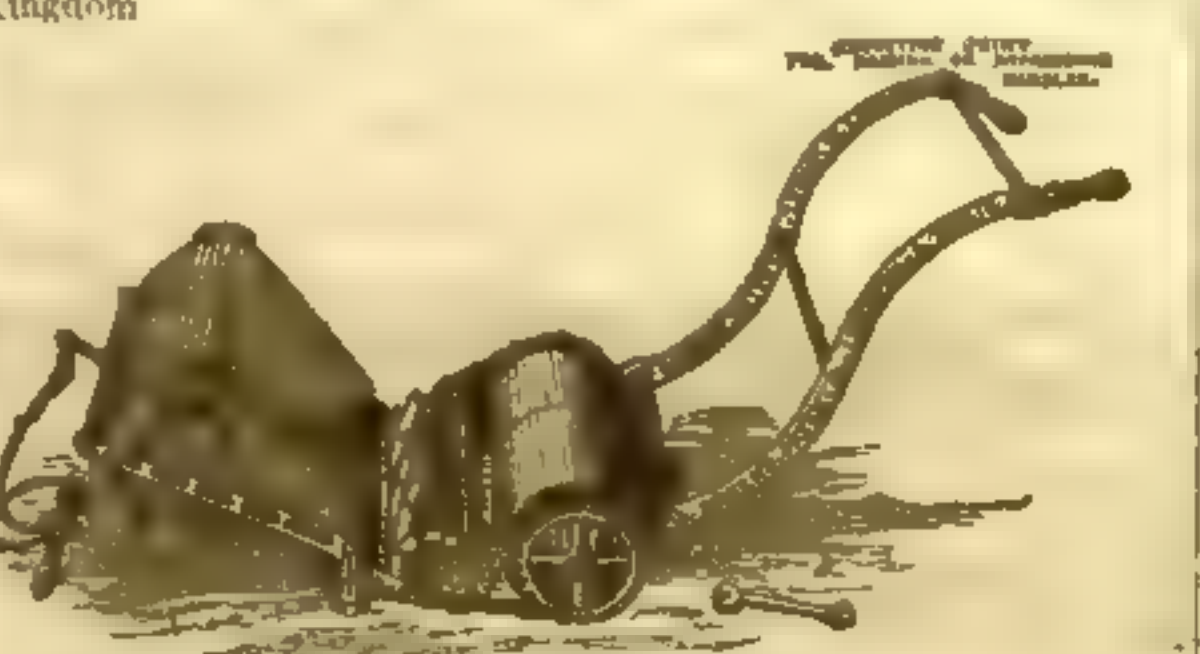


Green's Patent Noiseless Lawn Mowers. GREEN'S PATENT LAWN MOWERS have proved to be the best, and have carried off every prize that has been given in all cases of competition, and in proof of their superiority upwards of 44,000 have been sold since the year 1856. They are the simplest in construction, least liable to get out of order, and can be worked with far greater ease than any other Lawn Mower extant. They are the only Machines in the constant use at Buckingham Palace Gardens, Marlborough House Gardens, Royal Horticultural Society, South Kensington, The Royal Botanic Gardens, Regent's Park, The Crystal Palace Company's Gardens, Sydenham, The Hyde Park Gardens, The Winter Palace Gardens, Dublin, The Dublin Botanic Gardens, The Liverpool Botanic Gardens, The Leeds Royal Park, The Hull Botanic Gardens, The Botanic Gardens, Brussels, The Sunderland Park, The Preston Park. And in most of the principal Parks and Squares in the United Kingdom.

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Every Machine is warranted to give entire satisfaction, and if not approved of can be returned at once unconditionally. Illustrated Price Lists on application, which include Free Delivery to all the principal Railway Stations and Shipping Ports in England. All Orders executed on the day they are received. T. G. & Son have ten times more Lawn Mowers in Stock at their Establishment, 54 and 55, Blackfriars Road, S., than any other firm in London, that intending Purchasers can select from. Having very extensive premises in London, we are in a position to do all kinds of repairs there as well as at the Works at Leeds. THOMAS GAZER & SON, Smithfield Iron Works, Leeds; and 54 and 55, Blackfriars Road, London, S.

E. T. ARCHER'S "FRIGI DOMO."

Patronised by Her Majesty the Queen, the Duke of Northumberland for Syon House, His Grace the Duke of Devonshire for Chiswick Gardens, Professor Lindley for the Horticultural Society, and Sir Joseph Paxton for the Crystal Palace, Royal Zoological Society, Royal Gardens, Kew, &c.

The best Shading is "Frigi Domo" Netting. White or Brown, made of prepared Hair and Wool, a perfect non-conductor of heat or cold, keeping a fixed temperature where it is applied. It is adapted for all Horticulture and Floriculture purposes, for

PROTECTION from the COLD WINDS and MORNING FROSTS. "FRIGI DOMO" NETTING, 2 yards wide, 1s. 6d. per yard run. "FRIGI DOMO" CANVAS. Two yards wide .. 1s. 6d. per yard run. Four yards wide .. 3s. 6d. per yard. An improved make, 2 yards wide .. 1s. 9d. per yard. An improved make, 3 yards wide .. 2s. 8d. per yard run.

"Bridge Hill, Balper, Feb. 13, 1869. "Sir.—Please send me at once, by Midland Railway, 50 yards of Frigi Domo 2 yards wide, same as you sent me about this time last year, and which answered its purpose admirably.—Yours respectfully, "G. H. STRUTT. "P.S.—We had 300 dozen Apricots last year on walls protected solely by Frigi Domo."

ELISHA THOMAS ARCHER, Whole and Sole Manufacturer, 7, Great Trinity Lane, Cannon Street, City, E.C., and of all Nurserymen and Seedsmen throughout the Kingdom.

CORDING'S WATERPROOFS for the TROPICS.

CORDING'S HUNTING COAT, with LEGGINGS and VALISE, complete.

CORDING'S DEMI-RIDING BREECHES, 12s. 6d.

CORDING'S GUINEA FISHING COAT

CORDING'S GUINEA STORM COAT.

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CORDING'S GIG, BOX, and DOGCART APRONS, warranted not to crack.

CORDING'S WATERPROOF CLOAKS for LADIES.

CORDING'S WATERPROOFS are the best, and guaranteed to stand all climates.

CORDING'S GROUND SHEETS for the Tropics.

CORDING'S, 231, Strand, Temple Bar.

BREAKFAST.—LEPP'S COCOA. GRATEFUL and COMFORTING. Only in 1/2 lb., 1 lb., and 1 1/2 lb. Packets—tinned and labelled. Sold by the Trade in all Parts. Prepared by JAS. LEPP & CO., Homoeopathic Chemists, London.

A Success Unprecedented. MARAVILLA COCOA is PERFECTION.—The Globe says—"Taylor Brothers' Maravilla Cocoa has achieved a thorough success, and surpasses every other Cocoa in the market. Entire solubility, a delicate aroma, and a rare concentration of the purest elements of nutrition, distinguish the Maravilla Cocoa above all others. For homeopaths and invalids we could not recommend a more agreeable or valuable beverage." Sold in Packets only, by all Grocers.

Sauce.—Lea & Perrins. THE "WORCESTERSHIRE" pronounced by Connoisseurs "THE ONLY GOOD SAUCE." Improves the Appetite, and Aids Digestion. Unrivalled for piquancy and flavour. Ask for LEA & PERRINS' SAUCE. Beware of imitations, and see the Names of LEA & PERRINS on all bottles and labels. Agents—Cross & Blackwell, London, and Sold by all Dealers in Sauces throughout the World.

WHITE and SOUND TEETH are indispensable to personal attraction, and to health and longevity, by the proper mastication of food. ROWLANDS' ODONTO, or PEARL DENTIFRICE, is of inestimable value in Preserving and Beautifying the Teeth, Strengthening the Gums, and in giving a pleasing fragrance to the Breath. It eradicates Tartar and Spots of Incipient Decay, and polishes and preserves the Enamel, to which it imparts a pearl-like whiteness. Price 2s. 3d. per Box. Sold by Chemists and Perfumers. Ask for Rowlands' Odonto.

DINNEFORD'S FLUID MAGNESIA.—The best remedy for Acidity of the Stomach, Heartburn, Headache, Gout, and Indigestion; and the best mild aperient for delicate constitutions, especially adapted for Ladies, Children, and Infants. Dinneford & Co., 172, New Bond Street, London; and of all Chemists throughout the World.

HALSE'S GALVANIC APPARATUS.—Extraordinary Cures of Paralysis, Rheumatism, Loss of Muscular Power, Indigestion, Debility, &c. Asthma, &c. Send two stamps to Mr. Halse, No. 40, Addison Road, Kensington, for his pamphlet, which contains the particulars of the most extraordinary cures. Invalids will be astonished at its contents.

ELECTRICITY IS LIFE. SELF-ADJUSTING CURATIVE and ELECTRIC BELT. Sufferers from nervous debility, indigestion, weakness, &c., can now cure themselves by the only "Guaranteed Remedy" in Europe, protected by Her Majesty's Great Seal. Free for One Stamp, by H. JAMES, Esq., Medical Electrician (to the London Hospital), Percy House, Bedford Square, London, W.C. N.B.—Medicine and Fees superseded. A Test gratis. Send for details. Established 1840.

CORNS and BUNIONS.—A Gentleman, many years tormented with Corns, will be happy to afford others the information by which he obtained their complete removal in a short period, without pain or any inconvenience.—Forward address on a stamped envelope to F. KISSEROW, Esq., Ware, Herts.

Galvanism and Medicine Superseded. NEW METHOD of CURING DISEASE, without the aid of doctors and their drugs, by studying the laws of health and Nature. Invalids cannot too carefully avoid pills, pretended life drops, and other dangerous medicines, as they contain mineral poisons, which act on the delicate coatings of the stomach, and thus destroy the receptacle of our daily sustenance. The Advertiser pronounced incurable, but, acting in accordance with the advice he now offers, has, by God's blessing, been restored to health and strength; and with sympathy for like sufferers, the means of cure will be sent, post paid, on receipt of address and two stamps.—Address PHILIP GARREY, Esq., 29, York Buildings, Strand, London, W.C.

SPENCER'S PULMONIC ELIXIR.—This Medicine possesses every property which can be beneficial in cases of Colds, Coughs, Asthma, and all Complaints of the Throat and Lungs. For temporary and local affections, such as Wheezing, Irritation of the Throat, Palpitation of the Heart, Hoarseness of the Voice, Influenza, &c., SPENCER'S ELIXIR affords immediate relief, while in more chronic disorders, as Bronchitis, Catarrh, or inveterate Asthma, it is equally valuable in its effects, though of course longer perseverance in the use of the Medicine is required. Prepared with great care by T. HOOPER & CO., 8, Crane Court, Fleet Street, London; and can be obtained of all respectable Medicine Vendors in the Kingdom, in bottles of 1s. 1/2d. and 2s. 6d. each.

to wear either of the following dresses, instead of the present "Court Dress":—
 1. Dark coloured cloth dress coat, single breasted, with collar, and gold embroidered collar, cuffs, and buttons. White waistcoat, without collar, and white trousers of the same colour as the coat, with a stripe on the sides. Black cocked hat, with a white band. Sword, similar to that worn by the King's Guard. White neckcloth. For evening wear, white waistcoat, hat, and sword the same as above, of the same colour as the day dress. Black or white silk hose, shoes, gilt buckles.
 2. Black silk velvet dress coat of the same cut as the first, with gilt, steel, or plain buttons. Gilt or steel handled sword, with silk shoulder belt. For Drawing Rooms, &c.—Coat, waistcoat, and neckcloth the same as for Levees. Black silk velvet hose, shoes, gilt or steel buckles. In evening—A cravat to be worn on the left arm. It is to be understood that these dresses will be worn at Court by those gentlemen who have no naval, military, or civil uniform. The present "Court Dress," will still be recognised at her Majesty's Court.

THE CABINET.—A Cabinet Council will be held this afternoon at the official residence of the First Lord of the Treasury in Downing Street.

TRIALS OF ELECTION PETITIONS.—Baron Martin gave judgment yesterday on the Westminster petition, and that Mr. Smith was duly elected, and that corrupt practices had not extensively prevailed. He reserved his decision as to costs, and stated that the whole of the costs would be paid by the petitioners. Mr. Justice Willes on Monday gave judgment in the Tamworth petition, declaring that Sir Robert Peel and Mr. Henry Bouverie were duly elected, the petitioners to pay the costs of Sir Robert Peel, but not those of Sir Henry Bouverie, a mob of 150 men having been employed to surround Mr. Justice Blackburn on Saturday gave judgment on the Staleybridge petition, declaring that Mr. Sedgwick was duly elected, that there was no evidence of intimidation or treating, but there was bribery in a mild form by the promise of payment of wages to voters. The agency, however, was not sufficiently proved to void the election. In Ireland, on Tuesday Mr. Justice O'Brien gave judgment as to costs in the Londonderry petition, ordering the petitioner to pay the costs in the proceedings except those of the sixth day, during which evidence was given in regard to acts done by paid agents of the respondent. He directed persons employed at the elections to be sworn and said that such a practice must be stopped. He also directed the Greenock inquiry terminated on Saturday in favour of Mr. Graeve, the sitting member. The Coventry and Cashel petitions are still in progress. The Hartlepool, Gloucester, and North Derbyshire petitions have been withdrawn. The Bodmin petition will be tried by Justice Willes on Monday. The facts brought to light by some of the recent trials are likely to lead to further proceedings on the part of Parliament. In the House of Commons, on Wednesday, on the motion of Mr. Ayrton, a copy was ordered of the evidence taken at the trial of the Norwich and Drogheda petitions, and, on the motion of Lord Hill, a copy was ordered of the evidence at the trial of the Bradford, Guildford, and Drogheda petitions.

ILLNESS OF THE MARQUIS OF WESTMINSTER.—A report from Eton Hall states that the Marquis of Westminster is suffering from a softening of the brain. The following is the official report of Monday night:—
 "The Marquis of Westminster has passed two quiet days, and is now lying with tranquil sleep, and has walked in the garden and in the Mall with the Marquessess in the long carriage. His rather feeble strength is fairly maintained."
 W. H. M. P. E. W. M. D.

THE BISHOP OF LINCOLN.—The Dean and Chapter of Lincoln, in obedience to her Majesty's command, have elected Dr. Wordsworth to the vacant see of that see. The confirmation of the election will take place forthwith at Bow Church, and the consecration will take place on the 24th inst. in Westminster Abbey. The Bishop has appointed as his vicar-general the Rev. Dr. Benson, Master of Wellington College, and the Rev. Frederick Meyrick, one of her Majesty's inspectors of schools.

THE BISHOP OF SALISBURY.—It is stated that there has been no improvement in the health of Bishop Salisbary during the last few days.

ILLNESS OF THE BISHOP OF CARLISLE.—In consequence of ill-health Bishop Waldegrave has retired from active duties, and Bishop Anderson has undertaken his duties during his absence.

CONFERENCE OF BISHOPS.—The English and Irish Bishops met twice last week at Lambeth Palace, when the subjects discussed were the Irish Church and the disestablishment of the Church of England. On the first, a general feeling was expressed that the disestablishment took place the Church must be absolutely free. The Archbishop of Canterbury, however, stated as his opinion that, though the nation had decided on disestablishment, it had not agreed as to the manner in which it should be effected. The Archbishop, though concurred in this view, which did not meet with general support. Their lordships resolved that they should not issue any joint manifesto on the Ritual question, but that each in his own name should give the best advice in his power.

KNIGHTHOOD.—The Queen has directed letters to be passed under the Great Seal granting the rank of a Knight of the United Kingdom to the Hon. Young Esq., Chief Justice and President of the Executive Council of Nova Scotia, and to Hugh Esq., Chief Justice of Newfoundland.

GREENWICH HOSPITAL.—Admiral Sir Houston Stewart, G.C.B., has been appointed, under the late Act in Council, Governor of Greenwich Hospital, at a salary of 1200*l.*, including his half-pay as Admiral. The emoluments of the late Governor were equivalent to 2571*l.* per annum.

THE PORTSMOUTH COMMAND.—Vice-Admiral Sir James Hope, G.C.B., has been appointed to succeed Admiral Sir Thomas Pasley, Bart., as Commander-in-Chief at Portsmouth.

THE DOCKYARDS.—An Admiralty order received at Chatham Dockyard directs the discontinuance of a number of intricate and useless returns. The result will be that a vast amount of unprofitable labour on the part of the clerks will be entirely got rid of.

THE WAR OFFICE.—General Ballour, the Assistant Controller, resigned his office last week, but resumed it on the next day, the difficulty which led to his retirement having been removed.

THE ARCHDEACONRY OF SUFFOLK.—The Archdeaconry of Suffolk, vacant by the preferment of Bishop Ryan to the rectory of St. Nicholas, Guildford, has been conferred by the Bishop on Norwich on the Rev. Richard Hindes Groome, rector of Monk Soham, near Woodbridge.

PARLIAMENTARY MOVEMENTS.—It is understood that in consequence of the late opening of the session, and the importance of the measures which will have to be discussed, the Easter recess not be of the usual length, but will be no longer than just to tide over Good Friday and Easter Sunday. At a meeting of the Bradford Liberals, on Thursday week, Mr. M. W. Thompson was formally accepted as a candidate for the vacant seat. A writ for the vacancy in the City of London, caused by the death of Mr. Charles Bell, was issued on Wednesday. An aggregate meeting of the 19 Liberal committees in the City was held on Thursday, when it was unanimously resolved to adopt Baron Rothschild as their candidate for the vacant seat.

Foreign.

FRANCE.—A circular of the Minister, M. Foreade de la Roquette, was published on Thursday, relative to the right of public meeting. It says that the Government can no longer tolerate abuses of the newly-granted liberty, and intends henceforth to repress all license and thereby separate from the right of free meeting those excesses which can only have a compromising tendency. In the sitting of the Legislative Body on Monday, the 22d inst. was fixed for the discussion of the contract between the City of Paris and the Credit Foncier of France. In the sitting of Thursday the interpellation of M. M. Garnier-Pages and Richard were authorised by the Bureau. Count Walewski arrived at Marseilles on Monday with the reply of Greece to the declaration of the Conference, and reached Paris on Tuesday. The Conference met on Thursday to receive the reply, and the adhesion of the Cabinet of Athens to the principles laid down by the Conference having been formally recorded, the Conference declared the diplomatic relations between Turkey and Greece *ipso facto* re-established, and instructed its president to thank the two Governments, in the name of the Conference, for the deference shown to its counsels. After this the Conference declared itself dissolved. The Government journals are very severe in their censure of the Bill carried by the Belgian Chamber of Deputies, extending the powers of the Government in forbidding railway companies to cede their concessions. They contend that the Bill originated in groundless fears, and is calculated to impede the development of international relations between France and Belgium, they condemn the Brussels Cabinet for introducing it, and express the hope that the Senate will quash the vote of the Chamber of Deputies. The *France* of Tuesday publishes an article headed "Public Feeling in France," in which it says—

"People believe they see the hand of Prussia in this Belgian affair. It is necessary that it should be known abroad that France is tired of the present precarious and uncertain condition of her foreign relations. The existing state of things is neither war nor peace. No one is more sincerely inclined towards a pacific course than ourselves, but this state of uncertainty, which compromises every interest and alarms the public mind, is truly unbearable. It is time to have done with it."

The *Public*, in an article on the subject, says:—

"There is no Belgian question at issue, but a serious question of political economy, which has been raised inopportunistically by the Ministry now in power in Brussels. We do not know if it will be settled by legitimate reprisals on the part of France, or by the fall of the Belgian Cabinet."

The *Constitutionnel* contains an article, of which the following is a summary:—

"We consider the vote of the Belgian Chamber as a mark of distrust against a neighbouring and friendly country, but do not agree in the exaggerated views held by others, who regard the incident as a complete humiliation endured by France at the hands of Belgium, and even consider a rupture to be unavoidably imminent. We believe King Leopold will offer explanations to satisfy France, or that the ill consequences of the law voted by the Chamber under the pressure of the Ministry will be annulled, and that the incident will not disturb the peace of the world."

The *Pays*, apostrophising Prussia, says:—

"You are insane enough to tempt and provoke us! But have you forgotten that our old hatred of the English has been replaced by our hatred for the Prussians! 1815 and Waterloo still ring in our ears as a funeral knell, and the hour of revenge is impatiently awaited by French patriots. We well know the way that leads to your capital."

The Opposition, as well as the Government journals, also publish articles condemning the attitude of the Belgian Government, which they agree in charging with fear or dislike of France, and with trucking to Count Bismarck, who will, they assert, before long act by Belgium as he has acted by Hanover. Some of them go so far as to suggest that it was at the instigation of Prussia that the Belgian Government and Chambers offered such an affront to France. They all express the hope that in view of the general opinion in France, already clearly expressed on the subject, the Belgian Ministry will not permit the project to have a retrospective character, but will consider that such a course would prejudice the interests of the commercial

community. Fudl Pacha, the late Prime Minister of Turkey, died at Nice on Saturday, after a long illness. His malady, *angina pectoris*, had latterly been most distressing. Unable to lie down, from the irritation of his back consequent on a long recumbent position, the Pacha was supported for many nights before his death by slings, which were passed under his arms. His death has caused much regret in French society, and his loss will be seriously felt at Constantinople. Professor Max Muller has just been elected one of the eight foreign Associates of the Institute of France. The Paris Mint is at present coining gold pieces of 25fr, according to the plan of the committee on monetary unification. The new coin will have the weight of the English sovereign, and will be called The Emperor. During the late storms, two of the five electric cables which connect France and Belgium with England were broken by the tempest. The land communications which join the three others on each side of the Channel were also broken, so that all telegraphic correspondence between France and England was completely suspended. For this reason the evening journals of Tuesday were unable to give the Queen's Speech on opening Parliament.

ALGIERS.—A telegram from Algiers states that a portion of the tribe of Ouled Sidi Chetah, which remained faithful to the Government, surprised the insurgents' camp, on the 5th inst., and made a successful razzia, returning with 2500 camels laden with booty.

SPAIN.—In the sitting of the Constituent Cortes on Saturday Senor Rivera was elected President by 163 votes against 59 given to the Republic, an candidate, Senor Orenze. Senores Vega, Arango, Mirto, Cantero, and Valera were elected Vice-Presidents. Senor Rivera delivered a speech, in which he appealed to the Deputies to pursue a prudent and dignified course. The Cortes have since been occupied with the verification of the elections. At a very important meeting of the majority of the Cortes on Wednesday evening, it was resolved, that when the Cortes are constituted, and the Provisional Government resigns its powers, Marshal Serrano shall be intrusted with the formation of a new Cabinet, thus embodying the sovereign Executive Power. Private advices state that the election of Dom Fernando to the Spanish Throne, and his acceptance of it, are considered probable. The Minister of the Colonies has issued a decree establishing various financial modifications and a uniform system of jurisdiction in the Colonies, and abolishing the Ecclesiastical Courts. An important manifestation in favour of liberty of worship and the abolition of capital punishment was made on Sunday at Malaga. A demonstration in favour of the abolition of military conscription took place on the same day at Valladolid. Senor Olozaga has left Madrid, in order to visit his estate near Vico. It is asserted that he will resign his seat as Deputy.

PORTUGAL.—Many seditious proclamations in favour of an Iberian Republic have been secretly circulated in Portugal.

BELGIUM.—A convention was entered into some time since between the Luxembourg Railway Company and the Eastern of France, by which it was agreed that the latter should take over and work the line from Arlon, in the Luxembourg territory, to Brussels. The agreement is said to have been very advantageous to the Belgian Company in its results, but the public seems to have seen in this amalgamation an increase of French influence. The Government and the Chamber of Deputies shared these apprehensions, and the consequence was that a measure was introduced into the Chamber prohibiting concessions of railways without the authority of the State. In the sitting of the Chamber on Sunday, this Bill was carried by a majority of 61 to 16. In the sitting of the Senate on Wednesday the Bill was introduced and referred to the Committee on Judicial Affairs, the debate upon it being fixed for Thursday. In consequence, however, of the great excitement which has been caused in Paris by the recent vote, General Renard, the Minister of War, left Brussels on Wednesday for Paris, with an autograph letter from King Leopold to the Emperor, explaining that the Bill has purely a financial bearing and not a strategical one. It is said that the Ministry had previously drawn up an explanatory circular tending to satisfy France and to calm the susceptibilities of public opinion. For some weeks past a very fatal form of scarlet fever has been raging at Brussels, more especially among young women of the best families. Among those who have already fallen victims may be mentioned Madlle d'Artemberg, Madlle. d'Oultremont, and Madlle. de Merode, a relation of the late Marquis de Moustier.

SWITZERLAND.—Notwithstanding the petition signed by 6000 inhabitants of the Canton of Soleure, in favour of a total revision of the Constitution, the Cantonal Council have decided, by a majority of 76 to 19, for a partial revision only. Negotiations for the conclusion of a Treaty of Commerce between Switzerland and the Zollverein will be resumed in Berlin next month, and, it is believed, with every prospect of success.

PRUSSIA.—The *North German Gazette* formally denies that Prussia has been connected in any way with the Belgian railways affair. In the sitting of the Upper House on Friday the Bills relative to the confiscation of the private property of the King of Hanover, and of the Elector of Hesse, were agreed to by a large majority in the form in which they passed through the Lower House. During the debate the Bill for the confiscation of the King of Hanover's private property, Count Bismarck delivered a speech in which he said:—

"The treaty of September, 1867, which was signed by two Kings and countersigned by the Prussian Minister for Foreign Affairs, was no private contract, but a State treaty, both in the manner in which it arose and the form in which it was drawn up. In the interests of peace we set an example of magnanimity such as had never before been witnessed in the history of Europe. Had Prussia been defeated, an event which

In 1806 all the world, excepting ourselves, considered certain, Silesia would probably not have been the only sacrifice we must have made to save ourselves from destruction, for our opponents projected the dismemberment and annihilation of Prussia. After our victory the duty of self-preservation forced upon us the extinction of the Hanoverian kingdom. To the Royal house which had fallen by its own faults and self-delusion we desired to secure, with a view to the consolidation of peace, a position worthy of its past history, so that its head might live in England in a manner suitable to his rank as Duke of Cumberland. At the same time we did not believe in any theory of the rights to private property of an enemy who had not concluded peace with us. We looked upon the arrangement made as a settlement of all claims, for we gave more than the King of Hanover had possessed. As his Majesty has deceived us when we confided in the fulfilment of the implied conditions and assumptions of the treaty, we are now compelled to preserve the fatherland from any possible danger that might arise from this violation of trust.

During the discussion on the Bill confiscating the property of the Elector of Hesse-Cassel, Count Bismarck said—

"The Elector of Hesse broke his engagements entered into in the treaty with us by his direct appeal in a published manifesto to the European Powers to take the province of Hesse from Prussia. The Elector of Hesse is concerned in the deplorable agitation carried on by a certain Press to disturb the peace of Europe. It is a criminal undertaking to endeavour to incite to war two nations most earnestly desirous of remaining at peace, and to do so, moreover, through the dissemination of falsehood by means of the distribution of money. In the French Press, among a people extremely sensitive on points of honour, an opinion has purposely been spread abroad that Germany wishes to employ the strength gained by unity towards a war of attack upon France. In this must be sought the explanation for the collection of false news which has been circulated with shameless inventiveness in both countries, and which, sent everywhere by telegraph, has had a most pernicious effect. Thus public opinion in France and Germany is worked upon as if war was daily imminent between the two countries. It is the interest of both nations that an end should be put as speedily as possible to these lying intrigues, by cutting off the means by which they are fostered. The Prussian Government has always actively endeavoured to prevent the circulation of false war rumours. It is fully convinced that all European Governments are animated by peaceful intentions, and it requires that the public, both in France and Germany, should entertain this belief. Even in the interest of national dignity it is necessary to stop the sources whence newspapers are subsidised openly to incite a brave and warlike nation like the French to make war upon Germany. I have many times been reproached by the Press for not preserving a proper diplomatic calm in the face of such endeavours. Those who can restrain their anger at such baseness have national feelings differently organised to mine."

The Prince of Montenegro dined on Saturday with the Crown Prince and Princess, and left in the evening for Vienna. Heinrich Ritter, the well-known philosopher and historian, has just died at Göttingen. He was born in 1791, and, after having taken part in the war of independence in 1815, he commenced his career as academical teacher in Berlin, whence he afterwards removed to Kiel and Göttingen.

HUNGARY.—The Imperial decree convoking the Hungarian Diet for the 20th April was promulgated on Thursday. The examination of Prince Karageorgewicz terminated on Saturday. During the proceedings he repeatedly protested his innocence. The authentication of the depositions and the pleadings terminated on Thursday, when the Court decided that criminal proceedings should be taken against the Prince and MM. Trifcovits and Stancovits.

CROATIA.—The Croatian Diet has been convoked for the 1st of March. The Emperor and Empress of Austria will visit Agram on the 8th, and Fiume on the 14th of March.

RUSSIA.—It is stated that the precarious health of the Grand Duke, heir of the throne, will render it necessary for him to make a prolonged residence in the South of France or Italy.

ITALY.—The King and the members of the Cabinet returned to Florence from Naples on Sunday. The Italian journals state that her Royal Highness the Princess Margherita is in an interesting situation. The Chamber of Deputies re-assembled on Tuesday, and resolved to devote three days weekly to the discussion of the budget, two days to the discussion of the Provincial Administration and Reorganisation Bill, and one sitting to Bills of secondary importance. The King, during his visit to Naples, ordered the excavations at Herculaneum, which have been discontinued for 40 years, to be recommenced at his expense.

PAPAL STATES.—The Marquis of Bute left Rome on Monday last for Civita Vecchia, where he embarked in his yacht, the Ladybird, for the Levant. He will remain in the Holy Land during Lent, and return to Rome by Easter.

GREECE.—The new Ministry at Athens has issued a programme explaining the situation of affairs, and giving the reasons for its adherence to the protocol of the Conference. It has also revoked the measures taken by the late Government for the establishment of a national guard and for an extraordinary levy of troops, and has withdrawn the troops from the military positions they had taken up during the late crisis. The Candioti refugees have petitioned the Foreign Ministers at Athens for ships to enable them to return to Candia.

THE PRINCIPALITIES.—The Budget was voted on Wednesday. The estimated receipts are 74,362,823*l.*, and the expenditure 74,217,961*l.* The Chamber has authorised the Minister of Finance to issue Treasury Bonds bearing interest to the amount of taxes in arrears. Prince Charles has issued a decree fixing the primary elections for the new Chamber to take place between the 22d and 30th of March, and the actual election of the deputies between the 3d and 9th of April. It is said that a conspiracy against the Prince has been discovered.

TURKEY.—The Sultan has appointed Ali Pacha Minister of Foreign Affairs and Grand Vizier; Mohammed Ruscudi Pachi chief of the newly-created office for the Interior, Kiamil Pacha President of the Privy Council of State, Sodigk Effendi Minister of Finance, Midhat Pacha Governor of Bagdad, and

Omer Feozi Pacha Governor-General of Crete. The widow of Fuad Pacha was received on Monday at the Imperial Palace, and was granted by the Sultan a monthly pension of the value of 250*l.* The Government is also defraying the funeral expenses of the deceased Minister. The Sultan had ordered a frigate to fetch the body of Fuad Pacha from Nice, but had been anticipated by the Emperor of the French, who sent a man-of-war from Toulon to convey the body to Constantinople. It is intended to erect a tomb in memory of the deceased Minister. A proclamation of the Hellenic Government containing offensive expressions against Turkey, has been published at Constantinople, and has created a painful impression. The Porte is said to have protested against the terms employed in the proclamation, and insists upon their being retracted before official intercourse is resumed.

CANDIA.—The chiefs Koraka, Criari, Lacada, Sfakaniaki, have sent in their submission to the authorities, and the island now enjoys full and entire tranquillity. The Greek Patriarch has addressed a pastoral to the Christians in Crete, urging them to return to peaceful pursuits.

PERSIA.—Advices from Tiflis, dated the 14th inst., deny the truth of a telegram published by the Paris papers, stating that the Shah of Persia was preparing to move with an army in the direction of Bagdad, and add that the Shah has no intention of so doing. Six Turkish battalions, and eight cannons, have, however, been dispatched towards the Turkish frontier.

INDIA.—Sir John Lawrence is now in Ceylon, where he is making a short stay previous to leaving for England. It is announced that Lord Napier of Magdala will return to England in April. Sir Richard Temple will make his financial statement early in March. A surplus of 200,000*l.* is expected. Sir Richard will then proceed to England. Rain has fallen in the Punjab, and much of the crop under cultivation has thereby been saved. Cholera has broken out at Hyderabad and Secunderabad. Disturbances are reported in Oude, caused by the application of the Rent Act. The octroi duties on grain have been suspended in the North-west Provinces and Cashmere. The Looshai clan of Kookhies, on the eastern frontier of Sylhet and Cachar have devastated the two tea plantations of Woodlands and Soonarhunde, and killed several of the coolies. A body of armed police, followed by a detachment of the 7th Native Infantry, under Lieut. Logan, has been sent against them. It is officially confirmed that Azim Khan and Abdool Rahman have sought refuge in British territory. The Viceroy consented to give them shelter on condition of their abstaining from political intrigues and of their residing at a distance from the frontier. It is rumoured that an expedition is to be sent from India to New Zealand in consequence of the recent rising. The railway accident at Chore-Ghaut was caused by a heavy dew. The engine-driver lost all control over the train, which was going down an incline, and dashed over the embankment. Eighteen persons were killed, and more than thirty injured. No European lost his life. A Government inquiry has been instituted into the affair. The Sultan of Zanzibar has imprisoned the man Moosa, who gave false intelligence regarding Dr. Livingstone.

AUSTRALIA.—Accounts from Melbourne of January 5 state that the debentures of the new Victorian Railway loan have been sent to England by this mail. From Adelaide we learn that an expedition has sailed to survey the Northern territories. The yield of wheat this season will probably be six and a half million bushels. The second visit of the Duke of Edinburgh is looked forward to with great pleasure in the colony. At Sydney the Robertson Ministry has resisted the Opposition of the Parkes party.

CHINA.—A collision has taken place near Swatow between the inhabitants of some villages and the crew of her Majesty's gunboat *Cookchafer*. The crew were exercising on the shore, under Lieut. Kerr, when the natives unexpectedly commenced firing on them. The British were compelled to retreat, having had 11 of their number wounded. The officers escaped unhurt. A naval force of 400 men is proceeding to Swatow to obtain reparation. Her Majesty's ship *Serpent* has commenced taking deep-sea soundings between Singapore and Galle, with a view to the future laying of a telegraph cable.

JAPAN.—The Mikado has received the foreign representatives at Yeddo in public audience. The young Japanese sent to Russia for their education have left St. Petersburg, by order of their government, to return home. Those who were in Paris and London have also been recalled, the expenses of their residence in Europe being pronounced too great.

UNITED STATES.—The Senate Committee on Foreign Relations on Thursday agreed almost unanimously to recommend the rejection of the Alabama Claims Treaty, but reported favourably on the St. Juan Treaty. The President has accepted the office of arbitrator on the African boundary dispute between Great Britain and Portugal. General Grant, in reply to the formal notification of his election to the Presidency, declared that he would faithfully discharge the duties of his office, and call around him men who would earnestly carry out the principles of economy, retrenchment, and honesty, adding that he declined to announce the names of the members of his Cabinet until the nominations were sent to the Senate. On Tuesday the Senate passed the bill already adopted by the House of Representatives, prohibiting the acceptance of the national currency by banks, corporations, or persons as collateral security for loans. On Wednesday the new Tax Bill passed the Senate, and is now before the President. The President has sent to the Senate for ratification the treaty with Columbia, giving to the United States an exclusive right to construct the Darien Ship Canal. A proposition to tax interest on United States' bonds was

defeated on Tuesday in the House of Representatives. The Supreme Court has given a decision in favour of contracts made specially payable in gold. The Senate Committee on Pensions has reported on the petition of Mrs. Lincoln for a pension. The committee say that it is a special matter, and there is no precedent, and if considered at all should be considered by some other committee. Nellie Stevens has been burnt on the 20th at Arkansas; 63 persons were lost and 40 saved. Slight shocks of earthquake were felt at San Francisco on the 28th and 29th ult.

HAYTI.—The President of Hayti was slain in the south, and his troops hold Miragoan, and near Aux Cayes. The French admiral had refused to recognise the blockade of St. Marie, and ordered a Haytian steamer belonging to Salnave away from Port au-Prince. An earthquake occurred at Port au-Prince on the evening of the 22d ult., and damage was done.

CUBA.—The insurrection in Cuba, far from subdued, is spreading rapidly, and disaffection is festing itself in all the large centres of population. Havannah itself not excepted. A fresh rebellion broken out at Villaclara, a central point of strategic importance. General Dulce has ordered telegraphed for reinforcements, and has given orders for the insurgents who are taken prisoners to be shot by court-martial.

PARAGUAY.—Accounts from the River Plate announce the conclusion of the Paraguayan campaign. Angostura was taken by the Allies on December 10, and on January 2 a division of the Brazilian army occupied Asuncion, the Paraguayan capital, and was found deserted. Lopez had refused to surrender, and had either fled with a few followers to the north or to Bolivia, or had concealed himself at Corrientes. The execution of his brothers, Berges the brother-in-law, is confirmed. The Brazilian army ascending the river to Matto Grosso. The Paraguayan population was returning to Asuncion.

SANDWICH ISLANDS.—Advices from Honolulu January 15 state that a severe storm had prevailed over the Sandwich Islands, and that frequent shocks of earthquake had been felt at Hawaii.

Parliament.

THE new Parliament met on Tuesday for the time for the despatch of business. The Queen's Speech was delivered by commission, and the Commons having been summoned to the bar, the CHANCELLOR read the Speech as follows:—

"MY LORDS AND GENTLEMEN,
"I recur to your advice at the earliest period permitted by the arrangements consequent upon the retirement of the Administration.

"And it is with special interest that I comment on the resumption of your labours at a time when the popularity of the Legislature has been chosen with the advantage of greatly enlarged enfranchisement of my faithful and loyal people.

"I am able to inform you that my relations with the Powers continue to be most friendly, and I have no reason to believe that they cordially share in the policy which I am animated for the maintenance of peace, and at which I am anxious to use my best exertions to secure the motion of this most important object.

"In concurrence with my allies I have endeavoured friendly interposition, to effect a settlement of the differences which have arisen between Turkey and Greece, and that our joint efforts have aided in preventing any interruption of tranquillity in the Levant.

"I have been engaged in negotiations with the States of North America for the settlement of questions which affect the interests and the international relations of our countries, and it is my earnest hope that the result of negotiations may be to place on a firm and durable basis a friendship which should ever exist between England and America.

"I have learnt with grief that disturbances have broken out in New Zealand, and that at one spot they have been attended with circumstances of atrocity. I am confident that the colonial government and people will not be wanting in energy to repress the outbreaks, or in the practice of moderation which I trust may prevent their recurrence.

"GENTLEMEN OF THE HOUSE OF COMMONS,
"The estimates for the expenditure of the country for the year will be submitted to you. They have been framed with a careful regard to the efficiency of the service, and do not exhibit a diminished charge upon the country.

"MY LORDS AND GENTLEMEN,
"The ever-growing wants and diversified interests of the empire will necessarily bring many questions of public policy under your review.

"The condition of Ireland permits me to believe that it will be spared the painful necessity which was felt by the Parliament for narrowing the securities of persons and property in that country, by the suspension of the Habeas Corpus Act.

"I recommend that you should inquire into the various modes of conducting parliamentary and municipal business, and should consider whether it may be possible to secure further guarantees for their tranquillity, purity, and efficiency.

"A measure will be brought under your consideration of some classes of occupiers from hardships arising from rating, which appear to be capable of remedy.

"You will also be invited to direct your attention to the extension and improvement of education in Scotland, for rendering the considerable revenues of the endowments of the schools of England more widely effectual for the purpose of instruction.

"A measure will be introduced for applying the same principle of representation to the control of the county rate by the establishment of financial boards for counties.

"It will be proposed to you to recur to the consideration of bankruptcy, with a view to the more effective disposal of assets, and to the abolition of imprisonment for debt.

"The ecclesiastical arrangements of Ireland will be brought under your consideration at a very early date, and the consideration which will be necessary in order to their final settlement will make the largest demands upon the wisdom of the Legislature.

"I am persuaded that, in the prosecution of every legitimate interest which may involve, and that you will be governed by the same aim to promote the welfare of religion through the promotion of equal justice, to secure the action of the Legislature, and opinion of Ireland on the side of loyalty and law."

of former contentions, and to cherish the sym-

an affectionate people.

of public interest, and especially in one so

that the Almighty may never cease to guide

and I may bring them to a happy issue."

Lords the Earl of CAIRNS moved and

seconded the Address in answer to the

Lord CAIRNS said it was satisfactory

Address was couched in language that they

to the Sovereign with unanimity, even

they differed as its subject-matter. Their

not but be gratified that the necessity

existed for the suspension of the Habeas

Act.

He trusted that economy in the public

would be tempered with a due regard to

and that the scheme for dealing with the

Church, whatever it might be, would be intro-

at the earliest possible moment, as a whole and

instalments, so that it might receive the full and

consideration to which it was entitled. Earl

GRANVILLE said he was grateful for the tone of Lord

CAIRNS' observations, but he should follow him in not

giving the information which the House would

have before it respecting the Government

on the Irish Church. On Thursday the LORD

CHAMBERLAIN stated that in compliance with the desire

of the trading community, the Bill for the reform of the

bankruptcy would be initiated in the House of

Commons. The Marquis of SALISBURY, Earl GREY,

Lord CAIRNS, Earl RUSSELL, and Lord WESTBURY,

expressed their opinion that it was necessary to adopt

some plan for the more satisfactory distribution of the

business of Parliament between the two Houses.

Earl GRANVILLE stated that he had been directed by

Her Majesty to express her regret at having been

prevented by the state of her health from meeting

Parliament, but would come to town to receive the

Address in person. His lordship then moved that the

Address should be presented by the whole House.

Lord CAIRNS seconded the motion, which was

agreed to. Yesterday the LORD CHAMBERLAIN an-

ounced that her Majesty would receive the address of

the House at Buckingham Palace, at one o'clock on

Monday next. Earl GRANVILLE moved a formal

resolution relating to the private Bills of railways,

which was agreed to.

In the Commons on Tuesday Mr. GLADSTONE gave

notice that on the 1st of March he would move that the

goods on Sunday, and Mr. W. JOHNSTONE obtained

leave to bring in a Bill to repeal the Party Processions

(Ireland) Act. The report of the Address having

been brought up and agreed to, Mr. GLADSTONE

moved that it be presented by the whole House.

It had been a matter of serious concern to

the Queen not to be able to meet Parliament at

the first assembly of a House of Commons elected

after a wide extension of the franchise. But her Majesty

was suffering at the time from severe headache to a

degree which precluded her from going through a cere-

mony which at all periods of her life had tried her

strength to the utmost. If the motion were agreed to,

the Queen had signified her intention of coming to

town specially to receive both Houses. Though

it was unusual to present in person the answer

to a Speech delivered by Commission, there was

a precedent in the reign of George III, when the

two Houses went up with an Address to the

King, congratulating him upon the battle of Trafal-

gar. Mr. DISRAELI seconded the motion, which

though unusual and not to be followed as a precedent,

he held to be wise and judicious in view of the import-

ance of establishing personal relations between her

Majesty and the new Parliament. The motion was

agreed to unanimously. Mr. W. FORSTER moved for

leave to bring in a Bill to reform and re-organise the

endowed schools in England and Wales. He said that

the measure was designed to carry out the recommen-

dations of the Schools Commission, and would be

limited to four years. After some discussion leave was

given to bring in the Bill, and Monday, the 8th of

March, was fixed for the second reading. Yesterday

the CONTROLLER OF THE HOUSEHOLD appeared at

the bar and stated that the Queen would receive the

Address of the House at noon on Monday next, at

Buckingham Palace. Mr. GLADSTONE stated, in

answer to Mr. C. Forster, that the Government did not

intend to repeal the ratepaying clauses of the Reform

Act, or to restore the system of compound rating in

form. In answer to Lord ELCHO, Mr. C. Buxton, and

Lord Bury, Mr. LAYARD said that he was entirely

opposed to the project of a viaduct on the Thames

Embankment, and thought that an inquiry ought to

be instituted by order of the House of Commons.

The House was left sitting.

City Intelligence.

THE CASE OF MR. EDWARDS AND OVEREND,

GURNEY, AND Co.—On Monday in the Court of

Bankruptcy Mr. Edwards, the official assignee, gave

his explanation before Mr. Commissioner Holroyd of

the circumstances affecting him, which had been made

public by his evidence before the Lord Mayor in the

prosecution of Overend & Gurney. The Lord Chan-

cancellor had required him to state whether the news-

paper report of his examination was substantially cor-

rect, and if so, how he reconciled his attendance at

board meetings of the Atlantic Royal Mail Steam Com-

pany in the middle of the day twice a-week, and his

services to the company of Overend, Gurney & Co.

at a salary of 5000*l.* a-year, with the performance of

his duties as an official assignee in the Court of Bank-

ruptcy, and on what account he received a further sum

of 10,000*l.* Mr. Edwards read his reply, which was of

great length, but which was to the effect that his ex-

amination was hostile, that he had no opportunity of

refreshing his memory by reference to vouchers and

documents; that he was baited by both sides, and

had no protection from the Bench; that he attended

the board meetings of the Atlantic at the request of

Overend & Gurney to protect their interests, and that

it was after office hours, and therefore not inconsistent

with his duties as official assignee; and that if the

10,000*l.* mentioned referred to commission from the

Millwall Company he denied ever having received such

a sum. He also stated that if the books of Overend &

Gurney were referred to it would be seen that he was

in no respect responsible for the losses which the firm

had sustained. He considered that the ceaseless labour

he performed had fully entitled him to the 20,000*l.*

which he received from Overend, Gurney & Co. The

firm were fully aware of the commissions, the pay-

ments, and the presents which he received, and that

most of the insinuations that had been raised respect-

ing him were unfounded, and in many respects per-

fectly absurd. Commissioner Holroyd said that the

reply of Mr. Edwards would be transmitted to the

Lord Chancellor for his decision.

THE MERCHANTS' COMPANY PROSECUTION.—The

case for the prosecution against Mr. Richard Stuart

Lane, Mr. Horace Edward Chapman, and Mr.

Frederick John Helbert Helbert, three of the direc-

tors of the Merchants' Company, and partners in the

late firm of Lane, Hankey & Co., of Old Broad Street,

was resumed on Friday, and again adjourned to Mon-

day next, the 22d. The other summons, for issuing a

false circular, in which Mr. Stuart Lane and Mr.

James Childs only are concerned, was adjourned to

yesterday, when the case for the defence was

closed. The Lord Mayor then gave his decision,

and said that he had gone carefully over the books,

and was of opinion that at the time the circular

was issued the company was hopelessly insolvent,

to the knowledge of the defendants. He therefore

committed them for trial, but would admit them

to bail—themselves in 2000*l.*, and one surety each

in 2,000*l.*

CHARLES LAFFITTE & Co. (LIMITED).—Vice-

Chancellor Sir E. Malins has given judgment in the

important case of Gray v. Harvey Lewis, M.P., and

others, in which the plaintiff, one of the shareholders

in Charles Laffitte and Company (Limited), on behalf

of himself and the other shareholders of the company,

except the defendants, sued for the purpose of com-

pelling the National Bank and the directors of Charles

Laffitte and Company to restore the sum of

230,000*l.*, which the plaintiff alleged had been

illegally and improperly taken from the funds.

The Vice-Chancellor held that the agreement,

by which a guarantee was given to the National

Bank for the payment out of the funds

of Laffitte & Company for 40,000 shares placed in the

name of the International Company, was illegal and

fraudulent, and therefore decreed that the bank could

derive no right under the guarantee, and "must con-

sequently restore the 230,000*l.* with interest, to Charles

Laffitte & Co. Messrs. Lewis, Rensham, Kitson, &

Bate having been the main promoters of the scheme,

and having taken an active part in its accomplishment,

were guilty of a breach of trust, and were therefore

liable, with the bank, to restore the funds in question,

and they, the said National Bank, must pay the costs

of the suit."

MONEY MARKET, FRIDAY.—BRITISH FUNDS:

Consols closed at 92½ to 93, both for Money and

Account; New and Reduced Three per Cents, 93½

to 93½; Bank Stock, 242 to 244; Exchequer Bills,

par to 5s. pm.; India Five per Cents, 112½ to 112½.

—FOREIGN: Italian (1861), 57½ to 57½; Tobacco Loan,

7 to 8 pm.; Argentine, 81½ to 81½; Turkish Five per

Cents, 41½; Ditto Six per Cents, 64½; Spanish, 31½;

Brazilian, 84 to 84½; Peruvian, 78 to 78½; Mexican,

15½ to 15½; Greek, 11½ to 12½; Danubian, 78 to 79;

Egyptian Railway Debentures, 96½ to 96½; Ditto

(1868), 74½ to 75; Portuguese, 36½ to 37; Nicolai, 67

to 67½; Moscow, 80½ to 81; Charkof, 81 to 81½; United

States 5-20 Bonds, 78 to 78½; Erie, 25½ to 25½; Illinois,

96 to 97.

Metropolis and its Vicinity.

MR. BRIGHT ON THE BOARD OF TRADE AND THE

BISHOPS.—At the dinner of the Fishmongers' Com-

pany to her Majesty's Ministers last week, Mr. Bright

made the following remarks on his office in the

Government, and on the speeches made by the Arch-

bishop of York and the Bishops of London and Oxford

at a dinner given by the Company a few nights before:—

"My name in connection with the Board of Trade reminds

me of a question which I once put to the late Mr. Stiel, when

he was Vice President of the Board. I asked him how it

happened that he had been put into that place. Now, we

know what Mr. Stiel was—he was a very eloquent Irishman.

He had a great sympathy with his country, but he was not

particularly connected with commercial affairs, and he said he

thought the only reason was, that he was found to know less

of trade than any other man in the House of Commons. I do

not profess to be able to say that, since for 25 years, nay, for

30 years, I have given up my time, and nearly all my thought,

to public and political questions. I am afraid my family will

always have to remember that in many things I sacrificed

their interests to my own convictions of what I thought the

interests of the country. But that at any rate I can say, that

if I have forsaken the paths of trade I have not endeavoured

to make a trade of politics. But this name of trade will

induce the public to think that the Board can do

much more than it really can. It is far more a

department of counsel than a department of action.

It gives any quantity of good advice to other departments of

the Government, but, in the presence of this audience,

I charge upon my colleagues that a great deal of that advice is

wholly disregarded. Now, if I had here all the Prime

Ministers that I have known—I will not go so far back as my

own parliamentary experience, but I will say the Prime

Ministers for the last 15 years—if I had all the Chancellors of

the Exchequer during that time still more, if I had all the

Ministers who presided over the departments of the army and

the navy, I should bitterly complain of them that they have

been guilty of the most extraordinary and indefensible waste

and extravagance of the public resources. 20,000,000*l.*, I be-

lieve, have somehow or other been added to our expenditure

and taxes during the 15 years to which I have referred. Now

this result has happened, besides the money that has been

raised in taxation. Your policy of free trade stopped

short at the policy of protective duties, but still main-

tains a restrictive system by levying 20,000,000*l.* per

annum on articles consumed in the food of the people.

Now, if I am not absolutely silenced by my position in the

Government I shall take every opportunity of bringing my

colleagues before the bar of public opinion. I shall say that

I am at the head of a department which is but permitted to

advise—that we have at the head of our departments men of

remarkable ability in connection with public affairs, that on

all questions submitted to them they give good advice, but

little of it is accepted and followed. Lord Granville has

noticed some remarks which were made in this hall two or

three nights ago, the report of which was of a very humorous

description. In fact, I might ask the Prime Warden and his

predecessors in his dignified office whether they ever had in

this hall before so jolly a company. For my share I almost

envy those right rev. gentlemen that they should be so

hilarious on the occasion. What an extraordinary point

of imagination a man must have arrived at who

could say that the life peerages or life peers—the eccle-

siastical peers—were really the only liberal element

in the House of Lords. That may be true, but I much pity

the rest of the House if it be true. There was an old Syrian

monk that I read of many years

THE CAPITATION GRANT TO VOLUNTEERS.—A deputation from the Capitation Grant Committee, chiefly consisting of officers from Durham, Northumberland, and other northern counties, had an interview on the 11th inst. with the Secretary for War for the purpose of bringing forward fresh evidence of the necessity for an increase in the capitation grant, and especially for a graduated scale suited to the wants of the different arms of the service. Mr. Cardwell, in reply, said that he was not at present prepared to say that an increase is advisable, but he fully admitted that a gradation in the allowances to various services is necessary owing to the additional requirements made on some branches of the service, and also the additional requirements in some localities. He was at present engaged in inquiring into the necessity of such increase, and also into the possibility of an improved organisation of the force, not only in relation to itself, but also in relation to the other branches of the reserve forces and the regular army. He was not prepared to say that a Crown Commission would be recommended, though he would be glad to communicate with Lord Elcho, this Committee, and others who were acting for the volunteer force; but he strictly adhered to the reply given last month to Lord Elcho, that no money increase would be granted at present. A report has since been prepared by a committee of Scotch volunteer officers, and presented to a meeting of commanding and field officers at Glasgow. It states that after inquiring minutely into the condition and management of a large number of corps in Scotland, the committee are satisfied that the increase of the capitation grant by at least 12s. 10¹/₂d. a head is absolutely necessary to the vitality of the force; and that in some corps the men are actually wearing the uniforms they obtained at the commencement of the volunteer movement 10 years ago. The report was adopted, and a deputation was appointed to wait upon Mr. Cardwell, to ask for an increase of at least 10s. in the grant.

DEVONSHIRE VILLA, CHISWICK.—It is announced that the Prince of Wales has taken the Duke of Devonshire's villa at Chiswick, lately occupied by the Dowager Duchess of Sutherland, for a term of three years.

ACCIDENT TO VISCOUNT JOCELYN.—On Monday evening as Lord Jocelyn was descending Hay Hill, Berkeley Square, in a hansom cab, the horse fell. His lordship was thrown out of the cab and fell on his back, and sustained injury to his spine. He was taken to Lady Palmerston's residence in Park Lane, and was immediately attended by his brother-in-law, Lord Sudley, and by Mr. Prescott Hewitt, the eminent surgeon, under whose treatment, although suffering considerable pain for a time, his lordship is going on favourably. In consequence of the accident Lady Jocelyn was summoned by telegram from Broadlands. Lady Palmerston, accompanied by the Right Hon. W. Cowper, M.P., and Mrs. Cowper, also came to town on Tuesday.

THE EASTER MONDAY REVIEW.—The final arrangements were made at Dover on Wednesday for the Easter Monday Volunteer Review. The regular forces present, including Artillery and Engineers, will comprise together about 3000 men, and steps are to be taken to request the consent of the Admiralty to the presence and assistance of a number of men-of-war and gunboats in the sham fight.

THE OPERA SEASON.—It is now decided that there will be only one Opera Company during the ensuing season. Mr. Costa having resigned his office as conductor of the Opera at Covent Garden, the two companies will be united, and then joint performances will take place at Covent Garden every night in the week. Signor Arditi is to be conductor.

LAMBETH PALACE.—The Archbishop of Canterbury has signified his intention of having an evening service, with a sermon, in his private chapel in Lambeth Palace, at 5 P.M., on Sundays throughout Lent. A limited number of persons will be admitted to the chapel, on application to the chaplain, at the Palace. About 60 persons can be accommodated.

PERVERSION TO ROME.—The Rev. William Hunnybun, M.A., Vicar of Bicknoller, Somerset, has resigned his living, and been received into the Church of Rome. He was educated at Caius College, Cambridge, where he graduated in 1860. He was for some time curate of North Kelsey, Lincolnshire, and was presented to the vicarage of Bicknoller in 1867.

CONVERSION OF CAST-IRON GUNS.—The first batch of 61 rifled guns, converted on the Palliser principle from smooth bore cast-iron guns, has been received at Woolwich. They have been proved by the Royal Gun Factories, and 60 have been passed into the service, one being rejected for defective manufacture. A second batch of 30 guns is on its way from the Elswick Works at Newcastle. It is stated that Government have decided to convert a considerable number of cast-iron guns next year in the gun factories at Woolwich.

STEAM TRAFFIC ON COMMON ROADS.—A project has been matured which promises ultimately to establish a system of steam conveyance for goods and passengers on common roads. Mr. Thomas Page, the acting engineer to the Thames Tunnel under Mr. Brunel, and the constructor of Westminster Bridge, is the inventor of the new system and a company has been formed for carrying out the enterprise, which will be free from the objections which have hitherto obstructed the extension of tramways, as tributaries of railways. It will also admit of the steepest gradients being overcome by the engines employed, and will at once bring new traffic to the railways, and develop industry and production, now stagnating for want of ready access to markets. The directors of several railway companies have expressed themselves entirely in its favour. The working arrangements will be simple, and Mr. Page estimates the cost of the tramways at less than 2000^l. per mile.

THE METROPOLITAN IMPROVEMENT RATE.—The Metropolitan Board of Works have resolved not to

introduce the Metropolis Improvement Rate Bill in the present session of Parliament.

THE BOARD OF TRADE.—The whole staff of the Board of Trade have removed from their former offices in Whitehall to Pembroke House in Whitehall Gardens, recently occupied by the Foreign Office. The Colonial Office will now remove from Downing Street to the vacated building in Whitehall, while the old Colonial Office will be demolished for public improvements.

THE POOR-LAW BOARD.—The Right Hon. G. J. Goschen, President of the Poor-law Board, on the night of Wednesday week, paid a visit to St. Marybone Workhouse, and spent a couple of hours in inspecting the casual wards, and a portion of each department of the workhouse.

THE ROYAL ACADEMY.—The new galleries of the Royal Academy in Piccadilly are progressing rapidly, and there is reason to believe that the stipulation requiring them to be finished for the May exhibition will be complied with. The walls of the galleries are in course of being painted a deep maroon red. The pictures are not to be hung at so great a height as in the old galleries. The size of the catalogue is to remain unchanged, and is to include a plan of the galleries, so as to facilitate reference. It is still undecided whether the sale of refreshments will be permitted within the Exhibition, as in the British and South Kensington Museums.

EXTRAORDINARY HIGH TIDE IN THE THAMES.—On Monday morning the tide in the river rose to an unusual height, inundating the wharves and warehouses on both banks, and causing great damage to property. In the low-lying districts at Lambeth, Vauxhall, Nine Elms, and Battersea, the water ran along the streets at an alarming pace, flooding the houses to a serious extent. In the upper part of the river the stream is gradually swelling, and immense tracts of land are under water, especially in the neighbourhood of Reading, Cookham, Maidenhead, Windsor, and Datchet. The Eton Brocas, the Playing Fields, the Windsor racecourse, and their vicinity are all under water; the streets in Clewer parish are flooded, and punts have to be used to enable the residents to gain access to their houses.

THE METROPOLITAN POLICE.—It is stated that four Chief Constables of the Metropolitan Police will shortly be appointed, at salaries of 500^l. a year each.

IMPRISONMENT OF CHILDREN FOR DEBT.—On Tuesday last a girl under 14 years of age was taken away from the Girl's Refuge at Ealing, by the sheriff's officers, for an alleged debt of 3^l. 11s. 2^d., and conveyed to Whitecross Street Prison, where she still remains. Sir G. Jenkinson brought the matter before the House of Commons on Thursday, when the Home Secretary said that he had made inquiries, and ascertained that not only was the statement true, but that the prisoner's two sisters, one 14 and the other 17 years of age, had also been arrested for the costs of an action. It was, he said, to be supposed that they had been committed by the judge under some mistake; but he would take immediate steps to inquire into the matter.

DEATH IN THE STREETS.—The Registrar-General this week prominently calls attention to the fact that, calculating from the returns of last year, people are killed in the streets of London at the rate of 23 in six weeks; the numbers registered in the six weeks of the present year are 24. He says that the chances of death change with the laws, and may be considerably reduced, and that a fine on the owners and drivers of the vehicles would probably produce a salutary effect in the streets.

ALLEGED CONSPIRACY TO OBTAIN ADMIRALTY CONTRACTS.—At Bow Street Police-court on Wednesday Mr. James Thomas Gambier, one of the first-class clerks in the Storekeeper's Department of the Admiralty, Somerset House, and Mr. William Rumble, inspector of machinery afloat, were brought up in custody of Inspector Clarke, Sergeant Langley, and Sergeant Sayer, of the detective force, upon a warrant signed by Sir Thomas Henry, charging them with having conspired to obtain 30^l. from Mr. Nicholas Mahon Maxwell by false and fraudulent pretences. The case was conducted by Mr. Bristowe, the Solicitor to the Admiralty, and Mr. Baxter, M.P., the Parliamentary Secretary to the Admiralty, attended to watch the proceedings. It appeared from the statement for the prosecution, that Mr. Maxwell sent in a proposal for a contract for elm timber for the dockyards, and that a day or two afterwards Mr. Rumble called upon him and told him that the contract lay between him and another person, and unless he made terms with him and another person at the Admiralty he could not get it. Mr. Maxwell immediately communicated this offer to the heads of the department, and by their instructions the negotiation was carried on with a view to find out who were concerned beside Mr. Rumble in the matter, and by the aid of a detective, Mr. Gambier was found to be implicated, one of the 10^l. notes, paid by Mr. Maxwell by order of the Board, having been traced to his possession. After a good deal of evidence the case was adjourned.

MANUFACTURE OF POISONOUS SAUSAGES.—On Monday George and Charles Simmonds, sausage-makers of Bethnal Green, brothers, but carrying on business in distinct shops, were charged at the Worship Street Police Court with cutting up diseased beef, unfit for human food. At one establishment the officers found two men cutting up two quarters of beef, and at the other the defendant himself was at work preparing one quarter, probably of the same animal. Mr. Ellison sentenced the former, George Simmonds, to pay a fine of 20^l. and costs, 3^l. 13s. 6^d., which he did at once; and the latter, Charles Simmonds, to three months' hard labour, without the option of a fine.

ATTEMPTED MURDER IN PIMLICO.—On Saturday afternoon a tragical affair took place in Warwick Street,

Pimlico. Mr. Lynn, the sculptor, having been told that if Mr. Joseph Dunbar, one of his model-room, Dunbar became drunk, he should not have attempted to commit suicide violently, Mr. Lynn immediately seized his hand, upon which he stabbed Mr. Lynn in the groin. He was prevented from doing further mischief, and was taken over to the police. He was taken, in a rickshaw, to the nearest hospital, and the wound in his groin is serious that he is not expected to recover. His wound is not considered dangerous.

THE MURDER AT HACKNEY.—The Home Office has issued an order granting a reward of 100^l. for the discovery of five men who, on the night of the 23rd and 24th inst., murdered Samuel Crockett, and threw his body into the Regent's Canal at Hackney.

THE DOUBLE MURDER IN POPLAR.—The bodies of the old man and his granddaughter, who were murdered at Blackwall, were examined on Monday, when the jury returned a verdict of Murder against John Cooper, the husband of the deceased woman. Although 10 days have elapsed since the crime was committed, the police have not yet traced the perpetrator, for whose apprehension a reward of 100^l. has been offered by the Home Office.

THE PUBLIC HEALTH.—The Registrar-General's weekly return states that in the week ending on Saturday, Feb. 13th, 4617 births and 3221 deaths were registered in London and in 13 other large towns in the United Kingdom. The annual rate of mortality was 26 per 1000 persons living, being 23 in London, 28 in Edinburgh, 27 in Dublin, 22 in Birmingham, 27 in Liverpool, 33 in Manchester, 23 in Salford, 24 in Sheffield, 20 in Bradford, 23 in Leeds, 27 in Hull, 34 in Newcastle-upon-Tyne, and 38 in Glasgow. The rate in Vienna was 1000 during the week ending the 6th inst. In Berlin 40 per 1000 during the seven days of the 11th inst. In London the births of 1097 boys and 1097 girls, in all 2249 children, were registered during the week. In the corresponding weeks of 1859-63, the average number, corrected for population, was 2363. The deaths registered during the week were 1426. It was the 11th of the year, and the average number for the year, corrected for increase of population, was 1566. The present return is therefore 156 below the average number.

Provincial.

CAMBRIDGE.—The Rev. John Venn, M.A. of Gonville and Caius, has been elected Lecturer for the ensuing year.

CARLISLE.—On the night of Saturday, the 2nd inst., a man called John Ward was walking into the street when he was shot in the back by some one who is supposed, intended to rob him, but as he did not see the man run away. He was however recovered persons on the spot, and was traced to Croftthence to Wigton, where he was apprehended. His name is John Ludlow, from the village of Ouchterlony, Wigton. He had his gun in a chimney, and he was brought before the magistrates and committed for trial. The medical witnesses stated that he was not yet positively out of danger. —It was stated last week that a stoker on the Caledonian Railway had been apprehended for the theft of a register containing the sum of 500^l. which formed the contents of the mail bag from Carlisle to Edinburgh. Many other letters were missing, and it appears that the prisoner, who had been out of the night of the robbery, went to his work in the morning, and, taking the letters with him, put them into the furnace of his engine, where they were consumed.

ETON.—The last barrier of the entire of colleges and oppidans at Eton College has been broken down, and the colleges are to be taken into the boats. Owing to this reform, it has been thought advisable to put on a new eight-oared boat accordingly the Hibernia is to row between the St. George in the annual procession on the 1st of March.

JERSEY.—On Friday week, the States of Jersey passed, by a majority of 20 to 19, the proposed Bill for imposing a tax of 2^d. per lb. on raw wool, and 6^d. per lb. on manufactured, and 6^d. per lb. on the purpose of increasing the revenue, and enabling the States to meet the numerous and pressing demands upon the island's exchequer for public works of various kinds. Since then several of the deputies and members of the parish who voted in the majority have been so wrought upon by their constituents as to be opposed to taxation in any form, that they have adjourned the Bill for 12 months by a majority of the members but two. On Friday the States passed a Bill for an increase of the indirect tax on spirits, and a dissentient voice. There was, however, a division on a motion by the rector of St. Helier, to form a reserve fund of one-half of the income of the States to wipe off the debt of 30,000^l. owing to the States to the harbour fund, which was carried by a majority of 25 to 12.

LIVERPOOL.—The Pacific Steam Navigation Company have received, by the Atlantic Cable, news that their steamer Arica was totally lost near the Cape Verde, Peru, on the 13th ult. No lives were saved. The vessel is understood to be partly insured.

LOWESTOFT.—In the severe gale of the 2nd inst. four vessels were driven ashore on the beach, and several others were stranded. Sixteen lives were saved by means of the apparatus, and the lifeboats Letitia and Josephine were put out and rendered effective service to the vessels.

MARGATE.—During the heavy gale which

METROPOLITAN MEAT MARKET.—Feb. 20.

Best Fresh Butter 19s. per dozen lb.
 Second do. do. 17s.
 Small Pork, 4s. 4d. to 5s. 4d.; Large Pork, 2s. 8d. to 4s. 4d. per 8 lb.

HOPS.—BOROUGH MARKET, Feb. 19.

Messrs. Pattenden & Smith report the demand good, especially for foreign, prices for which are the turn dearer, as also for English.

METROPOLITAN CATTLE MARKET.

MONDAY, Feb. 15.

The supply of Beasts is larger than on Monday last, yet it is small, and choice qualities are quickly disposed of at advanced rates; a clearance is readily effected. The number of Sheep is unusually small; the demand is very good, and prices have advanced considerably. Choice Calves are still scarce and dear. Our foreign supply consists of 1810 Beasts and 76 Calves; from Scotland there are 230 Beasts; from Ireland, 70; from Norfolk and Suffolk, 830; and 690 from the Midland and Northern Counties.

s. d. s. d.		s. d. s. d.	
Best Scots, Herefords, &c.	5 4 to 5 8	Best Long-wools	5 8 to 6 0
Best Shorthorns	5 2-5 4	Do. Shorn	— — — —
2d quality Beasts	3 4-4 6	Ewes & 2d quality	4 8-5 2
Best Downs and Half-breds	6 4-6 6	Do. Shorn	— — — —
Do. Shorn	— — — —	Lambs	— — — —
Beasts, 3580; Sheep and Lambs, 13,800; Calves, 187; Pigs, 230.		Calves	4 0-6 0
		Pigs	3 8-5 4

THURSDAY, Feb. 18

We have a few more Beasts than on Thursday last; there is, however, a demand for them, and prices are about the same as on Monday. There are also a few more Sheep, but they are for the most part disposed of, and prices are scarcely altered. Good Calves are still scarce and dear. Trade is slow in all departments, consequent upon high prices. Our foreign supply consists of 410 Beasts and 94 Calves.

s. d. s. d.		s. d. s. d.	
Best Scots, Herefords, &c.	5 4 to 5 8	Best Long-wools	5 8 to 6 0
Best Shorthorns	5 2-5 4	Do. Shorn	— — — —
2d quality Beasts	3 4-4 6	Ewes & 2d quality	4 8-5 2
Best Downs and Half-breds	6 4-6 6	Do. Shorn	— — — —
Do. Shorn	— — — —	Lambs	— — — —
Beasts, 830; Sheep and Lambs, 5860; Calves, 153; Pigs, 70.		Calves	4 0-6 0
		Pigs	3 8-5 4

SEED MARKET.

We have to report increased activity in the agricultural seed trade. With an improved demand values of all descriptions are exceedingly firm. New English Red Clover seed comes to hand in very small quantities; although the quality of most of the samples is poor, holders ask long prices; for German Red there is a ready sale at full currencies; Alsike and White Clover seed are without alteration. There is a moderate inquiry for new Trefoil seed. We have a brisk demand for French Italian Rye-grass. Mustard seed is very scarce, and commands a good deal of attention on the part of speculators. English Rape seed sells steadily at late rates. Canary and Hemp seed are now very cheap. Koenigsberg Spring Tares are advancing in price; Brunswicks are in short supply, and realise long values; a few parcels of large Scotch Tares have been sold on our market: they are very scarce this year. Sainfoin seed is in fair request at last week's quotations. Linseed is very firm; fine weather would doubtless cause great activity to prevail in the seed trade, the recent heavy rains having apparently caused many buyers to defer their purchases.

JOHN SHAW & SONS, 16, WATER LANE.

MARK LANE.—MONDAY, Feb. 15.

There was a small supply of Wheat from Essex and Kent to this morning's market, and the few samples in good condition were sold at the prices of this day so'night, but others were neglected, and remained on the stands at a late hour. There was a fair attendance, and the business in foreign Wheat was quite in retail, at the quotations of that day. Malting Barley was unchanged in value, but foreign grinding, Beans, and Peas were each 1s. per qr. cheaper. The Oat trade was slow, and prices must be quoted 8d. per qr. lower. Flour was unchanged in value.

PRICE PER IMPERIAL QUARTER.		s. s.		s. s.	
WHEAT, Essex, Kent, Suffolk, White	52-55	Red.....	47-50		
— — — — — fine selected runs..do.	55-56	Red.....	49-52		
— — — — — Talavera.....	62-65				
— — — — — Norfolk.....	— — — —	Red.	— — — —		
— — — — — Foreign.....	43-66				
BARLEY, grind. & dist., 37sto39s..Chev.	46-52	Malting ..	44-50		
— Foreign..grinding and distilling	25-29	Malting ..	38-44		
OATS, Essex and Suffolk.....	— — — —				
— Scotch and Lincolnshire..Potato	25-33	Feed	— — — —		
— Irish.....Potato	30-32	Feed	26-30		
— Foreign....Poland and Brew	25-30	Feed	21-26		
RYE.....	40-42	Foreign ..	— — — —		
RYE MEAL, Foreign.....	— — — —				
BEANS, Mazagan ..3sto4ls. Tick	44-45	Harrow ..	44-45		
— Pigeon ..45s to 49s ..Winds	— — — —	— Longpod ..	— — — —		
— Foreign.....Small	40-45	Egyptian..	41-44		
PEAS, White, Essex, and Kent..Boilers	43-49	Suffolk ..	48-50		
— Maple 40s to 45s.....Grey	42-44	Foreign ..	40-45		
MAIZE.....	— — — —	Foreign ..	33-35		
FLOUR, best marks delivered..per sack	43-47				
— 2d ditto	ditto 34-44	Country ..	34-44		
— Foreign	per barrel 24-36	Per sack ..	48-56		

FRIDAY, Feb. 19.

Since the 12th inst. business in Wheat throughout the markets of the kingdom has been most inactive, and although holders and importers would have been willing to submit to some further reduction in value, millers and dealers have held off, and prices close at a further decline of 1s. per qr. Best samples of malting Barley moved off slowly at former rates, but grinding qualities and Maize were 1s. per qr. cheaper. Beans and Peas continue neglected, although offered at less money. Egyptian Beans declined 2s. per qr. Oats were pressed at a reduction of 6d. per qr., excepting samples fit for seed, which were unaltered in value. Flour was a difficult sale, at 6d. to 1s. per sack decline. The supplies off the coast this week consisted of 86 cargoes, of which, with those left over from last week, there remained for sale last night 70 cargoes. The trade in Wheat arrived off the coast has been fair, but prices show a further reduction of 1s. per qr., and we find that latterly the first-class Wheats, such as Marianopoli, Berdianaki, and Odessa Ghirkas, &c., have given way more in proportion than ordinary Banat and Taganrog Ghirkas, showing that low priced quality is most wanted. In the value of Barley, Maize, and Beans we observed no further decline. Rye steady. We did not hear of any business for forward shipment. Paris, Feb. 18.—The trade in Wheat and Flour ruled very inactive, and prices were about maintained. The eight marks are quoted at equal to 36s. 9d. per 280 lb. The stock at the Halle is estimated at 10,530 cwt. The arrivals of English grain and foreign Wheat and Oats are moderate, but of Barley and Maize large. The market this morning was badly attended. The little English Wheat on offer in good condition brought Monday's prices. The

business done in foreign was limited to a few retail sales at about the quotations of that day. Spring Corn was difficult of sale, but unchanged in value.

ARRIVALS THIS WEEK.

	Wheat.	Barley.	Oats.	Flour.
English ..	280 qrs.	1830 qrs.	— qrs.	— sks.
Irish	— " "	— " "	1690 "	— "
Foreign ..	13,740 "	30,170 "	18,140 "	{ 2020 "
				2750 brls.
	14,020	32,000	19,830	

LIVERPOOL, Tuesday, Feb. 16.—The market was moderately attended. Wheat and Flour in small demand, and prices are nominally unchanged. Beans 1s. per qr. lower; Saldi, 37s. to 38s. Oats and Oatmeal neglected. Indian Corn not pressed to same extent as on Friday, and sells in retail at the rates of that day; new mixed, 31s. to 31s. 6d.

AVERAGES.

	Wheat.	Barley.	Oats.
Jan. 2 ..	50s 11d	47s 2d	26s 9d
— 9 ..	51 5	48 1	26 4
— 16 ..	52 8	49 0	25 9
— 23 ..	52 4	49 7	26 4
— 30 ..	51 5	49 7	27 6
Feb. 13 ..	50 9	47 9	28 1
Average ..	51 7	48 6	26 9

WANTED, a WORKING HEAD GARDENER.—Steady, sober, active, married Man, no children, Wife to assist the House or Parlour-maid, or Laundry. Unexceptionable character required.—Vicar, Post Office, Dorking.

WANTED, an energetic, steady, trustworthy INDOOR PLANTSMAN, of good address.—Must be well up in the value of, and in the Growth of, Stove and Greenhouse Plants, including Orchids. Wages 30s. per week. Also an OUT-DOOR ASSISTANT under a Foreman, 25s. per week.—Apply to J. SHAW, 29, Oxford Street, Manchester

WANTED, a Single Man, who understands PACKING, and is willing to make himself generally useful in a small Nursery. Good character, &c., indispensable.—Florist, Post Office, Hereford.

WANTED, a Young Man, about 18 years of age, as IMPROVER, in a Nobleman's Garden, where a general system of Gardening is carried on. A Premium will be required.—Apply to D. Judd, The Gardens, Hawkstone, Shrewsbury.

WANTED, an ASSISTANT SHOPMAN, in a London Retail House. A progressive salary offered to a suitable Person. Good references indispensable.—R. M. S., *Gardeners' Chronicle* Office, W.C.

WANTED, in a Gentleman's Family in the Country, where there are three in the Kitchen, a Young Person as KITCHENMAID and DAIRYMAID.—She must thoroughly understand the duties of a Dairy as well as Baking. A preference will be given to any one who understands the Management of Poultry.—Apply by letter to Mrs. CHAPMAN, Canon Hill, Maidenhead.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF, of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. E. G. HENDERSON & SON, Wellington Nursery, St. John's Wood, London, N.W.

To Gardeners and Bailiffs (Head, Foremen, or Under). JAMES CARTER AND CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those who can send unquestionable references need apply.

Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & CO. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c.

JAMES CARTER & CO., 237 and 238, High Holborn, London, W.C.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS, and GARDENERS and BAILIFFS, of various qualifications, who are open to Engagements. The fullest particulars as to services required and wages given should be forwarded with application.—Paul's Nurseries, Waltham Cross, London, N

GARDENER (HEAD), or SUPERINTENDENT to a Public Park or Garden.—The Advertiser is about leaving a large place where he has served 12 years, and is now at liberty to engage with any Nobleman or Gentleman requiring the services of a first-class practical Gardener. He has had great experience in Planting, and the Management of Woods and Forests; can Measure Timber, Ground, and Brickwork, and is well qualified to fill a position similar to the above. Testimonials of the highest class as to character and ability can be had from present and late employers. References to JAMES RICHARDS, Esq., Assistant Secretary, Royal Horticultural Society, South Kensington, W.; Mr. Geo. EYLES, Superintendent, do.; or Mr. A. F. BARRON, do., Chiswick, W.

GARDENER (HEAD).—Excellent experience, and first-rate testimonials.—W. B., care of James Dickson & Sons, "Newton" Nurseries, Chester.

GARDENER (HEAD).—Age 36, married, no incumbrance; well skilled in all branches of his profession. Good references.—A. B., Post Office, St. Peter's, Thanet, Margate, Kent.

GARDENER (HEAD).—Age 27; thoroughly understands the Management of Stove and Greenhouse Plants, Vines, Melons, and Cucumbers, Kitchen and Flower Gardening, &c.—W. W., Mr. E. Jones, Seedsman, Henley-on-Thames, Oxon.

GARDENER (HEAD), married.—A Gentleman wishes to recommend his Second Gardener. Thoroughly competent. Four years' good character.—W. F., Post Office, Shest, near Petersfield, Hants.

GARDENER (HEAD).—Married; thoroughly understands his business in all its branches. First-class character from last and previous places.—G. Y., Post Office, Rowlands Castle, Hants.

GARDENER (HEAD).—Age 27, single; perfectly understands his business in all branches; also the Management of Stock and Land. Three years' good character.—J. D. M., Messrs. W. H. Smith & Son, Railway Station, Worthing.

GARDENER (HEAD).—Married, no incumbrance; Wife understands Dairy and Poultry, or Plain Cook if required. Have had the care of the house in the absence of the family. Good personal character.—A. B., 12, Streatham Place, Brixton, Surrey, S.

GARDENER (HEAD).—Age 35, married, no incumbrance; understands Stove and Greenhouse Plants, Fruits of all kinds, Vegetables, and general Management of Gardens and Pleasure Grounds. Reliable testimonials and references.—R. B., Temperate House, Royal Gardens, Kew, London, W.

GARDENER (HEAD), to any Gentleman requiring the services of a first-class Gardener.—Married; thoroughly practical, working, energetic; understands Gardening in all its branches, also Land and Stock. Good character.—G. M., Mary Cottage, Freeland's Grove, New Bromley, Kent, S.E.

GARDENER (HEAD).—Age 32, married, no incumbrance; thoroughly understands his profession in all its branches; can Manage Land if required. The estate changing hands cause of leaving. First-class testimonials. Liberal wages expected.—A. Goodwin, Holmbush House, Horsham, Sussex.

GARDENER (HEAD), to any Nobleman or Gentleman in want of a thorough practical Man.—Age 36, no incumbrance; is a good Kitchen and Flower Gardener. A number of Prizes for Fruits and Flowers. Wages moderate. Messrs. K. G. Henderson & Son, Wellington Nursery, Wood, London, N.W.

To Nurserymen, Landscape Gardeners, &c. **GARDENER (HEAD) or FOREMAN.**—A Gentleman has just left the Management of Man.—H., Mr. J. Newton, Hyde Park, W.

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GARDENER (HEAD), or good STOVE and GREENHOUSE GARDENER.—Age 28; thoroughly understands the Management of Stove and Greenhouse Plants, Vines, Cucumbers, &c. Two years' good character.—A. B., 10, Road, Chiswick, W.

GARDENER (HEAD, WORKING).—Age 27; understands Early and Late Forcing, Stove and Greenhouse Plants, and Flower and Kitchen Gardening, &c. E. H., Mr. J. Head, Sen., Petersfield, Hants.

GARDENER (HEAD), where one or two are required.—Age 28, single; has a good knowledge of the management in first-rate places. Good testimonials.—H. Ley, Nurseryman, Croydon, S.

GARDENER (HEAD), where two or three are required.—Age 30, married, no incumbrance, thoroughly experienced in the Management of Glass, &c. First-class character.—D., Mr. J. Ley, Nurseryman, Croydon, S.

GARDENER (HEAD), where one or two are required.—Married, no incumbrance, thoroughly experienced in the Management of Grapes, Cucumbers, Melons, &c. Three years' good character from his last place.—A. B., Vaie, Bramley.

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GARDENER, in a Nobleman's or Gentleman's Family.—Has a thorough knowledge of his profession in all its branches. Character will bear the strictest investigation.—Post Office, Lower Tulse Hill, Brixton, S.

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GARDENER (SECOND).—Age 24; six years' experience in all branches. Good character.—W. J., 15, Providence Place, Bush, W.

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FOREMAN, in a Nobleman's or Gentleman's Family.—Age 24; has a thorough knowledge of Forcing, Pines, Fruits, &c.—W. H. H., Harbour Street, Worksop, Notts.

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FARM BAILIFF, or any place of trust.—No incumbrance, Wife good Dairywoman.—W. C., Lower Swell, Stow-on-Wold, Gloucestershire.

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The Gardeners' Chronicle Newspaper.

SATURDAY, FEBRUARY 27, 1869.

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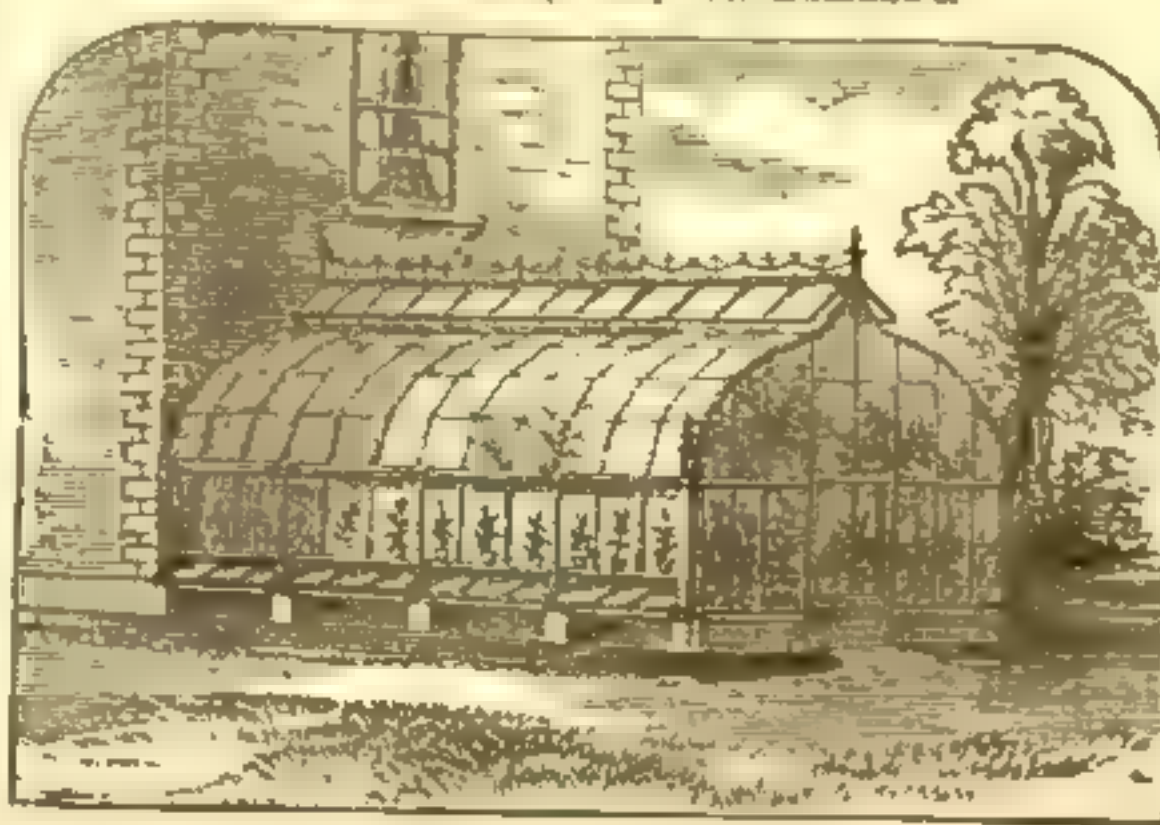
	2-inch.	3-inch.	4-inch.
per yard	1s 0d.	1s 6d.	2s 0d.
each	1 6	2 3	3 0
"	2 6	3 6	4 6
"	2 6	3 6	4 6
"	10 0	11 6	13 0

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" " Painted four coats, and Handles on	1 6 0
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6 ft. by 8 ft., Double Lights, do.	2 15 0

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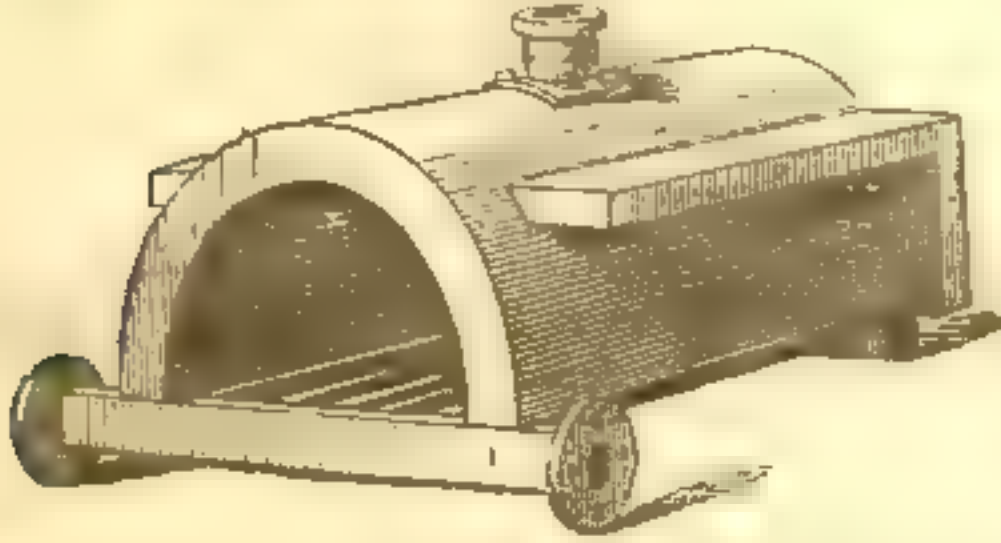
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TEES	2 3	3 6	4 6
STYPHONS	2 3	3 6	4 6
THROTTLE VALVES	10 0	11 5	13 0

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THE SOCIETY of PAINTERS in OIL COLOURS.—The WINTER EXHIBITION of SKETCHES and STUDIES is NOW OPEN, 5, Pall Mall East. The admission is 1s. WILLIAM CALLOW, Secretary.

Home News.
RETURN OF THE COURT TO WINDSOR—The Queen, accompanied by Princess Louise, Prince Leopold, Princess Beatrice, left Osborne yesterday morning for Windsor Castle. Her Majesty and the Royal Family arrived at Windsor at a quarter to 2 o'clock.

THE COURT AT OSBORNE.—On Friday the Queen's return to Windsor was prevented by the indisposition of Prince Leopold, in consequence of which her Majesty was unable to leave Osborne Saturday Sir William Jenner arrived from London. The Queen, accompanied by Princess Louise, Princess Beatrice, drove through Parkhurst on Sunday the Queen, accompanied by Princess Louise, and Princess Beatrice, attended Divine Service at Whippingham Church. The Rev. G. Prothero officiated. On Monday the Queen walked and drove with Prince Louise; and in the afternoon drove out with Prince

Sir W. Jenner returned to London. On Tuesday the Queen drove out. Lord Dufferin, Chamberlain of the Duchy of Lancaster, arrived on a visit. On Wednesday Viscount Sydney, the Lord Chamberlain, and Lord Odo Fitzgerald, the Controller of the Household, arrived from London and presented Her Majesty the addresses of the two Houses of Parliament in reply to the Queen's speech. Lord Dufferin had an audience of Her Majesty. The Right Hon. Mr. Bruce arrived from London on a visit. On Thursday morning the Queen walked and drove in the grounds with the Princess Louisa. Prince Leopold took a short drive. The Bishop of Lincoln arrived from London and was introduced to her Majesty by the Secretary of State for the Home Department, and did homage on his appointment. Mr. Bruce, the Bishop of Lincoln, and the Hon. and Rev. E. Keppel, Deputy Clerk of the Closet, left for London after the ceremony.

THE PRINCE AND PRINCESS OF WALES.—It is now arranged that the Prince and Princess will prolong their absence from England until the first week in May. As the difficulty between Turkey and Greece has been settled, the Prince and Princess will resume their intention to pay visits to the Sultan and the King of Greece, should diplomatic relations be re-established between the two countries by the time of their leaving Egypt. The Sultan has ordered the palace at Salih Bazar to be prepared for the reception of their Royal Highnesses.

THE DUKE OF EDINBURGH left Simon's Bay in the Galatea frigate on the 6th January for Swan River. **PRINCE LEOPOLD** was attacked with a sudden return of the internal hæmorrhage to which he is subject on Thursday week. Dr. Hoffmeister, of Cowes, remained in attendance on his Royal Highness all Thursday night, and Sir W. Jenner arrived there early on Friday morning, and remained with the Prince until Monday. The attack subsided much more quickly than on any former occasion, and the Prince has progressed so satisfactorily during the week that he was able to accompany the Queen yesterday to Windsor.

ACCOUCHMENT OF PRINCESS CHRISTIAN.—The Princess Christian was confined of a son at 6 o'clock yesterday morning. Her Royal Highness and the infant Prince are doing well.

COURT ARRANGEMENTS.—The Queen's Court, which was announced to take place at Buckingham Palace, on Tuesday, the 2d of March, has been postponed to Wednesday, the 3d of March.

THE CABINET.—A Cabinet Council was held on Saturday, in Downing Street.

PARLIAMENTARY MOVEMENTS.—There is a vacancy in Scarborough, caused by the death of Sir J. V. B. Joannstone. Baron Rothschild was elected for the City of London on Monday, in the room of the late Mr. Charles Bell, without opposition. The election for the London Boroughs took place on Thursday, when the Marquis of Hartington, the Postmaster-General, was elected by a majority of 371 over Mr. Phillips, the numbers being 316 to 175. The Westbury election terminated yesterday in the return of Mr. Phipps, the Conservative candidate, by a majority of 49 over Mr. Laverton, the numbers being 325 to 276. Mr. Devereux (Liberal) was returned for Wexford yesterday without opposition. In the House of Commons, on Wednesday, a select committee was appointed to inquire as to the alleged parliamentary disqualification of Sir S. Waterston to sit and vote as member for Dumfriesshire, with leave to hear counsel on the matter referred to them.

TRIALS OF ELECTION PETITIONS.—Mr. Justice Willes on Saturday gave judgment on the Coventry petition, declaring that Messrs. Eaton and Staveley had, the Conservative sitting members, were duly elected. He made no order as to costs, considering that there were grounds upon which, for the public benefit, the petition should have been presented. Mr. Justice Willes on Wednesday gave judgment in the Bodmin case, declaring that Mr. Gower was duly elected, that there was no evidence to show or reason to believe that corrupt practices prevailed on either side and that all the costs should fall on the petitioners. Mr. Justice Blackburn yesterday decided that the Bridgwater election was void, and condemned the respondents to the payment of costs. He also decided that corrupt practices had extensively prevailed, and refused certificates of indemnity to some of the witnesses. In Ireland, Baron Fitzgerald has declared the election of Mr. O'Beirne for Cashel void, that Mr. O'Beirne was personally and by his agents guilty of bribery, and that Mr. Munster, the petitioner, was guilty of bribery by his agents. On Monday Mr. Justice Keogh gave judgment on the Shgo petition, declaring that Major Knox was not duly elected, that corrupt practices and the grossest intimidation had extensively prevailed, and that Major Knox must pay the costs of the inquiry. The trials of Stafford, Pelyn, Falmouth, and Youghal, are still in progress. The petitions from Hull and Shrewsbury have been withdrawn. Baron Martin will open the Hereford inquiry on March 9.

THE NEW COURT DRESS.—In answer to inquiries the Lord Chamberlain has intimated that no alteration has been made as regards the Highland dress in the recent regulations on Court dress.

CONSECRATION OF THREE BISHOPS.—On Wednesday the consecration of Dr. Wordsworth, to the see of Lincoln; of Dr. Hatchard, to the see of Mauritius; and of Dr. Turner, to the see of Grafton and Armidale, took place in Westminster Abbey under very imposing circumstances. Dr. Wordsworth, the new Bishop of Lincoln, having, as Archdeacon of Westminster been one of the most eminent members of the Lower House of Convocation, both Houses, which are now in session, suspended their sittings to assist at the consecration of their colleague. The result was an extraordinary assemblage of the higher dignitaries and clergy, many of whom wore their Convocation robes or University costume. The Archbishop of Canterbury, who officiated

on the occasion, was assisted by the Bishops of London, Oxford, Llandaff, Ely, Bangor, Rochester, and Lichfield; the Bishop of Luban, the Bishop of St. Andrew's, and Bishop Ryan, and many others present were the Procurator of the Lower House of Convocation, the Deans of Westminster and Canterbury, the Archdeacons and other members of the Lower House, the Warden of All Souls, Oxford, the Vicar-General, and other legal officials. There was a full choral service, and the sermon was preached by Archdeacon Bickersteth.

THE NAVY.—The Queen has conferred the rank of Vice-Admiral of the United Kingdom on Sir George Sartorius, one of the few survivors of the battle of Trafalgar. The Greenwich Hospital pension of 150*l.* a year, vacant by the death of Sir James A. Gordon, has been granted to Vice-Admiral the Hon. Joseph Denman. The Good Service pension of 300*l.* a year, vacant by the appointment of Sir Houston Stewart to the Governorship of Greenwich Hospital, has been granted to Vice-Admiral Sir R. Smart.

REDUCTIONS IN THE ARMY AND NAVY.—It is reported that the saving which Mr. Childers will effect during the financial year of 1869-70 will be from 900,000*l.* to a million sterling, and that the saving in the Army Estimates, which are now nearly completed, will exceed one million sterling. Amongst the staff appointments which will be abolished are those of Director of Ordnance, Commander of the Forces in Ireland, Inspector-General of Cavalry, Artillery, and Engineers; two major-generals in Canada, and several minor offices. The three regimental lieutenant-colonels of the Guards will also be abolished as unnecessary, now that the division has a general officer attached to it. It has also been determined to keep a battalion of Guards as part of the garrison of Dublin.

CONVOCAION.—Both Houses of Convocation of the Province of Canterbury assembled on Tuesday at Westminster for the despatch of business. The Archbishop presided, and the first business was the adoption of an address to the Crown, of which the principal passage was as follows:—

"We look forward with deep anxiety to the proceedings which may be proposed to Parliament respecting the Irish Branch of the United Church of England and Ireland, and we trust that the interests of true religion may not be lost sight of amid the conflicts of political parties; and we pray, whatever course may finally receive the sanction of the Legislature, it may tend to that which all loyal hearts desire—the peace, enlightenment, and good government of Ireland."

The address was then sent down to the Lower House, when Canon Blakesley moved that it be adopted as it stood, remarking that its moderation would recommend it to the House. Canon Selwyn then moved the following as a "rider" to the address:—

"That the Upper House be requested to concur in an address praying Her Majesty not to assent to any measure for repealing, with respect to any portion of the United Kingdom, those parts of the great Charter, and of the 1st of William & Mary, chap. 6, and other statutes, which secure the rights and privileges of the Church, nor to any measure for alienating to secular purposes any portion of the property or revenues which have been dedicated to the maintenance of the worship of Almighty God and the support of His ministers."

Archdeacon Freeman seconded the addition of this clause. The Dean of Ely remarked that such an addition would jeopardize the Crown, since it prayed Her Majesty to put herself into conflict with Parliament. Archdeacon Moore opposed the rider on the same ground. Archdeacon Denison and Dr. Jebb supported it, and the latter, in very strong terms, denounced the Irish Church Bill to be brought forward by Mr. Gladstone as an "abominable measure." The Dean of Westminster reminded the House that they were not in a position to discuss matters, as no measure on the Irish Church had yet come before Parliament. A discussion ensued, which lasted several hours, and in which Archdeacon Grant, Lord A. Harvey, Chancellor Massingberd, Canon Thomas, Mr. Hughes, and Archdeacon Mackenzie, took part. A show of hands was then taken, when Canon Selwyn's "rider" was carried by a large majority. Archdeacon Denison then moved another "rider" as follows:—

"Above all, we are constrained by our sense of duty to your Majesty and to the Reformed Church of England and Ireland, humbly to represent to your Majesty that the disestablishment of the Church in Ireland cannot be had without repudiation on the part of this nation of the necessity and value of the Reformation."

Dr. Jebb seconded this addition, which was carried. On Wednesday the Upper House did not meet. In the Lower House the Rev. J. W. Joyce moved a series of resolutions on church discipline, with a request that the Upper House would appoint a committee on the subject. Canon Selwyn moved the omission of all the resolutions, so as to ask simply for a committee. Archdeacon Hale seconded this motion, which was carried by 36 to 22. On Thursday, in the Upper House, the amended address having been brought up from the Lower House, The Bishop of Oxford opposed the "riders" of Canon Selwyn and Archdeacon Denison, as unconstitutional, and moved their omission, substituting for them the following clause:—

"We look forward with deep anxiety to the measures which may be proposed to Parliament respecting the Church now by law established in Ireland, and we trust that the interests of true religion and the just claims of that ancient and reformed communion may not be lost sight of amidst the conflicts of political parties."

The Bishop of Peterborough seconded this motion, which was carried. The other amendments of the Lower House, respecting an increase of the episcopate and a better representation of the clergy, were rejected. In the Lower House, Archdeacon Denison presented a petition from 99 "priests of the Church of England," containing passages from Thorndike's "Laws of the Church," written A.D. 1659, in favour of the "real presence," and asking that they in affirming this dictum might be protected from the imputation of unfaithfulness to the Church of England, inasmuch as

they were constrained to affirm, that to repudiate this doctrine was, *ipso facto*, to cut off the Church of England from the Church primitive and catholic. The petition, which was of great length, and the reading of which was heard with great impatience and interruptions, was referred to the committee of privy-counsellors. The Convocation of the Province of York also assembled on Friday under the presidency of the Archbishop, and evinced more than ordinary attention to the chief subjects of discussion including the Irish Church question and the suggested union of the Wesleyans and the Establishment.

Foreign.

FRANCE.—The French Government has sent a circular note to its diplomatic agents abroad, briefly detailing the results of the Conference. M. Troplong, the President of the Senate, is seriously ill. In the sitting of the Legislative Body on Tuesday, the discussion on the contract between the City of Paris and the Credit Foncier of France was resumed. M. Taiers spoke at great length against the municipal administration. The Government journals have received very coldly the explanations given in the Belgian Senate by M. Frere-Orban relating to the Railway Bill, but have considerably moderated their tone against Belgium. The *France* declares that deeds, not words, are necessary to efface the mistrust to which the passing of this Bill has given rise. The *Patron* states that the position of affairs remains *in statu quo*, and that the rights of the Eastern Railway of France are still intact. The *Public* is of opinion that the declaration made by M. Frere-Orban is equivalent to a retreat. The *Constitutionnel*, however, expresses confidence in the wisdom of the King and people of Belgium, and hopes that the question raised by the vote on the Railway Bill will not enter a phase likely to justify the alarms which have been circulated. The seals have just been taken off the property of the Princess Baccouchin, in presence of Marshal Vaillant and M. Chassagné Goyon, representing the Emperor and the Council of State respectively. The family papers, which have been taken to the Emperor, are said to include 45 different volumes, containing notes made by Napoleon I. at St. Helena. The Princess, besides her property in Brittany, possessed an estate at Trieste, which produces a revenue of 100,000 francs a year, the whole of which is left to the Prince Imperial. A collision took place in the Gulf of Genoa, on the night of the 17th, between the Imperial despatch-boat Latouche-Treville, on her way from Toulon to Nice to receive the body of Fuad Pasha, and the Prince Pierre, of the Valery Company. The latter was cut in two, and sunk in five minutes, and 13 of her passengers were drowned. The despatch-boat succeeded in saving about 30 persons, among whom was M. Gavini, deputy, and brother of the Prefect of Nice. The disaster is attributed to a mistake as to the "rule of the road" at sea. The two vessels had sighted each other, the lights were all in their proper position, the weather was fair, with a slight breeze, and the sea calm; but in their anxiety to avoid each other both went to the starboard side, and so ran into each other at full speed. Sedan chairs have reappeared in the old Faubourg St. Germain. The Princess de Metternich, Madame de Rochefoucault-Bisaccia, the Princess de la Tremouille, and the Marquise de Faneenes, use them for going to church and for short morning visits. A special toilette has been invented for them, consisting of a black mantilla trimmed with guipure, and the costume is called *sortie d'église*. An English groom called Carmann, who said that he was the jockey of an English nobleman, who had sent him to Paris with some race-horses, was found a few nights ago in the Champs Elysées with a knife sticking in his chest, and with seven wounds in his back. He has since died in hospital, and no clue to the murder has been discovered, the man himself having to the last moment refused to furnish any information as to the affair.

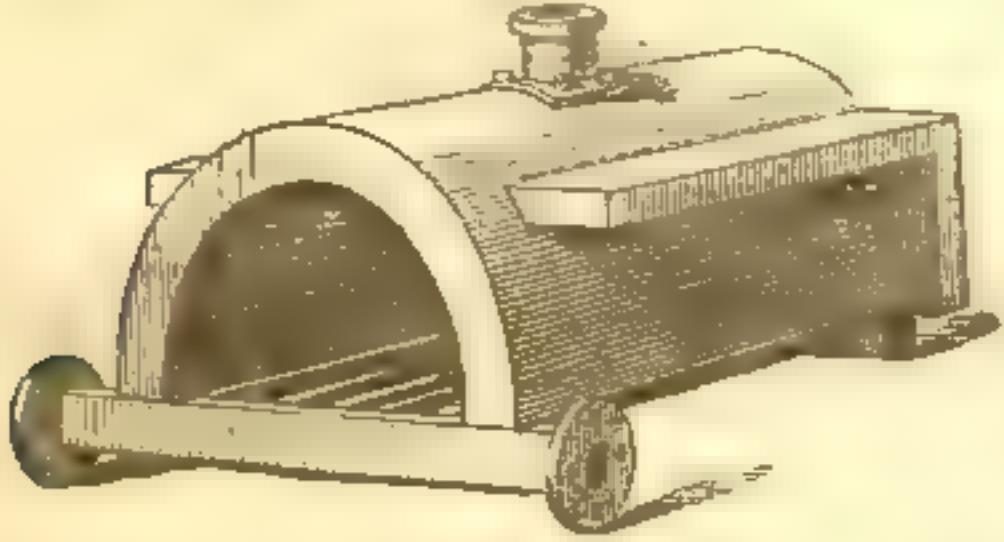
SPAIN.—In the sitting of the Constitutional Cortes on Saturday Senor Rivero was definitively elected President by 167 votes against 47 given to Senor Orense. The Vice-Presidents and secretaries were also re-elected. In the sitting of Monday Senor Rivero thanked the Deputies for the honour they had conferred upon him in electing him President of the Chambers. He said that he would use all his energy towards fulfilling the duties of his office, and invited the House to hasten the work of reconstruction. The Cortes decided unanimously to be bound by the rules laid down in 1854 until a committee had drawn up special regulations. Marshal Serrano then addressed the House, announcing that the Provisional Government had resigned office, and urging the Cortes to avoid all delay in proceeding to their task. General Prim, replying to reports circulated by Paris newspapers, declared that the late dynasty should never reascend the Throne of Spain, and that he would never, directly or indirectly, aid in endeavours in favour of the Prince of Asturias. He concluded by reiterating that he had joined Marshal Serrano to destroy the former régime, and would remain united with him in the work of reconstruction. Admiral Topete, in a speech which was loudly cheered, asked for a Bill of indemnity for the navy, which had violated the military laws in order to save the country and bestow liberty upon their fellow-countrymen. It was then moved by one of the secretaries of the House that the Cortes should pass a vote of thanks to the Provisional Government, and intrust Marshal Serrano with the executive power and the formation of a new Cabinet. The motion was supported by Deputy Valera, and taken into consideration by a majority of 181 to 57. The Republican minority moved an amendment to the effect that there was no occasion to consider the motion. Signor Castelar and Senor Orense spoke in favour of this amendment, which was rejected. The debate was then adjourned to Tuesday, when

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Home News.
RETURN OF THE COURT TO WINDSOR.—The Queen, accompanied by Princess Louise, Prince Leopold, Princess Beatrice, left Osborne yesterday morning for Windsor Castle. Her Majesty and the Royal Family arrived at a quarter to 2 o'clock.
THE COURT AT OSBORNE.—On Friday the Queen's return to Windsor was prevented by the indisposition of Prince Leopold, in consequence of which her Majesty was unable to leave Osborne on Saturday. Sir William Jenner arrived from London on Saturday, accompanied by Princess Louise, Princess Beatrice, and the Duke of Devonshire. The Hon. Eva Macdonald arrived on Sunday, and Princess Beatrice, attended Divine Service at Whippingham Church. The Rev. G. Protheroe officiated. On Monday the Queen walked and drove with Prince Leopold, and in the afternoon drove out with Princess Louise.

Mr. W. Jenner returned to London. On Tuesday the Queen drove out. Lord Dufferin, Chamberlain of the Duchy of Lancaster, arrived on a...

THE PRINCE AND PRINCESS OF WALES.—It is arranged that the Prince and Princess will prolong their absence from England until the first week in May. As the difficulty between Turkey and Greece has been settled, the Prince and Princess will resume their intention to pay visits to the Sultan and the King of Greece, should diplomatic relations be re-established between the two countries by the time of their leaving Egypt.

THE DUKE OF EDINBURGH left Simon's Bay in the Galatea frigate on the 6th January for Swan River. PRINCE LEOPOLD was attacked with a sudden return of the internal hæmorrhage to which he is subject on Thursday week. Dr. Hoffmeister, of Cowes, remained in attendance on his Royal Highness all Thursday night, and Sir W. Jenner arrived there early on Friday morning, and remained with the Prince until Monday. The attack subsided much more quickly than on any former occasion, and the Prince has progressed so satisfactorily during the week that he was able to accompany the Queen yesterday to Windsor.

ACCOUCHMENT OF PRINCESS CHRISTIAN.—The Princess Christian was confined of a son at 8 o'clock yesterday morning. Her Royal Highness and the infant Prince are doing well.

COURT ARRANGEMENTS.—The Queen's Court, which was announced to take place at Buckingham Palace, on Tuesday, the 2d of March, has been postponed to Wednesday, the 3d of March.

THE CABINET.—A Cabinet Council was held on Saturday, in Dowling Street.

PARLIAMENTARY MOVEMENTS.—There is a vacancy for Scarborough, caused by the death of Sir J. V. B. Johnstone. Baron Rothschild was elected for the City of London on Monday, in the room of the late Mr. Charles Bell, without opposition. The election for the Boinor Boroughs took place on Thursday, when the Marquis of Hartington, the Postmaster-General, was elected by a majority of 371 over Mr. Phillips, the numbers being 516 to 175. The Westbury election terminated yesterday in the return of Mr. Phipps, the Conservative candidate, by a majority of 49 over Mr. Laverton, the numbers being 325 to 276. Mr. Devereux (Liberal) was returned for Wexford yesterday without opposition. In the House of Commons, on Wednesday, a select committee was appointed to inquire as to the alleged parliamentary disqualification of Sir S. Waterhouse to sit and vote as member for Dumfriesshire, with a view to hear counsel on the matter referred to them.

TRIALS OF ELECTION PETITIONS.—Mr. Justice Wiles on Saturday gave judgment on the Coventry petition, declaring that Messrs. Eaton and Staveley Hill, the Conservative sitting members, were duly elected. He made no order as to costs, considering that there were grounds upon which, for the public benefit, the petition should have been presented. Mr. Justice Wiles on Wednesday gave judgment in the Bodmin case, declaring that Mr. Gower was duly elected, that there was no evidence to show or reason to believe that corrupt practices prevailed on either side, and that all the costs should fall on the petitioners. Mr. Justice Blackburn yesterday decided that the Bridgwater election was void, and condemned the respondents to the payment of costs. He also decided that corrupt practices had extensively prevailed, and refused certificates of indemnity to some of the witnesses. In Ireland, Baron Fitzgerald has declared the election of Mr. O'Beirne for Cashel void, that Mr. O'Beirne was personally and by his agents guilty of bribery, and that Mr. Munster, the petitioner, was also guilty of bribery by his agents. On Monday Mr. Justice Keogh gave judgment on the Sligo petition, declaring that Major Knox was not duly elected, that corrupt practices and the grossest intimidation had extensively prevailed, and that Major Knox must pay the costs of the inquiry. The trials of Lord Pelyn, Falmouth, and Youghal, are still in progress. The petitions from Hull and Shrewsbury have been withdrawn. Baron Martin will open the Hereford inquiry on March 9.

THE NEW COURT DRESS.—In answer to inquiries the Lord Chamberlain has intimated that no alteration has been made as regards the Highland dress in the recent regulations on Court dress.

CONSECRATION OF THREE BISHOPS.—On Wednesday the consecration of Dr. Wordsworth, to the see of Lincoln; of Dr. Hatchard, to the see of Mauritius; and of Dr. Turner, to the see of Grafton and Armidale, took place in Westminster Abbey under very imposing circumstances. Dr. Wordsworth, the new Bishop of Lincoln, having, as Archdeacon of Westminster, been one of the most eminent members of the Lower House of Convocation, both Houses, which are now in session, deferred their sittings to assist at the consecration of their colleague. The result was an extraordinary assembly of the higher dignitaries and clergy, many of whom wore their Convocation robes or University costumes. The Archbishop of Canterbury, who officiated

on the occasion, was assisted by the Bishops of London, Oxford, Llandaff, Ely, Bangor, Rochester, and Lichfield; the Bishop of Luban, the Bishop of St. Andrew's, and Bishop Ryan, and among those present were the Procurator of the Lower House of Convocation, the Deans of Westminster and Canterbury, the Archdeacons and other members of the Lower House, the Warden of All Souls, Oxford, the Vicar-General, and other legal officials. There was a full choral service, and the sermon was preached by Archdeacon Bickersteth.

THE NAVY.—The Queen has conferred the rank of Vice-Admiral of the United Kingdom on Sir George Sartorius, one of the few survivors of the battle of Trafalgar. The Greenwich Hospital pension of 150*l.* a year, vacant by the death of Sir James A. Gordon, has been granted to Vice-Admiral the Hon. Joseph Denman. The Good Service pension of 300*l.* a year, vacant by the appointment of Sir Houston Stewart to the Governorship of Greenwich Hospital, has been granted to Vice-Admiral Sir R. Smart.

REDUCTIONS IN THE ARMY AND NAVY.—It is reported that the saving which Mr. Childers will effect during the financial year of 1869-70 will be from 900,000*l.* to a million sterling, and that the saving in the Army Estimates, which are now nearly completed, will exceed one million sterling. Amongst the staff appointments which will be abolished are those of Director of Ordnance, Commander of the Forces in Ireland, Inspector-General of Cavalry, Artillery, and Engineers; two major-generals in Canada, and several minor offices. The three regimental lieutenant-colonels of the Guards will also be abolished as unnecessary, now that the division has a general officer attached to it. It has also been determined to keep a battalion of Guards as part of the garrison of Dublin.

CONVOCATION.—Both Houses of Convocation of the Province of Canterbury assembled on Tuesday at Westminster for the despatch of business. The Archbishop presided, and the first business was the adoption of an address to the Crown, of which the principal passage was as follows:—

"We look forward with deep anxiety to the proceedings which may be proposed to Parliament respecting the Irish Branch of the United Church of England and Ireland, and we trust that the interests of true religion may not be lost sight of amidst the conflicts of political parties; and we pray, whatever course may finally receive the sanction of the Legislature, it may tend to that which all loyal hearts desire—the peace, enlightenment, and good government of Ireland."

The address was then sent down to the Lower House, when Canon Blakesley moved that it be adopted as it stood, remarking that its moderation would recommend it to the House. Canon Selwyn then moved the following as a "rider" to the address:—

"That the Upper House be requested to concur in an address praying her Majesty not to assent to any measure for repealing, with respect to any portion of the United Kingdom, those parts of the great Charter, and of the 1st of William & Mary, chap. 6, and other statutes, which secure the rights and privileges of the Church, nor to any measure for alienating to secular purposes any portion of the property or revenues which have been dedicated to the maintenance of the worship of Almighty God and the support of His ministers."

Archdeacon Freeman seconded the addition of this clause. The Dean of Ely remarked that such an addition would jeopardize the Crown, since it prayed her Majesty to put herself into conflict with Parliament. Archdeacon Moore opposed the rider on the same ground. Archdeacon Denison and Dr. Jebb supported it, and the latter, in very strong terms, denounced the Irish Church Bill to be brought forward by Mr. Gladstone as an "abominable measure." The Dean of Westminster reminded the House that they were not in a position to discuss matters, as no measure on the Irish Church had yet come before Parliament. A discussion ensued, which lasted several hours, and in which Archdeacon Grant, Lord A. Harvey, Chancellor Massingberd, Canon Thomas, Mr. Hughes, and Archdeacon Mackenzie, took part. A show of hands was then taken, when Canon Selwyn's "rider" was carried by a large majority. Archdeacon Denison then moved another "rider" as follows:—

"Above all, we are constrained by our sense of duty to your Majesty and to the Reformed Church of England and Ireland, humbly to represent to your Majesty that the disestablishment of the Church in Ireland cannot be had without repudiation on the part of this nation of the necessity and value of the Reformation."

Dr. Jebb seconded this addition, which was carried. On Wednesday the Upper House did not meet. In the Lower House the Rev. J. W. Joyce moved a series of resolutions on church discipline, with a request that the Upper House would appoint a committee on the subject. Canon Selwyn moved the omission of all the resolutions, so as to ask simply for a committee. Archdeacon Hale seconded this motion, which was carried by 36 to 22. On Thursday, in the Upper House, the amended address having been brought up from the Lower House, The Bishop of Oxford opposed the "riders" of Canon Selwyn and Archdeacon Denison, as unconstitutional, and moved their omission, substituting for them the following clause:—

"We look forward with deep anxiety to the measures which may be proposed to Parliament respecting the Church now by law established in Ireland, and we trust that the interests of true religion and the just claims of that ancient and reformed communion may not be lost sight of amidst the conflicts of political parties."

The Bishop of Peterborough seconded this motion, which was carried. The other amendments of the Lower House, respecting an increase of the episcopate and a better representation of the clergy, were rejected. In the Lower House, Archdeacon Denison presented a petition from 99 "priests of the Church of England," containing passages from Thorndike's "Laws of the Church," written A.D. 1659, in favour of the "real presence," and asking that they in affirming this dictum might be protected from the imputation of unfaithfulness to the Church of England, inasmuch as

they were constrained to affirm, that to repudiate this doctrine was, *ipso facto*, to cut off the Church of England from the Church primitive and catholic. The petition, which was of great length, and the reading of which was heard with great impatience and interruptions, was referred to the committee of privileges. —The Convocation of the Province of York also assembled on Tuesday under the presidency of the Archbishop, and excited more than ordinary attention, the chief subjects of discussion including the Irish Church question and the suggested union of the Wesleyans and the Establishment.

Foreign.

FRANCE.—The French Government has sent a circular note to its diplomatic agents abroad, briefly detailing the results of the Conference. M. Troplong, the President of the Senate, is seriously ill. In the sitting of the Legislative Body on Tuesday, the discussion on the contract between the City of Paris and the Credit Foncier of France was resumed. M. Thiers spoke at great length against the municipal administration. The Government journals have received very coldly the explanations given in the Belgian Senate by M. Frere-Orban relating to the Railway Bill, but have considerably moderated their tone against Belgium. The *France* declares that deeds, not words, are necessary to efface the mistrust to which the passing of this Bill has given rise. The *Patris* states that the position of affairs remains *in statu quo*, and that the rights of the Eastern Railway of France are still intact. The *Public* is of opinion that the declaration made by M. Frere-Orban is equivalent to a retreat. The *Constitutionnel*, however, expresses confidence in the wisdom of the King and people of Belgium, and hopes that the question raised by the vote on the Railway Bill will not enter a phase likely to justify the alarms which have been circulated. The seals have just been taken off the property of the Princess Baccicchi, in presence of Marshal Vaillant and M. Chassaigne Goyon, representing the Emperor and the Council of State respectively. The family papers, which have been taken to the Emperor, are said to include 45 different volumes, containing notes made by Napoleon I. at St. Helena. The Princess, besides her property in Brittany, possessed an estate at Trieste, which produces a revenue of 100,000 francs a year, the whole of which is left to the Prince Imperial. A collision took place in the Gulf of Genoa, in the night of the 17th, between the Imperial despatch-boat *Latouche-Treville*, on her way from Toulon to Nice to receive the body of Fuad Pasha, and the Prince Pierre, of the Valery Company. The latter was out in two, and sunk in five minutes, and 13 of her passengers were drowned. The despatch-boat succeeded in saving about 30 persons, among whom was M. Gavini, deputy, and brother of the Prefect of Nice. The disaster is attributed to a mistake as to the "rule of the road" at sea. The two vessels had sighted each other, the lights were all in their proper position, the weather was fair, with a slight breeze, and the sea calm; but in their anxiety to avoid each other both went to the starboard side, and so ran into each other at full speed. Sedan chairs have reappeared in the old Faubourg St. Germain. The Princess de Metternich, Madame de Rochefoucault-Bisaccia, the Princess de la Tremouille, and the Marquise de Fanecones, use them for going to church and for short morning visits. A special toilette has been invented for them, consisting of a black mantilla trimmed with guipure, and the costume is called *sortie d'église*. An English groom called Carmann, who said that he was the jockey of an English nobleman, who had sent him to Paris with some race-horses, was found a few nights ago in the Champs Elysées with a knife sticking in his chest, and with seven wounds in his back. He has since died in hospital, and no clue to the murder has been discovered, the man himself having to the last moment refused to furnish any information as to the affair.

SPAIN.—In the sitting of the Constitutional Cortes on Saturday Senor Rivero was definitively elected President by 167 votes against 47 given to Senor Orense. The Vice-Presidents and secretaries were also re-elected. In the sitting of Monday Senor Rivero thanked the Deputies for the honour they had conferred upon him in electing him President of the Chambers. He said that he would use all his energy towards fulfilling the duties of his office, and invited the House to hasten the work of reconstruction. The Cortes decided unanimously to be bound by the rules laid down in 1854 until a committee had drawn up special regulations. Marshal Serrano then addressed the House, announcing that the Provisional Government had resigned office, and urging the Cortes to avoid all delay in proceeding to their task. General Prim, replying to reports circulated by Paris newspapers, declared that the late dynasty should never reascend the Throne of Spain, and that he would never, directly or indirectly, aid in endeavours in favour of the Prince of Asturias. He concluded by reiterating that he had joined Marshal Serrano to destroy the former régime, and would remain united with him in the work of reconstruction. Admiral Topete, in a speech which was loudly cheered, asked for a Bill of indemnity for the navy, which had violated the military laws in order to save the country and bestow liberty upon their fellow-countrymen. It was then moved by one of the secretaries of the House that the Cortes should pass a vote of thanks to the Provisional Government, and intrust Marshal Serrano with the executive power and the formation of a new Cabinet. The motion was supported by Deputy Valera, and taken into consideration by a majority of 181 to 57. The Republican minority moved an amendment to the effect that there was no occasion to consider the motion. Signor Castelar and Senor Orense spoke in favour of this amendment, which was rejected. The debate was then adjourned to Tuesday, when

Senor Figueras, a member of the minority, spoke against the motion. On Wednesday the debate was resumed, and the Cortes held an evening sitting to conclude the discussion. The Minister of Justice delivered a speech explaining the motives of the Government in reserving to the Cortes the right of proclaiming liberty of worship. He justified the suppression of the Jesuit conferences at the Monastery of St. Vincent, whereby conspiracy had been fomented, and he stated that among the accomplices in the murder of the civic Governor of Burgos were three friars belonging to that monastery. The Minister of Public Worship addressed the House, and was several times interrupted by cheers. He declared that the proceedings of the clerical party justified the measures which had been taken to preserve the objects of art in the churches. The motion was then adopted by a majority of 180 to 62. When the result was announced, Marshal Serrano addressed the House amid frequent cheering, appealing to the minority to observe a conciliatory attitude in view of the inexorable principles of the majority, and promising on his own part loyalty, patriotism, and abnegation. The sitting only terminated at half-past 2 o'clock on Thursday morning. In the sitting of the Cortes on Thursday, Marshal Serrano announced his assumption of the executive power, and said:—

"He had accepted it solely from motives of patriotism, and with an entire feeling of abnegation. He insisted upon the fact that it was impossible for him to abuse the power conferred upon him, as none of the prerogatives of supreme power, such as the right of veto, the right of making peace or war, had been granted him. Were the Assembly to offer him these prerogatives he should refuse them. He desired to walk hand in hand with the Cortes, the minority acting as the legitimate censor of the Ministry, and the majority as its sovereign judge. He should remain at his post as long as might be necessary, with no care but for the welfare of the nation, with no ambition but that of withdrawing into private life after having accomplished his duty to his country."

Senor Sorni then spoke, stating that the minority had head with satisfaction the speech just delivered by Marshal Serrano. The latter subsequently communicated to the house a telegram from Cuba, in which General Dulce announces that he has 8,000,000 dobs. towards the expenses of the war, and that that sum will be sufficient to put down the insurrection, which is now on the decrease. On Thursday evening Marshal Serrano had a long conference with General Prim, Admiral Topete, and the committee of leaders of the majority of the Cortes. It is probable that the contemplated modifications of the Cabinet will introduce politicians of more radical opinions than the public have been led to suppose.

PORTUGAL.—The Portuguese Press strongly condemn the recently revived idea of an Iberian union. The Government is treating with the South-Eastern Railway Company for the purchase of their lines, for which the company demand 4,000,000*l.* The Government will buy the railway at a fixed price. A regatta of the crews of the British iron-clad squadron now lying in the Tagus has been held at Lisbon.

BELGIUM.—In the sitting of the Senate on Saturday the Railway Bill came on for discussion. M. Frere-Orban, Minister President, made a speech, of which the following is a summary:—

"Great excitement has been produced by this Bill in a neighbouring country, and I admit that the rapid passing of the measure through the Chamber of Deputies was calculated to arouse attention abroad. It must not surprise us that the Paris Press, ill-informed, should see in that vote an act of hostility on our part, but the Government rejects with indignation the calumnies circulated by a portion of those journals. I do not know Count Bismarck personally, but I believe that he would not act so disgracefully as to seek a hiding-place behind us. If such a thought should ever enter his mind, we should make him the reply which it would best fit us to give, and which would be required by the part assigned to Belgium by international treaties. France has the greatest right to our gratitude, and though the proclamation of the Republic and of the Second Empire gave rise here to some uneasiness, ever since the first moment was over the attitude of France towards us has always been of a friendly character. It is not her strength only, but the principle of right and justice that dictates the conduct of that country. I categorically contradict the statement contained in the letter of Mr. Reed which was published in the newspapers, and declare that as the Government had learnt, through the journals, on the 30th of December, the definitive conclusion of the agreement between the Luxembourg Railway Company and the Eastern Railway Company of France, it was urgent that the Bill should without delay be submitted to the Chamber."

This speech was received with general marks of approval, and the Bill was afterwards adopted by 36 votes. Seven Senators abstained from voting. The official *Moniteur Belge* of Wednesday publishes the full text of the new Bill, with the signature of the King affixed, and the Bill came into operation on Thursday. In the sitting of the Senate on Wednesday the Budget of the Minister of Justice was rejected, without debate, 25 members voting for and 25 against the Government. In the sitting of Thursday, the Chamber of Representatives overruled the vote of the Senate, and passed the Budget of the Ministry of Justice by 62 votes against 42. The President of the Ministry had previously stated the Senate had done an entirely useless act, which must be annulled, as that body had usurped the privileges of the House of Representatives.

HOLLAND.—In consequence of the cattle disease having again broken out in Germany, the Dutch Government has despatched to Zevenaar a staff of officials to exercise an active supervision over the German frontier.

SWITZERLAND.—The inhabitants of the Canton of Soleure on Sunday voted against the total revision of the Constitution. The continuance of the present system of government is therefore assured.

FRANKFORT.—An agreement has been arrived at between the Prussian Government and the Frankfort municipality on the question of the compensation due to that city since its incorporation with the kingdom of Prussia. The Prussian Government has agreed to

pay the amount demanded by the municipality—namely, 3,000,000 florins.

PRUSSIA.—A decree, signed by the King of Prussia, was issued on Wednesday, convoking the North German Parliament for the 4th March. In the sitting of the Upper House of the Prussian Diet on Thursday, the Bill modifying the oath to be taken by Jews was adopted as passed by the Lower House. The Diet will probably be closed on the 6th March. The steamer *Bienenkorb* left Bremerhaven on Sunday morning, on her expedition to the North Pole.

AUSTRIA.—In the sitting of the Lower House of the Reichsrath on Tuesday, the Germano-Austrian Telegraph Convention was adopted. The Austrian frigate *Radetzki* has been blown up between the islands of Lissa and Lesina, in the Adriatic. The loss of life was 312, including the captain and all the officers except one midshipman. Only 23 persons were saved, five of whom are seriously injured.

HUNGARY.—The Emperor and Empress arrived at the Castle of Buda on Wednesday night, on their way to Agram. The elections to the Hungarian Diet will take place at Buda on the 21st of March. In Pesth the date has been altered from the 18th to the 23d of March, on account of the annual fair. The Jewish Congress was closed on Tuesday.

RUSSIA.—The Emperor of Russia has telegraphed to the King of Greece congratulating him upon his adhesion to the declaration of the Conference. The Russian Cabinet will shortly make public a collection of diplomatic documents relating to the Eastern question, and more especially to the recent Conference. A rumour is current that the Government is negotiating with foreign bankers for the issue of the remaining obligations of the Nicolai Railway.

GREECE.—The King left Athens on Monday with his uncle, Prince Frederick, for the Morea, and will be absent about three weeks. The French Minister at Athens has announced that the Canadian refugees who wish to return to Crete can obtain from the French Consuls the money to pay their passage.

ITALY.—In the sitting of the Chamber of Deputies on Monday the debate on the budget of the Ministry of War was resumed. The Chamber adopted by a majority of 130 to 92 a Bill re-establishing the three superior territorial military commands. In the sitting of Tuesday a Bill authorising the provisional exercise of the Budget during the months of March and April was adopted. On Thursday the Chamber rejected, by a majority of 138 to 84, a proposal made by Signor Mellana to effect an economy of 50,000 lire in the Budget of the Ministry of the Interior by reducing the expenses of the Prefectorial establishments.

PAPAL STATES.—The Tribunal of the *Sacra Consulta* has reversed the sentence of death passed upon Ajani and Luzzi, and has condemned them to hard labour for life. It is reported at Rome that the Marquis of Bute's contribution to Peter's-pence is 1200*l.* a-year.

TURKEY.—An official notification was published at Constantinople on Wednesday, stating that the Porte and Greece having accepted the declaration of the Conference, and diplomatic as well as commercial relations being on the point of resumption, the Sultan has ordered all measures adopted against Greek subjects and shipping in consequence of the *ultimatum* to be annulled.

EGYPT.—The Prince of Wales, travelling leisurely, left Esneh, on the left bank of the Nile, in the province of Thebes, Upper Egypt, on Saturday, for the cataracts of Assouan. All well. The Viceroy has ordered preparations for a ball to be given in honour of the Prince and Princess on the 4th of March.

CAPE OF GOOD HOPE.—Governor Wodehouse had addressed a very conciliatory letter to President Brand, and proceeded to Aliwal North to endeavour to arrange matters disputed between the Free State Boers and the Basutos. The Natal planters were applying for a further supply of coolie labour. The question of introducing coolies into British Kaffraria was also being discussed. A protest against the consecration of Mr. Macrorie as Bishop of Natal, has been signed by large numbers of the laity of the Church of England at the Cape—Low Church, High Church, and Broad. It originated with the High Churchmen, and repudiates any notions of sympathy with the heretical opinions of Dr. Colenso, but expresses the conviction that he has not been dealt with in accordance with the laws and constitution of the Church of England. Letters from the goldfields state that the expedition of Mr. Chapman had arrived, and that gold was not likely to be found in quantities to pay. It is said, however, to be more plentiful further north.

INDIA.—The condition of the Punjab and the Central Provinces, where apprehensions of distress were entertained, has been greatly improved by another fall of rain, which has saved much cultivation from failure. Ameer Shere Ali made a triumphant entry into Cabul on the 16th of January, amid great rejoicings. The Viceroy will probably visit the North-West frontier for the purpose of meeting the Ameer before proceeding to Simla. It is stated that the subsidy to be given to the Ameer will amount to 12 lacs of rupees and 4000 stand of arms. The Government has sanctioned a project for the maintenance of military field telegraph establishments. Dissatisfaction has been expressed at the reasons assigned for the accident on the Bhoré Ghaut Railway, and a Commission will shortly sit to investigate the matter. A telegram from Cachar states that the Government has taken measures to prevent further depredations by the hill tribes, and is about to send troops to pursue them.

AUSTRALIA.—The Government of Sydney have advertised for tenders for a monthly mail to England via the Cape. The Robertson Ministry maintains itself in office notwithstanding the efforts of the Opposition. The report of the parliamentary committee appointed to investigate the alleged Fenian organisation

has been issued. It disproves the existence of a conspiracy. A new Ministry has been formed in Queensland. The Victorian Parliament assembled on the 11th ult. The Ministry announced the introduction of a Bill to amend the Land Act. Extensive reforms in the civil service are contemplated. A severe drought prevails, and live stock are perishing for want of food.

NEW ZEALAND.—The latest news from New Zealand states that the *Ti-Koote* leader of Maori rebels was defeated, with a loss of 130 killed. The war is considered almost at an end.

UNITED STATES.—The House of Representatives have agreed, by a majority of 140 to 33, to the Constitutional amendment, prohibiting any law from being made with regard to the suffrage on account of either of race, colour, nativity, property, education, or creed. The Copper Tariff Bill has been vetoed by the President, and was returned on Monday, with a statement of his objections, to the House of Representatives. On Tuesday the House again passed the Bill. Wednesday the Senate passed the Bill by a majority of 38 to 11. It is, therefore, notwithstanding the President's veto, now law. Schenck's Finance Bill has passed the House by a majority of 119 to 61. It provides that the debt, not otherwise specified, is payable in gold, and postpones the payment till the value of greenbacks equals gold. It also legalises gold contracts. The Senate Republican Caucus has decided to take action on the Tenure of Office Repeal Bill until Congress. Monday, being the anniversary of Washington's birthday, was observed as a holiday throughout the union, and business was entirely suspended. Charles Bright has succeeded in picking up the marine cable lost during last summer in the Stream between Florida and Havannah.

CUBA.—General Dulce has reported to the Government of Madrid that large numbers of the insurgents are surrendering to the authorities, and that the reaction will now speedily be brought to a close. Insurgents do not receive reinforcements from abroad.

MEXICO.—Intelligence from Mexico, in the New York journals, announces that revolutions have broken out in several States of the Republic, and that Puebla has captured Puebla.

Parliament.

In the House of Lords on Monday, the Duke of ARGYLL gave notice that on Friday he would bring a Bill for the Improvement and Extension of Education in Scotland. Earl GRANVILLE announced in consequence of the illness of Prince Leopold, Majesty had expressed her regret that she was unable to receive the Address of the House of Lords. Under these circumstances he moved that the Address be presented in the usual manner. The Lords' Commissioners with white staves motion was agreed to. On Tuesday, in answer to the Marquis of CLANRICARDE, Earl GRANVILLE said that Bills had been prepared on the grand jury laws and prisons in Ireland, but it was doubtful if a Bankruptcy Bill for Ireland could be brought in this session. The Earl of KIMBERLEY gave notice that on Friday he should bring in a Bill for the better prevention and suppression of crime in the Common Law (Ireland) Bill, which was read a first time. On Tuesday the LORD CHAMBERLAIN brought up the Queen's reply to their lordships' address on the opening of Parliament. The Duke of ARGYLL brought up the Government Bill for the Extension and Improvement of Education in Scotland, and explained its provisions at great length, stating that it preserved the existing system of payment according to results, and gently recognised the principle of the Common Law Clause, and that its main features were that it encouraged the highest standard of education which had hitherto prevailed in the parochial schools. The Bill was read a first time, on the understanding that it will not be committed until after Easter. Yesterday the Earl of KIMBERLEY brought in the Government Bill for the repression of crime, and said its main principle was that men, after having been repeatedly convicted, should be called upon to earn their living, and that they should be allowed to do that, then that they should be allowed imprisonment. The House was left sitting.

In the Commons on Friday, Mr. B. FOWLER drew attention to the systematic enslavement of children by the Boers of the Transvaal Republic, and asked if the Government had taken any steps to cause the Boers to fulfil the provision of the Treaty of 1852 which prohibited slavery. Mr. MONSELL in reply said that the Government were aware that an organised system of slavery was carried on by the Boers, and that the plan of operations was to murder the Kaffir children, and then seize the children on the ground of their destitute condition, and convert them into slaves. The Government would do all in their power by means to prevent this violation of treaty, but they could not promise any other measures. Lord ELMERS drew attention to the proposed viaduct along the West London Embankment, from Charing Cross to Westminster Street, and urged the House to interfere to preserve from disfigurement one of the finest sites in the metropolis. He also appealed to the Government, as the keeper of the public purse, to take the guardian of the public taste, to take the lead in the matter. Mr. C. BUXTON and Lord ELMERS also urged the necessity of immediate interference to prevent the disfigurement of the river frontage, and the loss of a magnificent site for a public building. Mr. LAYARD said that he

some discussion, leave was given to bring in the Bill. Mr. RUSSELL GURNEY obtained leave to bring in a Bill similar to that of last year to amend the law relating to the property of married women, and Mr. T. CHAMBERS obtained leave to bring in a Bill to legalise marriage with a deceased wife's sister. Yesterday, in answer to Mr. CECIL RAIKES, Mr. CHICHESTER FORTESCUE said that the redistribution of seats in Ireland could never be a question of great magnitude, and that it did not form a part of the programme of her Majesty's Government. Mr. BRIGHT, in reply to Lord GARLES and Sir JOHN HAY, said that Portpatrick light was to be abolished, and that the rule of the road at sea, adopted in 1862, was now acknowledged by all the countries of the world. The House was left sitting.

City Intelligence.

THE MERCHANTS' COMPANY.—The hearing of the first charge which was preferred against some of the directors of the Merchants' Company was resumed on Monday at the Mansion House, when Mr. Richard Stuart Lane, Mr. Horace Edward Chapman, and Mr. Frederick Herbert Helbert, were again brought before the Lord Mayor, on the charge of conspiring to defraud the shareholders by issuing a prospectus, well knowing it to be false in certain material particulars. The case is quite distinct from that heard on Friday, and in which Mr. Lane and Mr. Childs were committed for trial. Mr. Cape, the official liquidator, was recalled and examined, and the case was again adjourned.

MONEY MARKET, FRIDAY.—BRITISH FUNDS: Consols closed at 93½ to 93¼, both for Money and Account; New and Reduced Three per Cents, 93½ to 93¼; Bank Stock, 242 to 241; Exchequer Bills, 4s. dis. to 1s. pm.; India Five per Cents, 112½ to 112¼. —FOREIGN: Italian, 56½ to 57½; Tobacco Loan, 4 to 4½ pm.; Turkish Five per Cents, 41½ to 42; Ditto Six per Cents, 64½ to 65; Egyptian (1864), 88½ to 89½; Ditto (1868), 78½ to 79½; Peruvian, 78½ to 79; Spanish, 32½ to 32¼; Mexican, 15½ to 15¼; Orel-Vitebek, 82½ to 83½; Nicolas, 66½ to 67½; Honduras, 85 to 87; United States 5-20 Bonds, 80½ to 80¼; Erie, 24½ to 25; Illinois, 96½ to 97.

Metropolis and its Vicinity.

MR. BRIGHT ON CHAMBERS OF COMMERCE.—On Tuesday evening the Associated Chambers of Commerce entertained Mr. Bright, M.P., President of the Board of Trade, at a dinner at the Westminster Palace Hotel. The chair was occupied by S. S. Lloyd, of Birmingham, President of the Associated Chambers. In returning thanks for her Majesty's Ministers, Mr. Bright spoke as follows:—

"There are questions which affect the commerce of the country which, from some cause, Chambers have thought beneath, above, or beyond their province. Two questions have been mentioned during the discussions which appear to me, and must appear to all, to be very important. One is that of the laws affecting bankrupt estates; the other is that of the charge for postage for letters crossing the ocean. This is a question of pennies; it does not sound very large, but, in my opinion, it is of the greatest consequence that we should have ocean postage reduced to the very lowest figure. It was not originally intended, and it is only a practice that has grown up with our vast extravagance, that Parliament should look to the Post Office for a large revenue; but the public have a right to expect that for what they pay for their postage they should have the greatest possible convenience and advantage. There is no doubt whatever that as between here and the United States, and between here and the Australian colonies, and probably between this and almost every other country, it would be possible for the Post Office to negotiate a system by which letters should cross the ocean for a penny. I speak disinterestedly. I do not know who suffers more from the penny postage than I do. I think I never did an act of such entire disinterestedness in my life as when I sent a subscription to Birmingham towards the erection of a monument to Sir Rowland Hill. Though not the Chambers of Commerce, but the Post Office, makes my life a burden to me, I think that the demand upon the Government for the establishment of an ocean penny postage, particularly between this country and the United States, is one of those things every member of a Chamber ought to consider—one of the first things he ought to ask for and obtain. Last night there was a discussion in the House of Commons, brought on by county members chiefly, who complained of the burdens of local rates, and mainly the Poor-rate. I am afraid that, having changed my place in the House of Commons perforce, I rather neglected that which, had I not changed my place, I might have found it my duty to do or to say. There wanted something saying a little different from anything that was said. Now the burden of the Poor rate is no doubt heavy, and of late in many districts it has been increasing; there is a general uncomfatableness about it, and every man feels it galling his shoulders, and he is trying to shove it on somebody else. But that is a very unsatisfactory thing, because wherever you put it off it remains and increases, and there will still exist the same uncomfatableness, the same unsettledness, the same demand upon Parliament to do something to relieve the burden. What the country should ask itself, and what the Parliament should inquire into, and what the country gentlemen should ask one another, and if they cannot get satisfaction from among themselves they should ask somebody else who can tell them, why all this pauperism exists? If you cannot diminish pauperism you cannot diminish the Poor rate, and those who bear it now must bear it still, or some one else must bear it for them, and that will probably only extend the discontent which now exists. Well, then, the question comes—and it is a very important question for all of us—why is it there is so much pauperism in this country? Why does it increase? If the country gentlemen on both sides of the House and her Majesty's ministers, and everybody else, try to solve that question, it will be about the most important employment men can put their minds to, and the result will perhaps bring out something that may change the aspect of the country. Is it not surprising that in a population like this, of 30 millions of people, crowding upon these comparatively small islands, with all the laws which make land a monopoly, with near 70,000,000l. sterling of taxation, without including local taxation, being annually raised from these 30,000,000, one half of whom have no property, and besides and above and beyond all this the fact that the great mass of the working classes of the country have been left, in addition to bearing their share, or more than their share, of these enormous burdens without the means by which they be instructed and civilised? That I take to be the great problem which will some day or other have to be solved, and in comparison with which many of those peddling questions which sometimes occupy us are as nothing. Why should Chambers of Commerce shut their eyes to questions like this? Why should they who are the great employers of labour, and who come constantly and daily and hourly into contact with the labouring classes, and who know the evils which I have but faintly described, discuss them in their local legislatures, their local creators of opinion, and ultimately the creators and directors of Parliament? Why should they not expand themselves to the greatness of these great questions, and become, as they may become, truly the saviours of their country?"

THE EASTERN MONDAY REVIEW.—At the request of the Dover Committee of the approaching Volunteer Review, the First Lord of the Admiralty has promised the presence of a naval force to co-operate with the volunteer army and the regulars at the Dover Review.

THE VOLUNTEERS AND THE CAPITATION GRANT.—On Friday afternoon a meeting of peers and members of Parliament who are members of Volunteer corps was held in the Tea-room of the House of Commons, for the purpose of drawing up a memorial for presentation to the Secretary of State for War on the subject of the Capitation Grant. The Duke of Manchester occupied the chair, and Lord Elcho moved, and the Duke of Abercorn seconded, the adoption of the following memorial:—

"We, the undersigned peers and members of Parliament, being members of the Volunteer force, have met to consider its position as regards the Capitation Grant. We have had before us the report upon this subject that was laid before Parliament in 1867 (Parliamentary Paper 184). This report was drawn up after careful inquiry by a committee of metropolitan Volunteer commanding officers, and such peers and members of Parliament as happened at the time to be members of Volunteer corps, and resident in London. The views there set forth may therefore be said to fairly represent the opinions of the force in general, and not of any section in particular; and we think the recommendations therein contained as to increased aid to Volunteer corps deserve the serious attention of Government. We do not now urge the concession of an increased Capitation Grant; that is a question of policy to be determined by Government and by Parliament. But speaking simply as citizens, and not as Volunteers, we are strongly of opinion that a Volunteer army such as we now possess forms a valuable and economical element of national defence; and we are further of opinion that those who without pay give their time and services to the State should not be called upon personally to spend money in providing for the necessary expenses of the force. A difference of opinion, however, is said to exist as to the sufficiency or insufficiency of the present grant to cover necessary expenses, and we therefore respectfully urge such an inquiry as will definitively and satisfactorily determine this disputed point, as thus only can Government and Parliament rightly judge whether the present Capitation Grant ought or ought not to be increased. In conclusion, we would also express an opinion that the organisation of the force might be greatly improved, and its consequent efficiency increased, without reference to any increase of the Parliamentary grant, and without imposing any additional tax upon the time and services of the Volunteers."

The memorial was discussed for upwards of an hour, and was unanimously adopted. Among the peers and members of Parliament who signed it were the Dukes of Manchester and Abercorn, the Marquis of Lorn, the Earls of Rosslyn, Brownlow, Dartmouth, Tankerville, Durham, Grosvenor, Yarborough, and Vane, Lords Wharncliffe, Suffield, Vernon, Campbell, Truro, Bury, and Elcho, Colonel Loyd Lindsay, Mr. Lyttelton, Mr. Henry Strutt, Mr. C. H. Lindsay, Mr. Wilmot, Mr. Donald Dalrymple, Mr. Charles Dalrymple, Mr. C. Hambro, Mr. E. T. Gourley, Mr. Donald Cameron of Lochiel, Mr. Algernon Egerton, Mr. Charles Williams, Colonel Ancott, Sir W. W. Wynn, Mr. Hutton, Mr. Roden, Mr. Macfie, Colonel Mellor, Mr. G. Denman, Mr. Anderson, Mr. Gray, Mr. Howe, Colonel Barttelot, Sir John Ogilvy, Mr. Samuda, Mr. H. G. Liddell, &c. The memorial now lies in the Cloak Room of the House of Commons for signature.

REGENT'S PARK.—Mr. Layard, Chief Commissioner of Works, has sanctioned a proposition for carrying an iron railing 7 feet high round the Regent's Park in lieu of the present dwarf fence. The rails will be of the ordinary common spike shape.

STATE OF THE STRAND.—A deputation of tradesmen having places of business in the Strand waited upon Colonel Henderson, the new Chief Commissioner of Police, on Tuesday to present a memorial complaining of the many nuisances impeding the traffic and injuring the trade of the Strand. Colonel Henderson, in reply, promised that the police should do all that was possible, but he reminded the deputation that their power was limited, that they could not interfere with any one selling newspapers, or with hawkers of flowers and matches unless it could be shown that they were begging.

THE CHARGE OF CORRUPTION AGAINST ADMIRALTY OFFICIALS.—The charge against Mr. T. Gambier, chief clerk in the Storekeeper's department at Somerset House, and Mr. William Rumble, Inspector of Machinery Afloat, for fraudulently and illegally offering to obtain the acceptance of contractors' estimates from the Government, was again brought before Sir Thomas Henry at Bow Street on Thursday. Evidence was adduced to prove that the bank notes paid by Mr. Maxwell had been traced to the prisoners, and that books had been found in their possession which rendered another remand necessary. The prisoners were ultimately remanded, bail being taken for Gambier as before, and as Sir T. Henry refused to reduce the amount for Rumble, he was sent back to prison. It is stated that some extraordinary revelations are likely to result from this prosecution; and that written and verbal statements have been pouring in upon the authorities, showing the ramifications of a system of fraud carried on to an extent of which the public generally have had little idea. Mr. Baxter, the Admiralty Secretary, is personally engaged in investigation of the matter, assisted by detectives, who have already been most successful in their movements, which have not been confined to London. It is said that the

pocket-books and documents seized exhibit as complete a system of public robbery as could be devised.

ELECTION OF ACCOUNTANT TO THE BOARD OF WORKS.—At the meeting of the Metropolitan Board of Works on Friday, the election of an accountant to the Board took place. The committee selected from a list of 126 candidates the 12 following, viz., Messrs. Bellamy, Cox, Pritchard, Dixon, Finlaison, Gunn, Hutchison, Jones, Livingstone, Muir, Routledge, and Smith. The number thus selected was reduced by the Board by one vote to six, and by five subsequent votes to two, when Mr. Gunn, of the Treasury, obtained 31 votes, and Mr. Herbert Routledge, of the War Office, 11. The name of Mr. Gunn was then put, and he was unanimously elected accountant to the Board.

RECTORY OF ST. MARY, NEWINGTON.—This rectory, which is put down in the Clergy List at the annual value of 900*l.* per annum, but is stated by the clerical papers to be really worth from 3000*l.* to 4000*l.* a year, has been conferred by Mr. Gladstone upon Dr. Miller, vicar of Greenwich. Under ordinary circumstances this preferment belongs to the bishopric of London, but the death of the late rector, the Rev. A. C. Onslow, having taken place on the day the new bishop did homage on his election to the ser. and the Great Seal not having been affixed to the Queen's approval, the appointment lapsed to the Prime Minister. The vicarage of Greenwich, value 700*l.*, which becomes vacant by this appointment, is also in the gift of the Crown.

THE BEERHOUSE LICENSING SYSTEM.—On Friday a deputation waited upon Mr. Bruce, Secretary of State for the Home Department, to urge the desirability of transferring the granting of licences for beerhouses from the Inland Revenue Office to the magistracy. The Home Secretary was accompanied by Mr. Knatchbull-Hugessen, Under Secretary. Among those composing the deputation were Colonel Akroyd, M.P., Mr. Selwin-Ibbetson, M.P., Mr. J. T. Hibbert, M.P., Mr. Jacob Bright, M.P., Mr. Bazley, M.P., Mr. Barnes, M.P., Mr. Gourley, M.P., Mr. Whitwell, M.P., Mr. Candlish, M.P., Mr. Backhouse, M.P., Mr. T. W. Mellor, M.P., Sir R. Clifton, M.P., Mr. Sidebottom, M.P., Sir J. B. Johnstone, M.P., Colonel Brise, M.P., Mr. Dodds, M.P.; Mr. Taylor, Secretary, and Mr. Dale, Vice-President of the Church of England Temperance Society; Mr. Candelet, Secretary of the Licensed Victuallers Association; Rev. Canon Jenkins, M.A., &c. Colonel Akroyd, M.P., introduced the deputation, and said that a petition to Parliament against the present system had been signed by 250 mayors, that a memorial signed by upwards of 1000 gentry was about to be presented to the Premier, and that beerhouses were increasing so rapidly that any delay in legislating on the question would have a bad effect. Mr. Stannier, Mr. Selwin-Ibbetson, M.P., Mr. Lupton, J.P., Mr. Baines, M.P., Mr. Candelet, and Canon Jenkins having spoken in support of the memorial, Mr. Bruce, in reply, said:—

"Mr. Gladstone had told the House of Commons that many subjects of great national importance, and among them the question of education, could not be dealt with this session. There was no doubt this question of the licensing system would have been treated in the way of a whole measure if the Government had any prospect of carrying such a measure during the present session. It was a subject upon which great diversity of opinion existed, and the Government was of opinion that it could only be dealt with generally. Their proposition, however, was a much more limited one, it was confined to the transfer of the power of granting licences to beerhouses to magistrates. Now, with respect to that, it seemed a very simple question, but it would be impossible for any Government to take this step without considering whether that was part and parcel of a good and complete system with respect to the question of licensing. The Committee of the House of Commons which dealt most exhaustively with this subject was that presided over by Mr. Charles Villiers, and it reported in favour of depriving the magistrates of the power of granting licences, but lodging in them certain other powers, such as judging of the character of the applicant and the suitability of premises. The Bill brought forward on behalf of Liverpool once or twice, which to his certain knowledge received a large support from gentlemen of influence belonging to all parties, was founded upon a similar principle. The step which they called upon the Government to take was one which, he might say, had been under the consideration of the Government, but which was at variance with the report of that Committee, with the Liverpool Bill, and with the opinion of a very large number of persons who had considered this question. They would understand, therefore, that, without full consideration of this subject, her Majesty's Government were not prepared to say whether they could assent to this modified legislation. They must not consider what he now stated a positive refusal, but the question of this modified legislation was a new one, which had not been previously raised. They did not intend to deal with the whole question. They were asked to deal with part of the question, and so, without consultation with his colleagues and mature consideration, he was not prepared to say what they would do."

SEA GULLS AT BATTERSEA.—On Tuesday afternoon two sea gulls were shot outside Battersea Park. Both were fine specimens, although suffering from want of food.

RELEASE OF THE ORPHAN CHILD FROM WHITE-CROSS STREET.—On Friday Mr. Justice Blackburn made an order exonerating from the payment of costs the child, Elizabeth Cope, 13 years of age, who was removed from the Girls' Refuge at Ealing to White-cross Street Prison, and authorising the Sheriff of Middlesex to discharge her from custody, on the condition that no action was to be brought against the plaintiff by the child for being arrested and locked up in prison. The child was released from prison on Friday afternoon, and is again in the Refuge at Ealing.

THE POLICE.—It has been determined to appoint four district superintendents of police in the metropolis, to act in their respective districts under the orders of the Chief Commissioner. The superintendents appointed are Mr. Baynes, now governor of the County Prison at Winchester, Mr. A. C. Howard, of the Bengal constabulary, Colonel Pearson, of the Grenadier Guards; and Superintendent Walker.

THE PUBLIC HEALTH.—The weekly return of the Registrar-General states that in the week that ended

on Saturday, Feb. 20th, 5026 births and 3339 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 27 per 1000 persons living, being 25 per 1000 in London, 30 in Edinburgh, 27 in Dublin, 24 in Bristol, 20 in Birmingham, 27 in Liverpool, 29 in Manchester, 31 in Salford, 30 in Sheffield, 30 in Bradford, 25 in Leeds, 32 in Hull, 33 in Newcastle-upon-Tyne, and 35 in Glasgow. The rate in Vienna was 35 per 1000 during the week ending the 13th inst., and in Berlin 33 per 1000 during the seven days ending the 18th inst. In London the births of 1200 boys and 1192 girls, in all 2401 children, were registered in the week. In the corresponding weeks of 10 years, 1859-68, the average number, corrected for increase of population, was 2279. The deaths registered in London during the week were 1491. It was the 7th week of the year, and the average number for that week, corrected for increase of population, was 1522. The present return is therefore 31 below the estimated amount.

Provincial.

BIERMINGHAM.—The old family property, called the Packwood Estate, was sold a few days since in this town by Messrs. Chincock & Galsworthy, of London. There was an unusually large attendance, and the most spirited competition was manifested for some of the lots, Packwood House, with its curious old yew tree gardens and home lands, realised 19,000*l.*; the remainder sold for about 60*l.* per acre, realising altogether 43,970*l.*, the timber upon the estate to be paid for at a valuation.

BOLTON.—At a recent meeting of the Chadwick Charity trustees it was intimated that Dr. Chadwick, of Southport, formerly a resident in this town, had placed at their disposal a further sum of 5000*l.*, in addition to the 17,000*l.* previously given, making in all 22,000*l.* The money will be devoted to the erection of artisans' model dwellings and an orphan asylum.

CAMBRIDGE.—Mr. Vernon Harcourt, Q.C., Mr. Fitzjames Stephen, Q.C., and Mr. E. C. Clarke late Fellow of Trinity, are candidates for the professorship of International Law recently founded in this University by the munificence of the late Dr. Whewell, Master of Trinity.—In consequence of the practice of bell-ringing among the undergraduates, and the numerous convictions which have taken place for ringing the night-bell of Dr. Ransom in particular, notice was given by the magistrates, on the occasion of the last charge, that they would send the next offender to prison. On Monday Mr. Charles A. Andrews, a Creole, was brought up on the charge of mischievously ringing Dr. Ransom's bell at a late hour at night. The Court was densely crowded in anticipation of the magistrates carrying out their threat. The offence was fully proved, and admitted by defendant, who pleaded that he did it in a thoughtless moment, that he knew nothing of the feud between Dr. Ransom and the students, and was not before aware that the ringing of bells was so serious an offence, street-door bells being unknown things in the country from which he came. The Mayor said that if the bench thought the defendant had been cognisant of bygone transactions he would inevitably have been sentenced to imprisonment. They were, however, willing to give him the benefit of the doubt, but they felt it to be their duty to inflict the highest penalty in their power, which was 40*s.* and costs, or imprisonment for 14 days with hard labour. The money was immediately paid.

FROME.—On Saturday another murder was added to the long list for which this district has become notorious. Between seven and eight a.m. Mr. H. Farthing, of Hemington, five miles from Frome, sent one of his labourers, named Edward Smith, and a lad in his employ, named Frank Taylor, aged 11, to drive two beasts to Cannard's Grave, near Shepton Mallet, about ten miles distant. On their return at eight p.m. they stopped at Mells, where Smith had a pint of beer at the Talbot Inn. He asked the boy to partake of it, and on his refusing, the man, who was already the worse for drink, became angry and used harsh language. They then left for home, taking a short cut to Buckland across the fields. It is stated that people living near the fields heard cries as of some one being beaten. On the next morning (Sunday) a man named Taylor found the body of a boy in a ditch in a lane some distance from the path to Buckland. It lay face downwards, and was covered with mud and dirt. He gave information to a policeman at Mells, who had the body removed to his own house, where it was identified as that of a boy who had been seen driving cattle on the previous day. The officer then proceeded to Hemington, and requested Smith to accompany him and see if the body was that of the missing boy. Smith consented, and at once recognised the body, and on being taken into custody stated that he had given him a cut or two with his stick because he would not keep up with him, and added that "he was very sorry, and would not have had it happen for 10*l.*" He was conveyed to Frome, where he remains in a very despondent state. It appears that on his way home the prisoner had to pass the house of the boy's father, but he did not, either on Saturday night or Sunday morning, give any information about him. At one part of the foot-path there were traces apparently of a struggle, and the dead boy's boots exactly correspond with the footprints.

LIVERPOOL.—A few days since, at Mander's Menagerie, now exhibiting in this town, two leopards commenced fighting, and all efforts to separate them were for some time in vain. When they were at length parted the smaller one was found to be so much injured that it was necessary to poison it with prussic acid.

MANCHESTER.—Information was received last week that stamps, identified to have been a portion of the

15,000*l.* worth stolen from the Metropolitan Office more than two years ago, had been for sale in London. The persons who were apprehended, and 800*l.* were found in their possession.

MONMOUTH.—Inquests have been taken on John Prosser, aged 48, who was sustained in the recent explosion at the colliery. Several witnesses were examined, and Mr. Green, colliery agent, and Mr. Bennett, Inspector, whose evidence was that an explosion was caused by the man who had violated the colliery rules, and an accumulation of gas, which an explosion who carried a naked light on his person working. The jury in Prosser's case returned a verdict that "his death was caused by his violating the rules of the colliery." Had he been committed for trial by the coroner of Weekes the verdict was simply that of injuries sustained in the explosion. Mr. Bennett's intention of presenting the survivors before the Pontypool magistrates.

NORWICH.—Brother Ignatius has been appointed to the monastery in this city, with the intention of calling on his Norwich friends to help in the beds or bedclothes, plates, spoons, knives, a chair, table, or even a stool, a dustpan, a blanket, or anything else in the way of necessaries.

OXFORD.—The amalgamation of the city police has created a new era in the history of justice in this city, as an under-convicted on Monday before the Vice-Chancellor of an assault on Inspector Barron, the new Oxford force, and fined two months. The Vice-Chancellor, in giving his decision, made it known that if members of the new police had as much right to deal with any one else.

SHEFFIELD.—The amount subscribed for the new police has now reached 100,000*l.* A presentation will be made in the City Hall, on March, at a public meeting of the subscribers, at which a banquet will be given to the learned and the learned.

SUNDERLAND.—On Saturday night a woman named Fitzsimmons, who lived in Barges Lane, was found in a pool of blood under her door, being quite extinct. She was stabbed in several places on the breast and back, and the wounds found by a post-mortem examination were deep and dangerous. She had been drinking with a sailor, and it is supposed accompanied her home, where she was found silver money being found concealed in her dress. He had the appearance of an Irish man, and thought that he left Sunderland on Saturday. A man, answering to his description, was arrested at Middleborough on Wednesday. He is of Charles Wright, and said that he was from Massachusetts. He was remanded for trial.

Ireland.

THE IRISH CHURCH.—The Corporation of Dublin, at a special meeting on Friday, adopted a resolution to present an address to her Majesty, in dissent from the Irish Church, and addressed to the Queen, to be presented to both Houses of Parliament. It was resolved that the petition to the Lords should be presented by the Earl of Devonport, and that the petition to the House of Commons should be presented at the bar of the House by the Mayor, accompanied by the officers of the Corporation, and many members as might desire to accompany them.

THE RATHFARNHAM CONVENT.—The Hon. Miss French, who was said to be suffering from illness, was removed from the Queen's Bench on Monday, and was confined for a week, in consequence of the illness of Lord French, her father, intended to be presented in Chancery. Her mother had been confined, and expressed herself satisfied with the character of her illness.

IRISH RAILWAYS.—A numerous deputation of members of Parliament had an interview with the President of the Board of Trade, to discuss the expediency of carrying out the recommendations of the Commission which was appointed on the condition and prospects of the Irish railways.

Railways.

ATTEMPT TO UPSET A TRAIN.—A boy named Henry Taylor was brought before the magistrates at Shrewsbury charged with an attempt to upset a train. A platelayer in the neighbourhood hearing the noise of a train coming up, he also saw the boy, but he recognised him, and had the train secured by a pallock on the previous day. It was proved that the lock had been forcibly broken with a hammer. The prisoner was committed to the gaol.

NEW METROPOLITAN LINE.—An attempt was made to the Ranger for leave to dig a tunnel underneath the parks, so as to connect

the short supply of them causes prices to continue high. Our foreign supply consists of 620 Beasts and 128 Calves.

	s.	d.	s.	d.		s.	d.	s.	d.		
Best Scots, Herefords, &c.	5	4	to	5	8	Best Long-wools	5	10	to	6	0
Best Shorthorns	5	2	to	5	4	Do. Shorn	4	10	to	5	2
2d quality Beasts	3	4	to	4	6	Ewes & 2d quality	4	10	to	5	2
Best Downs and Half-breds	6	4	to	6	6	Do. Shorn	4	10	to	5	2
Do. Shorn	6	4	to	6	6	Lambs	4	0	to	6	0
Beasts, 1050; Sheep and Lambs, 6250; Calves, 184; Pigs, 70.						Calves	3	4	to	5	0
						Pigs	3	4	to	5	0

POTATOS.—SOUTHWARK, Monday, Feb. 22

During the past week the arrivals have been very heavy coastwise, by rail, and from abroad, and trade extremely dull. Prices have fallen from 20s. to 30s. per ton, many second-rate and inferior sorts being quite unsaleable at present. The following are this day's quotations.—Yorkshire Regents, per ton, 50s. to 90s.; do. Flukes, 80s. to 110s.; Lincolnshire Regents, 60s. to 80s.; Dunbar and East Lothian do., 60s. to 110s.; Perth, Forfar, and Fife do., 60s. to 80s.; do. Rocks, 50s. to 60s.; French and Belgian Whites, 40s. to 60s.

MARK LANE.—MONDAY, Feb. 22.

There was a small supply of Wheat from Essex and Kent to this morning's market, which was mostly disposed of at the prices of this day so'night. The attendance included some few country buyers, and for foreign Wheat there was a retail demand at last week's quotations. Barley was 1s. per qr. cheaper. Beans and Peas were rather lower. The Oat trade was steady without change in prices. Flour remains unaltered.

PRICE PER IMPERIAL QUARTER.	s.	d.	s.	d.	
WHEAT, Essex, Kent, Suffolk. White	52	55	Red	47	50
— fine selected runs..do.	55	56	Red	49	52
— Talavera.....	62	65	Red	—	—
— Norfolk	—	—	Red	—	—
— Foreign	43	66	—	—	—
BARLEY, grind. & dist. 37sto38s. Chev.	46	51	Malting	44	49
— Foreign.. grinding and distilling	25	28	Malting	38	43
OATS, Essex and Suffolk	—	—	—	—	—
— Scotch and Lincolnshire.. Potato	25	33	Feed	—	—
— Irish	30	32	Feed	26	30
— Foreign..... Poland and Brew	25	30	Feed	21	26
RYE	40	42	Foreign	—	—
RYE-MEAL, Foreign	—	—	—	—	—
BEANS, Mazagan. 37sto41s. Tick	44	45	Harrow	44	45
— Pigeon .. 45s to 49s .. Winds.	40	45	Longpod	—	—
— Foreign	40	45	Egyptian	41	44
PEAS, White, Essex, and Kent.. Bollers	43	49	Suffolk	48	50
— Maple 40s to 45s.....	42	44	Foreign	40	45
MAIZE	—	—	Foreign	33	35
FLOUR, best marks delivered persack	43	47	—	—	—
— 2d ditto	34	44	Country	34	44
— Foreign	24	36	Per sack	48	56

FRIDAY, Feb. 26.

Inactivity has continued to be the prevailing feature of the trade throughout the markets of the kingdom during the past week, and we have to report a further decline of 1s. per qr. on Wheat in Hull, Newcastle, and some of the Scotch markets, while in the producing districts former rates were maintained with difficulty. Barley has been neglected, and grinding qualities were the turn cheaper. Peas and Beans were a slow sale, at prices fully 1s. per qr. in buyers' favour. Oats have not experienced any further decline this week. Flour sympathized with Wheat, and to effect sales a slight reduction had to be submitted to. The supplies off the coast consisted this week of 53 cargoes, of which, with those left over from last week, there remained for sale last night 55 cargoes. The floating trade has been quiet throughout the week, arrived cargoes of Wheat being held at previous rates (the only exception being a cargo of five white from San Francisco sold at 2s. per qr. decline), but the business concluded was not extensive. Maize was about 6d. per qr. cheaper, whilst Barley met with more inquiry at the late heavy reduction. Rye, none on offer. Paris, Feb. 25.—The trade in Wheat and Flour ruled firm but inactive. The eight marks are quoted at equal to 36s. 6d. per 280 lb. The stock at the Halle is estimated at 10,180 cwt.

The arrivals of English grain and foreign Wheat and Barley are moderate, but of Oats good. There was a poor attendance at this morning's market. Part of the English Wheat left over from Monday remained unsold at a late hour, although offered at that day's prices. In foreign the business done was quite in retail, and we do not alter our quotations. Spring Corn met a slow sale without alteration in the value of any description.

ARRIVALS THIS WEEK.

	Wheat.	Barley.	Oats.	Flour.
English ..	410 qrs.	1110 qrs.	250 qrs.	— sks.
Irish	—	—	3700 "	—
Foreign ..	11,130 "	14,760 "	30,560 "	{ 1140 "
				{ 4570 brls.
	11,540	15,860	34,510	

LIVERPOOL, Tuesday, Feb. 23.—The market was fairly attended. Wheat in good request at last Friday's rates. Flour quiet, without alteration in value. Beans steady, at Friday's decline; Saidi, 36s. to 38s. 6d. Oats and Oatmeal firm, at late rates. Indian Corn in fair inquiry, at the extreme rates of Friday last; mixed, 31s.

AVERAGES.

	Wheat.	Barley.	Oats.
Jan. 9 ..	51s 5d	48s 1d	26s 4d
— 16 ..	52 8	49 0	25 9
— 23 ..	52 4	49 7	26 4
— 30 ..	51 5	49 7	27 6
Feb. 13 ..	50 9	47 9	28 1
— 20 ..	50 3	47 0	27 4
Average ..	51 6	48 6	28 11

SEED MARKET.

Owing to the continuance of wet weather the agricultural seed trade is still in a rather quiet state, many buyers apparently declining to go into stocks until the consumptive demand has absolutely set in. Red Clover seed of all descriptions is held at full values, and the market exhibits no signs of giving way; the quantity of seed now in London is small, and holders seem confident that immediately the country trade begins to operate higher prices must rule; German Red is in fair supply—indeed, if it had not been for Germany we should have been very poorly off this year for Red Clover seed, new English continues exceedingly scarce and dear. We have more doing in Trefoil, of yearling seed the stocks are large; new French has come to hand, at moderate currencies. Alsike and White Clover seed are without change, the former being in abundant supply, and now very cheap. We have a brisk inquiry for French Italian Rye-grass, the stocks of which on the other side appear to be getting reduced very low. Bowing Linseed meets with more attention, a good many orders coming to hand from Ireland. For Mustard seed there

is a good inquiry, but the supply is very limited, the unprecedented demand last autumn having used up the stocks quite close. English Rapeseed is about the same. We have a demand for Dutch Runners, which are this year being used in the place of Scarlet, the last-named being exceedingly scarce and high in price. Spring Tares move off rapidly at the late advance. For large Scotch Tares there is some inquiry. French Sainfoin seed meets with a free sale at last week's quotations. Canary and Hemp seed are unaltered in value. JOHN SHAW & SONS, 16, Water Lane

WANTED, a steady Man as GENERAL FOREMAN in a small Nursery. Must be well up in the Cultivation and Management of Roses and Fruit Trees, and competent to Superintend the Glass and Propagation of Soft-wooded stuff, with a Junior Propagator under him. To an experienced and trustworthy Man liberal wages will be given, after he has proved himself competent. Apply to L. WOODHOUSE, Munro Nursery, Sible Hedingham, Essex.

WANTED, as FOREMAN (OUTDOOR), one who thoroughly understands the Cultivation of Fruit Trees, Roses, and Evergreens.—For further particulars, apply to JOHN SEALES & SON, St. George's Nursery, Bristol.

WANTED, in one of the largest London Nurseries, a YOUNG MAN, to take charge, under the Head Foreman, of a Collection of Stove and other Plants. One previously accustomed to Nursery Work preferred. Progressive wages given to any person having good testimonials.—S. F., *Gardeners' Chronicle* Office, W.C.

WANTED, a Young Man, as general PROPAGATOR and PLANTGROWER.—R. TAYLOR, F.R.H.S., The Nurseries, Epsom, Surrey.

WANTED, a good general PROPAGATOR and GROWER.—Apply at the Nurseries, 33, High Street, Clapham, S.

WANTED, in a first-rate London Nursery, a NURSERY PROPAGATOR, thoroughly conversant with the Culture and Propagation of Stove and Hard-wooded Plants, also Grafting in all its branches under Glass. A Young Man who has already had experience under a first-class hand preferred. Wages liberal and progressive.—Testimonials and references to A. I., *Gardeners' Chronicle* Office, W.C.

WANTED, a GARDENER, who understands the Management of a Greenhouse, the Culture of Flower and Kitchen Gardens, and the care of Cows, Pigs, and Poultry.—Apply by letter to L. M., Post Office, Ewell, Surrey

WANTED, a Young Man as GARDENER, to go to America. Must be single and industrious; high wages given. Must have good references. Passage advanced.—Apply to J. M. S., 1, Broad Row, Great Yarmouth.

WANTED, for British North America, a Young Man as GARDENER, to manage a small Flower and Kitchen Garden, Greenhouse, Stove, and Vinery. Wages, £40 to £45 per annum, with board and lodging. Passage out paid for two years' engagement.—Apply to THOMAS WHALLEY, 12, St. George's Crescent, Liverpool.

WANTED, a GARDENER (SINGLE-HANDED), who thoroughly understands the Early Forcing of Muscat and other Vines. Wages, £1 per week, and lodgings found.—Apply to A. B., care of Postman, Fenny Compton, Leasington

WANTED, a respectable Young Man, as UNDER GARDENER; he must thoroughly understand the profession, and be accustomed to Milk.—Apply to Mr. MEARES, Hadley Lodge, Barnet.

WANTED, a respectable and active Young Man, as SALESMAN for Covent Garden Market.—State age, qualification, &c., to Mr. CATELSON, Hans Street, Chelsea, S.W.

WANTED, as COWMAN, and to assist as UNDER GARDENER, a steady Young Man, who can have a good character from his last place.—Address, Mr. C., 38, Wigmore St., W.

WANTED, a good LAUNDRY-MAID, for a Young Gentleman's School of about 50, with two Gentlemen, three Ladies, five Children, and four Servants. A good Second Laundry-maid kept. Extra help given when required. Wages from £18 to £20.—Apply to Mrs. EVANS, 75, North Street, Chichester.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. E. G. HENDERSON & SON, Wellington Nursery, St. John's Wood, London, N.W.

To Gardeners and Bailiffs (Head, Foremen, or Under).

JAMES CARTER and CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those who can send unquestionable references need apply.

Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & Co. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c. JAMES CARTER & Co., 237 and 238, High Holborn, London, W.C.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS, and GARDENERS and BAILIFFS, of various qualifications, who are open to Engagements. The fullest particulars as to services required and wages given should be forwarded with application.—PAUL'S Nurseries, Waltham Cross, London, N.

Lady-Day Engagements.

MR. T. BOWICK has the pleasure of recommending several Tried and Excellent Men as FARM BAILIFFS, WORKING FOREMEN, &c.

Mr. Bowick has introduced Engagements in most of the Counties of England and Wales.—Bedford, February, 1869.

GARDENER (HEAD).—Competent to Manage Garden Work in all its branches; can furnish and carry out Plans for New Grounds. Good testimonials.—Address, B. M., Post Office, Bracknell, Berks.

GARDENER (HEAD).—Age 25, married; thoroughly understands the profession in all its branches. First-class character from last and previous places.—G. Y., Post Office, Rowland Castle, Hants.

GARDENER (HEAD).—Age 27; thoroughly understands the Management of Stove and Greenhouse Plants, Vines, Melons, and Cucumbers, Kitchen and Flower Gardening, &c.—W. W., Mr. E. Jones, Seedsman, Henley-on-Thames, Oxon.

GARDENER (HEAD).—Age 31, married, one child; thoroughly understands Forcing Grapes, Pines, Melons, Cucumbers, and Flower and Kitchen Gardening. Four years' good character.—THOMAS CHAFFES & SON, Nurserymen, High Street, Tunbridge Wells

GARDENER (HEAD).—Age 32, married, no incumbrance; thoroughly understands the profession in all its branches; can Manage Land if required. The estate changing hands cause of leaving. First-class testimonials. Liberal wages expected.—A. GOODWIN, Holmbush House, Horsham, Sussex.

GARDENER (HEAD).—Age 43, married, no incumbrance; thoroughly understands the Management of Vines, Stove and Greenhouse Plants, Early and Late Forcing, and Kitchen and Flower Gardening.—Six years' character.—A. D., Saraker, Twickenham, Middlesex, S.W.

GARDENER (HEAD).—Age 36, married, no incumbrance; has a thorough practical knowledge of Gardening in all its branches, Early and Late Forcing of Vines, Fruits, Cucumbers, and Melons, Ferns, Stove and Greenhouse Plants, Flower and Kitchen Gardening, also the Management of Land and Stock. Wife a good Dairywoman. Six years' character from the Gentleman he has just left.—S. OSBORN, Grove Road, Hounslow.

GARDENER (HEAD).—Age 36, married, no incumbrance; well skilled in all branches of the profession. Reference.—A. B., Post Office, St. Peter's, Essex.

GARDENER (HEAD).—Age 38, married, no incumbrance; practical in all the various branches of the profession. To Mr. Arthur Henderson, Pine-apple Place, London. Will see or answer any inquiry from any Lady or Gentleman through a thorough, practical, and efficient Man.—W. J. M., Lower

GARDENER (HEAD).—Married. In every Department; first-class Plant, Fruit Grower, and Flower and Kitchen Garden Woods, Land, and Stock, Dairy and Poultry. Post Office Acton, Middlesex, W.

GARDENER (HEAD), married, with a family. Gentleman wishes to recommend his services as a thoroughly practical, working, energetic Man, in Gardening in all its branches; also Land and Stock. G. M., Mary's Cottage, Freeland's Grove, See

GARDENER (HEAD).—A Gentleman's Establishment in the country is desirous of a Gardener, who is thoroughly practical and competent to Manage Gardens of any extent. Instance, to Mr. B. S. WILLIAMS, Victoria and Holloway, London, N.

GARDENER (HEAD, WORKING).—A Gentleman understands Early and Late Forcing, Stove Plants, and Flower and Kitchen Gardening. E. H., Mr. J. Head, Sen., Petersfield, Hants.

GARDENER (HEAD, WORKING).—A Gentleman has a thorough knowledge of Stove and Kitchen Vines, Melons, Cucumbers, Kitchen and Flower Gardening, &c. Two years' good character.—A. B., Chase Green, Esher

GARDENER (HEAD, or SINGLE-HANDED).—Understands the profession in all its branches.—Wm. CROUCHMAN, Gardener, Camden Hill, Chelsea

GARDENER (HEAD, or good SINGLE-HANDED).—Age 26; thoroughly understands the Management of Greenhouse Plants, Vines, Cucumbers, Flower and Kitchen Gardening, &c. Two years' good character.—A. R. H., Chiswick, W.

GARDENER (HEAD), where one or two hands are kept, character from present employer.—E. H., The Spalding, Lincolnshire

GARDENER (HEAD), where two or three hands are kept, large Flower and Kitchen Garden, Glass, &c. Six years' character.—Y. S., Mr. H. Ramsgate

GARDENER (SINGLE-HANDED, or otherwise).—Single, two years' good character.—J. P., Cottage, High Street, Highgate, N

GARDENER (UNDER).—Age 22, single. A Nobleman's family. Good character.—B. Marshfield, Gloucestershire

GARDENER (UNDER).—Age 19, has had first-class Gardener.—Apply to Mr. Mansudbroke Holme, Lincoln.

FOREMAN, in a Nobleman's or Gentleman's establishment.—Age 24; has a thorough knowledge of Forcing, Pines, Fruits, &c.—W. HUSMAN, Harbour

FOREMAN, in a Nobleman's or Gentleman's establishment.—Understands Early and Late Forcing of Flowers, &c. Good references.—A. B., Mr. Grosvenor Place, Piccadilly, S.W.

To Nurserymen.

FOREMAN and PROPAGATOR (Indoor). in the Growing of all kinds of Stove and Greenhouse Plants, &c. also a first-class Grafter of Rhododendrons, Camellias, &c. Unexceptionable references as to ability.—H., Mr. John Robson, Seedsman, Asher Cheshire.

FOREMAN (UNDER), in the House.—A man who has been brought up under Gardener's profession. For references respecting capabilities, &c., apply, by permission, to CHARLES TUCKER, Harmondsworth, Middlesex

PROPAGATOR or FOREMAN.—Has experience in Hard and Soft-wooded Plants. Reference.—W. E., Mr. C. Turner, Royal Surrey

PROPAGATOR, or PROPAGATOR and FOREMAN.—Great experience, especially in the Hard-wooded Plants. A. B., 4, Cambridge Terrace, Lee, Kent

PROPAGATOR (ASSISTANT, OUTDOOR). BALLANTYNE, Nurseryman, Carlisle. A man as above, who can produce satisfactory testimonials as above, stating experience and wages required.

FORESTER.—An active Man, of excellent character and the highest testimonials as to character and want of a situation as above.—Messrs. James Draxton Nurseries, Chester

FARM BAILIFF.—Age 40, married, 10 children. Sober and industrious, well up in a point of First-class reference. Can give satisfactory references in situation.—A. B., Post Office, Mansford, Wilt.

BAILIFF.—Middle-aged, respectable habits; thoroughly practical in Modern Cultivation, Draining, a good Judge and Manager. Good Accountant. Disengaged the middle of Mr. Bedwell Lodge, Hatfield, Herts.

BAILIFF (WORKING), or FOREMAN. thoroughly trustworthy, understands Stock Dairywoman and Land.—N. G., Post Office, Duns

APPRENTICE.—The Friends of a Young Man to Apprentice him to a Nurseryman in a moderate Premium will be given.—Address, Queen Street, Lincoln's Inn Fields, W.C.

IMPROVER.—Premium, had a first-class ship. Can take charge in any department. A. B., 40, St. Mary's Street, High Wycombe

IMPROVER, in a large Garden.—Age 25, 10 years' experience. Four years' good character. W. Morgan, Stationer, Rushley Green, Leamington

IMPROVER, in the Foreign Department. Foreman.—A strong active Young Man, given, if required. Three years' good character. Flower Garden.—W. J. M., No. 11, Lower Gloucestershire

To Nobleman's or Gentlemen's Nurseries.

IMPROVER.—Age 20; has had a Nobleman's Garden. Wishes to get into a situation. Can be highly recommended. Address, self.—W. L. Holywell, Gardens, Stamford, Leics.

TRAVELLER, or to take an active part in the management of the Nursery or Seed Trade.—For particulars apply to T. W., Messrs. Hurst & Son, 6, Leadenhall Street

ROOM and GARDENER.—A thoroughly efficient, both capacities, with a good character.—A. B., Stock Market, 1, Princes

LAUNDRESS.—Age 35, experienced. Testimonials. Husband can assist in the Garden, or Cows, or make himself generally useful. Grainsby, Great Grimsby.

The Gardeners' Chronicle Newspaper.

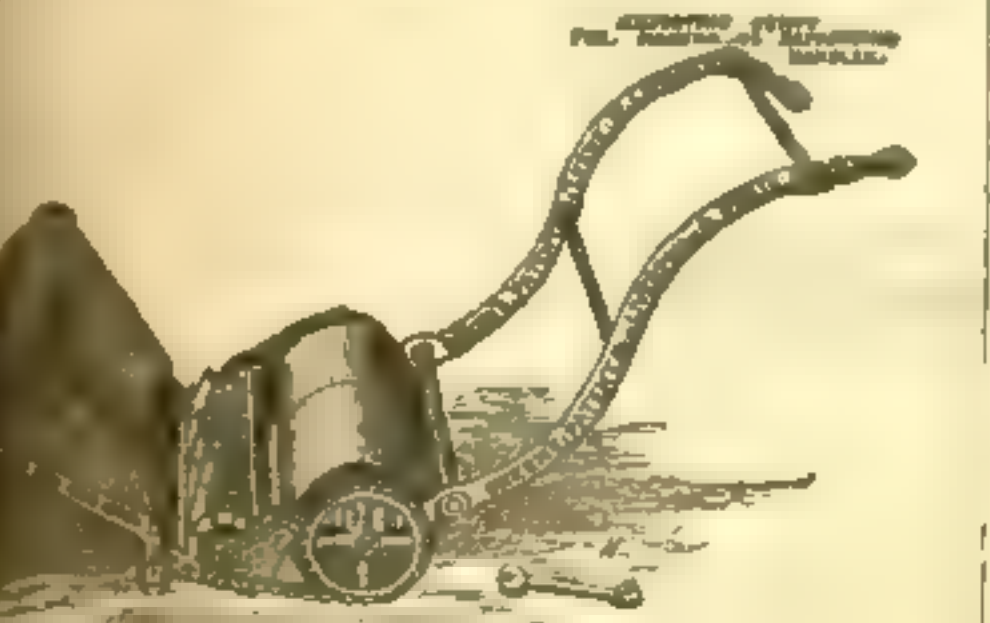
SATURDAY, MARCH 6, 1869.

L'HOMME-LEFORT, or COLD GRAFTING
 is a new preparation, for use in the operation of
 grafting, and is a way ready for use, and
 when exposed to the air, Mastic L'Homme-
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 the graft. Price, 1s., 2s., 4s., and 6s. each. Retail of most
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 Messrs. & Co., Great Garden, London, W.C.

TANNED LEATHER COMPANY,
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 MANUFACTURERS of IMPROVED
 LEATHER LIVING STRAPS for MACHINERY
 BELT STRAP and SOLE BUTTS.
 Price Lists sent free by post.
 Warehouse: 51, Mark Lane, London, E.C.

Green's Patent Noiseless Lawn Mowers.
 GREEN'S PATENT LAWN MOWERS have proved
 to be the best, and have carried off every prize that has been
 offered in competition, and in proof of their superiority
 of 44,000 have been sold since the year 1866.
 They are the simplest in construction, least liable to get out of
 order, and can be worked with far greater ease than any other Lawn
 Mower.

They are the only Machines in constant use at
 The Winter Palace Gardens, Dublin
 The Dublin Botanic Gardens
 The Liverpool Botanic Gardens
 The Leeds Royal Park
 The Hull Botanic Gardens
 The Botanic Gardens, Brussels
 The Sunderland Park
 The Preston Park
 The most of the principal Parks and Squares in the United Kingdom.



to give entire satisfaction, and if not
 at once unconditional
 on application, which includes Free Delivery
 by Stations and Shipping Ports in England,
 the day they are received.
 See between times more Lawn Mowers in Stock at their
 44, 155, Blackfriars Road, S., than any other firm
 that intend to purchase can select from.
 They extend to premises in London, we are in a position to
 of repairs there as well as at the Works at Leeds.
 Messrs. G. & S., Smithfield Iron Works, Leeds; and 54 and
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PORTABLE AND FIXED HOT-WATER APPARATUS,
 FOR HEATING CONSERVATORIES, HOTHOUSES, CHURCHES, PUBLIC BUILDINGS, PRIVATE
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TRUSS'S PATENT

UNIVERSAL FLEXIBLE AND LEAKLESS PIPE-JOINTS.

Horticultural Buildings of every description from 1s. 6d. per foot superficial, inclusive of Brickwork.

Bath and Gas Work erected in town or country.

The Trade Supplied.



Price Lists, Plans, and Estimates forwarded on application to

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SAMUELSON & CO.'S

NEWLY PATENTED EDGE-CLIPPING SILENT LAWN MOWERS.

THE MOST IMPORTANT IMPROVEMENT EVER INTRODUCED.



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Which are fitted, when required, with a new Patent
EDGE-CLIPPING arrangement, entirely
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All Machines fitted with
 new Silent Gearing, ensuring
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Catalogues, with full
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SHANKS'S PATENT LAWN MOWERS FOR 1869.

UNDER THE PATRONAGE
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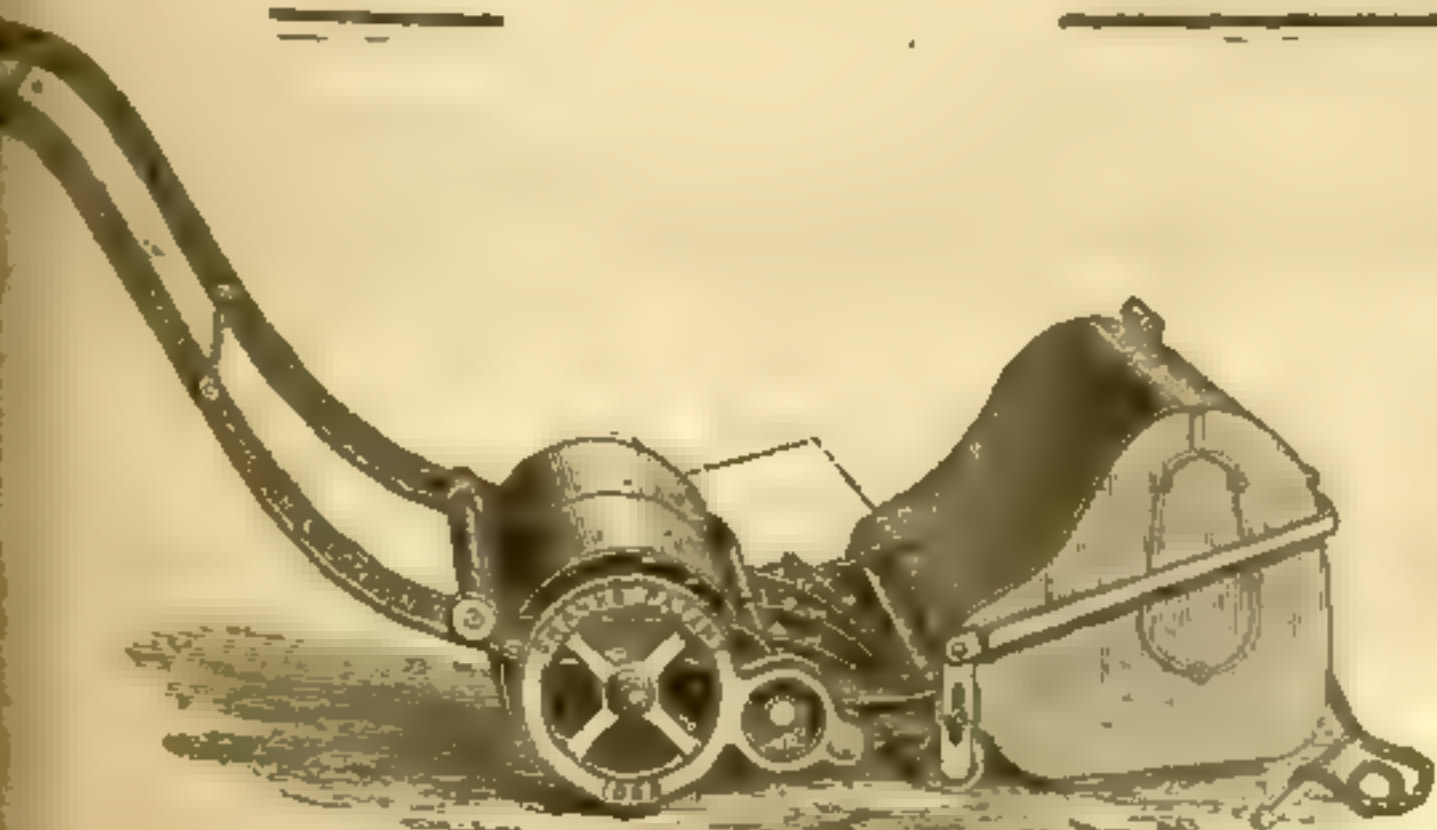
SHANKS'S PATENT LAWN MOWERS

ARE ALL FITTED WITH

**PATENT DOUBLE-EDGED SOLE PLATES, WIND GUARDS, AND
 SELF-SHARPENING REVOLVING CUTTERS.**

Advantages possessed by no other Lawn Mowers.

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HAND MACHINE.

PRICES—INCLUDING CARRIAGE TO ANY RAILWAY STATION OR SHIPPING PORT IN THE KINGDOM.

SHANKS'S NEW PATENT HAND MACHINE.

16-inch Machine	£3 10 0	By a Lady	16-inch Machine	£6 10 0	By a Man
19-inch Machine	4 10 0	By a Boy	19-inch Machine	7 15 0	By a Man and a Boy
22-inch Machine	5 10 0		22-inch Machine	8 10 0	By Two Men
24-inch Machine	6 10 0	24-inch Machine	9 0 0		

The Hand Machines are all with Silent Movement.

SHANKS'S NEW PATENT PONY and DONKEY MACHINE.

12-inch Machine	£12 10 0	25s. extra.
14-inch Machine	14 10 0	30s. "
15-inch Machine	15 15 0	30s. "

Silent Movement, 12s. 6d. extra.

Boots for Pony, 22s. per set.; Ditto for Donkey, 18s. per set.

SHANKS'S NEW PATENT HORSE MACHINE.

30-inch Machine	£19 0 0	30s. extra.
36-inch Machine	22 0 0	30s. "
42-inch Machine	26 0 0	40s. "
48-inch Machine	28 0 0	40s. "

Silent Movement, 20s. extra. Boots for Horse, 26s. per set.

Every Machine warranted to give ample satisfaction, and, if not approved of, can be at once returned without any expense to the buyer.

**ALEXANDER SHANKS AND SON, DENS IRON WORKS, ARBROATH; and
 27, LEADENHALL STREET, LONDON, E.C.**

27, Leadenhall Street is the only place in London where intending purchasers of Lawn Mowers can choose from a Stock of from 150 to 200 Machines.
 All sizes kept there, whether for Horse, Pony, or Hand Power.

the short supply of them causes prices to continue high. Our foreign supply consists of 620 Beasts and 128 Calves.

Best Scots, Herefords, &c.	5 4 to 5 8	Best Long-wools	5 10 to 6 0
Best Shorthorns	5 2-5 4	Do. Shorn	4 10-5 2
2d Quality Beasts	4-4 6	Do. Shorn	4 10-5 2
Best Downs and Half-breds	6 4-6 6	Calves	4 0-6 0
Do. Shorn	6 4-6 6	Pigs	3 4-5 0

Beasts, 1050; Sheep and Lambs, 6250; Calves, 184; Pigs, 70.

POTATOS.—SOUTHWARK, Monday, Feb. 22.

During the past week the arrivals have been very heavy coastwise, by rail, and from abroad, and trade extremely dull. Prices have fallen from 20s. to 30s. per ton, many second-rate and inferior sorts being quite unsaleable at present. The following are this day's quotations:—Yorkshire Regents, per ton, 50s. to 90s.; do. Flukes, 60s. to 110s.; Lincolnshire Regents, 60s. to 80s.; Dunbar and East Lothian do., 60s. to 110s.; Perth, Forfar, and Fife do., 60s. to 80s.; do. Rocks, 50s. to 60s.; French and Belgian Whites, 40s. to 60s.

MARK LANE.—MONDAY, Feb. 22.

There was a small supply of Wheat from Essex and Kent to this morning's market, which was mostly disposed of at the prices of this day's night. The attendance included some few country buyers, and for foreign Wheat there was a retail demand at last week's quotations. Barley was 1s. per qr. cheaper. Beans and Peas were rather lower. The Oat trade was steady without change in prices. Flour remains unaltered.

PRICE PER IMPERIAL QUARTER.			
WHEAT, Essex, Kent, Suffolk, White	52-55	Red	47-50
— fine selected runs.. do.	55-56	Red	49-52
— Talavera	62-65		
— Norfolk		Red	
— Foreign	43-66		
BARLEY, grind. & dist., 37sto38s. Chev.	46-51	Malting	44-49
— Foreign.. grinding and distilling	25-28	Malting	39-43
OATS, Essex and Suffolk			
— Scotch and Lincolnshire.. Potato	25-33	Feed	
— Irish .. Potato	30-32	Feed	26-30
— Foreign .. Poland and Brew	25-30	Feed	21-26
RYE .. Foreign	40-42	Foreign	
RYE MEAL, Foreign			
BEANS, Mazagan .. 37sto41s. Tick	44-45	Harrow	44-45
— Pigeon .. 45s to 49s .. Winds		Longpod	
— Foreign .. Small	40-45	Egyptian	41-44
PEAS, White, Essex, and Kent .. Boilers	43-49	Suffolk	48-50
— Maple 40s to 45s .. Grey	42-44	Foreign	40-45
MAIZE .. Foreign		Foreign	33-35
Flour, best marks delivered .. per sack	43-47		
— 2d ditto .. ditto	34-44	Country	34-44
— Foreign .. per barrel	24-36	Per sack	48-56

FRIDAY, Feb. 26.

Inactivity has continued to be the prevailing feature of the trade throughout the markets of the kingdom during the past week, and we have to report a further decline of 1s. per qr. on Wheat in Hull, Newcastle, and some of the Scotch markets, while in the producing districts former rates were maintained with difficulty. Barley has been neglected, and grinding qualities were the turn cheaper. Peas and Beans were a slow sale, at prices fully 1s. per qr. in buyers' favour. Oats have not experienced any further decline this week. Flour sympathized with Wheat, and to effect sales a slight reduction had to be submitted to. The supplies off the coast consisted this week of 53 cargoes, of which, with those left over from last week, there remained for sale last night 55 cargoes. The floating trade has been quiet throughout the week, arrived cargoes of Wheat being held at previous rates (the only exception being a cargo of fine white from San Francisco sold at 2s. per qr. decline), but the business concluded was not extensive. Maize was about 6d. per qr. cheaper, whilst Barley met with more inquiry at the late heavy reduction. Rye, none on offer. Paris, Feb. 25.—The trade in Wheat and Flour ruled firm but inactive. The eight marks are quoted at equal to 36s. 6d. per 280 lb. The stock at the Halle is estimated at 10,180 cwt. The arrivals of English grain and foreign Wheat and Barley are moderate, but of Oats good. There was a poor attendance at this morning's market. Part of the English Wheat left over from Monday remained unsold at a late hour, although offered at that day's prices. In foreign the business done was quite in retail, and we do not alter our quotations. Spring Corn met a slow sale without alteration in the value of any description.

ARRIVALS THIS WEEK.

	Wheat.	Barley.	Oats.	Flour.
English ..	410 qrs.	1110 qrs.	250 qrs.	— sks.
Irish ..	—	—	3700 "	—
Foreign ..	11,130 "	14,760 "	30,360 "	1140 .. 4570 brls.
	11,540	15,860	34,510	

LIVERPOOL, Tuesday, Feb. 23.—The market was fairly attended. Wheat in good request at last Friday's rates. Flour quiet, without alteration in value. Beans steady, at Friday's decline; Saidi, 36s. to 36s. 6d. Oats and Oatmeal firm, at late rates. Indian Corn in fair inquiry, at the extreme rates of Friday last; mixed, 31s.

AVERAGES.

	Wheat.	Barley.	Oats.
Jan. 9 ..	51s 5d	48s 1d	26s 4d
— 16 ..	52 8	49 0	25 9
— 23 ..	52 4	49 7	26 4
— 30 ..	51 5	49 7	27 6
Feb. 13 ..	50 9	47 9	28 1
— 20 ..	50 3	47 0	27 4
Average ..	51 6	48 6	26 11

SEED MARKET.

Owing to the continuance of wet weather the agricultural seed trade is still in a rather quiet state, many buyers apparently declining to go into stocks until the consumptive demand has absolutely set in. Red Clover seed of all descriptions is held at full values, and the market exhibits no signs of giving way; the quantity of seed now in London is small, and holders seem confident that immediately the country trade begins to operate higher prices must rule; German Red is in fair supply—indeed, if it had not been for Germany we should have been very poorly off this year for Red Clover seed; new English continues exceedingly scarce and dear. We have more doing in Trefoil; of yearling seed the stocks are large, new French has come to hand, at moderate currencies. Alsike and White Clover seed are without change, the former being in abundant supply, and now very cheap. We have a brisk inquiry for French Italian Rye-grass, the stocks of which on the other side appear to be getting reduced very low. Sowing Linseed meets with more attention, a good many orders coming to hand from Ireland. For Mustard seed there

is a good inquiry, but the supply is very limited, the unprecedented demand last autumn having used up the stocks quite close. English Rapeseed is about the same. We have a demand for Dutch Runners, which are this year being used in the place of Scarlet, the last named being exceedingly scarce and high in price. Spring Tares move off rapidly at the late advance. For large Scotch Tares there is some inquiry. French Sainfoin seed meets with a free sale at last week's quotations. Canary and Hemp seed are unaltered in value. JOHN SHAW & SONS, 16, Water Lane.

WANTED, a steady Man as GENERAL FOREMAN in a small Nursery. Must be well up in the Cultivation and Management of Roses and Fruit Trees, and competent to Superintend the Glass and Propagation of Soft-wooded stuff, with a Junior Propagator under him. To an experienced and trustworthy Man liberal wages will be given, after he has proved himself competent.—Apply to L. WOODHOUSE, Munro Nursery, Sible Hedingham, Essex.

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WANTED, a respectable and active Young Man, as SALESMAN for Covent Garden Market.—State age, qualification, &c., to Mr. CARLTON, Hans Street, Chelsea, S.W.

WANTED, as COWMAN, and to assist as UNDER GARDENER, a steady Young Man, who can have a good character from his last place.—Address, Mr. C., 38, Wigmore St., W.

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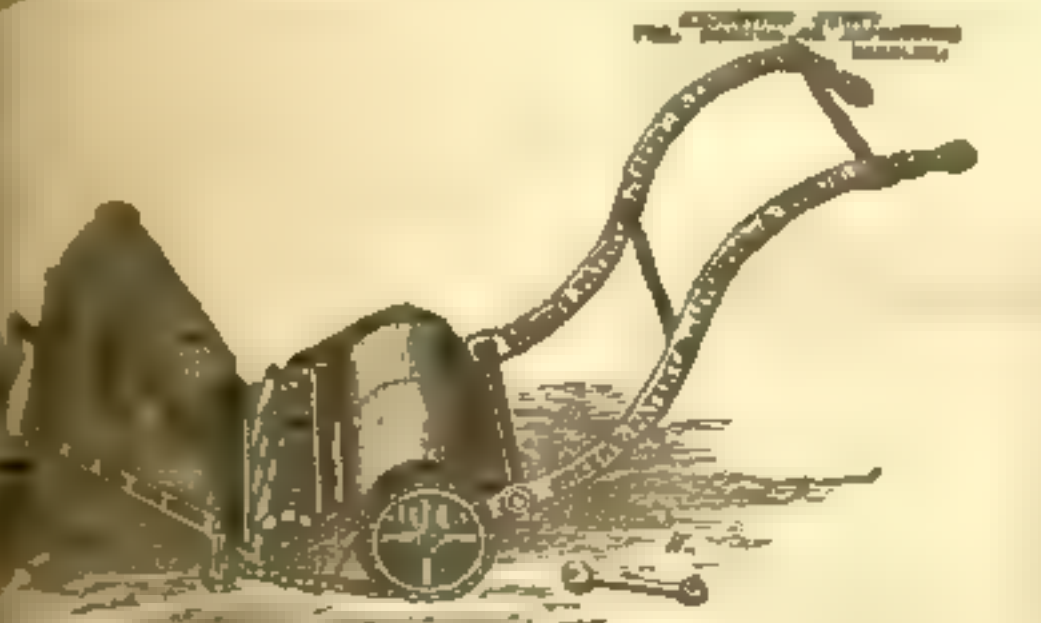
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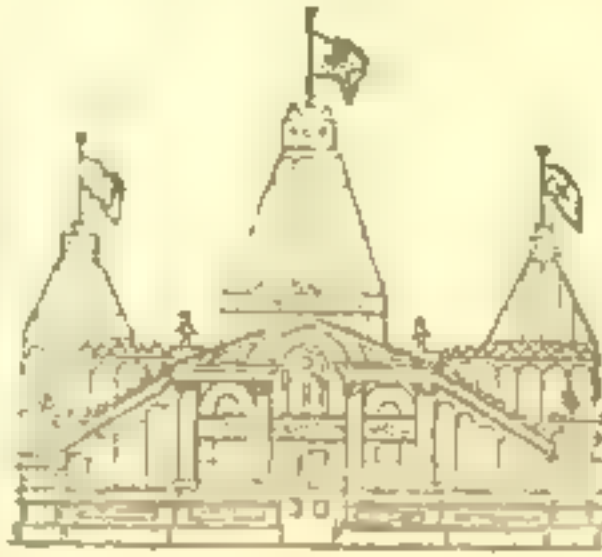
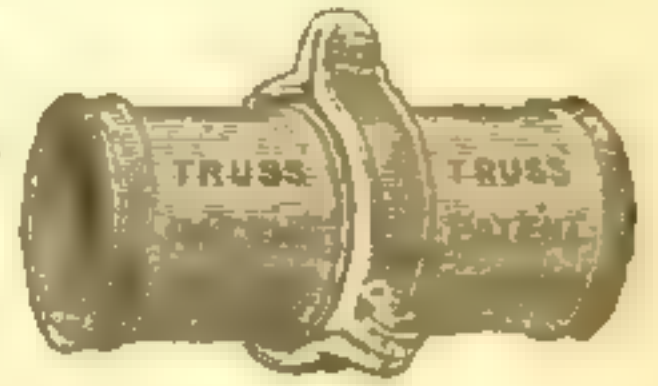
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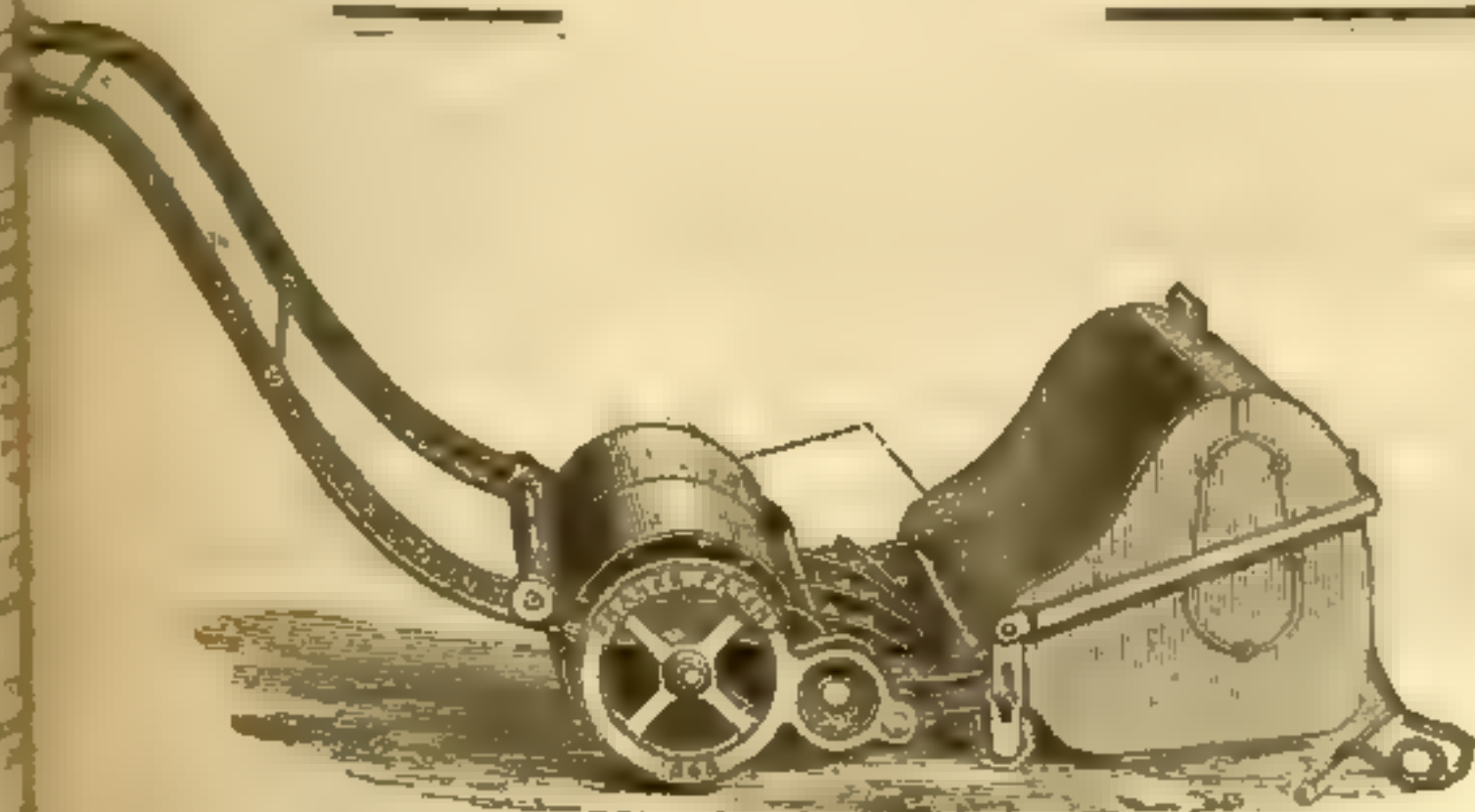
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Home News.

THE COURT.—The Queen on Friday, on her arrival at Windsor from the Isle of Wight, drove with Princess Louisa to Frogmore House, and visited the Princess Christian. On Saturday morning her Majesty again visited Princess Christian, and in the afternoon drove out with Princess Louisa. The Lord Chancellor and the Rev. Charles Kingsley arrived at the Castle on a visit. On Sunday morning the Queen and Royal family attended Divine service in the Private Chapel. The Rev. C. Kingsley preached the sermon. On Monday the Earl of Clarendon, Secretary of State for Foreign Affairs, arrived at the Castle, and introduced to her Majesty Baron Fabrice, Minister for Saxony; Baron Gevers, Minister for the Netherlands; and Baron de Beaulieu, Minister for Belgium, who presented their credentials. Viscount Sydney, Lord Chamberlain, introduced to the Queen the Earl of Southesk, who received the honour of Knighthood, and was invested by her Majesty with the Insignia of the Order of the Thistle. The Queen afterwards drove out with the Princesses Louisa and Beatrice. In the evening Prince Christian and Princess Henriette of Schleswig-Holstein dined with her Majesty. On Tuesday morning the Queen went out with Princess Beatrice. On Wednesday morning the Queen, accompanied by Princess Louisa and Princess Beatrice, visited Princess Christian at Frogmore House. Her Majesty afterwards left Windsor for London, accompanied by the Princesses Louisa and Beatrice, and Princess Henriette of Schleswig-Holstein. Her Majesty travelled by special train on the Great Western Railway to Paddington, and drove thence to Buckingham Palace, escorted by a detachment of Lancers. The Queen arrived at Buckingham Palace at 12 o'clock, and in the afternoon held a Court, the first of the season, which was very numerously attended. Prince Arthur arrived at the Palace from Greenwich Park. After the Court the Queen drove out and visited the Princess Teck at Kensington Palace. In the evening Madame and Miss Van de Weyer dined with the Queen. The Princess Louisa, Prince Arthur, and Princess Henriette of Schleswig-Holstein, went to the Adelphi Theatre. Prince Arthur afterwards returned to Greenwich Park. On Thursday morning the Queen, accompanied by Princess Beatrice, visited the Zoological Gardens. In the afternoon her Majesty, accompanied by Princess Beatrice, visited the South Kensington Museum, and afterwards paid a visit to the Dean of Westminster and Lady Augusta Stanley at the Deanery of Westminster. The Right Hon. W. E. Gladstone had an audience of her Majesty. Yesterday afternoon the Queen held the first Levee of the season at Buckingham Palace. The new court-dress for gentlemen was first worn on this occasion.

THE PRINCE AND PRINCESS OF WALES IN EGYPT.—Immediately after the departure of the Prince and Princess on their Nile tour unfavourable weather reached Thebes on the evening of the 16th ult., and proceeded on the 18th to the Second Cataract. On their return down the river the Prince and Princess will visit the Pyramids of Gizeh. The Viceroy, in anticipation of this visit, has made a fine broad carriage-road to the Pyramids, and has specially erected for their reception a pretty pavilion, which will afterwards be allowed to be used as an inn for travellers in general. The Prince and Princess have intimated to M. de Lesseps their intention of visiting the Suez Canal under his guidance, and the Viceroy will give a series of truly regal fetes in honour of their stay in Cairo. Preparations are

making, among other places, in the gardens and palace of Kobbe, near the racecourse on the plain of the Abasieh, for a *fête champêtre*, to end with races.

THE PRINCESS CHRISTIAN is doing well, and making favourable progress towards recovery. The infant Prince is quite well.

COURT ARRANGEMENTS.—It is announced that the Levee announced to be held at St. James's Palace on the 19th inst. by Prince Arthur on behalf of the Queen has been postponed to Saturday, April 3. Her Majesty will hold Drawing Rooms at Buckingham Palace on Thursday, April 8, and Tuesday, May 11. Her Majesty's Birthday will be celebrated on Saturday, May 29.

PRINCE ARTHUR.—It is reported in Canada that Prince Arthur will shortly proceed to Canada to join the Canadian Rifles.

THE CABINET.—A Cabinet Council was held on Saturday, in Downing Street.

PARLIAMENTARY MOVEMENTS.—It was announced on Wednesday in the House of Commons that if the state of public business will allow, the Easter recess will be from Tuesday, the 23d inst., to Thursday, April 1. On Thursday a new writ was issued for Bradford, in the room of Mr. Ripley, unseated on petition. A motion for the issue of a new writ for Bewdley, vacant by the unseating of Sir R. Glass, was opposed by Mr. Muntz, who moved, as an amendment, the suspension of the writ for one year, by way of punishment for electioneering malpractices. After a long discussion the new writ was carried by 128 to 65. Mr. Cunliffe, the banker of London, will be the Conservative candidate for Bewdley, and will, it is said, be opposed either by Major Anson or Mr. W. C. Hemming in the Liberal interest.

TRIALS OF ELECTION PETITIONS.—Baron Martin on Tuesday gave judgment on the Salford petition, declaring that Messrs. Charley and Cawley, the Conservative members, were duly elected, but that no costs would be allowed, on account of the committee rooms in public-houses, the hire of cabs, and the employment of roughs. Mr. Justice Willes on Friday gave judgment on the Penryn and Falmouth petition, declaring that Messrs. Fowler and Eastwick were duly elected, that no corrupt practices had been proved, and that the petitioners must pay the costs. Mr. Justice Blackburn yesterday gave judgment on the Taunton petition, declaring that Serjeant Cox was not duly elected. A scrutiny followed, when Mr. James was declared by the Judge to be duly elected. In Scotland on Friday Lord Jerviswoode pronounced an interlocutor allowing the Wick Burghs petition to be withdrawn, and found the petitioner, Mr. Lockyer, liable in expenses. In Ireland, on Tuesday, Mr. Justice O'Brien gave judgment on the Youghal petition, to the effect that the charge of bribery was wholly unsustainable, but that Mr. Weguelin was guilty of treating. His lordship reserved for the Court of Common Pleas the question whether the treating proved was of a corrupt character, and considering the expenditure extravagant, ordered each party to pay his own costs. Mr. Justice Keogh, on Wednesday, gave judgment on the Galway petition, declaring that the sitting members were duly elected, but that each of the parties must pay his own costs. The Cambridge petition has been withdrawn. The Wigan case is now in progress. The following cases have been set down for hearing—Beverley, March 8; Hereford, March 9; Lynn, March 15; Oldham, March 15; Dover, March 20; Pembroke, April 1; Brecknock, April 7; Christchurch, April 13.

THE BISHOP OF SALISBURY during the last few days has been in such a state as to cause increased anxiety to his friends.

CONVOCAION.—In the Upper House of the Convocation of Canterbury, on Friday, it was agreed, after a long discussion, to appoint a committee to consider the report of the committee of the Lower House on the subject of pensions to disabled and retiring incumbents, and to report thereon. It was also resolved, on the motion of the Bishop of Oxford, that in case of a bishop's inability to discharge the duties of his office from age or bodily infirmity, he may, subject to the approval of the archbishop, pray her Majesty to appoint a coadjutor *cum jure successionis*, and with such proportion of the stipend as may hereafter be determined, and that provision be made to apply this principle to cases of mental infirmity. In the Lower House, on the address to the Crown being sent down from the Upper House, with alterations in the passage relating to the Irish Church, Canon Bakesley moved and Archdeacon Moore seconded, that the House do concur in the address as altered. Archdeacon Denison objected to some words in the altered clause, and with a view to the unanimity of both Houses, moved for a conference with their lordships. This was seconded by Canon Selwyn, and carried, after some debate, by 42 to 22. A conference accordingly took place, when the Upper House consented to alter that part of the address which related to the Irish Church by the insertion of the words—"That the issue may be directed by the good Providence of Almighty God." This was accepted by the Lower House, and it was then moved and carried that the address should go to the Queen as that of the "Bishops and Clergy." Both houses were then prorogued to June 15. In the Convocation of York an address to the Queen was adopted by a majority of 29 to 6, declaring that "the Convocation of York viewed with sorrow and alarm the proposed attempt to disestablish and disendow the Irish branch of the United Church of England and Ireland, and hoped that nothing would be done to hinder the spread of truth and promote error."

Foreign.

FRANCE.—In the sitting of the Legislative Body on Friday the debate on the contract between the City of Paris and the Credit Foncier of France was resumed. M. Rouher, the Minister of State, delivered a speech

in defence of the course pursued by M. Haussmann. Prefect of the Seine. In the course of his speech he stated that the Emperor was not responsible for the administration of the City of Paris, which was a political but an administrative question. He stated that there had been some irregularities in the particular the employment of guaranties, but that the most serious fault that had been made was the issue of 50,000,000f. the 100,000,000f. Advances for Public Works had been issued. The Minister concluded by stating that he was not opposed to the Chambers adding to the first paragraph of the B.L. so as to enable the City of Paris to contract loans in a direct manner, but would then be necessary that this should be sent back to the Committee. This speech was received with much applause, and the article was referred to the Committee. In the sitting of the 14th M. Du Miral laid on the table the article proposed by the Committee, authorising the City of Paris to issue a number of bonds required to produce 165 millions of francs, repayable in 50 years, the power to make the issue in successive amounts. The sitting of Tuesday the debate on the B.L. was resumed by M. Fremy, who declared that if the contract was not ratified the administration of the City of Paris would not regret it. He added, in reference to the illegal commissions the company are said to have received, that a meeting of the shareholders would be held, when a proposal for restitution would be submitted to them. The amendment of M. Fremy proposing that the municipality should issue a loan, was then considered. It was opposed by M. de Lesseps, who spoke in favour of an immediate issue of 150,000,000f. to 200,000,000f. The second issue of 265,000,000f. to be made subsequently. M. de Lesseps, Minister of Finance, said that it was to the credit of the City of Paris that the contract with the Credit Foncier should be maintained, and that the municipality should have at the same time power to issue bonds in order to reimburse the Credit Foncier in circumstances might be favourable for so doing. M. Picard, Thiers, Jules Favre, and others repeated speeches of MM. Rouher and Magne, and declared to abide by the contract would be to sanction illegalities which had been committed. M. de Lesseps' amendment was withdrawn by the member who proposed it, but was taken up by M. Leopold Jasson, and, on being put to the vote, was carried by a majority of 147 to 97. In the sitting of the 15th a proposal was made to send back the article to the Committee for reconsideration, but was rejected by a majority of 187 to 69. The article was adopted. The *Moniteur de l'Armée* contains an article opposing the idea of disarming France. It says that "France does not disturb either the peace or order of Europe, and at the same time she will not disarm." M. de Lesseps, long for some years past President of the Chamber and M. de Lamartine, the poet and statesman, in Paris on Sunday last. In the sitting of the Legislative Body on Monday several resolutions were passed the regret felt by the Chamber at the death of M. de Lamartine and M. Troplong, and that decrees have been issued ordering the funeral to be conducted at the expense of the State. The Chamber has opened a subscription list in its honour, and a statue to the memory of M. de Lamartine.

SPAIN.—In the sitting of the Constituent Cortes on Friday, Marshal Serrano, President of the Provisional Government, announced to the Chamber that all the members of the Provisional Government retained their seats in the House and took their seats on the benches. Marshal Serrano then delivered a speech in which he said that it was not necessary for the Government to announce a programme, as the principles laid down by the Resolutions of the 11th and 12th of February would be followed. He further declared that it was the intention of the Government to introduce Bills with a view to effecting economy in the expenditure, and that he reminded the country that it would be necessary to make sacrifices if it wished sincerely for the preservation of liberty. He promised that the liberal policy had been delayed in consequence of the war in Cuba should be speedily proclaimed. He also stated that no Bill would be introduced for consideration of the Cortes without having obtained for its introduction. In the sitting of the 15th a resolution for the appointment of a committee of 15 members to prepare the draught of a constitution was agreed to by a large majority. The members elected belong all to the majority. In the sitting of the 16th having taken part in the vote. In the sitting of the 17th Thursday Senor Castelar spoke in favour of to proclaim an amnesty for political offences. Sagosta, in reply, stated that the Government intended to celebrate the opening of the Cortes by granting an amnesty, but that this had been delayed in consequence of the conspiracy lately been discovered. He promised that as soon as the real motives of the Government had been discovered the Government would to the Cortes to proclaim an amnesty for political offences. The proposal of Senor Castelar was rejected by 135 votes against 94. The proposal of a Socialistic rising at Barcelona, but which was of that city discountenanced the plot, was suppressed, and 33 of the conspirators were arrested. Several Carlist partisans have been arrested at Girona, and Castellon, and proof has been given of their complicity in the rising at Barcelona. It is officially stated that the Republic has accepted the honorary presidency of the Cortes, and that Deputy members of which had been arrested in that country.

Prussia - The North German Parliament was opened on Thursday by the King in person. The Budget of 1871 is a summary of the Speech from the Throne.

that the prospect of the maintenance of the last assembly proved failures... A bill relative to the electoral law, with Art. 2 of the constitution of the German Empire, would be laid before the Reichstag... The Budget of 1871... The first duty of the Government will be to secure the maintenance of peace... The Minister of Finance on Friday submitted to the Lower House of the Prussian Diet a Bill embodying the financial arrangement with the City of Frankfurt-on-the-Main.

The Minister of Finance on Friday submitted to the Lower House of the Prussian Diet a Bill embodying the financial arrangement with the City of Frankfurt-on-the-Main, in accordance with which the Government grants to the municipality of that city the sum of 2,000,000 florins. He announced at the same time that the King would present the town with 1,000,000 florins out of his private purse, and he expressed a hope that this gracious act would win the hearts of the inhabitants of Frankfurt. The Bill was referred to a Committee, and in the sitting of Monday it was passed almost unanimously, in accordance with the Committee's report. The trial of Count Lesnasky for high treason, after having lasted six days was brought to a termination on Saturday in a sentence of imprisonment for three years.

Italy - The Judges of the Court of Appeal gave judgment last week on an important case which had been submitted to them as to the right of priests to marry, and therefore involving the question of the States independence of the Church and of the position of a priest in presence of the civil law. The Civil Tribunal of Salerno in June last had decided that a priest was always a priest, before whatever Court he presented himself, and was bound by the obligations he had assumed in that character. The Court of Appeal last week annulled that sentence; declared to be inadmissible the opposition which had been made to the celebration of matrimony between Signor Luigi Tola and Signora Marianna Montefusco, and directed that the ceremony should be proceeded with according to the law. This decision of so high a Court as that of the Court of Appeal at Naples is regarded as of more than local importance, and as certain to be cited as a precedent in all similar cases.

India - Sir Richard Temple will introduce the Indian Budget on the 7th, or, at the latest, on the 13th of May. A police post at or near Kohat had been captured by an incursion of one of the border tribes, in which three of our men had been carried off and one killed. A force had been ordered out for the punishment of the marauders. The son of the ex-Emperor has occupied two cities in Turkistan. On the receipt of this intelligence Abdul Rahman Khan immediately proceeded thither. An early interview between the Viceroy and Sher Ali is therefore considered probable. Accounts from Mallimgam state that in consequence of the anticipated drought for the next four months the Government has sanctioned four of Norton's American pumps being sunk in the bed of the river, which runs within 100 yards of the cantonment, and already at this early period quite dry.

China - The inhabitants of the villages near Shanghai, who attacked the crew of the British gunboat Cyclops, have been satisfactorily punished by a force comprising her Majesty's ships Icarus, Rinaldo, and three gunboats under the command of Commodore Jones. The details of the conflict which took place show that 85 natives were killed or wounded. Three British officers were wounded, but not seriously. The Cyclops has been destroyed and the force has returned to Hong Kong. The Chinese Government intends to appropriate all the tonnage dues, averaging 300,000 taels annually, towards improving the navigable waters of the country. The Leander has made the fastest run of the season from England to China, she having performed the passage in 95 days.

Japan - An engagement has taken place between the Southern (Mikado's) troops and 900 Northerners. The former suffered a complete defeat, and fled in confusion. The German ship Cornelia has been lost. The crew were rescued by Japanese.

UNITED STATES. - On Thursday, being the day appointed for the retirement of Mr Johnson and the entry of General Grant into the office of President of the United States, the late President issued a valedictory proclamation, defending his administration, and asserting that honesty and sincerity had been the rule of all his actions during his presidency. The Fortieth Congress adjourned on the same day. The new Congress

then assembled. Mr James Blaine, the Republican candidate, was elected Speaker of the House of Representatives. At noon General Grant took the oath of office as President, and issued an inaugural proclamation, stating that he shall have a policy to recommend, but none to enforce against the will of the people; that there must be no repudiation of a single farthing of the public debt, which must be paid in gold; that the revenue must be faithfully collected and accounted for; and that in regard to foreign policy, he will deal with nations as equitably as the law requires that individuals should deal with each other. It is said that General Grant's Cabinet will include Mr. Adams, the late Minister in this country, and General McClellan as Minister of War; and that Mr. Motley or General Sherman will probably be offered the post of Minister to the Court of St James. The Constitutional Amendment enacting negro suffrage has passed Congress, and been sent to the State Legislatures for ratification. Kansas and Louisiana, Missouri, Nevada, and West Virginia, have already ratified it. General Schenck's Finance Bill was passed by the Senate on Sunday by a majority of 29 to 16. It had previously passed the House of Representatives, but was sent back to that body for its concurrence in certain amendments, upon which the House asked for a conference, the result of which was that the Bill was finally passed by Congress substantially as it was passed by the House of Representatives. The Bill in its present shape declares the faith of the United States to be solemnly pledged to pay in coin all the obligations of the United States, except in cases where the law authorising their issue expressly provides that the same may be paid in greenbacks. The Senate, by a majority of 26 to 22, has refused to repeal the Tenure of Office Bill, which had been previously repealed by the House of Representatives. On Wednesday the House unanimously passed a resolution expressing sympathy with the efforts of the Spanish people to establish liberty, and with the struggle of the Cubans to achieve their independence, at the same time authorising the President to recognise the independence of Cuba, as soon as a *de facto* Government shall have been established. The bodies of all the persons executed for complicity in the assassination of Mr. Lincoln, with the exception of that of Payne, who attempted to kill Mr Seward, have been delivered to their friends, and have received Christian burial. The body of Booth was taken away very quietly, and has been interred in a grave by the side of his father's in Baltimore. The body of Payne has not been applied for, his relatives, it is said, are all dead.

BRAZILS AND PARAGUAY. - Intelligence from Paraguay states that Lopez is fortifying the interior. No fresh movement has been made by the allies. The Marquis de Caxias and Viscount de Herval have retired from their military commands.

Parliament.

IN the House of Lords on Friday, the Earl of KIMBERLEY, in explaining the Government Bill for the further suppression of criminal offences, briefly sketched the course of legislation since penal servitude had been substituted for transportation, and the results which had followed the employment of convicts in reproductive labour, and the police supervision of licensed convicts. From these results he drew the conclusion that the present system, whatever its faults, had been upon the whole successful. If, therefore, he were asked, why further legislation was necessary, he would answer that the facilities for crime and escape from detection were increasing; while the state of the criminal classes, who constituted a vast army waging war on society, was also such as to demand consideration. Deprecating the infliction of imprisonment for life, he insisted on the full sentence of penal servitude being carried out, and urged that prisoners for life too old for the public works, and criminal lunatics who, after years of confinement, might become sane, ought to have some remission. The Bill proposed to extend police supervision, and to throw on the criminal the burden of proof that he was leading an honest life. A register would be kept of all the licenses granted, and any person holding one might be summoned by the police before a magistrate, and called upon to show that he was earning an honest livelihood. If he failed to do so, he would be remitted to undergo his original sentence. In the case of persons convicted of felony a second time, it would be a part of the sentence that they should be subject to police supervision for seven years, during which they might be summoned by the police to show that they were pursuing a decent calling, and in default be imprisoned for one year. A similar provision would apply where licensed convicts were found in suspicious circumstances and about to commit a crime. For third convictions the sentence would never be less than seven years' penal servitude. The receivers of stolen property, after a first conviction, would be required to show that the goods were not stolen, and would not be allowed to plead simple ignorance of the fact. The Bill also dealt with the case of vagrants, and with cases of brutal assaults. It would not interfere with the liberty of the innocent, while it would circumscribe the movements of criminals and greatly strengthen the administration of justice. The Earl of SHAFTESBURY and Lord HOUGHTON expressed a general approval of the scheme; while Earl GREY recommended that it should be referred to a Select Committee. The Marquis of SALISBURY hoped that the great and novel principles of the Bill would be left to a Committee of the whole House. Lord CAIRNS concurred in this view, and urged the Government not to refer it to a Select Committee if it should pass the second reading. After some further discussion the Bill was read a first time. On Monday the House met for a short time, and having

read some private Bills a second time, immediately adjourned. On Tuesday the Earl of CLARENDON moved the second reading of the Brazilian Slave Trade Bill, the object of which was to repeal the Act of 1845, commonly known as the "Aberdeen Act." He said that for the past 12 years no slaves had been imported into the empire of Brazil, and it appeared equitable now to do away with an arrangement which cast a slur on a friendly Government, and which, indeed, when first introduced was not meant to be permanent. Lord CHAMBERS and Lord CAIRNS supported the Bill, and condemned the Aberdeen Act, on legal and international grounds, as a measure which would never have been contemplated in the case of a strong Government. The Bishop of OXFORD, whilst rejoicing at the extinction of the traffic in slaves with Brazil, hoped that the Government would turn its attention to the slave trade on the east coast of Africa. Earl GREY described the Aberdeen Act as one of the most useful that had ever been passed in the interests of humanity. Earl GRANVILLE also spoke in approving terms of the Aberdeen Act; but as its object had been fully accomplished, it was, he thought, time that it should be repealed. The Bill was then read a second time. The Common Law Courts (Ireland) Bill, on the motion of Lord DUFFERIN, was read a second time. On Thursday the Marquis of SALISBURY moved the second reading of the Parliamentary Proceedings Bill, the object of which was to enable their lordships to take up at the commencement of a new session business which they had been prevented, by the pressure of time, from completing in the session preceding. Earl GRANVILLE recommended their lordships to read the Bill a second time, and refer it to a joint committee of both Houses. The Earl of DERRY, Earl RUSSELL, and Lord CAIRNS supported the Bill, which was ultimately read a second time and referred to a joint committee. The Brazilian Slave Trade Bill passed through Committee. Yesterday Lord REDFORD moved for various returns relating to the Irish Church, but, at the suggestion of Earl GRANVILLE and Earl GREY, the motion was withdrawn. The House was left sitting.

In the Commons on Friday, in answer to Mr. MCCARTHY DOWNING and Mr. BLAKE, Mr. GLADSTONE said that the Government saw no prospect of being able to legislate this session on the relations of landlords and tenants in Ireland, and that it would not be expedient to declare a policy without being able to follow it up with a practical measure. Sir J. ELPHINSTONE called attention to the distress at Portsmouth, caused by the discharge of numerous workmen in the dockyard, and suggested that a certain number should be assisted by the Government to emigrate. Mr. STONE, Mr. J. D. LEWIS, Mr. M. CHAMBERS, and Mr. W. MARTIN, also pressed on the attention of the Admiralty the distress in the dockyard towns represented by them. Mr. CHILDERS, in reply, defended the course taken by the late Government in reducing the number of men employed in the Government yards, and claimed for the present Administration perfect freedom to carry out such economical reductions as they might consider desirable without impairing the efficiency of the public service. As to the suggested scheme for emigration, the Government could give it no kind of sanction. Mr. NEWGATE moved for a Select Committee to inquire into the operation of the Roman Catholic Charities Act and of the Act relating to the Registration of Burials, contending that both these Acts were systematically evaded by the Roman Catholic hierarchy. On a division the motion was negatived by 85 to 46. Mr. SELWIN-IBRETON obtained leave to bring in a Bill to amend the law for licensing beer-houses, and for other purposes. Mr. SYKES obtained leave to bring in a Bill for the preservation of sea birds of Great Britain during the breeding season, from the 1st May to the 1st August; and Mr. DENMAN obtained leave to bring in a Bill for the further amendment of the law of evidence. On Monday, in expectation of the debate on the Irish Church, the House was crowded in every part, while the galleries were filled with strangers, including numerous peers, both lay and spiritual. After the heads of the Acts relating to the Established Church of Ireland and Maynooth, and the first Resolution of last year had been read the House went into Committee, when Mr. GLADSTONE, amidst loud cheers from his supporters, moved that the chairman be directed to move for leave to bring in a bill to put an end to the establishment of the Church in Ireland, and to make provision in respect of the temporalities thereof, and in respect of the Royal College of Maynooth. After stating that among the general considerations which recommended the resolution for adoption, the foremost were the painful and bitter memories of ascendancy kept alive by the maintenance of an alien Church in Ireland, he reminded the House that it was now about to prosecute the unfinished labours of last session. The issue then raised had been clearly put, and had been decisively answered, and the resignation of the late Government was an emphatic confirmation of the judgment of Parliament and of the public. The existence of the Established Church in Ireland was adverse to the cause of religion itself, because it was essentially opposed to those principles of right upon which every religion should be based. The measure of disestablishment ought, he thought, to be prompt in its operation, as it would not be to the interest of the country that the Church Establishment should be subjected to the pain of a lingering death. It was also desirable that legislation should be final. The technical disendowment of the Church would therefore take place on the passing of the Act; but a period of about 18 months would be allowed for preparatory arrangements, and that time was proposed to be limited to the 1st of January, 1871. A further period might probably be required for the subsidiary arrangements necessary for the winding-up of the Establishment. The present

Ecclesiastical Commission would be brought to an end, and a new Commission would be appointed, the names of the commissioners being inserted in the Bill. This Commission was to endure for 10 years, which, in the opinion of the Government, was ample for all the numerous and diversified purposes which they would have to prosecute. Upon the passing of the Act the whole property of the Church would vest in the Commission, subject to life interests. It was proposed that appointments should be made, generally speaking, to spiritual offices without investing the person appointed with the freehold. With regard to episcopal appointments, it was proposed that they should be made by the Crown, but only on the prayer of the bishops themselves requesting the Crown to appoint some individual named by them. The next important enactment that would take place after the passing of the Act would be to remove all disabilities to the action of the Church, which would then be at liberty to revive Convocation, if so minded. After the removal of those disabilities, the bishops, clergy, and laity would constitute for themselves something in the nature of a governing body, and power would be given to her Majesty in Council to recognise by incorporation that body when created, as in the case of Canada. The right of the Irish bishops to sit in the House of Lords as peers of Parliament was too anomalous to be perpetuated, and all ecclesiastical corporations in Ireland would lapse on the 1st January, 1871. But it was proposed that although the ecclesiastical laws should lose their effect as laws, they should continue to be the terms of such voluntary contracts as might be used to bind the communion together. The Bill contained provisions respecting the interests of incumbents, curates (permanent and transitory), lay and municipal officers, advowsons, private endowments, churches, glebe-houses and lands, grave-yards, the winding-up of the Ecclesiastical Commission, and the sale of Church lands. The net incomes of incumbents would be ascertained, and be payable so long as they discharged their duties, or they might be commuted for life annuities. With respect to the private endowments proposed to be dealt with, it was intended to go back to the year of the Restoration (1660). The value of these endowments, in land, tithes, and money, did not exceed half a million sterling. The fabrics of the parish churches might be taken over on the simple declaration of the governing body that they intended to maintain them for public worship, or with a view to their being taken down and rebuilt in more populous or eligible places. With regard to the cathedrals, as they were national monuments of great historic interest, it was proposed that in respect to 12 of those buildings the Ecclesiastical Commissioners should be authorised to make a moderate annual grant out of Church property for their repair; but that in the case of other fabrics (such as the Glendolough churches), which it was no longer desirable to keep up for Divine worship, the Board of Works would look after them. The expenditure on the glebe houses of Ireland could be traced to amount to 1,200,000*l.*, irrespective of an outstanding charge of 253,000*l.*, and yet the annual value was returned at only 18,000*l.* per annum. The burial grounds would pass either with the churches or to the poor-law guardians. With reference to the University of Dublin, the Government did not intend at present to make any proposal to Parliament; but so far as the College of Maynooth and the recipients of the Regium Donum were concerned, it was proposed to give them compensation for life interests, or to commute at 14 years' purchase. Landlords would be allowed to redeem the rent-charge now payable by them at 22½ years' purchase, and if unprepared to purchase the money would be lent them at 3½ per cent. interest repayable by instalments. In selling proprietary rights, pre-emption would be given to tenants, and three-fourths of the purchase money would be left upon the security of the land, the liquidation to be by instalments, making the whole repayable in 28 years. The income of the Established Church might be taken at between 700,000*l.* and 800,000*l.* The financial result of disendowment would be as follows: The tithe rent-charge would yield 9,000,000*l.*; Lands and Perpetuity Rents, 6,250,000*l.*; Money, 750,000*l.*, making a total of 16,000,000*l.*; the present value of the property of the Irish Church. Of this the Bill would dispose of 8,650,000*l.*—viz.: Vested interests of incumbents, 1,900,000*l.*; curates, 800,000*l.*; lay compensation, 900,000*l.*; private endowments, 500,000*l.*; building charges, 250,000*l.*; commutation of Maynooth Grant and the Regium Donum, 1,100,000*l.*, and expenses of the Commission, 200,000*l.* There would, therefore, remain a surplus of between 7,000,000*l.* or 8,000,000*l.*; and after considering various schemes for disposing of this sum, the Government had concluded to apply it to the relief of unavoidable calamities and suffering not provided for by the Poor-law. They proposed to assign 185,000*l.* a-year to lunatic asylums, 20,000*l.* to idiot asylums, 300,000*l.* to training schools for the deaf, dumb, and blind, 15,000*l.* for the training of nurses, 10,000*l.* for reformatories, and 51,000*l.* to county infirmaries—in all 311,000*l.* a-year. He concluded his speech, which occupied upwards of three hours, by declaring that while he sympathised with the sacrifices the Irish clergy were called on to make he claimed for the Bill that, though it loyally carried out all his pledges, it treated them in a liberal and indulgent spirit. The task was one which would test the mettle not only of the Government but of every party and even every individual member, and by which the fame of the House must be sensibly affected for good or evil; but, notwithstanding its magnitude, he was sanguine that the close of the controversy was near at hand. Mr. DISRAELI declared, with much emphasis, that the opinion of the Opposition remained unchanged with respect to the policy involved in the question which

the Premier had brought forward with so much moderation, eloquence, and propriety. They looked upon disestablishment as a political error, and on disendowment—especially when accompanied by secularisation—as nothing short of mere and sheer confiscation. Under ordinary circumstances he should have opposed the introduction of the Bill, but, looking to the verdict of the country at the general election, and to the action of the late Government on that verdict, he would not oppose the motion, but he pressed for a delay of three weeks before the second reading. Mr. GLADSTONE declined to postpone it so long, and ultimately the second reading was fixed for Thursday fortnight, the 18th. Leave was then given to introduce the Bill, which was read a first time. On Tuesday Mr. W. E. FORSTER gave notice of a Bill for the regulation of the Cattle Trade. Mr. ACLAND moved for a Select Committee to inquire into the expediency of committing to some one department the duty of dealing with administrative and legislative questions affecting agriculture. After some discussion, in which Mr. GOLDNEY, Sir S. NORTHCOKE, Mr. PELL, Mr. NEWDEGATE, Lord HENLEY, and Lord F. CAVENDISH took part, Mr. BRIGHT recommended the agricultural interest to have as little as possible to do with Government departments, but promised that, if the Board of Trade and the Home Office could do anything in the direction of the motion, it should be done. With this assurance Mr. ACLAND expressed himself satisfied, and withdrew his motion. Mr. H. SHERRIDAN obtained leave to bring in a Bill to amend the Reform Act of 1867, by restoring the principle of compounding for rates. Mr. CRAWFORD obtained a Select Committee to inquire into the operation of the Poor-law in Scotland, and whether any and what amendments should be made therein. Mr. MLAGAN obtained leave to bring in a Bill to amend the Game Laws of Scotland; and Mr. HADFIELD obtained leave to bring in a Bill to amend the law which regulates the burial of Dissenters. On Wednesday the Bayswater Market and Baths Bill was thrown out without a division. The second reading of the Metropolitan Street Tramways Bill, after a long discussion, was carried by a majority of 209 to 78. Mr. T. HUGHES' Sunday Trading Bill was read a second time and referred to a select committee. Mr. FAWCETT moved the second reading of the Election Expenses Bill, the object of which was to throw the cost of elections upon local rates instead of upon the candidates. Mr. FLOYER moved as an amendment, that the Bill be read a second time that day six months. Mr. AYRTON, on the part of the Government, suggested that, as the whole subject was about to be referred to a Select Committee, the Bill should be read a second time and referred to that committee. Mr. FAWCETT declined to accept any compromise, and after a long debate the Bill was thrown out on a division, by the narrow majority of three, the numbers being 163 to 165. A first reading was given to Bills brought in by Mr. S. CAVE to amend the law relating to Life Assurance Societies; by Lord ELCHO to amend the Scotch Game Laws, and by Mr. BAZLEY to amend the Lands Clauses Consolidation Act in the matter of costs of arbitrations. On Thursday Mr. MOWBRAY gave notice that, on the order for the second reading of the Oxford and Cambridge Universities Tests Bill, he should move as an amendment that the Bill be read a second time that day six months; and Mr. HARDY, on behalf of Mr. DISRAELI, gave notice of a similar amendment to the second reading of the Irish Church Disestablishment Bill. The House went into committee of supply, when the CHANCELLOR of the EXCHEQUER moved a vote of 3,000,000*l.* on further account of the Abyssinian Expedition, and in doing so confessed that the rough accounts received from India did not enable him to answer the questions which might naturally be put respecting the causes of the increased expenditure. Mr. HUNT stated that the late Government had never received from India any information which led them to suppose that their original estimate would be exceeded until August last, when they were informed that it would be 5,000,000*l.*, and after the late Ministry quitted office, a telegram from India stated that it would be 7,000,000*l.* Mr. J. WHITE suggested that a Select Committee should be appointed to inquire who was responsible for the "monstrous calculations" which had deluded the public and the House of Commons. Sir P. O'BRIEN moved to postpone the vote until a Committee had ascertained the causes of the excess. But on Mr. GLADSTONE pointing out that the money had been spent by the Indian Government, and must be repaid, the amendment was withdrawn, and the vote agreed to. Mr. BRUCE moved for a Select Committee to inquire into the present modes of conducting Parliamentary and municipal elections, with the view of providing further guarantees for their tranquillity, purity, and freedom. He contended that the present system, if continued, would lead to a Parliament of rich men only. He adverted in detail to the numerous cases of intimidation and mob law which had prevailed at the recent elections, and said that a deep-rooted conviction had grown up in the public mind that the only remedy for these abuses was secret voting. He owned that recent events had changed his own opinion on the subject of the ballot, and that he was now in favour of an inquiry into the desirability of introducing it. After some observations from Mr. R. TORRENS, Mr. G. HARDY, and Mr. GLADSTONE, the motion was agreed to. Mr. W. FORSTER obtained leave to bring in a Bill to consolidate, amend, and make perpetual the Acts for preventing the introduction and spreading of contagious or infectious diseases among cattle and other animals in Great Britain. Lord R. MONTAGU obtained leave to bring in a Bill for amending the Pharmacy Act of 1868. Yesterday the ATTORNEY-GENERAL gave notice that on Friday he should move an address for a Royal Commission, to inquire into the corrupt practices at Norwich at the last election. Lord

EUSTACE CECIL moved a resolution that the Government should give early attention to the increase of food, drink, and drugs. The House was left empty.

City Intelligence.

OVEREND, GURNEY & Co. DISMISSED.—Mr Edward Watkins, the official assignee of the Court of Bankruptcy, has been dismissed from his office by order of the Chancellor. Commissioner Holroyd announced the fact in Court on Tuesday, and directed the Bankruptcy Act of 1861, under the provisions of which assignees are forbidden to hold any other employment, under pain of dismissal, and in consequence of his "deliberate violation" of this rule in the matter of Overend & Gurney.

MONEY MARKET, FRIDAY.—BRITISH CONSOLS closed at 92½ to 92¾ for Money, and 92½ to 91½ ex div.; Bank Stock, 242 to 244; India Five per Cent. Bills, par to 5s. pm.; India Five per Cent. Bills, 112½.—FOREIGN: Brazilian, 80½ to 81; Ditto Seven per Cent., 75½ to 76½; Egyptian (1864), 80½; Ditto Viceroy's Loan, 78½ to 79; Ditto 75½ to 76½; Italian, 56½ to 56¾; Tobacco Loan (1852), 85½ to 86; Portuguese, 36½ to 37; Peruvian, 80½ to 80¾; Orel-Vitebsk, 81½ to 82½; Spanish, 31½ to 32½; Honduras, 85 to 87; United States 5-20 Bonds (1855), 81 to 81½; Erie, 24½; Hanover,

Metropolis and its Vicinity

ACCIDENT AT BUCKINGHAM PALACE.—During the levee held yesterday by her Majesty at Buckingham Palace, the horse of Mr. Percy Howard, while passing the entrance of the Palace took fright at the sight of the Guards' band, and dashed along the crowded thoroughfare at a furious pace. Mr. Howard was thrown from the saddle, and the horse knocked a woman and child, and so injured them as to necessitate their removal to the hospital. It then ran into the iron railing which encloses the Palace, and knocked down about 10 feet of the massive ironwork.

OXFORD AND CAMBRIDGE BOAT RACE.—It was announced on Saturday that the presidents of the two Universities had fixed the boat race for Wednesday, March 17, at four in the afternoon, as the day when the practice on metropolitan waters will be most improve the crews, but it seems that no other day is practicable.

THE FENIAN PRISONERS.—On Thursday the Mayor of Dublin presided at a conference held at the Charing Cross Hotel between the representatives of the English and Irish committees, which have been established for promoting an amnesty of the Fenian prisoners. It was stated that the Irish petition had been signed by 200,000 persons, and that one was to be presented yesterday at the Leves by Mr. Baines, M.P. for Leeds, bore 7000 or 8000 signatures. After considerable discussion, in which several members of Parliament took part, resolutions were adopted in favour of using all constitutional means to obtain amnesty, and it was agreed to organise a deputation of members of Parliament, mayors, and other public representatives to present English and other petitions to the Prime Minister on the 10th of April.

THE DOUBLE MURDER IN POPLAR.—The body of John William Cooper, the supposed murderer of his wife and her father, was picked up yesterday morning by a waterman, off Shadwell Dock Stairs. It was in a very decomposed condition. He was in the same dress as when he left home on the evening of the murder, and there were no marks of violence.

MURDER AND SUICIDE AT BLACKWALL.—On Wednesday a widow named Browne and her daughter had kept for 20 years a small confectionery shop in High Street, Poplar, were found with their throats cut in such a manner that their deaths must have been instantaneous. A married man, called Bradshaw, had until recently lodged with them, was suspected, and on going to his house in Campbell Row, Blackwall, was also found with his throat cut, and the knife used was found to fit a sheath found beneath the body of Mrs. Browne. It is said that for some time past there has been in the habit of receiving love letters from a young married woman, whose family a few days ago received an anonymous package containing the letters in question. It is conjectured that Mrs. or Miss Browne may have sent the love letters of the married lady to her family, and that Bradshaw may have killed both of them out of revenge.

THE PUBLIC HEALTH.—The weekly returns of the Registrar-General states that in the week that ended on Saturday, Feb. 27, 15,000 births and 3267 deaths were registered in London and in 13 other large towns in the United Kingdom. The annual rate of mortality was 26 per 1000 persons living, being 23 per 1000 in London, 33 in Edinburgh, 29 in Dublin, 21 in Bristol, 21 in Birmingham, 26 in Liverpool, 29 in Manchester, 30 in Salford, 32 in Sheffield, 23 in Bradford, 26 in Leeds, 26 in Hull, 27 in Newcastle-upon-Tyne, 30 in Glasgow. The rate in Vienna was 26 per 1000 during the week ending the 20th ult., and in Berlin 31 per 1000 during the seven days ending the 25th ult. In London the births of 117,000 and 1070 girls, in all 223,000 children, were registered the week. In the corresponding weeks of 1869-70, the average number, corrected for increase of population, was 2306. The deaths registered in London during the week were 1419. It was the 5th week

of the year, and the average number for that week, corrected for increase of population, was 1585. The present return is therefore 166 below the estimated amount.

Provincial.

WELLSBURY.—Early on Sunday morning a woman named Brown was found in a field at this place dead; her person had been violated, and more than a dozen pieces of furniture under had been forced into her body. Her dress showed that she had been engaged in a struggle with the perpetrators of the crime. The body where the body was found is 150 yards from the house. The deceased, who has led a life of intemperance, was seen drunk at 11 o'clock on Saturday night. Her husband is at this moment in Staffordshire. An inquest was opened on Monday, and adjourned for a week. A man called William Hull, a sinker, was arrested on Thursday at Darlaston on suspicion, and a search of the miller found with the body was discovered in his cottage.

Ireland.

THE CASE OF THE HON MISS FRENCH.—On Monday Miss French attended in the Court of Queen's Bench, and expressed her wish to go with her mother. The Lord Chief Justice said she was free to do so, and anybody who interfered with her would be attached for contempt of Court. She drove away with her mother, Lady French, who was waiting for her at the entrance of the Court.

A STATION-MASTER SHOT.—On Wednesday night Mr. Anketell, the station-master at Mullingar, was shot near his own door, he was fired at and desperately wounded. Seven slugs lodged in his chest, and eight entered the wall near him. A bundle of hay, which the assassin used to kneel on to raise himself, was found behind the garden wall. It is supposed that he is a railway policeman whom Mr. Anketell had reported for insubordination. The railway company have offered a reward of 200l. for the discovery of the perpetrator.

Railways.

ACCIDENT ON THE GREAT EASTERN.—On Thursday week a fatal accident occurred in Bethnal Green to a party of workmen employed by Messrs. Lucas, the contractors for effecting some repairs for the Great Eastern Company. While a number of men were at work under one of the arches, a heavily-laden coal-truck passed over it, when the arch gave way and buried them in a mass of bricks, iron, and timber. Fourteen men were dug out alive, but more or less injured; and five others were frightfully mutilated, and quite dead. The accident is attributed to the weakness of the arch by the operations of the men and the neglect of putting in proper supports while the work was going on.

Obituary.

FIELD-MARSHAL VISCOUNT GOUGH, one of the few surviving officers who served under Sir Arthur Wellesley, Sir Ralph Abercromby, and Sir Stapleton Cotton, died on Tuesday morning, at St. Helen's, Booterstown, near Dublin, in his 90th year. He was born at Woodstown, in the county of Limerick, in 1778, and at the age of 13 obtained a commission in a regiment of militia, of which his father was the colonel. He was afterwards transferred to the Line, his first regiment being the 10th Foot, on the disbanding of which he passed to the 8th Highlanders, which he joined in 1795 at the Cape of Good Hope, in time to take part in the capture of that place and of the Dutch fleet in Saldanha Bay. He next served in the 7th Royal Irish Fusiliers, in the West Indies, at the attack on Fort Roco, the capture of Surinam, and in the brigand war in St. Lucia. In 1800, he proceeded to the Peninsula, to join the army under the Duke of Wellington. He took part in the operations before Oporto, the battle of Talavera, where he was severely wounded, in the attack on Barossa, the defence of Larifa, the battles of Vittoria and Nivelles, when he was again severely wounded. For his services on this occasion he was rewarded with the Order of St. Ferdinand, and shortly afterwards received the Order of St. Michael from the King of Spain. For his services at Tarifa and Vittoria, his countrymen, proud of him as an Irishman, presented him with the freedom of the city of Dublin, and with a considerable sum of money. In 1837 he proceeded to India to take the command of the Mysore Division of the army, and in 1840 he was sent to China to command the operations against the rebels. On the conclusion of the Treaty of Nankin, in 1842, the British troops were withdrawn, he was created a Knight and invested with the Grand Cross of the Bath. He received the thanks of both Houses of Parliament and of the East India Company, for his services in China, the Duke of Wellington proposing the vote in the Lords and Lord Derby in the Commons. In 1843, Sir Hugh Gough was appointed to the command of the Forces in India. He arrived in 1843, and having gained the two important victories of Mithanpore and Punia, Lord Ellenborough was enabled to conclude peace under the walls of Gwalior. His next important operations were against the Sikhs in the Punjab, where he was seconded by his gallant Peninsular comrade, who was then the Governor-Generalship—the late Lord Hardinge. The Sikhs had long shown signs of intended mischief, and in 1845 they forced on a rupture with the Indian Government, and crossed the Sutlej in vast numbers. The Governor-General immediately volunteered to serve under his old comrade, and arms Sir Hugh Gough, who accepted the office, and was supported by Lord Hardinge, gave battle to the Sikhs at Moodkee on the 18th of December, and on the 11th at Ferozshah, where he carried by assault the entrenched camp of the enemy, with ammunition, stores, and 70 pieces of cannon. This he followed up by a third and more decisive battle, that of Subram, on the Sutlej, which was speedily followed by the total rout of the Sikhs and a peace dictated on terms before Lahore. The Sikhs having laid down their arms it was hoped for ever, Sir Hugh Gough was created a Peer in 1848, as Baron Gough, of Chinkinfoo in China, and of Matarajpet and the Sutlej in the East Indies, in the peerage of the United Kingdom. But the Sikhs, though subdued for the time, were not conquered. In 1848 the ashes of the Sikh war broke out into flame again, and Lord Gough was forced once more to take the field. With the

dash and energy of a far younger man he went out to meet them, and defeated them a fourth time at Rainnuggur, and again at the sanguinary and indecisive battle of Chillianwallah. His crowning victory was at Gojerat, where the Sikh power was finally and decisively broken, and the fugitives were pursued by Sir Walter Gilbert beyond the Indus, and outmarched as well as defeated, had to lay down their arms. Upon Lord Gough's return to England he was advanced to a Viscountcy, by the title of Viscount Gough of Gojerat, in the Punjab, and of the city of Lincoln, and at the same time he again received the thanks of both Houses of Parliament, together with a pension of 2000 a year for himself and his two next successors in the peerage. The East India Company followed the example of the Imperial Legislature, voting him their thanks and settling on him a corresponding pension, and the City of London conferred on him its freedom. From that date Lord Gough saw no active service; but the nation did not forget him. He was appointed Colonel in Chief of the 6th Rifles in 1854, in the following year he succeeded Lord Raglan as Colonel of the Royal Horse Guards, and in the year 1856 he was sent to the Crimea to represent her Majesty on the occasion of the investiture of Marshal Pelissier and a large number of our own and of the French officers with the insignia of the Bath. In 1857 he was installed a Knight of the Order of St. Patrick, being the first knight who did not hold an Irish peerage. In 1859 he was sworn a Privy Councillor; in 1861 he was nominated a Knight Grand Commander of the Star of India, and was appointed to the honorary colonelcy of the London Irish Rifle Volunteers; and in November, 1862, he received the latest reward of a long life spent in the service of his country, in the shape of a Field-Marshal's baton. He married, in 1809, the daughter of General Stephens, but was left a widower five or six years since. By her he had four daughters (one of them the wife of the present Governor of Malta, Lieut. General Sir Patrick Grant, G.C.B.), and also an only son, the Hon. George Stephens Gough, of Rathronan House, Tipperary, formerly captain in the Grenadier Guards, who was born in 1816, and has been twice married. By his second wife, who was a Miss Arbuthnot, he has a youthful son.

LORD WYNFORD died at his residence in Park Place, St. James's, on Monday. His lordship William Samuel Best, Baron Wynford, of Wynford Eagle, Dorset, in the peerage of the United Kingdom, was the eldest son of Sir William Draper Best, who was elevated to the peerage on his retirement from the office of Chief Justice of the Common Pleas. He was born in 1778, and consequently had just completed his 71st year. He was educated at Eton, and at Brasenose College, Oxford, where he took the degree of Bachelor and Master of Arts, and shortly after was taken to the Bar at the Inner Temple. He sat in the Parliament of 1831-32 as the Conservative M.P. for the borough of St. Michael's, Cornwall, which was disfranchised by the first Reform Bill. He was a magistrate for Dorsetshire, and patron of one living. He married, in 1821, the daughter of Mr. William Thoyta, of St. Hampstead, Berkshire, by whom he had two daughters and five sons. The title and estates devolve on his eldest son, the Hon. William Draper Mortimer Best, a magistrate and deputy-lieutenant for Dorset, and late captain in the Rifle Brigade. He was born in 1826, and married, in 1857, the eldest daughter of Mr. Evan Baillie, of Duchfour, and grand daughter of the fifth Duke of Manchester.

MAJOR CHARLES FREEMAN SANDHAM, R.A., one of the few remaining survivors of the Waterloo officers, died on the 14th ult. at Rowell, Sussex, aged 86. He served in the campaign of 1799 in Holland, being then present at four engagements; afterwards in the expedition to Copenhagen, in 1807, then in Sweden, and afterwards, under Sir John Moore, in the retreat of Corunna. He subsequently served in the expedition to Walcheren, in 1809, in the campaign in Holland, in 1814; in Flanders and France, in 1815, including the battle of Waterloo, in which he commanded a battery of artillery.

DEATH.—On Saturday, February 27th, THOMAS BLOMFIELD FAIRHEAD, of the firm of Fairhead & Son, Borough Market, aged 32 years.

Markets.

COVENT GARDEN.—March 6. The imports have increased largely during the last few days, and now comprise Asparagus, French Beans, Carrots, Artichokes, Green Peas, Lettuces, and Endive. There has also been some Pine from St. Michael's, but not near so good as they were last year. Strawberries are now regularly supplied, and realise 3s. per oz. Flowers chiefly consist of Orchids, Primulas, Cinerarias, Mignonette, Heaths, Cyclamens, Tulips, Crocuses, Snowdrops, Calla aethiopica, Cytisus racemosa, Hyacinths, Lily of the Valley, Deutzias, Pelargoniums, Fuchsias, Violets, and Wallflowers, &c.

FRUIT. Apples, per bushel, 4s to 6s; Grapes, per lb., 8s to 12s; Kent Cobs, per lb., 1s to 1s 6d; Lemons, per 100, 4s to 7s.

VEGETABLES. Artichokes, green, p. doz 4s to 6s; Beans, Kidney, p. 100, 1s to 2s; Beet, per doz., 1s to 2s; Cabbages, per doz., 1s to 2s; Carrots, per bunch, 6d to 10d; Cauliflowers, Cornish, p. doz., 2s to 4s; Celery, p. bunch, 1s 6d to 2s 6d; Cucumbers, each, 1s to 2s; Endive, per doz., 1s 6d to 2s; Garlic and Shallots, per lb., 6d; Herbs, per bunch, 2d to 4d; Horse Radish, p. bunch 3s to 5s; Leeks, per bunch, 2d to 4d.

HAY.—Per Load of 36 Trusses. SMITHFIELD, Thursday, March 4. Best Green Hay ... 115s to 126s; Prime Meadow Hay 107s to 115s; Inferior do. ... 90 100; New do. ... 30 36; Straw ... 30 36.

CUMBERLAND MARKET, Thursday, March 4. Sup. Meadow Hay 110s to 118s; Inferior do. ... 92 98; New do. ... 40 43; Superior Clover ... 120 132.

WHITEHAPPEL, Thursday, March 4. Fine Meadow Hay 108s to 112s; Inferior do. ... 95 100; Prime New Hay ... 30 34; Inferior do. ... 30 34.

COALS.—March 3. Walls End Hetton, 17s; Walls End Hetton Lyons, 14s; Hollywell Main, 15s; Hastings Hartley, 14s 6d; Wylam, 15s; Walls End Harton, 14s; Walls End Haswell, 17s; Walls End Trimdon Thornley, 14s 6d; Brancepeth Cannel, 17s 6d.

METROPOLITAN MEAT MARKET.—March 6. Best Fresh Butter ... 19s. per dozen lb.; Second do. do. ... 16s.; Small Pork, 4s. 8d. to 5s. 4d.; Large Pork, 4s. 0d. to 4s. 6d. per 8 lb.

LEADENHALL AND NEWGATE POULTRY, &c. THURSDAY, March 4. We have no change to make in the prices of last week. Geese ... each 6 0-7 0; Pigeons ... each 1 0-1 4; Tame Rabbits ... 1 4-2 0; Wild Rabbits ... 0 9-1 3; Ducks ... 2 6-3 6; Pheasants ... 2 6-3 3; Ducklings ... 3 6-4 0; Teal ... 1 0-1 6; Wild Ducks ... 2 0-2 9; Snipes ... 3 0-3 6; Partridge Fowls, couple ... 8 0-12 0; Hares ... 1 0-1 9; Do. do. ... 8 0-9 0; Plovers ... 9 0-10 6; Barn-door Fowls, ... 6 0-9 0; English Eggs, p. 100, ... 8 0-8 6; Partridges ... each ... Foreign do. ... 8 0-8 6; Fresh Butter, 1s. 3d. to 1s. 6d. per lb.

HOPS.—BOROUGH MARKET, March 5. Messrs. Pattenden & Smith report an improved demand for foreign of all descriptions, at slightly enhanced prices. The best sorts of English are also in fair request, and rule firm in price.

ENGLISH WOOL. We have a flat market, and prices in some instances are with difficulty sustained. Some of the better grades of half-breds and also good Kent and superior Down fleeces are, however, in small supply, and held at full rates. CURRENT PRICES OF ENGLISH WOOL. per lb.—s. d. s. d. FLEECES.—Southdown hoggets ... 1 4 to 1 5; Half bred ditto ... 1 4 1/2 to 1 5 1/2; Kent Fleeces ... 1 5 to 1 5 1/2; Southdown ewes and wethers ... 1 4 to 1 4; Leicester ditto ... 1 1 to 1 1 1/2; SORTS.—Clothing ... 1 0 to 1 8; Combing ... 1 2 to 1 10.

METROPOLITAN CATTLE MARKET. MONDAY, March 1. We have a few more Beasts than on Monday last; they are in demand, and prices are not lower. The number of Sheep is larger, but is accounted for by the foreign Sheep being allowed to come to the market. The trade is quite as good as of late, in fact, in some instances prices are better. Calves are selling at about late rates. Our foreign supply consists of 1970 Beasts, 6950 Sheep, and 121 Calves, from Scotland there are 258 Beasts; from Ireland, 190; from Norfolk and Suffolk, 1100; and 452 from the Midland and Northern Counties.

Best Scots, Herefords, &c. ... 5 4 to 5 8; Best Shorthorns ... 5 2 to 5 4; 2 1 quality Beasts ... 4 4 to 4 6; Best Downs and Half Breds ... 6 4 to 6 8; Do. Shorn ... 4 0 to 5 4; Beasts, 3970; Sheep and Lambs, 21,730; Calves, 128; Pigs, 140.

THURSDAY, March 4. The number of Beasts is about the same as on Thursday last. The trade is not brisk, but generally Monday's quotations are realised. The supply of Sheep is larger, nearly half of it, however, is from abroad, and these have not lately been allowed into this market; English consignments are smaller than for a long time past. Prices are quite as good as on Monday. Good Calves are still very dear, but inferior are lower. Our foreign supply consists of 614 Beasts, 3810 Sheep, and 124 Calves.

Best Scots, Herefords, &c. ... 5 4 to 5 8; Do. Shorn ... 4 0 to 5 4; Best Shorthorns ... 5 2 to 5 4; 2 1 quality Beasts ... 4 4 to 4 6; Do. Shorn ... 4 0 to 5 4; Best Downs and Half Breds ... 6 4 to 6 8; Calves ... 3 8 to 6 0; Pigs ... 3 4 to 5 4; Beasts, 1010; Sheep and Lambs, 8690; Calves, 180; Pigs, 20.

POTATOS.—SOUTHWARK, Monday, March 1. During the past week the arrivals coastwise, by rail, and from abroad have again been in excess of the demand. Trade sluggish. The following are this day's quotations:—Yorkshire Regents, per ton, 50s. to 90s.; do. Flukes, 60s. to 110s.; Lincolnshire Regents, 60s. to 80s.; Dunbar and East Lothian do., 60s. to 110s.; Perth, Forfar, and Fife do., 60s. to 80s.; do. Rocks, 50s. to 60s.; French and Belgian Whites, 40s. to 60s.

MARK LANE.—Monday, March 1. There was a small supply of English Wheat to this morning's market. Millers showed but little disposition to purchase, and a portion only was disposed of at about the prices of this day's market. There was a fair attendance, but the business done in foreign was quite of a retail character, and the sales effected were in favour of buyers. For malting Barley there was scarcely any inquiry, grinding was unaltered in value. There was no change in Beans or Peas. Oats were a slow sale at a decline of 6d per qr. Flour met with but little attention.

PRICE PER IMPERIAL QUARTER. s. s. s. s. WHEAT, Essex, Kent, Suff. lk. White 52-55 Red ... 47-50; — fine selected runs do. 55-56 Red ... 49-52; — Talavera ... 62-65; — Norfolk ... Red ...; — Foreign ... 43-66; BARLEY, grind. & dist. 37s to 39s. Chey. 46-51 Malting ... 44-49; — Foreign grinding and distilling 25-28 Malting ... 38-43; OATS, Essex and Suffolk ... 25-33 Feed ...; — Scotch and Lincolnshire Potato 30-32 Feed ... 23-29; — Irish ... Potato 30-32 Feed ... 21-26; — Foreign ... Poland and Brew 25-30 Feed ...; RYE MEAL, Foreign ... 40-42 Foreign ...; RYE MEAL, Foreign ... 44-45; BEANS, Mazagan 37s to 41s. Tick 44-45 Harrow ... 44-45; — Pigeon ... 45s to 49s ... Winds ... Longpod ...; — Foreign ... Small 40-45 Egyptian ... 41-44; PEAS, White, Essex, and Kent. Boilers 43-49 Suffolk ... 48-50; — Maple 44s to 48s ... Grey 42-44 Foreign ... 40-44; MAIZE ... 44-47; FLOUR, best marks delivered ... per sack 43-44; — 2d ditto ... ditto 34-44 Country ... 34-44; — Foreign ... per barrel 24-30 Per sack ... 43-46.

FRIDAY, March 4. The weather during the past week has been more wintery than of late; rain and snow have fallen, the temperature has decreased, and we had a couple of days' frost, rather severe in some parts, but since last night it is milder. The grain trade throughout the kingdom has been slow, the failures in the North increasing the general dullness and tending to produce a further reduction of 1s. per qr. in the value of Wheat. We observe no further decline in the quotations of best malting

The Gardeners' Chronicle Newspaper.

SATURDAY, MARCH 13, 1869.

ROMME-LEFORT, or COLD GRAFTING... Preparation, for use in the operation of...

Indestructible Terra-Cotta Plant Markers... AND CO'S PATENT.—Prices, Printed...

CON HURDLES... Medal of the Royal Agricultural Society:...

Blossom—Wall-Fruit Trees... NET, effective and generally approved, will...

ARCHER'S "FRIGI DOMO" —... patronised by Her Majesty the Queen, the Duke of...

The best Shading is "Frigi Domo" Netting... made of prepared Hair and Wool, a perfect non-...

PROTECTION from the COLD WINDS and MORNING FROSTS... "FRIGI DOMO" NETTING, 2 yards wide, 1s. 6d. per yard run...

Notice to the Public... JOHN JOSEPH MECHI, 112, Regent Street, has...

WARDING'S WATERPROOFS for the TROPICS... BUNTING COAT, with LEGGINGS...

WARDING'S DEMI-RIDING BREECHES, 12s. 6d... GUINEA FISHING COAT...

WARDING'S GUINEA STORM COAT... DRIVING COATS...

WARDING'S GIG, BOX, and DOGCART APRONS... WATERPROOF CLOAKS for LADIES...

WARDING'S WATERPROOFS are the best, and... GROUND SHEETS for the Tropics...

WARDING'S GROUND SHEETS for the Tropics... BREAKFAST.—EPPS'S COCOA...

WARDING'S GROUND SHEETS for the Tropics... A Success Unprecedented...

WARDING'S GROUND SHEETS for the Tropics... TEETH and BREATH.—A good set of teeth...

WARDING'S GROUND SHEETS for the Tropics... CUTTING WINDS are now "all the go," and as...

WARDING'S GROUND SHEETS for the Tropics... ELECTRICITY IS LIFE...

WARDING'S GROUND SHEETS for the Tropics... ADJUSTING CURATIVE and ELECTRIC BELT...

WARDING'S GROUND SHEETS for the Tropics... MARCH 13, 1869.

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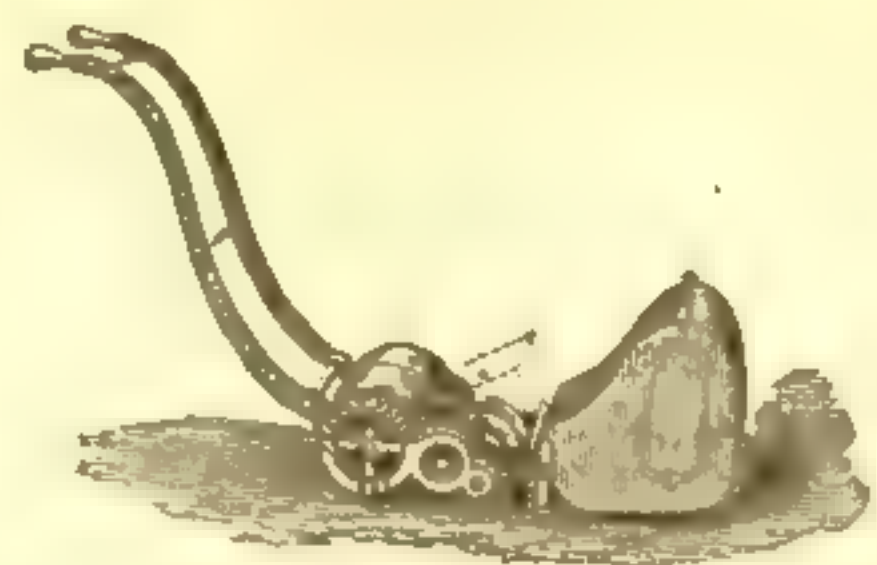
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LAWN MOWERS. GREEN'S PATENT | SHANKS' PATENT BARNARD'S PATENT.

DEANE AND CO., 46, KING WILLIAM STREET, LONDON BRIDGE, E.C.

DEANE & CO.,

46, KING WILLIAM ST., LONDON BRIDGE.

Horticultural Tools, &c.

LAWN MOWING MACHINES, 42s, 50s, 70s, 90s, 140s. GARDEN BARROWS, Wood and Iron, 21s and 26s. GARDEN ENGINES, Galvanised Iron. Prices, 65s, 85s, 75s, 90s, 100s, 110s.

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BRASS AND BELL FOUNDERS TO HER MAJESTY, HYDRAULIC ENGINEERS.



No. 35. 35. WARNERS' PATENT CAST-IRON LIFT PUMPS. 2 1/2 inches diameter £1 8 0



THE PATENT ANNULAR SAIL WIND ENGINE.

These Engines are adapted for Grinding, Chaff Cutting, &c., as well as for Pumping.



No. 42. No. 42. WARNERS' PORTABLE PUMPS, With Improved Valves for Liquid Manure, £2 15s.



No. 547A. WARNERS' GARDEN ENGINE. 28 gallons .. £5 10 0



No. 579 1/2. SWING WATER BARROW. 50 gallons .. £5 12 0

Illustrated and Priced Lists of Garden Engines, Swing Barrows, Syringes, Rubber Boxes, will be sent upon application. Also Estimates for Hydraulic Machinery of every description.

On March 31 will be published, in crown 8vo, price 2s., free by post for 26 stamps,

THE HORTICULTURAL DIRECTORY FOR 1869.

EDITED BY ROBERT HOGG, LL.D., F.L.S.,

Co-Editor of the "Journal of Horticulture and Cottage Gardener," &c.

THE "Horticultural Directory" will be a complete Register of the Addresses of all the most important establishments and persons connected with the gardening interest in the United Kingdom and on the Continent, and will consist of:—

London Seedsmen and Florists Nurserymen, Seedsmen, and Florists residing within the postal districts of the Metropolis. County List of the Nurserymen, Seedsmen, and Florists in England and Wales; ditto, ditto, in Scotland; ditto, ditto, in Ireland; ditto, ditto, in the Channel Islands.

Suitable Advertisements will be received at 40s. for one Page; 25s. one Half; and 15s. for one Quarter of a Page.

As the space is limited, instructions and copy are requested prior to March 24

"JOURNAL OF HORTICULTURE" OFFICE, 171, FLEET STREET, LONDON, E.C.

free trade, but only to propose, as a certain reforms of the customs duties. The Republicans asked the Government by what right the Duke of Montpensier was still Captain-General of the Duchy of Brittany, a title given for family considerations and not for military achievements should be abolished, and that the Duke of Montpensier should be neither Marshal nor King. The Duke, in reply, said that the Duke of Montpensier's position was made by the late dynasty, by which he was banished, and that the Provisional Government did not intend to relieve him of his rank of Marshal. The question, he said, had been raised with the object of eliciting the views of the Government as regards the candidature to the throne. Senor Figueras and Castellar (Republicans) then delivered speeches violently attacking the Duke of Montpensier. Admiral Topete defended the Duke, and said that his Royal Highness at the time of the war in Mexico wished to proceed to Africa, but was not permitted to do so. He added, that if the Duke did not proceed to Cadix on board the frigate Saragossa, at the outbreak of the insurrection in September last, it was because he (Admiral Topete) did not think it a proper course to be pursued. He concluded by stating that of the Republic and the Duke of Montpensier he personally preferred the latter. Marshal Serrano said that the declaration just made by Admiral Topete was his personal opinion; that it was not yet time to discuss the question of the candidature to the throne, and that the Government and the country were bound to respect the supreme decision of the Constituent Cortes. Senor Sagosta brought forward a Bill of Amnesty for Newspaper Offences. In the sitting of Wednesday the Cortes rejected a proposal to abolish the tax, and adopted unanimously Senor Sagosta's Bill of Amnesty for Newspaper Offences, which puts an end to all prosecutions now pending. In the sitting of Thursday, Senor Figuerola brought in a Bill to raise a loan of one thousand million reals in cash, to be issued in bonds of the consolidated external debt.

PORTUGAL.—In accordance with a decree promulgated on Thursday, the Government has taken possession of the South-Eastern Railway and its dependencies, and conceded to the company an indemnity of about 100,000,000, subject to the approval of the Cortes. The British squadron has sailed from Lisbon for a cruise of 30 days on the coast of Portugal.

BERLIN.—Cabinet Councils were held on Wednesday and Thursday, at which the King presided. It is stated that the object of these meetings of the Ministry was to examine the question raised by the railway difficulty between France and Belgium. In the sitting of the Chamber of Representatives on Saturday the Bill for the abolition of imprisonment for debt was adopted by a majority of 101 to 12. An amendment, which was proposed with a view to maintain imprisonment in certain cases, such as the condemnation of newspapers to damages, was rejected by 56 to 43. On Wednesday the Senate adopted by a majority of 32 to 23 the Budget of the Minister of Finance, which they rejected on the 24th ult. The appeal of the Prosecutor-General against Mr. Douillon was rejected by the Court of Cassation on Monday.

HANOVER.—The ex-King of Hanover has addressed a harsh protest to all German Sovereigns against the late adoption by the Prussian Diet for the confiscation of his private property. It is said that the Emperor of Russia has invited the King to pay a visit to St. Petersburg.

PARIS.—The Ministry closed the session of the Chamber of Deputies on Saturday by order of the King. The speech from the Throne read on the occasion said that the Government had acquired the conviction that, in order to maintain the balance between opposite but equally well-founded opinions was to be found the true source of the constitutional development of Parliamentary life. The Minister of Finance thanked the Diet for its approval of the Budget, and promised to bear in mind the necessity of the exercise of economy in order to restore the balance between the revenue and the expenditure. The speech also expressed thanks for the adoption of the Bill relative to the financial arrangements with the city of Frankfurt; and, after mentioning the various measures that had been given to improvements in the administration of justice and the reforms effected in the laws concerning the different provinces of the Empire, it concluded with a promise that next session fresh measures would be submitted to the Diet with a view to the system of education and the communal and district Constitutions. In the sitting of the North German Parliament on Tuesday Herr Simson was re-elected President by a great majority, and Duke Ujest and Herr Von Benningsen were also re-elected Vice-presidents by large majorities.

BARCELONA.—A telegram from Munich states that King Louis II. has been for some days confined to his bed by violent neuralgic pains in the right leg, at the same spot in which he suffered last year from a severe neuralgia.

AUSTRIA.—The Budget Committee of the Lower House has approved the financial law for 1869, by which the expenditure is estimated at 299,026,671 florins, and the revenue at 296,284,176 florins, leaving a deficit of 2,742,495 florins, which is to be covered by the operation of the floating debt. In the sitting of Wednesday the supplementary credit of 2,286,526 florins was agreed to. The House then proceeded to the discussion of the Budget, and passed the estimates for the Court, for the Reichsrath, for the Ministry of the Interior, and for the War Department. In the sitting of Tuesday the House passed the estimates of the Ministry of Public Instruction, of the Ministry of Finance, the State Subvention, and the estimates of the Ministry of Agriculture, and approved the estimates of the revenue from direct taxes, from indirect taxes, from the customs, and from the tax on salt. In the sitting of Wednesday the House agreed to the estimates of the expenditure for

the Ministry of Finance, the Ministry of Commerce, and the Ministry of Agriculture, and adopted the estimates of the revenue of the Ministry of Finance, and the Ministry of Commerce. In the sitting of Thursday the House passed the estimates of the requirements for the Ministry of Justice, the National Debt, and common affairs. The whole budget for 1869 then passed the second and third reading. It is now declared that the Duke de Grammont, the French Ambassador, has abandoned his intended journey to Paris.

HUNGARY.—The elections in Hungary have been attended by violent conflicts among the electors. In a collision at Kiraly-Helmész two persons were killed and 40 wounded. The Government have issued a stringent proclamation on the subject.

CROATIA.—The Emperor and Empress arrived at Agram on Monday evening, and were received with much enthusiasm by the people. The town was brilliantly illuminated. Count Beust also arrived from Vienna. The Empress is expected to take her departure for Pesth to-day.

TRANSYLVANIA.—A Conference has been held at Hermanstadt by the leaders of the Roumanian party, at which it was decided not to take part in the elections to the Hungarian Diet.

ITALY.—In the sitting of the Chamber of Deputies on Saturday a debate took place on the Administrative Reorganisation Bill, in which the Chamber adopted a motion, suspending its decision on Signor Peruzzi's proposal, that Prefects should henceforth no longer preside over the Provincial Councils. Captain Taylor, who has been commissioned by the English Government to examine the various routes for the transport of the Indian mails, arrived at Brindisi last week from Greece, and on Friday went over the line from Ancona to Bologna. He will thence proceed to Venice, returning to England by the Brenner, accompanied by Cavaliere Vighi, inspector of Italian railways, in order to determine the best route for the direct service between Ostend and Brindisi.

PAPAL STATES.—The Pope blessed the Golden Rose on Sunday. The English Catholics residing in Rome have celebrated a triduum at the church of St. George to implore the intercession of that saint for the return of England to the unity of the faith. The Pope has raised the Duke d'Aquaviva to the dignity of "Cameriere segreto di Spada e Cappa," the most distinguished office that can be conferred on a layman in the States of the Church. It is expected that Dr. Manning will receive the Cardinal's hat at the next Consistory. In consequence of the tranquillity which now prevails in the provinces of Campagna and the Maremma, the Minister of the Interior has issued an edict revoking the extraordinary measures against brigandage contained in the edicts of 1865 and 1867. All cases of brigandage will henceforward be tried by the ordinary tribunals, but the penalties remain unaltered. The new edict came into force on the 1st inst.

SERVIA.—The Belgrade Ministerial paper of Tuesday publishes an article contending that the Porte has no right to conclude commercial treaties with other countries the provisions of which are binding on Serbia, or to carry the projected Eastern Railway through Bosnia, thereby cutting off Serbia from the general traffic with foreign countries. They declare that Serbia will not submit to proceedings so vitally prejudicial to her interests.

TURKEY.—Aali Pasha, the Grand Vizier, is organising great changes, originally suggested by the late Fuad Pasha, in the domestic administration of Turkey. The Turkish Ambassador at Paris has received instructions to make arrangements for instituting at Constantinople an academy of music on the French plan.

PERSIA.—The dispute between Turkey and Persia is in a fair way of being settled, an envoy having arrived at Constantinople on an extraordinary mission from the Shah.

EGYPT.—Sir John Lawrence, accompanied by Professor Owen and Mr. Fowler, the engineer, left Alexandria on Friday in the Caradoc, for Brindisi, intending to proceed thence to England by overland route. The Duke of Sutherland left on Saturday by the Italian steamer for Brindisi, on his way to England. The Viceroy is about shortly to visit the works of the Suez Canal.

INDIA.—The Ameer of Afghanistan has arrived at Peshawur on his way to Lahore, where the Lieutenant-Governor of the Punjab, the Hon. D. F. M'Leod, will hold a Durbar. The camp is being formed at Umballa, where the interview between the Viceroy and Shere Ali is expected to be held on the 25th inst. Sir Richard Temple delivered his financial statement to the Legislative Council on Monday. The completed accounts for 1867-68 show a deficit of 1,610,517L.; the regular estimate for 1868-69 shows a deficit of 2,801,244L.; and the budget estimate for 1869-70 exhibits a surplus of 52,650L. It is proposed to levy an income tax of 1 per cent, which it is calculated will produce 900,000L., and to negotiate loans to the amount of 5,000,000L. The customs and salt duties are not changed, and no part of the opium revenue is reserved. The General Post Office at Bombay was totally destroyed by fire on the 2d inst.

AUSTRALIA.—Accounts from Sydney state that a motion of want of confidence in the Ministry has been defeated in Parliament. The preliminary arrangements for convening an Intercolonial Conference for the establishment of a Customs Union were progressing. Accounts from Adelaide state that the Government Land Reform Bill has passed through Parliament. The arrival of the Duke of Edinburgh was daily expected. It was announced that the Queen had requested that the reception given to the Duke should be of a non-official character.

UNITED STATES.—The following is the full text of the inaugural proclamation of General Grant on taking

the oath of office on the 4th inst. as President of the United States. —

"Citizens, — Your suffrages have elected me to the office of President. I have taken the oath prescribed by the Constitution without mental reservation, and with the determination to do, to the best of my ability, all that is required of me. The responsibility of my position, I feel, but I accept it without fear; the office which has been conferred upon me was unsought. On leading questions I will express my views to Congress when I think it advisable. I will interpose my veto to defeat measures to which I am opposed, but all laws will be faithfully executed, whether they meet with my approval or not. I shall have a policy to recommend, but none to enforce against the will of the people. The laws are to govern all those approving as well as those opposing them. I know no method to secure the repeal of obnoxious laws so effectual as the stringent execution of them. Many questions will arise during the next four years, and it is desirable that they should be appreciated calmly and without prejudice, the greatest good of the greatest number being the object to be obtained. This requires security for the person, for property, and for religious and political opinions throughout the country. All laws to secure this end will receive my best efforts towards their enforcement. A great debt has been contracted in securing the Union, the payment of which and a return to a specie basis, as soon as it can be accomplished without detriment to the debtor class or to the country at large, must be provided. To protect the national honour every dollar of the Government indebtedness should be paid in gold, unless otherwise expressly stipulated at the time of being contracted. Let it be understood that there must be no repudiation of a single farthing of the public debt, and it will go far towards strengthening our credit, which ought to be the best in the world, and will ultimately enable us to replace the debt with bonds paying less interest than we now pay. To this should be added the faithful collection of the revenue, strict accountability to the Treasury for every dollar collected, and the greatest practicable retrenchment. Who doubts the feasibility of paying every dollar with more ease than we now pay for useless luxuries? Prostrate commerce must be rebuilt and industry encouraged. The young men of this country have a peculiar interest in maintaining the national honour. A moment's reflection upon our future commanding influence among nations should inspire national pride. How the public debt is to be paid, and how speedy payment is to be resumed, are not so important as that the plan should be adopted. The united determination to do is worth more than divided counsel on the method of doing. Legislation on this subject may not now be necessary, nor even advisable, but will be so when civil law is fully restored throughout the land and trade shall have resumed its wonted channels. It shall be my endeavour to execute the laws in good faith, to collect all the revenues assessed, and to have them properly disbursed. I will, to the best of my ability, appoint only officers who will carry out this design. Regarding foreign policy, I would deal with nations as equitably as the law requires that individuals should deal with each other. I would protect law-abiding citizens, whether of native or foreign birth, whenever their rights are jeopardised and wherever the flag of our country floats. I would respect the rights of all nations, and demand equal respect for our own. If others depart from this rule in dealing with us, we may be compelled to follow the precedent. The proper treatment of the Indians deserves careful consideration. I will favour any course tending to their civilisation, Christianisation, and ultimate citizenship. I hope for and desire the adoption of the Suffrage Amendment to the Constitution. In conclusion, I ask for patient forbearance one towards the other throughout the land, and a determined effort on the part of every citizen to share and cement our happy Union, and I ask for prayers to God on behalf of this happy consummation."

On the following day it was announced that the new Cabinet had been constituted by General Grant as follows, all the members, with the exception of Mr. Washburne, being men new to official life:—Mr. Elihu B. Washburne, of Illinois, Secretary of State; Mr. Adolph E. Bowrie, Philadelphia, Secretary of the Navy; Mr. Alexander T. Stewart, New York, Secretary of the Treasury; Mr. Jacob D. Cox, Ohio, Secretary of the Interior; Mr. John A. J. Cresswell, Maryland, Postmaster-General, and Mr. George E. Hoar, Massachusetts, Attorney-General. General Schofield was retained as Secretary of War. General Sherman was made General-in-Chief, and General Sheridan Lieutenant-General of the United States army. On Monday President Grant requested Congress to repeal the old law prohibiting Treasury officers from engaging in trade, as it disqualified Mr. Stewart from accepting the post of Secretary to the Treasury. Mr. Sumner objected in the Senate to the hasty repeal of the law without deliberation. Mr. Stewart consequently tendered his resignation, which President Grant accepted. On Thursday Mr. Washburne, Secretary of State, and General Schofield, Secretary of War, resigned office. Ex-Governor Hamilton Fish, of New York, has been appointed to succeed Mr. Washburne, and General Rawlins to succeed General Schofield. Mr. Bontwell, of Massachusetts, member of Congress, has been nominated Secretary of the Treasury in the room of Mr. Stewart, and Mr. Washburne has been appointed by the President as Minister to France in the room of General Dix. All these nominations have been confirmed by the Senate. In the sitting of the House of Representatives on Wednesday Mr. Butler reintroduced the Bill repealing the Tenure of Office Act, which was rejected by the Senate, and it was passed by 113 to 16. The Republicans have carried the elections in New Hampshire. General Schenck's Finance Bill, not having been signed by President Johnson before retiring from office, has failed to become a law by reason of Congress having adjourned before the expiration of the 10 days allowed for Executive consideration. The States of Maine, Michigan, Illinois, and Wisconsin, have ratified the negro suffrage amendment.

NEWFOUNDLAND.—The Newfoundland Assembly have passed the address in reply to the Lieutenant-Governor's Speech, affirming union with the dominion of Canada by a majority of 20 to 8. The Legislative Council affirmed the union by an unanimous vote.

CUBA.—Intelligence from Havana announces that a battle has taken place near Puerta Principe, between the Government troops and 4000 insurgents. The latter were defeated, with heavy loss. The Government telegraphed to General Dulce to suspend the execution of insurgents condemned to death.

way to make its position secure would be to... an increase of life subscriptions. The next... would not be so expensive as its predecessors... would be issued this year, for all new rifles... had been converted. Those, therefore, who... the Queen's Prize must use their own... it was impossible at present to determine... should be a review this year or not... was adopted.

INTER REVIEW.—The Commander-in-Chief appointed Major-General Russell, C.B., to command the south-eastern district, to command the divisions at the Dover review on Easter Monday. He has selected the following general officers at Alderbury: Major-General Carey, and Major-General Sir Alfred Peckham. The Secretary of State for War has taken steps to secure proper medical arrangements for the review, by appointing two surgeons to take charge of the hospitals at Castle Hill Fort and at Swinley on the day of the review. The railway authorities have made arrangements for the conveyance of the general public to Dover and back at the rate of 3s. for 1st class, and 1s. 6d. for 2nd class. The London and South-Eastern Railway will be used for Charing Cross, Cannon Street, Victoria, and Blackfriars. The general public will be accommodated with additional trains and excursion tickets.

THE MONCRIEFF BATTERY.—The Moncrieff invention of mounting heavy artillery has been definitively accepted by the Government. Captain Moncrieff is to receive a sum of money sufficient to cover the cost of his models and his preliminary expenses; he will receive payment for the time he has devoted exclusively to the public service (about £1000) at the rate of 1000l. per annum, which rate is to continue as long as Captain Moncrieff is engaged in rendering assistance towards the application and completion of his system; thirdly, he is to receive 1000l. as a reward for the invention, and for the use which may be made of it in her Majesty's service, either afloat or ashore, in any modification or combination. Of this sum of 15,000l., 10,000l. is to be paid at once, and the remaining 5000l. when the inventor has drawn his salary of 1000l. a-year.

THE CLOSING OF WOOLWICH DOCKYARD.—Negotiations are pending between the Government and one of the largest shipbuilding firms on the Thames, with a view to letting to the latter a considerable portion of Woolwich Dockyard for the purpose of building iron ships of a large class. Should the negotiations be successful, much of the apprehended distress consequent on the closing of the Government yard will be averted, and the migration of a large number of workmen and artisans from the town prevented.

THE THAMES EMBANKMENT.—The Council of the Society of Arts have appointed a committee to report on the best way of dealing with the Thames Embankment, so that the opportunity may not be lost of making the site conducive to the embellishment and improvement of the metropolis. A meeting will be held on Tuesday next, when the proposal for extending the new law courts on the Embankment will be discussed.

THE REFORM LEAGUE: RESIGNATION OF MR. BEALES.—A special meeting of the general council and executive committee of the Reform League was held on Monday evening to receive the resignation of Mr. Beales, the president. There was a large attendance. Mr. Beales presided, and stated that the time had come when he could honourably retire from a post which had exposed him to much obloquy, calumny, and misrepresentation. He then contrasted the present state of the political atmosphere with what it would have been if the League had been sustained; an enlarged and improved representation had been gained; the cause was on the eve of being obtained; the majority of the Irish Church establishment was about to be abolished, and justice to Ireland was likely to be secured. He did not mean to claim credit for the League having accomplished all these things, but he had greatly helped in the battle. A vote of thanks to Mr. Beales was carried by acclamation.

THE CHARTERHOUSE.—The ground, which was formerly the Charterhouse Playground, nearly two acres in extent, has been let on building leases, and is now being cleared out, there is every prospect of its being covered with warehouses and shops.

VALUE OF LAND IN THE CITY.—It was stated at a meeting of shareholders, held a few days since, that the value of 71 per foot for a piece of ground in the neighbourhood of Smithfield Market had been refused.

LAMBETH PALACE LIBRARY.—The Archbishop of Canterbury has appointed Archdeacon Hale to be Librarian of Lambeth Palace Library; the Rev. J. R. Green, Vicar of St. Philip's, Stepney, to be Librarian; and has confirmed the late Archbishop's appointment of Mr. S. Wayland Kershaw, of St. John's College, Cambridge, to be Librarian in charge.

LEICESTER SQUARE.—In the Rolls Court on Saturday an attempt was made by Mr. Webb, the owner of a house in Leicester Square, to compel Mr. James Webb and Mr. John Augustus Tulk to restore the square, which has long been a public square, to a proper state of repair, and to maintain it in a neat and ornamental condition as a garden, or pleasure ground, in conformity with certain covenants contained in certain deeds dated respectively in 1497 and 1498. Lord Romilly gave judgment to the effect that a court of equity could not enforce the performance of an agreement to repair. The defendants were therefore nonsuited, but as the defendants were morally bound to keep the interior of the square in a proper state of repair, they were left to pay their costs.

THE WIDENING OF PARK LANE.—At the weekly meeting of the Metropolitan Board of Works on Friday, the Works and Improvements Committee brought up a report, recommending the Board not to accept certain clauses which Mr. Gore, and the Office of Woods, proposed to insert in the Park Lane Improvement Bill, giving compensation to the Crown and its lessees and tenants of the houses and buildings in Hamilton Place, not only for the property which may be taken for widening Park Lane, but also for the diminution in the value of all the houses in consequence of Hamilton Place being converted into a thoroughfare. The report was adopted, and there was a general concurrence among the members that in the interest of the ratepayers, as well as a matter of principle, these offensive clauses should be energetically opposed, and that the Bill should be abandoned if their insertion should be sanctioned by the Select Committee.

LICENSING OF BEERHOUSES.—An influential deputation, headed by Archbishop of York, waited on the Premier and the Home Secretary a few days since to represent the advisability of repealing the Beerhouse Act, and leaving the licensing in the hands of magistrates only. Mr. J. A. Smith, as one of those who supported the passing of the Beerhouse Act of 1830, simply desired to state that in his opinion it had proved an utter failure. He hoped that either the Government, or some private member supported by the Government, would introduce a measure for its repeal. Mr. W. H. Smith, M.P., from his experience as a magistrate, could state that half the cases which came before the petty sessions had their origin in beerhouses, and under the present system the magistrates were practically unable to enforce salutary regulations with reference to the manner in which they were to be conducted. Mr. Gladstone, in reply, said that there was no doubt the present system was totally unsatisfactory; nevertheless the Government could not materially bind or bias the sense of Parliament on the subject. The memorial, however, should have the best attention of the Government.

THE CHARGE OF CORRUPTION AGAINST ADMIRALTY OFFICIALS.—The hearing of the charge against Mr. Gambier, Admiralty clerk, and Mr. Rumble, a Government inspector of machinery, was resumed on Thursday at Bow Street. The Hon. Robert Dundas, Storekeeper-General, Admiral Robinson, one of the Lords, and Mr. Baxter, M.P., Parliamentary Secretary to the Admiralty, gave evidence as to the acceptance of the tender sent in by Mr. Maxwell to show that no influence had been brought to bear upon them. Sir Thomas Henry committed both prisoners for trial, and the solicitor to the Admiralty stated that other charges against the prisoners were under investigation.

PROSECUTION OF THE REV. W. J. E. BENNETT.—Lord Auckland, Bishop of Bath and Wells, has consented, on the report of the Commission issued by the late Bishop of London, to send the case of Mr. Bennett, Vicar of Frome, to the Court of Arches by letters of request, and the matter will come before Sir Robert Phillimore in the course of a few weeks. The complaint against Mr. Bennett will be that he teaches a real, actual, and visible presence of the Lord upon the altar, and that without that doctrine containing and inferring the sacerdotal office of the priest, and the sacrificial character of the altar, there would be no altar at all. The case will also embrace some minor charges. It is said that Dr. Jackson, the new Bishop of London, in reply to representations made to him, has declined to grant, even ministerially, any aid to the prosecution, and that early in Easter Term the Court of Queen's Bench will be applied to for a mandamus to compel his lordship to render to the promoters of the suit the same aid as was granted by the late Bishop of London, the present Archbishop of Canterbury.

THE GREAT CONVENT CASE.—The Tablet states that the expenses of the defendants in this action will amount to 6000l., and if they are not successful in their appeal to the judges in banco they will also be liable for the costs of the plaintiff.

THE FATAL ACCIDENT AT THE LEVEE.—On Tuesday an inquest was held at St. George's Hospital on the body of Esther Gillings, aged 35. The deceased was standing with an infant in her arms, on Friday last, near the railings at Buckingham Palace, watching the arrivals at the Levee. The horse of a gentleman who was riding up the Mall took fright at the music of one of the military bands, and ran away with him. It made a dash at the railings just where deceased happened to be standing, and crushed her so seriously that she died on the way to the hospital. A verdict of Accidental Death was returned.

UNCLAIMED DIVIDENDS AGENCIES.—On Tuesday a man named Hill was committed for trial at the Marlborough Street Police Court on eight charges of obtaining money under the fraudulent pretence of helping the complainants to unclaimed dividends and property in Chancery, to which he said they were entitled. It was stated that since he had been in custody inquiries had been made by which it was discovered that the number of similar charges which might be preferred against him were innumerable.

EXTENSIVE ROBBERY OF JEWELLERY.—A robbery of a most extensive nature was committed on the 2d inst., at the residence of Mrs. Cohen, in Park Lane, jewellery of the value of 5000l. having been carried off by the thieves, who effected an entrance to the premises by climbing over the portico, by which means from 20 to 30 robberies have recently been committed in London and the suburbs. The police have not yet traced the burglars, though a reward of 100l. has been offered for their apprehension.

THE MURDERS AND SUICIDE AT POPLAR.—The inquests on Mrs. Browne and her daughter, who were murdered in High Street, Poplar, and on Bradshaw, their supposed murderer, were held on Saturday. Mrs. Browne, it appeared, was the wife of a Frenchman, from whom she was separated, and against whom she held a magistrate's protection. The evidence taken in the first case was chiefly as to the discovery of the bodies, and of Bradshaw having been seen passing along the street on the evening of the murders. The love letters said to have been addressed to him by a young married woman, and supposed to have been sent to her family by the Brownes, were produced in court in the presence of the young woman whose name they bore; but she denied that she had written them, and said that they were probably written by Bradshaw himself, though her sister-in-law and others stated their belief that they were in her handwriting. In the case of Bradshaw, it appeared from the evidence of Harriet Emberson, who lived with him as a wife under a promise of marriage, that after committing the murder on the Tuesday night he returned to his lodgings at about 1 o'clock on Wednesday morning, and went to bed. Nothing transpired from which she could surmise anything of the dreadful tragedy which had just been enacted. He was very restless, and arose two or three times during the night. The next morning while at breakfast, he complained of illness and left the room. She shortly afterwards heard a groan, and on going into the next room found him dead with his throat cut. Nothing was formally placed before either jury as to the cause of the crime, but it was proved that certain locks which Bradshaw had taken with him when he left his lodgings on Tuesday at Bow were found in the house of Mrs. Browne, the deceased. The knife-sheath found under the body of Mrs. Browne was not, however, identified as his. In the case of Bradshaw the jury returned a verdict of *felony de se*, and in the case of the two women the jury returned a verdict of Wilful Murder against him.

INQUEST ON COOPER, THE SUPPOSED MURDERER.—On Saturday an inquest was held at Shadwell on the body of John Cooper, aged 26, the murderer of his wife and her grandfather, which was discovered floating down the river on Friday. A policeman produced a rent-book which he had found on the body, with Cooper's name in it. The jury returned a verdict of "Found Drowned."

THE PUBLIC HEALTH.—The weekly return of the Registrar-General states that in the week that ended on Saturday, March 6, 4839 births and 3323 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 26 per 1000 persons living, being 24 per 1000 in London, 30 in Edinburgh, 25 in Bristol, 18 in Birmingham, 26 in Liverpool, 30 in Manchester, 23 in Salford, 31 in Sheffield, 27 in Bradford, 27 in Leeds, 23 in Hull, 35 in Newcastle-upon-Tyne, and 38 in Glasgow. The rate in Vienna was 38 per 1000 during the week ending the 27th ult., and in Berlin 30 per 1000 during the seven days ending the 14th inst. In London the births of 1144 boys and 1163 girls, in all 2307 children, were registered in the week. In the corresponding weeks of 10 years, 1859-68, the average number, corrected for increase of population, was 2298. The deaths registered in London during the week were 1487. It was the 9th week of the year, and the average number for that week, corrected for increase of population, was 1511. The present return is therefore 84 below the estimated amount.

Provincial.

AYLESFORD.—It was stated a short time since that "Sir Roger C. D. Tichborne, Bart.," the Australian claimant to the Tichborne title and estates, had either been massacred by Indians, or gone in quest of a gold mine in the interior of South America. His solicitors have replied to this report by stating that he has returned to England, and that the result of the commission is satisfactory. It is said that the action will be tried on the earliest possible day, and that the plaintiff and his friends are anxious to bring it to an issue.

BARNESLEY.—The Queen in Council has granted a charter of incorporation to this town.

BIRMINGHAM.—A meeting of the Trades' Council was held on the 5th inst., in reference to a wish said to have been expressed by Mr. Reverdy Johnson to address the working-men of Birmingham with a view to establish an amicable and friendly relation between them and the working-classes of his own country. It had been suggested by Mr. Field, Chairman of the Chamber of Commerce, that Mr. Johnson should be invited to address the workmen in the Town Hall, but Mr. M. Rae, the secretary of the Trades' Council, remarked that that would involve expense; and another speaker expressed doubts as to whether Mr. Johnson could be said to represent the American people in this matter. Other speakers discouraged the proposal on various grounds, and ultimately it was resolved that the offer should be declined.

CAMBRIDGE.—Mr. Vernon Harcourt, Q.C., M.P. for Oxford, was last week elected the first Professor of International Law in this University on the foundation established by the late Dr. Whewell, Master of Trinity.

DURHAM.—The Theatre Royal in this town was totally destroyed by fire on Thursday morning. It formerly belonged to the Kemble family, and many eminent actors and actresses have appeared on its boards.

LEEDS.—The subscription for the benefit of the widow and children of William Orvis, the kennel huntsman to the York and Amstey Hunt, already amounts to more than 600l. The sum raised for the widows and families of the Warriners, father and son, who were in charge of the boat at the time of the accident, is upwards of 260l.

MAIDSTONE.—On Saturday night the lifeless body of a young man, named Finn, a tailor, was found on the Ashford Road, about half a mile from this town, by

the park wall of Mr. Whatman, M.P. It was first observed by two boys, who went to the paper-mill close by and gave an alarm. When they saw the body a bundle was lying close to it, but on their return with assistance the bundle had disappeared. It is supposed that it was stolen by some other passer-by, who might have taken the deceased for a drunken man. A surgical examination showed that the deceased had been shot through the head. At present the whole affair is wrapped in mystery, and no clue to the murderer has yet been discovered. At the inquest on Tuesday the jury returned a verdict of "Willful Murder against some person or persons unknown."

OLDBURY.—On Wednesday afternoon a dreadful explosion occurred at some naphtha works at Oldbury, near Birmingham. The extracting process was going on, when the retort exploded and set fire to a number of naphtha barrels. Two men were burnt to cinders and four others were so severely injured that two of them have since died. Hopes are entertained that the other two men injured may survive.

PORTSMOUTH.—On the 1st inst. the flag of the Commander-in-Chief was hauled down for good from the main of Lord Nelson's old ship, the *Victory*, which will henceforth be the tender to the flagship. On the same day the flag of Vice-Admiral Sir James Hope, G.C.B., the new Port Admiral, was hoisted with the usual salute at the fore of the screw three-decker *Duke of Wellington*, 3771 tons, 700-horse power, and 49 guns.—The commanding officers of Volunteer corps in Hampshire and the adjoining counties held a meeting at Bishopstoke last week, and resolved that, in consequence of the Easter Monday Review for this year being fixed for Dover, it was advisable, with the sanction of the Lord-Lieutenant, to hold a review at Portsmouth of the Volunteers of Hampshire and the southern counties. It was stated that the military and naval commanders-in-chief at this port had promised to render all the assistance in their power.

RAMSGATE.—Between 8 and 9 o'clock on Friday night Nether Court, the residence of the Rev. G. W. Sicklemore, vicar of St. Lawrence, Thanet, a county and Cinque Ports magistrate, was the scene of a daring robbery. The family were assembled in the drawing-room downstairs, while the bed-room, immediately above, was broken into by thieves and thoroughly ransacked. They were disturbed in their work by Mrs. Sicklemore, who had occasion to go to her bed-room, and found the door locked against her. The thieves at once made off with the plunder they had collected, including 100*l.* in cash, and watches, jewellery, &c., to the value of between 50*l.* and 60*l.* The alarm-bell was rung and the thieves pursued, but not overtaken, and they are still at large. They obtained admission to the house by placing a ladder against the wall and pressing open the bed-room window and shutters. On the same night a cottage in the neighbourhood was robbed of some money and clothes.

ROCHESTER.—Deputations from Rochester and Chatham have recently had an interview with the Secretary of State for War, to represent the necessity for the removal of the powder magazines from Upnor Castle, on the ground that they constitute a great danger to the towns of Chatham, Rochester, Brompton, &c., as well as to the naval and military establishments at Chatham. Mr. Cardwell, in reply, said that the subject was under the consideration of his department, which was in communication with the Admiralty on the subject. The deputation, therefore, might consider that measures would be taken for the removal of the magazines, but he could not give any promise as to the time.

SHEFFIELD.—On Saturday morning, about 1 o'clock, an attempt was made to blow up a non-unionist saw handle maker, named Martin, by throwing a stone bottle containing powder and steel filings into his garret window. The bottle broke the glass, but struck the woodwork of the window and fell back into the street, where it was found by a policeman. Had the bottle got into the room, and the contents exploded, the man against whom the attempt was made would not have been hurt, as he slept in another room, but the persons injured would have been an old woman, who is an invalid, and two little children. A man bearing the same name, Martin, has been apprehended on suspicion and remanded.

Ireland.

THE POLITICAL PRISONERS.—At the Queen's Levée at Buckingham Palace, on Friday, addresses and petitions praying for the release of the Irish political prisoners, were presented by the Lord Mayor of Dublin, Sir John Gray, M.P.; Alderman Devitt, J.P.; and Mr. John S. Carroll, from the citizens of Dublin; by Mr. Maguire, M.P., from the Town Commissioners of Queenstown; by Mr. McCarthy Downing, M.P., from the Town Commissioners of Skibbereen; by Mr. Henry Matthews, M.P., from the Town Commissioners of Dungarvan, and from the Town Commissioners of Roscommon; by Mr. Blake, M.P., from the Town Commissioners of New Ross, and from the inhabitants of Tramore, County Waterford; by Mr. John Brady, M.P., from the Town and Council of Thurles; by The O'Donoghue, M.P., from the Guardians of the Poor of the Listowel Union, in the county of Kerry; by Mr. Charles Moore, M.P., from the Town Commissioners of Templemore; by Mr. Serjeant Simon, M.P., from 2030 inhabitants of Dewsbury, Batley, and Birstal, in the county of York; and by Mr. Edward Baines, M.P., from 7768 inhabitants of Leeds.

RELEASE OF FENIAN PRISONERS.—Augustine E. Costello, one of the Fenian convicts who was sentenced to penal servitude, has been released unconditionally from Mountjoy Prison. He was one of those engaged in the Jacknall Expedition, and his youth and earnestness excited sympathy for him at his trial. The following Fenian convicts have since been set free

from Woking, Millbank, and Portland prisons:—Charles J. Kickham, who had been sentenced to 14 years' imprisonment; J. J. O'Connor, John Halligan, late publisher and printer of the *Irish People*, sentenced to seven years' penal servitude; Terence Byrne, Dublin, first arrested on the charge of illegal drilling, and acquitted, but subsequently tried for having arms and making bullets, and sentenced to seven years' penal servitude; Edward Butler, Dublin; Michael O'Regan, Cork, sentenced to seven years' penal servitude; John Coghlan, Cork, five years' penal servitude; James O'Brien, Cork, tried for high treason, and sentenced to death, which was commuted to transportation for life; William O'Sullivan, Kilmallock, sentenced to five years' penal servitude; Patrick Barry, Cork, sentenced to 10 years' penal servitude. A committee has been formed to welcome the "patriots" back to Ireland, and subscription lists and cards have been issued to every Roman Catholic church in Ireland for St. Patrick's day and the following Sunday, to raise a "national fund" for the released prisoners.

THE ASSASSINATION OF THE MULLINGAR STATION-MASTER.—Mr. Anketell, the unfortunate station-master at Mullingar, who was shot at his own door by, it is supposed, a paid assassin employed by the Ribbon Association, died on Saturday after great suffering. On examination it was found that the ball (one of 75 to the pound), had penetrated the chest, driving before it the top vest button, and lodged in the lung. Some slugs were found in the kitchen wall. It is believed that the assassin used a blunderbuss of large calibre, which he rested on the garden gate, in order to take steady aim. The outrage was most deliberately perpetrated, straw having been strewn upon the path of the retreating assassin, so that his footsteps might not be traced. The jury at the inquest returned a verdict of Willful Murder against some persons unknown. The outrage has produced the utmost uneasiness in the neighbourhood, especially as it has been followed by the intelligence that Mr. Anketell had for some time been "a marked man," and that his dismissing a railway official had been referred to from the altar of a Roman Catholic chapel in such terms as induced two most respectable Roman Catholics to go to him and disavow all sympathy with what had been said. It appears also that two new porters who had arrived to take the place of the two who had been discharged by the deceased, had been warned that they were not wanted there, and that they had better take warning by the fate of the master. The men have since returned to Dublin, being unwilling to remain in Mullingar at the peril of their lives. The assassination of Mr. Anketell is considered the most daring crime committed in Ireland for many years. Lord Chief Justice Whiteside alluded to it in charging the grand jury at the King's County assizes, and called on the resident proprietary to aid the paid officials more earnestly in the effort to detect crime, and render the perpetrators amenable. His lordship said that a gross form of despotism existed—the threats of murderous outrage against persons of the farmer class, who either hold, or may intend to take land, which "anonymous villains" covet. The criminal, he added, was never more daring in Ireland than now; and a return moved for in Parliament, enabling a comparison to be made between detected and undetected crime, would be an interesting document.

ANOTHER OUTRAGE IN WESTMEATH.—A correspondent of the *Evening Mail* states that a Roman Catholic, who had up to his death refused to remove his children from a Protestant school, was buried on Sunday at Drumcree, Westmeath; and that on Wednesday night his coffin was taken out of the grave and left exposed.

ATTEMPT TO BLOW UP A HOUSE AT RAPHOE.—The *Derry papers* report an attempt to blow up a house near Raphoe. A tenant had been dispossessed, and the new-comer having received warning that he would be visited with serious consequences if he entered into possession, he obtained the protection of a body of police. A few nights ago they were alarmed by a tremendous explosion, and on going out to ascertain the cause found that a barrel of gunpowder had been placed near the house, and fired by means of a fuse. Fortunately no one was injured.

OUTRAGE IN TIPPERARY.—A daring attack was made a few days since at Derravalla, the residence of Mr. Kernan, in the Killensule and Ballynonty police district. Twenty men, with their faces blackened, attacked Mr. Kernan's house, and carried off a double-barrelled fowling-piece, a pistol, and 10*l.* in money. Before leaving, one of the men struck a young lady staying in the house in the face and injured her severely.

AGRARIAN OUTRAGE IN LIMERICK.—Mr. Goggin, an owner of property at Glin, near Tarbart, was fired at a few days since whilst driving home with his wife and children in an open carriage. Four shots were discharged from behind a fence, and all missed. Mrs. Goggin described the intending assassin, whom she saw running off. Pending ejection proceedings are stated as the probable cause.

THE BALLYCOHY OUTRAGE.—The Government have offered a reward of 500*l.* for such information as shall lead to the arrest of the person or persons who fired the fatal shots at Ballycohy, and a further reward of 300*l.* for such private information as shall lead to the arrest of any of the perpetrators of the outrage.

THE ESMONDE WILL CASE.—The great cause of *Browne v. Esmonde* is to be tried again, the will being now impugned by Sir John Esmonde, Bart., M.P., and Mr. James Esmonde, executors of the late baronet.

Scotland.

SECESSION FROM THE FREE CHURCH.—The Rev. J. B. Dickson, LL.D., formerly of the Free High Church, Paisley, has joined the Church of England.
IMPORTANT POST-OFFICE PROSECUTION.—Mr.

Edmund Beatty Lockyer, one of the candidates for a recent election for the Wick Burgh, was tried at Edinburgh, on the charge of intercepting and opening letters addressed to Miss Sinclair of Dalrymple. George Wilkie Holmes, a letter-carrier, included in the same indictment. It was proved that Lockyer forced his attentions on Miss Sinclair against her wishes, and bribed the postman to let him read various letters addressed to her. The letters were then re-gummed, and this system went on for a considerable time before it was discovered. The transaction was of considerable interest, and occupied the Court for several days in the morning till about 1 o'clock the next day. The jury retired shortly before midnight, and returned after an absence of three-quarters of an hour with a verdict finding both prisoners guilty, but recommending Holmes to the leniency of the Court. The Lord Justice Clerk sentenced Holmes to nine and Lockyer to twelve months' imprisonment.

Railways.

ACCIDENT ON THE LANCASHIRE AND YORKSHIRE.—A serious accident occurred late on Saturday a mail train on this line, at Todmorden. The engines were undergoing repair, and the temporary arrangements gave way as the train passed, by which several carriages were thrown off the line. No one was hurt, but several passengers were hurt.

PASSENGER TRAIN SIGNALS.—The President of the Board of Trade has determined to sanction a system for passenger train signals agreed upon by the managers at their York meeting, giving to all lines as have electric or other signals in use the right of continuing them.

Law.

NORTHERN CIRCUIT, DURHAM: *The Sunderland Free Press* reports that John Dolan, aged 37, was indicted for the wilful murder of Hugh John Ward, at Sunderland, on the 4th inst. Two men lodged at the house of a woman named Evans on the night in question the prisoner, who was drunk, abused the woman, with whom he had lived for years. Ward interfered on her behalf, with the view of protecting her from the prisoner's attack. The prisoner was in, and it was supposed the matter was at an end; afterwards the prisoner fetched a cobbler's knife from a room, and stabbed Ward in the bowels and in the leg. He was found guilty, whereupon he declared his intention to be freely forgiven those who had sworn his life away. Justice Lush passed sentence of Death in the usual manner.
Darlington Murder.—John McColville was charged with the wilful murder of Philip Trainer, at Darlington, on the 1st of January. Deceased and some others had been drinking at a public-house on the night in question, and there took place a fight between him and another man. A man named Quinn had some conversation with the prisoner, and the latter afterwards collected in the street, when the prisoner put his hand to his breast and fell. The man carried into the public house, when it was discovered he was dead, having been shot through the head. The prisoner was found guilty, and the Judge sentenced him to receive 18 lashes in addition to the term of imprisonment.
NEWCASTLE ROBBERY.—James and John, 34, Thomas Charlton, 24, and William Fatake, 24, were found guilty of assaulting and robbing a man of a sum of 15*l.* 10*s.* the monies of the River Tyne Prisoners. Mr. Justice Brett sentenced Ralph Charlton to five years, and the other two to five years' penal servitude to receive 18 lashes in addition.

MIDLAND CIRCUIT, WARWICK: *The Reporter* reports that a man named Carter was indicted for the wilful murder of a man named Carter, who was killed by a Western train, which had stopped near the station. The collection of tickets, thrown overboard, was found to have jumped out again with a number of cash notes. The prisoner was a ballast train signalman, and was charged with the collection of the money and the murder of the man. The guard was so blinded by the creature that he refused by the sudden and unexpected character of the attack that the prisoner effected his retreat with a bag containing a sum of money, and would probably have escaped but that he dropped the can which had contained the creature, being a breakfast can, and marked with the name of the prisoner. He was found guilty, and sentenced to ten years' penal servitude.
Atherstone.—Michael Atkins, 22, miner, was indicted for the wilful murder of his wife, Harriett Atkins, his wife, at Badlesley Estate, Atherstone, on the 1st of December, by shooting her with a gun. The prisoner and his wife had been married about three years, and lived happily together. On the night in question the prisoner had been drinking, and soon after he received a report of a gun was heard, and the wife was found on the floor in a pool of blood, having been shot in the mouth and left ear. The prisoner denied that he had fired the gun, and stated there was a man with him at the time the gun was fired, and that he met two others who carried him to his house, and they found the prisoner with a blasting powder was found in his pocket, such as is used as a miner, but no shot or caps. It was proved, however, that the prisoner and his wife had been living together, and that he took his wife to a public-house on the night in question, and endeavoured to buy a dog as a present for her. The jury, after deliberating for some time, returned a verdict of Guilty. Mr. Justice Brett passed sentence of Death in the usual way, but recommended mercy. On learning the sentence the prisoner was taken to the dock, and was carried out of Court by a man named by a *Father*.—Richard Cooper, an engraver, was indicted for attempting to strangle Richard Cooper, his son, on the 9th of February last. It was proved that the prisoner, who was in the first instance charged the boy, who was six years of age, with having stolen a watch, but had not the heart to kill him, and had only intended to prevent him from going to his neighbour what he had done. The jury found the prisoner guilty, and sentenced him to five years' penal servitude to receive 18 lashes in addition.
CENTRAL CRIMINAL COURT.—Mr. John Spong, a respectable maltster in Kent, was charged with the December sessions of forging a will, was brought

The case was a very peculiar one and that the prisoner had acted with the best intentions in the office charged against him. The Court said that it was a case of a man who had been a friend of the family. The Court said that it was a case of a man who had been a friend of the family. The Court said that it was a case of a man who had been a friend of the family.

Obituary.

Mr. Richard Davison, formerly M.P. for Belfast, died at Cultra, near that city, a few days since, in his 73d year. In 1852 he was selected by the Conservative party to become one of their representatives in Parliament, and was returned at the head of the poll in conjunction with Lord Cairns. Unlike his colleagues, however, Mr. Davison had no special aptitude for senatorial pursuits, but he was a second time elected in 1857. In 1860 he retired from public life. He had a considerable literary and scientific taste, and was especially fond of conchology—a department of natural history of which he possessed a valuable collection.

WILLS.—The will of Lady Elizabeth Hope-Vere has been sworn under 12,000l. personally. Admiral Sir Lucius Curtis, K.C.B., a friend of the testatrix, Sir Henry Ellis, K.B., F.R.S., late Principal of the British Museum, 25,000l.

DEATH.—On the 7th March, at his residence, 22, Alfred Place, Bedford Square, R. BEST HENDERSON, Esq., of the firm of Beek, Henderson & Co., Seed Merchants, 221 and 222, Upper Thames Street, London, aged 74 years.

Markets.

CONVENT GARDEN.—March 13.
The supply, both foreign and home grown, continues ample; neither have we any fresh remarks to make with regard to the amount of business transacted. Oranges are plentiful. Strawberries are now regularly supplied, and realize 3s. per oz. Flowers chiefly consist of Orchids, Primulas, Cinerarias, Mignonettes, Heaths, Cyclamens, Tulips, Crocuses, Snowdrops, Calla arthropica, Callis racemosa, Hyacinths, Lily of the valley, Delphinium, Passiflora, Fuchsias, Violets, Wallflowers, Roses, and Hotch Potatoes.

FRUIT.
Apples, per bushel, 4s to 5s
Grapes, per lb., 8s to 12s
Kent Cobs, per lb., 1s to 1s 6d
Lemons, per 100, 4s to 7s
Melons, each, 2s to 4s
Pears, per doz., 4s to 12s
Pine apples, per lb., 6s to 10s
Oranges, per 100, 2s to 7s

VEGETABLES.
Artichokes, green, p. doz, 4s to 6s
Beans, Kidney, p. 100, 2s to 3s
Beet, per doz., 1s to 2s
Cabbages, per doz., 1s to 2s
Carrots, per bunch, 6d to 10d
Cauliflowers, Cornish, p. doz., 2s to 4s
Celery, p. bund., 1s 6d to 2s 6d
Cucumbers, each, 1s to 2s
Endive, per doz., 1s 6d to 2s
Garlic and Shallots, per lb., 8d
Herbs, per bunch, 2d to 4d
Horse Radish, p. bund. 3s to 5s
Lettuces, p. score, 1s to 2s 6d
— French Cos, 8d to 10d each
Leeks, per bunch, 2d to 4d
Mint, per bunch, 6d to 1s
Mushrooms, p. pott., 1s to 1s 3d
Onions, per bushel, 5s to 12s
Parsley, per bunch, 4d to 6d
Peas, green, p. pun., 2s to 2s 6d
Potatoes, York Regents, p. ton, 12s to 15s
— Flukes, do., 12s to 16s
— new, 1s 6d to 2s 6d p. lb.
Saskale, p. pun., 2s to 3s
Spinach, per bushel, 2s to 3s
Raddishes, p. doz., 1s to 1s 6d
Turnips, p. bunch, 6d to 8d

HAY.—Per Load of 36 Trusses.
SMITHFIELD, Thursday, March 11.
Best Green Hay 110 to 125
Prime Meadow Hay 100 to 120
Inferior do. 80 90
New do. 90 100
Straw 30 35
CHARLES JAMES EASTON.

CHAMBERLAIN MARKET, Thursday, March 11.
Sup. Meadow Hay 112 to 115
Inferior do. 85 105
New do. 90 100
Superior Clover 128 132
JOSHUA BAKER.

WHITEHALL, Thursday, March 11.
Fine Meadow Hay 108s to 116s
Inferior do. 80 105
Prime New Hay 90 100
Inferior do. 70 80
Straw 30 34

COALS.—March 10.
Hastings Hartley, 15s.; Hillwell Main, 15s.; Eden Main, 14s. 6d.; West Hartley, 15s.; Walls End Eliot, 16s.; Walls End Haswell, 15s. 3d.; Walls End Hetton, 17s. 3d.; Walls End Hawthorn, 13s. 9d.; Walls End Tanstall, 14s.; Walls End Hartlepool, 16s.; Walls End Kelloe, 15s.; Walls End South Hartlepool, 14s. 6d.; Walls End Tees, 17s.; Walls End Thimblethorpe, 15s. 6d.; Brancepeth Cannel, 18s. 3d. —Ships at market, 38; sold 26.

METROPOLITAN MEAT MARKET.—March 13.
Best Fresh Butter .. 18s. per dozen lb.
Second do. do. .. 16s.
Small Pork, 4s. 8d. to 5s. 4d.; Large Pork, 4s. 0d. to 4s. 8d. per 9 lb.

LEADENHALL AND NEWGATE POULTRY, &c.
THURSDAY, March 11.
a. d. a. d.
Geese .. each .. 8 0—9 0
Pigeons .. each 1 0—1 3
Goslings 7 0—12 0
Tame Rabbits .. 1 4—1 9
Turkeys 3 0—3 6
Wild Rabbits .. 0 9—1 0
Ducks 5 6—7 0
Pheasants 2 6—3 3
Ducklings 2 6—3 0
Snipes 1 0—1 6
Wild Ducks 9 0—12 0
Hares 2 6—3 6
Surrey Fowls, couple 7 0—10 0
Plovers 1 0—1 6
Do. chickens .. 7 0—10 0
English Eggs, p. 100, 8 0—9 0
Barn door Fowls, .. 7 0—10 0
Foreign do 7 0—8 0
Partridges .. each
Foreign do 7 0—8 0
Fresh Butter, 1s. 2d. to 1s. 4d. per lb.

HOPS.—BOROUGH MARKET, March 12.
Messrs. Pattenden & Smith report no alteration in the market during the week, the demand being steady, and prices firm.

METROPOLITAN CATTLE MARKET.
MONDAY, March 8.
We have a shorter supply of Beasts, and consequently last week's quotations are fully maintained, although trade is not brisk. There are a few more Sheep, but the increase is in foreign consignments; the demand continues very good, and prices are still very high. Choice Calves are scarce and dearer. Our foreign supply consists of 1740 Beasts, 9270 Sheep, and 80 Calves; from Scotland there are 150 Beasts; from Ireland, 70; from Norfolk and Suffolk, 1000; and 460 from the Midland and Home Counties.

THURSDAY, March 11.
We have a large supply of foreign Beasts, but choice English are not very plentiful; there is scarcely any alteration in

prices of the latter, but the former are rather lower. Sheep are rather more plentiful, and trade is dull, with a little reduction in price. Calves are rather lower. Our foreign supply consists of 760 Beasts, 4230 Sheep, and 119 Calves.

Best Scots, Here- fords, &c.	5 4 to 5 6	Best Long wools	6 0 to 6 4
Best Shorthorns	5 2—5 4	Do. Shorn	—
2d quality Beasts	3 4—4 6	Wessex & quality	5 0—5 4
Best Down and Half breeds	6 6—6 8	Do Shorn	—
Do Shorn	—	Lambs	—
		Calves	3 8—6 0
		Pigs	3 4—5 4

Beasts, 1220; Sheep and Lambs, 9270; Calves, 175; Pigs, 20.

POTATOES.—SOUTHWARK, Monday, March 8.
During the past week the arrivals coastwise and from abroad have been rather lighter, but still more than equal to the demand. The following are this day's quotations—York Regents, per ton, 50s. to 90s.; do. Flukes, 60s. to 110s.; Lincolnshire Regents, 60s. to 80s.; Dunbar and East Lothian do., 60s. to 110s.; Perth, Forfar, and Fife do., 60s. to 80s.; do. Rocks, 50s. to 60s.; French and Belgian Whites, 40s. to 60s.

MARK LANE.—MONDAY, March 8.
Although the supply of English Wheat to this morning's market was very small, millers showed no disposition to make purchases, and it remained unsold at a late hour. There was a fair attendance, and scarcely any business transacted in foreign Wheat, the few sales made were at a reduction of fully 1s per qr. since this day a fortnight. Maiting Barley was unchanged in value, but grinding was 6d to 1s. per qr. cheaper. Beans and Peas remain as last noted. To effect sales of Oats it was necessary to submit to a reduction of 6d to 1s. per qr. Flour was very difficult of sale, even at a slight reduction.

PRICE PER IMPERIAL QUARTER	s.	d.	s.	d.
WHEAT, Essex, Kent, Suffolk, &c.	49	—	Red	47—50
— fine selected runs, do.	50	—	Red	49—52
— Talavera	54	—	Red	—
— Norfolk	—	—	Red	—
— Foreign	43	—	Red	—
BARLEY, grind. & dist. 37 to 38s.	46	—	Maiting	44—46
— Foreign, grinding and distilling	23	—	Maiting	36—43
OATS, Essex and Suffolk	—	—	Feed	—
— Scotch and Lincolnshire	25	—	Feed	—
— Irish	—	—	Feed	22—28
— Foreign	25	—	Feed	21—26
RYE	—	—	Foreign	—
RYE MEAL, Foreign	—	—	Foreign	—
BEANS, Mazagan	37 to 41s.	—	Harrow	44—45
— Pigeon	45s. to 49s.	—	Longpod	—
— Foreign	—	—	Small	40—46
PEAS, White, Essex, and Kent	43	—	Suffolk	41—44
— Maple	44s. to 48s.	—	Foreign	40—43
MAIZE	—	—	Foreign	31—33
Flour, best marks delivered	—	—	per sack	43—47
— 3d ditto	—	—	ditto	34—44
— Foreign	—	—	per sack	45—56

FRIDAY, March 12.
In spite of the more seasonable weather, which should cause a larger consumption of breadstuffs, we have to report a very slow trade throughout the markets of the kingdom. The anticipation of still lower prices for Wheat (owing to the approach of the Baltic shipments on the coast) of Great Britain, and the arrivals from the United States, California, and the South of Europe in the chief ports of the west coast, has caused a further accumulation of about 2s per qr. for Wheat, with but few transactions. Spring corn of all descriptions has continued neglected, and prices are 1s to 2s per qr. lower for all articles, while stocks have accumulated largely in granary. Flour has been pressed at a reduction of 1s. to 2s. per barrel and sack, and very little business transpired. The arrivals of grain and seed-laden vessels off the coast this week consisted of 11 cargoes, of which, with those left over from last week, there remained for sale last night 19 cargoes. The floating trade has ruled very inactive, and prices of arrived Wheat declined nearly 2s per qr. Maize was about 1s, and Barley and Beans from 1s to 1s 6d per qr. cheaper, the decline not having had any activity in business. There is no inclination to operate for foreign delivery. Paris, March 11.—The trade in Wheat and Flour was very inactive during the last week, and prices were lower for both articles. The six marks are quoted at equal to 34s. per 280 lb.

The arrivals of all descriptions of grain during the week have been moderate. There was a poor attendance at this morning's market, and millers showed very little disposition to purchase Wheat. Some few sales of English were effected at a decline of 2s per qr. upon Monday's quotations, and to have made sales factors would have accepted a reduction of 1s per qr. on foreign, but scarcely any business was transacted. Barley was unchanged in value. Oats were cheaper.

ARRIVALS THIS WEEK.

	Wheat.	Barley.	Oats.	Flour.
English	680 qrs.	540 qrs.	10 qrs.	— sks.
Irish	—	—	350 "	—
Foreign	13,410 "	7220 "	22,750 "	{ 1680 "
	14,090	7760	23,110	{ 2180 bbls.

LIVERPOOL, Tuesday, March 9.—There was a very good attendance at to-day's market, but Wheat met with an extremely limited inquiry, at prices which, though merely nominal, may be quoted 6d. per cental lower than on this day week. Flour dull, and rather cheaper. Indian Corn in limited request, and 6d. per qr. lower than on Tuesday last. Peas quiet, and 1s. lower. Other articles nominally unchanged.

AVERAGES.

	Wheat.	Barley.	Oats.
Jan. 23 ..	52s 4d	49s 7d	26s 6d
— 30 ..	51 5	49 7	27 6
Feb. 13 ..	50 9	47 9	28 1
— 20 ..	50 3	47 0	27 4
— 27 ..	49 7	46 2	28 6
March 6 ..	49 4	46 0	28 2
Average ..	50 7	47 8	27 6

SEED MARKET.
The agricultural seed trade exhibits increased animation, and a fair amount of business has been transacted during the last few days. Values of all descriptions continue very firm. New English Red is exceedingly scarce, and fine qualities command extreme rates. Higher prices for Clover seed are reported from Germany; as that country is now our sole source of supply, if the upward tendency continue we must shortly experience a corresponding advance here. Some heavy orders for yearling American seed have within the last few days been telegraphed to this market from New York; the shipment to America of some hundreds of tons of this class of seed must, it is thought, have a hardening effect upon currencies here. Alsike and White Clover seed are

Mr. G. A. W. died on Wednesday night at his residence, 11, St. James's Place, London, at the age of 74 years. He was the eldest son of the late Sir John Lubbock, 1st Baronet, and was educated at Eton and at the University of Cambridge. He was a member of the House of Commons from 1852 to 1859, and was Secretary of the Treasury from 1859 to 1861. He was also a member of the Privy Council, and was created a Knight of the Garter in 1861. He died on the 21st inst., at Aberdeen, from a cerebral hemorrhage which he had a few days before. He was in his 74th year, and was well known both in London and Aberdeen.

Mr. Arthur Gordon, C.C.B., K.C.H., died on the 21st inst., at Aberdeen, from a cerebral hemorrhage which he had a few days before. He was in his 74th year, and was well known both in London and Aberdeen. He was the third son of the late Viscount Bunsford, and was educated at Eton and at the University of Cambridge. He was a member of the House of Commons from 1852 to 1859, and was Secretary of the Treasury from 1859 to 1861. He was also a member of the Privy Council, and was created a Knight of the Garter in 1861. He died on the 21st inst., at Aberdeen, from a cerebral hemorrhage which he had a few days before. He was in his 74th year, and was well known both in London and Aberdeen.

Mr. William Emerson, of Belfast, died on the 21st inst., at Aberdeen, from a cerebral hemorrhage which he had a few days before. He was in his 74th year, and was well known both in London and Aberdeen. He was the third son of the late Viscount Bunsford, and was educated at Eton and at the University of Cambridge. He was a member of the House of Commons from 1852 to 1859, and was Secretary of the Treasury from 1859 to 1861. He was also a member of the Privy Council, and was created a Knight of the Garter in 1861. He died on the 21st inst., at Aberdeen, from a cerebral hemorrhage which he had a few days before. He was in his 74th year, and was well known both in London and Aberdeen.

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without alteration. Trefoil seed meets with a little more inquiry, the unusually low prices at which it can now be bought having apparently attracted the attention of speculators. A good business is being done in French Italian Rye-grass; the crop in France is this season only the third of an average one. In Mustard seed the late advance is fully maintained. Sowing Rape seed is very firm. We have a ready sale for spring Turps. Hemp seed is a little dearer. Canary seed sells slowly at the late decline. English Flax seed is in good request. Imported Sainfoin seed moves off at last week's quotations. JOHN SHAW & SONS, 16, Water Lane

To Agricultural Seed Agents, &c.

A DUTCH FIRM, at Haarlem, requires a REPRESENTATIVE in this country to Sell Garden Seeds, Beans, &c. A knowledge of the German and French Languages would be a recommendation. He must also be willing to Travel in England, Scotland, and Ireland.—Address, with full details, to B. & Co., care of Mr. Joseph Harris, 67, Lower Thames Street, London, E.C.

Foreman of Jobbers and Outdoor Department.

WANTED, an energetic active MAN to Superintend and Manage 20 to 30 Men, Wait upon Customers, Design and Draw Plans of Gardens, accompanied with a good practical knowledge of Plants suitable for London Gardens; honest, sober, with good address, used to Ground Work, and Writing a good hand.—Apply to Mr. HARDING, 29, Maddox Street, Regent Street.

WANTED, an intelligent, middle-aged Man, to OVER-LOOK an ESTATE and GARDENS. Must write a good hand and be able to keep Accounts. To a competent person liberal wages will be given.—Address, with full particulars as to wages, last situation, &c., to D. W. M. G. Frost, Nurseryman, Bampton, Devon.

WANTED, a GARDENER (SINGLE-HANDED), married, steady, active, industrious.—Kitchen, Fruit, and Flower Garden. No glass, except a Melon Pit. A good cottage, with vegetable and wood firing found. Forty miles from London.—Address, stating age, wages required, number in family, and length of character, to G. H. Messrs. Barrett's, 3, New Church Street, Paddington, London, N.W.

WANTED as SECOND GARDENER, a married man, without family, to live in the lodge. Must have a knowledge of Forcing Houses and Gardening generally.—Wages, 16s. per week. State length of character.—G. B. Fawley Court, Henley-on-Thames.

WANTED, an UNDER-GARDENER, married, with good character, one who has a knowledge of Plants and used to Glass, w. have to Mow. Wages, 16s. per week, cottage, firing, candles, and vegetables. T. DEXMAN, The Gardens, Sundridge Park, Bromley, Kent.

WANTED, for the Houses, in a large Forcing Establishment near London, a strong, active YOUNG MAN, who has been used to Glass. Wages, 16s. per week, and live on the ground.—Apply, with particulars, to JOHN MORAN, Potter's Bar, N.

WANTED, an IMPROVER, with Premium, age 19 to 20, with a knowledge of Glass. A good opening for a steady Young Man.—Address, W. Gardeners' Chronicle Office, W.C.

WANTED, in Mr. WILLIAM BULL'S Establishment, TWO ASSISTANT PACKERS, who are accustomed to Pack Pot Plants. Wages given, 18s. per week. Establishment for New and Rare Plants, King's Road, Chelsea, S.W.

JAMES CARTER AND CO. are in WANT of Young Men as ASSISTANT PACKERS, and used to Potting-Shed Work Also, Young Men as IMPROVERS. Wages liberal and progressive. Particulars on application.—Crystal Palace Nursery, Forest Hill, S.E.

To Nursery Foremen.

WANTED, a respectable Man as SALESMAN, and to Superintend the Execution of Orders, &c. No one need apply who has not filled a similar situation, or whose character will not bear the strictest investigation.—Apply to ASTROTT WATERKES, Knap Hill Nursery, Woking, Surrey.

FISHER, HOLMES, AND CO., are in immediate WANT of an active, experienced JUNIOR CLERK. To a suitable Young Man this would be a progressive situation.—Apply, stating age, salary, and references, Housworth Nurseries, near Sheffield.

WANTED, JUNIOR CLERK, for Invoices, in the Nursery and Seed Trade.—Reply by letter, stating age and previous engagements, also salary required.—H. E. G., Gardeners' Chronicle Office, W.C.

WANTED, a HEAD SHOPMAN (on or before May 1).—Must be thoroughly conversant with the Seed Trade, and have a knowledge of general Nursery Stock.—Thos. McKENZIE & SONS, 31, Dawson Street, Dublin.

WANTED, as SHOPMAN in the Seed Trade, an experienced Hand, to take the entire Management of the Retail Department in a London House.—Apply by letter, stating where previously employed and salary expected, to L. Gardeners' Chronicle Office, W.C.

WANTED, an ASSISTANT SHOPMAN, in a London Retail House. Salary progressive.—Apply, D. R. C., 129, High Holborn, London, W.C.

COOK and HOUSEKEEPER.—A Lady and Gentleman living in the country will be obliged by any Lady of known position recommending to them a person as COOK and HOUSEKEEPER, about 40 years of age, and of the Church of England, who thoroughly understands really good Cooking, lices, and plain Confectionery, also Baking and Dairy. Wages £50. Family consists of the Lady and Gentleman, a housekeeper, lady's maid, housemaid, kitchen-maid, and scullery-maid; butler and two footmen in the house. She must have a good personal character of at least four years for general, good and comfortable management.—Address, stating length of service in last place, why and when left, and the number of indoor servants, to B. C., care of Mr. Ridgway, 169, Piccadilly, London, W.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. E. G. HENDERSON & SON, Wellington Nursery, St. John's Wood, London, N.W.

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MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c. of GARDENERS, and GARDENERS and BAILIFFS, of various qualifications, who are open to Engagements. The fullest particulars as to services required and wages given should be forwarded with application.—PAUL'S Nurseries, Waltham Cross, London, N.

Gardeners and Under Gardeners.

WM. CUTBUSH AND SON beg to state that they have at all times in their BOOKS MEN of various qualifications, whose characters will bear the strictest inquiry. Any Gentleman making application would save time by clearly stating the duties to be undertaken, wages offered, &c., so that suitable Men may be selected.—Highgate Nurseries, London, N.

Lady-Day Engagements.

MR. T. ROWICK has the pleasure of recommending several Tried and Excellent Men as FARM BAILIFFS, WORKING FOREMEN, &c. Mr. Rowick has introduced Engagements in most of the Counties of England and Wales.—Bedford, February, 1890.

EXPERIENCED GARDENERS.—JOSEPH MEREDITH, The Vineyard, Garston, near Liverpool, begs to intimate to Ladies and Gentlemen requiring the above that he has on his Register some very excellent Men for every class of situations, whom he can strongly recommend from his personal knowledge of them.

GARDENER (HEAD)—Age 29, has obtained a good practical knowledge of the profession in first-class Establishments.—GEORGE READ, Landford Lodge, Salisbury.

GARDENER (HEAD)—Age 26, married, no incubrance, well skilled in all branches of the profession. Good reference.—C. M., Post Office, St. Peter's, Thanet, Margate.

GARDENER (HEAD)—Age 31, married, no incubrance, five years' good character from the place he is now leaving. A place where there is a lodge preferred.—J. H., 12, St. Leonard's Square, Surbiton, Surrey.

GARDENER (HEAD)—Age 32, single; thoroughly understands his profession in all its branches. Any part of Great Britain or Ireland. Good reference.—G. F., The Gardens, Wingerworth Hall, Chesterfield, Derbyshire.

GARDENER (HEAD), at Lady Day, where one or two are kept.—Understands Greenhouses, Forcing Vines, Cucumbers, Melons, &c., Kitchen and Flower Gardening. Seven-and-a-half years' good character.—J. C., Post Office, Amesbury, Wilt.

GARDENER (HEAD)—Married, two children, thoroughly understands the profession in all its branches. Four years' good character from last employer.—J. E., Post Office, Worplesdon, Guildford.

GARDENER (HEAD)—Age 39, married, no incubrance, well experienced in the Forcing of Vines, Pines, Melons, &c. Good Plant-man, Kitchen and Flower Gardener. The best of reference.—D. G., 17, St. Ann's Road, Royal Crescent, Notting Hill, London, W.

GARDENER (HEAD)—Age 40, married; has had 20 years' good practical experience in all the branches of Gardening, including Early and Late Forcing, Kitchen and Flower Gardening, Vines, &c. Excellent character.—A. B., Little Bytham, Stamford, Lincolnshire.

GARDENER (HEAD)—Married; thoroughly practical in every Department, first-class Plant, Pine, Grape, and choice Fruit Grower, and Flower and Kitchen Gardener. Understands Woods, Land, and Stock; Dairy and Poultry, if required.—J. D., Post Office, Acton, Middlesex, W.

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To Noblemen and Gentlemen.

GARDENER (HEAD)—Age 35, married, thoroughly understands the profession in all its branches, Forcing Vines, Pines, Peaches, Melons, Cucumbers, early and late Vegetables, Flowers, &c., also Flower and Kitchen Gardening.—X. Y. Z., Post Office, Peterborough.

GARDENER (HEAD)—A Gentleman giving up his Establishment in the country is desirous of recommending his Gardener, who is thoroughly practical in all branches, and quite competent to Manage Gardens of any extent.—Apply, in first instance, to Mr. B. S. WILLIAMS, Victoria and Paradise Nurseries, Holloway, London, N.

GARDENER (HEAD), age 32, married, no incubrance.—RD. WESCOTT, Baby Gardens, Darlington, can with confidence recommend his late Foreman to any Nobleman, Lady, or Gentleman in want of a steady, persevering Man, who thoroughly understands the profession in all its various branches.—Apply as above, or to WILLIAM CLARK, 44, Vortley Road, Upper Holloway, N.

GARDENER (HEAD)—WM. KEMP, who has lived for the last five years with E. H. Bantall, Esq., M.P., begs to offer his services to any Nobleman or Gentleman requiring a thoroughly practical Man in a first-class Fruit and Plant Conservatory, for which he has obtained numerous First Prizes.—Highbury Gardens, Maldon, Essex; or, Mr. A. HENDERSON, Maida Vale, Edgware Road, London, W.

GARDENER (HEAD)—Age 36, married, no incubrance; has a thorough practical knowledge of Gardening in all its branches, Early and Late Forcing of Vines, Fruits, Cucumbers, Melons, and Mushrooms, Ferns, Stove and Greenhouse Plants, Flower and Kitchen Gardening, also the Management of Land and Stock. Wife a good Dairywoman. Six years' good character.—S. OSBORN, Grove Road, Hounslow, W.

GARDENER (HEAD)—Age 30, has served in first-class and very extensive places, and is well acquainted with the Forcing of Pines, Vines, Peaches, Nectarines, Melons and Strawberries, summer and winter Cucumbers, the growing and fruiting of Vines in pots; the successful cultivation of Orchard-house Fruit, as well as all kinds of outdoor Fruit. Master of the indoor Plant department, the supplying Conservatories with blooming Plants all the year; much experience in Kitchen and Flower Gardening, the keeping of Pleasure-grounds, &c. Testimonials most reliable.—S. E., 240, Rochdale Road, Manchester.

To Noblemen and Gentlemen.

GARDENER (HEAD), and BAILIFF.—A Gentleman wishes to recommend a thoroughly trustworthy, and perfectly honest and sober Man, as above; is perfectly competent in all kinds of Forcing, and is a good Grower of Pines and Grapes. Understands the Buying and Selling of all kinds of Stock and the general Management of the same. Parted with only from change of residence.—JOHN WOOD, the Hon. S. R. Curzon, Grove House, Tooting, W.

GARDENER (HEAD), where one or two are kept.—Age 25, married; well understands the profession. Good references from present employer. T. B., 18, South Street, Isleworth.

GARDENER (HEAD, or SINGLE-HANDED).—Age 26, single, understands Gardening in all its branches. Good character.—A. O., 2, Paul Cottages, Lower Edmonton, Middlesex.

GARDENER (HEAD, or SINGLE-HANDED).—Age 28, married, understands management of Vines, Wall-Fruit, Stove and Greenhouse Plants, &c.—Three-and-a-half years' good character.—T. M., Tunstall, near Sittingbourne, Kent.

GARDENER (HEAD, WORKING), where one, two, or more, are kept.—Age 41, married; thoroughly practical in Vegetable, Fruit, and Flower Culture. Good references and testimonials as to respectability and practicability.—D. J. L., 2, Wellonley Road, Snaresbrook, Essex.

GARDENER (HEAD, WORKING, or GOOD SINGLE-HANDED)—Age 28; thoroughly understands the Management of Stove and Greenhouse Plants, Vines, Cucumbers, Flower and Kitchen Gardening, &c. Two years' good character.—W. X. Y., Mrs. Ellis, High Street, Southgate, N.

GARDENER, or to take charge of Spicamen Plants for Exhibition, &c.—Age 34, married, no incubrance; well understands the Growing of Stove and Greenhouse Plants, Grapes, Pines, Florist's Flowers, and has a good knowledge of Orchids. Has taken 20 prizes. Good character.—E. X., Messrs. Standish & Co., Royal Nursery, Ascot, Berks.

GARDENER and BAILIFF, or STEWARD.—A most respectable and trustworthy Man, in the prime of life, six years in last place. First-class Grape and Pine Grower, Stove, Orchard, and Greenhouse Plants, Kitchen and Flower Gardens, well up in Agriculture, Plantations, Road-making, Draining, &c. Wife a first-class manager of Poultry.—C. C. C., Post Office, Broad Street, Reading, Berks.

GARDENER (SINGLE-HANDED).—Age 28, married, thoroughly understands the Management of Stove and Greenhouse Plants, Vines, Melons, Cucumbers, and Flower and Kitchen Gardening. Good reference.—A. B., 9, William Street, Seaham.

GARDENER (SINGLE-HANDED) or otherwise, stands Vineyard, Greenhouse and Conservatory, and Flower Gardening. Satisfactory references.—H. Y., Dagenham, Essex.

GARDENER (UNDER), to Improve, in a First-class Establishment.—Age 29, first-class references.—Office, Forest Hill, London, S.E.

GARDENER (UNDER), or to look after Glass, &c. himself generally useful.—Age 26, good references given as to capacity and character.—G. T. M., Hartwell Road, Camberwell.

PLANT FOREMAN.—Age 26, has had four years' experience in several first-class Establishments, and four years with Messrs. Veitch & Sons, Chelsea.—Y. Y. Y., Place, King's Road, Chelsea.

FOREMAN and PROPAGATOR, or MANAGER. Thoroughly experienced, satisfactory references for capacity and character will bear the strictest investigation.—A. M., 16, Elzick Terrace, Maida Vale, London, W.

FOREMAN, in a good private Establishment, with thorough practical knowledge of the profession. Satisfactory references.—ALPHA, Post Office, Richmond Road, West Bromwich.

To Nurserymen, &c.

FOREMAN and PROPAGATOR, or GROWER. Hard and Soft wooded Plants.—Has had great experience.—W. T., 4, Rose Cottages, Hollo Road, North Acton.

To Nurserymen.

FOREMAN and SALESMAN, or PROPAGATOR. Thoroughly understands the business in a branch Propagation and Growing of Hard and Soft wooded Plants, Stove and Greenhouse Specimens for Exhibition, &c. Has experience in the general routine of Nursery work, and in the Value of Stock, and a good Salesman, has a good knowledge of the Seed Business, likewise Furnishing, Decorating, &c. in the trade these last 20 years with some of the best London and the Provinces. Good references.—C. L., Gardeners' Chronicle Office, W.C.

PROPAGATOR, FOREMAN, or SALESMAN. Hard and Soft-wooded Plants; a good Grasser.—J. E. M'Grigor & Middlemiss, Whittington Nurseries, Highbury, N.

PROPAGATOR or FOREMAN.—Thoroughly understands the Growing of Hard and Soft-wooded Plants, Grafting, &c.—A. E., Messrs. Cuthbert, Nurseries, Tottenham, N.

PROPAGATOR and FOREMAN (INDOOR and OUTDOOR).—Age 39; nine years' experience in three principal London Nurseries. Unexceptionable character.—J. H. Carter & Co., Crystal Palace Nursery, Forest Hill, S.E.

JOURNEYMAN, in a large established Nursery.—Age 20; three years' reference.—A. Z., 1, North Sydenham, S.E.

IMPROVER, in a First-class private Establishment.—Age 21, five years' experience. Good character. Premium given.—T. H., 38, Seaton St., King's Road, Chelsea.

To Head Gardeners.

IMPROVER.—A Young Man wishes to place himself under an experienced Gardener as above.—State particulars to Wm. GRIMAN, Botley, Hants.

IMPROVER, under a Head Gardener, in a private establishment where there are facilities for improvement.—Age 19, used to be in the Garden, chiefly outside. State wages, &c. A premium given. Good character.—T. JAMES THE GARDENERS, Bury St. Edmunds, Suffolk.

FARM BAILIFF.—Middle-aged, married, with a thorough practical knowledge of Agriculture, and a good Value and Management of Stock, and especially of the Farm. References and testimonials first class.—A. HOWIE, Bedford Nursery, Haverstock Hill, N.W.

ESTATE or FARM BAILIFF (under an Agent or otherwise).—Age 36; fully competent to Manage either Heavy or Light Land—to any extent. Understands Breeding and Rearing of Stock, Management of Woods and general works required on an Estate. Satisfactory references given.—STANFORD, Post Office, Tetworth, Leicestershire.

AGENCY, &c.—A Gentleman thoroughly acquainted with the Nursery Trade, and who has a large and valuable London and Suburbs, is open to an Agency in connection with a really genuine article connected with the Trade of the London and Continental or Provincial Home. References and testimonials on application.—Agent, Gardeners' Chronicle Office, W.C.

ASSISTANT, or otherwise, in Seed Trade.—Apply to Correspondence, Book-keeping, and general Nursery Business. Would be willing to fill up his time in houses if required.—ALPHA, Post Office, Bury St. Edmunds, Suffolk.

TO SEEDSMEN, NURSERYMEN, &c.—An Experienced Man, in any capacity, wanted by a Man, who has had good general experience and business habits.—Address, Southampton.

TRAVELLER, or to take a five part in the management of the Nursery or Seed Trade.—For particulars apply to T. W., Messrs. Hurst & Son, 6, Leadenhall Street, London, E.C.

CLERK, BOOK-KEEPER, TRAVELLER, or Confidential SHOPMAN.—Has had considerable experience in London and Country Trade, and can provide satisfactory references.—H. J., Gardeners' Chronicle Office, W.C.

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The Best Remedy for Indigestion. NORTON'S CAMOMILE PILLS.—Recommended as a simple but certain remedy for Indigestion. They act as a powerful Tonic and general Aperient, and their operation; safe under any circumstances, and the persons can now bear testimony to the benefits to be derived from their use. Sold in bottles at 1s. 1/2, 2s. 9d., and 1/2s. each in the Kingdom. CAUTION.—Be sure to ask for "NORTON'S PILLS," and do not be persuaded to purchase the various cheap imitations.

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The Gardeners' Chronicle Newspaper.

SATURDAY, MARCH 27, 1869.

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GREEN CANVAS, 72 inches wide, 7/2 per yard; and GREEN CANVAS, 72 per yard, the cheapest Protection of Plants from Frost, Striped Sun Blind, Forst Sheet, &c.

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PRACTICAL GEOLOGY. - KING'S COLLEGE, LONDON. PROFESSOR TENNANT, F.R.S., will give a COURSE of LECTURES on GEOLOGY.

HOME NEWS. THE COURT. - The Queen and Royal family continue at Windsor. Her Majesty has taken her usual walks and drives during the week.

THE PRINCE AND PRINCESS OF WALES are expected to arrive at Constantinople to-morrow from Egypt, the visit to Greece being abandoned.

THE CABINET. - A Cabinet Council was held on Saturday in Downing Street. PARLIAMENTARY MOVEMENTS. - The Earl of March, eldest son of the Duke of Richmond, will be the Conservative candidate for West Sussex.

TRIALS OF ELECTION PETITIONS. - After a scrutiny which extended over five days, the trial of the Oldham cases was terminated on Tuesday by the withdrawal of the petition. Mr. Justice Blackburn therefore declared the Liberal sitting members, Messrs. Habbert and Platt, to be duly elected, and reserved the question of

...in a state of starvation, they became... and, two previous attempts at escape having... they made a third rush from their pab... Whimore's forces succeeded in forcing... into the dense bush by which the... assaulted and took it on the... suffered great loss, 120 or... The assault was made at daylight on... by the main body of the forces... Major Fraser... the rocky ridge in the rear... enough to surround the hill on... of which the enemy had constructed their... they were consequently able to make their... dropping over the cliffs to the right. Their... however, was very short-lived. Sixty of... were left dead in the trenches, a good many of... were killed by shell; and 60 more were killed... Among the dead were Nikora and... The career of the former is well known... mid that 594 was given for his head... was at the head of 40 or 50 Ureweras. This... made a stand in the bush, but... by the friendly chief Ngatipore... of them killed on the spot. Te Kooti was... the number who escaped, but the pursuit was... followed up, and there was little chance... escape. Of the 80 prisoners taken... Among the Hau-haus killed, in addition... of named above, were Wiremu K ngi... One of the prisoners taken... son of Paora te Arawhauka, who is reported... part in the murders of Messrs Finlay... The British loss is said to be one... and 10 wounded, only one dangerously... Whimore, in his despatch, dated January 7... when it was found that the storming of the... not be resisted, Te Kooti, who in this... to have followed the example of Theo... shot his prisoners and then made

...influential of his prisoners and escaped... who, could not be prevented, owing to the... very high and steep; and, as my force was... entirely surround the hill, I had trusted to... safe. The women were first lowered... Kooti himself, wounded in the shoulder... of his wound at Ruaki Turo, apparently... of the last. This was effected from 1 to... time Major Fraser, who was the... fired heavily, and with some effect... the sound came. The last had... out people entered, and, however... outside, it was still stronger... The Ngatipore and Arawa... behaved splendidly throughout... Te Kooti's followers spread... parties, the pursuit was... throughout the day, and with... with prisoners and powder... the Crown contingent... killed... that Nikora had... as wife brought in. In all, more than 120 of... These numbers are accurate, the... from the enemy's trenches, found... or stripped of their arms and loads... and shot them. I think very few... been killed, and no... have frightened the garrison... The number inside must have... for the escort carrying Te Kooti must... 40 men, and only 19 out of the Ureweras were killed... fresh parties in pursuit, and hope still... Kooti. Every man of note in this land is killed except... and he cannot be far off. I blew down a large portion... of the walls and fired a Royal salute last night in... of the capture."

UNITED STATES.—Ex-President Johnson is very ill... Greenville, Tennessee. There is a report... on Thursday morning of paralysis. The... has, by a majority of 87 to 16, passed a Bill... the Tenure of Office Act, so as to permit the... without assigning reasons, to suspend... to appoint their successors, whose rejection... however, is to restate the former. The... removal of officials by the President remains... The Bill now goes to the House of... Mr. Moses H. Grinnell has been... by the President Collector of Customs at... and the nomination has been confirmed... The State Legislature of South... and Arkansas have ratified the negro suffrage amendment. Those of Georgia and Delaware... it.

AMERICA.—An earthquake took place in... of Santander, Bogota, on January 30th... caused serious damage at Socorro, San Jil... and several other towns. Fears were enter... of the whole Cordillera breaking up and... large masses of rock.

AMERICA.—The Pacific Steam Navigation... steamer Santiago, from Valparaiso to Liver... on a rock in the Straits of Magellan... All on board were saved except... a steward, and a child. The Santiago was a... new steamer, of 2000 tons, and was... insured.

AND PARAGUAY.—The Brazilian Minister... Azares, has gone to Asuncion to meet the... and Cruzayan Ministers, for the purpose... Provisional Government for Paraguay, but... that the Paraguayan people adhere... who is still concealed in the mountains with... putting to death all who refuse to... Mr. Alonso Taylor was on board her

Majesty's ship Cracker, having been in prison five months under a charge of conspiracy. He confirms the wholesale shooting of prisoners both at San Fernando and Lomas; and states that among them were two Englishmen, Mr. Stark, and John Watta, a steamboat... and Benigno Lopez, the President's... All the foreign element, excepting the... portion, had been exterminated. Major Von Versen, a Prussian officer, and Mr. Trevelyan, Director of the Paraguayan telegraphs, had escaped. The Marquis de Caxias, commander-in-chief of the allied army, General Argollo, and Admiral Viscount de Inhauma, the naval commander-in-chief, have returned to Rio from the war. The Marquis de Caxias, having left the army without leave, was coldly received by the Emperor and the people. It is stated that the Conte d'Eu will be the new generalissimo of the Brazilian forces.

CUBA.—The hardest battle of the war has been fought at Sierra de Cubitas. The insurgents under Lesca, 4000 strong, were entrenched, and a heavy artillery fire was opened upon them, under cover of which the Spaniards charged with the bayonet, and gained a complete victory, the rebels losing over 1000 killed and wounded. General Quesada is reported to have only 7000 available troops.

HAYTI.—Anarchy still reigns in Hayti. On the morning of the 26th ult. 350 residents were shipped to Gonaves from Port-au-Prince, and it was said that all wealthy merchants were to be shipped to the same place. President Salnave had made his long-expected attack on the city of Aux-Cayes by sea and land, but without success. After bombarding the city for 24 hours without effect, he suddenly sailed away to Port-au-Prince. His land forces simultaneously assaulted the town, but were repulsed.

Parliament.

In the House of Lords on Friday the Duke of ARGYLL moved the second reading of the Parochial Schools (Scotland) Bill. Lord ABINGER objected to the large powers which the Bill placed in the hands of an irresponsible Board, to the clause authorising the conversion of old national schools into new, and to the proposed representation on the schools' board of the Schoolmasters' Association, which bore too close a resemblance to a trades union. The Earl of AIRLIE also considered that the machinery of the Bill was defective, and required to be remodelled. The Earl of DENBIGH complained that the Bill neglected the interests of the Roman Catholics. The Duke of MARLBOROUGH doubted the wisdom of establishing a general board, which would result in a conflict of jurisdiction with the Committee of Council on Education, and complained of the absence of any guarantee for religious teaching. The Duke of ARGYLL defended the Bill, but intimated his readiness to assent to a proposal for striking out the representatives of either the schoolmasters or the universities. After some remarks by Lord CAIRNS and Earl DE GREY, the Bill was read a second time. The House then adjourned for the Easter recess, to Monday, April 5.

In the Commons on Friday the adjourned debate on the Irish Church Bill was resumed by Dr BALL, late Attorney-General for Ireland, who opposed the Bill on the ground that its principle was the destruction of existing endowments and the introduction of the voluntary principle, which had been adopted by no country in Europe, and was utterly unsuited to Ireland. He held that the titles of the incumbents of the Protestant Church were as sacred and inviolable as the fee simple of any landed proprietor in the country and that disestablishment would disconcert the clergy because the source of their emoluments had been taken from them; and would disconcert the laity because new fiscal burdens would be imposed upon them. The result would be, that a great shock would be given to the inviolability of the rights of property, and a precedent would be set for further organic change. Mr SULLIVAN, the Attorney-General for Ireland, contended that disestablishment was an act of justice, and that the success of the voluntary principle in the Catholic Church was sufficient to show what might be effected under that principle. Sir F. HEGGATE, Viscount CRIGHTON, and Sir S. NORTHCOTE opposed the Bill. Sir J. GRAY and Mr. MIALI supported it. Mr. BRIGHT said that the question at issue was whether the Established Church was to exist as a State institution. The country had pronounced emphatically that to maintain that Church any longer was wholly out of the question. It was admitted that it was the Church of conquest, and he would add that it presented the most flagrant violation of the principles of the Reformation that could be imagined. The only pretence for its existence was that it was to convert the Roman Catholics to Protestantism, and bring about a friendly and permanent union between the two countries. But it had failed to accomplish either of those objects. History in all its saddest pages had not a case of more complete failure, for Ireland was more Catholic now than she had ever been before, and she was more Roman than any other Catholic country of Europe. He believed that the Bill would lead to a more solid union between the two countries—that it would restore tranquillity to the people—impart greater strength to the realm, add new lustre and dignity to the Crown, and have the blessing of the Supreme, because it was founded on the eternal principles of justice and mercy. On Monday the debate was resumed by Sir ROUNDELL PALMER, who expressed regret that an imperious necessity had compelled him to separate himself from his party on this question, but he could not shut his eyes to the fact that the principle of the Bill was not mere disestablishment, but disestablishment accompanied by

universal disendowment; and to that principle he could not agree, because, in his opinion, it would be an act unjust in itself, injurious in its... without a precedent, even at the

separated from the State by the abolition of its po... privileges, but he was opposed to the confiscation of its private endowments on the false assumption that the property of the Church was national property, of which the State might dispose. He admitted that the episcopal and capitular revenues must go with the establishment, but if they were suppressed, as well as the endowments of all parishes of less than 200 Protestants, there would still remain to the Irish Church 340,000l. a year of parochial endowments. He showed that there were numerous parishes in Ireland where the Protestant population was sufficiently large to justify a permanent endowment, and he pronounced it a grievous wrong to these people to take away their endowments without their having done anything to forfeit them. If the House sanctioned the principle that the State might divert the funds of local communities to the maintenance of lunatics and other purposes, it would be impossible to say that the property of the Church. Sir J. D. COLERIDGE, the Solicitor-General, contended that the Irish Church held its property because it was Established, and for no other reason; that it was the great symbol of Protestant ascendancy in Ireland, and was maintained by English force, without which it would fall of itself. Mr. CHARLEY, Mr. VANCE, and Lord CLAUD HAMILTON opposed the Bill, which was supported by Mr. DOWSE, Mr. H. RICHARD, and Mr. LOWE, who maintained that it was too late to object to the introduction of voluntarism into Ireland, because in practice Ireland had been long ago driven into the voluntary system by the appropriation of her endowments to the religion of a small minority. The Irish Church had neglected every chance of reconciling itself with the Irish people, and the effect of its connection with the State had been to set three-fourths of the people against us. It was, therefore, self-condemned, and its fall was now unavoidable. Mr. GREENE opposed the Bill, which he characterised as a monstrous scheme of robbery and confiscation. On Tuesday the debate was resumed by Mr. WALPOLE, who condemned the Bill as violating fundamental laws, invading prescriptive rights, and severing the Royal supremacy from the Church of the country, thereby removing the control which was necessary to the freedom of the Church. Sir H. BULWER, Mr. AGAR ELLIS, Mr. MILLER, THE O'DONOGHUE, and Mr. G. H. MOORE spoke in favour of the Bill. Mr. MOWBRAY, Mr. DALRYMPLE, and Lord GEORGE HAMILTON opposed it. Mr. GATHORNE HARDY said that the policy of the Government partook far more of the character of vengeance than of justice. He denied that the Church was a badge of conquest; he looked at it rather in an imperial light—a token of the Protestantism of the Sovereign, and as a distinct recognition by the nation of the supervision and superintendence of the Almighty. The State did not enow the Church of Ireland, but was responsible for the protection of its property. To divert its possessions and convert them to any other purpose was simply confiscation. He did not believe that the abolition of the Church would restore peace and concord to Ireland. Its success in that respect was overshadowed by the recent Foman reception. Moreover, it was admitted that this Bill by itself would not be final, and the language used by Mr. Bright and others as to these ulterior measures must raise hopes in Ireland which never could be realised. He believed that the Bill would strike a fatal blow at the cause of true religion in Ireland, and that it was a destructive measure, wrong in the sight of God, and opposed to the interests of the empire. Mr. GLADSTONE, in reply, said that Mr. Hardy's speech was an indictment against the Irish people, and that the four nights' debate had failed to show that the Opposition had any alternative measure to propose. They had entirely set aside the proposals of the Commission and had either no plan at all, or it was the old plan of levelling up. The Royal supremacy was neither denied nor taken away by the Bill. The endowments of the Irish Church were given in trust for the benefit of the whole nation, but when it was found that they became mischievous or were usurped by a mere handful of the people, it became the business of the State to interfere. The charges of "robbery," "selfishness," "bribery," he accepted as proofs that the Government had carried out their pledges completely, but without harshness, and he concluded by repeating his confident anticipation that the settlement of this controversy was close at hand. At 20 minutes past 8 the House divided, when the numbers were—For the second reading, 368; against it, 250; majority, 118. The result was hailed with loud and repeated cheers from the Ministerial benches. The Bill was then read a second time, and Mr. GLADSTONE announced the Committee for Thursday, the 15th April. The Marine Mutiny Bill, the Brazilian Slave Trade Bill, and the Lands Clauses Consolidation Act Amendment Bill were read a third time and passed. The House then adjourned for the Easter holidays to Thursday, April 1.

City Intelligence.

MONEY MARKET.—Yesterday, being Good Friday, the Stock Exchange was closed. The following are from Thursday's quotations:—Consols 93 to 93½ for Money, and 93½ for Account, New and Reduced Three per Cents., 91½ to 91½; Bank Stock, 258 to 240 ex div.; Exchequer Bills, par to 5s. pm.; India Five per Cents., 112 to 112½.—FOREIGN:—Chilian Four and a Half per Cents. (1867), 94½ to 95½; Egyptian (1864), 89 to 90; Do. (1868), 76½ to 76½; Do. Debetures, 96 to 97; Italian

(1861), 55½ to 56½; Peruvian (1865), 78½ to 79½; Portuguese (1867), 36 to 37; Russian (1862), 86 to 87; Nicolas, 67 to 67½; Turkish Five per Cents, 41½ to 41¾; Ditto (1865), 64 to 65; United States 5-20 Bonds, 83½ to 83¾.

Metropolis and its Vicinity.

THE HOUSES OF PARLIAMENT.—In consequence of the large number of visitors who availed themselves of the opportunity last Easter of viewing the Houses of Parliament, the Lord Chamberlain has decided that they shall be open to the public on Easter Monday and Tuesday next, between the hours of ten and four.

THE EASTER VOLUNTEER REVIEW.—The official "detail" of the metropolitan corps of Volunteers who are to take part in the Review at Dover, on Monday next, thus divides the conveyance—South-Eastern Railway—from Cannon Street Station, 6150; from Charing Cross Station, 2906 men. London, Chatham, and Dover—from Victoria Station, 3595; and from Blackfriars, 577, making a total of 18428. The "detail" of county corps shows that 1431 men will travel by the South-Eastern, and 2798 men by the London, Chatham, and Dover, to be taken up at the various stations on the lines. The naval force which is to take part in the review is to be under the command of Capt. Arthur Hood, of the Excellent, gunnery ship, at Portsmouth. The Royal Sovereign, armour-plated turret-ship, carrying the flag of Capt. Hood; Scorpion, armour-plated iron turret-ship, Capt. Brooker, with the Staunch and Stork, gunboats, and the Ferret, 8, and Martin, 12, sailing brigs, sailed from Spithead for Dover on Thursday morning.

LAUNCH OF NEW SHIPS OF WAR.—Four new ships of war have recently been added to the British Navy. On Saturday, the 20th inst., the screw corvette, *Druid*, of 10 guns and 350-horse power, was launched from Deptford Dockyard. The *Princess Louisa*, who was accompanied by Prince Arthur, performed the ceremony of naming the vessel, which will be the last of a long list of ships added to the English navy from this yard. It was at Deptford that the *Pelican*, the first ship that sailed round the world, was constructed, and where, on her return, Admiral Drake entertained Queen Elizabeth on board the vessel, which was anchored opposite the slip from which it had been launched. Many ships famous in English history were subsequently built at Deptford, and Peter the Great there learnt the art of shipbuilding. The launch of the *Active* also took place on the same afternoon, from the Thames Ironworks, at Blackwall. This vessel was designed by Mr. Reed as the "sister" to the *Volage*, which was launched a few weeks previously from the same works. These two vessels are the first of a new class of iron-plated corvettes of the Alabama type, having great swiftness, but carrying only three or four powerful guns. Their burthen is 2320 tons, and they will be propelled by engines of 600-horse power. Their rate of speed will be an average of 16 knots an hour, and they will carry two 6½-ton guns on their upper decks, and a 6½-pounder on their poop and fore-castle. The *Andalous*, another addition to our navy, was recently launched from the yard of Messrs Napier, of Govan, near Glasgow. This vessel is a twin screw, and is the fifth of the class afloat.

ERNEST JONES DEMONSTRATION.—A demonstration to the memory of the late Mr. Ernest Jones took place yesterday afternoon in Trafalgar Square. The men of Hackney, Bethnal Green, Shoreditch, Spitalfields, Mile End, Poplar, &c., assembled at Bethnal Green at 2 o'clock, from whence they marched to Finsbury Square, where they were joined by the Islington and Hoxton contingents, and then proceeded to join the main body at Clerkenwell Green, from whence the procession, accompanied by several bands and banners, started at 4 o'clock for Trafalgar Square. The West-End procession, which embraced the German, French, Italian, and Polish members connected with the International Working Men's Association, assembled in Soho Square at half-past 4; and the South London procession assembled at the Obelisk, Blackfriars Road, at the same hour. The proceedings in Trafalgar Square commenced at 5 o'clock, and the speakers were Mr. G. J. Holyoake, Rev. Mr. Applebee, Messrs. L. Bradlaugh, G. Odgers, and L. Wade, Mr. Tincroft acting as chairman. The various societies of Irishmen in the metropolis took part in the demonstration, out of respect to Mr. Jones, for his defence of the Manchester Fenians in 1867.

THE OPENING OF PUBLIC MUSEUMS ON SUNDAYS.—A very large deputation from the Society for Promoting the Due Observance of the Lord's Day waited on the Premier at his official residence in Downing Street, a few days ago, and presented a memorial praying him to discourage the efforts now making to open the national museums and galleries on Sundays, after morning service, and to carry out the recommendation of the Select Committee by opening the British Museum, the National Gallery, and other similar institutions on two or three evenings of the week between the hours of seven and ten. The deputation comprised—The Bishop of London, the Earl of Shaftesbury, Lord Fitzwalter, Mr. T. Chambers, M.P., Mr. Kinnaid, M.P., Mr. Macfie, M.P., Mr. Floyer, M.P., Mr. Baines, M.P., Mr. M'Lagan, M.P., Mr. C. H. Mills, M.P., Mr. M'Laren, M.P., Mr. Stevenson, M.P., Mr. Holt, M.P., Mr. W. H. Smith, M.P., Sir R. Palmer, M.P., Mr. Cawley, M.P., Alderman Lusk, M.P., Mr. Abel Smith, M.P., &c. Mr. Gladstone told the deputation that the subject was one which the Government had not yet considered. He, however, recognised its importance, and promised to give his attention to the representations made to him. It was a matter upon which the Government would rather have to be guided by public opinion than by any feeling or sympathy of their own. In a religious view of the question, he believed the observance of the Sabbath was

conducive to the interests of religion, and in a moral and physical sense no doubt it would have to be very carefully considered before legislating upon it.—Immediately afterwards a deputation consisting of upwards of 100 persons representing the middle and industrial classes, had an interview with Mr. Gladstone, for the purpose of presenting a memorial in support of Mr. Gregory's motion, which will shortly come before the House of Commons for opening public museums, galleries, and libraries on Sunday afternoons. The deputation, which was under the auspices of the National Sunday League, was introduced by Mr. Gregory, M.P., who briefly explained that their object was to impress the Government with the idea that this movement was a really popular one, and that the alternative of opening on Saturday afternoons, which had been suggested by their opponents, would be really useless. Mr. Morrell, the hon. secretary of the Sunday League, having read the memorial, Mr. Gladstone, in reply, said that the matter would not be governed so much by the views and ideas of the Government as by the current of public opinion. He had just received a deputation holding contrary views to the gentlemen before him, and they had stated that the working classes were, generally speaking, adverse to the views advocated by the League. Mr. T. Chambers, M.P., had stated that his election for Marylebone had mainly been secured by his opposition to such measures, and the Rev. Mr. Murphy had adduced the nightly attendance at the South London Industrial Exhibition in support of opening the museums in the evenings. There could be no doubt that the religious observance of the Sabbath was the great and principal stay of religion in this country, and that the social and physical necessities of the people required an absence from all labour on that day. The Government, as such, had not yet entered upon a consideration of the questions which had been urged by the deputation, but they were prepared, so far as it depended upon them, to offer all reasonable facilities on week-day evenings for the opening of national institutions to which the working classes and the general population might resort.

THE LEADERS OF THE REFORM LEAGUE.—It is stated that Mr. Beales, late president of the Reform League, will shortly receive a county court judgeship. It is said that Mr. Howell, the late secretary to that body, has been appointed private secretary to a member of Parliament.

CIVIL SERVICE COLLEGE.—The project of this college has been well received both in India and the colonies as likely to supply a want generally felt amongst servants of the Crown abroad; and it is understood that a large sum will shortly be remitted to England with a view to the immediate establishment of the College.

A PENNY POST TO AMERICA.—The National Steamship Company have offered to the Postmaster-General to run large steamers with regularity once a week from Liverpool to New York, charging one penny per ounce for all letters, in order that the Post Office might be able to reduce the charge to the public to one penny per half-ounce.

ANOTHER ATLANTIC TELEGRAPH.—A new Atlantic Telegraph Company has been formed in New York, with the object of laying a telegraph cable from the coast of Plymouth, Massachusetts, to one of the Western Islands, a distance of 1500 miles, and thence, by a second section of cables, of 500 miles long, to the French coast. Each cable will be 2000 miles long, and 400 miles shorter than the cables now working. The Company intend using a new American invention, called the "Double Transmitter," by which, it is said, two separate currents of electricity can occupy the cable at the same time and travel in opposite directions.

THEODORE'S CROWN.—The crown of King Theodore of Abyssinia was bought at the capture of Magdala from a common soldier by Herr Von Rolffs, a Prussian officer attached to the expedition, and was by him presented to King William. His Majesty having had his attention drawn to Lord Napier's order forbidding the sale of articles taken by the army, has now sent the trophy to this country.

COBDEN CLUB.—The annual gold medal for 1868, offered by this Club for the best essay on some public question with which Mr. Cobden's political career was identified, has been adjudged to the Rev. Dr. Joshua Leavitt, D.D., of 3, Park Place, New York. The subject for competition was—"The best way of developing improved political and commercial relations between Great Britain and the United States of North America." The following subject has been chosen for the essay for the gold medal for 1869:—"Free Trade in its relation to the colonies and dependencies of Great Britain." The essays are to be sent in to Mr. T. B. Potter, M.P., Honorary Secretary, Reform Club, before the 1st January, 1870. No essay is to exceed in length 50 pages of the "Quarterly" or "North American Review." The committee reserve the right of publishing the successful essay.

TRINITY HOUSE.—At a special court held on Tuesday, at the Trinity House, the Prince of Wales was unanimously elected an Elder Brother of the Corporation, in the room of the late Admiral Gordon.

THE LICENSING SYSTEM.—A deputation from Lancashire, Cheshire, Northumberland, Cumberland, Derbyshire, Durham, Essex, Herefordshire, Kent, Lincolnshire, Middlesex, Shropshire, Staffordshire, Warwickshire, and Yorkshire, had an interview with the Home Secretary a few days since, to present a memorial relating to the present system of licensing public-houses and beer-houses. The deputation was introduced by Colonel Wilson-Patten, and among the speakers were Mr. Ashworth, of Salford, Lord Teignmouth, and Mr. R. Fowler, who urged that the present licensing system is fraught with injurious results to the working classes, as leading to the increase of intemperance and its consequent evils, and to the increase of crime and taxation. Mr. Bruce said

that both he and his colleague, Mr. Lowe, nised the importance of the deputation, and the evils which had been used by the Government. He admitted that the evil complained of was of magnitude and urgency which demanded the attention of the legislature, and he assumed the position that the present Government had taken subject under their most careful consideration. The question was one of the gravest importance, and had occupied the attention of successive Governments. The evil was admitted but the difficulty in applying the remedy was such that gentlemen who were most desirous of reform amongst themselves as to the mode of proceeding being of opinion that the licensing system should be in the hands of magistrates, whilst others held different opinions. The subject was surrounded by other circumstances which would necessarily be taken into account by Parliament with so important a subject. He had stated, and his colleagues were very desirous of doing the subject if they could immediately, but he did not hold forth any hope that it would form part of legislation this year.

THE HOLBORN VIADUCT.—It is stated that a viaduct over the Holborn Valley will be open to the public in July or August next.

THE TOWER SUBWAY.—The directors of the Tower Subway Company have completed the purchase of land required in Middlesex for 1900, and the right of passing under one-half of the street. The contractor has commenced the shaft on the freehold of a house, with river frontage, which has been purchased on the Surrey side, and the acquisition of passing under the other half of the street for the sum of 16000, an arrangement which will enable the tunnel to be shortened by about 1000, whereby a saving of about 8000 in the cost will be effected. The directors believe that the whole of the works will be completed within the estimated 16,000.

POST-OFFICE NOTICE.—The Postmaster-General has issued a notice stating that letters in pillar letter-boxes in London during the day of Sunday, are included in the morning mail, and in the first morning delivery in London. Letters posted at receiving offices cannot be collected because no early morning collections or deliveries can be made from such offices. To prevent letters being delayed through the day, letters posted at receiving offices, it is intended that letter-boxes at such offices shall be closed at night, from 9 P.M. till 8 A.M., and during the day of Sunday.

THE NEW COURTS OF JUSTICE.—Mr. F. W. C.E., having been requested by the Chancellor of the Exchequer to state his views on the subject of the new courts, has made a short report on the matter. In regard to architectural efforts he is of opinion that the superiority of the Thames Embankment is unequalled in London for a great national building, but he attaches importance to facility of access to the main floor of the building, and while the level of the Strand is 16 feet higher than the Strand, the level of the Thames Embankment is 30 feet below the Strand, showing a considerable difference in level. Mr. Edward Ryde has expressed his opinion for him that the abandonment of that site as a situation of the Embankment site would be a great loss. For in Carey Street the Government have cleared 7½ acres for 800,000, or 100,000 per acre, one-half of which amount would be required for the cost of 7½ acres on the Embankment site at 1,125,000, or 150,000 per acre, and 400,000 realised by the above re-sale, the 725,000. With regard to the approaches, Mr. Ryde is of opinion that the adoption of the Embankment site would create an intolerable blockade of Carey Street and the Strand by carriages crossing from the Law Courts; and that upon the whole the Strand site, though inferior in architectural appearance, would be the most advantageous of the two. It would be a leading thoroughfare on its Holborn side. He proposes, therefore, the construction of a street in continuation of Piccadilly and Carey Street, crossing Farringdon Street, and the beginning of Cheapside, and widening Great Turnstile to give a carriage approach from Holborn to the new Law Courts. Portions of such a street should be shared in equal proportions between the Government and the latter obtaining a new street which would be an acknowledged want, the former paying for it by its Law Courts the leading thoroughfare. Mr. Shields proposes further, that a railway should be allowed to construct a railway under the Strand and under Cheapside—in fact, from Kennington to Mansion House—and that the cost of the railway should be required to widen Coventry Street, Lord Poulter, the space so acquired being made available for the construction of the line and stations, and to raise the bottom of the Serpentine to a level of 1 foot with the material excavated from the tunnel. Mr. Ryde has estimated for Mr. Shields the cost of this project as follows:—Net cost of the project (nearly four miles) and widening streets, assuming the net receipts at 600 per acre, or 124,800 per annum, this would pay for the capital of 2,080,000, leaving a surplus of 1,955,200. The cost of the purchase of property and improvements on the new streets, with all modern improvements, at 1,600,000; deducting the railway, there remains a cost of 400,000, to be divided between the Government and the metropolis. On Monday

stands. Peas were a slow sale on former terms. The Flour trade was very quiet, at the recent decline in the quotations.

PRICE PER IMPERIAL QUARTER.			
WHEAT, Essex, Kent, Suffolk. White	46-50	Red.....	45-46
— fine selected runs.. do.	48-50	Red.....	47-48
— Talavera.....	52-56		
— Norfolk.....		Red.....	
— Foreign.....	41-62		
BARLEY, grind. & dist., 37sto38s. Chev.	46-51	Malting..	44-49
— Foreign.. grinding and distilling	20-26	Malting..	34-43
OATS, Essex and Suffolk.....			
— Scotch and Lincolnshire Potato	25-33	Feed	—
— Irish..... Potato	30-32	Feed	23-28
— Foreign..... Poland and Brew	25-30	Feed	21-26
RYE.....	38-40	Foreign..	—
RYE-MEAL, Foreign.....			
BEANS, Mazagan... 38sto40s. Tick	42-43	Harrow..	42-43
— Pigeon... 43sto47s. Winds.		— Longpod..	—
— Foreign..... Small	38-43	Egyptian..	36-37
PEAS, White, Essex, and Kent.. Boilers	40-43	Suffolk ..	40-44
— Maple 42sto46s. Grey	40-42	Foreign ..	31-45
MAIZE.....		Foreign ..	29-31
FLOUR, best marks delivered.. per sack	39-43		
— 2d ditto..... ditto	28-40	Country..	82-40
— Foreign .. per barrel	23-37	Per sack..	30-40

WEDNESDAY, March 24.

Fresh up to Mark Lane this morning the receipts of Wheat from Essex and Kent were only moderate, but the quality was good; for both red and white parcels the demand was inactive, at late currencies. There was a good show of foreign Wheat, for which, however, very little inquiry was experienced, at previous prices. Floating cargoes of Wheat were inactive. Other kinds of produce afloat commanded but little attention. The Barley trade was firm, but the business doing was far from extensive; the supply was moderate. Malt was in limited request at late rates. In Oats, the show of which was moderate, transactions are to a fair extent, at Monday's prices. Beans and Peas were dull, at about late prices. Flour moved off quietly on former terms. Linseed and Rapeseed were firm. Clover seed was steady in value; otherwise agricultural seeds were quiet.

ARRIVALS FROM MARCH 20 TO MARCH 23, BOTH INCLUSIVE

	Wheat.	Barley.	Oats.	Flour.
English ..	670 qrs.	10 qrs.	— qrs.	210 sks.
Irish	—	—	950 "	—
Foreign ..	3560 "	13,210 "	21,120 "	{ 460 , — brls.
	4230	13,220	22,070	

SEED MARKET.

We have to report an increase of activity in the agricultural seed trade. English Red Clover seed continues to come to hand in small quantities, for which the holders demand long values; new German Red moves off at last week's currencies, in white Clover seed there has been an advance of 4s. to 5s per cwt; Alsike seed has also risen considerably in value, the recent low prices of the latter having attracted the attention of speculators, and some heavy sales have in consequence been effected. Trefolls meet with an improved demand. In French Italian Rye grass we note a decline of 1s. per cwt. Mustard seed is exceedingly firm. For Rape seed we have a better inquiry. Spring Tares meet with a ready sale at last week's quotations. English sowing Flax seed is in fair request. Bird seeds are without alteration. French Sainfoin seed, being in short supply, is 2s. per qr. dearer.

JOHN SHAW & SONS, 16, Water Lane.

AVERAGES.

	Wheat.	Barley.	Oats.
Jan. 30 ..	51s 5d	49s 7d	27s 6d
Feb. 13 ..	50 9	47 9	28 1
— 20 ..	50 3	47 0	27 4
— 27 ..	49 7	46 2	28 6
March 6 ..	49 4	46 0	28 2
— 13 ..	48 10	45 6	27 10
Average ..	50 0	47 0	27 11

Mushrooms.

WANTED, a Man to GROW MUSHROOMS and make SPAWN. A constant place and good wages to a competent person.—Apply to FREDK. MATYER, Market Gardener, Land's End, Fulham, S.W.

WANTED, ONE or TWO MEN, having a thorough practical knowledge of Horticulture, to SUPERINTEND TEA GARDENS in INDIA. They must be well educated, and quite capable of conducting Correspondence and simple Accounts. A liberal and progressive salary will be given to approved applicants.—Apply to ROBERT BULLEN, Curator, Royal Botanic Gardens, Glasgow.

WANTED, a YOUNG MAN accustomed to the Cultivation of Hardy Bulbs and Alpine Plants.—Apply, stating age, wages required, and where last employed, to JAMES DICKSON & SONS, Newton Nurseries, Chester.

WANTED, a strong Youth or Young Man used to NURSERY WORK, to live in the house, as one of the family. Good character.—Apply by letter to J. W. COLE, Nurseryman, Halton Holegate, near Spilsby, Lincolnshire.

WANTED, a single Man, as PACKER, and to make himself generally useful. He must have a fair knowledge of Plants, and write a legible hand.—Apply to W. DILLSTONE, Sible Hedingham, Essex.

WANTED, as SHOPMAN in the Seed Trade, an experienced Hand, to take the entire Management of the Retail Department in a London House.—Apply by letter, stating where previously employed and salary expected, to L. Gardeners Chronicle Office, W.C.

WANTED, an APPRENTICE, in a Corn and Seed Establishment, to live with Employer on the premises.—For particulars apply to THOS. B. THOMSON, Birmingham and Midland Counties Seed Warehouse, 30, High Street, Birmingham.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. E. G. HENDERSON & SON, Wellington Nursery, St. John's Wood, London, N.W.

To Gardeners and Bailiffs (Head, Foremen, or Under). JAMES CARTER and CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those who can send unquestionable references need apply.

Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & CO. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c.

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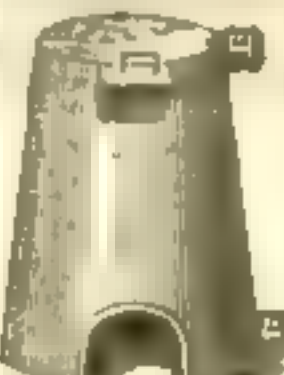
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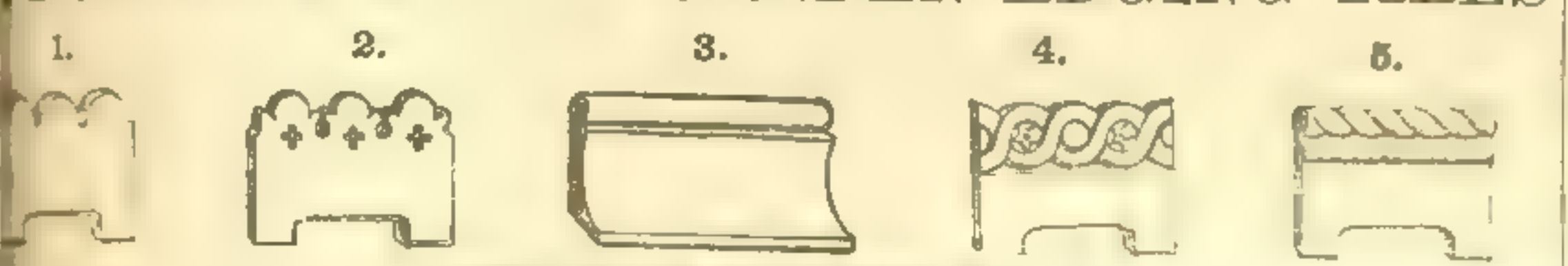
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PRACICAL GEOLOGY - KING'S COLLEGE, LONDON. PROFESSOR TENNANT, F.R.S., will give a COURSE OF LECTURES ON GEOLOGY AND MINING.

THE RIGHT HON. VISCOUNT COMPTON, The Right Hon. Viscount Hornby, The Right Hon. Viscount Fitzroy, The Right Hon. Viscount de Grey, The Right Hon. Viscount de Grey.

YEVING LECTURES - ROYAL SCHOOL OF MINES, Jermyn Street. - PROFESSOR F. GUTHRIE will COMMENCE A COURSE OF EIGHT LECTURES ON LIGHT ON MONDAY NEXT, APRIL 5, at 8 o'clock.

Home News.

THE COURT. - The Queen and Royal family continue at Windsor. On Thursday, the 25th, Prince Arthur arrived at the Castle from Greenwhich Park.

On Friday morning the Queen and Royal family attended Divine service in the private chapel. The Rev. R. Du'worth preached the sermon.

In the afternoon the Queen drove out with Princess Louisa and Prince Arthur. On Saturday morning the ceremony of churching Princess Christian took place in the private chapel of the Castle.

The Duke of Windsor officiated. The Duke of Roxburghe left the Castle. On Easter Day the Queen and Royal family attended Divine service in the private chapel.

The Dean of Windsor officiated, and administered the Sacrament. Prince and Princess Christian visited her Majesty, and remained to luncheon. On Monday the Queen drove out in the morning and afternoon.

Prince Arthur went to Dover, to be present at the Volunteer review, and returned to Windsor at night. On Tuesday morning the Queen walked and drove in the grounds with Princess Louisa.

Wren Hoskyns, by large majorities over Sir R. Bagot, and Mr. Clive and Mr. Chandos. The numbers being, Wren Hoskyns, 1035; Sir R. Bagot, 800; Mr. Clive, 750; Mr. Chandos, 700.

THE ELECTION PETITIONS. - The election of Sir W. Wakefield before Baron Martin, on the 13th inst. The two South Hants petitions are to be tried at Winchester, before Justice Willes, on the 26th inst.; and the Warwick County petition is to be tried before Justice Willes on the 5th of May.

BISHOPRIC OF LINCOLN. - The enthronement of Bishop Wren Hoskyns, at Lincoln Cathedral, took place on Thursday with the usual pomp.

THE REVENUE. - The Revenue returns for the year ended 31st March 1889, show a total of £291,772,000, on the year ended 31st March 1888 of £291,772,000.

THE BISHOPRIC OF NEW ZEALAND. - The Rev. W. G. Cowie, rector of St. Paul, and formerly chaplain to the late Bishop of Calcutta, has accepted the Bishopric of New Zealand.

THE BISHOPS ON THE IRISH CHURCH. - Some of the Church Papers, which profess to be well informed, state that the Bishops of Gloucester, Lichfield, and Peterborough are the only three of the British prelates who dissent from the policy recommended by the rest of the episcopate.

Foreign.

FRANCE. - It is confirmed that the soldiers on six months' furlough have been ordered to join their regiments on the expiration of their leave of absence on the 31st ult.; but it is semi-officially added that there is nothing unusual in this arrangement.

In the sitting of the Legislative Body on Wednesday, M. Kolb detailed the appointment of the Franco-German Commission entrusted to examine the pending commercial questions.

He asked whether it was the intention of the Government to substitute another treaty in place of the present treaty of commerce, and whether the tariffs would be modified in any way.

M. Rouher, Minister of State, in reply, declared that the Commission had not received any programme for its deliberations, and that no modification of the tariffs would be introduced in future without an inquiry.

Two Bills, the first relative to the suppression of the workmen's books (livrets), and the second granting the concessions for several new lines to the Northern Railway Company, were laid on the table.

In the sitting of Thursday M. Picard's interpellation relative to bribery or corrupt practices at elections came on for discussion.

for the Treasury. The *France* states that a deputation from the Sporades has arrived in Paris to solicit the assistance of France against the repressive measures that have recently been imposed by the Ottoman Government. It appears, however, that the deputation will not be received by M. de Lavalette in person or in his name. The *Opinion Nationale* says that several persons, among whom is M. Gustave Flourens, have been arrested on charges connected with their conduct at some of the recent public meetings in Paris.

SPAIN.—The Committee's project for the new Constitution was read in the Cortes on Wednesday evening. It proposes an hereditary monarchy, Cortes, consisting of a Senate and a Congress, to make laws, which are to receive the King's sanction, and to be promulgated by him, and the monarch is to exercise the executive power through his ministers. The Catholic religion is to be maintained by the nation, but Spaniards and foreigners are to be guaranteed free exercise of other forms of belief, subject only to the laws of universal morality and right. The Bill for the new loan was carried. On Thursday the Cortes were occupied with the election of a secretary and two vice-presidents. Marshal Serrano, in reply to a question, declared that the deputies from Cuba would soon take their seats in the House, the Government having sent out to the island the necessary orders for their election. In the sitting of Wednesday, Senor Posada Herrera asked whether it was true that the Portuguese Minister had informed the Provisional Government that Dom Fernando would not accept the Spanish Crown. Senor Lorenzana replied that the Government had received no official communication on the subject. General La Torre has been appointed Captain-General of the Philippine Islands. Fifty Spaniards received the communion in Madrid on Sunday morning according to the Protestant rite. This is the first time that this ceremony has been celebrated in the capital since the time of Philip II. The reformed faith is also making great progress at Seville. A rumour is current that a Carlist conspiracy has been discovered in Navarre, and that a general, a colonel, and a captain have been arrested on suspicion.

PORTUGAL.—The funeral of Captain Roderick Dew, of her Majesty's ship *Northumberland*, took place in the Protestant Cemetery at Lisbon on Friday. The members of the British Legation attended, with several British, American, Portuguese, and Prussian officers.

SWITZERLAND.—An address, signed by 4000 citizens, has been presented to the Government of the Canton of Geneva, asking that energetic steps should be taken to resist the terrorist attitude assumed by the International Association of Workmen.

BELGIUM.—The Court of Assizes at Bruges yesterday passed sentence on the prisoners accused of incendiarism at St. Genois. Vanderputte was sentenced to 12 years' hard labour. Virginie Takkens to 15 years' imprisonment. Van Overshelder to 10 years', and De Poorter to 5 years' imprisonment.

HANOVER.—Professor Ewald, who was lately acquitted by the Supreme Tribunal at Gottingen on a charge of high treason, was on the day of his acquittal selected unanimously by a large meeting of electors as their candidate for the Parliament of the Northern Confederation.

AUSTRIA.—The official *Wiener Zeitung* publishes an Imperial decree sanctioning the finance law and the estimates for 1869. The Grand Duke Vladimir of Russia, travelling *incognito*, arrived at Vienna on Friday, on his way to Italy. His Imperial Highness was visited by the Emperor, and afterwards returned the visit. The Baroness Julia Ebergényi, who was some time ago sentenced to imprisonment for life, for having, with Count Chorinsky, poisoned the wife of the latter, has made an attempt to escape from the prison of Nendorf under the disguise of a nun. She was, however, detected and stopped by one of the gaolers at the moment she was about to pass through the gates. A lady belonging to a high family of Vienna was waiting for her outside with a carriage.

HUNGARY.—The Emperor Francis Joseph arrived at Pesth on Monday. Of the elections to the Hungarian Diet which have been held up to the present time 230 have resulted in favour of the Deak party and 160 in favour of the Opposition.

TRANSYLVANIA.—A Ministerial order has been issued, prohibiting the continuance of the committee which has lately been carrying on a political agitation on behalf of the Roumanian nationality.

RUSSIA.—An ordinance has been issued granting a furlough to the sailors of the Imperial Navy the unlimited furlough which had recently been withdrawn. An Imperial ordinance has been issued, decreeing that the former practice of coining three-rouble gold pieces shall be resumed. The standard of this coinage is to be 88, and it will contain 81 parts gold.

ITALY.—Lieut. General Moring arrived at Florence on Tuesday, sent by the Emperor of Austria to return the complimentary visit of General Della Rocca to Trieste. The diplomatic despatches relating to the negotiations on the Roman question were distributed on Tuesday among the members of the Chamber of Deputies. They consist of 69 documents, exchanged, with few exceptions, between Paris and Florence, and of which the dates range from the 7th December, 1867, to the 1st December, 1868. These despatches testify to the firm attitude of the Italian Government, and its persistence in endeavouring to obtain the establishment of a *modus vivendi* between Italy and Rome, and the recall of the French troops from Civita Vecchia. The negotiations relative to the *modus vivendi* remained without result, owing to the resistance of the Papal Government. A note of the Marquis de Moustier, of the 31st October last, makes the recall of the French troops depend upon the adhesion of the Pope and of the Catholic world.

GREECE.—By a Royal decree published at Athens on Monday the Chamber is dissolved. The elections for

the next Parliament will take place on the 28th of May. The Ottoman Ambassador had his first audience of the King on Monday. On Thursday the King and Queen left for Corfu, where they intend to pass the summer months.

TURKEY.—The Prince and Princess of Wales arrived at Constantinople on Thursday morning, in the *Ariadne*, accompanied by the *Psyche*. The *Caradoc*, the Sultan's yacht, and nine other steamers, had gone into the Sea of Marmora, with the British residents on board to welcome their Royal Highnesses. The Minister for Foreign Affairs and the Sultan's Grand Chamberlain went on board the *Ariadne*, and all landed in the Sultan's barca at the Salihbazar Palace, the usual salute being fired. The royal party were preceded by a guard of honour and the Sultan's band. All the foreign steamers in the port were dressed with flags.

EGYPT.—The Prince and Princess of Wales, after inspecting the works of the Suez Canal, left Port Said on Friday evening, and reached Alexandria on Saturday morning. Their Royal Highnesses left Egypt on Monday, in the *Ariadne*, for Constantinople.

CAPE OF GOOD HOPE.—Accounts from the Cape to the 20th Feb. state that a tract of country 100 miles long, and varying in breadth from 15 to 150 miles, had been desolated by a fire unparalleled in the annals of the colony. The weather had been unusually hot and dry for the previous six weeks. On the 9th of Feb. the temperature throughout the colony rose to a more intense heat than ever previously known. During the morning scorching hot winds blew from the north-east, and in the afternoon a fire broke out at several places in the burnt district, and wrapt millions of acres in an enormous conflagration. The cultivated lands, farm buildings, native forests and bush, farm stock, and wild animals sharing the same fate. In a few hours hundreds of pounds' worth of property was destroyed, the European colonists and natives alike suffering, and in the majority of cases the sufferers losing all they possessed. Several persons were also burnt to death, the casualties in the majority of cases occurring to the natives and to the wives and children of the colonists. Those saved had to take shelter in the rivers, water dams, and wet ditches, where many of them were badly scorched. The calamity occurring just after the harvest, which had been an unusually good one, and destroying its produce, has caused great distress in the districts of Swellendam, Riversdale, Mossel Bay, George, and Oudtshoorn, the Knysna, Humansdorf, and Uitenhage. It is believed that the damage would have extended further but for the rain setting in. Meetings have been held in the colony to relieve the sufferers, and an appeal has been sent home to England. The Legislative Council elections had taken place in the western province, and had proved largely in favour of the party opposed to the introduction of ecclesiastical support. Elections were also taking place in the eastern province, and there the Conservative element was also expected to predominate. The Free State and Basuto difficulty had been settled.

INDIA.—Shere Ali, the Ameer of Afghanistan, arrived at Umballa on the 24th, and the Earl of Mayo arrived on the morning of the 27th ult. They met with a grand reception. The road from the railway to the camp was lined with troops. The Viceroy's Durbar, which was held on Saturday last, was a great success. Lord Mayo welcomed Shere Ali, in the name of the Queen, and expressed a hope that the interview would be the commencement of a new era of mutual confidence. The Ameer was much gratified with his reception. The presents of the Government to Shere Ali are valued at 10,000*l.* On Monday the Viceroy returned the visit of the Ameer at Umballa. Presenting his own sword to the Ameer, Lord Mayo declared that the British would always be friendly towards him.

CHINA.—It is rumoured that an Imperial edict has been issued, prohibiting the cultivation of the poppy.

JAPAN.—The Pacific mail steamer *Hermann*, with Japanese troops on board, has been totally lost 70 miles north of Yokohama. The loss of life is estimated at from 250 to 300 souls. The German bark *Madeira* has been totally lost in Pratos shoals.

UNITED STATES.—Ex-President Johnson is not dead, as reported last week, but is still ill. The Bill passed by the Senate to modify the Tenure of Office Act was defeated last week in the House of Representatives by a majority of 99 to 70. The House insisting on the repeal of the Act, and the Senate insisting upon its being merely modified, both Houses agreed to refer the measure to a joint Committee of Conference, and the Bill has been finally passed by both Houses as reported back from the joint Committee. The Bill is now substantially the same as the one adopted by the Senate. By its provisions the absolute removal of officials by the President is still prohibited. Should the Senate reject his nomination of any public officer, the latter's predecessor is to be considered reinstated in office. The Foreign Affairs Committee of the House of Representatives have reported a resolution authorising the President to recognise the independence of Cuba. The Legislature of Massachusetts has ratified the 15th constitutional amendment, prohibiting the denial or abridgment of the right to vote on account of race, colour, or previous condition of servitude. The Senate of Columbia has rejected the treaty concluded by Mr. Cushing for the construction of a canal across the Isthmus of Darien.

BRAZILS.—General Polydoro, and not the Count D'Eu, will succeed the Marquis de Caxias in command of the Brazilian forces in Paraguay. A second Argentine expedition has been sent to the interior of Paraguay. Nothing positive was known of Lopez, he is said to have 18 cannon and 3000 men, with abundance of food, in the mountains, but his ammunition was said to be scarce. Senor Paranos has arrived at Assumption.

CUBA.—General Dulce has telegraphed to Madrid that before a fortnight has elapsed the island will have been completely extinguished.

CHILI AND PERU.—Earthquake shocks were experienced at Santiago, in Chili, with alarming violence. Scarcely a day passed without one or more being experienced. In Peru, also, earthquakes occurred in the interior, creating great consternation.

Parliament.

THE House of Commons reassembled on Tuesday after the Easter recess. The ATTORNEY-GENERAL called attention to the report of Baron Macclesfield tried the late election petition for Norwich, to the effect that corrupt practices had extensively prevailed at that election, and moved an Address for a Commission to inquire into the existence of such practices at Norwich. Mr. C. S. REID supported it. Mr. GATHORNE HARBY supported it. Mr. GATHORNE HARBY reported the extensive prevalence of corrupt practices, the House had no objection but to agree to a Commission almost as a matter of course. After some remarks by Mr. H. GENERAL moved a similar Address in the case of water, against which a report had been presented by Mr. Justice Blackburn. The motion was agreed to without opposition. The second reading of the Metropolitan Poor Act (1867) Amendment Bill was proposed by Mr. GOSCHEN until next week. The Valuation of Property Bill was read a second time after some remarks by Mr. HENLEY, Mr. W. SMITH, and Mr. LOCKE, on the understanding that they were committed to nothing beyond the establishment of a common basis of rating. The Select Committee on the Endowed Schools Bill was nominated. Today Mr. STAPLETON gave notice that on Tuesday next he will ask the Home Secretary whether attention has been called to a ritualistic procession which took place on Good Friday in St. George's-the-East, and whether such processions are in accordance with the law. Mr. GREGORY gave notice that on the 30th inst. he will move that the British Museum and other public buildings should be opened to the public on Sundays, after morning service. Mr. JENKINSON gave notice that on the motion for the introduction into Committee on the Irish Church Bill, he will move that the compensation should not be taken out of any funds in the possession of the Irish Church. The House was left sitting.

City Intelligence.

BANK RATE OF DISCOUNT.—The Directors of the Bank of England on Thursday made an advance of 1 per cent. in the rate of discount, which has been raised from 3 per cent., at which it was fixed on the 24th December last, to 4 per cent.

MONEY MARKET, FRIDAY.—BRITISH FUNDS: Consols closed at 92½ to 92½, both for Money and Account; New and Reduced Three per Cent. at 91½; Exchequer Bills, 1s. to 5s. pm.; India Five Per Cent., 112½ to 112½.—FOREIGN: Brazilian, 79½ to 79½; Egyptian (1868), 76 to 76½; Ditto (1864), 86 to 86½; Viceroy's Seven per Cent., 80½ to 81½; Do. per Cent., 95½ to 95½; Italian, 54½ to 55; Portuguese Loan, 81 to 85; Peruvian, 78½ to 79½; Portuguese Loan, 36½; Orel, 81½ to 82½; Nicolas, 66½ to 67; Moscow, 79½ to 79½; Charkof, 77 to 77½; Spanish, 30½ to 31; Turkish (1862), 66½ to 67½. Ditto Six per Cent. at 41 to 41; Ditto Five per Cent., 40½ to 41. United States 5-20 Bonds, 83 to 83½; Erie, 24½ to 25; Illinois 96½ to 97½.

Metropolis and its Vicinity.

THE EASTER REVIEW AT DOVER.—The Volunteer Review on Monday took place under circumstances which are not likely to be soon forgotten. The morning was ushered in by a hurricane, during which the Majesty's training brig *Ferret* was wrecked on the Admiralty Pier, the Castle heights were covered with snow, and the Volunteers on their arrival at Dover found themselves exposed to drifts of hail so thick and violent that the object of their journey seemed hopeless of attainment. Soon after 7 o'clock the special trains from London began to arrive by both the Southern and the London, Chatham, and Dover Railway. Among the first corps which arrived were the 3rd London, the 37th, the 40th, the 48th Middlesex, and the 3d Middlesex Artillery. The Hon. Artillery Company came down in the course of the morning, the guns having been brought down on Saturday. At 9 o'clock bands were playing in all directions, and 16,000 Volunteers were already preparing for the muster on the various points of rendezvous along the beach. But at 9 o'clock the weather became worse than ever, and in another quarter of an hour rain and sleet were falling, and the wind had risen to a hurricane. The tide also was rapidly rising, and an alarm from the Admiralty caused every one to run in that direction, where a grand but unexpected spectacle was witnessed in the total destruction of her Majesty's ship *Ferret*. The *Ferret* and the *Marten*, companion training brig, had come round from Portsmouth on Saturday, and were part in the naval operations at the review, and were moored to buoys on the east side of the Admiralty pier. The *Ferret*, which carried eight guns, and had a crew of 17 men, seven or eight stewards, and 38 boys, after rolling heavily for some hours during the gale, length parted from her moorings, and was instantly let go, but she was rapidly driven against the pier. The shouts of those on board were heard by the

that for the same description of house elsewhere he would have to pay at least one-third more rent, and at the end of his 21 years have no more title to the property than on the first day he entered on its occupancy. After the stone was laid on Tuesday, Lord Shaftesbury dwelt upon these advantages, and above all on the enormous benefits which must accrue to the working men from having clean, well-ventilated, and wholesome dwellings instead of being huddled together as they now were in crowded sties, the very atmosphere of which so depressed the vital system that drinking and all its hideous train of vices was almost forced upon the poor. He avoided expressing any opinion as to the financial results of the company, but did not conceal his admiration of the good work they had begun, and earnestly hoped that it would be as successful to them as it must in any case be beneficial to the working men who would tenant the houses. He believed in the goodness of the scheme, as he believed in the excellency of most of the efforts which were now fortunately being made for the benefit of the artisan and mechanic, and all the upper class of handicraftsmen; and he thought the day was not far distant when as classes they could be pointed to as models of frugality, temperance, and industry. The Hon. Arthur Kinnaird also addressed a few words to those who had come to witness the laying of the stone.

BEARDS AND MOUSTACHES FOR THE POLICE.—By direction of the Commissioners of Police, an order was read on Wednesday at every station of the force, stating that the Metropolitan Police will in future be permitted to wear beards and moustaches. The order was received with general satisfaction by the men.

THE PUBLIC HEALTH.—The weekly return of the Registrar-General states that in the week that ended on Saturday, March 27, 4623 births and 3594 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 29 per 1000 persons living, being 26 per 1000 in London, 36 in Edinburgh, 33 in Dublin, 31 in Bristol, 17 in Birmingham, 31 in Liverpool, 32 in Manchester, 25 in Salford, 31 in Sheffield, 32 in Bradford, 21 in Leeds, 30 in Hull, 26 in Newcastle-upon-Tyne, and 46 in Glasgow. The rate in Berlin was 34 per 1000 during the week ending the 25th ult. In London the births of 1121 boys and 1076 girls, in all 2177 children, were registered in the week. In the corresponding weeks of 10 years 1859-68, the average number, corrected for increase of population, was 2259. The deaths registered in London during the week were 1590. It was the 12th week of the year, and the average number for that week, corrected for increase of population, was 1603. The present return is therefore 13 below the estimated amount.

Provincial.

BIRKENHEAD.—On Saturday morning the turret-ship Captain, built and armoured on the principle of Captain Cowper Coles, was successfully undocked at the works of Messrs. Laird, in the presence of the First Lord of the Admiralty and a large number of naval officers. As soon as she had cleared the shed under which she had been built, her telescopic funnel was raised, steam got up, and everything held in readiness for a trial of her engines. By the assistance of powerful steam-tugs she was taken into the Alfred Dock, where she was moored and visited by Mr. Childers and a large number of naval and scientific men. The engines were worked for several hours in a highly satisfactory manner. The huge turrets were also worked in the presence of Mr. Childers, by steam as well as by hand-power. In 45 seconds the turret made a complete revolution, and it was found that at any point, and without the slightest difficulty, it could be stopped or reversed.

BRIERLY HILL.—On Sunday morning the nine men and three boys who were so marvellously delivered from Lock's Lane Pit, attended Brierly Hill Church, for the purpose of offering up public thanksgiving for their restoration to their families. The men sat in a body on seats provided for them in the centre of the church, and immediately in front of them were Mr. Frederick Smith, chief agent for the Earl of Dudley, and the heads of the various departments in connection with the mining estates. Only one or two of the men were able to walk to church, and those who did so lived in the immediate neighbourhood. The others were conveyed in cabs. The fact that they would attend church having been publicly announced there was great excitement in the neighbourhood, and many thousands crowded the street and churchyard for the purpose of obtaining a view of persons who were looked upon as men raised from the dead. The church itself was crowded, and many hundreds were obliged to stand during the service.

BURY ST. EDMUND'S.—A proposition is in the course of discussion by the magistrates of Suffolk to amalgamate the police forces of the east and west divisions of that county, which are now separately officered and managed.

CAMBRIDGE.—Mr. G. H. Hallam, scholar of St. John's, and Mr. J. S. Reid, of Christ's, were bracketed equal for the place of Senior Classic in the Classical Tripos. Mr. Hallam was educated at Shrewsbury School, was elected Craven University scholar last year, and obtained the Browne Medal for a Latin ode in 1867, and for a Greek ode in 1867 and 1868. Mr. Reid was educated at the City of London School, which has turned out three Senior Classics and two Senior Wranglers during the last twelve years. Mr. Warr who was third, was educated under Dr. Turner, at the Royal Institution School, Liverpool, was Scholar of Trinity, and Porson prizeman and Members' prizeman.

DERBY.—On Monday a party of Derby gentlemen, including Mr. Joseph West, his brother, Mr. Eli West, and Mr. Jas. Haywood, were returning from the meet-

of Mr. Meynell Ingram's hounds, and began cantering across the grass-land in Foston Park, Mr. Joseph West being in the rear of the others. The party pulled up in front of the hall, when Captain Lovett, of Barton Fields, shouted out "I'm sure there is a man killed." The party then turned to look, and saw the body of Mr. Joseph West lying at the foot of a tree. They rode up and found him dead, the front of his head and face being fearfully battered in. It appears that there were only two trees in that part of the park, and the impression is that Mr. West was riding his horse along the park without taking notice where he was going, and that he struck the trunk of the tree with such force as to cause instantaneous death. He was only 27 years of age. An inquest was held on Tuesday, when a verdict of Accidentally Killed was returned.

KINGSTON.—The Corporation of Kingston-on-Thames received last week a communication to the effect that the Secretary of State declined to grant a provisional order to take certain lands, known as Ham Fields, for the purpose of sewage irrigation. The Government inquiry into the merits of the petition, presented by the Corporation to the Home Office, praying for powers to take the land in question, closed on the 19th ult.

LEAMINGTON.—On Monday morning the Leamington Local Board held a special meeting to consider an offer received from the Earl of Warwick, to take the whole of the sewage of the town for a term of 30 years, and dispose of it by irrigation on his lordship's estate, two or three miles south of this town. The local board are to lay down the requisite mains, construct the necessary works, and pump the sewage to a given point on the estate, and in return his lordship will pay the board 150*l.* annually for the sewage. The terms proposed by his lordship were unanimously approved of by the board, and the offer was accepted, and will come into operation on the 25th March, 1870, by which time Lord Warwick will be prepared to dispose of the sewage on his estate.

LYNN.—On Monday afternoon, in consequence of an unusually high tide, nearly 50 feet of the bank of the River Ouse split and subsided into the river close to the sluice of the St. Peter's drain, and about half a mile from St. Germain's church. Great fears were entertained that at high water in the evening the tide would come through the breach and flood the country, as in 1862; but the measures which were promptly adopted to secure the breach were effectual in preventing the threatened inundation.

MAIDSTONE.—The Government has offered a reward of 100*l.*, with a free pardon, to any accomplice, not being the actual culprit, who will give such information as will lead to the conviction of the murderer of John Fenn.

NEWCASTLE-ON-TYNE.—Mr. Reverdy Johnson, who arrived in this town on Monday, was presented on Tuesday morning, at the Town Hall, with addresses from the Chamber of Commerce, the iron trade, the coal trade, the alkali trade, and the corporation of South Shields. In returning thanks Mr. Johnson spoke at great length on English-American questions, and reiterated his assurance that the Alabama question would be settled without war, which would cost infinitely more than the sums claimed. The two countries, he was sure, would ever work together, and promote unity, peace, and concord between the two people. In the evening his Excellency was entertained at a public banquet in the Town Hall. In returning thanks for the toast of his health he referred to the desire of his own Government to reduce the rates of postage between this country and America, and the efforts he made to obtain a reduction. He then spoke of communications he had received on the subject of the light dues from a Chamber of Commerce in England, urging him to induce his own Government to bring their injustice before her Majesty's Government, and he had done so. With regard to free trade, he thought that any system to be carried out should be a fair one. The Americans had manufactures of their own, such as spirit, which they wanted to send out to England; but the tax on the article amounted to 350,200*l.* They also wanted to send tobacco, but they were made to pay a tax on that product last year of 6,274,200*l.*, which was a pretty round sum to pay in this land of free trade. He then referred to an allusion made by Dr. Ball, M.P., in the debate on the Irish Church, to the state of morality and religion in America as described in Mr. Dixon's book, and said that with regard to moral and religious character he did not know that they had the advantage of us; but, without boasting, he might say, what he believed to be the truth, that they had more churches in the United States than in any other country in the world; had more communicants than any other country, and paid their parsons better. He then alluded to the statements recently made at Sheffield by Mr. Roebuck as to the things England had reason most to dread. The chief of these was America; but a more idle fancy never entered the brain of man than that of a war between England and America. It could not be; and no man more rejoiced in that conviction than the one who addressed them.

PLYMOUTH.—The telegraph cable thrown overboard by the Calcutta has been cut by the Caroline 10 miles from the eastern end. She had recovered up to the 25th ult. 27 miles of the longer end, and it is hoped that she will succeed in getting the other part on board.

PRESTON.—A large meeting of delegates from various towns in Lancashire was held in this town on Sunday, at which it was resolved that 4*s.* per head should be given this week to all operative weavers on strike, whether they be in or out of the Union, with an extra shilling to each weaver in the Union. The delegates, during their discussion, spoke strongly against giving way to the proposed 10 per cent. reduction, but expressed their perfect willingness to sanction a lowering of wages 5 per cent. A meeting of delegates repre-

senting the card-room operatives, including delegates from 20 districts, was held on Monday, and was unanimously resolved "that all the districts should give their association support by every legitimate means to power the card-room hands of Preston to maintain their position on strike, by putting on levies and making contributions in the card-rooms of all the mills in Lancashire." On Tuesday the delegates from the Preston district hands were sent into the South Lancashire to state their case, and have since reported favourably to the support they have received. On Wednesday evening a meeting of the Amalgamated Trade Union was convened to consider a letter received from Mr. Mundella, M.P., suggesting, among other things, the establishment of a council of conciliators in the town.

SALFORD.—The execution of Michael Jackson, the murderer of Patrick Nurney, took place at the prison on Monday morning. The prisoner was noted for the violence of his conduct when he went on Boxing-night and demanded drink, refused, and deceased, who was a water, and a landlord to remove him. On this John Jackson, a knife and stabbed Nurney in the thigh, causing immediate death. The jury, in giving a verdict of Guilty, recommended him to mercy, and made to obtain a remission of the sentence of the culprit, from this, entertained the idea, at least that he would not be executed, and his behaviour to the Roman Catholic chaplain, who have been discreditable. Since Friday, on which his parents took leave of him, his conduct had hardened; but he does not appear to have shown much penitence for his crime.

SWANSEA.—On the evening of the 23rd ult. colliers employed in the New Mountain Colliery, Llangyfelach, had nearly all left the pit on the approaching Good Friday. There were two men and two boys, however, still at work, and one of the boys was going to an old working for a stove. He was cautioned not to take a light, as it was thought that fire-damp had accumulated there. Despite this warning, he went into the place with a light; an explosion instantly followed; he was killed on the spot, and two men were suffocated after-damp. The others escaped, but not without great danger, several of them having suffered from the after-damp.

TODMORDEN.—Mrs. Plow, the widow of Rev. A. J. Plow, vicar of this parish, was ordered by Miles Wetherhill in March last to leave the 19th ult. She never recovered from the attack made upon her; but after 12 months suffering died at Wantage, almost exactly a year after her husband. The Todmorden tragedy resulted in the deaths of a father, a mother, a child, and a nurse.

WATFORD. Early on Sunday morning a colliery farm, at Shaw-end, about nine miles from the town, was completely destroyed by fire. Only inmates of the house were an old man, a woman, Watson, his housekeeper, and a little boy, 10 years, their son. About 8 o'clock a party of men and his housekeeper were found in the ruins, and his housekeeper presented a ghastly appearance in the same room, but, strange to say, she escaped the same fate; for the little boy, some time after the accident, crept out from the ruins and was found in an adjoining building, which was not so completely destroyed, and was not so much hurt.

WIGAN.—Another colliery explosion occurred on the morning of the 23rd ult. in the Highbrook colliery, a fiery Arley seam in which so many accidents have recently happened. It is supposed to have been caused by the firing of a shot, which has not yet been discovered, but has been blown out; but it will probably never be discovered, as the shot was fired by boys employed in that part of the mine. 28 bodies have been brought to the surface, and were so terribly mutilated, that few could be recognized. On Thursday night. Several families, including a father, brother, are all dead.

Ireland.

THE IRISH CHURCH.—Meetings of the Irish Church in various dioceses of Ireland. At a Synod in the Bishop, Dr. Alexander, declared that he was to any idea of compromise on the question of the Church and laity present took the same view of the matter, and in the most decided language declared that the Bill was pronounced "a sacrilegious violation of Union, and a sacrilegious violation of property of the Church, whose property it was to depress the Protestant and to exalt the Catholic Church in the ascendant." At a meeting in Dublin, Sir Joseph Stansfeld, M.P., proposed a resolution declaring that the Bill was a violation of justice, that it violated every principle of honour, and alienated to secular purposes property dedicated to God, declared that "no compromise, or attend to any scheme was entertained, but to support the measure he was ready and willing to do so." The Bill was bristling with objections, all the recklessness of the robber and the thief. He concluded by saying that "the Irish people are the victims of a political game—the victims of a game of brigands." At Gorey on Saturday, the Bill was over by the Earl of Courtown, who was attended by a very large number of the parts of the county Wicklow. The

against the Bill as unjust in its principles and fraught with disastrous consequences to all classes, and declared that the Church, as a body, should not offer any compromise with regard to the Bill, or take any steps towards amending provisions. A meeting of a similar character was held in the County Leitrim, which was remarkable for the attendance of several members of the clergy, one of whom, the Rev. Mr. Lynn, proposed a resolution. The Conference for Leitrim and Kildare was held on Wednesday at St. Patrick's Cathedral, the Archbishop presiding. Five hundred delegates attended. Addresses were given by the Archbishop, Sir E. Grogan, Rev. Mr. Arden, and Hon. D. Plunket, and resolutions were passed condemning the Bill and opposing any compromise. Mr. Gladstone. In the course of his address, the speaker strove to show that the refusal of the Government to meet the Church to meet, whilst riling it of its protest, was a "bartering" process, and intimated that at the coming Conference there was no intention of forming any Church body to assist Mr. Gladstone's project. On the same day Conferences were also held in Kilkenny, Cavan, Ossory, Meath, Clonmel, Limerick, and Wick, when resolutions were adopted protesting against the Bill. At Cavan the resolutions were moved by Presbyterian and Methodist ministers. At the Navan and Meath Conferences the measure was treated as inevitable, and it was considered desirable to make the best terms that could be secured, and instead of wasting their energies in declamatory invectives, to concentrate their attention upon the more useful object of securing to obtain some reasonable modification of the Bill. The attendance at all the Conferences was full. At Belfast, on the same day, a great and important meeting was held, the Earl of Enniskillen presiding, supported by the Marquis of Downshire, Lord O'Neill, Lord Cole, and the leading landed gentry of Ulster. Five thousand artisans were in the body of the meeting. The resolutions were of the most uncompromising character. The High Sheriff of Antrim moved, and W. Johnston, M.P., seconded the following resolution, which was carried by acclamation:—"That we shall continue to uphold the legislative union between Great Britain and Ireland so long as the international compact is respected and held inviolable by the British Parliament, but should the 5th article of the Treaty of Union, which is expressed to be essential, fundamental, and perpetual, be repealed, we shall be forced to regard the union as virtually dissolved."

CARDINAL CULLEN AND THE FREEMASONS.—Cardinal Cullen, in a pastoral issued in Dublin yesterday morning, pronounces that all Roman Catholics who attend the Masonic hall to be given to H.B.H. Prince Arthur in Dublin shall be excommunicated.

THE ATTEMPT TO BRIBE A LORD-LIEUTENANT.—Mr. Downing, a gentleman residing in the county Wick, was prosecuted at the recent assizes for sending a letter to Lord Fermoy, lord-lieutenant of the county, to induce him to get the writer appointed to the Commission of the Peace. He pleaded guilty, and expressed great regret for his indiscretion. Mr. Justice O'Brien, in pronouncing sentence, commented in terms of great severity on the serious character of the offence, and said it would have been his duty to sentence the prisoner to a long term of imprisonment if medical evidence had not been given that confinement would be dangerous to his health. Under these circumstances he thought the ends of justice would be best served by sentencing Mr. Downing to pay a fine of £100.

THE FENIAN CONVICTS' FUND.—On Sunday a large Fenian levy was made in the Roman Catholic church in Cork, Mayor O'Sullivan, the treasurer of the fund, attending mass in full robes, accompanied by the civic officers.

MURDER IN TIPPERARY.—On Wednesday night a farmer named Topham, residing at Boffant, within 13 miles of Clonmel, was shot dead on his own farm. The body was found on Thursday morning with two bullet wounds in the head. No particulars have been received.

ATTEMPTED ASSASSINATION IN KILLARNEY.—A terrible attempt has been made to assassinate The Viscount of the Reeks, in his domain at Killarney. He was twice fired at from the shrubbery. His clothes were perforated with slugs, but he himself was unharmed. He is but 17 years of age. No arrests have been made.

Scotland.

LORD STANLEY AT GLASGOW.—On Thursday afternoon Lord Stanley, who, in November last, was elected Lord Rector of the University of Glasgow, was installed in the City Hall, and, in the presence of the Mayor and a large assemblage of the general public, delivered his inaugural address. In the course of his remarks his lordship said that in affording facilities to comparative poor men to obtain knowledge and to compete on equal terms with the wealthy, the Scotch Universities set the English a good example, and one they would do well to follow. With reference to education, he insisted on the importance of acquiring accurate habits of thought and expression. He maintained the value of classical training if rationally conducted and gone into to such an extent as to acquire a mere smattering of Latin and Greek. He considered a sheer waste of time. In general he commended thoroughness. The student should only study what he had a reasonable prospect of over-coming, and master that completely. The address was warmly applauded. In the evening a grand banquet was entertained by the professors at a private banquet in the College Hall.

Law.

NORFOLK CIRCUIT, NORWICH.—The Norwich Murder and Mutilation.—William Sheward was indicted on his own confession for the murder of his wife, 17 years ago. He now withdrew his confession, and pleaded Not Guilty. The case for the prosecution dwelt chiefly on the prisoner's own confession, and the mysterious disappearance of his wife, followed by the discovery of the mutilated remains of a female body in various parts in and about the city of Norwich, of which his carefully preserved these remains in spirits of wine. The relatives of the wife deposed to her sudden disappearance, and to the ineffectual applications made by them to the prisoner for information respecting her. The medical men who had examined the remains in 1876, when they were still fresh, had come to the conclusion that they belonged to a young adult female, but now declared on inspection that they might be those of a woman of 15 or 20 years of age. The prisoner, although evidently feeble, listened to his sentence with apparent indifference.

HOME CIRCUIT: KINGSTON.—The Rachel and Borrodale.—Proceedings against Madame Rachel. The plaintiff, Miss S. S. S., made Mrs. P. P.'s partner in White Street Prison, and became known as a sort of female attorney and amanuensis for that lady in the prosecution of Madame Rachel, writing her letters, instructing her solicitor, preparing her case, &c. Plaintiff now claimed 160l. for her services, and presented a bill for that amount, some of the items of which were not a little curious. The jury, after two hours' deliberation, gave a verdict for the plaintiff, damages 100l.

MIDLAND CIRCUIT, LEEDS.—The Sheffield Child.—Henry Seyman was indicted for the wilful murder of his son, aged four years. A neighbour saw the prisoner at the door of his house, and heard him say to his wife, "Go and see what I have done." The wife and neighbour went upstairs and found the child with his throat cut. The prisoner ran up the street. He appeared very wild; the child was his father's first of four children. The prisoner had been frothing a great deal at family misfortunes, and had taken to drinking. He had cut the child's throat with a razor, and death must have been instantaneous. The evidence of one doctor went to show that on the night after the alleged murder the prisoner was suffering from a temporary derangement of mind, and that of another went to show that he was now sane. Baron Cleasby having summed up, the jury returned a verdict of Not Guilty, on the ground of temporary insanity. The prisoner, who appeared deeply affected during the trial, was ordered to be detained during her Majesty's pleasure.

Sporting.

EPSOM SPRING MEETING.

TUESDAY.—Trial Stakes of 100 sovs.—Sir J. Hawley's Blue Gown beat Formosa, Vespasian, and 4 others. United Railway Stakes.—Mr. Bromsgrove's Newminster filly beat Juanita, Czar, and 12 others. City and Suburban Handicap.—Mr. B. Hill's Alpenstock beat Drummer, Birthday, and 17 others. Beaufort Stakes.—Mr. J. Clay's Gladness beat Zerlina, Vibration, and 11 others. Two-Year-Old Stakes of 10 sovs.—Duke of Newcastle's Stephanotis beat Elferon, Green Riband, and 9 others. Heathcote Plate.—Mr. J. Saxon's April Morn beat Warrite, Anthony, and 13 others.

WEDNESDAY.—B. S. S. S.—Mr. P. P.'s filer beat King of the South, Lady Cecilia, and 2 others. Match, 100 sovs.—Mr. G. Payne's Marshal Ney beat Michael de Basses, Structural Perse, Mr. Pryor's Spynx beat Lady Evelyn, Conrad, and 14 others. Epsom Spring Cup.—Lord Wilton's Attack gelding beat Scattarius, Langer, and 2 others. Best Metropolitan Stakes.—Mr. G. J. Jones's The Drummer beat Laurel, Alpenstock, and 8 others. De. S. S. S.—Mr. W. Fletcher's Hilda beat Don Quixote, Juana, and 11 others. A. S. S. S.—The Westmorland's Guy Dayrell beat Reginald, Finsterre, and 9 others. Prince of Wales's Stakes.—Lord Wilton's Attack gelding beat Winifred, Curse Royal colt, and 8 others.

Obituary.

GENERAL JOHN MORGAN, C.B., of the Madras Infantry, died on Monday at the age of 84.

MR. THOMAS BROWN, for very many years a partner in the well known firm of Messrs. Longman, Brown, Green, & Co., Paternoster Row, died on the 24th ult., at his lodgings in Ludgate Hill, in his 91st year. He retired from the firm eight or nine years since, and evinced his great love for the City by continuing to reside in the very heart of it. Some time ago he made a present to St. Paul's Cathedral of a stained glass window, which was placed over the western entrance. In company with the late Dean Milman, he attended the unveiling of that window. He returned home with apparent delight at having witnessed the ceremony, and has never since left his house. Nature commenced more rapidly to decay, and he gradually sank. He was for many years an active member of the Court of the Stationers' Company.

MR. CHARLES CAPPER, Chairman of the Victoria and Southampton Docks Companies, died recently at Upton, Essex, in his 47th year, from exhaustion following a severe attack of diarrhoea. He was the architect of his own fortune. He came to London first as goods manager of the Great Eastern Railway, in which position he proved so useful that he was speedily promoted to be superintendent of the line. At the opening of the Victoria Docks he was selected by the lessees, on account of his commercial knowledge, to be their general manager, and the revolution he effected in dock management is still recognized by all associated with such interests. Shortly after the amalgamation of the London Dock Companies, which was chiefly brought about by his exertions, he was unanimously elected chairman of the Southampton Dock Company, a position in which his peculiar talents were conspicuously displayed. He was also deputy chairman of the Central Bank of London, and chairman of the Dagenham Dock Company. In 1861 he published a volume on the "Port Trade of London," which has gone through more than one edition, and is an acknowledged text-book of commercial information. In 1863 he was at one time a successful candidate for the vacant aldermanic gown in Langbourn Ward. At the general election of 1865 he contested S. d. with in the Conservative interest against two members of the Government—Lord Clarence Paget and Mr. Knatchbull-Hugessen. He failed, but on a vacancy occurring in the following spring he was returned. At his death all the ships in the Victoria and Southampton Docks, and many in

the river, carried their flags half-mast high as a mark of respect to his memory.

MR. HENRY BRIGHT, formerly M.P. for Bristol, died at Malvern on Friday, in his 84th year. He was the brother of Mr. Robert Bright, of Abbot's Leigh, and uncle of Mr. Richard Bright, M.P. for East Somerset. He was a West India merchant, and represented Bristol in the Whig interest from 1820 to 1830, his colleague being Mr. Richard Hart Davis. At the dissolution of Parliament on the death of George IV., in 1830, he declined to offer himself again as a candidate, and was succeeded in the representation of the city by Mr. James Evan Bailie.

Markets.

COVENT GARDEN.—April 3.

In consequence of business being somewhat suspended during the holidays, we have few alterations to make. Cucumbers and early Vegetables are becoming plentiful. Some new hothouse Grapes of good quality have come in, and are worth from 2s. to 2s. 6d. per pound. Almonds Grapes are rather more plentiful, at from 1s. 6d. to 2s. per pound. The Potato trade continues dull at former prices, the supply being greater than the demand. Flowers chiefly consist of Orchids, Mignonette, Cyclamens, Tulips, Crocuses, Calla aethiopsica, Cytisus racemosa, Lily of the Valley, Fuchsias, Violets, Wallflowers, Fairy Roses, Spiraea japonica, and Cinerarias and Pelargoniums, which are more plentiful.

FRUIT

Apples, per bushel, 5s to 10s | Peas, per doz., 12s
Grapes, per lb., 1s to 2s | Peaches, per lb., 6s to 10s
Kew Apples, per doz., 18 to 25 | Oranges, per doz., 4s to 12s
Lemons, per 100, 4s to 5s | Strawberries, per doz., 7s 6d to 12s 6d
Melons, each, 2s to 4s

VEGETABLES.

Artichokes, green, p. doz., 4 to 6s
Beans, Kidney, p. 100, 1s to 2s
Beet, per doz., 1s to 2s
Cabbages, per doz., 1s to 2s
Carrots, per bunch, 6d to 10d
Cauliflowers, Cornish, p. doz., 2s to 4s
Celery, p. bund., 1s 6d to 2s 6d
Cucumbers, each, 9d to 2s
Endive, per doz., 1s 6d to 2s
Garlic and shallots, per lb., 8d
Herbs, per bunch, 2d to 4d
Horse Radish, p. bund., 3s to 5s
Lettuces, p. score, 1s to 2s 6d
— French Cos, 6d to 10d each
Leeks, per bunch, 4d
Mint, per bunch, 1s to 1s 6d
Mushrooms, p. pott., 1s to 3s 6d
Onions, per bushel, 5s to 12s
Parsley, per bunch, 4d to 6d
Peas, green, p. pun., 2s to 2s 6d
Potatoes, York Regents, p. ton 120s to 150s
— Flukes, do., 120s to 160s
— new, 4d to 1s 6d p. lb.
Seakale, p. pun., 2s to 3s
Spinach, per bushel, 2s to 3s
Radishes, p. doz., 1s to 1s 6d
Turnips, p. bunch, 6d to 8d

POTATOES.—SOUTHWARK, Monday, March 29

During the past week the arrivals have been plentiful, both by rail and coastwise, and owing to Good Friday being a holiday, trade was heavy at the end of the week. Quotations—York Regents, per ton, 60s. to 100s.; do. Flukes, 60s. to 12s.; Lancashire Regents, 60s. to 100s.; Dubber and East Lothian do., 60s. to 120s.; Perth, Forfar, and Fife do., 60s. to 100s.; do. Rocks, 60s. to 70s.; French and Belgian Whites, 40s. to 60s.

HAY.—Per Load of 36 Trusses.

SMITHFIELD, Thursday, April 1.

Best Green Hay 115s to 128s
Prime Meadow Hay 105s to 115s
Inferior do. 90 100
New do. 32 38
Straw 32 38
Clover, old 115s to 128s
Inferior do. 90 100
Prime new Clover
Inferior do.
CHARLES JAMES EASTON.

CUMBERLAND MARKET, Thursday, April 1.

Sup. Meadow Hay 118s to 128s
Inferior do. 105 112
New do. 38 42
Superior Clover .. 126 132
Inferior Clover .. 108s to 115s
New do. 38 42
Straw
JOSHUA BAKER.

LEADENHALL POULTRY, &c.

Thursday, April 1.

Geese .. each s. d. s. d.
Goosings 8 6—9 0
Turkeys 6 0—9 0
Ducks 2 0—3 0
Ducklings 3 6—4 6
Wild Ducks 2 0—2 6
Surrey Fowls, couple 10 0—13 0
Do. chickens 9 0—10 0
Barn-door Fowls .. 7 0—10 0
Levrets .. each 2 6—4 0
Pigeons .. each s. d. s. d.
Tame Rabbits 1 3—1 9
Wild Rabbits 0 9—1 0
Pheasants
Teal 0 9—1 0
Snipes 1 0—1 3
Hares 2 0—2 6
Plovers 0 9—1 0
English Higgs, p. 100 8 0—8 6
Foreign do. 7 0—7 6
Fresh Butter, 1s. 3d. to 1s. 4d per lb.; PLAYS' EGGS, 4s. to 6s. per dozen.

ENGLISH WOOL.

We have had a quiet holiday market, but with the exception of some of the lower grades prices are fairly maintained, and likely to be so.

CURRENT PRICES OF ENGLISH WOOL. per lb.—s. d. s. d.
FLEECES—Southdown hoggets 1 4 to 1 5
Half-bred ditto 1 4 1/2—1 5
Kent Fleeces 1 5—1 5
Southdown ewes and wethers .. 1 4—1 4 1/2
Leicester ditto 1 1—1 1 1/2
SORTS—Clothing 1 0—1 8
Combing 2 2—1 10

COALS.—March 31.

Holywell Main, 15s. 6d.; West Wylam, 15s. 6d.; Eden Main, 16s. 6d.; Walls End Gosforth, 16s.; Walls End H. well, 18s. 9d.; Walls End South Hetton, 18s. 6d.—Ships at market, 24; sold 14.

HOPS.—BOROUGH MARKET, April 2.

Messrs. Pattenden & Smith report a more active demand for Hops of all descriptions, choice samples being scarce and rather dearer.

METROPOLITAN CATTLE MARKET.

Monday March 29.

There are a few more Beasts than on Monday last; the demand has, however, considerably increased, and prices on the average are higher. We have a short supply of Sheep. choice qualities are readily disposed of, at an advance on Thursday's quotations. There is no improvement in the Lamb trade. Calves are rather dearer. Our foreign supply consists of 1870 Beasts, 8365 Sheep, and 55 Calves; from Scotland there are 180 Beasts; from Ireland, 50; from Norfolk and Suffolk, 900; and 800 from the Midland and Home Counties.

Best Scots, Here- s. d. s. d. s. d. s. d.
fords, &c. .. 5 6 to 5 10
Best Southdowns 5 4—5 8
2d quality Beasts 3 8—4 8
Best Downs and Half-breds .. 6 0—6 4
Do. Shorn
Best Long-wools 5 6 to 5 8
Do. Shorn
Ewes & 2d quality 4 6—5 0
Do. Shorn
Lambs 6 0—7 0
Calves 3 8—5 0
Pigs 3 4—5 4
Beasts, 3540; Sheep and Lambs, 20,260; Calves, 59; Pigs, 110.

THURSDAY, April 1.

The number of Beasts is rather larger than on Thursday last; we have, however, a fair demand, and Monday's quota-

tions are pretty generally realised. The number of Sheep and Lambs is about the same as last week: trade is very dull, and a clearance cannot be effected, yet choicest descriptions are not much lower. Calves are scarce and dear. Our foreign supply consists of 299 Beasts, 5220 Sheep, and 76 Calves.

	s. d. s. d.	s. d. s. d.	
Best Scots, Herefords, &c	5 6 to 5 10	Do. Shorn	5 6 to 5 8
Best Shorthorns	5 4 — 5 8	Ewes & 2d quality	4 6 — 5 0
2d quality Beasts	3 8 — 4 8	Do. Shorn	— — — —
Best Downs and Half-breeds	6 0 — 6 4	Lambs	6 0 — 7 0
Do. Shorn	— — — —	Calves	3 8 — 6 0
		Pigs	3 4 — 5 4

Beasts, 840; Sheep and Lambs, 10,410; Calves, 76; Pigs, 40.

METROPOLITAN MEAT MARKET.—April 3

Best Fresh Butter 17s. per dozen lb.
Second do. do. 15s.
Small Pork, 5s. 6d. to 5s. 6d.; Large Pork, 4s. 4d. to 4s. 10d. per 8 lb.

MARK LANE.—MONDAY, March 29.

There was a small supply of English Wheat to this morning's market, which was sold at an advance of 1s. per qr. on the prices of this day semi-lit. The attendance was not large, and a moderate amount of business only transacted in foreign at the extreme rates of last week, excepting for American, which brought 1s. per qr. more money. Barley, Beans, and Peas were fully as dear. The Oat trade was firm, and in some instances a slight advance was established. There was no change in Flour.

	s. s.	s. s.
WHEAT, Essex, Kent, Suffolk. White	47-50 Red	46-47
— fine selected runs do.	49-51 Red	48-49
— Talavera	53-57	—
— Norfolk	—	Red
— Foreign	41-82	—
BARLEY, grind. & dist. 37sto38s Chev.	46-51 Malting	44-49
— Foreign grinding and distilling	20-26 Malting	34-43
OATS, Essex and Suffolk	—	—
— Scotch and Lincolnshire Potato	25-33 Feed	—
— Irish	30-32 Feed	23-28
— Foreign	Poland and Brew	25-30 Feed
RYE	35-40 Foreign	—
RYE MEAL, Foreign	—	—
BEANS, Mazagan	38sto40s. Tick	42-43 Harrow
— Pigeon	43s to 47s. Winds	— Longpod
— Foreign	Small	38-43 Egyptian
PEAS, White, Essex, and Kent	40-43 Suffolk	40-44
— Maple 42s to 46s	Grey	40-42 Foreign
MAIZE	—	Foreign
FLOUR, best marks delivered	per sack	39-43
— 2d ditto	ditto	28-40 Country
— Foreign	per barrel	23-37 Per sack

FRIDAY, April 2.

The extreme dullness in the grain trade throughout the kingdom, which led at the middle of last month to a severer reduction in the prices of Wheat than experienced for some time past, has at last ceased, and after a very partial response to the decline quoted in London, the country markets have taken the lead, and we have now to report a recovery of 2s. per qr. on English, and 1s. per qr. on foreign Wheat, from the above-mentioned greatest depression. The trade cannot, however, be described as generally active, and the advance is only reluctantly complied with, business being limited to purchases of needy buyers. Spring Corn of all descriptions has remained a slow sale at about former rates, Maize and malting Barley alone being sold at fully 1s. per qr. advance. Flour was less pressed, and its value increased nearly 1s. per sack in several leading markets. The arrivals of grain and seed laden vessels off the coast since the 15th ult. consisted of 27 cargoes, of which, with those left over from last week, there remained for sale last night 10 cargoes. The floating trade has been steady throughout the fortnight. Arrived Wheat was in fair demand, and an improvement of 1s. to 2s. per qr. was asked, but the business transacted was very limited on account of the short supplies. Maize commanded more inquired after, and advanced 6d. to 1s. per qr. Prices of oil seeds ruled firm. In Wheat on passage and for forward shipment there was nothing doing. In Maize a large business has been reported, and prices were quoted about 2s. per qr. higher. Paris, April 1.—There was a tendency to improvement in Wheat and Flour. The eight marks are quoted at equal to 34s. per 280 lb. The stock at the Halle is estimated at 9870 cwt.

The arrivals of all descriptions of grain during the week have been small. There was a poor attendance at this morning's market, and the little English Wheat fresh up was taken at Monday's prices, upon which terms a limited amount of business was transacted in foreign. Spring Corn was steady at the quotations of that day.

ARRIVALS FROM MARCH 27 TO APRIL 2, BOTH INCLUSIVE.

	Wheat.	Barley.	Oats.	Flour.
English	410 qrs.	820 qrs.	— qrs.	— sks.
Irish	—	—	—	—
Foreign	5150 "	5360 "	24,020 "	680 "
	5560	6180	24,020	— bris.

LIVERPOOL, Tuesday, March 30.—At to-day's market we had a very good attendance, but in Wheat only a tolerable amount of business was transacted, at an improvement of 4d. per cental on the rates of last Tuesday, the advance tending to check the demand. Flour obtained prices 6d. to 1s. above those of this day week, with, however, only a limited request. Indian Corn was in improved request, at figures ranging 1s. 6d. to 2s. per qr. higher than the rates of Tuesday last. Oatmeal is held for 6d. per qr. advance. Beans in good request, and 1s. per qr. dearer.

AVERAGES.

	Wheat.	Barley.	Oats.
Feb. 20 ..	50s 3d	47s 0d	27s 4d
— 27 ..	49 7	46 2	28 6
March 6 ..	49 4	46 0	28 2
— 13 ..	48 10	45 6	27 10
— 20 ..	47 9	45 0	27 3
— 27 ..	46 5	43 8	27 1
Average ..	48 8	45 7	27 8

SEED MARKET

The agricultural seed trade has been rather quiet during the last few days, owing partly to the wet and ungenial weather we have been getting, and partly to the Easter holidays. Values of all descriptions have nevertheless continued steady, and what business has been done has been transacted at last week's currencies. The stocks of new Red Clover seed held at the present moment in London appear to be reduced quite low. Alsike and white Clover seed are both very firm, higher quotations being reported from abroad. Trefoil seed moves off in retail at late prices. White Mustard seed is scarce and

dear. We have an improved inquiry for English Rape seed. Canary seed sells more freely, and Hemp seed we note 1s. per qr. dearer. Home-grown Linseed for sowing meets with a lively demand, and fine qualities realise high rates. A large business has recently been transacted in French Italian Ryegrass; our French advices state that there is now very little left on the other side. Spring Tares are in good request, on somewhat easier terms. For imported sainfoin seed we have a fair demand, at an advance of about 2s. per quarter.

JOHN SHAW & SONS, 16, WATER LANE.

WANTED, to place a PUPIL, age 19, with a respectable practical FARMER and BREEDER, who farms not less than 400 Acres, for two years.—Address, stating terms, SAMUEL BRANDON, Cranbrook Farm, Lower Clapton, Middlesex, N.E.

WANTED, for the Province of Wellington, New Zealand, a steady active Man, to MANAGE a STATION of about 800 ACRES, part in Cultivation with Sheep, the rest requiring breaking up. He must be able to keep Accounts and Sell Produce. No inexperienced Man, or one who cannot give first-rate testimonials, need apply.—For further particulars apply to C. B., Mr Odam's, Wandsworth, S.W.

WANTED, a WORKING GARDENER.—A good practical Man, having a knowledge of Vines, Fruit, Melons, Cucumbers, Greenhouse, and Flower and Kitchen Gardening. Lat and in his Wife to undertake the Laundry. Apply to Rev. W. H. WOOD, West Retford Rectory, Notts.

WANTED, a GARDENER, and his Wife as LAUNDRESS.—A Cow to Milk and take charge of. All found for the laundry. A cottage and good garden given, and 28s. a week besides for both. Young children objected to satisfactory references required. Address, post paid, stating full particulars, A. B., Post Office, East Sheen, Surrey, S.W.

WANTED, a YOUNG MAN, who has been accustomed to Herbaceous and Alpine Plants. State age, wages required, and other particulars.—Tues. S. WALK, Hale Farm Nurseries, Tottenham, Middlesex, N.E.

WANTED, a GAMEKEEPER (Single-handed).—Must be a Married Man without incumbrance, sober, active, and thoroughly acquainted with Rearing of Game, Breaking and Management of Dogs. None whose character will not bear the strictest investigation need apply to Mr. BIRRS, 19, New Bridge Street, Backfriars, E.C.

WANTED, a SHOPMAN—also an APPRENTICE, in a large Seed and Nursery Establishment, to live in the house.—Apply to DAVID GOLD M'KAY, the Old Established Seed Warehouse, Sudbury, Suffolk.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. F. G. HENDERSON & SON, Wellington Nursery, St John's Wood, London, N.W.

To Gardeners and Bailiffs (Head, Foremen, or Under). JAMES CARTER AND CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those who can send unquestionable references need apply.

Any Lady or gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & Co. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c.

JAMES CARTER & Co., 27 and 238, High Holborn, London, W.C.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS, and GARDENERS and BAILIFFS, of various qualifications, who are open to Engagements. The fullest particulars as to services required and wages given should be forwarded with application.—Pat. a Nurse, Waltham Cross, London, N.

Gardeners and Under Gardeners.

WM. CUTBUSH AND SON beg to state that they have at all times on their books MEN of various qualifications, whose characters will bear the strictest inquiry. Any Gentleman making application would save time by clearly stating the duties to be undertaken, wages offered, &c., so that suitable Men may be selected.—Highgate Nurseries, London, N.

GARDENER (HEAD)—Age 26, married, no incumbrance; is desirous of re-engagement. References good.—S. B., Sutton & Sons, Reading Nurseries.

GARDENER (HEAD)—Age 36, married, no incumbrance, well skilled in all branches of the profession. Good references. C. M., Post Office, St. Peter's, Thanet, Margate.

GARDENER (HEAD)—Age 30, married, no incumbrance; thoroughly practical in every branch of the profession.—N. B., Post Office, Westbury-on-Trym, Bristol.

To Noblemen and Gentlemen.

GARDENER (HEAD), where good general practical Gardening is required.—A thoroughly experienced Man.—G. H., Messrs. Kollison & Son's, The Nurseries, Tooting, Surrey.

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GARDENER (HEAD)—Age 29; thoroughly understands Early and Late Forcing, Stove and Greenhouse Plants, Flower and Kitchen Gardening, &c.; has been 24 years Foreman in the Sheffield Botanical Garden. Excellent character.—Apply in the first instance to Mr. J. EWING, Curator, Botanical Gardens, Sheffield.

GARDENER (HEAD)—A Gentleman giving up his Establishment in the country is desirous of recommending his Gardener, who is thoroughly practical in all branches, and quite competent to Manage Gardens of any extent.—Apply, in first instance, to Mr. B. S. WILLIAMS, Victoria and Paradise Nurseries, Holloway, London, N.

GARDENER (HEAD)—Married; 20 years' practical experience in Flower, Fruit, and Kitchen Gardens. First-class Plant, Pine, and Grape Grower; and in Orchard-house, Fruit Trees, Melons, Cucumbers, unequalled Plantations, Land, Stock, and Dairy, &c., if required. Good Character.—J. D., Post Office, Acton, Middlesex.

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GARDENER (HEAD, or SINGLE-HANDED)—single, understands Gardening in all its branches, character.—GARDNER, 2, Pau, Cottages, Lower Edmonton, Middlesex.

GARDENER (HEAD, WORKING, or SINGLE-HANDED)—Age 29, thoroughly understands the Management of Stove and Greenhouse Plants, Vines, Cucumbers, Flower and Kitchen Gardening, &c. Two years' good character.—E. W., Mr. L., Street, Southgate.

GARDENER (HEAD, WORKING)—Age 30, understands Vines, Stove and Greenhouse Plants, &c. Two years' character. Recommended.—H. B., Post Office, Reigate.

GARDENER (HEAD, WORKING)—Married, a good character; thoroughly understands the Growing of Stove and Greenhouse Plants, Early and Late Forcing, and Flower Gardening. Six years' character.—H. H., Twickenham, Middlesex, S.W.

GARDENER (HEAD, WORKING), where one or two are kept.—Age 39, married, one child, active and thoroughly practical in Cultivating Fruits and Plants, and in the Kitchen and Flower Gardening. In leaving, his present employer, where he has been three years, on account of the Gentlemen who have taken up the place. Character from present and previous employers will bear the strictest investigation; can be well recommended as a Nobleman's Gardener.—JOHN HOLLINGSWORTH, Gardener, 5, Hill, Loughborough.

GARDENER (HEAD), where one or two are kept.—Age 28, married, no incumbrance, understands Vines, Stove, Cucumbers, and Melons, also Kitchen and Flower Gardening. Good character from late employer. Wages expected, 50s. a week, with cottage and fuel.—F. FIELD, Chilworth, Guildford, Surrey.

GARDENER—A Lady is anxious to hear of a situation for a young Man, whom she can highly recommend.—B. B., Kempston Hoo, near Bedford.

GARDENER—Age 28; has a thorough practical knowledge of Plant and Fruit Growing for Exhibition purposes, also Forcing and Pleasure and Kitchen Gardening. First-rate references from previous and present employers.—Rose Cottage, Linkfield Lane, Isleworth W.

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GARDENER (UNDER), where he can further improve himself in the Forcing of all kinds of Fruit, and Gardening general.—Age 20, three and a-half years' good character.—Age 20, E. W. I., Dudmaston Terrace, King's Road, Chelsea, London, S.W.

MANAGING FOREMAN, &c.—RICHARD LOWE, Managing Foreman, Propagator, Salesman, &c. (W. W. Wood, Maresfield, Sussex, is open for Engagement as a Thoroughly practical and energetic, is a successful Propagator of Ornamental Trees and Shrubs, Fruit Trees, &c., &c., with Men, and the Value of Nursery Stock, with the general management of Outdoor Work, &c. Character for ability, honesty, &c., will bear strict investigation.—25, Richmond Terrace, Strand, London, S.

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To Nurserymen.

GROUND FOREMAN and PROPAGATOR—Thoroughly experienced. Satisfactory references as to character and ability.—H. R., 18, Arthur Street, Gurnon, near Liverpool.

FOREMAN, in a good Private Establishment.—Has a thorough practical knowledge of the profession. Can be well recommended.—I. T. J. STAFFIELD, Handsworth Lane, Surrey.

FOREMAN, or SECOND MAN, in a large Establishment, has had eight years' experience in every department of Forcing and Plant Growing. First-class testimonials produced for the whole time if required. Address, V. M., Haslemere, Surrey, Godalming.

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PROPAGATOR, in the Hardy Department.—Age 21, has completed his Apprenticeship (at Waltham Cross Nursery) and is now open to an engagement, being thoroughly practical in the Cultivation of Roses, Fruits, Conifers, and Ornamental Trees and Shrubs.—W. A., Mr. William Paul's Nurseries, Waltham Cross, Surrey.

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STEWARD—Has had experience in the Management of the Estate of Stock and Farm Work generally, can Design and Supervise the Erection of Buildings, well up in Surveying, Drainage, &c. First-class references.—O. K., Marlham Office, Banbury, Oxfordshire.

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The Gardeners' Chronicle Newspaper.

SATURDAY, APRIL 10, 1869.

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GREENHOUSES. Per ft. super. Prepared and Fitted .. 0 0 6 Primed and Glazed with 16 oz. Sheet .. 0 0 9 Delivered, and Fixed with Ironwork .. 0 1 0 Painted four coats, two sides, ready for use .. 0 1 3

HOT-WATER APPARATUS Complete, or the Materials Supplied for Heating GREENHOUSES, HOthouses, CONSERVATORIES, CHURCHES, PUBLIC BUILDINGS, &c. HOT-WATER PIPES at reduced prices, Elbows, Tees, Syphons, and every other connection kept in stock. WROUGHT and CAST IRON CONICAL SADDLE, and CONICAL and ELLIPTIC BOILERS, from 2s. each. Also EXTRA STRONG CAST IRON TUBULAR Boilers with or without Water Bars, from 6s. 6d. each. WROUGHT IRON PORTABLE BOILERS on wheels, or brickwork, from 60s. each. IMPROVED THROTTLE and other VALVES, and FURNACE WORK of every description. LYNCH WHITE, 4, Upper Ground Street, London, S.E. (Surrey side Blackfriars Bridge). Price List on application.

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4 "	0 4 1/2	18 "	1 5 0
4 1/2 "	0 5 1/2	21 "	1 8 0
5 "	0 6 1/2	24 "	2 1 0
5 1/2 "	0 7 1/2	27 "	2 4 0
6 "	0 8 1/2	30 "	2 7 0
6 1/2 "	0 9 1/2	33 "	3 0 0
7 "	0 10 1/2	36 "	3 3 0
7 1/2 "	0 11 1/2	39 "	3 6 0
8 "	0 12 1/2	42 "	3 9 0
8 1/2 "	0 13 1/2	45 "	4 2 0
9 "	0 14 1/2	48 "	4 5 0
9 1/2 "	0 15 1/2	51 "	4 8 0
10 "	0 16 1/2	54 "	5 1 0
10 1/2 "	0 17 1/2	57 "	5 4 0
11 "	0 18 1/2	60 "	5 7 0

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4 inches in diameter	Each—s. d.	9 inches in diameter	Each—s. d.
5 "	0 8 1/2	10 "	1 1 0
6 "	0 9 1/2	11 "	1 2 0
7 "	0 10 1/2	12 "	1 3 0
8 "	0 11 1/2	13 "	1 4 0

CUCUMBER GLASSES.

24 inches long	Each—s. d.	18 inches long	Each—s. d.
22 "	1 10	14 "	1 2
20 "	1 8	12 "	1 0
18 "	1 6		

HAND GLASSES, WITH OPEN TOPS.

3 inches	Each—s. d.	18 inches	Each—s. d.
14 "	6 6	20 "	9 6
16 "	7 8	22 "	11 6
18 "	8 6	24 "	12 6

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ORCHARD-HOUSE SIZES.

in. in.	4ths.	3rds.	2nds.	Best.
20 by 12	15 oz.	14s 3d	15s 6d	18s 6d
20 by 13	15 oz.	14s 3d	15s 6d	18s 6d
20 by 14	15 oz.	14s 3d	15s 6d	18s 6d
20 by 15	15 oz.	14s 3d	15s 6d	18s 6d
20 by 16	15 oz.	14s 3d	15s 6d	18s 6d

SMALL SHEET SQUARES, 15 oz., per 100 feet.

in. in. in.	in. in. in.	4ths.	3ds.	2nds.	Best.
6 by 4	7 by 5	8 by 6	9 by 7	12s 3d	12s 3d
6 1/2 by 4 1/2	7 1/2 by 5 1/2	8 1/2 by 6 1/2	9 1/2 by 7 1/2	12s 3d	12s 3d

LARGE SHEET SQUARES, 15 oz., per 100 feet.

in. in. in.	in. in. in.	4ths.	3ds.	2nds.	Best.
15 1/2 by 10 1/2	14 by 12	22 by 12	22 by 16	14s 3d	15s 6d
16 by 10 1/2	14 1/2 by 12 1/2	17 by 13	24 by 16	14s 3d	15s 6d
14 1/2 by 11 1/2	15 1/2 by 12 1/2	23 by 13	20 by 17	14s 3d	15s 6d
15 1/2 by 11 1/2	16 by 12	22 by 14	24 by 17	14s 3d	15s 6d
16 by 11 1/2	16 1/2 by 12 1/2	24 by 14	20 by 18	14s 3d	15s 6d
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13 by 12	18 by 12	24 by 15	24 by 18	14s 3d	15s 6d

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SHEET GLASS. In Sheets for Cutting up, averaging from 6 to 9 feet super. 15 oz. 21 oz. 4ths quality, per 300 feet case, 36s. 4ths quality, per 200 feet case, 36s. 3ds " " " 42s. 3ds " " " 42s. 2ds " " " 60s. 2ds " " " 60s. Best " " " 75s. Best " " " 75s.

SHEET GLASS is made only in the following substances, 15 oz. 21 oz., 26 oz., 32 oz., 36 oz., and 42 oz.

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STUCCO PAINT, 2s. per cwt. This Paint adheres firmly to the walls, resists the weather, and is free from the glossy appearance of Oil Paint, resembling a stone surface, and can be made any required shade. It is mixed with rain or pure river water.

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GENUINE WHITE LEAD 30 0 **LINSEED OIL 2 9**
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F. A. HAAGE'S WOOD GARDEN STICKS and TALLIES recommended by the Royal Horticultural Society, acknowledge it to be the neatest, cheapest, and best Training Sticks and Tally made. These can now be had, of all sizes, Wholesale, of BETHAM & BLACKBURN, COX'S QUAY, Lower Thames Street, London, E.C., and Retail of the principal Seedsmen and Florists. Price Lists on application.

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Home News.

THE COURT.—On Saturday morning the Queen, accompanied by Prince Leopold and Princess Alice, drove to Claremont, and returned to Windsor on Sunday.

Prince Arthur held a levee at the Palace on behalf of her Majesty. The Duke of Devonshire, Lord Salisbury, and Lord E. Cardwell arrived at the Castle on Sunday the Queen and Royal family.

The Queen, accompanied by Prince Albert and Princess Louise, visited the service in the private chapel. The Rev. Mr. Williams, rector of Hedsor, preached on Monday the Queen went out in the morning.

Princess Beatrice. On Tuesday morning the Queen, accompanied by Princess Louise, Princess Beatrice, left Windsor for the Palace.

Her Majesty travelled by a special train to the Great Western Railway to Paddington, thence to Buckingham Palace, escorted by the 17th Lancers. Prince Albert, Prince George, Princess Louise, and Princess of Wales, had previously arrived at the Palace.

Windsor. In the afternoon the Queen, accompanied by Prince Albert and Princess Louise, visited the Secretary of State for Foreign Affairs, Lord Salisbury, and presented Hassan Paşa, son of the Egyptian Sultan, to her Majesty. The Queen visited St. Bartholomew's Hospital, and the Market, in Smithfield. Prince Leopold and Princess Alice went to the Tower of London. In the evening Prince Albert and Princess Louise went to the Drury Lane Theatre. On Monday morning the Queen drove out with Prince Victor of Wales. Princess Louise and Princess Beatrice visited the Polytechnic Institution.

On Tuesday afternoon the Queen, accompanied by Prince Albert and Princess Louise, visited the studios of Mr. Thornycroft and Mr. Tneed, and afterwards visited Count von Gleichen at St. James's Palace. Princess Louise visited the exhibition of the paintings of the artist H. Thomas. On Thursday morning the Queen, accompanied by Prince Albert and Princess Louise, went to the studio of Mr. Watts. In the afternoon the Queen held a Drawing Room at Buckingham Palace, about 50 ladies were present. In the evening Princess Louise and Princess Beatrice went to the Royal Amphitheatre.

THE PRINCE and PRINCESS OF WALES, on their arrival at Constantinople, have been entertained by the Sultan with magnificent hospitality. The Highnesses were to leave to-day for London, intending to return next week to Constantinople on their journey homeward.

PRINCE ARTHUR held a levee on Monday at Buckingham Palace, on behalf of her Majesty. The Queen returned to London on Sunday for Ireland, where it is expected that he will stay for a month. The Queen conferred upon his Royal Highness the Order of the Garter.

INDISPOSITION OF PRINCE LEOPOLD.—The Prince returned to Windsor Castle yesterday as the consequence of the indisposition of Prince Leopold.

THE QUEEN'S BIRTHDAY.—The day of the Queen's Birthday, on Monday, her Majesty's command, been changed from May 29, to Wednesday, June 2.

ARRIVAL OF THE NAWAB OF BENGAL.—The Nawab Syud Munsoor Ali Nawab, Nawab of Behar, and Orissa, Prince Alee Kadir Meerza Bahadoor, Prince Soleiman Meerza Bahadoor; Colonel Layard, Mr. W. D. Fox, private secretary to the Nawab, Meer Wuzoor Ali Kaymi, Hakeem Meer Ali Hassan, and Mirza Bakar Bahadoor, arrived at the Alexandra Hotel, Hyde Park Corner, on Monday.

THE CABINET.—A Cabinet Council was held on Tuesday at the official residence of the Prime Minister, the Treasury in Downing Street.

THE CONSERVATIVE PARTY.—Mr. Disraeli called a meeting of the Conservative Party at the residence of Lord Londondale, on Whitehall Terrace, on Monday next, for the purpose of discussing the amendments to be proposed in the Irish Church Bill.

THE PEERAGE.—The Queen has decreed that a patent be passed under the Great Seal, conferring the dignity of a Baron of the United Kingdom upon the Right Hon. Sir James Phelips Wake, of the Court of Probate and Divorce, and that his body lawfully begotten, by the name of Lord Penzance, of Penzance, in the county of Cornwall.

ENTHRONEMENT OF THE BISHOP OF LONDON.—The enthronement of Dr. Jackson, Bishop of London, took place on Thursday in St. Dunstons Church, with the usual solemnities.

CHURCH OF SCOTLAND.—The General Assembly of the Church of Scotland, in the room of the Edinburgh Town Hall, will be held on Monday next.

EXPERIMENTAL SQUADRON.—A Squadron of the Agincourt, Black Prince, Hector, iron-clads; of the Dunbar, Royal George, wooden two-deckers; and the frigate, and manned from the Coastguard Reserve, will leave Portland on the 14th of the month, on a cruise of 10 days or a fortnight.

that was being done for the cure and comfort of the Her Majesty, on leaving the hospital, visited the New Meat Market, and drove very slowly through the central avenue, where a large crowd had assembled. Her Majesty then visited new Blackfriars Bridge, and the Church of St. Dunstons, Stamford Street and by Westminster Palace.

WALTER HILL OF THE TEMPLE.—It is announced that the Hon. Walter Hill has placed his resignation of the Mastership of the Temple at the disposal of Mr. Hill, with whom rests the appointment.

THE SUNDAY QUESTION.—On Monday deputations from the National Sunday League and from the East-end of London waited upon the Right Hon. H. A. Bruce at the Home Office, and presented addresses from different workshops in favour of opening museums on Sundays, and an address to her Majesty from a public meeting held at the Freemasons' Tavern in favour of the same.

In reply, the Home Secretary said that it was well known what his opinion was upon the subject, as he had been severely criticised for his vote, and he had been a martyr to it, having been advertised in consequence as a person unfit to represent a constituency. He had no hesitation, however, in saying that he adhered to the opinion expressed by that vote; but the question was one which must be decided by a Government apart from any individual opinions, and he was not prepared to say at present what were the opinions of his colleagues. It must be admitted that in a question of this sort, above all others, they had to consider the national feeling and prejudices, and it would be the duty of the Government to ascertain what the opinions of the majority were. For he did not believe that the opening of museums and institutions on Sundays would be in any way injurious to religion, but he thought that much mischief had arisen in this country in consequence of Sunday being considered as the only day for entertainment, and religious feelings. He did not say that there were not great advantages in setting aside a day for religious observance, but the way in which the Sunday was to be observed ought to be decided by the national will. In conclusion, he promised that the matter should have the careful consideration of the Government. The deputation having withdrawn, another deputation from the Working Men's Lord's Day Rest Association had an interview to present a memorial in favour of opening museums on week-day evenings, and against the opening of such places on Sundays. The deputation, which consisted of more than 100 working men, was headed by the Earl of Shaftesbury, Mr. Charles Reed, M.P.; Mr. M'Arthur, M.P.; and Mr. Girdlestone. The Earl of Shaftesbury said that the deputation consisted of some of the most respectable portion of the working classes, who entertained very strong objections to museums being opened on Sundays, and equally strong reasons and arguments why they should be opened on week-day evenings for the intellectual recreation of that part of the working classes who could not attend except after work hours. In conclusion, he observed that the same arguments that were urged in favour of opening museums on Sundays applied equally to the opening of theatres; and the one, it was to be feared, would be the necessary consequence of the other. Mr. Hill, the secretary of the association, then read the memorial, which set forth that at the present time most of the great national collections of works of art were virtually sealed from the working classes, who were deprived of the opportunity of making that intellectual advancement which they most earnestly desired. It referred to the fact that at the different industrial exhibitions held in 1853, '56, '57, and '58, the large majority were evening visitors, consisting of the respectable artisans who paid for their admission after their day's work was over; and that as many as 3,000,000 of the same class of persons had visited the Kensington Museum, notwithstanding its out-of-the-way situation. But while the large majority desired that these places of intellectual resort should be opened on week-day evenings they strongly objected to their being opened on Sundays, inasmuch as they believed it would interfere with their rest from labour, their religious exercises, and prove most disastrous to the moral welfare of the country. Mr. Kay, who had been sent by the Society of Arts to report upon the Paris Industrial Exhibition, said that the feeling in Paris on the part of the working classes was that they should be entirely freed from labour on Sundays. Mr. C. Reed, M.P., said he had had a great deal to do with the working classes, and he felt sure that the mass of the people desired rest on Sundays, and that there should be no change. Mr. Jennings (a wire-worker) had had a great deal to do with his fellow-workmen, and he could speak positively that their feeling was to have their rest on the Sabbath. The Home Secretary said that he should be misleading the deputation if he allowed them to go away with the impression that he entertained the same opinion as they did, on the contrary, he had voted for the opening of the British Museum on Sundays, and he confessed that he could not see that the opening of such a place would sow the seeds of evil. He could not see what harm it could do. Kew, Chiswick, and similar places were open, and had been open for years, and he knew of no evil resulting from them, and the same argument, in his opinion, applied equally to the museums. It was, however, a question of degree, inasmuch as some men looked upon it as a matter for a man to walk out with his children on Sunday. He could not see how religion would be injured by the opening of museums on Sundays. As far as the theatres were concerned, he, in common with a large majority of the people of England, should object to their being opened. But he was appealed to as a member of the Government, and not for an expression of his own views; and, as a member of the Government, he might say that he believed the feeling was to keep the Sabbath as it now is, and if that were so, he

would be the last man in the world to offer any opposition. He had no doubt whatever that Government would act in accordance with that feeling. Another deputation, consisting of a large number of gentlemen who are anxious to secure the due observance of Sunday, then had an interview with the right hon. gentleman on the subject of the Bill of Mr. Thomas Hughes, now before Parliament. The Hon. A. Kinnaird, M.P., in introducing the deputation, said the Bill was likely, in the event of its being passed in its present shape, to create a good deal of invidious feeling. The Home Secretary said they all knew what the feeling of the people of Scotland was, but this was a matter which dealt with the metropolis alone, and legislation was to be considered with reference to those to whom it was intended to apply. The Bill now before Parliament was mainly one of detail, and would have to be considered in committee. At present Sunday trading was a great evil, and the law was openly violated, so that he thought any measure would be useful which would tend to mitigate the evil, and to save as much as possible out of the general wreck. He thought some effort ought to be made in that direction, and it was on that ground that he authorised a member of the Government not to object to the introduction of the Bill. So much of the Bill as would tend to promote the sanctity of Sunday the Government would support, but would oppose the rest.

EXPERIMENTS AT SHOEBURYNES.—The first of a new class of rifled artillery, a 4-ton 9-inch rifled howitzer, throwing shells of 200 lb. weight, and combining the qualities of rifled gun and mortar, was tried on Friday at Shoeburyness. The practice as regards accuracy of vertical fire was very satisfactory, but it was found that as great sensitiveness is necessary in the percussion fuzes when the shells are required to burst on graze or on impact, some further modification of them will be necessary. A few days previously the 150-pounder American smooth-bore gun was fired against the Plymouth casemate, the English shot proving quite equal, and, indeed, something superior to the American spherical projectiles. The vibration of the blows of these heavy shot produced such a flaking of the iron armour as would tend rapidly to the disintegration of even this thick structure of solid iron. Colonel Shaw's muzzle-pivoting carriage for the 18-ton Fraser rifled gun was also further tested with 18 rounds of 400-pounder shot fired with 60 lb. charges, and endured the trial perfectly.

PROPOSED STATUE IN THE CITY TO THE PRINCE CONSORT.—At a recent meeting of the Court of Common Council, Alderman Causton gave notice that on a future day he will move that the sum of 3000 guineas be expended by the Corporation on a statue of the Prince Consort, as the "City memorial" of his Royal Highness.

ORANGE DEMONSTRATION AGAINST THE IRISH CHURCH BILL.—A demonstration of the Protestants and Orangemen of London, in defence of the Irish Church, and against the proposed endowment to Maynooth, was held on Wednesday evening at Exeter Hall. The admission was by ticket. The platform was well filled by members of the Orange Society, dressed in full regalia, while the body of the hall was about two-thirds full, a large proportion of the audience being ladies. Mr. Edward Harper, "Grand Master of the Loyal Orange Institution of Great Britain," took the chair, and was received with repeated rounds of "Kentish fire." The Rev. C. Jayard, incumbent of Wembley, moved the first resolution, declaring that the Irish Church Bill was a violation of the Constitution, and calling upon the House of Lords to reject the measure. The Rev. Mr. Spencer, incumbent of St. Matthew's, Marylebone, seconded the resolution, which was carried with loud cheering. Two other resolutions condemnatory of the proposed grant of 380,000*l.* out of the spoils of the Irish Church, and denouncing the release of the Fenian prisoners, were supported by Mr. Charley, M.P., Mr. B. Mason, Mr. Bull, Mr. Peters, Rev. Mr. Pope, and others, and carried unanimously. A petition to the House of Lords, calling on them to reject the Bill, and a memorial to her Majesty, asking her not to sanction the measure, were adopted.

GREENWICH HOSPITAL.—The Admiralty have ordered the closing of two of the three gates at which visitors and the inmates have hitherto been admitted to this hospital. This is calculated to effect a saving of about 600*l.* per annum, by reducing the number of the police employed from 17 to 7.

THE ST. ALBAN'S RITUAL CASE.—The legal charges in this case have been agreed upon between the proctors on both sides at 4,328*l.*, and a sum has been accepted and paid of 1,500*l.* in full satisfaction of the expenses of the promoter.

EXTRAORDINARY FOG IN LONDON.—On Thursday morning London was for several hours enveloped in a dense fog, equal in density, indeed, to anything ever seen in the proverbially foggy month of November. Between eleven and twelve o'clock the darkness was as intense as at midnight. All traffic was suspended both in the City and at the West End. At the latter hour the sun once more appeared, and London was relieved from the black pall with which it had been overspread.

PROPOSED EMIGRATION FROM THE EAST-END.—A public meeting was held a few days since at the Mill-wall Ironworks, Mr. Frederick Young in the chair, for the purpose of promoting the emigration of unemployed artisans and labourers to the British colonies. The first resolution expressed the opinion that the Government should be at once urged to give the subject its earnest consideration. The second resolution urged the working classes throughout the country, especially in the distressed districts, to organise emigration committees for the purpose of diffusing information upon the subject of emigration to British colonies. A petition to the Queen was adopted, embodying the spirit of the resolutions.

JUVENILE EMIGRATION.—Miss Rye is about to try the experiment of deporting the street Arabs of London and other large towns to Canada and the Western States. The Liverpool Workhouse Committee has already decided to entertain her proposal to take all their orphan girls on their supplying each girl with 8*l.* She is encouraged to make the experiment by the success which has attended the labours of Mr. Van Meter, who states that he has rescued 2000 children from the slums of New York, and has given them a fair start in the West. Miss Rye is prepared to start with a party of children for the West about August.

CONSIGNMENT OF TROUT FOR THE THAMES.—The last consignment of trout, to the number of 5000, was turned into the Thames on Saturday in various parts of the river from Sunbury to Hampton Court, by Mr. Ponder, in the presence of several members of the Thames Angling Preservation Society. The fish were in very fine condition, and though only a year old, showed a remarkable growth, many of them measuring from 6 inches to 8½ inches in length. Owing to the floods which recently inundated the nursery stream at Sunbury, it is calculated that 8000 or 10,000 were carried away by the overflow. Unfortunately, pike were carried into the stream also, and when they were caught numbers of the young trout were discharged from their mouths.

ARCHBISHOP MANNING AND THE FENIANS.—The English Amnesty Committee having applied to Dr. Manning for permission to leave for signature at the doors of the pro-cathedral in Moorfields the memorial to the Premier, praying for a free pardon for the Fenians still in prison, the Archbishop has returned the following answer to the Committee—"It is not possible to allow the Catholic churches to be used for any but religious purposes. The Catholic Church being the Church of all nations, and in London Catholics of at least 20 nations are united in it, cannot enter into any national questions. Any political or other petition must be signed at other places."

BETHNAL GREEN BOARD OF GUARDIANS.—In the list of persons nominated to serve as guardians of the poor of the parish of Bethnal Green, there appears, as one of the candidates for the West Ward, the name of Miss Burdett Coutts, as the owner of a large amount of property in the parish, including the model lodging-houses in Columbia Square, and the new Columbia Market she has recently erected.

CHARGE OF EMBEZZLEMENT IN THE CITY.—A warrant has been issued by the city magistrates for the apprehension of Benjamin Higgs, late assistant cashier in the office of the Great Central Gas Company, in Coleman Street, on the charge of embezzling several thousand pounds. A reward of 200*l.* has been offered—100*l.* to any person who will give such information as shall lead to his apprehension, and a further sum of 100*l.* on recovery of the money embezzled. He absconded upwards of three weeks ago, and has hitherto eluded arrest. He has resided for some time at Tide-end House, Teddington, where he has lived in a style of great extravagance. He has been in the service of the Great Central Gas Company for several years. His salary at the time of his disappearance was under 400*l.* per annum. His establishment at Teddington, however, was of an almost princely character. The house, which contained about 30 rooms, was fitted and furnished in the most sumptuous style. A large pleasure-ground ran down to the river, where he had built a massive river-wall. He had also a large kitchen garden and a model farm. He was building extensive stabling fitted with all modern appliances, kept two pairs of carriages, nine horses, and several ponies, and his family carriage and brougham were the most elegant in the neighbourhood. The domestic arrangements were in keeping with the general character of the establishment. There were eight female servants, five gardeners, a groom, a coachman, and under coachman; the household expenses requiring not less than 2000*l.* a year. The furniture, the sale of which took place last week, was of remarkable style and quality, as may be judged from the fact that a pianoforte (which originally cost 300 guineas) sold for 155 guineas, and was regarded as the greatest bargain of the sale. Mr. Higgs' personal tastes and habits were not less extravagant: his gold watch and diamond rings were the envy of connoisseurs. He was musical, too, and his weekly musical parties were attended by the most celebrated artistes, who were sumptuously entertained and sent to London by special train. His benevolent instincts were as large as his expenditure. On three occasions he gave concerts at the Clarence Hotel, Teddington, at which the most celebrated professional singers were engaged, and the programmes were marvels of artistic beauty, the entire proceeds being devoted to the building of new schools. On one occasion an insolvent received a cheque for 180*l.*, with which he effected a composition with his creditors. On another occasion a man who was seriously injured by an explosion of the kitchen boiler in Mr. Higgs' house was established in business with 300*l.* To the Free Church of England, at Teddington, which, however, Mr. Higgs never attended, he presented a new organ at a cost of 300*l.*, and promised a donation of 2000*l.* towards a new structure. On the morning of his disappearance there were 80 men employed upon a new mansion which was in course of erection on land he was to have purchased at a cost of 600*l.* per acre; the purchase, however, was never completed, although the buildings were in progress. The mansion was estimated to cost 50,000*l.* The contract for the brick and stone work was 12,500*l.*, and the contractors' sheds and out-buildings actually erected upon the ground cost 500*l.* The freeholder was informed on the Tuesday before Mr. Higgs' departure that there would be some difficulty and delay in the purchase and completion of the freehold, in consequence of the trustees of Higgs' wife having failed to meet their engagements. It appears

that he accounted to his wife and friends for this extraordinary expenditure by saying that he had received a legacy of 90,000*l.* from a relative. For several days before leaving he was making preparations for his departure. On Friday afternoon, the 5th ult., he entered the Waterloo train as usual, but instead of alighting at Twickenham, proceeded to Reading, thence to Liverpool, and that night went on board a steamer for America. He has left behind him a wife and eight children, who are said to have been ignorant of the source whence all the comforts and luxuries of their home were derived.

THE PUBLIC HEALTH.—The weekly return of the Registrar-General states that in the week that ended on Saturday, April 3, 4923 births and 3796 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 30 per 1000 persons living, being 27 per 1000 in London, 33 in Edinburgh, 33 in Dublin, 29 in Bristol, 20 in Birmingham, 34 in Liverpool, 32 in Manchester, 30 in Salford, 33 in Sheffield, 29 in Bradford, 27 in Leeds, 27 in Hull, 33 in Newcastle-upon-Tyne. The rate in Vienna was 34 per 1000 during the week ending the 27th ult., and in Berlin 30 per 1000 during the seven days ending the 1st inst. In London the births of 1132 boys and 1187 girls, in all 2319 children, were registered in the week. In the corresponding weeks of 10 years 1859-68, the average number, corrected for increase of population, was 2340. The deaths registered in London during the week were 1670. It was the 18th week of the year, and the average number of deaths for that week, corrected for increase of population, was 1630. The present return is therefore 40 above the estimated amount.

Provincial.

NORWICH.—The magistrates' clerk in this city has received a letter from Brighton, purporting to have been written at the dictation of Sheward's first wife, of whose murder he has been convicted, with some anonymous letters respecting a person called Worseldine, with whom she is said to have eloped and lived in London after the alleged date of the murder. The magistrates, considering the letters a hoax, are not disposed to initiate any action in the matter, but the convict's solicitor is making inquiries on the subject. The High Sheriff has fixed Monday, the 19th inst., for the execution. Application was made yesterday for a writ of error in the case, the Attorney-General having granted the necessary fiat. The grounds on which the application was made were that the jury which tried the case was not properly empanelled, and that the trial took place in the Court-house of the county, while it ought to have been held in the Guildhall of the city. A memorial, praying for a commutation of the sentence, signed by between 200 and 300 of the leading inhabitants of Norwich, was presented to the Home Secretary yesterday.

NOTTINGHAM.—The colliery of Messrs. Eastwood at Skegby, near this town, was inundated on Friday night, and four lives lost. On Friday, seven men, composing the night shift—a smaller number than was usually employed—were startled by a sudden irruption of water, which rose so rapidly that before they could reach a place of safety four were drowned, and the remaining three only succeeded in escaping when the water, which is supposed to have penetrated from some old workings, had risen to their chins. The inundation was caused by the bursting through from some old and unused workings.

PORTSMOUTH.—The Secretary of State for War has approved of the proposed volunteer review on the 26th inst., and has concurred with the First Lord of the Admiralty in granting permission for the military and naval forces to co-operate with the volunteers on that occasion.

PRESTON.—On Wednesday, at a large meeting of the associated masters, which lasted three hours, it was resolved to adopt a proposition from the spinners and minders, suggesting a reduction of 5 per cent. "all round" in the wages of those connected with both fine and coarse counts; and also to adopt a proposition from the weavers in favour of a 5 per cent. reduction. The masters however declined to agree to the proposal to refer the "wheel dividend" system to a joint committee, but resolved to make an alteration in the system amounting to an additional reduction of 3½ per cent. The first proposition was carried by a very narrow majority, 13 being for a 5 and 12 for a 10 per cent. reduction; the second proposition was carried unanimously. In the evening at an immense meeting of weavers the resolution of the masters as to changing the wheel system was objected to, and it was unanimously decided to strike.

SUDBURY.—A shocking case of starvation was recently brought to light in this town. The dead bodies of a woman named Ready, aged 70, and her daughter, aged 31, were discovered by the police in their cottage in Cross Street. The younger woman had probably been dead 48 hours, and the elder three weeks. The place was in a wretched and dilapidated condition, destitute of furniture and of all traces of food or fuel. The body of the mother presented the appearance of a skeleton merely covered with skin. It lay naked on the floor of the upper room, with a sort of coverlid thrown over it, and had apparently been "laid out" after death. No doubt was entertained that the unfortunate women were starved to death, but as it was possible that they might have died from poison, the inquest was adjourned to allow of a post-mortem examination. On Friday last the medical men reported that they had discovered no trace of poison, and that the cause of death was starvation and exposure to cold. The jury returned a verdict in accordance with this evidence.

WIGAN.—The inquest on the bodies of the colliers killed by the recent explosion in the Highbrook pit was

opened on Saturday, and after identification of the bodies, to allow of their burial on Sunday, the proceedings were adjourned. An examination of the workings has proved that the catastrophe was preceded by a blown-out shot—that is, that the bore-hole was insufficiently plugged, and on being fired simply blew out the tamping, instead of rending the coal, thereby igniting the fire-damp, of which there must have been an accumulation in that particular working. Thirty bodies have been recovered from the pit, and more have since died of their burns, making a total loss of 33 lives.

Ireland.

PRINCE ARTHUR IN IRELAND.—Prince Arthur arrived in Kingstown on Monday morning. At half-past 11 the Lord-Lieutenant and suite went on board the yacht, and the Kingstown Commissioners presented an address. At 12 o'clock a special train conveyed his Royal Highness to Dublin. At Westland Row an address was presented by the Corporation of Dublin. The Prince received a respectful welcome from the citizens, and proceeded along the northern line of quays to the Viceregal Lodge in Phoenix Park. On Tuesday morning the Prince, accompanied by the Lord-Lieutenant and a brilliant party left town for Punchestown, to witness the races. His Royal Highness was cheered by the spectators, who lined the way to the terminus, and by the crowd there assembled. He was also warmly received on the Course. The weather, however, was unfavourable, the rain falling in torrents, and the attendance was not so large as last year. In the evening Cardinal Cullen was among the guests at the Viceregal Lodge. On Wednesday the Prince again went to Punchestown, accompanied by the Lord-Lieutenant and a brilliant party, but the weather was again unpropitious, the rain falling without cessation during the whole day. On Thursday the Prince and the Viceregal party drove to Carton, and had luncheon with the Duke of Leinster. They afterwards visited Maynooth College, where the Prince was presented with an address. On their return to town his Royal Highness visited the Royal Hibernian School.

THE IRISH CHURCH.—The Diocesan Conferences terminated on Friday. The last of the series were held at Nenagh, Mullingar, Waterford, Armagh, Cavan, and Tralee. At all the meetings resolutions condemning Mr. Gladstone's Bill and repudiating all idea of a compromise were agreed to. On Tuesday a meeting of Protestants of all denominations in the County of Monaghan was held in the Assembly Rooms of the county town, and was attended by 2,000 persons. Resolutions similar to those adopted at the meeting of the Ulster Defence Association were passed, accompanied by a declaration that the meeting will continue to uphold the legislative union so long as the international compact is respected and held inviolable by the British Parliament; but, should the fifth article of the Treaty of Union—which is expressed to be essential, fundamental, and perpetual—be repealed, they will be forced to regard the Union as virtually dissolved. It is announced that the Central Synod will be opened in the Ancient Concert Rooms, Dublin, on Tuesday next, the 13th inst. The representatives of the several dioceses have now been elected, and the list is said to contain the names of the leading Churchmen in the country.

SUICIDE OF CAPTAIN M'DONALD.—On Monday afternoon Captain M'Donald, who was one of the candidates at the last election for the Queen's County, but did not go to the poll, committed suicide at his residence in Kingstown, by cutting his throat.

THE LATE ASSASSINATION IN TIPPERARY.—The jury, at the inquest on Mr. Toppin, returned a verdict that he was wilfully murdered at Buffiana by some person or persons unknown on the night of March 31. No arrest has yet been made, and the cause of the assassination is not known, but Mr. Toppin is believed to have had a dispute some time since about land.

ATTEMPT TO MURDER A BAILIFF.—Mr. Jeremiah Kelly, a respectable farmer, land bailiff over the Kerry estate of the Board of Trinity College, was fired at on Saturday when riding home from the town of Caheriveen, but escaped without injury. No cause is assigned, and no arrest has been made.

COMMITTAL FOR FENIANISM.—Patrick Neligan has been committed by the Bench at Tralee for trial at the next assizes, on the charge of inviting two soldiers of the 81st Regiment to take the Fenian oath and join the conspiracy.

Scotland.

LORD STANLEY IN SCOTLAND.—On Friday night Lord Stanley was entertained at a public banquet in Glasgow, the Lord Provost presiding. In responding to the toast of his health, Lord Stanley adverted to the foreign relations of the country, and said:—

"Although it was not easy to foresee what would be the course in future of Continental politics, and although some gloomy prognostications had been made, he looked forward, hopefully to the general maintenance of European peace. In the event of peace being disturbed, he confidently anticipated that this country would be able to maintain a neutral attitude. With regard to our relations with the United States, he owned there had been a failure in our negotiations, but he could not bring himself to take a gloomy view of the state of affairs. He thought that, in spite of the military glory the American people had attained in the late war, there was a good deal that might be annoying in the circumstances which resulted from the struggle, and when people were annoyed they were apt to be more than usually sensitive. But he had great faith in the good sense of the American people, and he did not think they could wish to increase their difficulties by getting into fresh quarrels. Great Britain had offered to submit to arbitration the question whether or not international wrong had been done; and, whatever might be the issue, they would have satisfied their own consciences, and placed their country unmistakably in the right."

On Saturday, in acknowledging an address presented by a crowded meeting of the Glasgow Working Mens'

Conservative Association, Lord Stanley spoke as follows on the Irish Church:—

"There is a question on which I should like, and which you will expect me, to say a word or two. It is a question which a great deal has been said and written in the last 12 or 15 months—I mean the state of Ireland. I have not had probably most of you seen with me, but I have seen the decision of the House of Commons as regards the Irish Church. My own opinion upon that question, as I have said, is not easily defendable, while I thought that the existing position of the Irish Establishment was not easily defendable, while I thought that the distinctions and marks of dignity which were attached to the Church, things worth fighting for or retaining, were not to any justly national purpose. While I do not think, that endowments which have after three centuries of possession, and which are not abused ought to be bound to speak frankly, and I must say that the late reversion of the decision which is passed, I think it possible that we may still have something out of the fire. I look at this as a matter quite as much as I do one involving any theory of property. To allocate the whole body of Irish property, in my mind, a serious matter. They are good friends, and they may be troublesome friends, and in Ireland, I must say it plainly, I do not think in a position in which we can afford to make any loss friends. I am not talking of the Fenian folly, always be met by force, and there is no doubt the strongest. But I fear that the desire for at independence, which it is not reasonable to ask for. The Act of Parliament actually established it in 1782, and the Act of Parliament took it away 20 years later. It is stronger and more general in Ireland than we are in the water are willing to admit. The Act of Union is productive of incalculable advantage to both countries. It was not at the time of its passing a popular measure. I do not believe that upon that point public opinion has in any way changed. I certainly would rather not indicate, what in my belief would be if a popular vote were taken upon it in that case. Now, that is rather an awkward state of things to be in, and when I hear people say, in perfect sincerity, and faith, that you must deal with Irish matters in accordance with what you suppose to be the wishes of the majority of the Irish population, separating them thereby as a country from England and Scotland, I am apt to ask myself what well-intentioned persons really mean or know what they mean, because, if they do not, they may find themselves surprised by being taken at their word, and being bound upon their own principles, to vote in favour of the Union. Well, the inference I draw from that is that we ought to take great care lest, without meaning the Catholics, we succeed in alienating the Protestants. I defer, as every man must, to what is the national decision, for it is idle to counsel against that the real decision on those principles was taken—measure was taken—not in the vote of the other day at the hustings in November last; and I would earnestly ask those who, whether they agree with me or not, question or not, or think that the danger I have mentioned is purely imaginary—I would entreat them, I say, whatever change may be pending at least as far as those who must, in any case, be losers by it. I am rather a perplexed one even at the best, and I think it will be still more perplexed before we see the result. Again, it is said, never mind the minority—you can get out them; you have emancipated and satisfied the masses. Well, I wish I could think that that was the case. I do not see how, on a very large scale, of which the question of education will serve as a type, you are to get the House of Commons, an eminently Liberal and Protestant, to work in perfect harmony with the Catholic hierarchy, influenced as it is with immense power an enthusiastic passion, and disposed to be always moderate in its pretensions, and claims. There is upon matters of that kind an antagonism, and, though statesmanship may be able to smooth it, it is a difficulty which, whether you have to face. But that is not all. You have to face the land question, as it began by being, of compensation for the inexhaustive improvements upon their holdings, was reasonable. The matter lay within comparative compass. Both parties, with only some differences, were willing to deal with it, and it appeared as if it was easily settled. But now a Celtic national party, a process of reasoning which, I confess, I cannot understand, have made the discovery that if one man occupies another man's land, he acquires by the fact of his occupation, and without any contract or agreement, a right to the possession of the land itself, subject only to some fixed and perpetual payment. Now, that seems to me very much as if you were to be a lodger in a house in Glasgow or anywhere else, and occupied the same lodging for a certain number of years, thereby acquired a right for himself and his heirs, irremovable, and never to pay more than his rent. I put it in another way; it is as if a working man were employed in any business for a certain number of years, acquired, by the fact of such continued employment, a right not to be dismissed without his own consent. I want a third analogy, which is, perhaps still more apt, a capitalist, who should have lent out his money, and the sums, were to be told one day by the Legislature that as he received punctual payment of the interest, he had got what any reasonable man ought to be contented with. He ought to give up all claim to recover the capital if he wanted it. Now, a claim of that kind is one which is apprehended, no British Parliament will ever be found to admit. It really is one for which there is no shadow of a moral justification. It is a claim that must be met, and I do the Liberal Government and the majority of the Liberal party this justice, that I believe they will not. But, absurd, as it seems to us, it is a claim which has been getting hold of the foreigner—that is, the English people, and leaving the soil exclusively in the hands of the peasantry. I don't want to go into that subject, but I must say, with the sight of all these rocks ahead, I think land, education, and I might name others, that are being carried out to any effectual purpose, is at present begun. All these things, I say, would in time be done by one whom my voice could reach, the inexperienced, and from you those upon whom, whatever their feelings may be, England has always been able to rely, and who were to turn them into opponents, will carry into effect a situation that spirit of perseverance and of determination, they have shown in all the active pursuits of life, in my belief, they owe a good deal to their Scotch

There is just one observation more I should like to make. I give to the present Government, to Mr. and to his colleagues—full credit for doing only what conscientiously think right. But I confess I regret, and I think I am not the only one who regrets that feeling, the step they have releasing so many of the Fenian prisoners, some of those who took a very active and part in the movement. It is a fatal and suicidal part in the movement. It is a fatal and suicidal part in the movement. It is a fatal and suicidal part in the movement.

On Saturday afternoon Lord Stanley arrived in Edinburgh from Glasgow, accompanied by Mr. E. S. Gordon, the late Lord-Advocate, whose guest he remained Tuesday, when he returned to London.

Railways.

COMPENSATION CASES.—At the Leeds Assizes on Wednesday, Mr. Trumble, paper-stainer in that town, was awarded 3000*l.*, as compensation for injuries received in an accident on the Midland Railway in Leeds Station, on the 16th April last. At the recent Assizes the jury gave the mother and widow of Capt. Lord Farnham's footman, who was burnt to death in the Abergele catastrophe, 500*l.* damages against the London and North-Western Company. At the Liverpool Assizes Mr. Henry Cole Silk, the Post Office clerk in charge of the mail van, in the same accident, recovered 1000*l.* damages from the company for the injuries he received in the collision.

Law.

GLOUCESTER.—The Bristol Murder.—A man was convicted of the wilful murder of a woman named Nurse at St. George's, near Bristol, under circumstances of great atrocity. Mr. Justice Hannen sentenced him to death.—The Attempted Murder at Cheltenham.—James Dow, painter, was convicted of wounding with intent to do grievous bodily harm, at Cheltenham, on February 20, and sentenced to 12 months imprisonment.—Bristol.—A man was convicted of the wilful murder of his sweet heart, Fanny Baines, in the parish of Balminster, on October 18, by pushing her into the Avon. Mr. Justice Byles sentenced him to death.

WARRINGTON.—CHIEF.—James McDonald, a man, was charged with the murder of James Nalley. The man and three other navvies, engaged in the construction of the Macclesfield Railway, went to a public-house and drank a glass of ale. On their way home Macdonald fell down, and Nally tumbled over him, which appears to have excited the malice of Macdonald, who, on reaching their lodgings, got a knife, and fatally stabbed Nally. The jury found him guilty but recommended him to mercy, because there was evidence of malice. The judge said that drunkenness was not an excuse for crime, and passed sentence of death in the usual form.

CRIMINAL COURT.—The Alleged Embezzlement at the Office of the Admiralty.—The late chief accountant of the Admiralty, Benjamin F. Works, was indicted for embezzling the sum of 1000*l.* of money. The evidence failed to show a conviction, and the jury returned a verdict of Not Guilty. The other charges against the prisoner were withdrawn.

The Bristol Mutual Assurance Co.—Ellen Cook was charged with assaulting her husband with extraordinary violence, and with putting a knife so as to endanger his life, and cutting him, by which the sight of one eye was destroyed and the other injured. The prisoner, whose personal appearance is such, is 44 years of age, for 18 of which she has been married to prosecutor, and had borne him five children. A defence was set up, and the jury returned a verdict of Not Guilty. Mr. Justice Brett sentenced her to 12 months imprisonment.

The Admiralty.—Richard Spriggs, a mason, and a carpenter, were charged with setting fire to the Office of 300*l.*, for which the furniture had been insured. Sherman was supposed to have acted under the instigation of the prisoner, who had not long before set his own house on fire and obtained the insurance. Sherman pleaded guilty, and was sentenced to 12 months imprisonment with hard labour.

Miscellaneous.

EXPLORATION OF AFRICA.—Letters dated in November last have been received from Herr Carl Kuchel, the German traveller who is making an expedition in Southern Africa, stating that he has accomplished a very important journey, although he encountered great dangers. He started northwards on the 1st of May, 1868, from the Potoschefs river, and arrived at Inyati on the 18th October, having explored a route which has never been traversed by Europeans. From this point he intends to penetrate northwards as far as the Equator.

Obituary.

THE HON. CHARLES MANT, died suddenly on Saturday by throwing himself from the window of his apartment at Lyons House, near Kildare. His lordship survived only for an hour. He had been mentally affected for some time, and at the inquest on Tuesday the jury returned a verdict that he met his death by falling from a window of Lyons House while of unsound mind, and unaccountable for his acts. His lordship, Edward Lawless, third Baron Cloncurry of Cloncurry, county Kildare, in the peerage of Ireland, and Baron Cloncurry in the peerage of the United Kingdom, an Irish descent, was born in 1816, and married in 1839 the only daughter of Mr. John Kirwan, of Castle Hacket, county Galway, by whom he leaves a numerous family. He succeeded to the title on the death of his father, in 1853, and is now succeeded by his eldest son, Valentine, born in 1840, educated at Eton and Balliol College, Oxford, where he graduated B.A. in 1861.

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SIR EDWARD MANT, Bart., died suddenly, from heart disease in New York, on Tuesday evening. He was 53 years of age, and a principal partner in the house of Messrs. Cheard, Burns and M'Yer, the steamship owners.

LADY GEORGINA CROFT, third daughter of the Marquis and Marchioness of Exeter, died on the 1st inst., at Burghley House from congestion of the brain.

LADY CAROLINE PECHILL died a few days since. She was the daughter of the Countess of Antrim, and married in 1826 the Rev. Horace Robert Pechill, Chancellor of Brecon and rector of Bix, near Henley-on-Thames.

THE HON. and REV. DIGBY WALSH, second son of Lord Ormathwaite, died suddenly on Friday last of scarlet fever. He had been curate of Trowbridge, Wilts, since 1853, and married in 1855 the daughter of Mr. Henry Stroud.

THE HON. MRS. DE RODES, sister of the fourth Lord Sealsdale, died on Friday, at her residence in Clarges Street, Piccadilly. She was born in 1835, and married in 1854 Mr. William Hatfield de Rodes.

ARCHDEACON MANT, Archdeacon of Down, died at his residence at Hillsborough on Tuesday, from inflammation of the larynx. He was the eldest son of the late Dr. Mant, Bishop of Down and Connor and Dromore, and was born in Buryton, Hants, in 1807, and was consequently nearly 62 years of age. He graduated in Oxford, where he took his degree of M.A. He was ordained in 1831, and subsequently appointed archdeacon of Connor. In 1834, in the same week as the great Protestant meeting was held in Hillsborough, he was appointed archdeacon of Down and rector of Hillsborough, which he held for more than 34 years. For several years he occupied the post of Provincial Grand Master of the Freemasons of Antrim and Down, and afterwards the office of Provincial Grand Chaplain. On Sunday morning he presided as usual in Hillsborough Church, and went to Divine service in the evening, but his strength failing him, he was unable to officiate, and was conveyed home, and from that time sank rapidly.

THE REV. CHARLES BRIDGES, M.A., rector of Hinton Martell, who has long held a prominent place among the Evangelical clergy, died at that place on the 2d inst., aged 75. He was ordained in 1817, and in 1823 was presented to the rectory of Old Newton, near Stourmarket, which he held until 1855, when he was nominated by the Earl of Shaftesbury to the rectory of Hinton Martell, Dorsetshire. He was the author of "An Exposition of the 119th Psalm," of an Exposition of the Book of Proverbs, and of works on confirmation and other practical subjects.

MR. MICHAEL D. HASSARD, who was M.P. for Waterford from 1856 to 1868, and has since been one of the "paid referees" of the House of Commons, died a few days since prematurely, at his seat, Glenville, near Waterford, from severe fever, aged 51. Ever since he entered Parliament, in 1856, he has worked hard in the public service, first as a chairman of committees year after year, and latterly as a referee. He was born in 1817, and graduated at Trinity College, Dublin, where he became "gold medalist," and obtained the highest honours of that university. He married in 1846 the daughter of Sir Francis Hassard, recorder of Waterford, and leaves four children. He was a firm Protestant, but was so much respected that he was returned at the head of the poll for the Roman Catholic city of Waterford, and for ten years continued to represent it.

MR. JAMES BECKFORD LAUDER, R.S.A., died on the 22d ult., in Edinburg, near which city he was born in 1812. His talent for drawing was shown at a very early age, and he studied with much success at the Trustees' Academy, under Sir William Allan and Mr. Thomas Duncan, and was also guided by the valuable counsel of his brother, Mr. Robert Scott Lauder, who was then beginning his career. Repairing to Rome, he devoted four or five years to the study of the Italian masters, and on his return to Edinburgh at once essayed with success the highest style of figure painting. For correct drawing and fine colouring he was soon acknowledged to have very few equals among Scottish artists. Several of his pictures gained great distinction. His "Ten Virgins" was engraved by the Association for the Promotion of the Fine Arts. For his two scriptural pieces—"Wisdom" and "The Unjust Steward"—he received a prize of 200*gs.* at Westminster Hall.

Markets.

GOVENT GARDEN.—April 10. We have but a short supply of produce from the open ground. Hothouse Grapes and Strawberries are sufficient for the demand, but business remains unusually dull. Cucumbers are very plentiful. Alneira Grapes are rather short now, and realise from 1*s.* to 3*s.* per pound. The Potato trade continues dull at reduced prices. Flowers chiefly consist of Orchids, Mignonette, Cyclamens, Calla aethiopica, Cytisus, racemosa, Lily of the Valley, Fuchsias, Violets, Wallflowers, Fairy Roses, Sparax japonica, Cinerarias and Pelargoniums, which are more plentiful, and Hydrangeas.

FRUIT.

Apples, per bushel, 5*s.* to 10*s.* Pears, per doz., 12*s.* Pine-apples, per lb., 8*s.* to 12*s.* Grapes, per lb., 12*s.* to 25*s.* Oranges, per 100, 4*s.* to 12*s.* Kent Cobs, per lb., 1*s.* to 1*s.* 6d. Strawberries, per oz., 1*s.* 6d. to 2*s.* 6d. Lemons, per 100, 4*s.* to 7*s.* Melons, each, 2*s.* to 4*s.*

VEGETABLES.

Artichokes, green, p. doz. 4*s.* to 6*s.* Leeks, per bunch, 4d. to 6d. Beans, Kidney, p. 100, 1*s.* to 2*s.* Mint, per bunch, 1*s.* to 1*s.* 6d. Beet, per doz., 1*s.* to 2*s.* Mushrooms, p. pott., 1*s.* 6d. to 2*s.* Cabbages, per doz., 1*s.* to 2*s.* Onions, per bushel, 8*s.* to 12*s.* Carrots, per bunch, 6d. to 10d. Parsley, per bunch, 4d. to 6d. Cauliflowers, Cornish, p. doz., 2*s.* to 4*s.* Peas, green, p. pun., 2*s.* to 2*s.* 6d. Celery, p. bund., 1*s.* 6d. to 2*s.* 6d. Potatoes, York Regents, p. ton, 10*s.* to 15*s.* Cucumbers, each, 4d. to 2*s.* — Flukes, do., 100*s.* to 160*s.* — new, 4d. to 1*s.* 6d. p. lb. Endive, per doz., 1*s.* 6d. to 2*s.* Sea-kale, p. pun., 2*s.* to 3*s.* Garlic and shallots, per lb., 8d. Spinach, per bushel, 2*s.* to 3*s.* Herbs, per bunch, 2d. to 4d. Radishes, p. doz., 1*s.* to 1*s.* 6d. Horse Radish, p. bund 3*s.* to 5*s.* Turnips, p. bunch, 6d. to 8d. Lettuce, p. score, 1*s.* to 2*s.* 6d. — French Cos, 8d. to 10d. each.

HAY.—Per Load of 36 Trusses.

SOUTHFIELD, Thursday, April 8. Best Green Hay .. 120*s.* to 130*s.* Prime Meadow Hay 110*s.* to 115*s.* Inferior do. .. 90 100 New do. .. 32 40 Straw .. 32 40

CUMBERLAND MARKET, Thursday, April 8.

Sup. Meadow Hay 118*s.* to 126*s.* Inferior do. .. 100 108 New do. .. 39 42 Superior Clover .. 124 132

POTATOS.—SOUTHWARK, Monday, April 5. During the past week the arrivals coastwise have been moderate, and more plentiful by rail, but owing to Easter or holiday time, the trade was dull at the following quotations:—York Regents, per ton, 60*s.* to 100*s.*; do. Flukes, 60*s.* to 120*s.*; Lincolnshire Regents, 60*s.* to 100*s.*; Dunbar and East Lothian do., 60*s.* to 120*s.*; Perth, Forfar, and Fifo do., 60*s.* to 100*s.*; do. Rocks, 60*s.* to 70*s.*; French and Belgian Whites, 40*s.* to 60*s.*

LEADENHALL POULTRY, &c.

Table with columns for Poultry types (Geese, Turkeys, Ducks, etc.) and prices (s.d., s.d.). Includes prices for Pigeons, Tame Rabbits, Wild Rabbits, Pheasants, Teal, Snipes, Hares, Plovers, English Eggs, Foreign do, and Fresh Butter.

ENGLISH WOOL.

Table with columns for Wool types (Fleeces—Southdown, Half-bred, etc.) and prices (per lb.—s. d., s. d.). Includes prices for Sorts—Clothing and Combing.

COALS.—April 7.

Cowpen Hartley, 15*s.* 8d.; Holywell Main, 16*s.* 6d.; West Hartley, 15*s.* 3d.; Walls End Wharfeduffe, 15*s.*; Walls End Haswell, 18*s.* 6d.; Walls End Original Hartlepool, 18*s.* 6d.; Walls End South Hetton, 18*s.*; Walls End Tunstall, 15*s.* 6d.; Walls End Hartlepool, 17*s.* 6d.; Walls End East Hartlepool, 18*s.*; Walls End South Hartlepool, 18*s.*; Walls End Tees, 18*s.*; Brancepeth Cannel, 18*s.* 3d.—Ships at market, 44; 8-11 31

HOPS.—BOROUGH MARKET, April 9

Messrs. Pattenden & Smith report the market in a very healthy state, with a limited supply of the best descriptions, which command rather higher rates.

METROPOLITAN CATTLE MARKET.

MONDAY April 5. We have rather a large supply of both English and foreign Beasts; trade is very active, and choice qualities are quickly disposed of at late rates. Sheep are more plentiful, and trade is scarcely as brisk as last week; there is, however, very little difference in prices, and a fair clearance is effected. Trade is still dull for lambs. Good Calves are in request. Our foreign supply consists of 2024 Beasts, 9550 Sheep, and 126 Calves; from Scotland there are 138 Beasts; from Ireland, 25; from Norfolk and Suffolk, 1300; and 440 from the Midland and Home Counties.

Table with columns for Cattle types (Best Scots, Herefords, etc.) and prices (s. d., s. d., s. d.). Includes prices for Best Long-wools, Do. Shorn, Ewes & 2d quality, Do. Shorn, Lambs, Calves, and Pigs.

THURSDAY, April 8

We have a good supply of Beasts; trade is dull, prices are lower, and a clearance cannot be effected. The number of Sheep and Lambs is much smaller than on Thursday last, the falling off being in the foreign supply; the demand is very limited, and prices are lower, with several lots remaining unsold. Lambs and Calves are also a dull trade at our quotations. Our foreign supply consists of 626 Beasts, 1135 Sheep, and 172 Calves.

Table with columns for Cattle types (Best Scots, Herefords, etc.) and prices (s. d., s. d., s. d.). Includes prices for Best Long-wools, Do. Shorn, Ewes & 2d quality, Do. Shorn, Lambs, Calves, and Pigs.

METROPOLITAN MEAT MARKET.—April 10.

Best Fresh Butter .. 16*s.* per dozen lb. Second do. do. .. 14*s.* Small Pork, 4*s.* 8d. to 5*s.* 6d.; Large Pork, 4*s.* 0d. to 4*s.* 4d. per 8 lb.

MARK LANE.—MONDAY, April 5.

The supply of Wheat from Essex and Kent to this morning's market was small. Millers were unwilling purchasers, and to affect sales it was necessary to submit to a decline of 1*s.* to 2*s.* per qr. on the prices of this day's night. There was a moderate attendance, and the business done in foreign was in retail only, at a reduction of 1*s.* per qr. on last Monday's rates. Barley met a slow sale. Beans and Peas were steady in value. Oats sold freely at fully late rates. Flour was difficult of sale.

PRICE PER IMPERIAL QUARTER. WHEAT, Essex, Kent, Suffolk. White 4*s.* 4*s.* Red .. 4*s.* 4*s.* — fine selected runs .. do. 4*s.* 4*s.* 4*s.* — Talavera .. 51—55 — Norfolk .. Red .. — Foreign .. 41—62 BARLEY, grind. & dist. 37 to 38*s.* Chev. 40—51 Malting .. 44—49 — Foreign .. grinding and distilling 20—26 Malting .. 34—43 OATS, Essex and Suffolk .. — — Scotch and Lincolnshire .. Potato 25—33 Feed .. — — Irish .. Potato 30—32 Feed .. 29—28 — Foreign .. Poland and Brew 25—30 Feed .. 21—26 RYE .. 38—40 Foreign .. — RYE MEAL, Foreign .. — BEANS, Mazagan 38*s.* to 40*s.* Tick 42—45 Harrow .. 42—43 — Pigeon .. 43*s.* to 47*s.* Small 38—43 Egyptian .. 36—37 — Foreign .. — Wines 38—43 Suffolk .. 40—44 PEAS, White, Essex, and Kent .. Boilers 40—42 Suffolk .. 37—44 — Maple 42*s.* to 46*s.* Grey 40—42 Foreign .. 37—44 MAIZE .. Foreign .. 29—31 FLOUR, best marks delivered, per sack 3*s.* 4d. — 2d ditto .. ditto 2*s.* 4d. Country .. 28—40 — Foreign .. per barrel 23—37 Per sack .. 30—40

FRIDAY, April 8.

The advance in the value of Wheat throughout the kingdom reported last Friday, caused chiefly by purchases by millers and dealers, who had allowed their stocks to run very low, has been quickly lost in the agricultural districts owing to increased supplies, while in some of our seaports (Liverpool, for instance), where foreign arrivals were forced on the market, even lower prices have been accepted than those

which ruled three weeks ago. The trade in Spring Corn has been slow, at barely former rates, excepting best samples of malting Barley and of very fine Oats, which were the turn dearest in some markets. Barley in Birmingham was 2s. per qr. cheaper. Flour has been a slow and difficult sale, at 1s. per sack decline. The arrivals of grain and seed laden vessels off the coast during the week consisted of 30 cargoes, of which, with those left over from last week, there remained for sale last night 23 cargoes. The floating trade has been slow, there being no buyers at late rates for either Wheat or Maize, and the business done was at a small reduction. Barley was steady; Rye unaltered in value. In cargoes on passage and for forward shipment hardly any transactions have taken place. Paris, April 8.—The trade in Wheat and Flour ruled very quiet. The six marks are quoted at equal to 34s. per 280 lb. The stock at the Halle is estimated at 9550 cwt.

The arrivals of all descriptions of grain during the week have been small. There was a very poor attendance at this morning's market. English Wheat met a slow sale at Monday's quotations. The business done in foreign was confined to retail sales at that day's rates. Spring Corn of all descriptions was steady, without alteration in value.

ARRIVALS FROM APRIL 3 TO APRIL 8, BOTH INCLUSIVE.

	Wheat.	Barley.	Oats.	Flour.
English ..	1120 qrs.	30 qrs.	— qrs.	— sks.
Irish	— " "	— " "	1710 " "	— " "
Foreign ..	8740 " "	3590 " "	14,490 " "	1360 " "
	9860	3620	16,200	— brls.

LIVERPOOL, Tuesday, April 8.—Wheat in limited request, and prices of red 1d. to 2d., and white 3d. to 4d. lower than Friday last. Flour dull and 6d. cheaper. Beans, Oats, and Oatmeal sell slowly at former prices. In Indian Corn a good business was transacted, at 1s. to 1s. 6d. per qr. reduction; round, 28s. 6d.; mixed, 29s. 6d.

AVERAGES.

	Wheat.	Barley.	Oats.	
Feb. 20 ..	40s 7d	40s 2d	28s 6d	
March 6 ..	49 4	46 0	28 2	
— 13 ..	48 10	45 6	27 10	
— 20 ..	47 9	45 0	27 3	
— 27 ..	46 5	43 8	27 1	
April 3 ..	46 4	44 1	26 9	
Average ..	48 0	45 1	27 7	

SEED MARKET.

We have had during the last few days a fair consumptive demand for agricultural seeds, but the business done has been rather of a retail character. New English Red Clover seed is offering more freely, and prices of this description are consequently declining. Foreign Clovers maintain their values, but do not for the moment meet with an active inquiry; for Alsike and White Clover seed the trade is firm. New Trefoil seed moves off in small quantities, at recent currencies. Fine new French Italian Rye grass is in good request; a few parcels of inferior quality are on offer on somewhat lower terms. Bird seeds are steady: Canary and Hemp seed both experience an improved demand, and realise higher rates. For spring Tares prices have given way 1s. to 2s. per qr. Of White Mustard seed there is scarcely any on our market, and what little there is held at long values. Sowing Rape seed is also tending upwards. English Linseed is in fair request at last Monday's quotations. The weather has lately been much against the seed trade; a spell of sunshine would, without doubt, cause a considerable increase of animation in our markets. JOHN SHAW & SONS, 16, Water Lane.

WANTED, to place a PUPIL, age 19, with a respectable practical FARMER and BREEDER, who farms not less than 400 Acres, for two years.—Address, stating terms, SAMUEL BRANDBOX, Cranbrook Farm, Lower Clapton, Middlesex, N.E.

To Cultivators of Soft-Wooded Plants. MESSRS. VEITCH AND SONS are in IMMEDIATE WANT of a thoroughly competent MAN to undertake the entire charge and Cultivation of the Soft-Wooded Department in their Establishment. Every convenience, with ample assistance, will be given. Wages to anyone thoroughly competent, will commence at 35s. per week, and increase in accordance with success.—Royal Exotic Nursery, King's Road, Chelsea, S.W.

WANTED, as PROPAGATOR, in a First-class Provincial Nursery, one who has had several years' experience amongst Hard and Soft-wooded Plants, Rhododendrons, &c. First-class references required.—Apply, stating age and wages expected, to B. B. P., Gardeners' Chronicle Office, W.C.

WANTED, an active MAN, accustomed to Work in the House.—Apply by letter, stating age, wages required, and further particulars, to Mr. CASTLEBROUGH, Hans Street, Chelsea, S.W.

WANTED, a married MAN, without family.—Must understand Budding and Grafting, and general Nursery work. Cottage found.—Apply to THOMAS THORNTON, Reatherside, Frimley, Surrey.

Gardener. WANTED, a GARDENER and his WIFE, without incumbrance, to live in a Lodge, in Staffordshire. The Man must be a good Working Gardener, understand the Management of Vines and Orchard-house. The Wife will be required to attend to the Lodge Gate.—Y. Z., Gardeners' Chronicle Office, W.C.

WANTED, a middle-aged MARRIED COUPLE without family; the Man to Work in the Garden, and be able to Nail Wall-Fruit Trees, Mow Lawns, &c.; to live in the Lodge, and Wife to attend to Lodge Gate. Wages 12s. per week.—Address, stating full particulars, to G. B., Post Office, Huntingdon.

WANTED, a DAIRYMAID.—Must be a person of experience, and good Butter-maker. Age about 35.—Mr. PEEL, Cambridge House, Twickenham, W.

WANT PLACES.—Letters to be Post Paid.

To Gardeners and Bailiffs (Head, Foremen, or Under). JAMES CARTER and CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those who can send unquestionable references need apply. Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & CO. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c. JAMES CARTER & CO., 237 and 238, High Holborn, London, W.C.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS, and GARDENERS and BAILIFFS, of various qualifications, who are open to Engagements. The fullest particulars as to services required and wages given should be forwarded with application.—PAUL'S Nurseries, Waltham Cross, London, N.

Gardeners and Under Gardeners. WM. CUTBUSH and SON beg to state that they have at all times on their books MEN of various qualifications, whose characters will bear the strictest inquiry. Any Gentleman making application would save time by clearly stating the duties to be undertaken, wages offered, &c., so that suitable Men may be selected.—Highgate Nurseries, London, N.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. E. G. HENDERSON & SON, Wellington Nursery, St. John's Wood, London, N.W.

GARDENER (HEAD).—Scotch, age 26, married; has had good experience in England and Scotland. First-class reference.—G. G., 5, Warriston Place, Edinburgh.

To Noblemen and Gentlemen.

GARDENER (HEAD), where good general practical Gardening is required.—A thoroughly experienced Man.—G. H., Messrs. Robinson & Son's, The Nurseries, Tooting, Surrey.

GARDENER (HEAD).—Married, two children; thoroughly understands the profession in all its branches. Four years' good character from last Employer.—J. E., Post Office, Worpleston, near Guildford.

GARDENER (HEAD).—Age 32, married; has a thorough practical knowledge of Gardening in all its branches; also the Laying-out of Grounds, the Erection and Heating of Hot-houses, &c.—R. B., 40, Spencer Street, Chesterfield.

GARDENER (HEAD).—Age 26, married; has a knowledge of Pines, Vines, and Stove and Greenhouse Plants. Satisfactory references can be given.—T. S., 12, Bromell's Road, High Street, Clapham, S.

GARDENER (HEAD).—Age 29, married; understands the Management of Vines, Melons, and Cucumbers, Kitchen and Flower Gardening, and Early and Late Forcing.—T. S., Post Office, Enfield, Middlesex.

GARDENER (HEAD).—Age 32, single; thoroughly understands the profession in all its branches. Any part of Great Britain or Ireland. Good reference.—G. F., the Gardens, Wingerworth Hall, Chesterfield, Derbyshire.

GARDENER (HEAD), age 27.—WILLIAM SMYTHE, Gr. to the Right Hon. Lord Soudes, Elmham Hall, Thetford, Norfolk, has much pleasure in recommending his late Foreman to any Lady or Gentleman requiring a good Gardener.

GARDENER (HEAD).—Age 33, married; has had nearly 20 years' practice in first-class places, Indoors and Out, in all branches of the profession. Good character.—B. T., Belmont Hill House, Lee, Kent.

GARDENER (HEAD).—Age 29, married, one child; thoroughly understands the Management of Vines, Stove and Greenhouse Plants, Early and Late Forcing, and Kitchen and Flower Gardening. Good references from present employer.—W. SMITH, 8, Chestnut Grove, Twickenham Common.

GARDENER (HEAD).—Age 29; thoroughly understands Early and Late Forcing, Stove and Greenhouse Plants, Flower and Kitchen Gardening, &c.; has been 24 years Foreman in the Sheffield Botanical Garden. Excellent character.—Apply in the first instance to Mr. J. EWING, Curator, Botanical Gardens, Sheffield.

GARDENER (HEAD); married, no incumbrance.—W. KEMP, who has lived for the last five years with E. H. Bentall, Esq., M.P., begs to offer his services to any one requiring a thoroughly practical Man; is a first-class Fruit and Plant Cultivator, for which he has obtained numerous Prizes at the Metropolitan and Local Shows.—Mr. A. HENDERSON's, Malda Vale, Edgeware Road, W.

GARDENER (HEAD).—Age 40, married, no incumbrance; a thorough good working industrious Man, of many years' experience in all branches of Gardening, a capital Grower of Stove and Greenhouse Plants, also Grapes, Melons, and Cucumbers, and an excellent Flower and Kitchen Gardener. Wife a good Dairy-woman. Six years' excellent character from present employer for honesty, sobriety, and ability in his profession.—B. A., Longdon Lodge, near Tewkesbury.

GARDENER (HEAD), single.—J. HILL, Gardener to R. Hanbury, Esq., wishes to recommend his Son to any Lady or Gentleman in want of a Gardener. He is fully competent to undertake the Management of a first-rate situation, well versed in the Forcing of Early and Late Fruits, also the Cultivation of Stove and Greenhouse Plants, Ferns, Orchids, and Flower and Kitchen Gardening. Highest testimonials from present employer, and reference from previous one.—F. HILL, Jun., R. Hanbury, Esq., Poles, Ware, Herts.

GARDENER (HEAD, WORKING).—Married, no incumbrance; thoroughly understands Growing Grapes, Hot and Greenhouse Plants, Early and Late Forcing, and Kitchen and Flower Gardening. Six years' character.—H. M. SAFARER, Twickenham, S.W.

GARDENER (HEAD, WORKING), where one, two, or more, are kept.—Age 41, married; thoroughly practical in Vegetable, Fruit and Flower Culture. Good references and testimonials as to respectability and practicability.—D. J. L., 2, Wellesley Road, Snaresbrook, Essex.

GARDENER (HEAD), where several others are kept.—Has had many years' experience in Early and Late Forcing, and all branches of Horticulture; can Manage Land if required. First-class reference.—E. PRACKETT, 1, Carpenter Place, Carpenter Street, Mount Street, Grosvenor Square, W.

GARDENER (FIRST-CLASS), English, married, no incumbrance, Protestant.—To any Nobleman or Gentleman requiring the services of a first-class Gardener, the Advertiser, through the death of his noble employer, is at liberty to engage himself at once; is a thorough practical business Man, with a perfect knowledge of every department of his profession.—Barr, J. W. Mackey, Esq., 40, Westmoreland Street, Dublin.

GARDENER.—Middle-aged, married, no incumbrance; understands Vinery. Would not object to take care of a Horse and Cow, if required. A seven years' character can be given.—Address, Y. Z., Prospect House, Aokworth, near Pontefract.

GARDENER (SINGLE-HANDED, or otherwise).—Age 28, single; good practical knowledge of Vines, Wall Fruits, Stove and Greenhouse Plants, and Flower and Kitchen Gardening. Good character.—A. B., Mr. Thompson, Langley, near Maidstone, Kent.

GARDENER (or Second in Florist Department), in a Small Family.—A Young Man; three years' character from last situation.—JOHN JAMES, East Woodhay, Newbury, Berks.

GARDENER (UNDER), or IMPROVER.—Has had good experience; would not object to pay a small Premium. Two years' good character.—T. A., 21, Vernon Street, Hammersmith.

GARDENER (UNDER).—Age 20; four years' experience. Good character.—Mr. W. BRICE, 8, Teiney Cottages, Priory Grove, South Lambeth.

GARDENER (UNDER), or attend to Horse and Garden.—A young married Man, with good character.—A. B., Post Office, Hognor, Sussex.

GARDENER (UNDER).—Age 28, single; has been used to Early and Late Forcing, and Flower and Kitchen Gardening. Good character.—A. J., Post Office, Godstone.

GARDENER (UNDER), where he can further improve himself in all kinds of Forcing, and Gardening in general.—Age 22; good reference.—R. D., Post Office, Bentley, near Farnham, Surrey.

GARDENER (UNDER).—Age 22, single; steady and active; good experience in Growing Fruit, Flowers, &c. Four and a-half years' recommendation.—W. MARRIS, Church Street, Steyning, Sussex.

GARDENER (UNDER), where Early and Late Forcing is carried on.—Age 19; has had three and a half years' experience in the profession. Good character.—A. B., 2, Hume Place, Clapham, Surrey.

To Nurserymen.

GROUND FOREMAN and PROPAGATOR.—Thoroughly experienced. Satisfactory references as to character and ability.—H. R., 18, Arthur Street, Garston, near Liverpool.

FOREMAN, in a good Private Establishment.—Age 26, has served as above in first-class places; can be highly recommended by last and previous employers.—C. C., 3a, Clarendon Street, Camberwell New Road S.

FOREMAN, in a Nobleman's or Gentleman's Garden.

FOREMAN, in a Nobleman's Establishment.—Single; 15 years' practical experience in Early and Late Forcing, Pines, Vines, Peaches, Cucumbers, Melons, and all kinds of House Plants. Two and a half years' good character.—Post Office, Waltham Green, London, S.W.

FOREMAN (or SECOND MAN), in a Nobleman's or Gentleman's Establishment; has had eight years' experience in the management of Forcing and Plant Growing, the last two in a large Garden. First-class testimonials produced for the same if required.—V. M., Hascombe, Goldaming.

PROPAGATOR, or PROPAGATOR and FOREMAN.—Thoroughly understands the Propagation and Culture of Hard and Soft-wooded Plants. Satisfactory references as to character and ability.—W. E., Gardeners' Chronicle Office, W.C.

To Nurserymen.

PROPAGATOR, in the Hardy Department.—Establishment.—Age 21; has just completed an Apprenticeship (at Waltham Cross Nurseries), and is now open to any situation being thoroughly practical in the Cultivation of Hard-wooded Conifers, and Ornamental Trees and Shrubs.—W. A. K. Paul's Nurseries, Waltham Cross, N.

FORESTER.—An active and thoroughly experienced Man in want of a situation as Forester or Estate Foreman. Good Writer, and accurate at Accounts.—For particulars apply to Messrs. JAMES DIXON & SONS, Newton Nurseries, Chelsea.

FARM BAILIFF.—Married, no incumbrance. Understands Machinery. Wife good Dairy-woman. Good character.—W. C., Cobden Cottage, Cobden Road, South Norwood.

BAILIFF.—Age 46, married; respectable, energetic habits; thoroughly practical in Modern Farming. Good Judge and Manager of Stock, Baying, Selling, and Accountant.—H. INOX, Bedwell Lodge, Hatfield, Herts.

TRAVELLER, or to take an active part in the management of the Nursery or Seed Trade.—For particulars apply to T. W., Messrs. Hurst & Son, 6, Leadenhall Street, London, E.C.

To Noblemen's and Gentlemen's Gardens. IMPROVER.—Age 17; four years' experience. Will give a Premium.—State Premium and particulars to Mr. the Gardens, Free Hills, Botley, Southampton.

To Gentlemen, Nurserymen, and Others. CARPENTER (GENERAL).—Good experience in Painting, Glazing, and Fixing Hot-water Apparatus. Reference.—E. M., Post Office, St. A. bau's, N.

GROOM or COACHMAN.—Age 30, single; understands the Management of Horses. Wife good Dairy-woman. Good character.—W. S., Mr. Diplock's, Trowbridge, Wils.

CORDINGS' CELEBRATED FISHING BAIT, which remain soft and pliable.

CORDINGS' FISHING STOCKING.

CORDINGS' FISHING TROWSEL.

CORDINGS' ORIGINAL ANKLE BROGUE.

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The Gardeners' Chronicle Newspaper.

SATURDAY, APRIL 17, 1869.

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 FEMALE EDUCATION
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THE EDINBURGH REVIEW, No. CCLXIV, APRIL, was published on WEDNESDAY LAST

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Home News.

POSTPONEMENT OF THE QUEEN'S JOURNEY TO OSBORNE.—Her Majesty and the Royal family, who were to have left Windsor Castle yesterday for Osborne, will not leave for the Isle of Wight till next week. All the arrangements for the contemplated visit were in progress on Thursday, but the orders for the departure were countermanded at the last moment, in consequence of the ill health of Prince Leopold. It is now expected that the Court will leave Windsor for Osborne about Monday or Tuesday next.

THE COURT AT WINDSOR.—The Queen and the Princesses left Buckingham Palace on Saturday afternoon for Windsor. Prince Leopold left London at an early hour, and travelled to Windsor by road. Prince Albert Victor, Prince George, Princess Louisa, and Princess Victoria of Wales also left Buckingham Palace for Windsor, previous to the departure of her Majesty. Earl and Countess Russell and Lady Agatha Russell arrived at the Castle on a visit. On Sunday morning the Queen, Prince and Princess Christian, and the Princesses attended Divine service in the private chapel. The Rev. Dr. Monsell, vicar of Egham, preached the sermon. On Monday the Queen drove out with Princess Louisa. The Earl and Countess Russell and Lady Agatha Russell left the Castle. On Tuesday the Queen, accompanied by Princess Beatrice, drove to Bagshot Park, and visited Sir James Clark. The Duke and Duchess of Marlborough, and Lady Rosamond Spencer Churchill, arrived at the Castle on a visit. On Wednesday morning the Queen, with the Princesses, drove in the grounds, and visited Prince and Princess Christian at Frogmore House, Earl and Countess de Grey and Ripon arrived on a visit. The Duke and Duchess of Marlborough and Lady Rosamond Spencer Churchill left the Castle. In the afternoon the Queen held a Council. Earl de Grey and Ripon, the Duke of Argyll, and the Lord Chamberlain had audiences of the Queen. Mr. Michael Costa was introduced by the Lord Chamberlain and received the honour of knighthood. On Thursday morning the Queen went out with the Princesses Louisa and Beatrice.

THE ILLNESS OF PRINCE LEOPOLD.—On Saturday morning some improvement having taken place in the health of Prince Leopold, whose indisposition prevented the return of her Majesty and the Royal family to Windsor on Friday, it was arranged, in order that the Prince should obtain the repose necessary to his condition, that his Royal Highness should be conveyed as quietly as possible to Windsor. The Prince has of late been subject to an alarming hemorrhage, which comes on suddenly, and leaves him in a prostrate condition for a time—a state which requires the greatest care, attention, and repose. In these circumstances his Royal Highness left Buckingham Palace on Saturday morning in advance of the Queen, and travelled in a carriage by road to Windsor. On his arrival at the Palace the Prince was placed on an extemporised couch, and carried to his apartment.

THE DUKE OF GENOA (Prince Thomas of Savoy) has just entered at Harrow School. While there he will be in the family of Mr. Matthew Arnold, who is residing at Harrow. The young Prince brings no suite with him of any kind, but will be at liberty on Sundays to attend Roman Catholic service in London.

THE CABINET.—A Cabinet Council was held on Saturday in Downing Street.

THE CONSERVATIVE PARTY.—On Monday afternoon a numerous meeting of the Conservative members of the House of Commons was held at the residence of the Earl on Lonsdale on Carlton House Terrace. The meeting was convened by a circular from Mr. Disraeli, in order "to decide upon the amendments to be proposed in Committee on the Irish Church Bill." 183 members of the Conservative party were present, including all the members of the late Cabinet, with the exception of Lord Stanley. The meeting was addressed at great length by Mr. Disraeli, and lasted for nearly two hours. It was resolved that numerous amendments should be moved in Committee, the most important of which are that the glebe lands shall be preserved as a perpetual inheritance for the Irish clergy, and that all private endowments made between the time of the Reformation and the Restoration should be respected.

KNIGHTHOOD.—At the Court held by the Queen at Windsor on Wednesday, her Majesty conferred the honour of knighthood on Mr. Michael Costa, the composer of "Eli" and "Naaman," and for many years the conductor of the Royal Italian Opera.

TRIALS OF ELECTION PETITIONS.—The trial of the Northallerton petition commenced on Monday, and afterwards resolved itself into a scrutiny, the result of which failed to obliterate Mr. Hutton's majority, although it reduced it from 14 to 6. Mr. Justice Willes, on Thursday, gave judgment that Mr. Hutton had been duly elected, that neither bribery nor intimidation was proved, and there was no reason to believe that corruption prevailed, the costs to follow the result. The petition against the sitting members for South-West Yorkshire was withdrawn on Thursday, by permission of Baron Martin; each side to pay its own costs. The South Durham and the South Hants petitions have been withdrawn. In the Horsham

petition, "Hurst v. Aldridge," relating to the double return, the respondent has given notice that he does not intend to oppose the petition. The Irish Court of Common Pleas gave judgment on Thursday that Mr. Weguelin's election for Youghal was void on the ground of treating.

THE BUDGET.—The payments which will have to be made in respect of assessed taxes and licence duties, and House-duty, Land-tax, and Income-tax will be collected, under the scheme of the Chancellor of the Exchequer, as follows, after—1869—April 5, last payment of Income-tax, Land-tax, and House-duty for 1868-9, and of assessed taxes on 1867-8; Oct. 10, first payment of assessed taxes on 1868-69. 1870.—Jan. 1, Income-tax on schedules A, B, D, for financial year 1869-70; ditto on schedules C and E, paid by deduction in each quarter of the fiscal year; Jan. 1, payment of Land-tax and House-duty for 1869-70; Jan. 1, licence duties for articles to be kept in the year ending the 31st of December, 1870; April 5, payment of second moiety of the assessed taxes on 1868-69. 1871.—Jan. 1, same payments as January, 1870.

THE EXPERIMENTAL SQUADRONS.—Mr. Childers and Sir Sydney Dacres will go with the reserve fleet in the Agincourt, flying the Admiralty flag, and when they leave, the fleet will be commanded by Rear-Admiral Key. Rear-Admiral Hornby will be second in command, hoisting his flag in the Duncan. The flying squadron will leave England about the 10th of June for Bahia, where it will be joined by the Phoebe from the West Indies, and will thence proceed to Rio de Janeiro and the Cape of Good Hope, which it will leave about the end of September for Melbourne and Sydney, visiting New Zealand about the middle of January, reaching Japan in March, Vancouver's Island at the end of April, and proceeding thence to Honolulu, Tahiti, Valparaiso, and the Falkland Islands, so as to reach England by the middle of October of next year.

THE JUDICATURE COMMISSION.—The first report of the Judicature Commission will very shortly be published. Among its recommendations will be found a proposal for the consolidation of all the Courts, both of law and equity, into one Supreme Court, which will be divided, after the Scotch plan, into chambers or divisions. It will also propose that pleadings be simplified, and official referees attached to the various courts as scientific assessors, following the recommendations of the Patent Law Commission of 1864. The Home Circuit is condemned, and the remodelling of the other circuits is proposed. A new Court of Appeal is to be constituted, to take the place of the Exchequer Chamber, Privy Council, and Chancery Appeal Courts. All the recommendations of the House of Commons' Committee of last year on common and special juries are adopted.

Foreign.

FRANCE.—The *Journal Officiel* of Tuesday contains the following letter from the Emperor to M. Rouher, in reference to the centenary of Napoleon I.—

"M. le Ministre,—"On the 15th of August next it will be a hundred years since the Emperor Napoleon was born. During that long time plenty of ruins have been made, but the great figure of Napoleon has remained up-standing. It still guides and protects us—it has made me that which I am. To celebrate the centenary of the birth of the man who called France the Great Nation because he developed in her those masculine virtues upon which empires are founded, is to me a sacred duty, in which the whole country will willingly assist. According to my views, the best manner of honouring this national jubilee is to increase a little the well-being of the old companions in arms of the Emperor. The 2,700,000f. which the Legion of Honour distributes every year are insufficient to ensure them against privations. I have thought that the Bank of Deposits could be charged with the increased pensions to those old soldiers by assigning to it the credit allowed by the Chamber during the number of years necessary to replace the advances. By that means effectual aid would be given to those unfortunate but glorious men without in any way modifying the Budget. I desire that from the 15th of August next all soldiers of the Republic and the First Empire should receive an annual pension of 250f. The Corps Legislatif, I doubt not, will receive this proposition with the national sentiments which in so high a degree animate it. It will reflect with me that at an epoch in which complaints of the progress of scepticism are rife, it is good to recompense patriotic devotion, and to remind the new generations of it. To recall grand historical memories is to strengthen faith in the future—to do homage to the memory of great men is to recognise the most brilliant manifestations of the Divine will. I request you to consider the matter with the Minister of Finance and the Minister of my house in order to prepare a Bill to be submitted without delay to the Corps Legislatif after the advice of the Council of State. With this, Monsieur le Ministre, I pray God to have you in his holy keeping.—NAPOLEON."

In the sitting of the Senate on Friday, Vice-Admiral Count Bouet de Villaumez contended that the French armaments were not excessive. M. Michel Chevalier regretted the great European armaments, for which he held the Sovereigns responsible. M. Rouland refuted M. Chevalier's statements, and approved the measures taken for the defence of France. He said that perfect union existed between France and the Emperor. His speech was loudly cheered. Marshal Niel said that the present footing of the army was suited for a time of peace. The present budget, as it stands, and the budget to come in 1870, were both peace budgets, and it was the most imperative duty of the Government to secure the safety of the country. The number of men drafted for actual service amounted, on the 1st of March, to 330,000, whereas formerly it reached as high a figure as 400,000 men. In conclusion, he said that the army could, if circumstances demanded such a step, rapidly pass from a peace to a war footing. The contingent of 100,000 men was then unanimously voted. In the sitting of Tuesday, the agreement between the city of Paris and the Credit Foncier of France, after speeches from Baron Haussmann, M. Dumas, and M. Rouher, was approved by the House. In the sitting of the Legislative Body on Saturday, the Marquis de

Lavalette, Minister for Foreign Affairs, in answer to questions put by M. Jules Favre respecting the relations of France with Tunis, Prussia, and Greece, said:—

"With regard to Tunis, the situation is obscure. The revenue realised from the per annum. The interest upon the loan to the total amount of the revenue. Efforts to protect the rights of her subjects. Her influence cannot always be at the enterprises. We have not had negotiations with Germany. This attitude is a sincere desire to maintain good relations, reference whatever in affairs that are purely such as have occurred in Germany are complete tranquillity sets in, by an intelligent aspirations, misunderstandings, and I recommend what time has done. This state of motive to avoid every interference in affairs are not directly interested. Legitimate could lead us to depart from this position, and we do not foresee in the affairs any motive for our so long of our neighbours, and we have not been not be likewise respected. Our relations. The Italian Ministry has re-entered a conservative principles. On the other Government is also progressing in the forces, but the moment has not yet arrived, purely and simply, to the September evacuate the Pontifical territory. With France had but one policy in the East, which was the object and result of the difficulties which gave rise to the and Greece have not been settled, but they disarmed and have resorted to peaceful from having humiliated Greece, the grand spectacle of the whole of Europe several days for the decision of the question of peace or war. Greece is more powerful than before, for she has her flag respect for the principles of international are in vogue among all civilised countries abided by his resolutions, notwithstanding agitation which prevailed in Greece. Our are good. We may say that peace, the object is neither compromised nor uncertain, and we maintain it by all legitimate means. In do, under different circumstances, that should serve peace in the East. A fearful respect attach to whomsoever, giving way to should hurl two great nations one against policy of France is the policy of peace—we shall uphold with the aid of the great powers with the help of Almighty God."

The Marquis de Lavalette resumed his great cheering from all parts of the House. Favre arose to express satisfaction at the the Minister of Foreign Affairs. M. thanked the Government for its statement to Germany, and recommended absolute with the German movement, which, he said, allowed to develop itself. The slightest part of France would suffice to check it. However, it might repair the disasters which three years had brought upon Europe upon France. In the sitting of the Ministry of War commenced. Replying to Marshal Niel insisted upon the necessity of the present military divisions, and said:—

"The estimates are not of an amount which no reason to apprehend our entering upon a second portion of the contingent has been enough. Our military organisation affords us an advantage, for it will enable us to pass in a week to a war footing, without being forced to call contingents, and thereby warn foreign countries. Within eight or nine days we should have 600,000 men under arms. However, as the regular contingent, together with 11,000 volunteers allowed to return to their homes. Our months' furlough, and belonging to the year 1863, have been required to join their regiments. In the sitting of Tuesday Marshal Niel M. Garnier-Pagès, said that the effective the army would never exceed 400,000 men. months' furlough soldiers, who were recently for exercise, would be sent back to their having been inspected. An amendment, the suppression of the Imperial Guard, and of 200,000 men on the effective army, were adopted, and the discussion on the Algeria commenced. In the sitting of debate the Estimates of the Ministry of commenced. M. Dupuy de Lôme, Councillor of opposing an amendment of M. Pau. Bethmont that the present fleet and the supplies represent a value and a naval strength never before possessed at any period of The amendment was rejected. The Tuesday publishes a letter from the Duke in which he denies the rumours of his certain Ministerial combinations, or offered to join any such combinations.

SPAIN.—In consequence of the Fernando of Portugal to accept the Trunvirate has been proposed by the Chamber, to be composed of Práxedes Figueros, the Republican Deputy. The has been abandoned, because the consequences would have been in indefinite ment of the financial question, which cannot any longer. It is reported that the Dake pensier intends to maintain the throne, and that several members of the party have decided to advance to his subscription, on the express rendering himself responsible amount. The debate on the progress. On Wednesday the Bishop of a speech in opposition to the principle of liberty. In the sitting of Thursday consideration, by a majority of 129 to 4, the total abolition of capital punishment.

the Government if it was true that had taken the Carlist movement under her General Prim replied in the negative, the movement would certainly be suppressed by the Constitution as then... article of the Constitution, prejudging the form of government, was rejected. The was agreed to, after replacing the word by the word "nation." The directive of the majority has resolved to postpone on the question of the form of government more opportune time. Messrs. of Frankfurt, Messrs. Oppenheim, Paris, the Societe Generale, Paris banks, have undertaken the 5 per Cent Exterior Loan, recently approved by the Cortes. The this loan will shortly be announced.

The result of the elections is largely in Government. A rumour is current that de Sa da Bandeira intends tendering his owing to the had impression made by the telegram, communicating to Madrid the King Dom Fernando to accept the

The First Chamber on Friday ratified the convention with the East... Paris in which in the negotiations at Paris... M. Froue-Orban is not agreeable to... M. Froue-Orban, who was expected to... days ago to submit to the King and to the... the names of the Belgian members of the... Commission, has telegraphed to his Government... cannot yet leave Paris, and consequently was... at the reassembling of the Chambers on... The Empress Charlotte's health is causing... Her Majesty's state has become worse... the last three weeks. The colliers...

the extensive coal works and machinery... of Messrs. Cockerell, at Seraing, near... work on Saturday after receiving their... resorted to acts of violence, which obliged... to call out the troops to restore order... with the rioters ensued, in which several... were renewed, and the troops having been again... arrested several of the rioters, and in the... several soldiers were wounded. On Monday... however, the village was perfectly quiet, and... have not since been renewed. Another... broke out on Tuesday among the... a small district of Hainaut. The... the works of the colliery, and a collision... between the military and the rioters, in which... of the latter were killed, and a large number...

Cosmo GOTH. — Dr. Petermann has been... that two English expeditions will leave... present year for the Polar regions. — The semi-official Provincial Corre- of Wednesday publishes an article praising... a speech of M. de Lavalette, which, it declares,... a most beneficial influence upon public... Europe. It adds:—

Ministerial utterances shortly before the new... a fresh assertion of the conscious internal power... Government, and as they evidently express... and spirit of the French nation they are at the... real message of peace." — General Sonnaz, the Italian Envoy... arrived at Vienna on Friday night, ... present to the Emperor the Order of... It is stated that Baron Kubeck will... to Florence with the Grand Cross of... Stephen for King Victor Emmanuel, ... of the Golden Fleece for Prince Humbert.

The elections in Hungary have resulted... for the Deak party, and the Croa-... and bring this majority up to 100. It is... that the session of the Hungarian Diet will... two months. The delegations will meet at... The Emperor left Pesh on Sunday

The Duke of Aosta, reported to be at... residing at Florence. The Princess... and it is stated that, in accord-... wishes of the Neapolitans, her Royal... probably remain in Naples for her con-... King Victor Emmanuel will leave for... Court ball, on the 17th inst. Com-... Cadorna has been appointed Italian... London. The Chamber of Deputies... on Monday, when the Minister of... a Bill for the reorganisation of the army...

the strength of the army at 620,000... are to form the active strength. ... is to be determined by the annual... the army is to be divided into active... The annual contingent is to be... three categories—the men included in the... to serve for twelve years, nine of which... in the active army and three in the... peace service, however, will only be... one year, four under arms and five... For the second and third... period of service will be six years. ... announced that he would... the sitting of Wednesday the President... an interpellation, moved by Signor Laporta, ... the present state of the Roman question, ... relations of Italy with foreign countries. ... replied that he was ready to accept... interpellation, but that the present moment was

inopportune, considering the urgency of the discussion upon the estimates of the different Ministers. Moreover, the proposed debate could not throw more light on the Roman question than was afforded by the documents lately published. The... withdrawn, but will be brought forward on the discussion of the estimates of the Ministry for Foreign Affairs. On Thursday the private committee of the Chamber approved the Franco-Italian Postal Convention, and appointed a sub-committee to report upon the Government Bill for the conclusion of a new convention with the Cavour Canal Company. Ricciotti and Menotti Garibaldi have arrived at Florence from Bologna. The requisite conventions have been signed for running a through train, without... of carriages, from Ostend to Brindisi, by way of... and the Brenner Pass.

PARIS. — The rumour that the French Government had entered into an engagement to recall its troops from Rome after the elections is contradicted. The Pope has granted an amnesty, which includes political offences. The marriage of Duke Robert of Parma and Princess Maria Pia, daughter of the late King of Naples, was celebrated on Sunday the 19th inst. by Pius IX., who is god-father of the bride. The ceremony was performed in the Pope's private chapel, and the bridegroom afterwards performed their devotions before the tomb of St. Peter.

GREECE. — M. Rhangabé, the newly-appointed Greek Minister at the Porte, arrived at Athens on Tuesday from Paris.

SERVIA. — The engineers employed by Messrs. Oppenheim & Co. have commenced the works of the railway from Belgrade to Aluzina. The Roumanian Railway will join the Hungarian lines in Servia.

THE PRINCIPALITIES. — The new Chamber will meet on May 11. Prince Charles is about to visit Jassy for a few weeks, accompanied by the Minister of the Interior. The Common Council of Bucharest has been dissolved on account of its revolutionary attitude during the elections.

TURKEY. — The Sultan has received a telegram from Queen Victoria, thanking him for the reception given to the Prince and Princess of Wales on their visit to Constantinople. The Prince of Wales was present at an English cricket match at Constantinople on the 8th inst. An official dinner was given at the British Embassy in the evening. On Friday their Royal Highnesses paid a visit to the Grand Vizier, and lunched at his residence. On Saturday the Princess of Wales took luncheon in the palace of the Sultan, and afterwards started for the Crimea. Grand preparations for their reception had been made in Russia. The two expeditions... at Constantinople. OTTOMAN GOVERNMENT... Constantinople.

SYRIA. — Mrs. Burder's... has offered to provide Jerusalem with an... system of water supply at her own cost, and the scheme embodying the details of her offer has been laid before the Council of State at Constantinople, which has reported in its favour.

INDIA. — The Bombay papers emphatically affirm that the Duke of Argyll has ordered the withdrawal of the Bengal Bank Agency from Bombay. The Times of India of the 9th... publishes a detailed statement of the charges of the Abyssinian expedition in India. The total expenditure defrayed by the Bombay Government was... to which has to be added the cost of landing the troops, stores, &c., 200,000, thus bringing up the net total of expenditure in India to 6,800,000. The expenses for the hire and fitting up of the transports amounted to 3,250,000, and for coals, commissariat, and stores, to 850,000. The accounts were sent to the Home Government by the mail of the 10th.

CHINA. — Six Europeans have been attacked by natives, near Shanghai, and severely injured. Some native Christians, inhabiting villages 40 miles from Foochow, have been subjected to great persecutions.

JAPAN. — The Northern party have taken possession of the Island of Sado. It is considered that the late disturbances have not been so satisfactorily settled as was thought. The European Ministers are at Hong Kong. A sharp shock of earthquake has been experienced in different parts of Japan.

UNITED STATES. — The Senate rejected the Alabama Claims Treaty on Tuesday by a majority of 54 to 1, and on Thursday ratified the Naturalization Treaty with Great Britain, but rejected the Darien Canal Treaty. President Grant has appointed Mr. J. Lothrop Motley to succeed Mr. Revere Johnson as United States Minister to Great Britain; Mr. John Jay to be Minister to Austria; Governor Curtin, of Pennsylvania, to be Minister to Russia; Mr. Henry S. Sanford to be Minister to Spain; Mr. Horace Rublee to be Minister to Switzerland; Mr. Thomas Nelson to be Minister to Mexico; Mr. Freeman Morse to be Consul in London; Mr. William Thomson to be Consul at Southampton, and Mr. Meredith Reade to be Consul at Paris. The Senate has confirmed the appointments of Mr. Motley and Mr. Jay as Ministers to Great Britain and Austria. The House of Representatives on the 8th passed General Butler's Bill, authorising the President to submit to the voters of Virginia, Mississippi, and Texas, the constitutions framed by the Conventions of those States, and, when ratified, to order the election of their State officers. On the following day the Senate passed the Bill, with an amendment, providing that Virginia, Mississippi, and Texas must ratify the suffrage amendment before being admitted to representation in Congress. The House has concurred in this amendment, and the Bill, having been signed by President Grant, is now law. On Saturday the House passed with unanimity a joint resolution, authorising the President to recognise any de facto Government in Cuba, provided it be based upon Republican principles. This resolution did not reach the Senate. Congress adjourned on Saturday to the 7th December next.

BRASIL AND PARAGUAY. — Accounts from Rio to March 12 state that the war was not considered ended, Lopez being still in Paraguay. An expedition of 12,000 men was preparing to march into the interior, in search of Lopez, of whom nothing was positively known.

CUBA. — The British schooner, Jeff Davis, with five Cuban insurgents, who were endeavouring to escape to the Bahama, has been captured by a Spanish frigate. The captain and crew were thrown into prison at Caibarien, and the Cubans on board were taken from the guard and murdered in the streets. The British man-of-war Heron has gone to Caibarien to inquire into the matter. The Peruvian iron-clads that left Pensacola recently have taken service with the insurgents. They were in the United States service during the rebellion, and were then known as the Calcutta and Onota. Several filibustering expeditions are reported to have landed on the coast of Cuba.

Parliament.

IN the House of Lords on Friday, Earl Russell brought in a Bill to enable the Crown to make Life Peerages. He contended that the creation of such peerages would enable the Crown to secure for the State men illustrious by... or scientific knowledge, their political experience in public services, but who might be unable to maintain... more than four should be created in any one year, and that the judges of the superior courts, puisne judges after 10 years' service; persons who had filled the office of Attorney General or Lord Advocate; and members for 10 years of the other House of Parliament, should be eligible for... After some remarks from the Marquis of Salisbury, Lord Cairns, Lord Granville, Earl Stanhope, and Lord Colchester, the Bill was read a first time. Earl Grey brought in a Bill to amend the laws relating to the election of representative Scotch and Irish Peers. On Monday Lord Westbury brought in a Bill for consolidating and amending the law of copyright. At the instance of the Duke of Marlborough and Lords Dalhousie and Airlie, the Duke of Argyll consented to postpone the Committee on the Parochial Schools (Scotland) Bill until the 10th May. The Salmon Fisheries (Ireland) Bill, and the Railway Companies' Meetings Bill, were read a second time. On Tuesday the Railway Companies' Meetings Bill passed through... The Naval Stores Bill, the object of which was to... rules respecting the inscription of the... so as to enable the Admiralty to sell surplus goods to greater advantage, was read a second time. On Thursday the Earl of Shaftesbury moved the second reading of the Ecclesiastical Courts Bill, the object of which was to provide a superior judge, and judges for the diocesan courts; admit solicitors to practise on the same footing as proctors; establish a court of appeal, and a safe and proper register, to restore to the clergy their rights of provocation and proclamation, and to the laity their right to promote the office of judge by empowering three householders to originate a prosecution. The Archbishop of Canterbury moved the second reading of the Clergy Discipline and Ecclesiastical Courts Bill, stating that it had long been under the consideration of the episcopal bench, and that it resembled Lord Shaftesbury's Bill by abolishing the preliminary inquiry, and providing for the making of rules and orders, and differed from it in not dealing with the existing registers, or empowering the laity to originate suits. His Grace suggested that both Bills might very conveniently be referred to a Select Committee. Earl Granville on the part of the Government, concurred in the proposed reference to a Select Committee, and after some discussion, in which the Earl of Carnarvon, the Earl of Harrowby, and Lord Cairns objected to Lord Shaftesbury's provision for allowing three householders to originate a prosecution, both Bills were read a second time, and referred to a Select Committee. The Salmon Fisheries (Ireland) Bill, and the Naval Stores Bill, passed through Committee, and the Railway Companies' Meetings Bill was read a third time. Yesterday Earl DE GREY and RIRON, in reply to Earl COWPER, said that the Government had received information from the consul at Buffalo that an infectious disease, known as "hog cholera," was widely prevalent in that district. Lord HORTON called attention to the question of pauperism in this country, and suggested that a Royal Commission should be appointed to ascertain if... of an emigration rate, a system of pauper... could not be organised. Earl GRANVILLE admitted the importance of this great social question. The House was left sitting.

IN the House of Commons on Friday Mr. FAWCETT moved a resolution that in the opinion of the House all appointments to the civil and diplomatic services ought to be obtained by open competition. The CHANCELLOR of the EXCHEQUER said that the Government had not yet been able to consider the question, but it was clear that the general adoption of the competitive system must be preceded by a reorganisation of the civil service, and a separation of the intellectual and mechanical employments. He therefore hoped that the motion would not be pressed. Lord STANLEY also, as a warm friend to the competitive system, advised Mr. Fawcett not to go to a division. Lord STANLEY and Mr. DEKE supported the motion, and Mr. GLADSTONE concurred with Mr. LOWE and Lord Stanley in urging Mr. Fawcett not to press the motion. Mr. FAWCETT, however, insisted on going to a division, when the motion was negatived by 281 to 30. In answer to Mr. E. RICHARDS and Mr. B. CARTER, Mr. BRUCE said that he was ready to assent to a Select

where they could readily obtain a livelihood. There were 10,000 working men out of employment in the metropolis alone, and 45,000 others were dependent on them. The first resolution was moved by Mr. M. P., to the effect that emigration was one of the best methods of relieving the misery that exists. He gave an account of his own experience of emigrating and emigrants to Australia. Mr. M'Arthur, formerly a member of the Legislative Council of Adelaide, gave a highly favourable account of life in Australia, where, he said, any sober, steady, persevering man might speedily obtain the means of becoming, not a mere labourer, but an employer of labour. He proposed that the colonies should find one-third of the means required, that Government should give another third, and that the remainder should be supplied by the emigrants themselves, or by private means. The society encouraged emigration only to British colonies. He had found in travelling in the United States that the Irish, and in many cases the English, emigrants to that country were more hostile to England than native Americans, while the colonies were as loyal as any part of the Queen's dominions. He also proposed that every pauper sent out to a colony should be at once a customer for British manufactures. Lord Alfred Chichester moved the second resolution, requiring that the amount of relief necessary to produce any permanent improvement was beyond the means of private or local action, and required the aid and management of Government. He urged that while British manufactures to the value of about 17s per head were sent to the population of the United States annually, the exports to Canada were to the value of 5s per head of its population, and those to Australia 10s per head—New Zealand taking as much as 10s per head. He urged the necessity of providing for the proper and speedy transport of the emigrants up the country on disembarking at the seaport of the colony. Mr. Jenkins seconded the resolution, which was carried. Messrs. Young, Duddell, and Plummer spoke to the third resolution, that the society deserved support, and the fourth resolution, appointing deputations to wait on the Home and Colonial Secretaries, was moved by the Rev. A. S. Herring, seconded by Mr. T. Briggs, and carried by acclamation.

EAST-END EMIGRATION.—On Tuesday 320 men, women, and children left London for Liverpool on their way to Canada, under the auspices of the society formed a short time ago for the promotion of family emigration from the East-end of London. They had all been inhabitants of Poplar, Shadwell, Bethnal Green, and the Isle of Dogs. They were accompanied by a small contingent of 20 whose expenses had been paid by the Clerkenwell Emigration Fund. The promoters of the movement have been encouraged by their past experiences, which, though brief, has not been uneventful. In August, 1868, 17 families, numbering 64 persons, were sent out to Canada from the distressed districts of the East of London. On their arrival the adults obtained work almost immediately, and the extracts from their letters have testified effectually to the improvement of their condition. At 8 o'clock on Tuesday the first contingent of the emigrants arrived at the St. Pancras station, and were quickly succeeded by the rest. As the various sections entered the station they were invited to a substantial breakfast, provided by Messrs. Spiers & Pond in one of the unfinished rooms of the terminus. Several ladies who take an interest in the movement were present, including Lady Ducie, Lady De Grey, Lady Constance Morton, the Hon. Miss Waldegrave, Lady Burrell, the Hon. Mrs. Hobart, and the Hon. Mrs. A. Kinnaid, who all exerted themselves to make the occasion as happy as its circumstances would allow. The departure of the emigrants lacked many of the almost dramatic incidents which are witnessed when fathers and husbands are suddenly separated from their children and wives. Whole families were assembled together, and, though the associations of home must have been inevitably lost in the carriage of a railway train, the ties of kindred at least were left undisturbed. Instead, the loud swelling cheer from the emigrants as the engine gave the signal for departure contained in it more of joy than sadness. It may be added that when the emigrants reach Canada they will be supplied with funds to enable them to seek suitable employment. There are sufficient handicraftsmen of various trades among them to found a colony among themselves.

CLIFTON CLUB.—At the last general meeting of the Clifton Club it was decided to request the Earl of Lichfield and Mr. Disraeli to sit for their portraits, with a view to commencing a gallery of eminent Conservative statesmen, to be preserved in the Club.

NATIONAL RIFLE ASSOCIATION.—Lord Elcho, as President of the National Rifle Association, has issued a letter to its members, placing before them the position and prospects of the institution. His lordship reminds them that the tenth annual prize meeting is about to be held, and that although the existing deficit need not be viewed with alarm, there is only one way by which the Association can be placed on a secure basis—namely, by a large increase in the number of subscribing members.

JUBILEE OF PIUS IX.—On Sunday, the 50th anniversary of the first mass of the Pope was celebrated at the Roman Catholic Cathedral, Moorfields, by a 20th mass, at which Archbishop Manning delivered a sermon on the text, "What shall I render unto the Lord for all the benefits I have received from him." He said that this festival of jubilee was one of joy and praise throughout the whole world. This was the exact day of the year on which the Holy Father first offered upon the altar the sacrifice of Jesus Christ. The first mass of a priest was the greatest day of his life. The priesthood was the most dignified office on earth, and a poor priest, though in rags, had more dignity than any monarch. There was a day coming when this would be understood, but it would

be a day when all secrets should be revealed. There were few jubilees of the first mass ever celebrated. By the inevitable law which seemed to rule that the priests of the Church of Rome should die young, it was the rarest event; but when we considered what had been the life of Pius IX., and how long he had lived with the burden of the whole Church on Earth on him, it was almost a miracle that they should celebrate his jubilee; and there were reasons to render this festival a festival of joy to the whole world. He then referred to the events of recent years, and, in speaking of those of two years since, said they had been brought about by a man whom Italy, to her shame, had accepted as her greatest patriot. He read from an Italian paper an account of the number of offerings made to the Pope on his jubilee in consequence of a movement that had arisen in the revolutionary city of Bologna. Among these offerings were many from poor persons ranging from 20d. to 2s. in amount. He felt sure, he said, that he had acted in unison with the wishes of his hearers in giving the poorest of them an opportunity of adding their contributions to those of the rich on this occasion. Having given a sketch of the life of Pius IX., he said that he had stood invincible for 20 years, and that he would never yield one iota of the rights or position of the Church. He might die in exile, but if so, he would die unyielding, and the Vicar of Christ would not die. In conclusion he referred to the doctrinal and moral action of the present Pope on the Church as of the highest value to its strength and stability.

METROPOLITAN STREET TRAMWAYS.—The House of Commons Committee on these Bills announced on Tuesday that they had agreed to the following resolutions:—1. That a case for the promoters of the Bill had been established to the satisfaction of the Committee only so far as regards the construction of the southern line from Hercules Buildings to Kennington, Clapham, Brixton, and Stockwell, less the loop between Hercules Buildings and Westminster Bridge. 2. That some limitation must be placed on the proposed monopoly. 3. That after a period to be fixed the street authorities are to have the power of purchasing the tramways. 4. That the power of the police to regulate the traffic shall be reserved. 5. That the by-laws shall be subject to the approval of the Home Office. The chairman said that, subject to these regulations, the preamble of the Bill might be considered as proved. These were general resolutions, and must be considered as applicable to the three bills. Mr. Denison, Q.C., stated that after this decision the Metropolitan Omnibus Company did not intend to offer any opposition to the principle of the Bill, but would reserve their opposition for another place. Some discussion then took place as to the propriety of adjournment, in order that the promoters might have time to consider the effect of the resolutions before proceeding with the other bills, but it was eventually agreed that the bills should be proceeded with. Mr. Rodwell then called witnesses to prove the preamble of Bill No. 2, called the Pimlico, Peckham, and Greenwich Tramway Bill, observing that the Pimlico portion of the bill had been abandoned, and that the line would commence near the railway station in Upper Kennington Lane, and terminated at Blackheath Hill. On Wednesday the chairman announced that the Committee had passed the preamble of the Bill on the two following conditions:—1. That the tramway must be so constructed as to secure the maintenance of the level of the streets. 2. That the line shall be completed as a whole, and when completed shall be worked as a whole from terminus to terminus. The case of the promoters of the northern line, commencing at Whitechapel Church, and proceeding along Mile End Road, Bow Road, High Street, Bow, High Street, Stratford, to the Broadway, was then opened. After hearing several witnesses, the Committee decided that the preamble had been proved, and postponed the consideration of the clauses for a few days.

DISPUTES IN THE BUILDING TRADE.—The relations between the builders and their workmen are likely to be seriously disturbed this year by the attitude taken by both parties in respect to the hours of labour, rate of wages, &c., several notices and cross notices having been given by the masons and joiners and their employers. The stonemasons of Manchester struck on Saturday, their six months' notice having expired, and have since been requested by the masters to remove their tools from the places where they were working; and the carpenters' notice in that city expires on May 1. The operative masons of Leeds have determined to resist the proposed payment by the hour and the formation of courts of arbitration for the settling of disputes and preventing strikes. The employers have, however, come to the unanimous decision that the alterations should be carried into effect on the 1st of May next, according to the notice given.

LIEBIG'S EXTRACT OF MEAT.—On Saturday evening a number of gentlemen interested in this new article of diet, and several men of science capable of explaining the advantages to be derived from its general use, dined together at St. James's Hotel, where Mr. Francatelli had prepared a dinner in which the extract formed the basis of all the soups and made dishes, in lieu of the ordinary stock. The proportions in which it was used were exceedingly small, one ounce being equivalent to the stock produced from two pounds of lean beef. Mr. Boucher, chairman of the company, presided, and Mr. Gaucher filled the vice-chair. Among the company were Dr. Thudicum, Dr. Richardson, Dr. Routh, Dr. Riden Bennett, Dr. Dupré, and Mr. John Ruskin. The principal exponent of the good qualities of Baron Liebig's extract was Dr. Thudicum, who explained the nature of the operations at the company's works at Fray Bentos, on the River Uruguay, and spoke highly of the many advantages the public would derive from a general use of the extract. He asserted

that it was quite equal to fresh meat physiologically, that it was capable of keeping a man in health and ability to do his work, and that the great mass of the people could be supported by it at a much reduced cost. He also spoke of the advantages to be attained by the general use of the extract in hospitals, in many of which it was already adopted. Several other gentlemen bore strong testimony to the nutritious qualities of the extract; and Mr. Francatelli, on being called upon, confirmed all that had been said in its favour as an article of food. He considered it would be especially useful amongst the stores of the army and navy, looking to the difficult circumstances in which they were placed at times.

DESTRUCTIVE FIRES.—On Monday night the extensive warehouses of Mr. Frith, hop factor, and Mr. Leake, hop merchant, in Kentish Buildings, at the bottom of the Spur Inn and King's Head Yards, in High Street, Southwark, together with a great portion of the stabling and warehouses of the two Inns, and the warehouses of Messrs. Baker & Co. hop merchants, were destroyed by fire. The loss is estimated at 50,000l. On Monday morning a fire broke out in the Junior Carlton Club, in Begeot Street, by which the newspaper and writing-room on the ground-floor, the billiard-room and contents on the third floor, and part of the roof were destroyed.

ATTEMPT TO MURDER A MASTER AND MISTRESS.—On Monday Frank Pye, aged 16, an apprentice, was brought up on remand at Southwark Police Court, charged with attempting to murder Mr. and Mrs. Nicholls, his master and mistress. It appeared that the prisoner had been in the service of Mr. Nicholls, who is a tailor in the Old Kent Road, for about five months, and had been going on very well. On Saturday week his master spoke to him in a friendly way about his friends finding him some better clothes, and it is supposed the lad took offence at the subject being mentioned. About four o'clock on Sunday morning prosecutor and his wife were aroused from sleep by severe blows from a kitchen poker. Mr. Nichols was stunned, but his wife, who had also been wounded in the head, and was covered with blood, was able to get out of bed, rush to the window, and scream "murder." The police came, and, at her request, broke in the door. There was no other person in the house but the prisoner, who was found in his room half undressed. He did not deny the charge, but made no defence, and was committed for trial. Mr. and Mrs. Nicholls were both very seriously injured.

THE PUBLIC HEALTH.—The weekly return of the Registrar-General states that in the week that ended on Saturday, April 10, 4432 births and 3376 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 27 per 1000 persons living, being 26 per 1000 in London, 28 in Edinburgh, 25 in Dublin, 27 in Bristol, 20 in Birmingham, 30 in Liverpool, 28 in Manchester, 24 in Salford, 27 in Sheffield, 30 in Bradford, 26 in Leeds, 29 in Hull, 29 in Newcastle-upon-Tyne, and 37 in Glasgow. The rate in Vienna was 80 per 1000 during the week ending the 5d inst., and in Berlin 18 per 1000 during the seven days ending the 8th inst. In London the births of 1183 boys and 1092 girls, in all 2275 children, were registered in the week. In the corresponding weeks of 10 years 1859-68, the average number, corrected for increase of population, was 2278. The deaths registered in London during the week were 1550. It was the 11th week of the year, and the average number for that week, corrected for increase of population, was 1560. The present return is therefore 10 below the estimated amount.

Provincial.

BRIBERY HILL.—The jury at the inquest upon the man who was drowned by the great colliery inundation at Bribery Hill, have returned a verdict that he lost his life from the accidental bursting of a dam; and that a dam in such a place, and used for the purpose of keeping back any large quantity of water from any workings adjoining, should be subjected to supervision by competent persons, in order that from time to time the actual pressure on the dam should, if possible, be ascertained.

BRISTOL.—The sentence of death passed upon Henry Jenkins, for the murder of Fanny Reeves, at Bedminster Bridge, has been respited, pending the arguments before the Court of Criminal Appeal on the legal points raised at the trial. The convict continues to protest his innocence.

CARMARTHEN.—A girl called Sarah Jacobs, residing at Llanfihangel-ar-Arth, near this town, is said to have taken no food since October 10, 1867, and not even water since the end of December of last year. Dr. Lewis, of this town, in an article he has sent to the "British Medical Journal," says that the statements made respecting Sarah Jacobs are of such an astounding nature that belief is scarcely possible, yet accumulated evidence might produce conviction. Some attempt has been made to test the credibility of the parents of the girl by watching her closely, and the attempt came to an end for want of funds. The girl's parents are respectable farmers, not in needy circumstances. Dr. Lewis does not offer any explanation as to the manner in which life and growth can be maintained without ordinary food.

CLIFTON.—The ancient British encampment of Bur Wals, at the foot of Clifton Suspension Bridge, is threatened with complete destruction. This remarkable camp consists of an oval space, at one time entirely enclosed, and surrounded by an embankment and ditch. There is little doubt of its being of British origin, though Roman antiquities having been found there, it appears to have been subsequently occupied by the Romans. The building company are destroying this old embankment for the value of the limestone of which it is formed, and their picks and shovels have

Lincolnshire Regents, 60s. to 90s.; Dunbar and East Lothian do., 60s. to 120s.; Perth, Forfar, and Fife do., 60s. to 100s.; do. Rocks, 60s. to 55s.; French and Belgian Whites, 40s. to 60s.

COALS.—April 14.

Holywell Main, 15s. 6d.; West Hartley, 14s. 6d.; Walls End Haswell, 18s. 3d.; Walls End Hetton, 18s. 3d.; Walls End Hetton Lyons, 14s. 3d.; Brancepeth Cannel, 18s.—Ships at market, 15; sold 15.

HOPS.—BOROUGH MARKET, April 16.

Messrs. Pattenden & Smith report an active demand for Hops of all descriptions during the week, many speculators being induced to purchase at the present low rates.

METROPOLITAN CATTLE MARKET.

MONDAY April 12.

The supply of Beasts is short, and the sudden change of weather makes buyers cautious. Prices of all descriptions are lower, and several lots remain unsold. There is a large increase in the number of Sheep; almost all are now shorn, we therefore cease to quote in the wool; prices on the average are lower. There is more inquiry for Lambs; trade remains unaltered for Calves. Our foreign supply consists of 2449 Beasts, 13,880 Sheep, and 110 Calves; from Scotland there are 125 Beasts; from Ireland, 25; from Norfolk and Suffolk, 1000; and 390 from the Midland and Home Counties.

	s. d.	s. d.	s. d.	s. d.
Best Scots, Herefords, &c.	5	2 to 5	4	
Best Shorthorns	4	10 to 5	2	
2d quality Beasts	3	0 to 4	0	
Best Downs and Half-breeds	—	—	—	—
Do Shorn	5	2 to 5	4	
Beasts, 3990; Sheep and Lambs, 31,790; Calves, 110; Pigs, 65.				

THURSDAY, April 15.

We have a short supply of Beasts; however, it is quite equal to the demand, and Monday's quotations are not exceeded. The number of Sheep and Lambs is larger than on Thursday last; trade is not very brisk, yet they are all pretty well cleared off at Monday's prices. Calves are more plentiful; trade is very slow at lower rates. Our foreign supply consists of 480 Beasts, 3735 Sheep, and 211 Calves.

	s. d.	s. d.	s. d.	s. d.
Best Scots, Herefords, &c.	5	2 to 5	4	
Best Shorthorns	4	10 to 5	2	
2d quality Beasts	3	0 to 4	0	
Best Downs and Half-breeds	—	—	—	—
Do Shorn	5	2 to 5	4	
Beasts, 720; Sheep and Lambs, 8750; Calves, 353; Pigs, 20.				

METROPOLITAN MEAT MARKET.—April 17.

Best Fresh Butter .. 16s. per dozen lb.
Second do. do. 14s.
Small Pork, 4s. 4d. to 5s. 0d.; Large Pork, 3s. 8d. to 4s. 4d. per 8 lb.

MARK LANE.—MONDAY, April 12.

There was again a short supply of English Wheat to this morning's market, which was sold at about 1s. per qr. decline upon the prices of this day se'night. For foreign the demand was very limited, and the sales made were at a similar reduction. Barley was a slow sale at last week's rates. Beans and Peas were unchanged in value. The Oat trade was quiet, and in some instances less money was accepted. Foreign Flour was neglected, and rather cheaper.

	s. s.	s. s.	s. s.
WHEAT, Essex, Kent, Suffolk. White	43-47	Red	43-45
— fine selected runs .. do.	45-48	Red	46-47
— Talavera	51-55		
— Norfolk		Red	
— Foreign	41-62		
BARLEY, grind. & dist. 37sto38s Chev.	46-51	Malting ..	44-49
— Foreign .. grinding and distilling	20-26	Malting ..	34-43
OATS, Essex and Suffolk			
— Scotch and Lincolnshire .. Potato	25-33	Feed	
— Irish	30-32	Feed	23-28
— Foreign	25-30	Feed	21-26
RYE	38-40	Foreign ..	
RYE-MEAL, Foreign ..			
BEANS, Mazagan .. 38sto40s. Tick	42-43	Harrow ..	42-43
— Pigeon .. 43sto47s. Winds.		— Longpod ..	
— Foreign .. Small	38-43	— Egyptian ..	36-37
PEAS, White, Essex, and Kent .. Boilers	40-43	Suffolk ..	40-44
— Maple 42s to 46s. Grey	40-42	Foreign ..	37-44
MAIZE		Foreign ..	29-31
FLOUR, best marks delivered .. per sack	39-43		
— 2d ditto	ditto	Country ..	28-40
— Foreign	per barrel	Per sack ..	30-40

FRIDAY, April 16.

The expected extinction of the small remaining import duty on grain and flour has had no influence of moment upon the trade; the forcing weather, however, combined with good supplies, and the continued absence of a healthy consumptive demand for flour, have led to a very restricted business during the past week, and a further decline of 1s. per qr. on Wheat, both home grown and foreign, in the markets of the kingdom. Spring Corn of all descriptions has been slow to move, and the value of Beans, Peas, and Maize has been tending downwards. Barley declined 1s. to 2s. per qr. for best descriptions. Flour met only a retail demand, at 6d. per barrel and 1s. per sack decline; the reduction quoted at Birmingham was 8s. 4d. per sack. The arrivals of grain and seed-laden vessels off the coast during the week consisted of 49 cargoes, of which, with those left over from last week, there remained for sale last night 45 cargoes. Wheat off the coast met with a very limited demand, and prices for this article and for Maize and Barley were in buyers' favour, the business done being very restricted. Beans were 2s. cheaper to sell, Rye unaltered. Buyers of floating cargoes and for forward shipment are waiting for lower prices before operating. Paris, April 15.—The weather continues to be favourable, and prices of Wheat as well as Flour are pointing downwards. The eight marks are quoted at equal to 34s. 3d. per 280 lb. The stock at the Halle is estimated at 9500 cwt.

The arrivals of foreign Wheat during the week have been moderate, of other descriptions of grain small. There was a poor attendance at this morning's market, and English Wheat met a slow sale at Monday's quotations. For foreign the demand was quite in retail, at about the same terms. Spring Corn was steady, without alteration in value.

ARRIVALS FROM APRIL 10 TO APRIL 15, BOTH INCLUSIVE.

	Wheat.	Barley.	Oats.	Flour.
English ..	1130 qrs	700 qrs.	— qrs.	— sks.
Irish ..	—	—	1160 "	
Foreign ..	14,850 "	1560 "	6940 "	2270 "
	15,980	2260	8010	— bris.

LIVERPOOL, Tuesday, April 13.—There was a good attendance at market. Wheat in limited request, at 2d. per cent decline since Friday. Flour very dull, and English 1s. lower.

Beans, Oats, and Oatmeal neglected; Indian Corn in small demand, and 6d. cheaper, round 28s. 9d.; mixed 29s.

AVERAGES.

	Wheat.	Barley.	Oats.
March 6 ..	49s 4d	46s 0d	28s 2d
— 13 ..	48 10	45 6	27 10
— 20 ..	47 9	45 0	27 3
— 27 ..	46 5	43 8	27 1
April 3 ..	46 4	44 1	26 9
— 10 ..	47 0	44 6	26 5
Average ..	47 7	44 9	27 3

SEED MARKET

The fine and genial weather of the last few days has had a favourable effect upon the agricultural seed trade, and we have consequently to report an increase of activity on our markets. Foreign Clovers are steady in value, and meet with a fair retail demand. Alsike and White Clover seed are without change; superior samples of the latter are for the moment very scarce, home-grown red having come forward more freely, is obtainable on easier terms. New French Italian Rye grass meets with a brisk inquiry; it is just now in very short supply. Canary and Hemp seed are in better request, at improved prices. Fine Mustard seed continues scarce, and dear. sowing Rapeseed is also tending upwards. Spring Tares are cheaper, some quantity have been taken for export to France. French Sainfoin seed has a ready sale at the late advance. JOHN SHAW & SONS, 15, WATER LANE.

WANTED, a MAN who understands the Cultivation of Fruit Trees, Roses and Evergreens. A permanent situation.—Apply to JOHN SEALE & SON, St. George's, Bristol.

WANTED, in a Nursery, a good PRACTICAL MAN, who understands the Propagating of Bedding and other Hard-wooded Plants, and to make himself generally useful.—Apply, stating terms, to Mr. ISAAC MATTHEWS, Milton Nurseries, Stoke-on-Trent, Staffordshire Potteries.

To Working Gardeners. WANTED, an honest, active, sober, industrious MAN, to take charge of a Market Garden and to do the Marketing; also to attend to a Vinery. Must be of good character. Age about 30 to 40 preferred. Assistance found.—Apply to Mr. W. H. GULLIVER, Wimpson Farm, Millbrook, Southampton.

Gardener. WANTED, a GARDENER and his WIFE, without any children, to live in a Lodge, in Staffordshire. The Man must be a good Working Gardener, understand the Management of Vines and Orchard-houses. The Wife will be required to attend to the Lodge Gate. Wages 20s. per week, rent free.—Y. Z., Gardeners' Chronicle Office, W.C.

WANTED, 30 miles from London, an UNDER GARDENER, who is willing to make himself generally useful. Wages 16s. per week, which will be increased to a Man who suits.—Apply by letter only, stating last place, references, &c., to C. Deane's Newspaper Office, 19, Wilton Street, Russell Square, W.

WANTED, a married MAN, without family.—Must understand Budding and Grafting, and general Nursery work. Cottage found.—Apply to THOMAS THORNTON, Heatherside, Frimley, Surrey.

WANTED, an Active YOUNG MAN, who understands the Growing of Soft-wooded Plants.—Apply personally at 4, Elm Tree Road, St. John's Wood.

WANTED, a YOUNG MAN, to assist in the Houses, where Fruit and Flowers are grown for market.—R. CLARKE, Market Gardener, Twickenham, Middlesex, S.W.

WANTED, a YOUNG MAN, accustomed to House Work, to Assist the Propagator here in Forcing all kinds of Conifers, Roses, Rhododendrons, &c. Wages, 16s. to start with.—Apply to THOMAS THORNTON, Heatherside, Frimley, Surrey.

WANTED, a Young Man as IMPROVER in a Flower and Seed Shop. If able to make up Bouquets, preferred.—Apply 14, Portland Place, Circus Road, St. John's Wood, N.W.

WANTED IMMEDIATELY, a SHOPMAN for the Retail Seed Trade. He must be able to produce good testimonials as to ability and general good character. None others need apply.—Wood & Co., Barbours Nurseries, Worcester.

WANTED, a BASKET MAKER.—Apply to JAMES CARTER & Co., Crystal Palace Nurseries, Forest Hill, S.E.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. E. G. HENDERSON & SON, Wellington Nursery, St. John's Wood, London, N.W.

GARDENERS (EXPERIENCED).—JOSEPH MEREDITH, The Vineyard, Garston, near Liverpool, begs to intimate to Ladies and Gentlemen requiring the above that he has on his Register some excellent Men, for every class of situation, whom he can strongly recommend from his personal knowledge of them.

Gardeners and Under Gardeners. WM. CUTBUSH AND SON beg to state that they have at all times on their books MEN of various qualifications, whose characters will bear the strictest inquiry. Any Gentleman making application would save time by clearly stating the duties to be undertaken, wages offered, &c., so that suitable Men may be selected.—Highgate Nurseries, London, N.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS, and GARDENERS and BAILIFFS, of various qualifications, who are open to Engagements. The fullest particulars as to services required and wages given should be forwarded with application.—Paul's Nurseries, Waltham Cross, London, N.

To Gardeners and Bailiffs (Head, Foremen, or Under). JAMES CARTER AND CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those who can send unquestionable references need apply. Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & Co. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c. JAMES CARTER & Co., 237 and 238, High Holborn, London, W.C.

GARDENER (HEAD).—Scotch, age 26, married; has had good experience in England and Scotland. First-class reference.—G. G., 3, Warriston Place, Edinburgh.

GARDENER (HEAD), age 27.—WILLIAM SMYTHE, Gr. to the Right Hon Lord Sondes, Elmham Hall, Thetford, Norfolk, has much pleasure in recommending his late Foreman to any Lady or Gentleman requiring a good Gardener.

GARDENER (HEAD).—Age 36, married, one child; has a thorough knowledge of the profession in all its branches, and 18 years' experience in first-class places. Good character.—Y. Z., Messrs. Fisher, Holmes & Co., Seedsmen, Sheffield.

GARDENER (HEAD).—Married, two children; thoroughly understands the profession in all its branches. Four years' good character from last Employer.—J. E., Post Office, Worpleston, near Guildford.

To Noblemen and Gentlemen. GARDENER (HEAD), where good general practical Gardening is required.—Middle-aged, married, no incumbency; thoroughly experienced.—G. H., Messrs. Rollison & Son's, The Nurseries, Tooting, Surrey.

GARDENER (HEAD).—Age 29, married, stands Early and Late Forcing, Stoves and Greenhouses, the Sheffield Botanical Garden. Excellent character. First instance to Mr. J. EWING, Curator, Botanical Garden.

GARDENER (HEAD).—Age 30, single, practical Gardener in all departments. Expected, £80, with house. No place where he has been kept accepted.—R. D., 4, Victoria Cottage, New Cross, Tooting, Surrey, S.W.

GARDENER (HEAD).—Age 41, married, stands Early and Late Forcing, Stoves and Greenhouses. Wife good Dairy and Laundry woman. Both good characters. Present employer.—For further particulars apply to Mr. J. E. H. Greys, Eastbourne.

GARDENER (HEAD).—Age 36, married, stands in all its branches, Early and Late Forcing of Vines, Fruit, and Melons, Ferns, Stove and Greenhouse Plants, Kitchen Gardening; also the Management of Land and a good Dairy-woman. Six years' character.—S. Carter, Hounslow, W.

GARDENER (HEAD).—Age 36, married, stands in all its branches, Early and Late Forcing of Vines, Fruit, and Melons, Ferns, Stove and Greenhouse Plants, Kitchen Gardening; also the Management of Land and a good Dairy-woman. Six years' character.—S. Carter, Hounslow, W.

GARDENER (HEAD).—Age 27; clerical, stands in some of the leading Establishments of the country; thoroughly understands the general Management of a Garden, including Early and Late Forcing of Vines, Fruit, and Melons, Ferns, Stove and Greenhouse Plants, Kitchen Gardening, &c. Theory completely and strictly adhered to in every department.—J. H., Market Hill, Royston, Herts.

GARDENER (HEAD, WORKING) to my Gentlemen.—Understands Early and Late Forcing of Vines, Peaches, and Vegetables, Stove and Greenhouse Plants, is also a good Melon and Cucumber grower and Kitchen Gardener. Has had the charge of Land and Testimonials, and five years' good character from previous employer.—T. M., Post Office, Reigate, Surrey.

GARDENER (HEAD, OF SINGLE-HANDED).—Married, two children; thoroughly understands the profession; has had 25 years' Nursery practice. Well recommended.—Messrs. LUCOMBS, FINCH & Co., Exeter.

GARDENER (HEAD, OF SINGLE-HANDED).—Well experienced in Flower and Kitchen Gardening, good Laundress if required.—J. H., 4, Melrose Cottage, Sydenham, Kent.

GARDENER (HEAD, OF GOOD SINGLE-HANDED).—Age 30, married, one child; thoroughly understands Forcing of Vines, Peaches, Melons, Stove and Greenhouse Plants, and Flower and Kitchen Gardening. Two years' good character.—W. F., 15, Railway Terrace, Ladywell, Lewisham, S.E.

GARDENER.—A Young Man, who understands the profession, and can be highly recommended.—B. H., near Bedford.

GARDENER.—Middle-aged, single, understands all branches of Horticulture. Good testimonials.—2, Franklin Road, Norbiton, Kingston, Surrey.

GARDENER.—Single; understands all branches of Kitchen Gardening. Four years' good character.—Mr. Wolpert's Advertisement Office, 3, Brixton Lane, S.W.

GARDENER.—Understands every branch of Horticulture, Pine, Grapes, Hot and Greenhouse Plants, Early Forcing of all Vegetables and Flowers. Wife very good character.—C. W., 70, Cowick Street, St. Thomas, S.W.

GARDENER.—Age 31, married, one child; understands Vines, Stove and Greenhouse Plants, and Flower and Kitchen Gardening. Good testimonials. State terms.—J. M., 36, Cliford Road, N.

GARDENER (SINGLE-HANDED).—Age 24, understands Early Forcing of Vines and Peaches, and Kitchen Gardening.—J. K., Landsdowne Cottage, Wormley, Herts.

GARDENER (UNDER).—Age 19, several years' experience. Good character.—H. R., care of Mr. Bertrand's, Golder's Hill, Hampstead, N.W.

GARDENER (UNDER), in a Nobleman's Garden.—Age 18; four years' good character. Post Office, Guildford, near Godalming, Surrey.

GARDENER (UNDER).—Age 20; understands all branches of Horticulture, but wishes to improve himself. Nearly three years in last place.—Apply to Mr. CAPRI, Cranleigh, Guildford.

To Gentlemen and Gardeners. GARDENER (UNDER).—Age 20, has had good experience in Forcing Fruit, Vegetables, and Flowers. Two years' good character.—A. B., 16, Heathpool Street, London, W.

FOREMAN.—Age 25, single; understands all branches of Horticulture. Can be highly recommended. Good testimonials.—J. E., Post Office, Eaton, Norwich.

PROPAGATOR, or PROPAGATOR and FOREMAN. Several years' good experience in London and the Nurseries. First-class reference.—A. Z., 3, Mill Place, Chelsea, S.W.

To Nurserymen. PROPAGATOR, of Soft-wooded Plants.—Good character.—G. H. J., Post Office, Putney.

PROPAGATOR or GROWER.—Well up in Azaleas, &c., and all kinds of Soft-wooded Plants. Testimonials.—A. B., 13, Model Cottages, Mortlake.

FORESTER.—An active and thorough Forester. Man is in want of a situation as Forester or Estate Agent, good Writer, and accurate at Accounts.—For particulars apply to Messrs. JAMES DICKSON & SONS, Newton Nurseries, Chesham, Bucks.

To NURSERYMEN, &c.—An experienced Nurseryman, either in or out of doors. Is a good Workman, and has excellent testimonials.—A. Z., 13, Kewley Road, Chelsea, S.W.

IMPROVER, in a First-class Garden, where a Premium, he would have the opportunity of becoming a professional thoroughly.—A respectable Young Man, 68, Mildmay Park, London, N.

To Nurserymen. PRIVATE or CONFIDENTIAL CORRESPONDENT. COLLECTOR, or SALESMAN.—Age 33, married, five years in business on his own account. He received a liberal education, and was a pupil of Professor Baillou. Has had private experience in Stove Floriculture. First-class testimonials.—SEMPER PARATUS, 154, King Street, London, W.

TRAVELLER, or to take an active part in the management of the Nursery or Seed Trade.—For particulars apply to T. W., Messrs. Hurst & Son, 4, Londenha, Street, London, W.

To the London Seed Trade. TRAVELLER.—An experienced Person.—Particulars can be had by addressing J. H. & Co., Seedsmen, 4, Russell Street, Covent Garden, W.

BAILIFF.—Age 46, married; energetic habits; thoroughly practical in all its branches. Good Judge and Manager of Stock, Buying, Selling, &c. Accountant.—H. Ives, Bedwell Lodge, Hatfield, Herts.

The Gardeners' Chronicle Newspaper.

SATURDAY, APRIL 24, 1869.

Hothouses for the Million.

SIR J. PAXTON'S PATENT - NOTICE.

MESSES. HEREMAN AND MORTON having taken over the Premises for the Construction of Horticultural Hothouses, Conservatories, forcing Pits, &c. Plans and Estimates on application.

WATER APPARATUS of every description, for Warming Hothouses, Conservatories, Forcing Pits, &c. Plans and Estimates on application.

HOT-WATER PIPES. CASH PRICES.

Table with 4 columns: Pipe size (2-inch, 3-inch, 4-inch), Unit (per yard), and Price (s. d.).

W. J. HOLLANDS, IRON MERCHANT, 31, BANKSIDE, S.E.

HOT-WATER PIPES, BOILERS, &c., &c.

Table with 4 columns: Pipe size (2-inch, 3-inch, 4-inch), Unit (per yard), and Price (s. d.).

W. J. HOLLANDS, IRON MERCHANT, 31, BANKSIDE, S.E.

Heating by Hot Water. W. J. HOLLANDS, IRON MERCHANT, 31, BANKSIDE, S.E.

JAMES WATTS AND CO., GREENHOUSE BUILDERS and Hot Water Apparatus Manufacturers.



200 CUCUMBER and MELON BOXES and LIGHTS, a complete set, ready for immediate use.

W. H. LASCELLES' MACHINE-MADE MELON LIGHTS.

6 ft. by 4 ft. Lights, 2 1/2 in. thick, unglazed, 10 s. 0. Painted and glazed with 10 oz. Sheet.

HOT-WATER APPARATUS.

GREENHOUSES, HOUSHOUSES, CONSERVATORIES, CHURCHES, PUBLIC BUILDINGS &c. HOT-WATER PIPES at wholesale prices.

CRANSTON'S PATENT GLASS BUILDINGS for Hothouses, Greenhouses, &c.

National Flower Show, Manchester, June, 1867.



THE PATENT TERMINAL SADDLE BOILER.

First-class certificate awarded to the Patent Terminal Saddle Boiler, with the following note: 'The Judges consider this one of the most powerful and useful Boilers for general purposes.'

LAWN MOWERS, Warranted - Purchasers may have inspected a large Assortment of every improved construction.

F. T. ARCHER'S 'FRIGI DOMO'.

The best shading is 'Frigi Domo' Netting. White or Brown, made of prepared Hair and Wool, a perfect non-conductor of heat or cold.

JOHN WARNER & SONS, BELL AND BRASS FOUNDERS TO HER MAJESTY, ENGINEERS, 8, CRESCENT, CRIPPLEGATE, LONDON, E.C.

Illustrated and Priced Lists of WARNER'S HORTICULTURAL IMPLEMENTS, comprising GARDEN ENGINES, WATER BARROWS, PUMPS, SPRINGES, BRANCH PIPES, RUBBER HOSE, MOUNTAIN JETS, &c.



FRAMES & PUMPS FOR DEEP WELLS.



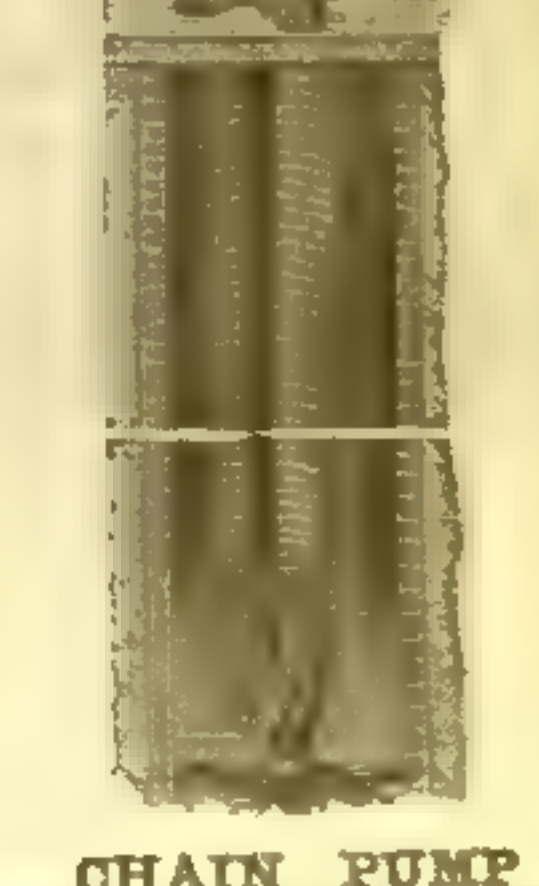
CAST-IRON PUMPS. 2 1/2 inches .. £1 8 0



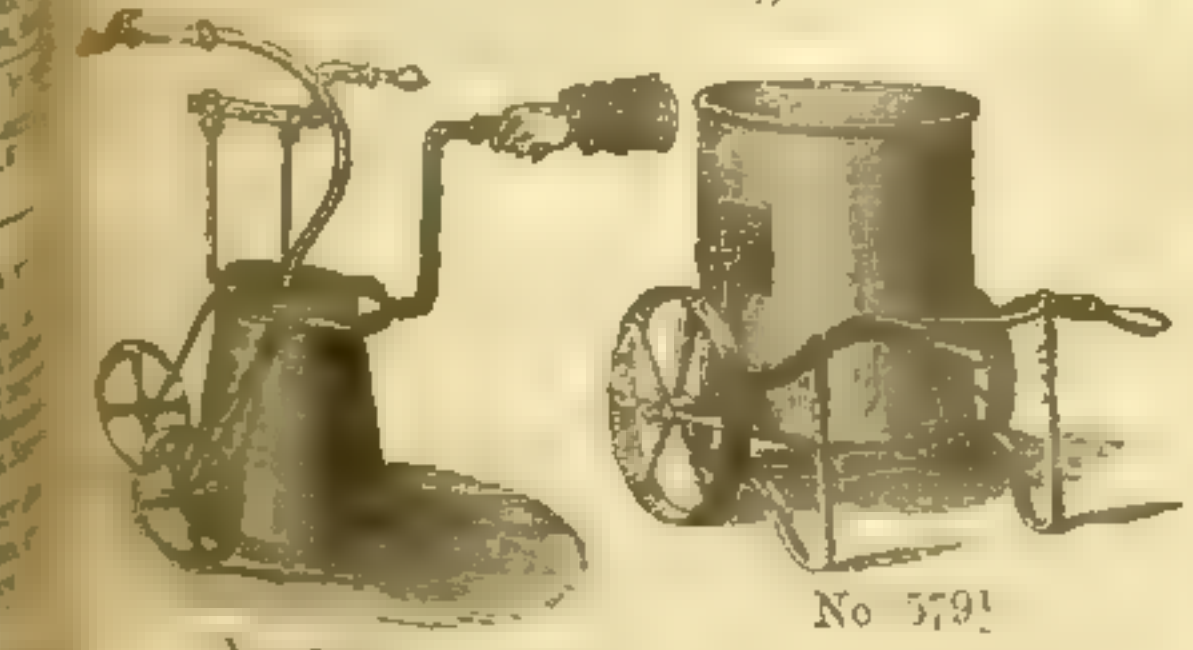
THE PATENT ANNULAR SAIL WIND ENGINE. These Engines are adapted for Grinding, Chaff Cutting, &c., as well as for Pumping.



PORTABLE PUMP With Improved Valves for Liquid Manure, £2 15s



CHAIN PUMP FOR LIQUID MANURE.



WATER BARROW. 50 gallons .. £5 12 0



GARDEN ENGINE. 28 gallons .. £5 10 0



WARNER'S AQUAJECT Useful for every variety of purpose - in watering or washing flowers or trees in Gardens, Conservatories, &c.

city, the Prince and Princess will go to be spanned by King George; and it is expected will arrive at Marseilles, on their way home, 7th and 10th of May.

DUKE OF EDINBURGH.—It is announced Duke of Edinburgh will visit Calcutta about of December, and that his stay in India will be about three months. It is expected to spend two or three weeks in Calcutta, and to Agra, where the grand durbar will be held, after which he will visit Cashmere.

THE HEALTH OF PRINCE LEOPOLD.—In the train of the Queen and Royal family to Portsmouth, a saloon carriage, furnished with rubber matting, was attached specially for the Prince Leopold, and the public were excluded from the terminus, in order that his Royal Highness should not suffer from any unnecessary excitement. He had so far recovered from the prostration of his recent attack as to be able to walk with ease to his carriage. Sir William Jenner attended upon him.

CABINET.—A Cabinet Council was held on Downing Street.

PARLIAMENTARY MOVEMENTS.—The Earl of March, the Duke of Richmond, was on Saturday at West Sussex, in the room of the Hon. H. now Lord Leconfield, without opposition. The eldest son of the Earl of Clarendon, and John Hamilton were put in nomination for Brecon, the former in the Liberal, the latter in the Conservative interest. The show of hands in favour of Lord Hyde, and a poll was demanded of Lord C. J. Hamilton. The Attorney-General, on Thursday, gave notice of an Address to the Queen, and a Commission to inquire into corrupt practices at the late election for Cashel.

OF ELECTION PETITIONS.—Mr. Justice Stirling gave judgment on Saturday on the Hastings petition, deciding that Messrs. Brassey and North had acted in good faith, and that no corrupt practices had been proved against them. Costs to be paid by the petitioners. The petition against the Messrs. Malcolm and Collins, the Conservative members for Boston, has been withdrawn. The petition for the return of Mr. Hurst for the constituency of the new Taunton petition against Mr. Gurney and Mr. Hoare, commenced on Saturday in that town, and terminated yesterday on the withdrawal of the petition. Messrs. Gurney and Hoare were thereupon declared duly elected, the petitioners to pay costs. It is stated that the Conservative party at Hereford have resolved to petition for the return of Colonel Clive and Mr. Hoskyns. A Bewdley petition against Mr. Cunliffe will be presented on the 27th inst. before Mr. Justice Stirling, and the new Taunton petition against Mr. Gurney will be heard before Baron Martin on the 28th inst.

APPOINTMENT.—Sir Michael Shaw Stewart has been appointed Lord-Lieutenant of Renfrewshire, in the room of the late Lord Glasgow.

EXETER.—Bishop Trower, late Bishop of Gibraltar, has accepted a commission from the Exeter diocese, empowering him to undertake the episcopal duties of the diocese.

SAVINGS BANKS.—The sum of £6,240 was received from depositors in the Savings Banks during the year ending on December last, and the total amount standing on that date was 11,666,655l. 8s. 3d. The amount deposited on that date was 252,897l. 4s. 3d. The cost of the establishment last year was 61,860l. 2s. 3d.

Foreign.

FRANCE.—In the sitting of the Legislative Body on Friday, the Budget for the Ministry of Commerce was discussed. MM. Gohier, Buffet, Kolb, and Brame made speeches, pointing out what was alleged to be the disastrous effects of the Treaty of Commerce with England on the industry of the departments of France. M. Gressier, the Minister of Commerce, in reply, stated that a Commission had been appointed to investigate the effects of the present system of the temporary admission of foreign goods into France without duty, adding that if this system was the cause of any distress, the Government would endeavour to put an end to it. M. Thiers asked that a Parliamentary inquiry into this question should be instituted. M. Gohier demanded that the right of fixing the tariff should be restored to the country, and that notice should be given of withdrawal from the different Treaties of Commerce. The general debate was closed. It is announced that at the meeting between the Marquis de Lavalette, the French Prime Minister, and M. Frère-Orban on the 11th inst., the representatives of France viewed the question from a different point of view than that taken up by Belgium, and that the latter did not permit it to modify the Treaty of Commerce. M. Frère-Orban thereupon declined to accept the French proposal, and his colleagues by sanctioning the same, have again done to France, and virtually a law has been passed by the Belgian Government to prevent such an encroachment. He then intended to leave Paris on Tuesday evening on the 12th inst., but subsequently deferred his departure, and it is now stated that before he leaves Brussels fresh proposals for the settlement of the question have been offered. It is said that the English Government has offered its mediation to France and Belgium. The French Government on Thursday sent a com-

munication to the papers saying that it had any knowledge of the reported convention between the Government of Tunis and a banking house in Paris for the conversion of the Tunisian debt. Prince Napoleon left Marseilles on Friday in his yacht, on a tour to Naples, Corfu, and the Adriatic. It is reported that the Empress will visit Egypt in October, in order to be present at the inauguration of the Suez Canal.

SPAIN.—In consequence of the encouragement given by the United States to the American Government, the United States Government has been ordered to the West Indies, the Cortes have given Admiral Topete full powers to man the Spanish fleet, and every available vessel will forthwith be sent to Cuba to aid in the suppression of the rebellion in that island. In the sitting of the Constituent Cortes on Monday Senor Figuerola presented his Budget. He estimates the receipts at 2,141,000,000 reales, of which 173,000,000 reales are derived from taxes on landed property, 120,000,000 reales from taxes on articles of commerce, and 45,000,000 reales from succession duty. He proposes to abolish the duty on direct inheritances, and to maintain the tax of 5 per cent. on incomes and salaries, and to suppress the salt monopoly in January, 1870, and the tobacco monopoly in July of the same year. The amount of the floating debt is not to exceed 600,000,000 reales. The tariff is to be reformed so as to remove all prohibitory duties, and establish three categories of extraordinary duties, one of 30 per cent., and in some cases of 35 per cent.; the maximum of the fiscal duties is 15 per cent., and those in the third category are of a minimum amount. The duties from 30 to 35 per cent. are to be levied upon those articles of merchandise which are at present subject to an excessively high tariff, and these duties are not to be modified for a period of six years, after which they will be gradually decreased. On Tuesday night there was an important meeting of the majority of the Senate, to discuss the motion of Senor Borguella, declaring all members of any branch of the Bourbon family ineligible to sit on the Throne of Spain. The proposition being opposed by Senor Rios Rosas and others, was ultimately withdrawn by Senor Borguella. In the sitting of the Constituent Cortes on Wednesday, the draft of the Constitution was resumed. Senor Igueras, a member of the Republican party, made a speech in which he argued that as the majority who wished for a Monarchy could not find a candidate who would accept the Crown, the only alternative that remained was to restore the Bourbon dynasty or to proclaim a Republic. Senor Zorilla, Minister of the Interior, in reply, declared that the restoration of the Bourbons was impossible, and that a Republic would be a national calamity. He added that the majority would succeed in coming to a satisfactory conclusion as to the sovereign to be chosen. In the sitting of Thursday the debate on the draft of the Constitution was continued. On Clause 17 an amendment was moved, with the object of establishing a censure over the Press, to be exercised previous to publication. This amendment was rejected, and the clauses granting liberty to the Press and freedom of public meeting, association, and petition, were adopted. It is believed that the Cortes will abolish the customs duties upon cotton and coal.

PORTUGAL.—A military rising is said to be imminent at Lisbon and at Oporto. The Government has taken precautionary measures. The Chambers will be convoked for the 26th inst. A mutiny has occurred among the soldiers of the Zambesi expedition, stationed at Mafra, 18 miles from Lisbon. Troops have been sent to suppress the tumult and bring back the regiment to Lisbon.

SWITZERLAND.—The inhabitants of the Canton of Zurich on Sunday adopted, by 51,441 against 22,551 votes, the new Cantonal Constitution, which is of a purely Democratic character.

BELGIUM.—In the sitting of the Chamber of Representatives, on Thursday, replying to some observations upon the means of communication with Switzerland by the railway managed by the French Eastern Railway Company, the Minister of Public Works said that that company had not complied with the wishes expressed by the Government on the subject of the present arrangements for the traffic to Switzerland. The Minister added—"Our relations with the Eastern Railway Company have naturally been affected by the opposition we have thought necessary to show towards certain of their plans." The riots among the Belgian workmen appear to be spreading. At a large village called Frameries, near Mons, the workmen have risen in great numbers, and have attempted to stop the railway traffic from Maubege to Mons by stoning the passenger trains, cutting off the supply of water from the engines, and taking possession of the railway bridges. The workmen in the Borinage, the Charleroi district, and at Antwerp have also struck. Advocate Springard, who delivered an exciting speech at Mons, the secretary and several members of the Workmen's International Society, have been arrested.

PRUSSIA.—It is said that the Prussian Government has instructed its ambassador in Paris to express its satisfaction at the late speech of M. de Lavalette as initiating a definitive policy of peace. In the sitting of the North German Parliament on Friday, a resolution was introduced by Herr Twesten and Count Munster, demanding the appointment of a responsible Federal Ministry. The resolution was strenuously opposed by Count Bismarck, but was adopted by a majority of 111 to 100. In the sitting of Thursday the estimates of the Ministry for Foreign Affairs were discussed. Herr Twesten made a speech, in which he called upon Count Bismarck to lay before the House copies of the diplomatic correspondence, in the shape of a Blue-book, as is done by other Governments. Count Bismarck replied that in countries where this custom obtained it pro-

ceeded from the necessities of the parliamentary system, but that it created mistrust among foreign Governments. Count Bismarck added that in Prussia the publication of official correspondence was not done with great diplomatic tact, but nevertheless with great care. It was well known that the publications made by the Government were not intended to attain their parliamentary object. He was not an advocate of this system, but in case the Parliament should insist upon it, he would not object to it.

He further remarked that the Governments which published Blue-books did not by any means give the correspondence of their Foreign Office. The International Conference of the German States, for the relief of the Wounded in the late war, and of other invalidated soldiers was opened in Berlin on Thursday in presence of the Queen of Prussia. 100 delegates attended. The journeyman carpenters of Berlin, to the number of 2000, have struck work. Public order has not been disturbed.

BAYARIA.—In the sitting of the Upper House on Monday, the debate on the School Bill was continued. Prince Hohenzollern energetically protested against party feeling within the House of the Church, so prevalent in modern times. He pointed out the stigmata such principles as were put forward by the *Syllabus*, the *Encyclica*, and other publications as contrary to the spirit of the age, and a cause why Church and State were unable to go hand in hand. The Chamber of Deputies on Wednesday approved the revised Rhine Navigation Act.

HANOVER.—A grand banquet was to have been given at the Odéon to celebrate the birthday of Queen Maria but it was prohibited by the Prussian police. The Hanoverian patriots thereupon sent to Hildesheim an address of congratulation and a bouquet. From 25,000 to 35,000 persons took part in this demonstration, preceded by about 100 carriages at the head of which were a vesper with four brass bands, occupied by members of the Hanoverian nobility. Prussia was represented by two carriages containing police functionaries, and a great number of subordinate police agents were dispersed among the crowd.

SAXONY.—The King of Saxony arrived at Prague on Monday, to pay a visit to the Emperor Ferdinand on the occasion of his Majesty's birthday. King John afterwards left for Brandeis on a visit to the Grand Duke of Tuscany.

AUSTRIA.—The official *Gazette* of Saxony publishes an Imperial autograph letter appointing Count Fidele to the post of the President of the Civil-List Council of Ministers. He retains at the same time the office of Minister of the Defence of the Country. The *Gazette* declares that this appointment was the result of deliberations on pending political questions, which resulted in proving a full agreement to exist among the members of the Ministry. On Tuesday the Lower House of the Reichsrath read and passed a Bill for the reform of the land-tax. The debate on the National Schools Bill commenced on Wednesday. On Thursday the Upper House passed the Landwehr Bill, and approved the Telegraph Convention with the North German Confederation, and the Frontier Regulation Treaty with Prussia. The official *Gazette* of Thursday published the law, which has received the sanction of the Emperor, for the organization of a supreme court of justice for the Empire.

HUNGARY.—The Emperor returned to Peth on the 18th inst., and to-day His Majesty will open the Diet in person by a speech from the Throne. The Lower House met on Thursday for a preliminary sitting, the senior member acting as president. Some members of the Extreme Left demanded that the Royal flag should be removed from the castle at Buda. Count Andrássy replied, that during the opening of the Diet the national flags of Hungary and Croatia would be hoisted over the Royal Castle. The committee of Hungarian and Croatian members on the question of the future position of the town of Fiume will commence its deliberations before the end of this month. Count Andrássy is to be appointed colonel of the H. and C. Corps. The ceremony of unveiling the statue of the Patriarch Archduke Joseph will take place to-morrow.

ITALY.—Count Cambray-Digny, the Minister of Finance, commenced his financial statement in the Chamber of Deputies on Tuesday, and concluded it on Wednesday. He showed that there had been a steadily progressive increase in the ordinary revenue, and decrease in the expenditure since 1867. In future years he anticipated that there would be a reduction both of the ordinary and of the extraordinary expenditure, and that a balance of the revenue and expenditure might be expected in 1875. The total deficit to be provided for was 788,000,000 lire. This sum included the amount necessary to pay the debt due to the National Bank, and to abolish the forced currency. The bank would resume specie payments six months after the repayment of the debt. To cover this deficit he proposed financial operations, by which he expected to obtain 734 millions. He proposed first to farm the sale of the ecclesiastical property to a reorganised company for the sale of the domainal property, the company to advance 300 millions of lire against domainal obligations, guaranteeing to pay the first instalment of 150 millions within six months, and the remainder upon bonds issued yearly, and redeemable in 20 years. Secondly, to farm the service of the Treasury to the National Bank and the Bank of Naples, the Bank paying a guarantee of 100 millions of lire. Thirdly, to raise a forced loan to the amount of 320 millions of lire at 6 per cent., payable in four years, from 1871, redeemable in 10 years from 1881. Fourthly, to call for the repayment of the 70 millions of Treasury Bonds advanced to the railways. Public works will be vigorously prosecuted without fresh burdens being imposed on the Treasury, and the expense of reorganising the army and navy

will be spread over a long series of years. The principle of the Ministerial Bill, rendering ecclesiastical pupils liable to conscription, was approved on Monday by a majority of 223 to 25. A Mazzinian conspiracy was discovered on Monday at Milan. The police have seized a number of Orsini bombs, arms, and cipher documents. The six principal conspirators have been arrested, including Giuseppe Nathan of London. Milan is perfectly tranquil. King Victor Emmanuel left Florence on Sunday for Naples, by way of Bologna and Ancona. The Bellini Theatre at Naples was destroyed by fire on Saturday night.

GREECE.—The Prince and Princess of Wales arrived at the Piræus on Tuesday. Their Royal Highnesses were received with great ceremony, and travelled to Athens by the new railway from the Piræus to the capital.

THE PRINCIPALITIES.—A proclamation in the Turkish language, and addressed to the Turks in Bulgaria, has been seized in a printing establishment at Bucharest. It is signed by Bulgarian party leaders residing on Turkish territory. The Minister of the Interior has ordered further investigations to be made into the matter, and the Turkish Governor of Rustchuk has been communicated with.

SERBIA.—The Porte has conceded to Servia the right of concluding commercial treaties with foreign countries.

TURKEY.—The Prince and Princess of Wales returned to Constantinople on Saturday morning from the Crimea. They paid a farewell visit to the Sultan, and left in the afternoon for Greece. An agreement was signed on Saturday by Daoud Pasha, the South Austrian Railway Company, and Baron Hirsch, granting to the latter the concession of all the railway lines of the Ottoman Empire, and handing over the working of these lines to the South Austrian Company. The new Finance Minister will shortly publish his budget, with a general report, recommending a regular redemption of the consolidated debt.

EGYPT.—A commission, composed of the English, French, Italian, and Greek consuls at Cairo, has examined into the late attempt to blow up the Viceroy's box at the theatre, and has come to the conclusion that it was intended to assassinate not only the Viceroy, but also his principal Ministers and other councillors who would have accompanied him to the theatre. M. Menasse, the Viceroy's theatrical *entrepreneur*, has been arrested on the charge of having planned the attempt. Another attempt was made on the life of the Viceroy, the Prince Heritier, and the Ministers, on the 18th ult., as they were returning by railway from Tomailia, and it was only owing to the intelligence of the driver of the pilot engine that the attempt to bring about a collision failed.

CAPE OF GOOD HOPE.—Her Majesty's ship Petrel arrived on the 8th of March at East London, with accounts of the 18th February from the Mozambique Channel, stating that Dr. Livingstone arrived at Zanzibar in January, and left for England by the overland route through Egypt. It is now known that the report is without foundation.

PERSIA.—A military revolt occurred at Teheran on the 29th of March, but was put down with great severity.

INDIA.—The loan for 5,000,000*l.* has been successful. The amount tendered for is 5,250,000*l.*, whereof a sum of 3,500,000*l.* is above the minimum. The minimum was fixed at 89. Tenders above 90, amounting to 1,670,000*l.*, will receive a full allotment.

CHINA.—The death of General Bruner, commanding the troops at Hong Kong, is announced.

UNITED STATES.—The Spanish authorities of Cuba, having seized an American ship called the Mary Lowell, which was hovering suspiciously on the coast, and attempting to communicate with the insurgents, the American Government have sent a squadron of eight ironclads to demand her restitution, and to reinforce the United States' squadron in the West Indies. It is said that there is a strong party in the States in favour of seizing Cuba, preparatory to a similar proceeding against the possessions of the other European Powers in the West Indies. The Senate has confirmed the appointment of Mr. Curtin, ex-Governor of Pennsylvania, as Minister at St. Petersburg, of Mr. Shellabarger as Minister at Lisbon, of Mr. Freeman Morse as Consul in London, and of Mr. Thomas Nelson as Minister to Mexico. Mr. Basset, a negro, has been nominated by the President as Minister to Hayti, and the nomination has been confirmed by the Senate.

CUBA.—Accounts from Havannah of April 21, state that the pacification of the insurrectionary districts is reported to be progressing.

BRAZILS.—The resignation of the Marquis de Caxias as commander-in-chief has been accepted, and the Emperor's son-in-law, Count d'Eu, has been appointed his successor, and left for A-scuncion on the 30th March. The Marquis de Caxias has been created a Duke for his services. Lopez was in the Corderillas with some irregular forces, variously estimated at from 700 to 5000 strong. The Maua Railway traffic was stopped on the 30th March, the Government having refused a subsidy.

Parliament.

In the House of Lords on Friday Lord HOUGHTON suggested the issue of a Royal Commission to inquire into the question of emigration in relation to the present state of pauperism, and into the expediency of empowering the Poor-law Guardians to raise the necessary funds by a rate, with a Government guarantee, to be supplemented by aid from Imperial resources. Earl GRANVILLE doubted the expediency of a Royal Commission, and was particularly opposed to any Imperial addition being made to local resources. The question, however, was before the Government, and

the President of the Poor-law Board had at present under consideration measures for improving the existing regulations for promoting emigration. Lord OVERSTONE and Earl GREY denied altogether the assumed fact that England was labouring under over-population, and contended that there were not more able-bodied men than there was capital to employ. The Earl of CARNARVON denied that there was any great demand for labour in the Australian colonies, and hoped that the Government would not promote an artificial movement which they would find themselves unable to control. Lord REDESDALE pointed out the ill effects of union rates in increasing pauperism. After a reply from Lord HOUGHTON the subject dropped. Several Bills were advanced a stage. On Monday Lord REDESDALE asked the Government to declare what were their intentions with respect to the coronation oath, and whether they contemplated proposing any alteration in it in the event of the Bill disestablishing and disendowing the Irish Church becoming law. Earl GRANVILLE replied that in the judgment of the Government the coronation oath was imposed on her Majesty in her executive and not in her legislative capacity, and that the Government did not think it necessary to propose any alteration in the language of the oath. The Duke of ARGYLL brought in a Bill to amend the constitution of the Indian Council, by limiting all future appointments to the Board for 10 years, with power to the Secretary of State to reappoint, if desirable, for a further term of five years, and to grant a pension of 500*l.* per annum under special guarantees. The Marquis of SALISBURY expressed approval of the Bill, but doubted whether the services of the best men for the Indian Council could be secured for 1200*l.* a-year without a pension. In answer to Lord LYVEDEN, the Duke of ARGYLL stated that Lord Mayo, the Governor-General of India, was acting on the policy of his predecessor, by the avoidance of all entangling relations with Afghanistan. Lord LAWRENCE observed that he could not see the slightest danger of an entanglement in Afghanistan affairs from what had been done either by himself or by his successor. For himself he had always eschewed a policy that was calculated to lead to such a result, and he hoped that the course he had adopted would continue to be followed. The Bill was then read a first time. On Tuesday the Marquis of CLANRICARDE moved the second reading of the Tenure of Land (Ireland) Bill, the object of which was to enact that hereafter leases should be in writing, and that after 1871 all leases by parole should be deemed null and void. Earl GRANVILLE said that the Government were not prepared to deal with the land question in the present session, and were of opinion that the Bill would be insufficient to satisfy the wishes of the Irish people. Earl GREY supported the Bill, and said that the Government ought either to accept the Bill or move its rejection. After some remarks by the Earl of KIMBERLEY, the Marquis of SALISBURY, Lord ATHLUMNEY, Lord WESTBURY, Lord CAIENS, and the Lord CHANCELLOR, the Bill was read a second time. On Thursday Lord LYTELTON moved the second reading of the Increase of the Episcopate Bill, the object of which was to enable the Ecclesiastical Commissioners to frame schemes for the foundation of new sees, subject to the approval of the Queen in Council, the incomes of the new bishops to be raised by voluntary contributions, and to be not less than 2500*l.* a-year. The Archbishops of CANTERBURY and YORK, Lord PORTMAN, the Duke of SOMERSET, the Bishops of LONDON and GLOUCESTER, the Lord CHANCELLOR and Lord CAIENS, objected to the principle of voluntary and subscription bishops, and Earls STANHOPE and GRANVILLE advised Lord Lyttelton not to press the Bill to a division. Earl NELSON and the Earl of CARNARVON supported the Bill, though objecting to some of its provisions. On a division the Bill was rejected, by a majority of 43 to 20. Seven Bishops and several lay Peers refrained from voting. Yesterday Lord MONCK called attention to the condition of our military force, and moved for a return of the number of militiamen who have passed through a course of musketry instruction. The House was left sitting.

In the House of Commons on Friday, on the motion for the consideration of the Metropolitan Railway Bill, Mr. SHERIDAN moved a clause repealing the exemption in the Act of last year, and compelling the company to provide smoking carriages in each train. The motion was opposed by the railway interest, but was carried on a division by a majority of 8, the numbers being 175 to 167. In reply to Sir G. JENKINSON, Mr. GLADSTONE said that the Government were not prepared either to legislate on the subject of local taxation, or to grant a committee of inquiry into the incidence of the poor rates in England and Wales. Mr. NEWDEGATE commented with some severity upon this mode of fulfilling the pledge which Ministers had given to Sir M. Lopes a few weeks ago, and contended that though the Government had the majority in the House the Conservatives represented the majority of the people of England, if not of the three kingdoms. The House then went into Committee on the Irish Church Bill, when the first clause, declaring the title of the Bill, was agreed to. On clause 2, providing for the dissolution of the legislative union between the Churches of England and Ireland, Mr. DISRAELI moved that it be omitted, stating that his object was to maintain the Royal supremacy, and to preserve the union between the Churches of England and Ireland in matters of doctrine, worship, and discipline. He contended that the omission of the clause would not prevent the accomplishment of the disestablishment and disendowment contemplated by the Bill, and that, unless it were struck out, the religious equality aimed at would not be gained. The ATTORNEY-GENERAL opposed the amendment, and said that the meaning of supremacy was that the Queen was supreme in all her

courts, and that supremacy was understood by Dr. BALL contended that the supremacy of the Crown was absolutely necessary for the authority of the Church in Ireland. Mr. DISRAELI expressed his entire and total dissent from Mr. Disraeli and Dr. Ball, which, he said, was upon a complete misunderstanding of the principles of the Constitution and of the law. Mr. WALPOLE, Mr. GRAVES, Mr. BAYLY, Mr. CROSS, Mr. GREENE, Mr. A. EGERTON, Mr. TELOT, and Mr. S. HILL opposed the clause, saying the obnoxious policy of disestablishment. The ATTORNEY-GENERAL for IRELAND, Mr. MONK, Mr. CANDLISH, Mr. SYMAN, Mr. LEX supported it as the keystone of the arch. Mr. GLADSTONE said that the Royal supremacy was affected by the Bill. He objected to the Bill, because it struck at the groundwork of the Church, and because, as far as he had been able to ascertain, it was diametrically opposed to the views of the Irish Churchmen, who desired, if the Bill were to be passed, to have perfect freedom of conscience and organisation. Mr. DISRAELI replied that his motive was to retain for the Episcopal Church the benefit of the Royal patronage, and that this could be done without any alteration in the general policy of the Bill. He gathered from Gladstone's last words the inference that the last aim of a system of Free Churches would not condescend to be prudent, he was of opinion that the case of Ireland should be postponed until the other countries could be dealt with together, and that in one common ruin. On a division the clause was carried by a majority of 123, the numbers being 221. On Monday Mr. H. SHERIDAN moved a clause in the Metropolitan Railway Bill, similar to the one introduced into the Metropolitan District Railway Bill on Friday for the purpose of providing smoking carriages. Mr. BRIDGES opposed the motion, which was negatived, on a division by 188 to 167. The House then went into Committee on the Irish Church Bill. Clauses 3 to 8, relating to the constitution and power of the Ecclesiastical Commissioners, were postponed. Clause 9, prohibiting appointments to any ecclesiastical benefice, and clause 11, providing that all property belonging to the Ecclesiastical Commissioners shall be transferred to the new Church body, and the existing body dissolved, were agreed to. On clause 10, providing that in the absence of Mr. Disraeli from the House, as an amendment, to prolong the transfer until the 1st of January, 1872, the effect would be to delay the transfer of the Church to the Commissioners for 12 months more. Lord OVERSTONE opposed the amendment, which was negatived on a division by a majority of 107, the numbers being 301 to 194. On the question that the clause should be carried, Mr. VANCE condemned the clause as founded on a principle of robbery and injustice. Mr. CROSS, amidst much interruption, declared the clause as a gross injustice to the laity. Mr. SHERIDAN said that the Opposition was not to be deterred by clamour, and would move to report progress. Mr. VANCE allowed a fair hearing. Sir H. HOARE moved that the right of the majority to resist the obstructive tactics of a minority be maintained. Mr. HAMILTON and others protested against this, and appealed to Mr. Gladstone to preserve among his followers. After some further discussion the clause was carried on a division by 214 to 111, the numbers being 214 to 111. On clause 11, providing for the dissolution of ecclesiastical corporations and cessation of rights to sit in the House of Lords, Mr. CHARLEY moved an amendment to preserve their rights of peerage to the Bishops, but on the advice of Mr. HARDY he withdrew it. On Mr. HARDY's motion an amendment was made to the clause preserving to the Bishops and deans the title and precedence of prelates and deans the title and precedence of prelates and deans. On clause 14, the compensation of curates, Mr. HARDY moved, as an amendment, that of that part which deducts the compensation of the curates from the income payable to the incumbent. Sir ROUNDELL PALMER, Mr. LEFROY, and others supported this amendment, which was opposed by Mr. C. FORTESCUE, the ATTORNEY-GENERAL for IRELAND, the Solicitor-General, and Mr. GLADSTONE. After a long and heated discussion the amendment was negatived by a majority of 330 to 232, and the further proceedings of the Committee were adjourned. On Tuesday Mr. W. H. GREGORY moved a resolution that it was desirable to reconsider the Carey Street new law courts, inasmuch as the present building, between the Temple and the Strand, now offered greater advantages for the erection of the Carey Street site, in that it would cost 3,150,000*l.*, while the present site would cost more than 1,500,000*l.*, and would be approached. He was informed that a plan was prepared to take the Carey Street site at the price of 1,500,000*l.* for it, so that no loss would accrue to the Government, as an amendment, it was desirable to proceed as soon as possible to the erection of the new courts on the Carey Street site, if additional land were necessary to that site, acquired in immediate proximity to that site. Mr. DENMAN seconded the amendment, which was supported by Mr. G. B. GREGORY, Mr. Lord JOHN MANNERS, while the Earl of BURY, Mr. TITE suggested that both sites should be taken, and that the courts of law should be erected on the Carey Street site, and the Probate Registry on the Strand. The CHANCELLOR of the EXCHEQUER estimated now made by the Commissioners

what he called a "Tower of Babel" and "Vanity Fair" was 3,200,000*l.*, and that, with branches and other accompaniments, we should not get out of the business for less than 4,000,000*l.*, whereas the original estimate was only 1,500,000*l.* He had nearly stopped all the expenditure on the present outlay of 600,000*l.* for additional land until the House could be taken. Having remarked that the Government intended to bring in a Bill to transfer the Sutor's Fee Fund to the revenue, he suggested that the better course would be to dissolve the commission and leave the work in the hands of the Government. The site in Carey Street might in some cases be disposed of without much loss, and a building in extent might be acquired between Carey Street in the Strand and the Embankment. The cost would be about 600,000*l.*, and a building which would contain all the courts and their offices might be erected there for 1,000,000*l.*; and he suggested that the site designed by Inigo Jones for the palace of Whitehall at Whitehall might be placed in front of it. Mr. HENLEY said that the Government had raised a new issue, and moved that the debate be adjourned. After some remarks from Mr. LOCKE, Mr. CRAWFORD, and Lord JOHN MANNERS, Mr. GLADSTONE consented to the adjournment of the debate, and it was adjourned accordingly until Monday next. Mr. O'REILLY moved for a Royal Commission to inquire into the existence of corrupt practices at the late election for the city of Dublin. Mr. COLLINS moved as an amendment that the Speaker be directed to issue a new writ for the election of a new member. After an animated discussion the motion was carried on a division by a majority of 72, the numbers being 192 to 120. On Wednesday Mr. T. CHAMBERS moved the second reading of the Marriage of a Deceased Wife's Sister Bill. Captain EGBERTON seconded the motion. Mr. SCLATER-BOOTH moved, as an amendment, that the Bill be read a second time on Friday six months. Mr. O'REILLY seconded the amendment. Lord BURY and Sir GEORGE GREY supported the Bill as a measure of religious freedom, and a boon to the poor man. Mr. BRIGHT said that the opposition to the Bill rested entirely on sentiment, and that the "ecclesiastical rubbish" urged against the change had failed to show that the prohibition had any foundation in nature, or any sanction from revelation. Mr. BERRSFORD HOPE and the SOLICITOR-GENERAL opposed the Bill, on the ground that it was an interference with the feelings of the great mass of English people, and was promoted at the expense of a few individuals who, having deliberately broken the existing law, sought to repeal it. On a division the second reading was carried by a majority of 99, the numbers being 245 to 146. On Thursday Mr. BRUCE, in reply to Sir JENKINSON, gave a long explanation of the manner in which he has exercised the prerogative of mercy since his accession to office, particularly in reference to the recent reprieve of the convict Wiltshire. In answer to Lord R. MONTAGU, Mr. W. E. FORSTER stated that two cargoes of sheep had arrived, one at Devon, and the other at Harwich, containing some sheep infected with the sheep-pox, but they had been destroyed, and measures had been taken to disinfect the wharves at which they had been landed. The House then resumed the consideration in Committee of the Irish Church Bill, taking up the 14th clause, which deals with the question of compensation. After some verbal amendments suggested by Mr. DEAR, which had been accepted by the Government, a long discussion arose on the distinction to be drawn between the permanent and temporary curate, and on the amount to be given them and deducted from the life annuities of incumbents. Sir R. PALMER moved an amendment, providing that the curate to be compensated out of the incumbent's annuity shall be a permanent curate. On a division the amendment was rejected by a majority of 93, the numbers being 221 to 128. On Clause 15, regulating the compensation to curates, Mr. LEFROY moved an amendment that compensation should be given to non-permanent curates at the rate of 10*l.* for every year they might have served. On a division the amendment was negatived by 220 to 107. Mr. PIM moved an amendment for the compensation of non-permanent curates by a gratuity calculated upon length of service. Mr. GLADSTONE accepted this amendment, and after numerous verbal amendments had been made in the clause, it was finally agreed to. On Clause 16, Mr. BRODBICK endeavoured, unsuccessfully, to obtain compensation on the footing of a permanent tenure for diocesan architects; and Mr. VAN ECKEN failed to place vicars-choral and chorists in the same category. On Clause 17, Mr. CHARLEY moved an amendment in favour of the organists, which was defeated by 314 to 199. In the middle of Clause 18 a motion was made to report progress, and defeated by a majority of 113, but Mr. GLADSTONE yielded to a second motion to the same effect, and the Committee was adjourned soon after. In Committee of the whole House resolutions were agreed to on which to found a Bill to transfer to the Civil Service Estimates certain expenses connected with the administration of justice, and to place the Treasury control over the fees levied in the Court of Justice. Yesterday the House again went into Committee on the Irish Church Bill. On the 15th clause, referring to the compensation to be made to curates, Mr. GOLDNEY moved that a minimum be fixed as to the number of years' purchase to be given as compensation for advowsons. Mr. GLADSTONE opposed the motion, which was negatived on a division by 274 to 161. The House was left sitting.

to 93½ for Account, New and Reduced Three per Cents, 91½ to 91¼; Bank Stock, 239 to 241. Exchange Bills, 3*l.* to 8*s.* pm.; India Five per Cents, 114 to 114½. FOREIGN: Turkish Five per Cents, 12½ to 12½. Ditto Six per Cents, 66½ to 66½; Spanish, 33½, 1*l.* 10*s.* 5½ to 5½; Tobacco Loan, 84 to 85; Brazilian, 80½ Russian Moscow, 79; Orel Vitebsk, 78½; Egyptian (1864), 85½ to 86½; Ditto Debentures, 98½ to 98½. Viceroy's Loan, 80 to 80½; Ditto (1868), 75½ to 76½. Peruvian, 78½ to 78½; Portuguese, 35½ to 36; Danubian Seven per Cents, 76 to 77. Ditto Eight per Cents, 88½ to 86½. United States 5-20 Bonds, 80 to 80½. Erie, 22½ to 23. Illinois, 28 to 29.

Metropolis and its Vicinity.

THE GOVERNMENT AND THE VOLUNTEERS.—A memorial, signed by many peers and members of Parliament, all members of the Volunteer force, was lately presented by Lord Elcho to the Secretary of State for War, suggesting an inquiry as to the sufficiency or insufficiency of the present capitation grant, and expressing an opinion that the organisation and consequent efficiency of the force might be greatly improved without any increase of the Parliamentary grant, and without imposing any additional tax upon the time and service of the Volunteers. Lord Northbrook, the Under-Secretary of State for War, has replied to Lord Elcho as follows:—

"My Lord,—I am directed by the Secretary of State for War to acknowledge the receipt of your letter, enclosing a memorial on the subject of the capitation grant to the Volunteer force, agreed to at a meeting of Volunteer peers and members of Parliament, and I am to request that you will have the goodness to inform the memorialists that the question whether any increase of the present grant ought to be asked for from Parliament shall receive the careful consideration of Her Majesty's Government in connection with the question, which is now also receiving their serious attention, as to what measures it may be expedient to take for the better organisation of the reserve forces as a support in a time of emergency to the regular forces of Her Majesty."

THE EASTER VOLUNTEER REVIEW.—The report of General Sir J. Hope Grant on the Easter Review of Volunteers at Dover was published yesterday. It speaks in the highest terms of all the arrangements, and particularly of those of the railway companies; but, while giving credit to the Volunteer force for willingness and intelligence, it expresses the opinion that it cannot be really serviceable if it be not placed, while under arms, under some more stringent military control. "Such a large body of armed men not amenable to any military discipline might," it adds, "be the cause of very serious embarrassment."

DR. LIVINGSTONE.—The statement in the Cape newspapers that accounts had been received of the safety of Dr Livingstone, and that he was returning home by way of the Red Sea appears to be untrue, and to have originated in this manner: A French trading vessel off the coast of Zanzibar communicated the rumour to an English vessel on the same coast, which gave the intelligence on its arrival at the Cape. Sir R. Murchison has received despatches from the vice-consul at Zanzibar, dated March 5, two months later than the date of the rumour, in which not the slightest mention is made of Dr. Livingstone. The last intelligence received direct from him was on December 14, 1867, at which time he was at Cazambe, 700 miles from Zanzibar, and no reliable intelligence has since been received as to his movements. It is believed that he is at present travelling in the mass of fresh water lakes beyond the explorations of Speke and Grant.

THE AMERICAN MAIL SERVICE.—The Postmaster-General has received intimation from Mr. John Burns that as the Cunard contract has been ratified, two powerful screw steamships of upwards of 3000 tons each, specially adapted for the requirements of the North American Mail service, have been contracted for. These vessels are to be named Abyssinia and Algeria.

LAMBETH PALACE GROUNDS.—The Archbishop of Canterbury has written to Mr. Arthur Arnold that so far as he is at present advised by those whom he has consulted, who are interested in the welfare of the people of Lambeth, he believes that the grounds attached to Lambeth Palace are more really beneficial to the inhabitants of the district, if used according to the wise and liberal arrangement of his two predecessors, than if a portion of them were marked off for a recreation ground, open at all times to the public. The archbishop states that his predecessors have for some time past given permission for the use of the grounds for cricket, school feasts, &c., and that a vast number of persons have enjoyed the use of the ground for purposes for which it would have become useless if the plan which Mr. Arthur Arnold has suggested were adopted. Mr. Arnold, in reply, has expressed his regret at the decision at which his Grace has arrived, and points out that such a limited use of the ground is of no benefit whatever to the over-crowded poor of Lambeth.

FINSBURY AND SOUTHWARK PARKS.—At the meeting of the Metropolitan Board of Works on Friday a report was brought up from the Parks, Commons, and Open Spaces Committee, recommending that the sum of 2000*l.* be advanced to Mr. Meston on account of his contract for the formation of the ornamental portion of Finsbury Park; that labels, showing the botanical and common names of the principal trees in Finsbury and Southwark Parks be provided, at a cost not exceeding 15*l.* for the former and 10*l.* for the latter; that, having regard to the condition of Southwark Park, no cricket be permitted to be played in it during the ensuing season; and that the estimates of Mr. Wood for the fencing of the corners of the plantations in Finsbury and Southwark Parks, amounting respectively to 133*l.* 15*s.* and 176*l.* 9*s.*, be accepted and the work carried out. All these recommendations were agreed to.

STATE OF BLACKHEATH.—At the weekly meeting of

the Metropolitan Board of Works a deputation from the residents of Blackheath and neighbourhood presented a memorial urging the Board to protect and improve the heath. General Lefroy, R.A., in support of the memorial, stated that the heath was rapidly being destroyed by the costermongers and others who took possession of it, and unless effectual measures were taken it would soon become a great nuisance. The grass was nearly altogether disappearing, and there was no adequate police control over the roughs who assembled upon it, and whose language was of the most disgusting character. The memorialists strongly urged the Board to use the powers they possessed and put a stop to what would render the heath no longer a place of recreation, but a great evil to the inhabitants of this district. The memorial was referred to the Parks and Open Spaces Committee for consideration and report.

PROPOSED NEW PUBLIC OFFICES.—Colonel Clarke, the director of Admiralty works, who laid before Lord John Manners a plan for a range of public offices from Charing Cross to Great George Street, has prepared a cardboard model of his design, which has been inspected during the week by the Duke of Cambridge, Mr. Childers, M.P., and other official persons interested in the matter.

HER MAJESTY'S THEATRE.—The contract between the Earl of Dudley and Messrs. Trollope was signed May 28, 1868, and the further contracts for the decorations and the stage were entered into at the beginning of the present year. Messrs. Trollope were bound under heavy penalties to complete the whole by the end of March, and confident predictions were made that the works would not be accomplished, and that Messrs. Trollope would be probably ruined by the penalties that would be enforced against them; but in the unprecedented short time of 10 months everything has been completed, and the building is now in a condition to be handed over to the lessees.

TOWER SUBWAY.—A party of scientific men and engineers visited, last week, the works of the new Thames Subway, which are now making rapid progress. They were received at the Tower Hill shaft by one of the directors, Mr. P. W. Barlow, C.E., with the engineer and contractors, who explained the nature of the works, and accompanied their distinguished visitors to the bottom of the shaft. The descent was effected in the old-fashioned way, as in the bucket of a draw-well, only that the bucket was worked by a powerful steam engine. The shaft, about 60 feet deep, is encased in strong iron tubing for a considerable distance down, its lower part being faced with strong cylindrical brickwork set in cement. At the bottom of the shaft a large circular opening forms the entrance to the tunnel, which has already been cut several yards onwards, and which will be rapidly pushed across the river. There appears, however, to be very little fear of an irruption of water, as the matter excavated is sound tenacious London clay, and there is every probability of this being continued across from shore to shore. The visitors expressed their complete confidence in the success of the work as a new engineering problem to be solved, and there can be little doubt that such a communication across the river will prove a great convenience to the public.

SOUTH KENSINGTON MUSEUM.—The Lord President of the Council has requested Sir Charles Wheatstone, Sir Michael Costa, Professor Tyndall, Lieut-Colonel Scott, R.E., Captain Donnelly, R.E., and Mr. Bowley, to report on the acoustics of the new lecture theatre. There will be three trials, one by a lecture, with demonstrations, on musical pitch, by Professor Guthrie; a second by voices, directed by Mr. A. Sullivan; and the third by instruments, directed by Mr. Ella.

THE NEW MEAT MARKET.—A special meeting of the Court of Common Council was held at Guildhall on Thursday, the Lord Mayor in the chair, to consider a memorial from the meat salesmen of the Metropolitan Meat and Poultry Market, praying that they may be exempted from the payment of rates and taxes upon their premises, the occupiers at the old markets of Leadenhall and Newgate having been always free. After a long debate the prayer of the petition was complied with.

ADMIRALTY CLERKS.—In compliance with the recent Admiralty circular respecting the retirement or superannuation of clerks, five first-class clerks, 12 second-class clerks, and three third-class clerks, in the department of the Accountant-General, have retired. Three who had volunteered to retire from the service are not permitted to go. The establishment, however, is to be further reduced.

CHURCH CONFERENCES.—The council of the Church Association, the real promoters of the suit "Martin v. Mackonochie," have resolved on holding a series of conferences next month. Among the business to be done will be—"To consider a memorial to the two archbishops, stating the precise points settled by the late judicial decisions, and praying that the same may be enforced, and further appealing to them on the question raised on the 24th and 25th February, 1869, on the subject of the Lord's Supper, in the Houses of Convocation of Canterbury and York, by Archdeacon Denison and Archdeacon Churton." A scheme for joint action between clergy and laity and other practical matters will be considered.

THE ST. ALBAN'S CASE.—The bill of costs in the case "Martin v. Mackonochie" having been sent in for taxation, an offer was made by the proctors to Mr. Mackonochie, to pay, without the expense of taxation, 1500*l.*, which, under the advice of the proctor and solicitor of the Church Association, the Council decided to accept. The sum of 1500*l.* has now been paid.

THE CASE OF SIR CULLING EARDLEY.—The Home Secretary, acting upon a previous decision of his predecessor, Mr. Hardy, has signed a free pardon for Sir Eardley Culling Eardley, who was a short time since convicted of bigamy, and sentenced to 18 months' im-

City Intelligence.

MONEY MARKET, FRIDAY.—BRITISH FUNDS: Consols closed at 93 to 93½ for Money, and 93½

the Singebys and his friends, and prevent the occurrence of any similar catastrophe.

TINTAGEL.—A fatal accident occurred on Wednesday evening at the Delabole Slate Quarries, on the north-west of Cornwall, about four miles from this place.

WIGAN.—On Friday the number of deaths by the explosion at Highrooks Colliery was increased to 36. On Monday the jury returned a verdict that the explosion was in all probability caused by a blown-out shot.

YORK.—An influential committee has been formed for the purpose of assisting the Rev. Charles Voysey, of Healaugh, in his defence against the proceedings instituted against him by the Archbishop of York.

Ireland.

PRINCE ARTHUR, who received last week a cordial reception at Cashel and other places in Tipperary, left on Monday morning for Lismore Castle, the seat of the Duke of Devonshire. The journey occupied five days over a bleak mountainous road.

Scotland.

EDINBURGH UNIVERSITY.—The Right Hon. John Inglis, Lord Justice-General of Scotland, was installed Wednesday as Chancellor of the University of Edinburgh.

Sporting.

THE OXFORD AND AMERICAN BOAT RACE.—The president of the Oxford University Boat Club (Mr. T. C. Tinné, of University College), has received a communication from Harvard College, United States, challenging the Oxonians to row a four-oared boat from Putney to Mortlake in August next.

Obituary.

THE EAR OF FINGALL was found dead in his bed on Thursday morning. The deceased peer, Arthur James Plunkett, Earl of Fingall, Baron Killeen, of Killeen Castle, county Wick, in the peerage of Ireland, and Baron Fingall, of Fingall, in the peerage of the United Kingdom, was the only son of the eighth earl, by the only daughter of John Honelan, of Ballydonelan, Gl. way.

Emancipation, he was always regarded as one of the Moderate party who adhered to Whig principles, and stood opposed to Ultramontane notions. He married in 1817 the only daughter of Mr. Elias Corbally, of Corbalton Hall, county of Meath, by whom he had two daughters and six sons.

LORD FAIRFAX died at Barnum's City Hotel, Baltimore, on the 14th inst., aged 40 years. The deceased, Charles Snowden Fairfax, 10th Lord Fairfax, was born at Vaucluse, Fairfax county, Virginia, in 1828, but for some years has resided in California, having served as Speaker of the House of Representatives of that State in 1854, and subsequently for five years as clerk of the Supreme Court of the same State.

SIR HUGH SEYMOUR BLANE, BART., of Blanesfield, Ayrshire, and Culverlands, Berks, died on the 14th inst., at The Pastures, his seat in Derbysire. He was the second son of Sir Gilbert Blane, M.D., one of the physicians of King George III., by the only daughter of Mr. A. Gardner.

JUDGE DOBBS, senior judge of the Irish Landed Estates Court, died a few days since in London. He was appointed in 1857, under the viceroyalty of Lord Eglinton.

THE DOWAGER LADY FARQUHAR died on Tuesday at her residence in Upper Grosvenor Street. She the mother of Sir Walter Rockliffe Farquhar, third baronet, and of Mrs. Grey, wife of the Hon. General Grey. She was the daughter of the Rev. Morton Rockliffe, of Woodford, Essex.

WILLS.—The will of General Sir Arthur Benjamin Clifton, Colonel of the 1st Dragoon Guards, has been sworn under 145,000l. personality; Right Hon. Elizabeth Lowther, 45,000l.; Hon. Catherine Georgiana Brown, 1,000l.; Lady Gilbert, 3,000l.; Mr. Arthur Heathcote, of Durdans, Epsom, 10,000l.; Miss Anne Wells, of Norwich, 4,000l.; Mr. G. H. Lawrence, of Mossley Hill, Liverpool, 140,000l.; Mr. Wm. Rand, of Bradford, worsted spinner, 40,000l.

Markets.

COVENT GARDEN.—April 24.

The trade here has been somewhat livelier during the past week. Rough vegetables are a heavy trade just now, but Cauliflowers and spring Cabbages realise good prices. Broccoli is also in fair demand. Fine forced Figs are making their appearance, and are sold at from 2s. to 3s. each.

FRUIT.

Apples, per bushel, 5s to 10s; Grapes, per lb., 10s to 12s; Kent Cobs, per lb., 1s to 1s 6d; Lemons, per 100, 4s to 7s; Melons, each, 2s to 4s.

VEGETABLES.

Artichokes, green, p. doz., 4s to 6s; Beans, kidney, p. 100, 2s to 3s; Beet, per doz., 1s to 2s; Cabbages, per doz., 1s to 2s; Carrots, per bunch, 6d to 10d; Cauliflowers, Cornish, p. doz., 2s to 4s; Celery, p. bund., 1s 6d to 2s 6d; Cucumbers, each, 9d to 2s.

HAY.—Per Load of 36 Trusses.

SMITHFIELD, Thursday, April 22. Best Green Hay .. 120s to 132s; Prime Meadow Hay 115s to 120s; Inferior do. .. 100 110; New do. .. 33 40; Straw .. 33 40.

CUMBERLAND MARKET, Thursday, April 22.

Sup. Meadow Hay 118s to 126s; Inferior do. .. 98 110; New do. .. 33 40; Superior Clover .. 118 130.

WHITECHAPEL, Thursday, April 22.

Fine Meadow Hay 110s to 120s; Inferior do. .. 95 105; Prime New Hay .. 30 34; Straw .. 30 34.

COALS.—April 21.

West Hartley, 14s. 6d.; Holywell Main, 15s. 6d.; Walls End Haswell, 18s. 3d.; Walls End Hetton, 18s. 3d.; Walls End Hetton Lyons, 14s. 3d.; Brancepeth Cannel, 18s.

LEADENHALL POULTRY, &c.

Table with columns for poultry types (Geese, Goslings, Turkeys, etc.) and prices (s. d. s. d.).

ENGLISH WOOL.

The continuation of a number of small failures amongst spinners and dealers in the manufacturing districts has produced a great disinclination amongst buyers to enter into any transactions until they see more clearly how matters are going to turn.

Table with columns for wool types (Fleeces, Sorts) and prices (per lb., s. d. s. d.).

POTATOS.—SOUTHWARK, Monday, April 19.

During the past week the arrivals coastwise, by rail, and from abroad have been more than equal to the demand. Owing to the extreme heat of the greater part of the week the consumption fell off more than one half, and prices are considerably lower.

HOPS.—BOROUGH MARKET, April 23.

Messrs. Patten & Smith report the market steady, quotations being unchanged.

METROPOLITAN CATTLE MARKET.

The number of Beasts is smaller, and more than half foreign; trade is brisk for choice qualities, but slow for second rate, yet prices are higher for all kinds. The supply of Sheep is much smaller, and they are quickly disposed of at higher rates.

Table with columns for cattle types (Best Scots, Best Long-wools, etc.) and prices (s. d. s. d.).

THURSDAY, April 22.

The supply today is shorter than on this day week, and we have a ready sale at fully Monday's prices. The Lamb trade is very brisk, and a little dearer. Veal is the turn dealer. The foreign supply is short, and consists of 235 Beasts, 750 Sheep, and 56 Calves.

Table with columns for cattle types (Best Scots, Best Long-wools, etc.) and prices (s. d. s. d.).

METROPOLITAN MEAT MARKET.—April 24.

Best Fresh Butter .. 16s. per dozen lb.; Second do. do. .. 14s.; Small Pork, 4s. 8d. to 5s. 4d.; Large Pork, 4s. 0d. to 4s. 8d. per 8 lb.

MARK LANE.—Monday, April 19.

There was again a short supply of English Wheat to this morning's market, which was sold at a decline of 1s. per qr. upon the prices of this day se'night. There was a poor attendance, and very little demand for foreign Wheat, the few sales made were at a similar reduction.

Table with columns for wheat types (Wheat, Barley, Oats) and prices (s. s.).

Table with columns for rye and other grain types (Rye, Beans, Peas) and prices (s. s.).

Table with columns for flour types (Wheat, Flour) and prices (s. s.).

FRIDAY, April 23.

The reports of the growing crops are very satisfactory from all quarters, from which no doubt millers and dealers look for a further decline, and we have to report for the past week a dull trade in the markets of the kingdom, resulting in a reduction of about 1s. per qr. in the value of home-grown and foreign Wheat. Excepting a little speculative movement in Beans at Liverpool, causing a recovery of 1s. per qr. in the value of this article, we had spring corn of all descriptions a difficult sale at receding prices.

whilst Maize and Beans continued their downward course, being about 1s. per qr. cheaper. For forward shipment hardly any business transpired.

The arrivals of English grain this week are small, but fair of foreign. There was a poor attendance at this morning's market, and but little English Wheat on offer, which was cleared at Monday's quotations. Millers showed but little disposition to purchase foreign, and the sales made were at that day's quotations. Spring Corn of all descriptions was rather cheaper.

ARRIVALS FROM APRIL 17 TO APRIL 22, BOTH INCLUSIVE.

	Wheat.	Barley.	Oats.	Flour.
English ..	610 qrs.	1050 qrs.	— qrs.	— sks.
Irish ..	—	—	500	—
Foreign ..	24,500	7220	30,540	4210
	25,110	8270	31,130	2210 brls.

LIVERPOOL, Tuesday, April 20.—The market was fairly attended. Wheat in limited demand, and prices are 1d. to 2d. per cental cheaper than on Friday. Flour very dull, and 1s. per barrel and sack cheaper. Beans, Oats, and Oatmeal without change. Indian Corn in small request, and fully 6d. per qr. lower than last market; round, 27s. 6d. to 27s. 9d.; new mixed, 27s. 9d. to 28s. 3d.

AVERAGES.

	Wheat.	Barley.	Oats.
March 6 ..	48s 10d	45s 6d	27s 10d
— 20 ..	47 9	45 0	27 3
— 27 ..	46 5	43 8	27 1
April 3 ..	46 4	44 1	26 9
— 10 ..	47 0	44 6	26 5
— 17 ..	46 8	44 6	27 7
Average ..	47 2	44 6	27 2

SEED MARKET.

We have nothing new or important to report this week concerning the agricultural seed trade. Our season is now drawing to a close; the orders which come to hand are mostly for small quantities wanted for immediate use; the seed business is therefore getting every day more quiet, and until the consumptive demand has altogether ceased, we cannot expect much speculation in our market. There is a great deal more English Red Clover seed offering than was expected, and for this description there has consequently been a considerable decline in value. Of foreign Red clover stocks now held in London are very light; the same can also be said of fine new Trifolium and White Clover seed, good new French Italian is very scarce, and prices have advanced 1s to 2s per cwt. French Sainfoin seed is in short supply, at higher rates. For white Mustard seed there is a brisk demand, and the little that is on offer is held at enhanced values. English Rape seed is in fair request at the recent rise. Spring Tares are now very cheap. Canary and Hemp seed are both dearer. We have a good inquiry for Mangold and Lucerne seed. Home-grown Linseed is without alteration.

JOHN SHAW & SONS, 16, Water Lane.

WANTED, by a Gentleman residing in the suburbs of London, a respectable Married Couple, without family, the Man to act as HEAD GARDENER; he must have a good general knowledge of the profession, and will have two Men under him. The Woman to attend to the Lodge gate. Wages for the two, about 28s per week, with free residence in the lodge. Apply by letter, stating references, &c., addressed E. care of Messrs. Veitch & Sons, Royal Exotic Nursery, Chelsea, S.W.

Gardener.

WANTED, a GARDENER and his WIFE, without any children, to live in a Lodge, in Staffordshire. The Man must be a good Working Gardener, understand the Management of Vines and Orchard-house. The Wife will be required to attend to the Lodge Gate. Wages 20s. per week, rent free.—Y. Z., *Gardener's Chronicle* Office, W.C.

WANTED IMMEDIATELY, in a London Nursery, a YOUNG MAN, well accustomed to Stove Plants.—Apply at DOLLING'S, 44, Edgware Road, W.

WANTED, a YOUNG MAN, who has had some experience in Vegetable Growing, to take the Management of large Gardens, small Vinery, Cucumber House, and some Frames. One or more Men to assist when requisite. Good testimonials required.—Mr. S. ROBINSON, Shaw House, Melbourn, Derby.

WANTED IMMEDIATELY, a YOUNG MAN, who thoroughly understands Hard-wooded Propagating and general Greenhouse work. Must have unexceptionable references with regard to character and abilities. Wages, 20s. per week to begin with.—Apply to K. Y., Post Office, Norwich.

WANTED IMMEDIATELY, a YOUNG MAN, who has a thorough knowledge of the Sale and getting up of Plants for the London Markets. Liberal wages will be given to any persevering young Man who can produce satisfactory Testimonials as to sobriety, honesty, and integrity. No one need apply who has not been accustomed to the Market Trade.—Apply to F. BARR, Plumstead Village, Kent.

WANTED, as WORKING GARDENER, a good practical Man, having a knowledge of Vines, Fruit, Melons, Cucumbers, Greenhouse, and Flower and Kitchen Gardening. Lad under him. Wife to undertake the Laundry.—Rev. W. HOMPART, West Retford Rectory, Notts.

WANTED, 12 miles from London, a WORKING GARDENER, thoroughly competent to undertake Conservatory, Stove, and Cucumber-houses, Flower and Kitchen Gardens.—State wages required, age, married or single, length of time in last employ, and reference, to F. L., 133, Salisbury Square, E.C.

WANTED, near Dorking, an UNDER GARDENER.—Wages 18s. per week. A good cottage. Also Wife as LAUNDRESS.—Address C. W., Esq., Joldwynds, Dorking.

WANTED, as UNDER GARDENER, a steady, respectable married Man.—He must be able to put down Carpets, &c. No young children, as he would live in the lodge. Age about 31. Very comfortable situation.—Personal application to C. D., 3, Percy Place, Stamford Hill, N.

WANTED, in a Nursery, a good PROPAGATOR, who understands the Propagation of Bedding and other Hard-wooded Plants, and to make himself generally useful. Wages, 20s. per week.—Applications to be made to ISAAC MATTHEWS, Milton Nurseries, Stoke-on-Trent, Staffordshire.

WANTED IMMEDIATELY, a SHOPMAN for the Retail Seed Trade. He must be able to produce good testimonials as to ability and general good character. None others need apply.—Wood & Co., Barbourne Nurseries, Worcester.

WANT PLACES.—Letters to be Post Paid.

Gardeners and Under Gardeners.

WM. CUTBUSH AND SON beg to state that they have at all times on their books MEN of various qualifications, whose characters will bear the strictest inquiry. Any Gentleman making application would save time by clearly stating the duties to be undertaken, wages offered, &c., so that suitable Men may be selected.—Highgate Nurseries, London, N.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. E. G. HENDERSON & SON, Wellington Nursery, St. John's Wood, London, N.W.

GARDENERS (EXPERIENCED).—JOSEPH MEREDITH, The Vineyard, Garston, near Liverpool, begs to intimate to Ladies and Gentlemen requiring the above that he has on his Register some excellent Men, for every class of situation, whom he can strongly recommend from his personal knowledge of them.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS, and GARDENERS and BAILIFFS, of various qualifications, who are open to Engagements. The fullest particulars as to services required and wages given should be forwarded with application.—PAUL'S Nurseries, Waltham Cross, London, N.

To Gardeners and Bailiffs (Head, Foremen, or Under). JAMES CARTER AND CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in the FREE REGISTER. Only those who can send unquestionable references need apply.

Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & Co. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c. JAMES CARTER & Co., 237 and 238, High Holborn, London, W.C.

GARDENER (HEAD).—Age 40, married; thoroughly practical in all branches. Nearly six years in present situation, and ten years in previous one. Testimonials and references good.—T. E., Hooton Pagell, Doncaster, Yorkshire.

GARDENER (HEAD).—Married, two children; thoroughly understands the profession in all its branches. Four years' good character from last Employer.—J. E., Post Office, Worplesdon, near Guildford.

GARDENER (HEAD).—Age 30, married; has a thorough knowledge of Vines, Melons, and Cucumbers, Kitchen and Flower Gardening, and Early and Late Forcing.—J. S., Post Office, Enfield, N.

To Noblemen and Gentlemen.

GARDENER (HEAD), where good general practical Gardening is required.—Middle-aged, married, no incumbrance; thoroughly experienced.—G. H. Messrs. Rolleston & Son's, The Nurseries, Tooting, Surrey.

GARDENER (HEAD).—HENRY YOUELL, late of the firm of Youell & Co., Royal Nurseries, Great Yarmouth, desires a situation as HEAD GARDENER in a large Establishment, or as SALESMAN or TRAVELLER in the Trade. Has had six years' experience on the Road.—1, Cedric Terrace, Great Yarmouth.

GARDENER (HEAD).—Age 33; well qualified to take the entire Management of a Nobleman's or Gentleman's Establishment; thoroughly understands Pines, Grapes, Orchids, and Stove Plants. Unexceptionable character from present and previous employers.—A. B., Post Office, Hyde.

GARDENER (HEAD).—Age 36, married, no incumbrance; has a thorough practical knowledge of Gardening in all its branches, Early and Late Forcing of Vines, Fruits, Cucumbers and Melons, Ferns, Stove and Greenhouse Plants, Flower and Kitchen Gardening; also the Management of Land and Stock. Wife a good Dairy-woman. Six years' character.—S. OSBORN, Grove Road, Hounslow, W.

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The Gardeners' Chronicle Newspaper.

SATURDAY, MAY 1, 1869.

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6 ft. by 4 ft.	Printed and glazed with lead	5 0
" "	" " " " " "	11 0
" "	without portable box, not painted	1 3 0
" "	Painted four coats, and handles on	1 6 0
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6 ft. by 8 ft., Double Lights, do.	" " " " " "	2 15 0
GREENHOUSES		Per ft.
Woodwork only Prepared and Fitted	" " " " " "	0 1
" " " " " "	Printed and glazed with lead Sheet	0 6 9
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Saturday the Lower House adopted the Bill. Before the discussion of the paragraphs commenced the Polish, Slavonian, and clerical members declined to take any further part in the discussion, and left the Chamber. The Upper House in the sitting of Saturday elected its members of the Delegation. It is stated in commercial circles that the quarter's revenue account, drawn up by the Ministry of Finance for the Cis-Leithan provinces, shows a reduction of 5,000,000 florins in the expenditure.

HUNGARY.—Both Houses of the Hungarian Diet were opened on Saturday by the Emperor Francis Joseph in person. The speech from the Throne stated that though the State organisation was regulated at the last session of the Diet, still the favourable results then arrived at were not in themselves sufficient guarantees for the welfare of the country. His Majesty, therefore, invited the Diet to co-operate with him in introducing domestic reforms, and promised that to that end Bills should be laid before it relative to the civil and criminal law, municipal reform, the reorganisation of the Upper House, a revision of the electoral and Press laws, as well as measures in reference to the right of public meeting, association, superior educational establishments, the University system, commercial regulations, joint-stock companies, new railways, public works, financial reform, and international treaties. With regard to foreign politics, his Majesty said that the friendly relations which subsisted between him and foreign Powers permitted him to hope for the maintenance of peace, so necessary for the execution of internal reforms. This speech was received with loud cheering. During the inaugural ceremony the Hungarian and Croatian tricolors were hoisted beside the Royal standard on the castle of Buda. The ceremony of unveiling the statue of the Palatine Archduke Joseph took place on Sunday. In the evening Count Andrassy gave a grand ball, at which the Emperor and Empress and three Archdukes were present.

GREECE.—The Prince and Princess of Wales, accompanied by the King of Greece, left Athens on Saturday for Corfu. By order of the Ministry of Finance, and with consent of the Bank, a considerable amount of paper money has been withdrawn from circulation, thus reducing the last loan by almost one-half.

ITALY.—From explanations which have passed between the principal members of the Cabinet and the leaders of the parliamentary parties—Right, Third, and Permanent—it results that no divergence of opinion exists among them on questions of foreign policy, finance, and internal administration. It is expected, therefore, that a coalition between these parties will shortly take place, and be followed by modifications in the Ministry, General Menabrea and Count Cambray-Digny, however, remaining at the head of the Cabinet. In the sitting of the Chamber of Deputies on Tuesday the Government Bill for the provisional exercise of the Budget until the end of June was passed by 175 votes against 54. Signor Ricciardi questioned the Government respecting the rumours of Ministerial modifications. General Menabrea and Count Cambray-Digny replied that at present the Cabinet remained unchanged, and that no modification could be made until the Parliament pronounced an alteration necessary or expedient. An animated debate followed, and Signor Ferrario declared that any change in the attitude of the Piedmontese Deputies would be solely dictated by the interests of the country. The High Court of Appeal has concluded its examination of the Penal Code, and has declared unanimously in favour of the abolition of capital punishment. General Menabrea has presented to the Senate a Bill prohibiting the illicit deportation of children as organ boys and wandering minstrels. The investigations concerning the conspiracy at Milan show that it was entirely confined to the Mazzinian party, without any participation on the part of the Garibaldians. A Mazzinian centre, in correspondence with the conspirators at Milan, was discovered on Sunday at Florence. A quantity of arms, bombs, and proclamation have been seized, and several arrests have been made. Prince Napoleon arrived at Naples on Sunday morning in the yacht Jerome Napoleon, and left on Wednesday for Messina, Tunis, and Corfu, visiting the Isle of Stromboli on his way. The King of Italy left Naples about an hour before his son-in-law's arrival.

PAPAL STATES.—The total amount of the gifts presented to the Pope on the occasion of the 50th anniversary of his entering the priesthood is estimated at 800,000*l*.

TURKEY.—The Viceroy of Egypt is shortly expected at Constantinople. A very smart shock of earthquake was felt on the 18th inst. at Constantinople, shaking sensibly the solidest stone houses, but doing no material damage. The shock was felt on both sides of the Bosphorus and as far as the Prince's Islands.

INDIA.—The Ameer of Badakshan and all the Sirdars of Turkestan have given in their allegiance to Shere Ali. The son of the ex-Ameer Azim Khan has fled across the Oxus. The Ameer, having expressed his warm thanks to Lord Mayo, left the British territory greatly elated at this news, which he attributes to the Umballah conference. All the heads of the Khyber tribes accompanied the Ameer from Jamrood.

CHINA.—A despatch from Sir Rutherford Alcock to the British Consul at Shanghai has been published on the subject of the introduction of railways and telegraphs into China. It says that, notwithstanding the promises made by the Burlingame Mission to Europe and America, the Central Government at Peking shows no desire for progress according to Western ideas and desires, but, on the contrary, will not yield to the introduction of any such projects except under pressure and coercion. It is reported that some Catholic missionaries and several hundred native converts have recently been murdered in the province of Se-Chuen.

AUSTRALIA.—The Victorian Parliament had

adjourned for the Easter recess, after having made good progress with the estimates, and voted half a million in supply. The New South Wales Parliament was to be prorogued on the 2d April. The Duke of Edinburgh had laid the foundation-stone of a statue to Captain Cook, and was to leave Sydney in the Galatea on the 1st April, for New Zealand.

NEW ZEALAND.—Advices from New Zealand state that the rebel natives have committed further outrages upon settlers, but have been severely punished. A great meeting had been held, at which it was resolved to petition the Queen for assistance against the rebels. The ship St. Vincent, of Glasgow, was lost at Cook's Straits on the 14th of February, and all on board, with the exception of the mate and carpenter, were drowned.

UNITED STATES.—Mr. Motley leaves for England on the 19th inst., and Mr. Washburne for France on the 1st inst. The Senate has rejected the nomination of Mr. Henry S. Sanford as United States' Minister to Spain. The Government will not interfere in the Cuban affair further than for the protection of American interests. Two weeks ago the belief was that some act of recognition would be made, but the views of Government changed on intelligence being received from Cuba that the insurrection could not sustain itself without active foreign aid. As recognition might involve America in a war, any idea of interference seems to be abandoned. The steamer Uselda was wrecked on the 24th ult. on the Missouri River. She ran over a snag, and her boilers afterwards burst. The passengers on board were troops. Fifty lives were lost. The Pacific Railway will probably be completed this week, a junction having been made at Promontory Point, Utah.

Parliament.

In the House of Lords on Friday Lord MONCK called attention to the present condition of the military force, and said that the organisation of the regular army was defective; that the reserve was a force mainly on paper; that the militia, which was the primary reserve of the country, required reform in all respects; and that the Volunteers could not be treated as part of the standing force of the kingdom, inasmuch as their voluntary origin prevented the cultivation of the docility essential to military efficiency. He suggested the adoption of the short service system, as exemplified in Prussia, and the abolition of the purchase system. Lord NORTHBROKE said, that the Government intended to take steps for the reorganisation of the forces by shortening the period of enlistment and making service in the reserve compulsory, and for improving the efficiency of the Militia by doing away with the property qualification for officers, and remedying defects in the billeting system. The Duke of CAMBRIDGE said that Lord Monck's system would lead to a conscription. After some remarks by Earl DELAWARE, Lord DALHOUSIE, and Lord TRURO the subject dropped. On Monday the Earl of LISMORE, at the request of Earl GRANVILLE, postponed the question of which he had given notice with regard to open-air assassinations in Tipperary. The Marquis of BATH insisted that as gentlemen were being murdered almost daily in Ireland, the Government ought to take an early opportunity of announcing the measures they contemplated with regard both to the peace of the country and the land question. The Marquis of WESTMEATH, Lord CAIRNS, and the Earl of MALMESBURY concurred in this opinion. The Marquis of CLANRICARDE moved that the House should go into Committee on the Tenure of Land (Ireland) Bill. Earl GRANVILLE suggested the withdrawal of the Bill. Earl GREY, Lord WESTBURY, Lord CAIRNS, the Duke of SOMERSET, and the Marquis of BATH contended that the Government ought at once to indicate their policy on the Irish land question. Lord MONCK and the Duke of ARGYLL concurred in the suggestion that the Bill should be postponed, and the LORD CHANCELLOR said that the Government would not take up the land question until the Irish Church question was settled. The Bill was ultimately postponed to the 25th May. On Tuesday Earl RUSSELL moved the second reading of the Life Peerages Bill. The Earl of DERBY said that although the measure conferred many advantages, yet as in these days the prerogative of the Crown had come to mean the will of the Minister, who was dependent upon a majority of the House of Commons, the point for consideration was the desirability of increasing the power over their lordships beyond that which the Minister already possessed. He was of opinion that the number of 28 was far too large, and would give too much power to the existing Government, notwithstanding the number would not be filled up for seven years. The proposal to make eminence in science, art, and literature, and the occupation for 10 years of a seat in the Commons, qualifications for a life peerage, he decidedly objected to, and would prefer vesting in the Crown the discretionary power of choice. Earl GRANVILLE could not agree that the Bill would give too great a power to the Crown or the Minister of the day, inasmuch as the Crown had at present the power of creating an unlimited number of hereditary peerages. On the whole, he was glad to find that the principle of the Bill was generally accepted by their lordships, and he had no doubt that in Committee they might satisfactorily settle the details. After some observations from the Earl of MALMESBURY in condemnation of the Bill, and from Earl RUSSELL in its defence, Lord CAIRNS pointed out that the measure was one which mainly depended upon its details, and he gathered from the course of the debate that, with certain modifications, their lordships would be glad to see it pass. After some remarks by Lords DENMAN and FEVERSHAM, in opposition to the Bill, the second reading was agreed to. Earl GREY moved the second reading of the Repre-

sentative Peers for Scotland and Ireland. The Duke of BUCKLEBUCH proposed, as an amendment, the appointment of a Select Committee to inquire into the status of the representative peers relating to it. The amendment was supported by Lords PORTARLINGTON, CAIRNS, LEITRIM, DENMAN, and COLCHESTER. The Duke of ARGYLL and Lords AIRLIE and GLENELG spoke in favour of the Bill. Lord GREY proposed a compromise, to send the Bill to a Select Committee, but the Opposition rejected the proposal by 77 to 33. The amendment of the Duke of BUCKLEBUCH was then agreed to. On Thursday the Duke of BUCKLEBUCH moved the second reading of the Dilapidations Bill; but on the appeal of Lord CAIRNS, and by the advice of the Archbishop of Canterbury, the Bishop of OXFORD, and Lord HALDANE, the Bill, and introduced another amendment, inquired into the subject. This subject was then read a first time. The Duke of BUCKLEBUCH moved the second reading of the Government Amendment Bill. Lord CAIRNS gave an explanation with regard to the proposal of the Secretary of State to his colleagues, whether the revenues of India, doubt being cast on the orders of the Secretary of State, could not be overruled by the votes of the council. The LORD CHANCELLOR said, that in his opinion no such doubt existed, and that in all matters the Secretary of State was supreme. Lord LYVEDEN, Lord CAIRNS, and the Marquis of SALISBURY said that they had no doubt on the subject, and that it ought to be settled up by some declaratory enactment. Lord CAIRNS thought the law would not be made clear by a mere definition. On the motion for going into Committee on the Militia Bill, suggestions for amendments were made by Lords HARDINGE, LIMERICK, and Lord NORTHBROKE. The Bill then passed through Committee. The Norfolk Island Bishopric Bill was read a second time. Yesterday Lord WESTBURY moved the second reading of the Fine Arts Copyright Amendment Bill, and said that its object was to give copyright in art, and give to foreigners the same benefits which Englishmen enjoyed. So far as concerned the protection of their works, the House was left sitting.

In the Commons on Friday in Committee on the Irish Church Bill on clause 18, concerning the compensation of the Commissioners to determine the compensation, Mr. GOLDNEY moved an amendment binding them to the same basis as the salaries and rentcharge are to be calculated upon. The amendment resisted the amendment, which was rejected by a division by 273 to 161. Captain ARDEN moved an amendment compelling the Commissioners to pay over this compensation, not to the trustees of the advowsons, but to the Church. After some discussion the amendment was withdrawn. Clause 18 was agreed to. On clause 19, concerning the prohibition on the holding of synods, Mr. ARDEN moved an addition, enabling the bishops to meet in General Assembly, and to make laws and regulations for the government of the Church. Mr. STONE and the ATTORNEY-GENERAL opposed the amendment, which was not passed. The clause was agreed to without amendment. SHERLOCK moved to omit the 20th clause, concerning the present ecclesiastical law binding on the members of the Church, but eventually withdrew. Clause 21 was ordered to stand part of the Bill. Clause 21st clause, abolishing the ecclesiastical law, was agreed to without discussion. On the 22nd clause, Mr. ARDEN moved an amendment, with a view to certain restrictions to prevent the Church from holding more than 30 acres for a see house, or any other ecclesiastical house. On a division the amendment was rejected by 259 to 157. Mr. ARDEN moved to amend the 23d clause, concerning the redemption and commutation of the tithes, by inserting words making the tithe compulsory at a capital sum equal to the years' income, such sum to be paid to the body. The motion was opposed by Mr. ARDEN and Sir J. GRAY as an indirect attempt to diminish the Church, and supported by Sir R. PALMER on the ground of simple justice to the laity. On a division the amendment was negatived by 294 to 194, and the clause was ordered to stand part of the Bill. Progress was made on the 24th clause, having been agreed to. On the 25th clause, when clause 24, providing that the charges for dilapidations, to which each parish may be liable, should be a charge on the parish, was agreed to without amendment. On clause 26, concerning the enactments with respect to the management of the ruined churches, Mr. DISRAELI moved an amendment that the ruined churches should be reserved for national monuments only, and not be used for public worship. After some discussion the amendment was agreed to. An amendment, moved by Mr. PIM, that the clause requiring the Commissioners to undertake to keep in good repair the churches which may require for public worship, was agreed to. Mr. PIM then moved to omit the section of the Bill providing that the Commissioners might be empowered to provide for the maintenance, as defined in the Bill, of not more than 12 churches which are large to be kept in repair by the Commissioners. The motion was strongly opposed by the Opposition, and was negatived by 252 to 132. After this division Mr. DISRAELI pressed his amendment enabling the Commissioners

hand over to the Church body for church repairs a sum equal to 14 times the average annual amount spent for the purpose by the Ecclesiastical Commissioners, and the clause was agreed to. On clause 26 Colonel GREVILLE-NUGENT moved an amendment to transfer the glebe-houses attached to churches to the new Church body to the local burial boards. After a long discussion the amendment was withdrawn, and the clause agreed to. On clause 27, containing the provisions with respect to the transfer of ecclesiastical glebe-houses, Mr DISRAELI moved the omission of part of the clause, in order that the glebe-houses might be handed over to the Church body free of the building and other charges which the clause imposed. Sir R. PALMER, Mr W. P. MARTIN, and Sir H. BRUCE supported the amendment, which was opposed by Mr GLADSTONE and Mr C. FORTESCUE. Sir G. JENKINSON moved to report progress, and Mr GLADSTONE, in resisting the motion, intimated that between this and Thursday the point raised by the amendment would be considered. After some discussion, Mr GLADSTONE gave way, and the further progress of the Committee was adjourned to Thursday. On Tuesday Mr LAYARD announced that he would introduce a Bill, if possible before Whitsuntide, to authorize the erection of the courts of law on the Thames Embankment, between the Temple and King's Cross, bounded on the south by the Embankment, and on the north by Howard Street and certain small lanes in continuation of that line. It was 6 acres in extent, and Mr Street was of opinion that all the law courts and their offices might be accommodated on it for 1,600,000. Mr LAYARD added that he had received a communication from Lord Chief Baron Kelly, conveying the opinion of all the Common Law Judges except one, that the Embankment would be the best site for the Bench, the Bar, the solicitors, and the general public. Mr TEVELYAN brought in a Bill to make better provision respecting Greenwich Hospital and the application of its revenues. The main provisions of the Bill was to empty Greenwich Hospital and the infirmary by transferring the confirmed invalids to Haslar and Plymouth Hospitals, to clear the country work-houses of discharged seamen of the Royal Navy by an extension of the system of out-pensions, and to accommodate the Dreadnought patients within the walls of the hospital. The Bill also proposed to deal with the grievance of the "Greenwich sixpence," by handing over to the Board of Trade a sum not exceeding 4000l. a year, to be expended in pensions to officers and seamen of the Mercantile Marine who had for ten years paid the sixpence. Mr CANDLISH and Mr LIDDELL gave a general sanction to the principle of the Bill, which was read a first time. Mr LOCH moved for a Select Committee to inquire into the Scotch Game Laws. After a long and desultory discussion the motion was agreed to. Mr MONSELL moved that the order recently agreed to by the House of Commons, on Mr Newdegate's motion, for the production of certain papers relative to the attempted assassination of the Duke of Edinburgh by O'Farrell, be rescinded. After some remarks by Mr NEWDEGATE and Mr WHALEY in opposition to the motion, and by Mr DUKE in its support, the motion was carried on a division by 123 to 15; Mr Newdegate and his friends withdrawing from the House and taking no part in the division. Sir SELWIN IBBOTSON moved the second reading of the Beerhouses Bill. Mr BRUCE, on the part of the Government, said that he would not oppose the Bill, but would propose in Committee to limit its duration to two years. The Bill was read a second time, after an attempt by Sir R. CLIFTON to adjourn the debate, which was defeated by 232 to 0. On Wednesday the Imperial Gas Bill was ordered to be re-committed for the purpose of considering clauses for testing audit of accounts similar to those contained in the City of London Gas Act, 1868. On the suggestion of Mr AYRTON, two members, without votes, were added to the committee. Mr DENMAN moved the second reading of his Evidence Amendment Bill, which abolishes the last restrictions on the competency of witnesses, by permitting petitioners and respondents in the Divorce Court, and plaintiffs and defendants in actions for breach of promise of marriage to be placed in the witness-box. Mr S. HILL moved an amendment that the Bill be read a second time that day six months. Mr WHEELHOUSE seconded the amendment. The ATTORNEY-GENERAL, Mr LOPES, Mr Serjeant DOWSE, Mr HARCOURT, and Mr AMPLETT supported the Bill, and the two latter treated it as a first step towards the examination of prisoners. Mr HILL did not press his opposition to a division, and the Bill was read a second time. Mr WHEELHOUSE moved the second reading of the Hospital Rating Exemption Bill, observing that it proposed to exempt those institutions from local taxation on property, and not to interfere with imperial charges. The Bill was supported by Sir H. CROFT, Mr M'LAREN, Mr BAINES, Mr P. W. MARTIN, and Mr COWLEY, and opposed by Mr GOSCHEN, Mr SCLATER-BOOTH, and Mr M. H. BEACH. The debate was ultimately cut short by the arrival of the hour for adjournment, and the second reading became a "dropped order." On Thursday Lord J. MANNERS asked the Government what steps they meant to take for the protection of life in Tipperary and Westmeath. Mr C. FORTESCUE replied there was nothing they would not do to suppress agrarian crimes. They had put the Peace Preservation Act into operation with unparalleled vigour, but, further than this, he declined, on the grounds of policy, to state what measures they were taking. Mr GRAVES held this reply to be unsatisfactory, and gave notice, amid loud cheers from the Opposition, that he would on the following night call attention to the condition of Ireland. The House then went into Committee on the Irish Church Bill,

resuming the consideration of the 27th clause relating to glebe-houses, and of Mr Disraeli's amendment on it, at the point where it was interrupted on Monday by Mr MARTIN's appeal to the Government not to press it in its present form. Mr Disraeli's amendment omitted all the conditions in the clause, and proposed to give the glebe-houses back without charge, and Mr Martin desired that no kind of repayment should be required, at least for those for which there was no building charge. Mr GLADSTONE now stated that the Government was unable to consent to any material modification in the clause, which he justified on the principle of religious equality. Lord J. MANNERS contrasted the different principles on which the Maynooth buildings and the glebe-houses were treated, and contended that Mr Gladstone had made out no case for this signal breach of faith. Mr BAGWELL, speaking from the Liberal side, expressed his regret that the Government had not made this concession as a message of conciliation to the Irish Protestants. Mr G. H. MOORE, as a Roman Catholic Liberal, took the same line, and urged his co-religionists to join in requesting the Government to hand over the glebe-houses as a mark of goodwill to the Protestant clergy. Mr O'REILLY, Sir J. ESMONDE, and the O'CONNOR DON, on behalf of the Roman Catholics, refused to join in this appeal. Mr BRIGHT, Colonel GREVILLE-NUGENT, and Sir J. ESMONDE supported the clause. Mr WARD HUNT, Mr RAIKES, and Mr J. S. HARDY supported the amendment. Sir G. GREY regretted that the Government had not freely given over the glebes, and hoped they would reconsider the point. On a division, Mr Disraeli's amendment was rejected by a majority of 91—318 to 227. This clause and the next was then agreed to with a few verbal amendments. On clause 29, regulating the conditions under which private endowments founded since 1660 were to be handed back to the Church, Mr DISRAELI moved the omission of the date 1660, so as to include in the restoration all endowments, without reference to date. Mr HARCOURT opposed the amendment, which was supported by Mr CHAPLIN in a maiden speech, which elicited cheers from both sides of the House, and was highly complimented by Mr GLADSTONE. After some remarks by Sir R. PALMER, the ATTORNEY-GENERAL for IRELAND, and Mr BALL, the amendment of Mr Disraeli was negatived without a division. Mr HARDY then moved to omit the year "1660" from the clause in order to insert the date "1500." On a division the amendment was rejected by 306 to 220, being a majority of 86 for Ministers. A proposal by Sir F. HEYGATE to return to the Church the glebe lands included in the Ulster grants was rejected on a division by 103—283 to 180. After the clause had been agreed to the CHAIRMAN was ordered to report progress. Yesterday, on the motion of Mr GLADSTONE, various rules in regard to the business of the House at morning sittings were agreed to. Mr GRAVES called attention to recent events in Ireland, and expressed his belief that the land question was at the root of the present disorganization in Ireland. He asked the Government for a declaration of their policy. Mr CHICHESTER FORTESCUE considered the hon. gentleman had drawn too dark a picture of the state of Ireland. The House was left sitting.

City Intelligence.

MONEY MARKET, FRIDAY. — BRITISH FUNDS. Consols closed at 93½ to 93¾ for Money, and 93½ to 93¾ for Account; New and Reduced Three per Cents., 92½ to 92¾; Bank Stock, 239 to 241; Exchequer Bills, 3s. to 8s. pm. — **FOREIGN:** Brazilian, 79½ to 80½; Danubian Seven per Cents., 76 to 77; Ditto Eight per Cents., 87½ to 88½; Egyptian (1864), 86 to 87; Ditto Railway Debentures, 98½ to 99½; Ditto (1868), 76½ to 77½; Viceroy's Seven per Cents., 80½ to 81½; Ditto Nine per Cents., 97 to 97½; Italian, 55½ to 56; Peruvian, 77½ to 78; Portuguese, 35½ to 35¾; Orel-Vitebsk, 78 to 78½; Nicolai, 65½ to 66; Moscow, 79 to 79½; Charkof, 76½ to 77½; Spanish, 29½ to 29¾; Turkish Five per Cents., 42½ to 43½; Ditto Six per Cents., 66½ to 67; United States 5-20 Bonds, 80½ to 80¾; Erie, 21 to 21½; Illinois, 98½ to 99½.

Metropolis and its Vicinity.

THE GOVERNMENT OFFICES. — Dover House, Whitehall, has been purchased by the Government and it is not improbable that it will form part of the range of buildings in connection with the Horse Guards, when that department is amalgamated with the War Office.

COVENT GARDEN THEATRE. — It is rumoured that the Government are now negotiating for the purchase of Covent Garden Theatre for the purpose of using it as a central station for the telegraph system, when the arrangements for transferring it to their control have been concluded.

VALUE OF PROPERTY IN REGENT STREET. — The old-established premises, known as Newman's Yard, covering about a quarter of an acre, and held on Crown leases for 54 years unexpired at about 200l. per annum, were sold by auction on Monday, after a brisk competition, for the sum of 14,000l.

EXPERIMENTS AT SHOEBOURNESS. — Trials for range and accuracy of the new brass rifled field guns, and wrought-iron carriages, for India, were made at Shoebourness last week, under the supervision of the Special Committee. The guns shot remarkably well, and the rifling promises good endurance. A modification of the plugging of the Palliser cored shot has also been tried, and found, so far as the practice went, a remedy for the breaking-up of the projectiles previously experienced, and which not unfrequently happened. Colonel Inglis's gun-carriage for heavy guns has also been tried with success.

THE CASE OF BENJAMIN HIGGS. — On Monday, at

the Judges' Chambers, the case of Benjamin Higgs was mentioned, in reference to some fixtures at Teddington, claimed by Mr Park, the freeholder. An injunction in Chancery had been obtained *ex parte*, and the present application was ordered to stand over until the injunction was heard. It appears, from the evidence given before the Select Committee of the House of Commons on the metropolitan gas works, that the total defalcations of Higgs amount to 71,214l. Mr Deinson, Q.C., said that the Central Gas Company had been unable to discharge a debt of 36,000l. in consequence of these defalcations, which had been going on since 1862. An accountant, named Chatteris, who was examined, stated that the actual truth of the arrears, represented by the books to be owing from the consumers to the Company, was never tested. Had the separate accounts been balanced, 66,000l. of the deficiency would have been at once detected. The Select Committee on Thursday presented the following special report to the House of Commons:—

"The Committee are satisfied on the evidence of the promoters that for many years there has been no sufficient audit or supervision of the accounts of the company, and that defalcations have occurred extending over a period of six or seven years, and exceeding in amount 71,000l."

ROTTEN ROW. — An important addition is now making to Rotten Row. The new Row starts from Albert Gate, and runs beside the carriage drive to Queen's Gate, where a loop joins it to the old Row.

THE METROPOLITAN STREET TRAMWAYS. — The Select Committee met again on Monday, and passed the preambles of three Bills before them, and thus terminated their labours.

THE CASE OF BISHOP COLENSO. — Sir Roundell Palmer, Sir J. D. Coleridge, and Dr. Deane have been consulted as to the probability of obtaining a judicial condemnation of Dr. Colenso. The case submitted to them is comprised in the single query, "Assuming that the present Bishop of Natal has been guilty of an ecclesiastical offence, what steps can be taken to bring him to trial, and before what tribunal?" The reply of Sir Roundell Palmer, the Solicitor-General, and Dr. Deane, is to the effect that there are no means whatever of bringing him before any competent tribunal known to the law. The Bishop of Capetown has no jurisdiction over him. The Archbishop of Canterbury is in the same position, and the Bishop can only determine in the case of an appeal from "a competent tribunal," such as does not exist in the present instance. It is therefore distinctly laid down "that no means exist for trying the question whether or no Dr. Colenso has advocated doctrinal opinions not in accordance with the doctrines held by the Church of England; and, assuming him to have been guilty of an ecclesiastical offence, no steps can be taken to bring him, as Bishop of Natal, before any tribunal."

THE PUBLIC HEALTH. — The Registrar-General's Weekly Report states that in the week that ended on Saturday, April 24, 4008 births and 3070 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 24 per 1000 persons living, being 23 per 1000 in London, 28 in Edinburgh, 25 in Dublin, 21 in Bristol, 16 in Birmingham, 26 in Liverpool, 26 in Manchester, 23 in Salford, 27 in Sheffield, 24 in Bradford, 29 in Leeds, 23 in Hull, 21 in Newcastle-upon-Tyne, and 37 in Glasgow. The rate in Vienna was 35 per 1000 during the week ending the 17th inst., and in Berlin 27 per 1000 during the seven days ending the 22d inst. In London the births of 1134 boys and 1074 girls, in all 2208 children, were registered in the week. In the corresponding weeks of 10 years 1850-63, the average number, corrected for increase of population, was 2230. The deaths registered in London during the week were 1377. It was the 16th week of the year, and the average number for that week, corrected for increase of population, was 1490. The present return is, therefore, 113 below the estimated amount.

Provincial.

BRECON. — A murder of a very brutal character was committed at a solitary farm-house, on the borders of Breconshire, between Saturday night and Sunday morning. The farm is called Nant-y-Derri, and the victim was a widow, who was generally known to her neighbours as Mary Nant-y-Derri, but whose proper name was Mary Morgan. She was last seen alive in a shop at Hirwan, the nearest village, at six o'clock on Saturday night, and, on the following morning, a neighbour going into the house found her lying on the floor quite dead, her body burnt, and the slumbering embers of a quantity of hay which had been piled on her body. Her head was covered with a piece of carpet, and when this was removed there was seen a deep hole on one side of her head, and the other side was completely charred from the effects of the fire, which had evidently been ignited for the purpose of destroying the body, and probably the house also. The deceased was of miserly habits, and was reputed to have a large sum of money in the house. This, no doubt, tempted the murderer, but he must have been foiled in the hope to secure it, for the sum of 35l. was found concealed between the bedstead and mattress. The murderer, who is at present undiscovered, must have entered the house through the window. The inquest was opened on Tuesday, and adjourned for a fortnight to enable the police to prosecute the inquiries they have in hand.

BRISTOL. — In the Exchequer Chamber, on Saturday, an appeal against sentence of death was successfully prosecuted. A man named Jenkins was condemned at the recent assizes to be hung, for the murder of Fanny Reeves, whom he had pushed into the River Avon. Her screams were heard, and she was rescued, but she died from the effects of the shock to the system. Meanwhile, while at the hospital, she made a statement, on which the prisoner was convicted, but the preliminary passage, which stated that she made the

deposition with no hope of recovery, had in it the words "at present." The Court held that these words were a qualification which rendered the deposition inadmissible. The conviction was therefore quashed. In consequence of this decision an order was received from the Home Office on Monday afternoon for the liberation of the prisoner—

On Saturday a police-constable called Hill was murdered in Gloucester Lane, St. Philip's, one of the low parts of this city, while struggling with a prisoner whom he had taken into custody. The prisoner is a youth named William Pullin, 19 years of age, in the employ of Mr. Harding, of the Redcross Street Saw Mills. The officer had taken him into custody for assaulting Mr. Curtis, of West Street, baker, who had remonstrated with him for ill-treating a donkey. A party of roughs attempted to rescue him, but as the constable refused to give way, the prisoner pulled a knife with a broad blade from his pocket and thrust it into the constable's left leg, just above the kneecap. The blow was aimed in such a savage manner that it divided some important arteries, and caused so much hemorrhage that the constable died in half an hour. At the inquest on Thursday the jury returned a verdict of Wilful Murder against the prisoner.

CAMELFORD.—It is now ascertained that no less than 16 persons have lost their lives through the shocking accident which occurred on Wednesday evening, the 22d ult, at the Delabole Slate Quarries. These include 13 men, two boys, and one woman. One man is reported to be dying from the injuries he received. Four bodies have not yet been recovered. It is estimated that the quantity of rock which fell the whole distance of 250 feet amounted to 150 tons. An inquest on the bodies was opened on Friday, and after some formal evidence had been taken, was adjourned to next Monday. The catastrophe has created great excitement throughout the district, and although 400 hands are employed in the quarry no work has been done since the accident.

GLoucester.—The convict Wiltshire, now that the commutation of his sentence is secure, has made a long written statement to the chaplain of the county gaol. In it he tells how, after leaving the public-house on the Saturday night, he and Milson found the woman lying in the mud, and he pulled her hair, and said he thought he knew her. He accuses Milson of inciting him to the first offence, and then brings against him a much more serious accusation. He says that they left her after the first abuse of her, but returned almost at once and pulled her about to see if she had any money. During the operation, he alleges, Milson's dog caught hold of either her clothes or her flesh, and Milson kicked the dog aside, and then hitched his fingers in her gown, and tore it down to her breast. They then lifted her on the bank, and fearing that some one was approaching, went away to his brother's. On the way there he says that Milson wiped blood off his hand on the grass. He admits that when he left his brother's he went back to the woman, as to which there was no evidence at the trial. He says—"I went on down to my home, and when I came some way down the line I heard something, and thought upon the woman. I went along about ten yards further, and I heard it again shout 'Murder!' I stopped and looked about, and went in through the gate after a bit of hay for my donkey, and there I saw the woman with her head hanging down inside the railings, and her hands down. She was lying across the palings on her stomach, with one foot caught by the shoe in the thorn, and the other foot on the rail, and her clothes all down over her head. I asked her to get up. She did not seem to move. I pulled her shoe out of the thorn, and let her fall over. She cried 'Murder!' three times, and I went away and left her, and went to my home." He then makes further accusation against Milson. He has not denied that the woman died from suffocation; but that when asked whether he placed his hand on her mouth, he replied, after a pause, "I can't say whether I did, and I can't say whether I didn't. I'd rather say no more about it. I'd rather talk about something else." On Saturday his wife received a letter he wrote to her, in which he says—"I am thankful to the Almighty that my life is to be spared, but am very sorry to think I shall be parted from you as long as I live. The chaplain tells me I am to be sent into penal servitude for life; but I am very thankful I have got this instead of being hung. Everything was got ready for me to be hung last Monday, and on Friday I gave up all the world to die; but I couldn't get my wife off my mind. I was in such trouble about you. I cannot tell you how very thankful I am for my life being spared till God shall see fit to call me instead of being hung." He then tells how he prays five or six times a day, and refers to the time when he and his wife served God, and says he thinks the trouble that has fallen upon him is a punishment for his desertion of religion. Most of the details in his written confession are so revolting that they cannot be published.

PORTSMOUTH.—The Volunteers of the southern and western counties, with the troops in garrison, were reviewed on Monday on Southsea Common by Lieut.-General Sir George Buller, the officer commanding the district. The Volunteers comprised corps from Guildford, Brighton, Salisbury, Weymouth, Christchurch, and other places. The first division included the Hants Volunteer Cavalry, two field batteries of Royal Artillery, the Marine Artillery, the 2d battalion 13th Regiment, 101st, and 67th, under Brigadier-General Carey. The 2d Division under Major-General Lysons, consisted of the 3d field battery of the 3d Hants Volunteer Artillery, followed by the 1st, 2d, and 3d Hants Volunteer Garrison Artillery. Six gunboats took part in the attack on Southsea Castle, which ended in the repulse of the assailants. In the evening there was a display of fireworks on Southsea Common, and a grand ball was given in the great drill-hall of the Artillery Volunteers on the Governor's

Green, to which a large number of invitations had been issued.

WINDSOR.—On Wednesday, relying upon the ordinances of Eton College, which forbid the performance of theatrical entertainments within 10 miles of that foundation, Dr Goodford, the provost, through the head-master, issued an order for the police of the College to prohibit theatrical entertainments at the Windsor Theatre. Accordingly, Inspector Pearman of the Bucks Constabulary proceeded to the theatre, and notified the decision of the College authorities to the lessees, Messrs Rivers and West, who had just taken the house under a license from the Lord Chamberlain, held by Mr. Townshend, of the Castle Hotel. In the course of the past 12 months the theatre was purchased by Mr. J. Freemantle, who, it is understood, spent about 4000*l.* in its renovation and decoration. On Tuesday afternoon a piece well known as the Strand burlesque of "The Field of the Cloth of Gold" was given, the performance taking place at four o'clock in the afternoon. This entertainment, it seems, was attended by about 350 of the noblemen and gentlemen at the College. The fact became known to the college authorities, who took immediate steps to put in action their presumed right under the ancient ordinance. In spite, however, of the prohibitory notice, the lessees of the theatre have continued their performances as usual. The fact of such a notice having been given was telegraphed on Wednesday to Mr. Freemantle, the owner, who at once procured permission from the Lord Chamberlain to proceed with the performance, and thus the matter rests at present.

WOLVERHAMPTON.—On Monday an Irishman, named Thomas Durham, was brought before the borough magistrates charged with an outrage upon a woman, who is lying at the point of death. A few nights ago he became so quarrelsome in a public-house that he was turned out, upon which he declared that he would show the English what the Irish could do. On turning the corner of the first street he came to he met a woman passing by, whom he assaulted. Her part was taken by Mrs. Fanny Churn, who remonstrated at his behaviour. He then left off assaulting the first woman, and, turning upon Mrs. Churn, pulled her back by her bonnet, which came off. He then laid hold of her back hair, and with what is believed to have been a razor he scalped her as skilfully as though he had been an Indian. Her depositions have been taken, and the prisoner, who was arrested in the corner of a cellar in which he had taken refuge, has been remanded to Stafford jail for a week.

Ireland.

PRINCE ARTHUR, accompanied by the Knight of Kerry, Colonel Elphinstone, and Mr. Pickard, visited the telegraph station at Valentia on Friday. He was received by Mr. Willoughby Smith, engineer of the Company, Mr. Collett, general manager, and Mr. J. Graves, local superintendent, who conducted him into the cable-room, and carefully explained the construction and working of the apparatus. Messages of mutual congratulation were interchanged between his Royal Highness and the Governor-General of Canada. Telegrams were also sent to London and Killarney on the printing telegraph. His Royal Highness expressed great pleasure at the visit. He then drove off to see the shore-end of the cable, and afterwards drove round the island. His Royal Highness left Valentia on Saturday for Killarney to join the Lord-Lieutenant and Countess Spencer. In the evening the Prince and his Excellency went upon the lakes and enjoyed some fishing. On Tuesday the Prince arrived again in Dublin, and immediately left by special train for Londonderry. At Balbragan, Dundalk, and other stations on the line, the inhabitants of the surrounding districts had assembled in considerable numbers to await the arrival of the train, and on the Prince being recognised he was cordially cheered. The train reached Londonderry about 3 o'clock. On Thursday the Prince visited Portrush and the Giant's Causeway. A grand ball was to be given by Lord O'Neill, at Shane's Castle, yesterday evening, and the Prince was to spend to-day and to-morrow with Viscount Templetown, at Castle Upton.

FATAL RIOT IN LONDONDERRY.—On Wednesday night, after the arrival of Prince Arthur, there was a collision between the Protestants and Roman Catholics in Derry. While the Prince was in the Corporation Hall part of the mob began groaning for Mr. Gladstone and Dowse, and cheering for the Duke of Abercorn; others cheered for Dowse and equality. A band of apprentice boys also played party tunes, thus causing excitement, which led to stone-throwing and more serious rioting. After a time shots were fired, and the police were compelled to return the fire. Two men were shot dead and several others badly wounded. One or two are not expected to recover. At midnight the town was quiet. The dead men have not been identified, but evidently belong to the labouring class. It is said that the shot of the police caused one of the deaths.

FENIAN DEMONSTRATION IN CORK.—On Tuesday night Colonel Warren and Captain Costello, the released Fenians, were entertained at a public supper by their political friends. The Mayor of Cork, Mr. O'Sullivan, presided, and said he believed the time was coming when no stranger nation, with her armies and navies, should be dominant in Ireland. There was at that moment in Ireland a young Prince of the English nation. (Cries of "He be d—.") When that noble Irishman, O'Farrell, fired at another Prince in Australia, he was imbued with as noble and patriotic feelings as Larkin, Allen, and O'Brien. (Vociferous cheering, and cries of "He was.") He believed that O'Farrell would be as highly thought of as any of the men who had sacrificed their lives for Ireland (deafening shouts of "Bravo"). They all saw how a noble Pole had fired at the Emperor of

Russia because he thought that the Emperor was trampling upon the liberties of the people. Weill, O'Farrell probably was actuated by the same noble impulses when he fired at the Prince, as true to his country, for each was impelled by the same sentiments to do what they did cheerfully. O'Farrell also addressed the company. He said he had friends thought they were getting rid of a bad man, but whether he would turn up again with some interest or not time would develop. Costello, Warren sailed on Wednesday from Queenstown for America. The magistrates of Cork have called a meeting in reference to the conduct of the Mayor. The municipal Council is also to take the matter into consideration.

ANOTHER MURDER IN TIPPERARY.—Mr. Bradshaw, a landed proprietor and magistrate, living at Cappawhite, in Tipperary, was shot dead on Saturday morning. He left home about half-past 7 o'clock, and gave directions to his workmen in the field, who seemed low-spirited and restless. He left to take a sequestered path, with a stream on one side and a road on the other. In a few minutes two shots were fired, but no attention was paid to them. About 9 o'clock some constables went to the house on Magdalen Street, and Mrs. Bradshaw, thinking it time her husband should be at home to breakfast, sent an old man to look for him. He went to the fields and heard some noise, but had left; and, following the path, found him lying by the stream. Six feet from it was a pool of blood. His injuries were horrible—10 pellet and 10 bullet wounds in the head. The police and the magistrates were sent to the spot, and their suspicion fell on a young man named Allis, the son of a small tenant. He could not be traced, but in the evening he walked boldly into Philipps House, and gave himself up to the police. His statements of where he had been which they were to be false. Mr. Bradshaw was 40 years old, had 4 children living, and was much respected. The inquest was held on Monday, when the jury returned a verdict. The murder is attributed, by those who are best acquainted with the deceased gentleman, to private revenge. The reasons for this suspicion, and circumstances, not to agrarian lawlessness, but to the course pursued at the inquest, have not transpired, but the line of examination taken by the jurors, and the earnestness with which they demanded that the female servants of the house should be examined, indicate the direction in which popular suspicion points. The farmers of the neighbourhood have subscribed 250*l.* as a reward for the detection of the murderer.

MURDER IN WESTMEATH.—Captain Bora Tarleton was murdered on Wednesday at Creggan, Athlone. He was on his way to his farm near Creggan. The assassin stood behind a wall, on which a flag had evidently been placed to steady the gun. He was charged with duck-shot. Captain Tarleton was dreadfully mangled. He had lately received threatening letters, and this caused him to carry a revolver, which was found in his belt underneath his coat. There is a report that Captain Tarleton had dismissed some of his employes. A verdict of Wilful Murder was returned at the inquest on Thursday. The deceased was much esteemed in the county. Six persons in custody.

ATTEMPT TO BLOW-UP A LANDLORD'S HOUSE.—On Friday night a daring attempt was made to blow up the house of Dr. Blunden, at Parkmore, Mullinabone, Tipperary. About 1 o'clock the house was alarmed by a loud explosion, which shook the building, and, on getting up to ascertain the cause, they found that a vessel contained a large quantity of powder, to which a fuse had been attached and placed at the door and ignited, but it resulted in smashing the fan-light over the door and the pane window into fragments. The police have been making active search for the perpetrators, but as yet have been unsuccessful.

ROBBERY OF ARMS.—On Tuesday the ship "The Trude, under repairs in the Royal Victoria Dock, Passage, Cork, was entered by a body of men and robbed of a large number of muskets, bayonets, and pistols. No arrests have been made.

Railways.

THE BROAD AND NARROW GAUGES.—The narrow gauge on the Great Western, as regards the middle districts of England, is now a thing of the past. The 1st inst. the Great Western Company have agreed to run any broad-gauge passenger trains between London and Birmingham and Wolverhampton. The travellers between London and Shrewsbury or the West have no longer to change carriages either at Wolverhampton or Birmingham, the trains now running through between Paddington and Birkenhead or the narrow gauge without any change whatever. The branch between Reading and Basing-toke the narrow rail has also been removed, thus converting it from a mixed gauge into an entirely narrow-gauge line, and connecting the Great Western system with the London and South-Western and the South-Eastern of England. In addition to this, the whole of the broad gauge lines north of Oxford will immediately be taken up, removing in the midland counties the last vestige of the system of one of the two great rival engines whose plans were so long hotly contested and which celebrated as "the battle of the gauges."

THE ATTEMPT TO UPSET TRAINS ON THE GREAT WESTERN.—A few days since, Mr. Joseph Lane, a landlord of the Plumbers' Arms beer-shop, Shrewsbury Lane, Battersea, was brought up at Wandsworth Police Court, in custody of Inspector Pitter, charged with the crime of maliciously placing six wooden sleepers on the up Windsor line, near Clapham Junction, with intent to endanger the safety of passengers.

slightly easier prices throughout the markets of the kingdom, but we notice towards the close a healthier tone in some quarters, and the reduction of 1s. per qr. in the value of Wheat has not been general. Spring Corn of all sorts has been neglected, and where a change in prices occurred it was adverse. Flour has been a difficult sale at a further slight reduction in value. The arrivals of seed laden vessels off the coast during the week consisted of 14 cargoes, of which, with those left over from last week, there remained for sale last night 19 cargoes. The trade in Wheat has been very inactive, and sales were restricted at a decline of about 1s. per qr.; the only feature worth noticing was the purchase of a few cargoes for the Continent. Maize continued dull, and prices were 1s. to 2s. per qr. cheaper. Barley remained unaltered, and of Rye and Beans there is nothing off the coast. Rapeseed meets with a steady speculative demand for French account, and prices are 3s. 6d. per qr. dearer. In cargoes on passage and for forward shipment business is at a standstill. Paris, April 22.—The weather continues fine, and the appearance of the growing crops is very satisfactory. The trade in Wheat and Flour remains inactive, with a downward tendency in prices. The eight marks are quoted at equal to 32s. 6d. per 280 lb. The stock at the Halle is estimated at 7719 cwt. The arrivals of English grain and foreign Barley this week are small, but fair of foreign Wheat. There was a poor attendance at this morning's market. English Wheat brought Monday's prices; for foreign the demand was very limited, and but few sales being made, we do not alter our quotations. Grinding Barley and Oats were 6d. to 1s. per qr. cheaper; other descriptions of Spring Corn unchanged.

ARRIVALS FROM APRIL 24 TO APRIL 29, BOTH INCLUSIVE.

	Wheat.	Barley.	Oats.	Flour.
English ..	960 qrs.	100 qrs.	— qrs.	— sks.
Irish	— " "	— " "	— " "	— sks.
Foreign ..	22,080 "	2020 "	36,900 "	{ 3140 "
				{ — brls.
	23,040	2,120	36,900	

LIVERPOOL, Tuesday, April 27.—There was a good attendance at market. Red Wheat sells more readily at a slight reduction from Friday's rates; white unchanged, and American 6d. decline. Beans steady; Saida, 34s. Oats and Oatmeal without change. Indian Corn in moderate request, and 6d. per qr. lower; mixed and round, 26s. 6d.

AVERAGES.

	Wheat.	Barley.	Oats.
Mar. 20 ..	47s 9d	45s 0d	27s 3d
— 27 ..	46 5	43 8	27 1
April 3 ..	46 4	44 1	26 9
— 10 ..	47 0	44 6	26 5
— 17 ..	48 8	44 6	27 7
— 24 ..	45 5	43 0	26 9
Average ..	46 7	44 2	27 0

SEED MARKET.

As the time for sowing is now nearly over, we have had during the last few days only a small demand for agricultural seeds. A few retail orders come to hand, which are executed at unaltered currencies. There appears to be a large quantity of home grown Red Clover seed about, the quality of which is for the most part indifferent; this sort is offered at a considerable decline from the values ruling some weeks past; in fact, the quantity of English Red Clover seed which has come to market has astonished every one, the general opinion at first being that there would be very little seed saved. Of new foreign Clovers the stocks are light; for this description we have a good speculative inquiry to hold over till next year. Fine White Clover and good new Trefoil seed are both very scarce. Best quality French Italian is in short supply, and is held with firmness. For White Mustard seed we have an increased demand, at improved rates. Canary and Hemp seed continue to advance in price. Tares, on account of their scarcity have gone 2s. to 3s. per qr. dearer. Mangel seed is now in good request; the same can also be said of Swede and Turnip seed. Rape seed is very firm, and meets with a ready sale. We have a brisk inquiry for Lucerne seed.

JOHN SHAW & SONS, 16, Water Lane.

REEVES BROTHERS are in WANT of an active Man, as MANAGER of their Notting Hill Nursery. Character for honesty and sobriety indispensable.

WANTED IMMEDIATELY, 30 miles from London, a WORKING GARDENER, thoroughly competent to undertake the Management of Vineries, Cucumber and Melon House, Flower and Kitchen Garden. Man to assist him. Must be single. Address, stating wages required, age, length of time in last place, and reference, to G. A. W., Esq., The Lodge, Bereham, near Chelmsford, Essex.

WANTED, at Sydenham, as UNDER GARDENER, a Young Man, about 25 years of age, who has had practical experience, and thoroughly understands his business. Wages, 18s. a week, and cottage.—Apply by letter, stating references, &c., to F. M., care of Mr. G. Street, 30, Cornhill, E.C.

WANTED, a MAN who thoroughly understands General Out-door Nursery Stock, Budding, Grafting, Layering, &c.; must well understand Roses; also good Salesman. Need not apply unless reference good.—JAMES W. TODMAN, Eltham Nursery, S.E.

MESSRS. VEITCH AND SONS are in WANT of an ASSISTANT PROPAGATOR, about 20 years of age, who has had some experience in a good Nursery.—Apply, stating references and wages expected, addressed Royal Exotic Nursery, Chelsea.

WANTED, in one of the largest London Nurseries, a respectable Young Man as ASSISTANT CLERK, who would make himself generally useful in the Offices.—One who has some knowledge of Architectural Drawing and Ground Plan Making would be preferred, and remunerated accordingly.—Apply by letter, stating references and salary expected, addressed NURSERYMAN, Gardeners' Chronicle Office, W.C.

WANTED, as DAIRYMAID, a person of experience, about 35 years of age.—She must be a first-class Butter maker.—Mrs. PAUL, Cambridge House, Twickenham, S.W.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. E. G. HENDERSON & SON, Wellington Nursery, St. John's Wood, London, N.W.

GARDENERS (EXPERIENCED).—JOSEPH MEREDITH, The Vineyard, Garston, near Liverpool, begs to intimate to Ladies and Gentlemen requiring the above that he has on his Register some excellent Men, for every class of situation, whom he can strongly recommend from his personal knowledge of them.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS and GARDENERS and BAILIFFS, of various qualifications, who are open to Engagements. The fullest particulars as to services required and wages given should be forwarded with application.—Paul's Nurseries, Waltham Cross, London, N.

To Gardeners and Bailiffs (Head, Foremen, or Under). JAMES CARTER AND CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those who can send unquestionable references need apply. Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & Co. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c. JAMES CARTER & Co., 237 and 238, High Holborn, London, W.C.

Gardeners and Under Gardeners. WM. CUTBUSH AND SON beg to state that they have at all times on their books MEN of various qualifications, whose characters will bear the strictest inquiry. Any Gentleman making application would save time by clearly stating the duties to be undertaken, wages offered, &c., so that suitable Men may be selected.—Highgate Nurseries, London, N.

GARDENER (HEAD).—Age 35, married; understands Forcing, &c. Character will bear the strictest investigation. J. F., Coombe House, Croydon.

GARDENER (HEAD).—Middle-aged, married, no incumbrance; fully understands the profession in all its branches. No single-handed place accepted. Wife a good Dairy-woman. Good references.—H. H., Post Office, Faringdon, Berks.

GARDENER (HEAD).—Age 36, married, two children; 25 years' practice in all branches. Can be well recommended. No objection to take charge of Pasture Land if required.—J. W., Messrs. Lucombe, Pince & Co., Nurseries, Exeter.

GARDENER (HEAD).—Middle-aged, married; has lived in first-class places, and has given every satisfaction. Good references as to character and ability.—W. L. Z., 63, George Street, Newcastle-on-Tyne.

GARDENER (HEAD).—Age 30, married, one child; has a thorough knowledge of the profession in all its branches. Eighteen years' good experience; five years' good character from present situation.—M. H. S., Lyne, Horsham, Sussex.

GARDENER (HEAD).—Married, two children; thoroughly understands the profession in all its branches. Four years' good character from last Employer.—J. E., Post Office, Worplesdon, near Guildford.

To Noblemen and Gentlemen.

GARDENER (HEAD), where good general practical Gardening is required.—Middle-aged, married, no incumbrance; thoroughly experienced.—G. H., Messrs. Rollison & Son's, The Nurseries, Tooting, Surrey.

GARDENER (HEAD).—A thorough practical Man, who understands the Management of Vines, Pines, Melons, Cucumbers, &c., Kitchen and Flower Gardening, and Early and Late Forcing of Fruits, Vegetables, and Flowers. Good character.—E. B. A., 5, Bedford Road, Clapham Rise, Surrey.

GARDENER (HEAD).—Age 45, married; has had charge of a Nobleman's extensive Establishment for the last eight years, and was previously ten years in the Gardens of a noble Duke, by whom he can be recommended. First-class testimonials.—A. Scott, Post Office, Elstree, Herts.

GARDENER (HEAD).—Age 32, married; understands the profession in all its branches, including the Early and Late Forcing of Fruits, Flowers, and Vegetables, is also a good Flower and Kitchen Gardener, competent to undertake the Laying-out of New Grounds, and the Erection and Heating of Hot-houses. Four years' character.—J. S., Ringwood Gardens, Chesterfield.

GARDENER (HEAD).—Age 29, married, one child; thoroughly understands the Management of Vines, Stove and Greenhouse Plants, Early and Late Forcing, and Kitchen and Flower Gardening. No objection to a good single-handed place. Good references from present employer.—W. SMITH, 6, Chestnut Grove, Twickenham Common.

GARDENER (HEAD).—Age 45, steady and industrious (London Man); an excellent hand at Growing Grapes, Peaches, Melons, Cucumbers, Stove and Greenhouse Plants, all kinds of outdoor Vegetables, Fruits, and Flowers, Management of Pleasure Grounds, and can keep the Conservatory gay at all seasons.—A. B., 1, Belmont, Lower Broughton, Manchester.

GARDENER (HEAD), age 26, single.—JOSEPH DILLISTON, late Foreman to the Right Hon. Lord Vernon, after 10 years' practice in first-class Establishments, is desirous of taking a First-class Garden under his superintendence. All departments thoroughly understood, and theory combined with practice in all "modus operandi." Numerous first-class references.—Address, Market Hill, Royston, Herts.

GARDENER (HEAD, WORKING), where one or more are kept.—Age 41, married; thoroughly practical in Vegetable, Fruit, and Flower Culture. Good references and testimonials of character as to respectability and practicability.—D. T. L., 2, Welleley Road, Snarebrook, Essex.

GARDENER (HEAD, WORKING).—Age 30, married, no children; has a thorough practical knowledge of Gardening, Vines, Fruits, Greenhouse, and Flower and Kitchen Gardening in all its branches, also Cucumbers, Melons, and Mushrooms. Has been 13 years in last place, from which he can be well recommended by W. R. SKYMON, Esq., Crowood, Hungerford.

GARDENER (HEAD, or good SINGLE-HANDED).—Age 39, married, one child; thoroughly understands the Forcing of Vines, Peaches, Melons, Stove and Greenhouse Plants, and Flower and Kitchen Gardening. Two years' good reference.—W. F., 16, Railway Terrace, Ladywell, Lewisham, S.E.

GARDENER.—Married, no family; respectable, steady, and persevering; thoroughly acquainted with his profession.—ALBA, 74, Moray Road, Tollington Park, Holloway, N.

GARDENER (no family).—A Gentleman wishes to recommend a most respectable Man as above, whose Wife is a competent Laundress. A single-handed place would not be taken.—Apply by letter only, in first instance, P., Gardeners' Chronicle Office, W.C.

GARDENER (age 37, without incumbrance).—P. FRANK, Gardener, Ripley Castle, Yorkshire, is now leaving his situation owing to a reduction in the establishment, caused by the death of Lady Ingilby, and is at liberty to engage with any Nobleman or Gentleman requiring a thoroughly experienced Gardener. Satisfactory testimonials.

GARDENER, or GARDENER and MANAGER of LAND, &c.—A very trustworthy and competent Man in all branches is now open to an engagement where fair wages will be given. The highest testimonials.—D. V., Messrs. Felton & Sons, Birmingham Nursery, 56, Harborne Road, Edgbaston, Birmingham.

GARDENER (SINGLE-HANDED).—Age 25, married, no incumbrance; thoroughly understands Fruits, Flowers, and Kitchen Garden Work, &c.—W. H., Post Office, Circus Road, St. John's Wood, N.W.

GARDENER (SINGLE-HANDED), or where another is kept.—Married, no incumbrance, understands Greenhouses, &c. Good Kitchen Gardener. Good character from last place.—G. L., Mr. Balfour, Baker, 6, Abbey Road West, St. John's Wood.

GARDENER (SINGLE-HANDED, or SECOND).—Age 24; understands Early and Late Forcing, and Flower and Kitchen Gardening. Good character.—H., J. Major, Nurseryman, Oundle, Northamptonshire.

GARDENER (SINGLE-HANDED, or UNDER).—Single; four years' good character.—W. A., Riversfield, St. Neot's, Huntingdonshire.

GARDENER (UNDER, SINGLE-HANDED), where he can get a good insight into House-work.—Age 25; good character. T. M., 2, Nunhead Green, Peckham Rye, Surrey, S.E.

GARDENER (UNDER), in a Gentleman's Garden.—Age 23; has been used to Glass, but wishes to improve himself in Plant and Fruit Growing. Three years' good character.—F. J., Lacey's, Stationer, Eltham, S.E.

IMPROVER, under an experienced Gardener.—Has worked among Vineyards and Fruit Trees. Address given.—N., Bitterne, Southampton.

IMPROVER, under a Head Gardener.—Allow 1s. or 2s. per week as Premium. Good character. Post Office, Loughton, Hurst Green, Essex.

To Nurserymen. GROWER of Hard and Soft-wooded Plants.—Years with one of the leading London Firms.—Cottages, St. John's Wood, N.W.

To Nurserymen. PROPAGATOR.—Thoroughly understands the propagation and Cultivation of Hard and Soft-wooded Plants. Satisfactory references as to character and ability. Is likely to be permanent; referred.—E. Y., Post Office, Chelsea.

TWO good NURSERY and JOBBING WANTED EMPLOYMENT. Vicinity of London. W. C. B., Cambrian Nursery, Charlton, Chislehurst.

FOREMAN, in the Flower Garden, or First-class character and references.—Bury, Suffolk. Post Office, Fulham, S.W.

WORKING BAILIFF, or FOREMAN.—Understands Stock. Thoroughly trustworthy. Excellent Dairywoman and Laundress.—R. M., Post Office, Surrey.

To Gentlemen, Nurserymen, and Others. CARPENTER (GENERAL).—Twenty years' experience in Painting, Glazing, and Fixing Hot-water Apparatus. References.—S. BENNISON, The Nursery, Stratford.

Notice of Removal. WILKINSON and KIDD, Saddlers to Her Majesty and H.R.H. THE PRINCE OF WALES, have removed their Establishment from the Corner of Park Street, to 5, HANOVER SQUARE, W. (adjoining the Queen's Rooms). Established 1786.

CORDINGS' CELEBRATED FISHING TROUSERS remain soft and pliable.

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CORDINGS' GROUND SHEETS and MATS as recommended and used by the Old Scotchmen.

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PURE AERATED WATER. Ellis's Ruthin Soda Water. Ellis's Ruthin Lemonade. Ellis's Ruthin Potass Water. Ellis's Lithia Water. Ellis's Ruthin Seltzer Water. Ellis's Lithia and Potass Water. For Gout, the last-named is a splendid remedy. Every Cork is branded "R. ELLIS & SON, RUTHIN," and bears their trade mark, without which none is genuine. Chemists, Hotel-Keepers, Confectioners, and Wholesale Dealers. R. ELLIS & SON, Ruthin, North Wales.

A Success Unprecedented. MARAVILLA COCOA IS PERFECTION. Globe says:—"Taylor Brothers' Maravilla Cocoa is a thorough success, and supersedes every other Cocoa in the market. Entire solubility, a delicate aroma, and a rare combination of purest elements of nutrition, distinguish the Maravilla from all others. For homoeopaths and invalids we could not recommend a more agreeable or valuable beverage." Sold in Packets only, by all Grocers.

Sauce.—Lea & Perrins. THE "WORCESTERSHIRE." Connoisseurs "THE ONLY GOOD SAUCE" for Appetite, and Aids Digestion. Unrivalled for purity and flavor. Ask for LEA & PERRINS' SAUCE. Beware of Imitations. Names of LEA & PERRINS on all bottles and labels. Agents—Crosse & Blackwell, London, and Sold by all Dealers. Sauces throughout the World.

DINNEFORD'S FLUID MAGNESIA. The best remedy for Acidity of the Stomach, Headache, Gout, and Indigestion, and the best for delicate constitutions, especially adapted for Ladies and Infants. Dinneford & Co., 172, New Bond Street, London, and of all Chemists throughout the World.

HAIR RESTORED, PRESERVED, and BEAUTIFIED by the use of ROWLANDS' MACASSAR OIL.—This Oil is universally in high repute for its growth and fragrance during the last 60 years in promoting the growth and the human hair. Its invaluable properties have obtained the Royal and the Aristocratic throughout Europe. Price, 7s., 10s. 6d. (equal to four shillings) and 21s. per bottle. Sold by all Perfumers. * * * Ask for "Rowlands' Macassar Oil."

WHEN THE HAIR, through weakness, becomes off, or turns grey, or preparat on with some greasy mass of these evils, restore the ORIGINAL COLOR, and a healthy and luxuriant growth, than Mrs. S. A. ROWLANDS' HAIR RESTORER. It is simple in its composition, requiring no previous preparation of the hair, is agreeable, and no pomade or hair oil is required. Sold in bottles, 6s., of all chemists and perfumers. Depot, 26, High Holborn, London.

CORNS and BUNIONS.—A Gentleman, tormented with Corns, will be happy to afford others information by which he obtained their complete removal, without pain or any inconvenience.—Formerly stamped envelope to F. KINGSFORD, Esq., Ware, Herts.

GOUT and RHEUMATISM.—The extract of Gout or Rheumatism, a quicky relieved and cured by RHEUMATIC PILLS. They require no restraint of diet or confinement during their cure. They are certain to prevent the disease attacking any individual. Sold by all medicine vendors, at 1s. 10d. and 2s. 6d. per bottle, obtained through any chemist.

ELECTRICITY IS SELF-ADJUSTING CURATIVE and EASY. Sufferers from nervous debility, indigestion, weakness, or any other ailment, now cure themselves by the only "Guaranteed Remedy" protected by Her Majesty's Great Seal. Free for One Stamp, by H. JAMES, Esq., (Medical Officer to the London Hospitals), Percy House, Bedford Square, W. N.B.—Medicine and Fees superseded. A Test given in details. Established 1840.

The Gardeners' Chronicle Newspaper.

SATURDAY, MAY 8, 1869.

Indestructible Terra-Cotta Plant Markers.
MAW AND CO.'S PATENT.—Prices, Printed Patterns, and Specimens sent post free on application; also Patterns of Ornamental Tile Pavements for Conservatories, Entrance Walks, &c.
Maw & Co., Benthall Works, Brossley.

LABELS. LABELS.—PARCHMENT or CLOTH LABELS.—Tree or Plant Labels, punched parchment, 4 inches long, 6s. per 1000, or 10,000 for 36s., cash on delivery. Sample Labels sent on receipt of a postage stamp. Orders delivered free in London.
JOSEF FISHER & Co., Label Works, Boston, Lincolnshire.

F. A. HAAGE'S WOOD GARDEN STICKS and TALLIES, commended by the Royal Horticultural Society, acknowledged to be the neatest, cheapest, and best Training Sticks and Tallies made.
The above can now be had, of all sizes, Wholesale, of **BETHAM & BAKER**, 65 & 67, Lower Thames Street, London, E.C., and Retail, of the principal Seedsmen and Florists.
Price Lists on application.

WARNER'S SILICATE of IRON PAINT.
A certain PREVENTION against DAMP WALLS, Effectual PRESERVERS IRON and WOOD, is unaffected by extreme HEAT and AMMONIA. Has great Covering Properties.
All Colours supplied and can be obtained through any Chemist or Ironmonger, of
WARNER & ASHBY, 17, Laurence Pountney Lane, E.C.

THE TANNED LEATHER COMPANY,
Armit Works, Greenfield, near Manchester.
TANNERS, CURRIERS, and MANUFACTURERS of IMPROVED TANNED LEATHER DRIVING STRAPS for MACHINERY PRIME STRAP and SOLE BUTTS.
Price Lists sent free by post.
Warehouse: 81, Mark Lane, London, E.C.
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Home News.

THE COURT.—On Friday the Queen drove to Saturday the Queen drove out. On Sunday the Queen and Royal family attended Divine service at West-pingham Church. The Rev. James Drew preached a sermon. On Monday morning the Queen walked and drove in the grounds. Prince Lowenstein-Wartburg arrived on a visit. The Judge-Advocate-General had an audience of her Majesty. On Tuesday the Queen drove out in the morning with Princess Louise, and in the afternoon with Princess Christian. On Wednesday morning the Queen drove out with Princess Louise, and in the afternoon drove out with the Prince of Leiningen left Osborne. On Thursday morning the Queen went out in the grounds with Princess Louise. General Sir William Knollys arrived at Osborne on a visit. The Queen, with the Prince and Prince Leopold, will leave Osborne this afternoon and return to Windsor, where they are expected to remain until the 11th inst., when they will leave for Balmoral.

THE PRINCE AND PRINCESS OF WALES landed Brindisi on Sunday from Corfu. Their Royal Highnesses reached Bologna by the Southern Italian Railway early on Monday morning, and in the afternoon arrived at Turin. On Tuesday the Prince and Princess crossed Mont Cenis by special train, and arrived Paris on Wednesday morning, taking up their quarters at the Hotel Bristol.

RETURN OF PRINCE ARTHUR FROM IRELAND.—On Thursday morning, at 6.30, Her Majesty's yacht Vivid, with Prince Arthur on board, entered the Mersey from the Isle of Man. At 8.45 his Royal Highness landed at the Prince's Stage, and, as his arrival was much earlier than was expected, there was no formal reception. His Royal Highness drove at once to the Lime Street Station, and left for London by the 9.15 express.

LORD-LIEUTENANCY.—Sir Thomas Western has been appointed Lord-Lieutenant of Essex. It is said that the hon. Baronet is about to be raised to the peerage.

THE CABINET.—A Cabinet Council was held on Friday in Downing Street. Another was held on Saturday, and another on Tuesday.

PARLIAMENTARY MOVEMENTS.—The Right Hon. E. Horsman, Mr. Grenfell, and Sir John Lubbock, are candidates for the seat at Liskeard, vacant by the death of Sir Arthur Buller. Mr. Montague Guest is a candidate for Youghal in the room of Mr. Wexler, unseated; and is opposed by Mr. O'Sullivan, the Mayor of Cork, against whom a Bill to remove him from his office has been brought in by Government.

TRIALS OF ELECTION PETITIONS.—The Court of Common Pleas on Thursday decided the point of law upon which the petition against the return of Mr. Birley, the Conservative M.P. for Manchester, was based. The Court decided that, the contract which Mr. Birley's firm had entered into with the India Office having been completed, he was a mere creditor of the Government, whose claim was ascertained and whose right to receive the money due was undisputed. This did not constitute a disqualification under the Act of George III. The decision of the Court, therefore, was that Mr. Birley was entitled to retain his seat. The trial of the Stafford election petition commenced on Tuesday before Mr. Justice Blackburn. Mr. Chawcer, the defeated candidate, claims the seat, and the proceedings will, therefore, result in a scrutiny. Mr. Justice Willes on Wednesday consented to the withdrawal of the adverse petitions for Horsham, and to admit Mr. Hurst as duly elected. The question of costs was reserved for consultation with the other election judges.

THE CONSERVATIVE PARTY.—A meeting of Conservative Irish peers and members of Parliament is to be held at the Carlton Club this afternoon, to consider the propriety of immediately forming "and bringing into working order" a Conservative Registration Association for Ireland. The promoters of this movement are Colonel Taylor, Viscount Crichton, Lord Claud J. Hamilton, and Lord A. E. Hill-Trevor.

MEETING OF BISHOPS.—There was a large gathering of bishops on Thursday at Lambeth Palace. After Divine service in the private chapel, their lordships held a conference under the presidency of the Archbishop, at which the various questions affecting the Church which are now the subject of legislation and discussion, were considered. The subjects which form the agenda for the next meeting of Convocation were also discussed, and certain arrangements agreed on.

THE ARCHDEACONRY OF NORFOLK has been conferred upon the Rev. Ralph Blakelock, M.A., Rector of Gimmingham, near North Walsham, author of several mathematical works.

COLONIAL BISHOPRICS.—The Bishop of Victoria (Hong-Kong), who was consecrated in 1867, and went out to China in the same year, has returned to England. The Bishop of Sierra Leone intends to resign his see, his health being unequal to the climate of his diocese.

KNIGHTHOOD.—The Queen has directed letters patent to be passed under the Great Seal granting the dignity of a Knight of the United Kingdom to James Martin, Esq., late First Minister and Attorney-General in New South Wales; to Robert Officer, Esq., Speaker of the House of Assembly of Tasmania, and to Terence Aubrey Murray, Esq., President of the Legislative Council of New South Wales.

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Foreign.

FRANCE.—In the sitting of the Senate on Friday the same came on for discussion. M. de Lavalette, in the name of the Government, said that the French Government had come to no determination relative to the question of leaving Rome when the Pope was assured. The protocol on the railway question has received the signatures of M. de Lavalette and M. Frère Orban, and has been placed in the official Government papers both in Paris and Brussels. The mixed Commission will be composed of men specially selected for the purpose, and diplomatic personages or officials of the foreign countries will take part in it. Up to the present M. Franquille is the only member of the Commission appointed on the part of France. The Public Opinion is no truth in the rumour that France has commenced any negotiations either of a political or financial character with Mexico. The France contra a rumour that Russia has sent a despatch to Constantinople, protesting against the recent measures of the Porte relative to the laws of naturalisation. It is not of that nature on the part of Russia to be in flagrant contradiction with the reiterated declarations of the Cabinet of St. Petersburg, which have never ceased since the Conference to act in harmony with the other Powers on the Eastern question.

SPAIN.—In consequence of rumours of a Carlist movement in the north, Deputy Arquiaga, in the name of the Cortes on Saturday, asked whether the Government had taken precautionary measures against a revolutionary outbreak. The Minister of Justice replied that the partisans of Don Carlos and Queen Isabella were incessantly at work with the object of exciting about civil war. The Government, however, was not without energy, and one of the bands had been dispersed on Sunday by the troops in Asturias. In the morning a Volunteer of liberty was assassinated by the Carlists on Saturday morning, and a Colonel Lagunery had been wounded. The Minister stated that the Government could vouch for the fidelity of the Volunteers and Volunteers, and held the ordinary means sufficient for preventing a breach of the peace. If, however, necessity should require it, they would call upon the House to grant them extraordinary powers. Senor Figuerola, the Minister of Finance, said the fall in the funds was due to unfounded apprehensions. He promised to lay before the House the contract for the loan concluded abroad, and contradicted the rumour that bonds given as security by former Governments had been recently thrown upon the market. These bonds, he said, would be redeemed. He, moreover, repeated that the half-yearly coupons would be paid, including those deposited in the Bank of Consignments, and said that the first instalment of the new loan would arrive on the next day. The Bill of Amnesty was then passed.

On the sitting of Monday the discussion of the paragraphs of the draught Constitution on the religious questions, which had been modified by the committee in a more liberal sense, was resumed. Deputy Pi y Suñer proposed the complete independence of Church and State. In the sitting of Tuesday the articles on the religious question were opposed by Deputy Capdepon. Admiral Topete protested against the doctrines promulgated by the Republican Deputies. Senor Sarrailh, Minister of the Interior, introduced a Bill authorising an English firm to lay a submarine cable between Portugal, Ferrol, and England. In the sitting of Wednesday Senor Vinader moved a resolution to the effect that the House had heard with satisfaction the declaration of Admiral Topete condemning the attitude of Senor Sunyer, a Republican deputy, with reference to the proposed Constitution. Admiral Topete opposed the motion, which, he said, would tend to restrict the freedom of the Deputies. He added that he should vote against it, and Marshal Serrano having made a similar announcement, the resolution was rejected by 119 to 20. The Cortes afterwards decided that from Friday sittings would regularly be held in the daytime and in the evening, with a view to abbreviate the debates on the Constitution. Senor Sarrailh then spoke on the religious question, and in the course of his speech stated that he had abandoned Catholicism for philosophy and reason. In the evening sitting on Wednesday, after a speech from Senor Gaxiola, in which he reviewed the debate on the religious question of the Constitution relating to religion, clause 20 was adopted by 178 votes to 75; and clause 21, concerning liberty of worship, was also agreed to by 178 votes to 40. As soon as the form of Government has been voted, Marshal Serrano will bring forward the question of the candidature to the Throne. A new Cabinet will then become necessary, in case the candidature should have been settled, or a dictatorship of three members should be formed. A Carlist conspiracy has been discovered at Barcelona, which has resulted in 30 persons being arrested. Several superior and commissioned officers, both on active service and on half-pay, are among the prisoners. Implicating documents have also been seized.

HOLLAND.—In the sitting of the Second Chamber on Wednesday the Minister of the Colonies, in reply to a question relative to the rumoured disturbances in Java, announced that the Government had received a telegram, in which, among other items, the following was stated:—At Bekasoi; troops were sent, disorder

BRITAIN.—In the sittings of the Chamber of Representatives on Friday, M. Frère Orban, in reply to M. de Brouckere, said that the negotiations with France had entered upon a phase most satisfactory for both countries, and the most sympathetic and cordial relations had been established. In the sitting of the Chamber of

Representatives on Tuesday, M. Coomans inquired of M. Bara, Minister of Justice, if there was any truth in the report of his resignation. M. Bara replied that he had no communication to make on the subject. The Budget of the Ministry of Justice for 1870 was adopted by 52 votes against 22. In reply to M. Dethoux, leader of the party of the Right, M. Frère Orban said that the Government had succeeded in their wish that their proposals should be taken into consideration, and they were likely to be accepted on purely economical grounds. They hoped, therefore, that the result arrived at would be found equally satisfactory by both countries. It has been proved by the evidence taken during the magisterial inquiry into the recent riots in the coal districts of Belgium that they originated from revolutionary rather than economical motives.

PRUSSIA.—In the sitting of the North German Parliament on Tuesday, in reply to an inquiry relative to the projected postal treaty with England, Herr von Philipborn, Director of the Postal Service, stated that the difference between the views of the British and North German Post Offices was solely connected with the high remuneration required by the Post Office of the North German Confederation for the carriage of closed parcels from England through the Federal territory to other countries. After the conclusion of necessary negotiations with the railway companies, the Government would make a communication to the British Government, and he hoped it would be attended with a satisfactory result. The assertion, that excessive demands on the part of the Southern States prevented the conclusion of the treaty, was unfounded.

TURKEY.—The project of admitting Christians into the army has been abandoned, owing to the serious loss the treasury would suffer by the abolition of the tax the Christian subjects of the Porte pay to be exonerated from military service. However, there is a project of forming a landwehr. The Cretan chiefs concerned in the late insurrection and sentenced to 15 years' imprisonment, were released from prison on Wednesday.

ITALY.—In the Italian Chamber of Deputies on Monday Signor Ferrari, the leader of the Piedmontese party, announced that it was the intention of his party to give its support to the Government, and he proposed an order of the day, consisting of three paragraphs. The first two—declaring that the Chamber was persuaded that the nation wished for the greatest union and concord in Parliament, in order to ensure the restoration of the finances to a sound condition, by strict economy, and a better organisation of taxation, and that the Chamber was convinced that the firm maintenance of these principles would ensure a natural and orderly development of constitutional liberty—were carried unanimously. The third, which stated that the Chamber, having heard the declaration of the Ministry, was confident that the Cabinet would conduct the public administration in that sense, was carried, on a division, by 168 to 20. It is expected that the support of the Ministry by the Piedmontese party will give Italy what she so much needs, a strong and stable Government. In the sitting of Tuesday General Menabrea and Count Cambray-Digny, in reply to a question of Signor Villa Tommasso, stated that the income-tax was deducted from the coupons of the Pontifical debt precisely in the same manner as from the other coupons of the Italian public debt. The semi-official *Correspondance Italienne* of Thursday denies that a special mission to the French and Italian Courts has been confided by the Spanish Government to Senor Montemar relative to a candidature of the Duke of Aosta to the throne of Spain. The same paper adds that the duke is not believed to have any ambition in that direction.

INDIA.—The Ameer of Affghanistan reached Jellalabad on the 28th ult. Authentic accounts state that Isha Khan, the son of Azim Khan, had been captured at the frontier.

UNITED STATES.—President Grant has notified to Mr. Motley, the newly-appointed Minister to England, that he expects him to be at his post in London, ready for duty, about the 1st June. In the Senate, on the 19th ult., Mr. Chandler offered a resolution to the effect that the President be directed to open negotiations with England for a settlement of all claims on the basis of a transfer of the British North American possessions to the United States. He declared that, as in the case of France with Mexico, Great Britain had staked the continuance of her empire in America on the success of the rebellion. The resolution was referred to the Committee on Foreign Relations. During the month of April the public debt of the United States has been decreased by six million and a quarter dollars.

BRAZILS AND PARAGUAY.—Count d'Eu, general in chief of the allied army, had left Rio for Paraguay. His appointment was cordially greeted by the allied Governments. Lopez was at Ascurra in the mountains, within reach of the allies; he was to be attacked in the beginning of April. Navigation and commerce of the rivers Paraguay and Parana were thoroughly free. The reported defeat of Brazilians on the Luque Railway by Paraguayan forces was completely false.

CUBA.—The latest intelligence received at New York from Havannah is favourable for the success of the Spanish arms, several bands of the Cuban insurgents having been compelled to surrender. The crew of the Mary Lowell have been liberated, but the Cuban authorities have refused to restore the vessel. The crew state that she was, at the time of her seizure by the Spaniards, within one mile of Ragged Island, and thus within British waters. The Government of the United States have called upon her Majesty's Government to demand from Spain the restitution of the vessel, and compensation to the owners and crew.

HAYTI.—Her Majesty's ships Doris and Jason had visited Hayti for a third time, to demand satisfaction for the insults offered to the British flag. Salvave

apologised, but Captain Aunesley informed him that the next time other reparations than apologies would be enforced.

Parliament.

IN the House of Lords on Friday, on the motion of Lord WESTBURY, the Fine Arts Copyright Consolidation (No 2) Bill was read a second time and referred to a select committee. On the motion of the Marquis of SALISBURY the Civil Service Pensions Bill was read a second time. Lord LIFFORD called attention to the speech of the Mayor of Cork at the late Fenian banquet in that city, and inquired what steps the Government contemplated in relation to it. Earl GRANVILLE said that the Government would take immediate steps to ascertain the accuracy of the words said to have been uttered by the Mayor of Cork, and if it were substantiated they would certainly not pass it over. The Marquis of BATH asked if it was the intention of the Government to adopt any measures, remedial or repressive, for the better protection of human life in Ireland, and called upon the Government to declare their general Irish policy, and particularly on land tenure. Earl GRANVILLE said that if they were now to introduce a reasonable measure on the land question it would be likely to cause more irritation than if they were to wait. The Government were doing their utmost to enforce the law; and were consulting with the Irish Executive as to the expediency of applying to Parliament for further powers. Lord CAIRNS said that if the Government were not satisfied with the powers they now had they should ask Parliament for larger powers, but the quartering of police, as the expense fell on the county cess, amounted to a fine on the family of a murdered landlord. Aftersome remarks by the Earl of KIMBERLEY, Earl GREY, the Earl of HARROWBY, the Marquis of CLANRICARDE, the Earl of CARNARVON, the Marquis of WESTMEATH, and the Earl of LEITCHAM, the subject dropped. On Monday Lord STRATFORD DE RED CLIFFE called attention to the negotiations between the British and Russian Governments as to the Turco-Persian boundary line, and expressed his opinion that the subject, which reopened in fact the Eastern question on the Persian frontier at the instigation of Russia, had not received the attention it deserved from this country and the Government. The Earl of CLARENDON said that the Government were quite alive to its importance. The Duke of SOMERSET asked if any arrangement had been made for replacing the three prelates of the Church in the south-western counties who had been for some time incapacitated by illness for the performance of their episcopal duties. The ARCHBISHOP of CANTERBURY said that as the House had last year declined to pass a measure to relieve disabled prelates from their duties, the Bishops of Exeter, Winchester, and Bath and Wells had been unable to retire, but they had taken such steps as were in their power to ensure the discharge of their duties. Communications had passed between the Government and himself with reference to a Bill which it was intended to introduce on the subject. After some remarks by Lord LYTTLETON, the Bishop of ST. DAVID'S, and the Duke of CLEVELAND, Earl GRANVILLE explained that the proposed Bill would be framed simply to meet the case of a Bishop incapacitated by infirmities. On Tuesday in reply to the Earl of STRATHMORE, Earl GRANVILLE stated that notice had been already given in the other House of a Bill which would apply to the case of the Mayor of Cork. In Committee on the Sea Birds Preservation Bill the Duke of RICHMOND moved an amendment to confine the prohibition to shooting the birds. The Archbishop of YORK and the Duke of NORTHUMBERLAND opposed the amendment, which was not pressed. The Duke of RICHMOND moved the rejection of the clause making it a penal offence to be found in possession of the eggs of birds intended to be protected, to which the Bishop of OXFORD and Lord HOUGHTON also objected in the interest of scientific collectors. On a division, the clause was struck out by 51 to 10, and the Bill finally passed through Committee. The Civil Service Pensions Bill also passed through Committee. On the motion for the third reading of the Militia Bill, Earl GREY advocated an increase of the regular army in preference to depending upon militia and reserves. Lord NORTHBROOK described at some length the services rendered by the militia, and assured the House that the country had never been in a better position of defence than it was at the present moment. The Duke of NORTHUMBERLAND and Lord DE ROS also defended the militia. The Bill was then read a third time and passed. The Earl of ALBEMARLE brought in a Bill to abolish the property qualification of justices of the peace, which was read a first time. On Thursday, being Ascension Day, the House did not sit. Yesterday the Reformatory Schools Amendment Bill and the Industrial Schools Bill were withdrawn by the Marquis of SALISBURY, at the suggestion of the Government. The Marquis of SALISBURY called attention to the statements concerning the Irish land question made by Mr. Bright in the House of Commons. The House was left sitting.

IN the House of Commons on Friday Mr. GLADSTONE endeavoured to prevail on Mr. Graves to defer his motion on the condition of Ireland, by urging that Ministers were not in possession of the information which would admit of their entering upon a full discussion of the subject. Mr. GRAVES declined, under a strong sense of public duty, to yield to the appeal of the Premier, and proceeded to show that the feeling of uneasiness and insecurity both of life and property now existing in Ireland, had never been surpassed; that false hopes on the land question, which never could be realised, had been excited in the minds of the Irish peasantry, and that Mr. Gladstone, Mr. Bright,

and Mr. Bruce were not guiltless of fostering these delusions. Mr. C. FORTESCUE said that the recent agrarian outrages had nothing to do with politics, and that it was absurd to connect them with the speeches of Ministers, which came to nothing more than this, that the land question ought to be dealt with. Lord STANLEY said that the state of Ireland was exceedingly grave, and that there had been nothing for years past like the insecurity and uneasiness which prevailed. The liberation of the Fenians was, in his opinion, a mistake; and those who were responsible for it must be convinced that it was so, now that they saw how their clemency had been abused. He did not blame Ministers for not bringing in a land bill this session, for that he knew to be practically impossible; but the House had a right to expect, that they should make such a declaration of their views and principles as would satisfy the reasonable expectations of those who wanted a settlement on a basis of justice, whilst it dissipated the wild hopes of a particular class of the population. Lord CLAUD HAMILTON attributed to Mr. Bright's inflammatory speeches and letters the delusions which existed on the land and other questions. Mr. BRIGHT said that the cardinal point of his creed on the land question was that there could be no settlement of it until by some means (and he was prepared to propose the means) the population, without doing injustice to any one, was placed in larger numbers in possession of the soil of their own country. Next session this land question must be dealt with. He would never be a party to an act of repression unaccompanied by measures of a remedial and consoling character, and he would be no party to a land measure which he would not support if he were an Irish landlord. Lord J. MANNERS asked what the Irish people would say when they heard that Mr. Bright had a Land Bill in his pocket and would not produce it. Mr. GLADSTONE asserted that the condition of Ireland was to be traced to long years of misgovernment, and to that baneful religious ascendancy which Parliament was now endeavouring to extirpate. After some remarks by Sir T. BATESON, Mr. DOWSE, Mr. CONNOLLY, THE O'DONOGHUE, Mr. BRODRICK, Mr. MAGUIRE, Mr. G. HARDY, and other members, the subject dropped. The Stannaries Bill passed through Committee. Mr. GLYN moved the issue of a new writ for Yonghal. The motion was opposed by Mr. COLLINS, Mr. FAWCETT, Sir M. BEACH, and others. On a division of 32, the writ was ordered to be issued by a majority of 102 to 70. On Monday Mr. GLADSTONE announced, amid loud and general murmurs, that the Whitsuntide holiday would be shortened practically to a week, dating from Thursday or Friday week, according to the day on which the Irish Church Bill was reported. The Committee on the Bill was resumed at clause 30, which, as well as clause 31, was agreed to without amendment or comment. On clause 32, regulating the conditions for the sale of the tithe rentcharge to the landowners, Mr. FAWCETT moved as an amendment to omit all that part of the clause which relates to the redemption by instalments. After a discussion of several hours, the amendment was negatived without a division. Mr. FAWCETT then moved the omission of the clause. On a division the clause was carried by a majority of 148-181 to 33. Clause 33, after some discussion, was agreed to. Clause 34 was postponed. Clause 35 was agreed to. Clause 36, providing the compensation to the Presbyterian ministers, after some discussion on the precise amount of support given by the Irish Presbyterians to the Bill, was agreed to. Clause 37, providing the compensation to the Professors of the Belfast College by annuities, was struck out. Clause 38, relating to the commutation of the annuities, was agreed to. On Tuesday, at the first morning sitting of the session, the ATTORNEY-GENERAL stated that the Government had ascertained beyond a doubt that what he called the "deplorable language" attributed to the Mayor of Cork had been actually used by him, and that it was his intention immediately to bring in a Bill to disqualify him from holding any office in connection with the administration of the law in Cork or in Ireland. This communication was received with loud cheers from all parties, which were renewed when Mr. GLADSTONE added that he should ask the House on Wednesday to give precedence to the motion for introducing the proposed Bill. Mr. LOWE, in answer to Mr. CANDLISH, stated that by the latest accounts the total cost of the Abyssinian Expedition would be 8,700,000. Mr. GLADSTONE, in reply to a question relative to the Whitsun holidays, confessed that he had misapprehended the feeling of the House, and if the Irish Church Bill was reported on Thursday, the 13th, he was prepared to move the adjournment to that day fortnight, the 27th. The Marquis of HARTINGTON announced that in consequence of the unexpected opposition to the Post Office Savings Bank Bill, the Government intended to withdraw it. The House then went into Committee on the Irish Church Bill, resuming at the first of the Maynooth clauses repealing the Maynooth Act, "except the first three sections thereof" which relate to the constitution and powers of the Maynooth trustees. Mr. WHALLEY moved the omission of this exception, which, he contended, was not in accord with the speeches and pledges of the Liberal leaders last year. Mr. GLADSTONE denied emphatically that he had given any pledge to repeal the Maynooth Act. Mr. NEWDEGATE charged Mr. Whalley with having made the Maynooth question a laughing-stock, and with bringing the whole cause of Protestantism into disrepute. Mr. J. FEILDEN contended that both in the House and on the hustings Ministers had pledged themselves not to apply any portion of the property of the Church to the endowment of any other religious body. Sir J. PARKINGTON and Lord J. MANNERS supported the amendment, and after some remarks by Mr. C. FORTESCUE and other

members, the amendment was negatived by 324 to 196. Sir G. JENKINSON then moved to expunge that portion of the clause which provided that 11 times the annual payment to Maynooth should be appropriated in a lump sum to the College. After some discussion the debate was adjourned. Before the Chairman left the chair Mr. GLADSTONE announced the names of the Commissioners—Lord Monck, Mr. Justice Lawson, and Mr. G. A. Hamilton. At the evening sitting, Mr. HEADLAM submitted a resolution condemning as unworthy of a great nation our present practice of charging on home and foreign shipping the cost of lighting and buoying the shores of the United Kingdom. The motion was opposed by the CHANCELLOR of the EXCHEQUER and Mr. BRIGHT, and after some discussion it was withdrawn. On Wednesday, the orders of the day having been postponed for the purpose, the ATTORNEY-GENERAL for IRELAND moved for leave to bring in a Bill to deprive Mr. O'Sullivan of his office as Mayor of Cork, and to render him ineligible to act as a magistrate in that city or in any other place in Ireland. The measure was rendered necessary by the conduct of Mr. O'Sullivan on the bench, his publicly-expressed sympathy with the Fenians, his eulogiums of O'Farrell, who attempted the assassination of the Duke of Edinburgh in New South Wales, and of the Fenians engaged in the Manchester murder and the Clerkenwell outrage. It had been determined to proceed by a special Bill rather than by an *ex officio* information in the Court of Queen's Bench, because the latter course would have led to delay, whilst the introduction of a general measure, applying to all *ex officio* justices, for the offence of one man, would have been unreasonable and unjust. The precedent which the Government had decided upon following was the Act of George II., removing the Lord Provost of Edinburgh from his office, in consequence of neglecting to take the requisite precautions during the Porteous riots. Mr. BAGWELL and Mr. BOUVERIE expressed their opinion that it would have been wiser to have introduced a general rather than an exceptional measure. Sir F. HEYGATE said that the Government were responsible for having made the Bill necessary by releasing the Fenian convicts. Mr. G. H. MOORE, Mr. WALPOLE, Mr. HARCOURT, and Mr. NEWDEGATE recommended that evidence should be taken on oath, and that Mr. O'Sullivan himself should be heard. Sir J. GRAY deprecated undue haste, and Mr. MURPHY and Mr. MAGUIRE said that Mr. O'Sullivan was really not aware that he had used seditious language, and entirely repudiated having expressed sympathy with assassins. Mr. DISRAELI said that under the late Administration O'Sullivan had been dismissed from the county magistracy for seditious talk, but since that time a revolution had been commenced in Ireland, the gaols had been thrown open, assassins and traitors had been let loose, and the Mayor, therefore, might have believed that his profligate folly would not be reprobated. If the Attorney-General for Ireland had done his duty by prosecuting him, the House of Commons would not have been called on to consider this extraordinary proposal, though he could not refuse his assent to its introduction. No Bills of Pains and Penalties had ever been passed for spoken words, and Parliament had never been asked to pass such an unconstitutional measure on the *ipse dixit* of an Irish Attorney-General. After some remarks by Mr. C. FORTESCUE in defence of the policy of Government in exercising the clemency of the Crown towards certain selected Fenian convicts, Mr. GLADSTONE warmly defended the Attorney-General for Ireland from the contemptuous language of the leader of the Opposition, and said that he had never heard a personal taunt in that House more entirely out of place. Dr. BALL said that it was an alarming doctrine to convict and punish a man for a legal offence on unsworn testimony, and that the Bill should have been introduced in the Lords, where evidence could be taken on oath. After some remarks from the SOLICITOR-GENERAL, Mr. HENLEY, and Sir S. NORTHCOTE, Mr. BERESFORD HOPE, for the independent Conservatives below the gangway, expressed the regret they would feel if the front Opposition bench should seem to tamper with treason for the sake of a party triumph. Mr. HARDY and Lord J. MANNERS admitted that there was no complete remedy in law for the necessities of the case, and said that there was no disposition on the front bench to impede the Government in removing a crying and outrageous evil. After some further discussion the Bill was brought in and read a first time. Resolutions were also agreed to for the communication of the Bill to Mr. O'Sullivan and the production of evidence at the bar. Mr. CARNEGIE moved the second reading of the Bill for abolishing the Scotch law of hypothec. Lord ELCHO moved to delay its further consideration until a Committee of the House of Lords sitting on the subject had reported. Mr. GRAHAM supported the Bill, and Mr. CAMERON was speaking against it when the hour of adjournment arrived. On Thursday the House resumed, in Committee, the consideration of the 39th clause of the Irish Church Bill, providing compensation for the cessation of the grant to Maynooth, and Sir G. JENKINSON's amendment, which raised the question whether the compensation shall be paid out of the funds of the Irish Church or from the Consolidated Fund. Colonel BARTLELOT supported the amendment, and said that Mr. Gladstone, when in Opposition, had distinctly declared that no portion of the surplus property of the Irish Church was to be devoted to the endowment of Maynooth. Mr. GLADSTONE disclaimed having used any expression which could bear such an interpretation, and taunted the Opposition with endeavouring to make use of a popular religious prejudice to deprive Maynooth of all compensation, after having voted about 800,000*l.* to the Presbyterians without

objection. Sir J. D. ELPHINSTONE declared that he had been known in Scotland that Maynooth was endowed out of the plunder of the Church. The views of the late general election in that country have been very different. Mr. H. A. HERRING said that the Establishment was to be supported for its religious purpose. Mr. J. LOWTHER said that he would rather see every shilling of the property of the Church shovelled into St. George's Church, than any portion of it to Maynooth. Mr. W. J. WILSON expressed his willingness, upon certain terms, to support the compensation out of the Consolidated Fund. Mr. M'LAREN and the LORD-ADVOCATE, of Scotland, strongly objected to such a course. Mr. HEYGATE said he felt bound to support the amendment after the House had sanctioned the proposal of compensating the Presbyterians. Mr. BRIGHT denied that it was an Irish purpose to give the British tax-payer a charge of over 800,000*l.* Mr. BRIGHT predicted that if the amendment were carried Maynooth would get no compensation, and denounced it as a special manifestation of hostility to the Roman Catholics which distinguished the Conservative party. Mr. BRIGHT claimed for the Conservative party the credit of proposing an increase in the endowment to 1,000,000*l.* and expressed his willingness to give any other form, although not the form proposed, to the scheme of the Government as tantamount to an endowment. Mr. C. FORTESCUE replied by pointing out the historical fact that when Sir Robert Peel proposed to increase the grant to Maynooth, he was rejected by Mr. Disraeli. After some further discussion on a division the amendment of Sir G. Jenkinson was rejected by 318 to 192, being a majority of 126. Mr. AYTOUN next moved an amendment to substitute for the grant of a lump sum a grant compensating the individual life interests of the students. He maintained that the endowment constituted a re-endowment, and that the Roman Catholics were treated with exceptional favour. The amendment was supported by Major W. W. WYNDHAM, and Mr. WHALLEY. Mr. GLADSTONE opposed it, and said that it was not possible to deal directly with the Roman Catholics and students. He denied emphatically that Roman Catholics had been treated more favourably than the Episcopalians and Presbyterians. He said that as Trinity College must avowedly be supported with next year, its friends should be careful not to lay down principles which might then be applied against them. Sir S. NORTHCOTE, Mr. NEWDEGATE, and Lord C. HAMILTON supported the amendment. The SOLICITOR-GENERAL opposed it, Mr. BRIGHT being unable to obtain a hearing, moved to suspend the progress, and, pressing his motion to a division, was beaten by a majority of 170-343 to 173. The amendment was rejected by 107-305 to 198. The amendments by Sir G. Jenkinson and Mr. W. J. WILSON were subsequently withdrawn, and the clause agreed to. Rapid progress was subsequently made, clauses from 40 to 57 inclusive were agreed to, reaching clause 53, relating to enactments respecting vacant sees, the Chairman, on the motion of Mr. BRUCE, was directed to report progress. The Regulation Bill was read a second time. The motion of the ATTORNEY-GENERAL for leave to attend on Tuesday next, of certain witnesses in the matter of the Mayor of Cork, and the Attorney-General was authorised to appoint counsel to attend on the occasion. Yesterday the House again went into Committee on the Irish Church Bill, and agreed to the 58th clause, after an amendment by Mr. C. FORTESCUE enabling spiritual peers to sit in the House until 1871, had been negatived without a division. The 59th clause, providing that the surplus of the 59th clause, providing that the surplus of the 59th clause, applied to hospitals, reformatories, and asylums. Mr. PIM moved an amendment that it be applied to purchase glebes and build glebe houses for the poor and clergy of the Episcopal, Roman Catholic, and Presbyterian bodies. Mr. GLADSTONE opposed the amendment, which, after a long discussion, was withdrawn. Other amendments, relating to the application of a surplus, were withdrawn. The House was adjourned.

City Intelligence.

BANK RATE OF DISCOUNT.—The Bank of England on Thursday, raised their rate of discount from 4 per cent., at which it was fixed on April 1, to 4 1/2 per cent.

MONEY MARKET, FRIDAY.—BRITISH CONSOLS closed at 92 1/2 to 92 3/4 for Money, and 92 1/2 for Account; New and Reduced Three per Cent. Consols at 91 1/2; Exchequer Bills, par to 5s. pm. Local Bills, 114 1/2 to 114 1/2. FOREIGN. Peruvian Bonds, 114 1/2 to 114 1/2. Ditto Egyptian (1864) Bonds, 85 1/2 to 84. Ditto Egyptian (1865) Bonds, 79 1/2 to 79 1/2. Viceroy's Seven per Cent., 79 1/2 to 79 1/2. Nine per Cent., 96 1/2 to 97 1/2. Ditto Railway, 98 1/2 to 98 1/2. Italian, 56 to 56 1/2. Tobacco, 86 1/2 to 86 1/2. Russian (1862), 83 1/2 to 84 1/2. Ore, 77 1/2 to 77 1/2. Nicolas, 63 1/2 to 64. Moscow, 78 1/2 to 78 1/2. Charkof, 76 1/2 to 76 1/2. Spanish, 28 to 28 1/2. Turkish, 42 to 42 1/2. Ditto Six per Cent., 42 to 42 1/2. United States 5-20 Bonds, 79 1/2 to 79 1/2. Illinois, 98 1/2.

Metropolis and its Vicinity

THE IRISH CHURCH BILL.—A great meeting in support of the United Church of England and Ireland was held on Monday at St. James's Hall, under the auspices of the National Protestant Union, and presided over by the National Union of Conservative Associations, and by various metropolitan Protestant and Catholic Societies. The Earl of Harrowby, Lord

and among others on the platform were the Duke of Marlborough, K.G., the Duke of Abercorn, Lord George Hamilton, M.P., Right Hon Sir...

That the measure as now proposed is subversive of rights and interests secured by fundamental laws and by international treaty, and would inflict grievous and oppression upon our Protestant brethren in Ireland...

That the measure as now proposed is subversive of rights and interests secured by fundamental laws and by international treaty, and would inflict grievous and oppression upon our Protestant brethren in Ireland...

CONFIRMATION OF THE ROYAL ACADEMY EXHIBITION. The view of the Exhibition for the present place on Friday in the new buildings of the Academy at Burlington House...

PERMISSIVE PROHIBITORY LIQUOR BILL.—A demonstration in favour of this Bill, now before the House of Commons, was held on Tuesday night, in St. James's Church, London...

was densely crowded, and the audience was of the most enthusiastic character. Amongst those on the platform were Archbishop Manning, Sir Wilford Lawson, M.P., Dr. Brewer, M.P., Mr. Biske, M.P., Mr. Dalway, M.P., Mr. G. Morgan, M.P., Mr. Whitworth, M.P., Mr. S. Pope, Recorder of Bolton, &c.

That this meeting was happily expressed with the fact that the drinking of spirits and other intoxicating liquors is the cause of the drinking system of the nation...

Fifteen years ago the United Kingdom Alliance was formed at Manchester to endeavour to remedy the great evil of intemperance. After many obstacles had been overcome, the prohibitory principles of the Alliance were first sounded in the House of Commons in 1860...

PROPOSED CITY MEMORIAL TO THE PRINCE CONSORT.—The Court of Common Council sat last week with closed doors to consider the subject of the proposed memorial to the Prince Consort, and discussed it at considerable length. After a long discussion Mr. Bedford's motion to place a stained glass memorial window at the western end of Guildhall was adopted.

THE SOMALI CAPTIVES.—The following dispatch has been received at the Foreign Office from Mr H. A. Churchil, C.B., her Majesty's political agent and consul at Zanzibar, dated Zanzibar, Feb 19, 1869...

has been received at the Foreign Office from Mr H. A. Churchil, C.B., her Majesty's political agent and consul at Zanzibar, dated Zanzibar, Feb 19, 1869. Sir—I have the honour to report that Mr Heale, the gentleman who was at Brava, has lately written to me to say that he has been unable to learn anything respecting the...

RAINFALL MARRIAGE PORTION.—The portion of 100l left by Mr. Henry Raines, the brewer, to be drawn for on the 1st of May by girls of good character in St. George's East, has been this year unclaimed. Neither drawing nor wedding will take place this year.

EMIGRATION OF WOOLWICH WORKMEN.—On Friday morning another batch of men, women, and children left Woolwich for Portsmouth to join her Majesty's ship Serapis, for Canada. Their number was 140, and they assembled at Woolwich Arsenal station at eight o'clock.

FIRE IN MINCING LANE.—A destructive fire took place on Monday morning in Mincing Lane. It broke out in the warehouse of Messrs. Brookes & Tait, colonial brokers, which, together with the offices of other merchants, were almost entirely destroyed or much injured.

THE MERCHANTS COMPANY (LIMITED).—At the Mansion House on Friday Messrs. R. S. Lane, Horace Edward Chapman, and Frederick John Helbert-Holbert, three directors of the Merchants Company, again surrendered to their bail before the Lord Mayor on the charge of conspiracy.

CENSATION OF THE 'EXPRESS'.—The Express evening paper appeared for the last time on Friday. A brief farewell to its readers informed them that the publication of an evening newspaper being found inconsistent with the arrangements called for by the extending circulation of the Daily News, the Express would cease to appear after that evening.

THE ENGLISH JOINT STOCK BANK.—Mr Finney, general manager of this bank, charged with making false entries in the books, &c., with intent to defraud, underwent a second examination last week before the Lord Mayor. A considerable amount of evidence was taken, and the accused was again remanded on bail.

THE CENTRAL GAS COMPANY.—At the Court of Common Council on Friday a motion for inquiry into the responsibility of the Corporation in respect to the audit of the Great Central Gas Committee, in connection with the recent frauds of Mr. Higgs, was discussed. It appeared that under the Act of Parliament the Corporation had the duty imposed upon it of appointing auditors, which had been regularly done, but in such a way as to render that duty a mere form.

THE COBNHILL BURGLARY.—In 1865 an extensive burglary was effected on the premises of Mr. Walker, Cornhill. The thieves were brought to justice, and in the chest of one of them were found 59 watches, and 340l. in notes and gold. Among the property stolen were 70 sovereigns, and after the trial the Recorder ordered the 50 watches and 70l. out of the money found in the chest to be paid to Mr. Walker. His loss, however, was very much larger, and believing the whole of the cash to form part of the proceeds of his robbery, he applied for that also.

THE PUBLIC HEALTH.—The Registrar-General's Weekly Report states that in the week that ended on Saturday, May 1, 1692 births and 2955 deaths were registered in London and in 13 other large towns of the United Kingdom, being 21 per 1000 in London, 30 in Edinburgh, 23 in Dublin, 20 in Bristol, 19 in Birmingham, 25 in Liverpool, 27 in Manchester, 22 in Salford, 27 in Sheffield, 31 in Bradford, 22 in Leeds, 25 in Hull, 28 in Newcastle-upon-Tyne, and 31 in Glasgow. The rate in Vienna was 33 per 1000 during the week ending the 24th ult., and in Berlin 32 per 1000 during the seven days ending the 29th ult. In London the births of 1092 boys and 1073 girls, in all 2165 children,

were registered in the week. In the corresponding weeks of 10 years 1859-68, the average number, corrected for increase of population, was 2233. The deaths registered in London during the week were 1288. It was the 17th week of the year, and the average number for that week, corrected for increase of population, was 1459. The present return is, therefore, 171 below the estimated amount.

Provincial.

ALBURY.—On Friday night a fire broke out at Albury Park, the Surrey residence of the Duke of Northumberland, which for many months past has been undergoing extensive repairs. The house is furnished with electric bells, and one of these, acted upon by the fire, first gave warning of the danger to the housekeeper, who speedily aroused the other domestics. It was then found that the roof of the south front was on fire, and that the flames were rapidly spreading. Assistance was promptly rendered by persons in the neighbourhood, and a good supply of water being obtained from a reservoir near the house, great exertions were made to subdue the fire. The Guildford Volunteer Fire Brigade, accompanied by their superintendent, speedily arrived with a powerful engine, but found that the fire had been got under by the exertions of those on the spot, though not before a great portion of the roof had been destroyed, and several rooms, recently rebuilt and finished at great cost, had been much damaged by fire and water. The Duke, who was staying at Northumberland House, was apprised by telegraph of the occurrence, and, accompanied by the Duchess and Lord Percy, arrived at Albury at 4 o'clock on Saturday morning, by special train, but all danger of a further outbreak or extension of the fire then appeared to be at an end. Another fire, however, broke out on Saturday night. The house watchman was going his rounds about 12 o'clock, when he heard a peculiar crackling noise, and on searching for its cause discovered that a bedroom filled with costly furniture was on fire. He immediately gave an alarm, and all the available assistance on the estate was promptly rendered. The Duke and his son, Lord Percy, took an energetic share in endeavouring to save the house from destruction. The Guildford Brigade, which had left early in the morning, under the supposition that all danger was over, was again summoned. Although greatly fatigued from their exertions of the previous night, the firemen, with their superintendent, were on their way to Albury with an engine in less than 20 minutes. On reaching the house they found the fire nearly subdued by those on the spot. They, however, made use of their engine to pump a supply of water into a reservoir, and also removed furniture from different parts of the house. Fortunately, the fire raged for only a short time, the building being for the most part fire-proof. A bed and a chest of drawers were consumed, and the apartment was charred and blackened by the action of the smoke. This second fire occurred in a different part of the building from that which was the scene of the first outbreak, with which it was in no way connected. This circumstance, coupled with the fact of a recent fire at Northumberland House, and another at Alnwick Castle, has induced a general belief that all these fires must have been the work of an incendiary.

BANGOR.—Mr. Eccles, chief detective of the London and North-Western Railway, assisted by the local Superintendent of Police, has discovered a nest of robberies which is likely to relieve the railway company of much anxiety for the future. Through Bangor pass much valuable goods from England to Dublin, and as several trains have to remain there for hours, it is of the greatest importance that the railway officials at that station should be honest. It has been found that a young man named Wilson, employed at the station, has been concerned in a series of railway robberies, and that a hitherto respectable tradesman of Bangor named Hughes has been an accomplice. The floors of his residence, within 50 yards of the Bangor station, were found last week to be receptacles of valuable property, consisting of gold and silver watches, to the value of several hundred pounds, watchguards of every description, ladies' and gentlemen's gold and silver articles of fancy; in fact, from the uppermost storey to the lowest basement the floors were found to be one great *entrepôt* of gold and silver articles, the result of several robberies. Among the articles found were portions of a box sent by Mr. Aronson, of Bangor, to Southampton, for exportation to Australia, containing nearly 6000l. worth of property, as follows:—Six gold hunting watches, 12 silver hunting watches with enamelled dials, 24 silver watches, plate glass enamelled dials, 29 silver hunting watches—all Geneva; 36 hunting watches, five gold hunting watches, a very small gold hunting watch—all gentlemen's watches; 13 gold hunting watches for ladies, 25 gold watchguards for the neck, 36 silver chains, 45 foreign made neck ornaments. The box also contained Hebrew and English prayer-books expensively bound in gold. The box was of wood, inlaid with tin, securely fastened, and weighed 60 lb. Mr. Aronson some time ago lost another box, containing various gold and silver articles, which he had sent to Birmingham for alteration and repairs. Among the result of the robberies were found pieces of coin of James I. and James II., spade guineas of George I., half-guinea piece, seals, &c., the property of Archdeacon Wynne Jones, Anglesey. The police are prosecuting their inquiries further both in Hughes' and Wilson's residences. Hughes, his wife, and Wilson have been lodged in the county gaol to await further investigation. It is alleged that Hughes' wife was in Paris at the time of Aronson's robbery.

BIRMINGHAM.—At the meeting of the board of guardians on Wednesday, an application was received from the Roman Catholic minister for permis-

sion for nuns to visit the workhouse to instruct the Roman Catholic children and read to the Roman Catholic patients. There are about 500 Roman Catholics in the workhouse. The general purposes committee had resolved, by a majority of 13 to 3, to recommend the board to grant the application. It was, however, rejected by a majority of 22 to 14.

BOLTON.—On Tuesday evening, at a circus performance in this town, the female Blondin was crossing a rope 60 feet high when she missed her footing. She fell, grasped the rope with her hands, and was afterwards caught by the crowd below. Ten thousand persons witnessed the spectacle amid intense excitement. She escaped with little injury.

CAMELFORD.—The adjourned inquest on the persons killed in the late accident at the Delabole slate quarries was held on Friday, before the county coroner. Among the witnesses examined was Captain Williams, of Charlestown United Mines, who had inspected the quarry since the accident. He stated that in his opinion the catastrophe occurred through faults in the stratification of the rock. He did not consider that any blame was attributable to the managers. The jury took this view of the case, and returned a verdict accordingly. It was stated that the mode of working the quarry is to be altered.

ISLE OF MAN.—On Monday night the weather at Douglas became so boisterous that it was feared Prince Arthur would not proceed on his voyage to this island, and messengers were frequently sent to Peel at an early hour on Tuesday morning to ascertain the state of the harbour at the east of the island, as landing at Douglas was quite out of the question. The governor set out in the *Snaefell* at 5 A.M., to look for the *Vivid*, intending to bring the Royal yacht to the breakwater at Port Erin for the landing; and, accordingly, at half-past 1 o'clock the *Vivid* steamed into port and the Prince disembarked. His Royal Highness met with a hearty reception from a large number of spectators, who had congregated at every available spot. The weather cleared up at the time, and the Prince, accompanied by the governor, went to Castletown, and thence to Douglas, where he was greeted with the greatest enthusiasm. There was a ball in the Castle Mona Hotel at night, and the town was illuminated. On Wednesday the Prince left for Liverpool. It was the intention of his Royal Highness to have left on Tuesday evening, but the roughness of the weather induced him to prolong his stay in the island, where he was most loyally and enthusiastically received.

LEAMINGTON.—Lord Somerville, who unexpectedly succeeded to the title in November last, in consequence of the death of his cousin from an accident in the hunting field, has just arrived in England from Australia, in which colony he has resided for several years.

MANCHESTER.—The Home Secretary has appointed Mr. Francis J. Headlam, of the Northern Circuit, to be the stipendiary magistrate for Manchester.

MERTHYR.—The Government have offered a reward of 1000l. to any person who will give such information as may lead to the conviction of the murderer, and a free pardon to any accomplice who will divulge the facts connected with the recent murder near this town. The police have not yet obtained the slightest clue to the murderer.

NEWCASTLE-ON-TYNE.—Mr. Rupert Kettle, county court judge, has succeeded in arbitrating between the masters and men in the north of England iron trade. The result was a small advance in the rate of payment of the workmen, which was to come into operation on Monday. The decision has been accepted by the Board of Arbitration and Conciliation, composed of both masters and workmen, who on Saturday passed the following resolution:—

"This board desires to record its sense of the great services rendered by Mr. Kettle to the manufactured iron trade of the north of England by his able and impartial investigation of the important question submitted to him, and by the suggestions and guidance which have led to an amicable adjustment of the matter."

TADCASTRE.—Bramham College for Dissenters, near this town, has been suffering seriously from the ravages of typhus fever. Numbers of the pupils are "down" from the disease, and two Leeds youths who were being educated there have died from it. The cause of this sickness is said to be the accidental percolation of deleterious matter through the earth into the well from whence water was drawn for drinking purposes in the college. There are about 100 pupils belonging to the college, of whom no fewer than 40 have suffered from fever, and four have died. The college is at present closed; but it is expected to be re-opened shortly.

THETFORD.—The Maharajah Dhuleep Singh has been adding considerably to a noble collection of rare and foreign birds which he has formed at his seat at Elveden. He has also been forming a menagerie, and a herd of antelopes has just been added to it. A member of the Barr family is still with the Maharajah as falconer.

TREURO.—The continued emigration of miners from Cornwall threatens to affect the future working of the mines in the county. Week after week for some time the exodus has been so considerable, that labour is now becoming scarce. The emigrants, for the past month or so, have consisted of miners in employment, but who have been much dissatisfied with the rate of wages; and there appears to be a growing feeling, among those engaged in the tin mines especially, that, considering the great improvement in the price of tin, they ought to have some share of the profits, whereas their wages have not been improved. Another inducement for the Cornish miners to emigrate is the reported prosperity of mining in Australia and America.

YORK.—The Government Bill before the House of Commons proposes to enact that at and after the next appointment of sheriffs, there shall be a sheriff for

West Yorkshire, consisting of the West Riding, the East Riding, and the West Riding, but is annexed to the West Riding, for the purpose of the election of members of the sheriff for that Riding, is, for all purposes of such election, to be within the jurisdiction of the sheriff of East Yorkshire alone, and be deemed to be his county. The castle of York may continue to be used as a prison for East Yorkshire and West Yorkshire.

Ireland.

PRINCE ARTHUR visited Belfast on Saturday, received an address from the Corporation of Queen's College, and received another address from the Corporation of the City of Belfast. He met with an enthusiastic reception at the Royal Highness visited the Brookfield Hotel at Belfast, dined at the Imperial Hotel, and the ball at the Ulster Hall in the evening. The Prince went on board the *Vivid*, and immediately left for the Isle of Man.

PROCLAMATION OF DERRY.—The city of Derry has been "proclaimed," in consequence of the Lord Lieutenant's proclamation, issued under the operation of the Peace Preservation Act, which appeared in an *Extra Gazette* of Saturday. The persons killed in the riot, in a verdict, after three hours' deliberation, were found to have been killed by the constabulary. The authorities were blamed for insufficient precautions for the preservation of peace. The constabulary, who received no treatment during the evening, were censured without warning on the crowd. An open return relative to the death of Craig.

THE MAYOR OF CORK.—At the week meeting of the Town Council on Friday Alderman Lyons suggested the Mayor in reference to the words about O'Farrell at the recent banquet. He repudiated the right of anybody, except the Mayor, to call him to account, but said he meant to convey that O'Farrell may have been a pure, high-minded, and honourable man. He did not know, but he durst say he was so. He repudiated any sympathy with assassination, and would not deny the possession of honourable motives by any countryman, not even to the men hanged at Chester, or to Barrett, the supposed author of the Clerkenwell explosion. Alderman Lyons said the Mayor repudiated the report of his speech in the possible way he could not continue to sit on the public board. After a warm discussion the meeting adjourned, deferring any further action pending the meeting of the Government. On Saturday, at the police Bench refused to acknowledge the Mayor's charge-sheet, and he refused to take it by force. A riotous uproar ensued, and the sheet was torn in pieces. The Mayor said he would get all the magistrates suspended, and a paid barrister appointed. In the evening a large meeting of the city magistrates, presided by Lord Fermoy, lord-lieutenant of the county, passed a unanimous resolution, representing the dangerous conduct of the Mayor, and requesting the Government to take immediate proceedings for the life and property, and to appease the now existing insecurity. On Sunday a large open-air meeting was held in the Park, to express sympathy with the Mayor, and about 2000 young men marched to it in a procession with band and colours. Two resolutions were passed, expressing confidence in the Mayor and his "persecutors." Placards were posted in the city, and Alderman Lyons as a traitor, spy, and infidel. At night the Mayor addressed a meeting in Messrs. Gladstone and Bright's Theatre, burnt in honour of the Mayor, and there were rejoicings. On Monday morning the Mayor appeared at the police-court at half-past nine o'clock, at the usual hour, and, in the absence of the Mayor, were the prosecutors, discharged the Mayor and his friends were in custody for drunkenness. During the night Alderman Lyons received a letter through the post, informing him that his opposition to the Mayor had brought upon him a decree that he should be taken to the public streets before the 15th of the month, and warning him of the fate of Bradshaw, who was executed for the same offence. On Thursday the Mayor served personally in Dublin with a copy of the Bill and the notice of the order for the second reading. He returned to Cork yesterday and discharged the persons imprisoned for drunkenness and disorderly conduct. A meeting in his favour is to be held tomorrow, and the Town Council have resolved to support the Removal Bill as unconstitutional by the bar of the House. The Mayor has announced himself a candidate for Youghal.

ROBBERY OF ARMS AT CORK.—On Saturday night, while the family were at church, Mr. John Paul, in Dean Street, was robbed of three burglars, who, having opened the door with a latch key, entered with revolvers in their hands. They threatened the female servant, and searched the house, carried off a seven-barrelled revolver and a double-barrelled pistol. Eugene Ferris was arrested at Cork on Monday night, on suspicion of being concerned in the robbery, but was surrounded by a crowd in the street, effected his escape in the confusion, breaking the handcuffs. On Tuesday, at midnight, a party of men entered the premises of Mr. Cooney, in Cork, and presenting revolvers, terrified the occupants, charge into giving them the keys. They then searched several other boxes with the same address, and

The Gardeners' Chronicle Newspaper.

SATURDAY, MAY 15, 1869.

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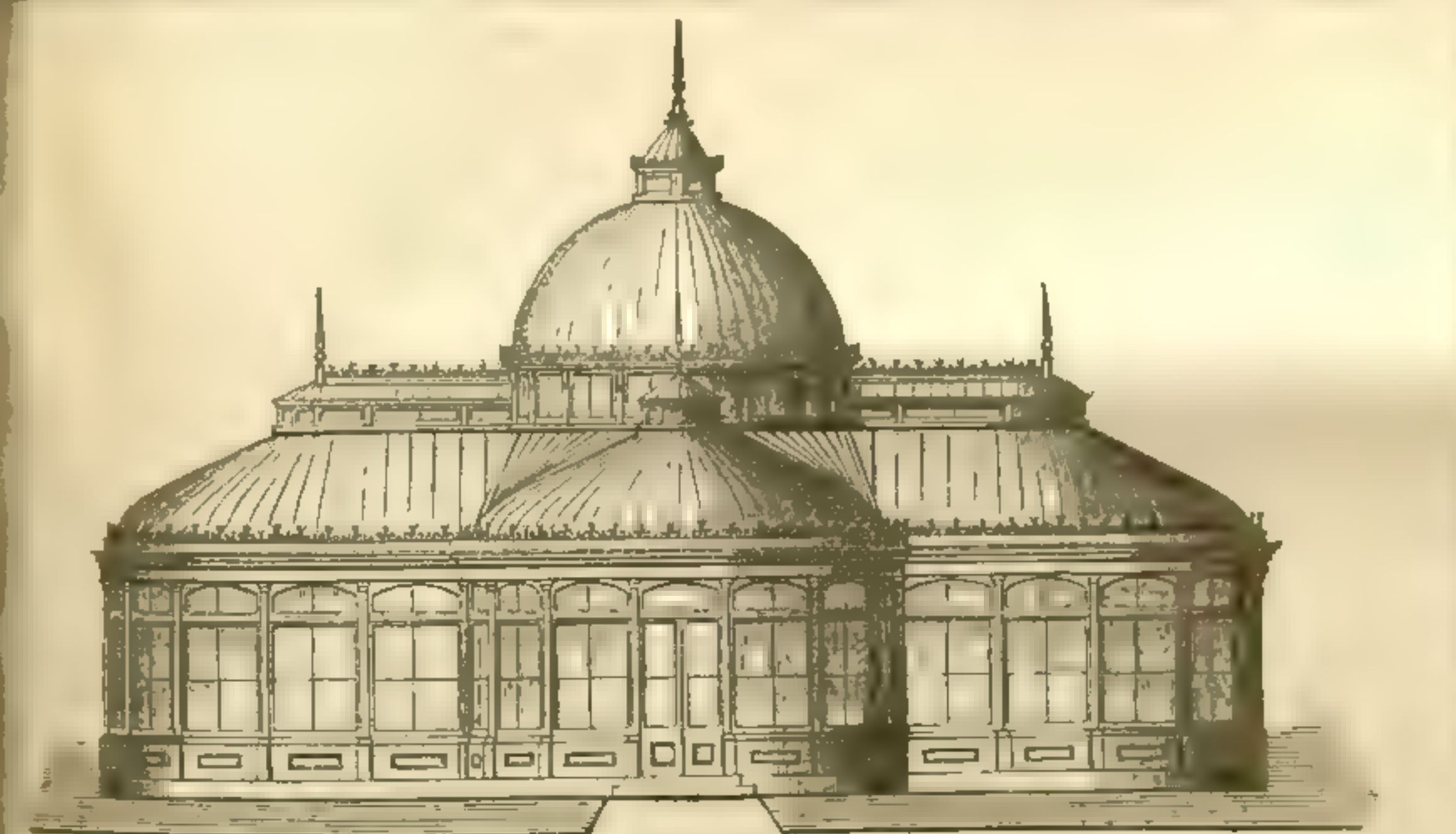
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...to have forced him to retire. ...of the Liberal section of the town council ...Thursday, Mr. J. Murphy, brewer, was chosen ...in the room of Mr. O'Sullivan. The Fenians, ...is not sufficiently extreme in his views ...venturous enough in his actions. A mass ...been organised for to-morrow, to sym- ...Mr. O'Sullivan and take measures to return ...independent and "justice-loving" chief ...Albermarly Lyons has received two more ...him with death. Town Councillor ...attorney for Fenian prisoners, has also ...letter as a traitor to Ireland.

COUNCIL CREMATION IN DUBLIN.—The ...were removed yesterday to the ...erected in Glasnevin Cemetery. The ...was of a religious character. More than ...were present.

MURDER OF MR. BRADSHAW.—The *Limerick* ...states, upon reliable authority, that the ...of Mr. Bradshaw, of Philipstown House, ...was one of an agrarian, and not of any other ...and that one of the leading solicitors of that ...received instructions to take legal proceedings ...several English and Irish journals for libel ...in those newspapers having reference to ...of Mr. Bradshaw's family, and that the ...to counsel are in preparation.

MURDER OF MR. ANKETELL.—Two men ...Murray, father and son, have been arrested on ...of being implicated in the murder of Mr. ...the station-master at Mullingar. Both were ...at the Junction, where the elder had held a ...though subordinate position for several ...They were arrested in consequence of informa- ...the particulars of which are still kept secret, ...by a woman named Brown, who lodged in their ...Popular feeling ran so high against this ...in consequence, that she had to be removed ...under police escort to Dublin.

AGRIAN OUTRAGES.—Mr. H. C. Curry, ...of Carry Lodge, Leitrim, was fired at on the ...last when returning home from a friend's ...in the county of Cavan, but escaped without ...The cause of the outrage is not known. A ...named Horan, living about 10 miles from Ennis, ...at and wounded by another farmer named ...Kean, because he proposed to hand over to his son- ...a portion of unclaimed bog which had been in ...Kean's possession. M'Kean has absconded.—A ...outrage occurred near Virginia, Co. Cavan, ...on Tuesday night. As Mr. Hugh Brady, agent to Dr. ...atpatrick, of London, was returning home, accom- ...panied by two friends, he was fired at, and severely ...wounded. He fell to the ground insensible, but hopes ...to be recovered that his life may be saved. No clue to ...the perpetrator of the outrage has been obtained.

ROBBERY OF FIREARMS AT BELFAST.—A ...number of firearms recently stolen from the ...possession of Mr. O'Neil, in Belfast, were recovered ...on Saturday, through a boy having presented one of ...the pistols for pawn at a pawn-shop. A constable was at ...the time inquiring in the shop for other stolen prop- ...erty, and took the boy into custody. He endeavoured ...to escape, but was recaptured, and a search in his ...house discovered the weapons concealed under ...the floor of a room.

ROBBERY OF ARMS IN CORK.—Three ...men were arrested on Wednesday morning on a charge ...of taking a revolver from Professor O'Leary, of ...St. John's College, Cork, on Sunday evening.

ROBBERY OF A RIBBON LODGE.—The police on ...Saturday entered a house in Mullingar, where they ...discovered a Ribbon Lodge met. They discovered ...the documents and arrested one man, but the ...others escaped.

THE DERBY RIOTS.—Information has been sworn ...by William Murphy, one of the persons wounded in ...the Derby riots, in which he positively identifies an ...apprentice-boy named Barker as having fired the ...shot by which Craig was killed. Barker has been ...sentenced to jail.

THE DROGHEDA ELECTION RIOTS.—The trial of ...Private Rumble, 9th Regiment, for the manslaughter ...of James Woods during the election riots at Drogheda ...on Wednesday 20, took place on Thursday in the ...County Bench. A party of the 9th Regiment, with ...hussars, while escorting a body of ...electors, were violently attacked by a ...party of many of the soldiers and voters severely ...wounded. Two shots were fired by the soldiers without ...effect, one of which killed Woods. Private Bonello ...the traverser were originally arrested, but Bonello ...was discharged and Rumble sent for trial. He was ...sentenced by Mr. J. Butt. The evidence was conflicting, ...and the outrageous conduct of the mob was clearly ...proved by several witnesses. After five minutes' con- ...sideration the jury returned a verdict of acquittal.

SEVERAL CARRIAGES. Several passengers were seriously ...injured. Mr. Nimmo, a guard on the Great Northern, ...had a fractured leg and other injuries; his son had an ...arm and leg broken, and Mr. John Easton, clerk in the ...City of Glasgow Bank, sustained a compound fracture ...of the left leg, from the effects of which he died on ...Monday at York. The guard of the train was also ...seriously injured.

ACCIDENT ON THE GLASGOW AND SOUTH-WEST- ...ERN.—On Saturday morning, while a goods-train ...was shunting at the Greta Green Station, it ran off ...the line. Before it could be got back again, a pas- ...senger-train from Carlisle came up, and dashed into ...it, splitting several of the wagons to pieces. The ...passengers, although much shaken, were not seriously ...injured, but the engine and tender rolled down the ...embankment, and overturned. The engine-man and ...fireman escaped without injury. The fireman was ...found lying among the coals of the overturned tender, ...apparently very little the worse for his fall.

ATTEMPT TO UPSET TRAINS.—A reward of 10l ...has been offered by the North-Eastern Company, at Hartle- ...pool, for the detection of some person or persons who, ...on Friday last, placed a large stone on the connecting ...line between the towns, by which a passenger train ...narrowly escaped being thrown off the rails into Mid- ...dleton Slake. At the Shire Hall, Nottingham, on ...Saturday, two boys, named Morson, 13, and Bryan, 9 ...years of age, were charged with placing two chairs on ...the railway at Sutton Bonington, thereby endangering ...the safety of the trains. On Friday morning the driver ...of a train passing Sutton Bonington saw a chair on the ...line, and stopped the engine to take it off. On the ...evening of the same day another train was obstructed ...by something which was afterwards found to be a ..."chair." The prisoners, who had been seen near the ...line during the day, were suspected and subsequently ...apprehended, and, after some hesitation, they said they ...were guilty. In reply to the magistrate, the younger ...prisoner said his companion had threatened to "clink ...his ear-hole" if he did not put one of the "chairs" ...on the line. They were both committed for trial.— ...Joseph Lane, a beer-shop keeper in Sheepcote Lane, ...Battersea, was again brought up last week at Wand- ...sworth police-station, on the charge of having placed ...sleepers on the South-Western line, near Clapham ...Junction. The magistrate, after hearing all the ...evidence, said he did not think the defendant had ...anything to do with placing the sleepers on the line, ...but the charge of trespassing had been clearly proved. ...He fined the defendant 20s.

ATTEMPT TO AN EXPRESS ON THE NORTH- ...WESTERN.—On Sunday morning the Scotch express ...was derailed at Thirk station, smashing

several carriages. Several passengers were seriously ...injured. Mr. Nimmo, a guard on the Great Northern, ...had a fractured leg and other injuries; his son had an ...arm and leg broken, and Mr. John Easton, clerk in the ...City of Glasgow Bank, sustained a compound fracture ...of the left leg, from the effects of which he died on ...Monday at York. The guard of the train was also ...seriously injured.

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Obituary.

THE DOWAGER LADY HENLEY died on Friday at Brighton, ...in her 67th year. She was the youngest and last surviving ...daughter of Sir Robert Peel, the first baronet, and sister of the ...late Right Hon. Sir Robert Peel, Bart., the Right Hon. ...William Yates Peel, General Peel, and the Very Rev. J. Peel, ...Dean of Worcester. She married, in 1823, the second Baron ...Henley, in the Peerage of Ireland, by whom she had two sons, ...both of whom are living, Lord Henley, M.P. for Northampton, ...and the Hon. and Rev. Robert Henley, perpetual curate of ...Putney.

THE ARCHDEACON OF CANTERBURY (the Venorable J. Croft, ...M.A.) died on Monday, at the age of 85. He was one of the ...oldest clergymen in England. He was educated at St. John's ...College, Cambridge, where he took his B.A. degree in 1807. ...He had among his college contemporaries Sir Frederic Pollock, ...the late Lord Chief Baron of the Exchequer, who was senior ...wrangler in the year before Mr. Croft came out. Mr. Bicker- ...steth, afterwards Lord Langdale Master of the Rolls, who was ...senior wrangler in the following year. Mr. Blinfield, after- ...wards Bishop of London, being the third, and Mr. Altham, ...afterwards a Baron of the Exchequer, who was senior wrangler ...in 1809. In 1812, almost immediately after his ordination, he ...was presented by Archbishop Manners Sutton, whose daughter ...he had married, to the rectory of Saltwood, worth about 800l ...a year; and in 1818 the same private presented him to the ...rectory of Cuffe at Haslemere, near Reigate, which is returned ...in the Clergy List as being worth 1,200l a year. In 1822 he ...was presented by the same private to a canonical residentiary in ...Canterbury Cathedral, worth 1,000l a year, with the Arch- ...deaconry of Canterbury annexed, the archdeaconry itself being ...of comparatively small value.

SIR EDWARD ROBERT WETHERALL, Secretary for Ireland, ...died suddenly on Tuesday evening, from disease of the heart, ...at his official residence in Phoenix Park. He was the son of ...the late Sir George Augustus Wetherall, G.C.B., Governor of ...Sandhurst and grandson of General Sir Frederick Wetherall, ...G.C.H., both of whom had distinguished themselves in active ...service. He was educated in early life at the Naval and ...Military Academy in Edinburgh, and afterwards went to ...Sandhurst. He entered the army in 1834, and was for some ...years in the Scots Fusilier Guards, of which he became ...lieutenant-colonel. From 1857 to 1859 he served in Canada, ...and was present at the actions of St. Charles, St. Eustache, ...and Pointe Oliviere. He was shipwrecked with the Royal ...Regiment, in the transport *Prinier*. He served in the 3d ...Cavalry in the Crimea as assistant quartermaster-general at ...headquarters, and was present at the battles of the Alma, ...Balaclava, and Inkerman, and the siege and fall of Sebastopol. ...He also served at Kerch as deputy quartermaster-general of ...the Turkish Contingent. Subsequently he was charged with ...the reorganisation of the Land Transport Corps, being ap- ...pointed director-general of that force. For his services in the ...Crimea he was nominated a Companion of the Bath, was made ...a Knight of the Legion of Honour by the Emperor Napoleon ...III., and received the order of the Medjide and Turkish ...medal, with a medal and four clasps. He was subsequently ...attached to the staff in India, and served as deputy quar- ...termaster-general to the forces in China in 1867. In the same ...year he returned to India, in consequence of the mutiny, and ...was appointed chief of the staff of the Central India Field Force, ...commanded by General Sir Hugh Rose (now Lord Strathnairn). ...He was present in the actions at Koonah, Muttra, Golowlee, ...where his horse was shot under him, and at Calpee. He com- ...manded the South India Field Force in the campaign of 1858, ...and the troops at the attack and capture of the entrenched ...camp of Rumpora Kassa, and in all the subsequent operations ...of the campaign. For his services in the field he was made an ...aide-de-camp to the Queen, and was subsequently appointed ...chief of the staff in North America, and after serving the usual ...period returned home. He was also nominated a Knight ...Commander of the star of India. Just before Mr. Durnell ...retired from office Sir Edward Wetherall was appointed Under ...Secretary for Ireland, on the resignation of Sir T. A. Larcum. ...He married in 1847 the daughter of the late Mr. John Dunne, ...of Astley Hall, Lancashire.

WILLIAM.—The will of Field Marshal Viscount George late of ...St. Helen's, Booterstown, Dublin, has been sworn under ...11,000l. personalty in Ireland, and 7,000l. in England, being ...together under 40,000l. Sir John Thomas Hulseon Selwin, ...Bart., of Down Hall, near Harlow, Essex, 45,000l. Sir John ...Hadley D'Oyly, Bart., of Stapleton House, Blandford, 25,000l.

DEATH.—On the 7th inst., in his 74th year, SAMUEL ...STAFFORD, Nurseryman, Hyde, Manchester.

Markets.

COVENT GARDEN.—May 15. Demand and supply are about balanced, the cold wind ...having somewhat interfered with the latter. Flowers consist ...of Orchids, Lily of the Valley, Fuchsias, Wallflowers, Polyan- ...thuses, German Stocks, Spiraea japonica, Pelargoniums, Erica, ...Cavendishiana, Hydrangeas, shrubby Calceolarias, Roses, ...Azaleas, Pansies, Narcissus, and Ranunculuses.

Table with 2 columns: Fruit and Price. Includes Apples, Figs, Grapes, Kent Cobs, Lemons, Melons, Nectarines, Oranges, Peaches, Pears, Pine-apples, Strawberries.

Table with 2 columns: Vegetables and Price. Includes Artichokes, Beans, Broad, Beet, Carrots, Cauliflowers, Celery, Cucumbers, Endive, Garlic and Shallots, Herbs, Horse Radish, Lettuces, Mint, Mushrooms, Onions, Parsnips, Potatoes, Turnips.

ENGLISH WOOL. Trade has been very quiet, with no present symptoms of ...revival, and the large quantity of colonial wool (230,000 bales) ...now offering at public auction in London, and selling at very ...low prices, tends to increase the general discouragement.

Table with 3 columns: Current Prices of English Wool, per lb.—s. d. a. d. Includes Fleeces—Southdown hoggets, Half bred ditto, Kent Fleeces, Southdown ewes and wethers, Leicester ditto, Sorts—Clothing, Combing.

HAY.—Per Load of 26 Trusses. SMITHFIELD, Thursday, May 13.

Table with 2 columns: Hay and Price. Includes Best Green Hay, Prime Meadow Hay, Inferior do., New do., Straw, Clover, Prime new Clover, Inferior do.

CUMBERLAND MARKET, Thursday, May 13. Superior New Hay 114s to 120s, Inferior do. 90 to 105, New do. 85 to 90, Superior Clover 120 to 128.

LEADENHALL POULTRY, &c. THURSDAY, May 13. The poultry market has been excellently supplied during ...the past week with everything but buyers; the growth of the ...young spring poultry is very rapid and satisfactory. Trade ...very dull and heavy.

Table with 2 columns: Poultry and Price. Includes Geese, Goslings, Turkeys, Turkey pullets, Ducks, Ducklings, Surrey Fowls couple, Do chickens, Barred Poultry, Lovelocks, Pigeons, Tame Rabbits, Wild Rabbits, Wild Ducks, Pheasants, Hares, Plovers, English Eggs, Foreign do., Fresh Butter, Eggs.

HOPS.—BURGESS MARKET, May 14. Messrs. Patten & Smith report the market steady at ...late rates, the demand being good for the time of year.

METROPOLITAN CATTLE MARKET. MONDAY, MAY 13. We have a large increase in the supply of beasts, and con- ...sequently prices are rather lower for all descriptions. There ...is, however, a fair trade doing, and certain qualities still ...realise high rates. Sheep are also more plentiful, and ...trade is not so brisk as of late; a pretty good clearance is ...effected at our quotations. Calves and lambs are rather ...lower than on Thursday. Our foreign supply consists of 3134 ...Beasts, 12,910 Sheep, 108 Calves, and 5 Pigs, from Scotland ...there are 100 Beasts; from Ireland, 80; from Norfolk and ...Suffolk, 900; and 400 from the Midland and Home Counties.

Table with 2 columns: Cattle and Price. Includes Best Scots, Herefords, Best Shorthorns, 2d quality Beasts, Best Downs and Half-breds, Do Shorn, Best Long-wools, Do Shorn, Fwes & 2 1/2 quality, Do Shorn, Lambs, Calves, Pigs.

THURSDAY, May 13. The supply of Beasts is small, and consequently Monday's ...quotations are pretty well maintained, although trade is by ...no means brisk. Sheep are more plentiful, the demand is, ...however, good, and prices are not much altered for best ...qualities. Lambs are selling lower, and several lots remain ...unsold. Trade is dull for Calves at our quotations. Our foreign ...supply consists of 546 Beasts, 4230 Sheep, 303 Calves, and ...80 Pigs.

Table with 2 columns: Cattle and Price. Includes Best Scots, Herefords, Best Shorthorns, 2d quality Beasts, Best Downs and Half-breds, Do Shorn, Best Long-wools, Do Shorn, Fwes & 2 1/2 quality, Do Shorn, Lambs, Calves, Pigs.

METROPOLITAN MEAT MARKET.—May 15. Best Fresh Butter 14s per dozen lb., Second do do. 12s, Small Pork, 5s. 6d. to 5s. 8d.; Large Pork, 3s. 6d. to 4s. 6d. per 8 lb.

POTATOS.—SOUTHWARK, Monday, May 10.

During the past week the arrivals coastwise, by rail, and from abroad have been more than equal to the demand. The trade continues in the same languid state. Quotations—York Regents, per ton, 50s. to 90s.; do. Flukes, 50s. to 120s.; Lincolnshire Regents, 50s. to 80s.; Dunbar and East Lothian do., 60s. to 110s.; Perth, Forfar, and Fifo do., 5s. to 70s.; do. Rocks, 40s. to 50s.; French and Belgian whites, 35s. to 50s.

MARK LANE.—MONDAY, May 10.

There was a moderate supply of Wheat from Essex and Kent to this morning's market, which was cleared at the extreme prices of this day so'nnight. The attendance was fair, but there was little disposition to purchase foreign; the sales made, however, were mostly at an advance of 1s. per qr. Grinding Barley was 6d. to 1s. per qr. dearer. Beans and Peas were unchanged in value. Oats sold at an advance of 6d. to 1s. per qr. Flour was firm, but inactive.

PRICE PER IMPERIAL QUARTER.	S. S.	W. S.	W. S.
WHEAT, Essex, Kent, Suffolk. White	42	46	42-44
— fine selected runs .do.	44-47	Red	45-46
— Talavera	50-54	Red	—
— Norfolk	—	Red	—
— Foreign	37-60	Red	—
BARLEY, grind. & dist. 28 to 32 Chev	46-49	Malting	44-47
— Foreign, grinding and distilling	24-28	Malting	32-43
OATS, Essex and Suffolk	—	—	—
— Scotch and Lincolnshire. Potato	25-33	Feed	—
— Irish	30-32	Feed	28-28
— Foreign. Poland and Brew	25-30	Feed	21-26
— Foreign	38-40	Foreign	—
RYE MEAL, Foreign	—	—	—
BEANS, Mazagan	38s to 40s.	Tick	42-43
— Pigeon	43s to 47s	Winds	—
— Foreign	—	Small	38-42
PEAS, White, Essex, and Kent	Boilers	40-41	Suffolk
— Maple 41s to 45s	—	Gray	40-42
— Foreign	—	Foreign	36-39
— Foreign	—	Foreign	28-30
MAIZE, best marks delivered	per sack	39-43	—
— 2d ditto	—	ditto	28-40
— Foreign	—	per barrel	23-37
— Foreign	—	Per sack	30-40

FRIDAY, May 14.

Much rain has fallen during the past week, the temperature being at times low for the season. A few complaints have been heard respecting the Wheat plant on heavy land, but it is too early to attach much weight to them. The Wheat trade since the 7th inst. has been under the influence of the weather, and we have to report that the buoyant feeling which manifested itself during the first few days of the past week has not been maintained, the advance then quoted being in some instances lost again, although farmers appeared inclined to hold back their supplies. Barley and Oats have met with increased attention at a slight advance. In the value of Beans, Peas, or Maize we have noticed no improvement. Flour has been a slow sale at former prices. The arrivals off the coast this week consisted of 66 cargoes, of which, with those left over from last week, there remained for sale last night 43 cargoes. At the beginning of the week 6d. to 1s. per qr. better prices were paid for Wheat arrived off the coast, but the improvement has been lost again. The value of Maize as well as Barley fluctuated slightly during the week, the trade closing dull. Rye was steady in value. In cargoes on passage and for forward shipment transactions were extremely limited, excepting in Maize and some hard Wheat, which latter was taken for Spain, but otherwise nothing of moment occurred. Rape seed was easier to buy.

The arrivals of all grain this week are small. There was a poor attendance at this morning's market, and English Wheat brought fully Monday's quotations; for foreign the demand was very limited, but the sales made were at the prices of that day. Barley, Beans, and Peas were unchanged in value. Oats were 6d. per qr. dearer than last Monday.

ARRIVALS FROM MAY 8 TO MAY 12, BOTH INCLUSIVE.

	Wheat.	Barley.	Oats.	Flour.
English	590 qrs.	126 qrs.	20 qrs.	— sks.
Irish	—	—	—	—
Foreign	2720 „	3140 „	8010 „	1130 „
	3310	3260	8030	— brls.

LIVERPOOL, Tuesday, May 11.—We had an average attendance at this morning's market, and for Wheat a fair inquiry, at an advance of 2d. to 3d. per cental on the rates of this day week. Flour steady at late rates. Indian Corn in moderate request, at a reduction of 3d. to 6d. per qr. below last Friday's quotations. Beans dull, and 6d. to 9d. per qr. easier. Oats and Oatmeal firm. Peas slightly lower.

SEED MARKET.

The speculative demand for new German Red Clover seed, of which we spoke in our last report, has continued during the present week; and the result of this inquiry has been an advance in values of from 2s. to 3s. per cwt; prices on the Continent are also on the rise. This fact, and the acknowledged lightness of the stocks now held in London, impart confidence to holders, and give great firmness to the trade. Yearling Clovers of all descriptions meet at present with no attention, English red is also still quite neglected; the quantity on offer far exceeds the anticipations formed at the beginning of the season, the universal opinion then being that there would be very little seed saved in this country. We have consequently had a great decline in the quotations of home-grown Clovers. Small orders continue to come to hand for French Italian Rye grass at unaltered currencies. Hemp seed is exceedingly scarce, and is 3s. to 4s. per qr. dearer. Canary seed is also creeping upwards. Spring Tares are scarce and dear; for the few remnants on the market higher prices are demanded than any which have obtained throughout the season. The Linseed trade is firm. White Mustard seed is in unprecedentedly short supply, and meets with a brisk demand at an advance of 2s. per bushel. It is generally believed that this article will be unusually high. Sowing Rape seed is scarce, and is also on the rise; we quote it 3s. to 4s. per qr. dearer on the week. Lucerne, Mangel, Swede, and Turnip seed are still in fair request.

JOHN SHAW & SONS, 16, Water Lane.

AVERAGES.

	Wheat.	Barley.	Oats.
April 9 ..	46s 4d	44s 1d	26s 9d
— 10 ..	47 0	44 6	26 5
— 17 ..	46 8	44 6	27 7
— 24 ..	45 5	43 6	26 9
May 1 ..	44 9	42 2	26 11
— 8 ..	44 4	40 2	26 9
Average ..	45 9	43 2	26 11

A YOUNG GENTLEMAN can be TAKEN on an extensive FARM in one of the best districts of Scotland. Draining and other extensive improvements going on. Can either work or act as desired. Good Hunting, Shooting, and Fishing. Only one hour from Edinburgh. Terms, £105 per annum, washing included.—JAMES McLEAY, General Post Office, Edinburgh.

FISHER, HOLMES, AND CO. are in WANT of a YOUNG MAN who thoroughly understands Propagating and the Management of Hollyhocks, Dahlias, and other Florists' Flowers, also Herbaceous Plants.—Apply, stating age, references as to ability and sobriety, and wages expected, Handsworth Nursery, Sheffield.

WANTED in a Nursery, a steady, trusty, active, and industrious MAN, who well understands the Propagation and Management of Bedding and Hard-wooded Plants, Vines, &c., and to make himself generally useful.—Address, stating age, wages, reference, and other particulars, to G. B. A., Post Office, Coventry.

Outdoor Propagator and Knifeman.

THE ADVERTISERS are in WANT of a thoroughly experienced MAN in Budding, Grafting, and general Outdoor work. To save trouble, none need apply who cannot give satisfactory reference as to ability.—Apply, in own handwriting, to SALTMARSH & SON, Moulsham Nurseries, Chelmsford.

WANTED, a steady YOUNG MAN, to take charge of Houses under another. State wages, reference, &c.—H. MYR, Prescott Nursery, near Liverpool.

WANTED, a HEAD SHOPMAN, by June 1.—He must be thoroughly conversant with the Seed Business in all its branches; one having a knowledge of Nursery Stock preferred.—Apply to THOS. McKENZIE & SONS, 34, Dawson Street, Dublin.

WANTED, a SHOPMAN, in a Wholesale Seed Warehouse.—Must be experienced.—Apply by letter, stating where previously employed, to H. CLARKE & SONS, 29, King Street, Covent Garden, W.C.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. E. G. HENDERSON & SON, Washington Nursery, St. John's Wood, London, N.W.

GARDENERS (EXPERIENCED)—JOSEPH MEREDITH, The Vineyard, Garston, near Liverpool, begs to intimate to Ladies and Gentlemen requiring the above that he has on his Register some excellent Men, for every class of situation, whom he can strongly recommend from his personal knowledge of them.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS, and GARDENERS and BAILIFFS, of various qualifications, who are open to Engagements. The full particulars as to services required and wages given should be forwarded with application.—PAUL'S Nurseries, Waltham Cross, London, N.

To Gardeners and Bailiffs (Head, Foremen, or Under).

JAMES CARTER and CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those who can send unquestionable references need apply. Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & Co. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c. JAMES CARTER & Co., 237 and 238, High Holborn, London, W.C.

Gardeners and Under Gardeners.

WM. CUTBUSH AND SON beg to state that they have at all times on their books MEN of various qualifications, whose characters will bear the strictest inquiry. Any Gentleman making application would save time by clearly stating the duties to be undertaken, wages offered, &c., so that suitable Men may be selected.—Highgate Nurseries, London, N.

To Nobleman and Gentlemen.

GARDENER and FORESTER, or GARDENER and BAILIFF, &c. JOHN HARRISON has on his Books several clever and experienced MEN, who have served in the above capacities in some of the best families in the North of England, and whose characters will bear the strictest investigation. Also several Young Men as UNDER GARDENERS.—North of England Rose Nursery, Darlington, May 12.

GARDENER (HEAD).—Age 30, married, no incumbency. Good testimonials from late situation.—A. B., Mr. E. Jones, Seedsman and Florist, Hart Street, Henley-on-Thames.

GARDENER (HEAD).—Age 35, married, one child, aged 14; thoroughly understands Forcing Fruit, Flowers, and Vegetables, and the Management of Flower and Kitchen Gardens. Good testimonials from last employer.—F. W., Messrs. Sutton & Sons, Reading, Berks.

GARDENER (HEAD).—Age 28; thoroughly understands the Management of Pines, Vines, Stove and Greenhouse Plants, Early and Late Forcing, and Flower and Kitchen Gardening. First-class character and references.—R. A., Mr. Diplock's, Trowbridge.

GARDENER (HEAD).—Age 33, married.—Mr. FREAK BREWER can confidently recommend the Advertiser to any Gentleman in want of a thorough good GARDENER. He is quite competent to Manage with skill and economy a Flower and Kitchen Garden, with Forcing of all kinds seven years' character. Mr. F. BREWER, Messrs. Sharps & Cullum, 13, Cockspur St., London, W.C.

GARDENER (HEAD).—Age 39, married, thoroughly practical in all the various branches, including the Erection and Heating of Horticultural Buildings. No objection to the Management of Land if required. Seven years in last situation. Can be highly recommended.—M. N., The Post Office, High Street, Lower Norwood, S.E.

GARDENER (HEAD).—Married, no incumbency. Mr. Wm. Kemp, who has lived for the last five years with E. H. Bentall, Esq., M.P., begs to offer his services to any Nobleman or Gentleman requiring a thoroughly practical Man. Is a First-class Fruit and Plant Cultivator, for which he has obtained numerous Prizes. Left on account of the Gardens being let, of which he had the Planning and Making.—Mr. A. HENDERSON, Malda Vale, Edgware Road, N.W.

GARDENER (HEAD, or SINGLE-HANDED).—Age 34, married, understands Vines, Melons, Cucumbers, and Fruit and Flowers. Nine years' good character.—T. P., Mr. Lambert, Stationer, High Street, Uxbridge.

GARDENER (HEAD), where three or more are kept.—Age 38, married, no incumbency; a successful Cultivator of Stove and Greenhouse Plants; Early and Late Forcing, &c. Good character.—W. C., The Ferns, Weybridge, Surrey.

To Noblemen and Gentlemen.

GARDENER (HEAD), or GARDENER and FORESTER, &c.—Age 40, married. G. M. begs to offer his services to any Nobleman or Gentleman in want of a thoroughly practical and trustworthy person. Has had the opportunity of practising in Establishments where the cultivation of Flowers, Fruits and Vegetables has attained the greatest perfection, and so has had considerable practice in re-arranging, Planting, &c. Can take charge of Woods and Plantations, Measuring Felled and Growing Timber, with a fair practical knowledge of Farming. Satisfactory references as to character, ability, &c.—Apply in first instance to L. SMALL, Nurseryman, &c., Ilkeston, near Derby.

GARDENER.—Age 38, married, no family; thorough practical Working Man, of good habits. Good reference.—A. B., Mr. C. Todd, Clothier, Colehill, near Birmingham.

GARDENER.—In prime of life, married, with two children, thorough experience in all departments of Gardening as practised at the present time. Character every way satisfactory.—C. C., Mr. Dawson, World Hall, Brentwood, Essex.

GARDENER (JOURNEYMAN), in a good Private or Public place.—Address Mr. J. WALLS, Ashburnham Park Nursery, King's Road, Chelsea, S.W.

GARDENER (SECOND), in a Nobleman's or Gentleman's Garden.—Age 23; excellent character.—M. C., 4, Prince's Row, Pimlico, S.W.

GARDENER (UNDER), in a Gentleman's Garden.—Age 21; has a knowledge of Cucumbers and Melons. Good character.—A. E. H., Terrace, Harlesden Green, N.W.

GARDENER (UNDER), where two or more are kept.—Age 20; has been used to Outdoor Gardening. Improvement. Would give a Premium. Stationer, &c., High Street, Eatham, S.E.

GARDENER (UNDER), in a Gentleman's Garden.—Thoroughly understands the Management of Vines, and Greenhouse Plants, &c. Two years' good character.—H. STRAID, Late of Park, Newport, Monmouthshire.

To Head Gardeners.

FOREMAN.—Age 29, single, well up in the Trade. Can be highly recommended.—Address, S. H., The Fairthorn House, Botley, Southampton.

FOREMAN.—Age 26, single, thoroughly conversant with all branches of his profession, having had 10 years' experience in Nobleman's Gardens. Two years' good character.—Mrs. Howitt, Alreaford, Hants.

FOREMAN, in a Nobleman's or Gentleman's Garden, or Single-handed place. Eight years' experience in Early and Late Forcing, Pruning, &c.—Address E. HOUGHTON, Huntingdon, as to character and ability. Gardener to Potts Brown, Esq., Houghton, Huntingdon.

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FOREMAN or PROPAGATOR GENERAL.—In a Nobleman's or Gentleman's Garden. Soft-wooded Plants, Hardy Trees and Shrubs, &c. in London and Provincial Nurseries.—GARDNER, 11, Slocombe, 11, James Street, Covent Garden, W.C.

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IMPROVER, under a Nobleman's or Gentleman's Garden, for further improvement. Premium given. Good character.—N. Howell, Carlton Gardens, Surrey, Suffolk.

TRAVELLER or SALESMAN.—An energetic Man seeks employment in a good Nursery. Terms Trade.—SALVIA, 40, Baker Street, W.

LAUNDRESS (experience 10).—Age 35, no family. Own help if required. Husband will not interfere. Really useful. Good testimonials.—LADYBIRD, Post Office, Thorsby, Louth, Lincolnshire.

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WILKINSON AND KIDD, SADDLERS to His Majesty and H. R. H. THE PRINCE OF WALES, have removed their Establishment from the Corner of Park Street, G. to 5, HANOVER SQUARE, W. (adjoining the Queen's Rooms). Established 1788.

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MARAVILLA COCOA is PERFECTLY SOLUBLE. "Taylor Brothers Marry" is a thorough success, as I suppose has every other Cocoa. Entire solubility, a delicate aroma, and a pure, most nutritious element of nutrition, distinguish the Maravilla from all others. For homeopathic and other medicinal purposes a more agreeable or valuable beverage. Sold in Packets only, by all Grocers.

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WHEN THE HAIR, through weakness, falls off, or turns grey, so preparation will, sooner or later, restore the ORIGINAL COLOR, and give a healthy and brilliant growth, than Mrs. S. S. WORLD'S HAIR RESTORER. It is simple, and requires no previous preparation of the hair, and is agreeable, and no pomade or hair oil is required with it. bottles, 6s., of chemists and perfumers. Depot, 20, High Holborn, London.

DINNEFORD'S FLUID MAGNE. The best remedy for Acidity of the Stomach, Headache, Gout, and Indigestion, and the best for delicate constitutions, especially adapted for Ladies and Infants. DINNEFORD & Co., 172, New Bond Street, London, and of all Chemists throughout the World.

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The Gardeners' Chronicle Newspaper.

SATURDAY, MAY 22, 1869.

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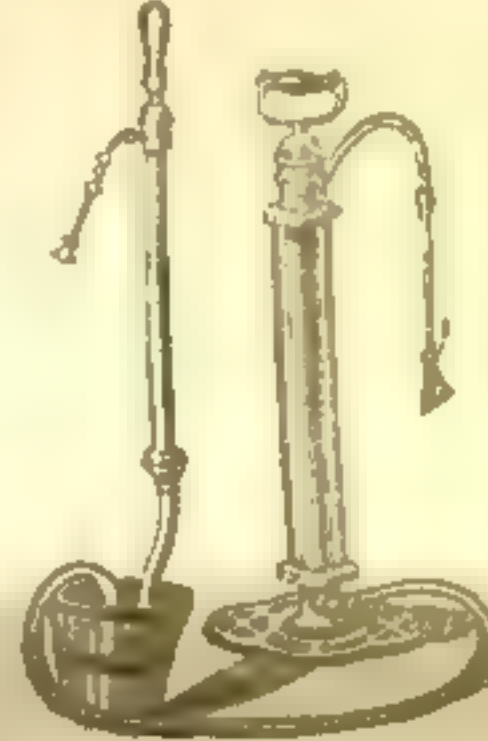
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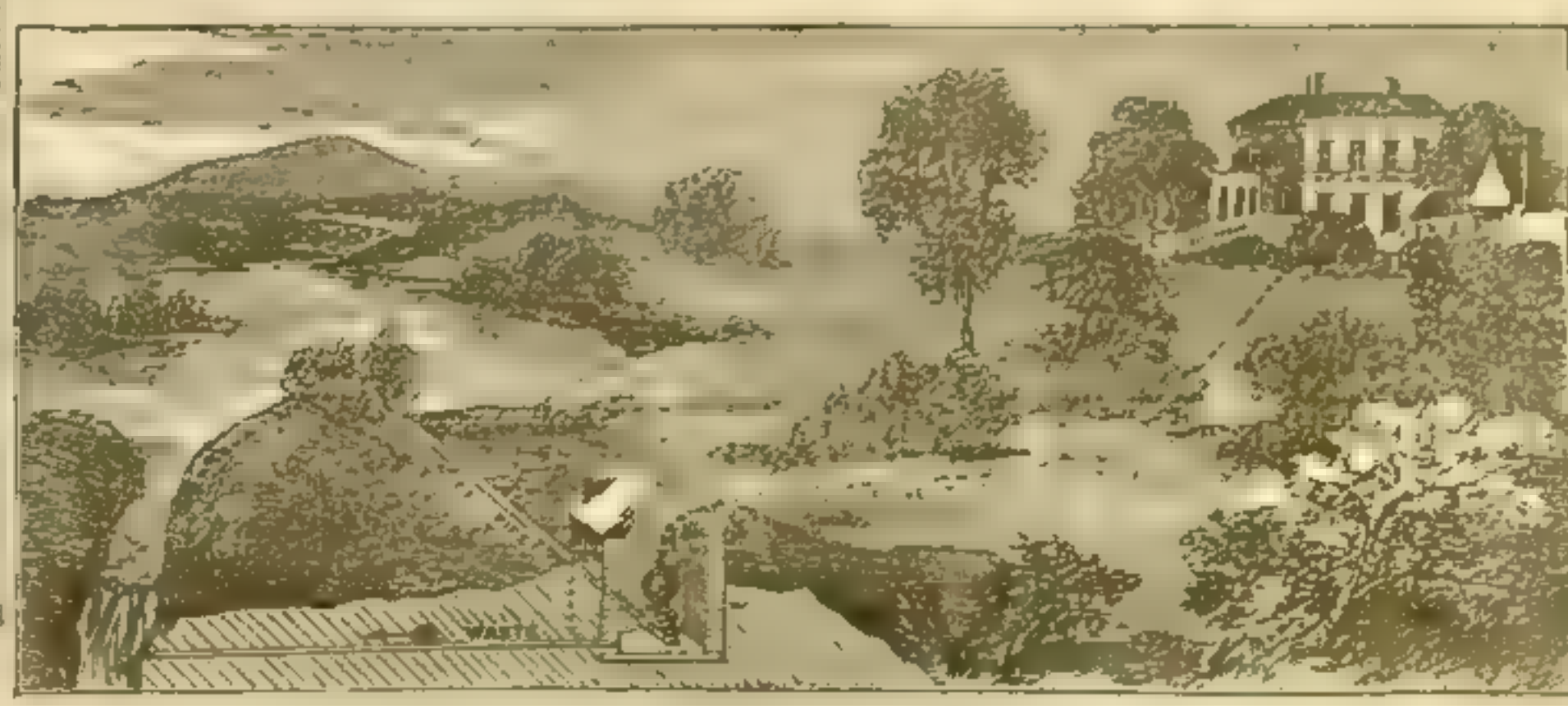


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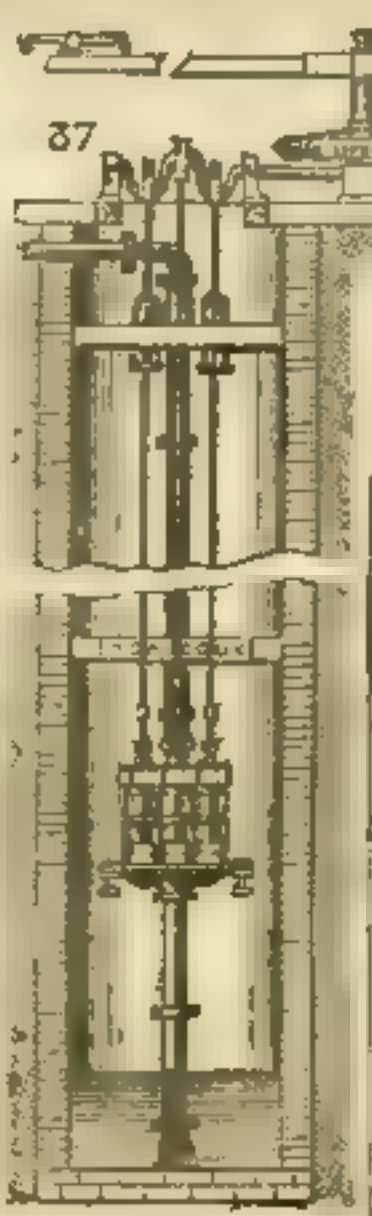
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Aube. A circular has been sent by M. Forcade de la Roquette, the Minister of the Interior, to the prefects, in which he reminds them that, in virtue of the eighth paragraph of the electoral law, all meetings are to cease five days before the voting. He also calls attention to the fact that Article 32 of the same law confers upon the prefects the right of dissolving any meeting of a nature likely to disturb public order. Cardinal Billiet, Archbishop of Chambéry, has addressed to the clergy of his diocese a circular in which he instructs them to tell their parishioners in public to vote only for men recommendable from their principles and their moral and religious conduct. The *Debats* says that what strikes every one most forcibly in the various electoral circulars is the unanimity with which the candidates advocate the maintenance of peace and the development of the public liberties, and protests against personal government.

SPAIN.—In the sitting of the constituent Cortes on the 13th the discussion on the draft of the Constitution was resumed. Senor Orenso, in a speech which occupied three hours in delivery, moved an amendment proposing a Confederate Republic as the future form of government. The amendment was strenuously opposed by Senor Ulloa, who proved that the existence of a monarchy was compatible with all liberties of the people, and the amendment was finally rejected by 182 to 64. An amendment of Senor Garcia Ruiz in favour of a democratic republic as the future form of government, was rejected by 161 to 2. In the sitting of Friday, after several amendments had been moved and rejected, Senor Balaquer moved that the Government be a democratic monarchy, but he withdrew his motion after a speech from Senor Olozaga, who showed that the constitution as laid before the House was of a very democratic character. It was finally agreed that the article should be worded thus—"The sovereignty resides in the nation, from which all power emanates." An amendment requiring that the future monarch should be a Spaniard born in Spain was rejected by 121 to 60. A motion, demanding that the election of the Sovereign should take place by *plebisitum*, was also rejected. In the sitting of Monday, Senor Serrallara attacked the idea of a monarchy, which he considered incompatible with liberty. Senor Selvala defended the draft laid before the House, remarking that the Republicans themselves were the greatest obstacle to the establishment of a Republic. In the evening sitting Senor Figueroa, the Minister of Finance, laid before the House the estimates of the expenditure of the current year, which amount to 2987 millions of reals, being 800 millions of reals in excess of the revenue. In the sitting of Tuesday a resolution to take measures for putting a stop to mendicity was taken into consideration. The discussion on the draft of the Constitution was then resumed, and without the occurrence of any incident of importance. In the sitting of Wednesday the debate was continued, but the vote on the clause relative to the future form of Government was not taken, considerable time being wasted in replies to personal allusions made in the course of the debate. In the sitting of Thursday the discussion on the draft of the constitution was resumed by Senor Castelar, who attacked the idea of a monarchy as the future form of government in Spain. He predicted that at no distant date all European countries would amalgamate under one Government, as the United States of Europe. He then addressed the Ministers, and adjured Serrano in eloquent language not to accept a Regency. He elicited long applause, in which Serrano cordially joined. Senor Castelar further asked Topete with what purpose he made the September Revolution. Topete answered that he wished to save the Queen and the dynasty, but that after their expulsion he opposed all restoration. This statement was received with applause. He thought Montpensier the most desirable solution, but had no understanding with the Duke or Duchess. He had acted as subordinate to Serrano and Prim, and they all awaited the initiative and decision of the Cortes. He warned the Assembly that a Republic, a Monarchy, and Regency seemed equally impossible. "Beware," he added, "lest if you make every solution impossible some insolent, daring man undertake to cut the knot you are unable to solve. You will not applaud me now," he concluded, "but you will understand me." Senor Rios Rosas replied to Senor Castelar's speech by defending monarchical institutions and the members of the Orleans family; and finally the Chamber adopted the monarchical clauses by 214 against 71 votes. It is stated that 2000 partisans of Queen Isabella have assembled at Perpignan, and are preparing to enter Spain under the command of General Gasset and Pezuela.

SWITZERLAND.—The Germano-Swiss treaty of commerce and the literary copyright convention with the North German Confederation have been signed. They come into operation on September 1 next.

SWEDEN.—The King closed the Diet at Stockholm on Saturday. His Majesty, in his speech from the throne, expressed satisfaction that the Diet had shown itself inclined to legislate upon a closer union between Sweden and Norway, and promised that the question of a more extended religious freedom should be subjected to careful investigation. The speech made no allusion whatever to foreign relations.

DENMARK.—The Crown Prince left Copenhagen on Wednesday for England, where he will make a stay of one month. At a public banquet held on the 13th, General Raaslaeff, Minister of War, confidently expressed a hope that the sale of the Island of St. Thomas to the United States would be ratified by the Senate as soon as the history of the negotiations should be made sufficiently clear. The delay hitherto experienced was to be attributed to the differences between ex-President Johnson and Congress. Mr. Sumner was in favour of ratification.

BELGIUM.—The official journals give the following as the names of the members of the mixed Commission appointed to take into consideration the commercial relations of Belgium and France arising out of the working of the Belgian railways:—For France, M. Cornudet, President of the Agricultural Section of the Council of State, M. de Franqueville, Director-General of Public Roads and Bridges; and M. Combes, Director of Mines. For Belgium, M. Fastaux, Director of Railways and Telegraphs; M. Vandersweep, Inspector of Railways; and M. Belpaire, Engineer. From these names it will be seen that the dispute is reduced from a diplomatic question to its purely commercial basis.

PRUSSIA.—The King of Prussia, in consequence of a cold, has postponed his journey to Hanover, Bremen, and other places for several days, perhaps for a week. It is announced that a British squadron, consisting of the ironclad frigate *Warrior* and other men-of-war, are to assemble at Heppens, at the mouth of the Juhde, to salute his Majesty on his arrival. It is said that Prussia, counting upon the continued increase of the maritime commerce of the Northern Confederation, is seeking to obtain from the Dutch Government a cession of the Banda Islands, now occupied by Holland, and forming part of the Molucca Archipelago. The departure of the German expedition to the North Pole is fixed for June 7. If it should not succeed by the end of August in discovering an opening in the ice between the 74th and the 76th degrees of latitude, the vessels will pass the winter at Spitzbergen or at Gilsland, and resume the enterprise in 1870. The Flora Theatre at Cologne has been totally destroyed by a fire which broke out just after the performance had been concluded. The catastrophe is supposed to be the work of an incendiary, and the supposition is strengthened by the fact that the Grand Theatre was burnt down a few months back under similar circumstances.

WURTEMBERG.—A letter from Cronstadt, dated 11th May, mentions the death of Bernhard Molique, the violinist. He was born at Nuremberg in 1803, and from 1826 to 1849 was musical director of the Court and second director of the Opera in Stuttgart. In 1849 he settled in London, where he became very popular. He afterwards returned to Germany, and spent his last days in Cannstadt.

AUSTRIA.—The Reichsrath was closed on Saturday by the Emperor Francis Joseph in person, who delivered a speech from the throne, of which the following is an abstract:—

After alluding to the unhappy position of the country at the time of the convocation of the Reichsrath, his Majesty expressed his satisfaction and acknowledgments at the manner in which both Houses had, by their parliamentary labours, fulfilled the expectations of the Sovereign. It was necessary to found an entirely new order of things. This was accomplished by the establishment of the constitution, which, while uniting the Cis-Leithan provinces, had afforded a large field for the autonomous government of the country, and given the finishing stroke to the compromise with Hungary. The military organisation had not only drawn the bond of union more closely round the monarchy, but had also increased its power. His Majesty, together with the other Powers, was a guarantee for the maintenance of peace, which the empire absolutely required. Referring to the financial situation, his Majesty spoke of the large amounts made upon the tax-paying powers of the people, and said that, thanks to the joint efforts of the Government and administrative bodies, a way had been found by which it was hoped to place the finances upon a sound footing; adding that public economy, the reform of taxation, and the general improvement of commerce, afforded grounds for anticipating that the nation would soon recover from the sacrifices it had made. His Majesty then proceeded to enumerate the results of the legislation of the expiring session, mentioning especially the establishment of a supreme tribunal of the empire, the introduction of trial by jury for Press offences, the reform of the criminal law, the separation of the Government from the administration of justice, the abolition of imprisonment for debt, the repeal of the usury laws, and many other important measures. Allusion was then made to the numerous railway Bids which had been passed, to the conclusion of several commercial, postal, and telegraph conventions; to the adoption of the laws regulating the position of the religious denominations in Austria, by which equal rights were granted to all creeds; to the establishment of civil marriage, and the settlement of the relations between the schools and the Church. His Majesty in conclusion expresses his hope that these laws would endure as the basis of a peaceful organisation between the Church and State. The law relating to popular schools would elevate the education of the country to such a degree as must constitute the surest foundation for the welfare of the monarchy and the people. He hoped that in the next session of the Reichsrath those who still held aloof from their joint efforts would decide to participate in them. Austria must offer a great home to all her different nationalities, dispensing towards all equal justice and equal goodwill. The Constitution was the groundwork upon which this object was to be obtained. An understanding among the several races of the empire must certainly be arrived at, because this could not fail to be the ultimate result, and because Austria alone offered to all her peoples protection, freedom, and the preservation of their independence and peculiar institutions.

HUNGARY.—In the sitting of the Upper House of the Hungarian Diet on Saturday, the draft of the address as proposed by the committee on the address was after a short debate adopted unanimously. The departure of the Court is fixed for the 26th inst.

ITALY.—General Menabrea announced the formation of the Cabinet to both Houses of Parliament on Friday. He said that the programme of the Ministry was to uphold order and liberty, and to fulfil the financial engagements of the country. The Ministry was confident of possessing a solid majority, and he anticipated the promotion of a closer union between the Government and all the provinces of the monarchy. In the sitting of Monday General Menabrea, in reply to a question of Signor Bonfadini, stated that the Commission appointed to consider the question of a railway between Italy and Switzerland had decided in favour of the St. Gothard route. The Government, however, had not yet taken any final decision. In the sitting of Thursday, Count Cambrey Digny stated that he was compelled to delay for a few days the presentation of the financial conventions announced in the Budget.

The Senate adopted, by a majority of 7 to 4, a resolution rendering young men training for the profession liable to the conscription.

PAPAL STATES.—A report is current that the ex-Queen of Naples, having a villa built at Rome on the ruins of the Palace of the Popes, and the ground has been bought from the King for a sum of 50,000 f. Although he has nearly terminated excavations are still in the direction of M. Rosa, the conservator.

COAST OF AFRICA.—The town of Bazaruto was by fire on April 8. The shipping and the merchants on the beach were unharmed, or 20 natives are supposed to have lost their lives.

EGYPT.—The Viceroy left Alexandria on the morning for Venice, Florence, Vienna, and London, intending to arrive in Brussels on the 10th, and afterwards visit Brussels, the Baux-Bonnes to take the baths, and return to Constantinople at the beginning of August. The Viceroy has appointed Eugenie, the Viceroy has appointed Telwik, to act as Regent during his absence by Cherif Pasha. This regency causes great uneasiness.

PERSIA.—Mirza Hussein Khan has been appointed as Persian Envoy Extraordinary to Constantinople as Persian Envoy Extraordinary. Cholera has appeared at Ekum.

NEW ZEALAND.—The Maori rebellion, and once more assumed a formidable aspect. The leader on the east coast, and the leader on the west coast, have both reappeared. The colonists have sustained several disasters on the west coast. A body of 100 men has been attacked, and out of 10 men only escaped. Another body of European settlers, one clergyman, has been massacred at a place called Pukearuhe, near the White Cliffs, from New Plymouth, a town on the west coast. The settlement was on confiscated land, and a few settlers who were scattered around a place from which, however, the local constabulary originally garrisoned it had been withdrawn ago as March, 1868, two natives being posted of it instead. Lieutenant Gascoyne had to look after them and the redoubt as he was with his family only 30 yards off. It appears to have been perfectly misadvised arrangement, especially as the local authorities promised to warn them should they bear a threatening character. On Friday morning of February, or early on Saturday morning, of natives must have called at Lieutenant Gascoyne's house and tomahawked first his wife and three children. A party were found together—his fully dressed children in their nightclothes, and Mrs. Gascoyne partially so, as if she had been disturbed, and had attempted to dress herself in sequence. The bodies of two men, Edward and John Milne, were also found, and close to where the redoubt had been a party burnt it, that of the Rev. John Wesleyan missionary in New Zealand arrived in 1833. During the fiercest of his life seemed safe everywhere and the continuation of the rebels could not be more exemplified than in murdering and destroying coat and waistcoat. The supposed leader of the party who committed these murders was whom he stood godfather when he baptised the fact of the murders having been discovered until the Monday morning, and information reaching New Plymouth volunteers enrolled, the bodies brought in, such steps devised to protect the settlement from danger were promptly taken, and a company sent off to Wellington to urge the retention of the two companies of the 1st New Zealand Infantry, and immediate orders for removal, and a local effort by a force of armed men. Meanwhile the settlers around New Zealand regarding the murders as a menace to their homes and harvest work, as they had done many times since the war broke out in 1860. As soon, however, as it was known that troops were to be retained, and the settlement strengthened by two companies of the 1st New Zealand Infantry, the settlers, except those belonging to the Whitemore, with a force of about 100 men, the camp of Tito Kowaru, the leader of the Maories on that side of the island, and after being completely routed him. The attack was in the early morning, under cover of a mist, the firing at one of their sentries was the signal, and the Maories, about 100 of them, in their nakedness, and carrying nothing but their pouches, rushed into the open ground, and with such a tremendous fire that they were as quickly as they could into a steep wood, a terrible close fire was then kept up for several hours, the Maories tried to climb the trees, but were quickly brought down, the women were time carrying off the dead in the mist, and the fire, their cries being terrible. At the end of the day the Hau-haus had retreated through the growth, leaving the bush in our hands.

was captured, as well as guns, tomahawks, money, tents, axes, spades, and shovels—in the whole of the enemy's baggage. Seven dead were found, and two women were made prisoners. On the side of the attacking force one man was killed and 13 wounded. Colonel Whitmore immediately started in active pursuit of the fugitives, with a view of preventing their escape into the fastnesses of the interior.

TRIALS.—The Parliamentary committee of inquiry into the charges of bribery and corruption of members of the Legislative Assembly at Melbourne, are expected. A Roman Catholic member is expected to be expelled. A Roman Catholic member is expected to be expelled. A Roman Catholic member is expected to be expelled.

CHINA.—A placard has been circulated in China, warning missionaries and styling them as 'foreign devils.' It is rumoured that a high Chinese official at Peking has stayed the French Ambassador on the law, and that his Excellency has in consequence withdrawn his flag. It is believed that the Peking Government is in great fear of further encroachments.

CAPE OF GOOD HOPE.—The Governor, Sir Philip Sturt, returned to Capetown from the frontier. He has settled the Basuto boundary, and has assigned to the Basutos a tract of land on the eastern slope of the mountains between the mountains and the sea. Sir Sturt has settled this affair, proceeded to Nomans territory occupied by the Griqua chief, Adam, and arranged satisfactorily some disputed points of boundary between that country and Natal. He then rode southward through Independent Frontier, escorted by a detachment of the Frontier Mounted Police; visited the new extra-colonial Pingo territory, but gave great offence to Kreli and his adherents in the Transkeian territory, by passing them a law after they had been led to believe that he would not. The discovery of the great 83½ carat diamond, purchased by a colonial firm for exportation, and the accounts of its value published in the newspapers, have led the Griqua chief Waterboer and some Europeans, who had obtained by concession from all minerals found in Waterboer's territory, to set up a claim to its ownership, and Mr Justice Galt has granted an interdict for preventing its exportation to Europe. Accounts from Graaf Reinet state that there are reports of a still larger diamond being found.

UNITED STATES.—Mr. Motley sailed for England on Monday last in the Cuba. It is reported in official circles in Washington that large discretionary powers have been given to him in regard to the reopening of negotiations for a settlement of the Alabama claims, and that the Washington Government regard Mr. Sumner's speech as forming the basis for future negotiations on the subject. It is also stated that no immediate action will be taken by Mr. Motley, who will first endeavour to familiarise himself with British sentiment regarding the Alabama claims before initiating any negotiations for a new treaty. The unanimous tone of the English Press in reprobating Mr. Sumner's speech caused the war fever to moderate considerably. It is now said that the country does not support the extreme views of Senator Sumner, and that there is no general desire in America to make exorbitant demands on Great Britain; no such desire to press her to "the verge of national humiliation;" and no wish among the great industrial, trading, commercial, and financial interests, whose views always control the Government in international affairs, to indulge in the luxury of a war with England. General Lee paid a visit to President Grant at Washington on the 1st inst. President Grant has suspended Mr. Hale from his functions as United States Minister at Madrid, and has nominated General Sherman as his successor. He has also issued a proclamation ordering an election to take place on July 6, in the State of Connecticut has ratified the 15th Constitutional amendment prohibiting the denial or abridgment of the right to vote on account of race, colour, or condition of servitude. A riot between the troops and the people occurred at New Orleans on Wednesday. Several persons were more or less severely wounded. The troops restored order.

CANADA.—In the Canadian House of Assembly a motion has been adopted providing for the rescinding of a license issued to American fishermen during the past year. The debate indicated a general opposition in the House to the granting of any privileges to American fishermen, whose entire exclusion from Canadian waters was advocated by the Nova Scotian members.

BRAZILS AND PARAGUAY.—The latest news from Paraguay is to the 10th of April. The new commander-in-chief, Count d'Eu, had joined the Brazilian forces, and the first and second divisions of the expeditionary force had set out to attack Lopez in his last position.

circumstances detailed in our last number. Several witnesses were examined, who gave evidence of a formal character respecting the preparation of the power of attorney and the issue of the Bank notices relative to the proposed transfer, and it was also proved by a clerk in the Birkenhead Post Office, and by the manager of the local board of the Alliance Bank, that the letter of Mr. Maxted, the co-trustee, refusing to sanction any alteration in the mode in which the money was invested, had been delivered to the prisoner two or three hours before he called at the bank with the power of attorney as executed on the same morning. The Lord Mayor said that there was no doubt that sufficient evidence had been laid before him to warrant his sending the case to be investigated by another tribunal. The prisoner, having been cautioned, said he had nothing to say at present except to declare his innocence. He was then committed to take his trial at the Central Criminal Court, and was removed in custody.

THE HERCULES INSURANCE COMPANY.—On Friday Mr. John Everett, Mr. Samuel Green, Mr. Charles Greenwood, Dr. Frederick C. Jones, Mr. William Kemp, Mr. John Rossall, Mr. George Walter, and Mr. John Werritt, eight of the directors of the Hercules Insurance Company (Limited), were summoned before the Lord Mayor to answer a charge of issuing a false prospectus, and for conspiring to commit offences against the Companies' Act, 1862. When, however, the case came on, Mr. Lewis, on the part of the prosecutors, withdrew the summonses, and said that the prosecutors would proceed in the Court of Chancery. The allegations of the indictment were indignantly denied by the defendants, and the Lord Mayor said that as no evidence was forthcoming there was nothing whatever on which the Court could act. The defendants were thereupon discharged.

THE ENGLISH JOINT-STOCK BANK.—At the Mansion House on Monday Charles Edward Mangles, James Abbiss, and Thomas Bradshaw, three of the directors, and Samuel Greenway Finney, the manager of the English Joint-Stock Bank, surrendered before the Lord Mayor to answer the charge of having conspired to cheat and defraud the shareholders by issuing false reports and balance-sheets, and making improper entries in the books of the company. After several witnesses had been examined, including Mr. Howell, the accountant, who had examined the books on the part of the prosecution, the inquiry was further adjourned, Mr. Finney being liberated, as before, on bail, and the other defendants on their own recognisances.

FORGERY OF BANK CHEQUES.—On Monday Arthur Taylor, of Stafford Lodge, Brixton, was charged on remand with various acts of swindling in some districts of south London by means of fictitious cheques on the London and Suburban Bank. At the previous hearing the prisoner had been released on bail, but the gravity of the case appeared to Mr. Woolrich, the magistrate of Lambeth Police Court, on Monday, to be so much increased, that on directing a further remand bail was refused.

MONEY MARKET, FRIDAY.—BRITISH FUNDS: Consols closed at 93½ to 93¾ for Money, and 93½ for Account; New and Reduced Three per Cents., 91½ to 91¾; Bank Stock, 242 to 244; Exchequer Bills, 5s. dis. to 5s. pm.; India Five per Cents., 114½ to 114¾.—FOREIGN: Brazilian, 79½ to 79¾; Chilean, 96 to 97; Danubian Seven per Cents., 75½ to 76½; Egyptian (1864), 85 to 86; Ditto (1865), 75½ to 75¾; Viceroy's Seven per Cents., 79½ to 79¾; Ditto Nine per Cents., 97½ to 97¾; Italian, 56½ to 56¾; Tobacco Loan, 85½ to 86½; Peruvian, 76½ to 77½; Portuguese, 34 to 35; Russian (1862), 81 to 85; Orel-Vitebsk, 78½ to 78¾; Nicolas, 63½ to 64½; Moscow, 79½ to 79¾; Charkof, 76½ to 76¾; Turkish Five per Cents., 42½ to 42¾; Ditto Six per Cents., 65 to 65½; Honduras, 82 to 84; United States 5-20 Bonds, 78½ to 78¾; Erie, 18½ to 19; Illinois, 93½ to 94.

Metropolis and its Vicinity.

THE CRUISE OF THE RESERVE FLEET.—The gathering of the ships of the Reserve Fleet for their fortnight's training cruise at sea was completed during the night of the 12th inst. by the arrival in Portland Roads of the two screw line-of-battle ships Donegal and Royal George. The Agincourt arrived from the Great Nore on the previous afternoon, and immediately hoisted the flag of the Admiral Commanding-in-Chief, Rear-Admiral Astley Cooper Key, which up to the time of her arrival had been flying on board the St. George. The Duncan arrived a few hours previous to the Donegal and Royal George, from Spithead, carrying the flag of Rear-Admiral Phipps-Hornby, the officer second in command. The ships forming the fleet are:—The Agincourt, armoured iron screw frigate, 6621 tons, 1350-horse power, 26 guns, Captain T. Miller, carrying the flag of Admiral Key; the Duncan, unarmoured wooden screw line-of-battle ship, 3727 tons, 800-horse power, 81 guns, Captain C. Fellowes, carrying the flag of Rear-Admiral Hornby; the Hector, armoured iron screw frigate, 4089 tons, 800-horse power, 20 guns, Captain de Horsey; the Black Prince, armoured iron screw frigate, 6109 tons, 1250-horse power, 41 guns, Captain Gordon; the Valiant, armoured iron screw frigate, 4063 tons, 800-horse power, 24 guns, Captain Pullen; the Donegal, unarmoured wooden screw line-of-battle ship, 3245 tons, 800-horse power, 81 guns, Captain Turnour; the Royal George, unarmoured wooden screw line-of-battle ship, 2616 tons, 400-horse power, 72 guns, Captain R. Jenkins; The Trafalgar, unarmoured wooden screw line-of-battle ship, 2900 tons, 500-horse power, 60 guns, Captain Barnard; The St. George, unarmoured wooden screw line-of-battle ship, 2864 tons, 500-horse power, 72 guns, Captain Noloth; The Mersey, unarmoured wooden screw frigate, 3733 tons, 1000-horse power, 36 guns, Captain J. Secombe.

The fleet, which had on board 2000 men of the Royal Naval Reserve and 2000 Coastguard men, as thus composed of ten ships, having a total tonnage of 38,577 tons, with a nominal engine power of 52,000 horses, and carrying 513 guns. Two ships of the 'flying squadron,' the Cadmus and the Sylla, went to sea with the fleet, but were to return in a few days. Mr. Childers, First Lord of the Admiralty, Vice-Admiral Sir Sidney Dacres, and other official persons connected with the Admiralty, arrived at Portland from London on Friday afternoon, and at once went on board the Agincourt. Their lordships were received with the customary salute, and the Admiralty flag was hoisted at the main. On Saturday morning the vessels composing the squadron, accompanied by the paddle-wheel dispatch boat Helicon, put to sea shortly after 5 o'clock. The wind was blowing strongly from the eastward, but so great is the harbour accommodation that the ships had no difficulty whatever in taking up their assigned berths between the end of the great breakwater and the north shore. The iron-clads formed the starboard division, and the wooden two-deckers, frigates, and corvettes the port division. The spectacle presented on the squadron leaving the harbour was fine in the extreme. The atmosphere, unfortunately, became rather hazy shortly after they left, and the vessels were soon out of sight from the shore. Accounts have since been received from the fleet, 30 miles S.W. of Bexley, stating that the experiment so far has been completely successful, that the Reserve men have fallen easily into the general habits and discipline of the Navy, and have already made themselves at home both with their ships and their officers, while the greater independence to which they are accustomed has not prevented their being as respectful as any marines could desire. They appear to like their ships, display great quickness and energy in learning their duties, and exhibit singular proficiency in the rifle and cutlass drills.

EXPERIMENTS AT SHOOBURYNESS.—Further trials of the new bronze field gun for India were made on Monday and Tuesday at Shooburyness, with a continuation of the satisfactory results already reported. The light iron carriages were found to be perfect in their endurance. Case shot was also fired from the light Abyssinian steel gun at 200 yards, the effects of the bullets being severe upon the wood targets.

THE FOREIGN OFFICE.—The rooms in the Foreign Office will not be again opened for visitors until Friday, the 4th of June, on which day, and also on succeeding Fridays, they will be opened as heretofore.

SEVERE STORM.—On Wednesday the metropolis was visited by storm of lightning, thunder, hail, and rain, which extended for some miles, doing an incalculable amount of damage in various places. The early part of the morning opened with heavy showers of rain, the wind blowing hard, and shifting to various points. About noon vivid flashes of lightning were perceptible all over the metropolis, and were followed by loud peals of thunder. Hailstones of unusual size for this time of the year followed, accompanied by showers of drenching rain.

BLACKFRIARS BRIDGE.—At the Court of Common Council on Friday it was reported that all hopes of completing this bridge in time for opening by the 24th of this month are at an end. It was originally intended to open it on that day, which would have been peculiarly appropriate, inasmuch as it is her Majesty's 50th birthday, and exactly the 100th anniversary of the date on which old Blackfriars Bridge was first opened. It appears that the bridge cannot now be opened until the beginning of July next, and the improvement committee has been requested to report as to the public ceremonial to be adopted on the occasion. A suggestion that the Holborn Valley Viaduct should be opened on the same day was referred back to the committee.

METROPOLITAN BOARD OF WORKS.—At the meeting of the Metropolitan Board of Works on Friday a report was made from the General Works Committee, excusing all the clerks from guilty knowledge of the late defalcations; but Mr. Legge, one of the members, insisted that there must have been a great deal of negligence. A memorial from Clerkenwell complained of the danger of storing petroleum, but the inhabitants were informed that the law settled the matter, and that the Board had no authority.

CHURCH REFORM.—A public meeting was held at Wals's Rooms on the 13th inst., for the purpose of organizing a movement for a reform of the Church of England. Lord Alford presided, and was supported by Mr. C. Buxton, M.P., Mr. Allen, M.P., Mr. Briscoe, M.P., Mr. T. Chambers, Q.C., M.P., and others. The Rev. Carr J. Glyn, rector of Wychampton, moved the first resolution, which stated that the objects of the society would be as follows:—

- 1. The amendment of the Book of Common Prayer, under proper authority, by omissions and alterations, especially in the rubrics and occasional services. 2. The reform of the Ecclesiastical Courts, so as to procure a less expensive and more expeditious mode of remedying abuses. The lay element to be maintained in the constitution of such courts. 3. The reform of abuses connected with patronage, due regard being had to vested interests. 4. The modification of the Acts of Uniformity and the complete revision of the Book of Canons, together with the correction of such evils as hinder the extension, and mar the usefulness, of the Church of England.

Mr. T. Chambers seconded the resolution. The resolution having been adopted, Lord Ebury was elected president of the new society, and Baron Pigott, Mr. Allen, M.P., Mr. Buxton, M.P., and several other gentlemen, were elected Vice-Presidents.

THE WIDENING OF THE POTTRY.—At the Court of Common Council on Tuesday a letter was read from Mr. Lee, on behalf of the Bishop of London, stating that, in order to terminate the negotiation which had lasted so long, and which his lordship could not but feel was the means of impeding a great public improve-

City Intelligence.

THE CASE OF FORGERY ON THE BANK OF ENGLAND.—On Saturday Major Frederick Beswick, chief clerk of Birkenhead, was again brought before the Lord Mayor, on remand, charged with forging and uttering a power of attorney for the transfer of £50,000 Consols, with intent to defraud the Government and Company of the Bank of England, under the

ment, he was willing to accept 4000*l.* for the ground required to widen the public way in front of St. Mildred's Church, Poultry. It was understood that a much larger sum had been asked for the ground than the commissioners were willing to give, and the chairman congratulated the court on the fact that the ecclesiastical authorities had at last come down to their terms.

THE DOCKYARD EMIGRANTS.—Intelligence has been received at the Admiralty of the safe arrival of her Majesty's troopships *Crocodile* and *Serapis* at Quebec, with emigrants on board. The *Crocodile* arrived on the 7th inst., and left again on the 12th inst. The *Serapis* arrived on the 15th inst., and was to leave again on the 20th inst. The emigrants had all gone up West, and there had been no casualty. The Admiralty have given notice that the *Crocodile* will, on her return home, make a trip to New Brunswick, and that a limited party of discharged Government workmen will be taken in her.

TWO GOLD SHIPS BURNT AT SEA.—A telegram from Queenstown announces the total loss of the *Blue Jacket* and the *Omar Pasha*, by fire. Both were homebound, and the first, besides a number of passengers, had 130,218*l.* of gold on board, the produce of the Australian and New Zealand "diggings." The crew and passengers took to the boats, and after enduring great hardships for seven days, one of them was picked up; but two others, containing 32 persons, had not been heard of. The *Omar Pasha*, also homebound, from Brisbane, with a valuable cargo, 30,000*l.* in gold, and 43 passengers, took fire, and was abandoned, all lives being saved by the boats. Both ships and their cargoes were fully insured.

ASSAULTS ON THE POLICE.—At the recent Middlesex Sessions all the cases tried were cases of assault, and in each the victim was a policeman. The prisoners were six in number, and only two of them had been in custody before. The offence given by the police was that they were trying to stop, in two instances a fight, in a third a disturbance of the streets. The prisoners got the officers on the ground, and either kicked them on their heads with heavy boots or jumped upon them, in one instance making the outrage still more serious by attempting to draw a cart over the officer's body. They were all found guilty, and sentenced to various terms of imprisonment. On Monday a number of similar assaults upon the police were brought before Mr. Paget at the Thames Police Court, and the persons accused having been convicted, they were each sentenced to two months' hard labour. Some of the delinquents earnestly entreated to have the sentence commuted to a fine; but the magistrate declared that he never did, and never intended to punish assaults on the police, when they conducted themselves properly, with fines. They had dangerous and onerous duties to perform, and the interests of society required that they should be protected.

HIGHWAY ROBBERY IN THE STREETS.—A daring robbery was committed in Rosemary Lane, Whitechapel, about 9 P.M. on the 18th inst. A Greek merchant called Vreonius was being driven along the lane in a cab towards the City at the rate of between five and six miles an hour, when a young man, who must have seen him enter the vehicle two or three minutes previously, ran alongside the cab for a distance of 100 yards, thrust his arm into the cab, and made a violent snatch at M. Vreonius's gold chain, carrying away part of it and the watch to which it was attached. M. Vreonius directed the cabdriver to stop, and he alighted, but the thief got away with his booty. The watch was worth 60*l.*, and the portion of the chain taken with it 20*l.* more. M. Vreonius, who gave immediate information at the station-house in Leman Street, said that he had only been in London a few hours, and had been in all the capitals in Europe but had never been robbed before. On Thursday a well-known thief, called Gallagher, was brought before the magistrate at the Thames Police Court, and was identified by a tradesman who saw the robbery committed. He pleaded guilty, but so many convictions by juries and magistrates were proved against him that the magistrate said he could not dispose of the case summarily, and committed the prisoner for trial.

ATTEMPTED MURDER AND SUICIDE.—At the Clerkenwell police-court on Monday a house-painter, named Beech, aged 47, living in the Caledonian Road, was charged with attempting to murder his wife, and afterwards to commit suicide. They had been out drinking together, and, as the woman said, he was "crazed with drink." She offended him, upon which he inflicted a serious wound on her throat with a table knife. He then went out, and gave the alarm, and when the neighbours ran in to his wife's assistance he attempted to cut his throat, but was prevented. He was committed for trial on the charge of attempt to murder.

THE PUBLIC HEALTH.—The Registrar-General's Weekly Report states that in the week that ended on Saturday, May 15, 4552 births and 3010 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 24 per 1000 persons living, being 21 per 1000 in London, 31 in Edinburgh, 20 in Dublin, 23 in Bristol, 21 in Birmingham, 30 in Liverpool, 24 in Manchester, 21 in Salford, 26 in Sheffield, 30 in Bradford, 23 in Leeds, 25 in Hull, 28 in Newcastle-upon-Tyne, and 38 in Glasgow. The rate in Vienna was 37 per 1000 during the week ending the 8th inst., and in Berlin 32 per 1000 during the seven days ending the 13th inst. In London the births of 1024 boys and 968 girls, in all 2012 children, were registered in the week. In the corresponding weeks of 10 years, 1859-68, the average number, corrected for increase of population, was 2178. The deaths registered in London during the week were 1279. It was the 19th week of the year, and the average number for that week, corrected for increase of population, was 1409. The present return is therefore 130 below the estimated amount.

Provincial.

BOLTON.—An inquest was held on Monday on the body of Lady Firth, who was found drowned in the River Wharfe, at Bolton Bridge. It appears that her ladyship, with Sir C. H. Firth, her husband, and Mr. and Mrs. Haigh and family, were staying at the Devonshire Arms Hotel, near Bolton Abbey. On Saturday morning, after breakfast, the deceased and Mrs. Haigh were going out for a walk, but the latter, not having finished a letter she was writing, Lady Firth went out alone, and never returned. Search was immediately made, but it was not until Sunday afternoon that the unfortunate lady was discovered, drowned in a deep part of the river beneath a high bank, called "The Duke's Bathing Place," the late Duke of Devonshire having been accustomed to bathe there. Her watch had stopped at 42 minutes past 10, which was but a few minutes after she left the hotel. There were some rough steps down to the water, and it is supposed that she descended in search of flowers, and slipped into the stream. The jury returned a verdict of "Found drowned."

BRADFORD.—A monument to the memory of the late Mr. Richard Oastler, the successful advocate of the "Ten Hours' Bill," was inaugurated in this town on Saturday. Every factory district of Yorkshire and Lancashire was largely represented in the crowd of 100,000 well-dressed persons who filled the streets. A procession, composed of 30,000 persons, marched from the town to Peel Park, about a mile distant. An address was there presented to the Earl of Shaftesbury, who, as having been in years past prominently identified with the labours of Mr. Oastler, had undertaken to perform the ceremony of unveiling the monument. It expressed the gratitude of the working people of Yorkshire and Lancashire to his lordship for the disinterested, arduous, and successful labours he had undergone to secure the adoption of the Ten Hours' Bill, the beneficial results of which they had enjoyed for nearly 20 years, and which are now visible in the marked improvement of the physical and intellectual condition of factory workers. Lord Shaftesbury, in reply, expressed the gratification he felt in having been requested to take part in the proceedings. The procession was then reformed and returned to the town, a large proportion of those composing it gathering in the open space around the site of the statue in front of the Midland Railway station. On arriving at the site Lord Shaftesbury, who was publicly welcomed by the mayor, unveiled the statue. He addressed the crowd, congratulating them as Yorkshiremen on their mindfulness of old friends, and of one who left his retirement to maintain the cause of the worn-out adult and the cause of suffering children, and who brought to the work a force of talent, a vigour of mind, and an earnestness of heart that in any profession would have raised him to its highest rank. Addresses were then delivered by Mr. W. E. Forster, M.P., Mr. Ferrand, and Mr. Miall, M.P., after which the crowd dispersed. At 8 o'clock a public meeting was held in St. George's Hall, under the presidency of the Mayor, who was supported by Lord Shaftesbury, Lord F. C. Cavendish, M.P., Mr. Forster, M.P., Mr. Miall, M.P., Mr. Wheelhouse, M.P., Mr. A. Illingworth, M.P., &c. The memorial represents Mr. Oastler in the act of making an appeal on behalf of the factory children, two of whom, a boy and girl, are grouped at his side. The sculptor is Mr. Birnie Philip, of London. The entire cost of the work was 1500*l.*, contributed by the friends of the "short-time movement" in Yorkshire and Lancashire.

BURY ST. EDMUND'S.—The magistrates of Suffolk are about to unite the police forces, which have hitherto had a separate and independent existence, in East and West Suffolk, and a chief constable is to be appointed for the whole county. There are 52 candidates for the vacant office, to which a salary of 550*l.* per annum is attached.

GRIMSBY.—On Sunday morning two poachers were encountered by the gamekeeper and gardener of Mr. Henry Thorold, at Ravendale, near this town. One poacher fled, but the other fired at the gardener, and the shot took fatal effect. The two men made good their escape, but were subsequently captured. The jury at the inquest returned an open verdict of "Wilful murder against some person or persons unknown." The prisoners were brought before the magistrates on Tuesday, and remanded for a week.

HEXHAM.—On Wednesday, the 12th inst., the Countess of Derwentwater, after travelling express from London, arrived at Dilston toll-gate, and took possession of a hind's cottage almost directly in front of a pathway leading to the baronial residence to which she lays claim. On Friday the new hind put in an appearance to occupy the cottage vacated by his predecessor. No admission, however, could be obtained to any but the lower rooms, as the countess was duly installed in the upper apartments; and it was decided to eject the intruder without further delay. Mr. Thompson, the landlord, advanced to the door and peremptorily demanded admittance. This demand was refused, and after some parley a number of the farm servants were instructed to break open the door with a heavy hammer. The men then carried the whole of the countess's furniture into the middle of the turnpike, where it was deposited in a heap, after which they returned for her. No more opposition was made to the removal than was necessary to render it forcible, and, consequently, within a very few minutes her tent was for a second time transferred to the highway. She then remained under the surveillance of two policemen until four o'clock, when she proceeded in her carriage to Hexham; and, after transacting business with her solicitor, returned to the lodging taken for her at Corbridge. The furniture was also removed there in the evening.

JERSEY.—An attempt to level a piece of ground off

St. Aubin's Road, about a mile from the town, resulted in an interesting discovery. A stone structure, which had been directed to it. It was found to be constructed of 16 or 18 huge stones, and closed at each end, the floor being of sand. Eleven urns were discovered, some of them broken and imperfect, but all of approach each other in size, and some of them 9 or 10 inches in diameter. They are symmetrically shaped, and filled with earth and, it is believed, they are too brittle to be handled. A flint weapon was also among the contents.

LYNN.—After an investigation extending over several weeks Mrs. Langford was on Friday brought to trial on the double charge of poisoning her child and infant. From the respectable and occupied by the parties, the case has attracted considerable excitement in the district. The Langfords have resided in Lynn for many years, and have always enjoyed a good reputation. She appears to have been a very pretty woman, and children until this occurrence. She has laboured under the impression that the consequence of the failing health of her husband would come to nothing, and that the lives of eight children would be reduced to a mere feeling she discharged her servants, and applied herself to the conduct of the household, only the occasional assistance of a nurse being urged by her friends that the strain was thus to sustain was too much for her. She gave way, and that in a moment of weakness she administered strychnine to her child. On the other hand, it is not necessary to state given to her husband and child on a Monday the assistant who attended to the child by Mr. Langford not being on the premises greater part of the Sunday, so that she had an opportunity of procuring strychnine as a consequence of suspected suicide, instead of part of the prisoner, she has from the first night and day.

MARLBOROUGH.—The Overstone estate, town, which was purchased about three years ago by the Duke of Marlborough, by the late Mr. St. John, for about 140,000*l.*, has just been sold to a gentleman to Lord Ernest Bruce, a representative of Sir H. Meux, at a profit of 100,000*l.*

PRESTON.—On Monday a report was received from the executive of the power-loom weavers, that as they could hold out no hopes of a struggle to a successful issue, they felt it their duty to advise the operatives of Preston to make some amicable arrangement with the employers. It is considered that the strike is now at an end.

SOUTHAMPTON.—The Mayor of Southampton received the following letter from the Hon. Mr. Johnson, in reply to an invitation addressed to him of the Borough Council, on Saturday last, forwarded to London by special messenger on the evening of the 13th inst., requesting Mr. Johnson to banquet on the occasion of his departure to-day, in the steamship *Ohio*, for Baltimore.

"Sir,—The hospitality of the inhabitants of Southampton tendered me in a banquet to take place on the 13th inst., prior to my departure for Baltimore, which I gladly and gratefully accept if I could do so, and are such that I find it impossible to resist the invitation of my arrival in your country to the present time, I used my best efforts to contribute in your own feeling for the United States, and I feel that in this I have not failed. The present state of affairs firms me in this opinion. I shall, however, be a victim that her people and her Government are at war between the two countries would be as if as could befall them, and this, I believe, is also the conviction of my Government and the people of the United States. For a number of years to recent occurrences to which it is only too apparent apprehensions were entertained that such a calamity possibly occur. These I am glad to see have ceased to exist. I shall return, therefore, with the assurance that the amicable relations between the two nations are not to be seriously interrupted. The career of both will necessarily be determined in the future than it has been in the past, and I trust the Government be placed upon a firm and permanent basis. With my best thanks to you, Mr. Mayor, and to the authorities for the honour they have done me, I remain, high regard, your obedient servant, R. W. Johnson."

ULVERSTON.—The fasting girl, who has been said has abstained from food since last October, has begun both to eat and talk. She has, it is reported, been 25 weeks without any food, and her lips, and 16 without having her lips open.

WARWICK.—On Sunday afternoon a large portion of the Warwick and Napton Canal, midway between Emscote Bridge and the bridge at Emscote, was washed away, and the water escaped through a breach until it had completely washed away three adjoining fields, and some crops and property in that locality.

WIGAN.—A singular accident occurred on the morning of the 13th inst., in the Wigan Colliery, near the Norley Coal Company, near this town. A large quantity of coal had been left below to superintend the engine, a hopper, and 600 yards of rope, when, in consequence of the breach in the engine, a hopper, and 600 yards of rope precipitated into the shaft. It was supposed that three men had either been crushed or suffocated; but after nine hours' search they were brought alive to the pit, and were regarded as men risen from the dead, as they had been covered by the first fall, and was so saved, and another man was killed by a basket. The third was killed by a

sold fully as dear as on Monday, and there is scarcely a quotable difference in other descriptions. The number of Sheep is smaller, and there is a slight advance on choicest qualities, but trade does not finish briskly. Trade is dull for Lambs and Calves at Monday's rates. Our foreign supply consists of 648 Beasts, 4690 Sheep, 137 Calves, and 5 Pigs.

Best Scots, Herefords, &c.	5 8 to 6 0	Best Long-wools	5 4 to 5 6
Best Shorthorns	5 6 - 5 10	Do. Shorn	5 4 to 5 6
2d quality Beasts	3 6 - 4 6	Ewes & 2d quality	5 8 - 6 8
Best Downs and Half-breds	5 8 - 5 10	Do. Shorn	4 8 - 5 0
Do. Shorn	5 8 - 5 10	Lambs	5 8 - 6 8
Beasts, 910; Sheep and Lambs, 11,630; Calves, 303; Pigs, 10.		Calves	3 6 - 5 6
		Pigs	3 8 - 5 6

METROPOLITAN MEAT MARKET.—May 22.
Best Fresh Butter .. 14s. per dozen lb.
Second do. do. .. 12s.
Small Pork, 4s. 8d. to 5s. 8d.; Large Pork, 4s. 0d. to 4s. 8d. per 8 lb.

MARK LANE.—Monday, May 17.
There was a small supply of Wheat from Essex and Kent to this morning's market, which was sold at the prices of this day se'nnight. The attendance was small, and there was but little disposition to purchase foreign Wheat; the amount of business done was very limited, at rather under last Monday's rates. Barley, Beans, and Peas were unchanged in value. The Oat trade was steady at Friday's advance, being 6d. per qr. from this day week. Flour was dull, and difficult of sale.

WHEAT, Essex, Kent, Suffolk, White	42-48	Red	42-44
— fine selected runs..do.	44-47	Red	45-46
— Talavera	56-54		
— Norfolk	—	Red	—
— Foreign	37-60		
BARLEY, grind. & dist., 28sto32s. Chev.	46-49	Malting	44-47
— Foreign..grinding and distilling	24-28	Malting	32-43
OATS, Essex and Suffolk	—		
— Scotch and Lincolnshire..Potato	25-33	Feed	—
— Irish .. .. .Potato	30-32	Feed	23-28
— Foreign.....Poland and Brew	25-30	Feed	21-26
RYE	38-40	Foreign	—
RYE MEAL, Foreign	—		
BEANS, Mazagan .. 39s to 40s. Tick	42-43	Harrow	42-43
— Pigeon .. 43s to 47s ..Winds	—	Longpod	—
— Foreign .. .. .Small	38-42	Egyptian	35-36
PEAS, White, Essex, and Kent..Bollers	40-41	Suffolk	39-42
— Maple 41s to 45s.....Grey	40-42	Foreign	36-39
MAIZE	—	Foreign	28-30
FLOUR, best marks delivered ..persack	39-43		
— 2d ditto .. .. .ditto	28-40	Country	28-40
— Foreign .. .. .per barrel	23-37	Per sack	30-40

FRIDAY, May 21.
The weather during the past week has been changeable, but, on the whole, wet has predominated in the southern districts, while in Scotland little rain has fallen, the temperature being at times chilly, and some nights frosty. Since the 14th inst. we have had throughout the markets of the kingdom a slow trade, and in some cases prices have been slightly in favour of buyers; but generally speaking former rates were insisted upon for both home-grown and foreign Wheat. Excepting Oats, which met increased attention at a small advance, the value of Spring Corn has undergone no alteration of any importance. Flour moved off slowly, and was written 6d. per sack cheaper in some cases. The arrivals off the coast this week consisted of 18 cargoes, of which, with those left over from last week, there remained for sale last night 24 cargoes. The floating trade exhibited symptoms of a slight improvement. Wheat off the coast commanded about late rates. Maize was easier at the commencement of the week, but prices closed unaltered. Barley not much sought after, and of Rye none offering. In cargoes on passage and for forward shipment hardly any business has been transacted. Rye was in demand on Continental account, and Cottonseed continued firm. Paris, May 20.—The trade in Wheat and Flour was somewhat more animated during the last week, the unsettled weather causing a better demand. The eight marks are quoted at equal to 36s. 3d. per 280 lb. The stock at the Halle is estimated at 6059 cwt.
The arrivals of all grain this week have been moderate. There was a fair attendance at this morning's market; the trade was without animation, and the few sales made of Wheat, either English or foreign, were at Monday's quotations. Spring Corn of all descriptions was unchanged in value.

ARRIVALS.

	Wheat.	Barley.	Oats.	Flour.
English ..	390 qrs.	— qrs.	— qrs.	— ska.
Irish .. .	— " "	— " "	1300 "	—
Foreign ..	10,650 "	3740 "	15,760 "	2510 "
	10,040	3740	17,060	— brls.

LIVERPOOL, Tuesday, May 19.—We had a moderate attendance at this morning's market, and Wheat met with a very limited demand, at a decline of 2d. to 3d. per cental on white, and 3d. to 4d. on red kinds for the week. Flour was in restricted inquiry, at late rates. Indian Corn was in fair request, at the prices of last market day. Oats firm. Oatmeal scarce, and 1s. per load dearer. Beans and Peas dull.

SEED MARKET.
The agricultural seed trade, as is usual at this time of the year, is now very quiet, the consumptive demand having altogether ceased. We have a speculative inquiry for new German Red Clover seed, of which there is not much remaining. Home-grown Red, as well as Alayke, White Clover, and Trefoil seeds, are at present quite neglected. Bird seeds continue to advance in price. For White Mustard seed we have a brisk demand at full rates; the same can also be said of Essex dwarf Rapeseed. Spring Tares are very scarce and dear.
JOHN SHAW & SONS, 16, Water Lane.

AVERAGES

	Wheat.	Barley.	Oats.
April 10 ..	47s 0d	44s 6d	26s 5d
— 17 ..	46 8	44 6	27 7
— 24 ..	45 5	43 6	26 9
May 1 ..	44 9	42 2	26 11
— 8 ..	44 4	40 2	26 9
— 15 ..	44 6	40 1	26 11
Average ..	45 5	42 6	26 11

A YOUNG GENTLEMAN can be TAKEN on an extensive FARM in one of the best districts of Scotland. Draining and other extensive improvements going on. Can either work or not as desired. Good Hunting, Shooting, and Fishing. Only one hour from Edinburgh. Terms, £106 per annum, washing included.—JAMES MURRAY, General Post Office, Edinburgh.

WANTED, an ATTENDANT, having a knowledge of Gardening. Wages £22 per annum, with uniform.—Apply to the Superintendent.

Head Gardener (Working).
WANTED, by a Gentleman living about 10 miles from London, a practical HEAD GARDENER (married), quite able and willing to undertake the Management of large Flower and Kitchen Gardens, with Pineries, Graperies, Shrubberies, &c.; also the Management of Grass-land and Stock. No Perquisites. Exhibiting for competition strictly prohibited. Comfortable lodge, with accommodation for one Child. Duties of the Wife, ordinary duties of a lodge and the charge of the Poultry.—Applicants should state, as concisely as possible, the ages of self and wife, the number of children and their ages, salary expected, what experience they have had, &c., by letter addressed to A. B., 112, Fenchurch Street, London, E.C.

WANTED, a GARDENER (HEAD, WORKING), who thoroughly understands his business—Land and Stock. Wife to attend Lodge, and must thoroughly understand the management of Poultry. None need apply who cannot give unexceptionable references for ability and respectability. Wages £1 1s a week, with lodge, milk, and vegetables.—Apply to A. B., Messrs. Sutton & Sons, Reading, Berks.

WANTED, a GARDENER, and required to make himself otherwise useful. Unmarried, and not under 35 or 40 years of age; board and lodge in the house; and must have been used to Glass. The most satisfactory references for honesty, sobriety, &c., will be required.—Address, F. E. W., Post Office, Malton.

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WANTED IMMEDIATELY, a COUPLE without Children, to Live at a Lodge.—The Wife as Dairymaid and to Bake for the House. The Man as Labourer in the Garden or Farm.—Apply to J. RIBWAY, Esq., Fairlawn, Tunbridge, Kent.

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ROYAL ZOOLOGICAL SOCIETY, London.
ROYAL BOTANIC SOCIETY, London.
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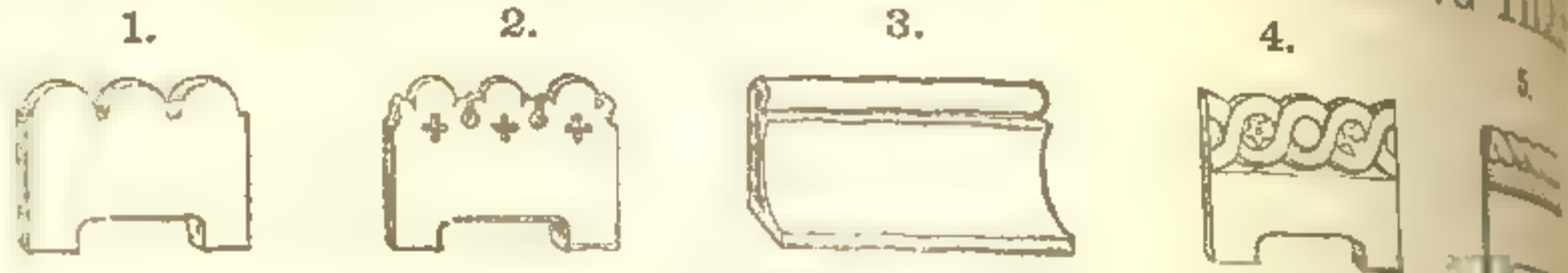
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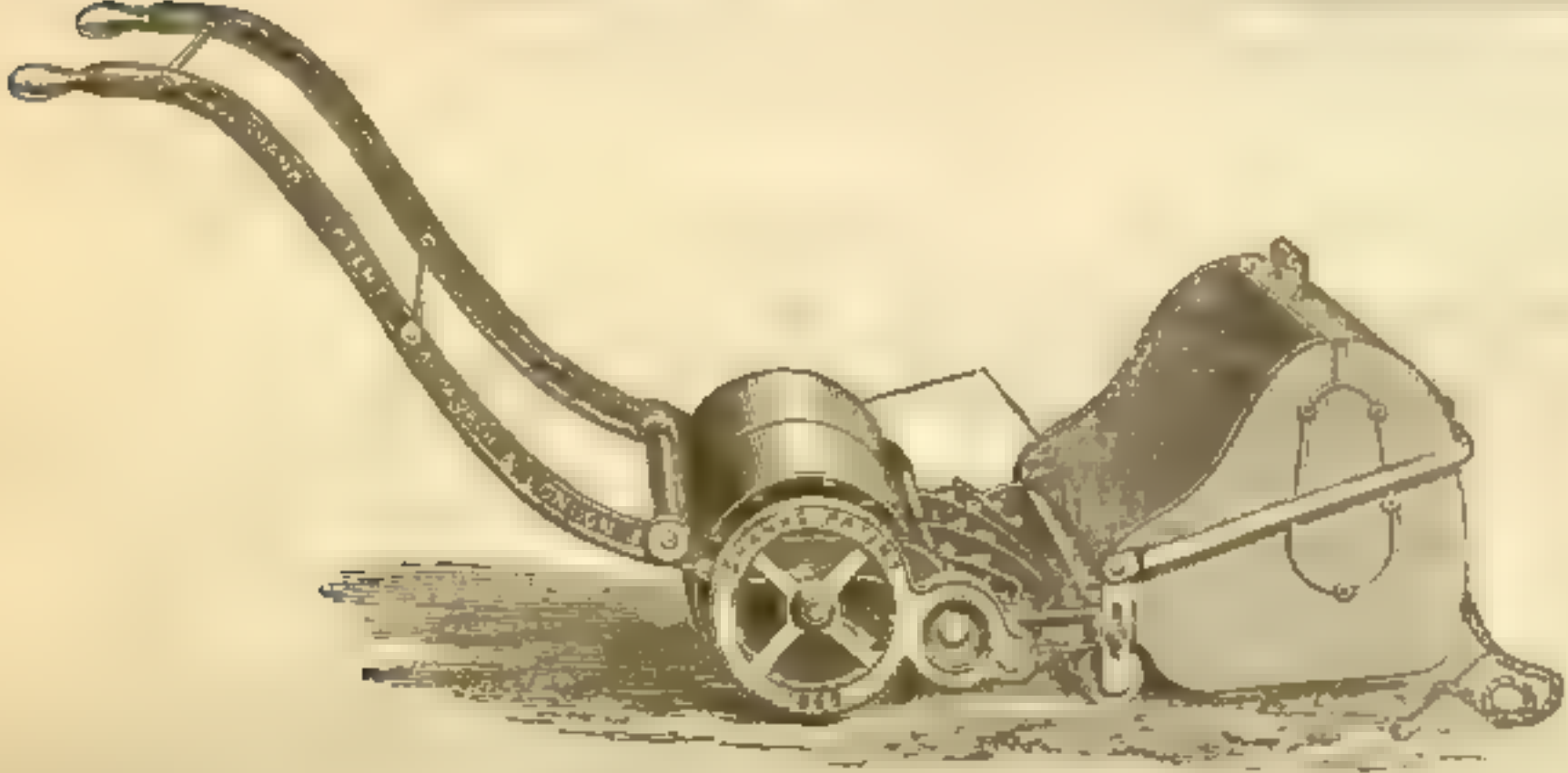
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THE LANDS IMPROVEMENT COMPANY.

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THE SOCIETY of PAINTERS in WATER COLOURS. THE SIXTY-FIFTH ANNUAL EXHIBITION IS NOW OPEN, at Pall Mall East (close to the National Gallery), from Nine till Seven. Admittance 1s.; Catalogue 6d. WILLIAM CALLOW, Secretary.

Home News.

THE COURT in SCOTLAND.—On Friday morning the Queen went out with Princess Beatrice, and in the afternoon drove to the Glassalt Shell with Princess Louise and Prince Leopold. On Saturday the Queen went out in the morning, and in the afternoon drove out with Princess Beatrice. On Sunday the Queen and Royal family attended Divine service in the parish church of Crathie. The Rev. Dr. Taylor, minister of the parish, officiated. On Monday, being the Queen's 50th birthday, her Majesty spent it quietly with the Royal family. Her Majesty invested Prince Arthur with the Order of the Thistle, and Prince Leopold with the Garter, and afterwards planted a tree in commemoration of the day. In the afternoon the Queen and Royal family were present at a dance given in honour of her Majesty's birthday to the servants, tenants, keepers, and others resident on the estates of Balmoral, Aberfeldie, and Birkhall. The dance was held in a large marquee close to the Castle, and commenced at half-past 5.

THE PRINCE and PRINCESS of WALES.—On Saturday the Prince returned to Marlborough House from Sandringham. On Sunday the Prince and Princess attended Divine service in the Chapel Royal, St. James's. The Hon. and Rev. R. C. Boyle preached the sermon. On Monday morning the Prince rode out. The Crown Prince of Denmark arrived at Marlborough House on a visit. The Prince and Princess met his Royal Highness at the Curving Cross, Piccadilly. In the evening the Prince was present at the anniversary dinner of the Royal Geographical Society at White's Rooms. On Tuesday the Prince went to Frogmore, and visited Prince and Princess Christian. The Princess drove out with the Crown Prince of Denmark. On Wednesday the Prince and Princess, accompanied by the Crown Prince of Denmark, went to Epsom races. On Thursday morning the Prince rode out with the Crown Prince of Denmark. Prince and Princess Christian visited their Royal Highnesses and the Crown Prince of Denmark at Marlborough House, and remained to luncheon. In the afternoon the Princess and the Crown Prince of Denmark drove to Kew, and visited the Duchess of Cambridge.

PRINCE and PRINCESS CHRISTIAN.—The health of Princess Christian being much improved, her Royal Highness, with Prince Christian and family, are shortly expected at Balmoral.

TRIAL of ELECTION PETITIONS.—The trial of the North Norfolk petition has resulted in the defeat of the petitioners. Mr. Justice Blackburn, on Monday, gave judgment that the sitting members, Sir E. Lecon and the Hon. F. Walpole, had been duly elected, and that there was no ground for departing from the usual practice as to costs, which the petitioners must pay. The Conservatives of Breton have presented a petition against the return of Lord Hyde, on the ground of bribery and corrupt practices.

PARLIAMENTARY MOVEMENTS.—The Conservatives of Marylebone have invited Mr. Roebuck to become a candidate for that borough, on the resignation of Mr. Harvey Lewis. Mr. Odger and the other Liberal candidates for Stafford have consented to a preliminary ballot for the purpose of deciding which two candidates of that party shall go to the poll.

THE COPPER COINAGE.—A proclamation has been issued by the Queen in Council, declaring that no copper coins, other than the bronze coinage issued in 1860, shall be allowed to pass or be current in any payment whatsoever within the United Kingdom after the 31st of December next.

THE ALABAMA and HER BUILDERS.—Messrs. Laird, of Birkenhead, have published an account of their connection with the Alabama, which they abstained from making public so long as negotiations were pending between the two Governments. They state that it was notorious to the Government, to the public, and to the Minister of the United States, that the vessel was intended to be employed as a vessel of war, although the real purchasers were not known. It was generally suspected that the vessel was intended for the Confederate Government, and though Messrs. Laird do not say that they entertained a different opinion, they take their stand on the opinions of the highest legal authorities, that such a knowledge on their part would not lay them open to the imputation of having directly or indirectly infringed the law. Munitions of war were openly supplied by merchants in this country to both belligerents during the war, and all that Messrs. Laird contend is, that they are no more open to animadversion for having built a vessel for the Confederate Government, than Messrs. Baring & Co. are for having built others of the same class.

Government, than Messrs. Baring & Co. are for having built others of the same class. The Alabama, however, was neither equipped nor armed when she left the Mersey, and Messrs. Laird were consequently innocent of any infraction of the law. The English Government thought that the evidence before them was insufficient to justify them in detaining the vessel, seeing that she had not even a signal-gun on board; but, as it now appears, it was open to the American Consul at Liverpool, if he had thought proper, to have taken action in the matter at his own risk. He declined to do so; and it has since been ascertained that if the Government had stopped her, they might have found the law against them, and been liable to damages, as happened in the case of the Alexandria.

Foreign.

FRANCE.—The General Election took place on Sunday throughout France. Forty-one Deputies have been elected who have never before had seats in the Assembly. The number of Opposition candidates elected, or re-elected, amounts at the present time to 28. They have gained six and lost three seats. Second ballots were necessary in 59 cases, none of the candidates having obtained a sufficient majority. The significant fact established by the results is not the number but the quality of the Opposition. The Constitutional and moderate Oppositionists have been signally defeated in Paris, Lyons, Marseilles, and other large towns by Red Republicans, Socialists, and Radicals hostile to the Imperial dynasty. In Paris M. Gambetta, an advocate at the Paris bar, who was brought into notice by a very violent speech against the Emperor in defending one of the prisoners in the Baudin prosecution, has been returned by a large majority. M. Thiers has defeated M. Devinck, the Government candidate (though a Liberal), but will have to undergo a second ballot; M. Bancel, one of the most advanced Republicans, has defeated the moderate reformer and old champion of progress, M. O. Auler. M. P. Paul, one of the famous "five," has been returned by a decisive majority; M. Garnier-Pagés must undergo a second ballot in a fortnight, and will probably be defeated if the two opposing candidates come to an understanding; when M. Raspail, the Red Republican, will be returned. The Socialist Republicans, or anti-dynastic party, have agreed to unite at the second balloting, and choose the most extreme man; and hence, though M. Jules Favre is at the head of the poll, if the other three candidates who opposed him agree, as is expected, amongst themselves, M. Rochefort, who has made himself notorious for his abuse of the Emperor in the Lanterne, will be returned. MM. St. Paul and P. Paul, of the old Opposition members, have been returned, while M. Guérout, one of the favourite Opposition Deputies of last session, and the editor of the Opinion Nationale, in consequence of his suspension and his friendly with Prince Napoleon, has been thrown over by a majority of the voters, who, if not Republican, are at least hostile to the Bonaparte family. Some of the Opposition candidates have suffered rather unexpected defeats in the departments, M. Jules Favre being in a minority at Marseilles, Laire, Summe, and Lyons, where he had M. H. H. another Republican candidate, have been rejected for men of more advanced opinions, the former having been replaced by M. Raspail, and the latter by M. Bancel. M. Thiers has likewise failed at Lisle and Poitiers, and M. Glais-Bizoin at St. Brieuc. M. Jules Simon has been elected at Bordeaux, but was rejected at Toulon and at Perpignan. With the exception of some rioting at Amiens, L. Etienne, Angers, Lisle, Dijon, and Toulouse, the elections passed off quietly, but the results, as far as they have transpired, have exercised an unfavourable impression on the Bourse. The semi-official journals express the opinion that the principal features of the elections are:—The substitution of Radical Opposition for Moderate Opposition, the check given to the Orleanist and Moderate Republican candidates, and the general extinction of intermediate shades of opinion. The France says:—

"The Empire must not become reactionary like preceding régimes. Relying upon its liberal tendencies, it must assert itself in the face of the Revolution, which, while triumphing in the ballot in Paris, is disavowed by the immense majority of the French people." The Emperor received General Dix, the United States Minister, in farewell audience, on Sunday. His Majesty also received Mr. Washburne, the new Minister, who presented his credentials. Mr. Washburne said that at no former period have the people and Government of America desired more than at present to cultivate and perpetuate the traditional friendship which exists between the two countries. He also gave expression to the friendly sentiments entertained towards France by President Grant. The Emperor replied in terms equally friendly, remarking that good relations between France and America had existed without interruption during a century, and he cordially hoped this amicable understanding would be maintained. It is announced in most of the French papers that the principal shops in Paris will henceforth be closed on Sundays. This important social reform has been brought about by the Society of the Employés de Commerce, who inform the public that, with few exceptions, all the linendrapers, vendors of ready-made apparel, silk mercers, and hosiers have consented to close their shops on Sunday, and the employés "appeal to the good-will of the public to aid them in making the measure general." The ironclad Belliqueuse returned to Brest on Wednesday from a voyage round the world. This is the first vessel of this description which has performed so long a voyage. The Belliqueuse has sustained no damage. SPAIN.—In the Constituent Cortes on the 20th inst.,

after the adoption of the monarchical clauses, Senor Castelar acknowledged the virtues of the Duke de Montpensier, but said that being a Bourbon it was impossible for him to be King. In reply to this Admiral Topete the Minister of Marine, declared that the Duke de Montpensier was the best candidate. Immediately before the close of the sitting a violent discussion arose in consequence of an assertion of Senor Ayala, Minister of the Colonies, that the Republicans had no share in bringing about the revolution. Senor Ayala subsequently tendered his resignation, which was at once accepted. In the sitting of Friday clause 34, which determines that all laws enacted by the Cortes should require the royal sanction, was adopted. All the other clauses up to 70 were passed. Senor Ortez, Minister of Justice, brought in a bill permitting civil marriages and legalising those already contracted. In the sitting of Saturday Marshal Serrano expressed the regret of the Ministry that Senor Ayala had resigned before the House had concluded the discussion on the draft of the Constitution. Senor Ayala declared that he would give his support to the Government. In the sitting of Sunday clauses up to 94 of the draft of the Constitution were adopted. In the sitting of Monday the 100th article was adopted. In the sitting of Tuesday Senor Castelar criticised adversely the colonial clauses, and said, alluding to Cuba.—“If Spain had followed the example given by England in her dealings with Canada, and granted the liberties which the colonies claim for themselves, it would have successfully prevented the outbreak of an insurrection.” Marshal Serrano replied that General Dulce had granted the liberties required, but that party passions had blinded the inhabitants to the intentions of Government. The insurrection, as regards its physical strength, was almost suppressed, and 600 filibusters had lately been defeated; nevertheless, the moral disorder was likely to disappear more slowly. As soon as the normal state of things should be re-established the Government would, in conjunction with the Cuban deputies, suppress slavery by a well-considered measure, and proceed with inexorable severity against all persons engaged in the slave trade. In the sitting of Wednesday the last clauses were agreed to, and the solemn promulgation of the Constitutional Charter was to take place yesterday. It is said that Queen Isabella has declared that she will not abdicate in favour of the Prince of Asturias. The Government has refused to admit that any indemnity is due to the crew of the *Tornado*, or to Mr. McPherson, on account of their detention or on account of their alleged ill-treatment by the Spanish authorities. It has also declined to open the case anew before a special tribunal, and maintains the former decision as definitive. 600 volunteers have embarked at Cadiz for Havana. An imposing demonstration in favour of the Duke of Montpensier is expected at Seville. The bark *Don*, of South Shields, having caught fire, was scuttled close to the shore at Gibraltar.

PORTUGAL.—It is currently reported in Lisbon that Prince Augustus, brother to the reigning King of Portugal, has been offered the crown of Spain, and that he will marry the eldest daughter of the Duke of Montpensier. Prince Augustus was born in 1847. The proposed financial measures of the Ministry cause great agitation throughout the country. Count Taipa, lord of the bedchamber, has died suddenly of apoplexy.

SWITZERLAND.—The Federal Council has proposed to the French Government to hold a conference on the subject of the adhesion of the Papal States to the treaty of Paris for the assimilation of coinage.

DENMARK.—The Crown Prince left Copenhagen on the 19th inst. for Lubeck, on his way to London. His Royal Highness will remain in England on a visit to the Prince and Princess of Wales for a month or six weeks. The 27th of July is the day fixed for his marriage with the Crown Princess of Sweden.

PRUSSIA.—A royal ordinance has been issued convoking the Customs Parliament for the 3d June. The Minister of Finance has informed the North German Parliament that last year's Prussian deficit amounted to 9,863,431 thalers, and that it will be impossible to establish an equilibrium between the revenue and expenditure in the Budget of 1869-70, unless new taxes be imposed to the amount of 11,268,000 thalers, of which the Prussian portion would be 9,541,780. It is said that the Government will convoke the Prussian Diet for the 15th of June, if no arrangement be effected with the North German Parliament on the subject of the new taxes to cover the deficit. It is rumoured that the Minister of Finance has tendered his resignation. King William intends to restrict his journey to Hanover, Bremen, and Oldenburg.

AUSTRIA.—It is stated that the Bill relative to the Landwehr has received the sanction of the Emperor, and will be immediately promulgated. Archduke Rainer will be appointed commander-in-chief of the force.

HUNGARY.—The Empress left Pesth on Sunday night with her children for Vienna. The Supreme Court has determined that Prince Karageorgiewich, on furnishing bail, shall be set at liberty, in order to be able to prepare his defence.

ITALY.—The Viceroy of Egypt arrived at Florence on Sunday, and is lodged at the Pitti Palace. The King of Italy left Turin in order to receive his Highness, who remained in Florence until Thursday, when he left for Venice and Vienna. The Austrian Consul at Leghorn was assassinated in that city on Monday night while walking with the Austrian General Crenneville, who was also wounded in the face. It is believed that the Consul was struck by mistake, the real object of the assassins, who were two in number, being to murder General Crenneville from motives of personal vengeance connected with his command of the city during the state of siege in 1849. In the sitting of the Chamber of Deputies on Tuesday

Signor Massari said he considered the Chamber bound to express indignation at the murderous outrage at Leghorn. Signor Malechiori, the deputy for Leghorn, fully concurred in this feeling, but pointed out that during the Austrian occupation in 1849 General Crenneville had excited a deep and terrible hatred. The Minister of the Interior stated that the authorities had warned General Crenneville that his visit to Leghorn might be dangerous to him, and on that account had endeavoured to insure his safety. The assassins attacked him when just about to leave by sea. Fourteen persons have been arrested on suspicion. In the sitting of the Chamber of Deputies on Wednesday, General Menabrea announced that Signor de Filippo, Minister of Justice and Public Worship, had tendered his resignation, and that the portfolio had been accepted by Senator Pronti, whom he introduced to the House. It is said that Mazzini has left Lugano for London. He has addressed a letter to his “enemies,” in which he reiterates his well-known idea in favour of Republicanism, and denounces Italians under the present system of Government as the slaves of tyrants, the fools of corrupt officialism, and labourers in chains. The excavations at Herculaneum, undertaken by means of the 30,000*l.* granted by King Victor Emmanuel, have led to the discovery of a large room, which must have served for a kitchen. It contained a wooden clothes-press, entirely carbonised; 14 vases, a candelabrum and a lamp, in bronze, several vessels in glass and terracotta; a small marble statue of a Faun, and two broken tables, one in marble and the other in slate.

PAPAL STATES.—On Wednesday, after mass, the Pope delivered a powerful discourse condemning the errors which menace the Church and society. On Thursday, being the Feast of Corpus Christi, there was a splendid procession through the streets. His Holiness carried the Sacrament, and gave the benediction in St. Peter's, a large concourse of people being present.

RUSSIA.—General Von Kaufmann, Governor-General of Turkistan, was entertained on Monday at a banquet in St. Petersburg. He made a speech, in which he declared that for Russia the period of conquest in Central Asia was at an end, and that a time of peace had now commenced. He added that the war with Bokhara was not in contradiction with this view, as it did not originate with Russia, but was rendered necessary as a defence against the hostility of the Emir of that country.

SERBIA.—The Porte has sanctioned the construction of the Eastern Railway *via* Belgrade in accordance with the express desire of the Servian Government.

THE PRINCIPALITIES.—In the sitting of the Senate on Wednesday M. Telle brought in a motion demanding that in future Government officials should abstain from interference in the elections, and that any person guilty of corrupt practices at elections should be punished. He, moreover, threatened to propose a vote of want of confidence if the Ministry did not take such cases in hand.

TURKEY.—Mr. Elliot, the British Ambassador at Constantinople, has handed to the Sultan an autograph letter from the Queen, thanking him for the cordial reception he gave to the Prince and Princess of Wales during their recent stay in Turkey. The Turkish Government is in negotiation with British firms for the building of three turret monitors.

INDIA.—Official reports from Peshawur state that the Ameer of Badukshan was collecting an army of 4000 men in the interest of Shere Ali, hoping to subdue Turkistan without the assistance of the latter. Shere Ali reached Cabul on the 10th inst., and had an interview with Yakoob Khan in the presence of all the Sardars and the army. Rumours from Bokhara state that the Russians were moving against Kokhand and Colob (?). Cholera is rife at Baroda. The Madras Railway has been opened as far as Gooty. One of the Somalis sent into the interior of Africa from Aden in March last, to inquire about the supposed survivors of the *St. Abb's*, has returned, after visiting a large number of the tribes. He expresses his conviction that no Europeans are now in the country.

AUSTRALIA.—The following is a copy of a telegram received by the Agent-General for South Australia on Saturday from the Government at Adelaide:—“Northern territory party arrived at Port Darwin, all well, February 5. Good port, good land, good water; survey proceeding actively; township lands ready middle of March. Climate healthy. Sent from Galle, May 15, 8.50 A.M.”

UNITED STATES.—Admiral Koff and the Government agents in Cuba report that the insurrection is weak and declining. The American revenue officers have been ordered by the Government strictly to enforce the neutrality laws, and to prevent the sailing of expeditions to aid the insurgents. Chief Justice Chase has decided that the United States Government cannot collect income-tax from foreigners who hold its bonds, and that the sums already collected must be refunded. The *New York Times* states that the Internal Revenue Department is preparing to carry out this decision, and that it will involve the reimbursement of several thousand dollars. It is said that Mr. Peabody is about to return to America, in order to end his days in his native place.

Parliament.

THE House of Commons reassembled on Thursday after the Whitsuntide recess, but the attendance of members, particularly on the Opposition side, was extremely meagre. On the order for going into Committee on the Customs and Inland Revenue Duties Bill, Mr. WARD MUNT commented on the inconvenience and hardship of forcing the taxpayers to pay five quarters' taxes in one year, and by making so many due at the same time. He also maintained that

the effect of the new plan on the balance of the Exchequer dry at one time and full at another would compel the Chancellor of the Exchequer to borrow to pay the public creditors, and thereby to disturb the natural operation of the money market. The CHANCELLOR of the EXCHEQUER, in reply, said that the quarters' Income-tax were always paid in the financial year, and that the Treasury business would be equalised either by borrowing of the Treasury or by reduction of the national debt, or by payment of annuities for the extinction of terminable annuities. With regard to the effect of his scheme on the money market and the Bank, it was not the intention of the Government to interfere in the “cocker up” the other. Mr. CRAWFORD, of the Bank, Mr. BARNETT, Mr. SAMUDA, Mr. FOWLER, condemned the language and the spirit of Mr. Lowe; while Mr. MORLEY and Mr. STANTON approved of his determination to make himself independent of the Bank. After some further amendments, the most important of which was an exemption of brood mares from licence duty, a motion by Mr. C. S. READ to exempt mares under 16 from duty was defeated on a division of 28. On the order for the committee on the Service Pensions Bill, Mr. FAWCETT proposed an amendment that the further consideration of the Bill be deferred until an inquiry had been made into the duties attached to the sinecure offices of Privy Seal and Chancellor of the Duchy of Lancaster, which would for the first time be entitled to be under the Bill. Mr. GLADSTONE opposed the amendment, which was eventually withdrawn. The motion then went into Committee, when Mr. BROOKS reported progress. The motion was negatived on a division of 15, and the Bill passed through Committee with amendments. Sir H. SELWIN-IBBEY'S Bill was considered in Committee, and on the motion of Mr. Alderman LUSK its operation was suspended in the metropolis. Yesterday Mr. CANDLISH moved on behalf of the hon. member for Brighton a motion upon the employment of women and children in agricultural pursuits would be postponed. MACFIE moved that, in the opinion of this House, time had arrived when the interests of trade, commerce, and the progress of the arts and sciences in this country, would be promoted by the abolition of the law for inventions. Sir ROUNDELL PALMER supported the motion. The House was left sitting.

City Intelligence.

MONEY MARKET, FRIDAY.—BRITISH CONSOLS closed at 93½ to 93½, both for Mortgage Account; New and Reduced Three per Cent. closed at 92½; Bank Stock, 241 to 246. Exchequer BILLS to par; Indian Five per Cent., 114½ to 114½; FOREIGN: Spanish, 28½; Italian Loan 1861, 57½; Tobacco Bonds, 86 to 87; Turkish Five per Cent., 43½ to 43½; Ditto Six per Cent., 66 to 66; Brazilian, 80½ to 81; Peruvian, 7½ to 7½; Egyptian Bonds (1864), 86 to 87; Ditto (1868), 78 to 78; roy's Seven per Cent., 79½ to 80; Ditto (1868), 92½ to 93½; Honduras, 83 to 85; United States Bonds, 79½ to 79½; Erie, 18½ to 18½; 95 to 96.

Metropolis and its Vicinity.

THE QUEEN'S BIRTHDAY.—Monday being the birthday of her Majesty, the event was celebrated by the usual demonstrations in London and Westminster.

THE SHRIEVALTY OF LONDON AND MIDDLESEX.—Alderman Causton and Mr. James M. Smithfield, will offer themselves as candidates for the forthcoming election of Sheriffs for London and Middlesex.

NATIONAL RIFLE ASSOCIATION.—The spring meeting of this association was held on Thursday at Cambridge in the chair. It was determined that the camp should be formed on July 3, and it was understood that a body of regulars would be attached to the Volunteers on this occasion.

ROYAL GEOGRAPHICAL SOCIETY.—The annual meeting of this society was held on Monday at the Royal Institution, Albemarle Street. The Founder's Medal had been awarded to Professor Nordenskiöld, of Stockholm, and the Victoria Medal to Mrs. Somerville, who, in her 89th or 90th year, has been occupied in solving abstruse mathematical problems. Sir Roderick Murchison delivered his annual address. The anniversary dinner of the society took place on Tuesday evening at Willis's Rooms, and was attended by the Prince of Wales, Prince Hussam of Egypt, the Duke of Devonshire, and other distinguished persons. Sir Roderick Murchison, the president, in proposing the toast of the Prince of Wales, said that his Royal Highness only came to them on that occasion as a traveller, but he had also brought with him the spirit of a true geographer; and if the great exertions contemplated by Sir S. Baker should be successful, it would be a successful issue if it had not been for the personal influences and the great exertions of the Prince. That proved that his Royal Highness was not only one of the active agents in bringing these

The Prince of Wales, who was loudly cheered, thanks in the following terms:—

I feel gratified and touched by the very kind... the president has been good enough to pro... in which you have been pleased to receive... instances, and at all times, it would give... to attend the interesting anniversary... Society, but I feel doubly proud at being... as the vice patron of the Society. The pre... kind enough to allude to me as a traveller... that I feel almost ashamed to be spoken of... when I see around me so many dis... who have travelled almost from one end of... I cannot but be grateful to the Queen... Mother for leaving at an early period given... of travelling and of seeing so many coun... some permission having been given to my... that neither they nor I can fail to derive... seen so many and such deeply interesting... No doubt much information in... may be obtained from the valuable... books that are now so frequently pub... at the same time I feel convinced—and I... every gentleman who is a member of this... with me—that there is no method of... exact, and lively acquaintance with... except by seeing them with your own eyes... touched by the kind manner in which Sir... has alluded to my name, in connection... upon which my travelling com... Baker, has entered. We must all miss... this evening, and I cannot but regret that... this country rather suddenly in order to... arrangements for his important enterprise, and... I was unable to be present here, and to... all his friends. Sir Roderick Murchison has... in some degree instrumental in helping Sir... planning his enterprise, which the Viceroy of... greatly at heart. I need hardly tell you that if I... of any use towards the accomplishment of... is a source of deep gratification to me. When... first arrived in Egypt the Viceroy had in... of a great object, namely, the... of the slave trade on the White Nile, a measure... with the ordinal approval, not only of all... of all free and right thinking persons in all... will. The difficulties of that enterprise must... under any circumstances, but they were... greater in the case of a European. But Sir Samuel... a man of energy, and determination, and it was... would go through any undertaking that he had... and would accomplish everything that was in... human endeavour.

THE CRUISE OF THE RESERVE FLEET.—On Friday... the fleet was tacked in order of succession... hauled to the wind in open order for the night... sail to topsails and topgallant sails, with... and north-westerly. On Saturday... after 7 o'clock, the fleet bore up to... order, and stood away on a south-... course for the next appointed rendezvous... miles south of the Lizard. On Sunday the fleet... the Cornish coast between the Land's End... and the Lizard in a magnificent line of 2½ miles... under all plain sail and low steam. At about... 11 1/2... the fleet, and at 3 P.M. the red and white... of the Eddystone Lighthouse became visible... service was performed on board all the ships of... at the usual time in the forenoon, all officers... that could be spared from constant duty... A few minutes before 5 P.M. the fleet... Head, close in with the shore, and shortly... opened to view from Plymouth, rounding... Point under reduced speed, but with all sail set... leading in with the fleet in splendid line... distance. Luffing round Penlee Point, the ships... slowly for a short time with their heads towards... light-house on the west end of the breakwater; but... Lawsand Bay had been half crossed, the Agincourt... the 11 war-ships astern of her in... procession along the outer face of the... water, until nearing the Mew Stone, when... the ships in succession hauled their wind... the southward and stood out into the Channel... two columns of divisions with their heads to the... ward for the night. As the last ship of the fleet... along the outer face of the breakwater, the... flag, flying at the main of the Agincourt, ... from a frigate in the Sound with 17 guns, ... from the flagship of the Port Admiral at Devon... and returned the salute with the same number of... The fleet lay off the land all night, and on... day was joined by the naval cadets from the train-... ship at Dartmouth, who had been sent for to... a day's exercise in evolutions under steam. In... evening the fleet anchored in Torbay in two lines, ... line consisting of Rear-Admiral Hornby's... of five two-decked liners and the Scylla cor-... and the outer line of Rear-Admiral Key's... consisting of the four iron-clads, the Mersey... and the Cadmus corvette. On Tuesday morn-... the fleet was inspected by Mr. Childers, Admiral... & C. Dacres, and Admiral Key, after which the... were dispersed, and returned to their respective... The Agincourt proceeded to Portsmouth, ... the Lords of the Admiralty disembarked on... day and returned to London.

AFRICAN EXPLORATION.—Miss Alexandre Tinné, ... lady who became so well known a few years ... as an African explorer, has, according to letters ... Tripoli, reached Mourzouk in safety, and was ... the chief of the Tarouks to escort her and her ... retinue to the starting post of the annual ... for Soudan. Miss Tinné recently imported ... Barbary a velocipede of the latest Parisian manu- ... but finding it not adapted for the sands of the ... Desert, she presented it to the Pasha of Tripoli... READERS IN THE CHURCH OF ENGLAND.— ... of London has given practical effect to a ... which has long been discussed—viz., the ... of appointing laymen as readers for the ... of incumbents of overworked parishes, under ... from the bishop authorising the holder, ... the nomination of the incumbent, to conduct

services for the poor in school and mission rooms, and in the open air. At a service held in the bishop's private chapel at London House, eight readers have been formally admitted, four for the parish of St. John's, Hoxton, one for the mission district of St. Luke, Bethnal Green, one for Acton, and two for St. John's, Fitzroy Square. After part of the usual morning service the bishop delivered to each candidate a copy of the New Testament and a formal commission stating that it was granted at the request of the incumbent, and would remain valid until revoked by the bishop or his successors, or at the written request of the incumbent.

ROMAN LONDON.—The tessellated pavement in Bucklersbury attracted 3000 visitors on Thursday last, 12,000 on Friday, and 16,000 on Saturday.

THE INDIA MUSEUM.—The India Museum having been removed from Fife House to the new India Office, it is now re-opened for public inspection.

FRIENDLY SOCIETIES.—At the Odd Fellows A. M. C. at Sunderland last week, the Grand Master of the Order read a letter from the Earl of Lichfield, stating that his lordship, Lord Romney, the Hon. E. Stanhope, and other gentlemen interested in the subject of friendly societies propose to make arrangements for a deputation to wait upon Mr. Gladstone with a memorial, praying the Government to appoint a Commission to inquire into the various evils in connection with the management of many of the friendly societies, both certified and uncertified, established throughout the country, for the purpose of providing insurances upon lives, and relief in sickness and old age for members of the working classes. It was decided that the grand master, with three other members, to be selected by the court of directors, shall accompany the deputation to Mr. Gladstone.

NEW PARK AT HAMPSTEAD.—In consequence of the death of Sir Thomas Wilson, the late lord of the manor of Hampstead, a scheme has been proposed which, if carried into effect, will give the inhabitants of Marylebone, Kilburn, Belsize, Camden Town, Haverstock Hill, and St. John's Wood very great advantages. It is proposed by the Hampstead vestry to take on lease, at a moderate rental, with option of purchase, an area of between 50 and 60 acres in the neighbourhood of Finchley Road. It is expected that the new lord of the manor, Sir John Mayson Wilson, will not be indisposed to meet the wishes of the inhabitants if the parish of Marylebone should unite with that of Hampstead, and the Metropolitan Board of Works should co-operate in promoting the success of the scheme.

THE TRADES' UNION BILL.—The various trade societies have determined to hold an aggregate meeting of trade unionists of London and the provinces in Exeter Hall on the 23d June. Mr. Samuel Morley, M.P., has consented to preside, and Mr. Mundella, M.P., Mr. Harrison, and others will be present. The subject of this Bill has been warmly taken up by the various trade societies in the provinces. At Carlisle, Warrington, Leeds, Burton-on-Trent, Sheffield, Northampton, Cheltenham, the Potteries, and other leading towns, meetings have been held at which it has been resolved to use every means to support the Bill introduced into Parliament by Mr. T. Hughes and Mr. Mundella. In Birmingham, so desirous are the working men to give all the aid in their power to the measure, that the second annual congress of trades' councils and societies in that town, which had been announced for the 21st June, has been postponed until the 23d August. In Glasgow and Greenock the same feeling prevails, and has been effectively expressed by the working men. In Dublin also the strongest approbation of the Bill has been expressed, and at a public meeting held there in the Mechanics' Institute it was resolved to send deputations to wait upon the 20 or more members of Parliament resident in that city and neighbourhood to urge them to support the Bill. A large number of delegates from all parts of the country are expected to be present at the great meeting in Exeter Hall, which is to be held under the direction of the London Conference of Amalgamated Trades.

ESCAPE OF THE CAPTIVE BALLOON.—About a quarter past 4 on Tuesday afternoon this monster balloon broke loose from its moorings and sailed away in the direction of Harrow-on-the-Hill. It appears that the rope by which it was held captive became entangled round its roller, and this causing too great a strain upon the rope produced the accident, which might have been attended with the loss of many lives if there had been in the car at the time the usual number of passengers. To show the violence with which the balloon broke away it may be mentioned that the rope when broken coiled itself in an instant round a stout spar of wood nearly 5 feet long, which it tore out of the circus and carried with it into the air. In half an hour the great balloon was almost invisible. It passed near Tring and Aylesbury, and at length fell on Bernwood Farm, on the estate of Sir Harry Verney, where it was secured, though not without some injury.

THE PUBLIC HEALTH.—The Registrar-General's Weekly Report states that in the week that ended on Saturday, May 23, 3953 births and 2880 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 23 per 1000 persons living, being 21 per 1000 in London, 27 in Edinburgh, 24 in Dublin, 20 in Bristol, 17 in Birmingham, 27 in Liverpool, 24 in Manchester, 22 in Salford, 26 in Sheffield, 25 in Bradford, 20 in Leeds, 22 in Hull, 18 in Newcastle-upon-Tyne, and 35 in Glasgow. The rate in Vienna was 38 per 1000 during the week ending the 15th inst., and in Berlin 32 per 1000 during the seven days ending the 13th inst. In London the births of 950 boys and 961 girls, in all 1911 children, were registered in the week. In the corresponding weeks of 10 years, 1859-68, the average number, corrected for increase of population, was 2141. The deaths registered in London during the

week were 1281. It was the 20th week of the year, and the average number for that week, corrected for increase of population, was 1351. The present return is therefore 70 below the estimated amount.

Provincial.

BIRMINGHAM.—A public meeting, promoted by the Liberal-Conservative Association of this town, was held in the Town Hall on Tuesday, "with the view to petition the House of Lords against the disendowment of the Church in Ireland." The Earl of Harrowby presided, and the principal speakers were Mr. Newdegate, M.P., Mr. Charley, M.P., Mr. S. S. Lloyd, Dr. Evans, and the Rev. Brewin Grant. The meeting, to which admission was by ticket, numbered about 2500, and was comparatively orderly. Mr. S. S. Lloyd moved that the Irish Church Bill involved a violation of the Act of Union, an attack upon the security of property, and a renunciation of the principle that the Government of the United Kingdom is Protestant, and that the House of Lords will consult the best interest of the country by rejecting it. Mr. Newdegate seconded the resolution, which was carried by a large majority. A petition for presentation to the House of Lords was adopted.

BRADFORD.—The Right Hon. W. E. Forster met his constituents in this town on the 20th inst., and in the course of his speech made the following remarks on the relations of England and America:—

"Bear with me for a few minutes while I talk to you upon a question which I have very deeply at heart, upon which I have often spoken to you before our relations with our kinsmen on the other side of the Atlantic. Let it be clearly understood that I am speaking solely for myself. I am not a Cabinet Minister, and with regard to that question, I did not consult any of my colleagues, and no one is responsible for anything I shall say upon it except myself. You know how desirous I was for friendship with the United States. You know how I have struggled for it, and you know this because you have helped me in these struggles at the time when there was long to peace between England and America from what might have been done in England. You helped me with power, vigour, and earnestness to do what in my judgment was the right thing, so that England should not be responsible for any disagreement with our kinsmen in America. I do not wish to exaggerate that danger—I believe it is exaggerated already—but if there be danger at all, it is danger there. Well, it is a curious wish—I almost desire that you were all Americans. I wish, instead of talking to my Bradford constituents, I were talking to my American friends, for I believe I have friends in America. The chief reason why I at all allude to this subject this evening is on account of a speech which has excited a good deal of attention, made by a personal friend of my own Mr. Sumner. I need not say anything to you in praise of Mr. Sumner. Bradford people have studied American questions, before the civil war, and during the war, and afterwards. Mr. Sumner was a man who suffered for the cause of right, who suffered persecution, injury, and outrage in the course of the struggle which stood by his country in its great struggle as a patriot should have stood by it, and whose words therefore, even if I was not related to him, or terms of personal friendship, I should have spoken with respect and with the greatest possible attention. But Mr. Sumner has taken a ground which I greatly deplore. We in England had persuaded our Government to offer to submit to arbitration our dispute with America with regard to the injury inflicted by the Alabama and other vessels, it was not very easy to persuade Englishmen to do this, but we did persuade them. It was only right that we should do it, it would have been most wrong if we had not done it; we ought to have done it long ago. Mr. Sumner, in his speech, appears to reject this proposal of arbitration, and to demand instead of it an apology. Almost, I might say, an abject apology—and some untold sum of money besides. Why does he make this demand? Chiefly upon two grounds, on both of which I venture to think he is mistaken. He first says he demands it because the proclamation of neutrality that was issued in the Queen's name at the beginning of the civil war was uncalled for, and premature, and hostile to the United States; and because, secondly, having proclaimed neutrality, England broke it, and, to use his own words, threw her sword into the struggle. I am not here as an apologist for all that our Government or England has done. You know very well that I am not, for I was most earnest in deprecating much that was done. But I do say that in both these respects I venture to think that Mr. Sumner is mistaken. Now, with regard to the proclamation, that appears to be the great cause of offence against England in the mind of Mr. Sumner and of many influential and most excellent Americans at this time. I want you to look back to what was the position of England when she heard the news of the South having rebelled against the North, and the whole of the South being in the possession of the rebels. What was England to do? Why, it was her duty to declare that, however much she might lament that war, she would have nothing to do with aiding either side. It was the proclamation of our determination to have nothing to do with aiding either side that Mr. Sumner complains against. He says it was precipitate, premature, uncalled for, and hostile. Well, I believe it was necessary. It may have been issued two or three days earlier than it should have been issued. Mr. Adams had only just arrived, and perhaps it would have been better to have let him get thoroughly at home in the Embassy House in London before it was issued. But that is a mere matter of etiquette, and I cannot suppose a matter of that kind would really be thought to be a reason for disagreement between two great nations. That it would have been necessary within a few days I am perfectly sure. Just consider what was the state of things. There was this great war raging between these two portions of one country. The States of the South were in rebellion against the Union; there were a vast number of Americans—Southern Americans—in the Southern States and in England, trying all they could, using every possible exertion to, by some means or other, drag us into war. It was our business to prevent them doing so if possible. How could that be done? Simply and solely by the Queen issuing her orders that we should take no part in the struggle. It is said that there was war by land but no war by sea, and we made that war by proclaiming neutrality and recognising the South as a belligerent Power. Well, really that is not the case. It is true that the South had her ports locked up, and that very few vessels got out, although it is a fact which our American friends do not seem to remember that the four first vessels that came out with the flag of the South to prey upon Northern commerce came out of Southern ports, and that they came out a year before any vessel was built in England. And I believe that one of them—at any rate, a vessel—was adjudged by the North not to be a pirate, but to be a belligerent. But putting that out of consideration, there was war upon water, or else what was the meaning of blockade? The blockade was an act of war—sealing the seaports was an act of war. Mr. Sumner says, 'Do not consider

tions of this day week. There was no change in the value of Barley, Beans, or Peas, but Maize and Oats were rather cheaper. Flour remains inactive.

PRICE PER IMPERIAL QUARTER.			
	s.	d.	s. s.
WHEAT, Essex, Kent, Suffolk. White	42-46	Red	42-44
— fine selected runs..do.	44-47	Red	45-46
— Talavera.....do.	50-54		
— Norfolk		Red	
— Foreign	37-60		
BARLEY, grind. & dist., 28sto32s. Chov.	46-49	Malting	44-47
— Foreign.. grinding and distilling	24-28	Malting	32-43
OATS, Essex and Suffolk			
— Scotch and Lincolnshire..Potato	25-33	Feed	
— Irish	30-32	Feed	23-28
— Foreign..... Poland and Brew	25-30	Feed	21-26
RYE	38-40	Foreign	
RYE-MEAL, Foreign.....			
BEANS, Mazagan ..38sto40s. Tick	42-43	Harrow	42-43
— Pigeon ....43s to 47s ..Winds.		Longpod	
— Foreign	38-42	Egyptian	35-36
PEAS, White, Essex, and Kent.. Bollers	40-41	Suffolk	39-42
— Maple 41s to 45s.....Grey	40-42	Foreign	36-39
MAIZE.....		Foreign	28-30
FLOUR, best marks delivered..per sack	39-43		
— 2d ditto	ditto	26-40	Country.. 28-40
— Foreign	per barrel	23-37	Per sack .. 30-40

FRIDAY, May 28.

The trade during the past week has been disappointing, the predominance of unsettled weather and the limited arrivals having raised expectations of improved Wheat prices, while the operations of millers and dealers continued to be most restricted, and prices, excepting a trifling advance at Liverpool, Manchester, and Birmingham, remained unaltered. The Scotch reports speak of some slight concession in the value of Wheat. Spring Corn of all sorts has been held firmly, but we have no advance to quote. Flour was a retail sale at late rates. The arrivals off the coast this week consisted of 31 cargoes, of which, with those left over from last week, there remained for sale last night 13 cargoes. The floating trade has, on the whole, been steady. For Wheat arrived off the coast last week's prices were, in some few instances, slightly exceeded. Maize may also be called fractionally better, and Barley about unaltered. There appears to be more disposition to enter into engagements for forward shipment, but the high rates asked by sellers prevent business being done. Rapeseed and Cottonseed remain stationary. Paris, May 27.—The weather has been on the whole unfavourable for the growing crops, and prices of Wheat and Flour are stiffening. The six marks are quoted at equal to 36s. 6d. per 280 lb. The stock at the Halle is estimated at 7200 cwt.

The arrivals of all grain this week have been small. There was a poor attendance at this morning's market; the little English Wheat on offer was sold at an advance of 1s. per qr. There was more disposition to purchase foreign, and a considerable amount of business was transacted at a similar improvement. Spring Corn was unchanged in value. Flour was held for rather more money.

ARRIVALS.

	Wheat.	Barley.	Oats.	Flour.
English ..	1420 qrs.	— qrs.	— qrs.	— sks.
Irish	— " "	— " "	1650 " "	— " "
Foreign ..	9320 " "	1160 " "	7770 " "	1580 " "
	10,740	1160	9420	

LIVERPOOL, Tuesday, May 25.—We had a fair attendance at this morning's market, and Wheat met with a moderate consumptive demand, at an improvement of 2d. per cental on the rates of this day week. Flour was in fair request, at an advance of 1s. per sack on the figures of Tuesday last. Indian Corn in good request, and 1s. per qr. higher on the week. Oats and Oatmeal quiet and unchanged. Peas in good demand, at Friday's reduction. Beans steady.

AVERAGES.

	Wheat.	Barley.	Oats.
April 17 ..	46s 8d	44s 6d	27s 7d
— 24 ..	45 5	43 6	26 9
May 1 ..	44 9	42 2	26 11
— 8 ..	44 4	40 2	26 9
— 15 ..	44 6	40 1	26 11
— 22 ..	45 2	37 7	27 1
Average ..	45 2	41 4	27 0

SEED MARKET.

Our markets being now very quiet, we have little to report this week concerning the agricultural seed trade. The small quantity of new foreign Red Clover seed which was left over has been bought up for speculation. White Clover and Trefoil seeds meet at present with no attention. There is a brisk inquiry for spring Tares, but as the stocks are quite exhausted, orders cannot be executed. A few small parcels have been sold at an advance of from 8s. to 10s. per qr. from the lowest point reached during the past season. Canary seed is in good demand at last Monday's quotations. French Hemp seed is 1s. per qr. dearer; of Dutch Hemp there is none offering. White Mustard seed is exceedingly scarce, and easily realises very high rates; prices are creeping upwards every week. Essex dwarf Rapeseed is firm, and is in good request. For Linseed values are well supported.

JOHN SHAW & SONS, 16, Water Lane.

METROPOLITAN MEAT MARKET.—May 29.

Best Fresh Butter ..	14s. per dozen lb.
Second do. do.	12s.
Small Pork, 5s. 0d. to 6s. 8d.; Large Pork, 4s. 4d. to 4s. 8d. per 8 lb.	

A YOUNG GENTLEMAN can be TAKEN on an extensive FARM in one of the best districts of Scotland. Draining and other extensive improvements going on. Can either work or not as desired. Good Hunting, Shooting, and Fishing. Only one hour from Edinburgh. Terms, £100 per annum, washing included.—JAMES MURRAY, General Post Office, Edinburgh.

Outdoor Propagator and Knifeman.

THE ADVERTISERS are in WANT of a thoroughly experienced MAN in Budding, Grafting, and general Outdoor work. To save trouble, none need apply who cannot give satisfactory reference as to ability.—Apply, in own handwriting, to SALTMARSH & SOX, Moulsham Nurseries, Chelmsford.

WANTED, a GARDENER (HEAD, WORKING), married, without incumbrance.—He must be well experienced in the Management of Grapes, Pines, Melons, Cucumbers, and Mushrooms, willing, and strictly attentive to orders given by his employer; he must likewise understand fully both the Cultivation of Flowers and the Management of Arable and Pasture Land and Stock. The Wife to undertake the charge of Dairy and Poultry. No perquisites. Wages given for both Man and Wife will be £1 2s. per week. No extra allowance for Wife attending to the Dairy. A cottage will be provided, and vegetables allowed for their own use. None need apply who cannot fully undertake the requirements stated above. State age and full particulars. The Gentleman's Estate is in Berkshire, and letters may be sent to E. F. G., care of Messrs. Dawson & Sons, 121, Cannon Street, City, London, E.C.

PROPAGATOR.—Mr. WM. PAUL is in WANT of a skilful PROPAGATOR of HARDY TREES and SHRUBS. Must have a fair knowledge of Names, and be a successful Budder and Grafter.—Apply by letter to Mr. WM. PAUL, Paul's Nurseries and Seed Warehouse, Waltham Cross, London, N.

WANTED, at Sydenham, as UNDER GARDENER, a married Man, age not over 30, who has had practical experience and thoroughly understands his profession. Wages, 18s. a week and cottage.—Apply by letter, stating references, &c., to A. F. M., care of Mr. G. Street, 30, Cornhill, E.C.

WANTED, TWO YOUNG MEN for the Houses, to assist in Watering, Potting, and Tying Plants for Exhibition. Those used to Nursery-work preferred. Apply, stating wages required, and full particulars, to W. E. Dixon, Norwood Nurseries, Beverley, Yorkshire.

WANTED, an APPRENTICE to the Florist and Horticultural Business, where he would be able to gain a thorough practical knowledge of the profession. To board and lodge in the house with the family.—A. B., Gardeners' Chronicle Office, W.C.

WANTED, as UNDER SHOPMAN, in a Florist's Shop, an intelligent youth about 18, of good address; good character required; must be energetic, and willing to make himself generally useful, and have had some experience in serving customers. Hours, 7 to 9; good wages.—Apply at R. GAZER'S, 28, Crawford Street, Baker Street, W.

WANTED IMMEDIATELY, a COUPLE, without incumbrance, to live at a lodge, the Wife as Dairymaid, and to Bake for the house, the Man as Labourer in the Garden or Farm.—Apply to J. RIDGWAY, Esq., Fairlawn, Tonbridge, Kent.

WANTED, a DAIRYMAID, who can Bake, and undertake a Dairy of Twelve Cows.—Application to be made by letter to Mr. HARDY, 3, Cleveland Square, St. James's, London.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. E. G. HENDERSON & SON, Wellington Nursery, St. John's Wood, London, N.W.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS, and GARDENERS and BAILIFFS, of various qualifications, who are open to Engagements. The fullest particulars as to services required and wages given should be forwarded with application.—PAUL'S Nurseries, Waltham Cross, London, N.

To Gardeners and Bailiffs (Head, Foremen, or Under).

JAMES CARTER AND CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those who can send unquestionable references need apply. Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & Co. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c. JAMES CARTER & Co., 237 and 238, High Holborn, London, W.C.

Gardeners and Under Gardeners.

WM. CUTBUSH and SON beg to state that they have at all times on their books MEN of various qualifications, whose characters will bear the strictest inquiry. Any Gentleman making application would save time by clearly stating the duties to be undertaken, wages offered, &c., so that suitable Men may be selected.—Highgate Nurseries, London, N.

To Nobleman and Gentlemen.

GARDENER and FORESTER, or GARDENER and BAILIFF, &c. JOHN HARRISON has on his Books several clever and experienced MEN, who have served in the above capacities in some of the best families in the North of England, and whose characters will bear the strictest investigation. Also several Young Men as UNDER GARDENERS.—North of England Rose Nursery, Darlington, May 12

GARDENER (HEAD).—Age 40, married; is at liberty to engage with any Lady or Gentleman in want of a thorough practical Gardener; 20 years' experience. Can have the best of references as to character and ability.—Apply, stating wages, with particulars, to E. A., Post Office, Wheatley, Oxon

GARDENER (HEAD).—Age 36, married; has a thorough practical knowledge of Gardening in all its branches, Early and Late Forcing of Vines, Peaches, Figs, Melons, &c., Ferns, Stove and Greenhouse Plants, Flower and Kitchen Gardening; also the Management of Land and Stock. Good references.—A. B., Mr. Taylor's, Market Gardener, Twickenham Road, Isleworth, W.

GARDENER (HEAD).—Age 30, married; thoroughly understands his profession in all its branches; also the Management of Vineries, Stoves, Conservatories, &c. Would prefer a place where Bedding is carried out with spirit. Understands Grass-land and Stock. Wife good Cook and Dairywoman; willing to assist in the House if required. Four years' good character.—F. B., Spring Park, Shirley, Croydon, S.

To Nobleman and Gentlemen.

GARDENER (HEAD), age 35, married.—HENRY GILBERT, Head Gardener during the last three years to the Marquis of Downshire, is at liberty to engage with any one requiring the services of a practical Working Man. Understands well the Management of Men, also the Growth of all kinds of Fruits, Flowers, and Vegetables at all seasons.—18, Canterbury Terrace, Malda Vale, Paddington, W.

GARDENER (HEAD).—Age 40, married, no incumbrance; a thorough good practical Working Man, of great experience in all branches of Gardening; a capital Grower of Stove and Greenhouse Plants, Grapes, Melons, Cucumbers, and Ferns; understands the laying-out of Pleasure Ground and the Management of Stock, &c., and a good Flower and Kitchen Gardener. An excellent character from late employer for sobriety and industry in his profession.—H. C., 18, Bewsey Road, Warrington

GARDENER (HEAD, WORKING), where two or three are kept.—Age 40, married, no incumbrance; has thorough practical experience in the Management of a Gentleman's Establishment. Good character; will bear scrutiny. Three years in present employ.—T. B., Hill Court, near Berkeley, Gloucestershire.

GARDENER (HEAD), where one or more are kept.—Age 29, married; understands the Cultivation of Vines, Early and Late Forcing, Greenhouse Plants, and Flower and Kitchen Gardening. Good character from last place.—H. W., Pottimore Gardens, Pottimore, Exeter.

GARDENER (HEAD, or good SINGLE-HANDED).—Age 25, single; thoroughly understands the profession in all its branches. Excellent character.—F. B., Mr. Bigg, Warwick Road, Redhill, Surrey.

GARDENER (HEAD, or good SINGLE-HANDED).—Age 28, single; understands Forcing Vines, Melons, Cucumbers, Stove and Greenhouse Plants, and Flower and Kitchen Gardening. Two years' good character.—Address, J. BEAGLEY, Hampton Wick, Middlesex.

GARDENER, or GARDENER and BAILIFF.—Messrs FLETCHER & SONS are anxious to recommend a thoroughly competent Man to any Gentleman requiring a strictly sober and trustworthy person. Liberal wages expected.—W. D., Birmingham Nursery, 50, Harborne Road, Edgbaston, Birmingham.

GARDENER (SINGLE-HANDED, or otherwise).—Understands the profession. Satisfactory references.—C. B., Chapman's, Ilford, E.

GARDENER (UNDER).—Age 21; used to Outdoor and Indoor Work in a Gentleman's Garden. Four years' good character.—S. C., Post Office, Dedham.

GARDENER (UNDER), or in a Nursery.—A respectable Young Man. Three years' good character from a Florist.—N. W., Mr. Green, News Agent, Whetstone, N

FOREMAN, in a Nobleman's or Gentleman's Garden, or Single-handed place.—Eight years' experience in Early and Late Forcing, Fruiting, &c.—Apply to POTTOMORE, Huntingdon, as to character and references.—POTTOMORE, Huntingdon.

PROPAGATOR (HARD or SOFT-WOOD), 10 years' experience; lived several years in the West of England. References from some of the largest and best Nurseries in the Kingdom.—A. B., Floral Cottage, opposite Penton Mill, London, N.

JOURNEYMAN, in a large Establishment, or three are kept.—Four years' experience.—J. DIXON & SONS, Newton Nurseries, Chester

IMPROVER.—A Young Man, of 17 years' experience in Gardening. A strong Premium of 1000s. per year.—A. A., 30, Eton Place, West Street, South Hackney, London, N.

IMPROVER in a Gentleman's Garden.—Wishes to improve himself in Plant and Flowering. 2s. per week as Premium. Four years' experience.—Mr. JONES, Wallington Bridge, Carshalton, Surrey

STEWARD, or BAILIFF; age 30, married, competent and trustworthy Man. He has had experience in large Estates, well understands Stock, Land, and Cattle. —Alpha, Post Office, Queen's Terrace, Tottenham, Cattle Market, N.

FARM BAILIFF.—Married; thoroughly accustomed to all kinds of Live Stock. Will also manage small Dairy or Poultry. Good references.—J. H. WINCHESTER, Hants.

WOODREEVE and GAMEKEEPER, a Gentleman's Estate, and do the Estate. Insurance.—M. S., Messrs. Munton & Co., Piccadilly, W.

TRAVELLER and SHOPMAN.—A man of considerable experience in some of the best Trades. Could Manage the Correspondence of a large Establishment. References as to ability, &c.—L. H., Post Office, London, N.

SALESMAN, or PROPAGATOR and GARDENER.—HENRY YOUNG, late of the firm of Young & Yarmouth, desires a situation as above. His references.—1, Cordic Terrace, Yarmouth

SHOPMAN.—Ten years' experience.—J. S. CARTER & CO., High Holborn, W.C.

COACHMAN and GARDENER, with a Horse.—O. O., Post Office, Chesham

COACHMAN, or COACHMAN and GARDENER.—An experienced Man. First-class references.—S. HULL, Birmingham.

GARDEN WIRE Y consisting of ARCHES, BASKETS, FLOWERS, GARDEN SYRINGES .. 2/6 GARDEN ENGINES .. 2/6 GARDEN WATER BARROWS .. 2/6 GARDEN ROLLERS .. 2/6 GARDEN CHAIRS .. 2/6 GARDEN SEATS .. 2/6 GARDEN TOOLS and WATERING POTS PATENT LAWN MOWERS .. 2/6

WILLIAM S. BURTON, GENERAL IRONMONGER, by appointment to H.R.H. Wales, sends a CATALOGUE gratis and post-free upwards of 700 Illustrations of his improved STEEL PLATE and BRITANNIA METAL GOODS.

Dish Covers Hot-water Dishes. Stoves and Fenders. Marble Chimney-pieces. Kitchen Ranges. Lamps, Gaseliers. Tea Trays, Urns and Kettles. Table Cutlery.

With Lists of Prices, and Plans of the Trade, send for at 39, Oxford Street, W.; 1, 1a, 2, 3, and 4, New Street, and 6, Perry's Place; and 1, Newman Lane, London.

Sauce.—Lea & Perrins. THE "WORCESTERSHIRE" Connoisseurs "THE ONLY GOOD SAUCE" Appetite, and Aids Digestion. Universal for preparing all kinds of Sauces. Beware of Imitations. Ask for LEA & PERRINS'S SAUCE. Beware of Imitations. Names of LEA & PERRINS on all bottles and labels. Agents—Crosse & Blackwell, London, and Sole Wholesale Dealers throughout the World.

THE RACES and FETES.—Lacrow's ROWLANDS' KALYDOR a most refreshing and invigorating beverage, dispelling the cloud of languor, relieving all heat and irritability, and immediately restoring sensation attending restored elasticity and healthy skin. Price 1s 6d and 8s 6d per bottle. Sole Perfumers. Ask for "ROWLANDS' KALYDOR" and pernickious articles under the name of Kalydor.

WHEN the HAIR, through weakness, or off, or turn grey, no preparation will so effectually restore the original color, and give a healthy and luxuriant growth, than the WORLD'S HAIR RESTORER. It is simple, requiring no previous preparation of the hair, agreeable, and no pomade or hair oil is required in bottles, 6s., of chemists and perfumers. Depot, 260, High Holborn, London.

DINNEFORD'S FLUID The best remedy for Acidity of the Stomach, Headache, Gout, and Indigestion; and the best for delicate constitutions, especially adapted for Children and Infants. Dinneford & Co., 172, New Bond Street, London, and of all Chemists throughout the Kingdom.

CORNS and BUNIONS.—The only Gentleman tormented with Corns, will be happy to afford information by which he obtained their complete removal, without pain or any inconvenience. The Corns were stamped envelop to F. KINGDOM, Esq., Warr. Hants.

PARR'S LIFE PILLS promote appetite, and purify the blood. They clear from the system impurities, speedily cure liver complaints, bilious eruptions, lowness of spirits, headache, constipation, &c. May be had of any medicine vendor, in bottles, and in family packets, 11s. each.

GOUT and RHEUMATISM.—The only Gentleman of Gout or Rheumatism is quickly relieved by RHEUMATIC PILLS. They require no restraint of diet or exercise. They are certain to prevent the return of the disease. Sold by all medicine vendors, at 1s 1/2 and 2s 1/2 per box, obtained through any chemist.

ELECTRICITY IN SELF-ADJUSTING CURATIVE and LAXATIVE. Sufferers from nervous debility, indigestion, and other ailments, now cure themselves by the use of "GUARANTEED ELECTRICITY" protected by Her Majesty's Great Seal. Free for One Stamp, by H. JAMES, Esq., Medical Officer of the London Hospitals, Peckay House, Bedford Square, N.W.—Medicine and Fees superseded. A Testimonial. Established 1840.

The Gardeners' Chronicle Newspaper.

THURSDAY, JUNE 5, 1869.

STURTEVANT'S PATENT HOTHOUSES for the...
 J. JONES AND SONS, 4, Bankside, Southwark, London, S.E.

HOT-WATER APPARATUS of every description,
 J. JONES AND SONS, 4, Bankside, Southwark, London, S.E.

Heating Apparatus.
 J. JONES AND SONS, 4, Bankside, Southwark, London, S.E.

Heating by Hot Water.
 J. JONES AND SONS, 4, Bankside, Southwark, London, S.E.

	2-inch	3-inch	4-inch
per yard	1s 0d	1s 6d	2s 0d
each	1 6	2 3	3 6
...	2 3	3 6	4 6
...	2 3	3 6	4 6
...	10 0	11 6	13 0

WATER PIPES.

	2-inch	3-inch	4-inch
per yard	1s 0d	1s 6d	2s 0d
each	1 6	2 3	3 6
...	2 3	3 6	4 6
...	2 3	3 6	4 6
...	10 0	11 6	13 0

J. JONES AND SONS, 4, Bankside, Southwark, London, S.E.

JONES AND SONS, HORTICULTURAL
 Manufacturers of CONSERVATORIES, VINERIES, and every description of HOT-WATER HEATING APPARATUS.

WATER APPARATUS
 J. JONES AND SONS, 4, Bankside, Southwark, London, S.E.

GREENHOUSES, HOTHOUSES, CONSERVATORIES, CHURCHES, PUBLIC BUILDINGS, &c.

HOT-WATER PIPES at wholesale prices, Elbows, T Pieces, Syphons, and every description kept in stock.

WROUGHT and CAST IRON
 BOILERS, SADDLES, and other articles.

LYNCH WHITE,
 4, Bankside, Southwark, London, S.E.

IRON WIRE WORK.
 ARCHES, BASKETS, FLOWER STANDS, &c.

WATERING POTS,
 LAWN MOWERS, &c.

WILLIAM S. BURTON, GENERAL FURNISHING
 1, 2, 3, and 4, Newman Street, London, W.

DRY and Warm Feet.
MOULDED INDIA RUBBER CLUMPS

Pair, Round or Square Toes.
 Men's and Boy's Sizes

Size	Price
3"	6
4"	6
5"	7
6"	7
7"	8
8"	9
9"	10
10"	11
11"	12
12"	13
13"	14
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91"	92
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93"	94
94"	95
95"	96
96"	97
97"	98
98"	99
99"	100

W. H. H. & Co., 1, 2, 3, and 4, Newman Street, London, W.

PORTABLE ENGINES,

FROM 4 TO 25-HORSE POWER

THRESHING MACHINES, SINGLE, DOUBLE and TREBLE BLAST,
 WITH PATENT ROLLED STEEL BEATER PLATES, AND ALL OTHER RECENT IMPROVEMENTS

CLAYTON AND SHUTTLEWORTH, STAMP END WORKS, LINCOLN,
 and 78, LOMBARD STREET, LONDON, E.C.

Catalogues on application, Free by Post.

BY HER MAJESTY'S ROYAL LETTERS PATENT.
PATENT PLANT PROTECTORS.



THE GREATEST HORTICULTURAL NOVELTY OF THE DAY.

Terms of Prices can be had on application to the Patentee.

There are 12 kinds of UPRIGHT PROTECTORS Manufactured for growing Early Peas, Asparagus, Lettuces, Cauliflowers, and other Vegetables, and for raising Flower and Kitchen Garden Seeds; the prices varying from 8d. to 1s. 6d. per running foot.

DOUBLE-GROOVED AND DOUBLE GLASS-TOPPED PROTECTORS.

These are made with a double groove, for taking one sheet of glass over the other. The effect of this will be that the heat from the sun will be retained during the night, even if the wind blows cold and frosty.

No.	Height in Ft.	Ht. at Back.	Width of Glass.	Per Running Foot.
No. 14.	8 in.	11 in.	18 in.	2 6

UPRIGHT PROTECTORS FOR STRAWBERRIES.

No. 15.	8 in.	10 in.	12 in.	2 0
No. 16.	8 in.	11 in.	16 in.	2 6

These are made with Holed Tiles at the bottom for the Strawberries to grow through.

No. 17.	8 in.	10 in.	12 in.	2 6
No. 18.	8 in.	11 in.	18 in.	3 0

These are made with Glass and Wire Ropes.

CIRCULAR PROTECTORS FOR STRAWBERRIES.

No. 19.	Circular, 10 1/2 inches in diameter, Glass 10 inches wide	2 9
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FOR GROUND VINERIES.

No. 20.	Upright Protector, Glass 18 inches wide, height in front, 8 inches, height at back, 11 inches; fitted with Radiating Tiles and Wire Ropes	2 6
No. 21.	Circular Protector, with Wire Rope, 12 inches in diameter, Glass 12 inches wide	3 0
No. 22.	Circular Protector, with Wire Rope, 16 inches in diameter, Glass 16 inches wide	4 0

Larger sizes can be made. Prices by Special Contract.

Estimates will be given for fitting up Vineyards on this system.

SPECIAL CONTRACTS FOR FITTING UP LARGE ESTABLISHMENTS WILL BE GIVEN.

In consequence of the Large Demand for these Protectors, it will be necessary TO GIVE ORDERS AT ONCE, in order to ensure a supply for the Autumn. All Orders will be executed in strict rotation.

Agents are immediately required. Only one will be appointed in each City or Town.

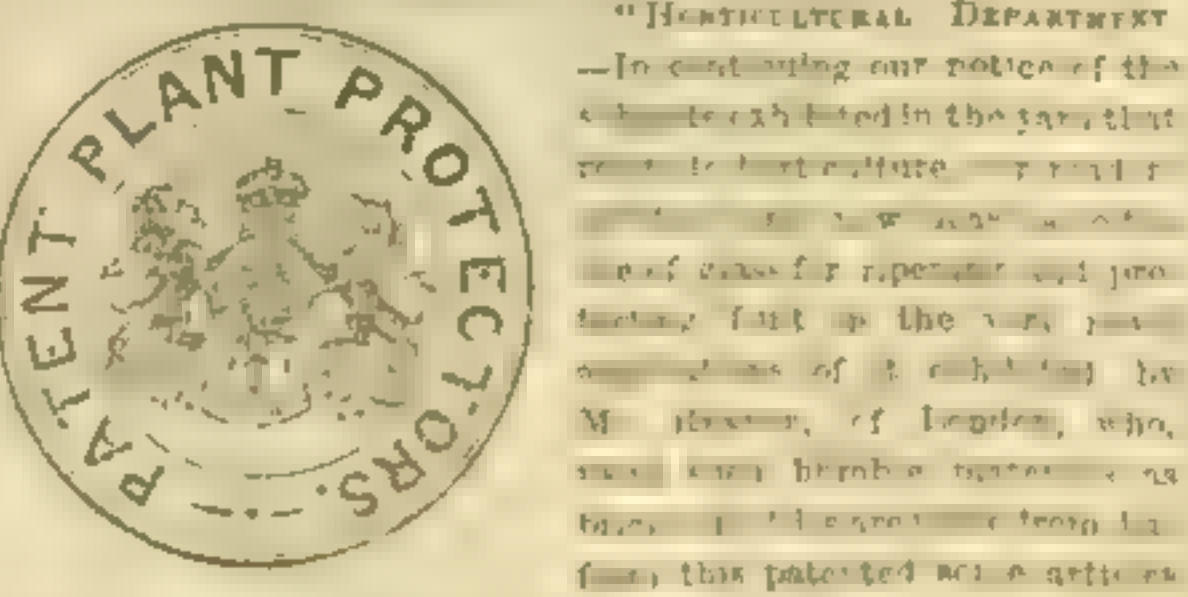
Application should at once be made to the Patentee.

Specimens can always be seen any day, at the Office of the Patentee, or at the Gardens of the Royal Horticultural Society, on application to Mr. J. C. Fox.

SPECIAL ANNOUNCEMENT.—In order that this valuable Invention may be universally adopted in all Gardens great or small—the Patentee has determined to supply the Protectors on the lowest terms. If 500 are taken at one time, they will be Sold at **THREEPENCE EACH**, so that they may be used by the acre. These will be made of one uniform size, and can be used with ordinary bricks, so that the Protectors can be made to any height or any width.

For further particulars, apply to the Patentee,
MR. W. E. RENDLE, 68, WELBECK STREET, CAVENDISH SQUARE, LONDON, W.
 Specimens will be exhibited on the grounds of the Royal Horticultural Society, at their Great Show at Manchester in July.

PATENT PLANT PROTECTORS.
 BATH & WEST OF ENGLAND AGRICULTURAL SOCIETY



From the "Hampshire Advertiser," June 3, 1869.
 "Horticultural Department"
 In continuing our notice of the above exhibition in the year that was last culture, we find that the most successful and profitable part of the year was the exhibition of a collection of plants, which were exhibited by Mr. Rendle, of London, who, we are glad to hear, has been successful in his application for a patent for these protectors.

PATENT PLANT PROTECTORS.
 BATH & WEST OF ENGLAND AGRICULTURAL SOCIETY.



From the "Hampshire Independent," June 3, 1869.
 "One of the most interesting objects to be seen at the Horticultural Society's Exhibition was the Patent Plant Protectors, exhibited by the Southampton Book Society. They are capable of a wide application, as they are suitable for growing Peas, Asparagus, Lettuces, Cauliflowers, &c. &c. There were other designs for raising Flower Seeds, protecting Plants in Ribbon Borders, &c. They can also be adapted for Strawberry cultivation, for Ground Vinerias, &c., as well as in many other ways. They appear to be comparatively inexpensive, while, with reasonable care, would be durable. Generally the Garden appliances produced at this meeting show that in this respect, as well as in many others, there is no lack of enterprise in the way of placing in the hands of practical Horticulturists ample means, well adapted for aiding the prosecution of their plans, and the securing the best possible results."

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AGRICULTURAL FIRE-PROOF IRON ROOFING, BUILDINGS, AND SHEDDING OF EVERY DESCRIPTION.

The special attention long given by F. M. AND CO. to the constructive details of IRON ROOFS, BUILDINGS, &c., enables them to offer the guarantee of a practical experience, extending over many years, in the Designing and Construction of Iron Roofs and Buildings for almost every variety of purpose, in all parts of the world, thereby avoiding the disappointment frequently arising from faulty execution. This Department of F. M. AND CO.'S business is placed under the special supervision of the Company's Architect, whose professional skill ensures the preparation and erection of Buildings in a style and completeness which such special supervision can alone accomplish.

FRANCIS MORTON & CO.'S

IRON BUILDINGS

ARE SPECIALLY ADAPTED FOR

VOLUNTEER DRILL HALLS;
ARCHERY AND PUBLIC GROUNDS;
CRICKET PAVILIONS; BOATHOUSES;
REMOVABLE AND PERMANENT BILLIARD ROOMS;
RIDING SCHOOLS; GYMNASIUMS, &c.



Illustration of Shooting Box, or Country House, &c., as erected for the Right Hon. Lord Hill.—Designed for remote situations or leasehold properties.



Illustration of F. M. & Co.'s Single Span Permanent Hay Barn, from 15 feet to 45 feet span. Fireproof, economical, efficient, quickly erected, and ensuring the Hay Harvest being housed and stored in the best condition for market or home use.

All inquiries should state span required, length of barn, height from ground line to eaves, and if timber uprights (which are the cheapest) could be found on the spot, or if iron columns are desired.

FRANCIS MORTON & CO.'S

IRON BUILDINGS

ARE SPECIALLY ADAPTED FOR

COVERED FARM YARDS; GRANARIES;
CATTLE SHEDDING; BARK HOUSES;
HAY BARNES; CORN SHEDS;
LABOURERS' COTTAGES; ENTRANCE LODGES;
SHIPPONS; STABLING, &c.

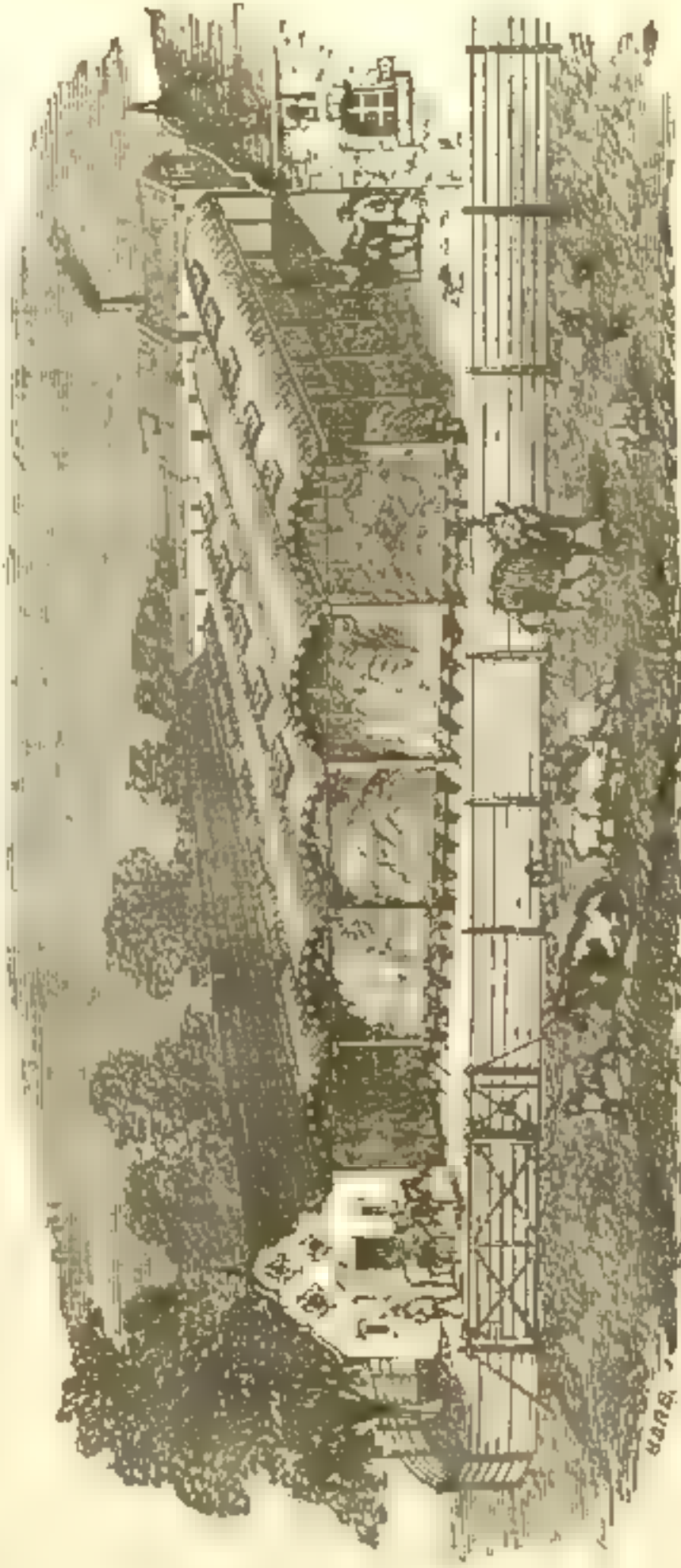


Illustration of Farmyard covered with F. M. & Co.'s Galvanised Iron Fire-resisting Roofs. The covering in of Stack and Rick Yards, though so strongly recommended by the highest practical authorities, has hitherto been attended with too much uncertainty and expense, owing to the costly and perishable roofing usually proposed, affording at the same time no security against fire. Our Iron Roofs are economical, easily and quickly erected, save all cost of future repairs and maintenance, cannot be injured by violent winds, are removable without injury, and, above all, fire-proof.

Crops thus housed are effectually protected from the disastrous ravages of vermin, wet, hailstones, snow, and general weather, and are brought to market in the best condition.

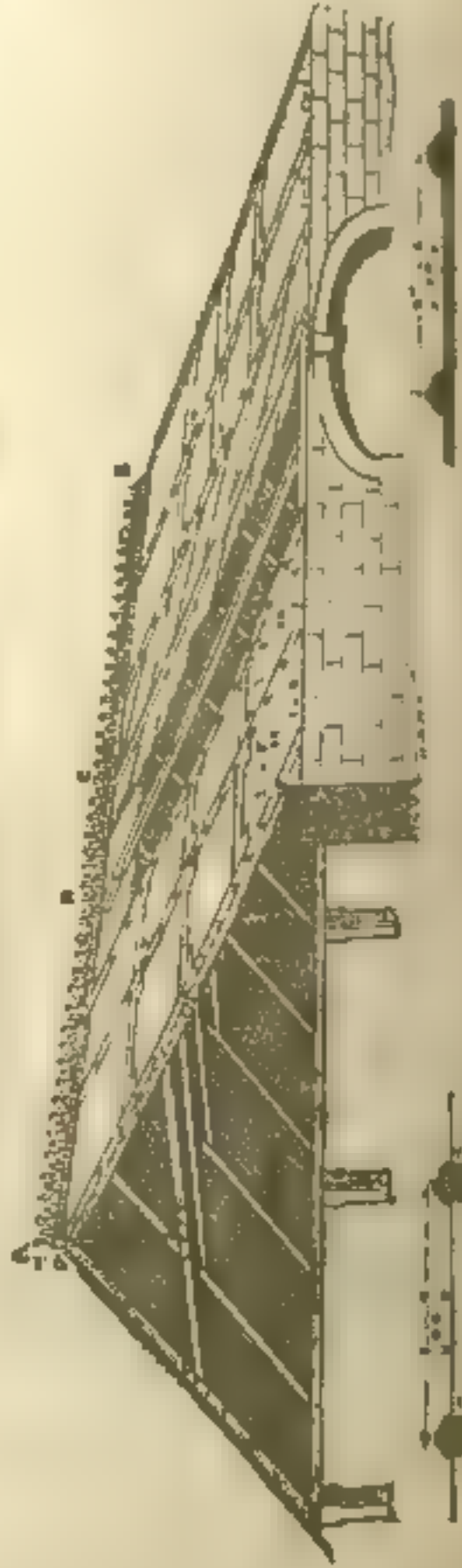


Illustration of a building, possibly a government building or warehouse, showing its structure and roof.

Attention to Gardeners.—When you ask for GARDENERS' WARRANTED PRIZE... and... also the Corporate Mark, Obtain...

Horticultural Glass Warehouse. THOMAS MILLINGTON AND CO. 11, Bishopsgate Street Without, London, E.C.

Table with columns for 'Per 100 feet' and 'Best' prices for various glass sizes.

Table with columns for 'Per 100 feet' and 'Best' prices for sheet squares.

Table with columns for 'Per 100 feet' and 'Best' prices for sheet squares.

Table with columns for 'Per 100 feet' and 'Best' prices for sheet squares.

Prices are given for the sizes stated, if a quantity of any size is required a Special Price will be given.

Table with columns for 'Per 100 feet' and 'Best' prices for sheet glass.

IMPROVED ROLLED ROUGH PLATE in 1-4th in. and 3-8th in. substances.

PAINTS, COLOURS, VARNISHES, &c. This Paint adheres firmly to the surface...

ANTICORROSION PAINT, 2s. to 3s. per sq. ft. This is an excellent material for all kinds of work...

NEW LINSEED OIL, 2s. per cwt. FINE OAK VARNISH, 10s. to 12s. 0.

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Indestructible Terra-Cotta Plant Markers. LAW AND CO'S PATENT.

LABELS, TABLES, and all kinds of COLOURED LABELS.—Tree or Plant Labels, punched parchment, 4 inches long...

IRON SHEDS, IRON SHEDS, IRON SHEDS, IRON SHEDS, IRON SHEDS, IRON SHEDS.

CRANSTON'S PATENT GLASS BELLONGS. HORTICULTURAL PURPOSES.

COIR YARN HATCHING CORD. OLD BLENDING, FOR SPINNING.

SHAW'S TIFFANY. For Shading Conservatories and Hot-houses; INDIA RUBBER HOSE, SPRINGES, GARDEN ENGINE, LAWN MOWERS, &c.

BROWN'S PATENT SHADING. NETTING FOR FRUIT TREES, SEED BEDS, RIPE STRAWBERRIES, &c.

NETTING FOR FRUIT TREES, SEED BEDS, RIPE STRAWBERRIES, &c.

GARDEN NETTING. For shading Conservatories and Hot-houses; INDIA RUBBER HOSE, SPRINGES, GARDEN ENGINE, LAWN MOWERS, &c.

SCRIM CANVAS. 72 inches wide, from 7 1/2 per yard, and HESSIAN, 74 inches wide, at 5 1/2 per yard.

BLIND TICKING, SAIL CLOTH, and FORFAR SHEETING at the lowest prices.

SEED BAGS and SACKS, and BAGS of every description in use, supplied at the lowest possible price.

E. T. ARCHER'S "FRIGI DOMO." Patented by Her Majesty the Queen, the Duke of Northumberland, &c.

PROTECTION from the COLD WINDS and MORNING FROSTS. "FRIGI DOMO" NETTING, 2 yards wide, 1s. 6d. per yard run.

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BRITANNIA MAGAZINE. Edited by... Published by...

THE NEW METHOD OF GROWING FRUIT, by the... Author...

Manuals for Ladies. For the use of the... Author...

INDOOR PLANTS, or HOW TO GROW THEM IN THE... Author...

FLOWERS for ORNAMENT and DECORATION, and... Author...

SONG BIRDS, or HOW TO REAR THEM... Author...

A HANDBOOK for LADIES on INDOOR PLANTS, or... Author...

THE SOCIETY OF PAINTERS, WATER-COLOURISTS... Author...

THE SOCIETY OF PAINTERS, WATER-COLOURISTS... Author...

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Home News.

THE COURT in SCOTLAND.—On Wednesday, the 26th ult. the Queen went out with Princess Beatrice...

THE PRINCE AND PRINCESS OF WALES had a dinner party at Marlborough House on Friday evening.

LEGAL and GENERAL LIFE ASSURANCE SOCIETY, 15, Fleet Street, Temple Bar, London, E.C.

THE SOCIETY OF PAINTERS, WATER-COLOURISTS... Author...

THE SOCIETY OF PAINTERS, WATER-COLOURISTS... Author...

Palace. On Thursday morning the Prince rode out with the Crown Prince of Denmark. The Prince and Princess, and the Crown Prince of Denmark, were afterwards present at the inspection of the Honourable Artillery Company at the parade-ground, Finsbury. In the afternoon the Princess drove out with the Crown Prince of Denmark. The Prince went to the House of Lords. In the evening the Princess, accompanied by the Crown Prince of Denmark and Prince Louis of Battenberg, went to St. James's Theatre. It is announced that the Prince has taken for the Ascot week Cooper's Hill, at Englefield Green, the residence of Mr. Albert Grant, late M.P. for Kidderminster, and formerly the residence of Sir John Cathcart.

PRINCE AND PRINCESS CHRISTIAN, with their infant children, left Frogmore House on Friday evening for London, for the purpose of proceeding to Balmoral by the limited mail. On their arrival at Euston Station, the Princess exhibited symptoms of fatigue and faintness, with the return of the hysteria from which she has suffered of late, and which prevented her accompanying the Queen to Scotland. Sir William Jenner, who was waiting to join the train, advised the immediate return of her Royal Highness to Frogmore. The Royal party, therefore, returned to Windsor, where they arrived at a quarter to 11 o'clock. On Monday, Prince Christian left Frogmore for Balmoral. The Princess will remain at Frogmore for the present.

THE CABINET.—A Cabinet Council was held on Saturday in Downing Street.

THE PEERAGE.—Mr. Alexander Hugh Bruce, of Kennet, Clackmannanshire, has been declared by the House of Lords to have established his claim to the ancient Scottish barony of Balfour of Burleigh, created in 1608 by James I., and forfeited by attainder shortly after the rebellion of 1715.

PARLIAMENTARY MOVEMENTS.—The death of Sir Robert Clifton has created a vacancy at Nottingham. Mr. Bernal Osborne, Mr. P. W. Clayden, and Mr. Charles Seely, who were unsuccessful at the last election, Mr. Roebuck, Mr. Milner Gibson, Mr. T. W. Evans, and Mr. G. Ward are mentioned as likely to become candidates for the vacant seat. There are six candidates in the field for Stafford—Messrs. Evans, Wentworth, Odger, and Jenkins (Liberals); the Hon. Captain Talbot, and Mr. Thomas Salt, jun. (Conservatives). The test ballot for the selection of the two Liberals who are to go to the poll was to take place yesterday.

Foreign.

FRANCE.—Several electoral meetings were held in Paris on Saturday, but they were conducted in the most orderly manner. The public interest is now fixed on the second balloting, which will take place on the 7th inst., and it is thought that the Corps Législatif will meet on the 22d. The *Journal Officiel* declares that the news published by the *Moniteur* relative to an agreement between France and Italy for the evacuation of Pontifical territory by the French troops is totally false. M. Bardel, the French agent at the island of St. Thomas, has been sent to Mexico to succeed the Clerk of the Consulate, M. Farne, who has been assisting the United States Minister in the task undertaken by him of protecting the interests of the French residents. M. Bardel will hold no direct or official communication with the Government of Mexico.

SPAIN.—The Constitution was definitely voted on Tuesday by 214 to 55. Before the vote was taken, Senor Figueras explained that though the Republicans would vote against it, as they could not accept the Monarchical principle, they would nevertheless respect and follow it. In the sitting of Wednesday all the deputies, except those belonging to the Carlist party, signed the draft of the Constitution. Each deputy retained the pen with which he signed his name in commemoration of the event. The promulgation of the Constitution will take place simultaneously in Madrid and the provinces to-morrow, and on Monday the proposition to confer the Regency on Marshal Serrano will be discussed by the Cortes. The death is announced of General O'Donnell, of apoplexy. The resignation of Senor Ortiz, Minister of Justice, has not been accepted. General Caballero de Rodas has been appointed Captain-General of Cuba.

PORTUGAL.—The Queen of Portugal intends leaving for Italy on the 8th inst. The loan contracted with Messrs. Frunling and Goschen meets with great opposition in the Chamber of Deputies, but it is expected to pass. The financial policy of Count Samodoe has already effected reductions in expenditure amounting to about 500,000*l.*, and it is expected that in another year a financial equilibrium will be established.

BELGIUM.—The Countess of Flanders on Thursday gave birth to a Prince. In the sitting of the Chamber of Deputies on Wednesday, the Bill relating to the repayment of the 4 per cent. loan of 30,000,000*fr.*, and modifying the plan for the redemption of the 4½ per cent. loan was adopted. The three officials of the Department of Public Works appointed to represent Belgium in the Franco-Belgian Commission left on Tuesday for Paris. The project of taking the Empress Charlotte to the thermal waters of Bagnère-de-Luchon has been abandoned for the present, owing to the low mental state of her Majesty.

PRUSSIA.—The King has been compelled to postpone for a fortnight his journey to Hanover and Bremen on account of indisposition. As his Majesty's health will not allow him to open the naval arsenal about to be created at the mouth of the Jahde, the complimentary visit of the English squadron to that port has been abandoned. In the sitting of the North German Parliament on Saturday, the Bill containing general regulations as to trade and the convention recently concluded with Switzerland for the protection of literary property, passed the third reading. The House

rejected the second reading of the Government Bill raising the duty on spirits. In the sitting of Tuesday the Bill for the taxation of the closing reports of the Bourse was rejected by 128 to 73. The Customs Parliament was opened on Thursday by the King in person. In his opening speech his Majesty said that the demarcation of the territory of the Customs Union will shortly be settled, when the legislation of the Customs Union will be introduced into certain portions of the Hamburg and Prussian territory. The draught of a new law relative to the Customs is announced, and also a Bill relative to the duty on sugar, regulating that on foreign sugar, and equitably proportioning it to the duty on home-grown sugar. Another revision of the Customs tariff will also be made. The commercial and customs treaty concluded with Switzerland will be laid before the House, as well as the commercial treaty with Japan. An ophthalmia of a contagious character prevails at Berlin, which medical men believe to be of the same nature as the Egyptian disease. Measures of precaution have been taken in consequence.

AUSTRIA.—The Viceroy of Egypt reached Vienna on Saturday evening, and was received with great state. It is stated the principal object of his Highness's visit to the different European Courts is to come to an understanding that the Suez Canal shall be declared a neutral passage to all nations; that the proposal has the support of Austria, Prussia, and England, but is opposed by France. The Emperor has presented to the Viceroy the Grand Cross of the Order of St. Stephen, and to Nubar Pasha, Egyptian Minister for Foreign Affairs, the Grand Cross of the Order of Francis Joseph. The *Official Gazette* of Wednesday publishes the law regulating the army contingent for the present year.

HUNGARY.—In the sitting of the Lower House of the Diet on Tuesday, the Government introduced Bills for the levy of this year's army contingent and for the coining of gold pieces of 10 and 20 francs. In the sitting of Thursday the address in reply to the speech from the throne, as proposed by the committee, was adopted by 255 to 142, after a debate of 11 days.

ITALY.—The Committee of the Chamber of Deputies on Monday rejected by a large majority the three financial conventions presented by Count Cambray Digny, and appointed a Select Committee of seven members to oppose these conventions. In the sitting of the Chamber on Wednesday, Signor Ferrari moved for a parliamentary inquiry respecting the circumstances connected with the concession of the Government tobacco monopoly to a private company. The motion owes its origin to the late action for libel brought by Deputy Civinini at Milan against a Milanese paper. The Chamber, by a majority of 127 to 94, adopted a proposal of Signor Bogni, requiring that before the inquiry takes place, the insinuations made in the evidence at the trial against a member of the House should be proved. The perpetrators of the murder of the Austrian Consul at Leghorn have been discovered. The object of the assassins was to take the life of General Crenneville, and it appears that the persons arrested had all suffered an ignominious beating by the general's order when he was commander of Leghorn, in 1849.

EGYPT.—The statement of a Paris paper that a coolness has sprung up between the Porte and the Egyptian Government is officially denied. The relations between the two Cabinets, on the contrary, were never better.

INDIA.—Ramtuhul Sing, of the late 17th Bengal N.I., a rebel of 1857, was hanged at Aziungurb on the 29th April, for the murder of Lieutenant Hutchinson, adjutant of the regiment, in that year. Cholera has broken out among the European troops at Gwalior, and several fatal cases have occurred. Another effort is to be made by the Government of India to rescue the Roman Catholic missionaries who are in captivity in Thibet.

CHINA.—Accounts received at Hong Kong of the fracas at Peking state that it originated in the French Charge d'Affaires, Count de Rochechouart, having jostled against a chair containing a brother of Prince Kung. The Prince struck the Charge d'Affaires across the face, and an apology having been demanded and refused, the French tricolour was hauled down. The other foreign ministers had taken up the matter, and had given the Chinese Government three days to apologise. Another account says that the Charge d'Affaires' pony ran into a chair containing the brother of Prince Kung, and that the Prince's outrider struck the blow; but whether he aimed at Count de Rochechouart, or at a member of his suite, is said to be uncertain.

JAPAN.—An extraordinary political change is announced. Several of the most influential Daimios have tendered to the Mikado their resignation of their rank, estates, and sea and land forces, for the purpose of strengthening, or rather re-creating a central and supreme government. A great council of Daimios will soon assemble in Yeddo for the purpose of settling the new Constitution of the country. A powerful naval force is being moved by the Mikado's Government against the rebels, who occupy Hakodadi. It is asserted that the latter are supported by French officers. The Mikado is expected to reside at Jeddo.

AUSTRALIA.—The death of "King Billy," the last man of the Tasmanian aborigines, a race which only half a century ago numbered 7000 souls, has been announced. There is still an aged woman left of the aboriginal population. An unseemly struggle has taken place for the skeleton of "King Billy," the head having been abstracted by the hospital authorities for the London College of Surgeons, and the rest of the body having been exhumed for the purpose of placing the skeleton in the Museum of the Royal Society of Tasmania.

UNITED STATES.—It is reported that President Grant has expressed his disapproval of the terms of

Mr. Sumner's speech on the *Ambush* reception of Mr. Motley at Liverpool has been commented upon in New York. The *Tribune* of his position as a distinguished man and a member of the United States; and that his reception is able to the desire of the British nation to see the *Tribune* endorse the tone of Mr. Motley's speech. It adds the hope that the friendly desires of the States will not be misinterpreted through the different views of the two countries on the question. It believes that the friendly and cordial speech of Mr. Forster opens the way for negotiations. A movement has been started of the establishment of a Constitutional Club in the United States. A weekly paper, the *Realism*, is published in New York for the advancement of realism, and a meeting is to be held in Washington, in which, it is said, they will carry a ticket in the field. The Indian war has been a collision between the troops and the Indians in Texas, near Fort Indians of the West are perpetrating massacres among the settlers.

CUBA.—General Duce left for Spain on Tuesday. It is asserted that his departure was made on of a hostile manifestation. The *Washington* correspondent of the *New York Herald* states that cargoes of war munitions have been sent to Cuba, and that a fourth will probably follow. This aid is already perceptible. The news of this nature is conflicting and indefinite. The Cuban policy of President Grant's administration is strictly pacific and neutral.

PERU.—Advices from Lima state that the Government of Peru has recognised the Cuban belligerents.

Parliament.

THE House of Lords reassembled on Monday the Whitsuntide recess. The Marquis of Lansdowne moved the second reading of the Newspaper Bill, the object of which was to repeal an Act of 1810, and certain other Acts, practically obsolete, and to take the taking out of licences for lectures at the Lord CAIRNS agreed in the propriety of repealing Acts if obsolete, but criticised the policy of the Secretary in putting in operation in March 1870, of 1799, for the purpose of stopping Mr. Murphy's intended lectures at Tynemouth, only for the introduction of the present Bill, which the Government proposed to repeal that Act. LORD CHANCELLOR said that the Home Secretary was perfectly justified in using any power he possessed to guard against the breach of two years' silence to follow from Mr. Murphy's lecture. He had acted not merely under the Act of 1799, but under an Act of the 8th and 9th of Victoria, answer to the Duke of SOMERSET the Marquis of LANSDOWNE said that a Bill pending in the House secured to the Museum a copy of every paper direct from the printers. The Bill was read a second time. On Tuesday the first Bill was read a first time, and the second reading fixed for the 14th of June. The Earl of GRANVILLE asked if the recent appointment of an Under-Secretary for Ireland was intended to be permanent. A military officer was to be considered disqualified. He censured the conduct of the present appointment to the late Sir E. Wetherall, whom the office while they intimated a want of confidence in his competence for the post. EARL GRANVILLE said that the appointment was permanent, and that a man, if otherwise qualified, would not be regarded as disqualified. On the part of the Government he disapproved of disparaging Sir E. Wetherall. The Earl observed that Sir Edward Wetherall had been especially to guard against the suspension of the appointment made at such a juncture was a matter of appointment. EARL GRAY asked if the Government intended to bring in a Bill to provide for the appointment of municipal functionaries possessing powers when found guilty of misconduct. LORD CHANCELLOR replied that the subject was under consideration, though it was not so simple as it appeared, for it involved some difficult points connected with the electoral powers of municipalities and the constitutional powers of the Government. On Thursday, before the Bill was introduced into Committee on the Life Peerages Bill, LORD CAIRNS said that he intended to propose an amendment to the preamble by striking out the words "of classes, and providing that only one peer should be created in any one year, and that the creation should take place unless the peerage should hold a particular office of State which would render him ineligible. The Earl of CAIRNS said that whether the amendment, instead of striking out the number of life peerages, would be to limit the number. LORD PENZANCE thought that the number of Lords should not only represent the party, but the active intelligence of the country, tried official capacity, and distinguished services of the great public departments of the State. He said some remarks by the Duke of CLEVELAND, EARL GRANVILLE, the House went into Committee. EARL STANHOPE moved an amendment to the grant in one year of any second peerage to any Cabinet Ministers or persons who had performed distinguished naval or military services. The discussion, in which the Marquis of SALISBURY took part, EARL ROSSSELL consented to a clause by providing that two peers only should be created annually instead of four, and that the number of such peers in existence at any one time

... exceed 28. Earl STANHOPE thereupon proposed his amendment, and the Bill, as amended by Mr. RUSSELL, passed through Committee. Yesterday Mr. STRATFORD DE REDCLIFFE called attention to the relations with the United States. The Earl of ... in reply, said that the British Government had gone as far as possible in the way of concessions. The demeanour of Mr. Reverdy Johnson in this country had evoked the most unmistakable manifestations of friendship for the United States, but Mr. Sumner's speech had elicited such a response as to show however much we desired peace, and however much we valued our good relations with the United States, there was one thing which we more highly prized than that was our national honour. The House ...

... Commons on Friday, in answer to Mr. ... Mr. GLADSTONE stated that the Government had no intention to meddle with the National ... Mr. MACFIE called attention to the Patent Laws, and moved a resolution that the time had arrived when the interests of the public would be promoted by an abrogation of the Patent Laws. Lord STANLEY, as Chairman of the Patent Commission, avowed that the inquiry had converted him to the opinion that the Patent Laws did more harm than good, and that there was inherent in a system of patents, apart from objections to the administration of the law. Mr. J. H. WARD, speaking as an inventor, a patentee, and a manufacturer, maintained that the abolition of patents would be a blow to the commercial greatness of England, for it was only by the perfection of our manufacturing processes that we could keep ahead of our foreign rivals. Mr. MUNDELLA treated this as a working man's question, and said that if the Patent Laws were abolished working men, who were the chief inventors, would carry their inventions to France and the United States. Mr. STAPLETON and Lord ELCHO also regarded the Patent Laws as beneficial to the working classes, and Mr. SAMUDA held that before any action was taken Parliament ought to have further information. The ATTORNEY-GENERAL said that the working of the present system could be remedied, and an attempt should certainly be made to amend and improve before abolishing. He entirely concurred in the recommendation of the Royal Commissioners that patent cases should be tried by a judge, with one or two scientific men as assessors, instead of by a jury, and he suggested that the subject should be referred to a select committee. Mr. DENMAN expressed his regret that the Government had not announced their intention of dealing with the subject next session. After a few words from Mr. SAMUDA in favour of amendment rather than abolition, Mr. MACFIE expressed himself satisfied with the discussion, and withdrew his motion. The arrival of the harbours of Falmouth, Plymouth, and Southampton, for embarking and landing the western mails was next brought under notice by Mr. R. FOWLER, and after a short debate, in which the members for those ports took part, the Marquis of HARTINGTON, on the part of the Post Office, said that as Plymouth had been selected after a full and impartial inquiry, he could not hold out any hope that the present arrangement would be disturbed. In answer to Mr. READ, Mr. BRIGHT said that the Government had no intention to discontinue the collection of agricultural statistics after the present year; and in answer to Mr. H. SELWIN-IRBISON, said that with a view to the prevention of accidents, the Board of Trade had issued a circular recommending all railway companies to adopt the "block system." The Irish Church Bill was recommitted, for the purpose of introducing a clause imposing a stamp duty on any order of the Commissioners of Church Temporalities in Ireland operating as a conveyance on mortgage of property. Mr. GOSCHEN moved the second reading of the Metropolitan Poor Acts (1867) Amendment Bill, the object of which was to provide for the better distribution of paupers in workhouses, the amalgamation of unions, the erection of lunatic asylums, and the establishment of district schools. The debate was then adjourned for a week. On Monday, on the motion for the third reading of the Irish Church Bill, Mr. HOLT moved, as an amendment, that the Bill be read a third time that day three months. Lord ELCHO seconded the amendment, which was opposed by Mr. CARDWELL, Mr. ALLEN, Mr. STAPLETON, Mr. MONSELL, Mr. BUTLER JOHNSTONE, and Mr. MILLER, and supported by Sir F. HENEGATE, Mr. ADDERLEY, Mr. J. G. TALBOT, Dr. BAILLIE, and Mr. W. JOHNSTONE. Mr. DISRAELI said that the result of the Irish policy of the English Government for many years past had been a continuous improvement in the condition of the country and the people down to the commencement of the Fenian movement, and if the same policy of conciliation had been permitted to go on working its gradual changes, in another 20 years Ireland would have been in the same condition as England and Scotland. He contended that the present Bill, aided by the measures on the land question, would produce tranquillity and disturbance, if not disaster, that the general organization and discipline of the Roman army would aim at the re-establishment of Papal supremacy, and that among other serious consequences of the struggle between Popery and Protestantism the policy of the Ministry would lead to a dissolution of the Union, followed by civil war, and another conquest of Ireland, a second siege of

Derry, and a second treaty of Limerick. The vote to be given that night was the most responsible which could be recorded, and he warned the majority that the day might come when they would have to admit that they had contributed to the disaster of their country. Mr. GLADSTONE, in reply, said that the maintenance of the State Church was a standing injustice to the people of Ireland, and constituted an inseparable portion of that system from which all the woes and miseries of the country proceeded. He contended that the Bill was erudite and just, and that it was about to be carried out with liberality, harshness, and rigour; and maintained that the provision made for the Church was ample and generous, regard being had to the numerical strength of its community and the work it had to do. He disbelieved the predictions that the Bill would permanently cripple Protestantism in Ireland, and expressed an earnest hope that the Church would pass triumphantly through the ordeal, and would emerge with a higher sense of her mission, and freed from the unjust privileges and the bitter memories which had been her unhappy heritage. The House then divided, when the amendment was rejected by a majority of 114; the numbers being 361 to 247. The Bill was then read a third time and passed. On Tuesday, on the motion of Mr. GLADSTONE, it was agreed that as the Queen's birthday was to be observed on Wednesday, the House at its rising should adjourn on Thursday. Sir H. VERNY called attention to the recent negotiations between the Canadian Government and the Hudson's Bay Company, and urged the Canadian Government to lose no time in completing the communication to the Rocky Mountains. Mr. R. N. FOWLER and Mr. KINNARD hoped that the interests of the native Indians would be considered in their transfer to the Canadian Government. Mr. SINCLAIR AYTOUN, Colonel SYKES, and Mr. SAMUELSON hoped that the scheme did not contain an Imperial guarantee. Sir S. NORTHCOTE said that the Hudson's Bay Company were unable to colonise this tract, because of its difficulty of access, their imperfect powers of government, and, latterly, because of the uncertainty of the Confederation scheme. He cordially eulogised the skill and temper displayed by Lord Granville in the negotiations. Lord BURY expressed great satisfaction at the termination of a long and tedious dispute, and advised the Canadians not to raise the question of the Hudson's Bay Company's right to this territory. Mr. MONSELL, in reply, said that it was the policy of the Government to call on the colonies to bear the cost of their own defence, and that the recent negotiations comprised an Imperial guarantee, which would be brought before the House in due time, and, as some excuse for it, he pointed to the undoubted Imperial advantages of the transfer. As to the natives, the Canadian Government had given the strongest assurances that their rights would be respected. Sir C. DICKER held it to be extremely improbable that the Cany trade would ever be diverted across the continent; and if the line from ocean to ocean were made for political purposes, the Canadians ought to pay for it. After some remarks by Mr. ELLICE, Mr. HADFIELD, and Mr. E. W. HAMILTON, Mr. GLADSTONE said he could give no other pledge on the matter of guarantees beyond this,—that they should only be employed to put an end to the state of relations between the colonies and the mother country which made them necessary. Mr. SEELY called attention to the report of the Select Committee on the American Mail Contracts, and after condemning the late Government for concluding the Cunard contract, moved a resolution to the effect that mail contracts should in future lie upon the table for 30 sitting days. The motion was seconded by Mr. BAZLEY, and supported by Mr. GRAVES. The Marquis of HARTINGTON opposed it, and said that we were bound by the convention with the United States to consider a reduction of rates at the end of the year, and he hoped that in a few years, even with the present contracts—if the correspondence went on increasing—the rate might be reduced to 3d. Mr. MOORE called attention to the case of Mr. O'Sullivan, of Kilmallack, who had been detained as a Fenian in Limerick Gaol for 18 months under a Lord-Lieutenant's warrant; and he moved for a Select Committee to inquire into the treatment of prisoners arrested under the suspension of the Habeas Corpus Act. Mr. C. FORTESCUE admitted that Mr. O'Sullivan had been treated with unnecessary severity; but the parties responsible were, not the Government, but the local authorities. After some discussion, the motion was negatived by 84 to 20. Mr. VANCE moved for a return of the number of petitions presented for and against the Irish Church Bill. On a division, the motion was negatived by 60 to 32. On Thursday the Government Bill for the creation of two High Sheriffs for the county of York, and the Burial Regulation Bill of Mr. Hadfield were withdrawn. The House went into Committee on the Bankruptcy Bill, when 28 out of the 132 clauses were agreed to. The Oxford University Statutes Bill was read a third time and passed. Yesterday, in answer to Mr. GOURLAY, Mr. CHILDERS said that he was entirely satisfied with the conduct and fitness for service of the Reserve, and that by the end of next year the whole of the Coast-guard Fleet would consist of iron-clad ships. The House was left sitting.

City Intelligence.

THE ENGLISH JOINT-STOCK BANK.—The three directors of the English Joint-Stock Bank, Captain Mandes, Mr. Ables, and Mr. Bradshaw, and Mr. Finney, the manager, were again brought before the Lord Mayor on Saturday. The case for the prosecution having been concluded, addresses were delivered by Mr. Metcalf on behalf of Mr. Bradshaw, and by Mr. Littler for Mr. Finney; after which the hearing was further adjourned to Tuesday, when the addresses of counsel for the defence were concluded. The Lord

Mayor then said that the arguments put forward for the defence were extremely weighty, and required consideration. He should therefore postpone judgment in the case until Monday next.

MONLY MARKET, FRIDAY.—BRITISH FUNDS: Consols closed at 92½ to 92½ for Money, and 92½ to 92½ for Account; New and Reduced Three per Cents, 92½ to 92½; Exchequer Bills, 5s. dis. to par Indian Five Five per Cents, 111½ to 112½.—FOREIGN: Brazilian, 51 to 51½; Chilean, 96 to 97; Danubian Seven per Cents, 77½ to 78½; Egyptian 1861, 87 to 88; Ditto 1868, 77½ to 78; Venezuela's Seven per Cents, 82 to 82½; Ditto Nine per Cents, 91½ to 95; Italian, 56½ to 56½; Peruvian, 72½ to 79½; Portuguese, 35 to 35½; Ore! Vitebsk, 79½ to 80½; Nicolas, 64 to 64½; Moscow, 78 to 78½; Charkof, 77½ to 78½; Turkish Five per Cents, 44½ to 44½; Ditto Six per Cents, 67 to 67½; United States 5-20 Bonds, 80½ to 81; Erie, 18½ to 19½; Illinois, 91½ to 92½.

Metropolis and its Vicinity.

CELEBRATION OF THE QUEEN'S BIRTHDAY.—Wednesday being the day appointed by her Majesty for the celebration of her birthday, the official holiday took place at all the public offices; the guns of the Tower and the Park fired royal salutes, flags were hoisted on the public buildings and many of the churches, the bells of which rang out merry peals during the day. In the morning the usual parade took place in St. James's Park, at the back of the Horse Guards, in the presence of the Prince and Princess of Wales, the Duke of Cambridge, and Prince and Princess Teck. In the evening the clubs and shops at the West End were brilliantly illuminated, and the usual official banquets were given by her Majesty's ministers and the great officers of state.

ROYAL VISIT TO ST. BARTHOLOMEW'S HOSPITAL.—Monday being the day appointed for the annual visit of this hospital by the governors, the Prince and Princess of Wales, accompanied by the Crown Prince of Denmark, paid a visit to the institution, and took part in the ceremony, his Royal Highness in his capacity of president. The governors mustered in unusual numbers on the occasion. The Royal party were received at the entrance by the treasurer and a deputation of governors, who escorted them to the court-room, decorated with portraits of Henry VIII. and of several past governors and benefactors, and the interior of which has recently been restored and re-embellished. The Prince having taken the seat assigned to him as president, the minutes of a previous meeting of the governors were read and confirmed. A letter from Mr. Paget, the senior surgeon of the hospital, was read, stating that the Princess Louisa desired to present to the hospital a set of chromo-lithographs of the costumes of Raphael, to be placed in the ward under his charge. The thanks of the governors to her Royal Highness were voted by acclamation. After his Royal Highness had inspected the plans of a new storey which is about to be added to one of the wings of the hospital, the Royal visitors were conducted over the whole establishment, where they spent some time, visiting the various wards and seeing the whole of the patients, to several of whom the Princess said a kind word or addressed a sympathising inquiry. The physicians and their assistants were in attendance. During their tour of the wards the Prince recognised Sir Moses Montefiore among the company, and presented him to the Princess. While the inspection was proceeding the whole of the medical students at the hospital were assembled in the quadrangle. The Royal visitors took their departure shortly after 2 o'clock.

THE PRINCE OF WALES AND THE FREEMASONS.—At the quarterly communication of the United Grand Lodge of Freemasons, held in their hall in Great Queen Street on Wednesday evening, the Earl of Zetland, Grand Master, stated that he was authorised to announce that during his recent visit to the Continent the Prince of Wales had been initiated into freemasonry in Sweden, and that his Royal Highness had intimated his intention of immediately joining several English lodges. Under these circumstances he intended, in accordance with precedent, to propose at the next lodge that the rank of Past Grand Master be conferred upon his Royal Highness, with a seat on the dais. The Prince had intended to have honoured the Grand Lodge with his presence that evening, but, owing to the meeting falling on the day set aside for the celebration of her Majesty's birthday, he was, by the pressure of other engagements, unable to do so. His Royal Highness would, however, take an early opportunity of visiting the Grand Lodge, and being formally introduced to the brethren. The announcement was received with loud applause.

THE PEERS AND THE IRISH CHURCH BILL.—On Saturday afternoon about 500 delegates, representing the Protestant bodies of Ireland, had a conference with a number of Peers at Chesterfield House, the residence of the Duke of Abercorn, on the subject of the Irish Church Bill. The Peers present besides the Duke of Abercorn, were the Marquis of Salisbury, the Primate of Ireland, the Archbishop of Dublin, the Bishop of Derry, the Earl of Malmesbury, the Earl of Longford, the Earl of Huntingdon, the Earl of Bandon, the Earl of Erne, Lord Redesdale, the Earl of Harrowby, Lord Colville, the Earl of Verulam, Lord Gough, Lord Dunsany, Lord D. 23y, Lord Wharfedale, and Lord O'Neill. The Irish Church Conference was represented by the Archbishop of Canterbury, the Earl of Lanesborough, the Hon. David Parnet and others; the Central Protestant Defence Association for Ireland was represented by Viscount Barnard, Lord Guillamore, Mr. John Y. Burgess, &c. The Ulster Protestant Defence Association was represented by Sir William Johnson and others, while the National Protestant Union was represented by the Hon. Wm. Massey, Mr. Holt, M.P., General Lawrence,

Mr. Richard Nugent, Mr. M. Howard, the Rev. Samuel Short, Mr. W. Long, and General Bentley. The deputations were introduced by Lord James Butler, and an address from the Irish Church Conference was read, solemnly adjuring their lordships to reject the Bill as a revolutionary measure, and thereby to intervene between the Queen and a Bill which, in their opinion, violated the essential principles of the Constitution to which she owed her Throne, and involved a breach of the coronation oath. Dr. Trail, the Dean of Limerick, the Hon. David Plunkett, Q.C., the Rev. Dr. Bailey, of Monaghan, Mr. Spaight, of Limerick, Mr. Robert Hamilton, of Belfast, Mr. A. Mackroy, Sir Edward Grogan, and Mr. Gamble, Q.C., next addressed the meeting in opposition to the Bill. Sir John Steward then read an address from the Ulster Protestant Defence Association, asking their lordships not to sanction the principles of the Bill for various reasons. After some remarks from Captain Petre and Mr. C. Nugent, the Duke of Abercorn said:

"Gentlemen, am sure I may say on behalf of the Peers who have done us the honour of attending here to-day, that it has been very satisfactory to them, as it has been to me, to hear an expression of the views and feelings upon this highly important subject of gentlemen representing the deputations from the Church Conference of Ireland, the Presbyterians of Ireland, the Central Protestant Defence Association, the Ulster Protestant Defence Association, and the National Protestant Association. We fully appreciate the weight of those views and the importance of the occasion, although we are unable at this moment, as you can readily understand, to express any definite opinion on the subject. I can promise, however, that we shall take care that your views shall be fully represented to the meeting of Peers which will be held next week to consider the question prior to its discussion in the House of Lords."

The deputation thanked the duke for his courteous reception of them. On the same day a deputation from the same bodies had an interview with Earl Grey, who said that though he could not be expected to assent to all the views which the deputation had expressed, he would give his best consideration to the statements they had submitted to him.

THE ROYAL NAVAL RESERVE CRUISE.—The Lords of the Admiralty have issued the following note in reference to the conduct of the Naval Reserve during the recent cruise.—

"The First Lord of the Admiralty and the First Sea Lord, before leaving the Squadron of Reserve, commanded by Rear-Admiral Key, C.B., and Rear-Admiral Hornby, desire to express to the officers and men of the Royal Naval Reserve, who embarked for the Whitsuntide cruise, the satisfaction with which they have witnessed both the readiness of the Reserve to volunteer for this service, and the general willingness and good conduct of the men during the cruise. They have also noticed, with marked approval, the order and cleanliness of the force. They are glad to find that the officers and men of the coastguard, in respect both of efficiency and good conduct, thoroughly realise the expectations formed of a body of men especially selected from the navy to constitute its first reserve. They are also entirely satisfied with the behaviour of the officers and men of the fleet. The good feeling which has prevailed during the cruise between the three branches of the service enables the First Lord and the First Sea Lord to express their hope that in future years opportunities may be again afforded for the exhibition of this harmony, so essential to the strength of the British navy."

"H.M.S. Agincourt, Tersey, May 29, 1864."

THE PARK LANE IMPROVEMENT BILL.—The Select Committee of the House of Commons having refused to insert special clauses in this Bill to remunerate persons whose property would not be required for making the thoroughfare through Hamilton Place, the Marquis of Hamilton, on Tuesday, on the motion for the consideration of the Bill, as amended, moved that it be recommitted for the insertion of a clause declaring the lessees and occupiers of houses in Hamilton Place to be within the provisions of the Lands Clauses Consolidation Act, 1845. After some discussion the motion was negatived without a division, and the Bill was ordered to be read a third time.

EXTRAORDINARY ALLEGATION OF CONSPIRACY.—Mr. Rigby Wason, formerly M.P. for Ipswich, of Corwar House, Ayr, and 11, Pall Mall, applied to the magistrate of Marlborough Street Police-court on Wednesday either to grant a summons against Earl Russell, Lord Chelmsford, and the Lord Chief Baron, for conspiracy, or to bind him over to prosecute. Mr. Tyrwhitt, under the statute 22d and 23d Vic., cap 17, refused a summons, but, at Mr. Wason's request, bound him over to prosecute the charge at the Old Bailey.

THE PUBLIC HEALTH.—The Registrar-General's Weekly Report states that in the week that ended on Saturday, May 29, 1419 births and 2922 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 23 per 1000 persons living, being 21 per 1000 in London, 39 in Edinburgh, 24 in Dublin, 24 in Bristol, 17 in Birmingham, 28 in Liverpool, 24 in Manchester, 23 in Salford, 23 in Sheffield, 20 in Bradford, 20 in Leeds, 19 in Hull, 23 in Newcastle-upon-Tyne, and 35 in Glasgow. The rate in Vienna was 35 per 1000 during the week ending the 22d inst., and in Berlin 32 per 1000 during the seven days ending the 27th inst. In London the births of 961 boys and 963 girls, in all 1924 children, were registered in the week. In the corresponding weeks of 10 years, 1859-68, the average number, corrected for increase of population, was 2103. The deaths registered in London during the week were 1276. It was the 21st week of the year, and the average number for that week, corrected for increase of population, was 1342. The present return is therefore 66 below the estimated amount.

Provincial.

ABERDARE.—A fatal boiler explosion occurred on Monday morning at the Plough Colliery, the property of the Powell Duffryn Steam Coal Company, in the Aberdare Valley. The engines for raising the coal and pumping the water out of the pit were supplied with steam from three large flat-ended boilers, 36 feet long

and 7 feet in diameter, the plates being three-eighths of an inch thick. One of these, about half-past 6 o'clock, when the colliers were collecting round the pit's mouth previous to going down for the day's work, suddenly exploded. It rose from its bed to some height, and then broke into three pieces, which were thrown between the stack and engine-house, and fell across the fence of the Taff Vale Railway, 50 yards off. At the same time a great quantity of rubbish rose in the air, and was scattered in all directions. It fell upon the adjoining houses and passed through the roofs and ceilings till it reached the lower floors. George Rose, a stoker, who was firing one of the other boilers at the time of the explosion, was killed by the boiling water and mud which fell on him. David Richard, a collier, aged 16, was sitting when a stone fell on him and killed him on the spot; Daniel Griffiths, a collier, aged 32, was also killed on the spot; David Lewis, a labourer, who had just gone into the ash-pit when the accident happened, was scalded to death, and four other men were injured by the falling rubbish. The surgeons of the works were promptly on the spot, accompanied by neighbours, who rendered all the assistance they could to the injured.

LEICESTER.—On Monday evening a very crowded meeting in this town adopted a petition to the House of Lords against the Irish Church Bill. The Rev. Dr. Corvan and the Rev. W. Corvan attended as representatives of the Central Protestant Association in Dublin, and delivered lengthened speeches on the subject.

LIVERPOOL.—On Monday morning Mr. Motley, the new American Minister, received, at the Adelphi Hotel, addresses from the Liverpool and American Chambers of Commerce. Mr. Dudley, the American Consul, introduced the president of the American Chamber, who briefly welcomed the Minister, and presented the address, which warmly congratulated Mr. Motley on his appointment, and expressed an earnest desire for the maintenance of friendly relations. Mr. Motley, in reply, said:—

"Mr. President, and gentlemen of the American Chamber of Commerce in Liverpool, I thank you very sincerely for your kindly words of welcome on my arrival in England as the representative of the United States. You may be assured that it is the earnest hope and wish of the Chief Magistrate of the Union, of his Administration, and, as I believe, of the American people, to cultivate faithful, friendly, and equitable relations with her Majesty's Government and with the British people. The happiness of the world, the advancement of civilization, and the best hopes of humanity, are dependent upon an accord among all the branches of the human family, but more especially between two such leading nations of the earth as the British Empire and the American Republic, so nearly allied by blood, so closely connected by so many public and personal interests, so adjoined to commerce and to the cultivation of the arts of peace. That my strenuous efforts will be made towards the furtherance, so far as in me lies, of the most thorough and mutual good understanding between the two nations—the only basis of an enduring friendship and all kindly relations in accordance with those great principles of reason, honour, and justice which are immutable, and the only safe and unerring guides for nations and individuals, I beg you earnestly to believe. In conclusion, I have the honour to thank you once more, in the name of the United States Government, for the courteous and cordial address in which you have expressed your friendly feelings, and for my own part I ask you to believe that I am truly sensible of the very gratifying language in which you have been pleased to allude to myself."

Mr. H. Clarke, President of the Liverpool Chamber of Commerce, then presented an address, expressing an earnest desire for peace, and the hope that wisdom, moderation, and justice might animate the two Governments, and that all questions might be solved to the honour and interest of both nations. The address also alluded to the removal of the last vestige of England's protective policy, and expressed a hope that Mr. Motley would be the means of bringing about reciprocal free trade in America. Mr. Motley, in acknowledgment, said:—

"Mr. President, and gentlemen of the Liverpool Chamber of Commerce, I offer my respectful thanks for the cordial language of the address to which I have just had the honour of listening. I take pleasure in expressing my high appreciation of the friendly sentiments which you manifest towards my country; and you do me no more than justice in supposing that it will be my object, so long as I have the honour of holding the post of Envoy from the United States to her Majesty's Government, to do my best to promote a good understanding between two nations essentially of one race, bound to each other more closely, perhaps, by the ties of kindred, and by community of interests and pursuits, than two leading Powers of the world have ever before been connected in human history. Certainly it is superfluous for me to say that the best and highest purposes of these two great commonwealths, the British Empire and the American Republic, are best fulfilled when faithful friendship exists between them. The American people and the eminent Chief Magistrate whom they have so lately chosen to be depositary of their confidence and their power, are animated now, as always, by the hope and the desire of maintaining sincere and amicable relations with her Majesty's Government and with the people of this Empire upon the basis of entire justice and dispassionate regard for the rights and duties of both countries. That commerce between two such vast communities can thrive only when perfect confidence exists is certain, and it is earnestly the wish of the American people that our commerce with Great Britain and all the world should be intelligently extended and sustained. I have listened with attention to what you have said with regard to the commercial systems of Great Britain and America. You will, however, pardon me if I do not go beyond the limit of my official functions in order to enter into a discussion on fiscal policy, such important matters being regulated by the American people through their representatives in Congress, in accordance with what they believe to be required by the interests of the country. Mr. President and gentlemen, I thank you in the name of the United States Government for the courteous and kindly welcome you have given me as its representative; and I also express my sincere appreciation of the kindness of the language which you have been pleased to employ towards me personally."

Mr. Motley left for London by the 11.30 A.M. train, a special carriage being placed at his service by the London and North-Western Railway Company.

MAIDENHEAD.—The report that Earl Grosvenor has purchased Cliefden House, near this town, has been contradicted on authority.

MOLD.—A fatal riot occurred on Wednesday in the town, in consequence of the attempted rescue of a convicted collier by the mob. Large numbers were hurled at the police, and it became necessary to call in troops, and afterwards to send for more. The Riot Act. This proceeding had no effect upon the mob, who broke down the telegraph-office, and the troops were stationed, smashed the railway carriages, and threw showers of stones at the soldiers and police, who showed great forbearance. At length orders were given to the military to fire on the people, when two persons were shot dead, and several others were wounded. Numerous casualties are reported among the soldiers and the police, and one soldier is said to be mortally wounded. The jury at the inquest returned a verdict of justifiable homicide, and considered that the troops acted with great forbearance.

PRESTON.—The operatives of this town had a meeting last week to discuss the advisability of establishing a fund to assist weavers to emigrate to America and the British Colonies. A resolution was passed by the Association to the immediate establishment of a Weavers' Emigration Society.

SOUTHAMPTON.—A statue in honour of Lord Carnarvon was inaugurated in this town on Wednesday by the Earl of Carnarvon, with a grand ceremony and a banquet in the evening.

SOUTHSEA.—A public meeting was held on Monday evening in St. Luke's National School-room, to receive an address from Mr. Edward Harper, chairman of the National Protestant Institute, on "Mr. Gladstone's League with Popery so far as relates to the Church; 2. The Land; 3. Education and Moral Training." The Rev. B. D. Aldwell, incumbent of St. Luke's Church, presided, and the spacious room was crowded to the doors. At the conclusion of the address a resolution was passed by the Lords to reject Mr. Gladstone's Bill, and praying them all the support in their power, was carried.

TAVISTOCK.—Wheal Crebor Mine, near this town, was accidentally flooded on Friday morning in consequence of some men breaking into an old level. Only five men were at work in the low level at the time, one of whom, however, was drowned. His son was carried a considerable distance by the rushing water, but, though severely injured, managed to escape. Two of the others were rescued on Friday evening, and the fifth was not rescued until Saturday afternoon, when he was found still alive and sensible, but almost exhausted, having been incarcerated from 7 o'clock on Friday morning until 1 o'clock on Saturday.

TUNBRIDGE WELLS.—A four-horse coach has been placed on the road between London and this town, and is likely to prove a great success. It starts from White Horse Cellar, Piccadilly, at 10 A.M. daily, proceeds through Lewisham, Farnborough, and Havant, to the Sussex Hotel, Tunbridge Wells, where it arrives in 3½ hours. It is driven by an amateur, a wealthy gentleman, who is its proprietor, and has a general management of it.

WINDSOR.—A fast four-horse coach commenced running on Tuesday last from London to Windsor. It has been placed upon the road by Mr. Carington, who drove it in person, and it is understood that he will frequently take the team in hand. The passengers were the Marquis of Worcester, Hon. Capt. Carington, Capt. Johnston, Capt. ... and other members of the Four-in-Hand Club. The day at noon, Sundays included, it is to leave the White Horse Cellar, Piccadilly; commencing the journey from the Castle Hotel at Windsor each day at 4 o'clock. As in the olden days, there is an extra half-crown involved in the honour of the seat, in addition to the tariff of "5s. outside, 6s. in." It is expected that the novelty of the venture, and the picturesqueness of the journey compared with the rail, will cause the coach to be extensively patronized.

Ireland.

ORDER OF ST. PATRICK.—The Lord-Lieutenant held an investiture of the Order of St. Patrick at the Castle on Wednesday evening, when the insignia of the Order were conferred on the Earl of Gosford and Mr. Carysfort.

THE LORD-LIEUTENANCY.—The Earl and Countess Spencer intend leaving Ireland in the early part of next week for England. A rumour has been current that his Excellency does not intend to resign his office in Ireland in his official capacity, but it is believed to be without foundation.

THE IRISH CHURCH.—A large meeting of Protestants, not connected with the Established Church, was held on Friday evening in the Metropolitan Hall, Dublin, to protest against the Irish Church Bill. It was attended by great numbers of the most influential citizens, comprising many leading members of the Presbyterian and Independent denominations. Mr. Duncan presided, and addresses were delivered by Rev. Dr. Bryson, Rev. Mr. Kerr, and Rev. Mr. W. P. ... A petition to the House of Lords denouncing the Bill was adopted, with resolutions denouncing the Bill as calculated to undermine the principles of the Constitution, and to violate the Treaty of Union, and to establish the ascendancy of a foreign Orange hierarchy. A meeting convened by the Grand Orange Lodge, to protest against the passing of the Bill, was held at the Metropolitan Hall, in Dublin, on Thursday evening. 3000 persons attended, great numbers of whom wore orange sashes and similar emblems. Mr. W. P. ... occupied the chair, and the principal speaker was the Rev. Dr. Tresham Greer, who delivered a powerful address. Resolutions and a petition against the Bill were unanimously adopted. On the same evening a crowded meeting of Presbyterians was held at the ... gowan, county Down, in opposition to the Bill.

denounced the Bill because it favoured property which aspired to become the governing power.

THE MURDER OF MR. BRADSHAW.—No light has yet been thrown upon the mystery in which the murder of Mr Bradshaw is involved.

They have to contend with an almost insuperable obstacle in the reluctance of the peasantry to give the slightest aid in furthering the ends of justice.

THE IRISH BOYS AND BONS OF FREEDOM. "God save Ireland."

THE FENIAN PRISONERS.—The Corporation of Cork unanimously resolved on Friday to petition for the release of the rest of the Fenian prisoners.

ARRESTS OF FENIANS.—Joyce, the National schoolmaster, who was arrested in Westport on a charge of Fenianism, has been committed for trial at the assizes.

Scotland.

THE GENERAL ASSEMBLY AND THE IRISH CHURCH.—The Scottish General Assembly now sitting in Edinburgh has decided by 136 to 37 to petition the House of Lords against the Irish Church Bill.

MURDERS IN GLASGOW.—Janet Hay, widow, aged 60 years, residing in South Coburg Street, Glasgow, was murdered on Friday evening by her daughter, Agnes Hay, aged 37.

Law.

JAMES CHAMBERS.—The Duke of Newcastle.—Padwick v. the Duke of Newcastle.—Beyfus v. the Duke of Newcastle.—These were two interpleader applications on the part of the Sheriff of Middlesex.

Hall did not require any order. The Sheriff could proceed to sell the unclaimed property under the execution.

COURT OF ARCHES.—An anti-ritualistic prosecution, at the instance of the Bishop of Winchester, was commenced on Thursday in this Court, against the Rev. R. H. E. Wix, of Swanmore, Isle of Wight.

COURT OF CHANCERY.—(Before the Lords Justices).—In the matter of the London, Chatham, and Dover Railway Company.—This was an appeal from an injunction granted by Vice-Chancellor Stuart, restraining the directors of the Chatham and Dover Company to promote the Arbitration Bill now before Parliament.

Sporting.

THE JOCKEY CLUB.—One of the most numerous attended meetings of this Club for some years was held on Saturday evening at the offices of Messrs. Weatherby, in Old Burlington Street, to discuss certain resolutions moved by Sir Joseph Hawley, for the purpose of preventing the running of two-year-olds earlier in the year than July 1.

THE DERBY.—At the sitting at Tattersall's on Monday an extraordinary and unexpected interruption occurred. Sir Joseph Hawley lodged an objection to Pretender, the winner of the Derby, on the score that Mr. Sadler, his breeder and nominator, had died before the race.

Obituary.

LORD BROUGHTON died on Thursday evening at his residence in Berkeley Square, in his 33d year. His lordship, John Cam Hobhouse, was the eldest son of Sir Benjamin Hobhouse, and was educated at Westminster and Trinity College, Cambridge.

ADMIRAL SIR CHARLES H. W. FREMANTLE, G.C.B., died on the 25th ult., at his residence in Grosvenor Street, in his 68th year. He was the second son of Admiral Sir Thomas Francis Fremantle, G.C.B., and, consequently, brother of the Right Hon. Sir Thomas Fremantle, chairman of the Board of Customs.

SIR ROBERT CLIFTON, M.P. for Nottingham, died on Sunday morning, at his residence, Clifton Hall, near that town, in his 64th year. He was attacked nearly three weeks ago with typhoid fever, and gradually sunk, though his death was not apprehended by his medical advisers.

uncle, General Sir Arthur Clifton, the estate of Barton, a fine property adjoining Clifton, came into his possession, but this did not materially increase his income.

Markets.

COVENT GARDEN.—June 5. Business has somewhat improved again, the wholesale trade being much more active. Imports still continue heavy, comprising the usual varieties, the present favourable change in the weather suiting their transit from the south.

VEGETABLES. Lettuces, p. score, 1s to 2s. Mint, per bunch, 4d to 6d. Mushrooms, p. pott., 1s6d to 2s. Onions, per bushel, 15s. Parsley, per bunch, 6d to 6d.

ENGLISH WOOL. During the past week trade has been very dull, and the tendency is still downwards, farmers being more willing sellers now that the market is being gradually more and more supplied with the new clip.

HAY.—Per Load of 36 Trusses. SMITHFIELD, Thursday, June 3. Trade firm. Best Green Hay 110s to 128s.

CUMBERLAND MARKET, Thursday, June 3. Sup. Meadow Hay 106s to 116s. Inferior do. 95 to 100. New do. 80 to 95.

POTATOS.—SOUTHWARK, Monday, May 31. During the past week the arrivals coastwise have been lighter, and fresh samples made rather more money. Quotations: York Regents, per ton, 60s. to 110s.

LEADENHALL POULTRY, &c. THURSDAY, May 3. The close of the season in Plovers' eggs, they now make 4s. per dozen. A great scarcity of Leverets. Good supply of Surrey poultry, but not of poultry in general.

METROPOLITAN MEAT MARKET.—June 5. Best Fresh Butter 14s. per dozen lb. Second do. do. 12s.

METROPOLITAN CATTLE MARKET. MONDAY, May 31. We have a short supply of Beasts and a brisk demand. Prices are still high, and an early clearance is effected.

The Gardeners' Chronicle Newspaper.

SATURDAY, JUNE 12, 1869.

Reduced Prices.

TANNEI GARDEN NETTING, for Preserving Seed... Strawberries, from Frost, Blight, Insects, &c., and...

SCRIM CANVAS, 72 inches wide, from 7d per... 12 inches wide, at 7d per yard... for Protecting Fruit Trees or Shrubs...

WATER BOWLS, and SACKS, and BAGS of every... size, supplied at the lowest possible prices... also Peterburg and Prussian...

IRON HURDLE... Silver Medal of the International Agricultural Society... GATES and FENCING of every description...

J. B. BROWN AND CO'S... NEW PATENT B B LAWN MOWER.



BEST and CHEAPEST LAWN MOWER

The B B NEW PATENT LAWN MOWER, London made, of... high class metal only, fitted and finished in a superior style...

NETTING for FRUIT TREES, SEED BEDS, RIPE... STRAWBERRIES, &c.—TANNEI NETTING... also as a Fence for Poultry, Rabbits, &c., &c.

GARDEN NETTING... SCRIM CANVAS, for Wind Fruit, Greenhouse Shades, Tulle Covers... FREE DELIVERY...

Indestructible Terra-Cotta Plant Markers... MAW AND CO'S PATENT—Printed, Printed... Patterns of Ornamental Tree Markers for Conservatories, Entrance...

LABELS, LABELS.—PARCHMENT or CLOTH... Tree or Plant Labels, punched parchment, 4 inches... also for marking the position of plants in the garden...

NOTICE.

- ROYAL HORTICULTURAL SOCIETY, London.
ROYAL ZOOLOGICAL SOCIETY, London
ROYAL BOTANIC SOCIETY, London.
ROYAL BOTANIC GARDENS, Dublin.

- ROYAL BOTANIC GARDENS, Liverpool
ROYAL BOTANIC GARDENS, Cambridge
ROYAL WINTER GARDEN, Dublin
ROYAL DEPARTMENT OF SCIENCE AND ART, London.

It is with great gratification that we announce our permission to refer upon any occasion to the various Heating Apparatuses at the above, where our "ONE BOILER SYSTEM" has for years been subjected to the most critical tests with every satisfactory result.

For List of Details, see "ILLUSTRATED BOOK of DESIGNS" (12th Edition), which can be obtained by addressing a note to

JOHN WEEKS AND COMPANY, HORTICULTURAL ENGINEERS, &c., KING'S ROAD, CHELSEA, S.W.

John Weeks & Co.

JOHN WARNER & SONS, BELL AND BRASS FOUNDERS TO HER MAJESTY, HYDRAULIC ENGINEERS, 8, CRESCENT, CRIPPLEGATE, LONDON, E.C.

Illustrated and Priced Lists of WARNER'S HORTICULTURAL IMPLEMENTS, comprising GARDEN ENGINES, WATER BARROWS, PUMPS, SYRINGES, BRANCH PIPES, RUBBER ROSE FOUNTAIN JETS, &c., will be sent upon application...



No. 35.



No. 39.



No. 42.



CHAIN PUMP FOR LIQUID MANURE.

FRAMES & PUMPS FOR DEEP WELLS.

CAST-IRON PUMPS.

Table with 2 columns: Size (2 1/2, 3, 3 1/2, 4 inches) and Price (£1 8 6, £2 1 0, £2 6 0, £2 14 0).

WARNER'S CRYSTAL PALACE FIRE ENGINE, or PORTABLE FORCE PUMP.

Price on Barrow, with Branch Pipe, Spreader, Unions, and Suction Hose, £8. 1 1/2-in. 2-ply Rubber Suction Pipe, per foot, 2s. 2d.; 1 1/2-in. ditto Delivery Hose, 1s. 4d.

Crystal Palace, Sydenham, March 2, 1867

Messrs. WARNER & SONS. "GENTLEMEN,—I feel great pleasure in stating that I was present at a trial of your small Crystal Palace Fire Engine, and was much pleased with its efficiency and simplicity..."

PORTABLE PUMP With Improved Valves for Liquid Manure, £2 15s. 2-inch Flexible Rubber Suction Pipe, in 10, 12, and 15 ft. lengths, per foot, 2s. 6d.



No. 517A.

GARDEN ENGINE

Table with 2 columns: Capacity (28, 24, 16, 10 gallons) and Price (£5 10 0, £4 19 0, £3 14 0, £2 19 0).



WARNER'S AQUAJECT

Useful for every variety of purpose—in watering or washing flowers or trees in Gardens, Conservatories, &c.; also, for washing Carrages or Waggons, laying Dust, &c. Price, complete, £1 10 0. Small size for the hand, as an ordinary Syringe 0 15 0.



No. 579 1/2.

SWING

WATER BARROW.

Table with 2 columns: Capacity (50, 38, 30, 20 gallons) and Price (£5 12 0, £3 17 0, £2 13 0, £2 2 0).

WARNER'S GARDEN ENGINE... is light, and easily worked... for a lady or child.

Drawing and Estimates for Wind Engines, Water Wheels, and Hydraulic Machinery of every description for Steam, Horse, or Hand-power will be forwarded upon application.

E. T. ARCHER'S "FRIGI DOMO."
Patronised by Her Majesty the Queen, the Duke of Northumberland for Syon House, His Grace the Duke of Devonshire for Chiswick Gardens, Professor Lindley for the Horticultural Society, and Sr Joseph Paxton for the Crystal Palace, Royal Zoological Society, Royal Gardens, Kew, &c.

The best Shading is "Frigi Domo" Netting. White or Brown, made of prepared Hair and Wool, a perfect non-conductor of heat or cold, keeping a fixed temperature where it is applied. It is adapted for all Horticultural and Floricultural purposes, for

PROTECTION from the SCORCHING RAYS of the SUN.
"FRIGI DOMO" NETTING, 2 yards wide, 1s. 6d. per yard run.
"FRIGI DOMO" CANVAS

Two yards wide 1s. 9d. per yard run.
Four yards wide 3s. 6d. per yard.
An improved make, 2 yards wide .. 1s. 9d. per yard.
An improved make, 3 yards wide .. 2s. 8d. per yard run.

"Sir,—Please send me at once, by Midland Railway, 60 yards of Frigi Domo 2 yards wide, same as you sent me about this time last year, and which answered its purpose admirably. Yours respect fully,
"G. H. STRUTT

"P.S.—We had 300 dozen Apricots last year on walls protected solely by Frigi Domo."
ELISHA THOMAS ARCHER, Wholesale and Sole Manufacturer, 7, Great Trinity Lane, Cannon Street, City, E.C., and of all Nurserymen and Seedsmen throughout the Kingdom.

JAMES PHILLIPS AND CO.
beg to submit their prices as follows:—
GLASS FOR ORCHARD HOUSES,

As supplied by them to Mr. Rivers, to the Royal Horticultural Society, and to most of the Nobility, Clergy, and Gentlemen of the United Kingdom.
Each Box contains 180 feet. The prices only apply to the sizes stated.

Squares 20 by 13, 20 by 13, 20 by 14, 20 by 15.
16 oz. to the foot.

Fourth quality 15s. 0d. 19s. 6d.
Third ditto 16s. 0d. 22s. 6d.
Seconds 18s. 6d. 26s. 0d.
English 20s. 0d. 27s. 0d.

The above prices include the boxes, which are not returnable.
HORTICULTURAL GLASS.
Stock sizes, 16-oz., in 100 feet boxes, boxes included.
These prices only apply to the sizes stated.

11 by 9		12 by 9		13 by 9		14 by 9		4ths.		3rds.		2nds.	
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121	119	122	119	123	119	124	119						
122	120	123	120	124	120	125	120						
123	121	124	121	125	121	126	121						
124	122	125	122	126	122	127	122						
125	123	126	123	127	123	128	123						
126	124	127	124	128	124	129	124						
127	125	128	125	129	125	130	125						
128	126	129	126	130	126	131	126						
129	127	130	127	131	127	132	127						
130	128	131	128	132	128	133	128						
131	129	132	129	133	129	134	129						
132	130	133	130	134	130	135	130						
133	131	134	131	135	131	136	131						
134	132	135	132	136	132	137	132						

Count de Samodas, Minister of Finance, is deprecated by the great body of the people, who consider the system partial and impracticable. The prospects of the corn crops and of the coming vintage are very favourable, and promise an abundant yield. The vine disease appears to be nearly eradicated. The health of the Queen Donna Maria Pia continues to cause anxiety to the Court physicians.

BELGIUM.—The birth of an heir presumptive to the throne has caused general rejoicing throughout Belgium. The young Prince is to be christened Bau-douin, and his title will be the Count de Hainault. In the sitting of the Chamber of Representatives, on the 4th inst., the Bill relative to imprisonment for debt, as adopted by the Senate, was rejected by 51 votes to 33, and the Chamber afterwards adopted the original Ministerial Bill, by which imprisonment for debt is completely abolished.

HOLLAND.—The periodical election of members to the Second Chamber was held on Wednesday. Of 31 elections, the results of which are known, 20 of those returned are Liberals, 14 of whom sat in the last Chamber, and 11 are Conservatives, of whom three are new members. The results of six elections are not yet known. A second balloting will be necessary in five electoral districts. In Amsterdam the three Liberal candidates were all elected.

SWITZERLAND.—A telegram from Lausanne announces that a strike has broken out among the workmen in that town.

HESSE-DARMSTADT.—A Protestant Conference assembled at Worms on the 30th ult., and was attended by about 1000 delegates. The following declaration was adopted:—

"The Conference repels the supposition expressed in the Papal letter of the 13th of September, 1868, that Protestants would return to unity with the Catholic Church. It protests especially against the principles enunciated in the Encyclical letter and the Syllabus which are opposed to civilisation, and pernicious in their bearing upon political institutions. The Conference expects that all opponents of the common enemy of religious peace, national unity, and the free development of civilisation will closely unite at the present juncture. It declares hierarchical errors, and particularly the action of the Jesuits, to be the chief cause of the present deplorable religious differences. Only by the determined rejection of the hierarchical pretensions which have been renewed, and have been constantly on the increase since 1815—only by a return to pure Scripture, and by the recognition of the conquests of civilisation, can divided Christianity regain the peace which it has lost. Finally, the Conference declares that all efforts made within the Protestant Church to found a hierarchical power, or the supremacy of dogma, are a flat denial of the principles of Protestantism, and are simply so many bridges to Rome. All co-religionists are, therefore, exhorted to oppose with energy every tendency that may be dangerous to freedom of the mind or conscience."

With regard to the constitution of the Church the Conference took its stand upon the principle of the independence of each community. It desired that the direction of the Church should be constitutionally regulated, and that the Church administration should be responsible to the provincial synods.

PRUSSIA.—The King will leave Berlin on his visit to Hanover and Bremen to-morrow, and will probably be accompanied by Count Bismarck. The Viceroy of Egypt arrived in Berlin on Monday evening, and was received at the station by the Turkish Ambassador, the Commander of the Guards, Prince Augustus of Wurtemberg, the Commandant of the City, and the Prefect of the Police. His Highness proceeded to the Royal Palace. In the sitting of the Customs' Parliament on Friday, Dr. Simson was re-elected President by a large majority, and Prince Hohenlohe, the Prime Minister of Bavaria, Prince Shillingsfurst, and Duke Ujest were re-elected vice-presidents. In the sitting of Wednesday, the commercial and customs treaties with Switzerland, and the commercial treaty with Japan, were passed. In the sitting of the North German Parliament on Saturday, the budget for 1870 was definitely adopted. The revenue of the Confederation is estimated at 75,958,495 thalers, and the expenditure at the same amount.

AUSTRIA.—It is stated that the Emperor has accepted, under certain reservations, the invitation of the Viceroy of Egypt to be present at the inauguration of the Suez Canal next autumn. It is also stated that the Austrian Government will not take any definitive resolution touching the neutralisation of the Suez canal without previous agreement with France. The war budget for 1870 amounts to 7,496,600 of florins, or five millions more than in 1869, and is calculated on the basis of a strength of 800,000 men. The Minister of War will have to move for an extraordinary credit of five to six millions of florins. Bishop Rudigier, who had repeatedly refused to obey a summons of the Provincial Court of Justice on the alleged ground of a Papal brief enjoining him not to appear before a secular court, was conducted by the police before that Court on Saturday.

GALICIA.—Prince Czartoryski has declined the governorship of Galicia. Prince Sapieha has been prevailed upon to withdraw his resignation as Marshal of the Lemberg Diet. The Government has decreed that the Polish language shall be henceforth the only official and educational language through Galicia.

HUNGARY.—The leaders of the Opposition intend to ask for explanations from the Minister of War respecting the employment of Hungarian troops in repressing disturbances in Carniola. If the Minister does not furnish satisfactory explanations a motion will be made to the effect that all Hungarian troops be withdrawn from the Cis-Leithan part of the empire and removed to Hungary.

RUSSIA.—The Grand Duchess Marie Feodorovna, wife of the Czar, formerly Princess Dagmar of Denmark, gave birth on Monday to a Prince, who has received the name of Alexander. It is officially stated that the news published in Bombay of an advance of the Russians in Kokand is untrue. No warlike preparations are being made in the Russian possessions in

Central Asia. The Emperor intends sending an extraordinary envoy to Washington, to congratulate General Grant on his election to the Presidency, and to express the great value which his Majesty sets upon the maintenance of good relations between Russia and America.

GREECE.—Ahmet Rassim Pacha, the Governor-General of Epirus, has been deputed to deliver to King George the splendid jewelled sabre presented to his Majesty by the Sultan, as a token of restored peace.

ITALY.—In the sitting of the Chamber of Deputies on Saturday, Signor Lobbia declared that he possessed documents proving the corrupt participation of a member of the House in gains derived from the formation of the Tobacco Monopoly Company. After a long and animated debate, the Chamber referred to a committee the consideration of a proposal for a Parliamentary inquiry. On Thursday the committee recommended that an investigation be made by a committee of nine members to be chosen by the President, and that the inquiry should be conducted in two stages, of which the first would be private, and would be devoted to the examination of Signor Crispi and of the documents tendered by Signor Lobbia. If sufficient evidence should then be presented, the committee would prosecute the inquiry publicly, but if not, would discontinue the proceedings altogether. Signor Boughi opposed any secret action, and maintained that entire publicity was necessary from first to last. The debate was ultimately adjourned. The anniversary of the promulgation of the Constitution was celebrated on Sunday. In the morning the King and Prince Humbert, with Princess Margherita, reviewed the garrison, and in the evening there was a general illumination and fireworks. The King has left for Turin, and Prince Humbert and Princess Margherita have left for Milan and Monza.

PAPAL STATES.—The preparatory commissions for the Oecumenical Council continue their labours. Several bishops and missionaries and the Patriarch of Jerusalem have arrived. The Archbishop of Algeria is expected shortly. The postal treaty with the North German Confederation has been ratified and put in force. The desertions from the Pontifical army have again begun.

SERBIA.—The National Skuptschina has been convoked by a decree of the Regency for the 22d inst., to discuss the question of the reform of the Constitution.

THE PRINCIPALITIES.—The assertion of a French paper that the Minister of the Interior had threatened to drive the Jews out of the Roumanian villages is without foundation. In the sitting of the Chambers on Friday, the Minister of the Interior stated that certain measures would be laid before them relating to the Jewish question. At the same time he recommended that a Parliamentary commission should be appointed to investigate and report upon this difficult question.

TURKEY.—Daoud Pacha has left for Paris with the ratification of the Porte of the Roumelian railway contracts, which have been slightly modified.

EGYPT.—The Sultan has conferred the title of Pacha on Sir Samuel Baker, in order to give a proof of the interest he takes in the success of the latter's expedition. The Nile has begun to rise.

ABYSSINIA.—Mr. Thomas Powell, of Coldra Hall, Monmouthshire, eldest son of the late Mr. Thomas Powell, of the Gaer, the great colliery proprietor, and brother of Mr. Walter Powell, M.P. for Westbury, his wife, his son, his servant, a Swedish missionary just arrived from Europe, M. Macerer, and three native attendants, were murdered on April 17 and 18 by the Kirnama of the district Mika. Mr. Powell left England for the purpose of shooting elephants in Abyssinia, and proceeded to the country of the Bazaine tribe, contrary to the advice of the Consul at Massowah, who had told him that they were in a state of rebellion, and that Europeans would incur great danger in going near there. The Consul advised Mr. Powell to go to Ailette, a day's journey from Massowah, a quiet country, where there were numbers of elephants, lions, and rhinoceros, but as the elephants have small tusks, while those in the Bazaine country have enormous ones, Mr. Powell was persuaded by M. Macerer to enter the Bazaine district. It appears that M. Macerer had had a dispute with some of the Bazaine tribe; and that they took advantage of his going to reconnoitre a place where water was found, in company with Mr. Powell's servants and the Swedish missionary, to effect their murder, without their being able to defend themselves. Being fearful afterwards that Mr. Powell would punish them, they then murdered him, his wife, his son, and three Abyssinians in his tent. They then pillaged all that they could find, and spared seven or eight Abyssinian servants, two of whom have reached Kerim wounded bringing this intelligence. Mr. Powell was a magistrate for Monmouthshire and Glamorgan-shire, and married the daughter of the late Mr. John Jenkins, of Caerleon. There were five children living by the marriage, including the one they took out with them.

CAPE OF GOOD HOPE.—We have accounts from the Cape of the 4th May. Among the passengers by this mail are Isekelo, the son of the Basuto chief Moshesh, and Mr. Advocate Buchanan, the editor of the *Natal Witness*, forming a mission to the Imperial Government to represent the wrongs sustained by the Basutos in Sir Philip Wodehouse's late settlement of the frontier between them and the Free State. The Kaffir chiefs Macomo, Seyolo, and Xoxo, the political prisoners on Robben Island for several years, have been released and sent to Kaffirland, special lands being assigned to them. The packet also brings the 83-carat diamond, which is insured for 30,000*l.* Several more diamonds have been found and sent home, but secrecy has been maintained at the Cape about these discoveries through the royalty claims set up at Colesburg. According to news from Natal to the 17th April the results of the gold explorations were still unsatisfactory. Manch's

discovery has been denounced as a fabrication, if not altogether a fabrication. Many have persevered in their researches. Captain Zambezi expedition had been delayed by the death of Casement died.

INDIA.—News from the north states into the interior of Persia, and arrived despairing, it is said, of being able to introduce in Afghanistan are very gloomy. The reforms which Shere Ali's army is to be remodelled, and regular police Citizens will be forbidden to carry arms.

AUSTRALIA.—Accounts from Melbourne 25th April state that on the opening after the Easter recess a discussion took place of the bribery committee, when Mr. Minister for Railways, was expelled. Mr. also Mr. Butters, the ex-Mayor of Melbourne are expected to follow. A conference of the various colonial Chambers of Commerce place on the 3d May, with a view to bring about intercolonial free-trade quarter's revenue returns show an increase over the corresponding period last year revenue returns of the first quarter show 32,592*l.* from the corresponding quarter. At Brisbane extensive defalcations in the department have been discovered. Her Majesty Galatea, commanded by the Duke of Edinburgh from Sydney on the 3d inst. for Wellington.

NEW ZEALAND.—There is no news of respecting the New Zealand war, but the being very hard pressed by the colonial

UNITED STATES.—A railway train, on President and his party were passing, collision with a cattle train near Baltimore, and ran off the rails. One passenger and 20 others more or less severely injured well had a narrow escape. The President Mr. Charles Andrews as Minister at St. Mr. Russell Jones as Minister to Belgium sident has sent a special commissioner to investigate and report upon the general condition of the Dominican Republic sident has also appointed a commission members to investigate Indian affairs. tions to inspect the records of all Indian superintend the disbursement of annual report on the best means of civilising tribes. Constant Indian massacres are the Kansas frontier. Fifty soldiers have in the last two weeks. A panic excited settlers are flying eastwards. The focus ravaging Arizona. The troops fought Iveson, killing 30 and capturing eight. ment has been implored to send more Negro riots have occurred in Washington. cial election for that city, on Monday succeeded in returning most of the race of whom were negroes. The Radical mobbed a Democratic negro, and attacked who were protecting him, with so much the latter had to use their revolvers to negroes, killing one and wounding many sition recently put forward by some of the party, that the Alabama question should been widely discussed. No decision has been arrived at, many of the leading Rep. of the United States has given his opinion of the French Telegraph Company cannot with the territory of the United States permission of Congress.

CANADA.—The House of Commons of passed resolutions admitting Newfoundland Confederation.

NOVA SCOTIA.—The Nova Scotia Assembly, by a majority of 27 to 7, the resolution in reference to the annexed province to the Dominion of Canada. debate the Attorney-General delivered ing that Confederation was forced upon and favouring an appeal to England, or more extreme measure. It is considered however, that the question will be resolved John Tobin, ex-Member of the Nova Scotia, has committed suicide.

CUBA.—The insurrection is decreasing volunteers have forced General Dulce government of the island, which they hands of General Espinar until the arrival De Rodas.

Parliament.

IN the House of Lords on Friday, the for by Lord STRATFORD DE REDCLIFFE Alabama claims, and returns relative wheat, were agreed to. The Government Amendment Bill, after a few words ARGYLL and Lord HOUGHTON, was read and passed. The Religious, Education, and Incorporation Bill was considered in certain amendments by Lord BOWEN. On Monday the Earl of DEVON, a petition against the Irish Church Bill could not concur in its prayer, believing be a public misfortune if the House second reading, and thus presented amendments being introduced in committee for the third reading of the Man- triot Railway Bill, the Duke

... clause making it obligatory on the company to provide smoking carriages on their...
 On a division, the clause was rejected by 75 to 36.
 In reply to Lord COLCHESTER, Earl GRANVILLE said that if the Irish Church Bill became law, it would be necessary to propose a measure for the exemption of a free Protestant Church from the penalties of the Ecclesiastical Titles Act. On the consideration of amendments to the Parochial Schools Bill, the Duke of RICHMOND moved that the Board should consist of three instead of five commissioners. The motion was carried, on a division, against Ministers, by 84 to 49. The Duke moved the omission of clause 28, giving the Duke of half the members of the school committee to the larger heritors. On a division, the clause was retained by 73 to 45. The amendments were then agreed to.
 On Tuesday the Earl of HARROWBY gave notice on Monday next, on the motion for the second reading of the Irish Church Bill, he should move that it be read a second time that day six months. On the report of amendments on the Life Peerages Bill, the Duke of AROYLL expressed his opinion that the Bill would not increase the political strength of the House and that their lordships' House would never exercise the same influence as the House of Commons unless made elective. So long, however, as the leaders acted with prudence and conciliation, and kept themselves abreast of public opinion, they would always exercise their constitutional authority. The Marquis of SALISBURY said that the influence of the hereditary peerage was everywhere diminishing, and that this natural tendency could be checked only by making the House represent more the intellect and sympathies of the country. Lord MONTGOMERY thought that the House already sufficiently represented the intellect, wealth, and public services of the country. The Earl of MALMESBURY moved as an amendment that the report be received that day six months. Lord STRATFORD DE REDCLIFFE also opposed the Bill. Lord CAIRNS suggested that the Bill should not be rejected at the present stage. After some remarks by Earl RUSSELL, Earl GRANVILLE, and Earl GARY, the amendment was withdrawn and the report received. The Oxford University Statutes Bill, on the motion of the Earl of DERBY, was read a second time. On the motion of the Lord CHANCELLOR the House agreed to join in the addresses of the Commons, praying for a commission of inquiry into corrupt practices at elections in the cities and boroughs of Norwich, Oshel, Bridgewater, Beverley, and Sligo. On Thursday some private Bills were advanced a stage, but there was no public business to be transacted. Yesterday the Marquis of SALISBURY moved the second reading of the Beerhouse Bill, the object of which was to alter the character of the licensing laws in regard to beerhouses. The Earl of DERRY thought it ought not to be left to magistrates to give contrary decisions upon the granting of licenses. The House was left sitting.
 In the Commons on Friday, in answer to Sir J. GRAY, Mr. BRUCE said that O'Donovan Rossa, the Fenian prisoner, was for some time so violent and outrageous that he had been repeatedly punished, but that of late a marked change had come over him, and he was now reported to be the best behaved of all the Fenian prisoners at Chatham. Mr. HADFIELD complained of the expense and delays in the revision of the statutes, and moved a resolution to suspend entirely the present proceedings. Mr. GLADSTONE said that an unpaid committee was at work on the expurgation of expired and obsolete statutes, and that the only expense to the Treasury was the salary of the editor. Mr. L. KING and Mr. H. PALMER supported the motion, which was negatived, on a division, by 217 to 61. Mr. W. H. GREGORY moved a resolution declaring that the Kensington, Jermyn Street, and British Museums and the National Gallery ought to be opened to the public on Sundays after Divine service. He presented petitions signed by 47,000 working men in favour of the resolution, and contended that the whole teaching of the New Testament was in the direction of relaxing the Jewish Sabbath, and that the idea of the Jews and the Primitive Church pointed rather to prohibition of work than of recreation. Looking at the question on social grounds, he urged that, instead of being antagonistic to religion, the effect of opening the museums would be to check drunkenness and to promote feelings and ideas which must elevate the working classes. Mr. ALLEN and Mr. McARTHUR opposed the motion on the ground that it would increase Sunday labour, and that Sunday as a day of rest was essential in a sanitary point of view to the working classes. Mr. T. CHAMBERS asserted that the vast majority of working men were opposed to the movement, and that persons had been employed by the National Sunday League to get up fictitious signatures to petitions in its favour. Mr. BAINES spoke against when the House was counted out. On Monday in answer to questions by Mr. O. MORGAN respecting the Mold riots, Mr. BRUCE said that it was the order of one of the magistrates that the captain in command of the troops gave the word to fire, and that when this was done the Riot Act had not been read. That however, was not a necessary preliminary to committing a riot, and the firing in this case was justified by the fact that the soldiers and police were subjected to a dangerous attack, which would warrant any one using whatever weapons might be at his command. While Mr. BRUCE was speaking Mr. Gladstone entered the House, and was received by the Liberal party with loud and hearty cheers, which were kept up with unflagging vigour long after he had taken his seat. In answer to Alderman SALOMONS, Mr. CHILDERS stated that 1100 artisans from the dockyards and arsenals at Woolwich and Portsmouth had been conveyed to Canada in Government ships and had

found immediate employment in the colony. Mr. GOSCHEN moved the second reading of the Assessed Rates Bill, the object of which was to authorise the revival of the practice of compounding so as to sanction agreements between owners and overseers in consideration of a commission of 25 per cent., the faculty of composition being extended to all occupiers under 10/ in the provinces and under 20/ in the metropolis. Mr. CORRANCE moved as an amendment that the Bill be read a second time that day three months, but was unable to find a seconder. After some remarks by Mr. HIBBERT, Mr. HOLMS, Sir M. H. BEACH, Mr. C. S. READ, Mr. BRIGHT and other members, the bill was read a second time; Mr. H. SHERIDAN thereupon withdrew his Representation of the People Act (1867) Amendment Bill, which also dealt with the question of compounding and the abolition of the ratepaying clauses of the Reform Act. On the order for resuming the debate on the second reading of the Metropolitan Poor Act Amendment (1867) Bill Mr. McCULLAGH TOBBERNS moved that further legislation be deferred until there had been an inquiry into the sufficiency of the present accommodation. Sir C. DILKE seconded the motion. Mr. GARNER HARDY and Dr. BREWER supported the Bill; Sir M. LOPES, Mr. W. H. SMITH, and Mr. D. DALRYMPLE opposed it. On a division the amendment was negatived by 118 to 15, and the Bill was read a second time. On the motion for considering the Municipal Franchise Bill as amended, Mr. JACOB BRIGHT moved the insertion of a clause to extend the municipal franchise to women. The motion was seconded by Mr. RYLANDS, and accepted by Mr. BRUCE on the part of the Government as "unanswerable." The Beer-houses, &c., Bill was read a third time and passed. On Tuesday, at a morning sitting, the House devoted five hours to the Committee on the Bankruptcy Bill, which was considered from clause 28 to clause 53, but no amendments of consequence were made. Mr. CANDLEISH moved for a Select Committee to inquire into the great excess in the cost of the Abyssinian War over the estimates, and contrasted the calculations of the late Government, rising from three millions and a half to five millions, with the actual cost, now ascertained to exceed eight millions and a half. Sir STAFFORD NORTHCOTE seconded the motion, admitting on behalf of the late Government that the desire for inquiry was natural and reasonable, and could not but be useful in the public interest. After some discussion Mr. OTWAY assented to the Committee on behalf of the Government. Sir J. D. ELPHINSTONE urged that the inquiry should be extended so as to embrace the causes of the war. Mr. AYTON deprecated this extension of the inquiry, and after some further discussion the motion was agreed to. Mr. LAYARD obtained leave to bring in a Bill to acquire lands in the parish of St. Margaret's, Westminster, for the concentration of Public Offices. On the committee of the Marriage with a Deceased Wife's Sister Bill, Mr. T. COLLINS moved an instruction to the Committee to provide for the marriage of a widow with her husband's brother. Mr. SCLATER-BOOTH moved the adjournment of the debate. On a division the motion was negatived by 113 to 63. A subsequent motion by Colonel NORTH to adjourn the House was rejected by 98 to 63. The majority then gave way, and the debate was adjourned. The order for the second reading of the O'Sullivan Disability Bill was read and discharged. On Wednesday Mr. O'REILLY withdrew the Sale of Liquors on Sunday (Ireland) Bill, on Mr. C. FORTESCUE undertaking that the Government would consider the whole subject with a view to legislation next year. Mr. BLAKE moved the second reading of the Sea Fisheries (Ireland) Bill, the object of which was to remove the control of the Fisheries from the Board of Works to the Lord-Lieutenant, to abolish all existing restrictions on the modes of fishing, and to advance loans for the establishment of curing-houses and enabling fishermen to purchase boats, gear, &c. After some discussion Mr. C. FORTESCUE said that the Government were willing to allow the Bill to pass in its present state, but were opposed to the system of loans. They agreed that the fisheries ought to be placed under more efficient management and control, and if upon examination it appeared that a revision of the law was necessary the Government would themselves deal with the question. The Bill was then read a second time, on the understanding that it would not be pressed further. The House then went into Committee on the Sunday Trading Bill, but no progress was made when the hour of adjournment arrived. On Thursday Lord ELCHO moved a resolution declaring the establishment of a sufficient and reliable army of reserve is a matter of urgent necessity. He contended that the defects of our present system were caused by want of organisation, that the term of enlistment for the regular army should be for 21 years—seven years in active service in the Line, seven in the first reserve liable to foreign service if called on, and seven in the second reserve, only liable for home defence, if that, the militia, as the backbone of our military system, should be balloted for annually, while for the volunteers he recommended improvement of organisation, the division of England into districts, and more frequent drill in large masses. Colonel AKROYD seconded the motion, and after some remarks by Colonel C. H. LINDSAY, Lord BURY, Colonel NORTH, Mr. H. R. BRAND, and Colonel GILPIN, Mr. CARDWELL said that he could not concur in the adoption of the ballot except in the very last resort, and that 21 years would probably be too long a period for any man to commit himself to the military service. He enumerated the various changes now in progress, and others which were contemplated connected with the several staff establishments, the division of the country into military districts, with a staff in each, applicable to army, militia, and volunteers, the conversion of the yeomanry into a mounted

rifle force, the billeting system, and other minor matters. After some further discussion, Lord ELCHO expressed himself satisfied with Mr. Cardwell's statement, and withdrew his motion. The House then went into Committee of Supply, and agreed to the votes for militia, yeomanry, volunteers, army reserve, Greenwich Hospital, and a sum to complete the purchase of the Carey Street site. An attempt made by Sir H. HART to strike out the Yeomanry vote was defeated by 117 to 27. Yesterday the House went into Committee on the Bankruptcy Bill, when the 53d clause, the consideration of which had been adjourned from the 8th inst., was passed. The 54th clause, which provided for an audit of the accounts of the trustee by an officer to be called the Comptroller in Bankruptcy, and the clauses dependent on it, were struck out. Some other clauses were postponed, and the remainder, up to 83, with two exceptions, were agreed to. The House was left sitting.

City Intelligence.

BANK RATE OF DISCOUNT.—The Bank of England on Thursday reduced their rate of discount from 4½ per cent., at which it was fixed on the 6th ult., to 4 per cent.

THE ENGLISH JOINT STOCK BANK, LIMITED.—On Monday the Lord Mayor gave his decision in respect to the charges against Captain Mangies, Mr. Abbas, and Mr. Bradshaw, directors, and Mr. Finney, manager, of this bank. His lordship said that, fortunately, the case before him really related to facts only, and not to points of law; he, therefore, had had no difficulty in deciding that there was no evidence against the directors, but that Mr. Finney's conduct came within the terms of the 83d section of the Act of Parliament, and that he must, therefore, be committed for trial. On Saturday Mr. Finney was brought up on a new charge, which alleged that in the inquiries arising out of the winding-up of the Company he committed perjury in his evidence before the Examiner in Chancery. After a long hearing, the case was adjourned for a week.

MONEY MARKET, FRIDAY.—BRITISH FUNDS: Consols closed at 92½ to 92½ for Money, and 92½ to 92½ for Account; New and Reduced Three per Cents., 92½ to 92½; Exchequer Bills, 4s. dis. to 1s. pm., and 3s. dis. to 2s. pm.; Indian Five per Cents., 111½ to 112 — FOREIGN Argentine, 81 to 81½; Egyptian (1868), 57 to 58; Italian, 56 to 56½; Mexican, 12½ to 13; Peruvian, 79½ to 80; Russian Five per Cents., 85½ to 86½; Ditto (1866), 87 to 90; Orel-Vitebak, 80 to 80½; Charkof, 78 to 78½; Spanish, 29½ to 29½; Turkish Five per Cents., 43½ to 43½; Ditto Six per Cents., 66½ to 67; Honduras, 86 to 87; United States 5-20 Bonds, 79½ to 80; Erie, 18½ to 19; Illinois, 93½.

Metropolis and its Vicinity.

MEETING OF PEERS ON THE IRISH CHURCH BILL.—A meeting of Conservative Peers, exceeding 140 in number, was held at the residence of the Duke of Marlborough, in St. James's Square, on Saturday, to consider the course to be taken by the Lords as to the Irish Church Bill. It was almost exclusively a meeting of lay Peers, the Archbishop of Dublin and the Bishops of Peterborough, Bangor, Gloucester, Tuam, and Derry being the only prelates present. The expediency of throwing out the Bill on the second reading was vigorously supported by the Earl of Derby, Lord Cairns, the Earl of Harrowby, the Dukes of Marlborough and Rutland, the Earls of Ellenborough and Bandon, Lord Redesdale, and the main strength of the Conservative party. A great many Irish Peers—one, it is understood, a Roman Catholic—also spoke strongly against the Bill. The Marquis of Salisbury, the Earl of Carnarvon, and Earl Stanhope on the other hand, were in favour of allowing the Bill to be read a second time, and then proposing material amendments, and were followed in this opinion principally by younger members of the House. Throughout the meeting there was the strongest feeling that the Bill must be rejected, or altered in some essential points. Lord Cairns, who addressed the meeting at considerable length, suggested that the Earl of Harrowby, from his independent position, would be the best peer to move the amendment, and it was calculated that the majority in its favour would be 80.

DEPUTATION FROM IRELAND TO THE LORDS ON THE IRISH CHURCH BILL.—On Friday deputations from the Irish Church Conference, the Central Protestant Defence Association, the Ulster Protestant Defence Association, the Presbyterians of Ulster, the Irish Church Institution, and the National Protestant Union, waited on a number of peers at the Westminster Palace Hotel, for the purpose of urging upon them the desirability of rejecting the Irish Church Bill on the second reading. The deputations were introduced by the Earl of Carrick, and their lordships were addressed by Dr. Reichel, Mr. R. Hamilton, Mr. Macrory, Mr. O'Donovan, Mr. Gamble, Q.C., and others. The Duke of Marlborough then said that he and the other peers had listened with the greatest attention and interest to the statements which had been so forcibly put forward. The gentlemen who had come there to represent the feelings and views of a large portion of the people of Ireland would not expect any expression of opinion as to their future proceedings in this matter from the peers then present, but he only gave expression to the feelings of all around him when he said that the important observations which had been made by the deputation would receive a most anxious and respectful consideration.

DEPUTATION TO LORD DERBY ON THE IRISH CHURCH BILL.—On Monday a deputation from the National Union of Conservative and Constitutional Associations waited upon the Earl of Derby to present him with an address, urging the House of Peers to

reject Mr. Gladstone's Bill. The deputation, which was introduced by Lord Skelmersdale, consisted of Lord Colchester, Mr. Raikes, M.P., the Hon. E. Douglas, Mr. L. Sedgwick, and Mr. W. Bennett; Sir Thomas Gladstone, brother of the Prime Minister, was also present, on behalf of the Scottish Constitutional Association. Lord Skelmersdale having introduced the deputation, an address was read denouncing the Bill as a step in a wide scheme of revolution in Ireland, and expressing the conviction that the support accorded at the late general election to Mr Gladstone and his policy, as far as it was then divulged, would not be extended to the present measure, or to those which may be expected to follow it. The Earl of Derby, in reply, adverted to the meeting of peers held on Saturday last, of which he said reports more or less accurate had already appeared. He disclaimed any position beyond that of an individual peer, or the slightest wish to influence the course of others. After remarking upon the steady and consistent opposition with which he, during a parliamentary life of 45 years, had encountered all measures seeking the disestablishment of the Protestant Church in Ireland he passed on to say that while he knew there were some true and attached friends of the Church who were disposed to amend the Bill in committee rather than reject it on the second reading, he expressed his hearty concurrence with those who preferred the latter course, and his conviction that the Bill would be defeated by an adequate majority, adding his belief that in dealing with so revolutionary a measure the boldest was the safest course to adopt. He concluded by expressing his lively satisfaction at finding the peers supported at this critical moment by the numerous associations represented by the National Union, and trusted that in their resistance to the present measure, as well as to any subsequent attempt to force the consciences of the peers, the Upper House would have the support of the people.

CITY MEETING ON THE IRISH CHURCH BILL.—On Monday a meeting of the citizens of London and others opposed to the Irish Church Bill was held in the great hall of Cannon Street Hotel. Among those present were Mr. R. N. Fowler, M.P., Mr. R. Dimsdale, M.P., Alderman Gibbons, Mr. E. H. Mills, M.P., Alderman Sir W. Rose, Alderman Sir R. W. Carden, Lord Claud J. Hamilton, M.P., Viscount Crichton, M.P., Mr. Charley, M.P., Viscount Dunloe, Lord James Butler, the Hon. Colonel Annesley, &c. Mr. John Chubb, of St. Paul's Churchyard, a leading member of the Wesleyan body, took the chair, and said that they were met to protest against a measure which was in their belief dishonourable to Almighty God and dangerous to the throne and commonwealth of the kingdom. As a Nonconformist he maintained that if the Church of England was to be preserved and this country was to be saved from Popery they must join heart and soul in opposing the measure pending in Parliament. Alderman Gibbons, Mr. C. L. Bevan, Mr. H. Masterman, Mr. Morgan Howard, Mr. Robert Hamilton, of Belfast, Alderman Sir W. Rose, Mr. J. D. Allcroft, Mr. A. G. Macrorie, Mr. R. Wigram, Mr. R. N. Fowler, M.P., Lord J. Butler, and Mr. C. B. King, afterwards addressed the meeting, and resolutions denouncing the Bill as a severance of the State from religion, as prejudicial to the supremacy of the Sovereign, and as endowing out of the funds of the Reformed Church the Roman Catholic College of Maynooth, and certain philanthropic institutions which now are or hereafter may be under the control of ecclesiastics and religious orders of the Church of Rome, were unanimously agreed to. A petition to the House of Lords embodying the resolutions was then agreed to, and signed by the chairman on behalf of the meeting.

DEJUNER TO THE IRISH CHURCH CONFERENCE AND PRESBYTERIANS.—On Wednesday a *déjeuner* was given, in Willis's Rooms, to a deputation from the Irish Church Conference and the Presbyterian Church in Ireland, who had waited upon members of the House of Lords. The chair was taken by the Duke of Rutland, who was supported by a large number of peers and members of Parliament. His Grace proposed the first toast, "Church and State," which was responded to by the Archbishop of Armagh, the Bishop of Derry, and the Dean of Ripon. Sir John Pakington proposed the "House of Lords," which was responded to by the Duke of Abercorn. Mr. J. C. Colquhoun proposed the "House of Commons," which was responded to by Lord John Manners. The chairman proposed "The Irish Branch of the United Church," and the Deputies of the Irish Church Conference," which was acknowledged by the Earl of Carrick and Mr. Hamilton. The Earl of Harrowby proposed "The Irish Presbyterian Church and its Deputation from Ireland," which was acknowledged by Mr. Macrorie and the Rev. Dr. Cumming. Mr. Newdegate, M.P., proposed the toast of "The Chairman," which brought the proceedings to a close.

THE IRISH CHURCH MISSION.—The Hon. Arthur Kinnaird, who has for some years filled the post of treasurer to the Irish Church Mission Society, having given pain to the leading members of the Society by his votes in favour of the Irish Church Bill, has, at their request, resigned the office.

INCREASE OF THE EPISCOPATE.—An influential deputation from the Society for the Increase of the Episcopate waited upon the Prime Minister in Downing Street, a few days since, to represent that in consequence of the vast increase of the population in late years, there is great need of some general measure to permit the subdivision of sees and the appointment of additional bishops. The deputation more particularly pressed upon Mr Gladstone the revival of the Suffragan Bishop Act of Henry VIII. Mr. Gladstone, in reply, promised to bring the matter before the Cabinet; but said that the large number of colonial bishops residing in this country away from their dioceses was regarded by many as a proof that bishops were not so necessary as the deputation supposed, and that the

main difficulty in the way of practical legislation is the want of a general concurrence among those interested in the question as to the principle upon which it should be dealt with.

PROCEEDINGS OF THE CHURCH ASSOCIATION AGAINST RITUALISM.—On Tuesday an influential deputation waited upon the Archbishop of Canterbury at Lambeth Palace, for the purpose of presenting a memorial with reference to the recent decision in the case of "Martin v. Mackonochie," signed by 91 clergymen and 104 laymen, and unanimously adopted by a conference at which representatives of provincial associations numbering 7900 members were present. The deputation stated that their object was to have the law settled, and that they now intended to proceed further, and would institute, with the full sanction of the bishop, a prosecution against the Rev. Mr. Purchas, of St. James's, Brighton. The Bishop of London had approved of a similar course being adopted with reference to a clergyman of his diocese. The Archbishop, in reply, expressed his approval of the efforts made by the Church Association to obtain authoritative settlements of the law as affecting ritualistic observances, and said that he had great sympathy with earnestness and liberty, but none with any design which tended to make the Church of England different from what it was made at the Reformation, and what the vast majority of the Churchmen of the nation wished it to be.

ANOTHER RITUALIST PROSECUTION.—The Bishop of London has commenced a prosecution against the Rev. C. F. Lowder, vicar of St. Peter's, St. George's-in-the-East, in consequence of his violation of the directions laid down in the decision of the Judicial Committee of Privy Council, in the case of "Martin v. Mackonochie." Mr. Lowder objects to remove his lighted candles, or to consecrate the elements otherwise than he understands the Church to direct him; and for this he is to be prosecuted in the Court of Arches, if Sir Robert Phillimore consents to accept the letters of request.

CONFERENCE ON THE LIQUOR LAWS.—On Monday morning a conference on the general questions of the laws relating to the liquor traffic was opened in the rooms of the Society of Arts. The Archbishop of York presided, and there were present Lord Lattelton, Sir John Bowring, Mr. E. Baines, M.P., the Rev. H. J. Ellison, Alderman Carter, M.P., and other gentlemen. The chairman, in opening the proceedings, said the object of the gentlemen calling the conference was not to force their private convictions on the Legislature or the country, but to attempt to form a rational and sober public opinion, so that something might be done to limit the evils that flowed from the uncontrolled sale of drink. The Rev. H. J. Ellison, vicar of Windsor, opened a discussion on the desirableness of repealing or modifying the Beershop Act of 1830, and the relative advantage of one uniform license for all excisable liquors, as recommended by the parliamentary committee of 1854. Mr. Baines, M.P., Rev. J. N. Worsland, and Sir John Bowring took part in the discussion. On Tuesday the conference considered the functions of the licensing power, and the question whether the trade should be open, as recommended by the committee of 1854, or restricted; if the former, under what conditions.

THE FRENCH ATLANTIC CABLE.—The whole of this cable has been shipped on board the Great Eastern at Sheerness, and on Thursday a grand banquet was given on board in celebration of the event. As soon as the Great Eastern has completed the task of laying this cable she will return to Sheerness, and commence preparations for receiving the Anglo-India cable, which is intended to be laid between Suez, Aden, and Bombay, and is of exactly the same length as the French Atlantic cable—viz., 3250 miles.

THE BERMUDA DOCK.—The huge iron Bermuda Dock, constructed by Messrs. Campbell, Johnston & Co., will leave England on or about the 20th inst., conveyed by a squadron of men-of-war. It will be towed down Channel by the Terrible, probably assisted by some smaller steam-vessels. It will then be taken in charge by the Black Prince and Warrior, which will escort it to the latitude of Madeira, where, at a pre-arranged rendezvous, these ships will be relieved by the Agincourt and Northumberland, which will take the dock within a reasonable distance of its destination, where the Hercules will complete the operation, by tugging it into port.

ST. GEORGE'S HOSPITAL.—A meeting, which was numerous and influentially attended, was held on Saturday at Willis's Rooms, to consider the present financial condition of St. George's Hospital, and devise some means of augmenting the resources of the charity. The Duke of Devonshire presided, and said that for some years the expenses had exceeded the income, the deficiency last year having been upwards of 7000*l.*, and to meet this deficiency there had been no alternative but to sell out stock. The meeting was then addressed by the Duke of Cambridge, the Archbishop of York, the Bishop of Oxford, Lord Cairns, the Bishop of Peterborough, Archbishop Manning, Baron Rothschild, Lord Penrhyn, and Mr. J. A. Smith, who urged that it would be a scandal and disgrace to the wealthiest part of London if the efficiency of the charity was allowed to diminish for want of funds. A series of resolutions in furtherance of the objects of the meeting was unanimously adopted.

FATAL FIRE.—On Saturday evening a five-storey house, in the Pentonville Road, was set on fire by the accidental breaking of a bottle of paraffin oil, and two young women and a child in an upper storey were burnt to death, the house in front having a long forecourt, railed in on a dwarf wall, which made it impossible for the fire escape to approach it. The inquest was opened on Tuesday and adjourned.

MURDER AND ATTEMPTED SUICIDE NEAR HARROW.—On Sunday Lewis Midson, landlord of the Chequers

Tavern, at Alperton, shot his wife dead, and afterwards attempted to shoot himself. He had been drinking freely during the day, and became so quarrelsome with her husband that at length worked up to a pitch of violence. The first ball entered the back of his wife's head, came out at the forehead, causing instantaneous death. In attempting to take his own life he was in an excited state that the trembling of his hand caused him to miss his aim, and the bullet therefore struck his scalp, causing great loss of blood, but not fatal. At the inquest on Tuesday the coroner, who was up, expressed his opinion that the murder was an extreme provocation, and that the prisoner was worked up to such frenzy as had led him to do what, however culpable, was wholly excusable. The jury consulted together in private for some time, and ultimately returned a verdict of manslaughter against the prisoner.

THE PUBLIC HEALTH.—The Registrar-General's Weekly Report states that in the week ending on Saturday June 5, 1378 births and 219 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 24 per 1000 persons living, being 22 in London, 42 in Edinburgh, 22 in Dublin, 19 in Birmingham, 27 in Liverpool, 22 in Manchester, 29 in Salford, 25 in Sheffield, 20 in Bradford, 26 in Hull, 22 in Newcastle-upon-Tyne, and 21 in Glasgow. The rate in Vienna was 33 per 1000 during the week ending the 29th ult., and in Berlin 2100 children, were registered in the week corresponding weeks of 10 years, 1839-48, the number, corrected for increase of population, was 2114. The deaths registered in London during the week were 1355. It was the 221 week of the average number for that week, corrected for increase of population, was 1308. The present week is therefore 17 above the estimated amount.

Provincial.

BRADFORD.—A boiler explosion occurred on Friday morning at a bobbin turner's factory at Harrogate, near this town, by which 15 persons lost their lives, nine of whom were children under six years of age, were with others romping in the playground of an infant school close by. Amongst the killed was Joseph Town, wife of the junior partner in the firm, and a daughter, five years of age. Mr. James Town, subsequently of the injuries he received in the explosion, and his son, aged 12, were so injured that a fatal result is feared. Several houses in the neighbourhood were destroyed.

GRIMSBY.—The two missing coats worn by the brothers Traves, who have been committed to prison for the murder of the young man Goldy, were found last week by a searcher who formerly belonged to the metropolitan police force. The piece of cloth was picked up near the scene of the struggle, and fitted a rent in the coat of Charles Traves.

HILGAY.—The bones of a woman, of middle age, small stature, have been discovered in a field near Hilgay. Some clue has been obtained to a woman who had suddenly disappeared at Hilgay a few years since.

LIVERPOOL.—No less than ten steamers were despatched for the United States and Canada last week with nearly 7500 emigrants on board. The majority of the emigrants were from the German States, Denmark, and Norway, but 634 were from London, having been sent out under the auspices of the East London Emigration Fund. Some of the ships also carried a large number of Irish who were embarked.

MERTHAR TYDVIL.—An explosion occurred at Ferndale Colliery, about half-past 7 o'clock on Friday morning. Between 500 and 600 men were employed in the colliery, which is divided into several districts. The explosion occurred in the Duffry district, where 120 men were working, and 10 were killed. The men from other districts were unhurt, and many also escaped from the Duffry. Fifty-six bodies have been already recovered, and them so much burned as to make recognition impossible. The workings are so much damaged, and there is an accumulation of choke damp, that the recovery of the bodies is very difficult. The excitement in the neighbourhood is intense, and thousands of persons flocked to the scene on Thursday.

MOLD.—Elizabeth Jones, who was shot in the chest on Wednesday, died on Friday night, and on Saturday the coroner held an inquest on the body. The jury returned a verdict of "Justifiable Homicide." While the inquiry was going on the police made an appearance in the cottage of Mrs. Jones's husband, dead body lay, and took the deceased's husband into custody on a charge of having been concerned in the disturbances. On the same day a man was apprehended. Three other persons were arrested since Saturday. The prisoners now in custody are William Griffiths, formerly a colliery servant; Isaac Jones, colliery, and R. Williams, colliery. The two latter were apprehended while they were asleep in bed at two o'clock in the morning. They had to dress themselves on their way to County Hall at Mold, the object of the police being without giving the colliers the opportunity of making a rescue. On Monday the six prisoners were brought before the justices at the County Hall, and the court-room was densely crowded, and the excitement was manifested by the public outside the issue of the trial. Captain Blake gave evidence

did not fire until the magistrate ordered... cartridges were used, and the soldiers... to the station with arms raised. He did not... the Riot Act read. Stone-throwing was con-... more than a quarter of an hour before he had... to fire. The men fired into the mob, but not... to fire. They were irritated. Two... of the injuries inflicted, dressed the wounds of 20 soldiers, and... the police, 12 of whom were... occupied the magistrates for seven... was ultimately adjourned to Wednesday,... being admitted to bail. On that morning, after one o'clock, the police apprehended four... all colliers, named Richard Jones, William... Thomas Gibbons, and Gomer Jones. They... out of their beds in Leeswood and Tryddan, in the County Hall at Mold. All the... brought before the magistrates during... after some further evidence had been... the magistrates said they did not consider the... against Tatham and Gibbons, who... be discharged. Roberts would be... on bail, and the other prisoners would be... trial at the next Flintshire Assizes. A... of felony would not be proceeded with. They were afterwards removed from Mold to... after some further evidence had been... the magistrates said they did not consider the... against Tatham and Gibbons, who... be discharged. Roberts would be... on bail, and the other prisoners would be... trial at the next Flintshire Assizes. A... of felony would not be proceeded with.

THE FUNERAL OF THE LATE SIR R. CLIFTON... on Monday at Clifton under somewhat... circumstances. It is estimated that not... 30,000 people were present. The singular... that attached to the deceased baronet... the last few years of his life had expressed itself... every possible way in the interval since his... were drawn in hundreds of humble... large numbers of people, hav-... connection whatever with the deceased, the poorest made a sacrifice to... memorial of his death. The remains... at Clifton Hall on Saturday and Sunday, were visited by from 10,000 to 15,000 persons. In a convocation held on Tuesday... to the House of Lords against the Irish Church... was read and carried by a majority of 35; the votes... 63, non-placet, 27.

On Friday morning her Majesty's... Cadmus, 21 guns, 1500-horse power, Captain... went ashore during a fog, on the Eel Stone... Salcombe. She was afterwards got off and... but she made water so fast, that the pumps... to keep it under. The engine fires were all... and she was gradually settling down, when... arrived from this port, and placed her on... At 10 A.M. on Saturday the Sootin... with 50 men, including some divers, who by... and calked the broken part, while the guns,... and projectiles were placed in a lighter... by the Dec, which arrived with 150 men from... At 1.40 A.M. on Sunday morning the... was hauled off the bar and was towed by the... Plymouth, where she was placed in dock at... having 6 feet of water in her hold. The... part on the port bow, where the outer... stripped more or less for a space of 14 feet by 4, and was up a week in repairing.

On Tuesday afternoon a fall of coal... a pit at Prince's End, near Great Bridge, where three men who were at work there at the time... on the spot. Thomas Rosser, of Lydbrook, Forest of Dean, was taken up to the Herefordshire police on Friday... charging himself with the murder of a young... named Jane Edwards, at Usk, about two years... He stated that, being in company with the... from Usk to Monmouth, he beat... the head with an iron bar when they got to... He then rifled her pocket of 15s, and threw the body in the river. The prisoner... examined at the Guildhall on Saturday, and was... in order to give the police time to make... inquiries. The result of the investigation, so... it has at present gone, has elicited several facts... corroborative of the prisoner's statement, and... the woman will be exhumed forthwith, as... supposed that the skull will show the fracture... by the iron bar.

Ireland.

THE IRISH CHURCH.—A meeting was held in... on Saturday, to petition against the Irish... Bill, and was attended by about 4000 persons. The... resolutions were substantially the same as those... at Belfast and Dublin, with an appeal to the... to reject the bill on the ground that it was a... and perilous legislation, and fraught... of serious import to the future of... An Orange meeting was held on... at Killyman, county Tyrone. Seventy-four... attended, numbering 10,000 or 12,000. Resolu-... the Bill were unanimously adopted. THE ESMONDE WILL CASE.—The Court of Probate... made an order that the Esmonde will case... be tried in Carlow. ATTEMPTED MURDER IN TIPPERARY.—John Ryan, of... near Nenagh, was fired at and... by his stepson, named Burke, on Monday... It is alleged that Burke felt aggrieved at... the farm by his marriage. A printer named Johnson, from... was arrested on Monday at Cork for circulating... documents among the military and police, and... them to sack the gun shops and take arms, and

appealing to Roman Catholic soldiers not to serve... heretics. ACCIDENTAL POISONING.—An inquest was held on... Tuesday on the body of Mr Frederick Darley Grattan... Guinness, who died on Saturday in his office in Abbey... Street, Dublin, immediately after taking poison, which... had been sent from a chemist's shop in mistake for... medicine. The jury found that he died from taking a... dose of poisonous medicine compounded by mistake, and censured the chemist for negligence.

Scotland.

GLASGOW UNIVERSITY.—Mr. James Monteith, of... 38, Duke Street, St. James's, has invested with the... Senate of the Glasgow University the sum of 1000l. as... a bursary fund, with the view of assisting students in... attendance on the university, and encouraging the... study of modern languages. The bursaries are to be... three in number, each of the annual value of about... 16l. and tenable for three years.

VISITS OF COUNTS HERBERT AND WILHELM... BISMARCK TO EDINBURGH.—The two sons of the... Prussian Premier arrived in Edinburgh on Friday... morning, and attended by the Prussian Vice-Consul, visited the places of interest in the city, as well as... Roslin Chapel and Castle. In the evening they dined... at the Consulate, and were afterwards entertained by... the officers of the 42nd Regiment. On Saturday fore-... noon they visited the Industrial Museum, and left in... the afternoon for the Highlands.

THE SCOTTISH GOLDFIELDS.—The Duke of Suther-... land visited the Kildonan diggings last week, to... see a shaft sunk by Mr. Gilchrist on the level ground... bordering the Helmsdale river. The result, however, did not come up to the expectations of those inter-... ested, a few particles of gold being all that remained... in the dishes after the stuff was washed out. The... Duke did not consider the prospect sufficient to... warrant further proceedings, and accordingly intimated... that sinking would have to be discontinued, the... revenue derived from the diggings not being suffi-... cient to cover the expenses in connection with them. The Duke has been much gratified by the discovery of... gold on his estate, and has presented a valuable... gold watch to Mr. Gilchrist, the discoverer. Gold has also been discovered in the bed of the river... Cassley, on the property of Rosehall, Sutherlandshire, belonging to Sir James Matheson, Bart., where the... men have come upon a highly auriferous drift. Rosehall is a small estate at the junction of the... Cassley with the Oyke, a few miles above Inver-... shin railway station. Adjoining it are the Suther-... land estates of Sir Charles Ross of Balnagown, and the heir of the late Mr. Butler-Johnstone of... Novar. The Cassley flows from the foot of Ben... Mare, the highest of the Assynt range of hills (3281... feet), and runs nearly parallel to Strath Brora, Strath... Donan, and Berriedale, in all of which gold has been... found in considerable abundance. It is also stated that... gold has been found in small quantities in the vicinity... of the castle of Wasburgh or Kinnaird's Head Light-... house, on the estate of Lord Saltoun.

Railways.

FATAL EXCURSION TRAIN ACCIDENT.—An excur-... sion train of Wesleyan school children from Crewe ran... over and killed four boys on the deviation line at Crewe... about 12 o'clock on Thursday night. At the same time... and place an engine-driver, named Saville, had a leg... and arm cut off by the Normanton mail train.

COLLISION ON THE MIDLAND.—On Wednesday... afternoon a collision took place at Woodesford Junc-... tion, about five miles from Leeds. The fast train from... London to Leeds was run into by a London and York... goods train, which was moved out of a siding. None... of the passengers were injured, but the traffic was... delayed for nearly two hours.

ACCIDENT ON THE BEECON AND MEETHYR.—An... accident occurred on Thursday at Maesyowmmwr, the... engine having run off the line. Mr. Kendall, loco-... motive superintendent of the Rhymney Railway, who... was trying a new engine, and an engine-driver, named... Stokes, were killed, and three others were injured.

Law.

CENTRAL CRIMINAL COURT.—The Charge against a Chief... Constable.—Major Frederick Bewick, late chief constable at... Birkenhead, was charged with having forged and uttered a... power of attorney, for the transfer of Consols to the amount... of 431l. 5s. 3d. The details of the case have already been... noticed in our provincial news. The jury returned a verdict... of Guilty, but recommended him to mercy. Mr. Baron Pigott... expressed regret at having to pass sentence for such a crime... upon a man of high standing, but justice required that the... punishment should be a severe one. His lordship then... sentenced the prisoner to five years' penal servitude.

Sporting.

ASCOT RACES.

TUESDAY.—The races commenced to-day under very favour-... able auspices, and were attended by the Prince and Princess... of Wales, Princess Christian the Crown Prince of Denmark, the Duke of Cambridge, and Prince and Princess Mary of Teck, who arrived from Cooper's Hill shortly after one o'clock in that semi-state peculiar to the meeting. Trial Stakes.—Sir J. Hawley's Vagabond beat Fancy Boy, Perfumer, and 10 others. First Year of the First New Biennial Stakes.—Mr W. Beville's Blue Bell beat Mont Bate, Scotch cut, and 8 others. Gold Cup.—Mr. J. Johnston's Thorwalisen beat Morna, Lancet, and St. Mungo. Prince of Wales Stakes.—Captain Machell's Martyrdom beat Per Gomez, Typhon, and 2 others. Queen's Stand Plate.—Lord Falmouth's Gertrude beat King of the South Sea, and 7 others. Ascot Stakes.—Mr. Jacques Victor, Plaudit, and 7 others. King Alfred, and 10 others. Bate Noir beat Ambitious, King Alfred, and 10 others. Maiden Plate of 100 Sovs.—Sir J. Hawley's Waif beat Flyaway Jack, Sister to Polly Perkins, and 20 others. Third Year of

the Fifteenth Ascot Biennial Stakes.—Mr. Cookson's Formosa beat Reatitution, Bluekin and The Lady. Victoria Plate.—Colonel Astley's Winchelsea beat... Mass 100, and 8 others. Fourth Stakes.—Mr... beat Perfuma, Atlantic, and 4 others. Mr J. Hawley's Peru Gomez beat... Good Hope, and... Lord Wilton's Bee Nave beat Cook of the Walk, Border Knight, and 19 others. First Year of the Seventeenth Ascot Biennial Stakes.—Harcourt's Mchah's beat Kingcraft and Claudius. Second Year of the Eleventh Ascot Biennial Stakes.—Lord... beat... and 3 others. Coronation Stakes.—Sir J. Hawley's Martingale beat Cracovienne, Dentelle, and 2 others.

THURSDAY (THE CUP DAY).—The Cup Day was marked, as usual, with the presence of Royalty. The Prince and Princess of Wales, the Crown Prince of Denmark, Prince and Princess Teck, Duke of Cambridge, Prince Edward of Saxe Weimar, Imperial Pacla, &c., were in the Royal carriages, and were... cheered. The attendance of fashionable company was... unusually large. St. James's Palace Stakes.—Mr. T. Wadlow's Dunbar beat Duke of Beaufort, Tassan, and Strathairn. First Year of the Seventh New Biennial Stakes.—Mr. H. Chaplin's Pandora beat Bruce and Badsworth. Second Year of the Sixth New Biennial Stakes.—Count Bathyan's Typhon beat Antislava, Brother to Ravioli, and 2 others. Gold Cup.—Sir J. Johnston's Brigantine (the winner of the Oaks) beat Blue Gown, Farmosa, and 2 others. Betting—6 to 4 against Blue Gown, 4 to 1 against Brigantine, and 5 to 1 against Farmosa. Won very cleverly by a length from the favourite, Blue Gown, who defeated Thorwalisen by a neck for second honours, the other... Captain Macholl's Champag... and 2 others.

FRIDAY.—First Class... Typhon beat Bonnie Katie, Hamerton, and 15 others. Second Class... Cook of the Walk beat Victress, Wanderer, and 7 others. Alexandra Plate.—Reatitution beat Trocadero, Rumping Girl, and 2 others. Plate of 100 Sovs.—Pearlfeather beat Gordian and Empress and 1 other. Sixteenth Biennial.—Duke of Beaufort beat Standard Bearer, and Westminster. Queen's Plate.—Lancet beat Blue.

Markets.

COVENT GARDEN.—June 11.

A busy week, but prices scarcely maintained, excepting for forced Strawberries, which are now becoming scarce, and the out-door ones make slow progress. English Pines are abundant, and... Foreign produce active. Potatoes are coming in very fast from the Channel Isles, but they are not good, consequently prices for them are low. Flowers consist of Obelisks, German Stocks, Paeoniums, Heaths, Hydrangeas, Calceolarias, Roses, Rhododendrons, Mignonette, Fuchsias, Heliotropes, Larks, Carnations, and large quantities of bedding plants.

FRUIT.

Table with 2 columns: Fruit name and price. Includes Apples, Apricots, Cherries, Figs, Grapes, Kentish, Lemons, Melons, Nectarines, Oranges, Peaches, Pine-apples, Strawberries.

VEGETABLES.

Table with 2 columns: Vegetable name and price. Includes Asparagus, Beans, Kidney, Beet, Cabbages, Carrots, Cauliflowers, Celery, Cucumbers, Endive, Garlic and Shallots, Herbs, Horse Radish, Lettuce, Mint, Mushrooms, Onions, Parsley, Peas, Potatoes, Spinach, Turnips.

HAY.—Per Load of 36 Trusses.

Table with 2 columns: Hay name and price. Includes Best Green Hay, Prime Meadow Hay, Inferior do., New do., Straw.

CUMBERLAND MARKET, Thursday, June 10.

Table with 2 columns: Hay name and price. Includes Sup. Meadow Hay, Inferior do., New do., Superior Clover, Straw.

WHITESHAP, Thursday, June 10.

Table with 2 columns: Hay name and price. Includes Fine Meadow Hay, Inferior do., Prime New Hay, Inferior do., Straw.

LEADENHALL POULTRY, &c.

THURSDAY, May 10. The demand far below the Ascot average. The supply good, but much poultry spoiled by the sudden heat of Saturday and Sunday last.

Table with 2 columns: Poultry name and price. Includes Geese, Goslings, Turkeys, Turkey pullets, Ducks, Ducklings, Surrey Fowls, Do. chickens, Barn door Fowls, Leverets, Pigeons, Tame Rabbits, Wild Rabbits, Wild Ducks, Pheasants, Hares, Dotterel, Quails, English Eggs, Foreign do., Fresh Butter.

POTATOS.—SOUTHWARK, Monday, June 7.

During the past week the arrivals eastwise have been light, but rather mere from abroad, and the prices have advanced from 10s. to 11s. per ton. Quotations as follow:—York Regents, per ton, 7s. to 11s.; do. Flukes, 80s. to 130s.; Lincolnshire Regents, 70s. to 110s.; Dunbar and East Lothian do., 70s. to 120s.; Perth, Forfar, and Fife do., 70s. to 100s.; do. Rocks, 70s. to 90s.; Reds, 70s. to 80s.; French and Belgian Whites, 50s. to 70s.

ENGLISH WOOL.

During the past week trade has been very dull, and the tendency is still downwards, farmers being more willing

Sellers now that the market is being gradually more and more supplied with the new clip. We now quote as under:—

CURRENT PRICES OF ENGLISH WOOL.		per lb.—s. d.	s. d.
FLEECES—Southdown hoggets	.. ..	1 1	to 1 2
Half-bred ditto	.. ..	1 2	— 1 2½
Kent Fleeces	.. ..	1 3	— 1 4
Southdown ewes and wethers	.. ..	1 0½	— 1 1
Leicester ditto	.. ..	1 2	— 1 3
SORTS—Clothing		.. ..	0 10 — 1 6
Combing		.. ..	1 0 — 1 8

METROPOLITAN CATTLE MARKET.
MONDAY, June 7.

There is a considerable increase in the supply of Beasts, and trade is dull; prices on all descriptions are lower. The number of Sheep is also larger, and there is an improvement in quality. The weather having set in suddenly hot, causes depression in all departments. There is very little demand either for Lambs or Calves. Our foreign supply consists of 2627 Beasts, 9430 Sheep, 263 Calves, and 15 Pigs; from Scotland there are 121 Beasts; from Ireland, 50; from Norfolk and Suffolk, 600; and 932 from the Midland and Home Counties.

Best Scots, Herefords, &c.		s. d.	s. d.	Best Long-wools		s. d.	s. d.
5	4 to 5	8	5	2 to 5	4	4	4
5	2—5	6	4	2d quality	4	4	10
3	6—4	6	4	Do. Shorn	..	..	..
Best Downs and Half-breds		.. 5 8—5 8	Lambs		.. 4 9—6 0	4	
Do. Shorn		.. ..	Calves		.. 3 4—5 0	9	
Beasts, 4300; Sheep and Lambs, 30,290; Calves, 290; Pigs, 200.		.. ..		Pigs		3 8—5 6	

THURSDAY, June 10.

We have not quite so many Beasts as on Thursday last, and there is a fair demand; prices are better on the average; choice qualities are scarce. There are a few more Sheep; they are, however, in demand, and a clearance is effected at rather higher rates. Trade is still dull for Lambs, and there is scarcely any improvement in prices. We have a large supply of Calves, prices are lower, and several lots remain unsold. Our foreign supply consists of 785 Beasts, 3715 Sheep, 505 Calves, and 10 Pigs.

Best Scots, Herefords, &c.		s. d.	s. d.	Best Long-wools		s. d.	s. d.
5	6 to 5	0	5	4 to 5	8	4	8
5	4—5	8	4	2d quality	4	6	5 0
3	6—4	6	4	Do. Shorn	..	..	..
Best Downs and Half-breds		.. 5 8—6 0	Lambs		.. 4 8—6 0	6	
Do. Shorn		.. ..	Calves		.. 3 4—5 0	9	
Beasts, 1090; Sheep and Lambs, 14,240; Calves, 653; Pigs, 50.		.. ..		Pigs		3 8—5 6	

MARK LANE.—MONDAY, June 7.

The supply of Wheat from Essex and Kent to this morning's market was again very short, and factors would have accepted the prices of this day se'nnight, but as the offers made by millers were 1s. to 2s. per qr. below those rates, scarcely a sale was made. There was a thin attendance, and the little business transacted in foreign Wheat was at about last week's quotations. Barley, Beans, and Peas fully supported late rates. The Oat trade was quiet, and in some instances a reduction of 3d to 6d per qr. was submitted to. Flour was firmly held at full prices.

PRICE PER IMPERIAL QUARTER.		s. s.	s. s.
WHEAT, Essex, Kent, Suffolk.	White	45—48	Red..... 44—46
—	— fine selected runs.. do.	48—50	Red..... 46—48
—	— Talavera.....	52—56	—
—	— Norfolk.....	—	Red.....
—	— Foreign.....	37—60	—
BARLEY, grind. & dist. 28s to 32s	Chester	40	Maltins.. 44—47
—	Foreign.. grin hgan an 1 distilling	24—28	Maltins.. 52—43
OATS, Essex and Suffolk	—	—	—
—	— Scotch and Lincolnshire.. Potato	25—33	Feed ..
—	— Irish.....	Potato 30—32	Feed .. 23—28
—	— Foreign... .. Poland and Brew	25—30	Feed .. 21—26
RYE.....	—	38—40	Foreign ..
RYE-MEAL, Foreign.....	—	—	—
BEANS, Mazagan... 38s to 40s.	Tick	42—43	Harrow .. 42—43
—	— Pigeon ... 43s to 47s .. Winds.	—	Longpod ..
—	— Foreign.....	Small 38—42	Egyptian. 35—36
PEAS, White, Essex, and Kent.	Bollers	40—41	Suffolk .. 39—42
—	— Maple 41s to 43s.....	Grey 40—42	Foreign .. 36—39
MAIZE.....	—	Foreign ..	28—30
FLOUR, best marks delivered per sack	39—43	—	
—	— 2d ditto ditto	29—40	Country.. 28—40
—	— Foreign per barrel	23—27	Per sack.. 30—40

FRIDAY, June 11.

Excepting one or two days' rain in Scotland, the weather here has been fine, hot, and dry during the past week, but since the 8th inst. the temperature was decidedly lower. The reports of the growing crops having been more favourable, owing to the warm dry weather, and millers as well as dealers having lately bought rather largely, the markets of the kingdom have once more relapsed into dullness, and prices of home-grown and foreign Wheat have given way fully 1s. per qr., business being very restricted. Spring Corn of all descriptions has met more attention, but we have no general rally in prices to report, still those of best Oats, Beans, and Peas were pointing upwards. Flour met very little attention, and quotations have not undergone any decided change. The arrivals off the coast since Friday last consisted of 17 cargoes, of which, with those left over from last week, there remained for sale last night 2 cargoes. Owing to the very small supply off the coast business in arrived cargoes has been restricted, but prices were in sellers' favour for Wheat and Maize. Cargoes in course of shipment, or to be despatched in June and July, continued to find ready buyers, a large business having been reported in Maize. The advance realised must be quoted 1s. to 1s. 6d. per qr. on Maize, and 1s. per qr. on Wheat.

The arrivals of English grain and foreign Barley this week have been small, and fair of foreign Wheat and Oats. There was a moderate attendance at this morning's market; the little English Wheat fresh up and remaining over brought Monday's quotations; for foreign the demand was limited, and the business transacted was at that day's quotations. Inferior Oats were rather cheaper; other descriptions of spring corn unaltered.

ARRIVALS.

	Wheat.	Barley.	Oats.	Flour.
English	1020 qrs.	— qrs.	850 qrs.	— sks.
Irish	—	—	950	—
Foreign	14,800	570	32,360	1310
	15,880	950	34,160	3680 brls.

MANCHESTER, June 10.—With a favourable change in the weather since our last report, the trade has again become dull and in active, with a receding tendency in prices. There was a good attendance at this day's market, and the little English Wheat offering was taken at a decline of 1s. per qr. from the

currency of this day se'nnight. Foreign also sold to a fair extent, at a reduction of 2d. to 3d. per cental. Flour was in favour of buyers. Oats and Oatmeal dull at late rates.

AVERAGES.

	Wheat.	Barley.	Oats.
May 1	44s 9d	42s 2½	26s 11½
— 8	44 4	40 2	26 9
— 15	44 6	40 1	26 11
— 22	45 2	37 7	27 1
— 29	45 2	37 3	27 0
June 5	45 5	37 5	26 2
Average ..	44 11	39 1	26 10

SEED MARKET.

The attendance at our markets has this week been very thin, and but very little business has been passing. Values of all descriptions of agricultural seeds remain firm, although at the present moment buyers show no disposition to operate. Of new Red Clover seed the stocks during the past season were reduced quite low; for what little has been held over holders demand more money. Advices from Germany report an advance of some shillings per cwt. on red seed. Sowing Mustard and Rape-seed continue fully as dear. We have a fair inquiry for Canary and Hemp-seed. Feeding Linseed moves off steadily at recent quotations.

JOHN SHAW & SONS, 16, Water Lane.

METROPOLITAN MEAT MARKET.—June 12

Best Fresh Butter	14s. per dozen lb.
Second do. do.....	12s.
Small Pork, 5s. 0d. to 5s. 8d.; Large Pork, 4s. 0d. to 4s. 8d. per 8 lb.	

A YOUNG GENTLEMAN can be TAKEN on an extensive FARM in one of the best districts of Scotland. Draining and other extensive improvements going on. Can either work or not as desired. Good Hunting, Shooting, and Fishing. Only one hour from Edinburgh. Terms, £105 per annum, washing included.—JAMES MURRAY, General Post Office, Edinburgh.

WANTED, in a First-class Nursery, as FOREMAN, a Young Man who thoroughly understands the Propagation of all kinds of Plants, both Indoor and Outdoor, and who could be thoroughly recommended as such, and for honesty, sobriety, and steadiness of character. No other need apply. To such a person the terms would be progressive, and after a fair trial every encouragement would be given.—Apply (for a week) to ALEX. CAMPBELL & SONS, 7, Eden Quay, Dublin.

WANTED, by the Advertisers, for an Outdoor Nursery, a Person in the capacity of WORKING FOREMAN and PROPAGATOR. Must be a plain, intelligent, honest Man, very industrious, of good character, and a successful Budder and Grafter. Wages 21s. per week, with unfurnished cottage on the premises.—Apply, in own handwriting, to RICHARD BRADLEY & SONS, Nurserymen, Hatam, near Southwell, Notts.

WANTED, for a Retail Nursery, a FOREMAN, who can also undertake the duties of a FURNISHER and SALESMAN. Only those need apply who have filled a similar situation, and who can give the best references.—Apply, in own handwriting, to K. W., Mr. Fox, 56, Coleman Street, City, E.C.

WANTED, as SECOND GARDENER, a sober, honest, and industrious Man, who is well practised in Outdoor Gardening, especially the Cultivation of Roses, American Plants, Wall Fruit, Strawberries, Melons, and Asparagus. To reside at Twickenham. Wages, £1 1s.—Apply, by letter only, to HENRY G. BONS, Esq., 15, Henrietta Street, Covent Garden, London, W.C.

WANTED, THREE or FOUR expert and practised ROSE BUDDERS.—None but competent hands are requested to apply to Mr. L. Woodroffe, Munro Nursery, Sibthorp, Redingham, Essex.

CHARLES NOBLE is in WANT of a YOUNG MAN to assist the Propagator (Indoors).—Apply, stating terms, reference, &c., by post.—Bagshot, June 10.

WANTED, a TRAVELLER, with a Connection amongst Seedmen and Nurserymen. Only those need apply who have been successful in pushing Specifics Articles to the Trade. Apply, stating age, salary expected, experience, and full particulars, to Mr. SIMON, care of Moffat & Co., Publishers, D'Olier Street, Dublin.

WANTED IMMEDIATELY, a COUPLE, without children, to live at a lodge, the Wife as Dairymaid and to Bake for the house, the Man as Labourer in the Garden or Farm.—Apply to J. RIDGWAY, Esq., Fairlawn, Tonbridge, Kent.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. E. G. HENDERSON & SON, Wellington Nursery, St. John's Wood, London, N.W.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS, and GARDENERS and BAILIFFS, of various qualifications, who are open to Engagements. The fullest particulars as to services required and wages given should be forwarded with application.—PAUL'S Nurseries, Waltham Cross, London, N.

To Gardeners and Bailiffs (Head, Foremen, or Under). JAMES CARTER and CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those who can send unquestionable references need apply.

Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & Co. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c.

Gardeners and Under Gardeners. WM. CUTBUSH and SON beg to state that they have at all times on their books MEN of various qualifications, whose characters will bear the strictest inquiry. Any Gentleman making application would save time by clearly stating the duties to be undertaken, wages offered, &c., so that suitable Men may be selected.—Highgate Nurseries, London, N.

GARDENER (HEAD).—Age 36, married; has a thorough practical knowledge of Gardening in all its branches; Early and Late Forcing of Vines, Peaches, Figs, Melons, &c., Ferns, Stove and Greenhouse Plants, Flower and Kitchen Gardening, also the Management of Land and Stock. Wife a good Dairywoman. Six years' good character.—A. B., Mr. Cooper, Stationer, High Street, Hounslow.

To Noblemen and Gentlemen. GARDENER (HEAD), age 35, married.—HENRY GILBERT, Head Gardener during the last three years to the Marquis of Downshire, is at liberty to engage with any one requiring the services of a practical Working Man. Understands well the Management of Men, also the Growth of a kind of Fruits, Flowers, and Vegetables at all seasons.—19, Canterbury Terrace, Maida Vale, Paddington, W.

GARDENER (HEAD); age 42, married.—T. TODMAN, 11 years Gardener to Robert Hudson, Esq., Clapham Common, will be disengaged in July, and is open to treat with any Nobleman, Lady or Gentleman requiring a thorough practical Gardener, Hard and Soft Wooded Plant Grower, Flower and Kitchen Gardener; Early and Late Forcing, also the Management of Stock. First class references.—Address as above.

GARDENER (HEAD).—Age 40, in possession of a thorough practical Working Man of good character; capital Grower of all kinds of Plants, Grapes, Melons, Cucumbers, Ferns, and Kitchen and Flower Gardener; well versed in the Management of Grounds, and the Management of Stock. Wife a good Dairywoman. From late employer.—H. G., 2, Dose Lane, Warrington.

GARDENER (HEAD), where five of the best Stove and Greenhouse Plants, Early and Late Forcing, also a good Flower and Kitchen Gardener; good character from last place.—W. COLE, 12, York St., Surrey.

GARDENER.—Single; understands Vines, Flowers, Fruits, and Kitchen Gardening.—S. E., 46, Park Crescent, Park Road, W.

GARDENER.—A Lady wishes to engage a Gardener; understands Stoves, and Flower and Kitchen Gardening. Highest personal character.—Apply to Mr. Meadows, News Agent, 8, Fulham Road, S.W.

GARDENER (Under Head), where five of the best Stove and Greenhouse Plants, Early and Late Forcing, also a good Flower and Kitchen Gardener; good character from last place.—W. COLE, 12, York St., Surrey.

GARDENER (UNDER).—Age 24, single; can be given.—C. B., 48, Etna Parade, Dover.

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To Nurserymen and Others. FOREMAN.—R. H. BARR, for the past 10 years Foreman of the Soft-wooded Department of Henderson, Wellington Nursery, St. John's Wood, N.W., disengaged, and offers his services to anyone requiring a practical Man. Twenty-five years' experience in Hybridising, &c. References as to ability, honesty, and bearing the strictest investigation.—Address, St. John's Wood, N.W.

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PIPES per yard	1s. 0d.	1s. 6d.	2s. 0d.
ELBOWS each	1 6	2 3	3 0
TEES	2 3	3 6	4 6
SYPHONS	2 3	3 6	4 6
VALVES	10 0	11 6	13 0

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VALVES	10 0	11 0	11 6	12 0

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GARDEN NETTING (at Reduced Price), for the Protection of newly-sown Seeds from Frost, Blight, and Birds, also as a Fence for Poultry, Rabbits, and Sheep, id. per square yard, carriage free, in quantities of 250, 500, or 1000 yards.
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PROTECTION from the SCORCHING RAYS of the SUN.
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Two yards wide	1s. 6d. per yard run.
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An improved make, 2 yards wide ..	1s. 9d. per yard.
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"George Wood (Secretary, Lochford)."
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Home News.

RETURN OF THE COURT TO WINDSOR.—The Princess Beatrice, accompanied by Princess Louise, arrived at Windsor on the morning, shortly before 9 o'clock, from her journey, 591½ miles, was performed punctually to the time arranged. Princess Christian visited her Majesty soon after her arrival. The afternoon the Queen drove out to Windsor. Thursday morning the Queen walked across the grounds of the Castle with Princess Louise. Chamberlain had an audience of her Majesty in the evening, by command of the Queen a state dinner was given at Buckingham Palace, to which upwards of 1,600 was invited. Yesterday the Queen held a Privy Council at Windsor. The Court will remain at Windsor for the next or four weeks, and then proceed to Osborne.

THE PRINCE AND PRINCESS of WALES.—The Crown Prince of Denmark, Prince Arthur, Prince George, Princess Louise, and Princess Victoria of Wales, returned to Marlborough House on the morning of the 19th. The Princess and Prince of Wales returned from Cooper's Hill, near Ascot. The Princess and Prince of Wales were present at the morning concert of Madame Norman-Nesbitt at St. James's Hall. The Princess and Prince of Wales were present at the debate in the House of Commons on the evening of the 19th. The Princess and Prince of Wales were present at the annual dinner of the Rifle Brigade, at the Tavern. The Crown Prince of Denmark was to an evening party given by the Minister and Madame de Bismarck at their residence in Wimpole Street. On Tuesday the Princess and the Crown Prince of Denmark were present at the debate in the House of Commons on the evening of the 19th. The Princess and Prince of Denmark, dined with the Russian Ambassador and Baroness de Brunnow, at their residence in Chesham Place. On Wednesday the Princess and Prince of Denmark were out with the Crown Prince of Denmark to the honoured Lady Molesworth by his company. On Thursday the Prince was present at the debate in the House of Lords. In the evening the Princess and Prince of Denmark were present at the State Ball at Buckingham Palace. The Prince went to Wellington College on the 19th. The Princess and Prince of Denmark were present at the delivery of the speeches on the 19th. On the 19th the Prince and Princess will leave for Manchester, to attend the show of the Royal Agricultural Society, and will remain in the neighbourhood of the Earl of Ellesmere on the evening of the 21st, when they will proceed to the residence of the Duke of Devonshire. PRINCE ARTHUR arrived at Oban on the 19th. He will sail through Glasgow on Monday on his way to Westport, where he rejoined the Royal Artillery on Tuesday morning. It is stated that his Royal Highness will proceed to Canada in the autumn, and will be accompanied to the Rifle Brigade. On his return next spring he will probably join a battalion of the same regiment at Woolwich.

THE DUKE OF EDINBURGH was to leave Zealand in May for Fiji, and afterwards visit the Sandwich Islands. He proposes to visit Hong Kong in August, China in September and October, Singapore and Penang in November, and to arrive at the Cape of Good Hope before the end of the year. His Royal Highness is expected to be at Ceylon in April next, to visit Mauritius in May, the Cape of Good Hope in June, and July, and at St. Helena in August.

THE VICEROY OF EGYPT.—Lord Alfred Dufferin has been appointed by the Queen to attend on the Viceroy of Egypt, who will land at Dover on Tuesday next, and arrive at Buckingham Palace on the same day. The Viceroy will stop one night at Windsor Castle, and will be present at the review at Windsor on the 26th. On the 27th he will probably visit the Crystal Palace.

THE CABINET.—A Cabinet Council was held on Saturday in Downing Street.

PARLIAMENTARY MOVEMENTS.—The debate on Nottingham terminated on Tuesday in the evening. Mr. C. Seely, jun., the Liberal candidate, by a majority of 110 over Mr. Digby Seymour, the Conservative candidate, was elected. Colonel Nassau Lees and Mr. Potter had previously withdrawn from the contest.

THE BRECON ELECTION PETITION.—A petition has been given that the election petition in Brecon, which was appointed to be heard on the 17th inst., has been withdrawn.

CONVOCATION.—Both Houses of the Convocation of Canterbury assembled at Westminster on Tuesday last. The despatch of business. In the Upper House the Bishop of Ely presented a petition from clergy and laymen, including High, Low, and Broad Churchmen, praying that some modification might be made in the Athanasian Creed. After some discussion the motion was ordered to lie on the table. The Archbishop of Canterbury having presented various petitions in relation to the reform of Convocation, the Bishop of Gloucester moved that the Archbishop should be invited to communicate with Government on the subject. The Archbishop said he should be happy to do so, and that the consideration of the matter had been before a former Government, and was now being considered. The motion was agreed to. In the Lower House the report from the committee on the subject of the reform of Convocation, presented over by Archbishop of Canterbury, was considered. After some discussion, the House resolved to ask the Upper House to concur in an address to the Crown praying her Majesty to direct the Secretary of State to take the necessary steps for the reform of Convocation.

ment to the subject, with a view of measures which may remedy or... and welfare of her Majesty's subjects. in the Lower House. Canon Selwyn's... was negatively by a majority of 24 to 16... then moved a resolution... at the refusal of the... to permit the Irish Convocation to... present crisis. Dr Jebb, in seconding... emphatically declared that he would... to any bishop, priest, deacon, or... voted for the disestablishment of the... Canon Blakesley moved, as an amend-... previous question. The Dean of Canterbury... amendment, which was supported by the... Westminster and Archdeacon Sandford. On... the amendment was negatively by 29 to 14... then adopted, praying the... House to take steps to obtain the consent of the... for the Irish Convocation to assemble. On... in the Upper House, a gravamen was... from the Lower House on the subject of the... Church law before Parliament, but their lord-... to deal with it at present. The Bishops... Laudal, and Gloucester and Bristol were... in conjunction with a committee of... members of the Lower House to consider if any... may be made to the "Ornaments Rubric," in... to make it more explicit. In the Lower House... again brought forward the gravamen on... Irish Church Bill, upon which the House refused... to allow a discussion, with a view to... it an *inter-clusa*. It was now again moved... should be discussed, and after a long... motion was negatively. A motion of... Massingberd, on the subject of intercom-... with the Orthodox Eastern Churches, as... importance at this moment when the Pope is... in an Ecumenical Council, was carried... unanimously.

Foreign.

FRANCE.—The Viceroy of Egypt arrived in Paris on... and was escorted by General Fleury and the... to the Palace of the Elysee. In the... his Highness was received by the Emperor... at the Tuileries. The disorderly scenes... of last week were repeated on the... on the Boulevards des Italiens... Montmartre. Sedition songs and cries were... and large masses of people were congregated... and shops were closed early. Patrols of... infantry traversed the streets until half-... on Friday morning. The Privy Council and the... of Ministers held a sitting during the day, at... the Empress was present. The Emperor after-... with Prince Napoleon. In the after-... the Emperor and Empress drove through the Rue... to the Boulevards de Sebastopol, Saint Denis... Montmartre, des Italiens, and the Rue de la... carriage and without any escort. They... with much cheering, and their carriage was... times by the crowd and shouts of... "Vive l'Empereur," "Vive l'Impératrice." We desire... and tranquillity." At night disorderly crowds... on the boulevards. The troops, who... several times charged and dispersed... The inhabitants of Belleville, the Faubourg... Antoine, and Montmartre, armed with staves... the streets, and themselves arrested the... many of whom were found armed, and... with money, which is said to have been... to them by some unknown persons. At mid-... the Boulevards des Italiens and Montmartre... and the cavalry were withdrawn. The... night passed over peaceably. On Saturday... there was no disturbance of public order, though... were great crowds in the boulevards. The... and shops were open as usual. Patrols of... were kept in the streets until midnight. On... day everything was quiet in all parts of the city... disturbances at Nantes and Bordeaux are at an... at St. Etienne, about 30 miles from Lyons, ... were renewed on Wednesday with fatal results... appears that as a body of soldiers, who had arrested... miners who had been trying to prevent others... working, were returning to the town, they were... by a mob with stones and pistols. The troops... fired upon their assailants, and put them to... Ten of the miners were killed, and 33 made... Five soldiers were wounded. The... of Bunkao, commander-in-chief of the army... Lyons, proceeded to St. Etienne on Thursday with... movements, but found, on his arrival, that the... was perfectly quiet. The *Journal Officiel* says... the Government is in possession of evidence of... the facts which provoked and accompanied the... and that justice must now proceed to trace... the authors and originators of the disorders. The... of Wednesday evening publishes the following... addressed by the Emperor to M. Mackau, member... of the Legislative Body.—

patible, that a just and firm Government can bear the existence of every liberty, but too much licence has been given to such men as... Government is too indulgent and wanting in firmness. It is said that there are more than 700 persons now in custody in Paris in connection with the riots. Among them are several Editors and writers on the *Reveil*, the *Republique Francaise*, the *Revue*, and other papers. The two sons of M. Victor Hugo and some other persons were sentenced to six months imprisonment, the latter to six months, and both to a fine of 1000 francs for the law to hatred and contempt of the Government. M. Schiller, printer of the *Reveil*, was sentenced to one month's imprisonment, and to a fine of 1000 francs. It is stated that Baron Haussmann has tendered his resignation, which has been definitively accepted.

SPAIN.—The Duke de Montpensier and his family arrived on Friday at San Lúcar Barrameda, their summer residence in Andalusia. His Royal Highness has sent a communication to the Government, in which, as a citizen of Spain and a captain-general of the army, he declares that he acknowledges and promises to respect the demand for a Regency as voted by the Constituent Cortes. In the sitting of the Cortes on Friday the discussion on the Regency question commenced. Two amendments, to wit, that the Regency should only be composed of three persons, were rejected. In the sitting of Saturday Senor Navarro, a member of the Progressist party, opposed the project of a Regency, and declared his preference for the immediate selection of a Sovereign. He eulogised the Duke de Montpensier, whom he declared to be the only acceptable candidate for the Throne. General Prim said that no King would come forward in the present state of uncertainty, which, however, would disappear when the Regency question was settled, and then there would be plenty of candidates willing to come forward. He regretted Don Fernando's refusal, but hinted that it was not irrevocable. His speech was much applauded by the Republicans when warmly defending the Mexicans, whom a Deputy had spoken of deprecatingly, calling them cowards. General Prim said a people who know how to maintain their independence against internal commotions and foreign aggression could not be cowards. Believing that they interpreted the sentiments of the country, the Government intended to re-open relations with the Mexican Republic and its worthy President Juarez. In the sitting of Monday Senor Ochoa spoke in favour of the speedy election of a Sovereign, the monarchical form of government being in consonance with the traditional feelings of the Spanish nation. He expressed his preference for Don Carlos as the candidate for the Throne. Senor Barria in reply, contended that the projects of the Cortes were untenable and could not be revived. In the sitting of Tuesday Senor Castelar spoke strongly against the French Empire, declaring that it would soon fall. Senor Olozaga defended it, saying it would last long. The Regency Bill was subsequently passed by a majority of 193 to 45. In the sitting of Wednesday a proposal was brought forward to deduct 33 per cent. from the coupons of the Public Rente, exclusive of the exterior portion, which is guaranteed by special treaties. Notwithstanding the opposition of Senor Figuerola, the Minister of Finance, this motion was taken into consideration by 87 votes against 63. During the day General Prim reviewed 20,000 troops, and administered the Constitutional Oath. In the sitting of Thursday there was a stormy scene between the Ministers and the Republicans. General Prim said that no prosecutions would be had against Generals and officers refusing to support the Constitution, but he, as Minister of War, would remove them from employ, and the Government would reserve a right to strike them off the rolls. The Minister Sagasta added that meetings in which were used banners with mottoes against Monarchy would be prohibited, as also "Irras" in favour of the Republic, as being subversive of and contrary to the Constitution. Senor Figuerola replied that the Republicans would sustain the rights gained by the Revolution, cost what it would. General Prim demanded the meaning of these words. Senor Figuerola replied that he meant within legal grounds, for to appeal to force while they remained was a crime, but when they became useless, and individual rights were attacked, mutilated, or prohibited, it was not only a right but a duty. The Cortes having appointed a committee of 15 to inform Marshal Serrano of his elevation to the Regency, they proceeded in State coaches to him, and afterwards returned to the Cortes and announced his acceptance. The ceremony of his swearing-in before the Cortes was to take place yesterday.

PORTUGAL.—It is reported that the intended marriage of Prince Augusto, brother of the King of Portugal, to the second daughter of the Duke of Montpensier, has been broken off. Don Fernando has married Countess Edla, formerly Madame Sensler. The Chamber of Deputies on the 10th inst., after a protracted discussion, passed the Bill for the new loan contracted with Messrs. Frères & Goshen. The Queen sailed for Nice on Tuesday in the corvette *Stephania*.

BELGIUM.—The Senate on Saturday rejected the fresh concessions made by the Government in the Bill relative to the abolition of imprisonment for debt, but adopted by a majority of 30 to 24 the amendment of the minority, the Committee on Legal Affairs declaring that the present law would be revised in the session of 1872. In the sitting of Monday the Bill, thus amended, was passed by 34 to 23. The Government has proposed to the King to dissolve the Senate in consequence of its having thus rejected the Bill for the second time.

SWITZERLAND.—The Italian Government has accepted the invitation of the Federal Council to a conference on the subject of the proposed railway line from Geneva to the Jura mountains.

PRUSSIA.—The King of Prussia, accompanied by Count Bismarck, left Berlin on Saturday morning on his journey to Hanover, and will arrive at Osnabrück. His Majesty will be accompanied at Osnabrück by the Duke of Brunswick, and the Duke of Saxe-Weimar. A banquet was afterwards given in the town hall in honour of the King's visit. His Majesty returned to Berlin on the following day.

At the conclusion of his speech, the King expressed his thanks for the reception he had met with, and drank prosperity to the city of Bremen. A brilliant illumination took place in the evening. On Thursday the King arrived at Heppens, named the docks and town Wilhelmshafen, and visited H.M.S. *Minotaur*, with a brief stay. In the sitting of the Customs Parliament on Wednesday the following resolutions were adopted:—

BOHEMIA.—The Emperor's visit to Prague has arrived at Prague after having had a visit to the Emperor Ferdinand at Pilsen. It is believed that, later on, he will take up his residence permanently in Austria.

HUNGARY.—In the sitting of the Lower House of the Diet on Saturday the Bill relative to this year's recruitment was adopted by a majority of 170 to 75. The extreme Left voted against the Bill. In the sitting of Monday, Count Andrássy was interrogated respecting certain reports as to the arming of troops on the military frontier for the conquest of Bosnia. The Minister denied that any preparations for war were being made, and added that the Austria-Hungarian monarchy desired the maintenance of peace, and would persevere in a policy of non-intervention so long as other Powers did the same.

ITALY.—In the sitting of the Chamber of Deputies on Friday, the discussion on the proposal for a parliamentary inquiry into the charge of venality against a member of the House was resumed. Signor Pasquelli moved that the committee should at once inform the Chamber against whom, and upon what grounds, the inquiry is to be conducted. General Mancini supported the motion, which was, however, opposed by the committee, and ultimately rejected by the House. The Chamber subsequently approved of the recommendations of the committee. In the sitting of Saturday the President of the Chamber of Deputies, and the members of the Right, voted on the 10th inst. on the charge. On Tuesday at midnight an individual, who has not yet been arrested attempted in the public street to assassinate Deputy Lobbia, by whom evidence was furnished before the parliamentary committee of inquiry in reference to the charge of venality. Signor Lobbia received two dagger wounds, which, however, are not dangerous. He saved his life by brandishing his revolver at the assassin. In the sitting of the Chamber of Deputies on Wednesday an order of the day, signed by 50 members of all parties, was adopted, expressing detestation of the attempt to assassinate Signor Lobbia, and the earnest sympathy felt by all the members towards their colleague. The President was requested to communicate to the Chamber a copy of a bulletin respecting Signor Lobbia's state of health. In the evening a demonstration was made in honour of Signor Lobbia, when the populace raised sedition cries, and windows were broken. In the sitting of Thursday, Count Cambray Digny communicated a Royal decree, authorising him to withdraw the three financial conventions which had already been rejected by a Parliamentary committee. The Minister of the Interior afterwards read a Royal decree proroguing the Parliament for an indefinite period.

PAPAL STATES.—At the Vatican there is a great uneasiness about the projected departure of the French troops, whose withdrawal seems so certain that the virtualing contracts have been passed only for very short periods. It is said that France and Italy will revert to the September Convention. The ex-King of Naples will not return to Rome, but will hereafter reside in Austria.

TURKEY.—The Porte has sent instructions to its Ministers abroad to protest against any demands given by the Viceroy to foreign sovereigns to attend the opening of the Suez Canal as his guests. The Porte says that such invitations should emanate from the Sultan, as the Suzerain of the Viceroy. One of the Sultan's wives has given birth to a Prince, who has been named Mehmed Chiket.

THE PRINCIPALITIES.—A Bill for a loan of 15,000,000 francs, to cover current expenditure, was taken into consideration by the Chamber on Tuesday. The session will be closed on the 21st inst.

INDIA.—A telegram from Calcutta states that on the 9th inst. a cyclone, which lasted 16 hours, burst over the city, and committed great destruction among the native craft in the river. The shipping in the port escaped with slight damage. Many houses in the city were damaged, and the telegraph lines were interrupted. The storm was still raging when the telegram was despatched.

CHINA.—Accounts from Hongkong of the 27th ult. state that intense indignation has been aroused throughout the foreign communities in China by the decision of the Home authorities regarding the disturbance at Formosa. The comments of the Duke of Somerset

have elicited most indignant denials from the Press, the Chamber of Commerce, and the public. The fracas between the French *chargé d'affaires*, Count Rochechouart, and Prince Kung has been settled, the Chinese authorities having apologised.

AUSTRALIA—The members of the Victoria Legislative Assembly who were lately expelled for bribery have been re-elected by their constituencies. The "associated bribers" were declared guilty of breach of Parliamentary privilege, and were committed to gaol. The Judges, however, declared the warrant of committal invalid, and ordered their release. Parliament intends to appeal to the Privy Council. A slave corvette, with 100 slaves on board, has been captured in the South Sea. The slaves have been released, and the vessel sent as a prize to Sydney.

NEW ZEALAND.—The Duke of Edinburgh had left Dunedin in the Galatea for Nelson, Canterbury, and Otago. Telegrams, dated April 15, have been received at Dunedin from Napier, stating that Ensign Lavin, his wife, and two children, and Messrs. Wilkinson and Cooper, all of them settlers at Mohaka, were massacred on the Sunday preceding by Te Kooti, with about 40 friendly natives, principally women and children. On the 14th, part of the force from Napier reached Mahaka, when Te Kooti was found to have retired with his plunder the day before, having lost about 10 of his party killed. He burnt the settlers' homesteads before retiring. After leaving some cavalry and a part of the force in the district, most of the militia returned to Napier, which was declared to be threatened. The settlers' families between Mohaka and the suburbs of Napier (a district of about 40 miles) had taken refuge in that town. Accounts from Australia state that the later news is more favourable.

UNITED STATES.—The Washington correspondents of several prominent journals state that President Grant has expressed his disapproval of the terms and tone of Senator Sumner's speech on the Alabama claims, and has given his opinion that if war with Great Britain is to be avoided the question must be settled through courteous diplomacy. The Government has sanctioned the publication of the following version of Mr. Motley's instructions:—He will explain to the British Government the circumstances attending the rejection of the Alabama Treaty, without committing America to any particular policy. Mr. Motley is not instructed to propose any settlement of claims, but to secure the temporary postponement of the question, hoping when the present excitement subsides that England will invite renewed negotiations. He is not authorised to announce the readiness of the United States to make any propositions, or to demand the payment of claims, but to assure the British Government of the sincere desire of the United States to have the dispute adjusted on terms honourable and satisfactory to both nations. He is also instructed to state that the Neutrality Proclamation is not in itself a cause for demanding compensation, or a separate ground of complaint, but that, taken with subsequent acts, it was unfriendly, as showing a feeling of hostility to America during the late war, and resulting in losses requiring reparation. The friendly reception of Mr. Motley in England has been favourably commented on by the American Press, which now admits that the probabilities of a rupture between the two countries were greatly over-estimated on both sides of the Atlantic. Mr. Reverdy Johnson was warmly welcomed at the courts in Baltimore. President Grant, accompanied by Mr. Boutwell, Secretary of the Treasury, and Admiral Farragut, arrived at Boston on Wednesday. They were received by the Governor of the State, and escorted to the Capitol by a military guard of honour. Complimentary addresses were delivered by the Governor, the Officers of the State, and members of the Legislative Body. The President briefly returned thanks for the cordiality of the welcome given him, acknowledging that Massachusetts had largely contributed to his elevation to the Presidency. On Thursday the President attended the Musical Peace Jubilee. The State Legislature of Florida have ratified the Negro Suffrage Amendment. The Supreme Court of Georgia had decided that negroes are eligible for office in that State. Mr. Seward is about to visit China and Japan. The Government have determined on vigorous war against the Indians, and General Sheridan has gone West to take the command. Additional troops will protect the Pacific Railway. Volunteers, to protect Kansas, are to be raised by General Schofield. The Indians have captured a Government waggon train in Arizona, burnt it, and killed three soldiers and wounded three. A vessel, equipped with warlike stores for the insurgents in Cuba, has been allowed to escape from New York. She sailed ostensibly for Jamaica, but had on board arms for 5000 men and 10 pieces of artillery. It is reported that a steamer with war material for the Cacos rebels of Hayti left New York on Wednesday night. Colonel Ryan and other Americans, and several Cubans connected with the Revolutionary Junta of Cuba, were arrested in New York on Wednesday, under the indictment of the United States Circuit Court, for organising expeditions against Cuba, in violation of the neutrality laws.

CANADA.—In the House of Assembly on Saturday a resolution proposing to grant an additional subsidy to Nova Scotia was defeated. In the sitting of Monday the House rescinded this resolution, and granted the subsidy in question.

NOVA SCOTIA.—The House of Assembly on Saturday passed a resolution authorising the Government to appeal to the British law courts, with a view to test the legality of the Confederation Act. The House, however, afterwards rescinded its resolution. On Tuesday Governor Doyle prorogued the Assembly, and delivered a speech, expressing his belief that the policy which had been adopted would perpetuate the feeling of loyalty to the Queen and of attachment to British

institutions, and would, moreover, remove the evils which had retarded the prosperity of the province. It is asserted that the Repeal League, established in Halifax, has resolved to make annexation to the United States the platform of their policy.

BRITISH COLUMBIA.—Mr. Frederick Seymour, the Governor of British Columbia, died on the 10th inst. whilst inspecting the coasts of the colony on board the gunboat Sparrowhawk. Mr. Hawken, the senior member of the Council, has assumed the government pending instructions from England.

CUBA.—According to advices from Havannah, cholera has assumed an epidemic character at Huevitas. The insurgents have burnt the towns of Niguas and Camerones. The agent of the Cuban insurgents at Washington has asked the Government to recognise the independence of Cuba, on the ground that, General Dulce having resigned, Spain now has no regular authority in Cuba. Secretary Fish has refused the request, on the ground that Spain controls Cuba until the latter actually achieves independence by driving out the Spanish troops, and that changing the Captain-General is not an abdication by Spain of the government of Cuba. The Spanish Minister has since notified to Secretary Fish that the Government of Peru had been guilty of a breach of faith towards the United States and Spain, by recognising the belligerency of the Cuban insurgents after accepting with Spain the mediation of the United States. Spain, therefore, now regards herself as released from the terms of her acceptance of the mediation.

BRAZILS.—The Brazilian Chambers were opened on the 11th May in a speech from the throne, in which electoral reforms and a better administration of justice were recommended. The Princess Augusta of Saxe-Coburg-Gotha gave birth to a Prince on the 21st inst. Advices from Paraguay to the 7th inst. state that the Brazilian iron-clads had proceeded up the river Manduvara, a distance of 60 leagues, and had reached Carignabatay, near the camp of Lopez, but, being short of coals and the water shallow, they had to suspend further operations. An attempt to obstruct the river and to board the ships had been made by the Paraguayans. The request of an English officer to carry despatches to Lopez through the lines of the allies has been granted, and he has returned with despatches from the American Minister, General M'Mahon.

MEXICO.—It is reported that extensive gold fields have been delivered near the city of Colima.

Parliament.

In the House of Lords on Friday the Parochial Schools (Scotland) Bill, and the Metropolitan Commons Supplemental Bill, were read a third time and passed. The New Parishes and Church Building Acts Amendment Bill, the Beerhouses Bill, the Customs and Inland Revenue Duties Bill, and the Election Commissioners' Expenses Bill, were read a second time. The Recorders' Deputies Bill, and the Oxford University Statutes Bill, passed through Committee. On Monday, on the order for the second reading of the Irish Church Bill, the House was crowded to excess in every part. The attendance of peers was unusually numerous, nearly all the members of the Episcopal bench, including the four archbishops, were present, the galleries were thronged with ladies; the diplomatic body mustered in great force, members of the Commons were literally packed in the space assigned to them, while the strangers' gallery was overflowing. The proceedings were commenced by the Earl of DERBY, who called attention to the 150 petitions presented against the Bill during the last few days, and said that those from Manchester and Liverpool represented more than a quarter of a million persons. Earl GRANVILLE then moved the second reading of the Bill, and described in detail the circumstances which had rendered it necessary. He admitted the value of the Act of Union, but submitted that it had already been impugned by the Church Temporalities Act, without any evil result; and that if the present measure were passed, Ireland would be placed in precisely the same position as Scotland. He emphatically denied that the Bill was an assault upon Protestantism, or that it was intended to lead to a similar measure against the Church of England. He fully acknowledged the power and independence of the House; but, powerful as it was, there was one thing than which it was less powerful, and that was a clear expression of the national will. The Government could not, it was true, surrender the principle of the Bill; but otherwise they were prepared not only to welcome any alterations in its details which might appear to be improvements, but would deem it their absolute duty carefully to consider any alterations their lordships might propose. The Earl of HARROWBY moved as an amendment that the Bill be read a second time that day three months. He objected to it on the ground that it was a revolutionary measure, in opposition to the coronation oath and the Act of Union, and that no circumstances existed to justify its introduction. The Earl of CLARENDON and Lord ROMILLY supported the Bill; the Duke of RUTLAND opposed it. The Archbishop of CANTERBURY said that upon the decision of the House depended issues which might affect not only the Church of Ireland and the Church of England, but even the destinies of the empire. The episcopal bench, though they did not approve of the Bill in its present shape, desired that it should be fairly considered, and, if possible, so altered and amended as to be converted into a good measure. He thought that the House, comprising as it did the heads of the law and the Church, the intelligence of the nation, and the great landed proprietors, was far more likely to come to a satisfactory conclusion on the Bill than any number of

tumultuous meetings in Manchester. Lord STRATFORD DE CECIL, Earl of CARNARVON, though objecting to the Bill, advised their lordships upon themselves the responsibility of the second reading, but to endeavor to get the Committee. The Bishop of DERRY, on the ground that it would reduce Ireland to a reliance upon the clergy and laity, violated the Royal supremacy in bringing Ireland under the dominion of the Pope. On Tuesday the debate was resumed, who said that while he hoped that the Bill a second time, he equally hoped to pass without undergoing substantial change. Regarding the verdict of the court in the general election as favourable to the Bill, he was prudent to set themselves in opposition, for if they rejected the Bill, it would be again presented to them in a more objectionable form. The Archbishop of DUBLIN, the Bishop of DERRY, and the Bishop of CANTERBURY had been treated, seeing what the Government's promises, as hard, ungenerous, and "robbery of God" were uttered in his opinion, as applied to the subject of the Church. He had long been of opinion that the Church, as an Establishment, had been a religion and political peace, and that, promoting brotherly love, it had engendered. He was, therefore, prepared to support the reading of the Bill, although it was a considerable improvement in Committee. Lord STRATFORD denounced the Bill as a violent and impolitic. Lord PENZANCE, on the other hand, contended that the Bill was constitutional in sense of the term, and that it was the duty of the House to defer to the judgment of the nation. The Earl of RICHMOND said that though he considered the Bill as violent, unjust, and spoliation, and the very reverse of Mr. Gladstone's amendment, he had nevertheless decided upon voting in favour of it, because he could not conceive that the country had pronounced its verdict upon the question of disestablishment, and that the House would be to endeavour to amend the Bill. The Bishop of PETERBOROUGH disapproved the Bill as necessarily a violation either of the coronation Oath or of the Treaty of Union, and himself an attack on the rights of private property. He warned the House against letting the property of the Irish Church be introduced as the very reason that it was corporate property that the attack on corporate property foreshadowed an attack on private property, and that the sacrifice of the Church naturally preceded the sacrifice of the justice and policy of the Bill, and that demanded by public opinion. The verdict of the general election, on the question of disestablishment, had been obtained by most unworthy means, and the most unfair and malignant representation. Lord GREY and RIBON spoke at some length in favour of the Bill, and the Earl of CANTERBURY. On Thursday, in a House which was again crowded to excess in every part, Lord CALVERT proposed a motion respecting the letter of the Board of Trade lately read at a public meeting in Birmingham. He said that it contained three propositions—that their lordships were in opposition to the will of the nation, that the Church Bill were rejected it might be a substitution, that the consequence of such a measure might be the overthrow of the Constitution, and that if by the rejection of the Bill these things should happen, it would be to the people. Such expressions as these could not have emanated from a Minister of the Crown, and he hoped that Ministers would not all participate in them. Earl GRANVILLE, no member of the Government, except the Earl of RICHMOND, had seen the letter before it appeared in the press, and the Government, therefore, could not be responsible for its views. Mr. Bright's discountenanced agitation on this Bill, and the outburst was the consequence of much previous agitation, and especially of a recent meeting in St. James's Square. Mr. Bright distinctly repudiated the expression of a threat against their lordships, and expressed his regret if he had wounded any of them. Earl GREY with some indignation said that the letter of Mr. Bright was the highest degree indecorous and improper any Minister of the Crown. The Earl of RICHMOND resumed the debate on the Irish Church Bill, and to the very principle of the measure, and that it despoiled the Church of its property, antagonistic to the Coronation Oath and the Act of Union, he attributed to the Liberal agitation which had been raised for the disestablishment of the Irish Church, with the view of destroying the union between Church and State in both countries. The Bill was an unconstitutional legislation, for its details were not contained in the preamble, and the application of a large part of the surplus to be obtained from the Church to the permanent endowment of the Poor Law, a flagrant breach of the engagement of the Government, and a part of these proceeds would be applied to religious uses. He distrusted the plea of expediency, and thought the Bill should be considered, and though he was no longer a member of the Conservative party, and expressed no convictions, he should, to his dying day,

that he had been enabled to lift up his... the adoption of a measure of which he... The Earl of KIMBERLEY, the Duke... the Duke of DEVONSHIRE, the... EARL STANHOPE and Mr... spoke in favour of the second reading... RYON, Lord BEDESDALE, Lord COLCHES... the Bishop of TUAM opposed the Bill... the debate was resumed by Earl RUSSELL... that he had always had in view the injustice... of the Irish Church, and rejoiced that the question had... been taken up in such a way as to awaken a feel-... ing of justice in the people of the United Kingdom... fact, which ought to settle the question, was... of the Established Church formed... of the population of Ireland. The... was sitting.

House of Commons on Friday the Bank-... Bill was again considered in Committee, and... made as far as clause 91, but no amendment... was made in any of the clauses. After... on a recent conviction of children by... magistrates, Captain GROSVENOR moved... declaring that certain third-class clerks in... were entitled to the scale of pay secured... generally by an Order in Council of 1855... Mr. CHAMBERS, the SOLICITOR-GENERAL and Mr... GLADSTONE opposed the motion, which was negatived... a division by 107 to 64. Mr. BRUCE, in answer to Mr... JOD, stated that the scope of the Judicature Com-... would be extended so as to embrace the County... Quarter Sessions, and other local tribunals... Hospital Bill was read a second time... the Oyster and... Fisheries Supplemental Bill were read a third... time and passed. On Monday the House went into... on the Endowed Schools Bill, when Mr... CHAMBERS moved an amendment on clause 9,

making it impossible for the Commissioners to alter... of any educational endowment without the... of the governing body. The amendment was... by Mr. FORSTER and others, and was ulti-... mately withdrawn. Mr. T. CHAMBERS next moved to... from clause 10, empowering the Commissioners... the constitution of governing bodies, all schools... connected with a city guild or corporation, unless the... Commissioners should report that they had been... managed. The motion was opposed by Government... and withdrawn. On clause 12 Mr. WINTERBOTHAM... amendment, empowering the Commissioners... to make provision for girls' education... equal to boys'. After some discussion the motion... was withdrawn. Clause 20, empowering the Commis-... sioners to apply to education charitable endowments... which have become obsolete or have outgrown their... objects, was agreed to, with the addition of... endowments for loans and apprenticeship fees to the... list of charities liable to be so dealt with. The remain-... ing clauses of the Bill were agreed to without any... material amendment. Mr. NOEL moved that a new... writ should issue for the city of Dublin in the room of... Sir A. Guinness, unseated on petition. Sir G. GREY... moved as an amendment, for leave to bring in a Bill... for enfranchising the freemen of the city of Dublin.

On a division the motion for the issue of the writ was... negatived by 215 to 169. A motion to adjourn the... House was then made and negatived by 178 to 76. Another motion for adjournment having been... made, the Government gave way, and the debate... on Sir G. Grey's motion was adjourned. On... Tuesday the House, at a morning sitting, resumed... the consideration of the Bankruptcy Bill in Committee, and... agreed to the remaining clauses, except the last, which... provided compensation for the holders of... offices. The discussion on this clause was... concluded when the Chairman reported progress. Mr. PRASER moved an address to the Crown, calling... attention to the expediency of obtaining an early report... from the Royal Commission, appointed in 1865, to in-... quire into the duration of our coalfields. Mr. H... BURNETT, as a member of the Commission, said that the... inquiry was nearly complete, and that in regard to the... question it had already proved that an ample... supply of good fuel would be forthcoming when our... present coalfields were exhausted, and that, practically, a... vast mineral wealth existed sufficient for count-... less generations. After some discussion the motion... was withdrawn. Sir W. GALLWEY then proceeded to... draw attention to the defective packet service between... Folkestone and Boulogne, when the House was counted... out. On Wednesday Mr. WELBY moved the second... reading of his Seeds Adulteration Bill, the object of... which was to make penal the manufacture of adul-... terated agricultural seeds, or the sale of them with... knowledge. Mr. BRIGHT admitted the reality of the... grievance, but urged that the Bill should be referred... to a Select Committee, as it would be difficult to... legislate without inquiry. After some discussion the... Bill was read a second time, and referred to a Select... Committee. Mr. BUXTON moved the second reading... of the Municipal Corporations (Metropolis) Bill, the... object of which was to carry out the idea of Mr... James Stuart Mill, by converting the 19 metropoli-... tan boroughs into a corporation for the whole... of London, with a representative council and an... executive administration chosen by the ratepayers.

Mr. C. BENTINCK moved that the Bill be read a... second time that day six months. After some dis-... cussion Mr. BRUCE said that the question could only... be satisfactorily dealt with on the responsibility of... Government, who were resolved to deal with it at the... earliest practicable moment. The Bill was then... withdrawn. Mr. C. REED moved the second reading... of the Sunday and Ragged Schools Bill, the object of... which was to exempt those places from local taxation... Mr. P. WINDHAM moved, as an amendment, that the... Bill be read a second time that day six months. Mr.

GLADSTONE opposed the Bill on behalf of Government... On a division the second reading was carried against... them by a majority of 157, the numbers being 223... to 71. On Thursday, in answer to Colonel NORTH, Mr. GLADSTONE said that Mr. Bright's Birmingham... letter had been written on his own responsibility, and... without communication with his colleagues, and... nothing could be farther from their intention to inter-... fere by threat, dictation, or otherwise, with the perfectly... free action of the House of Lords. The adjourned... debate on Sir G. GREY's motion for leave to bring in a... Bill for disfranchising the freemen of Dublin was... resumed by Mr. HENLEY, who objected to dis-... franchise a whole body for the offence of a few. The... Bill was supported by Sir G. GREY, Mr. HARCOURT, and Mr. WHITBREAD, and opposed by Mr. J. LEWIS and Colonel FRENCH. The motion was... then agreed to without a division, and the Bill was... read a first time. The House afterwards went into... Committee of Supply on the Army Estimates, and... agreed to several votes. The Endowed Schools Bill, as... amended, was considered and agreed to. The Salmon... Fisheries Bill was withdrawn. The Endowed Hospitals... (Scotland) Bill passed through Committee. Yester-... day the House went into Committee on the Bank-... ruptcy Bill, commencing with the clause provid-... ing for the payment of the Commissioners at a scale... equal to their full salaries. Mr. WEST moved... an amendment to strike out the words "during... good behaviour." Sir ROUNDELL PALMER op-... posed that the Commissioners had a freehold right in... their offices. Mr. GLADSTONE denied the existence... of a freehold, and expressed his hope that the close... of the discussion would witness the explosion of a great... superstition, which had been a burden to the public for... years past. That superstition was the supreme... independence of judges. He thought that the full... pension should be dependent on good tenure, length of... service, and the prospects of future re-employment. Mr. WARD HUNT concurred in this opinion. The... clause was then postponed, and the Chairman reported... progress. The House was left sitting.

consequences might result from going off the pave-... ment. He reminded the cabman who was brought... before him that the carriage-way was common prop-... erty, open alike to driver and pedestrian, and that... every man was bound to exercise his right with con-... sideration for the rights of others. EXPLOSION AT HOUNSLOW POWDER MILLS.—On... Thursday afternoon, shortly before 1 o'clock, an explo-... sion occurred at the powder mills of Messrs Curtis &... Harvey, at Hounslow near Hounslow. Three of the... workmen, a boy who was riding past, and the horse, were... killed, and upwards of 20 persons were wounded. Ten of the houses were destroyed, the trees were torn... from their roots, and the machinery was blown to... pieces. The concussion was felt 10 miles off, and in the... towns and villages adjacent to the mills considerable... damage was done to buildings. THE FATAL FIRE AT PENTONVILLE.—At the inquest... on Monday on the three persons who lost their life in... this fire, the jury returned a verdict that the deceased... were accidentally killed by the fumes of paraffin, and... appended the following note:— "And we are of opinion that part of the dangers to which... this old and densely populated neighbourhood is exposed to... from fire is mainly attributable to the fact that all the control... of fire-engines and escapes has been placed in the hands of the... Board of Works, and they have neglected for years past to... provide us with that protection from fire for which we pay, and... the necessity of the case demands at their hands—in... order to be properly prepared to stay the progress of these... lamentable disasters which have occurred so frequently during... the last three years, we respectfully suggest that the parish... authorities again memorialise the Metropolitan Board of Works... to forthwith take the proper steps to provide this parish with a... fire-engine and escape-station in an open, central, and elevated... spot, as near the vestry-hall as possible." THE HARROW MURDER.—On Monday Lewis Mid-... son, the landlord of the Chequers, at Alperton, near... Harrow, was brought before the Hammersmith police... magistrate, on the charge of murdering his wife. The... coroner's jury had returned a verdict of Manslaughter, chiefly, as it appeared, in consequence of the aggravat-... ing conduct of the deceased; but the magistrate... thought the circumstances so serious that he com-... mitted the prisoner for trial on the capital charge. MURDER IN THE BOROUGH.—An inquest was held... on Saturday on the body of Henry Johnson, who died... from injuries inflicted on him some days before by a... fellow labourer, called James Dalton, to whom, it was... said, he owed money. On Friday fortnight Dalton... called at the lodgings of deceased for some money, and... after remaining there for a short time the noise of a... struggle was heard, and on some neighbours going to... the room they found Dalton beating Johnson about... the head with a poker, and inflicting such serious... wounds that they have since proved fatal in the... hospital. A brother of deceased explained to the jury... that though it had been said that deceased owed... his assailant money it was not so in reality. The... deceased had merely promised to lend the other 18s., but had not kept his word. A verdict of Wilful... Murder was returned. THE PUBLIC HEALTH.—The Registrar-General's... Weekly Report states that in the week that ended... on Saturday, June 12, 4262 births and 2927 deaths were... registered in London and in 13 other large towns of... the United Kingdom. The annual rate of mortality... was 23 per 1000 persons living, being 21 per 1000 in... London, 35 in Edinburgh, 22 in Dublin, 21 in Bristol, 16 in Birmingham, 20 in Liverpool, 27 in Manchester, 21 in Saltley, 20 in Sheffield, 24 in Bradford, 20 in Leeds, 19 in Hull, 25 in Newcastle-upon-Tyne, and 37 in Glasgow. The rate in Vienna was 31 per 1000 during... the week ending the 5th inst., and in Berlin 35 per... 1000 during the seven days ending the 10th inst. In... London the births of 1002 boys and 928 girls, in all... 1930 children, were registered in the week. In the... corresponding weeks of 10 years, 1859-68, the average... number, corrected for increase of population, was... 2048. The deaths registered in London during the... week were 1305. It was the 23d week of the year, and... the average number for that week, corrected for... increase of population, was 1271. The present return, is... therefore 34 above the estimated amount.

Provincial. BIRMINGHAM.—A crowded meeting was held in the... Town Hall on Monday, to consider the present pros-... pects of the Irish Church Bill. The Mayor presided. The... Town Clerk read letters of apology from the borough... members. The letter of the Right Hon. John Bright was as follows:— "London, June 9. "Dear Sir,—I must ask my friends to excuse me if I am... unable to accept their invitation for the meeting on Monday... next. The Lords are not very wise, but there is sometimes... delay to the people even in their innovations. If they should... delay the passing of the Irish Church Bill for three months... they will stimulate discussion on important questions, which, but for their infatuation, might have slumbered for many... years. It is possible that a good many people may ask what... is the special value of a Constitution which gives a majority of... 100 in one House for a given policy, and a majority of 100 in... another House against it. It may be asked also why the... Crown, through its Ministers in the House of Commons, should be found in harmony with the nation, while the Lords... are generally in direct opposition to it. Instead of doing a... little childish tinkering about life passages it would be well if... the Peers could bring themselves—the one with the opinions... and necessities of our day, in harmony with the nation, they... may go on for a long time, but throwing themselves athwart... its course, they may meet with accidents not pleasant for them... to think of. But there are not a few good and wise men... among the Peers, and we will hope their counsels may prevail. I am sure you will forgive me if I cannot come to your meet-... ing.—Believe me, Sir, John Bright."

Mr. Thomas Lloyd then moved the following reso-... lution:— "That this meeting is of opinion that the Irish Church Bill... introduced by her Majesty's Ministers, being in policy... and just in principle, and having passed the House of Com-... mons by large majorities in accordance with the national will

CITY INTELLIGENCE. MONEY MARKET, FRIDAY.—BRITISH FUNDS... Consols closed at 92½ to 92½ for Money, and 92½ to 92½ for Account; New and Reduced Three per Cents, 92½ to 92½; Bank Stock, 242 to 244; Exchange Bills (March), 3s. dis. to par, and 3s. dis. to 2s. pm. for June. India Five per Cents, 111½ to 111½.—FOREIGN: Argentine, 81 to 81½; Egyptian (1864), 89 to 89; Ditto (1868), 78 to 78½; Italian, 55½ to 56; Mexican, 12½ to 13; Peruvian, 80½ to 81; Orel-Vitebak, 80 to 80½; Charkof, 78½ to 78½; Spanish, 29½ to 29½; Turkish Five per Cents, 44½ to 44½; Ditto, 67 to 67½; United States 5-20 Bonds, 80½ to 80½; Erie, 20½ to 20½; Illinois, 95 to 96. METROPOLIS AND ITS VICINITY. THE SHRIEVALTY OF LONDON.—On Tuesday, at a... Court of Aldermen at Guildhall, the Lord Mayor, pur-... suant to an ancient custom, nominated, as one of the... sheriffs for the ensuing year, Mr. James Vallentin, citizen and distiller, subject to the choice of the Livery... at the forthcoming election on Midsummer Day. SCIENTIFIC EXPEDITION.—Her Majesty's ship Per-... cupine has left Woolwich for the west coast of Ireland, on a dredging and scientific expedition, under the... charge of Mr. Gwyn Jeffreys, having been placed by the... Admiralty at the disposal of the Royal Society for this... expedition. Mr. Jeffreys will be succeeded by Pro-... fessor Wyville Thompson, and the latter by Dr... Carpenter. The investigation will comprise the North... Atlantic sea-bed lying between Cape Clear and the... Faroe Isles. THE FRENCH ATLANTIC CABLE.—The Great Eastern... steamship left the Nore on Sunday for Brest, for the... purpose of laying a telegraphic cable between France... and the United States. The great ship is com-... manded on this occasion by Captain Halpin, who was... her first officer on her last voyage under Sir James... Anderson. With the French flag at her fore and the... American at her main she threaded the intricate chan-... nels at the mouth of the Thames, and passing outside... the Goodwin Sands, arrived in Portland Roads at 6... o'clock on Monday evening, after a splendid run, during... which there was no incident worthy of mention. She... immediately began to take in her coal, and will... start to-morrow for Brest, where great fêtes are to... take place in honour of the event. The shore end of... the cable was successfully laid on Thursday, and is... now ready to be spliced to the main cable on her... arrival. THE WOOLWICH DOCKYARD EMIGRANTS.—A... special meeting of the Woolwich Relief Committee was... held on Friday, to consider a letter from the Lords of... the Admiralty, revoking their previous intention of... not sending out more emigrants in Government vessels. The... Relief Committee have hundreds of applications, but are much perplexed for want of funds. They have... resolved to take down the names of all applicants, and... weed them down afterwards, according to the amount... of funds that may come in from the public. THE PERILS OF THE STREETS.—Mr Justice... Mellor, in dealing with a case of furious driving at the... Central Criminal Court last week, said that it was a... common delusion among the drivers that the roadway... was meant for their own use alone, and that pedes-... trians who ventured upon it were little better than... trespassers, entitled to no consideration whatever. If... foot passengers chose to bolt across when the road is... free, good and well; but they must not expect any... vehicle to slacken or disorder its pace on their account. At their own peril they crossed from one side of the... street to the other; and they must accept whatever

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Provincial.

BIRMINGHAM.—A crowded meeting was held in the... Town Hall on Monday, to consider the present pros-... pects of the Irish Church Bill. The Mayor presided. The... Town Clerk read letters of apology from the borough... members. The letter of the Right Hon. John Bright was as follows:—

"London, June 9. "Dear Sir,—I must ask my friends to excuse me if I am... unable to accept their invitation for the meeting on Monday... next. The Lords are not very wise, but there is sometimes... delay to the people even in their innovations. If they should... delay the passing of the Irish Church Bill for three months... they will stimulate discussion on important questions, which, but for their infatuation, might have slumbered for many... years. It is possible that a good many people may ask what... is the special value of a Constitution which gives a majority of... 100 in one House for a given policy, and a majority of 100 in... another House against it. It may be asked also why the... Crown, through its Ministers in the House of Commons, should be found in harmony with the nation, while the Lords... are generally in direct opposition to it. Instead of doing a... little childish tinkering about life passages it would be well if... the Peers could bring themselves—the one with the opinions... and necessities of our day, in harmony with the nation, they... may go on for a long time, but throwing themselves athwart... its course, they may meet with accidents not pleasant for them... to think of. But there are not a few good and wise men... among the Peers, and we will hope their counsels may prevail. I am sure you will forgive me if I cannot come to your meet-... ing.—Believe me, Sir, John Bright."

Mr. Thomas Lloyd then moved the following reso-... lution:—

"That this meeting is of opinion that the Irish Church Bill... introduced by her Majesty's Ministers, being in policy... and just in principle, and having passed the House of Com-... mons by large majorities in accordance with the national will

as declared at the late general election, ought speedily to become law."

He urged strongly that respect for the national will demanded that no obstruction should be placed in the way of the Bill being passed into law. Mr. Joseph Chamberlain seconded the resolution, and denied the assertion made as to the alleged Conservative reaction. Mr. S. S. Lloyd rose to propose an amendment, and for more than an hour stood in front of the platform without being able to obtain a hearing. The Mayor made repeated appeals in his favour without effect, and Dr. Evans, who was to have seconded the amendment, was ordered into custody for entering a protest against the order of proceeding. Ultimately the resolution was adopted by a large majority, as well as a petition to the House of Lords in favour of the second reading of the Bill. Mr. Murphy, the Protestant lecturer, had intimated his intention of being present, but he was arrested on a sworn information previous to the commencement of the meeting. Another large meeting was held at the same time outside the Town Hall, at which resolutions were carried in favour of the Bill. On Wednesday Mr. Murphy was brought before the magistrates, on a charge of attending the meeting with intent to create a disturbance. Mr. Kynnersley, the presiding magistrate, decided that the arrest had been improperly made, and dismissed Mr. Murphy, who intimated that he should take proceedings against the mayor, by whose order he was arrested.

BOLTON.—A great demonstration against the Irish Church Bill took place in this town on Saturday, and was attended by about 6000 persons connected with the various Orange Lodges and Constitutional Associations in the neighbourhood. The Rev. Canon Powell, vicar of Bolton, addressed the meeting, and said that the Bill was one of spoliation, confiscation, and robbery, and struck at the very root of the principles of the British Constitution. Mr. Gladstone never said a word about the disendowment clauses until after the election, and if the Bill passed it would strike a blow at the security of all property. Mr. Councillor Richardson moved the adoption of a petition urging the House of Lords to reject the Bill on the second reading. The Rev. T. T. Berger seconded the resolution, which was carried. Three cheers were given for the Earl of Derby.

CHEPSTOW.—On Saturday week a man named John Lane, the son of a farmer of the parish of Llanvibangel, who appears to have cherished a spirit of hatred against his brother-in-law, a small farmer residing at Kilgwrey, proceeded to the farm with a loaded gun, intent upon doing him some bodily injury. On arriving at the house he was disappointed to find that both his brother-in-law and sister had left for Chepstow market, and, to gratify his revenge, he turned out a servant girl who was in charge of the house, locked the door, and put the key in his pocket. He then drove his brother-in-law's cattle from field to field, and on meeting a labouring man named William Nicholls, who was going to work for his brother-in-law, he shot him dead on the spot. He then reloaded the gun, and fired at a butcher and dealer, named James Davis, a resident in the same locality, who came up at the moment, and so shattered his arm that it was necessary to amputate it. The gun was found in a hedge, re-loaded and capped, about five miles from the spot. The man was taken into custody, and the jury at the inquest returned a verdict of Wilful Murder against him.

DUDLEY.—On Tuesday, Fanny Frances Maria Oliver, widow of Joseph Oliver, boiler-maker, of Herts Hill, was charged before the magistrates in this town with the wilful murder of her husband by administering poison. The husband died on Whit Sunday, and was buried on the following Wednesday. After a certificate had been given by the surgeon who had attended him, that the cause of death was congestion of the liver, suspicions were aroused in the minds of neighbours that he had been poisoned, and the inquiries made by the police resulted in the arrest of the wife on the charge of wilful murder. The evidence showed that the parties were in a comfortable position of life, and that the accused was the daughter of a respectable artisan, living at Handsworth, Birmingham. The deceased was a shareholder in a building and investment society in Wolverhampton, and his wife had drawn out, in the past year, about 1000*l.*, in eight different sums, after having had letters, giving notice for the withdrawal of the money, written in her husband's name, but by a youth, whom she strictly charged never to tell her husband. Deceased became ill, and the prisoner nursed him, always preparing his food. About the time of his illness, she obtained arsenic from a druggist's, professedly for bonnet cleaning. Deceased was often very sick, and vomited greatly. Once when he was taking milk he complained that it was hot with pepper, and vomited very much, and so, too, did his mother and another person who tasted it. The body, on an order from the Home Secretary, was exhumed the second time, when the contents of the stomach, the intestines, the kidneys, and the liver were sent to Dr. Hill, of Birmingham, who found, on analysis, that deceased had died from arsenical poisoning. The prisoner, who is apparently only a little over 20 years of age, and who seemed to take the least interest in the proceedings of any one in the court, was committed for trial.

KENDAL.—On Wednesday morning the Westmoreland hills were covered with snow, and the drifts were three or four feet in depth. The snow fell as far down the valley as Stavely, a village occupying a most sheltered position between Kendal and Windermere.

LIVERPOOL.—A meeting in opposition to the Irish Church Bill was held on Saturday, in a field near Hail Lane, on the eastern outskirts of this town. Taking the different accounts, from 10,000 to 30,000 persons were present. Mr. Edward Whitley, an ex-Mayor, took the chair on the principal platform, and the speakers included Mr. Burland, the chairman of the

Liverpool Working Men's Conservative Association, Mr. Charles Groves, and several working men, all of whom denounced the Bill, its authors, and adherents in the most unmeasured terms. Three resolutions were passed, one declaring that the meeting regarded the Bill with indignation and alarm, as subversive of the Constitution in Church and State, as injurious to the cause of Protestant truth and destructive to the security of the rights of property; the second calling upon the House of Lords to reject the Bill, and the third moving the adoption of a petition to the Upper House. Each resolution was carried, and the form of petition was agreed upon.

MANCHESTER.—A monster demonstration was held in the Pomona Gardens, in this city, on Saturday, to petition the House of Lords against the Irish Church Bill. The number of persons present is stated at 250,000. The proceedings were of a very enthusiastic character. Eight platforms were erected, and from each of these a series of speakers addressed the assembly. Among the speakers were Mr. Sowler, Q.C., Mr. W. O. Mitchell, the Rev. Dr. Foley, Lord C. J. Hamilton, the Earl of Carrick, Sir Eardley Wilmot, the Rev. Dr. Massingham, Mr. E. Harper, Mr. Booth Mason, Lord J. W. Butler, Mr. A. Egerton, M.P., Mr. Birley, M.P., General Beattie, and Mr. A. Goldschmid. The following resolutions were passed as proposed from each of the eight platforms, and in almost every instance with scarcely a hand held up in opposition:—

"1. That we view the obligation imposed by the Coronation Oath upon every Sovereign of these realms since 1688 not as a mere compact between the Sovereign and people, revocable at pleasure, but as a most solemn pledge to the Almighty, from which the Legislature has no power to release; and any attempt to force on the Sovereign an act inconsistent with such pledge, on the plea that the nation is willing to forego the obligation, we deem to be an insult to the Sovereign, and an assumption of the power of dispensation which, as Protestants, we must ever repudiate. That the Bill for the Disestablishment and Disendowment of the Irish branch of the United Church of England and Ireland will if it become law, destroy the Protestant constitution of this Protestant kingdom, lead to Papal supremacy in Ireland, and shake the rights of property. And that we therefore call upon the House of Lords to reject the Bill. 2. That we protest against the confiscation of the property of the Church in Ireland, and against the proposal to hand over a large portion of such property to the Roman Catholics. That we feel grateful to our brother Protestants in Ireland for their firm and temperate stand against the combined forces of Popery, infidelity, radicalism, and revolution. That we heartily join with them in declaring our determination to uphold the Legislative Union between Great Britain and Ireland as long as the spirit of the international compact is respected and held inviolate by the British Parliament; but that should the 5th Article of the Treaty of Union, which is expressed to be essential, fundamental, and perpetual, be repealed, we shall be forced to regard the Union as virtually dissolved. And that we strongly condemn the conduct of the Government in releasing the Fenian prisoners, and thereby giving encouragement to Fenianism, the existence of which is made the pretext for despoiling the Church in Ireland. 3. That a petition embodying the above resolutions be signed by the chairman on behalf of this meeting, and forwarded to the Earl of Derby for presentation to the House of Lords on Monday next."

The following "rider" to the second resolution was also adopted, on the motion of Sir Eardley Wilmot, who said he had been asked to propose it—

"That we particularly request the Lords Spiritual of the Kingdom, and especially the Archbishop of York and the Bishops of the United Kingdom, to take part with the House of Lords in rejecting the Bill."

It is impossible in our space to give a summary of the 20 columns of speeches delivered by the hundred speakers during three hours, but the following outline of the proceedings at the principal platform, where Mr. R. H. Hutchinson, of Blackburn, took the chair, will give a fair idea of the others. Mr. W. O. Mitchell, of Newchurch, the mover of the first resolution, charged Mr. Gladstone with giving 380,000*l.* as a permanent endowment to the Roman Catholics, after having said in Lancashire that he would never appropriate the funds of the Irish Church to any religious body. At the same time he likened the House of Commons to a well-trained flock of sheep following the recreant steps of a great sacrilegious bell-wether.—The Rev. Dr. Foley, Prebendary of Cashel, described the policy and conduct of the Government as a combination of cursed Quakerism and concealed Romanism against the property and the religion of the nation.—Lord C. J. Hamilton said that Mr. Gladstone's avowed reason for endowing Maynooth was the rich endowment of Trinity College. But within a week after Mr. Gladstone gave that excuse, with that grim, horrible countenance of his—that sinister expression which overshadows his countenance whenever he alludes to any of the Protestant institutions of this country—he stated that when once the question of the Established Church of Ireland was settled it would be his turn to deal with the endowments of Trinity College.—The Rev. C. H. Wainwright, of Blackpool, asked why, if the Protestants were to be disendowed in Ireland because they were a minority, the Catholics in England should not be disendowed also as a minority here, if all were to be treated with "equality?"—The Earl of Carrick characterised the measure as a great national sin, the separation of the State from religion, the alienation of property which has been devoted to the service of God, and the giving over Ireland to the Catholic hierarchy and the political and religious supremacy of Rome, culminating in the accession of a Roman Catholic sovereign of that country.—The Rev. Dr. Massingham said that if they looked at Mr. Gladstone's face they could not wonder at the description given of him. If they could only clothe him in a Roman Catholic garb, he would make a very good Papist, and then he would appear before them in his true colours. He was doing the work of a Jesuit, why did he not avow it? As to the appropriation of the surplus "for the benefit of criminals, idiots, and lunatics," it had been prophesied that Mr. Gladstone would end his days in a lunatic asylum, and he wanted to

make a very handsome provision for the education of Edward Harper, Grand Master of the Orange Institution, Mr. Booth Mason, and other Orangemen with their full paraphernalia, how much more justice in front of the platform than in the House of Commons. Mason was called upon to second the resolution, and in doing so he made a conspiracy was concocted against the people. Gladstone was turning Papist, and no better; and, more than that, the people were to fight for their civil and religious liberties. In the House of Commons the opinions of the people were swamped by the representatives of Scotch—Sir Pertinax Macscoy, and of the Irish, who had not more of the man who gave his soul to the priest than a brute beast. Mr. W. H. Wood, of Manchester and Salford Trades' Committee, said Gladstone had been likened to all the loathsome in history. (Cries of "Isaac," "Isaac," "Isaac.") "Isaac was a good man to him; he repented the sin he committed, but this man has no repentance in him, he gloried in his proceedings at the platform, concluded thanks to the chairman, "God Save the King," and cheers for local favourites, Mr. Charles the greatest share.

MERTHYR.—One more body was recovered, making 54. Part of the workings are now making great exertions are making to wall it in, to get access of air. An open safety lamp has been used in heading where the gas exploded, and a man had opened the lamp to light his pipe, and exploded the fire-damp. A jury was sworn on Friday at Pontypridd, and the bodies were taken that certificates of burial could be given.

PLYMOUTH.—A court-martial was held in Hamoaze on Captain Gibson and Sergeant-tenant Phillips, of the Cadmus, for firing a vessel on shore near the Bolt. After the prisoners' defence, the court found that the charges had been partially proved, in that the prisoners were a grave error of judgment in standing in a thick fog at a considerable speed, without the ordinary precautions for the safety of the court in consequence adjudged Captain Gibson and Lieut. Phillips to be admonished to be more careful for the future.

SUNDERLAND.—The subscriptions in the neighbourhood on behalf of Mr. George H. amount to upwards of 1500*l.* A subscription commenced in York.

SWAFFHAM.—William George Davey, and Susannah, his wife, were apprehended recently on charge of feloniously administering to John Davey, of Swaffham, a large quantity of arsenic, with intent to kill him. The prisoner is brother-in-law of the prosecutor, who, it appears, is the heir to his mother's property. On the 5th ult. John Davey visited his brother at Pakefield, Lowestoft, and stayed two or three days, and made him a small currant cake. He had eaten three of these cakes, but felt no ill effects, but a few days afterwards, after partaking of part of another cake, he was vomiting and purging, and became dreadfully ill. Next morning a surgeon was sent for who analysed a portion of the cake, and found contained so large a quantity of arsenic that it was seen with the naked eye. The prosecutor, who yet recovered from the poison, is a single man, and possessed of other property, and has no other children. The prisoners, who are both young people, were only married at Christmas last, were brought before the magistrates on the 10th inst., and committed to trial at the assizes.

Ireland.

RUMOURED PERVERSION OF THE LORD-LIEUTENANT.—It was reported on Saturday that Lord-Lieutenant and Countess Spencer had received into the Church of Rome; but that a case of the Marquis of Bute, a dispensation was granted to prevent its premature announcement, and public generally discredited the report, and so it to the visits lately paid to the local convents.

MR. BRIGHT'S LETTER ON THE PEERS.—A meeting of the National Association in Dublin on Monday, Mr. Bright's Birmingham letter was read with marked satisfaction. Alderman M. Swiner remarked when he spoke of the "infatuation" of the House, also when he said "Reform the Upper House, it away altogether; they had implicit confidence in the genius of Gladstone and Bright."

THE IRISH CHURCH.—On Monday evening in opposition to this Bill he held a meeting at the Exhibition Palace, and is said to have had a gathering of Protestants of all denominations in the city. Though the idea of holding a meeting was entertained two days before, more than 3000 resolutions were issued. The building was fitted for every part, and there were three platforms, every part, and there were three platforms, Concert Hall, in the Great Transept, and the Hall. Sir Edward Grogan presided at the platform, and the principal speakers were David Plunket, Mr. Falkiner, Q.C., Dr. Foley, the Rev. Dr. Griffin, and Mr. Massingham. Resolutions earnestly calling upon the Government to out the Bill were passed amid repeated "No compromise," "No surrender," "No increase," but all passed off quietly.

THE ORANGE ANNIVERSARIES.—The

pressed a letter to a Northern Orangeman... demonstrating on July 12...

TO RESCUE A PRISONER—A mob, in... to rescue a prisoner at Cork on Sunday...

ANARY OUTRAGE AT CORK.—On Tuesday... at Blackrock, four men entered the residence...

LEITHAM.—A small farmer, named... residing at Drumcollop, County Leitrim...

Scotland.

QUEEN'S VIEWS AS TO DAMAGES BY GAME... having recently learned that one of the...

Obituary.

Countess Isabella of Stair, widow of the ninth... died at her residence in Roxburghshire...

General Sir Robert Garrett, K.C.B., K.H.,... Colonel of the 43d Foot, died on Sunday morning...

Mr. Drinkwater Meadows, the comedian... died at Barnes, Surrey, on the 11th inst.

Markets.

COVENT GARDEN.—June 10. There is a steady demand, and last week's prices have been maintained...

Table with columns for Apples, Apricots, Cherries, Eggs, Grapes, Kent Cobs, Lemons, Melons, Nectarines, Oranges, Peaches, Pine apples, Strawberries.

Table with columns for Artichokes, Beans, Beet, Cabbages, Carrots, Cauliflowers, Celery, Cucumbers, Endive, Garlic and Shallots, Herbs, Horse Radish, Leeks, Lettuces, Mint, Mushrooms, Onions, Parsley, Peas, Potatoes, Turnips.

Table with columns for HAY—Per Load of 36 Tons, SMITHFIELD, Thursday, June 17.

Table with columns for CUMBERLAND MARKET, Thursday, June 17.

Table with columns for LEADENHALL POULTRY, &c. THURSDAY, May 17. A fair supply, and rather better trade.

IN-TAT IN... The arrivals last week... have been moderate...

Table with columns for CLOTHING, METROPOLITAN MEAT MARKET, METROPOLITAN CATTLE MARKET.

MARK LANE.—MONDAY, June 14. There was a small supply of Wheat from Essex and Kent to this morning's market...

Table with columns for PRICE PER IMPERIAL QUARTER, WHEAT, BARLEY, OATS, RYE, BEANS, PEAS, MAIZE.

FRIDAY, June 18. The weather continued fine from the 11th to the morning of the 14th inst., when it changed to rain...

The weather continued fine from the 11th to the morning of the 14th inst., when it changed to rain, and has since then been unsettled and cold for the time of year...

but the sales made were at a similar improvement. Barley, Beans, and Peas were firm, and Oats in some instances realised a trifle more money. Country Flour was 1s. per sack dearer.

ARRIVALS.			
	Wheat.	Barley.	Oats.
English	260 qrs.	— qrs.	170 qrs.
Irish	—	—	—
Foreign	19,350 „	— „	19,800 „
	19,610	—	19,070

AVERAGES.			
	Wheat.	Barley.	Oats.
May 8 ..	44s 4d	40s 2d	26s 9d
— 15 ..	44 6	40 1	26 11
— 22 ..	45 2	37 7	27 1
— 29 ..	45 2	37 3	27 0
June 5 ..	45 5	37 5	26 2
— 12 ..	46 0	37 1	26 6
Average ..	45 1	38 3	26 9

LIVERPOOL, June 15.—We had a fair attendance at our market to-day, and Wheat met with an active consumptive demand, at an advance of 2d per cental. In Flour the transactions reported were not either numerous or important, but previous quotations were generally fully obtained. Indian Corn was in moderate request, at an advance of 3d. per qr. Oats dull. Oatmeal prices unchanged. Beans easier. Peas in fair request, at 6d. advance.

SEED MARKET.

The agricultural seed trade remains in a very quiet state, no disposition to operate being at present manifested by speculators. The unfavourable reports which come to hand, both of the English and foreign growing crops, give confidence to holders, all descriptions of Red Clover and Trefoil seed are consequently held with great firmness. We have a fair inquiry for sowing Mustard and Rape seed. These seeds are in very short supply, and continue to command advancing rates. Canary seed is in good request at recent currencies. Of Hemp seed there is but little on offer, and the late advance is well supported. Feeding linseed is firm both in tone and demand. For other kinds of seeds, values, in the absence of business, are nominal.

JOHN SHAW & SONS, 16, Water Lane.

WANTED, a HEAD GARDENER, where an Under Gardener is kept. He must be able and willing to work in the Garden as well as in the Houses. A married Man, without children, honest, sober, civil, industrious, and thoroughly acquainted with his profession. Wages 22s per week, and the lodge to live in. His Wife must attend to the entrance gate. No perquisites. Locality 20 miles from London.—Address, by letter only. A. B., Mr Bain, Bookseller, 1, Haymarket, London, W.

WANTED, THREE or FOUR expert and practised ROSE BUDDERS—None but competent hands are requested to apply to Mr. L. WOODHORPE, Munro Nursery, Sibbaldingham, Essex.

WANTED, an expert and successful BUDDER and GRAFTER.—An active Man, who has been used to Packing, and has had experience in a large Provincial Nursery preferred.—Apply, stating terms, reference, &c., to Messrs. EWING and CHILD, 9, Exchange Street, Norwich.

A TRAVELLER, calling on first-class Nurserymen and Gentlemen's Gardeners, may hear of a good Commission.—Address E. M., care of Mr G Street, 30, Cornhill, E.C.

MR. JOSEPH NEWTON, LANDSCAPE ARCHITECT and Estate Improver, 74, Oxford Terrace, Hyde Park, is in WANT of a Young Man as an ASSISTANT, to go to New York. (The capable of making Working Plans from rough sketches and Contour Plans to Working Scale, and to fill in the Planting of Trees and Shrubs in a way that the same can be carried out by a Gardener used to ground work either in Europe or America; he must also understand Horticulture. Wages to begin with, 1000 dollars per annum. Those desiring such a situation are invited to send Specimen Plans, with reference, to Mr. NEWTON, which will have his earliest attention as soon as he returns to London.

WANTED, at Broom House, Fulham, a steady, respectable MAN and his WIFE, to live at the Lodge, under the Man to take charge of the Flower Garden, under the Head Gardener, the Wife to open the Gates. Wages, 16s. 6d. a week.—Mr. SMITH, Broom House Gardens, Fulham, S.W.

WANTED, a MARRIED COUPLE, without family.—The Man to act as Gardener, must thoroughly understand Kitchen and Flower Gardening, the Growth of Melons, Grapes, Greenhouse Plants, &c. he will have a Lad to assist him. The Wife must be competent to undertake a small Laundry, for which she will be paid extra. Wages, 21s per week, and cottage.—R. R., care of Messrs. Veitch & Sons, Royal Exotic Nurseries, Chelsea.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. E. G. HENDERSON and SON, Wellington Nursery, St. John's Wood, London, N.W.

MR. W.M. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS, and GARDENERS' and BAILIFFS, of various qualifications, who are open to Engagements. The fullest particulars to services required and wages given should be forwarded with application.—PAUL'S Nurseries, Waltham Cross, London, N.

To Gardeners and Bailiffs (Head, Foremen, or Under). JAMES CARTER and CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those who can send unquested, capable references need apply. Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & CO. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c. JAMES CARTER and CO., 237 & 238, High Holborn, London, W.C.

Gardeners and Under Gardeners. W.M. CUTBUSH and SON beg to state that they have at all times on their books MEN of various qualifications, whose characters will bear the strictest inquiry. Any Gentleman making application would save time by clearly stating the duties to be undertaken, wages offered, &c., so that suitable Men may be selected.—Highgate Nurseries, London, N.

Midsummer Engagements. MR. T. BOWICK has the pleasure of RECOMMENDING several, tried and excellent Men as FARM BAILIFFS, WORKING FOREMEN, &c. Mr. Bowick has introduced Engagements in most of the Counties of England and Wales, also in Ireland and Canada. Bedford, May, 1899.

GARDENER (HEAD).—Age 36, married; has a thorough practical knowledge of Gardening in all its branches. Early and Late Forcing of Vines, Peaches, Figs, Melons, &c., Ferns, Stove and Greenhouse Plants, Flower and Kitchen Gardening, also the Management of Land and Stock. Good references.—W. D., Mr. W. Taylor, Twickenham Road, Isleworth, W.

GARDENER (HEAD).—Married, no incumbrance; has a practical knowledge of the profession in all its branches.—R. L., Mr. Danco's, Nurseryman and Seedsman, Fulham, Middlesex.

GARDENER (HEAD).—Married, no incumbrance, an experienced, sober, steady Man. Wife domesticated. Well recommended.—S. B., 19, Union Street, Grosvenor Row, Piccadilly, S.W.

GARDENER (HEAD).—Age 31, married, no incumbrance; understands Forcing, and Flower and Kitchen Gardening. Six and a-half years' character.—Mrs. HOLLAND, Auckland Court, Regate.

GARDENER (HEAD).—Age 35, no incumbrance; has a thorough practical knowledge of Vines, Peaches, Pines, Stove and Greenhouse Plants, and the general routine of Flower and Kitchen Gardening. Six years' good character.—T. A., Rees Heath, Nantwich, Cheshire.

GARDENER (HEAD), age 25.—THOMAS HARWOOD, Gardener to E. Greaves, Esq., M.P., can with confidence and pleasure recommend his Young Man to any Lady or Gentleman requiring the services of a good Gardener.—R. K., The Gardens, Avonside, near Warwick.

GARDENER (HEAD).—Age 28; thoroughly understands the Management of Pines, Vines, Early and Late Forcing, Stove and Greenhouse Plants, Flower and Kitchen Gardening &c. Eight years' good character from late employer.—J. P., 9, Vorley Road, Upper Holloway, London, N.

GARDENER (HEAD).—Age 36, married; has a thorough practical knowledge of Gardening in all its branches; Early and Late Forcing of Vines, Peaches, Figs, Melons, &c., Ferns, Stove and Greenhouse Plants, Flower and Kitchen Gardening, also the Management of Land and Stock. Wife a good Dairywoman. Six years' good character.—A. B., Mr. Cooper, Stationer, High Street, Hounslow.

To Noblemen and Gentlemen.

GARDENER (HEAD), age 35, married.—HENRY GILBERT, Head Gardener during the last three years to the Marquis of Downshire, is at liberty to engage with any one requiring the services of a practical Working Man. Understands well the Management of Men, also the Growth of all kinds of Fruits, Flowers, and Vegetables at all seasons.—18, Canterbury Terrace, Maida Vale, Paddington, W.

GARDENER (HEAD, WORKING).—Age 34, married, one child, well up in the cultivation of Pines, Vines, Peaches, Melons, Cucumbers, Stove and Greenhouse Plants, also a first-class Flower and Kitchen Gardener. Good character and testimonials.—The GARDENER, The Thrupp, Stroud, Gloucestershire.

GARDENER (HEAD, or good SINGLE-HANDED).—Age 25, single, well experienced in all branches. Excellent character.—F. B., Monson Nursery, Red Hill, Surrey.

GARDENER (HEAD, or SINGLE-HANDED).—Age 30, married, one child, understands Early Forcing of Fruits, &c., and Flower and Kitchen Gardening. Good character from present employer.—R. H., O.d Road, near Hastings, Sussex.

GARDENER (HEAD, or SINGLE-HANDED).—Age 24, single; understands Greenhouse, Flower and Kitchen Gardening, and Forcing. Can be well recommended.—A. B., Post Office, St. Neots.

GARDENER (HEAD), where three or more are kept.—Age 36, married, no incumbrance; a successful Cultivator of Stove and Greenhouse Plants, Early and Late Forcing, Fruits, Vegetables; also a good Flower and Kitchen Gardener. Three years' good character from last place.—W. COLE, The Ferns, Weybridge, Surrey.

GARDENER, in a Gentleman's Garden where Gardening is carried on in all its branches.—Age 19; five years' character.—G. G., 4, Stamford Road, Tottenham, N.

GARDENER, age 33.—A constant situation wanted in a Market Garden or Nursery. Has worked in Gentlemen's Gardens. Good character.—VINCENT, Brown St., Salisbury, Wilts.

GARDENER.—Age 40, married, no incumbrance; thoroughly understands Forcing, and Flower and Kitchen Gardening. Five years' good character.—C. W., Coedles, Newsagent, Brillon Road, Surbiton, Surrey.

GARDENER.—Married, understands the Growing of Clematis, Pines, Vines, Flowers and Fruit, and the Management of the Kitchen Garden in all its branches.—S. M., Post Office, Park Street, London.

GARDENER.—Age 35, no incumbrance, a practical working Man, who has had experience both in England and abroad. Can be highly recommended. Leaving present situation in consequence of a change of ownership.—P. G., J. Howard, Esq., M.P., The Hoe, Sydenham Hill, S.E.

GARDENER (SINGLE-HANDED, or where assistance is given).—Age 23; eight years' practical experience in Grapes, Melons, and Cucumbers, Stove and Greenhouse Plants, and Flower and Kitchen Gardening.—H. JAMES, Houghton, Huntingdon.

GARDENER (UNDER, or SINGLE-HANDED), in a Nobleman's or Gentleman's family.—Age 26; good character.—G. L., 4, Parkett's Cottages, Woolwich Road, East Greenwich.

GARDENER (UNDER).—A respectable Young Man, has a good knowledge of Early and Late Forcing. Good references.—Y. Z., Perry Barr Post Office, near Birmingham.

GARDENER (UNDER).—A Young Man, who would not object to a Cow or two.—G. B., 69, St. George's Place, Water Lane, Brixton.

GARDENER (UNDER).—A Young Man; seven years' experience with Fruit and Plants. Good reference.—43, Church Street, Birmingham.

GARDENERS (UNDER).—Two Young Men, aged 19 and 20, used to Indoor and Outdoor Work in a Gentleman's Garden. Good references.—B. C., Mr. Edward Goodwin, Eynsham, near Oxford.

GARDENER (UNDER).—The Rector of Chedgrave is anxious to obtain a situation for an Under Gardener. He has been long trained under skilful Gardeners, and can be well recommended. Honest, obliging, and steady.—Rev. H. A. BARRETT, Chedgrave, Norwich.

FOREMAN, in a Gentleman's Garden.—Understands Early and Late Forcing, and Plant Growing. Good reference. Will pay a Premium.—R. S., 11, Pipe Lane, St. Augustine's, Bristol.

To Nurserymen.

FOREMAN, with any Nurseryman, in the Outdoor Departments.—Age 25, 20 years' experience in two extensive Nurseries in the above departments. Good references.—G. B., Mr. Morrison, The Nurseries, Figs, N.B.

To Nurserymen.

FOREMAN, or FOREMAN and PROPAGATOR.—Has a thorough knowledge of the Propagation and Growing of Stove and Greenhouse Plants, Ferns, Orchids; and a most successful Grower of Anemone, &c. Good hand at Bonsai, and can cut and fit Hot-water Apparatus on the most improved principle, if required. First-class reference from previous employers.—A. B., Messrs. Witty & Son, Cottingham Nurseries, Hull, Yorkshire.

PROPAGATOR (Hard and Soft-wooded).—Age 25, has had good experience in Grafting Roses, Rhododendrons, Azaleas, Camellias, Conifers, &c. Good reference.—A. B., 32, Victoria Terrace, St. John's Wood, London, N.W.

To Nurserymen and Others.

PROPAGATOR, &c.—Age 29, can do Propagating, Plant Growing, &c.; well up in Decorating for Ball-rooms, &c., and can take charge of any kind of Ground Work, also understands Painting and Glazing.—R. A., 203, Euston Road, London, N.W.

To Nurserymen and Others.

BUDDER.—Good reference.—J. H., 26, Rose Grove, Stockport Road, Manchester.

BAILIFF (WORKING)—Middlesex.—Acquainted with Farming in all its branches.—A. A., Mrs. W. Cox, Stationer, Crown St., London, E.

FARM BAILIFF—Married, a thorough understanding of Farming, Breeding, Rearing and Sale of Cattle, &c. Character well known.—Mr. HALL, Bevers Firs, near Worcester.

FARM MANAGER, age 39, married.—An active experienced Man who can manage a Farm for a Gentleman, or a large Tract of Land, in practical management of Sheep, &c. Most excellent references.—Place, Battersden Park, London, S.W.

RESIDENT AGENT or LAND AGENT.—Gentleman who for the last 15 years has been in the management of a large Estate in one of the West of England. Strongly recommended.—J. A. Mason, Esq., men to the Royal Agricultural Society, Piccadilly, London, W.

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PATENT MOULDED INDIA RUBBER for BOOTS and SHOES.—A new method of durability, economy, and comfort. These Boots are as Lather, are impervious to damp, not affected, and any handy man can easily attach them. They are sent with the Clumps.

Price per Pair, Round or Square toe.		Men's and Boy's sizes.		Women's and Children's Sizes.	
No. 1.	2.	3.	4.	5.	6.
2s.	1s. 6d.	1s. 7d.	1s. 8d.	1s. 9d.	1s. 10d.
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		1s. 12d.		1s. 13d.	
		1s. 14d.		1s. 15d.	
		1s. 16d.		1s. 17d.	
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To ensure a fit, a Paper Pattern, giving exact measurements, should be sent with order. JAMES LYNE HANCOCK, Vulcanised India-Rubber, 206, Goswell Road, London, E.C.

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WHEN THE HAIR, through weakness, falls off, or turns grey, no preparation will ever progress of these evils, restore the ORIGINAL Colour, a healthy and luxuriant growth, than Mr. WORLD'S HAIR RESTORER. It is simple, and requires no previous preparation of the hair, agreeable, and no pomade or hair oil is required. Bottles, 6s., of chemists and perfumers. Depot, 203, High Holborn, London.

CORNS and BUNIONS.—A Gentleman, tormented with Corns, will be happy to offer remuneration by which he obtained their complete removal, without pain or any incumbrance.—Frampton, stamped envelope to F. KINGSTON, Esq., Ware, Herts.

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BILIOUS and LIVER COMPLAINTS.—Indigestion, Sick Headache, Flatulency, Giddiness, Spasms, and all Disorders of the Stomach, are quickly removed by that well-known remedy, NORTON'S CAMOMILE PILLS. They are the best and most reliable operation with the most successful effect, and requires nothing can be better adapted. Sold by all Medicine Vendors, at 1s. 1 1/2d. and 8s. or obtained through any Chemist.

The Gardeners' Chronicle Newspaper.

SATURDAY, JUNE 26, 1869.

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MAY AND CO.'S PATENT.—Prices, Printed
 Patterns, and Specimens sent post free on application; also
 Ornamental Tile Pavements for Conservatories, Entrance
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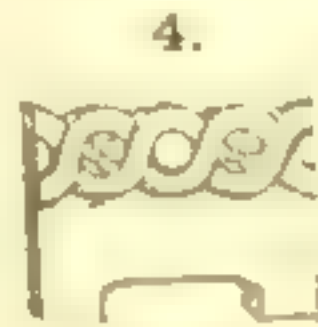
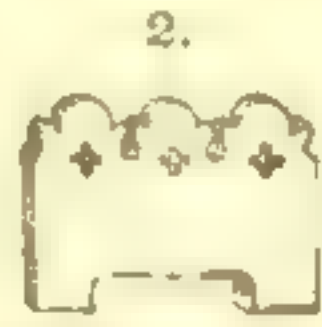
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 Labels.—Tree or Plant Labels, punched parchment, 4 inches
 long, 1 1/2 wide, 1/2 deep, cash on delivery. Sample Label
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SAVING AND COOKE'S WARRANTED PRIZE
PRUNING AND BUDDING KNIVES, see that you get them
 from **W. S. SAYNER,** also the Corporate Mark, OBTAIN
 them without which none are genuine.
 Beware of cheap imitations which are common
 and which are made to them of Knives which were not of
 the same quality, the consequence of an imitation, of common
 quality, having been sold for the genuine one, and which has caused
 many to be made to them of Knives which were not of
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SAVING AND COOKE'S PRUNING and BUDDING KNIVES are the best and
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GARDEN VASES, FLOWER POTS, FERN CASES, FOUNTAINS,
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MANUFACTURED IN TERRA COTTA, OF THE BEST MATERIAL,
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The value of Terra Cotta in the ornamentation of Public Gardens, Parks, &c., and for Indoor Architecture, has
 long been recognized, but its large cost has prevented its universal adoption. The articles manufactured by
 H. D. & Co., while second to none in quality, are offered at prices so low as to place them within the reach of all classes.

GARDEN EDGING TILES may also be had in **VITRIFIED STONEWARE.**

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- ROYAL ZOOLOGICAL SOCIETY, London.
- ROYAL BOTANIC SOCIETY, London.
- ROYAL BOTANIC GARDENS, Dublin.

- ROYAL BOTANIC GARDENS, Liverpool
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- ROYAL WINTER GARDEN, Dublin.
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It is with great gratification that we announce our permission to refer upon any occasion to the various Heating Apparatuses at the above, where our
"ONE BOILER SYSTEM" has for years been subjected to the most critical tests with every satisfactory result. It is matchless for efficiency, and is working the
 best Apparatus on record. These are no theoretical statements, but positive facts, and it is not too much to add, that no boiler can boast a parallel.

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 engines during the last few years your early commands will oblige.



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CAST-IRON PUMPS.

2 1/2 inches	..	£1 8 6
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**WARNER'S CRYSTAL PALACE
 FIRE ENGINE, or PORTABLE FORCE
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Price on Barrow, with Branch Pipe, Spreader,
 Unions, and Suction Rose, £8.

1 1/2-in. 2-ply Rubber Suction Pipe, per foot, 2s. 2d.;
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Crystal Palace, Sydenham, March 2, 1867

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 "GENTLEMEN,—I feel great pleasure in stating that I was
 present at a trial of your small Crystal Palace Fire Engine, and
 was much pleased with its efficiency and simplicity. The
 Pump throws out a steady jet of water to a height of 50 feet
 with very little labour. The Pump we have is well made, very
 simple in its parts, and not likely, I think, to get out of order.
 The advantage of this pump is its being very portable. Besides
 being a good Fire Engine, it will make an excellent Garden
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 "I remain, gentlemen, yours obediently,
 "Kewis Ross, Engineer to the
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Drawing and Estimates for Wind Engines, Water
 Wheels, and Hydraulic Machinery of every description
 for Steam, Horse, or Hand-power will be forwarded
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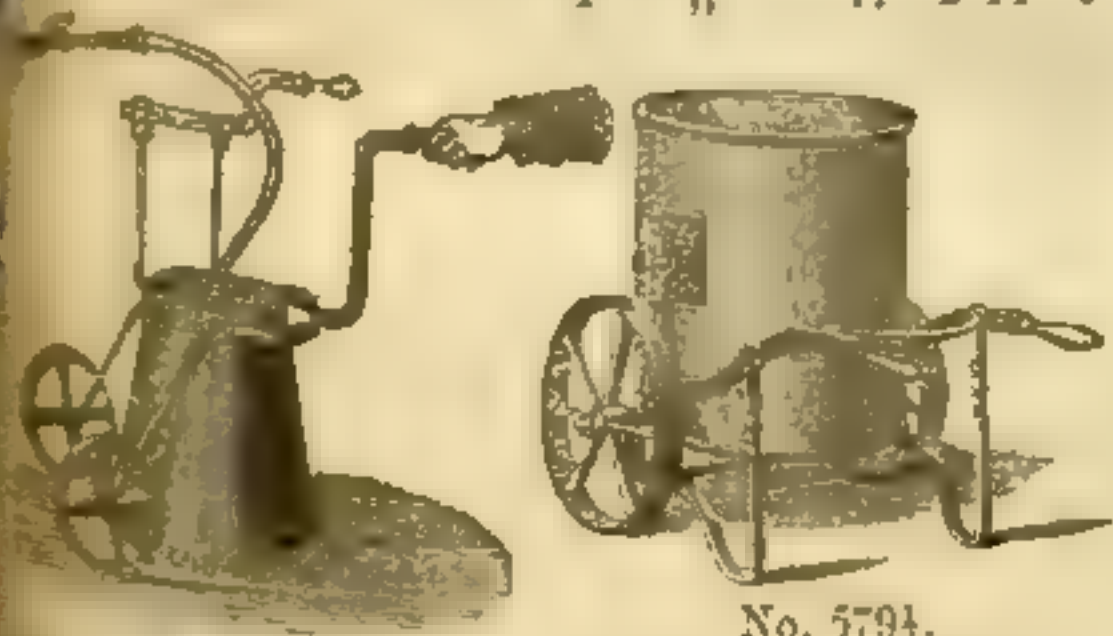
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PORTABLE PUMP

With Improved Valves for
 Liquid Manure, £2 16s.
 2-inch Flexible Rubber
 Suction Pipe, in 10, 12, and
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50 gallons	..	£5 12 0
38 "	..	3 17 0
20 "	..	2 13 0
20 "	..	2 2 0

**WARNER'S
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 28 gallons .. £5 10 0
 24 " .. 4 19 0
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GARDEN ENGINE

28 gallons	..	£5 10 0
24 "	..	4 19 0
16 "	..	3 14 0
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Useful for every variety of purpose—in
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 in Gardens, Conservatories, &c.,
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 Price, complete .. £1 10 0
 Small size for the Nursery,
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THE LAND LOAN and ENFRANCHISEMENT COMPANY (Incorporated by special Act of Parliament), is empowered to advance Money to the Owners of Settled and other Estates...

THE SOCIETY OF PAINTERS in WATER COLOURS. -The SIXTY-FIFTH ANNUAL EXHIBITION is NOW OPEN, 5, Pall Mall East (close to the National Gallery), from Nine till Seven. Admittance is, Catalogue 6d.

Home News.

THE COURT.—The Queen and Royal family continue at Windsor. On Friday the Queen held a Council, at which Mr. Motley, the United States Minister, was introduced by the Earl of Clarendon, Secretary of State for Foreign Affairs...

THE PRINCE AND PRINCESS OF WALES.—On Friday afternoon the Prince was present at the debate in the House of Lords. In the evening the Prince and Princess, and the Crown Prince of Denmark, dined with the Duke of Cambridge at Gloucester House. On Saturday the Princess, accompanied by the Crown Prince of Denmark, visited the Queen at Windsor Castle.

ARRIVAL OF THE VICEROY OF EGYPT.—His Highness, Ishmael Pacha, Viceroy of Egypt, accompanied by Nubar Pacha, his Prime Minister, and a numerous suite, arrived at Dover from Calais on Tuesday afternoon, in the Admiralty yacht Enchantress...

THE DUKE OF GENOA, who recently became a pupil of Harrow School, is an inmate of Mr. Matthew Arnold's house at Harrow, and has also a house in London. His Royal Highness comes up to London every Saturday afternoon, accompanied by one of his suite, in order to attend to his religious duties...

PRINCE ARTHUR, who is about to join the 14th Battalion of Royal Engineers, now stationed in Canada, will leave the Mersey on Saturday, the 14th August, in the human mail steamer City of Paris, for Halifax. The Prince is expected to return to England next spring.

KNIGHTHOOD.—It is the intention of her Majesty to confer on Mr. Panizzi, late Principal of the British Museum, and now a Senator of Italy, the dignity of K.C.B.; and to confer the honour of knighthood on Mr. Tite, M.P. for Bath, to be followed hereafter by the civil Order of the Bath.

Admiral Kellett, C.B., will be appointed to the command of the China Station, in the promotion by the death of Admiral Lambert.

CONVOCAION.—On Friday, in the Upper House, the Archbishop of Canterbury, in opening the Lower House on the subject of intercommunion with the Eastern Churches, and it would be desirable to decide whether they would be admitted on the subject. After some observations by the Bishops of London, St David's, Ely, &c. &c. A gravamen from the Archdeacon of London, in the subject of the Irish Church, was brought forward.

THE HISTORICAL MSS. COMMISSION.—At a meeting of the Commissioners on Thursday last, held at the Rolls House last week, for the purpose of taking steps to carry out her Majesty's command. Since their first meeting the Secretary has received less than 100 letters from possessors of MSS. collections, offering their aid and co-operation...

"Her Majesty has been pleased to appoint a Commission to ascertain what subjects connected with ecclesiastical, literary, or scientific history are extant in the collections of private persons and other institutions. A copy of the Commission which will best explain the object of her Majesty's interest in this object, and will that view they desire to be taken of it, and will that view they propose to be taken of it, and will that view they propose to be taken of it, and will that view they propose to be taken of it..."

NEW QUEEN'S COUNSEL.—The Queen has granted a patent under the Great Seal of the United Kingdom conferred on the following members of the Bar the dignity of the silk gown.—Mr. F. Boyle, Mr. Fox Bristowe, Mr. F. Morgan, M.P., Mr. Thomas Hughes, M.P.

same honour has been conferred upon members of the Council of Law Bar - Mr. ...

Foreign.

The Emperor and the Prince Imperial ... Monday for the camp of Châlons ...

addressed them as follows - ... you have taken part for the ...

Queen of Portugal arrived at the Grand Hotel on ... Imperial decrees have ...

the ex-Queen Isabella of Spain is to pass ... some place on the coast of Normandy ...

St. Etienne states that perfect ... in that town, at Rieumarie, and ...

Police that the number of persons ... of the troubles of the 10th and ...

They were all placed temporarily ... of the Conciergerie, and were then ...

341 working-men, 243 ... waiters, 126 shopmen, 120 ...

Among them ... M. Canale Bisquet and M. Etouard Laferrere, ...

the latter to the Rappel MM. ... and Lestrans have also been liberated ...

that they escaped arrest by taking refuge in ... It appears that they have resided at ...

France for 17 years. ... Marshal Serrano was sworn in as Regent ...

President Rivero ... the oath to the Regent, who read ...

the Regent, in reply, declared that the Regent ... upon the support of all Spaniards ...

Long ... the Regent, the Constitution, the National Sovereignty ...

The new ... afterwards definitively formed. Senor ...

Minister of State, and Senor ... Minister of Justice. The other members of ...

mother country. The President of the Council of Ministers, and the British Minister, have signed a declaration by which Danish subjects residing in England and English subjects residing in Denmark, will not be liable to perform any military service or to contribute to any forced loans in the country in which they reside.

PRUSSIA.—The ceremony of inaugurating the port of Heppens for the navy of the North German Confederation, situated at the mouth of the river Jade, in the Grand Duchy of Oldenburg, took place on the 10th, in the presence of the King of Prussia. His Majesty, in his speech on the occasion, said:

My dear friends! ... the progress of the work would have been impossible. I have forward with cheerful satisfaction to the further development of the future of our young German nation.

The North German Parliament was closed on Friday. The speech from the throne enumerated in detail the Bills which had been passed during the expiring session, which it hoped would prove rich in beneficial influence on the future development of the confederation and the progress of North Germany.

Mention was also made of the completion of the first German war port as being a memorial of German activity and sagacity. The speech received with joyful satisfaction the expression of national consciousness manifested on this occasion by the inhabitants of the German littoral.

In conclusion it declared that the unanimous co-operation of the Federal Governments with the national representatives, in the common labouring for Germany's welfare, would, with God's help, strengthen, as heretofore, the general confidence with which Germany, in fortifying herself at home, reckoned upon the preservation of peace abroad.

Count Von der Goltz, Prussian Ambassador at the Court of the Tulleries, died on Thursday at Charlottenburg, near Berlin.

AUSTRIA.—The Press of Sunday mentions as a rumour circulating in diplomatic circles that Prince Coussa, ex-Hospodar of the Danubian Principalities, had suddenly and secretly left his residence in Vienna, and that his departure was connected with some vague reports of approaching complications in the Lower Danube.

HUNGARY.—In the sitting of the Lower House of the Diet on the 17th, the Central Committee proposed the adoption of the Bill respecting the appointment of judges and the exercise of judicial authority.

RUSSIA.—An Imperial ukase authorizes the establishment of a bank called the International Bank of Commerce, with a capital of 5,000,000 roubles, in shares of 250 roubles each. The promoters of this undertaking are bankers of St. Petersburg, Odessa, Taganrog, Warsaw, Hamburg, Amsterdam, Frankfurt, Paris, and London, who are to take the whole of the shares themselves.

ITALY.—The King of Italy returned unexpectedly to Florence on Sunday. His Majesty, it appears, considered his presence necessary to strengthen the Government in taking measures for restoring the tranquillity of the country, which has been much unsettled by riotous demonstrations at Milan, Turin, Naples, and other places.

At Milan on Friday night the disturbances were so serious that the military had to be called out. The rioters retreated before the troops without offering resistance, and order was restored after several arrests had been made.

The committee appointed by the Chamber of Deputies to inquire into the alleged malpractices respecting the tobacco monopoly on Monday took the depositions of Deputy Lobbia, who is recovering from his wounds. The Duchess d'Aosta, the wife of the King's second son, is dangerously ill of miliary fever at Spezzia.

Her Royal Highness received the last Sacraments on Sunday. The bulletin of Thursday announces a slight improvement. The Duke and Duchess of Saxony, while driving a few days since in the neighbourhood of Sorrento, were made prisoners by the hand of the brigand Fuoco, who, when he learnt the rank of his captives, politely handed them to their carriage, and gave a five-franco piece to the coachman, begging their Royal Highnesses to excuse the audacity of his men. The duke is said to have sent Fuoco a magnificent gold watch and chain, valued at 4,000 fr.

PAPAL STATES.—The report that France was endeavouring to re-establish the September Convention, with sufficient guarantees on the part of the Italian Government for the security of the Papal territory, is contradicted. The Pope, in replying to the congratulations addressed to him by Cardinal Patrizi, on the 17th inst., the anniversary of his succession to the Papal throne, said:

"The world is divided into two societies. On the one hand there is the revolution allying itself with socialism, and rejecting both religion and morality. On the other hand, we see the faithful calmly awaiting the triumph of religious principles. I trust in Providence for the protection of Rome against all assaults."

On Monday, being the anniversary of his coronation, the Pope, wearing the tiara, assisted at the mass which was celebrated in the Sixtine Chapel, and afterwards received the congratulations of the Sacred College and public dignitaries. The city was illuminated in the evening.

GREECE.—The Queen of Greece was safely delivered of a son on Thursday morning.

THE PRINCIPALITIES.—By a decree of the Prince the Chamber was prorogued on Tuesday, and the Senate dissolved. The Senate had previously adopted the Bill voted by the Chamber of Deputies ratifying a convention concluded with Austria and Russia for rendering the Pruth more navigable, and for establishing a common right of navigation on that river. Prince Charles laid the foundation stone of the new railway station in Bucharest on Saturday.

SERVIA.—The first Servian bank was established in

Belgrade on the 17th, in allusion to the Franco-Hungarian Bank with the view of obtaining a concession for the construction of the Servian Railway in connection with the South Hungarian line from Kiskunda to Belgrade.

TURKEY.—The Grand Vizier is engaged in preparing a comprehensive and liberal scheme of popular education for the whole empire. A communication from Pera states that the Christians who send their children to the Turkish College are treated with excommunication by the Pope and that the Porte will probably exact the Jesu from the Ottoman Empire by way of reprisal. The Porte has granted 2,000 fr. towards the restoration of the churches in Crete which were injured during the rebellion.

ABYSSINIA.—A telegram has been received through the Foreign Office stating that Donald Mr Powell's Scotch gamekeeper, who was said to have been killed with his master and family, is reported to have escaped, and to have returned to Massowah. It is therefore hoped that other parts of the first story may have been exaggerated.

WEST COAST OF AFRICA.—Advices from Senegal, dated the 31st May, state that cholera was raging on the banks of the River Gambia, and at Bathurst. It had also reappeared at some of the French stations, and at Dakar had become very fatal.

JAPAN.—Advices from Yokohama, dated May 29, state that the Mikado had arrived at Yokohama. Admiral Edmonstone remained fortified in the northern channel of Yesso, waiting for the Mikado's attack. He had attempted to capture the rama Sirovawa, but had failed. The Queen's birthday was celebrated enthusiastically by the British residents in Japan.

AUSTRALIA.—The cablegram cable connecting Tasmania with Australia has been successfully laid and is working satisfactorily. The International Commercial Conference has adopted resolutions recommending a federal confederation of the colonies.

UNITED STATES.—President Grant arrived at New York on the 17th, on his way to Washington. He met with a most enthusiastic reception in that city, as well as at Springfield and Worcester. Six other members of the Cuban Insurgent Junta were arrested in New York on Monday night, and so many arrests of Cuban filibusters have since been made that the filibustering business in New York is considered to be at an end.

On Wednesday night, Lowrey Colonel Ryan escaped from the custody of the United States Marshal, and is reported to have sailed with an expedition for Cuba. The State Department has assured the Spanish Minister that the neutrality laws shall be promptly enforced. The State Department does not sustain the course adopted by Mr. Webb, the United States Minister at Rio, in the embargo with Brazil. It is reported that General Necoan has not been favourably received in Mexico. The Republicans of Pennsylvania and Ohio have re-nominated the present Governors, who belong to their party. The New York Times, in an article on the relations between England and America, admits that the protest of the British nation against paying in cash for popular sympathy with the South is not unnatural. The Washington correspondents of several New York journals state that Mr. Motley will take no important action in the Alabama case until Congress meets in December next. Nearly 5000 Chinese arrived at San Francisco last week. The Supreme Court of Georgia has decided that the intermarriage of whites and negroes is illegal, null, and void, and that the Legislature cannot rightly define the social status of citizens. Numerous trade unions throughout the United States have recently expelled white members for working with negroes. A large body of Cheyenne Indians attacked a surveying party in Western Kansas a few days since, but were repulsed with a loss of ten killed and many wounded. Two winters also were wounded. The Sioux and Red tribes having quarrelled, there was a skirmish near Fort Buford. Eleven (chiefly Sioux) were killed, and 40 wounded.

CANADA.—The Parliament of the Dominion of Canada has been prorogued by the Governor, Sir John Young, who in his speech expressed his satisfaction at the wise measures which had been adopted to secure and consolidate the Confederation of British North America, and also the retrenchment which had been effected. He also said that the vigilant supervision of the public expenditure had obviated the necessity for increased taxation.

NOVA SCOTIA.—The Repeal League Convention at Halifax adjourned on Friday, after passing a resolution protesting against confederation, and recommending the formation of leagues throughout the province of Nova Scotia, with a view to pressure by honourable means annexation to the United States. The proceedings of the League are commented upon by numerous American papers as indicating the inevitable final annexation of Nova Scotia to the United States.

CUBA.—The American schooner Lalave, laden with war materials, ostensibly destined for Hayti, but supposed to be for the insurgents of Cuba, has been captured by the Spanish steamer Fernando, and sent by General Espinar to Jamaica for adjudication. The insurgents claim the victory in the recent battle at Puerto Padre. They have now secured communication with the seashore, and will be enabled to avail themselves more easily of the aid brought by filibustering parties.

BRAZIL.—In consequence of the intervention of the English Minister, diplomatic relations have been resumed between the Brazilian Government and the American Minister, Mr. Webb. Advices from Paraguay to the 15th inst. state that the army was in readiness to march into the interior. A rumour is current at Buenos Ayres, which, however, is regarded as very doubtful, that peace, through the intervention of the American Minister, has been concluded, Lopez had agreed to leave the country.

On the order for going into committee on the Greenwich Hospital Bill, Mr. LIDDELL moved that it be referred to a Select Committee. On a division the motion was rejected by 124 to 43, and the House went into committee and considered several of the clauses of the order for the consideration of the Greenwich Hospital Bill. Mr. MUNTZ moved that the time allowed to a bankrupt to effect arrangements should be extended from 7 to 15 days. The ATTORNEY-GENERAL opposed the amendment, which was negatived by 80 to 33. The third reading was fixed for Friday. The House then went into Committee on the Imprisonment for Debt Bill, and was left sitting.

City Intelligence.

THE TRIAL OF OXFORD, GURNEY, AND Co.—On the application of Mr. Gordon, one of the defendants, the Chief Justice Cockburn has directed that the trial of the directors of Oxford, Gurney, and Co. (limited) shall commence at Guildhall, on Friday, the 2d of July. The Home Office has declined to Dr. Thom's request that the prosecution should be undertaken by the law officers of the Crown, Dr. Thom, being unable to incur the expense of conducting his case in person, though the Lord Chief Justice has announced his intention to conduct his case in person, though the Lord Chief Justice has stated that he will not allow it. Dr. Thom, however, will proceed in what he considers his right as the prosecutor to conduct his case in person, having been bound over by the Lord Mayor in the sum of 5000*l.* to prosecute and give evidence against the defendants.

BANK RATE OF DISCOUNT.—The Directors of the Bank of England on Thursday reduced their rate of discount from 4 per cent., at which it was fixed on the 25th inst., to 3½ per cent.

MONEY MARKET, FRIDAY.—BRITISH FUNDS: Consols closed at 92½ to 92¾ for Money, and 92½ to 93 for Account; New and Reduced Three per Cents., 92½ to 92¾; Bank Stock, 241 to 243; Exchequer Bills, 3s. 6d. to 2s. 6d. for March, and par to 5s. pm. for June, India Five per Cents., 111½ to 112 ex div.—FOREIGN: Argentine, 80½ to 81; Egyptian (1864), 88 to 89; Ditto (1865), 78½ to 79½; Italian, 55½ to 56; Mexican, 12½ to 13; Peruvian, 79½ to 79; Orel-Vitebsk, 80 to 80½; Charkoff, 78 to 79; Spanish, 29½ to 30; Turkish Five per Cents., 44 to 44½; Ditto Six per Cents., 67 to 67½; Brazilian, 81½ to 82½; Honduras, 85 to 86; United States 5-20 Bonds, 80½ to 80¾; Erie, 19½ to 20; Illinois, 94 to 95.

Metropolis and its Vicinity.

HER MAJESTY'S ACCESSION TO THE THRONE.—Today was the anniversary of her Majesty's accession to the throne. The form of prayer for the occasion, towards the end of the Prayer Book, was generally read throughout London by all classes of clergy—high, low and broad—special reference was made to it in the sermons of those who are opposed to the disestablishment of the Irish Church, especially to passages in one of the prayers in which the congregations pray that the Queen may be made "a blessed instrument in protecting and advancing the truth wherever it is persecuted and oppressed," that it should not be allowed to "heresies and false doctrines to disturb the peace of the Church, nor schisms and unchristian divisions weaken it." Some of the clergy made some very strong remarks on these points, others made no reference whatever to them in their sermons. The Park and Tower guns were fired in the early part of the afternoon, and at some of the public buildings the royal standard was hoisted.

PROPOSED MEMORIAL TO PROFESSOR FARADAY.—A meeting was held on Monday at the Royal Institution for the purpose of considering the steps to be taken in promoting a memorial to the memory of Professor Faraday. The Prince of Wales presided, and said that on private and personal grounds it afforded him great pleasure to show all possible respect to the memory of Mr. Faraday, whom he had known personally and whose interesting lectures he had so often attended in that place. Early last year the Presidents of the Royal Society, the Royal Institution, the Royal Geographical Society, the Royal Chemical Society, the Geological Society, the Royal Astronomical Society, the Linnean Society, and the British Association held a meeting, and agreed to ascertain the views of the Government in regard to the erection of a monument to Faraday. In the following June Mr. Disraeli stated that he considered the erection of a monument to Professor Faraday to be a proper object to which to devote public funds; but that as the estimates for the year had passed, any vote for that purpose must be deferred to the following year. In May last the present Chancellor of the Exchequer wrote that, while fully concurring in the propriety of erecting a monument to Faraday, he could not, as Chancellor of the Exchequer, consent to the appropriation of any money for the erection of a monument to any private citizen, however eminent—adding that "he did not make that rule, but found it." General Sabine stated that it is desirable that measures should be taken to provide a public memorial to Faraday." He was sure he spoke the hearty concurrence of every member of the Royal Society when he said that due honour ought to be done to the memory of this great man for the services he had rendered in the promotion of science. M. Dumas, who had come over from Paris on purpose to attend the meeting, seconded the motion in a very long speech, in which he highly eulogised the talents and learning of Mr. Faraday. The motion was carried unanimously. Sir Henry Holland then moved, and Sir R. Murchison seconded, a resolution, "That a committee be appointed to take the necessary measures for the provision of a public memorial."

This motion was also adopted. Professor Owen moved, "That a public subscription be entered into, the subscriptions not to exceed five guineas in each case, in order to raise the requisite funds." Professor Playfair seconded the motion, which was also carried. Sir Henry Holland moved a cordial vote of thanks to his Royal Highness for his conduct in the chair. Professor Tyndall, in seconding the resolution, remarked upon the readiness with which his Royal Highness had consented to take the chair, and referred to the "most beautiful and feeling letter" of confidence his Royal Highness wrote to Mrs. Faraday upon the death of her husband. The motion having been adopted with acclamation, the Prince said he thanked them from his heart for the kind way in which they had supported him on that occasion. They must all feel grateful to M. Dumas for the terms in which he had spoken of the late Professor, and for the honour he had done the Society in being present. In conclusion, he assured the meeting that if anything more could be done in the matter by him, or there was any assistance he could give them in reference to it, he should always be at their service.

THE WIMBLEDON MEETING.—A strong party of the Royal Engineer Train left Aldershot by march route for Wimbledon last week to prepare the camping-ground and rifle ranges for the ensuing volunteer gathering. The Admiralty have given permission for a certain number of men belonging to the various divisions of the Royal Marines to compete for the Army and Navy Challenge Cup presented by the National Rifle Association.

STATUE OF LORD PALMERSTON.—On Friday afternoon Mr. Layard, M.P., Mr. Cowper, M.P., Mr. Barry, Mr. Woolner, and others, made a formal inspection of a new statue to Lord Palmerston, which has been placed on the northern green plot of ground facing New Palace Yard. A large crowd assembled as soon as the statue was uncovered. It has not yet been decided whether the statue shall permanently occupy its present site.

TRADES UNION BILL.—A large meeting of trades unionists was held on Wednesday night in Exeter Hall. Mr. Samuel Morley presided, and was supported on the platform by Mr. T. Hughes, M.P., Mr. Mundella, M.P., Mr. Anderson, M.P., Mr. Dalglish, M.P., Mr. Brassey, M.P., Professor Beasley, Mr. Lloyd Jones, Mr. Holyoake, Mr. Edmond Beales, Sir John Blennerhasset, M.P., &c. The chairman, in opening the proceedings, said he was present in the interest of peace, and as an employer to claim for working men the rights he claimed for himself, and he was therefore prepared to give a hearty support to the Trades Union Bill, and thought there ought not to be any time lost in making the future of the working men clear and distinct. He was anxious in all honesty to co-operate with the working man, but he deprecated the right of any—say 500 men—who might agree upon a point or object ill-using 50 other working men who might not agree with them or think as they did. With respect to trades unions, there was not, in his opinion, a class of men more alive to the use of the power which they possessed; but by interfering with the freedom of trade they lessened the products of labour, and in lessening the products of labour they brought upon themselves great prejudice and injury. He quite believed there was a greater need now than ever of the employer and the employed coming into closer intercourse, and he thought that every possible effort should be made to bring about a good feeling and a proper understanding between them, and by that result do away with strikes. Working men were no doubt growing daily in importance in the country; they were becoming too influential to be neglected by employers, and he sincerely hoped that the day was not far distant when they would more freely exchange opinions, and thus add to what he believed was the increasing prosperity of the nation. Mr. Newton, of the Amalgamated Engineers, moved the following resolution in a speech, in which he strenuously upheld trades unions, and denied that trades unions were in the slightest degree responsible for the recent trade outrages that had disgraced certain parts of the country:—

"That combination laws, or laws designed to check the free association of workmen, and to place them under a special criminal legislation, are at once impolitic and unjust, and call for immediate and complete abolition; that the doctrine of the common law which places trades unions outside the pale of law is a relic of feudalism which requires emphatic reversal, and that all trades unions which submit themselves to the general civil and criminal law of the land are deserving of complete legal recognition and ample protection from the State."

Mr. Druitt seconded the motion. Mr. T. Hughes, M.P., in supporting it, said he believed the Bill to be just, or he would never have introduced it into the House; nor would Mr. Samuel Morley be in that chair if he, too, did not believe that it was a just Bill. It was high time that the Conspiracy Law was repealed, nor did he think it would be long before they would see it repealed. They had a right to ask that class legislation should be swept away, and swept away at once. And he promised that if the influence of private members could be brought to bear, he would this session press the Bill to a division. Mr. Mundella said that while there were clauses in the Bill to which he could not give his assent, still he saw no reason whatever why he should not vote for the second reading. His object was peace, and he wanted to arrive at peace through justice, and God forbid that he should now do anything to detract from the important movement he had set going. He contended that combination laws stood in the way of a proper understanding between master and man, and he should therefore give the Bill his hearty support. The resolution was carried with acclamation. A second resolution was carried, on the motion of Mr. George Potter, seconded by Mr. Howell, to the effect, that the

Bill of Messrs. Hughes and Mundella, the aim of which was to remove exceptional legislation, and to protect trades unions in the enjoyment of their property, deserved the hearty approval and earnest support of the meeting, which pledged itself to continue every method of constitutional agitation to obtain the passing of a similar measure, and empowered the trades' conference and delegates to wait upon the Home Secretary to solicit the support of the Government to this Bill. A third resolution, tendering the warmest thanks of the meeting to the introducers into Parliament of the Bill, and calling upon the friends of trades societies to accept the sincere gratitude of the trades of London, and of the country generally, for their disinterested and valuable services, was next moved, seconded, and carried unanimously.

FINANCIAL REFORM CONFERENCE.—On Thursday a conference, convened by the Financial Reform Union, was held at the Westminster Palace Hotel, for the purpose of devising a method by which the questions of reduction of taxation and expenditure may be made to assume a practical shape, so as to be submitted in definite proposals to the House of Commons next session. Mr. John Holms, M.P., took the chair, and there were present, among others, Mr. E. Chadwick, C.B., Sir John Bowring, Mr. G. Anderson, M.P., Mr. Delahunty, M.P., Colonel Torrens, M.P., Mr. Brogden, M.P., Mr. Illingworth, M.P., and gentlemen from Birmingham and other provincial towns. The object of the conference was briefly explained by the chairman. Mr. E. Chadwick followed with some observations bearing upon the question of a reduction in the army. Sir John Bowring remarked on the moral effect which a repeal of the duty on tea would have on the population, and added that tea might then be sold for 8*d.* per lb. Mr. Partridge, of Birmingham, proposed the following resolution—"That, in the opinion of this conference, the repeal of the duties on tea, coffee, and sugar, as advocated by the President of the Board of Trade, forms a most desirable basis of action on the part of financial reformers." After some discussion between Mr. E. Chadwick, Colonel Torrens, M.P., Mr. Anderson, M.P., Mr. Brogden, M.P., and others, the resolution was carried, together with another moved by Mr. E. Chadwick—namely, "That it is expedient to proceed with questions of large reductions of expenditure concurrently with any questions of reduction of taxation." The proceedings were brought to a close by the adoption of a resolution, at the instance of Mr. Illingworth, M.P., authorising the raising of a fund of 1000*l.* for the purpose of continuing the supply of pamphlets, and for effective agitation of the question throughout the country.

OPENING OF SOUTHWARK PARK.—On Saturday the latest addition to the London parks was opened in the borough of Southwark. It is formed on about 63 acres of land, previously used as market gardens, situated between the Spa Road railway station between Paradise Row, Rotherhithe, the Deptford Lower Road, and Rotherhithe New Road, somewhat over a mile from London Bridge, and within easy walking distance from the crowded parts of the parishes of Southwark, Horselydown, and Bermondsey. The total cost up to March of the present year has been 95,162*l.* 11*s.* 3*d.* The cost of the freehold land was about 91*l.* per acre for 60 acres, and there are 16 acres reserved for building purposes, so as to recoup the ratepayers of the metropolis in respect of the expenditure referred to. The park has been constructed by the Metropolitan Board of Works.

THE DUKE OF NEWCASTLE.—The case of the Duke of Newcastle and his creditors is about to assume another phase. A petition was presented on Thursday to the Court of Bankruptcy by Mr. Morris, the bill-discounter, for an adjudication in bankruptcy, and notices were served on the Sheriff of Middlesex and others. Mr. Padwick was the only witness examined, and further proceedings were adjourned to Monday. The sale of the ducal property commenced at Carlton House Terrace on Monday last, and the application of the proceeds will raise the important question, whether the execution creditors will benefit from the sales, or whether the proceeds, after payment of the expenses, will be available for all the creditors. Until the application to the Court of Bankruptcy is decided matters will remain in *status quo*. In the event of an adjudication being obtained, a material alteration will take place with regard to the several issues directed to be tried in the Court of Exchequer.

THE FRENCH ATLANTIC CABLE.—The Great Eastern arrived at Brest on Sunday. A special train, conveying about 250 guests, comprising various Government officials and members of the Paris press, arrived in the morning from Paris, and proceeded at noon in three steamers to the Great Eastern. At 8 o'clock a banquet took place on board the vessel, when toasts were given for the Emperor, Queen Victoria, and the President of the United States. Viscount de Vougy, Director-General of French Telegraphs, proposed success to the undertaking, and spoke in eulogistic terms of the French Cable Company. Baron Erlanger returned thanks in the name of the latter. M. Kerjean, the deputy for Brest to the Legislative body, proposed the toast of the union of France, Great Britain, and America. General enthusiasm prevailed, and the weather was very fine throughout. At night the space of the cable was safely effected. On Monday morning the Great Eastern, accompanied by the Chiltern and the Scandaria, left at break of day, and proceeded with the submergence of the cable. The latest accounts state that the signals through the cable are perfect, that the electric tests are satisfactory, and that on Thursday nearly 800 miles of cable had been submerged.

ELECTION OF SHERIFFS.—On Thursday, being Midsummer Day, the Livery of London assembled in Guildhall, to elect Sheriffs for the ensuing year.

Alderman Causton, the next in rotation on the roll of aldermen, and Mr. James Vallentin, distiller, were unanimously elected.

LONDON IMPROVEMENTS.—The Merchant Taylors' Company have paid 90,000*l.* out of their corporate funds to the Governors of the Charter House, for 3½ acres of the land lately occupied by the Charter House schools, and intend to remove their school from Suffolk Lane to that locality. They have let a portion for building purposes, but they retain 3½ acres for the school and its playground. The Metropolitan Board of Works have purchased a slip of the ground in Wilderness Row for the purpose of widening the thoroughfare, intending at some future time to continue a carriage road through to St. John Street.

GREENWICH HOSPITAL.—The Act passed in 1865 reduced the number of in-pensioners at Greenwich Hospital at one bound from 1332 to 395. The improved comfort of the men from this change is shown by the fact that the number applying to be permanently re-admitted has been less than one in 32, and the death-rate, which when the average number of in-pensioners was 2370 amounted to 12.3 per cent., has been only 6.4 per cent. among the men who left. The great reduction in the expenditure at the Hospital has enabled the Admiralty to give a pension of 9*d.* a day to every seaman and marine over the age of 70 years, who has been 10 years a naval pensioner; and 5*d.* a day to those over 55, who had been five years naval pensioners. It is now intended to take a further step in so administering the revenues of the Hospital as to make the money applicable to the advantage of seamen incapable of service go as far as possible in the direction most agreeable to the navy itself. The number of in-pensioners will be further reduced by offering them such a grant as will, with their naval and Greenwich pensions, if any, make up a maximum annual sum of 36*l.* 10*s.* each case being dealt with separately on its own merits. Those who then remain will be so few that they can comfortably be lodged within the infirmary, and admission will thenceforth be open for any helpless and infirm naval pensioner who has been granted a life pension, or any helpless and infirm seaman or marine who has served with good character ten years, or any man discharged from the service on account of severe wounds or hurts received in action or in the execution of his duty. Every such applicant, if his claim is allowed, will be offered the alternative of entering the infirmary or of residing with his friends, and receiving such a sum as will make up his aggregate pension to an amount not exceeding 1*l.* 6*d.* a-day, or 27*l.* 10*s.* a-year. The public will have the assurance that no man who has long served his country at sea, or who has been invalided from the service, need become an inmate of a workhouse. In connection with this subject a memorandum has been issued from the Admiralty, stating as the result of the recent reforms, that in 1859 the establishment for 1600 in-pensioners cost 99,577*l.*, and nothing whatever was set aside for out-pensions. In 1868, in consequence of the changes effected by the Bill of 1865, the establishment of 400 in-pensioners cost about 40,000*l.*, and 62,977*l.* was given in out-pensions. Under the new system the establishment for 200 in-pensioners will demand about 15,000*l.*, and nearly 90,000*l.* a-year will be available for out-pensions.

THE THAMES EMBANKMENT.—The report of the select committee appointed to inquire into the roadway and viaduct proposed to be made on the Embankment from Hungerford Bridge to Wellington Street, has been issued. The committee are of opinion that the Metropolitan Board of Works ought to be relieved from the formation of the intended roadway, and that so much of the Act as applies to the formation of this roadway should be repealed. They consider the suggestion to erect a Natural History Museum in that locality, and to combine with it terrace walks and open ornamental ground, is deserving of the favourable consideration of Parliament, as best meeting the requirements of all parts of the metropolis, both north and south; and that in the event of any such building being erected due consideration should be shown for all private rights. They do not express any opinion on the probable cost of applying the sites in question to the erection of such a building. Mr. Walker, superintendent of the metropolitan police, has stated in evidence that a carriage approach from Parliament Street, by Derby Street, to the embankment roadway, is necessary to relieve the traffic at Bridge Street, going from the Embankment roadway of the Houses of Parliament and the west of London.

THE NEW LAW COURTS.—A deputation from some of the principal legal firms of the City and West-end of London, comprising members of the firms of Messrs. Freshfield & Co., Messrs. Dawes & Son, Messrs. Cotterill & Son, Messrs. Roy & Cartwright, Messrs. Tatham & Co., Messrs. Vallance & Vallance, Messrs. Baxter, Rose & Norton, Messrs. Burchells, Messrs. Ellis & Ellis, Messrs. Bircham, Dalrymple, Drake & Co., Mr. S. B. Robertson, and others, had an interview with the Chancellor of the Exchequer and the First Commissioner of Works on Monday, to express their views in favour of the Thames Embankment site as the site for the erection of the new law courts. Lord Bury, in introducing the deputation, said that the names of the gentlemen comprising it, who were of all shades of political opinion, would show that the present was no party movement, or representation of party or personal interest. Mr. Robert Baxter, Mr. Vallance, Mr. Freshfield, Mr. Ellis, Mr. S. B. Robertson, Mr. Dudley Baxter, and others, strongly advocated the Embankment site in preference to that of Carey Street, and stated that the deputation which recently waited on the Chancellor of the Exchequer in favour of Carey Street, was convened by the Council of the Law Institution without the sanction of the members of that society, and did not by any means represent the general opinion of the legal profession, though they did represent certain

parties in the Lincoln's Inn district, who had strong personal interests in upholding the Carey Street site. Mr. Layard, in reply, said that the interest of the public at large was paramount to that of the practitioners at Lincoln's Inn, and the Government had come to the conclusion that the Thames Embankment site was incomparably the best. It was removed from a noisy thoroughfare, and would have the very best supply of light and air that London could afford. He thought that in reference to private interests some amount of self-sacrifice might reasonably be called for, for the embellishment of London, and for erecting the courts of law on the finest site in London by reason of an opportunity which may never occur again, and ought not now to be sacrificed. The Chancellor of the Exchequer said it was a simple fact that the Government could not build on the Carey Street site without incurring an enormous expense in addition to what had been contemplated, and he believed that the adoption of that site would simply be the beginning of an enormous, continuing, and unknown expense, which would be a grievous fraud upon the public. It was also to be borne in mind that the mere inconvenience of carrying building materials along the Strand to the Carey Street site for the next 10 years or more would amount to an evil which, though it might be called temporary, was really of the first magnitude, and one for which he would not agree to be accountable. Taking into account all these considerations, he felt sure that all impartial persons would approve the Government plan, notwithstanding the great weight of influence which had been brought against them.

THE CAREY STREET SITE.—It is said that the London and North-Western Railway Company have made overtures to the Chancellor of the Exchequer for the purchase of the 7 acres forming the Carey Street site as a great central terminus, to communicate with the Metropolitan District system. The negotiations, however, have been suspended until the Bill for the acquisition of the new ground in Howard Street has been sanctioned by Parliament.

THE TOWER SUBWAY has now passed the nearest approach to the bed of the river, the top of the tunnel being 23 feet below the bed, and the engineer reports that at the present rate of progress the tunnel will reach high-water mark on the Surrey side in 10 weeks.

SOUTH KENSINGTON MUSEUM.—The Rev. Alexander Dyce has bequeathed to the South Kensington Museum his important dramatic library, with its unique editions of Shakespeare, and all his pictures, miniatures, antique rings, and other works of art, upon the condition that a suitable room is built to receive them.

NEW INDIAN MUSEUM AND LIBRARY.—The Secretary of State for India has resolved to appropriate the ground between the India Office and Charles Street to the building of a new museum, library, and chart office under one roof, from plans by Sir Digby Wyatt.

THE CHANNEL TUNNEL.—On Thursday a committee of the promoters of the project for a submarine tunnel between Dover and a point near Cape Blanc Nez, on the French coast, had an interview at the Board of Trade with the Right Hon. John Bright, President of the Board. Lord Richard Grosvenor, M.P., chairman of the committee of promoters, introduced the deputation, which included Admiral Elliott, Messrs. William Hawes, Stephenson Clarke, John Hawkshaw, C.E., James Brunlees, C.E., William Lowe, C.E., Thomé de Gamond, C.E., and William Bellingham, secretary. In introducing the deputation, Lord R. Grosvenor explained the steps that had been taken to promote the object. The subject had been brought under the consideration of the Emperor Napoleon and the Imperial Government of France, by whom a commission of scientific men had been appointed to examine and report. The commission had reported in favour of the scheme and its practicability. The promoters ventured to think that, in an important international work of this character, involving very large expenditure, it would not be considered unreasonable in them to look to the two Governments of England and France for a certain degree of material encouragement and support. They accordingly solicited the two Governments to guarantee each 2½ per cent. upon two millions sterling, to be applied to the driving of two parallel mining headings or drift-ways from shore to shore. The French Government were waiting to see what action the English Government would take in the matter, and the object of the deputation in waiting on Mr. Bright was to ask that Government would take the subject into consideration. Mr. Bright asked a number of questions, chiefly affecting engineering points and the practicability of the scheme. The questions were answered by the engineers and others of the deputation to the apparent satisfaction of the right hon. gentleman, who engaged to take an early opportunity of bringing the matter under the consideration of the Cabinet.

THE BERMUDA DOCK.—Preparations for the departure of the Bermuda dock from Sheerness were commenced on Tuesday by pumping out 1,000 tons of water which had been admitted into the lower chamber for working purposes, getting the chain cables ready for shipping, and lashing the powerful steam-tugs detailed to tow the dock from Stangate Creek down Sheerness Harbour to the Nore. The cables of the dock were shipped at 4.20 on Wednesday morning, and the dock thus made the first movement on her passage out. The progress was of necessity slow, but by 5.30 the dock and the convoy had rounded Garrison-point Fort, a distance of nearly four miles from the creek where she had been moored. Although the hour was so early, a great concourse of spectators had assembled. On arriving at the Nore the Azimourt and Northumberland, ironclads, commenced the task of towing the dock to Madeira, with the Terrible astern for steering. The dock was to all appearances towing very steady, and had averaged a rate of five or six knots from the

Nore, and was going about the latter rate on Tuesday morning when approaching the Nab Light. The Medusa and Buzzard were on either bow towing vessels as "look-outs."

CHESTERFIELD HOUSE, MAYFAIR.—The residence of the famous Lord Chesterfield, has been disposed of at a very large price, and will shortly be available for building purposes, being one of the most valuable sites now left uncovered in Mayfair. It is now in the occupation of the Duke of Abercorn.

THE WATER SUPPLY.—The report of the Commission on the water supply of the metropolis has been laid on the table. Its general principles condemn the extraordinary sources of supply which have been recommended, and to recommend a revision and control. The water now supplied is favourably spoken of.

PROSECUTION FOR HERESY.—The preliminary proceedings against the Rev. C. Voysey for heresy, published in a book called "The Sting and Scum," which he is the author, took place on Thursday at London House, before a commission appointed for the purpose. The case for the prosecution having been stated, and the passages complained of read, the court decided that there was *prima facie* ground for the proceedings, which will now be taken in the Court of Lincoln.

THE FATAL FIRE AT PENTONVILLE.—At the weekly meeting of the Metropolitan Board of Works on Friday Mr. Thompson called attention to the proceedings at the coroner's inquest on the persons who died in the fire on the 5th inst. on Pentonville Hill, and moved that the fire brigade committee be instructed to make better provision for the preservation of life and property from fire in Clerkenwell. The motion was agreed to.

THE GUNPOWDER EXPLOSION AT HOUNSLOW.—The inquest was opened on Friday before Dr. Lush, when several witnesses were examined. It was proved that the first explosion occurred in a glazing-house, but that nearly, if not all, the mischief was produced by the subsequent explosion of the bombproof-house which ignited by the explosion of the other house, and it is the opinion of the coroner that this could not have occurred if the door had been closed at the time of the explosion of the glazing-house. Mr. Curtis said that every precaution was taken, but workmen in the midst of danger were reckless, that on one occasion he found a man at work with a lighted pipe in his pocket. The inquest was adjourned for a week.

THE PUBLIC HEALTH.—The Weekly Return of the Registrar-General states that in the week that ended on Saturday, June 19, 4,336 births and 2,830 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 23 per 1000 persons living, being 20 per 1000 in London, 40 in Edinburgh, 20 in Dublin, 18 in Bristol, 18 in Birmingham, 25 in Liverpool, 25 in Manchester, 24 in Salford, 23 in Smeetheld, 21 in Bradford, 21 in Leeds, 23 in Hull, 25 in Newcastle-upon-Tyne, and 25 in Glasgow. The rate in Vienna was 52 per 1000 during the week ending the 12th inst., and in Berlin 45 per 1000 during the seven days ending the 17th inst. In London the births of 949 boys and 855 girls, and 1,784 children, were registered in the week. In the corresponding weeks of 10 years, 1859-68, the average number, corrected for increase of population, was 2125. The deaths registered in London during the week were 1236. It was the 24th week of the year as the average number for that week, corrected for increase of population, was 1272. The present rate is therefore 36 below the estimated amount.

Provincial.

ALDERSHOT.—Three batteries of Royal Horse Artillery, the 5th Dragoon Guards, 7th Dragoon Guards, 6th Inniskillings, and 10th Hussars, formed up under command of General White, near the Queen's Pavilion, for field movements, on Monday evening, and were told off in two brigades, the first, or heavy brigade, consisting of the 5th and 7th Dragoon Guards, and the 2d, or light brigade, of the 6th Inniskillings and 10th Hussars. The former were commanded by the Hon. Colonel Calthorpe, and the latter by Colonel Baker. They first attacked to the westward of the waterworks. General White worked their way to the waterworks. General White then changed position to the right, and attacked the long valley. In this movement the light brigade formed line and advanced, supported by the heavy brigade. A dashing charge was made by the advanced column, and when near the north end of the valley Colonel Baker ordered his brigade to retire by column of troops, the left. As this movement was being executed Colonel Calthorpe's brigade was coming on at a gallop, and before the rear squadron of Inniskillings was clear the front of the left squadron of the 7th Dragoon Guards fell upon the flank of the rear squadron, and a fearful crash was the result, and a large number of men and horses were injured. A private of the 6th Inniskillings had his skull and ribs so severely fractured that he died on Tuesday. Another private of the same regiment had his right shoulder dislocated, and many others received contusions and sabre cuts. A horse belonging to the regiment, having his legs fractured, was shot in the field. Several other horses were slightly injured. At the inquest on Thursday the jury returned a verdict of Accidental Death, caused by the want of foresight and forethought on the part of Captain George Baker, or two of the jury objected to the latter part of the sentence, and the court was cleared, when it was affirmed by a majority of 12 to 2. A court of inquiry was held on the same day under the presidency of Major Sir A. Horsford, but the result will not be known until it has been submitted to the Horse Guards.

prices. As all the old Potatoes will be finished soon, this will be our last report for the season. This day's quotations:—York Regents, per ton, 50s. to 55s.; do. Flukes, 50s. to 55s.; Lincolnshire Regents, 50s. to 70s.; Dunbar and East Lothian do., 60s. to 90s.; Perth, Forfar, and Fife do., —s. to —s.; do. Rocks, 50s. to 70s.; Reds, 50s. to 60s.; French and Belgian Whites, 30s. to 50s.

LEADENHALL POULTRY, &c.

An increasing supply, with demand hardly equal to that of last week.

Table with columns for s.d. and s.d. listing prices for Geese, Goslings, Turkeys, Ducks, Ducklings, Surrey Fowls, Do. chickens, Barn-door Fowls, Leverets, Pigeons, Tame Rabbits, Wild Rabbits, Wild Ducks, Pheasants, Hares, Dotterel, Quails, English Eggs, and Foreign do.

ENGLISH WOOL.

There has been a fair demand, and a general belief prevails that we are likely to have a fair amount of business at present rates, with some prospect of improvement should trade generally become more active.

Table with columns for s.d. and s.d. listing current prices for fleeces (Southdown hoggets, Half-bred ditto, Kent Fleeces, Southdown ewes and wethers, Leicester ditto) and sorts (Clothing, Combing).

METROPOLITAN MEAT MARKET.—June 26.

Best Fresh Butter .. 14s. per dozen lb. Second do. do. .. 12s. Small Pork, 5s. 6d. to 5s. 4d.; Large Pork, 4s. 4d. to 4s. 8d. per 8 lb.

METROPOLITAN CATTLE MARKET.

MONDAY, June 21.

We have rather a shorter supply of Beasts, and choicest qualities maintain late quotations; otherwise trade is dull, and a clearance cannot be effected. There are a few more Sheep, and it is with difficulty our quotations are realised. Trade continues very bad for Lambs. Calves are selling about the same as on Thursday. Our foreign supply consists of 2593 Beasts, 11,030 Sheep, 371 Calves, and 5 Pigs; from Scotland there are 40 Beasts; from Ireland, 50; from Norfolk and Suffolk, 250; and 1100 from the Midland and Home Counties.

Table with columns for s.d. and s.d. listing prices for Best Scots, Herefords, &c., Best Shortborns, 2d quality Beasts, Best Downs and Half-breds, Do Shorn, and Beasts, 4010; Sheep and Lambs, 29,520; Calves, 395; Pigs, 85.

THURSDAY, June 24.

The supply of Beasts is again short, especially of choice English; on the average prices are lower, and it is exceedingly difficult to effect a clearance. The number of Sheep is larger, and trade is very dull; prices are lower, and several lots remain unsold. The supply of Lambs considerably exceeds the demand. Calves are also lower. Our foreign supply consists of 329 Beasts, 5220 Sheep, 584 Calves, and 5 Pigs.

Table with columns for s.d. and s.d. listing prices for Best Scots, Herefords, &c., Best Shortborns, 2d quality Beasts, Best Downs and Half-breds, Do Shorn, and Beasts, 770; Sheep and Lambs, 15,300; Calves, 754; Pigs, 20.

MARK LANE.—MONDAY, June 21.

There was a poor supply of English Wheat this morning's market, which was sold at an advance of 3s to 4s. per qr. on the prices of this day at night. The attendance was good, and a fair amount of business transacted in foreign, at an improvement of 2s. per qr. on that day's rates. Barley was 6d. to 1s., Beans and Peas 1s., and Oats 6d. per qr. dearer. There was no alteration in the nominal top price of Flour, but second qualities, country, and American barrel Flour advanced 1s. per sack and barrel.

Table with columns for s. s. and s. s. listing prices for WHEAT, BARLEY, OATS, RYE, RYE-MEAL, BEANS, PEAS, MAIZE, and Flour.

FRIDAY, June 25.

The weather we have experienced throughout this month having considerably retarded the growth of the Wheat plant, which is only now coming into ear, puts the time for harvesting back to the middle of August, and we must therefore look to old stocks and near supplies to provide for about five weeks' more consumption than was at one time thought necessary. This circumstance, and the fact that a late Wheat crop is always exposed to greater risks in housing, &c., has given a strong upward tendency to prices, buyers for speculation and immediate consumption having come forward largely, and the value of Wheat has quickly advanced from 2s. to 4s. per qr., but during the last day or two the demand has been less active. The value of spring corn of all sorts has also improved, and we are enabled to write Oats 6d. per qr., and Beans, Peas, and Barley about 1s. per qr. dearer. Flour has followed the movement of Wheat, but the advance has been more limited, say 1s. per barrel, and 1s. to 2s. per sack. The arrivals of grain and seed-laden vessels off the coast

since Friday last consisted of 97 cargoes, of which, with those left over from last week, there remained for sale last night 51 cargoes. With some slight fluctuations the tendency of the trade has been for higher prices. Wheat improved about 1s. 6d. to 2s. per qr. Maize was in strong demand, in spite of large supplies off the coast, and commanded rather more money at the close of the week, whilst Barley was firm at late rates. Of Rye there were no offers of cargoes off the coast. Wheat on passage and for forward shipment met with attention at the commencement of this week, and prices improved about 1s. per qr.; within the last day or two, however, a quieter feeling prevailed. All other articles remained steady. Paris, June 24.—Under the influence of continued unfavourable weather both Wheat and Flour followed an upward tendency. The eight marks are quoted at equal to 38s. 3d. per 280 lb. The stock at the Halle is estimated at 6640 cwt. The arrivals of English and foreign Wheat and foreign Oats this week have been moderate, but of Barley none. There was a poor attendance at this morning's market, and but little disposition shown to purchase Wheat, either English or foreign; factors, however, were not disposed to give way in price, consequently very little business was transacted. Spring corn was unchanged in value.

ARRIVALS.

Table with columns for Wheat, Barley, Oats, and Flour, listing arrivals in English, Irish, and Foreign.

AVERAGES.

Table with columns for Wheat, Barley, and Oats, listing averages for May 15, 22, 29, June 5, 12, 19, and an overall average.

LIVERPOOL, June 23.—We had a fair attendance at our market to-day, and for Wheat there was an active demand, at an advance of 2d. per cental on Tuesday's rates. Flour met a better inquiry, at previous full rates. Indian Corn was in moderate request, at an advance of 3d. to 6d. per qr on last Friday's rates. Oats and Oatmeal quiet and unchanged. Egyptian Beans in improved request, at an advance of 6d. to 1s. per qr. Other articles unchanged.

SEED MARKET.

We have this week to report an increase of activity in the agricultural seed trade. The recent very unfavourable weather, and the exceedingly bad accounts which come to hand of the growing crops, have caused a fair amount of speculation on our market; there has consequently been during the present week a brisk inquiry for Red Clover, and especially for Trefoil seed; all descriptions of new red are held with great firmness, while for Trefoil seed we note an advance within the last five or six days of 2s. to 3s. per cwt. Sowing Mustard seed continues in short supply, and realises extreme rates. Of Essex dwarf Rape seed there is very little offering; we quote it 2s. per qr. dearer. Bird seeds move off steadily at recent prices. Feeding Linseed is in good demand, and is without change in value.

JOHN SHAW & SONS, 16, WATER LANE.

To Landscape Architects' Assistants.

MR. JOSEPH NEWTON, LANDSCAPE ARCHITECT and ESTATE IMPROVER, 74, Oxford Terrace, Hyde Park, is in WANT of a Young Man as an ASSISTANT, to go to New York. One capable of making Working Plans from rough sketches and Contour Plans to Working Scale, and to fill in the Planting of Trees and Shrubs in a way that the same can be carried out by a Gardener used to ground work either in Europe or America; he must also understand Horticulture. Wages to begin with, 1000 dollars per annum. Those desiring such a situation are invited to send Specimen Plans, with reference, to Mr. NEWTON, which will have his earliest attention as soon as he returns to London.

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WANTED IMMEDIATELY, a thoroughly steady respectable COUPLE, without children.—The Man as Second Gardener, the Wife to undertake Laundry Work.—Address J. H., Mr. Dowle, Bootmaker, Strand (near Charing Cross).

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. E. G. HENDERSON and SON, Wellington Nursery, St. John's Wood, London, N.W.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS, and GARDENERS and BAILIFFS, of various qualifications, who are open to Engagements. The fullest particulars as to services required and wages given should be forwarded with application.—PAUL'S Nurseries, Waltham Cross, London, N.

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GARDENER (HEAD).—Married; understands Pines, Melons, Orchids, and the profession in all its branches.—W. W., Mrs. Perry's, Half Way Street, Eltham, Kent.

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The Gardeners' Chronicle Newspaper.

SATURDAY, JULY 3, 1869.

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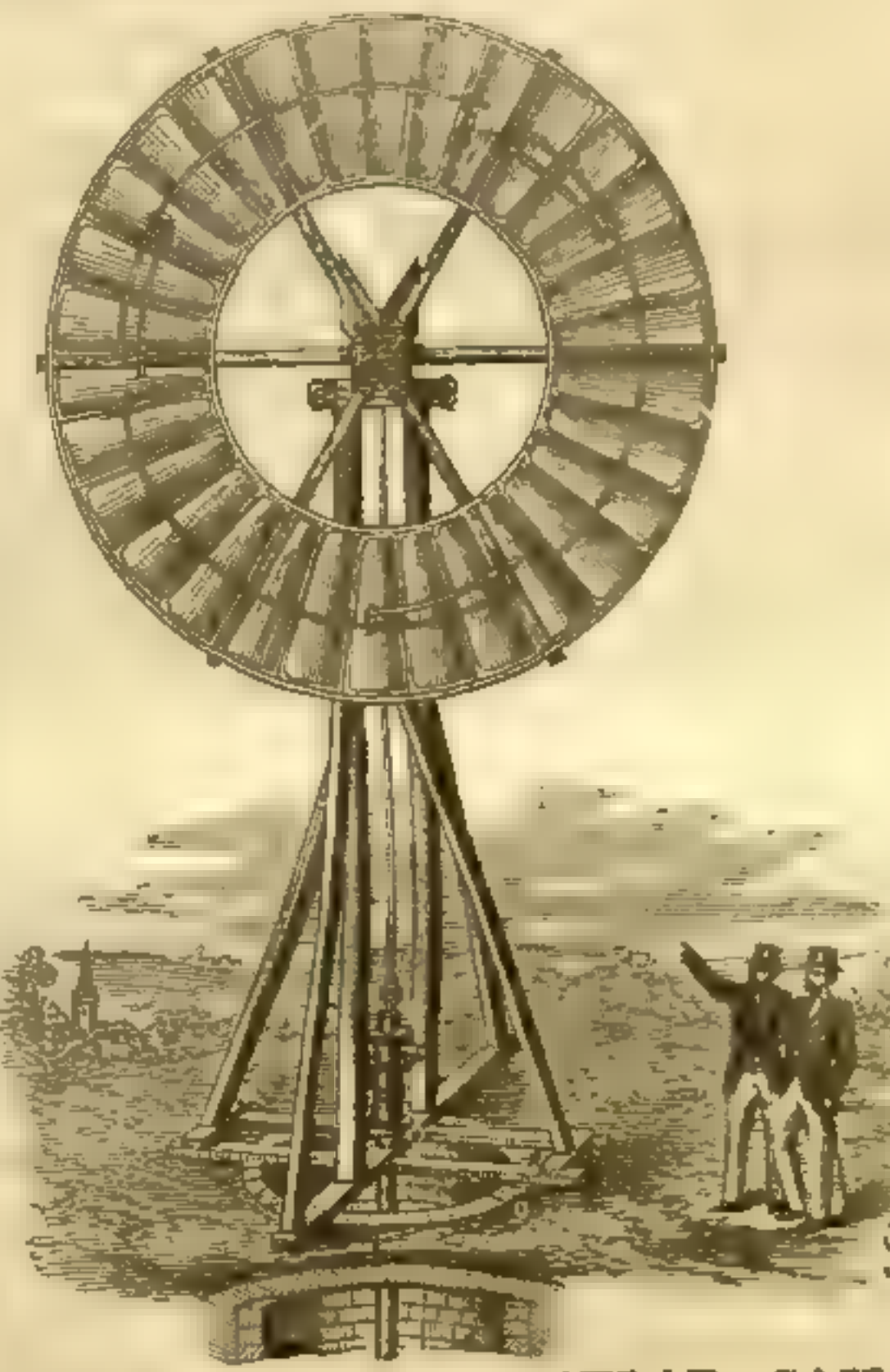


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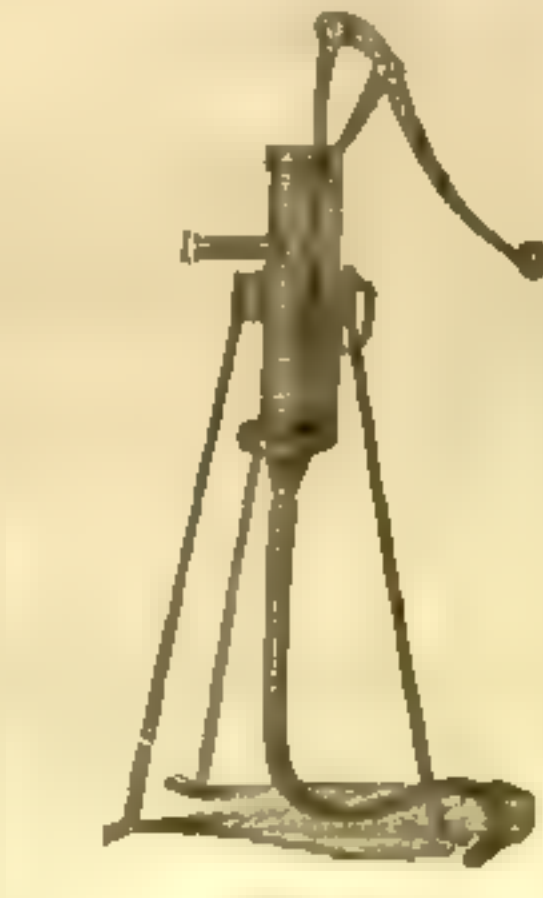
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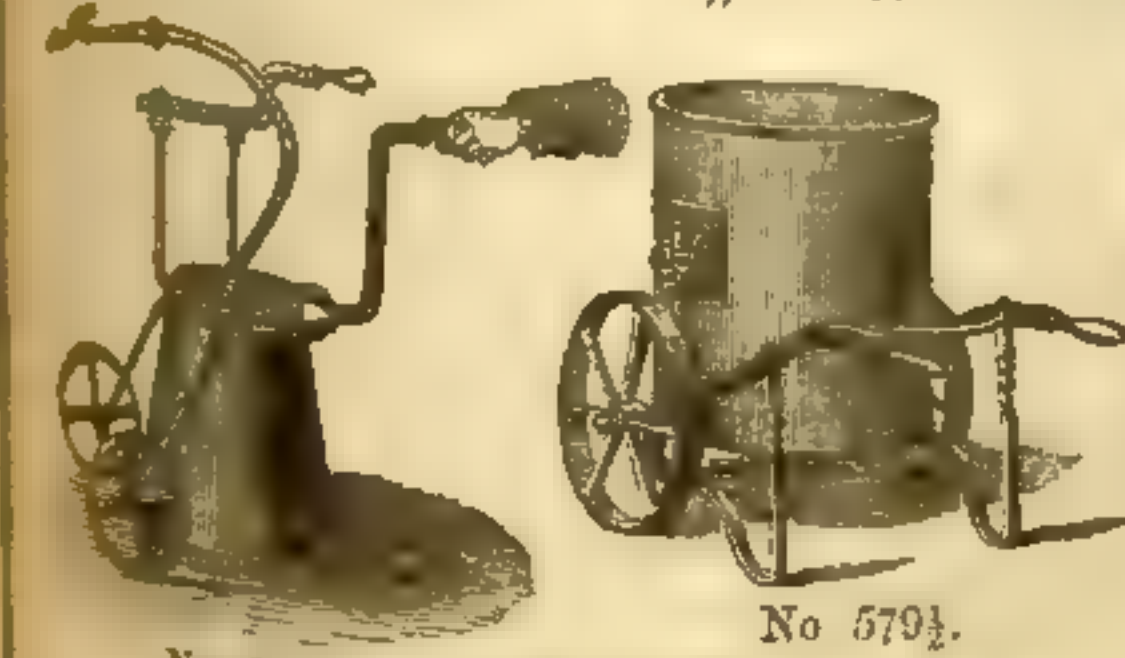
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Home News.

THE COURT.—On Friday afternoon the Duke of Cambridge, as President of Christ's Hospital, went to Windsor with the boys of the Royal Foundation of King Charles II., who exhibited their drawings and charts to Her Majesty. The Queen, accompanied by Princess Christian and Princess Beatrice, afterwards visited the Camp in the Great Park. On Saturday morning, the Queen, accompanied by Princess Christian and Princess Louisa, was present at the formation of a pontoon bridge by the Royal Engineers, between Datchet and the Home Park. In the afternoon, the Prince and Princess of Wales, the Viceroy of Egypt, Hassan Pacha, and Tousson Pacha, arrived at the Castle from London, and accompanied the Queen and Royal family to the Great Park, where Her Majesty reviewed the household troops. After the review, the Prince and Princess of Wales, and the Viceroy of Egypt, Hassan Pacha, Tousson Pacha, and the Prince and Princess of Teck, left the Castle for London. In

the evening the Queen, accompanied by Princess Louisa and Princess Beatrice, drove to the Home Park, to witness the battalions of Foot Guards crossing the pontoon bridge to Datchet on their return to London. The Lord-Lieutenant of Ireland, the Countess and Lady Sarah Spencer arrived at the Castle on a visit. On Sunday morning the Queen, with Princess Louisa and Princess Beatrice, attended Divine service at the camp of the troops in Windsor Park. The Rev. Henry Hawtrey officiated. In the evening her Majesty, with the Princesses Louisa and Beatrice, Prince Christian and Prince Leopold, paid another visit to the camp, and after driving round the encampment, which was thronged with visitors from Windsor and the surrounding district, the Queen alighted and inspected the tents and quarters of the 1st and 2d Life Guards, the 5th Dragoon Guards, and Prince Arthur's battery of Royal Artillery. On Monday morning the Queen and Royal family left Windsor for Buckingham Palace, travelling by special train on the Great Western Railway to Paddington, and proceeding thence in open carriages to Buckingham Palace, escorted by a detachment of the 17th Lancers. In the afternoon the Queen gave a breakfast to the Viceroy of Egypt, the Royal family, and a large party of the nobility, from half-past 4 to half-past 7 o'clock, in the gardens of Buckingham Palace, where tents had been erected for the occasion. During the breakfast selections of instrumental music were played by the bands of the 1st Life Guards, the Coldstream Guards, and her Majesty's private band, and a concert was given by the Tyrolese singers and the Swedish quartett singers. In the evening Princess Louisa and Prince Arthur were present at the Philharmonic concert in St. James's Hall. On Tuesday morning the Queen and Royal family returned to Windsor by special train on the Great Western Railway, escorted to Paddington station by a detachment of the 17th Lancers. Prince Arthur left the Palace for Hounslow to march with his Battery of Royal Artillery to Woolwich. On Wednesday the Queen drove out. On Thursday morning the Queen, accompanied by Princess Louisa, Prince Leopold, and Princess Beatrice, left the Castle for Aldershot Camp, and was present at a review of the troops in camp. The Prince of Wales met her Majesty at Aldershot, and took part in the review as Colonel of the 10th Hussars. Her Majesty slept at the Royal Pavilion on Thursday night, and yesterday morning, after going through the camp, returned to Windsor.

THE PRINCE AND PRINCESS OF WALES returned to Marlborough House on Friday morning from visiting the Queen at Windsor Castle. In the afternoon the Princess drove out. In the evening the Prince and Princess gave a dinner and concert in honour of the Viceroy of Egypt. On Saturday the Prince and Princess went to Windsor, and were present at the review held by the Queen in honour of the Viceroy of Egypt. On Sunday the Prince and Princess attended Divine service at the Chapel Royal, St. James's. The sermon was preached by the Hon. and Rev. Augustus Phipps. On Monday the Prince and Princess went to Redhill, where his Royal Highness laid the foundation stone of the new wing of the Idiot Asylum at Earlswood. In the afternoon their Royal Highnesses were present at the breakfast given by the Queen at Buckingham Palace. The Prince and Princess afterwards went to the Philharmonic Concert at St. James's Hall. In the evening their Royal Highnesses were present at a party given by the Duke and Duchess of Sutherland at Stafford House to the Viceroy of Egypt. On Tuesday the Prince inspected the corps of the Royal Body Guard of the Yeomen of the Guard in the gardens of St. James's Palace. Their Royal Highnesses afterwards went with the Viceroy of Egypt to the fête at the Crystal Palace. On Wednesday morning the Prince presided at a meeting of the governors of Wellington College, at the Palace of Westminster. The Princess drove out. In the evening their Royal Highnesses dined with the Duke and Duchess d'Aumale, at Twickenham, and were afterwards present at a ball given to the Viceroy of Egypt by Frances Countess Waldegrave, at Strawberry Hill. On Thursday morning the Prince went to the Charing Cross station of the South-Eastern Railway, and took leave of the Viceroy of Egypt on his departure from England. His Royal Highness afterwards left Marlborough House for Aldershot, where he took the head of his regiment, the 10th Hussars, in the review and manoeuvres of the troops in camp in the presence of her Majesty. In the evening the Prince dined with his regiment in camp. Yesterday his Royal Highness, with Prince Arthur, was present at a cavalry field day in the Long Valley.

DEPARTURE OF THE VICEROY OF EGYPT.—His Highness the Viceroy of Egypt left London on Thursday morning for Brussels. On Tuesday evening his Highness dined with the Prince and Princess of Wales at Marlborough House, and afterwards attended the Caledonian Ball. On Saturday the Viceroy went to Windsor, and was present at the review of the household troops by her Majesty the Queen. In the evening his Highness went to the French play at St. James's Theatre. On Sunday afternoon the Viceroy visited the Zoological Gardens. On Monday afternoon his Highness was entertained by the Queen at a garden party in the grounds of Buckingham Palace, and in the evening dined with the Duke and Duchess of Sutherland at Stafford House. On Tuesday his Highness, accompanied by the Prince and Princess of Wales, went to the Crystal Palace, where a fête, comprising a concert, a display of the great fountains, and illuminations had been prepared in his honour. During the fête his Highness and Royal party were entertained at dinner by the Duke of Sutherland. On Wednesday the Viceroy inspected the Metropolitan Fire Brigade, and witnessed the operations of the fire escapes and

steam fire engines in the gardens of Buckingham Palace. In the afternoon his Highness paid farewell visits to the Turkish and French Ambassadors, the Duke of Argyll, the Earl of Clarendon, and the Archbishop of Canterbury. In the evening his Highness went to Strawberry Hill, and dined with the Countess (Frances) Waldegrave and Mr. Chichester Fortescue. On Thursday morning his Highness left Buckingham Palace and proceeded by railway to Dover, where he embarked for Calais, on his way to Brussels. His Highness was received at Dover with full military honours, and was escorted across the Channel by a squadron of ironclads, which saluted him on embarking at Dover and on his arrival in Calais Roads. His Highness arrived at Brussels about 10 P.M.

THE CABINET.—A Cabinet Council was held on Saturday in Downing Street.

CONSECRATION OF COLONIAL BISHOPS.—On Tuesday three colonial bishops were consecrated in Westminster Abbey—the Rev. S. E. Marsden, M.A., vicar of Bengeworth, Worcestershire, as Bishop of Bathurst, in Australia; the Rev. Wm Garden Cowie, rector of Stafford, as Bishop of Auckland, in New Zealand; and the Ven. Walter Chambers, as Bishop of Labuan. The Archbishop of Canterbury officiated, and was assisted by the Bishops of Ely, Lichfield, Worcester, London, and Colombia; Bishop M'Dougal and Bishop Ryan. The sermon was preached by the Bishop of Lichfield.

THE PEERAGE.—The Queen has directed letters patent to be passed under the Great Seal, granting the dignity of a baron of the United Kingdom to Baron Rollo, and the heirs male of his body lawfully begotten, by the title of Baron Dunning, of Dunning and Pitcairns, in the county of Perth.

THE REVENUE.—The Revenue returns for the year and quarter ended the 30th ult. show an increase of 3,052,735*l.* on the year, and an increase of 563,011*l.* on the quarter. The year's account shows an increase in the Excise of 585,000*l.*, Property Tax, 1,969,000*l.*; Post Office, 60,000*l.*; Crown Lands, 15,000*l.*; Miscellaneous, 606,735*l.*; and a decrease in the Customs of 118,000*l.*, Stamps, 34,000*l.*; Taxes, 31,000*l.* The quarter's account shows an increase in the Customs of 62,000*l.*, Excise, 114,000*l.*; Stamps, 114,000*l.*; Property Tax, 220,000*l.*; Crown Lands, 1000*l.*; Miscellaneous, 98,041*l.*; and a decrease in the Taxes of 46,000*l.*

Foreign.

FRANCE.—The Emperor arrived at Beauvais on Sunday, to be present at the agricultural exhibition, and met with a splendid reception from the citizens and from 100,000 visitors in the town. In reply to an address from the Mayor, his Majesty said:—

"I rejoice that by coming here I am able to bear witness to the progress made in agriculture and manufactures, which progress is mainly due to the good order maintained during the last 17 years. I trust that the interests of agriculture will continue to progress. Don't let your confidence be shaken, for the good order now existing will assuredly never be seriously disturbed."

In reply to the Bishop of Beauvais, his Majesty said that he always received the addresses of the bishops with great marks of deference, because they invariably contained expressions of piety, and never failed to call to mind holy doctrines. Should his prayers be heard, religion would be held in honour, the people would be happy, and France great and prosperous. The newly-elected Legislative Body assembled for the first time on Monday, when M. Rouher, Minister of State, read the following statement:—

"The present extraordinary session is necessary in order to hasten the verification of the elections, and thus put an end to all uncertainty respecting the validity of the electoral proceedings. According to the Government's intentions the present session has no other object. The recomposition of the Legislative Body by the process of universal suffrage is a natural opportunity for the nation to manifest its thoughts, its wants, and its aspirations. But the examination of the political results of this manifestation on the part of the people should not be precipitate. At the ordinary session the Government will submit to the high consideration of the public bodies the resolutions and projects which seem to it the most calculated to realise the wishes of the country."

This declaration was received with marks of approval from several benches, and the Chamber adjourned. In the sitting of Thursday 69 elections were declared valid. It is asserted that MM. Emile Ollivier, Segris, Buffet, and other members of the Third Party, will to-day call the attention of the Government to "the necessity of satisfying the wishes of the country by letting it take part in a more efficient manner in the direction of public affairs." In consequence of M. David, Vice-President of the Legislative Body, having been raised to the rank of Grand Officer of the Legion of Honour, M. Schneider, the President of the Chamber, sent in his resignation to the Emperor, who declined to accept it, and stated that in conferring the rank upon M. David he had no intention of offending the dignity of M. Schneider, or of weakening the moral authority of the President of the Legislative Body. His Majesty, moreover, repelled the idea that M. David's appointment could possess a reactionary significance, and concluded as follows:—

"The policy of my Government is shown so clearly as to avoid any equivocal interpretation. Now, as before the elections, it will continue the task it has undertaken—namely, that of reconciling the existence of a strong power with that of sincerely liberal institutions."

M. Henri Rochefort has been sentenced, on the charge of complicity in the illegal introduction of the *Lanterne* into France, to three years' imprisonment, to a fine of 10,000 francs, and to the forfeiture of his rights as a citizen, including his right of voting and his eligibility to the Legislative Body, for the term of three years. The proceedings against the *Sicéle* have resulted in the condemnation of M. Limousin to one month's imprisonment and a 500 francs fine, and in that of M. Jourdan to two months' imprisonment and a 500 francs fine. In the case of the *Electeur Libre*,

M. Herbette has been sentenced to one month's imprisonment and a fine of 300 francs; and of the *Comité Nationale*, M. Poulet has been sentenced to one month's imprisonment and a fine of 500 francs.

SPAIN.—In the sitting of the Cortes on Tuesday Senor Sagasta, Minister of the Interior, and the Government would punish the abettors of constitutional manifestations. In the sitting of Wednesday the Minister of Justice declared that the Government would be ordered to swear fidelity to the Constitution. The sitting of Tuesday the proposed modification of the tariff was agreed to without modification. Amendments to the Article relating to the Customs duties have been rejected. A majority of confidence was passed in General Prim, and Admiral Topete. In the evening's sitting of the Cortes General Prim, in reply to Senor Sagasta, declared that the Government would never attempt a *coup d'état*, but would endeavour towards consolidating liberty.

In the sitting of Wednesday the Cortes definitively passed the Budget of revenue, and authorised the Government to lay out the sums necessary to be expended for the public service during the three months commencing the 1st inst. Admiral Topete declared he was not a public arsenals should be carried on by private enterprise if he found any firm who would undertake to do so. Senor Zorilla said he recognised the fact that a political revolution had been accomplished, and that an economical revolution had not yet been accomplished. General Dulce arrived at Madrid on Saturday from Cuba.

PORTUGAL.—The Chamber of Deputies on Wednesday voted the proposed augmentation of taxes. Cardinal-Patriarch of Lisbon is seriously ill.

BELGIUM.—It is generally reported that a difficulty has occurred in the negotiations with France on the railway question. M. Vandersweep, one of the Belgian Commissioners, returned to Brussels on Friday. M. de Beaulieu, the Belgian Minister in London, arrived in Brussels last week, and acquaint his Government with the desire entertained by the British Cabinet that Belgium should accede to the demands of France on the railway question. He asserted that M. de Beaulieu has returned to London with the assurance of the Belgian Government that it will act in the manner desired.

PRUSSIA.—Prince Gortschakoff arrived at Berlin on Tuesday, and on the same day had a long interview with Count Bismarck, who left for Varzin on Wednesday. A Royal Cabinet order was issued on Tuesday granting Count Bismarck leave of absence from the Presidency of the Ministry for several months, relieving him of the duty of attending the Prussian Councils.

ITALY.—The King paid a visit to the Duchy of Aosta on Saturday. Her Royal Highness is considered out of danger. At Bologna a severe undulatory earthquake was felt on Saturday afternoon, lasting 10 seconds, and taking a direction from N.N.E. to S.S.W. The clocks of the city were stopped and the bells rung by the shock. The Parliamentary Commission of Inquiry into the affair of the Turin Convention having heard the evidence of Brenna, Fambri, and Civinini, the Depu-tes rested, and having examined the documents in the case, it has decided to reserve its opinion on the case until after further investigations have been instituted. It has also determined that the inquiry shall be prosecuted at the public sittings of the Chambers. At the first of these sittings on Thursday, Deputies Crotti, Lobbia, Fambri, and Brenna were examined.

PAPAL STATES.—The Pope delivered an Allocution on Friday in a Secret Consistory held for the purpose of creating 14 Archbishops and Bishops. His Holiness deplored the new law adopted in Italy for sending clerical pupils to military conscription as being an infringement of the immunities, the rights, and the liberty of the Church. He dwelt upon the lamentable evils afflicting the Church in Austria and Hungary, and upon the just complaints of the bishops of those countries. The events in Spain also gave cause for sadness and mourning. In Poland the Russian Government continued its persecutions, which had led to the exile of Catholic bishops still the episcopate was undaunted by those trials, was a source of consolation. His Holiness said, in conclusion:—"Let the enemies of Christ consider how terrible will be the fate of those who do not bring them back from the way of perdition to the paths of justice, and to crown the Church with fresh triumphs." On Monday, being the Feast of St. Peter and St. Paul, the Pope performed High Mass in St. Peter's. The Austrian and French Ambassadors and the ecclesiastical, civil, and military dignitaries attended. The Pope read the usual protest against the invaders of the patrimony of St. Peter.

CAPE OF GOOD HOPE.—Accounts from Cape Town to the 19th May state that the elections that had been decided had placed the Conservatives in a considerable majority. Mr. Solomon, the leader of the Conservative party, and for 15 years a representative of Cape Town, had lost his seat. The returns of the revenue and expenditure for last year had been published, and showed no improvement in the financial position of the Colony. The President of the Free State, on the occasion of his inauguration for a second term of office, had shown a broader and more liberal policy than had hitherto prevailed. The *Transvaal Argus*, the only newspaper published within the extensive dominions of the Free State, had been suppressed for making the revelation to the prevalence of slavery in that State. Several small diamonds had been found. The Port Elizabeth prospectors had returned from Tatin, being enabled to find gold in payable quantities. The farmers who had fallen in the Western Provinces, and the farmers who were good. The Government have set free

... have so long been kept in confine-
ment—Marco, Seyolo, and No-
... have been forwarded to the frontier by way

The Legislative Council of the Viceroy met
this season at Simla on May 19.
Lord Mayo is likely to invite the Duke
and a number of other notabilities from
to be present at the great Agra durbar in
next.

A line of steamers has been started
between Broach, Gogo, and
Nagpore.

It is said that Government has
a branch railway from Shegaum to
one of the great cotton marts of Central
lines are to be made to connect the
marts of Khangaum and Comrawuttee
extension of the Great Indian
The Nicobar Islands, taken possession of
her Majesty in March last, are to be
with Chinese. More than a sufficient
of Chinamen at Singapore have expressed
to leave the Straits Settlements for

Proposal have been published for hold-
ing an agricultural exhibition at Lahore next year.
again entirely disappeared from the
at Allahabad.

The Imperialists have gained a signal
over the Mahomedan rebels, 20,000 of whom
A scientific expedition from Australia
at Hong Kong. A proclamation has been
at Soochow warning the authorities and
to modify their rancour towards Christians,
prisoners are allowed by treaty to propa-
gandize religion at any place they please, and that if
any church members they do so volun-
tarily are not forced. The proclamation enjoins
the people to mind his own business, and not
to meddle with things which are to no purpose, and only
to disturb the peace. It concludes by saying that if any
person should disobey the proclamation, such person will
be arrested and severely punished.

Advises from Japan state that further
aid had been offered to foreigners, and disturbances
are expected.

UNITED STATES.—The national monument at Gettysburg
in memory of all the soldiers who fell there,
was dedicated on Thursday. All the survivors of the
battle, as well as numerous civic societies, were invited
to be present. An address was delivered by Senator
Cass of Indiana. Mr. Henry Ward Beecher offered
prayer and a poem was recited by Mr. Bayard
Pierpont. General Stekes, the newly appointed United
States Minister at Madrid, sailed on Thursday. It was
announced on Thursday that the public debt of the
United States has been decreased by over 16,000,000 dols.
during the month of June. The State Department has
appointed a special agent to Cuba to ascertain the strength
and prospects of the insurgents. Two small steamers,
carrying 90 men of Colonel Ryan's expedition, in aid
of the Cuban insurgents, were captured on Tuesday
in Long Island Sound by a Revenue steamer.
The men have been lodged as prisoners in the Brook-
lyn Navy Yard. It is believed that the steamer carrying
the remainder of the expedition has been
captured. Several additional arrests of members
of the Cuban Junta in New York were made on
Thursday. Mr. Banks, member of Congress, is
opposing the recognition of the belligerent
status of the Cuban insurgents. The Spanish
Minister at Washington has informed the State
Department that he will demand his passports if any
insurgent be granted to M. Lemus, the
insurgent envoy. The ex-President, Mr.
Johnson, is in Washington. Mr. George
Johnson, formerly Attorney-General of New
York, has been appointed Secretary of the
succeeding Mr. Borie, of Pennsylvania,
Governor. The Republicans of Maine have nomi-
nated Mr. Joshua Chamberlin as Governor.
The Republicans have carried the municipal election
at Portland. The New Hampshire Legislature has
passed the 15th constitutional or negro suffrage
amendment. The registration in Virginia shows a
majority of 20,000 white voters. Irish Republican
clubs are being organized in all the principal cities of
the State. The Wheat crop now growing is the largest
ever has been raised in the United States.
The crops, however, are committing terrible ravages
in the Green Mountains in Utah and the adjoining territories.
The Arizona Indians have been renewing their depreda-
tions on Arizona.

Parliament.

In the House of Lords, on Monday, the Poor Relief
Act (1862) Amendment Bill was read a
second time and passed. Earl DE GREY and RUPON
briefly explained its object and provisions.
The Earl of NELSON supported the Bill, although he feared
it would go far enough. He lamented inci-
dentally the dissolution of the monasteries, which
had served as a basis for the education of the
poor. The Bishop of ELY objected to that part of
the Bill which empowered the Commissioners to
alter the character of the governing body, and to get
the Bill then passed through Committee, and after
remarks by Lord TAUNTON, the Earl of HAR-
ROLD, the Earl of CARNARVON, Earl FORTESCUE,
and the Bishop of GLOUCESTER, it was read a second
time on Tuesday the House went into Committee
on the Irish Church Bill, when Earl GREY moved the
amendment of the preamble of the words prohibiting
the application of the surplus for the maintenance of any
school or clergy, or the teaching of any religious
doctrine, and contended that Parliament was bound
to apply some portion of the surplus to the Roman

Catholics and Presbyterians. Earl GRANVILLE opposed
the motion, and said that the Government did not
think that the plan of concurrent endowment was now
practicable. The Bishop of OXFORD regarded the
question of disestablishment as irrevocably settled, but,
so far as endowments were concerned, he hoped their
lordships would deal generously with a Church which
had yet to learn the lesson of standing alone. No
Church which could not survive disestablishment
was worth being established. He deprecated the
protracting of the struggle as the most fatal of
all possible injuries to the Irish Church, and
thought that the residue might be properly applied
to the support of other denominations. The
Bishop of ST. DAVID'S expressed his satisfaction that
the Bishop of Oxford, though personally prevented
from taking part in the debate on the second reading,
agreed in spirit with the views he had himself
expressed on that occasion, and intimated his assent
to the principle of concurrent endowment. After
some remarks from Lord CAIRNS, Earl RUSSELL, the
Earl of DALHOUSIE, the Archbishop of CANTERBURY,
the Earl of KIMBERLEY, the Earl of BANDON, Lord
WESTBURY, and the Marquis of SALISBURY, several of
whom spoke in favour of the Duke of Cleveland's
amendment, Earl GREY withdrew his motion. The
preamble was then postponed, and the first clause,
defining the short title of the Bill, was agreed to. On
clause 2, providing for the dissolution of the legislative
union between the Churches of England and Ireland
on and after the 1st January, 1871, the Archbishop of
CANTERBURY moved to postpone the date of dissolu-
tion for another year, and, on a division, carried his
amendment by 130 to 70, being a majority of 56 against
Ministers. The clause as altered was then agreed to.
Clause 3, relating to the appointment of Commissioners,
was also amended at the instance of the Archbishop,
by requiring that the Commissioners should be members
of the Church of England or Ireland. In clause 4
Lord MONCK moved an amendment, giving the right
of appeal from the decision of one commissioner to the
three. The amendment was agreed to. The remainder
of the sitting was occupied with the discussion of the
clauses relating to the constitution and powers of the
commissioners, and prohibiting future ecclesiastical
appointments by the Crown, all of which were agreed to.
After clause 10 had been agreed to progress was
reported. On Thursday, after the Beerhouses Bill had
been read a third time and passed, the House went into
Committee on the Irish Church Bill. Clause 11 was
agreed to. In clause 12 the date 1871, in accordance
with the motion of the Archbishop of CANTERBURY,
was altered to 1872, on the understanding, suggested by
Lord CAIRNS, that the question of restoring the original
date should be subsequently considered. An addition
to the clause, moved by Lord CAIRNS, that property
should be transferred subject to the same rights of
renewal of tenants' leases as were possessed by tenants
of lands belonging to sees suppressed by the Act of
William IV., was accepted by the Government. In
clause 13 the Duke of SOMERSET suggested the aboli-
tion of the existing restriction on the election of Irish
clergy as members of the House of Commons. The
Earl of CLANCARTY moved an amendment to preserve
to the present Irish prelates their right to sit in the
House of Lords. The Earl of DERRY, the Marquis of
SALISBURY, Lord CAIRNS, Lord HOUGHTON, and
other peers, supported the amendment, which was
ultimately agreed to by the Government. Lord COL-
CHESTER moved an amendment, authorising the
bishops to use their territorial titles without incurring
penalties under the Ecclesiastical Titles Act. Earl
GRANVILLE opposed the amendment, which was
negatived without a division. In clause 14 the Bishop
of PETERBOROUGH moved an amendment to enable
the holders of bishoprics and preferments to deduct
from their yearly income the tax on clerical incomes
now paid to the Ecclesiastical Commissioners. Earl
GRANVILLE and the Duke of ARGYLL opposed the
amendment as repugnant to the principle of the Bill.
On a division, the amendment was carried against the
Government by 91 to 50. The Marquis of SALISBURY
moved an amendment that curates' salaries should
not be deducted from the life annuities of incumbents.
After some discussion the amendment was agreed to,
with a qualification suggested by Lord KIMBERLEY,
excepting cases where there existed a legal obligation
to employ a curate. The Bishop of PETER-
BOROUGH moved an amendment that incomes
below 200l. a year should be raised by the Com-
missioners to 200l. The motion was opposed by
Ministers, and was ultimately withdrawn. On reaching
clause 23, the Earl of CARNARVON moved an amend-
ment providing for the commutation of life interests,
and fixing 14 years' purchase of the aggregate yearly
income as their value. The Archbishop of YORK said
that as this amendment embodied his views to a great
extent, he would withdraw in its favour the amend-
ment of which he had given notice. Lord CAIRNS
supported the motion, which was opposed by the Earl
of KIMBERLEY and Earl GRANVILLE, who offered a
compromise on the part of the Government. On a
division Lord CARNARVON'S amendment was carried
against the Government by 155 to 86. Clauses 23 and
24 were then agreed to, and progress was reported.
Yesterday Earl RUSSELL announced his intention to
move the third reading of the Life Peerages Bill on
the 8th inst. The House then went into Committee
on the Irish Church Bill, when the Duke of CLEVE-
LAND stated that in reference to the amendment which
stands in his name, he had decided to let the Marquis
of Salisbury take precedence, entirely concurring in
his amendment, and with the justice and expedi-
ency of his proposal. The Marquis of SALISBURY
then proceeded to move his amendment, and was left
speaking.

In the Commons on Friday the Bankruptcy Bill,
the Imprisonment for Debt Bill, the Insolvent Debtors

and Bankruptcy Repeal Bill passed through Com-
mittee, and the Courts of Justice (Salaries and Funds)
Bill was read a second time. Colonel FRENCH and Sir
R. ANSTRUTHER made some remarks on the dis-
courteous reception given to the Pacha of Egypt on
his landing at Dover and on his arrival in London.
Mr BRUCE said that a suitable vehicle was in waiting
at Dover, but that his Highness, as many an English
prince had done before him, preferred to walk from the
pier to the railway station. Mr CARDWELL expressed
his regret that the escort intended to have accom-
panied the Viceroy from Charing Cross Station to
Buckingham Palace had not arrived in time, and said
that the officer in command had been reprimanded for
his inattention. Mr FAWCETT called attention to the
report of the Commissioners appointed to inquire into
the condition of women and children employed in agri-
culture, and moved a resolution that the education of
labourers was in general in so unsatisfactory a condition
that immediate legislation upon the subject was
imperatively demanded, and that the Government
ought to legislate upon the subject during the next
session of Parliament. Lord F. CAVENTISH seconded
the motion, which was supported by Mr. M. WHITE-
RIDLEY. Mr BRUCE agreed that Parliament must
take up the question, and that in some way compulsion
must be employed similar to that which had been
applied to the manufacturing population. He declined,
however, to pledge the Government to legislate next
session, but promised that when the Commissioners
had concluded their labours, their recommendations
should be carefully considered. After some remarks
by Mr HENLEY, Mr SCOURFIELD, Mr G. GREGORY,
and Colonel BRICE, the resolution was withdrawn.
The motion to go into Committee on the Metropolitan
Poor Act (1867) Amendment Bill was opposed by
Mr. McCULLAGH TORRENS, Mr. LOCKE, and Mr.
M'ARTHUR, who divided the House on the question,
and was defeated by 137 to 29. A subsequent
motion to report progress was agreed to by Mr.
GOSCHEN, and the Speaker resumed the chair.
The House then went into Committee on the
Sunday and Ragged Schools Bill, and after a long dis-
cussion the further progress of the Bill was adjourned,
in order that a new clause might be printed, giving the
authorities imposing a rate power to exempt these
schools from them. The Marquis of HARTINGTON, in
reply to a question from Mr. GRIFFITH, stated that the
Bill for the purchase of the telegraphs was ready and
would shortly be introduced, and that it would con-
tain a clause giving the Government a monopoly of
telegraphic communication. The ATTORNEY-GENERAL
for IRELAND gave notice of a Bill for authorising the
issue of a Royal Commission to inquire into the exist-
ence of corruption among the Dublin freemen. Sir G.
GREY thereupon postponed for a fortnight his Bill
for disfranchising the freemen. The Bankruptcy Bill
was read a third time and passed amid cheers from the
Ministerial benches. On the motion for going into
Committee of Supply, Mr. CANDLISH called attention
to the imperfect audit of the public accounts, and
to the failure of the departments to lay their
accounts before the Auditor-General. Mr. AYTON
and Mr. GLADSTONE explained that the new Act was
in its infancy, and that every effort would be made to
prevent failure in future years. Mr. TAYLOR called
attention to the system of importing South Sea
Islanders into Queensland, and said that this importa-
tion was practically no better than a legalised slave
trade. Mr. MONSELI admitted that there had been
cases of kidnapping Polynesians by vessels sailing
under the English flag, but that a law had been passed by
the Colonial Legislature, by which the whole scheme
of emigration from the Polynesian Islands had been
placed under strict regulation. The House then went
into Committee on the Civil Service Estimates. On
the vote for the Royal Parks, Mr. GOLDNEY com-
plained of the expenditure on the West-end Parks,
and moved that it be reduced by the sum
of 28,251l. Mr. LAYARD defended the vote,
and said that it had become absolutely necessary
to expend 26,000l. in reducing the depth of the
water in the Serpentine, and laying down a con-
crete bed. On a division the vote was carried by
98 to 42. The item for the clothing and wages of the
gate-keeper at Clarence Gate, Roehampton, whose
duty appeared to be to exclude the public from enter-
ing or leaving Richmond Park by that gate, was
opposed by Mr. A. GUEST, and struck out of the vote
after a statement from Mr. LAYARD that he himself had
been refused admittance. A subsequent attempt was
made by Mr. BROGDEN to omit 400l. from the vote of
10,000l. for the furniture of public buildings, but was
defeated on a division by 112 to 52. An attempt by
Mr. MONK to reduce the gas bill in the Palace of
Westminster, and another by Mr. LOCKE-KING to
reduce by 500l. the vote on account of the restoration
of St. Stephen's crypt, were also unsuccessful.
The votes for the acquisition of land for West-
minster Palace and the Houses of Parliament were
agreed to. The Civil Offices (Pensions) Bill was
read a third time and passed. On Tuesday, on the
order for going into Committee on the University Tests
Bill, Mr. BENTINCK moved as an amendment that
the House should go into Committee that day three
months. After some discussion the motion was with-
drawn. On clause 1, on the motion of Mr. STEVENSON,
the University of Durham was included in the scope
of the Bill. On clause 6, which repeals the obligation
on all collegiate officials to take the declaration of the
Act of Uniformity, Mr. RAYNES moved to retain it for
masters of colleges and tutors. On a division the
clause was carried by 216 to 95. The further pro-
gress of the Bill was then postponed until Friday.
Mr. G. H. MOORE called attention to the case of
the Fenian prisoners, and moved that it was the
duty of the Government to institute a public inquiry
into the penal discipline of our prisons, and whether

political offenders should be regarded as a separate class. Mr. BRUCE and the ATTORNEY-GENERAL for IRELAND opposed the motion, and after some discussion it was negatived on a division by 171 to 31. Mr. HIBBERT moved a resolution in favour of giving county court judges additional remuneration to the extent of 300*l.* per annum each, in consideration of the new jurisdiction conferred upon them. The motion was opposed by Government, and rejected on a division by 102 to 50. A motion made after two o'clock by the ATTORNEY-GENERAL for IRELAND to bring in a Bill to issue a commission of inquiry into the corruption of the Dublin freemen gave rise to a sharp discussion. Colonel TAYLOR, Mr. HENLEY, and Sir R. PEEL objected to going on with the Bill at that late hour. One motion to adjourn was defeated by 100 to 52, but the Government gave way to a second, and the debate was adjourned to Thursday. On Wednesday Mr. BRUCE stated, in answer to Mr. EYKYN, the reasons which had induced the Government to decline to undertake the prosecution of the Overend, Gurney & Co. directors. The subject had been considered by the Cabinet, which had come to the conclusion that there was nothing to take the prosecution out of the usual cases of fraud. The adjourned debate on Mr. PEEL's motion, that the agricultural returns, now made annually, should after this year be discontinued, and collected every fifth year, was resumed, when Mr. LEFEVRE opposed the motion on behalf of the Government, and said that the returns would be of no value unless they were collected every year. The motion was ultimately withdrawn. Mr. M'LAREN moved the second reading of the Edinburgh Annuity Tax Bill, the object of which was the reduction of the number of ministers chargeable upon it in Edinburgh, from 13 to 10. Sir G. MONTGOMERY moved as an amendment that the Bill be read a second time that day three months. After some discussion the Bill was carried, on a division, by a majority of 9, the numbers being 151 to 142. The adjourned debate on the second reading of Mr. W. Johnston's Bill for repealing the Party Processions Act was resumed by Mr. C. FORTESCUE, who said that the Government could not assent to the Bill, but would institute a careful inquiry into the working of the Act to ascertain whether it required amendment, abolition, or more stringent execution. The debate was again adjourned to a day to be hereafter fixed, Mr. Johnston raising a laugh by expressing a hope that it would not be the 12th of July, as he could not be present on that day. On Thursday the adjourned debate on the motion of the ATTORNEY-GENERAL for IRELAND for leave to bring in a Bill appointing Commissioners to inquire into the existence of corrupt practices among the freemen electors of the city of Dublin was resumed, and after a long debate, leave was given to bring in the Bill by 239 to 136. Lord ELCHO called attention to the adulterations of feed stuffs and manures, and moved a resolution calling on the Board of Trade to take some action in the matter. After a short discussion the motion was negatived without a division. Mr. EYKYN again called attention to the possible failure of the prosecution of the Overend-Gurney directors, and urged the Government to let the case be conducted by the law officers of the Crown. Mr. BRUCE and Mr. GLADSTONE contended that there was nothing in the case to warrant the Government in departing from the usual course, and after some discussion the subject dropped. The Imprisonment for Debt Bill was read a third time and passed. Mr. GOSCHEN withdrew his Valuation of Property Bill. The House then went into Committee on the Sunday and Ragged Schools Bill, when Mr. BAGLEY's amendment, that the exemption of such institutions from local rates should be left to the discretion of the municipal and parochial authorities, was carried on a division by 104 to 67, thereby undoing the principle affirmed by 3 to 1 on the second reading. Eventually the House resumed without further progress being made. Yesterday the Assessed Rates Bill, as amended, was considered, when an amendment by Mr. VILLIERS in clause 1, to substitute the words "rateable hereditaments" for "dwelling houses," was accepted by Mr. GOSCHEN, and carried by 219 to 121. The House went into Committee on the University Tests Act, when a long discussion took place on Sir R. PALMER's proposed clause, imposing a test on Professors and others. The clause was ultimately withdrawn. The House was left sitting.

City Intelligence.

MONEY MARKET, FRIDAY.—BRITISH FUNDS: Consols closed at 92½ to 92¾, both for Money and Account; New and Reduced Three per Cents, 92½ to 92¾; Bank Stock, 242 to 244; Exchequer Bills, March, 3*s.* dis. to 2*s.* pm.; June, par to 5*s.* pm.; India Five per Cents, 111½ to 112.—**FOREIGN:** Brazilian, 83 to 83½; Chilean (1867), 93½ to 94 ex div.; Danubian Eight per Cents, 87½ to 88½ ex div.; Honduras, 83 to 84 ex div.; Egyptian (1864), 88½ to 89½; Ditto (1863), 79 to 79½; Viceroy's Seven per Cent., 52½ to 52¾; Ditto Nine per Cent., 95 to 95½; Italian, 53½ to 53¾; Peruvian, 75½ to 75¾; Portuguese, 33½ to 34½; Russian (1862), 84½ to 85; Orel, 80½ to 80¾; Nicolas, 65 to 65½; Moscow, 78½ to 78¾; Charkof, 78½ to 79½; Spanish, 28½ to 28¾ ex div.; Turkish Five per Cent., 44½ to 44¾; Ditto Six per Cent., 65 to 65½; United States 5-20 Bonds, 80½ to 80¾; Erie, 19½ to 20; Illinois, 94½ to 95½.

Metropolis and its Vicinity.

FETE TO THE VICEBOY OF EGYPT AT THE CRYSTAL PALACE.—On Tuesday a magnificent fete was given at the Crystal Palace in honour of the Viceroy of Egypt and the Prince and Princess of Wales. The crowd of visitors was immense, the admissions by season tickets having been 19,946; those on payment, 13,682; making a total of 33,628. The entertainment commenced with

a concert, in two parts, under the management of Sir Michael Costa, assisted by a body of more than 3000 singers and players. The Royal party did not arrive in time for the first part of the concert, but at 6 o'clock they took their seats in the central box—the Viceroy occupying the central chair, the Princess of Wales sitting on his right hand and the Prince on the left. At the close of the concert the Duke of Sutherland entertained the whole of the Royal party, to the number of 42, at a banquet, while the great fountains were playing, and at a chosen point of view from which the guests could look from their plates to where the whole series of basins were flowing in wreaths of snow-like foam. At 10 o'clock there was a display of fireworks. The grounds and the water temples were illuminated with coloured fires of varied hue, and the magnesium balloons made the gardens as light as day. The set pieces first shown were those in honour of the Prince of Wales and the Crown Prince of Denmark, and consisted of their respective badges displayed in variegated fires, and after a flight of brilliant asteroids, the shield of his Highness the Viceroy was displayed in gorgeous coloured fires, and the whole length of the terrace was occupied by soldiers, placed at stated distances, who at a given signal gave a salute of coloured lights. The display concluded with a grand girandole of rockets.

DINNER TO HER MAJESTY'S MINISTERS AT THE MANSION HOUSE.—On Wednesday the Lord Mayor gave his annual dinner at the Mansion House to her Majesty's Ministers. The principal speakers were the Prime Minister, the Lord Chancellor, the Home Secretary, and the Chancellor of the Exchequer. Mr. Gladstone, in responding for the toast of "Her Majesty's Ministers," spoke as follows:—

"I may presume to say that I have not been unfortunate in the nature, in the qualities, and stamp of men whom I was not only enabled but constrained to associate with me in the work of government, and I do not think, so far as the experience of the last six months is concerned, there has been any disposition on the part of the country to complain of the manner in which either the administrative or legislative duties of the great departments of the State have been generally conducted. Also I may venture to discharge a debt of duty to the House of Commons. That House was elected under circumstances novel and peculiar. It sprang fresh from the heart and breast of the people. It bears upon it more the marks of contact with the masses of the nation than any House of Commons ever gathered within the venerable halls of Westminster, and it would appear that in proportion as the scope of its contact with popular sentiment has been extensive its capacity for the discharge of particular duty has been increased. At least I must presume to say that, after having sat for very many years as a member of that assembly, and never without a present and, if I may say so, a fuller admiration of its great qualities, yet at no period I think have I known a body of representatives of the people gathered together with so clear a consciousness of the purposes for which they were sent there, or with so little disposition to waste either in pettiness of intrigue or in idle and self-seeking discussions the precious time that ought to be devoted to the noble task of building up the happiness of the people. I beg to refer to one peculiar subject with which official relations long connected me. For the first time during many years I see a House of Commons more disposed to take a strict measure of its duties, particularly on one cardinal and testing subject—that of public economy than is taken either by the public out-of-doors, or even by that daily Press by which the interests of the public in general are so well represented and defended. Nor can we omit at a juncture like this, to refer to that special purpose of great and transcendent interest which, rising high above the mass of public questions, involving such great interests and results, attracts to itself and claims for itself a special character—I mean that great question connected with the condition of one of these three kingdoms, to a main portion of which it has been our duty during the present session to address ourselves. This company is well aware, as the whole country is aware, that the House of Commons, and her Majesty's Government in the House of Commons, have at least bestowed their best endeavours in the conduct of a measure which, as they hope, both by what it is in itself, and by what it promises for the future, forms a vital and essential portion of the work of peace for Ireland and of security for the empire. During three months we spent the chief of our care upon the maturing of that measure, and on such a measure three months were but a short time to spend. Since it passed beyond our portals there has been, I am told, great excitement in the country. We have read of meetings here and there, and there has been a blaze of sky rockets repeated from point to point around the whole horizon. We are told of the indignation of the people. We are told of reaction in the public sentiment. The course we have pursued and the measure we have proposed have been branded in language more severe than it would be convenient on this festive occasion to recall. Sangline anticipations were entertained, in the first instance, that our measure would elsewhere meet with a speedy doom. Since these anticipations have been disappointed others have been raised up to serve the same turn, to the effect that if the Bill, as a phantom, might be allowed to escape legislative condemnation, yet it would come back to us so altered that we should not know it, so that we should have no choice except either total and utter failure, in both the name and substance of our work, or else the acceptance of the name with the loss of the substance. Under these circumstances, and amid this tumult of excitement which we are told prevails, we have remained—I speak for my colleagues, I speak as an observer for the House of Commons—in a state of great tranquillity. We have remained tranquil for this reason,—in the first place, it is not matter of grudging or of jealousy, but of satisfaction, that our work should be reviewed elsewhere. We can honestly say that we have bestowed on it the best of our care and pains, and that we have laboured with no stint of our time or faculties to perform the duty committed to us by the country. But, at the same time, no doubt, there may be faults in our work, and we shall be grateful for every improvement that may be effected in our measure, and every change proposed shall be respectfully considered, even though at the first moment, nay, it may possibly be, at the last moment, we shall not be able to regard it as an improvement. But every change proposed shall have our respectful consideration. It shall have that consideration subject, also, to the recollection of the position in which we stand, of the words we have spoken, of the pledges we have given, of the commission we have received. Those pledges were few and simple. We told the country in language intelligible enough that in our opinion if the Irish Church was to be removed from that position of legal prevalence it has so long enjoyed, it must be removed subject to those conditions; above and before all, there must be a most careful and liberal attention paid to every just and equitable

claim. The second of these pledges was equitable claims must be considered where they are proved on the part of ministers of the disestablished Church, or by consequence, they must be the arrangements connected with the ancient system, and must be made on behalf of every denomination of the arrangement growing out of the exceptional state of ecclesiastical affairs existing in Ireland; but this, that it was a plan of general disendowment, not less momentous nor less desirable than the one which was freely tendered to Parliament, and which, I do not hesitate to say, would have been freely tendered, would have been sense and opinion, — namely, that equitable claims or principles of religious denominations remain the property of the Church of Ireland, the benefit of the Irish people, but not a Church, nor the support of the conditions which, as a matter of historical fact, us and the country. We tendered the terms of Opposition. We stated it now that we are installed in the seat of power, that both branches of the Legislature will the adjustment of this great controversy perception of what the time and circumstances sanguine enough to believe that within a work, which in my opinion is like a work of will have reached its final term and accom-

THE MASTERSHIP OF THE TEMPLE.—The resignation of Archdeacon Robinson, has been upon the Rev. Dr. Vaughan, vicar of Dunstable, brother-in-law of Dr. Stanley, Dean of Westminster.

THE FRENCH ATLANTIC CABLE.—A telegram received at Minou on Saturday morning, stated that Gooch, stating that during the night there was every indication of a slight fault, which was possible to localise; and that it had been proceeded. A subsequent telegram stated that the cable was removed from the cable inboard on Wednesday noon. Another telegram stated that the cable, and that the operations had been during the hours cutting out a third fault close to the electric condition of the cable afterwards was found to be for two or three days the test was made, and the fault was said to be very near the buoy it. It has since been ascertained that the cable discovered on Wednesday morning. A fault came on suddenly, and obliged them to cut the cable. The cable has been recovered, and is going well yesterday on board the Great Eastern ship was in latitude 47° 55', and in longitude 12° 15' when this news left.

THE BERMUDA FLOATING DOCK.—The floating dock in tow of her Majesty's ships Agincourt and Vanguard, with the paddle-frigate Terra Nova, and the hawser astern as a "drag" for steering, and the out steamers on the port and starboard, passed down Channel off Plymouth on Friday afternoon, at a long distance from land. It was proceeding at four and a half knots per hour. The dock contains 10,000 tons of iron, and some idea may be formed of the magnitude of the enterprise of taking it to the Indies from the fact that the squadron consists of nine ships of war, representing an aggregate of 149 guns, and 7022-horse power. The first stage will be from England to Madeira, the second from Madeira to the Bermuda Channel, the third, from the Bermuda Channel to the Bermudas. At Madeira the Northumberland will be in charge, and at Lapwing, the Terrible going out to sea. At Bermuda Channel the Commander-in-Chief of the West Indies will be on the spot, or send a ship of force, and this last stage is thought by many to be the most critical part of the voyage.

THE EXPLOSION AT HOUNSLOW.—The explosion of the four workmen killed at the gunpowder explosion at Hounslow has terminated in a case of Accidental Death, coupled with a recommendation that Government inspectors should be appointed to powder-mills.

SHOCKING TRAGEDY IN THE CITY.—On Monday morning a whole family, consisting of a mother, and six children, were found dead in Hosier Lane, Smithfield, under circumstances which left no doubt that they had died from poison. The names of the father and mother were William Dugzen, 33 years of age, and Emma Dugzen, 33 years of age, and three children, three boys and three girls, respectively 13, 12, 6, 4, 3 years, and 14 months. The father was a working silversmith in the employ of Messrs. Chawner and Co., who have an extensive manufactory and office in Hosier Lane, and the family occupied an adjoining house belonging to the firm, living rent free. He had been in the city about seven years, and came from Bristol. He had fallen into ill-health, and had been advised by medical advice to relinquish his employment, and to go to the house he occupied. A letter in his own hand, dated the day of the discovery of the tragedy. It was posted at the police station in Smithfield, and addressed to the police station in Hosier Lane, on Monday morning. On the evening of the discovery of the tragedy, the door of the house was locked on the inside, but was opened through a window at the back. On a bed in the room lay the dead bodies of the mother and the father, and the youngest children, one on each side of the other across the foot of the bed. The bodies of the two eldest daughters were stretched on

room and that of the eldest boy on an...
 while the body of the father lay alone...
 A table glass and a spoon...
 the bed-clothes in one of...
 a bottle about 3 or 4 inches...
 "Hydrocyanic acid," and "Poison,"...
 and another bottle, pre-...
 appearance, and label, in the...
 Bible, containing the names...
 the father and mother and of the...
 on a fly leaf, and with the...
 of the heads of the little house-...
 likewise found in one of the rooms...
 and by it the police were able to...
 at 4 o'clock of the family. The whole...
 were in their night dresses, and lay...
 mostly on their backs, and just...
 to sleep for the night. The features...
 composed, and there were no...
 marks. The children had evidently...
 but the bodies of the parents...
 It was therefore inferred that they...
 were in poisoning the children, and that...
 taken effect they must have been for...
 in disposing of the dead bodies...
 supposed to have laid out his wife, and...
 himself in the back room, after...
 his brother at Bristol, telling him...
 treated with great harshness and...
 one of the partners in the firm...
 reduced to great distress by want of...
 and that it was quite clear that he and his...
 would eventually die of consumption...
 to poison them all with prussic acid...
 on Wednesday the medical evidence...
 had been caused by poisoning with...
 and Mr. Adams defended himself from...
 brought against him in the deceased's...
 that on the contrary the whole family...
 with every consideration. The...
 has belief that the jury would be...
 this explanation. After 10 minutes...
 the jury returned a verdict "That Walter...
 Duggan murdered their six children...
 destroyed their own lives, while in an un-...
 The affair has caused a painful feel-...
 the immediate neighbourhood, and much...
 in reference to the six children...
 hours speak in touching terms, and...
 their daily appearance was creditable to the...
 Monday evening, about 9 o'clock, the father...
 entering the house with them, apparently...
 from a walk, and they were not seen again...
 the neighbours.

HEALTH.—The Weekly Return of the...
 states that in the week that ended...
 June 20, 1520 births and 2959 deaths were...
 London and in 13 other large towns of...
 Kingdom. The annual rate of mortality...
 per 1000 persons living, being 23 per 1000 in...
 Edinburgh, 18 in Dublin, 20 in Bristol...
 Glasgow, 27 in Liverpool, 23 in Manchester...
 Sheffield, 19 in Bradford, 21 in Leeds...
 17 in Newcastle-upon-Tyne, and 36 in...
 The rate in Vienna was 31 per 1000 during...
 ending the 19th ult., and in Berlin 38 per...
 the seven days ending the 21st ult. In...
 the births of 1050 boys and 1020 girls, in all...
 were registered in the week. In the...
 weeks of 10 years, 1859-68, the average...
 corrected for increase of population, was...
 the deaths registered in London during the...
 It was the 25th week of the year, and...
 number for that week, corrected for...
 population, was 1265. The present return...
 below the estimated amount.

Prodnatal.

A frightful accident occurred on Wed-...
 from this town. A shipload of nitro-...
 from Liverpool, arrived at Carnarvon bar...
 conveyed in boats to the pier. On Wednes-...
 five cartloads were despatched, two for...
 the Llanberis quarries, and three for...
 Bethesda quarries. At 6 o'clock...
 were near Cwymglo, a terrible explo-...
 The horses drawing the cart and three...
 atoms, and fragments of the cart...
 thrown to a great distance. In the...
 a quarter of a mile distant, great injury...
 were knocked down, and windows...
 At the spot where the carts were two...
 feet deep and 7 feet in diameter, were...
 ground. The railway station, 40 yards off...
 are in pieces. A cart-wheel was found 50 yards...
 the rocks above the scene of the accident. The...
 to the foot of Snowden, suffered a...
 shock, and damage was done in every part...
 very great shock was felt at Carnarvon and...
 for miles around. Portions of human...
 were found 40 yards from the spot where the...
 occurred. Besides the three men who were...
 pieces, two others have since died, and three...
 amputation. Seven have sustained...
 and 12 slight injuries. The three other carts...
 apart, and were left for the night on the...
 At the request on Thursday, it was proved...
 drivers of the carts had been drinking and...
 careless. The road was rough, and in...
 over the obstructions a concussion produced...
 The verdict was Accidental Death. The...
 intermination prevails. Thousands have con-...
 from the neighbouring towns and villages to...
 the accident.
 The Prince of Wales laid the foundation-...
 an additional wing to the Earlswood Asylum...
 on Monday. The Prince and Princess

arrived at the Earlswood Station at 12 o'clock, by...
 special train on the London and Brighton Railway...
 The mayor of Reigate presented an address on behalf...
 of the corporation, to which the Prince returned a...
 gracious reply. Their Royal Highnesses were then...
 conducted to the royal carriages in waiting, and pro-...
 ceeded at a walking pace to the asylum, which is about...
 a mile from the station. The people for miles round...
 had assembled to see the Prince and Princess, and in...
 enthusiastic cheers, which were so constantly renewed...
 as to be almost continuous, they gave expression to...
 their delight at the compliment paid them by their...
 Royal Highnesses in coming among them in so stately...
 a manner. On arriving at the tent where the stone...
 was to be laid, the officers of the asylum read an...
 address, to which the Prince replied in a brief speech...
 in which he said that the fact of his late father having...
 taken so great an interest in the charity gave it an...
 increased value in his eyes. The stone having...
 been laid with the usual ceremony, the...
 Archbishop of Canterbury offered an appropriate...
 prayer. The Prince and Princess then took their seats...
 and about 300 ladies ascended the dais, and deposited...
 on the foundation-stone a scarlet leather purse contain-...
 ing five guineas, making an obsequious to the Prince on...
 ascending, and one to the Princess on descending. A...
 procession of gentlemen followed, each of whom also...
 deposited a purse containing five guineas. In all, 100...
 purses were laid on the stone, but it was not until...
 this portion of the ceremony had come to an end that...
 the company were informed that after he had fixed the...
 stone the Prince handed the treasurer a check for...
 100 guineas as his contribution to the charity. After...
 a *déjeuner*, at which their Royal Highnesses honoured...
 the governors of the institution with their company...
 the Prince and Princess planted a tree each on the...
 lawn in front of the building, and then took their...
 departure for London amidst the cheers of a vast...
 crowd of people.

WINDSOR.—The review of the Household troops on...
 Saturday in the Great Park, was a very brilliant and...
 successful spectacle. The ground chosen was nearly...
 a mile long, and half a mile broad, situated between...
 the Long Walk and Queen Anne's Ride. The...
 Alexandra Stand, from Ascot, was erected on the right...
 of the Royal enclosure at the saluting point, and was...
 occupied by a large number of fashionable spectators...
 On the left of the saluting point there was an en-...
 closure for carriages belonging to the Royal household...
 To the left of this, again, there was another enclosure...
 for carriages; and, from a position to the left of these...
 equestrians could command a good view of the pro-...
 ceedings. To the right of the Alexandra Stand there...
 was a smaller one for the accommodation of the...
 Windsor garrison. The spectators on foot had ample...
 room in the front of the carriages and all along the...
 line of sentries. The troops were drawn up in line of...
 centinels as columns in quarter distance parallel to the...
 Long Walk, facing Queen Anne's Ride. On the right...
 of the line was the C Troop, C Brigade Royal Horse...
 Artillery, under the command of Major Durham...
 Colonel Light commanding the whole of the artillery...
 The Household Cavalry were next, consisting of the 1st...
 Life Guards, and numbering 275 officers and men, the...
 2d Life Guards, numbering 250; and the Royal Horse...
 Guards, numbering 262. The B Battery, 4th Brigade...
 Royal Artillery, numbering 112, was the left of the...
 line. Next to the cavalry were the 2d Battalion...
 Grenadier Guards, numbering 680; the 3d Battalion...
 of Grenadier Guards, 663; the 1st and 2d Battalions...
 of Coldstreams, 688 and 613 respectively; and the 1st...
 and 2d Battalions of Scots Fusiliers, numbering 707...
 and 650. There were therefore present about 250...
 artillery, 790 cavalry, and 1000 infantry.—in all, 5000...
 officers and men, irrespective of the 5th Dragoon...
 Guards and detachments of the 5th, 7th, and 23d...
 Fusiliers, which kept the ground. The whole force...
 was under the command of the Earl of Lucan, the...
 artillery under Colonel Light, the cavalry under Lord...
 George Paget, and the infantry under Major-General...
 Hamilton. At about 20 minutes past 4 o'clock...
 the Queen's departure from the Castle was an-...
 nounced by the firing of a royal salute, and...
 almost to the appointed minute, the proces-...
 sion, headed by an escort of the 5th Dragoon...
 Guards, drove up amidst the cheers of thousands of...
 spectators to the saluting point, which was kept by...
 a guard of honour composed of a company of the...
 5th Fusiliers. The first carriage contained her...
 Majesty, the Princess of Wales, the Princess Christian...
 and the Viceroy of Egypt. In the second carriage...
 were the Princess Mary of Cambridge the Princesses...
 Louisa and Beatrice, and Prince Leopold. The third...
 carriage was occupied by Hassan Pacha, Tousson...
 Pacha, Nubar Pacha, and the lord in waiting. The...
 fourth, fifth, and sixth carriages contained the Royal...
 and viceregal suites. Accompanying the procession on...
 horseback were the Prince of Wales, the Duke of Cam-...
 bridge, Prince Teck, Prince Christian, and Prince...
 Edward of Saxe Weimar. The rear was brought up by a...
 troop of the 5th Dragoon Guards. When her Majesty had...
 taken up her position at the flagstaff, the line of troops...
 gave a royal salute, after which the Queen and the Viceroy...
 inspected the whole line, driving slowly from right to...
 left along it, accompanied by a very numerous staff...
 The manoeuvres then began, and comprised the usual...
 incidents of a sham fight, in which infantry, cavalry...
 and artillery were employed to repel the attack of an...
 enemy supposed to be advancing from the side of...
 Queen Anne's Ride. At the conclusion the Guards...
 threw out covering points to the front to take up line...
 preparatory to the grand salute. The force was now...
 in three lines—two of infantry, and the third of cavalry...
 in rear of the second line. Then, with bands playing...
 the General and his Staff in the centre, and in advance...
 of the line, the Guards, with that grand composure of...
 step and uniformity of front which convey such an...
 impression of irresistible solidity and strength, advanced

and saluted the Queen, and the Windsor review and...
 manoeuvres were at an end.

Ireland.

THE IRISH CHURCH BILL.—A demonstration...
 against the Church Bill took place on Wednesday at...
 Lurgan. Five thousand orange sashes were worn, and...
 lifes played. The speeches were temperate, and exhorted...
 Orangemen to obey the law. The resolutions denounced...
 the Bill, and condemned levelling.
FATAL ALLEY AT PORTADOWN.—On Thursday...
 night the police at Portadown extinguished a bonfire...
 which some children had lit and were attacked by the...
 people with such violence that they were obliged to...
 fire upon them, killing a young lad and dangerously...
 wounding one of the rioters. The people then lit a...
 large bonfire, and were not interfered with.

Markets.

COVENT GARDEN.—July 3.
 The demand is scarcely equal to that of last week, though a...
 fair amount of business is being done. West India Pine...
 are very plentiful, at prices varying from 2s to 4s. Large quan-...
 tities of Potatoes continue to arrive from the Channel Islands...
 at various prices. Flower Market. *Flowers.*—Pinks, Argemone, Helianthus, Hyacinth, Tulip, Camellia, Rose, Magnolia, Italian...
 Tulip, Pinks, Carnations, Cockscomb, and...
 Lobelia, &c.

FRUIT.

Apples, per doz., 8s to 9s	Melons, each, 3s to 4s
Cherries, per lb., 6d to 1s	Neapolitan, per doz., 10s to 12s
Figs, per doz., 6s to 10s	Oranges, per 100, 4s to 12s
Grapes, per lb., 2s to 3s	Peaches, per doz., 12s to 24s
Kent Cobs, per lb., 1s to 1s 6d	Pine-apples, per lb., 3s to 4s
Lemons, per 100, 4s to 7s	Strawberries, p. 1, 1s to 1 1/2

VEGETABLES.

Artichokes, green, p. doz., 2s	Lettuce, p. score, 1s to 1s 3d
Beans, kidney, p. 100, 1s to 2s	Mint, per bunch, 6d to 1s
Beet, per doz., 6s	Mushrooms, p. pint, 1s 6d to 2s
Carrots, per doz., 1s to 2s	Onions, green, p. ton, 3s to 4s
Cauliflowers, p. doz., 4s to 6s	Parley, per bushel, 4s to 6s
Celery, p. bundle, 1s 6d to 2s 6d	Pears, 100, p. doz., 1s to 1s 6d
Cucumbers, each, 4s to 1s	Potatoes, York Regents, p. ton, 10s to 12s
Endive, per doz., 1s 6d to 2s	— French, do., do., 10s to 12s
Garlic, p. bundle, 1s 6d to 2s 6d	— New, do., do., 10s to 12s
Herbs, per bunch, 2d to 1s 4d	Spinach, per bushel, 2s to 3s
Horse Radish, p. bundle, 3s to 4s	Turnips, p. doz., 1s to 1s 6d
Leeks, per bunch, 6d to 1s	— New, p. bunch, 10d

HAY.—Per load of 36 Trusses

Best Green Hay	130s	Best Clover	130s
Prime Meadow Hay	120s	Prime Clover	120s
Inferior do.	80s	Inferior Clover	80s
New do.	40s	Inferior do.	40s
Straw	30s	—	—

CATTLE MARKET.—HULL, July 3.

Sup. Meadow Hay	140s	Best Clover	140s
Prime do.	110s	Prime do.	110s
New do.	40s	—	—
Straw	30s	—	—

COALS.—July 1.
 Walls End Hetton, 17s 6d; Walls End Haswell, 17s 6d;
 Walls End South Hetton, 17s 3d; Walls End Hartlepool,
 17s; Walls End Elliot's, 16s 9d; Walls End Heugh Hall,
 16s 9d; Walls End Kelloe, 16s 6d; Walls End South
 Hartlepool, 16s 6d; Walls End Wharfedale, 16s 9d;
 Cowick Hartley, 14s 3d; Holywell Main, 14s 6d; Eilen
 Main, 16s; West W. Main, 14s 6d; Brancepeth Canal, 18s.
 —ships at market 7d 1/2.

HOPS.—BOROUGH MARKET, July 1.
 Business in Hops has been limited in extent, but no change...
 has taken place in prices. Rather more favourable accounts...
 have been received from the plantations. Mid and East Kents,
 2s 10s. to 6s 10s.; West of Kents, 2s 5s. to 4s.; Sussex, 2s...
 to 3s 15s.; Farnham, 3s 10s. to 6s.; Country 3s 10s. to...
 4s 10s.; Bavarians and Belgians, 2s to 3s 10s.; Yearnings, 2s...
 to 3s 10s.

ENGLISH WOOL.
 A fair business has been transacted at steady prices. At...
 Leicester Wool fair 9632 tons of wool were pitched, and about...
 8700 sold. Prices, as compared with this time last year...
 averaged 37s 3d per ton, against 39s 6d. at that period. The...
 clip throughout the country appears to be considered as...
 decidedly lighter than that of 1868, and it is anticipated that...
 rates will keep up.

METROPOLITAN CATTLE MARKET.

MONDAY, JUNE 28.

The supply of Beasts is much smaller than on Monday...
 last; the demand has also increased considerably, and prices...
 are lower. There are more Sheep, the trade is in a very...
 depressed state, and it is difficult to effect a clearance at...
 reduced rates. Trade continues very bad for Lambs. Calves...
 are lower than last week. Our foreign supply consists of...
 100 Beasts, 100 Sheep, 200 Calves, and 100 Pigs from Scot-...
 land there are 27 Beasts, from Ireland, 100 from North...
 and Suffolk, 150; and 1362 from the Midland and Home...
 Counties.

Best Scots, Here- fords, &c.	5 8 to 5 8	Best Long-wools	5 0 to 5 4
Best Shorthorns	5 2 to 5 6	Do. Shorn	—
2d quality Beasts	3 4 to 4 4	Ewes & 2d quality	4 0 to 4 6
Best Downs and Half-breds	5 6 to 5 8	Do. Shorn	—
Do. Shorn	—	Lambs	4 8 to 5 8
Beasts, 3120, Sheep and Lambs, 30,030, Calves, 455, Pigs, 220.		Calves	3 4 to 5 4
		Pigs	3 6 to 5 4

THURSDAY, July 1.
 We have rather a larger supply of Beasts, and trade is...
 dull, choice descriptions are, however, scarce, and make...
 dual, higher prices. There is also a plentiful supply of...
 Sheep of Lambs, there is rather more demand for them, but...
 prices are not much altered. Choice Calves are scarce and...
 dear. Our foreign supply consists of 566 Beasts, 4670 Sheep...
 578 Calves, and 45 Pigs.

Best Scots, Here- fords, &c.	5 6 to 5 10	Best Long-wools	5 0 to 5 4
Best Shorthorns	5 4 to 5 6	Do. Shorn	—
2d quality Beasts	3 4 to 4 4	Ewes & 2d quality	4 0 to 4 6
Best Downs and Half-breds	5 6 to 5 8	Do. Shorn	—
Do. Shorn	—	Lambs	7 0 to 6 0
Beasts, 1060; Sheep and Lambs, 14,310, Calves, 770; Pigs, 50.		Calves	3 4 to 5 6
		Pigs	3 6 to 5 4

METROPOLITAN MEAT MARKET.—July 3.

Best Fresh Butter 14s. per dozen lb.
 Second do. do. 12s. " " " "
 Small Pork, 4s. 8d. to 5s. 4d.; Large Pork, 4s. 0d. to 4s. 8d. per 8 lb.

LEADENHALL POULTRY, &c.

THURSDAY, July 1.

A very fair supply of more average quality, the Aylesbury ducklings proper being quite distanced in size and everything else by those from the Oxfordshire villages. Leverets scarce.

s. d. s. d.		s. d. s. d.	
Geese .. each	0 9—1 0	Pigeons .. each .. .	0 9—1 0
Gooslings .. " .. .	5 0—6 0	Tame Rabbits .. " ..	1 3—2 0
Turkeys .. " .. .	0 8—0 9	Wild Rabbits .. " ..	0 8—0 9
Turkey pullets .. " ..	.. .. .	Wild Ducks .. " .. .	.. .. .
Ducks .. " .. .	.. .. .	Pheasants .. " .. .	.. .. .
Ducklings .. " .. .	3 0—4 0	Hares .. " .. .	2 0—2 6
Surrey Fowls, couple, 9 0—12 0	Dotterel .. " .. .	.. .. .	2 0—2 6
Do. chickens .. " .. .	6 0—9 0	Quails .. " .. .	0 9—1 6
Barn-door Fowls, .. " ..	6 0—9 0	English Eggs, p. 100, ..	6 0—7 0
Leverets .. each .. .	2 6—4 0	Foreign do .. " .. .	5 6—6 6

Fresh Butter 1s. 0d. to 1s. 2d. per lb!

MARK LANE.—MONDAY, June 28.

The supply of wheat to this morning's market being extremely small, factors were enabled to realise about the prices of this day se'nnight. There was a fair attendance at market, but little inclination was shown to purchase foreign wheat, and the business transacted was limited to a few needy purchasers, who were compelled to pay last week's rates, excepting where factors were anxious to clear vessels, in which cases they accepted 1s. per qr. decline. Barley brought an advance of 1s. per qr. There was no change in the value of Beans or Peas. The Oat trade was quiet, at 6d. per qr. reduction. Flour was unchanged.

PRICE PER IMPERIAL QUARTER.		s. s.		s. s.	
WHEAT, Essex, Kent, Suffolk. White,	48—51	Red.....	47—49		
— — fine selected runs.. do.	51—54	Red.....	49—51		
— — Talavera.....	55—59				
— — Norfolk .....	.. .. .	Rcd.....	.. .. .	
— — Foreign	39—62				
BARLEY, grind. & dist., 28s to 32s. Chev.	.. .. .	Malting ..	33—44		
— Foreign, grinding and distilling	24—30	Malting ..	32—40		
OATS, Essex and Suffolk .....	.. .. .			
— Scotch and Lincolnshire.. Potato	25—33	Feed .....	.. .. .	
— Irish	30—32	Feed	23—28		
— Foreign..... Poland and Brow	25—30	Feed	21—26		
RYE	38—40	Foreign ..	.. .. .	
RYE-MEAL, Foreign .....	.. .. .			
BEANS, Mazagan .. 38s to 40s. Tick	42—43	Harrow ..	42—43		
— Pigeon .. 43s to 47s .. Winds	.. .. .	Longpod ..	.. .. .	
— Foreign	38—42	Egyptian ..	35—36		
PEAS, White, Essex, and Kent.. Bollers	40—41	Suffolk ..	39—42		
— Maple 41s to 45s. Grey	40—42	Foreign ..	36—39		
MAIZE .....	.. .. .	Foreign ..	28—30		
FLOUR, best marks delivered .. per sack	39—43				
— 2d ditto	ditto 2°—40	Country ..	26—40		
— Foreign	per barrel 23—27	Per sack ..	30—40		

FRIDAY, July 2.

Since the 26th ult. we have had dry weather, but the sky has generally been cloudy and the nights cold. Miders and dealers, who have lately bought in excess of their immediate wants, were easily influenced by the favourable weather (which has much improved the growing crops), and held back in the expectation of some concession in price, which was but reluctantly made, and the wheat trade throughout the kingdom has ruled exceedingly slow, at a decline of fully 1s. per qr from the late highest rates for best foreign and home-grown. Barley was the turn dearer in most markets, but in the value of all other grain we notice no quotable change. Flour was neglected, and barrels were easier to buy. The arrivals of grain and seed laden vessels off the coast since Friday last consisted of 23 cargoes, of which, with those left over from last week, there remained for sale last night 24 cargoes. The floating trade ruled quiet, principally on account of the improved state of the weather. Holders of arrived wheat and maize were more willing sellers, at from 1s. to 1s. 6d. per qr lower rates. Barley remained steady, and of rye there was nothing on offer. For forward shipment of wheat the demand was very limited, the few transactions entered into show a slight decline. Paris, July 1.—Wheat is in short supply, and prices for this article as well as flour are about unaltered. The eight marks are quoted at equal to 37s. 6d. per 280 lb. The stock at the Halle is estimated at 7380 cwt.

Of foreign barley we have no arrivals this week, of other grain the supplies were small. There was a poor attendance at this morning's market, and factors generally held wheat, both English and foreign, for Monday's prices, excepting where vessels were coming on demurrage, in which case they were willing to submit to some decline; the business transacted was unimportant. Spring Corn was unchanged in value.

ARRIVALS.

	Wheat.	Barley.	Oats.	Flour.
English ..	470 qrs.	— qrs.	50 qrs.	— sks.
Irish	— " "	— " "	— " "	— " "
Foreign ..	10,520 "	— " "	13,840 "	{ 1190 " "
	10,990	—	13,890	— brls.

AVERAGES.

	Wheat.	Barley.	Oats.
May] 26 ..	45s 2d	37s 7d	27s 1d
— 29 ..	45 2	37 3	27 0
June 5 ..	45 5	37 5	26 2
— 12 ..	46 0	37 1	26 6
— 19 ..	46 2	32 2	27 8
— 26 ..	46 4	32 7	27 0
Average ..	45 8	35 8	27 3

MANCHESTER, July 1.—Since our last report the weather has gradually improved; the trade has consequently assumed a quieter tone for all articles, and the value of wheat and flour has somewhat receded, though not to the extent that might have been expected, owing to the smallness of stocks. There was a limited attendance at our market this morning, and, owing to the fineness of the weather, buyers held aloof; at the same time, holders evinced no particular anxiety to sell at any material reduction. English wheat may, however, be quoted 1s. per qr. and foreign 3d. per cental lower than on this day se'nnight, while flour was 8d. to 1s. per sack cheaper. Oats and Beans ruled firm. Indian Corn declined 1s. per qr.

SEED MARKET.

The speculative demand for Clover and Trefoil seed, of which we spoke in our last report, has continued throughout the present week. Of good new Red seed the stocks are reduced quite low; for the little on hand holders appear determined to obtain more money. For Trefoil seed we have a very brisk inquiry. The reports of the growing crops, both at home and abroad, are extremely unfavourable, and prices con-

sequently are still advancing. We have more doing in Alsike and White Clover seed; in fact, there is at the present moment a great deal better feeling in the agricultural seed trade. Sowing Rapeseed continues scarce and dear. For White Mustard seed we have a ready sale at full prices. Canary and Hemp seed are without change in value.
 JOHN SHAW & SONS, 16, WATER LANE.

WANTED, as LAND AGENT, on an extensive Property in Devonshire, an active, intelligent Person, between 30 and 45 years of age, having a thorough knowledge of the Value and Management of Light Land, including Draining, Fencing, Planting, &c., and fully competent to prepare Plans, Specifications, and Estimates for, and to Superintend the Erection and Repair of, Farm Buildings. Must be a good Accountant, and possess practical experience acquired in a similar situation. Salary, £200, with residence, and £50 per annum to provide and maintain a horse. Further particulars, stating age, family, references, &c., to M. L., Post Office, Down Street, Mayfair, W.

WANTED, a GARDENER (HEAD WORKING); married.—Must be thoroughly up to all Modern Improvements; will have several men under him; some knowledge of Underwoods desirable. The most satisfactory testimonials as to character and qualifications are indispensable. For a quiet, careful, industrious Man a desirable place.—Apply by letter to D. P., 85, Eaton Place, London, S.W.

WANTED, a thorough GARDENER, single, who can take the charge of a Pony and Carriage.—A good personal character required.—H. K., Ashleigh House, Frith.

WANTED, TWO STEADY MEN, who are good Budders and Grafters, and used to general Outdoor Nursery Work. Situation permanent. Wages, 20s per week.—Apply, stating age, reference, &c., to EWING AND CHILD, 9, Exchange Street, Norwich.

WANTED, a MARRIED COUPLE, age about 35, without incumbrance. The Man must understand the care of a Garden and Horse; the Wife must be a good Cook, to take the management of a first-class Lodging-house.—Apply, with full particulars of late employment, to K. J., Post Office, Isle of Wight.

WANTED, a MARRIED COUPLE, without family.—The Man to act as Gardener; must thoroughly understand Kitchen and Flower Gardening, the Growth of Melons, Grapes, Greenhouse Plants, &c.; he will have a Lad to assist him. The Wife must be competent to undertake a small Laundry, for which she will be paid extra. Wages, 21s per week, and cottage.—R. R., care of Messrs. Veitch & Sons, Royal Exotic Nurseries, Chelsea.

WANTED, a MARRIED COUPLE, without children.—The Wife will be expected to attend to the Dairy and Poultry. The Husband to look after Cows and Pigs and make himself generally useful on the premises. No person need apply without they can produce a good character of at least four years' standing from their last employer. Liberal wages.—Apply to C. D., Terrace House, Polygon, Southampton.

To Landscape Architects' Assistants.

MR. JOSEPH NEWTON, LANDSCAPE ARCHITECT and Estate Improver, 74, Oxford Terrace, Hyde Park, is in WANT of a Young Man as an ASSISTANT, to go to New York. One capable of making Working Plans from rough sketches and Contour Plans to Working Scale, and to fill in the Planting of Trees and Shrubs in a way that the same can be carried out by a Gardener used to ground work either in Europe or America; he must also understand Horticulture. Wages to begin with, 1000 dollars per annum. Those desiring such a situation are invited to send Specimen Plans, with reference, to Mr. NEWTON, which will have his earliest attention as soon as he returns to London.

WANTED, a JUNIOR ASSISTANT in the Seed Trade; to live with employer on the premises. State salary, with reference.—Address, T. B. THOMSON, 20, High Street, Birmingham.

WANTED, an APPRENTICE in the Corn and Seed Trade; to live with employer on the premises.—For particulars, apply to T. B. THOMSON, Birmingham and Midland Counties Seed Warehouse, 20, High Street, Birmingham.

WANTED, a YOUNG MAN of ability (if married, not objected to).—Apply, with references, to A. Z., Post Office, Loughton, Essex.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. E. G. HENDERSON and SON, Wellington Nursery, St. John's Wood, London, N.W.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS, and GARDENERS and BAILIFFS, of various qualifications, who are open to Engagements. The fullest particulars as to services required and wages given should be forwarded with application.—PAUL'S Nurseries, Waltham Cross, London, N.

To Gardeners and Bailiffs (Head, Foremen, or Under). JAMES CARTER and CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those who can send unquestionable references need apply.

Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & Co. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c.
 JAMES CARTER and CO., 237 & 238, High Holborn, London, W.C.

Gardeners and Under Gardeners.

WM. CUTBUSH and SON beg to state that they have at all times on their books MEN of various qualifications, whose characters will bear the strictest inquiry. Any Gentleman making application would save time by clearly stating the duties to be undertaken, wages offered, &c., so that suitable Men may be selected.—Highgate Nurseries, London, N.

GARDENER (HEAD).—Middle-aged, married, no incumbrance; thoroughly understands the profession in all its branches. Seven years' good character.—B. L. BRADFORD, Baker, 2, Cross Road, Twickenham Common, Middlesex, W.

GARDENER (HEAD), to any one requiring the services of a practical Working Man.—Age 28, single; understands all kinds of Fruits, Flowers, and Vegetables at all seasons. Was Second Gardener to the late Sir W. Dilke.—P. W., Alice Holt, Farnham, Surrey.

GARDENER (HEAD).—Age 35, no incumbrance, has a thorough practical knowledge of Vines, Peaches, Apples, Stove and Greenhouse Plants, and the general routine of Flower and Kitchen Gardening. Six years' good character.—T. A., Rees Heath, Nantwich, Cheshire.

GARDENER (HEAD); age 25.—THOMAS HARWOOD, Gardener to E. Greaves, Esq., M.P., can with confidence and pleasure recommend his Young Man to any Lady or Gentleman requiring the services of a good Gardener.—R. K., The Gardens, Avonside, near Warwick.

To Noblemen and Gentlemen.

GARDENER (HEAD), age 36, married.—HENRY MARQUIS of Downshire, is at liberty to engage with any one requiring the services of a practical Working Man. Understands well the Growth of all kinds of Fruits, Flowers, and Vegetables at all seasons. 1s. Canterbury Terrace, Maida Vale, Paddington, W.

GARDENER (HEAD).—No children; a thoroughly practical Man, and Successful Cultivator of Stove and Greenhouse Plants, Early and Late Forcing of Grapes, Peaches, and all kinds of Fruits and Vegetables, Flower and Kitchen Gardening, and Wall Trees. Will not object to Superintend Land and Stock. Good character from last three places.—W. C., The Ferns, Weybridge, Surrey.

GARDENER (HEAD, or Food Specialist) excellent character.—W. R., Lake Cottage, Weybridge, Surrey.

GARDENER (HEAD, or Superintendent) married, two children; understands Cucumbers, Melons, &c.—S. E. A., 2, Strand, London.

GARDENER, where another is whom he has lived 14 years. Wife a good Cook.—Office, Windlesham, Bagshot, Surrey.

GARDENER (UNDER), in a Nobleman's Establishment, to work in the House, and good character.—G. M., Mr. Wels, Clay Hill, Surrey.

GARDENER (UNDER), in a large Establishment, and Greenhouse Plants, Flower and general Forcing of Vines, Cucumbers, and Ractory, Great Malvern.

GARDENER (UNDER).—Age 35, willing and industrious; has been employed in Department of a noted Establishment for several years for a change to where the general branches of Horticulture are on. Good character from present employer.—High Cross, Tottenham, N.

GARDEN IMPROVER.—Age 40 recommended.—R. F., Post Office, Oxford.

FOREMAN, PROPAGATOR and Woodworker.—Good Grafter. Fastidious and ability.—A. B., W. E. Dixon, Surrey, Yorkshire.

To Nurserymen.
FOREMAN, or FOREMAN and Stove and Greenhouse Plants, Ferns, Orchids, routine of Nursery-work, and a most successful chills; good hand at Bouquets; can Apparatus on the most improved principle; reference from previous employers both in London.—A. B., Messrs. Witty & Son, Cotingham, Yorkshire.

PROPAGATOR, or PROPAGATOR the London Market.—Age 24; well up to A. Z., Abbey Road, Merton, Surrey.

To Nurserymen.
PROPAGATOR and GROWER.—Age 25, experience in Market Nurseries. Thorough work.—W. SEVERN, 2, John's Cottage, West End, London.

STEWARD or BAILIFF.—Age 40, respectable. Has a thorough knowledge of Soil and Machinery, having had great experience of 20 years. References to late as well as present Crossway Farm, Gatton, near Redhill, Surrey.

AGENT, or LAND STEWARD, by a Practitioner in Agriculture and the Management of Estates, University of Edinburgh for two Sessions, and management of large Estates in England for several years. references.—Address, F. J. A., Messrs. Thomas & Co., men to the R. A. S. of England, Half-moon Street, London.

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THE SOCIETY OF PAINTERS in WATER COLOURS.
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 WILLIAM CALLOW, Secretary.

Home News.

THE COURT AT WINDSOR.—On Saturday the Queen drove out with Princess Louisa and Princess Beatrice. On Sunday morning the Queen and Royal family attended Divine service in the private chapel. The Rev. F. W. Farrar, one of the Masters of Harrow School, preached the sermon. On Monday the Queen and Royal family went out. Prince and Princess Christian, Princess Louisa, and Prince Leopold, drove to the Home Park, and distributed the prizes at the annual meeting of the Prince Consort's Association. On Tuesday morning the Queen went out with Prince Leopold and Princess Beatrice. In the afternoon the Queen held an investiture of the Order of the Bath, at which General the Earl of Lucan, Lieut.-General the Hon. Sir James Yorke Scarlett, Lieut.-General Sir George Buller, and Vice-Admiral Sir Augustus Leopold Kuper were invested with the insignia of Knights Grand Cross; Vice-Admiral William Ramsay, Lieut.-General Viscount Templeton, Vice-Admiral the Right Hon. Lord Clarence Paget, Major-General Frederick Horn, Major-General Arthur Cunynghame, Major-General Lord George Paget, Major-General Arthur Lawrence, Major-General Horatio Shirley, Vice-Admiral Hastings Yelverton, Major-General William Jones, Rear-Admiral Bartholomew Sullivan, Major-General John St. George, Major-General Edward Warde, Major-General James Brind, Major-General the Right Hon. Percy Herbert, Major-General John Simmons, Major-General Archibald Little, and Dr. Thomas Logan, Director-General of the Army Medical Department, were knighted and invested with the insignia of Knights Commanders. Her Majesty also held an investiture of the Order of the Star of India, at which Major-General George Le Grand Jacob was invested with the insignia of Knight Commander of the Order. The Queen also held an investiture of the Order of St. Michael and St. George, at which Viscount Monck, Earl Grey, and Earl Russell were invested with the insignia of Knights Grand Cross. Colonel Gore Brown, Count P. E. de Strzelecki, Lord Lyttelton, the Right Hon. Frederick Peel, the Right Hon. Charles B. Adderley, Sir Frederick Rogers, Henry Taylor, Esq., and T. F. Elliot, Esq., were invested with the insignia of Knights Commanders. On Wednesday morning the Queen went out with Prince Leopold and the Princesses. Prince Albert Victor, Prince George, Princess Louisa, and Princess Victoria of Wales arrived at the Castle on a visit to her Majesty. In the afternoon the Queen drove out with Princess Beatrice. The Count and Countess of Paris, the Prince and Princess de Joinville, and the Right Hon. Chichester Fortescue arrived at the Castle on a visit. On Thursday morning the Queen went out with Prince Leopold and Princess Beatrice. In the afternoon her Majesty, accompanied by Princess Louisa, went to London, and visited the studio of Mr. Foley, R.A. Her Majesty afterwards returned to Windsor. Yesterday the Queen held a Privy Council. It was expected that her Majesty would leave Windsor to-day for Osborne, but the departure has been postponed.

STATE BALL.—By command of the Queen a State Ball was given on Friday evening at Buckingham Palace, to which a party of 1800 was invited.

THE PRINCE AND PRINCESS OF WALES.—On Friday the Prince returned to Marlborough House from Aldershot. In the evening the Prince and Princess were present at the State Ball at Buckingham Palace. On Saturday the Princess drove out. In the evening the Prince presided at a banquet given by the Corporation of the Trinity House. The Princess went to the Royal Italian Opera, Covent Garden. On Sunday their Royal Highnesses attended Divine service at the Chapel Royal, St. James's. On Monday the Prince and Princess gave a ball at Marlborough House. On Tuesday afternoon the Princess was present at a juvenile party given by the Countess of Derby, in St. James's Square. In the evening the Prince and Princess went to the St. James's Theatre. On Wednesday their Royal Highnesses left town for Lynn, when the Prince opened the new dock, and afterwards went on to Sandringham. On Thursday afternoon their Royal Highnesses, on the receipt of a telegram from London, left Sandringham for Marlborough House, where they arrived shortly before 10 P.M.

THE CABINET.—A Cabinet Council was held on Saturday at the private residence of Earl Granville, in Bruton Street.

MEETING OF THE IRISH PEERS.—Circulars were issued on Thursday requesting the attendance of the Irish Peers at a meeting to be held at the Duke of Abercorn's residence, in South Audley-street this morning.

PARLIAMENTARY MOVEMENTS.—The report that Mr. John Jones, the senior member for Carmarthen-shire intended to resign his seat, in consequence of the death of his brother, the late Mr. David Jones, of Pantglas, is contradicted. A petition was lodged on Wednesday against the return of Mr. Charles Seeley, for Nottingham, on the ground of bribery, treating, and undue influence.

THE ARMY.—The colonelcy of the 43d Foot, vacant by the death of Sir R. Garrett, has been conferred on Lieut.-General the Hon. Sir A. A. Spencer; and the colonelcy of the 96th Foot, vacated by this promotion, has been conferred on Major-General G. T. C. Napier.

THE NAVY.—Rear-Admiral Astley Cooper Key has been appointed Admirals Superintendent of Portsmouth

Dockyard, in the room of Admiral Wellesley, who has been appointed Commander-in-Chief on the North American station, in the room of Sir Rodney Mundy, promoted.

Foreign.

FRANCE.—It is asserted that M. du Miral, one of the Vice-Presidents of the Legislative Body, and other members of the majority, are engaged in drawing up an interpellation relative to the necessity of strengthening the institutions of the empire, by giving a greater development to the action and control of the Legislative body. The interpellation asks the Government to re-establish the address in answer to the speech from the throne, to organise on a larger scale the right of interpellation, to extend the right of amendment, and to give to the Chamber the power of electing its president. A meeting of deputies was held on Sunday at the residence of M. Jules Brames, a member of the Third Party, at which rather a warm discussion took place on the question of bringing forward in the Legislative Body an interpellation demanding Ministerial responsibility. M. Louvet proposed to add, after "Ministerial responsibility," the words, "coupled with that of the Sovereign." This addition was rejected, but it is believed that if the resolution in favour of a responsible Ministry and the freeing the Chamber from its present restrictions be put to the vote, the Government will find itself in a minority of 22. M. Rouher, Minister of State, had a long interview with the Emperor on Monday, and it is rumoured that he tendered his resignation. In the sitting of the Legislative Body on Thursday seven more elections were declared valid. During the sitting M. Jules Favre urged upon the Chamber the necessity of electing the Bureaux and otherwise carrying out the formality of constituting the House, in order that it might approach the discussion of the great political questions which preoccupy the mind of the Chamber and of the country. He added that all the delays which had been demanded had no other object than to allow time for a reconstruction of the Ministry. M. Rouher replied that the Government was ready to discuss all public affairs, adding—

"A Ministerial crisis is spoken of, but the great questions to which allusion has been made do not relate simply to a few individuals. They affect our institutions and the future of society, and are bound up with the question of the barrier which must be raised up against revolution. I do not know when or by what men an agreement will be arrived at, but I know perfectly well on what vital forces the Chamber will rely in order to preserve society."

This speech was received with much cheering from the right. The *Peuple Francais* of Thursday evening publishes an article, signed by its chief Editor, M. Clement Duvernois, in which it says that the Deputies who have signed the "interpellation" of the Third Party are friends of the Government, and do not wish that the Emperor should renounce his initiative, but that he should cause the Chamber to share in it. The *Peuple* believes that the Emperor is not disposed to refuse the demands of the interpellation, and adds— "The situation is not disquieting, for while one side does not desire to put forward exaggerated claims, the other is equally resolved not to oppose an exaggerated resistance. The crisis will finish by a compromise, satisfaction being given to public opinion." The *Public* says that the reported changes in the Ministry are devoid even of the semblance of truth. The *France* also gives denials to certain reports current in Paris. It says that the Government has no intention of shortly recalling its troops from Rome, that the Emperor and Empress of Austria are not about to visit Paris; that the Emperor has not given an audience to M. Buffet, a member of the Third Party; and that Baron Talleyrand-Perigord, the French Ambassador at St. Petersburg, has not been recalled, and that M. Poujade, French Consul-General at Alexandria, has not resigned, but is only coming to Paris on leave of absence. The sittings of the Franco-Belge Commission were brought to a close on Saturday. An understanding has been effected on all points, which is said to be entirely satisfactory to the French Government.

SPAIN.—A Ministerial crisis occurred on Monday in consequence of Senor Herrera, the newly-appointed Minister of Justice, and the Ministers of Public Works and the Colonies, having tendered their resignations. Senor Zorilla (Progressist) was appointed Minister of Justice; Senor Martos (Monarchical Democrat), Minister of Public Works; and Senor Becerra (Monarchical Democrat), Minister for the Colonies; but fresh complications have since arisen, and it is thought possible that the whole Ministry will resign, and that Senor Rivero, at present President of the Cortes, will be entrusted with the Presidency of the Cabinet. In the sitting of the Cortes on Monday, Senor Figuerola, Minister of Finance, brought in Bills ordering the sale of the patrimonial property of corporate bodies, and the suppression of the salaries and pensions of individuals who refuse to swear fidelity to the Constitution. In the sitting of Thursday it was proposed to pass a vote of censure upon Senor Herrera. The motion was, however, rejected by 163 votes against 94. General Prim expressed regret that the Democratic party were separating themselves from the majority. Senor Figueras asked the Minister of War what motives had led to the abrupt dismissal of the Captain-General of Catalonia. Senor Zorilla, in the absence of General Prim, the Minister of War, replied that the Captain-General of Catalonia had been superseded in the regular way. Troops have been sent against some bands of Republicans and Carlists in Andalusia and Arragon.

PORTUGAL.—In the sitting of the Chamber of Peers on Wednesday the measure authorising the Government to contract a new loan was passed by a small majority.

MADEIRA.—A rumour is current of a conflict having

taken place at Funchal between the military, in connection with the increase of the Swiss contingent.

SWITZERLAND.—The President of the Council, M. A. O. Aeppli, of St. Gallen, on the opening of the sittings of the Confederation against giving the inhabitants of the canton of Berne a large majority in favour of the new Constitution had been submitted to them for ratification.

BELGIUM.—The *Independance Belge* announces that the final obstacles to the Franco-Belgian railway question were removed the previous day, and that it has reason to believe an arrangement arrived at by the Commission to include the Grand Luxembourg line.

AUSTRIA.—It is announced that the Government rigidly adheres to the provisions of the law for the payment of the interest on the public debt in Vienna only. It is added, however, that the Ministry of Finance, without infringing upon the principle, perhaps be in a position to give, for certain facilities to foreign bondholders for the payment of the coupons.

HUNGARY.—The Lower House of the Legislature engaged for 12 days in discussing a Bill for the appointment of judges. The debates terminated on Tuesday, when the Bill, which entirely embodied the principle of election, was passed by 265 votes.

RUSSIA.—An Imperial ukase has been issued sanctioning the foundation of an Imperial University at Warsaw, which is to replace the Warsaw University. The curriculum of study will embrace the faculties of Law, Medicine, and Theology. Intelligence from Omsk reports that 600 Chinese, while pursuing their way to Kirghiz, had approached the frontier of Saisank. They were driven back, with a detachment of Russian troops. An architect to the Ministry of the House of the Emperor, is to construct, on the model of the Louvre Palace, the building for the exhibition to be taken place at St. Petersburg next year. A sum of 27,000*l.* is allowed for this structure; the workmen employed is at present 400, but will be speedily augmented, for the building is completed externally by September 1, and internally by May 1 next.

ITALY.—The examination of witnesses by the committee appointed to investigate the venality against a member of the Chamber of Deputies was concluded on Tuesday, when the President declared the Parliamentary inquiry closed. A witness from Siniscola, in Sardinia, states that the plague is making terrible ravages in that locality. It attacks both children and adults, even those who have been vaccinated. The mortality is in some places proportionally, and a general feeling of alarm prevails.

HANOVER.—The Supreme Tribunal of Cassation rendered judgment on the 25th ult. in the trial of the Hanoverian Legion. The Court, taking into consideration extenuating circumstances, condemned the accused to 15 months', and the remainder of the year's imprisonment.

POLAND.—A curious discovery has been made at Cracow, during the renovation of the tomb of King Casimir the Great, the last member of the Jagiello dynasty, known in Polish history as "the King of the Peasants and the Jews." One of the workmen struck the pedestal with his hammer in order to test its strength, several bricks fell out, leaving a hollow through which the interior of the pedestal was clearly visible. On enlarging the hole it was found that Casimir's coffin, which had been enclosed in iron bars, had rotted away, and that the body had fallen to the ground. On the skull was a copper, in the shape of a plain circle containing five lilies. Near this was a silver-gilt spoon, and to his feet a pair of large copper spurs. The coffin was covered with a shroud of thick silk, which was in tolerably good condition. A subscription has been opened in order to make a new coffin for the body of this celebrated Polish hero, and the remains already been received for the purpose from the Russian, Prussian, and Austrian Governments.

SERVIA.—The draft of the Constitution proposed by the Skuptschina proposes, among other things, freedom of the Press, equality of all citizens before the law, the autonomy of the communes, and the independence of the judges from Government. The Senate is to remain a consultative body, and the Skuptschina sharing with the Prince the domestic administration. The members of the Skuptschina are chosen for three years. The Government is to have the power of contracting loans without the consent of the Skuptschina.

EGYPT.—The Viceroy is said to have the intention of creating a foreign legion, to be recruited principally in France. The legion is to be stationed at Suez and Ismail, and its duty will be to guard the canal and the Suez Canal. The Viceroy has committed the dramatic duties of the Cairo Theatre to M. Lablache, jun. He has also commissioned M. Camban to paint the scene of the "Elixir d'Amore," M. Chevalier to paint the "Muette," and M. Desplechin; that for the "Bulla," "Crispino," and "Comare." The artists are to have their work delivered by the 31st of August, at a fine of 20 guineas per day.

CAPE OF GOOD HOPE.—By the Cape mail we learn that the Rev. F. S. Robinson, Bishop of Natal, created Archdeacon of Durban by Bishop Robinson. Nearly all the Australian gold-diggers have returned to Australia. Herr Maunz has continued to believe the goldfields were

one-third of the Fellows of a College to call a meeting at which a majority of the Fellows present might alter or repeal any statute imposing a religious test. It was opposed by the SOLICITOR-GENERAL and Mr. BOUVERIE, and supported by Mr. WALTER, Mr. DENMAN, and Mr. WINTERBOTHAM. On a division the clause was rejected by 234 to 147. The Bill then passed through Committee. The rest of the sitting was occupied with the Committee on the Contagious Diseases (Animals) Bill, in which progress was made up to clause 11, clause 7 being postponed. At the evening sitting the House was counted out before any business was done. On Monday Mr. GLADSTONE stated, in answer to Mr. M'Evoy, that the Government were not unfavourable to the Bill for repealing the Ecclesiastical Titles Act, and that in the event of the Irish Church Bill passing into law some legislation on the subject could not be delayed beyond next session. On the motion for the second reading of the Dublin Freeman Bill, Sir F. HEYGATE moved as an amendment that it be read a second time that day three months. The amendment was supported by Mr. E. W. VERNER, Dr. BALL, Mr. LOPES, and Mr. HENRY; and opposed by Mr. C. FORTESCUE, Sir P. O'BRIEN, Mr. DENMAN, and the SOLICITOR-GENERAL FOR IRELAND. On a division the amendment was rejected by 246 to 126, and the Bill was read a second time. On the motion for going into Committee of Supply on the Civil Service Estimates, Mr. FAWCETT called attention to the case of Overend, Gurney & Co., and to the grave evils which might result to the public from a system which allowed the law officers of the Crown to be retained as counsel for the defendants in such cases. The SOLICITOR-GENERAL warmly resented the interference of Mr. Fawcett, who had, he said, neither mastered the facts of the case nor the very elements of the subject he had ventured to rake up. As to himself, it was true that he had received an ordinary retainer for Messrs. Gurney so long ago as September, 1866, and he had received the Queen's license to act on their behalf. He had done nothing inconsistent with the rules of the profession, of common sense, honour, and good feeling. He did not desire to be taught his duty by Mr. Fawcett, and when he did desire it he would come to him and attend his lectures. The House then went into Committee of Supply, and agreed to 11 votes for Public Works and Buildings in the Civil Service Estimates. In Committee of the whole House, the Marquis of HARTINGTON brought in his Money Bill for completing the purchase of the telegraphs. He stated that the total sum to be paid to the telegraph companies was 5,715,047, being 1,320,940 less than had been demanded, and concluded by moving a series of resolutions on which a Bill would be founded. Mr. WARD-HUNT, Mr. CRAWFORD, and Mr. MACFIE expressed their approval of the Bill, and the resolutions were agreed to. The Assessed Rates Bill was read a third time and passed. The Sunday and Ragged Schools Bill passed through Committee. On Tuesday the House went into Committee on the Contagious Diseases (Animals) (No. 2) Bill, when Mr. C. S. READ moved, and Mr. M'COMBIE seconded, the insertion of a proviso to the 15th clause, requiring the slaughter at the port of landing (with certain exceptions) of all cattle imported from countries in which the disease has existed within the last 18 months. On a division the proviso was rejected by 220 to 160. Progress was then made with the Bill up to clause 14. Mr. H. RICHARD called attention to the recent proceedings of certain Tory landlords in Cardiganshire and Carmarthenshire towards their tenants on account of their votes for Liberal candidates at the last election, and moved a resolution condemning them as unconstitutional, oppressive, and an infringement of popular rights. Mr. O. MORGAN seconded the motion, which was opposed by Mr. SCOURFIELD, Sir W. W. WYNN, and Lord SANDON, and supported by Mr. LEATHAM, Mr. O'REILLY DEASE, and others, who contended that the only remedy was the ballot. At the suggestion of Mr. BRUCE the motion was withdrawn. Mr. T. CHAMBERS called attention to a correspondence between the Poor Law Board and the Marylebone Guardians in reference to the separate education of Roman Catholic children, and moved a resolution declaring that where guardians have made provision for the religious instruction of Nonconformist children within the workhouses, the Poor-law Board ought not to order their removal to schools not under the control of the parish authorities. Mr. GOSCHEN said that it was his intention to carry out the law in order to prevent, if possible, the system of proselytising Roman Catholic children in workhouses, of which many complaints had reached the Poor-law Board. After a short discussion the motion was negatived by 71 to 29. On Wednesday Mr. T. HUGHES moved the second reading of the Trades' Unions Bill, the main object of which, by repealing the combination laws, was to legalise all agreements as to conditions of labour, and all combinations of employers and workmen; to abolish, in any future prosecution or civil action in regard to Trades' Union societies, the plea that they are in restraint of trade, and to give them the privileges of friendly societies. Mr. T. BRASSEY, Mr. CHARLEY, Sir C. W. DILKE, Mr. MUNDELLA, and Lord GALWAY supported the Bill, on the condition that ample protection was given to the non-unionists. Mr. E. POTTER opposed it, on the ground that it was an anti-free-trade measure. Mr. BRUCE said that it would not be wise entirely to repeal the combination laws without providing something in their stead. The Government had not been able to legislate on the subject this year, but a Bill should be laid on the table at the very commencement of the next session. After some remarks from Lord J. MANNERS, Mr. W. E. FORSTER, and Mr. HENLEY, the Bill was read a second time. On Thursday Mr. OTWAY stated, in answer to Mr. BAZLEY, that the

Spanish Government had offered to negotiate a treaty of commerce with us, one of the bases of which was a reduction of our wine duties, and that the offer was now under consideration. Mr. GLADSTONE appealed to Sir H. Bulwer, who had a notice on the paper to call attention to our relations with the United States, to relinquish altogether the idea of raising a discussion on the Alabama claims this session. He had reason to believe that the United States' Government, though the recent treaty had been negatived, did not consider the subject definitively dropped, but thought it would be wiser that some interval should elapse before it was renewed. He pointed out also that there had been no discussion in the United States' Legislature. Sir H. BULWER reluctantly yielded to the appeal, but threw on the Government the responsibility of what might happen in consequence of the subject not being discussed in time. On the report of the Committee of Supply, Mr. DILLWYN moved that the vote for altering the Houses of Parliament and decorating the wall of the central hall with mosaics be reduced by 5,500/. Mr. LAYARD admitted that he had sanctioned the expenditure for mosaics on his own responsibility and without the authority of the Treasury. Mr. WARD-HUNT, Mr. WHITE, Mr. BENTINCK, Mr. MUNTZ, and others, censured the principle of expending public money without the authority of Parliament, or even the consent of the Treasury, while he vote was supported by the CHANCELLOR of the EXCHEQUER, Mr. BOUVERIE, and Mr. GLADSTONE. Eventually Mr. Layard expressed his willingness to strike 3000/. off the estimate, but Mr. DILLWYN insisting upon a division, his amendment was negatived by 187 to 97, and the vote, in the reduced form proposed by Mr. LAYARD, was agreed to. On the motion for going into Committee of Supply, Mr. AYTON moved a resolution condemning, as a contravention of the Canada Railway Act of 1867, the application of the loan raised under Imperial guarantee for the Intercolonial Railway to the redemption of a portion of the Canadian debt. Mr. WARD-HUNT, Mr. T. BABING, and Mr. GLADSTONE opposed the motion, which was withdrawn. The House went into Committee of Supply on the Civil Service Estimates, and agreed to a number of votes in the class of Public Works and Expenses of Departments. The third reading of the University Tests Bill was opposed by Mr. CROSS, but was carried on a division by 116 to 65. Yesterday, in answer to Sir H. VERNEY, Mr. MONSELL said that the Canadian Government had practically acceded to the terms agreed to by the Hudson's Bay Company for the cession of their territories. In answer to Alderman SALOMONS, Mr. OTWAY regretted to say that the Government had recently received information of renewed outrages against the Jews in the Danubian provinces. The Insolvent Debtors and Bankruptcy Repeal Bill passed through Committee with a few verbal alterations. The House went into Committee on the Contagious Diseases (Animals) (No. 2) Bill, commencing with clause 45, and was left sitting.

City Intelligence.

MONEY MARKET, FRIDAY.—BRITISH FUNDS: Consols closed at 93 to 93½ for Money, and 93½ to 93¾ for Account; New and Reduced Three per Cents, 93½ to 93¾; Bank Stock, 241 to 243; Exchequer Bills, 2s. to 7s. pm. for March, and 5s. to 10s. for June; India Five per Cents., 111½ to 112.—FOREIGN: Argentine, 78½ to 79½; Brazilian, 83½ to 84; Egyptian (1864), 90½ to 91½; Ditto (1868), 80 to 80½; Viceroy Seven per Cents., 80½ to 80¾; Ditto Nine per Cents., 96 to 96½; Italian, 53½ to 54; Mexican, 12 to 12½; Peruvian, 76½ to 77; Russian (1866), 90 to 91, Ore! Vitebsk, 81 to 81½; Charkof, 79½ to 80½; Spanish, 28½ to 28¾; Honduras, 83 to 84; Turkish Five per Cents., 45½ to 45¾; Ditto Six per Cents., 65½ to 66½; United States 5-20 Bonds, 81½ to 82; Erie, 18½ to 19; Illinois, 95½ to 96.

Metropolis and its Vicinity.

THE WIMBLEDON MEETING.—The Volunteer Encampment at Wimbledon this year is considerably larger than in any of the nine which have preceded it, and many improvements in the arrangements have taken place. The business of the meeting commenced on Monday with a salvo from the cannon in front of the Council tent. The shooting, in consequence of the strong south-westerly breeze which was blowing, was on the whole rather below the average. Quarter-master-Sergeant Nicholls, 10th Stafford, made the greatest number of points for the 1st stage of the Alexandra, at 500 yards, and carried off the 20l. prize, by scoring 19 out of a possible total of 20. Twelve of the other competitors made 18 points, and twenty-nine 17. The Prince of Wales's Prize, value 100l., with 100l. added by the Association, was won by Corporal Peake, of the 6th Lancashire, who won the Queen's Prize last year, but was declared to be disqualified, on the ground that he had loaded with an extra wad, which he denied. On Tuesday the programme began with the first stage of the St. George's Challenge Vase, with other prizes amounting to 623l. Sergeant Lowe, 16th Lincoln, won the vase, gold jewel, and 25l., and Corporal Wyatt, 13th Salop, won the silver jewel and 20l., each scoring 20 points. The principal of the Enfield Nursery Prizes was won by Sergeant Liversidge with 18 points. Sergeant Pace, of the 26th Kent, in the breech-loader competition at 200 yards, with the Henry rifle, fired 43 shots in three minutes, making 6 bull's-eyes, 16 centres, and 21 outers, making a total score of 114. This was 4 points below Mr. Frazer, of the Edinburgh Rifles, who made on the previous day, with a Henry rifle, 118 points, being 3 bull's-eyes, 18 centres, and 20 outers. On Wednesday Sergeant Toplis, of the Robin

Hoods, carried off the "Daily Telegraph" 18 points, and various other competitions took place. The event of the day, however, was an accident by which Corporal Peake, of the 6th Lancashire, one of the best mark-men in the country, forfeited his right to shoot again during the meeting. It appears that he was in his tent handling his rifle it went off, driving the several regimental tents, the Queen's Westminsters, one of the tents of the 1st and finally through the fence to the ground, the ball having passed close to the ground. On Thursday the great event was the shooting in the presence of a brilliant assembly, including Mr. Disraeli and the Countess of Devonport. Mr. Fordyce, M.P. for Aberdeen, scored 55 out of 60 bull's-eyes and a centre, scoring 55 out of 60. Lord Elcho and Mr. Bass, who is in the field, scored 51 each; and the Marquis of Salisbury. Although some of the Lords shot very well, Mr. Spencer and the Earl of Denbigh were defeated on the total score by 35 being—Commons, 353; Lords, 315.

BANQUET AT THE TRINITY HOUSE.—A banquet at the Trinity House took place on Monday. The Prince of Wales, who was accompanied by the Elder Brother, presided for the Duke of Edinburgh, the Master, and there were also present Prince Teck, Prince Christian, Prince Edward of Weimar, Mr. Gladstone, Mr. Lowe, Mr. Stansfeld, and others of her Majesty's Ministers, Mr. Justice, &c. The principal speeches were made by the Prince of Wales, Messrs. Gladstone, Childers, Lowe, Bright, Disraeli, Sir S. Lubbock, Mr. Gladstone, in returning thanks for the services of her Majesty's Ministers, expressed his confidence in the good opinion of the country. The Prince of Wales, Messrs. Gladstone, Childers, Lowe, Bright, Disraeli, Sir S. Lubbock, Mr. Gladstone, in returning thanks for the services of her Majesty's Ministers, expressed his confidence in the good opinion of the country. The Prince of Wales, Messrs. Gladstone, Childers, Lowe, Bright, Disraeli, Sir S. Lubbock, Mr. Gladstone, in returning thanks for the services of her Majesty's Ministers, expressed his confidence in the good opinion of the country. The Prince of Wales, Messrs. Gladstone, Childers, Lowe, Bright, Disraeli, Sir S. Lubbock, Mr. Gladstone, in returning thanks for the services of her Majesty's Ministers, expressed his confidence in the good opinion of the country. The Prince of Wales, Messrs. Gladstone, Childers, Lowe, Bright, Disraeli, Sir S. Lubbock, Mr. Gladstone, in returning thanks for the services of her Majesty's Ministers, expressed his confidence in the good opinion of the country.

"I think the House of Commons is entitled to sympathise as a suffering body at the present moment. Had I uttered ourselves that we had done a great deal, traced a broad and clear outline—we laid in what we took to be neutral tints—we took infinite pains and pains in our performance, and satisfied ourselves well with the artistic character. But now we are in an exciting order. We see our performance in friendly eyes, criticised, altered, and re-arranged. The notions of our critics. The real truth is, we give place to the most violent lights and shadows, and definite outline we had drawn becomes a faint tinct—all sorts of, I will not say tricks and artifices, but on our performance, and we are called upon to try our arms, to watch this execution, to see if we are being allowed to interpose a word. That is the position for the House of Commons to be in. A period of night is nearest the dawn, and with the reflection that after these alterations in our performance it will return to its original state, give it the final touch, and we are enabled to see the outline, and make the picture, if not exactly before, yet so much the same at least as to be satisfactory on all points of view. That such may be the result of a remarkable production I have no doubt you will be in anticipating."

Mr. Disraeli, in returning thanks for the House Brethren, said:—

"The honour conferred by the toast on the members is one of which they are at all times sensible, but especially so in the circumstances under which we are when before our banquet we held a Court in which the subject of our Sovereign and the Prince nearest to us came to inscribe his name on the ancient records of fraternity. Nor can we doubt that, however our engagements, you, sir, will fulfil your duties in connection with this corporation with the same cordial and the same happiness of manner, and the same felicity of which you have fulfilled all your other duties which have obtained for you the kind feelings of your countrymen. Perhaps, sir, in the execution of your duties you may at times experience cares and anxieties less than those which the Chancellor of the Exchequer with so much tact and taste recalled to our recollection. I am that whatever may be your public duties will encounter them successfully with the temperance which generally in public affairs meet their duties and you will feel sure that it is more sedulously to observe than this—that it is unwise to introduce subjects upon which men may differ when it is to intrude them on public notice."

ROYAL COMMISSION ON WATER SUPPLY.—Following are the conclusions contained in the report of the Commissioners, which was published last week:—

"As to the Plans for obtaining Water for the Metropolitan Area.—The various schemes, in an engineering point of view, are all practical, and that by a large amount of water obtained for the metropolis, but that the greatest caution in judging of the merits of any scheme of such magnitude. That the water would be satisfactory as regards its purity and its softness and clearness, and its dependence on its softness and clearness."

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mitted no offence against the laws. He intended to bring the matter before the House of Commons, while others were fully determined to submit it to the consideration of the courts of law.

Mr. Holt, M.P., moved the first resolution viz "That this meeting is alarmed at the interference of the present Home Secretary with the right of lawful assembly and free discussion."

Mr. Kydd, barrister, seconded the resolution, which was carried unanimously. The Rev. S. A. Walker, rector of Maryport, Bristol, moved the next resolution "That a strong attachment to the principles of freedom, as intended by the constitution, and as hitherto protected by the law when fairly administered, and a firm determination to resist all attempts to violate the right of peaceful assembly and of free discussion, prompt this meeting to reprobate the conduct of the Home Secretary as inconsistent with this right, and to repudiate the pretexts advanced in palliation of his conduct."

Mr. James Bateman seconded the resolution, which was carried unanimously. Mr. Fielden, M.P., moved the third resolution, as follows:—"That this meeting further expresses strong disapprobation of certain local authorities who have proceeded without adequate cause or legal sanction to interrupt persons proceeding to attend a lawful assembly."

The resolution was carried unanimously. On the motion of the Rev. G. Badenoch, seconded by General Beattie, a petition to Parliament embodying the resolution was agreed to. Mr. Murphy was called, but he declined to come forward.

ROYAL ACADEMY.—At a general assembly of the members of the Royal Academy, held on the 30th ult., Mr. E. M. Barry was elected a Royal Academician.

THE REFORM CLUB.—Mr. John Bright and Mr. W. E. Forster have resigned their memberships of the Reform Club, in consequence of an American gentleman, Mr. Smalley, of the *New York Tribune*, recommended by them for the usual honorary membership granted to distinguished foreigners for three months, having been blackballed.

Consequent upon these resignations a requisition, signed by nearly 100 members of Parliament, and about 20 other members of the club, has been forwarded to the committee, requesting them to call a general meeting to consider the circumstances under which the resignations have taken place.

DIocese of London.—The Bishop of London has appointed the Rev. Robert George Baker to be rural dean of the deanery of Fulham, the Rev. John North Ouvry-North to be rural dean of the deanery of Ealing, and the Rev. George Goodwin Pownall Glossop to be rural dean of the deanery of Hampton.

NEW ROMAN CATHOLIC CHURCH AND HOSPITAL.—Archbishop Manning on Friday opened a new church at Newland Terrace, Kensington. It is to be the temporary cathedral church of the diocese (a position hitherto held by St. Mary's, Moorfields), till the permanent cathedral shall be built.

A new hospital at Hanwell, founded by the Baroness Weld, was opened by Archbishop Manning last week. The ceremony commenced with a procession, which marched through the grounds to the hospital, when the building was blessed and formally opened.

The procession then entered the adjoining church, where the Archbishop made an appeal in behalf of the new institution. The hospital is 49 feet long by 27 feet wide, Mr. Welby Pugin being the architect. There were present on the occasion a large number of priests and of the Roman Catholic aristocracy.

THE VICARAGE OF ST. PANCRAS.—The vicarage of this important parish has become vacant by the resignation of the Very Rev. Dr. Champneys, now Dean of Lichfield. Formerly it was what is called "a fat living;" but the parish has been split up into ecclesiastical districts, which diminish the receipts of the vicar, who has, however, in every case been the most active promoter of these districts.

The last two vicars, Mr. Dale and Mr. Champneys, held canonries at St. Paul's worth 1000*l.* a year, which made the receipts from St. Pancras comparatively unimportant to them. Mr. Gregory, who succeeded Mr. Champneys in the canonry at St. Paul's, is said to be unwilling to take St. Pancras, as it would render it necessary for him to leave a very poor district in the worst part of Lambeth, which he has worked with extraordinary success during the last 17 years.

SMITHFIELD MARTYRS' MEMORIAL CHURCH.—The ceremony of laying the foundation-stone of a new church, dedicated to the Protestant martyrs who were burnt in Smithfield, took place on the 29th ult., in the presence of a large number of spectators. The site of the church is in St. John Street Road, Clerkenwell, and when built it will serve as the district church of St. Peter's. The proceedings were opened with a hymn sung by the Sunday-school children, and followed by a prayer for the Queen. The Earl of Shaftesbury then laid the stone, and delivered a long address on the state and prospects of the Church. The company afterwards adjourned to a luncheon, which was presided over by Mr. William Leaf.

segment shells having in 15 rounds planted no less than 240 bats upon the six rows of targets, representing six companies of soldiers of the line advancing in quarter-distance column to deploy.

PALESTINE EXPLORATION FUND.—The annual public meeting of the association formed in 1885 for the accurate and systematic investigation of the archaeology, topography, geology, physics, geography, and manners and customs of the Holy Land for Biblical illustration, was held on the 1st ult. The Archbishop of York presided. Mr. Tate, M.P., Mr. MacGregor "Red Row", Captain Wilson R.E., Messrs. Prosser, Field and Deutsch, Professor Owen, General Walker, Canon Birch, and Dean Alford were on the platform.

The report stated that the income that could be relied upon was only 2000*l.* a year, while at least 5000*l.* was required. The Freemasons had contributed 300*l.* to the fund. The success of the society's exhibition of pottery, glass, and other things found during the excavations was satisfactory. The total receipts of the year had been 4630*l.*, the exploration expenses 3268*l.*, publication expenses, 583*l.*, and the balance in hand was 370*l.* The report was adopted, and resolutions in furtherance of the objects of the society and appealing for pecuniary help to carry on the work with greater vigour were adopted.

THE FRENCH ATLANTIC CABLE.—A telegram from the Great Eastern on Saturday stated that all was going well with the cable, and that the ship had done half the deep water distance between France and the Great Bank. The report on Tuesday stated that the signals were perfect, and that the ship was then in American waters. On Thursday the report stated that 1977 miles of cable had been paid out, and that the ship would be in shallow water yesterday morning.

THE BERMUDA DOCK.—A telegram from Capt. Boys, of H.M.S. *Warrior*, was received on Wednesday afternoon, by way of Lisbon, stating that the Bermuda Dock arrived at Porto Santo at 2 P.M. on the 4th inst., and left the same evening for Bermuda. The breeze had been light and the sea calm all the passage, and no difficulty whatever had been experienced.

THE PRISON PHILANTHROPIST.—At a meeting of the Common Council last week, a deputation of the Thomas Wright Memorial Fund, headed by the Earl of Shaftesbury, was received for the purpose of presenting to the City of London a portrait of the prison philanthropist. Lord Shaftesbury briefly reviewed the generous and Christian exertions of Mr. Wright in visiting and striving to bring prisoners to repentance, and the Lord Mayor in accepting the portrait on behalf of the City bore testimony to Mr. Wright's devoted and self-sacrificing labours. The portrait, which is painted by Mr. Mercer, was then presented and formally accepted.

PROSECUTION OF BETTING HOUSES.—The police having been instructed to carry out the Betting House Act, which empowers them to apprehend and detain on premises where betting is carried on, Mr. Wright, of York Street, Covent Garden, whose name is so conspicuous in many newspapers as the furnisher of "Wright's Telegrams," and 26 other well known "commission men," were recently arrested, and taken to Bow Street, where they were bound over to appear on a future day. When they were again brought before Sir T. Henry for examination, the specific charge preferred against Mr. Wright was that he received remittances of money to be laid as bets on certain horses, and the extent of his transactions was inferred from a receipt-book which had been seized upon the premises, the counterfoils of which represented a sum of between 30,000*l.* and 40,000*l.* Mr. Sergeant Sleight, on behalf of the defendant, contended that there had been no contravention of the law; and eventually the hearing was adjourned that a case might be presented to the Court of Queen's Bench. Another charge against Mr. Morris, of Cork Street, Bond Street, and a third against Mr. Sydney Smith, were adjourned for similar reasons. While these proceedings have been going on against the "commission men," the keepers of the "tobacconist's betting houses" in Oxford Street have also been brought before the magistrates at Marlborough Street Police Court. In one case Mr. Mansfield expressed his opinion that the law should be impartially administered by proceeding against Tattersall's also, and that the small flies should not be caught in the legal cobweb while the greater ones were allowed to slip through unharmed. In another case in which there was no doubt as to betting having been practised on the premises, as the detective police had actually made bets in the house, and received money which they had won, Mr. Tyrwhitt dismissed the charge, stating that he felt constrained to do so, because he believed a conviction would not have been confirmed on an appeal to the Sessions.

THE LOSS OF THE BLUE JACKET.—The ship *Blue Jacket*, from Lyttelton, New Zealand, to London, was burnt at sea March 9. The *Antonia Vinent*, on April 3, brought to Stanley, Falkland Isles, nine of the crew and 14 bars of gold, valued at 15,000*l.* The men were in the boat from the 9th March to the 29th March. Four died in the boat, and three on board the *Antonia Vinent*. The boat was for one day in company with a yacht, in charge of the master, White, and one life-boat in charge of the second mate, after which they parted company. According to the captain's report there were 31 men in the two missing life-boats. The value of the gold saved is supposed to be exaggerated, as the captain stated that each boat only contained one box of gold, valued at about 4000*l.*

FATAL ACCIDENT WITH AN HOTEL LIFT.—On Saturday an inquest was held at the Charing Cross Hospital, on the body of John Darley. The deceased was a porter at the Charing Cross Hotel, and on the 22d ult. was employed on the second floor attending to a customer who had just arrived. After he had done so he entered the "hall-porters' lift," for the purpose of being let down into the lower storey. The lift sud-

FREEDOM OF SPEECH AND PERSONAL LIBERTY.—Monday evening a public meeting was held at St. James's Hall, "in vindication of freedom of speech and liberty of the subject violated by the late arbitrary proceedings in connection with Protestant meetings, and by the illegal imprisonment of Mr. Murphy and other lecturers. Mr. Newdegate, M.P., took the chair, and, after approving of the object of the meeting, was seconded by Viscount Sandon, M.P., Mr. C. E. Cawley, M.P., Lord Harrowby, Lord G. Hamilton, M.P., Mr. Keble, Q.C., Mr. W. H. Beach, M.P., Mr. J. C. Gwynne, and other gentlemen. The chairman summarised strongly on the conduct of Mr. Bruce in justifying the arrest of Mr. Murphy, who had com-

denly gave way, and went down to the bottom of the shaft. The leg of deceased was broken, and he sustained such other injuries from the fall that he died a few days afterwards in the hospital. It was supposed that the breaking of a small steel bolt had caused the lift rope to give way suddenly, but though the jury were an hour investigating the case, they could not agree as to what was the cause of the accident. They, therefore, returned a verdict of "Death from injuries caused by the fall of a lift, but what caused the said lift to fall there was no evidence to show." The Coroner said that out of evil sometimes good arose, as Mr. Easton, the manufacturer of the lift, on the suggestion of one of the jury, had said that he would in future use wrought-iron bolts instead of steel. Nevertheless, the inquiry was a very unsatisfactory one.

THE "QUEEN'S MESSENGER."—At the Marlborough Street Police Court on Wednesday, Lord Carrington appeared before Mr. D'Eyncourt to answer two charges, the first of assault, and the second of challenging to fight a duel, preferred against him by Mr. Grenville Murray. It appeared that Mr. Grenville Murray was supposed to be the writer of certain scurrilous articles which had appeared in the *Queen's Messenger* on Lord Carrington's father, that the present Peer went to the Conservative Club, of which Mr. Murray is a member, and struck him with a stick, stating that he knew where to find him, thereby inciting him to fight a duel. The cross-examination of Mr. Murray established the fact that his son was the registered proprietor of the *Queen's Messenger*, and that he himself had often written for it. After a long inquiry, Mr. D'Eyncourt decided on the first charge to bind over Lord Carrington to keep the peace, in two sureties of 2000*l.* each, and himself in 5000*l.*, and with regard to the second charge, to send it for trial at the sessions. The Duke of Beaufort and Lord Colville were the sureties. At the close of the case a determined fight, such as was never before seen in a court of justice, took place for the possession of a tin box containing the MSS. copies of the articles which occasioned the assault on Mr. Murray, but Lord Carrington's friends succeeded in retaining possession of it. On Thursday Colonel Archibald Campbell Campbell surrendered to his bail, before Mr. Knox, at Marlborough Street police-court, to answer the charge of assaulting William Bowden, one of the officers of the court, and with conducting himself in a disorderly manner during the affray. After hearing evidence at some length, Mr. Knox said that a most dastardly attempt had been made by a number of ruffians to get possession of a box containing papers which had been subpoenaed by the court, and spoken to in evidence. He believed the defendant was under the impression that he was assisting, rather than opposing, the officers of the court in restoring order, and assaulted the officer (who was in plain clothes) by mistake. He should therefore discharge him on his making an apology to the officer. The apology having been made, Mr. Knox added that he would be glad to grant warrants for the apprehension of any person against whom suspicion rested of having been instrumental in making the attack upon the box, and if the case were proved against them he would at once send them for trial.

THE PUBLIC HEALTH.—The Weekly Return of the Registrar-General states that in the week that ended on Saturday, July 3, 4406 births and 2738 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 22 per 1000 persons living, being 20 per 1000 in London, 32 in Edinburgh, 20 in Dublin, 17 in Bristol, 19 in Birmingham, 27 in Liverpool, 22 in Manchester, 23 in Salford, 18 in Sheffield, 20 in Bradford, 20 in Leeds, 20 in Hull, 18 in Newcastle-upon-Tyne, and 33 in Glasgow. In Paris the rate in the week ending the 1st inst. was 31 per 1000, and in Vienna 30 per 1000 during the week ending the 26th ult. In London the births of 1045 boys and 973 girls, in all 2019 children, were registered in the week. In the corresponding weeks of 10 years, 1859-68, the average number, corrected for increase of population, was 2135. The deaths registered in London during the week were 1231. It was the 26th week of the year, and the average number for that week, corrected for increase of population, was 1327. The present return is therefore 95 below the estimated amount.

Provincial.

DEVONPORT.—On Friday Lieut. E. H. Cunningham, of H.M.S. *Himalaya*, was tried by court-martial, in Hamoaze, for playing cards with Mr. Ross, an invalid midshipman, in the saloon, after the lights had been reported out, being officer of the watch at the time. The prisoner admitted his guilt and was adjudged to be severely reprimanded, and dismissed his ship.

KENDAL.—Three sheep were found buried in a snow drift last week in one of the recesses of the mountain High Street, in Westmorland. They were recovered alive. Snow was still lying in some of the shaded parts of Skiddaw last week.

LLANBERIS.—The latest telegrams from the scene of the nitro-glycerine explosion state that two more of the persons injured have died. The total loss of life is therefore seven. The jury at the inquest returned a verdict of Accidental Death from the explosion of nitro-glycerine.

LYNN.—The Prince and Princess of Wales visited Lynn on Wednesday, for the purpose of opening the new dock. The weather was fine, and the town was the scene of a general holiday. After receiving addresses from the Town Council and the Grammar School, their Royal Highnesses went in procession through the town, and, embarking in a steamer, made a trip down the Norfolk Estuary Channel, returning to the new dock on the top of the tide. The Prince

landed at one of the stages on the south side, and declared the dock open. Their Royal Highnesses then drove to the Town Hall, where they were entertained at a banquet, over which Mr. L. W. Jarvis, chairman of the dock company, presided. In the evening the Prince and Princess left for Sandringham, where they will stay a short time at the residence of General Knollys.

NUNEATON.—On Monday afternoon, while about 40 persons were at work at the saw-mills belonging to Mr. C. N. Newdegate, M.P., in the Griff Colliery, near this town, one of the boilers suddenly exploded. Some of the men and boys were struck with the falling bricks, some of them had very narrow escapes, but no injury of a serious character was sustained.

PENZANCE.—On Friday night it was discovered that a horrible murder had been perpetrated in an empty house at the Land's End. Some bricklayers found in it the body of a middle-aged woman, with her head nearly severed from the body. It appeared that she had left her home with a considerable sum of money in her possession, and when the body was discovered the money was gone. The police are investigating the matter.

PLYMOUTH.—The ship *Cavalier*, of Aberdeen, from Quebec, with timber, for London, put into the Sound on Monday, water-logged, having been cut down several feet below the water line by a steamer running into her on the previous day. The steamer, which is believed to be the Bremen mail boat, left her figure-head on board the *Cavalier*, and proceeded, after refusing to tow the latter into harbour.

ROCHDALE.—On the 28th ult. a pleasure party, including four young women and two young men, from Todmorden, left the Fisherman's Inn, Hollingworth, near this town, to drive round Hollingworth Lake. At the toll-gate the horse backed, and slipped down the embankment into the lake. One young woman jumped out before the vehicle reached the water, and another was recovered in an insensible condition and restored to life. The two young men were saved. Two other young women, called Holt and Brooks, were drawn out of the lake dead. The horse was also drowned. The jury at the inquest returned a verdict of Accidental Death, and censured the unsafe condition of the embankment.

SUNDERLAND.—The amount collected in this town for the purpose of buying Mr. George Hudson an annuity has reached 1500*l.* The report that the British residents in Paris had subscribed 6000*l.* in aid of the fund is contradicted.

USK.—At the Petty Sessions, on Friday, Thomas Rosser, who was charged with the murder of Jane Edwards, in this town, in June, 1867, was committed for trial by the magistrates on his own confession. The evidence of Dr. Boulton, who made the *post-mortem* examination of the exhumed body, showed that there was no fracture of the skull, but the woman might have sustained concussion of the brain without the skull being fractured.

UXBRIDGE.—On Tuesday evening a man of weak intellect, named Frederick Redrup, aged 32, who is respectably connected in the town, was murdered by William Murray, described as a bricklayer, though he has done no work for some time, and has generally been seen loitering in the streets or drinking in taverns. On Tuesday the prisoner and deceased were drinking at several public-houses, but no one saw them quarrelling or knew that there was any animosity between them. Murray was seen leading Redrup through the streets towards the house of the former, both being tipsy. At half-past 6 he left the house alone and went to the market-place, where he said that he had killed deceased. Several persons at once went to the house, and found Redrup on the floor, covered with blood. A razor was found lying on a chair near deceased, engraved with the name "Murray." The deceased's throat was cut from side to side. Murray was at once apprehended, and taken before the magistrates, who remanded him to Thursday, when he was committed for trial. The only apparent motive for the crime was the desire to obtain a few shillings which the deceased had, though he had been heard to threaten vengeance on some one a few days previously. On Wednesday evening another very sad case of homicide occurred at Uxbridge. Two lads about 14 years of age, were errand boys at a fish shop, and are stated to have always been good friends. On Wednesday evening, one of them named Parr was handling a clam on the stall, when the other, Jockham, told him to let the fish alone. Parr then playfully gave Jockham a blow and ran away, upon which the latter threw a knife after him. The blade unfortunately entered his side, and inflicted a wound which almost immediately proved fatal. The magistrates on Thursday committed his assailant for trial on the charge of Manslaughter.

YARMOUTH.—A young man called Edward Hastings Forder, very respectably connected, was brought before the magistrates last week, charged with the murder of his aunt, Susanna Hastings. It appeared that the prisoner, who had led a dissolute life, went to the residence of his relative and demanded money. The demand was refused, whereupon he struck Miss Hastings a fearful blow under the right ear with his fist, from the effects of which she died a few hours afterwards. The prisoner was remanded for a week. The jury at the inquest returned a verdict of Manslaughter against him.

YORK.—Edward Simpson, more widely known as "Flint Jack," is said to be driving a good trade in Yorkshire just now. A few days ago he called at Pumber, when he told Mr. Mortimer that he had within a few days converted about 60 flint splinters (flakes) into arrow-heads, besides making about a dozen stone axes from the hard blue whinstone. These he had mostly sold in York. Another individual has commenced the trade, and has carried more than 50 arrow-heads into Melton, where the trade seems to be very brisk.

Ireland.

CARDINAL CULLEN ON THE IRISH UNIVERSITY.—Cardinal Cullen, in an address at the University on Friday, condemned the present state of education, and said that if the Government were to mutilate by the Lords as to render the education of the nation, they would have a further reason for their unpopularity.

THE FENIAN PRISONERS.—A number of Fenian prisoners have been held in Ireland to demand the release of all the Fenian prisoners. Meetings were held at Cork, Mullingar, Drogheda, and other towns, and a procession marched to them in military hue, carrying flags. In the Rotundo at Dublin they assembled, where they were addressed by Butt, Q.C., who said that the motto of the Fenians should be—"Bide your time, put your powder dry." If Government were to retain the prisoners any professional assistance was useless. Mr. Williams, of Dunmore, said that justice of the English Government was refused let the blood be on their own heads, and not advocate a resort to the sword, that was out of time.

THE LATE FENIAN RAID FOR ARMS.—was held at Cork last week on Andrew Gray, who was shot by Mr. Gray on the 15th ult. in a Fenian raid for arms. The jury returned a verdict of Justifiable Homicide and praised Mr. Gray for their bravery and humanity.

THE MONAGHAN RIOTS.—At the Petty Sessions on Wednesday, the trial of John M. H. for the murder of James Clark, at Monaghan last, was concluded. The jury, after some time in deliberation, returned a verdict of murder, but found the prisoner "guilty of homicide." His lordship stated that he was "Not guilty." The people cheered for his release.

THE RIOT AT PORTADOWN.—The funeral of a man named Watson, shot by the police at Portadown, they had been stoned and driven back by the 1st inst., took place on Monday last. 8000 persons joined in the procession. The men, although the deceased was not one of them, were draped in sashes. There were great numbers of spectators present, all of whom were quiet. The funeral was postponed until after the inquest, and opened on Wednesday before the coroner, magistrates and adjourned.

ANOTHER OUTRAGE IN TIPPERARY.—Mr. Bradshaw, brother of the gentleman who was assassinated at Cappawhite, narrowly escaped the victim of a deliberate outrage last week. He was about entering his house, in the town, when he was followed by two men inside the gate, who flung with great violence two large stones at him, between 1 lb. and 2 lb. each, at him. Mr. Bradshaw, with two other men, pursued the assailants and discharged a shot from a revolver at them without effect. Both men, after a long chase, were taken and their pursuers got away.

THE MURDER AT MULLINGAR.—The trial of the Exchequer, on Monday, was occupied with the charge against the *Daily Express*, which it is stated occasioned much interest. The charge was the murder of Mr. Anketell, the Midland Railway Company's station-master. This letter addressed to the Exchequer made from the altar of the Protestant chapel by the Rev. Mr. Gogerty, the parson of Mullingar, to Mr. Anketell, and, as it was imputed that Mr. Gogerty had "committed murder." The damages were placed at 1000*l.* strong bar was engaged, Mr. Butt leading the case, and Mr. Macdonogh for the defendant. The witnesses for Mr. Gogerty were Captain Nugent, son of Sir Percy Nugent, high sheriff of the county, and the manager of the National Bank, who both corroborated the plaintiff's case to the words used by him on the occasion, which they said, amounted to a statement that a porter on the line, had been dismissed because he was a Roman Catholic. The jury returned a verdict for the defendant, but exonerated him from any attempt to injure Mr. Anketell. The police were pelted with stones by the crowd, whom were arrested.

MURDER IN DOWNSHIRE.—A singular murder took place at Bellaghy, in the county of Down, last week. A farmer, residing there, was charged with the murder of a female servant, and proceeded to his trial. On his return he found all the doors of his house closed, and a girl lying insensible on the kitchen floor, with her skull blown away, and the brain protruding. He never rallied. It is said that some persons removed a gun from above the fireplace, and fired a shot cap on it, shot the girl, and replaced the cap.

Scotland.

ELECTION OF A SCOTCH PEER.—On Wednesday an election of a Scotch representative peer took place at Holyrood Palace, when the Earl of Kellie was unanimously elected. The Duke of Buccleuch and the Earl of Kellie were the only peers present. The Duke sent proxies.

THE SUTHERLAND GOLD-FIELDS.—The prospect on Kildonan burn were deserted last week by the diggers, who, on the expiry of their respective licences, packed everything up and left for their respective homes. A good many of the diggers have left for the purpose of preparing for the herring fishing, but many of the old colonists

of the small yield of gold at the burn, to extend the ground so as to give them...

At Salsburgh, however, many were obliged to make fair earnings, and as they ran out a good many went for renewals...

Railways.

ON THE NORTH-EASTERN.—The first importance on the Scarborough Railway opening, 25 years ago, occurred on its...

Law.

before the Lord Chancellor, the Archbishop of York, and Sir J. E. Bennett—Sheppard...

Case of the Duke of Newcastle.—In the 21st ult. the Court made an order giving the creditor 14 days from that day—namely, the 8th of...

Case of the Duke of Newcastle.—The Duke's financial relations with Mr. Padwick...

Case of the Duke of Newcastle.—The Duke's financial relations with Mr. Padwick...

On Wednesday, at the application of the Attorney General, the trial of the case...

VICE-CHANCELLOR'S COURT (before Vice-Chancellor Sir W. M. James) The Joint Stock Discount Company v. Brown. This was a bill by the special liquidation of the Joint Stock Discount Company (Limited), suing on behalf of the company, against nine former directors, named Brown, Dent, Llanett, Kirk, Mart, White, Wilkins, Bray, and Galispie...

Obituary.

LORD CASTLEMAINE died on Sunday last, after a short illness, in his 76th year. He was born in 1791, and was the eldest son of the second baron, whom he succeeded in 1848 in the honours of Baron Castlemaine, of Moydrum Castle, county Westmeath...

one of the lords of the Admiralty, and a strong detachment of the Royal Navy...

Victoria, died at his residence, 10, Upper New Wood, on Sunday after a long and severe illness at his last year. He was of order of Westminster and was called to the Bar, at Lincoln's Inn in 1829. He was afterwards Solicitor and Attorney General of New South Wales, and a resident Judge at Port Phillip, and was Chief Justice of Victoria and Judge of the Admiralty...

Markets.

COVENT GARDEN.—We have still a steady demand for produce of good quality...

Table with columns for various fruits and their prices, including Apples, Cherries, Pears, etc.

Table with columns for HAY and SMITHFIELD, listing prices for different types of hay and livestock.

Table with columns for CAMDEN MARKET, listing prices for hay and other goods.

Table with columns for ENGLISH WOOL, listing prices for various types of wool.

METROPOLITAN CATTLE MARKET. MONDAY, July 5. We have a larger supply of Beasts, and a slow trade, consequently prices are lower, and a clearance cannot be effected.

174 Pigs (from Scotland there are 32 Beasts; from Ireland, 75; from Norfolk and Suffolk, 100; and 1930 from the Midland and Home Counties.

Best Scots, Herefords, &c	5 4 to 5 8	Best Long-wools	5 4 to 5 6
Best Shorthorns	6 2-5 4	Do. Shorn	.. .. .
2d quality Beasts	3 0-4 0	Ewes & 2d quality	4 4-4 8
Best Downs and Half-breds	5 8-5 10	Do. Shorn	.. .. .
Do. Shorn	.. .. .	Lambs	.. 5 4-6 4
Beasts, 4610; Sheep and Lambs, 24,520; Calves, 357; Pigs, 254.		Calves	.. 8 4-5 8
		Pigs	.. 3 8-5 8

THURSDAY, July 8

The number of Beasts is small, but the trade is very slow, and a clearance cannot be effected, notwithstanding a disposition to take rather lower than we quote. There are a few more Sheep and Lambs than last week, and the demand is less, consequently prices are lower. Choice Calves are in demand. Our foreign supply consists of 424 Beasts, 3950 Sheep, 494 Calves, and 5 Pigs.

Best Scots, Herefords, &c	5 4 to 5 6	Best Long-wools	5 0 to 5 2
Best Shorthorns	5 0-5 2	Do. Shorn	.. .. .
2d quality Beasts	3 0-3 8	Ewes & 2d quality	4 0-4 4
Best Downs and Half-breds	5 4-5 6	Do. Shorn	.. .. .
Do. Shorn	.. .. .	Lambs	.. 4 8-5 8
Beasts, 600; Sheep and Lambs, 15,310; Calves, 680; Pigs, 40.		Calves	.. 3 8-5 8
		Pigs	.. 3 8-5 8

METROPOLITAN MEAT MARKET.—July 10.

Best Fresh Butter	.. .. .	14s. per dozen lb.
Second do. do.	.. .. .	12s.
Small Pork, 4s. 8d. to 5s. 2d.; Large Pork, 4s. 0d. to 4s. 8d. per 8 lb.		

MARK LANE.—MONDAY, July 5.

We had again a very short supply of English Wheat to this morning's market, and there being a good attendance, it was quickly disposed of at the extreme prices of this day so far, and in some instances brought an advance of 1s. per qr. For foreign there was a better demand at fully last week's rates. Barley was 6d. per qr. dearer. Beans and Peas unchanged in value. The Oat trade was quiet, and in order to effect sales it was necessary to submit to a decline of 6d. per qr. American Flour was 6d. per barrel, and country marks 1s. per sack, dearer.

WHEAT, Essex, Kent, Suffolk, White	48-51	Red	47-49	
— fine selected runs do	51-54	Red	49-51	
— Talavera	55-59	Red	.. .. .
— Norfolk	.. .. .	Red	.. .. .
— Foreign	39-62	.. .. .	.. .. .
BARLEY, grind. & dist. 28st to 32s Chev.	.. .. .	Malting	38-44
— Foreign grinding and distilling	24-30	Malting	32-40	
OATS, Essex and Suffolk	.. .. .	.. .. .	.. .. .
— Scotch and Lincolnshire	25-33	Feed	.. .. .
— Irish	30-32	Feed	23-28	
— Foreign	25-30	Feed	21-26	
RYE	38-40	Foreign	.. .. .
RYE MEAL, Foreign	.. .. .	.. .. .	.. .. .
BEANS, Mazagan	38st to 40s	Tick	42-43	
— Pigcon	43s to 47s	Winds	.. .. .
— Foreign	.. .. .	Small	38-42
PEAS, White, Essex, and Kent	Boilers	40-41	Suffolk	39-42
— Maple 41s to 45s	Grey	40-42	Foreign	36-40
MAIZE	.. .. .	Foreign	28-30
FLOUR, best marks delivered	per sack	39-43	.. .. .
— 2d ditto	ditto	29-40	Country	28-40
— Foreign	per sack	33-37	Per sack	39-40

FRIDAY, July 9.

The weather since the 2nd inst has been fine and warm, with but little sun. Although the weather has improved the growing crops, and was favourable to the Wheat in bloom, the short supplies both of homegrown and foreign in the markets of the kingdom (except Liverpool, where the arrival of foreign Wheat was large), have had a strengthening influence upon the trade generally, and as millers showed a disposition to increase their stocks, we have to report an advance of 1s. to 2s. per qr. on Wheat, but the business transacted was not very extensive. Excepting London, where Oats were rather lower, this article, as well as Spring Corn of all descriptions, has improved in value. Flour was a better sale and the turn dearer. In some markets an advance of 1s to 3s per sack is quoted. Since Friday last the arrivals of grain and seed laden vessels off the coast consisted of 62 cargoes, of which, with those left over from last week, there remained for sale last night 37 cargoes. The amount of business transacted has been large the tone of the market was, on the whole, steady. American, and some of the best descriptions of Russian Wheat, improved 1s. to 2s. per qr. Maize met with a slow sale, Barley remained firm. For forward shipment of Wheat there was more inquiry, at 1s. 8d. per qr. advance. Maize and Barley were not materially altered in value, but Rye was rather cheaper. Beans continue scarce. Paris, July 8.—There is no quotable alteration this week in either Wheat or Flour, but the trade remained firm. The eight marks are quoted at equal to 37s. 3d. per 280 lb. The stock at the Halle is estimated at 7290 cwt.

There was scarcely any English Wheat on offer this morning, and Monday's quotations were fully maintained. The attendance at market was poor, but foreign Wheat met with a fair inquiry, and an advance of 1s. per qr. was generally established upon American and Russian qualities. There was no change in the value of Barley, Beans, or Peas. Oats were a trifle cheaper.

ARRIVALS.				
	Wheat.	Barley.	Oats.	Flour.
English	250 qrs.	— qrs.	— qrs.	— ska.
Irish	.. .. .	.. .. .	.. .. .	.. .. .
Foreign	43,410 ..	3170 ..	30,000 ..	14,600 ska.
	43,660	3170	30,000	
AVERAGES.				
	Wheat.	Barley.	Oats.	
May 29 ..	45s 2d	37s 3d	27s 0d	
June 5 ..	45 5	37 5	26 2	
— 12 ..	46 0	37 1	26 6	
— 19 ..	46 2	32 2	27 8	
— 26 ..	46 4	32 7	29 0	
July 3 ..	47 9	35 8	26 2	
Average ..	46 2	35 4	27 1	

LIVERPOOL, July 6.—We had a fair attendance at our market to day, and a large consumptive business was done in Wheat at an advance of 4d. per cental since Friday. Flour in fair request, and in some cases rather dearer. Indian Corn in moderate request, at prices rather lower than on Friday. Oats firm. Oatmeal in good request at previous rates. Beans and Peas unchanged.

SEED MARKET.

Our markets during the past week have been poorly attended, which is usual at this time of the year. The reports of the growing crops of Clover seed from Germany and France are very bad, and it is predicted there will be very little seed saved. Trefoil is also spoken very badly of, and it is expected we shall have very high prices for this article. Red Clover and Trefoil is in much request for speculation, and we must again report their values gradually advancing. Germany, which supplied us with so much Red this last season, is now importing at fully 16s. per cwt. more to hold on speculation. Dwarf sowing Rape is again 2s. per qr. dearer, it is in good demand and short supply. The demand for Mustard is not so good, but prices are firm. New Trifolium is offering at moderate prices. There is no change in the value of Canary and Hemp.—JOHN SHAW & SONS, 16, WATER LANE.

LEADENHALL POULTRY, &c.

Geese	.. each	.. .. .	Pigeons	.. each	0 9-1 0
Goslings	.. ..	4 6-6 6	Tame Rabbits	.. ..	1 0-2 0
Turkeys	.. ..	.. .. .	Wild Rabbits	.. ..	0 4-0 9
Turkey pullets	.. ..	.. .. .	Wild Ducks	.. ..	.. .. .
Ducks	.. ..	.. .. .	Pheasants	.. ..	.. .. .
Ducklings	.. ..	3 0-4 0	Hares	.. ..	2 0-2 6
Surrey Fowls couple	9 0-12 0	.. .. .	Dotterel	.. ..	2 0-2 6
Do. chickens	6 0-9 0	.. .. .	Quails	.. ..	0 9-1 6
Barn door Fowls	6 0-9 0	.. .. .	English Eggs, p. 100	6 0-7 6	
Leverets	.. each	3 0-4 6	Foreign do	.. ..	5 0-6 6

Fresh Butter 1s. 0d. to 1s. 2d. per lb.

WANTED, a WORKING PARTNER, with £100 or £200, to join another for the purpose of extending a business in Early Forcing of Cucumbers, French Beans, Strawberries, &c. Proof can be given of a good income. Letters only, in first place, to Mr. T. HORN, 5, Exeter Place, St. John's, Fulham, S.W.

WANTED, an efficient and trustworthy PERSON, to take the Management of about 50 Acres Market Garden. Must be versed in the Cultivation, and a good Salesman. Salary £100 per annum.—Particulars, with references, to be sent to Mr. W. FASSIDGE, Uxbridge.

WANTED, a LAND AGENT, on an extensive Property in Devonshire, an active, intelligent Person, between 30 and 45 years of age, having a thorough knowledge of the Value and Management of Light Land, including Draining, Fencing, Planting, &c., and fully competent to prepare Plans, Specifications, and Estimates for, and to Superintend the Erection and Repair of, Farm Buildings. Must be a good Accountant, and possess practical experience acquired in a similar situation. Salary, £200, with residence, and £50 per annum to provide and maintain a horse.—Further particulars, stating age, family, references, &c., to M. L., Post Office, Down Street, Mayfair, W.

WANTED, a BAILIFF, to Manage a Farm of 150 Acres, Pleasure Grounds, and Gardens, near London. To save trouble, no one need apply who is not thoroughly skilled and experienced in such work, or who cannot furnish a first-class character for competence, honesty, and sobriety.—Address, stating age, whether married or single, and wages expected, X. Y. Z., Beekham, Kent, S.E.

WANTED, a GARDENER, who thoroughly understands Forcing Conservatory Plants, and Flower and Kitchen Gardening. No one but an honest, sober and industrious Man need apply. Wages, £1 1s. per week, and good house.—Address, D. D., Esq., Elbridge House, near Canterbury.

WANTED IMMEDIATELY, TWO or THREE experienced ROSE BUDDERS. None but expert hands need apply.—Application to be made to THOMAS CUTLER, Gardener, Whitechurch Rectory, Edgware, N.W.

WANTED, several sober, active, able HANDS, who understand Ground Work, Planting, Trenching, &c. Liberal wages will be given. Apply to Mr. E. P. LAURENCE, Gardener, Garden Arch, St. George, and Victoria, Lewisham, S.E.

WANTED, a Young Man (about 18), as IMPROVER in a Nobleman's Garden, where a general system of Gardening is carried on. Premium required.—D. JUDD, The Gardens, Hawkesley, Shrewsbury.

WANTED, an ASSISTANT PROPAGATOR, a steady, active Man, experienced in Budding, Grafting, and general Nursery Work.—Apply, stating age, wages, and reference, to G. J. WOOLLETT, Nurseries, Caterham, Surrey.

WANTED, a TRAVELLER in a large Wholesale London Seed Establishment.—Experience in the Midland, Northern, and Eastern Counties requisite; also a knowledge of either Counting House or Shop Department.—Apply by letter, stating age and previous employment, addressed B. C., Gardeners' Chronicle Office, W.C.

WANTED, a MAN and WIFE, without young children, the Man to attend to Garden and Conservatory, two Cows, and a Pig, the Woman to take the Laundry, Dairy, and Poultry. Family small. Wages, £1 10s. a week, and capital four roomed lodge.—Apply personally between 11 and 11 o'clock, or by letter, to J. DURHAM SMITH, Esq., Kenton Lodge, near The Hyde, N.W.

WANTED, a MARRIED COUPLE, without children.—The Wife will be expected to attend to the Dairy and Poultry. The Husband to look after Cows and Pigs and make himself generally useful on the premises. No person need apply without they can produce a good character of at least four years' standing from their last employer. Liberal wages.—Apply to C. D., Terrace House, Polygon, Southampton.

WANTED, GROOM and GARDENER. Competent to look after a Small Greenhouse and make himself generally useful. Wages 2s. per week, with cottage. No one need apply unless he understands the Management of a Greenhouse and Vine.—Address ALPHA, Mr. Rose, Nurseryman, Barnsley.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. E. G. HENDERSON and SON, Wellington Nursery, St. John's Wood, London, N.W.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c. of GARDENERS, and GARDENERS and BAILIFFS, of various qualifications, who are open to Engagements. The fullest particulars as to services required and wages given should be forwarded with application.—PAUL'S Nurseries, Watlington Cross, London, N.

To Gardeners and Bailiffs (Head, Foremen, or Under). JAMES CARTER and CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those who can send unquestionable references need apply. Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & Co. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c. JAMES CARTER and CO., 237 & 238, High Holborn, London, W.C.

Gardeners and Under Gardeners. WM. CUTBUSH and SON beg to state that they have at all times on their books MEN of various qualifications, whose characters will bear the strictest inquiry. Any Gentleman making application on would save time by clearly stating the duties to be undertaken, wages offered, &c., so that suitable Men may be selected.—By Appointment, London, N.

GARDENER (HEAD).—Age 40, no children; Wife as Cook or Housekeeper. Thoroughly understands their business.—W. P., 42, Little Russell Street, Covent Garden, W.C.

GARDENER (HEAD).—Age 34, married. Nursery, Isleworth, W.

To Noblemen and Gentlemen. GARDINER (HEAD).—Age 35, married. Practical in every department. Free valuation. Good references.—W. W., Dale Park, Amble.

GARDENER (HEAD).—Well up in Gardening, also an excellent Painter and Grow on Commission if required.—X. Y. Z., Surrey, S.W.

GARDENER (HEAD).—Age 28, married. Gardener; thoroughly understands Kitchen Gardening, and the Management of Greenhouse Plants, and knowledge of Grape Growing. Wife to take care of Poultry if required.—G. R., Post Office, Hastings.

GARDENER (HEAD).—Age 26, married. Gardener, thoroughly competent in all branches present for leaving present situation, and immediate present employer. No single-headed persons need apply. Messrs. R. Gaid & Son, Salvington, Hampshire.

GARDENER (HEAD), age 30.—The liberty to engage with any Nobleman or Gentleman, the services of a thoroughly practical, trustworthy, and great experience in both North and South of England, acquainted with all branches of the profession. Management of Land and Woods, if required, W. P. D., C. R. Littledale, Esq., Scarlett's Park, Farnham.

GARDENER (HEAD), or good SALESMAN. Age 25, single, experienced in all branches, excellent character.—W. R., Lake Cottage, Bletchley.

GARDENER (HEAD, or SINGLE-HANDED). Understands Flower and Kitchen Gardening, Melons, and Cucumbers. Good character.—J. W., Enfield, N.

GARDENER.—E. COOLING, Mile A. Derby, begs to recommend a married Man, who has been 10 years in last situation. Well up in Can Manage Woods, Measure Timber, and Survey Land.—Apply as above.

GARDENER and BAILIFF.—Age 40, married. In all requisite duties. Has had much experience in the North, with the best modern systems, in producing Fruits, Flowers, and Vegetables, chosen Plants, and Exhibits, and the Laying out of New Grounds, the Management of Woods and Home Farm, also understands the value of rate testimonials, and highly recommended from various sources where he has been officiating in the above capacities. Dairywoman. No objection to live and or the Walworth Castle, Darlington.

GARDENER (SINGLE-HANDED), or where one are kept, age 28, single.—Mr. Walls will be glad to take a very intelligent, sober, practical Man as above.—Address, instance, J. WILLS, F.R.H.S., Ashburnham Park Road, Chelsea, S.W.

GARDENER (SECOND).—Age 23, married. Flower, and Kitchen departments. No objection to Outdoor Work. Good character.—J. B., H. S. E.

GARDENER (UNDER).—Age 18, single. Outdoor Work in a Gentleman's Garden. Good character.—W. H., 2, Hinton Villas, Hinton Road, East Brighthelm.

ROSE GROWER.—Mr. GEORGE PAUL can recommend any Nobleman or Gentleman fond of Roses a Foreman of the Rose or Flower Garden. He has been on the Old Nurseries, and has a good knowledge of Rose Culture, either out-of-doors or in pots under glass. On application to PAUL and SON, Old Nurseries, Chelsea, S.W.

FOREMAN, in a good Establishment.—A thorough practical knowledge of the profession. Character.—Z. Y. X., Post Office, 191, Fulham Road, S.W.

To Nurserymen. FOREMAN, or FOREMAN and PROPAGATOR. Well up in all branches of the Nursery Business, to take the Management of the Outdoor Work if required. Good character.—WM. KENT, Norwood Walk, S.E.

PROPAGATOR (HARD-WOODEN), of Standard House Plants. Good Gaffer, several years' experience. Trade Good references.—C. F. Meares, F. O. Herdwick, Wellington Nursery, St. John's Wood, N.W.

PROPAGATOR (HARD and SOFT-WOODEN). PROPAGATOR and SALESMAN.—Well up in all branches has a general knowledge of the Seed Trade. Would accept moderate salary, progressive. Ten years' experience. References.—HENRY YOCCELL, 1, Cordia Terrace, Farnham.

FARM BAILIFF.—Mr. J. D., thoroughly experienced in all kinds of Live Stock, as well as the Tending of the same, would not object to a Dairy or Poultry. Good character.—J. H., 31, High Street, Winchester, Hants.

STEWARD, or BAILIFF.—Age 40, married. Respectable; has a thorough knowledge of Stock, &c. for six and a-half years Bailed upon a Farm of 100 Acres, late as well as present employers.—G. S., Crossway Farm, near Redhill, Surrey.

BAILIFF, or STEWARD.—A Nobleman lately called upon lately to administer a Trust Estate, has a use for a very competent Person in the prime of life, above position, is anxious to find a man of similar character from personal knowledge, give a most unexceptionable character to integrity, ability, Practical Agriculture, and Accounts, also eight years' good reference to former employers. Northamptonshire.—Apply etc., as addressed in the above BAILIFF, Messrs. Page, Harding & Eye, Land Agents, Alban's, will be attended to.

To Horticultural Builders, &c.

GREENHOUSE BUILDER, &c.—The Applicant has a good knowledge of Greenhouse Building, and who has a Patent Boiler, and an improved plan, wishes for a situation, or would take a job by contract. Address, H. W., Post Office, Handsworth, Staffordshire.

TO SEEDSMEN and NURSERYMEN.—A situation on by a Young Man, age 20, in every branch.—A. M., 9, Channing Street, London, N.

ABROAD.—A Young Man, of good character, desires a situation, no matter what the capacity.—SALVIA 40, Baker Street, W.

To Florists, &c. SHOPMAN, or PLANT SALESMAN.—A general knowledge of Plants, and a good character. G. S., Alexandra Floral Establishment, Surrey, S.W.

To Nurserymen, Seedsmen, and Florists. SHOPMAN (SECOND).—Age 30, married. 10 years' experience in the above, and has been in the Nursery and Florist Business if required. Satisfaction.—Y. Z., Gardeners' Chronicle Office, W.C.

To Gentlemen, Owners of Estates, Surveyors, &c. CARPENTER and JOINER, to do Repairs on Cottages on an Estate.—Thoroughly practical, and experienced in the above. Has had great experience in Erecting Buildings. Five years' unexceptionable reference. 9, Northampton Terrace, Admistrer Road, St. John's Wood, N.W.

DAIRY MAID, in a Nobleman's or Gentleman's household. Thoroughly experienced. Good character.—Office, Foot's Clay, Kent, S.E.

The Gardeners' Chronicle Newspaper.

SATURDAY, JULY 17, 1869.

SELBY PATENT FRUIT and FLOWER GATHERER, Wholesale and Retail of THE RAIN LYFFE and CO., 129, High Holborn, W.C

Heating by Hot Water.
W. J. HOLLANDS, IRON MERCHANT,
 31, Bankside, S.E.
 HOT-WATER PIPES, from stock—per yard 2-inch 3-inch 4-inch
 ELBOWS for ditto each 1 6 2 3 3 6
 TEES 2 3 3 6 4 6
 SYPHONS 2 3 3 6 4 6
 THROTTLE VALVES 10 0 11 6 13 0
 Cash remittance with order
 N.B. All Goods of first-class manufacture. No second quality kept
 Estimates given, and orders punctually attended to the same day

HOT-WATER APPARATUS of every description, fitted complete in any part of the country for Warming Greenhouses, Conservatories, Forcing Hous. &c. Plans and Estimates on application
J. JONES and SONS, 25, King Street, Liverpool, London, E.C. Manufacturers 8, Bankside, Southwark

ORMSON'S PATENT GLASS BUILDINGS for HORTICULTURE. Plans and Estimates free. Just Published, free for Postage, **THE REVUE HORTICULTIVE** BOOK, splendidly Illustrated from existing Buildings. By the Author and Patentee, **JAMES CRAWFORD**, Archdeacon, Temple Row West, Birmingham. **H. J. GROWTAGE**, Manager

NOTICE.—MANCHESTER EXHIBITION.

ORMSON'S NEW PATENT ECONOMIC BOILERS,

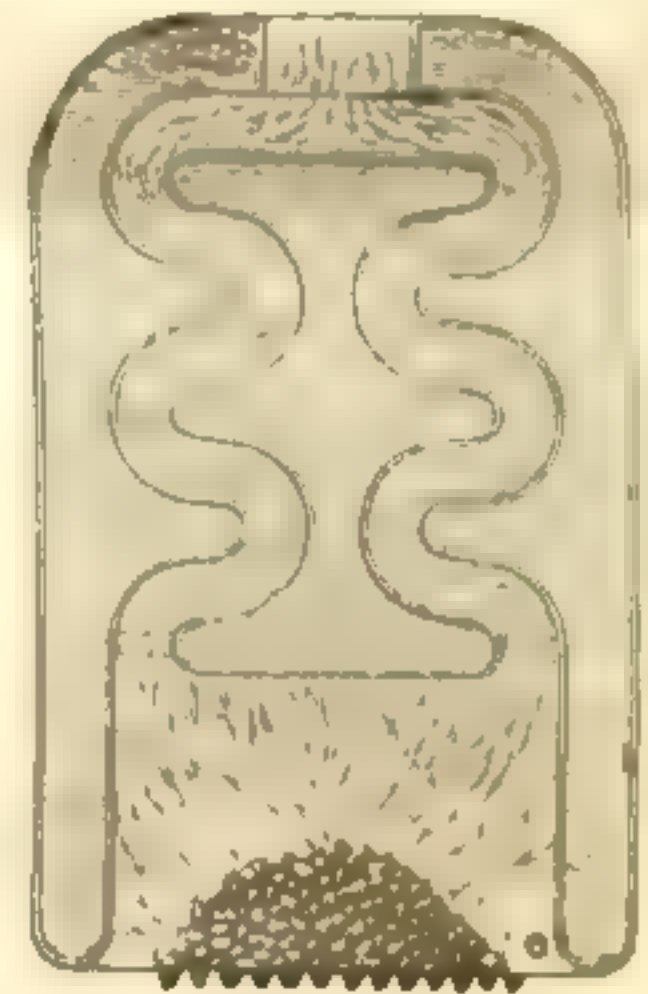
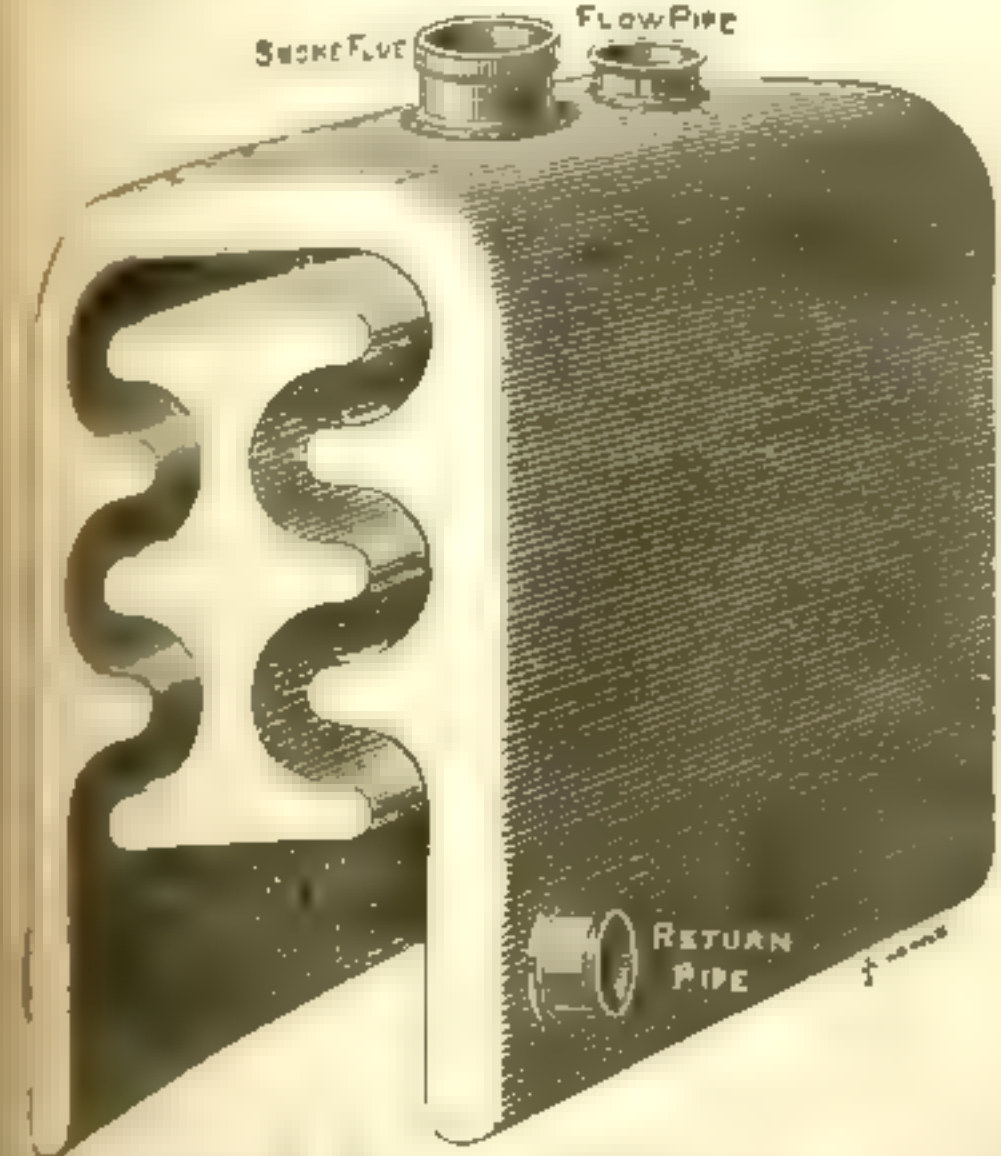
CONSISTING OF

- ORMSON'S CONCENTRIC SADDLE BOILER,
- ORMSON'S CONVOLUTED BOILER,
- ORMSON'S TUBULAR BOILER.

These three new forms of Boiler, made of the best Wrought Iron, in which the flame is concentrated on the largest amount of direct heating surface, in the smallest cubical space of any Boilers before the public, will be exhibited in the Royal Horticultural Society's Show Ground, Manchester, during the forthcoming exhibition.

FROM THE "SCIENTIFIC REVIEW,"
 of April 1, 1869.

ORMSON'S PATENT CONVOLUTED WELDED WROUGHT-IRON BOILER.—Mr. Henry Ormson, of Stanley Bridge, Chelsea, has recently patented a Hot-water Boiler, the great merit of which is the retention of the fire, and consequent exhaustion of its heating power on the various heating surfaces of the boiler between the water spaces



allowing it to pass up the chimney. On looking at the boiler from the back end, which is closed by a water chamber or jacket, forming the outer case and top of the boiler, it has the appearance of an elongated cube, slightly rounded at the top; but, from the front, it not only shows the outer water-chamber, forming the fire-box, in direct contact with the fire, but two convoluted surfaces, between which the flame must pass; besides the furthest end, which has already been explained, being terminal, it not only checks the heat from passing away direct, but receives its full force, whilst the inner water-chamber is subjected in every part to the maximum of heat, and so is the inner surface of the other parts of the boiler. Being set in a chamber of brickwork, it is evident that no appreciable loss of heat can ensue, consequently it must be most economical in consumption of fuel. These boilers vary somewhat from the illustration, according to their size. They are adapted for heating horticultural buildings, mansions, churches, public buildings, &c., and, being made of wrought-iron, on the most improved system of welding that material, are very safe, and extremely powerful boilers.

HENRY ORMSON, HORTICULTURAL BUILDER TO HER MAJESTY,

AND HOT-WATER APPARATUS MANUFACTURER TO THE COMMISSIONERS OF HER MAJESTY'S ROYAL PALACES AND PUBLIC BUILDINGS, AND TO THE ROYAL HORTICULTURAL SOCIETY,

STANLEY BRIDGE, KING'S ROAD, CHELSEA, LONDON, S.W.

JOHN WARNER & SONS,

BELL AND BRASS FOUNDERS

TO HER MAJESTY,

HYDRAULIC ENGINEERS,

8, CRESCENT, CRIPPLEGATE, LONDON, E.C.

Illustrated and Priced Lists of WARNER'S HORTICULTURAL IMPLEMENTS, comprising GARDEN ENGINES, WATER BARROWS, PUMPS, SYRINGES, BRANCH PIPES, RUBBER ROSE, FOUNTAIN JETS, &c., will be sent upon application, or goods may be obtained from any Ironmonger or Seedsman at the Manufacturers' prices. Owing to the greatly increased demand for these engines during the last few years your early commands w. l. oblige.



FRAMES & PUMPS FOR DEEP WELLS.

CAST-IRON PUMPS.

2 1/2 inches	.. £1 8 6
3 "	.. 2 1 0
3 1/2 "	.. 2 6 0
4 "	.. 2 14 0

PORTABLE PUMP With Improved Valves for Liquid Manure, £2 15s.

CHAIN PUMP FOR LIQUID MANURE.



THE PATENT ANNULAR SAIL WIND ENGINE.

These Engines are adapted for Grinding, Chaff Cutting, &c., as well as for Pumping.

May be seen in action at their Factory as above.

Testimonials to the efficiency of Wind Engines for Pumping and other Agricultural purposes upon application. Drawing and Estimates for Wind Engines, Water Wheels, and Hydraulic Machinery of every description for Steam, Horse, or Hand Power will be forwarded upon application.

2-inch Flexible Rubber Suction Pipe, in 10, 12, and 16 ft. lengths, per foot, 2s. 6d.



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Useful for every variety of purpose—in watering or washing flowers or trees in Gardens, Conservatories, &c.; also, for washing Carriages or Windows, laying Dust, &c.

Price, complete .. £1 10 0
 Small size for the hand, as an ordinary Syringe 0 15 0

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50 gallons	.. £5 12 0
38 "	.. 3 17 0
30 "	.. 2 13 0
20 "	.. 2 2 0

GARDEN ENGINE

28 gallons	.. £5 10 0
24 "	.. 4 19 0
16 "	.. 3 14 0
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6 ft. by 4 ft. Lights, 2 ins. thick, unglazed	£0 5 0
Printed and Glazed with 1 oz. Sheet	0 11 0
with stout Portable Box, not Painted	1 3 0
Painted four coats, and Handles on	1 8 0
Packed and Delivered in Railway Van	1 10 0
6 ft. by 8 ft., Double Lights, do.	2 25 0

GREENHOUSES. Per ft. super

Woodwork only Prepared to Fit	0 0 6
Printed and Glazed with 18 oz. Sheet	0 0 9
Do. with Iron Bars with Ironwork	0 1 0
Painted four coats, two sides, ready for use	0 1 2

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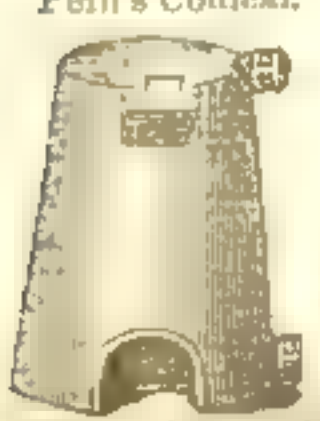
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FOR **LAWNS, DRIVES, BOWLING GREENS, CRICKET FIELDS, and GRAVEL PATHS** SUITABLE FOR HAND OR HORSE POWER.

PRICES OF **HAND ROLLERS.**

Diam.	Length.	£ s. d.
30 inches	32 inches	7 10 0
24 inches	26 inches	4 10 0
20 inches	22 inches	3 10 0
16 inches	17 inches	2 15 0



PRICES OF **ROLLERS** FITTED WITH SPACINGS Suitable for Pony or Horse Power.

Diam.	Length.
30 inches	32 inches
30 inches	36 inches
30 inches	42 inches
30 inches	48 inches
30 inches	60 inches
30 inches	72 inches
30 inches	84 inches

These Rollers possess many advantages over all others; they are made in two parts, and are free from the axis, affording greater facility for turning, and the outer edges are rounded off, or turned inwards, thus removing the unsightly marks left by other Rollers. They are manufactured of the best materials, and are of a construction surpassing any ever yet brought out. The Rollers 24 by 26 inches, 20 by 22 inches, and 16 by 17 inches, are made in one part, at a reduced price; and, for Rollers of that size, will be found to answer many purposes, the handle can be reversed to either side of the Roller at pleasure.

PRICES—24 in. by 26 in., £4; 20 in. by 22 in., £3 2s. 6d.; 16 in. by 17 in., £2 15s.

Delivered Carriage Free to all the principal Railway Stations and Shipping Ports in England.

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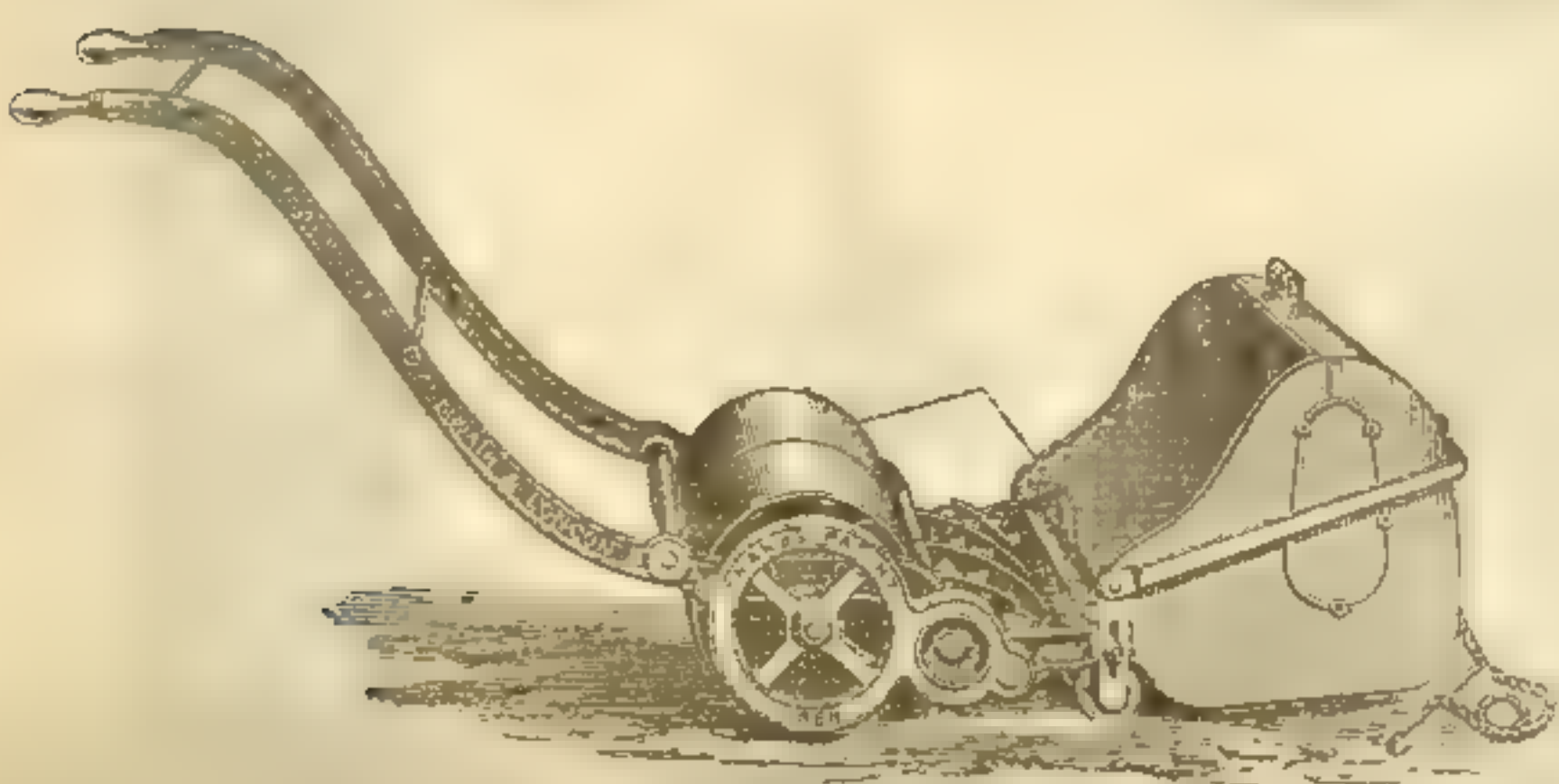
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UNDER THE PATRONAGE OF **HER MOST GRACIOUS MAJESTY THE QUEEN,**



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Machine Size	Price	Operated by
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14-inch Machine	5 10 0	
16-inch Machine	£6 10 0	By Two Men
19-inch Machine	7 15 0	
22-inch Machine	8 10 0	
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The Hand Machines are all with Silent Movement.

SHANKS'S NEW PATENT PONY and DONKEY MACHINE.

Width of Cutter	Price	Extra
25-inch Machine	£12 10 0	25s. extra.
28-inch Machine	14 10 0	30s. "
30-inch Machine	15 15 0	30s. "

Silent Movement, 12s. 6d. extra.

Boots for Pony, 22s. per set.; Ditto for Donkey, 18s. per set.

Every Machine warranted to give ample satisfaction, and, if not approved of, can be at once returned without any expense to the buyer.

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42-inch Machine	26 0 0	40s. "
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 the cheapest and best Boiler constructed.

3. size, to heat 400 feet, 4-inch pipe	25 10 0	} Including Furnace Doors, Bars, Dead Plates, Damper, Soot Door, and Draw-off flap.
3. size, to heat 900 feet, 4-inch pipe	.. .. .	10 0 0
3. size, to heat 1600 feet, 4-inch pipe	.. .. .	16 0 0
3. size, to heat 3500 feet, 4-inch pipe	.. .. .	30 0 0
3. size, to heat 6000 feet, 4-inch pipe	.. .. .	50 0 0

Plans and Estimates free of charge

GRAY'S OVAL TUBULAR BOILER.

INTERNATIONAL EXHIBITION, CLASS IX., No. 2119.

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NEW OVAL TUBULAR BOILER,

acknowledged by practical judges to be a great improvement on every form of Tubular Boiler yet introduced. It proves itself superior to all other Boilers for quickness of action and economy of fuel, doing its work with less the amount required by any other.

Extract from Report in GARDENERS' CHRONICLE of International Exhibition, May 24, 1862, page 476.

The oval form of Boiler is usually made on a circular plan, rather than a square, it seems desirable that the Boilers on the oval plan should bring the tubes more completely within range of the burning fuel, and this being so, the change, though a slight one, is no doubt an improvement.

They are made of all sizes, which, with prices, may be had on application.

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Size of House	Apparatus Complete.	Erection	Size of House	Apparatus Complete.	Erection.
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HOT-WATER PIPES.
 CASH PRICES.

PIPES	2-inch	3-inch	4-inch
ELBOWS	1 0 0	1 5 0	2 0 0
TEES	1 5 0	2 0 0	2 5 0
SYPHONS	1 0 0	1 5 0	2 0 0
VALVES	1 0 0	1 5 0	2 0 0

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HOT-WATER PIPES—per yard	2-inch	3-inch	4-inch
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TEE PIPES	1 4	2 0	2 5
SYPHONS	1 0	1 5	2 0
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National Flower Show, Manchester, June, 1867



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See Gardeners' Chronicle, December, 1867
 See Gardeners' Chronicle, January, 1868
 See Gardeners' Chronicle, February, 1868
 See Gardeners' Chronicle, March, 1868
 See Gardeners' Chronicle, April, 1867
 See Gardeners' Magazine, August, 26, 1867

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Beard's Patent Non-conducting and Ventilating
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THE SOCIETY of PAINTERS in WATER COLOURS.—The **SIXTY-FIFTH ANNUAL EXHIBITION** will CLOSE on **SATURDAY NEXT**, July the 24th, 5, Pall Mall East, from Nine till Seven. Admittance 1s.

WILLIAM CALLOW, Secretary.

Home News.

THE COURT.—The Queen and Royal family continue at Windsor Castle. On Friday morning Prince Albert Victor, Prince George, Princess Louisa, and Princess Victoria of Wales, left the Castle for London. In the afternoon the Right Hon. H. A. Bruce, Secretary of State for the Home Department, had an audience of the Queen, and presented to her Majesty the following gentlemen, who received the honour of knighthood:—Mr. William Tite, Mr. Thomas Duffus Hardy, Mr. James Meek, Mr. Peter Coats, Mr. Joseph Heron, and Mr. Richard Davis Hanson, late Chief Justice of South Australia. The Queen afterwards held a Council. Earl de Grey and Ripon and the Right Hon. J. Bright had audiences of her Majesty. Sir Andrew Buchanan had an audience of the Queen, on returning to his post as Ambassador at St. Petersburg. Mr. Charles Alison, Minister at Teheran, had an audience on his return from Persia. The Duchess of Cambridge, M. de Beaulieu, the Belgian Minister, and Viscount Sydney, arrived at the Castle on a visit. On Saturday the Queen, accompanied by Princess Christian, drove out and visited the Ladies Murray at Ashurst Lodge. Princess Louisa drove to Twickenham, and visited the Duke and Duchess d'Aumale at Orleans House. The Duchess of Cambridge and the Belgian Minister left for London. Prince Arthur arrived from Greenwich Park. Earl Granville arrived on a visit. On Sunday morning the Queen and Royal family attended Divine service in the private chapel. The Rev. F. Pigou, incumbent of St. Philip's, Regent Street, preached the sermon. On Monday morning Prince Arthur, Earl Granville, and Viscount Sydney left for London. In the afternoon the Archduke Rainer and the Archduchess Marie of Austria visited her Majesty, and afterwards drove in the Park with Prince and Princess Christian. Princess Louisa went to London, and was present at the debate in the House of Lords. Her Royal Highness afterwards returned to Windsor. On Tuesday Princess Beatrice drove to Bushey Park, and visited the Duke of Nemours and Princesses Marguerite and Blanche of Orleans. In the afternoon the Queen went out with Princess Louisa, Mdle. Musurus and the Mdles. Balouka and Cassandra Musurus arrived from London on a visit. On Wednesday the Duke of Argyll and the Right Hon. A. Layard arrived on a visit. On Thursday afternoon Mademoiselle Titiens, Signor Gardoni, and Mr. Santley sung before her Majesty and the Royal family.

THE PRINCE and PRINCESS of WALES.—On Friday evening their Royal Highnesses dined with the Marquis and Marchioness of Hamilton at their residence in Green Street. On Saturday evening the Prince and Princess went to the Royal Italian Opera, Covent Garden. On Sunday the Prince and Princess attended Divine service at the Chapel Royal, St. James. The sermon was preached by the Rev. Canon Harvey. On Monday morning the Prince and Princess were present at the marriage of Viscount Downe with the Lady Cecilia Molyneux, at St. Paul's, Knightsbridge. Their Royal Highnesses were afterwards present at the *déjeuner* given by the Earl and Countess of Sefton at their residence in Belgrave Square. In the evening the Prince and Princess were present at a ball given by Lord and Lady Rendlesham, at their residence in Grosvenor Square. Prince Louis of Battenberg arrived at Marlborough House on a visit to their Royal Highnesses. On Tuesday the Prince and Princess went to Watford, where his Royal Highness laid the foundation stone of the London Orphan Asylum. In the evening the Prince dined with the Marquis of Huntly. The Princess, accompanied by the Princess Teck and Prince Louis of Battenberg, went to the Royal Italian Opera, Covent Garden. On Wednesday morning the Prince and Princess, accompanied by Prince Louis of Battenberg, were present at the marriage of the Marquis of Huntly to Miss Cunliffe Brooks at Westminster Abbey. The Prince was afterwards present at the wedding-breakfast given by Mr. Brooks at his residence in Grosvenor Square. In the afternoon the Prince and Princess, accompanied by Prince Louis of Battenberg, were present at a party given by Lady Holland, at Holland House. In the evening their Royal Highnesses went to a ball given by the Duke and Duchess of Wellington at Apsley House. On Thursday Prince and Princess Christian visited the Prince and Princess at Marlborough House, and remained to luncheon. In the evening the Prince and Princess dined with Maria Marchioness of Ailesbury at her residence in Hertford Street, Mayfair. Prince Louis of Battenberg left Marlborough House for Portsmouth. Yesterday afternoon the Prince and Princess visited the Queen at Windsor, and afterwards returned to town.

THE DUCHESS d'ALENCON, wife of the eldest son of the Duke of Nemours, and sister to the Empress of Austria, was safely delivered of a princess on Friday morning at Bushey House, Bushey Park.

THE CABINET.—A Cabinet Council was held on Saturday in Downing Street.

THE CONSERVATIVE PEERS.—A protest against the third reading of the Irish Church Bill, including eight reasons why the Bill should not pass, has been signed by the Earl of Derby and 46 other Peers.

Foreign.

FRANCE.—A Council of State was held at St. Cloud on Monday, and in the sitting of the Legislative Body, on the same day, M. Rouher, Minister of State, read the following message from the Emperor:—
"Messieurs les Députés, — On the 18th of June my Government informed you that on the opening of the next ordinary

session it would place before the representatives of the resolutions and projects which it considered to be answering the wishes of the country. It appears to be anxious to know immediately decided on by my Government. I therefore intend to anticipate its aspirations. The Government is convinced that my firm intention is the extension compatible with the Constitution, and I hereby make known that we have decided on in council. The Government will soon as possible to examine the Right of the Corps Législatif to make its committees. Simplification of the and examining amendments charged to submit to legislative propositions which in future may be submitted. 4. Voting of the budget to render the control of the Chamber more effective of the constitutional enactment. I qualify a deputy from becoming a Minister, fulfilling certain other public functions, right of interpellation. My Government will more efficacious solidarity which will establish Government and the Chambers the same time the functions of minister and the presence of all the Ministers in the Chamber, Council of the affairs of the State and with the majority, constitute for the country which we in our common solicitude have already shown you several times to the public, I am disposed to give up which belong to me. The modifications on proposing are the natural level of successively been made in the institutions they must, however, leave intact the people have more explicitly confided to are the essential conditions of a power and society. Done at the Palace of St. Cloud, July, 1896.

This message was favourably received, and concluded the reading of it amid cries of "the Emperor!" MM. Martel, Bourgeois, Beauchamp, Terme, and Payresse, all majorities, were elected secretaries of the large preponderance of votes. After the been read, the Ministers placed their hands of his Majesty, by whom they were The Ministers will, however, continue to duties of their respective offices until they shall be appointed. In the evening the the *tiers-parti* held a meeting at the Grand. Nearly all who had signed the intended were present. A resolution was unanimous to the effect that under the present circumstances was no necessity to press their interpellations. Tuesday two Imperial decrees were published, convoking the Senate on August 2, for a session, and the second proroguing the Legislative Body. The time for the re-assembly of the Legislative Body will be fixed subsequently the sitting of the Legislative Body on Tuesday report of the previous day's proceedings. read, M. Jules Favre protested against the relation between the Imperial Message and the proroguing the Chamber. He said—"The itself an impropriety." This statement caused loud protests and cries of "Order." Thereupon called M. Jules Favre to order. continued, however, and was cheered by the Left, but the noise prevented him from The President again called him to order. "I am astonished that on the morrow of a act a protest should be raised not only regulations of the House, but contrary to the interests of the country." A conversation ensued between M. Giraud, Pelletan, and others, relative to the conditions which had not been declared valid, and the President had read the decree proroguing the deputies separated in silence. With regard to Ministerial resignations, it is said that the of M. Rouher is absolutely definitive, and that he has gone to Sercey. It is stated that the M. de Lavalette, Minister for Foreign Affairs; M. de Minister of Public Worship; and M. Grévy, Minister of Public Works, will also leave the Ministry. reference to their successors, it is rumoured that Napoleon will be appointed President of the of Ministers; that the Prince de la Tour will succeed M. de Lavalette, who will succeed M. Ollivier has refused any portfolio. M. de Roquette the Ministry of the Interior, M. de Genouilly the Ministry of Marine, and Niel the Ministry of War. Amongst the mentioned as likely to figure in the new Ministry, MM. Segrès, Louvet, Chevandier de Boisjoly, MM. Busson-Billault, Nogent Saint-Laurent, de Lhuys, and the Marquis de Talhouët. It is thought that other portfolios will be offered to three of the Left Centre, and that M. Rouher will retain the Presidency of the Senate. The Journal comments on the reforms promised in the Message, thinks it is impossible to understand the meaning, and says that it would be ungrateful for them.

SPAIN.—The New Ministry has been constituted. Senor Ardomez will enter the as Minister of Finance, Senor Zorrilla as Minister of Justice, Senor Ecebagaray as Minister of Works, and Senor Becerra as Minister of Mines. The other members of the present Ministry retain their portfolios. On Wednesday presented the members of the new Cabinet to the Cortes. He remarked that the new Ministry constituted from the ranks of the majority, and declared, on behalf of the new Ministry, that it would uphold at any cost public respect for the Constitution. The Minister of Finance, has ordered that the Deferred Debt shall be considered the Internal Consolidated Stock, and that shall be but one quotation for both.

that the sales of ecclesiastical property at ... will realise a sum of 1,500,000,000 reals.

The report of the now concluded deli- ... Commission on the Belgian ... was to have been signed at Paris on ...

The Delegation of the Austrian Reichs- ... in Vienna on Sunday. Some Polish ... were present.

The committee appointed to inquire into ... of parliamentary corruption in the affair ...

The Constitution, having been sanctioned ... of the Regency, was promulgated on Sunday amid ...

On the 8th inst. some Persian nomads ... the Kashtschelsky Pass, and were encountered ...

The reforms introduced by the Ameer at ... are still being carried out. The Bombay Gazette ...

Advices from Abyssinia state that ... K. Raham, a British officer, had joined Prince ...

Great dissatisfaction has been evoked ... the Australian colonies at the British Parliament ...

The Duke of Edinburgh left ... on June 1, without meeting the Maori ...

The President on Wednesday ... a proclamation ordering the Reconstruction ...

of which were not satisfactory. This report has ... since been officially denied. The Hon. John Rose ...

PARAGUAY.—The Comte d'Eu has gained two ... important victories over the Paraguayans, which are ...

Parliament.

IN THE HOUSE OF LORDS ON Friday the Earl of ... CABRIVON, having moved the restoration of the ...

question that the Bill do pass, the Earl of DEVON ... moved the omission of the reservation in clause 13 of ...

In the Commons on Friday the Contagious Diseases ... (Animals) Bill was considered in Committee, and ...

In Birmingham, 23 in Liverpool, 26 in Manchester, 19 in Salford, 19 in Sheffield, 21 in Bradford, 21 in Leeds, in Hull, 21 in Newcastle-upon-Tyne, and 30 in London. In Paris the annual rate of mortality in the week ending Saturday the 10th inst., was 22 per 1000. In Vienna was 28 per 1000 during the week ending the 8th inst. In London the births of 1022 boys and 973 girls, in all 1995 children, were registered in the corresponding weeks of 10 years. The average number, corrected for increase of population, was 2047. The deaths registered in London during the week were 1279. It was the 27th week of the year and the average number of deaths for the week, corrected for increase of population, was 2047. The present return is therefore 71 below the average amount.

Provincial.

BIRMINGHAM.—Two more bodies were got out of the pit on Friday. They were those of Matthew Long and George Long, married men, who were among the sufferers at the great explosion in December, 1867.

BRISTOL.—A conviction under the Sea Birds Act occurred in this town on Saturday. Mr. Frazer, a rubber manufacturer, of Sheffield, was charged before a bench of East Yorkshire magistrates with having shot 23 seagulls at Flamborough Head. The defendant was fined in the mitigated penalty of 2s. 6d. per bird, and 9s. costs. The full penalty for each bird is 14s.

MANCHESTER.—The approaching visit of the Prince and Princess of Wales is exciting great interest in this city. In consequence of the wish of their Royal Highnesses that their visit should be considered as much as possible a private one, triumphal arches and similar demonstrations of loyalty will not be encouraged. The route has also been changed for the visit to Manchester on Tuesday to Wednesday. Their Royal Highnesses will arrive at Worsley, the seat of the Earl of Ellesmere, on Monday. On Tuesday they will go by barge on the Bridgewater Canal to the Royal Agricultural Exhibition at Old Trafford, and partake of a luncheon, at which the Earl of Selson will preside. Afterwards their Royal Highnesses will return to Worsley, by the route to dinner. In the evening a party, consisting of leading members of the Royal Agricultural Society, and of the corporate authorities of Manchester and Salford, will be invited to meet them. On Wednesday morning for Peel Park, Salford, where the Mayor of Salford will present an address. They will proceed thence to Manchester, and visit the monument erected to the late Prince Consort. At the Town Hall they will receive an address from the Corporation, and then pay a final visit to the Exhibition. In the afternoon evening their Royal Highnesses will leave by rail for Hull.

NOTTINGHAM.—Pursuant to a judge's order to the effect of Notts, a series of sales took place last week. The seat of the Duke of Newcastle. There was an exceedingly numerous attendance of buyers from all parts of the country, and the bidding was spirited. Upwards of 6000 bottles of wine were sold, but the prices were not particularly high. A pig was very valuable, and created great interest in competition. There were about 20 silver cups, and for poultry, which fetched from 7s. 6d. to 10s. 6d. The Brighton Race Cup, weighing over 500 lbs., and valued at 500l., only made 64 gs. The Wood Cup, 1868, was bought for 131 gs. The Winstley Water Cup, at Shrewsbury, was sold for 60 gs., and the Warwick Cup, 1868, fell for 60 gs. A pair of spaniels were disposed of, making 121 2s the pair. Two fine ewes fetched 100 gs. The furniture was very costly, and realised high prices.

WYNDHAM.—The Queen has deputed the Princess Louise to lay, in her Majesty's name, the foundation stone of the second pair of buildings of the National Hospital for Consumption and Diseases of the Lungs, in this place, on Wednesday, the 28th of July. Preparations are making by the committee, and many noblemen and gentlemen interested in the cause are announced as stewards for the ceremony and the luncheon, at which Lord Eversley, Governor of the Isle of Wight, and president of the committee, will preside.

LONDON.—On Tuesday the Prince and Princess of Wales visited this town, when the Prince laid the foundation stone of the London Orphan Asylum. The Prince has been removed to this neighbourhood. Their Royal Highnesses arrived by the Clapton train at 2 o'clock, and a few minutes afterwards approached the site through a series of triumphal arches, and amid the cheers of a vast number of persons who had assembled in the villages around. The carriage was escorted by a troop of the Hertfordshire Yeomanry, and the Prince and Princess were received by the first battalion of the 1st West Surrey Volunteers, and the ceremony was accompanied by the Earl of Verulam, lord of the county. Their Royal Highnesses were in procession to a dais in a large marquee, which was nearly filled with ladies and gentlemen, and James Capel, one of the original supporters of the Asylum, read a long address to the Prince and Princess, in which he thanked the managers for this new proof of their liberality. His Royal Highness having made a few remarks, the Prince laid the stone with the appropriate rites, and the Bishop of Rochester offered prayers, and pronounced the benediction. The ceremony afterwards laid purses on the stone, and the ceremony concluded with the National Anthem. The Prince and Princess were subsequently entertained at a dinner in an adjoining marquee, at which the Earl of Verulam presided, supported by

the Earl and Countess of Essex, Lord and Lady Chesham, Lord and Lady Ebury, Lord Rokeby, the Bishop of Rochester, and other gentlemen and ladies.

Ireland.

THE ORANGE ANNIVERSARY.—The 12th of July passed over without bloodshed or serious disturbance, though some rioting has taken place since at Belfast, Newry and Lurgan. Besides the three great meetings at Killyman, Tandragee, and Newbliss, smaller but still imposing assemblages were held at Lambeg, Sunfield, Massereene Park, Irvestown, Dromore, and Coleraine. At Killyman 25,000 persons were present—an immense procession, with flags, and bands playing "Boyne Water." Shots were fired. Many ladies were present, wearing Orange colours. The platforms were decorated with lilies and banners. Mr. Johnston and others spoke. At Sunfield, near Belfast, more than 30,000 Orangemen from the north of county Down assembled to protest against the Irish Church Bill and Party Processions Act. The Earl of Roden was announced to preside, but from failing health could not do so, and in his absence Mr. William Beers, Grand Master, county Down, took the chair. A long letter was read from Lord Roden, expressing his attachment to the cause, and denouncing the Government manifestoes. Mr. William Keown, M.P. for Downpatrick, announced his intention of supporting Mr. Johnston's bill. At Lambeg, over 20,000 persons assembled, under the presidency of Mr. Crommelin Irwin. At Antrim, 8000 to 10,000 assembled, under Lord Massereene and Ferrard, who thought that at this crisis every Protestant should become an Orangeman. At Grey Abbey, 5000 assembled, under the Chancellor of Down Cathedral. At Derry there was no public demonstration, but in the evening the opposite parties paraded the streets, and a scuffle occurred. The constabulary, however, soon restored order. At Irvingstown, Enniskillen, a great demonstration was held at the Lake Erne Hotel; 10,000 persons were present. The processions marched with flags and 20 bands, playing party tunes. Shots were fired and speeches delivered. No police were present. The Lodges marched home in procession, with colours. Strong resolutions against the Government and the Irish Church Bill were passed at all these places, and at each place reported on. The brethren marched to the ground with flags flying, drums beating, and insignia donned, the Party Processions Act being openly treated with contempt. At night there was a crowded and enthusiastic meeting in the Rotunda at Dublin, where there was a great display of Orange insignia. Mr. Thomas F. Calbeck, District Grand Master, was in the chair. Several exciting speeches in favour of "No surrender" were delivered. The meeting passed off peaceably, but there was some disturbance in the streets; a gentleman and two ladies wearing Orange emblems were stopped, and the ladies' bonnets torn off, and the windows of St. Bride's Church were broken.

ATTEMPTED ASSASSINATION IN GALWAY.—On Saturday evening, as Captain Lambert, of Castle Lambert, near Athenry, county of Galway, was close to his residence, he was fired at five times and dangerously wounded by a man lurking among the trees. Captain Lambert received four shots—two in the stomach; one broke his watch chain and indented his watch, and the fourth struck him in the temple. It is expected that he will recover. The slug has been extracted. The revolver was imperfectly charged. The supposed assassin, Peter Barrett, was arrested at Woodlawn Station, and fully identified by Captain Lambert. He was a clerk in the General Post-office, London, and son of a farmer who was lately evicted from the estate.

THE REPEAL AGITATION.—Placards were posted at Cork on Friday, advising the Orangemen of the North to sink party differences, unite with the people of the South in the common cause, and wear orange and green. A letter appeared simultaneously in the *Evening Mail* from Mr. T. W. Macartney, Sheriff of Armagh county, boldly urging a union of Roman Catholics and Protestants with the object of procuring "an Irish House in College Green."

Sporting.

THE ETON AND HARROW CRICKET MATCH.—This match commenced at Lord's on Friday, in the presence of a most brilliant assemblage, there being not fewer than 12,000 persons present, many of whom were members of the highest circles of rank and fashion. It was the 45th match, and out of those played previously Harrow had won 21, Eton 19, and four had been drawn. On Friday Eton had the first innings, and made the large score of 237. Harrow having only obtained 91, had to go in against the 145 yet remaining to be rubbed off, and when the play ceased for the evening they had obtained 23, with the loss of one wicket. The match was renewed on Saturday in the presence of nearly 5000 visitors, when Eton won in a single innings.

Obituary.

LORD TAUNTON died suddenly on Tuesday afternoon, after an illness of only a few hours. On Tuesday of last week he spoke in the debate on the Irish Church with even more than his usual impressiveness and authority: he spoke again shortly on Friday. Although he did not attend the House on Monday, he drove out in an open carriage, and it was only on Tuesday that the fatal attack appeared. Although never in the first rank of poets, Lord Taunton's career had been distinguished by one of high distinction. Born in 1799, he took a first class in classics at Oxford in 1820, and was early initiated into the study of law. He was a Lord of the Admiralty from 1832 to 1834, Vice-President of the Board of Trade from 1835 to 1838, and then for a short time Under Secretary of the Colonies, and then, returning to his former office, but with augmented rank, President of the Board of Trade from 1839 to 1841. He was Chief Secretary for Ireland from July, 1840, to July, 1847, and including, therefore, a large portion of the famine period, and including, therefore, a large portion of his old place at the Board of Trade, which he filled from 1847 until 1852, during which he took a leading part in the repeal of the Navigation

Laws. In 1855 he became Secretary of State for the Colonies, which office he held until 1858, and in the following year he was raised to the Peerage as Lord Taunton, a title which he assumed in compliment to the borough he had represented for nearly 30 years. His last public employment was as Chairman of the Endowed Schools Commission. Although he sat 10 years in the House of Lords, Lord Taunton will be best known as Mr. Labouchere, under which name the longer as well as the more active portion of his political life was spent. Before entering Parliament he travelled in the United States and in Canada with the Earl of Derby and the present Speaker of the House of Commons, and both by material interests and by sympathy he was largely connected with America. He was twice married; first to a daughter of Sir Thomas Baring, and sister of Mr. Thomas Baring, M.P., and, secondly, in 1852, to Lady Mary Howard, daughter of the sixth Earl of Carlisle, who survives him. He had several daughters by his first marriage, but his left no son. The title, therefore, is extinct.

LORD KENYON died on Wednesday last at Eastbourne. He was the eldest son of the second peer, by the only daughter of the late Sir Thomas Hamner, Bart., and was born in 1803. He was educated at Christ Church, Oxford, where he graduated B.A. in 1826, and M.A. in 1829. He married in 1833, the fourth daughter of the 4th Lord Walsingham, and leaves by her a numerous family. He is succeeded in the honours and estates by his grandson, born in 1864, and the only child of the Hon. Lloyd Kenyon, who died in 1865, by the daughter of Mr. J. R. Ormsby Gore, M.P.

LADY DUFF-GORDON died at Cairo on the 14th inst. She was the wife of Sir Alexander Cornwallis Duff Gordon, Bart., and the only daughter of Mr. Austin, Q.C., and Mrs. Sarah Austin, the well-known authoress. She had long been unwell, and intended to reside in Egypt, the air of which was considered favourable to her health. It will be recollected that during the late excursion of the Prince and Princess of Wales up the Nile their royal Highnesses paid her a visit at her kloek near the First Cataract.

MR. WILLIAM JERDAN, formerly for many years editor of the "Literary Gazette," died on the 11th inst. at Bushey Heath, in his 88th year. A native of Kelso, and educated at Edinburgh for the Scottish law, he came to London to push his way in literature. Of his varied fortunes in this precarious profession he has given a record in his *Autobiography*, published about 15 years ago. With most of the literary and scientific men of the last 50 years he had personal acquaintance, and with some of the highest mark in literature and politics he was on terms of intimacy. An interesting volume of personal recollections, entitled "Men I have Known," appeared two years ago, inscribed to the then Chief Baron, Sir Frederick Pollock, also a Borderer, with whom Mr. Jerdan since boyhood had maintained an unbroken friendship. It was Mr. Jerdan, who, in the lobby of the old House of Commons, scolded Bellingham, the assassin of Mr. Perceval. He was at that time one of the reporters for the Press, so that his connection with periodical literature continued for half a century. In recent numbers of *Fraser's Magazine* are contributions from his pen, and the last two parts of the *Gentleman's Magazine* contain an article on the celebrated Beef-Steak Club, which no other living man could have written from personal knowledge. For several years recently he has contributed to the *Leisure Hour* a series of reminiscences of distinguished men, illustrated by characteristic letters. Of the Royal Literary Fund in its early days he was a zealous advocate, and by his influence greatly aided its prosperity. Late in life he received a pension of 100l. a year for his services to literature.

Markets.

COVENT GARDEN.—July 17. The prices for best fruit have somewhat receded, as the supply has been much heavier again during the past week, and the demand is much slower from the northern and midland markets. Vegetables are abundant and good. Flowers consist of Orchids, Pelargoniums, Hydrangeas, Calceolarias, Roses, Mignonette, Heliotropes, Fuchsias, Pinks, Carnations, Cooks-combs, Kalosantes coccinea, Rhodanthe Mangleaif, Campanulas, and Lilliums, &c.

FRUIT.

Apricots, per doz., 2s to 3s	Melons, each, 3s to 6s
Cherries, per lb., 6d to 1s	Nectarines, per doz., 8s to 12s
Figs, per doz., 6s to 10s	Oranges, per 100, 8s to 14s
Grapes, per lb., 3s to 8s	Peaches, per doz., 12s to 24s
Kent Cobs, per lb., 1s to 1s 6d	Pine-apples, per lb., 4s to 6s
Lemons, per 100, 6s to 10s	Strawberries, p. lb., 1s to 3s

VEGETABLES.

Artichokes, green, p. doz., 2s	Lettuces, p. score, 1s to 1s 3d
Beans, Kidney, p. 100, 1s to 2s	Mint, per bunch, 4d to 6d
Beet, per doz., 6s	Mushrooms, p. pott., 1s 6d to 2s
Cabbages, per doz., 1s to 2s	Onions, green, p. bun, 9d to 1s
Carrots, per bunch, 9d to 1s	Parsley, per bunch, 2d to 4d
Cauliflowers, p. doz., 3s to 6s	Peas, English, p. qt., 1s 6d to 2s
Celery, p. bund., 1s 6d to 2s 6d	Potatoes, York Regents, p. ton, 80s to 100s
Cucumbers, each, 4d to 1s	Flukes, do., 80s to 160s
Endive, per doz., 1s 6d to 2s	new, 7s to 10s p. cwt.
Garlic and shallots, per lb., 8d	Spinach, per bushel, 2s to 3s
Herbs, per bunch, 2d to 4d	Radishes, p. doz., 1s to 1s 6d
Horse Radish, p. bund. 3s to 5s	Turnips, new, p. bunch, 8d to 1s
Leeks, per bunch, 4d to 6d	

HAY.—Per Load of 36 Trusses.

SMITHEFIELD, Thursday, July 15.			
Best Green Hay	110s to 135s	Clover, old	110s to 135s
Prime Meadow Hay	105s to 120s	Inferior do.	100
Inferior do.	80 100	Prime new Clover	40 100
New do.	95 90	Inferior do.	35
Straw	32 40	CHARLES JAMES EASTON.	
CUMBERLAND MARKET, Thursday, July 15.			
Sup. Meadow Hay	115s to 126s	Inferior Clover	105s to 115s
Inferior do.	90 108	New do.	33 44
New do.	70 110	JOSHUA BAKER.	
Superior Clover	123 135		

COALS.—July 14.

Holywell Main, 14s. 6d., Hastings Bartley, 14s. 3d.; Walls End Haswell, 17s. 6d., Walls End Tunstall, 15s. 9d.; Walls End Kelloe, 16s. 3d.; Walls End Original Hartlepool, 17s. 6d.; West Wylam, 14s. 6d.; Brancepeth Cannel, 17s. 9d.

ENGLISH WOOL.

There has been rather less doing, buyers having lately stocked themselves pretty freely, but the market continues firm, and prospects are good.

CURRENT PRICES OF ENGLISH WOOL. per lb.—s. d.

FLEECES—Southdown hoggets	1 1 to 1 2
Half bred ditto	1 2 to 1 2 1/2
Kent Fleeces	1 3 to 1 4
Southdown ewes and wethers	1 0 1/2 to 1 1
Leicester ditto	1 2 to 1 3
Sorts—Clothing	0 10 to 1 6
Combing	1 0 to 1 8

METROPOLITAN CATTLE MARKET.

MONDAY, July 12.
The supply of Beasts is smaller, and two-thirds of it is foreign, consequently choicest English are in demand, but we cannot quote higher prices on the average. There is a very considerable increase in the supply of Sheep, and except for

choicest qualities prices are lower. Choice Lambs are more in demand, but inferior qualities are a heavy trade. Calves are selling about the same as on Thursday last. Our foreign supply consists of 2848 Beasts, 11,710 Sheep, 462 Calves, and 155 Pigs, from Ireland there are 50 Beasts; from Norfolk and Suffolk, 150; and 1250 from the Midland and Home Counties.

	a. d. s. d.	s. d. s. d.
Best Scots, Herefords, &c.	5 4 to 5 6	Best Long-wools 5 0 to 5 2
Best Shorthorns	5 0 - 5 2	Do. Shorn
2d quality Beasts	3 0 - 3 8	Ewes & 2d quality
Best Downs and Half-breds	5 4 - 5 6	Do. Shorn
Do. Shorn	.. .. .	Lambs
Beasts, 4300; Sheep and Lambs, 30,110; Calves, 505; Pigs, 255.		Calves
		Pigs

THURSDAY, July 15

The number of Beasts is about the same as on Thursday last; the trade is more active, and in some instances rather higher prices are obtained. The supply of Sheep and Lambs is smaller, yet quite sufficient for the demand; prices are the turn better for choicest qualities. There is a large supply of Calves, yet choicest kinds are not over plentiful, and command high rates. Our foreign supply consists of 425 Beasts, 3790 Sheep, 602 Calves, and 50 Pigs.

	s. d. s. d.	s. d. s. d.
Best Scots, Herefords, &c.	5 4 to 5 6	Best Long-wools 5 0 to 5 4
Best Shorthorns	5 0 - 5 4	Do. Shorn
2d quality Beasts	3 4 - 4 0	Ewes & 2d quality
Best Downs and Half-breds	5 4 - 5 8	Do. Shorn
Do. Shorn	.. .. .	Lambs
Beasts, 900; Sheep and Lambs, 14,550; Calves, 638; Pigs, 65.		Calves
		Pigs

METROPOLITAN MEAT MARKET.—July 17.

Best Fresh Butter	.. .. .	15s. per dozen lb.
Second do. do.	.. .. .	13s. "
Small Pork, 4s. 8d. to 5s. 2d.; Large Pork, 3s. 8d. to 4s. 4d. per 8 lb.		

LEADENHALL POULTRY, &c.

THURSDAY, July 15.

	s. d. s. d.	s. d. s. d.
Geese .. each	.. .. .	Pigeons .. each
Goslings .. "	5 6 - 6 6	Tame Rabbits
Turkeys .. "	.. .. .	Wild Rabbits
Turkey pullets .. "	.. .. .	Wild Ducks .. "
Ducks .. "	.. .. .	Phenixes .. "
Ducklings .. "	3 0 - 4 0	Hares .. "
Surrey Fowls, couple	8 0 - 12 0	Dotterel .. "
Do. chickens	6 0 - 8 0	Quails .. "
Barn-door Fowls	6 0 - 8 0	English Eggs, p. 100
Leverets .. each	2 6 - 4 0	Foreign do.
Fresh Butter	1s. 0d. to 1s. 8d. per lb.	

MARK LANE.—MONDAY, July 12.

The very short supply of Wheat to this morning's market enabled factors to obtain an advance of 1s. to 2s. per qr. upon the prices of this day se'nnight. There was a moderate attendance, and foreign Wheat was generally held for 1s. per qr. improvement, at which a fair amount of business was transacted. Barley, Beans, and Peas were unaltered in value. Fine stout Oats brought last week's quotations, but Russian qualities were 6d. per qr. cheaper. The nominal top price of Flour was unchanged, but town household and country marks were 1s. to 2s. per sack, and American 6d. per barrel dearer.

PRICE PER IMPERIAL QUARTER.		s. s.	s. s.
WHEAT, Essex, Kent, Suffolk. White	50 53 1/2	Red	49 - 51
— fine selected runs .. do.	53 - 56	Red	51 - 53
— Talavera	57 - 61	Red .. .. .	.. .. .
— Norfolk .. .. .	.. .. .	Red .. .. .	.. .. .
— Foreign	42 - 62	.. .. .	.. .. .
BARLEY, grind. & dist. 28sto32s. Chev.	.. .. .	Malting ..	38 - 44
— Foreign .. grinding and distilling	24 - 30	Malting ..	32 - 40
OATS, Essex and Suffolk .. .. .	.. .. .	.. .. .	.. .. .
— Scotch and Lincolnshire .. Potato	25 - 33	Feed .. ..	.. .. .
— Irish	30 - 32	Feed	23 - 28
— Foreign	25 - 30	Feed	21 - 26
RYE	38 - 40	Foreign ..	.. .. .
RYE-MEAL, Foreign .. .. .	.. .. .	.. .. .	.. .. .
BEANS, Mazagan .. 38s to 40s. Tick	42 - 43	Harrow ..	42 - 43
— Pigeon .. 43s to 47s .. Winds	38 - 42	Longpod ..	35 - 36
— Foreign	38 - 42	Egyptian ..	35 - 36
PEAS, White, Essex, and Kent .. Bolders	40 - 41	Suffolk ..	39 - 42
— Maple 41s to 45s	40 - 42	Foreign ..	36 - 40
MAIZE .. .. .	.. .. .	Foreign ..	28 - 30
FLOUR, best marks delivered .. per sack	30 - 43	.. .. .	.. .. .
— 2d ditto	23 - 40	Country ..	28 - 40
— Foreign	23 - 27	Per sack ..	30 - 40

FRIDAY, July 16.

The weather since the 2d inst. has been remarkably favourable for the growing crops. The supplies of both home-grown and foreign Wheat have been small in the markets of the United Kingdom (excepting the arrivals from America into Liverpool, which were very large), and the trade, owing chiefly to the desire of country millers to get into stock, has been strong, at a further advance of 1s per qr. Since the 13th inst. some of our leading markets showed symptoms of weakness, and any desire to realise produced a slight reaction from the late highest rates. We estimate the advance on Wheat realised early this week, compared with the lowest rates of June, at nearly 5s. per qr. Russian Oats in London have declined about 1s. per qr., but in most other markets this grain, and all other sorts of Spring Corn, have been slightly dearer. Flour was a fair sale at 6d. per barrel and 1s. per sack advance, but the trade was far from active. The arrivals of grain and seed laden vessels off the coast since Friday last consisted of 78 cargoes, of which, with those left over from last week, there remained for sale last night 30 cargoes. The floating trade was steady early in the week, but during the past day or two it was dull, and prices of Wheat were against sellers, whilst Maize and Barley off the coast improved slightly in value. In Rye there was nothing doing. Wheat on passage and for forward shipment was a very quiet trade, at barely late quotations. Maize and Rye met with a strong demand, and Barley remained at about the former value. The arrivals of all grain are moderate, with the exception of foreign Oats, which are liberal. There was a very thin attendance at this morning's market, and but little business transacted either in English or foreign Wheat; the few sales made were generally at a slight reduction upon Monday's quotations. Spring Corn of all descriptions was unchanged in value.

ARRIVALS.

	Wheat.	Barley.	Oats.	Flour.
English ..	620 qrs.	— qrs.	— qrs.	— sks.
Irish ..	.. .. .	.. .. .	.. .. .	.. .. .
Foreign ..	16,200 "	4250 "	42,230 "	2250 "
	16,820	4250	42,230	2250

LIVERPOOL, July 13.—We had a fair attendance at our market to-day, and white Wheat was sold to a moderate

extent, at the prices of Friday last; but red kinds were rather easier. Flour quiet, at last Friday's rates. Indian Corn in fair request, at an advance of 3d. to 8d. per qr. Oats firm. Oatmeal inactive, but prices unchanged. Peas slow to sell, at recent extreme rates.

AVERAGES.

	Wheat.	Barley.	Oats.
June 5 ..	45s 5d	37s 5d	26s 2d
— 12 ..	46 0	37 1	26 6
— 19 ..	46 2	32 2	27 8
— 26 ..	46 4	32 7	29 0
July 3 ..	47 9	35 8	26 2
— 10 ..	48 11	30 6	27 0
Average ..	46 9	34 3	27 1

SEED MARKET.

There is but little to report this week concerning the agricultural seed trade, our markets now being very poorly attended, and an exceedingly small amount of business doing. Clover and Trefoil seeds are held with great firmness, and the impression continues to gain ground that especially for the latter description much higher prices must prevail. Sowing Rapeseed is still advancing in value, and fine parcels are unusually scarce. For white Mustard seed small orders come to hand, which are executed at full rates. Canary and Hemp seed move off steadily at last week's currencies. Trifolium incarnatum of the new crop is offering at reasonably low prices, but we do not anticipate this season the unprecedented demand for this article which prevailed last fall. For other kinds of seeds values, in the absence of business, are nominal.

JOHN SHAW & SONS, 16, WATER LANE.

WANTED, a NURSERY GROUND FOREMAN.—Apply by letter only, stating age, salary expected, and previous engagements, to S. GLENDINNING AND SONS, Chiswick Nurseries, W.

WANTED IMMEDIATELY, a First-rate FOREMAN, at Meadow Bank.—A Man of general activity and intelligence is in request. Terms on application.—Apply, with references or testimonials, to Mr. ANDERSON, Meadow Bank, Uddingston, N.B.

WANTED, as GARDENER, a respectable married Man, without children.—Must thoroughly understand his business, be industrious and obliging, and bring a character that will bear the strictest investigation.—Apply to F. P., Mr. Abbott, 7, Little Tower Street, E.C.

WANTED, a MAN who understands Out-door Work, and is well up in Roses and Fruit Trees. Personal application preferred, and good character indispensable.—J. HOUSE, Eastgate Nursery, Peterborough.

WANTED, as SECOND GARDENER, a respectable steady single Man. He must be efficient and well recommended. Wages about 15s. per week.—Address J. C., Post Office, Ingatestone, Essex.

WANTED, in a Nobleman's Establishment, where Gardening is extensively and systematically conducted, a respectable and intelligent Young Man as an IMPROVER. A moderate Premium will be required.—For further particulars, apply to Mr. G. NICHOLSON, the Estocourt Nurseries, Watford, Herts.

WANTED, a TRAVELLER, in the Seed Trade. One accustomed to Travelling preferred.—Apply by letter, with full particulars, to A. B., Gardeners' Chronicle Office, W.C.

WANTED, in a London Wholesale Seed Establishment, a Young Man as TRAVELLER, &c.—Must have had experience on the Road, and possess a knowledge of either Shop or Counting-house duties.—Apply, stating age, with full particulars, &c., to ALFRED LEGERTON, Seed Merchant, 5, Aldgate, London.

To Corresponding Clerks. MESSRS. VEITCH AND SONS are desirous of meeting with a thoroughly efficient CORRESPONDING CLERK. Liberal and progressive wages will be given to a suitable person.—Apply, in the first instance, by letter addressed to the Royal Exotic Nursery, Chelsea, London, S.W.

WANTED, in one of the largest London Nurseries, a CORRESPONDING CLERK, with a sufficient knowledge of French and German to be able to correspond in those languages. A Foreigner with good references not objected to.—Apply by letter to A. Z., Gardeners' Chronicle Office, Wellington Street, W.C.

WANTED, a CLERK, or CLERK and SALESMAN.—The Advertiser is desirous of engaging a person in the above capacity. To a Young Man desirous of getting on in the Business this is an excellent opening.—Apply by letter, stating references and other particulars, addressed to BETA, Gardeners' Chronicle Office, Wellington Street, W.C.

To the Seed Trade. WANTED, for the Retail Department, a MANAGING SHOPMAN. None but experienced Persons will be treated with.—Apply by letter to M., Messrs. Mudie & Sons, 16, Coventry Street, W.C.

WANTED, an intelligent Young Man as ASSISTANT SHOPMAN.—Apply to E. COOLING, Seed Merchant, Derby.

WANTED, a MAN and his WIFE, without children, to take charge of a small Marine Residence, where the proprietor is in occasional residence only—the Man as Gardener, and the Woman as Plain Cook and General Servant. No waiting at table required.—Apply by letter, stating particulars, addressed to S. G., 29, Panton Street, Haymarket, where an interview with the parties may be arranged.

WANTED, in a Clergyman's Family, an intelligent LABOURER and his WIFE, the former to take charge of a Garden, Horse, &c., and to make himself generally useful; the Wife to Wash for the Family. Wages, £1 5s. a week.—Address, sending particulars of last situation, Rev. J. R., Paignton, Devonshire.

Laundrymaid. WANTED IMMEDIATELY, in a Gentleman's Family, a Single-handed LAUNDRYMAID.—Apply to S. C., T. M. Smith, Stationer, Linthorpe Road, Middlesbrough.

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WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. E. G. HENDERSON AND SON, Wellington Nursery, St. John's Wood, London, N.W.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS, and GARDENERS and BAILIFFS, of various qualifications, who are open to Engagements. The fullest particulars as to services required and wages given should be forwarded with application.—PAUL'S Nurseries, Waltham Cross, London, N.

To Gardeners and Bailiffs (Head, Foremen, or Under). JAMES CARTER AND CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those who can send unquestionable references need apply. Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & Co. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c. JAMES CARTER AND CO., 237 & 238, High Holborn, London, W.C.

Gardeners and Under Gardeners. WM. CUTBUSH AND SON beg to state that whose characters will bear the strictest inquiry, and making application would save time by clear selection.—Highgate Nurseries, London, N.

GARDENER (HEAD).—Age 30, married, with experience in the Forcing of Fruit, Flower, and the General Management of a Garden. Address, T. P. M., 11, Ben Hill Place, Sutton, Surrey.

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The Gardeners' Chronicle Newspaper.

SATURDAY, JULY 24, 1869.

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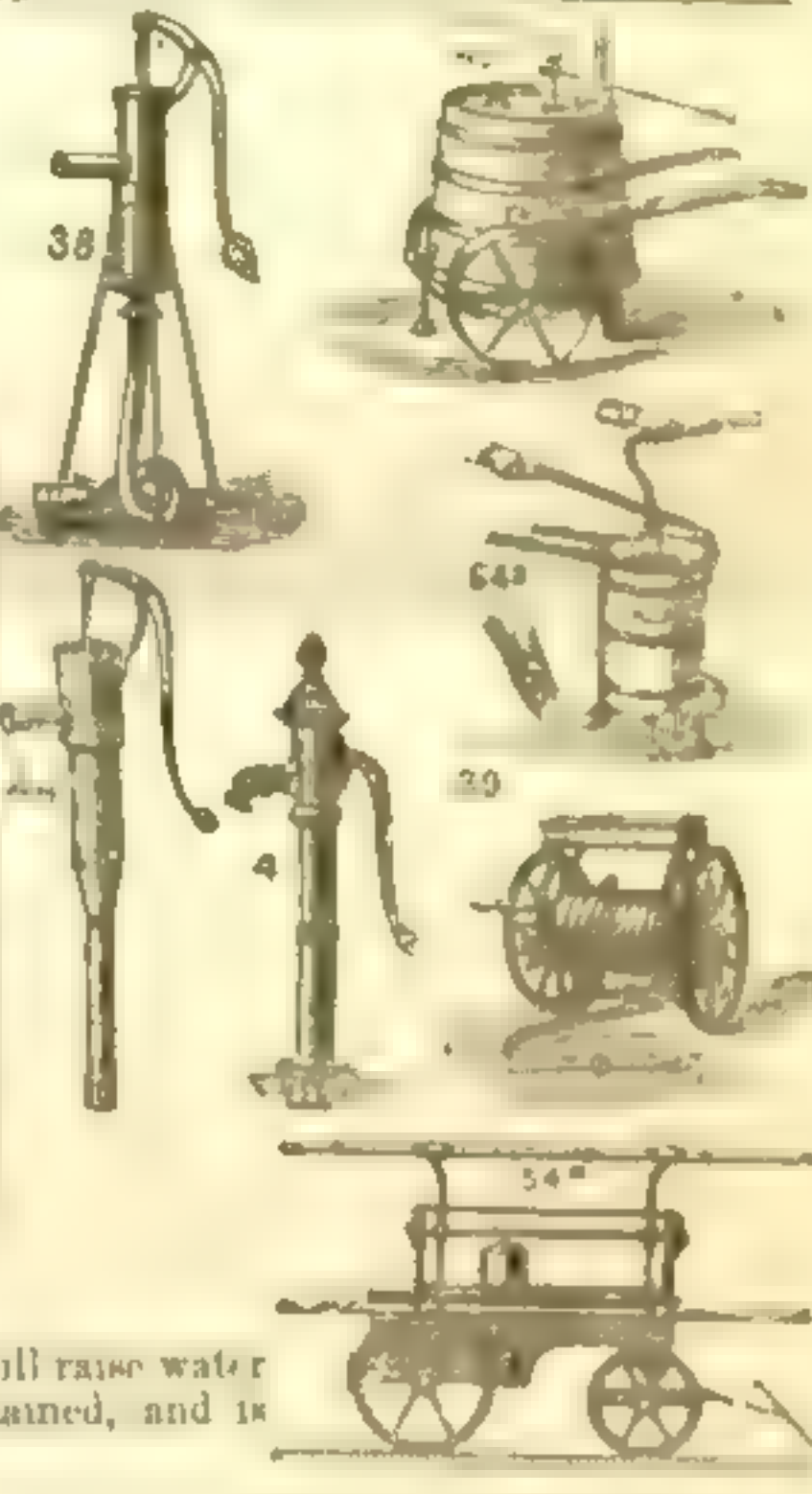
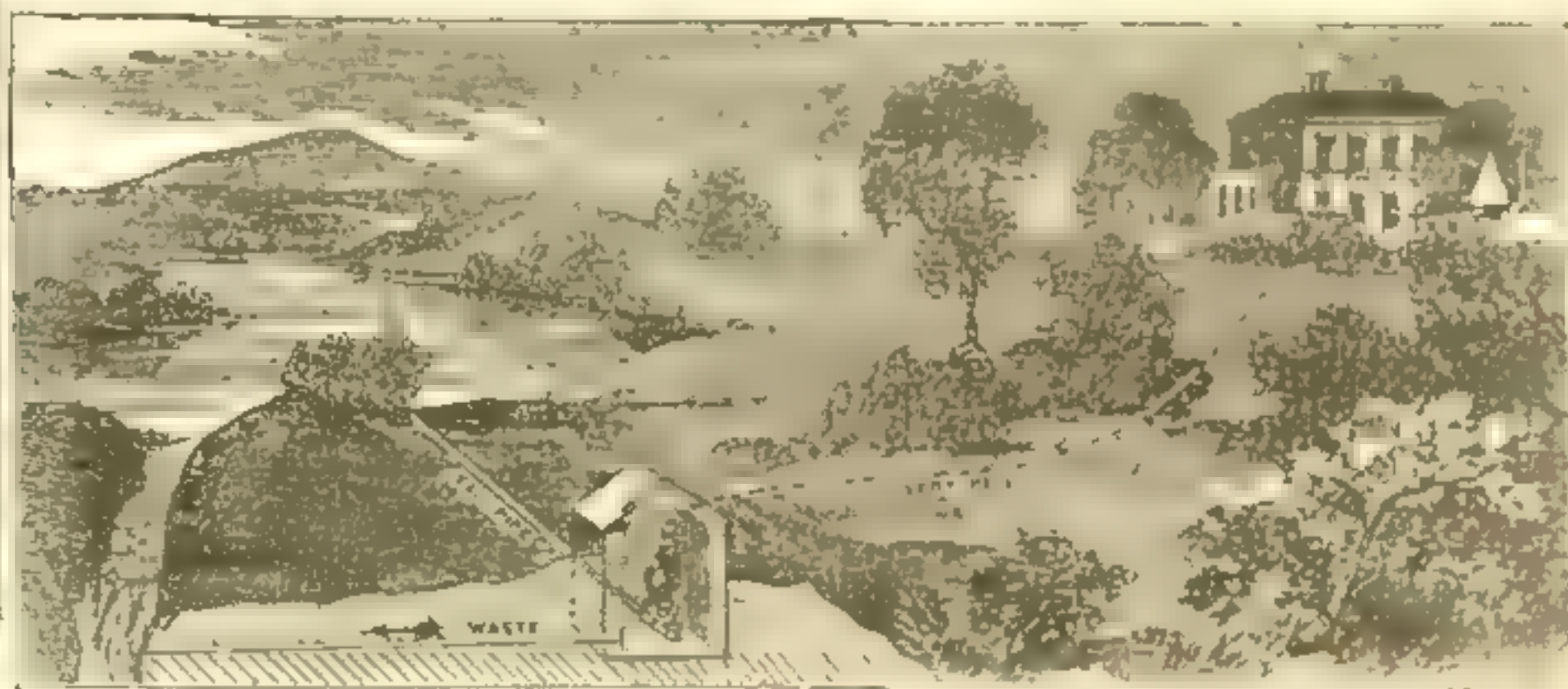
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2 1/2 inches	..	£1	8	6
3 "	..	2	1	0
3 1/2 "	..	2	6	0
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CAST-IRON PUMPS.

2 1/2 inches	..	£1	8	6
3 "	..	2	1	0
3 1/2 "	..	2	6	0
4 "	..	2	14	0

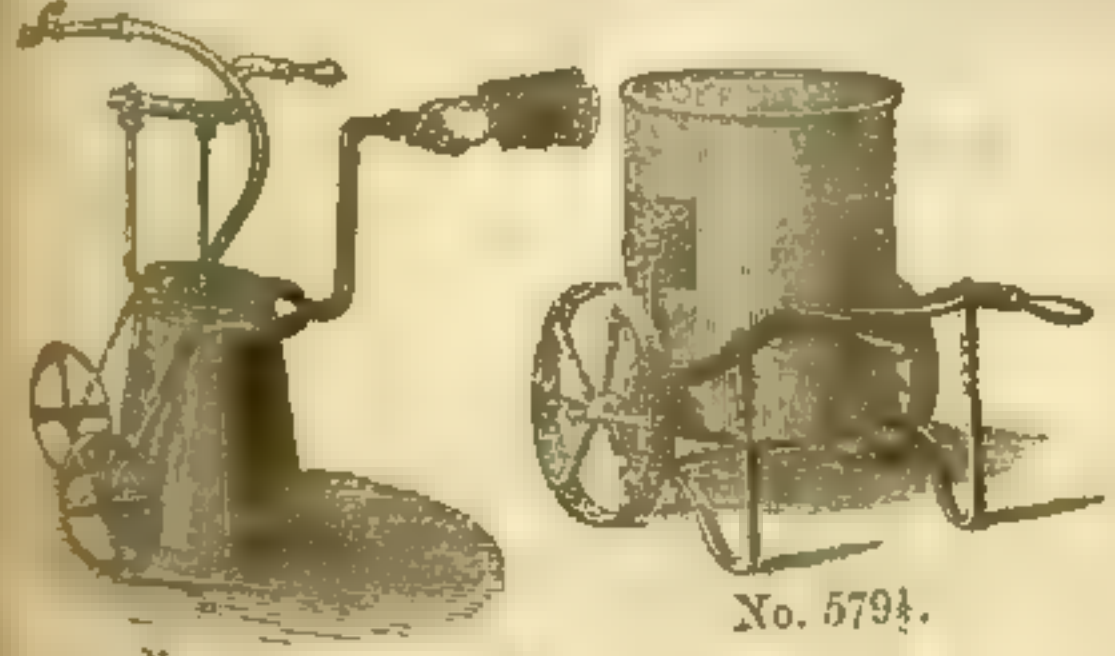
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1 1/2-in. 2-ply Rubber Suction Pipe, per foot, 2s. 2d.;
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2-inch Flexible Rubber Suction Pipe, in 10, 12, and 15 ft. lengths, per foot, 2s. 6d.

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SWING WATER BARROW.

50 gallons	..	£5	12	0
38 "	..	3	17	0
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20 "	..	2	2	0

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28 gallons	..	£5	10	0
24 "	..	4	19	0
16 "	..	3	14	0
10 "	..	2	19	0



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Small size for the hand, as an ordinary syringe 0 15 0

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PATENT LAWN MOWERS	70s. 0d. to 130s.
To cut 10 inches	£3 10 0
" 12 inches	4 10 0
Suitable for a Lady.	
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" 16 inches	6 10 0
Suitable for a Man.	

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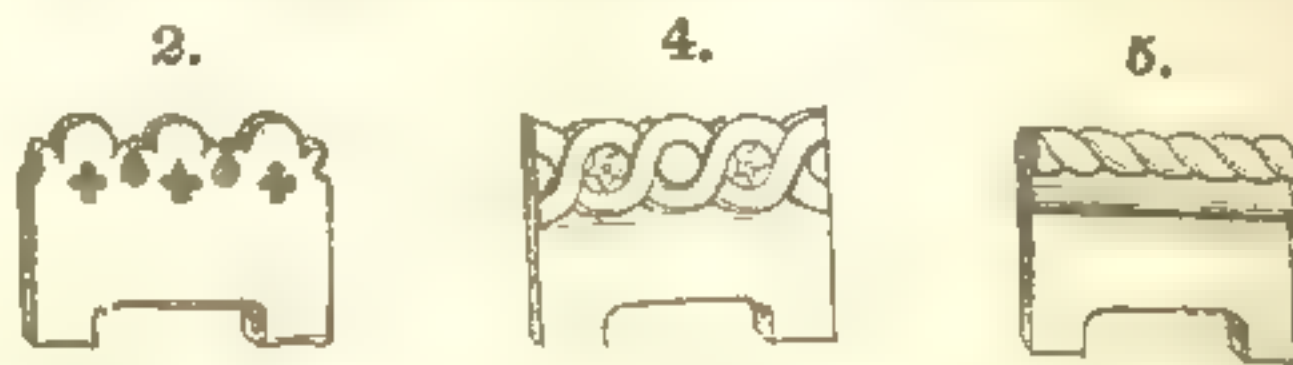
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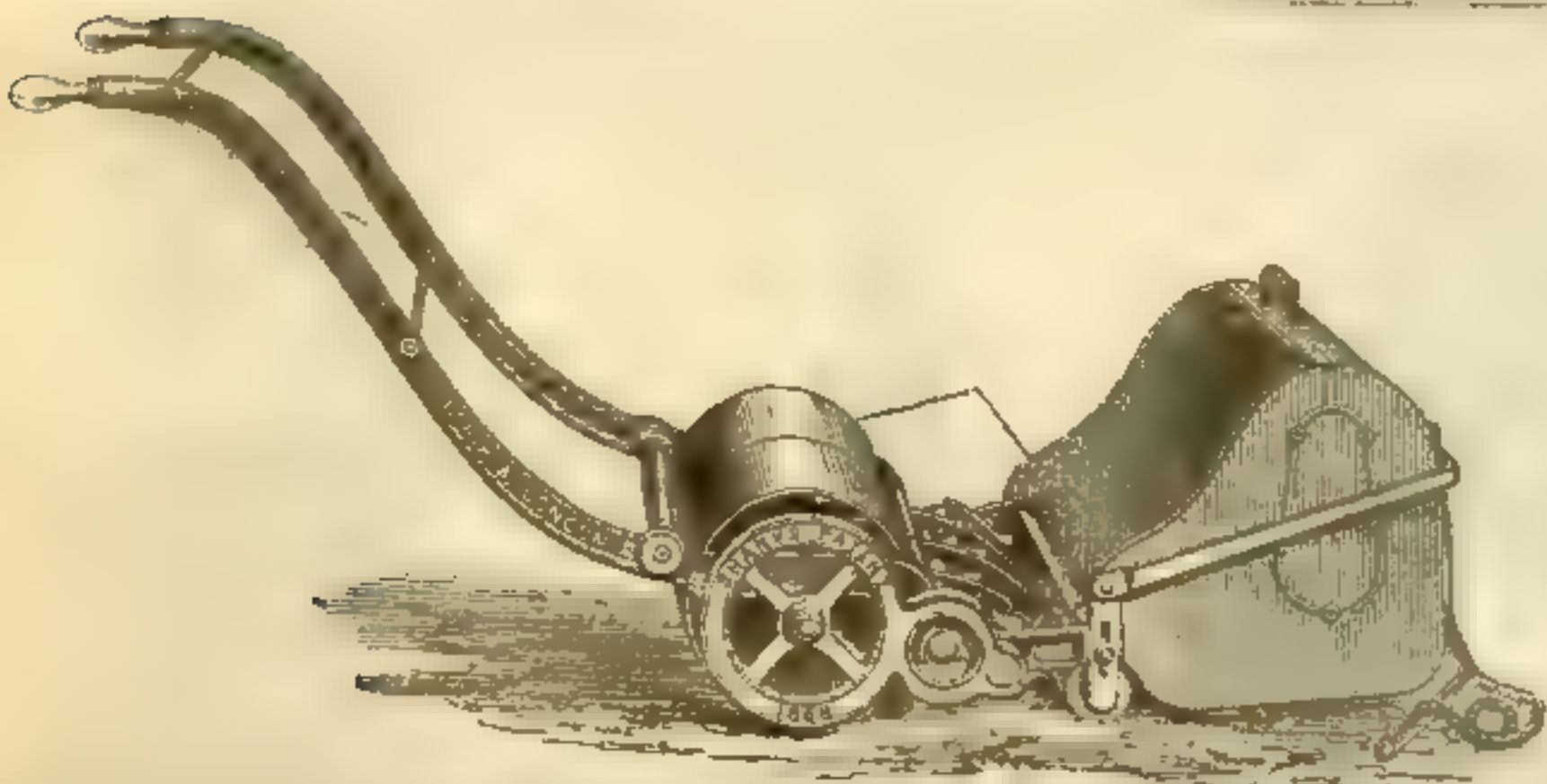
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THE QUEEN,**



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PRINCIPAL NOBILITY
OF
GREAT BRITAIN.



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SHANKS'S PATENT LAWN MOWERS

ARE ALL FITTED WITH
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the entire passage from England under sail, with the exception of the Bristol and Endymion, which had to get up steam to reach the anchorage, a calm having prevailed for 18 hours. On the 21st the squadron was joined by the Barossa, and sailed in the evening for Bahia. The Endymion proved herself the worst sailor in the squadron, and caused much detention. The Bristol was nearly as bad.

THE NEW COLONIAL ORDER. A supplement to the London Gazette of the 25th ult., announced that the Queen had extended the Order of St. Michael and St. George to persons who may have rendered important services to the Crown within or in connection with any of her colonial possessions, and had made the following appointments in the Order—H.R.H. the Duke of Cambridge to be Grand Master; H.R.H. the Duke of Edinburgh; Viscount Monk, late Governor-General of Canada; Earl of Derby; Earl Grey; and Earl Russell, formerly Secretaries of State for the Colonies, to be Knights Grand Cross. Colonel Thomas Gore Browne, C.B., late Governor of Tasmania; Francis Hincks, Esq., C.B., late Governor of British Guiana; James Walker, Esq., C.B., Governor of the Bahamas; General Charles Hastings Doyle, Lieutenant-Governor of Nova Scotia; Paul Edmund de Strzelecki, Esq., C.B., Lord Lyttelton, the Right Hon. Frederick Peel, the Right Hon. Charles Bowyer Adderley, and Sir Frederic Rogers, Bart., late Under Secretaries of State for the Colonies; Sir Hercules George Robert Robinson, Governor of Ceylon; Alexander Tillock Galt, Esq., late Minister for Finance in the Dominion of Canada; Henry Taylor, Esq., of the Colonial Department; and Thomas Frederick Elliott, Esq., late Assistant Under-Secretary of State for the Colonies, to be Knights Commanders. Charles Cowper, Esq., late Chief Minister of New South Wales; William Charles Gibson, Esq., late Colonial Secretary of Ceylon; Felix Bedingfield, Esq., late Colonial Secretary of Mauritius; John Bayley Darvall, Esq., late Attorney-General of New South Wales; John Sealey, Esq., Attorney-General of Barbadoes; John Lucie Smith, Esq., Attorney-General of British Guiana; Thomas Skinner, Esq., late Civil Engineer and Commissioner of Roads for Ceylon; Theophilus Shepstone, Esq., Secretary for Native Affairs in Natal; George Macleay, Esq., of New South Wales; and Dr. Ferdinand Mueller, M.D., Government Botanist for the colony of Victoria, to be Companions of the Order.

Foreign.

FRANCE.—Imperial decrees have been published appointing the following as members of the new Ministry:—M. Duvergier, Minister of Justice, Prince de la Tour d'Auvergne, Minister of Foreign Affairs, M. Forcade de la Roquette, Minister of the Interior, M. Magne, Minister of Finance, Marshal Niel, Minister of War; Admiral Rigault de Genouilly, Minister of Marine; M. Bourbeau, Minister of Education; M. Gressier, Minister of Public Works; M. Alfred Leroux, Minister of Agriculture; Marquis de Chasseloup Laubat, President of the Council of State; Marshal Vaillant, Minister of the Imperial Household. The Ministry of State has been suppressed. At a Council of Ministers held on Monday it was decided that the prorogation of the Legislative Body should be maintained. No date was fixed for its re-assembling, but it is rumoured that it will meet again on October 26. An Imperial decree dated on Tuesday appoints M. Rouher President of the Senate for the session of 1869. MM. Duruy and Vuity have been appointed members of the Senate. The Marquis de Lavalette has been definitively appointed Ambassador to the Court of St. James's. Count Armand, First Secretary of Embassy at Rome, has been appointed Chef du Cabinet of the Minister for Foreign Affairs, and M. Mure, Secretary in London, has been nominated Sous-Chef of the same Ministry. The Empress and the Prince Imperial left Paris for Berck-sur-Mer on Sunday. A meeting of the Left was held on Tuesday, when M. Thiers presented and explained a protest which he had drawn up against the attitude of the Government towards the Chamber, and at the same time developed a political programme, which was, however, rejected by the Democratic Deputies present, as being of too Monarchical a tendency. M. Jules Favre spoke in favour of preserving for the present a silent attitude. MM. Picard, Keratry, and Tachard advocated a dissolution of the Legislative Body. This view was, however, opposed by M. Grevy, and no conclusion was arrived at. The *Moniteur* says that the meeting not only led to no result, but revealed, on the contrary, germs of division, antagonism, and rivalry between the Deputies who incline to Parliamentary Government and those who desire a Democracy. A meeting of the members of the Tiers Parti who signed the recent interpellation was held on Tuesday, when it was unanimously resolved to adopt the views and principles laid down in their proposed interpellation, and to adjourn until the re-assembling of the Chamber. The Tribunal of Commerce gave judgment on Monday in the case of the Société Immobilière, declaring the directors responsible to the shareholders, to whom they are to reimburse the whole amount of the bonds bought by them from April, 1865, to April, 1867. The judgment also dissolves the company, and appoints three liquidators to wind up its affairs.

SPAIN.—A plot to assassinate the Regent Serrano, General Prim, and Senor Rivero on a certain day, was discovered on Tuesday. A judicial inquiry is being actively pursued. Tranquillity has not been disturbed. The Regent has left Madrid for the former Royal summer residence at La Granja, and will remain there as long as the state of political affairs will admit. Don Carlos, accompanied by General Eho, has left Paris, and entered Navarre, pursued by the French police to

the frontier. An agitation prevails among the inhabitants of the mountains of Catalonia, and several battalions of Chissours have been sent to preserve order. A Carlist conspiracy has been discovered in Madrid, and 11 officers and serjeants of the Catalonia Regiment were arrested at night on the 19th, and found in possession of appointments from Don Carlos. Arrests have also been made at Valladolid, Burgos, and Cordova. Generals Yucatan, Yucatan, and Orona, and Colonels Alhambra and Carlomagno, and several priests are among those who have been arrested. The Generals will be exiled to the Canary Islands. It was asserted on Wednesday that the Carlists had postponed the execution of their designs. The Madrid journals state that overtures have been made to General Lersundi by the party of Queen Isabella, but that the General has refused to take any share in the projects of that party. In the sitting of the Cortes on the 19th, the proposal to prorogue the session until October was unanimously agreed to. The Cortes thereupon nominated a permanent commission of eight members, in which all the different political fractions are represented.

BRITAIN.—The Court of Assizes of Brussels on Tuesday condemned M. Bachelier to six months' imprisonment and a fine of 200 francs for offences against the person of the Emperor of the French.

HOLLAND.—The Netherlands International Exhibition was opened on the 1st inst. by Prince Henry. An address was delivered by Baron Mackay, President of the Central Committee at the Hague, explanatory of the origin and progress of the exhibition, and the satisfactory manner in which it had been supported in foreign countries. The Prince, in reply, congratulated the commissioners upon the success of their several sections, which his Royal Highness then visited in the order of their arrangement in the palace. The British department being the most forward attracted the greatest attention, and after the British Commissioners and jurors had been presented to the Prince by Baron Mackay, his Royal Highness was conducted by them throughout the British section, and appeared to take a deep interest in those manufactures in which we excel. In the evening a grand banquet was given in the Park Lozale, at which the Prince presided. Covers were laid for 350, and the usual loyal and "Exhibition" toasts were given. The proceedings of the day terminated with a brilliant display of fireworks. There are 14 countries exhibiting, the Netherlands numbering 928, Belgium, 438, France, 308, Great Britain, 201; Austria, 144, North Germany, 129, out of a total of 2325 exhibitors. Mr. Thurlow, attached to her Majesty's Legation at the Hague, has been instructed by the Foreign Office to draw up a detailed report on the Exhibition for presentation to Parliament.

SWITZERLAND.—The National Council, on Wednesday, after a long debate, ratified by a large majority the treaty of commerce with the Zollverein, the convention for the protection of literary property with the North German Confederation, and the treaty with Wurtemberg respecting the law of naturalisation. The Baden Government has signified its willingness to send a representative to the Conference which is to be held at Berno on the St. Gothard Railway question.

AUSTRIA.—The Emperor received on Saturday the members of both the Austrian and Hungarian Delegations. The two Presidents—Prince Carlos Auersperg and Count Majlath—delivered addresses, in which they expressed sentiments of attachment and fidelity to the Emperor. His Majesty, in reply to Count Majlath, said he hoped the Hungarian Delegation, which had been summoned to exercise the influence which the Hungarian kingdom possessed over the common affairs of the State on an equal footing with the Cis-Leithan provinces, would, by its united co-operation, lead to the result of practically maturing the institution of the Delegations by adding to the credit of the monarchy, strengthening peace and confirming the public confidence. In reply to Prince Carlos Auersperg, his Majesty said it would give him sincere satisfaction to see the Delegation of the Reichsrath harmoniously coalescing with the Hungarian Delegation to preserve the power and honour of the Empire, and to develop the welfare and contentment of the different peoples of the Monarchy. His Majesty added that this would always be the surest guarantee for the maintenance of peace at home and abroad, for every State institution required respect and confidence in order to win friends and pre-serve tranquillity. The Archduke Wilhelm has been appointed Commander-in-Chief of the Landwehr in that portion of the Empire which is represented in the Austrian Reichsrath. General Baron Schmerling has been appointed his deputy in command. The German Railway Congress was opened in Vienna on Monday, under the presidency of Privy Counsellor Fournier.

HUNGARY.—The Bills relating to the appointment of judges, the Hungarian Western Railway, and the Hungarian-Galician Railway, have received the Royal sanction. The sittings of the Diet have been adjourned until October.

TURKEY.—The *Levant Herald* states that the French Minister of Foreign Affairs has forwarded a protest to the Porte against the abrogation of the capitulations. Preparations are being made for the reception of the Empress Eugénie at the Beglerbeg Palace. It is asserted that negotiations for the issue of a loan of ten millions sterling are still pending.

GREECE.—The Chamber has assembled, and on the first vote taken on the subject of the election of the members for Corinth the Ministry had a majority of 92 to 53. The Chamber has since concluded the verification of the elections, and the majority of the Government is confirmed.

RUSSIA.—A letter from St. Petersburg announces that Komissarow, who in 1866 saved the life of the Emperor Alexander by turning aside the arm of an assassin, has hanged himself in his hotel, at the age

Home News.

DEPARTURE OF THE COURT FOR OSBORNE.—The Queen accompanied by Prince and Princess Christian, Princess Louise, Prince Leopold, and Princess Beatrice, Prince Christian Victor and Prince Albert of Schleswig-Holstein, left Windsor at 9 o'clock on Tuesday morning for the Isle of Wight, and arrived at Osborne at noon. On Wednesday the Dean of Windsor officiated at a visit.

COURT AT WINDSOR.—On Friday the Prince and Princess of Wales visited the Queen, and remained at Osborne. Their Royal Highnesses left the Castle in the afternoon for Marlborough House. Madame de Meurville and Mademoiselle de Cassandre Musurus were at the Castle for London. The Marquis and Marchioness of Ailesbury and the Marquis of Lansdowne arrived at the Castle on a visit. The Right Hon. W. E. Gladstone had an audience of the Queen. On Saturday Prince Arthur arrived at the Castle at Greenwich Park. Mons, Madame, and Miss Van de Weyer and Miss Alice Van de Weyer also arrived on a visit. On Sunday morning the Queen, Prince Arthur, Prince Leopold, and the Princesses, attended Divine service in the private chapel. The Rev. Naunton Southam, vicar of Scawby, preached the sermon. In the afternoon the Queen drove out, with Princess Louise and Prince Arthur. On Monday morning the Queen went out with Prince Leopold and the Princesses. Prince Arthur left the Castle for Greenwich Park. Mons, Madame, and Miss Van de Weyer and Miss Alice Van de Weyer also left the Castle. In the afternoon the Queen drove in the grounds with Princess Beatrice.

THE PRINCE AND PRINCESS OF WALES.—On Friday the Prince and Princess visited the Queen at Windsor, and in the afternoon visited the Grand Duchess Marie of Russia at Claridge's Hotel. In the evening the Prince and Princess, accompanied by the Grand Duchess Marie of Russia, went to the Royal Opera, Covent Garden. On Saturday the Prince, accompanied by Prince Arthur, went to Wimbledon, and was present at the review. The Princess drove out. On Sunday the Prince and Princess attended Divine service at the Chapel Royal, St. James's. The sermon was preached by the Rev. Canon Melvill. On Monday the Prince and Princess left Marlborough House for Worsley Hall, on a visit to the Earl and Countess of Ellesmere. On Thursday the Royal Highnesses left Manchester for Hull, where the Prince opened the new docks, and returned in the evening to Marlborough House. It is understood that the Prince and Princess will not be present at the Woodstock Races this year, as it is their intention to go shortly to go to Wildbad for the benefit of the Princess's health.

THE GRAND DUCHESS MARIE OF RUSSIA was called at Claridge's Hotel on Saturday by the Duke of Cambridge, the Duchess of Cambridge, and numerous members of the aristocracy. On Sunday her Imperial Highness attended Divine service at the Russian chapel in Whitehall Street, and afterwards visited the Prince and Princess of Wales and Earl Granville. The Grand Duchess afterwards took a drive in the parks. On Monday her Imperial Highness left Claridge's Hotel for the Isle of Wight.

THE CABINET.—A Cabinet Council was held on Monday in Downing Street. Another Council was held on Wednesday.

THE NAVY.—Admiral Sir George Sartorius has been appointed Admiral of the Fleet, Admiral Sir Fairfax Moresby has been appointed Vice-Admiral, and Admiral Sir Provo William Parry Wallis has been appointed Rear-Admiral of the United Kingdom.

OFFICIAL APPOINTMENT.—Mr. Gladstone has appointed Mr. J. C. O'Dowd to be Deputy Judge-Advocate-General of the Army, in succession to Mr. Arthur Lushington, Q.C., appointed Secretary of the Admiralty.

DECEASE OF BISHOP JENNER.—It is understood that Dr. Jenner, who was consecrated Bishop of Exeter by the late Archbishop of Canterbury, is about to return to England, the synod of the diocese being unwilling to recognise him, and both clergy and laity being opposed to his high ritualistic views. Dr. Jenner for many years prior to his consecration held the vicarage of Preston, Kent, and as he was not compelled to resign it, he will probably take up his residence there as vicar on his return to England.

THE FLYING SQUADRON.—Admiral Hornby's Squadron, consisting of the frigates and corvettes *Porpoise*, *Thetis*, *Lifey*, *Endymion*, *Scylla*, and *Bristol*, arrived at Madeira on the 1st inst., having performed

of 35. A mere journeyman hatter, he owed to the chance which placed him in the path of the Czar's elevation, at one stroke, to the highest pinnacle of fortune. His plebeian name was replaced by that of Kostromski, and the Emperor's munificence gave him a landed estate. He was named colonel of a regiment of the Guard, and the Emperor authorised the opening for him of a national subscription, which produced nearly 2,000,000*l.* In spite of this abundance of honour and riches he has committed suicide. The abuse of spirituous liquors is said to have been the cause of his lamentable end.

ABYSSINIA—Information has been received which removes all doubts respecting the fate of Mr. and Mrs. Powell and party. Mr. Walter Powell, M.P., the brother of the deceased gentleman, has just returned from Alexandria, where he had gone to deliver a firman granted by the Viceroy of Egypt, directing a strong military escort to be provided for Mr. Henry Powell and Mr. Jenkins, who have gone in search. It has been ascertained that Mr. Powell and party were attacked and massacred by the Tekali tribe, and not by the Bezan tribe as first reported. Mr. Powell was speared on his bed as he was lying awake at early morning. His wife, who was standing a short distance off, was speared also, and managed to stagger to the body of her husband, when she fell. The murderers then speared Mr. Powell's little son, and finished the butchery with stones. Mr. Powell shot two of the assassins before he died. The Bezans afterwards came upon the murderers, and compelled them not only to relinquish the booty, but to deliver up the bodies. The Bezans then conveyed the bodies to the Swedish missionaries, by whom they were properly buried.

INDIA—It is confidently expected that the Kirghese tribes south and south-west of Orenburg have risen *en masse* against the Russians. Turkestan is believed to be in a disturbed condition. The fugitive Sirdars of Cabul, Azim Khan and Abdool Rahman Khan, have been hospitably received in Persia, but are treated simply as refugee princes, and have been told that Persia will do nothing towards aiding them in any attempt to re-establish themselves in Afghanistan. The men concerned in the well-remembered "Prema conspiracy," shortly before the first Sikh war, and who have been in prison ever since, have been released by the Government of India. Cholera has made its appearance among the Royals at Nusseerabad, though, it is hoped, not in a malignant form. The Artillery and Native Infantry at the station are free from the scourge. The re-marriage of a young Hindoo widow was celebrated in Bombay last month, under the auspices of the Widow Remarriage Association. It is stated that 300 men of the 100th Foot at Secunderabad have seceded from the Church of England, in consequence of the ritualistic practices of the chaplain at Trimulgherry.

CHINA—A proclamation hostile to foreigners has been posted by secret societies along the Yangtse river. A picnic party at Harkow, including the British Consul and his wife, had been driven away by a mob upon the pretence that they had come for the purpose of boiling and eating children. The Government has promised to investigate the affair. Meanwhile the gun-boat Opossum has anchored at Ichang. A conspiracy has been discovered at Soo-chow to open another Taeping rebellion; the conspirators number, it is reported, 50,000, and it is part of their plan to capture Soo-chow, Huchow, Hanghow and Shanghai. Several Chinese Hongs have combined together to establish an agency in London. The Yangtse exploring party have returned to Shanghai.

JAPAN—The Mikado was preparing to leave Yeddo for the purpose of avoiding a public reception to the Duke of Edinburgh. An ample apology has been made to Captain Stanhope and Mr. Robertson, her Majesty's Vice-Consul, for the insult to which they were recently subjected in being compelled to dismount before a passing noble. The Mikado's forces have captured Hakodadi, which was occupied by the rebels. An earthquake has occurred at Yokohama. Little damage was done. A steam-ship, formerly the Confederate cruiser, Tallahassee, has been wrecked near Yokohama; 22 lives, including the captain, were lost, but the greater part of the passengers and crew were saved.

UNITED STATES—Warren and other leaders of the Fenian party waited upon several Cabinet Ministers on Wednesday, and urged immediate action to secure the release of Halpine and other Fenian and Irish-American prisoners in Great Britain. It is reported that Mr. Boutwell and Mr. Robeson promised acquiescence, while Mr. Hoar declined, and strongly denounced Fenianism, declaring that the Fenian raiders against Canada were principally composed of thieves and desperadoes. The United States' Marshal at New York on Monday night captured the remnant of Ryan's Cuban filibuster expedition, near Hoboken, New Jersey. Ryan, with a few others, escaped. The Marshal has telegraphed to the President that this is supposed to be the end of Cuban operations at New York. No expedition has succeeded in leaving New York for many weeks, and President Grant has ordered the naval and military commanders of New York fully to sustain the United States' Marshal in enforcing the neutrality laws. The Government opposition to the landing of the French cable on American shores has been removed. The Company have promised to abide by future Congressional legislation on the subject.

CANADA—Intelligence from Ottawa announces that the Government has pardoned the Fenian Father M'Mahon. The 1st of July, the second anniversary of the Dominion of Canada, was kept generally as a holiday.

CUBA—Insurgent prospects in Cuba are dim. Scarcely any fighting is now reported, and there is much sickness in both armies. General Caballero de Rodas has issued a proclamation declaring that all vessels transporting insurgents shall be treated as pirates. The Prussian

Consul-General at Havannah has cautioned Germans against joining the filibustering expeditions to Cuba, and stating that the insurrection in the island is rapidly subsiding since the enforcement of the neutrality laws by the United States.

BRAZILS AND PARAGUAY.—The former news of the two victories of the allies is confirmed. A body of 2000 Brazilian horsemen had succeeded in crossing the Upper Parana and effecting a junction with the army, and the position of Lopez in the Cordilleras had been completely surrounded. The French and Italian consuls had been declared deserters by Lopez. The revolution at Montevideo continues, and the northern departments have declared in favour of the movement.

Parliament.

In the House of Lords on Friday, on the motion to go into Committee on the Bankruptcy Bill, Lord ROMILLY moved that the Bill be referred to a Select Committee. Lords WESTBURY and CHELMSFORD also objected to proceed with the Bill at once, and Lord CAIRNS insisted especially on the necessity of weighing carefully the provisions as to the trader debtor and judgment debtor summons. The LORD CHANCELLOR hoped that the House would not adopt a course which would be tantamount to postponing to another session the reform of the Bankruptcy Law, the state of which had been for years a great scandal, while the appointment of a Select Committee would seriously prejudice the interests of litigants who had suits before the House. Lord ROMILLY's motion was then carried without a division. Several Bills were advanced a stage, and at 7 P.M. a suspension of business occurred, but the House was kept formally sitting to receive the Irish Church Bill from the House of Commons. On that being brought up, at 20 minutes past 1 o'clock, Earl GRANVILLE gave notice that on Tuesday he would move that their lordships do not insist on the amendments from which the Commons disagreed. On Monday Earl RUSSELL moved the second reading of Sir J. D. Coleridge's University Tests Bill, which had passed the House of Commons by a considerable majority. The Earl of CARNARVON moved as an amendment the "previous question." The Bishop of GLOUCESTER and BRISTOL supported the amendment; the Earl of MORLEY, the Earl of CAMPERDOWN, and Lord LYTTLETON opposed it. On a division the Bill was thrown out by 91 to 54. The Earl of LICHFIELD brought up the report of amendments to the Municipal Franchise Bill. The clause permitting female voting for local offices was resisted by Lord REDESDALE, but it was defended by Lords KIMBERLEY and CAIRNS, and the report was received. The Archbishop of CANTERBURY brought up the report of amendments to the Bishop's Resignation Bill. After some discussion, in which Lords LIMERICK and LYTTLETON, the Duke of SOMERSET, and Lords REDESDALE, HARROWBY, and DENMAN took part, the report was received, with some additional amendments. Several Bills were advanced a stage. On Tuesday, on the consideration of the message from the Commons respecting the amendments in the Irish Church Bill, Earl GRANVILLE suggested reasons why the House should adhere to the main provisions of the original Bill. Of the 62 amendments introduced by the Peers, 35 had been adopted by the other House, 14 re-amended, and only 13 positively rejected. The Government considered that it would be a breach of faith with the constituencies to accept the principle of concurrent endowment, and that the proposed plan of endowment was altogether impracticable; while the postponement of the application of the surplus would be utterly unstatesmanlike, tending to the destruction of all independent energy in the Irish Church itself, and to one continued battle of rival creeds. He moved that the House should not insist on its amendment by which it had struck out the prohibition in the preamble against applying the surplus for the maintenance of any Church, or for the teaching of religion. Lord CAIRNS contested the propriety of severing the discussion of the two amendments, and moved that the House do insist on its amendment in the preamble. He denied that the House of Commons had paid due respect to their amendments. In adhering to the amendment on the question of the surplus, he believed that their lordships would carry with them the opinion, if not the votes, of the majority in the Commons, and certainly the opinion of the country. The amendments which he considered vital, were the scale of commutation and the curates' compensation; and those on which he should advise the House not to insist, as there was some difference of opinion on his own side of the House concerning them, were the date of Disestablishment, and even the right of the Church to retain the Ulster glebes. The Earl of KIMBERLEY and Lord HALIFAX defended the proposal of the Government to consider the two amendments in the preamble separately. Earl GREY feared, considering the manner in which the amendments had been treated, that the Government attached less importance to passing the Bill than to degrading the House, and bringing it into collision with the Commons. He felt that it was now impossible to carry a measure of concurrent endowment, but the responsibility would rest with the obstinacy of Government in insisting on all the details of its own particular scheme, in preference to a modification which would be found to be really favoured by a majority in the country. The Marquis of CLANRICARDE supported the reservation of the surplus. The Earl of SHAFESBURY regarded the Bill as the most violent and revolutionary measure submitted to Parliament since the Reformation, but thought it prudent not to insist on the amendments. Earl RUSSELL thought the Government ought to have been satisfied with carrying a measure of practical disestablishment and disendow-

ment, without inserting in the preamble the dogmas, which might be interpreted as a trap for entrapping the Legislature into an admission of the inexpediency of all religious endowments. EARL ARGYLL said that Earl Grey, though the "libertine of debate," had exceeded the bounds of violating the decencies of debate as to the object of the Government was to bring a measure between the two Houses. He also censured a speech of Earl Russell's. The Marquis of SALISBURY said that his reason for opposing the project for appropriating the surplus was not false and that it was foolish. In the first place it implied a partial application of the surplus to the teaching, and in the second place it was a violation of the House of Commons, which distinguished itself, like a drunkard taking the pledge, by its ing its mind in the future. The only argument was that the House of Commons had passed the only reason why that House had done so was that the Prime Minister had bid it. Why the House should bid it he could not search deep enough in the rithine recesses of that mind to detect, but that Mr. Gladstone had desired to give a slap on the face. He believed that it was an occasion as the present which made it the House of Lords to interpose between the arrogant will of one man. After some remarks the Bishop of LONDON in favour of the amendment on the ground of his objections to the secularisation of Church property, a long discussion arose on the question whether the vote should be taken on the negative and the positive part. The debate was terminated by a motion of the Duke of MARLBOROUGH that the House should insist on the amendments to the preamble. On this motion the LORD CHANCELLOR addressed the House, and delivered a very warm and bitter rebuke to Earl GRANVILLE and the Marquis of SALISBURY for their personal attacks against the Government, particularly Mr. Gladstone. A scene of extraordinary confusion then ensued. The Duke of MANCHESTER and the Earl of WINCHESTER condemned the speech of the Lord Chancellor. Earl GREY, while accepting the expansion of the Government, repeated his accusations against the House divided when Lord Cairns' amendment of the House should insist on the amendments to the preamble, was carried by a majority of 75, the vote being 173 to 95. The debate was then adjourned. On Thursday Earl GRANVILLE, who declared that a division he could not take the responsibility of moving further without consultation with his colleagues. On Thursday Earl GRANVILLE stated that he had consulted his colleagues with regard to the amendments to be pursued after their lordships' decision on Tuesday and that they were anxious that the discussion of the other amendments should be conducted in a spirit of peace and conciliation. He then moved that their lordships should not insist on the amendment of the date of the Bill from January, 1871, to May. Lord CAIRNS stated that since the adjournment on Tuesday he had had a conference with Lord GRANVILLE and that they had both agreed that the amendments which remained were not many in number, and that they were incapable of solution. The date at which the Bill was to come into operation was of secondary importance; he was therefore ready to accept the date originally proposed. On the question of curates, too, he advised their lordships not to insist upon their amendments, and to take the same course with respect to residences; but with regard to the commutation of annuities the Government suggested a compromise which he thought might be accepted, and which was, that if three-fourths of the clergy in a diocese resolved to commute their annuities, they should practically have 12, instead of 7 per cent. The only question then remaining would refer to the 68th clause, dealing with the surplus, and the compromise offered by the Government on that point was that the clause should be amended so as to provide that the surplus should be applied to the relief of an unavoidable calamity, in such manner as the Government should hereafter direct; but not a sum of money it would be applied without the separate sanction of Parliament. He apologised for having entered on such a negotiation without the authority of his party, and intimated that he was of opinion, much as he disliked the whole business, that concessions were preferable to leaving the controversy in suspense for months. The Bishop of CANTERBURY, the Earl of CARNARVON, the Marquis of SALISBURY, the Earl of MANSFIELD, and the Duke of MARLBOROUGH expressed their willingness to accept the compromise. Lord RUSSELL declared that he was more disposed to credit to the leader of the Opposition than to the Government a satisfactory result. Earl GREY, the Duke of LANCASTER, Lords HALIFAX, HARROWBY, and ARTHUR CLIVE also expressed their assent to the compromise. The Earl of Bandon and the Bishop of Exeter protested against it and the Bill. They stated that their lordships should not insist on their amendment as to the date was then agreed. The other amendments were also disposed of in accordance with the compromise. On the motion assenting to the Commons' reasons for rejecting the Lords' amendments to the 27th clause, relating to ecclesiastical residences, a division was called for, the motion being carried by 17 to 17. In consequence of Earl GREY's objection to the insertion of the words "and to attempt to bind future Parliaments," but he did not press his objection. A committee was then appointed

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up reasons in respect of those of the Commons' amendments from which the House had disagreed. Yesterday the Bill was ordered to be reported. Yesterday the Duke of ARGYLL laid on the table despatches from the Governor-General of India on the question of the construction of railways, and made a financial statement respecting the Indian Empire. The House was

in the Commons on Friday, Mr. GLADSTONE moved that the House should agree to the first part of the Lords' amendment in clause 29 of the Irish Church Bill, the capitalisation of private endowments for the sum of half a million, but should disagree to the second part involving the gift of the Ulster glebes. Mr. DISRAELI, in supporting the Lords' amendment, said that the Church in Ireland, when disestablished, would have to compete on unequal terms with the Roman hierarchy in the world, and with a clergy unaccustomed in their discipline, and owing allegiance to a temporal as well as spiritual Power. Under the circumstances, he asserted that religious equality could not be established unless the humiliated Protestant Church were started in its new career with a substantial endowment. Mr. C. FORTESCUE, Mr. WATER, Mr. SERJEANT DOWSE, and Mr. M'CLURE remained on the idea that the Church would be unable to stand on its ground without assistance. Colonel W. PATTEN, Sir F. HRYGATE, Sir S. NORTHCOTE, Mr. BOUNDALL PALMER, Mr. CHARLEY, and Mr. NEWDEGATE supported the Lords' amendment as an act of justice, and Mr. CONOLLY declared that to take the glebes away would destroy the title of most of the Ulster landowners. Mr. GREGORY, on the other hand, contended that every glebe in the country ought to have been sold, and Mr. HADFIELD protested against the endowments. The House then divided, when the Lords' amendment on the Ulster glebes was defeated by a majority of 104, the numbers being 344 to 240. The amendment capitalising the private endowments was agreed to. All the Lords' amendments on the subsequent clauses up to 67 inclusive were, with trifling exceptions, struck out of the Bill. On reaching the 68th clause, providing for the ultimate application of the surplus, Mr. GLADSTONE moved that the House should disagree to the Lords' amendment reserving the appropriation to Parliament, and that the clause be restored to its original shape, whereby the surplus would be applied to the support of infirmaries, hospitals, lunatic asylums, and other charitable objects in Ireland. Mr. DISRAELI objected to the motion, on the ground that the views of the Government and public opinion were not sufficiently matured in reference to the appropriation of the surplus. An animated discussion ensued among the Irish members as to the most beneficial mode of applying the funds. Mr. G. H. MOORE said that not five out of the 105 Irish members approved the clause, which would lead to endless jobbery and waste, and was a simple concession to British bigotry. Several others concurred in this opinion, and Mr. W. H. GREGORY urged that the fund should be devoted to advance the material interests of the country in railway enterprise. Mr. BRIGHT defended the scheme as that which the Government, after the most minute inquiries, had found to be least objectionable. The only other plan was concurrent endowment, which the House had decisively rejected, and the opposition to which was growing, not only among Nonconformists, but even in the Church. It was repudiated, moreover, by the Roman Catholic bishops and Irish members, and to send back the surplus under the idea that endowment in Ireland might be extended at some future time would be to leave an embarrassing legacy to a succeeding Parliament. Mr. WALPOLE urged a postponement, on the ground that the Government could not possibly have consulted the feelings of those not interested, and that the use proposed to be made of the money—the relief of landlords and occupiers—was most improper. On a division, the Lords' amendment was negatived by a majority of 72—290 to 218. The result seemed to be hailed as a victory by both sides, and the contest in cheering was prolonged for some time. The clause was then restored to its original form, with a few amendments, and the addition of the proposed compromise on the Commutation clause (23), adding 7 per cent. to the value of the life interests where four-fifths of a diocese decided on commutation, was next considered, when Dr. BALL accepted it, with a few verbal criticisms. On the question that the Bill be returned to the Lords, Mr. DISRAELI expressed his deep regret that the House, under Mr. Gladstone's advice, should have repudiated the amendments of the Lords after the magnanimity they had displayed in reading a second time a Bill to which they were notoriously adverse. One of the inducements offered to them was the promise of Earl Granville that their amendments would be seriously considered. But though the Government on the Lords had accepted some of these amendments, the imperious spirit which guided the fortunes of that House in defiance of his colleague's pledges, had insisted on their rejection, with a few exceptions too trivial to be remembered, while Mr. Bright had gone so far as to threaten the House with dissolution if they did not obey the Government. Mr. GLADSTONE indicated his course in regard to the amendments, and expressed his deep conviction that, though there might be trials to be passed through, the Irish Church would at some future day look back to the passing of this Act as the day of her regeneration. Mr. HARDY repeated Mr. Disraeli's charge that Mr. Bright had actually threatened a dissolution, and contended that there had been throughout a want of generosity to the House of Lords and a contempt of equity and justice towards the Irish Church. Mr. BRIGHT disclaimed the threat of dissolution, and charged Mr. Disraeli and Mr. Hardy with violating the ordinary rules of Parliamentary warfare. After some further altercation, a

Committee was appointed to draw up reasons for differing from the Lords' amendments. These reasons were afterwards read from the chair and formally approved. The Telegraphs Bill was read a second time, and referred to a Select Committee. On Monday the House went into Committee of Supply, when Mr. W. E. FORSTER moved the remainder of the vote for education. He said that the total amount required for the year was \$40,711, an excess over the previous year of 59,387. This excess was almost entirely in England and Wales, and consisted for the greater part of additional grants to day and evening schools. In the past year there had also been a considerable increase in the number of pupil-teachers, as well as of admissions to training colleges. But, on the other hand, of the children of the working classes proper, only one-fourth of those between six and 10 years, and one-fifth between 10 and 12 were receiving a real education. A long and desultory conversation ensued, not so much on the merits of the vote as on suggestions for the Education Bill, which the Government will introduce next year. The other votes taken were Science and Art Department (225,253*l.*) and British Museum (113,203*l.*). Sir G. GREY withdrew his Bill for the disfranchisement of the Dublin freemen in favour of the Government measure for proceeding by Commission. On the order for going into Committee on the Dublin Freemen Commission Bill, Mr. COLLINS moved an instruction with the view of including Yougal in the inquiry. Mr. MAGUIRE opposed the motion, which was negatived on a division by 184 to 78. As soon as the House had gone into Committee Mr. LOWTHER moved that the Chairman leave the chair. After an animated discussion the motion was negatived by 187 to 75, and the Bill then passed through Committee. The County Administration and the Mines Regulation Bills were withdrawn. The Trades' Union Protection of Funds Bill was read a second time. On Tuesday Mr. Ayrton moved the second reading of the Metropolitan Board of Works (Loans) Bill, the object of which was to empower the Board to raise money for the completion of the works entrusted to them, and to consolidate the loans they have already raised into a stock, with the same privileges of transfer, investment, &c., as Government stock, always under the control of the Treasury. After a long discussion the Bill was read a second time and referred to a Select Committee. In answer to Mr. MAGUIRE, Mr. BRUCE said that the Prison Ministers Act, brought in by Sir George Grey some years ago for providing religious teaching to Roman Catholic prisoners, had been a failure in the metropolis, and he saw no remedy but to give the Secretary of State power in certain cases to compel the appointment of paid Roman Catholic chaplains. On the order for resuming the adjourned debate on the Marriage with a Deceased Wife's Sister Bill, Mr. J. G. TALBOT moved that the order be discharged. Mr. BERESFORD-HOPE suggested that the Bill, at this late period of the year, should be withdrawn for the session. Lord BURY supported this suggestion. Mr. GLADSTONE opposed it, and said that he had come to the conclusion that these marriages ought to be legalised, and that it should be left to each religious denomination to determine their religious character. After some further discussion the motion that the order be discharged was defeated by a majority of 86—143 to 57. Sir JOHN HAY then moved the adjournment of the debate, which was defeated on a division by 145 to 48. Two instructions moved by Mr. COLLINS and Mr. MONK—one to extend the Bill to marriages with a deceased husband's brother, the other negatived without a division, and the House went into Committee. The first clause, extending the retrospective effect of the Bill to Scotland and Ireland, met with strong opposition, which was prolonged until 2 o'clock, when the Committee was adjourned before the clause was agreed to. On Wednesday Mr. F. A. MILBANK, referring to the language used on the preceding evening in the House of Lords by the Marquis of Salisbury, asked the Speaker whether any apology or redress could be demanded from a peer who had used language insolent towards the leader of a great party, and insulting also to the dignity of the House of Commons. The SPEAKER said that the question was neither one of "order" nor of "privilege," and could not with propriety be put in the House of Commons, which was not supposed to be cognisant of what had taken place in the House of Lords. The second reading of the Hypothec Abolition (Scotland) Bill, after a long discussion, was carried on a division by 127 to 91, on the understanding that the measure would not be proceeded with further this session. The Adulteration of Food or Drink Act (1860) Amendment Bill, the County Coroners Bill, the Suburban Commons Bill, and the Special and Common Juries Bill, were withdrawn. The adjourned debate on the third reading of the Married Woman's Property Bill was resumed by Mr. C. RAIKES, who moved as an amendment that it be read a second time that day three months. Mr. JESSEL supported the Bill, Mr. BERESFORD-HOPE opposed it. On a division the third reading was carried by 131 to 32, and the Bill was read a third time and passed. The Railway Construction Facilities Act Amendment and Cinque Ports Act Amendment Bills passed through Committee. On Thursday Mr. SARTORIS asked whether the University Tests Bill would be included in the general education measure of last year. The SOLICITOR-GENERAL, in reply, said that after the contemptuous treatment his Bill had met with at the hands of the Lords he had not taken upon himself to ascertain the intentions of the Government. Mr. BRUCE withdrew the Petroleum Bill, but contradicted the report that the Habitual Criminals Bill was to be dropped. Lord BURY called attention to the disturbed state of New Zealand, and earnestly pressed the Government not to withdraw from it the sympathy

and countenance of the mother country. Mr. MONNELL defended the action of the Government on the general ground of policy, and said that, having given the colonists the complete management of their own affairs, we ought to leave them to carry it on without assistance. Mr. ANDERLEY strongly deprecated the smallest step backwards towards the old meddling system, which was at the bottom of all the misfortunes of New Zealand. The House then went into Committee of Supply, and agreed to several votes in the class of salaries and in that of Education, Science, and Art. The Irish Church Bill, as amended, was brought down again from the Lords and laid upon the table, amid cheers from below the gangway. Yesterday, on the order for the consideration of the Lords' Amendments and Reasons in the Irish Church Bill, Mr. GLADSTONE moved that the House should agree to the Bill as amended by the Lords, without exception or alteration. He described the manner in which the Government had assented to the amendments and said that considering the interests affected by the Bill, and the mischief which would result from its not being passed, they had concluded to recommend the House to make sensible and substantial concessions. Mr. DISRAELI expressed his opinion that the compromise had been effected on a fair, wise, and conciliatory principle, but now the Bill had been passed, he hoped that this would be the last occasion on which the right hon. gentleman would attempt to deal with political questions on abstract principles. After some discussion the amendments were considered and adopted amid loud cheers. The House was left sitting.

City Intelligence.

MONEY MARKET, FRIDAY.—BRITISH FUNDS: Consols closed at 93½ to 93¼, both for Money and Account; New and Reduced Three per Cents, 93¼ to 93¼, Bank Stock, 243 to 245, Exchequer Bills, 3s. to 7s. pm. for March, and 7s to 11s pm for June; India Five per Cents, 111½ to 112.—FOREIGN—Argentine, 79½ to 80½, Egyptian, 1864, 92 to 93, Ditto (1868), 78½ to 78½ ex div., Viceroy Seven per Cents, 81½ to 82½, Ditto Nine per Cents, 97½ to 98½, Mexican, 12½ to 12½, Italian, 55½ to 55½, Peruvian, 77½ to 78; Russian (1866), 94 to 95, Orel, 83½ to 83½, Charkof, 82 to 82½; Moscow, 81½ to 81½, Nicolas, 67½ to 67½; Spanish, 29½ to 29½, Turkish Five per Cents, 44½ to 45; Ditto Six per Cents, 44½ to 45, United States 5-20 Bonds, 82½ to 83; Erie, 18½ to 19½, Illinois, 94½ to 95.

Metropolis and its Vicinity.

THE WIMBLEDON MEETING AND REVIEW.—The rifle competition at Wimbledon was completed on Friday. The Commander-in-Chief paid a visit to the camp, and the flying column from Aldershot, including infantry, cavalry, and artillery, arrived and encamped within the enclosure. A grand display of fireworks and a dinner took place at night, in honour of the Belgian visitors. On Saturday the meeting was brought to a conclusion with the distribution of the prizes to the successful competitors by the Princess Christian, and with a grand review of the volunteers and the flying column from Aldershot. The weather was very hot, but with a pleasant breeze, and the crowds were enormous, larger, it is said, than on the occasion of the Sultan's visit two years ago. The distribution of prizes was only relieved from tedium by the presence of the Princess, but the result that followed made up for all that was wanting. The Duke of Cambridge was accompanied by the Prince of Wales, in the uniform of Colonel of the Rifle Brigade, by Prince Arthur, in the uniform of the Royal Artillery, and by Princes Christian and Teck. Among the staff were Generals Lord W. Paulet, Sir H. Grant, Sir A. Horsford, Hamilton, and Russell. The total number of troops engaged was between 12,000 and 13,000, the flying column from Aldershot numbering 4,000, and the volunteers being rather more than twice as many; but this number was made up of a variety of separate corps, most of the regiments who in the early days of volunteering were the great corps of the force being scarcely represented at all, the Wimbledon review having, it is said, become unpopular among them. A march past the Commander-in-Chief and the Prince of Wales concluded the business of the day.

DR. LIVINGSTONE.—Mr. H. A. Churchill, her Majesty's Consul at Zanzibar, who has just arrived in this country, speaks with confidence as to the safety of Dr. Livingstone, from whom he has had letters of a date more recent than that of his reported murder. It is his opinion that Dr. Livingstone, having heard of the discovery of the northern portion of Lake Albert Nyanza by Sir S. Baker, has directed his route in search of the southern boundary of that lake, and that in the course of a few months further news will be heard from Dr. Livingstone himself.

THE FRENCH ATLANTIC CABLE.—The following is the text of the telegram sent from St. Pierre on July 14 to the Emperor Napoleon—

"Sire.—We have the honour to forward to your Imperial Majesty the first telegram passed through the French Atlantic Cable, announcing the satisfactory completion of the main section of that important work, and to congratulate your Imperial Majesty on the establishment of telegraphic communication between France and the island of St. Pierre by a cable of 2583 knots long, laid in water in some parts 2760 fathoms deep. The remaining short section, from St. Pierre to Duxbury, in shallow water, will be laid in the next eight or 10 days, thus completing direct telegraphic communication between France and the United States. May this great work contribute to the welfare and happiness of your Imperial Majesty, and of the two great countries which are brought into closer connection by its means.—D. GOUGH, J. ANDERSON."

The Emperor replied:—"Je vous felicite de l'heureuse réussite de votre grande entreprise, et je vous remercie de m'en avoir fait part."

WOMAN SUFFRAGE.—On Saturday afternoon the

It was stated that the amount of the subscription was 1350l., and that the amount realised was 1400l. An annuity for Mr. Hudson was purchased in the North British Office at 12 1/2 per cent, and 1000l. invested in the same office would produce 51 1/2 per annum. It was agreed that the subscription be in the name of an annuity for Mr Hudson's benefit, and that there be no power of anticipation of the amount becoming liable for the benefit of other persons.

Wearmouth Colliery strike, by the stoppage of the workings of the colliery have been suspended for two months, and about 1200 men have been out of work.

William Hall, who was convicted for the wilful murder of Eliza Bowen, was executed at this town, under a sentence of remarkable atrocity, the bill was read by the grand jury at the assizes on Wednesday.

Fatal colliery explosion occurred on Monday morning in the 9-foot mine at the colliery, Haydock, belonging to Messrs. Evans and Co. from this town, at the same pit there was an explosion in December last, when 100 colliers went down in the mine.

Explosion at 11 A.M., about one-third of the shaft; one man has died since he was taken out, and the searchers are groping in the shaft for others who are believed to be there.

Thomas Rosser, who stands charged on his indictment with the murder of Jane Edwards, in the County of York, was re-examined on the 8th inst. The evidence having been read over, and some corroborating the prisoner's statement, the magistrate decided to send him for trial.

The Prince of Wales has intimated to Sir Wombwell, Master of the York and Ainsty Hunt, to hunt with the Yorkshire hounds. His Highness will bring his own stud of hunters, and will take up his quarters at the North-Eastern Hotel in this city.

Ireland.

ROYAL VISITS TO IRELAND.—It is announced by a journal that the Lord-Lieutenant has received notification of her Majesty's intention to pay a visit of some duration to Ireland next year. It is also stated that the Prince and Princess of Wales will be present at the National Horse Show, in Dublin, on the 27th of August and three following days; and that the Royal Highnesses will be the guests of the Lord-Lieutenant.

ATTEMPT TO ASSASSINATE A HIGH SHERIFF.—On Monday morning, Mr. Warburton, High Sheriff of the County, was fired at while driving to Maryborough to swear in the grand jury. The assassin was concealed in a wood at Killeen, behind a wall 7 feet high, and fired in an oblique direction 10 yards' distance into Mr. Warburton's face. The shot penetrated his eye, and wounded the side of his head. The man was raised too high, and the greater part of the charge riddled his hat. Richard Kenny, his driver, who was seated behind him in the two-horse carriage sprang beside his master, drove furiously into Maryborough, and placed Mr. Warburton under the care of Dr. Jacob, the medical officer of the County. The constabulary searched the wood, and recovered some old clothes and two sacks, which they formed the assassin's bed. The outrage is being investigated. Mr. Warburton is doing well, and hopes of recovery are entertained. The magistrates of the County have offered a reward of 500l., and the grand jury at the assizes have offered a similar sum, for the discovery of the assassin.

Railways.

RAILWAY COLLISIONS.—On Saturday morning a collision occurred at the Lostock Hall Junction of the Lancashire and Yorkshire and East Lancashire. At this point there is a loop line upon which a goods coal train was standing. An express train was approaching the junction line at the moment when another train was also approaching it. The driver of the latter, owing to the curve, could not see the goods train, and the excursion train consequently ran into it at a rather rapid rate. Five trucks were crushed to fragments, and their contents scattered over the line. Fifteen persons were cut and bruised, but fortunately no very severe injuries were sustained. A fatal accident occurred on Saturday to an excursion train from Crewe to Liverpool. The train was one of about 600 members of the Crewe Railway stores and their friends, the train being composed of 22 carriages. Just after passing Winsford a coal train of 20 trucks was shunting to clear the line, but had not got quite clear, when the goods train of the excursion train came into collision with it. The third-class carriage was entirely destroyed, and the girl 7 years of age, daughter of Mr. Anderson, of Liverpool, who was returning home from Crewe, was killed, and several of the other passengers were severely injured.

Law.

COMMITTEE OF THE PRIVY COUNCIL: The Bishop of Capetown.—Judgment in this case was given on Tuesday by Lord Justice Giffard, in the presence of Sir James W. Colville, and Sir J. Napier. It was an appeal of the Bishop of Capetown against the judgment of the Supreme Court of Natal, which decided that the Bishop of Capetown was the rightful possessor of the cathedral of Peter Maritzburg. The cathedral had been vested in 1854 in Dr. Gray as Bishop of Capetown. In 1858 the House of Capetown was split into two parts. One part went with the Bishop of Natal, and the other with the Bishop of Capetown. The latter part was sold to the Bishop of Natal, and the former part was sold to the Bishop of Capetown. The Bishop of Natal, however, claimed that the cathedral was his by right, and that the Bishop of Capetown had no right to it. The Supreme Court decided in favor of the Bishop of Natal, and the Bishop of Capetown appealed. The Privy Council, however, decided in favor of the Bishop of Capetown, and the Bishop of Natal's appeal was dismissed.

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OXFORD CIRCUIT: WORCESTER.—The *Bellefleur* case was heard on the 27th inst. The prisoner was charged with the wilful murder of her husband, Joseph Oliver, at Berkeley. The prisoner was a milliner and also in the course of her business cleaned bonnets, for which purpose she used poisonous drugs. The death of the husband was attributed to arsenical poisoning, and the motives by which it was presumed the prisoner was actuated in committing the crime were twofold. First, that she had contracted an improper intimacy with a man named Bree, and secondly, that her husband had money in a building fund, and that she had been drawing it out without his knowledge, and had exhausted the fund. It was proved that she purchased arsenic in April last, and gave a false name and address. She also bought some vermin powder used for killing mice, and mixed part of it with some tapioca pudding, which remained in the house for three weeks, until it became mouldy. A servant girl ate some of the pudding and became ill afterwards, when the prisoner blamed her for taking it, and said she had put the vermin powder in it to kill the mice. A witness was called who gave evidence that he had seen the prisoner give him his medicine. The doctor was called in on the 27th of April, and for six weeks the deceased continued ill, and eventually died. On one occasion some milk was given to the deceased, after which he was sick. Deceased's mother also tasted the milk, and was not ill. Dr. Hill who made a small quantity of the pudding, and the witness who died from arsenical poisoning. A few days before the death of the deceased, prisoner said to one of the witnesses, "If a little extra drop (or dose) would take him off, I'd give it him." These facts being proved, the jury returned a verdict of *Guilty*, with a recommendation to mercy. The prisoner then addressed the Court in a long and incoherent statement, in which she called God to witness that she was innocent. Baron Pigott, having put on the black cap, passed sentence of *Death* in the usual form.

WESTERN CIRCUIT: DORCHESTER.—The *Portland Murder.*—*Joseph Liddell*, the convict at Portland, was convicted on Thursday of the murder of one of the warders, and sentenced to *Death*.

Sporting.

THE INTERNATIONAL UNIVERSITY BOAT RACE.—The Harvard College crew arrived in Liverpool on Monday, in the City of Paris steamer from New York, and reached Putney on Wednesday evening. They have temporarily taken up their abode at the Star and Garter, until they can suit themselves with a furnished house in the village or its neighbourhood. They have brought with them two four-oared racing boats, of the unusual length of 48 feet, about 6 feet longer than the average of English fours. The crew are a powerful set of men, all of them exceeding 12 stone, and one of them being nearly 13, thus giving them an average of nearly 12 stone and a-half. They have declined the challenge of the London Rowing Club, but the race with the Oxford University Boat Club will probably be rowed between August 16 and 31.

Obituary.

PRINCE ALESSANDRO ANDREA GONZAUA, Duke of Mantua, Prince Castiglione, &c., died on the 14th inst., at Norwood, in his 69th year.
BAYON BERTON died on the 8th inst., in Chester Street, Grosvenor Place. He was taken ill late on Wednesday night, and died of congestion of the brain. He was for many years in the civil-military service of the Danish crown, and Chamberlain to the King of Denmark. He married in 1847, the fourth daughter of Mr. John Gage of Rogate, Hants, and niece of the third Viscount Gage.
SIR ARTHUR C. H. RUMBOLD, BART., Governor of the Virgin Isles, died on the 12th ult. He was the third son of the third baronet, by the daughter of the first Lord Ranelagh, and was born in 1820. He succeeded his brother, Cavendish Stewart, as fifth baronet in 1853. He entered the army in 1837 as ensign in the 51st Regiment, with which regiment he served in New South Wales and Tasmania, and afterwards exchanged into the 21st Fusiliers, with which he served in Bengal, the Mauritius, and Cape of Good Hope. In 1844 he exchanged into the 1st West India Regiment, and afterwards removed to the 7th, till he held out in 1846. In 1849 he was appointed stipendiary magistrate at Jamaica, and held that office till 1855. He served with the Osmanli Cavalry during the late Russian war, and was brigade-major to Major-General Havelock, and held the rank of colonel in the Imperial Ottoman army, and received her Majesty's license to accept and wear the Order of the Medjidie. He was appointed President of Nevis in 1857, President of the Virgin Isles in 1862, and Administrator of St. Kitts and Anguilla from January 7 to April, 1867. He married, first, in 1848, the only daughter of the late Commandant de Kerouan; and, secondly, in 1868, the eldest daughter of Mr. E. Hopewell, of The Grove, Essex. Having no male issue, the baronetcy devolves on his brother, Charles Hale Rumbold.
SIR HENRY BOYNTON, BART., died on the 2d ult., at his seat, Burton Agnes, Yorkshire. He was the 10th baronet, was born

in 1811 and succeeded to the baronetcy on the death of his father, in 1874. He was twice married—first in 1835 to the second daughter of Mr. Walter Sturtevant of Southorpe Hall, Co. Down, and secondly in 1852 to the daughter of Mr. Thomas Hamilton of St. James's Palace, London. He was a member of the House of Commons from 1841 to 1852, and of the House of Lords from 1852 to 1874. He was a member of the Privy Council from 1852 to 1874. He was a member of the Council of the University of Cambridge from 1852 to 1874. He was a member of the Council of the University of Durham from 1852 to 1874. He was a member of the Council of the University of London from 1852 to 1874. He was a member of the Council of the University of Oxford from 1852 to 1874. He was a member of the Council of the University of Edinburgh from 1852 to 1874. He was a member of the Council of the University of Glasgow from 1852 to 1874. He was a member of the Council of the University of Aberdeen from 1852 to 1874. He was a member of the Council of the University of St. Andrews from 1852 to 1874. He was a member of the Council of the University of Perth from 1852 to 1874. He was a member of the Council of the University of Dundee from 1852 to 1874. He was a member of the Council of the University of Aberdeen from 1852 to 1874. He was a member of the Council of the University of St. Andrews from 1852 to 1874. He was a member of the Council of the University of Perth from 1852 to 1874. He was a member of the Council of the University of Dundee from 1852 to 1874.

THE DEAN OF DURHAM (the Very Rev. George Wainwright) died on Tuesday aged 76. He graduated at Trinity College, Cambridge, and gained honours at the University of Cambridge. He succeeded Dr. Jackson as the Dean of Durham in 1844, and was included on the 23rd of September of that year. On the death of Archbishop Henry he succeeded to the office of Warden of Durham University, and an Order in Council of the same date appointed him to the Deanery. He was Dean of the Cathedral of Durham from 1844 to 1874. He was a member of the Council of the University of Durham from 1844 to 1874. He was a member of the Council of the University of London from 1844 to 1874. He was a member of the Council of the University of Oxford from 1844 to 1874. He was a member of the Council of the University of Edinburgh from 1844 to 1874. He was a member of the Council of the University of Glasgow from 1844 to 1874. He was a member of the Council of the University of Aberdeen from 1844 to 1874. He was a member of the Council of the University of St. Andrews from 1844 to 1874. He was a member of the Council of the University of Perth from 1844 to 1874. He was a member of the Council of the University of Dundee from 1844 to 1874.

WILLS. The will of the Earl of Glasgow has been sworn under the personal seal of the late Viscount John Stuart, Bart., of Hackney Road, Yorkshire, and 34, Belgrave Square, London, the late Lord of Sturton, North, the Hon. Charles Fitzroy, 8th Lord, &c., the Hon. Martha Sophia Austen, 3rd Countess of Dowager Countess of Albemarle, Lady North, Countess of the Ven. James Croft, Archbishop of Canterbury, rector of Cliffe, and Saltwood, Kent, 10,000l.; Mr. James Sturm, of North Villa, Hampstead, 25,000l.; Mr. Peter Mass, of Portland Place, 550,000l.; Miss Jane Morris, Connaught Place, Hyde Park, 14,000l.; Mr. Adam Spillmann, late of Hereford House, West Brompton, 100,000l.; Mr. George Hall Lawrence, of Liverpool, 140,000l.; Mr. Henry Stanley Robert Pearce, of Winchester, 80,000l.; Mr. Edmund Robinson, of York, 100,000l.; Mr. Edward Lloyd, of York, 50,000l.; and Mrs. Martha Elizabeth Clark, of Addison Road, Kensington, 30,000l.

Markets.

COVENT GARDEN—July 24. There is a marked decline in the general trade, the London season being now virtually over. The supply of both home-grown and foreign produce is well kept up. Flowers consist of Orchids, Peperomias, Hyacinths, Anemones, Lilies, Mignonette, Heliotropes, Fuchsias, Gloxinias, Kalanchoes, Begonias, Rhodanthus, Mandarins, Campanulas, and Lilies, &c.

Table with columns for various goods and their prices. Includes items like Apples, Oranges, Pears, Grapes, Lemons, Melons, Artichokes, Beans, Beet, Cabbages, Carrots, Cauliflowers, Celery, Cucumbers, Endive, Garlic and Shallots, Herbs, Horse Radish, Leeks, Lettuces, Mint, Mushrooms, Onions, Parsley, Peas, Potatoes, Spinach, Radishes, Turnips.

Table for **HAY** prices. Includes Best Green Hay, Prime Meadow Hay, Inferior do., New do., Straw, and other types of hay and clover.

Table for **COALS** prices. Includes Hastings Hartley, Holywell Main, Walls End Haswell, Walls East Tunstall, Walls End Kelloe, Walls East Original Hartlepool, Walls End Brancepath Canal, West Wylam.

ENGLISH WOOL. Very little business doing of late, buyers having just stocked themselves pretty freely, but the market continues firm, and prospects are good.
CURRENT PRICES OF ENGLISH WOOL. per lb.—s. d. a. d.
FLEECES—Southdown hoggets 1 1 1 to 1 2 1
Half-bred ditto 1 2 1 to 1 3 1
Kent Fleeces 1 3 1 to 1 4 1
Southdown ewes and wethers 1 4 1 to 1 5 1
Leicester ditto 1 5 1 to 1 6 1
SORTS—Clothing 1 0 1 to 1 1 1
Combing 1 1 1 to 1 2 1
METROPOLITAN MEAT MARKET.—July 24.
Best Fresh Butter 15s. per dozen lb.
Second do. do 13s.
Small Pork, 4s. 8d. to 5s. 6d.; Large Pork, 3s. 8d. to 4s. 4d. per 8 lb.
METROPOLITAN CATTLE MARKET.
MONDAY, July 19.
There are not so many beasts as on Monday last; the demand has, however, considerably decreased, and lower prices are taken for all descriptions, several lots remain unsold. The number of Sheep is nearly the same as last week, trade is exceedingly dull, at lower prices; a clearance cannot be effected. Lambs and Calves are also lower. Our foreign supply consists of 2258 Beasts, 650 Sheep, 34 Calves, and

165 Pigs: from Ireland there are 80 Beasts; from Norfolk and Suffolk, 70; and 1692 from the Midland and Home Counties.

Best Scots, Herefords, &c.	5 2 to 5 4	Best Long wools	4 10 to 5 2
Best Shorthorns	4 10 - 5 0	Do. Shorn	.. ..
2d quality Beasts	3 0 - 3 8	Ewes & 2d quality	4 2 - 4 6
Best Downs and Half-breds	5 4 - 5 6	Do Shorn	.. ..
Do Shorn	.. ..	Lambs	5 0 - 5 8
Beasts, 4100; Sheep and Lambs, 29,700; Calves, 431; Pigs, 285.		Calves	3 4 - 5 2
		Pigs	3 8 - 5 6

THURSDAY, July 22.

The supply of fresh Beasts is very short, and they are readily disposed of, but trade generally is dull, and on the average prices are not better than on Monday. The number of Sheep and Lambs is larger than for some time past; trade is slow for Sheep. Lambs are rather dearer. Trade is heavy for Calves. Our foreign supply consists of 258 Beasts, 3920 Sheep, 528 Calves, and 75 Pigs.

Best Scots, Herefords, &c.	5 2 to 5 4	Best Long-wools	4 10 to 5 2
Best Shorthorns	4 10 - 5 0	Do. Shorn	.. ..
2d quality Beasts	3 0 - 3 8	Ewes & 2d quality	4 2 - 4 6
Best Downs and Half-breds	5 4 - 5 0	Do Shorn	.. ..
Do. Shorn	.. ..	Lambs	5 0 - 6 0
Beasts, 740; Sheep and Lamba, 16,390; Calves, 786; Pigs, 95.		Calves	3 4 - 5 2
		Pigs	8 8 - 5 4

LEADENHALL POULTRY, &c.

THURSDAY, July 22.

A falling trade, a heavy atmosphere, and full supply, which cause a general decrease in price.

Geese	each	.. ..	Pigeons	each	0 6 - 0 9
Goslings	.. ..	6 0	Tame Rabbits	.. ..	1 0 - 2 0
Turkeys	.. ..	.. ..	Wild Rabbits	.. ..	0 6 - 0 9
Turkey pullets	.. ..	.. ..	Wild Ducks	.. ..	.. ..
Ducks	.. ..	2 0 - 3 0	Pheasants	.. ..	.. ..
Ducklings	.. ..	3 0 - 4 0	Hares	.. ..	2 0 - 2 6
Surrey Fowls, couple	8 0 - 11 0	Dotterel	.. ..	2 0 - 2 6	
Do. chickens	5 6 - 7 6	Quails	.. ..	0 9 - 1 6	
Barn-door Fowls	5 6 - 7 6	English Eggs, p. 100	6 6 - 7 6		
Leverets	each	3 0 - 4 0	Foreign do	.. ..	6 0
Fresh Butter	1s. 0d to 1s. 2d.	per lb.			

MARK LANE.—MONDAY, July 19.

The supply of English Wheat to this morning's market was small, but a reduction of 1s. to 2s. per qr. being required by millers, sales were restricted, holders not being inclined to give way in price. There was a fair attendance, and foreign Wheat was taken to a moderate extent only at a decline of 1s. per qr. since this day se'nright. Barley is firm. Beans and Peas 1s. to 2s. per qr. dearer. In fine qualities of Oats there is no alteration, other descriptions 6d. per qr. cheaper. Flour is unaltered in value.

WHEAT, Essex, Kent, Suffolk. White	51-52	Red	40-50	
— fine selected runs.. do.	53-55	Red	51-52	
— Talavera	57-60			
— Norfolk	.. ..	Red	.. ..
— Foreign	42-62			
BARLEY, grind. & dist. 28sto32s. Chev.	.. ..	Malting	38-44
— Foreign.. grinding and distilling	24-30	Malting	32-40	
OATS, Essex and Suffolk	.. ..		
— Scotch and Lincolnshire.. Potato	25-33	Feed	.. ..
— Irish	30-32	Feed	23-28	
— Foreign	Poland and Brew	25-30	Feed	21-26
RYE	39-40	Foreign
RYE MEAL, Foreign			
BEANS, Mazagan	38sto40s.	Tick	42-43	
— Pigeon	43s to 47s	Winds	.. ..
— Foreign	.. ..	Small	38-42
PEAS, White, Essex, and Kent	.. ..	Boilers	40-41
— Maple 41s to 45s	.. ..	Grey	40-42
MAIZE	.. ..	Foreign	28-30
FLOUR, best marks delivered.. per sack	39-43			
— 2d ditto	.. ..	ditto	28-40
— Foreign	.. ..	per barrel	23-27
		Per sack	30-40	

FRIDAY, July 23.

Excepting one or two cold nights we have had hot and forcing weather since the 16th inst. Under the influence of a bright sun, and reports of rapid progress towards maturity of the growing crops, we have had very dull markets for Wheat throughout the kingdom, and prices have given way from 1s. to 3s. per qr., buyers generally holding back in hopes of buying at a still greater reduction; but we notice that in some of the leading places holders preferred looking on, and would not submit to the offers made by millers. Barley was a moderate sale at full rates. Beans and Peas, from scarcity, advanced about 2s. per qr. Oats moved off slowly, and prices were against importers. Flour gave way 1s. per barrel, and 1s. to 2s. per sack. The arrivals of grain and seed-laden vessels off the coast since Friday last consisted of 19 cargoes, of which, with those left over from last week, there remained for sale last night 14 cargoes. Business in Wheat arrived off the coast has been inactive during the past week, and the few sales made were at a reduction of from 1s. to 2s. per qr. Maize and Barley showed an improving tendency, and were firm throughout. In Rye no business transpired. In cargoes on passage and for forward shipment there was but little doing in Wheat; Maize continued in demand at a slight advance; Barley unaltered, Rye firm in tone.

The arrivals of all descriptions of English grain are small, of foreign Wheat and Oats good. There was a very small attendance at this morning's market, and only a moderate quantity of Wheat offering. Sales progressed to a fair extent at barely Monday's prices, both for English and foreign. Spring Corn of all descriptions was firm, and Maize rather dearer.

ARRIVALS.

Wheat.	Barley.	Oats.	Flour.
English .. 830 qrs.	300 qrs.	— qrs.	— ska.
Irish .. ..	.. ..	.. ..	.. ..
Foreign .. 25,570 ..	.. ..	37,980 ..	{ 2500 ..
			{ 5400 brls.
26,400	300	37,980	

MANCHESTER, July 22.—The weather since our last report has continued of the most favourable character, which, together with the Royal Agricultural show and the Royal visit, has completely put a stop to business for the moment. There was only a slender attendance at our market this morning, and but little disposition was manifested by buyers to operate in either Wheat or Flour without a greater concession than sellers were willing to submit to; a portion of the advance quoted last week must, therefore, be considered as lost, but in the absence of business it is difficult to give exact quotations. Oats and Oatmeal ruled steady. Beans were fully as dear. Indian Corn was 6d. to 1s. per qr. higher.

SEED MARKET

Our markets have been very thinly attended during the past week, and the amount of business transacted has been

exceedingly limited, indeed, as is usual at this time of the year, the agricultural seed trade is now quite inactive. All descriptions of red and white Clover seed are held with great firmness, and higher values are confidently anticipated. Of the new crop of Trefoil seed, the accounts which reach us both from home and abroad are exceedingly bad, the stocks of yearling Trefoil, in consequence of the failure of the new crop, will come out a good deal better than was expected. New English Rape seed will, it is stated, be in short supply; as yet no sample has been shown at Mark Lane. White Mustard and all other kinds of seeds are without change in value. New Trifolium is offering at moderate rates.

JOHN SHAW & SONS, 16, Water Lane.

AVERAGES

	Wheat.	Barley.	Oats.
June 12	46s 0d	37s 1d	26s 6d
— 19	46 2	32 2	27 8
— 26	46 4	32 7	29 0
July 3	47 9	35 8	26 2
— 10	48 11	30 6	27 0
— 17	50 2	32 0	28 0
Average ..	47 7	33 4	27 1

WANTED, a HEAD GARDENER, aged between 30 and 40; must perfectly understand Forcing of Pines, Grapes, Melons, Cucumbers, Mushrooms, &c., and must be a good Kitchen and Flower Gardener. Two Men under him. Wages 21s. a week, cottage and rates free.—Apply to J. H., Cruchfield House, Maidenhead, Berks.

WANTED IMMEDIATELY, as GARDENER, a respectable Man, to take the entire charge of a Flower Garden, Conservatory, Greenhouse, and Lawns. He must be of unexceptionable character, and well acquainted with good Plants. A married Man, and Member of the Church of England preferred.—Apply by letter to Miss WILSON, Chantry House, Bray, Maidenhead.

WANTED IMMEDIATELY, a stout, intelligent young GARDENER, thoroughly acquainted with the Management of choice Exotic Ferns and Roses.—Apply by letter, enclosing copies of testimonials, to Mr A. BLAKE, Swinmore House, North Malvern.

WANTED, an UNDER GARDENER, who must know his business thoroughly, and be able to Milk.—Apply to Mr. MEARES, Hadley Lodge, Barnet, Herts.

WANTED, an intelligent and active Man, as WORKING BAILIFF, with Wife capable of Dairy and Poultry work. Testimonials required.—Apply to Messrs. BLUNDELL and PALMER, Land Agents, &c., Offices, 3, Portland Street, Southampton.

WANTED, as JUNIOR CLERK, by a leading Provincial Firm, an intelligent Young Man.—Apply, stating particulars of experience, salary required, &c., to B. A., Gardeners' Chronicle Office, W.C.

WANTED, an intelligent Young Man as ASSISTANT SHOPMAN.—Apply to E. COOLING, Seed Merchant, Derby.

WANTED IMMEDIATELY, in a Gentleman's Family, a LAUNDRYMAID (Single-handed).—Apply to S. C. T. M. Smith, Stationer, Linthorpe Road, Middlesborough.

WANTED, in a Gentleman's Family in the Country, a good COOK—Dairy and Baking. A good personal character indispensable.—Apply by letter for any particulars to AYMER'S, Sittingbourne.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. E. G. HENDERSON and SON, Wellington Nursery, St. John's Wood, London, N.W.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS, and GARDENERS and BAILIFFS, of various qualifications, who are open to Engagements. The fullest particulars as to services required and wages given should be forwarded with application.—PAUL'S Nurseries, Waltham Cross, London, N.

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JAMES CARTER and CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those who can send unquestionable references need apply. Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & Co. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c. JAMES CARTER and CO., 237 & 238, High Holborn, London, W.C.

Gardeners and Under Gardeners.

WM. CUTBUSH and SON beg to state that they have at all times on their books MEN of various qualifications, whose characters will bear the strictest inquiry. Any Gentleman making application would save time by clearly stating the duties to be undertaken, wages offered, &c., so that suitable Men may be selected.—Highgate Nurseries, London, N.

GARDENER (HEAD).—Age 28, married; understands Early and Late Forcing, Flower and Kitchen Gardening, the Cultivation of Stove and Greenhouse Plants, Orchids, Ferns, &c.—G. M., 7, Brunswick Road, Upper Holloway, London, N.

GARDENER (HEAD).—Age 36, married; thorough practical knowledge of Vines, Peaches, Melons, Cucumbers, Early and Late Forcing, also Management of Flower, Kitchen, and Fruit Gardens. Eight years' good character.—A. P., J. Studish, Royal Nursery, Ascot, Berks.

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GARDENER (HEAD).—Age 35, married; thoroughly practical in the Growth of all kinds of Fruits, Flowers, and Vegetables, also Laying-out and Improving Kitchen and Flower Gardens. Can be well recommended.—G. H., Messrs. A. Henderson & Co., 1, Pine Apple Place, Maida Vale, London, W.

GARDENER (HEAD).—Age 28, married, has a thorough practical knowledge of Gardening in all its Branches, including Pines, Vines, Peaches, Figs, Melons, Ferns, Stove and Greenhouse Plants; also an excellent Flower and Kitchen Gardener. Good reference.—C O., Post Office, Bromsgrove, Worcestershire.

GARDENER (HEAD).—S. WINFIELD, Gardener to Sir Algernon W. Peyton, Bart., is now at liberty to engage with any Nobleman or Gentleman in want of a thoroughly practical Gardener. Satisfactory reasons for leaving present situation, which he has filled for 10 years. Reference as to character and ability kindly permitted to Sir Algernon Peyton, Bart., Swift's House Bicester.

GARDENER (HEAD, or good SINGLE-HANDED).—Age 25, single; experienced in all branches; three years' excellent character.—W. R., Lake Cottage, Hetchingley, Surrey.

GARDENER (HEAD, or good SINGLE-HANDED), age 24, single.—Mr W. YOUNG, Nurseryman, 110a, Camden Road, N.W. (late of West Hill, Highbury), w.d. be happy to recommend C. Taylor to any Lady or Gentleman requiring an energetic Young Man as above.—Address as above.

GARDENER (HEAD), where two or three respectable Single Men would be glad to receive Thoroughly Practical and obliging—Address—J. WILLS, F.R.H.S., Ashburnham Park, Newbury, Uxbridge, S.W.

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GARDENER.—Single; understands Flower, Cucumbers, and Kitchen Gardening; Good references.—J. REEVE, 10, Meadow Road, S.W.

GARDENER.—In prime of Life, a thoroughly experienced in all departments practised at the present time. Character very good.—C. C. DAWSON, Weald Hall, Brentwood, Essex.

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GARDENER (SECOND).—Age 24; experience in Stoves, Vineries, Peachhouses, Fruit, Kitchen and Flower Gardening.—Two years in L. H., 5, Mill's Place, King's Road, Chelsea, S.W.

GARDENER (SECOND), where three or four months' good character from present situation.—A. B., Stationer, Blackheath Village, S.E.

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The Gardeners' Chronicle Newspaper.

SATURDAY, JULY 31, 1869.

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	2-inch	3-inch	3 1/2-inch	4-inch
PER YARD	0 11	1 6	1 8 1/2	1 11
PER EACH	1 4	2 1	2 6	2 9
PER EACH	3 0	3 0	3 8	4 0
PER EACH	1 0	1 1	1 1 1/2	1 2 0

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GEORGE ROBINSON, Dial Iron Works, Stourbridge.
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	2-inch	3-inch	4-inch
PER YARD	1s 0d	1s 6d	2s 0d
PER EACH	1 6	2 3	3 0
PER EACH	2 6	3 6	4 6
PER EACH	2 8	3 8	4 8
PER EACH	10 0	11 6	13 0

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Price Lists, with terms for credit and for delivery at country places, will be sent on application.

IRON GREENHOUSES CHEAPER THAN WOOD
Beard's Patent Non-conducting and Ventilating
Metallic Glass Houses
Victoria Works, Bury St. Edmunds.



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The Patentee writes to several of the principal Newspapers, stating that the First-class Certificate at the Great International Exhibition, London, 1862, and the First-class Certificate at the Great International Exhibition, London, 1867, were awarded to the Patentee for his Improved Patent Non-conducting and Ventilating Metallic Glass Houses.
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PATENT GLAZING BARS, to screw on wood, may be had separately. Full particulars for stamped envelope.

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6 ft. by 4 ft. Lights, 2 1/2 in. thick, unglazed	£ 4 0
Primed and Glazed with 16 oz Sheet	£ 11 6
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CAST-IRON PUMPS.

2 1/2 inches	£1 8 6
3 "	2 1 0
3 1/2 "	2 6 0
4 "	2 14 0



THE PATENT ANNULAR SAIL WIND ENGINE.

These Engines are adapted for Grinding, Chaff Cutting, &c., as well as for Pumping.

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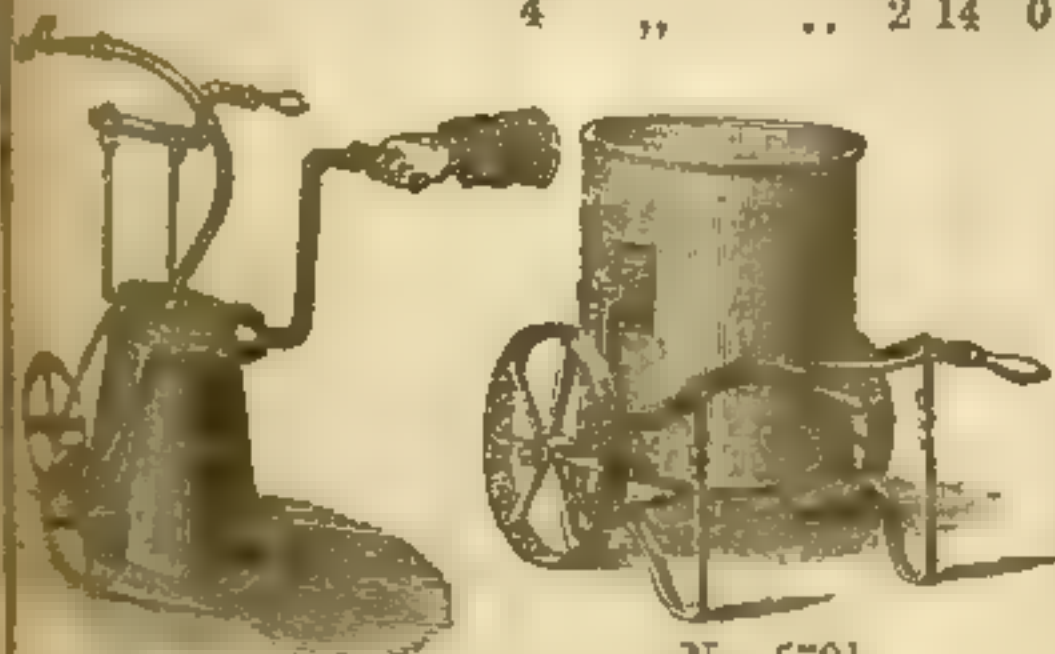


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2-inch Flexible Rubber Suction Pipe, in 10, 12, and 15 ft. lengths, per foot, 2s 6d.



CHAIN PUMP FOR LIQUID MANURE.



SWING WATER BARROW.

50 gallons	£5 12 0
38 "	3 17 0
30 "	2 13 0
20 "	2 2 0



GARDEN ENGINE

28 gallons	£5 10 0
24 "	4 19 0
16 "	3 14 0
10 "	2 19 0



WARNER'S AQUAJECT

Useful for every variety of purpose in watering or washing flowers, trees in Gardens, Conservatories, &c.; also, for washing Greenhouses. Warranted to last.

Price, complete £1 10 0
Small size for the hand, as an ordinary Syringe 0 15 0

Vases and Fountains, for the Garden and Conservatory.

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SEED ADULTERATION BILL.—The EVIDENCE taken before the SELECT COMMITTEE (comprising the examination of Mr Charles Sharpe, Mr. Kennedy, Mr. Andrews, Mr. G. J. Alexander, Mr. Mackie, Mr. Andrew Murray, Mr. Burnell, Mr. Frankish, Dr. S. Macadam, Mr. Nash, Mr. Cutler, and Mr. Kitchen), is contained in No. IV. of the SEEDSMAN and NURSEYMAN. Annual Subscription, 12s., or 10s. in advance.

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Home News.

THE COURT at OSBORNE.—On Friday afternoon the Queen drove out with Princess Beatrice. On Saturday her Majesty walked in the morning in the grounds with Princess Louisa, and drove out in the afternoon with Princess Christian.

THE PRINCE AND PRINCESS OF WALES.—On Friday the Prince lunched with the Lord Mayor at the Mansion House, and afterwards unveiled the statue erected near the Royal Exchange in honour of Mr. Peabody.

PRINCE HASSAN, third son of the Viceroy of Egypt, who has been living at London for his education, has arrived at Alexandria from England, having been suddenly ordered home by his father.

THE CABINET.—A Cabinet Council was held on Saturday in Downing Street.

PARLIAMENTARY MOVEMENTS.—There is a vacancy at Salisbury, caused by the retirement of Mr. Hamilton. Mr. A. Seymour is a candidate for the vacant seat in the Ministerial interest.

ILLNESS OF THE PREMIER.—Mr. Gladstone was suffering from severe indisposition when he delivered his speech on the Lords' amendments on Friday last, and has since had a smart attack of diarrhoea, which has prevented him from attending Parliament this week.

LETTER OF THE QUEEN TO MR. PEABODY.—Boston Post of July 13 publishes the following letter addressed by Queen Victoria to Mr. Peabody.

"The Queen is very sorry that Mr. Peabody's departure has made it impossible for her to see him in bad health. She now writes him a line to express that he may return to this country quite as soon as she may then have the opportunity of what she has been deprived of, seeing and offering him a letter for all he has done for the people."

The note was transmitted by Mr. Arthur H. of the Privy Council, who adds that the Queen commanded him "to be sure and charge Mr. Peabody to report himself on his return to England."

THE DEANERY OF DURHAM.—Mr. Gladstone offered the Deanery of Durham to Dr. T. W. master of Rugby School, who has deceased on ground that the Endowed Schools Bill will be into operation, and that he ought to withdraw from the institution over which he presides.

KNIGHTHOOD.—The Queen has conferred the order of Knighthood on Peter Coats, Esq., of Paisley James Cockle, Esq., Chief Justice of the Court of Queensland.

ORDER OF THE BATH.—The Queen has appointed Anthony Panizzi, Esq., late Principal Librarian of the British Museum, and Lieut. Edward Sabine, to be Knights Commanders of the Order of the Bath.

THE METROPOLITAN-ELECT OF MONTREAL.—Thursday a meeting of the Society for the Propagation of the Gospel was held, for the purpose of electing a Bishop of Montreal and Metropolitan of Canada.

well of the Rev. Ashton Oxenden, who has been Bishop of Montreal and Metropolitan of Canada, the place of the late Bishop Fuiford. The election was taken by the Archbishop of Canterbury, supported by the Bishop of London, the Bishop of Gloucester and Bristol, the Bishop of Columbia, Bishop Smiley, Ryan, Rev. Canon Gregory, Canon Harvey Grezett, &c.

to undertake its duties; but in the presence of God a great difficulty had been solved by personal considerations, and agreed to enter on the office of the bishop-elect had already spoken; in fact, nothing else could have been appointed. It was the earnest desire of the new bishop will take place in Westminster Hall to-morrow morning.

TRIAL OF AN ELECTION PETITION.—The Birmingham election inquiry opened on Thursday morning, it will be remembered, occurred on the vacancy, it will be remembered, occurred on the death of the late Sir E. Clifton, and the candidates were of the late Sir E. Clifton, and the candidates were Mr. Seely, son of the M.P. for Lincoln, and Mr. Seymour, Q.C.

COURTS-MARTIAL COMMISSION.—The second report of the Commissioners appointed to inquire into the constitution and practice of courts-martial, in the present system of punishment for military offences, has been published. The following summary of the chief alterations recommended:

- 1. That the Mutiny Act and Articles of War should be fully re-drawn. 2. That a text book on military law be prepared for the convenience and instruction of officers for the use of courts-martial. 3. That a stricter examination of officers in military law be enforced, such examination to be conducted before a board of officers by a deputy judge-advocate, or some one deputed by the judge-advocate-general, either at his own discretion or on the requisition of the prosecutor or prisoner, to require the attendance of the judge-advocate. 4. That for this object the present number of deputy judge-advocates be increased. 5. That the powers of reducing the number of regimental courts-martial be given to commanding officers. 6. That the services of a shorthand writer can be dispensed with. 7. That the examination of witnesses before a general court-martial be conducted as in the ordinary criminal tribunals, where facilities for so doing. 8. That in certain cases a list of witnesses, together with the charges, and that the prisoner as a matter of right be allowed to cross-examine also have reasonable notice of any additional witnesses in the course of the proceedings. 9. That the practice of re-assembling a court-martial for the purpose of revising their proceedings be discontinued. 10. That the practice of re-assembling a court-martial for the purpose of revising their proceedings be discontinued. 11. That a regulation be made only be had recourse to when a court-martial is not fully assembled, and that it be composed of not less than three years standing. 12. That the proceedings of all regimental courts be forwarded to the commanding officer of the district. With regard to the amendments, we have recommended—1. That one of the

be established, in which an improved system... can be carried on, in which separate... form an indispensable part, and that until... arrangements should be made with the authorities... for the reception of the requisite number of... care being taken to separate them as far as... the other prisoners. 3. That the term habitual... as applied to the fourth offence be abolished... of fines be substituted for the present system... for this offence. 4. That such fines substitute... the benefit of the army generally. 5. That the... of non-commissioned officers need not necessarily... to the ranks. 6. That great... of men of bad character... be abolished when altered... in the report will admit of it."

Foreign.

FRANCE.—The Council of Ministers and the Privy... held a sitting on Wednesday. The Emperor... the same day the first telegram through the... Atlantic Cable to President Grant. The... were the terms of the message:—

"I inaugurate the new telegraphic line which... to America, by sending you the expression of my... for yourself and the prosperity of the United...

The Pasha of Egypt arrived at Toulon on Friday morn-... embarked in the evening for Egypt on board... Maroussa. The official journals contradict... reports that the Government had determined to... the Legislative Body; that the Prince de la... Auzerque, the new Minister of Foreign Affairs... sent a note respecting the Ecumenical Council to... French Ambassador at Rome; that the troops in... had received orders to hold themselves in readi-... to embark for France, that Marshal MacMahon... arrived in Paris, and that M. Benedetti was... to replace M. de Talleyrand as the represen-... of France at St. Petersburg. All these state-... are declared to be wholly without foundation. It is semi-officially announced that after the inspection... of the troops is at an end the half-yearly furloughs... be granted, as is usually done each year, to about... men. Of the contingent of 1863 also about 18,000... be furloughed on the 1st of October, in anti-... of the regular time. According to the Figaro... the Senatus Consultum will contain the following... forms, but doubts are expressed as to the statement... having any official origin:—

The abolition of the law which makes it incompatible for a... to hold a seat in the Chamber of Deputies, the... of the Ministry to the Legislative Body, to getar... ministerial solidarity; the re-establishment of the... in reply to the Speech from the Throne; the concea-... the Legislative of the right to introduce Bills, to move... absolutely without the intervention of the... of each State to propose direct interpellations untrammelled... reference to the Bureau, and to vote orders of the... the abolition of the system of transfer in order... to complete the new arrangement of voting the... chapter; the President, Vice-President, and Secre-... of the Chamber, to be elected by the Legislative Body... the position of Secretary-General and Director-General of... of the Ministries, General of the Army, and Vice-Admiral of the... President of the Court of Appeal, Procurator-General or... of the Court of Cassation, to be compatible with the... of a seat in the Chamber. The Senators will, it is... longer be able to hold any office paid by the State in... their post as Senators. The proposal that the... should be elected by the Conseils Généraux has been... but the number of members of the Upper Chamber... be increased."

The Monitor of Monday evening says that Don Carlos... succeeded in eluding the vigilance of the French... and has entered Spain near Arena. A suit... to obtain a judicial separation has just been brought... before the Civil Tribunal of the Seine by Madame... Arenen Scoll, wife of the journalist of that name. The plaintiff is a daughter of Mr. Perkins one of the... partners in the firm of Barclay, Perkins & Co., the... known London brewers. Her demand is based... on charges of cruelty, abusive language, &c., some... which are of such a nature that the Paris law... papers refrain from publishing them. The court... decided that as, up to the present time, no sufficient... reasons had been given to warrant the separation... course must be refused; but it ordered that... Madame Scoll should be admitted to furnish proofs... of her allegations, and appointed a judge to hear the... evidence.

SPAIN.—An engagement occurred on Saturday night... near Ciudad Real, between a band of 500 or 600... Carlists, under Brigadier-General Sabaruge, and the... troops under Commandant Formaseti. The Carlists... were defeated and dispersed, with considerable... in killed and wounded. A Carlist con-... to gain possession of the fortress of Pampe-... has been discovered and defeated by Colonel... Laguera. The principal Carlist agent was killed... a marquis, was severely wounded and made... prisoner. An artillery captain, only 15 days on retired... another retired army official, a priest, and a... government writer, were made prisoners. A Carlist... party has appeared at Tarascon, and been defeated by... the Volunteers. Another Carlist conspiracy has been... discovered in Guipuscoa, one of the Basque provinces. A... of disorders took place at Lerida on Wednesday... and tranquility has been restored. The rest of the... and band in the province of La Mancha, which were... defeated, fled to the Sierra Morena mountains on... Wednesday, and are believed to be returning to their... homes. The Spanish Consul at Perpignan telegraphs... that Don Carlos and Generals Tristany and Elio have... secretly left that town.

PORTUGAL.—The session of the Cortes has been... prorogued by Royal decree to August 15. It is... rumoured that a modification of the Ministry is... imminent. The papers of Friday mention a rumour... that Queen Maria Pia, being no better in health, was... by her physician's advice, indefinitely prolong her stay... abroad, and fix her residence at the Court of King... Victor Emmanuel.

SWEDEN.—The King of Denmark and the members... of the Danish Royal family, accompanied by their... suites, arrived at Stockholm on Friday, and were... received with great ceremony. The city was decorated... with flags, and immense enthusiasm prevailed. On... the arrival of the Royal party salutes were fired by the... ships in the harbour, which included some English... men-of-war. The marriage of the Crown Prince of... Denmark and the Princess Louise, daughter of the... King, was celebrated on Wednesday afternoon. Their... Royal Highnesses left Stockholm in the evening for... the Castle of Haga, where they will remain some time. An... immense number of persons were present at the... festivities, which were celebrated amid great rejoicing. A... grand fête was to be held yesterday at the Castle of... Drottningholm.

SCHLESWIG.—The present which the partisans of... Denmark, in Northern Schleswig, have been to the... Prince Royal and the Princess Louise on their marriage... is an enormous silver cup, on a column 3 feet high. The... pedestal is surrounded with the ciphers of the bride... and bridegroom and the arms of the principal towns of... North Schleswig, Sweden, Denmark, &c. The total... weight of the vase is 14 lb.

HOLLAND.—Rumours have been current at the... Hague that several Dutch officers and sailors had been... massacred by natives on the coast of New Guinea. Intelligence... has been received which proves these... reports to be incorrect. It appears that one officer has... been drowned by accident, and that another officer with... some sailors is in safety. The natives, however, have... demanded a ransom for some others who are in their... power. Three sailors have already returned on board a... Dutch steamer off the coast.

SWITZERLAND.—In the sitting of the National... Council on Saturday the Government was interrogated... respecting the course it had pursued in forbidding... Mazzini to reside within certain distances from the... Italian frontier. The Government justified its con-... duct by the revolutionary doctrines professed by... Mazzini, and the duty imposed upon it by international... law. The Council of States has postponed the con-... sideration of the concession for the St. Gothard Splügen... Railway until the meeting of the Federal Assembly, which... is to be convoked for a special session in Sep-... tember or October.

AUSTRIA.—In the sitting of the Foreign Budget... Committee of the Hungarian Delegation on Monday, Count... Beust spoke on the foreign relations of the... Empire, and specially stated that the best possible... relations existed between Austria and France. Since... Austria had relinquished her Italian territories the... interests and intentions of both countries had become... identical. In reference to Eastern politics, Count... Beust stated that he did not strictly insist on his pro-... gramme of the year 1867, but would rather leave it to... the option of Turkey to follow his counsels as regarded... concessions to the Christian inhabitants. He would... exercise no pressure in this respect. Speaking of... Prussia, Count Beust declared that he had honestly... striven to establish more cordial relations with that... Power, but had hitherto been unsuccessful, as he had... not been met by Prussia in a similar spirit. The... speech was received with satisfaction by the Com-... mittee, and the estimates of the Foreign Budget were... agreed to with scarcely any reduction.

GALICIA.—In consequence of an anonymous letter... a judicial commission, assisted by the clergy, forced... an entrance on the 21st inst. into the Carmelite Con-... vent in Cracow, where they found a nun who had been... locked up in a dark filthy room for 31 years. She had... been utterly neglected, was quite naked, and half mad. Bishop... Galecki, who was present as Papal delegate... overwhelmed the abbess and the nuns with the most... vehement reproaches, asking them whether they were... women or furies, and thanked the judge charged with... the inquiry for his timely and energetic interference. The... confessor of the convent was at once suspended by... the bishop. This intelligence created the greatest... excitement throughout the city. The door and... windows of the convent were broken open, and a... strong body of military had to be called out to disperse... the rioters. On Saturday evening the disturbances... were renewed. The people again endeavoured to break... into the convent, but were driven back, and thereupon... proceeded to other convents and to the house of the... Jesuits, the rector of whom was insulted. Forty-one... rioters were arrested.

RUSSIA.—Prince Charles of Roumania is expected... at Livadia, in the Crimea, on the 14th of August. Large... numbers of influential Jews of St. Petersburg have... addressed petitions to the Minister of the Interior... and to the Minister of Public Instruction, praying for... an extension of religious and educational rights.

PRUSSIA.—For some time past an organised gang of... English pickpockets have been committing depredations... at Ems, Homburg, and Frankfurt-on-the-Maine, and other... German towns. One of them, a man named Henry Keen, attempted to rob Fazil Pasha, the... brother to the Viceroy of Egypt, of 2500*l.* while he was... at Homburg, but was immediately apprehended, and... sentenced to 18 months' imprisonment, with hard... labour. The police at Frankfurt-on-the-Maine, under... the direction of Dr. Rumpff, have been most energetic... in their efforts to catch the members of the gang, and... have succeeded in taking 16 of them. The names they... have given are Deniston, Milson, Gross, Paget, Wan-... have given are Deniston, Milson, Gross, Paget, Wan-... cliffe, Garnier, Leroy, Roberts, Middleton, &c., but... the most important capture is that of a man named... William A. Davis, the head of the band. Among the

promoters are two women, and they are all now lodged... in the great Frankfurt prison awaiting their trial. ITALY.—The report of the Parliamentary Committee... of Inquiry was issued on Friday. It declares that the... Deputies, Messrs. Baccarelli and Cava, have had no... share of the shares of the... The statement that a... compromise, negotiated and guaranteed by France, was... about to be signed between Italy and the ex-king of... Naples, according a fixed revenue to the ex-king in... settlement of his claims, proved to be a... look up his residence out of Italy. It is... to be without the slightest foundation. Instruments of... the observatory of Vesuvius indicate that a fresh... internal disturbance is commencing in the interior of... the mountain.

PAPAL STATES.—Count Mastai-Ferretti, the Pope's... elder brother, died suddenly last week at Sinigaglia, near... Ancona, where Pius IX., who was warmly attached... to him, visited him some years ago. On receiving the... intelligence of his death the Pope performed the... fatiguing ceremony of ascending the Scala Santa at the... Lateran on his knees, for the repose of the Count's... soul.

GREECE.—M. Christides, the Ministerial candidate... was elected President of the Chamber of Deputies on... Sunday by a majority of 161 to 17.

TURKEY.—Mustapha Pasha, Pasha of the... Viceroy of Egypt, has been received with great dis-... tinction by the Sultan and his Ministers, and has been... appointed a member of the Council of Ministers.

EGYPT.—The Viceroy arrived at Alexandria from... Toulon on Wednesday. The foreign consuls were... present at his reception, and presented an address to... his Highness. An illumination of the city took place... at night. It is rumoured that the Viceroy will only... stay in Egypt for a few days, and then proceed to Con-... stantinople. M. Lesseps, during the progress of the... canal works at Suez, despatched a number of engineers... to the Desert of Sahara to ascertain the exact differ-... ence between its level and that of the Red Sea. The... surveying party found a declivity of 27 metres, which... is presumed to be still greater further inland. M. Les-... seps now suggests the possibility of letting the waters... of the Red Sea into the interior of Africa by means of... a canal, and thus converting this almost unexplored... desert into a large inland lake, which would afford easy... access to the fertile countries surrounding it.

CAPE OF GOOD HOPE.—Accounts from the Cape... to the 20th ult. state that difficulties were thickening... on the northern border of the colony. The Koranna... bushmen, excellent marksmen with firearms, were be-... coming very daring. Two engagements had occurred... between them and the police. In the first the Korannas... lost 30 killed and several prisoners; but in the second... the police retreated before overwhelming numbers, and... lost seven killed. Doubts were entertained whether... the police would be able to chastise the Korannas. An... agitation for an amendment of the Constitutional... Charter, by introducing in a modified form the prin-... ciple of responsible government, had commenced in... Natal, and had been taken up by its Legislative... Council. The prospects of gold digging were said to be... improving. A Natal mining company had fitted out... 40 Australian diggers to work. The arrival of the... steamer bringing out a German exploring expedition, formed... under the auspices of the Prussian Govern-... ment, was hourly expected. Sir John Swinburne was... busy quartz-crushing. Herr March had arrived in... Potchefstroom, and although very near at one time to... the supposed site of the ancient Ophir, the natives... would not permit him to go there. Diamonds were... being constantly received at the frontier towns of the... colony from the up-country districts, and had become... a staple of auction sales. The Transvaal Government... claimed to have secured, through Mr. M'Corumale, a... harbour on the East coast. How obtained was not... known. The Boer Commandos against the natives... continued. The prisoners thus made were distributed... among the farmers, and remained enslaved. The... Orange Free State had declared it high treason for any... of its subjects to promote annexation or federation... with Cape Colony. The colonial Parliament was to... meet on the 23d of June.

INDIA.—It is believed that Mr. Maine will leave... India in October for Europe. The Supreme Govern-... ment is believed to have resolved to pass at least half... of every year in Calcutta. It is said that sanction will... shortly be given to the construction of a railway from... Calcutta to Darjeeling. A gentleman has arrived in... India, deputed by the Government of South Australia... to make arrangements with the Government of India... for a systematic importation of Australian horses for... remounts, &c. The through train from Amalabad to... Bombay met with an accident on the 25th ult. between... Ahmedabai and Baroda, by which 11 native... passengers were killed and seven wounded. The... accident is said to have been caused by the engine... coming in contact with a buffalo. Reports from Nus-... seerabad show that cholera was disappearing among... the troops there.

JAPAN.—The recapture of Hako ladi by the Mikado's... troops is confirmed. The finances of the country are... very disorganised, and paper money is being forced on... the people under pain of death. Trade, both native... and foreign, is paralysed. The steamer Havmaro has... been totally lost near Yokohama. Several Europeans... were drowned.

UNITED STATES.—President Grant and Mr. Fish... have gone to Washington from Longbranch to attend... a special Cabinet Council. The Radicals of Mississippi... are organizing opposition to Mr. Dent, who is... reported to be receiving support from the Democrats. One... hundred and forty of Colonel Ryan's men have been... discharged under parole not to violate the neutrality... laws. The Press generally throughout the country... express great satisfaction at the success of the French... Atlantic Cable, and strongly

condemn the efforts made to embarrass the enterprise. The Californian Republican Convention met on the 29th ult., and adopted resolutions endorsing the action of Congress in rejecting the Alabama Claims Treaty, and declaring it to be the duty of the Government to demand full reparation for the injuries done by the British Government and people of America during the rebellion, and also for the Chinese immigration, but opposing Chinese immigration. A fearful disaster occurred on Tuesday on the Memphis and Ohio Railroad, near Clarksville, Tennessee. A passenger train fell through a bridge, and all the cars but one were burnt. Six persons were killed and 30 wounded.

CANADA.—Mr. Rose, the Canadian Finance Minister, has resigned.

MEXICO.—General Vega, supported by Lozada's troops, is organising an independent Confederacy in the Northern States of the Republic.

WEST INDIES.—The yellow fever is decreasing in the West Indian Islands. A few cases still occurred in Guadaloupe and Martinique, but the epidemic character of the disease was nearly extinct.

CUBA.—Telegrams from Havannah say that the insurgents are active in the Central Department, and have destroyed much property about Trinidad. Recently a large insurgent force attacked Puerto Principe, but were repulsed with a heavy loss. The conscription will soon be enforced throughout Cuba. The newspapers there insist on it. The Catalonian volunteers who were ordered to guard the Urebitas Railroad have mutinied, refusing to guard the road any longer, and demanding active service. General Letona refused to accede to the application, and ordered the colonel to be arrested. The volunteers then marched to Puerto Principe, where they liberated the colonel and imprisoned General Letona. It is expected that they will endeavour to shoot him.

CHILI AND PERU.—The contract for working the Megillones guano beds had been rescinded by the Chilean Government. A new proposition by Senor Gama was likely to be accepted. Messrs. Clark & Co. are to construct a telegraph line across the Andes, privileged for nine years and subsidised by Government, the telegrams to be transmitted free; and the line at the expiration of the term to become State property. The public works and buildings destroyed by earthquakes at Arica and Iquique, were being actively rebuilt.

Parliament.

In the House of Lords on Friday, the Duke of ARGYLL made his annual statement on the Indian revenue. He showed that in the ten years since the Mutiny the revenue had increased by more than 15 millions sterling, about half of which was due to increased or new taxation, and the remainder to the increase of returns from old sources, such as opium, the land revenue, and the Customs, the increase of profit to the State having been accompanied by a reduction of the burden on the taxpayer. Lord HALIFAX, the Marquis of SALISBURY, Lord LAWRENCE, Lord LYVEDEN, and Earl FORTESCUE expressed a general approval of the Government policy in respect to public works, and especially railways, but agreed that there was little expectation of any material reduction of expenditure. The Assessed Rates Bill and the Endowed Hospitals (Scotland) Bill were read a third time and passed. On Monday the Royal assent was given by Commission to the Irish Church Bill and other measures. Lord DE LISLE and the Earl of WINCHILSEA asked for information respecting three pictures bought for the National Gallery, on the supposition that they were by Rembrandt, Giorgione, and Michael Angelo, but which were now believed to be spurious. Lord OVERSTON, as a trustee of the National Gallery, said that the supposed spurious pictures had been purchased on the judgment of the director, with the acquiescence of the trustees, who were therefore jointly responsible, and adduced a great body of positive evidence in favour of the genuineness of the three pictures. These explanations were received as satisfactory by the Earl of MALMESBURY, Earl GRANVILLE, and Viscount HARDINGE, who expressed a high opinion of the general management of the National Gallery by the director and trustees. The Marquis of CLANRICARDE called attention to the inefficiency of the police and magisterial arrangements for the prevention of crime, or detection of criminals, in Ireland, and contended that the Government should place themselves more in communication with the local resident gentry. Lord DEFFERIN, in reply, regretted that he could do no more than repeat what he had said on a former occasion, that the Government would neglect no measure to bring the perpetrators of the recent crimes to punishment. On the motion of Lord PENZANCE the Evidence Amendment Bill, after a short discussion among the law lords, was read a second time. The Bankruptcy Bill and the Imprisonment for Debt Bill passed through Committee. The Endowed Schools Bill, the Medical Superannuation (Ireland) Bill, and several other measures were read a third time and passed. On Tuesday the Tenants' Purchase by Instalments (Ireland) Bill and the Tenants' (Ireland) Bill were withdrawn; and several Bills were advanced a stage. The Earl of CARNARVON called attention to the state of affairs in New Zealand, and expressed his opinion that the policy which had been pursued by several successive Secretaries of State would ultimately be acquiesced in by the colonists as the best and only one that could be adopted. He recommended that a Commissioner, armed with powers like those with which Lord Durham, Sir H. Storks, and Mr. Gladstone were invested, when they were sent respectively to Canada, Jamaica, and the Ionian Islands, should be sent to

New Zealand. Earl GRANVILLE accepted the criticisms of the noble earl as calculated to strengthen the policy of the Government, and insisted on making the colony feel that it must adopt for itself a decided course, whether that course were war, or, what he should advise, a system of wise conciliation of the natives. The Bishop of LICHFIELD said that in his judgment advantage should be taken of the "King movement" to assign a certain district to the native king, accompanied by legal powers to frame laws for the government of his people. He believed that the colonists were powerless to suppress the bands of natives now in rebellion, and that they had, therefore, a clear claim on the mother country for maintaining peace and the supremacy of the Crown. Lord LYVEDEN deprecated any deviation from the non-intervention policy, and said that so long as the colony could rely on subventions of money and troops from England it would never put forth its full strength for its own defence. On Thursday, Earl DE GREY moved the second reading of the Contagious Diseases (Animals) Bill. He explained that it consolidated and strengthened existing enactments, empowered the Corporation of London to provide a market to which all foreign cattle from suspected countries would be sent, and removed the restriction on the removal of home-bred animals beyond the metropolitan limits. The Bishop of GLOUCESTER suggested an extension of the clauses respecting the treatment of animals in transitu, a suggestion in which Lord ROMNEY concurred; and, after some remarks from Lords COLONSAY and EGERTON of TATTON, the Bill was read a second time. The Bankruptcy Bill was read a third time and passed, after some remarks by Lord ROMILLY, who pointed out that the liability of future earnings, in cases where the dividend did not amount to 10s. in the pound, would operate as a temptation to dishonest practices. The Bishop of GLOUCESTER, on behalf of the Archbishop of Canterbury, moved the second reading of the Presentation to Benefices belonging to Roman Catholics Bill, the object of which was to repeal an old enactment limiting incumbents presented by Universities to 60 days' non-residence in a year, under penalty of forfeiture of their preferments, and to allow them, like other clergymen, three months' holiday. Lord CAMOYS, as a Roman Catholic patron, urged the propriety of abolishing altogether an invidious disqualification which did not apply to Jews or Dissenters, and of allowing Roman Catholics to present to benefices; but the Bishop of GLOUCESTER, in the absence of the Primate, refrained from giving any opinion on this point, and the Bill was then read a second time. The Earl of SHAFTESBURY withdrew his Ecclesiastical Courts Bill, and a large number of measures were advanced a stage. Yesterday Lord PENZANCE moved the second reading of the Married Women's Property Bill. The Duke of NORTHUMBERLAND moved that the Bill be read a second time this day three months. Lord CAIENS, while avowing himself a supporter of the Bill, expressed a hope that it would not be carried beyond the second reading this session. Lord ROMILLY denied that the Bill revolutionised the marriage laws. The House was left sitting.

In the Commons on Friday, after the Lords amendments in the Irish Church Bill had been agreed to, Mr. NEWDEGATE called attention to the recent arrest of Murphy, the No Popery lecturer, and moved a resolution condemning the action of the Home Secretary in reviving an obsolete statute for the purpose of forbidding, under penalties, the right of free speech, and the holding of meetings of a controversial character, on the ground of their being calculated to lead to a breach of the peace. Mr. BRUCE, in reply, said that he had acted in accordance with the advice of the law officers of the Crown, in forbidding the opening of rooms for Murphy to lecture in, because wherever he went his presence was the sure forerunner of violence and outrage. After a long discussion, in which Mr. DIXON, Mr. MUNTZ, Mr. WHALLEY, Lord SANDON, Mr. DOWNING, Lord C. HAMILTON, the ATTORNEY-GENERAL, Mr. T. CHAMBERS, Mr. T. E. SMITH, Mr. HOLT, and Mr. HENLEY took part, the motion was negatived without a division. Mr. MUNTZ asked for information respecting the recent changes in the system of making contracts for the navy. Mr. BAXTER, in reply, said that a great saving had already been effected in various departments by the new system of contracts and purchase. With regard to contracts, he had discovered an extensive system of "tipping" both at Somerset House and in the dockyards, and his short official experience had convinced him that, without putting down a single ship or sailor, immense reductions might be made in our overgrown establishments. Sir J. HAY and Sir J. ELPHINSTONE suspended their judgment on the expediency of the new system until it had been tried. Mr. CANDLISH, Mr. RATHBONE, and Mr. MUNDELLA recommended the infusion of a greater number of business men into the management of these departments. Mr. LIDDELL congratulated the Government on their economical success, and Mr. CHILDEES, in defending his administration of the Navy, said that it had given England a stronger fleet than she had possessed since the French War. Mr. MUNDELLA said that the Army purchase system was devised for corruption. Mr. CARDWELL, in reply, showed that it was virtually the model for the changes being made at the Admiralty. Mr. HENLEY concluded the debate by predicting that private purchase would speedily make the Government as unpopular as any one could desire. Several Bills were forwarded a stage. On Monday the Royal assent was given to the Irish Church Bill, and the SPEAKER'S official announcement of the fact on his return was loudly cheered by the Ministerial benches. Mr. BRUCE appealed to members who had preliminary

motions not to press them, but to allow the Thursday night to be given up to allow the ground that otherwise it would be impossible to move the omission of the vote for the Supply of Scotland. After some discussion, the Scotch members, the motion was carried on a division by 150 to 45. Mr. CHARLEY moved the necessity of greater accuracy in the department of the Board of Trade, and the present returns were deceptive and more calculated to do harm than good. SHAW-LEFFRE, in reply, said that he had led the Treasury to institute an inquiry into circumstances under which the contract was made with Dr. Salvati's Venice. In a recent debate Mr. LAWRENCE said the contract had been made before the present unpleasant rumours had since been appearing in the original list of shareholders as having transferred his shares. It was to the credit of the House and the Government that these rumours should be cleared up. Mr. LAWRENCE, in reply, said that the contract had been made entirely without the sanction of the Venetian company of Dr. Salvati, and that it ceased to belong on entering into the speculation, but represented a speculation through his active exertions to prevent the glass and mosaic work from being closed. The two passions of the House, Art, and he had acted from a desire to adapt to our climate. After some discussion, W. HUNT and Lord ELPHINSTONE, who had withdrawn. The House then went to Supply, and agreed to the Irish Church Bill (373,950). On the motion for the second reading of the Telegraphs Bill, Mr. W. FOWLER moved terms of the agreements with the Government. Mr. R. TORRENS moved that the Bill be referred back to the Committee for the purpose of examining the evidence as to the calculations on which the Postmaster-General were based. A division the amendment was rejected, and the Bill to 23, and the House went into Committee. Mr. HARTINGTON moved to strike out the words inserted by Mr. HUNT in the Committee, limiting the monopoly of the motion was supported by Mr. LAWRENCE, Mr. BOUVERIE, Mr. WALTER, and carried on a division by 123 to 57. The Bill was agreed to, with some amendments. On Tuesday at a meeting of the House went into Committee on the Parliamentary (Ireland) Bill, and remained in Committee for adjournment arrived, at which the second clauses only had been agreed to. The Municipal Poor Act (1867) Amendment Bill was read a third time and passed. The Lords amendments in the Municipal Franchise Bill were agreed to. At the evening sitting, the House went before any business was done. Mr. GILPIN moved the second reading of the Bill for the Abolition of Capital Punishment. Mr. FOWLER seconded the motion. Mr. LAWRENCE moved as an amendment, that the Bill be read a third time that day three months. Mr. T. CHAMBERS, Mr. SCOURFIELD, Mr. HIBBERT, and Mr. HENLEY supported the amendment; Mr. LAWRENCE, Mr. HENLEY, Mr. HADFIELD, and Mr. M. HENLEY opposed it. On a division the amendment was carried by 118 to 58. The Bill was carried on a division by 118 to 58. The Game Law (Scotland) Bills of Lord LOCH were withdrawn, as was also the Bill of Mr. Hughes, and the Parliamentary (Scotland) Bill. The Seeds Adulteration Bill passed through Committee. On Thursday the ATTORNEY-GENERAL stated, in reply to Mr. W. HENLEY, that the Privy Council had adapted the coronation union of the two Churches when it was proposed to modify its form, the Council was not to make any change in it that might be in consequence of the dissolution of the union. Mr. CHARLEY asked if the recent Act interfered with the Queen's conscience in the coronation oath, whereby she swore to maintain the legislative union between the two Churches. The ATTORNEY-GENERAL denied that Mr. Charley into any discussion as to the serious considerations involved, and that the Government had no intention to break the meaning of that oath. Mr. NORTH, Mr. BAXTER stated that the ground for assimilating the pay of officers serving in Japan to those of other as there were no climatic or other authorise it. The House then went to supply on the Civil Service Estimates, almost without discussion, to the "law and justice." On the vote of the Diplomatic Service, Mr. RYLANDS moved of 10,000l., on the ground that the cost of the service was excessive and unnecessary, and that numerous instances in which economy had been used. Mr. NEVILLE GRENVILLE, Mr. BRISCOE, Mr. SCLATER-BODD, Mr. W. HENLEY, Mr. Alderman CANDLISH supported the motion.

and while admitting, as an... that many reductions were... numerous political and social con...

THE ATLANTIC CABLE OF 1865... covered on Saturday in the Atlantic... distance of 180 miles from the Irish coast...

New Station at... The Metropolitan Railway... The Metropolitan Railway... for by the 1st January next.

City Intelligence.

MARKET, FRIDAY - BRITISH FUNDS: Money, 1/4 to 1/4, both for Money and...

Metropolis and its Vicinity.

Metropolis - Aderman Dikin, the next... MR. GRENVILLE-MURRAY. - The... ATLANTIC CABLE. - The two sections...

Letters expressing regret at being unable to attend... THE DRAMATIC COMPANY - The annual... MAZZINI AND GARIBOLDI - It is said that Mazzini...

to the Duke of Northumb... NEW SMALL-POX AND FEVER HOSPITAL. It has... THE POOR-LAW BOARD... GREAT NEAR LONDON - As far back as 1835...

changes it was argued by Mr. Austen that "we have strong *a priori* reasons for supposing that the course of a band of coal measures coincides with and may some day be reached along the line of the valley of the Thames, while some of the deeper-seated coal, as well as certain overlying and limited basins, may occur along and beneath some of the longitudinal folds of the Wealden denudation." After Mr. Godwin-Austen had startled the scientific world with his propositions, the boring was made at Harwich, and Mr. Prestwich, who had previously been confident that the lower greensand was continuous under London, candidly acknowledged that he was at length constrained to "adopt in great part" Mr. Austen's hypothesis, and to acknowledge the probability "that there is under the central part, at all events, of the London tertiary area a tract or ridge of the older rocks immediately underlying the chalk and gault on different portions of which the three wells of Calais, London, and Harwich have touched; the one on the carboniferous series, the other on the new red sandstone, and the last on some slate rock." The idea of a connection between the Mendip Hills and the coalfields of Belgium was also entertained by the late Sir H. T. De la Beche, in one of whose essays may be found the germ of Mr. Austen's theory. Within the last few days Mr. Austen has appeared as a witness before the Royal Commission on the supply of coal. A singular fact connected with this question occurred during the construction of the London, Chatham, and Dover Railway. While a tunnel was being excavated a few miles distant from Dover the workmen came upon a great mass of some black substance, which crossed the line of the tunnel in the very midst of the chalk. The engineers were obliged to cover up the exposed strata speedily, and the discovery could not be made the subject of deliberate investigation; but a specimen of the substance is preserved in the British Museum.

A WINTER CRUISE TO SOUTHERN LATITUDES.—A first-class ship, fitted up in yacht style, is to leave Southampton on the 15th October, and to return to England about the 15th May. To avoid the winter the ship will cruise in the finest latitudes of the North and South Atlantic (from 30° N. to 30° S.), including visits to Oporto, Cadiz, Gibraltar, Madeira, Teneriffe, Cape de Verde Islands, Bahia, Rio, St. Helena, &c. The highest medical authorities recommend the cruise as the best opportunity ever offered for recruiting health, and no expenses will be spared to make it a thorough pleasure trip. The party will be quite select, and the number limited.

DEATHS BY POISON.—In the five years 1863-67 the number of persons who met with violent death by poison in England and Wales was 2097. In 1620 cases the description of poison is recorded thus:—By arsenic, 83; mercury, 58; opium, 114; morphia, 33; laudanum and syrup of poppies, 426; strychnia, 41; prussic acid and cyanide of potassium, 151; essential oil of almonds, 31; oxalic acid, 66; sulphuric acid, 53; nitric acid, 16; muriatic acid, 5; carbolic acid, 5; salts of lead, 242; improper medicine, 17; overdose of medicine, 52; Godfrey's cordial, 56; improper food, 33; aconite, 6; belladonna, 6; alcohol, 35; ammonia, 8; hartshorn, 3; chlorodyne, 4; vermin killer, 20; turpentine, 2; phosphorus, 15; sulphate of copper, 3; colchicum, 3; disinfecting fluid, 3; nitrate of potash, 3; chloride of zinc, 8; spirits of salt, 3; cantharides, 2; fungi, 6; mussels, 8.

HYDROPHOBIA.—Many fatal cases of hydrophobia, with all the frightful agony which accompanies the termination of that malady, have of late occurred in several parts of the West Riding. At Halifax several men who had been bitten by dogs months before have died from hydrophobia, and a case has occurred at Windhill, near Bradford.

THE PUBLIC HEALTH.—The Weekly Return of the Registrar-General states that in the week that ended on Saturday, July 24, 4437 births and 3289 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 26 per 1000 persons living, being 26 per 1000 in London, 32 in Edinburgh, 16 in Dublin, 23 in Bristol, 14 in Birmingham, 27 in Liverpool, 35 in Manchester, 28 in Salford, 27 in Sheffield, 21 in Bradford, 25 in Leeds, 24 in Hull, 20 in Newcastle-upon-Tyne, and 35 in Glasgow. The annual rate in Paris in the week ending Saturday the 24th inst., was 23 per 1000; in Berlin during the seven days ending the 15th inst., 37 per 1000, and in Vienna during the week ending the 17th inst. 31 per 1000. In London the births of 1076 boys and 1043 girls, in all 2119 children, were registered in the week. In the corresponding weeks of 10 years, 1850-68, the average number, corrected for increase of population, was 2030. The deaths registered in London during the week were 1600. It was the 29th week of the year, and the average number of deaths for that week, corrected for increase of population, was 1514. The present return is therefore 86 above the estimated amount.

Provincial.

BIRMINGHAM.—The damages in the action by Mr. Murphy, against the Mayor of Birmingham, are laid at 1000! It is understood that the prosecution is supported by several prominent members of the Protestant party in the House of Commons, and that an effort will be made to have the case tried in London, instead of Warwick. On Wednesday evening Murphy delivered an address on "Popery and Protestantism Contrasted," in his chapel in this town. At the close of his speech he said that if the Protestants of Birmingham had any pluck they would rout every Irish Papist out of Park Street, and out of Birmingham, and send them back to their own land, for here all they did was to reduce wages. He concluded by craving subscriptions for his defence fund, but these come in very slowly.

BRISTOL.—An absconding bankrupt, Mr. W. J. Lamb, partner in the firm of Morris and Lamb, wholesale tea merchants, of this city, was captured about a fortnight since at Rotterdam. Mr. Lamb had landed some days previously at Flushing, with his family, and was at once taken in custody. From Flushing he was sent to Rotterdam, and delivered to the British Consul, who set him at liberty. He thereupon took up his lodgings at the Hotel Verhaeren, and all the endeavours of the English authorities to arrest him proved ineffectual. In the meantime some disguised policemen arrived from England, engaged quarters in the same hotel, and succeeded in making his acquaintance. Various excursions were proposed and agreed to, and one morning Mr. Lamb and his new friends walked together along the river side till they arrived at the spot where the English steamer Waterloo was lying ready to start for London. Mr. Lamb was invited by his friends to visit the steamer. At first he declined, but was eventually got on board. The British standard was at once hoisted, and the vessel started. The Dutch papers protest against the arrest, and demand that the Government of the Netherlands shall ask satisfaction for such a violation of its territory.

CAMBRIDGE.—The general results of the Examination for Women, lately held by the University of Cambridge, are as follows:—In Group A, including Religious Knowledge, Arithmetic, English History, Literature, and Composition, ten ladies were placed in the first class, eight in the second, seven in the third. In Group B (Languages) two were placed in the first class, two in the second, ten in the third. Several ladies obtained special marks of distinction in Religious Knowledge, Arithmetic, English, French, and German. One passed in Mathematics, three in Political Economy, two in drawing, and one in Music. Thirty-six ladies entered their names. Of these, eleven were either absent from the examination or failed to satisfy the examiners.

HERTFORD.—A strange case of obtaining money under false pretences has been before the magistrates in this town. One evening last week two strangers were found prowling about the passages and corridors of Hatfield House, and as they did not satisfy the inquiries of the servants, the police were sent for, and they were taken into custody. One of them, who was dressed like a gamekeeper, and who gave the name of George Burton, had endeavoured to obtain a garden-roller and a mowing-machine of a Hertford iron-monger, under the pretence that he was one of the Marquis of Salisbury's gamekeepers, and had been sent for the articles by his lordship's steward. The second man, who gave the name of Frederick James Moore, said that he was a London cab-driver, and had been induced by Burton to drive him down from London. When they were taken before the Hertford magistrates, the charge of being in Hatfield House for a felonious purpose was withdrawn, and Moore, who proved to be a London cabman, of respectable character, was discharged from custody. Burton was then charged with endeavouring to obtain a garden-roller and a mowing-machine of Messrs. Nunn, ironmongers, of Hertford, on false pretences. He was also charged with obtaining 5s. of an official on the Great Northern Railway at Barnet on the same evening, while he was on his way to Hatfield, on the pretence that he was one of Lord Salisbury's gamekeepers, and had had his pocket picked of 15s. The prisoner, who had nothing to say in his defence, was committed for trial on both charges.

HULL.—The Wesleyan Conference, which is now in session at Hull, elected on Thursday the President and Secretary of that body for the ensuing year. The votes for the President were as follows:—Luke Wiseman, 16, Dr. James 22, Thomas Vasey, 42; John Farrar, 87; Frederick J. Jobson, D.D., 120. For the Secretary the votes were:—Luke Wiseman, 14; Dr. James, 39, John Farrar, 208. The President then declared Dr. Jobson to be the President, and John Farrar the Secretary of the Conference for the year ensuing. Information has been received in this town of a fatal collision in the Baltic between two Hull steamers, the Niobe and the Clie. The former had her bows stove in, and the latter sank so suddenly, that out of a crew of 26 only six were saved.

ISLE OF MAN.—A domestic tragedy has just taken place in Douglas. In a low part of the town a car driver, named Stuart, resided with his wife and one child, aged five years. The family were wretchedly poor, and were obliged to sell their furniture piece by piece, even to the child's bed. The wife, who is said to have been of drunken habits, procured a shoemaker's knife, and cut the child's throat from ear to ear, almost severing the head from the body. She then rushed from her house to the beach and cut her own throat. She lies in the hospital, in an almost hopeless condition.

LINCOLN.—A farmer's son, named John Wigglesworth, has been committed for trial on a charge of shooting, with intent to murder, his mother-in-law, at Kirton Lindsey, on the 17th inst. The affair seems to have arisen out of family differences. The prosecutrix received five wounds, but none of them are considered dangerous.

LIVERPOOL.—During the past week the new church of St. Margaret, Princes Park Road, has been the scene of a series of disturbances. The church was consecrated on the 20th inst., and for eight days there have been services on the highest Ritualistic model twice a day, with sermons by the most eminent Ritualist clergymen. There have been numerous congregations, and large crowds assembled outside, hooting and yelling. On Friday night the preacher was the Rev. Mr. Bennett, of Frome, and his strictures on the Reformation, &c., caused quite a scene in the church, many rising and leaving the building, some of whom called out "No Popery!" One man was arrested for creating a disturbance, and fined 20s. and costs. On Sunday and Monday the preachers, including the Rev. Messrs.

Mackonochie and Stanton, carried out the ceremony to a little hooting from the outside, concluded on Tuesday.

NEWCASTLE-ON-TYNE.—On Monday Joseph Whitfield, cut throat, aged nine years. He had been and had latterly been subject to fits of religious excitement. His family; but he had usually kept up a constant use of that phrase. The returned a verdict of Willful Murder.

NEWMARKET.—In February a poaching affray took place on the Hall, at Weston Colville, near the brook, the head keeper, had the three off. Three men were engaged on the poachers, one of whom was sentenced to 15 years, the other to 15 months, and the third, called Casbah, until Sunday week, when it was determined was a member of the Metropolitan Police, independent Long of the Cambridge Kingsland station last week, and under a warrant dated in 1863, charged with attempt to murder. He was conveyed committed to the assizes for trial.

NEWPORT PAGNELL.—On Thursday a young man, named William Mobbs, Thomas Newbury, were at work in the occupation of Mr. Scott, farmer, of the evening the boy was found with his head being nearly severed from his body, place where the body was lying a frock were found and identified as Mobbs. The police upon going to the clothes which he wore on that evening with blood. He was taken before the Monday, and committed for trial.

OXFORD.—It is stated that the Viceroy of Egypt will commence a course the University, as a member of Christ October term. His Highness will during his three years of residence, and Wales in 1859. In a Convocation held honorary degree of Doctor in Civil Law Mr. Longfellow, the American poet. Not a very short notice, the Convocation nearly filled, a larger number of the University being present than could expected in the midst of the Long name of the poet was received with great

ST. ASAPH.—An important meeting laity was held in this city on Thursday best mode of increasing the efficacy of this diocese. Earl Powis presided, and present were Sir Watkin Wynne, Bishop of St. Asaph, the Dean of St. large number of clergy and laity. An executive committee, appointed by the read, containing a number of suggestions. The session on the suggestions occupied several meeting ultimately resolved that it was the importance of the subjects mentioned but that they were too momentous that meeting, and would be better discussed meeting in October. Much diversity of Church questions was expressed.

UXBRIDGE.—The sentence of death upon William Murray for the murder of Frederick has been commuted by the Home Secretary penal servitude for life, on the express of Lord Chief Justice Bovill, who tried the

VENTNOR.—The foundation-stone of the of buildings designed to form a part of hereafter known as "The National Centre for Consumption and Diseases of the Chest" on Wednesday in a beautifully situated Undercliff, about a mile west of Ventnor, Princess Louisa, acting as the representative. The Princess Louisa arrived from before 3 p.m., in an open landau, drawn by ponies, with postillions and outriders, and the Prince and Princess Christian, and by the President of the hospital. The Governor of the Isle of Wight, the medical general and reception committees, the district, &c., and conducted inside the cottage luncheon had been prepared. After inside the cottages, a procession was Royal Highness, entering the interior of a marquee which had been erected over the foundationstone, Viscount Eversley, presented from the authorities of the hospital. A been offered up by Bishop Ryan, on laid, and a salute of 21 guns, fired from battery on the cliffs below St. Lawrence ladies then advanced to the stone, and it their offerings of "purses" for the hospital. The choir then chanted a from Bishop Ryan followed, and the brought the proceedings to a close. The marquee her Royal Highness made an the interior of the hospital cottages and planted a tree in the ground in the day.

WIGAN.—It has been ascertained that were killed by the explosion at Haydock whom 50 have been brought to bank. Identification was impossible. It is believed explosion was greatly intensified by the large quantity of powder. The inquest Saturday, but did not go beyond the bodies, so that they might be buried.

choicest qualities. The number of Sheep is about the same as on Monday last; the demand is smaller, but prices are not much altered. Lambs are not selling so well as on Thursday. Choice Calves are rather dearer. Our foreign supply consists of 1922 Beasts, 8060 Sheep, 254 Calves, and 30 Pigs; from Scotland there are 7 Beasts; from Ireland, 80; from Norfolk and Suffolk, 50, and 1560 from the Midland and Home Counties.

Best Scots, Herefords, &c.	5 2 to 5 4	Best Long-wools	4 10 to 5 2
Best Shorthorns	4 10 — 5 2	Do. Shorn	— — — —
2d quality Beasts	3 0 — 3 8	Ewes & 2d quality	4 2 — 4 6
Best Downs and Half-breds	5 4 — 5 6	Do Shorn	— — — —
Do Shorn	— — — —	Lambs	4 8 — 5 8
Beasts, 3680; Sheep and Lambs, 29,670; Calves, 29; Pigs, 110.		Calves	3 4 — 5 4
		Pigs	4 0 — 5 6

THURSDAY, July 29

We have a larger supply of Beasts than on Thursday last; trade is, however, active, and Monday's quotations are freely given. There are not quite so many Sheep, but equal to the demand, and prices remain unaltered. There is more inquiry for choicest Lambs; on the average there is no improvement. Trade is heavy for Calves, and prices are lower. Our foreign supply consists of 257 Beasts, 4620 Sheep, and 460 Calves.

Best Scots, Herefords, &c.	5 2 to 5 4	Best Long-wools	4 10 to 5 2
Best Shorthorns	4 10 — 5 2	Do. Shorn	— — — —
2d quality Beasts	3 0 — 3 8	Ewes & 2d quality	4 2 — 4 6
Best Downs and Half-breds	5 2 — 5 6	Do Shorn	— — — —
Do Shorn	— — — —	Lambs	4 8 — 5 8
Beasts, 1000; Sheep and Lambs, 15,230; Calves, 712; Pigs, 40.		Calves	3 0 — 5 0
		Pigs	4 0 — 5 6

METROPOLITAN MEAT MARKET.—July 31.

Best Fresh Butter	16s. per dozen lb.
Second do. do.	14s.
Small Pork, 4s. 6d. to 5s. 4d.; Large Pork, 4s. 4d. to 4s. 8d. per 8 lb.	

MARK LANE.—MONDAY, July 26.

There was only a moderate supply of English Wheat to this morning's market, for which the reduction of 1s. to 2s. per qr. noted as required by buyers last week was in many instances acceded to. There was a moderate attendance, and the sales of foreign Wheat proceeded slowly at barely the prices of this day's night. Barley, Beans, and Peas were firm. Oats 6d. per qr. dearer. In Flour no alteration.

WHEAT, Essex, Kent, Suffolk, White	50-52	Red	49-50
— — — — — fine selected runs, do.	53-55	Red	51-52
— — — — — Talavera	57-60		
— — — — — Norfolk	—	Red	—
— — — — — Foreign	42-62		
BARLEY, grind. & dist. 28 to 32s., Chev.	—	Malting	38-44
— Foreign, grinding and distilling	24-30	Malting	32-40
OATS, Essex and Suffolk	—		
— Scotch and Lincolnshire, Potato	25-33	Feed	—
— Irish	30-32	Feed	23-28
— Foreign, Poland and Brow	25-30	Feed	21-26
RYE	39-40	Foreign	—
RYE-MEAL, Foreign	—		
BEANS, Mazagan	38s to 40s.	Tick	42-43
— Pigeon	43s to 47s.	Winds	—
— Foreign	—	Small	38-42
PEAS, White, Essex, and Kent	40-41	Suffolk	39-42
— Maple 41s to 45s.	—	Grey	40-42
MAIZE	—	Foreign	28-30
Flour, best marks delivered per sack	39-43		
— 2d ditto	—	ditto	29-40
— Foreign	—	per barrel	23-27
		Per sack	30-40

FRIDAY, July 30.

A few showers have fallen, but with this exception the weather has continued hot and forcing since the 23d inst. The growing crops are reported to progress favourably, and we hear that in some localities early fields of Barley, Oats, and Wheat have been cut, but ten days of fine dry weather will be required before harvest can be general in the counties south of the Humber. The arrivals into Liverpool only have continued large, exceeding 350,000 qrs. of Wheat for the past four weeks, mostly from America; in other ports, and in the agricultural markets of the kingdom, supplies were moderate. The trade has been slow, without leading to a quotable change in the value of Wheat. Spring corn of all descriptions has been a fair sale at former rates, any change in the value of fine Oats, of Beans, or Peas being in favour of sellers. Flour was neglected, and to force sales a reduction of 6d. per barrel and 1s. per sack had to be submitted to. Since Friday last 38 grain and seed-laden vessels have arrived off the coast, of which, with those left over from last week, there remained for sale last night 17 cargoes. The amount of business transacted in cargoes arrived off the coast has not been large, but the tone was steady; Wheat, Maize, and Barley maintained about previous rates. Of July and August shipment of hard Azow Wheat same purchases were made for Portugal, but buyers will not repeat prices paid at present. Rye was very little in demand, and its value remains nominal. Paris, July 29.—The supply of Wheat has continued small, and the demand very limited. Flour quiet but steady. The six marks are quoted at equal to 37s. 9d. per 250 lb. The stock at the Halle is estimated at 7080 cwt.

The arrivals of foreign Wheat and Flour this week have been large, of Oats fair, of other grain small. There was an unusually small attendance at this morning's market, and although we do not alter our quotations, sales were made with difficulty at Monday's prices. Spring Corn was firm, and Oats brought readily the advance of 6d. per qr. established on Wednesday.

ARRIVALS.

Wheat.	Barley.	Oats.	Flour.
English .. 490 qrs.	20 qrs.	— qrs.	— sks.
Irish — " "	— " "	1000 " "	— " "
Foreign .. 43,780 "	2330 "	23,300 "	6900 "
			40,700 bbls.
44,270	2350	24,300	

LIVERPOOL, July 20.—We had a fair attendance at our market to-day, and in Wheat a fair consumptive business was done, at a decline of 1d. to 2d. per cental for inferior descriptions of red, white remaining without change. Flour was in slow request, and without quotable alterations from former currencies. Indian Corn steady. Peas very firm, and 1s. dearer. Beans in fair request, and 6d. dearer. Oatmeal, Barley, and Malt as previously quoted.

SEED MARKET.

There is but little passing just now in the agricultural seed trade. All varieties of Clover and Trefoil seeds are held with firmness; but in the absence of business prices remain unaltered. The recent welcome rains have brought a good demand for sowing Mustard and Rape-seed. Several parcels of new Essex dwarf Rape-seed have been sold on our market,

of which the quality has for the most part been very good. Canary seed is firm. Hemp seed we note 1s. per qr. dearer. New Trifolium has advanced 2s. to 3s. per cwt.; there appears to be a fair crop of English. With regard to French Italian Rye-grass, our advices state that the first crop will be of fine quality, but that in consequence of the long continued drought the second crop will, it is thought, be very deficient. French houses apparently expect much higher prices, for just now they seem to be unwilling sellers.

JOHN SHAW & SONS, 16, Water Lane.

AVERAGES.

	Wheat.	Barley.	Oats.
June 19 ..	46s 2d	32s 2d	27s 8d
— 26 ..	46 4	32 7	29 0
July 3 ..	47 9	35 8	28 2
— 10 ..	49 11	30 6	27 0
— 17 ..	50 2	32 0	28 0
— 24 ..	50 11	30 3	27 3
Average ..	48 4	32 2	27 2

WANTED, as FOREMAN and PROPAGATOR, an active, intelligent, energetic business Man, well up in Roses, Azaleas, Camellias, &c. One who has had the Management of Men, and well up in Sales.—State age, if married, salary, &c., to JOSEPH MEREDITH, The Vineyard, Garston, near Liverpool.

WANTED, an experienced FORESTER, who can also take charge of a Garden and keep Accounts. Salary £80—house, cow, and fuel.—Apply, with copies only of testimonials, to S. M. HUSSEY, Esq., Edenburn, Tralee.

WANTED, by a Gentleman residing in Sussex, a GARDENER, married, without family. No one need apply who cannot produce satisfactory testimonials as to character and qualifications, and a good recommendation from last situation.—Apply by letter to J. D., at Mrs. King's Library, Duke Street, Portland Place, W.

WANTED, a GARDENER (SINGLE-HANDED), in a Gentleman's Family, five miles from town, for a small Flower and Kitchen Garden, Vine, and Orchard house. One accustomed to a Gentleman's service. None need apply who have been more than a few weeks out of situation, and cannot have unexceptionable personal character for ability, sobriety, and honesty, of 12 months, from last employer, in town or suburbs. Wages 25s.—Apply by letter only, stating full particulars, to A. B., 9, St. Helen's Place, E.C.

WANTED, as UNDER GARDENER, in a Gentleman's Family, a Young Man, about 28 years of age. Must understand Flower and Kitchen Gardening. A Single Man would be preferred.—Address A. B., Post Office, Bodenham, Salisbury.

WANTED, as FARM SERVANT, an active, intelligent Man, to Superintend and assist in Working a Gentleman's Small Farm. He must have had considerable experience in the Management of Stock and Land, and be willing to make himself generally useful. A married Man, without incumbrance, preferred, as he would have to live in the lodge.—Apply by letter, with full particulars, also stating the situations held during the last 10 years, to R. E., Lamorby Park, Buxley, Kent, S.E.

To the Seed Trade

WANTED, a MANAGING SHOPMAN for a Retail Business. Unexceptionable references indispensable.—Apply to J. AND R. THYNE, 60, Buchanan Street, Glasgow.

WANTED, as SHOPMAN, Retail, a thoroughly experienced Man, able to take entire Management. Situation permanent.—State where last employed and salary required to H. Y. CLARKE AND SONS, 39, King Street, Covent Garden, W.C.

Salesman.

WANTED, a middle-aged Man, of good address, and with a knowledge of the value of Trees and Plants, to act as SALESMAN and Assist in the Office.—Apply by letter only, to Mr. WM. PAUL, Paul's Nurseries, Waltham Cross, London, N.

WANTED, as ASSISTANT, a Young Man. He must have a fair knowledge of the Seed Business. State reference and salary expected.—JNO. JEFFERIES AND SON, Royal Nurseries, Cirencester.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. E. G. HENDERSON AND SON, Wellington Nursery, St. John's Wood, London, N.W.

Gardeners and Under Gardeners.

WM. CUTBUSH AND SON beg to state that they have at all times on their books MEN of various qualifications, whose characters will bear the strictest inquiry. Any Gentleman making application would save time by clearly stating the duties to be undertaken, wages offered, &c., so that suitable Men may be selected.—Highgate Nurseries, London, N.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS, and GARDENERS and BAILIFFS, of various qualifications, who are open to Engagements. The fullest particulars as to services required and wages given should be forwarded with application.—PAUL'S Nurseries, Waltham Cross, London, N.

To Gardeners and Bailiffs (Head, Foremen, or Under). JAMES CARTER AND CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those who can send unquestionable references need apply. Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & Co. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c. JAMES CARTER AND CO., 237 & 238, High Holborn, London, W.C.

GARDENER (HEAD).—Age 26, single; thoroughly understands the profession in all its branches. Good character O. G., 4, St. George's Terrace, Hurstpierpoint.

GARDENER (HEAD).—Married, no family, a Man of superior attainments, competent to Manage a large Establishment. First-class references.—F. J., *Gardeners' Chronicle* Office, W.C.

GARDENER (HEAD).—Has a thorough knowledge of the profession in all its branches, and can take charge of Land and Stock if required. Good character.—A. B., Griffin's, Fairmaid Cottages, Albert Road, Peckham, S.E.

GARDENER (HEAD).—Messrs. PAUL & SON, The Old Nurseries, Cheshunt, can strongly recommend as a fully experienced Man, capable and expert in all branches, Mr. T. HANCOCK, till now Gardener to the Right Hon. Earl of Cadogan, Watford. Highest references and recommendations.

GARDENER (HEAD).—Age 28; thoroughly understands the Management of Pines, Vines, Early and Late Forcing, Stove and Greenhouse Plants, Flower and Kitchen Gardening, &c. Eight years' good character from late employers.—J. P., 9, Vane Road, Upper Holloway, London, N.

GARDENER (HEAD).—Age 45, married, no incumbrance; thorough practical knowledge of his profession, having had many years' experience in first-class situations; is fully competent to carry out the modern style of Gardening in all its branches.—W., The Gardens, Chiswick, Bury St. A. bur's, Herts.

GARDENER (HEAD).—Has a thorough knowledge of Grapes, Peaches, Citrus, Melons, Stove and Greenhouse Plants, and Flower and Kitchen Gardening. Four and a half years' excellent character from last employer.—E. B., Post Office, Hill Street, Upper Clapton, N.E.

GARDENER (HEAD), age 33.—The services of a thoroughly practical, energetic, and experienced in both North and South, acquainted with all branches of the profession. Management of Land and Woods, &c. W. F. D., C. R. Little, Esq., Secretary, Park Lane, London, W.

GARDENER (HEAD, WORKING).—Eight years' excellent character. Late employer.—W. HUMPHREY, Esq., 1, St. James's Place, London, W.

GARDENER (HEAD, WORKING).—Has had considerable experience in the profession in all its branches, and is well up in the situation. Excellent character.—H. A., Kent Road, London, S.E.

GARDENER (HEAD, or SINGLE-HANDED).—Good knowledge of the profession in all its branches. Excellent character.—GARDNER, H. H., 1, St. James's Place, London, W.

GARDENER (HEAD, or GOOD SINGLE-HANDED).—Age 26, married, no incumbrance, thorough knowledge of Gardening. Good character.—S. J., Thorndon Heath, East Croydon, Surrey.

GARDENER (HEAD), where one, two, or three kept.—A respectable Young Man, married, in Early and Late Forcing, Greenhouses, &c. Flower Gardening, &c.—W. H., Mrs. Cox, River Street, Windsor.

GARDENER (HEAD, or GARDENER).—Age 37, married; thorough practical knowledge of all branches as Head Gardener, &c., during the last years' good character from last situation. Letting being sold.—A. R., Mr. Barnes, Garden Nursery, Bury St. Edmund's, Suffolk.

To Noblemen and Gentlemen

GARDENER (FIRST-CLASS).—Age 40, married, no objection to Nursery. Three years' experience as Head Gardener, &c. Mr. BARRON, Superintendent, Royal Horticultural Garden, Chiswick, London, W.

GARDENER (SECOND).—A single Young Man, 25 years' experience. Good references.—H. Terrace, Gardner's Lane, Putney, S.W.

GARDENER (UNDER).—A respectable Young Man, no objection to Nursery. Three years' experience as Nursery.—W. E., Green, News Agent, Whitechapel.

GARDENER (UNDER), in a Nobleman's Establishment, to work in the House. Years' experience. Good references.—C. D., Heath, Herts.

GARDENER (UNDER, or good SINGLE-HANDED).—Age 28, single, has been used to Early and Late Flower and Kitchen Gardening. Eighteen months' experience. J. B., Messrs. Protheroe & Morris Nursery, Leyton.

FOREMAN, in a Nobleman's Establishment, to be in charge of the Park, Bury St. Edmund's, Suffolk.

FOREMAN, in a first-class place, to be in charge of all kinds of Forcing and general garden work. Good character from last employer, a so from full particulars.—F. J., 11, Hosier Street, Leeds.

FOREMAN, in a good Establishment, to be in charge of all kinds of Forcing and general garden work. Good character from last employer.—M. F., Lower Clapton, London, N.E.

PROPAGATOR (GENERAL).—An experienced amongst Houses, Rhododendrons, &c.—R. T., *Gardeners' Chronicle* Office, W.C.

JOURNEYMAN, in a Nobleman's Establishment, to be in charge of the Garden.—A Young Man. Good character.—A. B., 1, Old's Cray, S.E.

Hothouses, Building, or Repairing

A THOROUGH PRACTICAL WORKMAN.—An of any description of Hot-water Work, good references. Also understands all kinds of Horticultural Building, Laying Ornamental Tiles, and Brickwork. Moderate.—E., 26, Upper Kosomon Street, Clerkenwell.

To Landed Proprietors, Land Agents and AGENT, or ASSISTANT LAND AGENT. Estates.—Thoroughly competent, has assisted in the Management of Landed Estates in Suffolk, and is well acquainted with the Affairs of Counties. References of a high character.—F. W. Esq., Solicitor, 17 and 18, New Bridge Street, London, E.C.

FARM BAILIFF.—Married; thoroughly understands Farming in all its branches, and Selling of Cattle. Wife understands heart and years' excellent character.—Mr. C. HEWITT, Street, land, Reigate.

BAILIFF.—Age 48, married, thoroughly understands modern Farming, Drafting, Steam Cultivation, and Manager of Stock, Breeding, and all Accounts. Active and energetic.—F. B., Post Office, Felham, Huntingford, Herts.

BAILIFF, or STEWARD.—A Nobleman called upon lately to administer a Trust Estate, and use for a very competent Person in the prime of life, above position, is anxious to find a situation in which he can put his personal knowledge, give a most unexpected amount of integrity, ability, Practical Agriculture, and Accounts, also eight years' good reference to Northamptonshire.—Applications addressed to BAILIFF, Messrs. Page, Harding & Rye, Land Agents, A. B., will be attended to.

TRAVELLER, for a large Firm, in the North of Scotland, or Germany.—A Young Man (age 25) and of respectable family, who at the present time is at La Murette, Jardin de la Ville de Paris, and has been three years in the largest Nursery in London. He is taking a place as Foreign Corresponding Clerk, as he speaks his own language, knows perfectly well. Eng. Fr. French Letters to be addressed either to J. J. K. Esq., 15, St. Mark's Road, West Brompton, London, or to J. J. K. Esq., 13, Rue de la Ville de Paris, 131, Rue de la Tour d'Argent, Paris.

J. J. K. BIERBOTTELARIS, Haarlem, Holland.

IMPROVER, in a Nobleman's or Gentleman's Establishment.—Age 21.—Apply, stating particulars, W. S., Post Office, 143, Redgrave Road, London, W.

IMPROVER, in a Nobleman's or Gentleman's Establishment.—Age 20; would give a small Premium. Excellent character.—A. B., Post Office, Eynsham, near Oxford.

WANTED, to place a respectable Young Man to learn the NURSERY and SEED BUSINESS. He must be a good character, and not been in the Trade.—R. M., 1, St. Peter's Street, Norwich.

SHOPMAN, or ASSISTANT.—Age 25, has had experience in the Seed Trade. Good references.—*Gardeners' Chronicle* Office, W.C.

JUNIOR ASSISTANT, in a London Nursery.—A respectable Youth, age 16.—1, 143, Redgrave Road, London, W.

GROOM and GARDENER.—Married; has made himself general useful. Two years' good character.—Y. Z., Broughton, Newport Pagnel.

DAIRYMAID (first-class).—A respectable middle-aged Woman, who has held similar situations under several Noble Families, and is well up in the profession. References of a high order.—DAIRYMAID, Messrs. Dickson & Sons, 106, Eastgate Street, Chester.

Saturday at the private residence of Mr. Gladstone, on Carlton House Terrace. Another Council was held yesterday.

PARLIAMENTARY MOVEMENTS.—In the House of Lords on Thursday, Earl Granville stated that Parliament would probably be prorogued on Wednesday or Thursday next at the latest. The Speaker of the House of Commons gave his customary dinner, before the prorogation of Parliament, on Wednesday evening, to the principal officers of the House of Commons. The election for Salisbury, vacant by the resignation of Mr. Hamilton, took place on Thursday, when Mr. Alfred Seymour, the Ministerial candidate, was returned by a majority of 13 over Mr. Granville Ryder, the Conservative candidate, the numbers being 562 to 549. Mr. Marsh, the second Liberal candidate, who was formerly member for the city for several years, only polled 82.

TRIALS OF ELECTION PETITIONS.—The Nottingham petition was abandoned on Friday, Mr. Serjeant Parry, on the part of Mr. Digby Seymour, stating that the petition had been presented under a strong belief that the employment of "lambs" was illegal, and that they had hoped to prove that a number of them were voters, but the evidence had shown that none of them were employed as "lambs," because they were known to be voters. They had also been unable to establish bribery, and though it was clear that persons had been intimidated, they had not come forward. It was then announced that Mr. Seely would not ask for costs. Baron Martin expressed his approval of the course adopted by both sides, and said that he should report to the House of Commons that Mr. Seely was duly elected. Mr. Justice Willes has ordered 500*l.* to be paid to Mr. Russell Gurney as his costs of the Southampton petition out of 1000*l.* deposit. The costs of the respondent to the Lynn petition, the Hon. R. Bourke, M.P., which will have to be paid by the petitioners, have been taxed at 107*l.* About 200*l.* was struck off.

THE ELECTION COMMISSIONS.—The Commissioners for inquiry into the Beverley election have fixed Tuesday the 24th inst. to commence the inquiry. The Commissioners are Mr. Serjeant O'Brien, Mr. T. J. Barstow, and Mr. Homersham Cox. The Bridgewater Commission will be opened on the 23d August. The Commissioners are Mr. E. P. Price, Q. C., Mr. Chisholm Anstey, and Mr. C. E. Coleridge.

CONSECRATION OF THE BISHOP OF MONTREAL.—The consecration of the Rev. Ashton Oxenden as Bishop of Montreal and Metropolitan of Canada, in the room of Bishop Fulford, took place on Sunday in Westminster Abbey. The Archbishop of Canterbury officiated, and was assisted by the Bishops of London, Rochester, Ely, Gibraltar, Columbia, and Labuan, Bishop Trower, and Bishop Smith, late of Hong Kong. The sermon was preached by the Rev. G. H. Sumner.

THE DEANERY OF DURHAM.—Mr. Gladstone has conferred the Deanery of Durham, vacant by the death of Dr. Waddington, on the Rev. W. C. Lake, formerly tutor of Balliol, and Fellow of Exeter College, Oxford, a preacher at the Chapel Royal, Whitehall, and a Prebendary of Wells. Mr. Lake was a distinguished pupil of Dr. Arnold, and was a member of the Duke of Newcastle's Education Commission.

ENDOWED SCHOOLS COMMISSION.—The Endowed Schools Bill having received the Royal assent on the 2d inst., a Royal warrant was issued on the 3d appointing Lord Lyttelton, Mr. A. Hobhouse, Q. C., and the Rev. Canon Robinson to be Commissioners, and Mr. H. J. Roby to be Secretary to the Commissioners. The Commissioners held their first meeting on Thursday.

THE DOG TAX.—The dog licences are now issued by the Post Office. In the first quarter of the present year 381,476 licences were issued by the Post Office in Great Britain, viz., 340,613 in England and Wales, and 40,863 in Scotland.

Foreign.

FRANCE.—The Senate assembled on Monday, when M. Rouher, the President, delivered a speech, in which he said that it had been convoked to examine important modifications of the Constitution of the Empire, which had been brought about by a fortunate understanding between the Government and the Legislative Body. No Sovereign had followed the movement of public opinion more faithfully than the Emperor, who had always considered power as being the property of the nation. A continual movement had been going on transforming an authoritative Empire into a Liberal Empire by the initiative of the Emperor himself, as was proved by the amnesty and the reforms of 1860, 1863, and 1867, the whole now terminating in a perfected equilibrium between the powers of the State, and a better distribution of their rights and privileges. The impatience and regrets recently manifested were both equally unjust. To wish that France should remain at a standstill while Liberal doctrines took possession of the whole of Europe, would be to disregard the necessary law of the influence of France throughout the world, and to weaken the sacred ties which united the Napoleonic dynasty to the French nation; but to glide with indifference down a decline which led to an abyss, would be to forget that France had a right to require from the Government absolute security against violent passions, mad wishes, and implacable hatred, for, in the words of Augustus, "The Empire is sufficiently popular to go hand and hand with liberty, and strong enough to preserve it from anarchy." The Senate would, therefore, approach the discussion of these constitutional reforms without experiencing a misplaced timidity, and, at the same time, without yielding to a thoughtless impulse; but with the firm intention of interpreting and consecrating the will of the country. The combined efforts of the Government and of the Senate would establish a more genuine harmony and a

more fruitful solidarity between the powers of the State and the institutions of the empire, and would give them renewed strength, lustre and popularity. A *Senatus Consultum* was then read, proposing the following reforms:—

"The initiative of making laws is to rest with the Emperor and the Legislative Body. The Ministers are to depend only on the Emperor, will deliberate in Council under the presidency of his Majesty, will be responsible, but may only be impeached by the Senate. They may be Senators or Deputies, and will have the right of being present at the sittings of either Assembly. The sittings of the Senate will be public. The Senate will make its own Parliamentary regulations, may indicate any modification of which it may consider a law susceptible, and decide that such law be sent back for reconsideration by the Legislative Body, and may oppose the promulgation of a law by the adoption of a resolution to that effect, accompanied by a declaration of motives. The Legislative Body will make its own standing orders, and will appoint a President, its President, Vice-President, and Secretaries. The Senate and Legislative Body will have the right of 'interpreting' the Government, and may adopt orders of the day with preamble. Such orders of the day must be referred to the Emperor if required by the Government. No contract can be discussed until it has been referred to the Emperor and admitted to the Government. If the Government accepts it the Legislative Body will then distinctively pronounce upon it. The budget of expenditure will be voted by chapter. All modifications which may henceforth be made in the Customs tariffs in the international treaties will only become obligatory on receiving the sanction of law. An Imperial decree will be issued settling the relations between the Senate and the Legislative Body, between the Council of State and the Emperor, and between the members of the Council of State."

The committee appointed to examine the *Senatus Consultum* is composed of MM. Devrenne, Delangle, Boudet, De Maupas, Viscount de Lagueronniere, Bouchard, Lacaze, Behic, De Casabianca, and Suin. It is asserted that an Imperial decree, granting an amnesty to political offenders, will be issued on the promulgation of the *Senatus Consultum*. The rumour that the Empress intends during her visit to the East to support the demands of the Roman Catholics with regard to the Holy Sepulchre is formally contradicted. That question having been settled by an international convention, there is no intention whatever of again broaching the matter. The trial of M. Taillefer, cashier of the Union Assurance Company, on the charge of having embezzled nearly 1,500,000 francs, and of M. Pic, chief Editor of the *Etendard*, on the charge of having received part of that money, well knowing it to have been stolen, terminated on Saturday in a verdict of Guilty. M. Taillefer was sentenced to seven years' penal servitude, and M. Pic to 12 years' hard labour. M. Laferriere, one of the Editors of the *Rappel*, has been sentenced for attacks against the prefect of police to one month's imprisonment, and a fine of 200 francs. The Court of Appeal on Saturday quashed a judgment of the Tribunal of Correctional Police, acquitting the *Rappel*, for publishing false news, and sentenced M. Barbieux, the manager, and M. Lokroy, one of the Editors, to a month's imprisonment, and a fine of 500 francs each. A duel took place on Thursday between M. Paul de Cassagnac and M. Gustave Flourens, in which the latter was wounded three times, the last wound he received being a very serious one.

SPAIN.—It has been currently rumoured this week that Mr. Forbes, an eminent merchant of Boston, who is at present at Madrid, had been empowered to make overtures for the recognition of the independence of Cuba. The terms were said to be that Spain should recognize the independence of Cuba, and receive from the new Government 100 millions of dollars (20,000,000*l.*) in bonds to be secured on the revenues of the island and guaranteed by the United States. As, however, the island yields 2,000,000*l.* sterling per annum to Spain, the amount offered would only amount to 10 years' purchase; it was, therefore, considered very doubtful whether the proposal would be entertained. The rumour has since been categorically denied. General Izquierdo, Captain-General of Madrid, has addressed a long communication to the Regent and General Prim, in which he says:—

"I took part in the revolution of September in the hope of seeing morality, law, and justice succeed to the former abuses. The revolution has now been accomplished since 10 months, but my hopes have been deceived, and great abuses, extensive immorality, and deplorable anarchy prevail—disorders to which it is absolutely necessary to put an end. The Constitution having proclaimed the Monarchy, it is indispensably requisite that a Sovereign should be chosen without loss of time. If the Government does not shortly consider the question, I shall abandon all illusion as to the consolidation of the revolution and shall definitively retire into private life."

This communication was read on Saturday at the Council of Ministers, and created a deep impression. The *Official Gazette* of Sunday publishes a circular of Senor Silvela to the diplomatic representatives abroad, in which the Minister says that the moment has now arrived for completely renewing diplomatic relations with foreign Powers. The Carlists, commanded by Brigadier General Sabareigos, have reached the mountains of Toledo, pursued by the Government troops. Carlist bands have also appeared in Pontevedra and Leon. Toledo and Avila have pronounced in favour of Don Carlos, and several arrests have been made in Navarre. Two Carlist leaders were shot on Tuesday at Ciudad Real, by order of a court-martial. After their execution the band to which they belonged petitioned the Government for an amnesty. The Carlist bands are successively dispersing throughout the country. In consequence of some recent acts of violence on the part of the commander of the Volunteers of Madrid, the *Siglo*, and several other journals of moderate politics, have ceased to appear.

PORTUGAL.—The corvette *Stephanie* sailed from Bordeaux yesterday, to bring back the Queen to Portugal, her health being worse. In the sitting of the Cortes on Saturday the Marquis Sa da Bandeira, President of the Council of Ministers, announced that the Minister of Finance and the Minister of Justice

had resigned. The Chambers have authorized the Government to grant concessions for the construction of submarine telegraph lines from the coast of Norway. The inhabitants of the coast of Norwegian Lapland have received to hold an exhibition of all the industrial productions of Finland. SWITZERLAND.—The Swiss National Council, after a long discussion, has approved, without any measures taken for removing Mazzini from the country, of the good understanding existing between Switzerland and Italy.

SAXONY.—A fearful accident, caused by weather, occurred on Monday in the Burg on the valley called the Plauenscher Grund, near Chemnitz. According to inquiries made by Government, the total number of colliers killed by the accident was 289.

POLAND.—The judicial Commission appointed to investigate the case of the imprisoned nun of the convent in company with an escort of soldiers, in passing through the refectory they discovered a secret chamber containing a whole collection of mediæval instruments of torture. Amongst these were two huge crosses weighing 80*lb.* each, which the guilty nuns had to wear on their backs, and a chest, and a number of "crowns of thorns" and sharp iron nails. There were also several iron fetters worn next the skin by penitents, and a knout for flogging the refractory. The Commission next proceeded to the chapel, and found in the four coffins containing the bodies of four nuns. The corpses were well preserved, and could be seen through the upper surface of the coffins, which were of glass. The inquiry lasted all day, but nothing worth noticing was discovered.

AUSTRIA.—The recent speech of Count Beust, Foreign Committee of the Hungarian Diet, respecting the relations with North Germany, and despatches lately published in the Red Book, have given counter-statements at Berlin and Dresden. It is said that there is no foundation for the report that Count Beust has issued a circular to the diplomatic representatives of Austria abroad, explaining the position of Austria, and reiterating that the Cabinet of Vienna requires itself complete freedom of action. It is said that diplomatic correspondence whatever exists between Austria and the Delegation, is the subject of Count Beust's statements. The Budget of the Reichsrath Delegation discussed by the members of the Ministry of War on Wednesday. The proposed expenditure for the construction of two ships of war for the Danube, and for other war material, were also the estimates for some guns, and other war material. During the debate Count Beust said it was hazardous to promise the maintenance of peace for any considerable length of time. He was of opinion that, if no war broke out in the next four years, the preservation of peace in Europe for a long period might be looked upon as certain.

HUNGARY.—The wife of Prince Karoly, having petitioned the King of Hungary for pardon to her husband, his Majesty, acting on the advice of the Hungarian Ministry, has granted this act of grace, and has ordered the case to be tried by the ordinary tribunals of the country.

MALTA.—An extraordinary accident is reported from Malta. Some officers of the garrison thinking to please the inhabitants of the island on the occasion of great festivals, that of the Madonna of Mount Carmel, added to the illuminations provided by the Catholic authorities by fixing a number of shells to the stores, which were always understood to be for the purpose of lighting up the port in the event of a night attack. The pieces were pear-shaped shells, 2 feet in length, but as soon as they were fired they delivered a storm of grapeshot. Fortunately, there were crowds of spectators, little harm was done. The officers, seeing the mistake they had made, threw forward at the risk of annihilation, and threw the shells into the sea, when they exploded with water with a tremendous noise.

ITALY.—An English iron-clad squadron of vessels arrived at Naples on Sunday. During a religious festival in the cathedral of Trani last week, a large quantity of wood, covered with gauze and lighted by thousands of tapers, which had been erected in the centre of the nave caught fire. A general rush of doors was made, and in the confusion a number of women, and children were thrown down and injured, sixteen of whom were killed, and many seriously injured. The fire eventually was extinguished.

TURKEY.—The *Levant Herald* states that the de-camp of the Grand Vizier was to start for Egypt Tuesday with a letter to the Viceroy, enumerating the grievances of the Porte against the latter, including that, in case no satisfactory explanation given, the Porte will consider itself free to withdraw the privileges granted in the firman of 1861. Hobart Pasha left for England on Tuesday on diplomatic business. The French Ambassador Pacha, who had been appointed Minister of Public Instruction of the Viceroy of Egypt, and Halil Pasha were for Tanta, intending to proceed thence to Ismailia. The hereditary Prince Mechmed Pacha, has been appointed Minister of the Interior with Baghib Pacha as councillor *ad interim*. Mehmed Pacha has been appointed Minister of Public Instruction, Cherif Pacha, Minister of Foreign Affairs, and Hilar Pacha Governor of Alexandria.

CAPE OF GOOD HOPE.—The Cape Mail arrived yesterday, with news from Cape Town to the effect

Legislature assembled on June 23. The Governor's speech was the revenue this year of 51,000. No was suggested, but in order to equalize...

It is stated that affairs in Japan are so un- that such hostility continues to be shown that the men-of-war in China have been...

STATES.—The Democrats on Monday the Kentucky elections by an overwhelming majority of the Legislature. The Alabama elections...

In consequence of the rumours to the effect that hostilities have been opened at Madrid for the...

Parliament.

In the House of Lords on Friday, after some discussion, the Married Women's Property Bill was read a second time. The Contagious Diseases (Animals) Bill...

In the Commons on Friday, after the Fortifications (Provision for Expenses) Bill had passed through Committee, Mr NEWDEGATE moved for a return of the number of deeds or instruments enrolled in Chancery during the last three years...

various Chambers of Commerce recommending the construction of a railway from Ramnagar through British Barmah to Western China. Sir S. NORTH...

ment, and it was ultimately withdrawn. Mr. LAMBERT moved a resolution calling on the House to take steps gradually to reduce the National Debt. The CHANCELLOR of the EXCHEQUER, in reply, said that the resolution only affirmed a policy on which Parliament had long been acting, in proof of which he mentioned that between 1859 and 1869 the National Debt had been reduced from 832,813,000*l.* to 795,000,000*l.*, or at the rate of about 3,782,000*l.* a year. The motion was withdrawn. After some conversation on the conduct of the Metropolitan police in a recent case of excess of duty, the House went into Committee on the Parochial Schools (Scotland) Bill, commencing at the 24th clause, with 250 amendments on the paper. After more than two hours had been consumed in a preliminary discussion whether the Bill should be dropped or not, Mr. ELLICE moved that the Chairman should leave the chair. On a division the motion was negatived by 93 to 63. Lord ELCHO then moved that the Chairman report progress. On a division the motion was negatived by 102 to 24. After a third motion by Mr. KNIGHT to the same effect had been rejected by 100 to 24, the Government yielded to a fourth, and at 3.25 consented to progress being reported without the Bill being forwarded a single line. On Wednesday the CHANCELLOR of the EXCHEQUER, in answer to Sir G. JENKINSON, declined to pledge the Government to bring in a measure for dealing with the Malt Tax next year. On the contrary, he hinted that the remission of the tax would, in his view, benefit the landlord interest exclusively, and afford no relief whatever to the agricultural community. Mr. BRUCE moved that the House should go into Committee on the Habitual Criminals Bill, which had come down from the House of Lords. Sir C. ADDELEY, Mr. NEWDFGATE, Mr. HENLEY, and Mr. HADFIELD, opposed the Bill; Mr. G. HARDY and Sir G. JENKINSON supported it. The Bill, except the schedules, then passed through Committee with numerous amendments, the most important of which was the omission from clause 10 of the words, "making seven years' penal servitude an imperative sentence on a third conviction for felony." The Appropriation Bill was read a third time and passed, and several other Bills were forwarded a stage. The Real Estate Intestacy Bill and the Marriage with a Deceased Wife's Sister Bill were withdrawn. On Thursday, in answer to Mr. M'LAREN, Mr. GLADSTONE stated that the Government would make inquiries during the recess, with a view to the appointment of a Parliamentary official to conduct Scotch business in the House of Commons. Mr. WATKIN WILLIAMS gave notice that next session he would move a resolution for the disestablishment of the Church in Wales and the application of her revenues to undenominational education. On the motion for going into committee on the Bishops' Resignation Bill, Mr. GLADSTONE explained that its object was to meet a want long felt by providing episcopal supervision in the event of bishops being permanently incapacitated by old age or mental or physical infirmity. In the event of a prelate resigning on account of these disqualifications, he would be entitled either to 2000*l.* per annum, or to one-third of the income attached to the see, and possibly to the episcopal residence. It also provided for the appointment of coadjutor bishops, with the right of succession, whose remuneration should be paid out of the balance of the salary attached to the see. The Bill, as suggested by Mr. HENLEY, would be limited to two years. Mr. HADFIELD moved, as an amendment, that the Committee on the Bill be postponed for three months, contending that the time was rapidly arriving when bishops would be classed among the useless superfluities of the past, and that their presence in the House of Lords was antagonistic to the interests of the public. Mr. D. DALRYMPLE seconded the amendment, which was supported by Mr. DICKINSON, Mr. BOUVERIE, and Mr. KINNAIRD, and opposed by Mr. MOWBRAY, Mr. ACLAND, Mr. BOWRING, and Mr. M'LAREN. On a division, the amendment was negatived by 112 to 26. The Bill then passed through Committee. Mr. STANSFELD moved the second reading of the Canada (Rupert's Land) Loan Bill, the object of which was to guarantee the loan to be raised by the Canadian Government for the purchase of the Hudson's Bay territory. Mr. MONE moved as an amendment that the Bill be read a second time that day month. The amendment was seconded by Sir C. W. DILKE, who invited the Prime Minister to declare the views of the Government on the subject of colonial guarantees. Mr. GLADSTONE vindicated the transaction both on the grounds of good faith and policy, and said that it was entirely on British considerations that the Bill had been submitted. Mr. CARDWELL, at greater length, explained how the pledge had been given to the Canadian Government in 1866, and urged that it was part of a great act of Imperial policy, from which this country profited as much as Canada. After some remarks from Colonel SYKES, the amendment was negatived by 65 to 10, and the Bill was read a second time. On the third reading of the Metropolitan Board of Works (Loans) Bill, Mr. M'CULLAGH TORRENS renewed his attempt to limit the power of the Board of Works to sell lands acquired for the purpose of parks; but, meeting with no encouragement, he did not go to a division. The Bill was then read a third time and passed. The adjourned debate on the Indian Budget was then resumed by Mr. J. B. SMITH, who pressed on the Indian Government the importance of irrigation works and cotton cultivation. After some remarks by Mr. BAZLEY, Mr. PLATT, Mr. C. DENISON, Sir D. WRDDEBURN, and Mr. KINNAIRD, the usual resolutions declaratory of Indian accounts for the year 1867-68 were agreed to. The Government of India Act Amendment Bill, and the Governor-General of India Bill, passed through Committee. The remaining clauses in the Habitual Criminals Bill were disposed

of in a Committee, and several other Bills were advanced a stage. Yesterday the House again went into committee on the Parochial Schools (Scotland) Bill. On clause 24, Lord ELCHO moved that the chairman do leave the chair. Mr. DISRAELI said it was the duty of every member to support the Ministry in winding up the session, but the House ought not to be called upon to consider what was really a new Bill, after the Appropriation Bill had been introduced. The LORD ADVOCATE defended the Government, and after some remarks by Mr. BRIGHT and others, Lord Elcho's motion was negatived on a division by 99 to 27. The Bill was then proceeded with, and clauses 21 to 45 were passed with several alterations. The House was left sitting.

City Intelligence.

MONEY MARKET, FRIDAY.—BRITISH FUNDS: Consols closed at 92½ to 92¾ for Money, and 92¼ to 93 or Account; New and Reduced Three per Cents., 92½ to 93; Bank Stock, 243 to 245; Exchequer Bills, 3s. to 7s. pm. for March, and 5s. to 10s. pm. for June; India Five per Cents., 111½ to 112.—**FOREIGN:** Spanish, 29; Egyptian (1864), 91 to 92; Ditto (1868), 96½ to 97; Viceroy Seven per Cents., 80½ to 80¾; Ditto Nine per Cents., 97½ to 97¾; Turkish Five per Cents., 43½ to 44½; Ditto Six per Cents., 66 to 66½; Argentine, 79½ to 80; Peruvian, 78½ to 79½; Honduras, 83 to 84; Portuguese, 33½ to 34; Brazilian, 84½ to 85½; United States 5-20 Bonds, 83 to 83½; Erie, 20; Illinois, 94½ to 94¾.

Metropolis and its Vicinity.

ACCIDENT TO SIR AUGUSTUS CLIFFORD.—On Sunday evening as Sir Augustus Clifford was proceeding along the passage at the foot of the staircase leading from the House of Lords to the river front, his foot accidentally caught, and he fell heavily on the stone flooring, breaking his kneecap. He was immediately removed to his residence by the Victoria Tower, and surgical assistance was promptly at hand. He is going on as favourably as can be expected under the care of Mr. Prescott Hewett and Dr. Way, but as he is in his 82d year, much anxiety is felt respecting him, and from the nature of the accident some weeks will elapse before he will be able to walk.

THE CHANNEL PASSAGE BETWEEN ENGLAND AND FRANCE.—The report of Captain Tyler to the Board of Trade, on the improvement of the means of communication between England and France, has been published. It says that the steam packet service between England and France, which is in fact a service between Great Britain on the one hand and Europe and the East generally, on the other, is much in need of improvement. There are now, exclusive of the routes by Ostend and Antwerp, 310,000 passengers a year to be provided for, of whom 142,000 travel by Calais as the mail route; and those numbers are capable of great augmentation on greater facilities and increased comfort being afforded. The existing steamers, restricted as to their dimensions for want of better pier and harbour accommodation, are not proportionate to the importance of the service, but the existing harbours at Dover and Boulogne might, with certain modifications, be made available for vessels of larger size and improved construction at a cost of 100,000*l.* at Dover, and 500,000*l.* at Boulogne, if the two Governments are not prepared to adopt the more extensive project of Mr. Fowler, for constructing, at a cost of two millions of money, special harbours for special steamers. It concludes by saying that the immediate object should be to provide an improved fixed service, irrespective of wind and tide, between London and Paris in eight hours; and that the French Government should be invited to concur in the appointment of an international commission to consider the question.

THE VOLUNTEER ARTILLERY AT SHOEBURYNES.—The annual meeting of the National Volunteer Artillery Association commenced on Monday at Shoeburyness. The competitive trials began on Tuesday, and some excellent practice was made. The winners were verified yesterday morning as follows:—Queen's Prize, 7th West York; Lords' and Commons' Prize, 2d West York; Prince of Wales' Prize, 2d Cinque Ports (Sandwich).

PAYMENT OF DIVIDENDS AT THE BANK.—A correspondence has taken place between the Chancellor of the Exchequer and the Governors of the Bank of England on the expediency of transmitting by post the warrants for the dividends on the Government funds, the result of which is that the Bank has agreed to make arrangements to furnish this facility to all holders of stock who may signify their desire for it.

THE NEW LAW COURTS.—The majority by which the Select Committee appointed to consider the site of the New Law Courts reported on Friday in favour of the Carey Street site was 9 to 7. The real majority against the Government proposal, however, was only one, as Lord Stanley, the Chairman of the Committee, did not vote.

SITE OF NEWGATE MARKET.—Mr. Horace Jones, the City architect, on behalf of the Markets Improvements Committee of the City Corporation, has submitted to the Metropolitan Board of Works a plan for utilising the site of old Newgate Market. It is proposed to form streets on the site of the market by the erection of four blocks of buildings, divided by cross streets, one of 20 and the other of 30 feet in width, and surrounded by a narrow passage. The Building Act Committee, considering that by the plan proposed an improvement will be effected, recommended that the plan be approved, and the Board, under the circumstances, set aside their standing orders as to the width of new streets being of 40 feet, and sanctioned the plan.

NEW DRINKING FOUNTAIN IN REGENT'S PARK.—On Monday the Princess Mary of Teck, formally inaugurated a new drinking fountain erected in the

broad walk of the Regent's Park, at the residence of Mr. Cowasjee Johangheer Ready-Money Parsee gentleman. The fountain, which is 10 feet high, and the founts into which the water is reached by rows of octagonal steps. The Princess Mary of Teck, who was accompanied by Mr. W. Cowper opened the proceedings by an address on behalf of the President and the Metropolitan Drinking Fountain and Cessage Association, requesting her Royal Highness, as the Queen, to accept all right and proper honours and distinctions which might be conferred on the public by a member of one of the most distinguished Parsee families of landed proprietors in the country for the protection which he and his countrymen had enjoyed under British rule. At the conclusion of the address the Princess Kinnaird, M.P., requested the Princess Mary to accept an Indian goblet from the Association on the occasion. The Princess having accepted the address read to her, advanced to the fountain, and filled the water, her Royal Highness said, "I think it good." The Princess then said, in a voice which was heard by all those who accompanied her, "I declare this fountain open." The Princess then inspected the details of the structure, and then took the band of the Queen's Westminsters National Anthem. The public were then invited to approach the fountain, and for some time a stormy contest was sustained regarding the precedence.

DECIMAL COINAGE AND THE METRIC SYSTEM.—The second report of the Standards Commission published yesterday. It states that in the opinion of the Commissioners the time has now come when the law should provide, and facilities be granted by the Government, for the introduction and use of metric weights and measures in the United Kingdom. For this object metric standards, accurately related to the primary metric standards at Paris, deposited in the Standards Department of the Board of Trade, should be legalised; and verified copies of official metric standards should be provided for the authorities for inspectors of such districts as require them. The Commissioners think that the nomenclature, as well as decimal scale of the metric system, should be introduced in this country. The general introduction of the metric system should be permissive only, and not made compulsory after any period to be now specified, so far as the use of metric weights and measures for weighing and measuring goods for sale or conveyance. During that during the concurrent use of the metric and imperial systems, it will be expedient to prevent, as far as possible, imperial and metric weights and measures from being accidentally or fraudulently substituted for each other, the Commissioners are of opinion that authoritative regulations should be established, which each series may be readily and easily distinguished, by the adoption of conspicuous forms or marks for the several weights and measures, and by such other mode as may be determined upon after due inquiry. They think it expedient that customs duties should be levied by metric weight and measure, as by imperial weight and measure. That the use of the metric system, concurrently with the imperial system, should be adopted by other public departments, especially the Post Office, and in the publication of the principal results of the statistics of the Board of Trade, as well as for the admeasurement and certification of the tonnage of shipping. As to the introduction of the metric system, the Commissioners say that, even if the difficulties of establishing an international unit of coinage are at present overcome, yet the decimal system of coinage, which is in the power of the Government, would be very useful to the public.

FREE LIBRARIES.—The Hon. Auberon Herbert, who contested Berkshire in the Liberal interest at the last election, has addressed a letter to the proprietors of newspapers, stating that as all the expenses incurred by the Liberal side at the last election were defrayed by Mr. Walter, who cannot be persuaded to accept of the sum as Mr. Herbert's share of the costs, Mr. Herbert proposes to devote that sum to the establishment of free libraries in Berkshire. To Reading, as the largest town in Berkshire, he offers 250*l.*, and 150*l.* to each of the five towns (including Oxford) which are the largest in Berkshire, to comply with the condition that an amount of 1000*l.* that received should be raised by each town. If the plan being done, Sir G. Young, Mr. J. Hibbert, Mr. Eyre, and Mr. G. Palmer, who have conspired to prevent Mr. Herbert, will pay over the amount intended, on being satisfied that the object intended is fairly carried out. Should any doubt or difficulty arise on any point, the decision of those gentlemen to the course to be pursued will be final. Should any part of the 1000*l.* be unclaimed at the end of six months, it will be dealt with as may seem best under the circumstances.

EPPING FOREST.—On Monday a meeting of the inhabitants of Epping Forest, appointed by a public meeting of the inhabitants of the Mile End Old Town, waited upon the Chancellor of the Exchequer to call his attention to the encroachments on Epping Forest, and urge the Government to take prompt measures to preserve the forest from further encroachments. Mr. Samuda, M.P., introduced a deputation, which included Mr. A. Johnston, M.P., Mr. Reed, M.P., Mr. J. Holms, M.P., Mr. G. Palmer, M.P., Mr. E. R. Cook, and several other gentlemen. Mr. Lowe, in reply, admitted the importance of securing places of recreation for the people, and said that the ground of justice and right dealing for the Government would not be fair for him as a Minister of the Crown to advise the Crown to enforce, for another

rights which had been given specially to the chasing of deer. If the copyholders' rights were re-vested upon by the lord of the manor they were re-vested at law, it was not the business of the courts to interfere and protect them; the Courts were to protect them, and they could protect themselves. The purpose of assisting the people he would not be a small sum of money, but he did grudge the Crown, and he could not therefore name these old forestal rights. It seemed the height of tyranny and oppression to revive these old rights in force in order to prevent the lord of the manor from exercising such control as they pleased over this property when the reason for which those rights were granted had ceased. The Rev. Mr. Hansard said that the rights of the manor and others who enclosed this land were just as obsolete as the rights of the Crown. He said that they were not obsolete, though it would be inconvenient. He would, however, answer the question they had brought forward.

THE GUILDHALL.—Sir Moses Montefiore has been allowed to place in the Guildhall a handsome stained-glass window; and at the last meeting of the Court of Common Council the gift was accepted with thanks, and the necessary arrangements for its reception were ordered to be made. The window nearly complete the internal decoration of the Guildhall, and will be placed here about the same time as the large west window, erected by the Corporation in memory of the Prince Consort, and the side window of Alderman Salomons. The stained-glass window now in the great hall were contributed respectively by the Lancashire operatives in commemoration of the liberality of the citizens at the time of the famine, by Alderman Wilson, the senior member of the Court of Aldermen; Mr. Cornelius Lea, Prime Warden of the Goldsmiths' Company; the Weavers' Company, the Saddlers' Company, and Alderman Stone.

DEMOLITION OF CITY CHURCHES.—Two churches in the city of London are to be demolished, and partly to be re-established and disendowed. One is the church of St. Mildred, in the Poultry, where there has been a congregation of more than two or three for many years past, and the other the church of Allhallows Staining, which has not had a vicar during the last three or four years. Both these churches are now to be taken down under the Union of Benefices Act, and to be merged into adjacent parishes. It is not yet generally announced what arrangements will be made in connection with St. Mildred's, Poultry, but the conditions on which Allhallows Staining is to be demolished, are that out of its large revenues three new churches are to be built within six miles of St. Paul's. It was one of the conditions that a new church at Shaper should be built out of the funds realized at the demolition of St. Benet's, Gracechurch Street, the church has yet been heard of in Stepney.

THE WRITWORTH SCHOLARSHIPS AND EXHIBITIONS.—The competition for the practical work for the scholarships of 100l. each, will be conducted by Colonel Reib, R.E., Mr. Manby, secretary of the Institution of Civil Engineers, and Mr. Marshall, secretary of the Institution of Mechanical Engineers. In addition to these scholarships tenable for the present year, Mr. Whitworth has just offered to the Science and Art Department 60 exhibitions of the value of 25l. each, to be awarded to students in the universities, colleges, schools, public and private, in the United Kingdom. These exhibitions are to be held for one year, and the candidates must show an aptitude for mathematics, natural science, and drawing.

THE BERMUDA DOCK.—A telegram has been received from the Admiralty from Admiral Sir Rodney Mundy at Bermuda, stating that the Bermuda Dock arrived safely on the 28th July. The absence of dock accommodation at Bermuda has long been felt, and the war on the North American and West Indian stations can now be overhauled and repaired at Bermuda instead of being sent home for those purposes.

DISCOVERY OF A ROMAN TOMB IN THE CITY.—Mr. Bert, a surveyor in the City, wrote to the *Times* yesterday, stating that in pulling down some houses in St. Dunstons Lane, a Roman tomb of brickwork has been discovered underneath the foundations. On opening the tomb was found, with a lamp at the feet and a hoard of gold coins at the head. He adds that there was a stone on the tomb, which was deciphered as B.C. 407.

YACHTING-CLASS EXCURSION.—The Earl and Countess of Portsmouth have invited the members of the metropolitan working men's clubs to make an excursion to Hurstbourne Park, in Hampshire, on Monday, the 16th inst.

THE LAUNDRY COMPANY.—The prospectus has been issued of the Family Laundry Company, with a capital of 500,000l., in 250,000 shares of 2l. each, fully paid up, of which only 50,000 are to be issued in the first instance, the other shares to be issued as branch establishments are opened. The company propose to devote the public with laundry and bleaching grounds, in various districts round the metropolis, at the sea-side and other places. They state that in many of the seeds of disease are carried into the homes of families in the washing-basket, many of the present laundresses having no means of washing the clothes, especially in wet weather, in their own apartments, which are situated in districts favourable to the encouragement of disease. The company also guarantee that the washing shall be done entirely by efficient labour, and that no chemicals shall be used which, though giving a brilliant appearance to the articles washed, only tend to destroy the material. The list of directors is, to a considerable extent, composed of medical men. The promoters intimate that the laundry bills of the

private families in the metropolis alone amount to no less than 1,581,950l. per annum, irrespective of the outlying parts, and that holders of 10 shares are to be allowed a discount of 5 per cent. on their laundry bills.

ST PANCRAS WORKHOUSE.—On Monday, at the meeting of the St. Pancras guardians the official letter of the Poor-law Board was read ordering the removal of Mr. Blake's suspension, and his resumption of his duties as master of the workhouse, and forbidding the guardians to suspend any other officer during the remainder of their term of office. A stormy debate followed, in which Mr. Goschen was compared to Oliver Cromwell, and it was announced that since they could not "suspend" any offending officer they would go farther next time and "dismiss" him. Eventually a solemn motion was carried, that the letter of the Poor-law Board and Mr. Goschen's order accompanying it, "do lie upon the table."

THE DETECTIVE POLICE.—The Commissioners of Police have appointed 20 sergeants and 160 constables as a divisional detective police, whose duty it will be to make themselves acquainted with all the criminals in their districts, and their associates, habits, and residences. They will also be employed, under the orders of their superintendents, in tracing crimes committed in the division, and generally in the detection of offences which the police have been unable to prevent. The sergeants are to receive a weekly allowance of 35s. each, and the constables 25s., with an allowance of 5l. to each man in lieu of uniform.

FATAL ACCIDENT TO A CLERGYMAN ON THE ALPS.—The Rev. Julius M. Elliott, of Brighton, was killed by a fall from the Schreckhorn on the 27th ult. He was travelling in Switzerland with the Rev. P. W. Phipps, with the object of ascending several mountains together, and were accompanied by Franz Biner, of Zermatt, Mr. Elliott's guide for the last four years, and by Joseph Lauber, of Zermatt, as porter. On Monday afternoon, the 26th July, they left Grindelwald to sleep at the cave under the Kastenstein, taking with them Peter Baumann, of Grindelwald, as an additional porter. On Tuesday morning they commenced to ascend the Schreckhorn, and the first half of the ascent was effected with comparative ease. As the rocks became more difficult, Mr. Phipps and Baumann put on their ropes. Mr. Elliott, however, declined to put on his, as he thought it was unnecessary. He ascended very rapidly, and went on some distance in advance with his two guides. When Mr. Phipps and Baumann reached the Col at the top, Mr. Elliott, with Biner and Lauber, were just leaving the snow about half way up the final peak, and were cutting the last steps to reach the rocks of the summit. They were in great spirits at their success, and the two parties shouted in congratulation one to another. At this moment, in springing from the snow to the rocks, Mr. Elliott slipped and fell. Lauber was on the rocks, but not firmly placed, and could render no assistance. Biner caught him by the arm for the instant, but failed to hold him, and being unroped Mr. Elliott glided rapidly down the steep snow slopes of the north-east face of the mountain, rolling occasionally over until he disappeared from their sight 1000 feet below, near the Lauter-aar glacier. Ten guides, under the direction of Peter Michel, were sent off to discover the body, which they found on the Lauter-aar glacier on the 28th, and took back to Grindelwald on the next day by the Grimsel and Strahleck.

THE BETTING HOUSES PROSECUTIONS.—On Monday the prosecution of Mr. Wright, of York Street, the well-known betting agent and proprietor of "Wright's Racing Telegrams," was brought to a close, so far as the police magistrates are concerned. Sir Thomas Henry inflicted a fine of 100l., and settled a case for the decision of the superior courts.

ARSON IN THE BOROUGH.—On Monday a serious charge of arson was preferred at the Southwark police-court against a publican named Cusack, landlord of the Dolphin, Red Cross Street, Borough. An alarm of fire was given, but before the brigade and engines arrived the flames had burst through the roof, and were raging in every room. Their progress, however, was arrested in time to leave distinct evidence of the premises having been fired in 14 different places. In each of the parlours the furniture had been piled in a heap, and paraffin poured over it, and there were traces in every direction of the same liquid having been used. The prisoner made no defence, and was remanded.

THE PUBLIC HEALTH.—The Weekly Return of the Registrar-General states that in the week that ended on Saturday, July 31, 4313 births and 3453 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 23 per 1000 persons living, being 27 per 1000 in London, 21 in Edinburgh, 20 in Dublin, 21 in Bristol, 22 in Birmingham, 36 in Liverpool, 37 in Manchester, 27 in Salford, 25 in Sheffield, 26 in Bradford, 30 in Leeds, 17 in Hull, 26 in Newcastle-upon-Tyne, and 32 in Glasgow. The annual rate in Paris in the week ending Saturday the 31st ult., was 22 per 1000; in Berlin, during the seven days ending the 29th ult., 38 per 1000. In London the births of 1066 boys and 1076 girls, in all 2142 children, were registered in the week. In the corresponding weeks of 10 years, 1859-68, the average number, corrected for increase of population, was 2101. The deaths registered in London during the week were 1646. It was the 30th week of the year, and the average number of deaths for that week, corrected for increase of population, was 1654. The present return is therefore 8 below the estimated amount.

Provincial.

BIRMINGHAM.—Mr. Josiah Mason, a Birmingham manufacturer, who has amassed a large fortune during a successful career in this town, has just made over to trustees a magnificent building at Erdington, near

Sutton Coldfield, to be used as an orphanage for 300 children. The structure itself, which is situated in extensive pleasure grounds, cost 60,000l., and the endowment, consisting of landed estates in and around Birmingham, yearly increasing in value, is estimated at 200,000l. The total value of this princely donation is thus 260,000l. A set of almshouses for 26 women is employed along with the orphanage.

BRISTOL.—Mr. Lamb, the Bristol merchant, whose recent forcible removal from Rotterdam, under police and bankruptcy warrants, is considered to be a breach of international law, was charged before the borough magistrates on Wednesday with embezzling 945l., belonging to the partnership of Morris & Lamb. When the case was called on the prosecution was abandoned on account of the difficulty of obtaining evidence, and the prisoner discharged. He was then taken before Mr. Commissioner Hill, at the District Court of Bankruptcy, by whom he was committed on the 1st ult. for refusing to sign the statutory declaration as a bankrupt, or to answer any questions. The bankrupt now surrendered, and, on the application of his counsel, concurred in by the counsel for the assignees, he was discharged from custody, and protection granted till the 16th September.

BURY ST EDMUND'S.—The annual meeting of the Royal Archaeological Institute was held in this town last week, under the presidency of the Marquis of Bristol. During the meeting excursions were made to several interesting churches, mansions, and towns in the district, and numerous objects of historical and antiquarian interest were exhibited by the Mayor and Corporation of Bury, the Marquis of Bristol, the Mayor of Ipswich, Lady Cullum, and others.

DEVONPORT.—On Saturday Arthur Skullen, a corporal of the 57th Regiment, was shot in Raglan Barracks, by William Taylor, a private in the same regiment. Taylor was one of the defaulters of the morning, and had been drilled by deceased. During the drill the deceased discovered that, instead of being in marching order, the man had his knapsack empty, and reported this delinquency to the sergeant-major. Taylor, on falling out from parade, secreted a charge, loaded his Snider rifle and shot deceased through the head, killing him instantly. Taylor, after committing the murder, attempted to destroy himself by cutting his throat. An inquest was held on Saturday, and a verdict of Wilful Murder returned against Taylor, who had in the interval been handed over to the civil power. He was taken before the magistrates on Saturday, and remanded until Tuesday.

DUDLEY.—The sentence of death passed upon Fanny Oliver for the murder of her husband by poison has been commuted to one of penal servitude for life, on the recommendation of Baron Pigott, who tried the prisoner.

LEEDS.—On Wednesday night, some men were engaged at Harewood House, the residence of the Earl of Harewood, in Yorkshire, in dragging the river Wharfe for fish, a number of young cormorants being in process of training for fishing. One of his lordship's gamekeepers, named Kane, got out of his depth and was drowned, after gallant attempts by two gentlemen visiting at Harewood House, the Hon. Gerald Lascelles and Major Fursby, to rescue him.

MOLD.—On Monday David Philips, Robert Jones, and Thomas Gibbons, colliers, were charged before the magistrates with combination and conspiracy in driving out of the county Mr. Young, underground manager of the Leeswood Green Coal and Cannel Company, whose name was prominently before the public in connection with the late riots. The magistrates committed the defendants for trial at the assizes, refusing to accept bail. A large number of colliers and others interested in the result were in the town. In anticipation of disturbance the authorities had brought two companies of the 4th Regiment from Chester, but all passed off peaceably. It was expected, however, that disturbances might occur on the removal of the prisoners, and as a measure of precaution a troop of the 1st Dragoon Guards passed through Warrington on Thursday on their way from Manchester to Mold, to convey the prisoners to the assizes for trial.

NEWBURY.—James Heath, a shepherd in the service of Mr. W. H. Dunn, of Inglewood, near Hungerford, was charged on the 29th ult. with attempting to poison his wife. It appeared that prisoner left his cottage for his work early on the morning of the 27th, and that his wife and child, with Mrs. Taylor, a neighbour, sat down to breakfast together. The child and Mrs. Taylor became sick soon after drinking a small quantity of tea, and the prisoner's wife experienced a burning sensation after she had tasted a spoonful, but the effect upon her was less powerful than upon Mrs. Taylor and the child. The sugar used at the meal was afterwards examined, and found to contain small portions of bichloride of mercury, which the prisoner was in the habit of using to destroy insects in his master's sheep. Prisoner denied his guilt, but was remanded in order that the necessary evidence might be procured. On Thursday he was again brought before the magistrates at Petty Sessions, when it was proved that the bichloride of mercury must have been ground before being mixed with the sugar. The prisoner was then committed for trial at the Assizes.

PENZANCE.—The dangerous pile of rocks lying off the Cornish coast, known by the name of the Great Wolf Rock, is now about to be converted from a source of peril into a beacon of warning. The rocks are about eight miles S.S.W. of the Land's End, and are in extent 56 by 38 yards. They are nearly covered at low water and, to add to their dangerous character, the water immediately beside them ranges from 30 to 40 fathoms. Placed at the very commencement of the Channel navigation, and their existence almost completely concealed, they have caused the loss of many strong ships and of many hundreds of gallant sailors. For nearly eight years the Trinity Board has been engaged in the

rection of a lighthouse upon them, but, from the peculiar nature of the foundation, the work has been difficult and the progress slow. The time available for working on each tide has been reckoned by minutes, and in the whole eight years the greatest number of hours during which workmen could land has been 313 in one year, but in some years that number has been as low as 83. Last week the last stone of the lighthouse which now surmounts the Rock was laid by Sir F. Arrow, Deputy-Master of the Trinity House, who followed up his formal task by a brief expression of thankfulness for the completion of a great work, under unfavourable circumstances, without loss of life or serious accident. The lighthouse tower is built of solid granite, and stands 110 feet above high-water level. The lantern and lens have yet to be fitted, but it is hoped that they will speedily be completed.

PRESTON.—The cotton manufacture in this town continues in a very depressed state. There are 16 mills altogether stopped, and at several others either short time has been introduced or a portion of the machinery only is kept at work. The effect upon the labour market is that in the spinning department alone about 1400 fewer persons are required than would be the case if the trade were in a healthy state.

RYDE.—The foundation of a new parish church for this town, which has hitherto been included in the parish of New Church, was laid on Wednesday by the Princess Christian. Her Royal Highness and Prince Christian arrived at the site of the new building at 4.30 P.M., and were met at the entrance to a pavilion by the mayor and corporation of Ryde, the church-building committee, Mr. Morant, High Sheriff of Hampshire, Sir John Simeon, member for the island, the county and borough magistrates, and others. The dedication service was conducted by Bishop Ryan, assisted by Archdeacon Jacob, and the Rev. A. Poole, Vicar of Ryde. Her Royal Highness having adjusted the stone, declared it to be duly laid. A number of ladies then presented purses, after which a luncheon was given at the Town Hall, presided over by the Mayor of Ryde. About 150 persons were present. The church is to be finished within two years from the present time. Mr. G. G. Scott is the architect.

ST. ALBANS.—The annual meeting of the British Archaeological Association was opened in this town on Monday, and has continued daily during the week. On Monday Lord Lytton, as President, delivered an inaugural address, which was followed by a *déjeuner* at the Town Hall, examination of the Abbey Church and Monastery, and a dinner at the Town Hall, at 7 P.M.—the president in the chair. On Tuesday there were excursions to Bedbourne, Knesworth, Markyate Cell, and Dunstable, and an inspection of the Icknield Way. On Wednesday there was an examination of the churches and town and Sopwell Nunnery, followed by a visit to Verulam and Gorbambury. On Thursday there was an excursion to Hatfield House and Knebworth. Yesterday an excursion was to be made to Hemel Hempstead, Berkhamstead, and Penley Manor House. To-day excursions to Abbot's Langley, King's Langley, and Chenies are planned. Evening meetings took place on each evening, except Monday, at the Town Hall, for the reading of papers and discussions.

SCARBOROUGH.—On Tuesday week two men, named Johnston and Williamson, were charged before the magistrates with having wilfully set fire to the heather on the moors near Harwood Dale, on the estate of Sir Harcourt Johnstone, M.P. On the previous Sunday, at about 9 o'clock, two servant men of Mr. Snowball, a farmer in the neighbourhood, saw the prisoners on the moor and a smoke rising from the spot. On approaching they saw Williamson adding furze to the fire that was burning. On being remonstrated with, Williamson began to tread the fire out, but it rapidly spread, and during the day a number of keepers and others were employed in endeavouring to extinguish it. The prisoners, who walked off when they found themselves in a strait, were tracked to a neighbouring wood, where they were taken into custody. At their examination, on Tuesday, it was stated in defence that the men were merely gathering bilberries, and after lighting their pipes the burning match was thrown carelessly to the ground, thus setting fire to the dry heather. Both prisoners were committed to York for trial.

SLOUGH.—The post office at this place was burglariously entered a few nights ago. Mr. Whitfield, the postmaster, had left about 40*l.* worth of postage-stamps and 8*l.* in money in the office when he closed it; next morning he discovered that the stamps and money had been stolen. Nothing has been heard of the thieves.

Ireland.

ELECTION OF LORD MAYOR.—The Corporation of Dublin on Monday unanimously elected a Conservative, Mr. Purdon, proprietor of the *Farmers' Gazette*, and a large practical agriculturist, to be Lord Mayor for the next year.

MEETING OF IRISH BISHOPS.—A meeting of Irish Bishops took place on Tuesday in the Bilton Hotel, Dublin, to consider what steps should be taken in regard to the future of the Irish Church. The Primate presided, and all the Bishops were present except the Bishop of Cashel. The meeting sat five hours, and then adjourned till next day. The proceedings were strictly private. The Conference was resumed on Wednesday, when the Bishops unanimously resolved that a general Synod should, as promptly as possible, assemble, in which the clergy and laity should be fully and equally represented, and that as the existing representation of the clergy in their Provincial Synods was imperfect, it was desirable that these Synods should be convened to consider changes necessary to adapt their representation to the present circumstances of the Church.

THE IRISH CHURCH COMMISSION.—Lord Monck,

Mr. Justice Lawson, and Mr. George A. Hamilton, the three Church Commissioners appointed by the Act which became law last week, will commence their duties without delay. Judge Lawson will vacate his seat in the Court of Common Pleas, and will be succeeded by the present Solicitor-General. Mr. Hamilton will also vacate the permanent secretaryship of the Treasury, but his successor has not yet been selected.

DISMISSAL OF A HIGH SHERIFF.—Captain Coote, the high sheriff of the county of Monaghan, has been dismissed from his office for refusing to comply with the desire of the Lord-Lieutenant that he should dismiss his sub-sheriff for the partial manner in which he prepared the jury panel for the spring assizes of the county.

THE SHOOTING OF CAPTAIN LAMBERT.—Peter Barrett, the London postman, who is charged with shooting at Captain Lambert, has been committed for trial. He was identified by a gunsmith in Tottenham Court Road, as having bought the revolver from him a few days before the outrage.

DESECRATION OF A CHURCHYARD.—A shocking scene has just taken place in Shankill graveyard, Belfast. The Privy Council, having issued an order for closing a part of the graveyard where the bodies had been buried near the surface, a crowd of people, believing that they could evade the order by so doing, assembled and dug up the remains, for the purpose of re-interring them at the required depth. Upwards of 200 graves were opened, and the bones were strewed over the ground. The Mayor and police stopped the proceedings.

THE CORK POLICE.—The Corporation of Cork having received a letter from the Chief Secretary announcing that half the extra police should be charged on the city, have protested against the force as unnecessary, and on the motion of the ex-Mayor have adopted a resolution that the Council should petition Parliament to suppress all celebrations in the north offensive to Catholics.

THREATENING LETTER TO LORD CLONBROCK.—A threatening letter has been received by Lord Clonbrock, through the Ahascragh Post-office, accompanied by the usual coffin, skull, and cross-bones, warning his lordship that in the event of his not dismissing his land-steward and gardener, he had better make the necessary arrangements for their funerals.

THE FENIAN CONVICTS.—Meetings promoted by the amnesty committee were held on Sunday in Limerick and Galway, to take measures for procuring the release of the Fenian convicts. At the latter place the High Sheriff presided. Resolutions of the usual character were adopted.

Scotland.

THE PRINCE OF WALES AND THE SCOTTISH FREEMASONS.—At a quarterly meeting of the Grand Lodge of Scotland, held in Edinburgh on Monday evening, the Earl of Dalhousie, Grand Master for Scotland, moved that the Prince of Wales be elected patron of the craft in Scotland, in succession to his great uncle, the late King William IV. His lordship stated that he had had an interview with the Prince on the subject, and that his Royal Highness had expressed his willingness to accept the honour. The motion was cordially adopted.

JEDBURGH ABBEY.—The Marquis of Lothian has agreed to build the new church entirely at his own expense, instead of accepting the sum of 900*l.* from the heritors towards its erection, as formerly arranged.

GREAT CAPTURE OF WHALES.—A letter from Stornoway says, that on Saturday week an immense shoal of "calfing whales" were seen deporting themselves off the bay. A fleet of 50 boats, manned by about 140 men, immediately put out, and getting to seaward of the shoal, drove them, after twelve hours' labour, into Stornoway harbour, when they were all driven on shore like sheep. Every description of weapon was brought into use, and 185 whales were soon harpooned and ready for finching. The whole of them were sold by public auction, realising 650*l.*, which is to be equally divided amongst the captors. The largest whale measured 20 feet in length, with a girth of 12 feet, and fetched 12*l.*, the rest averaging about 3*l.* each.

MURDER IN GREENOCK.—On Sunday morning the police of Greenock were called upon by two brothers, Morris and Walter Barbour, and informed that a washerwoman had died suddenly on the previous night in their house, at 13, Nelson Street West. An officer of police visited the house, and found on a bed in the kitchen the dead body of Mary Reid, a widow, aged 50. The corpse was fully dressed, and in a half sitting posture. No signs of violence were at first visible, but on examination of the house blood-stains were discovered on different parts of the floor, and a bed and bedclothing in an adjoining apartment were found saturated with blood. The brothers Barbour were at once arrested, and in the course of the day a *post mortem* examination of the body showed that the woman had been violated, and then murdered in a horrible manner. She had been engaged in cleaning the house of the accused. Morris Barbour, aged 32, is a locomotive foreman, and his brother Walter, aged 20, is an assistant druggist. Their object in calling at the police-office was to have the body removed by the authorities. They were brought before the magistrates on Monday, and remitted on the capital charge.

Railways.

COLLISION ON THE NORTH BRITISH.—On Saturday night the express train from Carlisle to Edinburgh ran into a goods train at Portobello station. The engine of the express train was thrown off the rails, and several waggons broken to pieces. Twelve passengers were injured. Among those most severely

hurt were Mr. Evans, merchant of Manchester, had his face injured and was much shaken; Mr. Good, of Leith, who sustained severe injuries to his breast. The danger signals were not observed by the driver of the express train, who was proceeding on that part of the route, though the goods train was having mistaken some ordinary signals, and was taken into custody on Monday morning.

COLLISION ON THE MANCHESTER AND SOUTH SHIELDS RAILWAY.—On Friday a collision occurred at Heath Station of this line. A passenger train belonging to the Cheshire and Manchester Railway, and a goods train which was being shunted, were injured. The damage to the passenger train was considerable.

FATAL ACCIDENT AT NEWCASTLE.—On Monday evening the two last carriages of a passenger train from Sunderland and South Shields to Newcastle, at 5.50 P.M., ran off the rails at the Gateshead high-level bridge. Mr. Heods, one of the drivers of Messrs. T. and W. Smith, steamship company, was killed, and one of the carriages fell upon him, and he was killed. Several other passengers were injured.

THE FATAL COLLISION AT NEW CROSS.—A coroner's inquest on the body of Mr. Bradley, victualler, who received fatal injuries in a collision which occurred at New Cross, between a passenger train returning from a licensed victualler's dinner at the Crystal Palace and a goods train, concluded last week, when the jury returned a verdict of death by misadventure; but recommended the Brighton company to lay down more stringent regulations for the regulation of the traffic between New Cross and New Cross, and to adopt the block system.

ABANDONMENT OF THE WATERLOO AND WESTMINSTER RAILWAY.—The unsightly stacks of wooden piles which were sunk three years ago in the Thames, between Hungerford and Westminster, for the purpose of constructing a tunnel for the use of the Waterloo and Whitehall Railway, will shortly be removed, the company having been dissolved. Out of an estimated cost of 160,000*l.*, the company has expended, up to the present time, about 50,000*l.*

COLLISION ON THE LANCASHIRE AND YORKSHIRE RAILWAY.—On Wednesday afternoon, as the 110 passenger train from Manchester to Preston and Fleetwood, was crossing the Bolton station, a pilot-engine, when crossing the lines, ran into it with great force, and cut it literally in two. One composite carriage was smashed to pieces, while three others were so damaged as to be unfit for further use. The driver and fireman of the pilot-engine jumped from the train, and escaped uninjured, but the passenger-train sustained serious injuries, and several of them had to be removed to the infirmary. Mr. J. Parkinson, oil merchant, of Preston, sustained laceration of both legs and injury to the spine. Mr. Morgan, sailor, of the United States, who sustained laceration of shoulder and knee-cap; and Mr. Addison, factory operative, Openshaw, who sustained laceration of his legs and severe contusions to his chest. Others who were injured but able to return home were Mr. T. H. Winder, solicitor, and Mr. P. J. Foster, accountant, of Preston, both of whom sustained serious injuries to the head. Mr. Winder was just returning from the Manchester assizes, where he had been giving evidence in the case of Mr. Chatwood against the Lancashire and Yorkshire Railway Company.

COMPENSATION CASE.—At the Manchester Assizes on Wednesday, Mr. Chatwood, the safe manufacturer of Bolton, sued the Lancashire and Yorkshire Railway Company for injuries sustained in a collision on the 31st of October, at Windsor Bridge, Pennine. The plaintiff's forehead was cut by the rim of the train, and although no bad effects immediately supervened, it subsequently became evident that his brain had been injured, and partial paralysis had supervened. It was stated in evidence that the accident occurred at least 10 years from the plaintiff's life, and that it affected his mental faculties. His average income was 420*l.* per annum. The jury returned a verdict for the plaintiff, damages 2000*l.* At the same time Mr. Foster, an accountant, recovered 400*l.* from the company for injuries which he received from the same accident.

Law.

SOUTH WALES CIRCUIT, CARDIFF.—*Lyons v. Thomas and Others.*—Alleged Abduction of a Jewess.—This was a case in which a Baptist minister of Cardiff was alleged to have abducted a young Jewess from the house of her parents in March of last year. The plaintiff was Barnett Lyons, and the defendants were Rev. N. Thomas, Laura Emily, and John S. Hollyer, Cecilia Hollyer, Eleanor Kepp, and A. Schwartz. The declaration alleged in the first instance that the defendants wrongfully enticed and procured the plaintiff's daughter to leave her father's house, and to be unlawfully and against the will of plaintiff to depart from her father's house, she being at the time his servant, and that the defendant had detained his daughter. To these counts the defendant had pleaded not guilty as to the latter, and as to the first count, that Esther Lyons was not the plaintiff's daughter. The circumstances of the case are well known, and the trial which the trial excited caused the Town Hall to be daily during its continuance by members of the dissenting congregations of South Wales. When the abduction, it was proved that Esther Lyons was on one day, with a companion, at Mr. Thomas's house, and that she received, returned her, and next day handed her to a friend. That plaintiff called on Mr. Thomas at his house where his daughter was, and that Mr. Thomas had placed her in the belief that she had not been abducted, and that information convinced him that she had been abducted, and he returned and questioned the Thomas's, and they had seen and entertained her, but declared that they not then know where she was. They knew her name, whose charge she was, and could at any time have ascertained her whereabouts by inquiring of the person in whose house she had placed her. Mr. Thomas went so far as to

of 1s. per qr. has been quoted in the value of this article. We have noticed no particular change in the price of Barley; all other sorts of spring corn met an increased demand at improving rates. Flour was not an active sale, but any change of price has been against buyers; at Birmingham an advance of 3s. 4d. per sack is quoted. The arrivals of grain and seed-laden vessels off the coast since Friday last amount to 115, of which, with those left over from last week, there remained for sale last night 43 cargoes. The floating trade has been steady throughout the week. Wheat prices had a continued improving tendency. Maize, in spite of considerable supplies, was held at full rates, and in a few instances a trifling advance was realised in the early part of the week. Barley was in good request. Rye nominal. Wheat on passage and for forward shipment continued in fair demand at higher quotations; Maize, Barley, and Beans were unaltered in value, with very limited transactions.

Of foreign Wheat and Maize the arrivals this week have been good, but short of all other grain. There was a moderate attendance at this morning's market, and English Wheat brought an advance of 1s. per qr.; foreign was generally held for a similar improvement, which in some instances was paid. Barley, Beans, and Peas were firm at late rates. Oats were 6d. per qr. dearer.

ARRIVALS.

	Wheat.	Barley.	Oats.	Flour.
English	930 qrs.	— qrs.	180 qrs.	— sks.
Irish	—	—	—	—
Foreign	23,590 „	1460 „	5580 „	{ 14,130 „ 4440 brls.
	24,520	1460	5760	

MANCHESTER, Aug. 5.—At our market this morning English Wheat was held for an advance of 1s. per qr., and foreign 3d. per cental, but the weather being finer, the demand was only languid. Flour was in some instances 6d. per sack dearer, but generally last week's rates could not be exceeded in the little business transacted. Oats and Beans were fully as dear, while Indian Corn was about 6d. per qr. cheaper.

SEED MARKET.

During the past week we have had some fine showers, which have imparted life to those kinds of seeds sown at this season; consequently we have a brisk demand for sowing Rape at an improvement of 2s. per qr.; also an advance of 3s. to 4s. per qr. for white Mustard. Some sales have been made of new French Italian Rye grass, for present use, at full prices. Our French correspondents write Italian 2s. per bale higher, and Trifolium 5s. to 6s. per bag advance. In red and white Clover at present but little is doing, the high prices demanded having prevented speculative purchases. Trefoil a little new French and Belgian is offered, for which high prices are demanded. All kinds of bird seeds in fair demand, at full rates. On the whole the seed trade presents a very healthy appearance, and holders are very confident in the expectation of much higher prices as the season advances.

JOHN SHAW & SONS, 16, Water Lane.

AVERAGES.

	Wheat.	Barley.	Oats.
June 26	46s 4d	32s 7d	29s 0d
July 3	47 9	35 8	26 2
— 10	48 11	30 6	27 0
— 17	50 2	32 0	26 0
— 24	50 11	30 3	27 3
— 31	51 9	31 4	27 9
Average . . .	49 4	32 1	27 2

WANTED, in an Old-established Nursery, an experienced and efficient GENERAL FOREMAN and SALESMAN—Apply, stating references and salary required, to LUCOMBE, PINCE, and CO., Exeter Nursery, Exeter.

WANTED, an intelligent, industrious FOREMAN, with a good knowledge of Plant Growing and Forcing. Good reference required. Wages, 16s. per week, and lodgings.—Mr. CRAGGS, Larkbeare, Exeter.

WANTED, as FOREMAN and PROPAGATOR, an active, energetic Young Man; one who has been accustomed to Grow for Market preferred.—C. B., Mrs. Terry, Stationer, High Street, Clapham, S.

WANTED, as FOREMAN and PROPAGATOR, an active, intelligent, energetic business Man, well up in Roses, Azaleas, Camellias, &c. One who has had the Management of Men, and well up in Sales.—State age, if married, salary, &c., to JOSEPH MEREDITH, The Vineyard, Garston, near Liverpool.

WANTED IMMEDIATELY, a respectable middle-aged MAN, to Superintend the Jobbing Department here; one who can Draw Working Plans, Calculate Quantities, &c., preferred.—Apply first by letter, in own handwriting, to Messrs. CUTBUSH and SON, Highgate Nurseries, London, N.

WANTED, an industrious PROPAGATOR (Hard-wooded), who can Graft and Strike Cuttings free of Conifers, Rhododendrons, Clematises, &c.—Apply by letter, with reference and salary required, to GEO. JACKMAN and SON, Woking Nursery, Surrey.

WANTED, an UNDER GARDENER. He must understand his business thoroughly. Good character indispensable.—Apply by letter, stating full particulars, wages required, &c., to Mr. MAPPIN, Thornbury, Sheffield.

WANTED, in a Private Establishment, where Plants are grown extensively for Exhibition, &c., a respectable and industrious Young Man as IMPROVER; one with a fair knowledge of Plant Growing, and desirous of Improvement in the Forcing department, preferred. Wages, 12s. per week.—W. S., The Gardens, Welton House, near Brough, East Yorkshire.

WANTED, an experienced FORESTER, who can also take charge of a Garden and keep Accounts. Salary £30—house, cow, and fuel.—Apply, with copies only of testimonials, to S. M. HUSSEY, Esq., Edenburn, Tralee.

WANTED, a middle-aged Man, of good address, with a knowledge of the Value of Trees and Shrubs, to act as SALESMAN, Plan and Superintend the Improvement of Gardens.—Apply to Mr. WM. PAUL, Waltham Cross, London, N.

WANTED, a Young Man, to act as SHOPMAN, Under Management, and to assist in the Office. A knowledge of Greenhouse Plants desirable.—Apply to Mr. WM. PAUL, Waltham Cross, London, N.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. E. G. HENDERSON and SON, Wellington Nursery, St. John's Wood, London, N.W.

Gardeners and Under Gardeners. WM. CUTBUSH and SON beg to state that they have at all times on their books MEN of various qualifications, whose characters will bear the strictest inquiry. Any Gentleman making application, would save time by clearly stating the duties to be undertaken, wages offered, &c., so that suitable Men may be selected.—Highgate Nurseries, London, N.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS, and GARDENERS and BAILIFFS, of various qualifications, who are open to Engagements. The fullest particulars as to services required and wages given should be forwarded with application.—PAUL'S Nurseries, Waltham Cross, London, N.

To Gardeners and Bailiffs (Head, Foremen, or Under). JAMES CARTER and CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those who can send unquestionable references need apply. Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & Co. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c. JAMES CARTER and CO., 237 & 238, High Holborn, London, W.C.

GARDENER (HEAD).—Age 30; 17 years' experience in Noblemen's and Gentlemen's Establishments in England and Scotland. First-class reference.—G., Feltham, Middlesex.

GARDENER (HEAD).—Married, no incumbrance; a practical successful Cultivator of Stove and Greenhouse Plants, Early and Late Forcing, Fruits, Vegetables, and Flower and Kitchen Gardening. Three years' good character from last employer.—W. C. COLES, Fox Hill, Keston, Kent.

GARDENER (HEAD).—Age 30, married, one child; thorough experience in the Culture of Vines, Peaches, Melons and Cucumbers, Conservatory, and Flower and Kitchen Gardening. Good character from last place.—G. R., 5, Leicester Street, C. Eveland Gardens, Bayswater, W.

GARDENER (HEAD).—Age 34, married; thoroughly up to his work, and can be highly recommended for his abilities in every branch. Has been five years in present situation, and is leaving owing to the death of his employer.—JAMES M'CRACKEN, Primrose Hill, Bradford, Yorkshire.

GARDENER (HEAD).—Age 28; thoroughly understands the Management of Pines, Vines, Early and Late Forcing, Stove and Greenhouse Plants, Flower and Kitchen Gardening, &c. Eight years' good character from late employers.—J. P., 9, Vorley Road, Upper Holloway, London, N.

GARDENER (HEAD).—Middle-aged, married; steady, active, thoroughly practical in every branch of the profession. Seven years in last situation; can be highly recommended. Wages not so much an object as a comfortable situation.—M. N., 54, North Street, Edgware Road, London.

To Noblemen and Gentlemen.

GARDENER (HEAD).—Age 45, married, no family; thoroughly experienced in the various branches of Gardening, Erection of New Houses, and Hot-water Apparatus. Three years' good character.—R. T., The Gardens, Childwickbury, St. Alban's, Herts.

GARDENER (HEAD).—Age 32, married, one child; has a thorough practical knowledge of Early and Late Forcing all kinds of Fruits, Flowers, and Vegetables, Management of Pleasure Grounds, Fruit and Kitchen Gardening, &c. Excellent testimonials and references.—E. C., Mr. W. Linney's, Oatlands Park Weybridge.

GARDENER (HEAD).—Age 24; has a thorough knowledge of the profession, having had much experience in three very extensive Gardens, also a short time at the Jardin de la Ville de Paris. Is fully competent to carry out the style of Modern Gardening as seen in London and Paris.—Application to Messrs. J. DICKSON and SONS, 102, Eastgate Street, Chester; or A. B. C., Mr. Hoar's, 11, Adam Street West, Portman Square, London, W.

GARDENER (HEAD), or FOREMAN in a Gentleman's Garden.—Is an excellent Propagator, and has been most successful in the Cultivation and Management of Vines, Stove and Greenhouse Plants, Fruits, Flowers, &c. Is steady, careful, and trustworthy. The very highest reference.—J. R., Gardeners' Chronicle Office, W.C.

GARDENER (HEAD, WORKING).—Thoroughly experienced; understands Land and Stock. Ten years in place he is leaving, through change of ownership.—C. H., 7, Woodside Villa, Victoria Road, Upper Norwood.

GARDENER (HEAD, or otherwise).—Age 29, married; thoroughly understands the Management of Pines, Stoves and Greenhouse Plants, Early and Late Forcing, and Kitchen and Flower Gardening. Can grow for Exhibition if required. No objection to a good Single-handed place. Good references.—W. S., 2, Colnebrook Cottages, Marway, Twickenham Common, W.

GARDENER (HEAD, or good SINGLE-HANDED).—Age 25, single; thorough practical experience in all branches. Three years' excellent character.—W. R., Lake Cottage, Blitchingley, Surrey.

GARDENER (HEAD), where one or more are kept.—Age 32, married, three in family; understands the profession in all its branches. Can have good character.—C. RAYNER, Chilham Castle Gardens, Kent.

GARDENER.—A Gentleman wishes to recommend his Gardener, who is leaving in consequence of the lease of his house having expired. The Wife is an excellent Laundress.—For further particulars as to character, &c., address W. C., Woodside House, Windsor Forest.

GARDENER (SINGLE-HANDED).—Age 24, married; used to the Early Forcing of Vines and Peaches, Flower and Kitchen Gardening.—J. M., 12, Broadley St., Blandford Square, N.W.

GARDENER, where three or more hands are kept.—Scotch; age 35, married, two children, youngest six years old. Nine years' first-class recommendation from present employer as regards character and ability.—J. B., Barr & Sugden, Seed Merchants, Covent Garden, W.C.

GARDENER, in a small Family, where one or two are kept.—A Young Man, married; no incumbrance. Understands the profession in all its branches. No objection to any part, country preferred.—H. W. Y., Mr. Tuffery's, Southwood Lane, Highgate, N.

GARDENER (SECOND), in a Nobleman's or Gentleman's Garden.—Age 21; several years' experience. Good character from present employer.—J. SEAMAN, Thurstford, Thetford, Norfolk.

GARDENER (SECOND), where two or more are kept.—Experienced; good character.—A. M., Post Office, Barnet, Herts, N.

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Home News.

THE COURT AT OSBORNE.—On Thursday, the 5th inst., the Grand Duchess Marie and Prince Serge of Leuchtenburg visited the Queen, and remained to luncheon. In the afternoon the Queen drove out with Princess Louisa, Prince Arthur, and Princess Beatrice. On Friday morning the Queen walked in the grounds with Princess Louisa and Prince Arthur, and in the afternoon went out with Princess Christian. On Saturday the Queen held a Council at which Viscount Monk, Lord Northbrooke, and Mr. G. A. Hamilton were sworn in as Privy Councillors, and took their seats at the Board. Earl de Grey and Ripon and the Lord Chamberlain had audiences of her Majesty. After the Council the Queen conferred the honour of Knighthood on Mr. William Wright, of Jaggleshorpe Hall, chairman of the Hull Dock Company. The Duke of Argyll was present as Secretary of State, in the absence of the Home Secretary. The Queen afterwards drove out with Princess Louisa, the Duchess of Argyll, and the Duchess of Roxburghe, Prince and Princess Christian, and Prince Arthur, visited Lord and Lady Henry Scott at Beaulieu Abbey. The Dean of Westminster and Lady Augusta Stanley left Osborne. The Duke and Duchess of Argyll arrived on a visit. On Sunday the Queen and Royal family attended Divine service at Whippingham. The Rev. George Prothero officiated and administered the Sacrament. On Monday morning the Queen walked in the grounds with Princess Louisa and Prince Arthur. The Duke and Duchess of Argyll left Osborne. In the afternoon the Queen drove out with Princess Christian, Princess Louisa, Prince Arthur, and Prince Leopold went to an amateur concert at East Cowes Castle, the seat of the Dowager Lady Gort, in aid of the building fund of St. James's Church. On Tuesday morning the Queen walked in the grounds with Princess Louisa, Prince Arthur, and Prince Leopold. In the afternoon the Queen drove out with Princess Christian and Princess Louisa. In the evening Prince Albert of Salm's Braunsfels dined with her Majesty. On Wednesday morning the Queen went out in the grounds with Princess Beatrice, and in the afternoon drove out with Princess Louisa, Prince Arthur, and Prince Leopold. Prince and Princess Christian drove to Shanklin, and visited Prince and Princess Philip of Wurtemberg. The Judge Advocate General had an audience of her Majesty. On Thursday morning the Queen went out with the Princess Louisa, Prince Arthur, and Prince Leopold. Prince Arthur afterwards took leave of her Majesty, on his departure for Canada. The Queen and

Royal family will leave Osborne for Windsor on Thursday next, and on the following evening will leave Windsor for Balmoral.

THE PRINCE AND PRINCESS OF WALES.—The Princess, under the advice of Mr. Paget, Dr. Burckhardt, and Dr. Hausmann, took her first bath at Wildbad on the 5th inst. Their Royal Highnesses and the children can take exercise in the private grounds of the hotel without being incommoded by visitors, and are said to be much pleased with the beauty of the scenery.

PRINCE ARTHUR arrived in London on Thursday evening from Osborne, and left town yesterday for Birkenhead, whence he will sail this afternoon in the Inman Company's steamer City of Paris, for Halifax. His Royal Highness was last night to be the guest of the Hon. Sir Edward Cust, at Leasowe Castle. It is expected that the Prince will visit, previous to his embarkation, the ironclad turret-ship Captain, which has been built for the Royal Navy by Messrs. Laird, at Birkenhead, but it is said that he will not visit Liverpool on this occasion.

THE PRIME MINISTER and Mrs Gladstone left town on Tuesday for Walmer Castle, which Earl Granville has placed at their disposal. Mr. Gladstone is still in much need of repose after the fatigues of a most laborious session, in which more than his own share of the labour necessarily devolved on himself.

THE CABINET.—A Cabinet Council was held on Monday, at the private residence of Mr. Gladstone, on Carlton House Terrace.

PARLIAMENTARY MOVEMENTS.—A new writ has been issued for Caithness, in the room of Mr. Traill, who has accepted the Chiltern Hundreds. Mr. James Traill, barrister, nephew of the retiring member, is at present the only candidate in the field. The nomination for Antrim is fixed for Monday next. The candidates are Sir Shafto Adair and Captain Seymour, the former in the Liberal, the latter in the Conservative interest.

THE BISHOPRIC OF SALISBURY.—Mr. Gladstone has conferred the vacant Bishopric of Salisbury on the Rev. Dr. Moberley, Canon of Chester, and Rector of Brigstone, in the Isle of Wight, the late Head Master of Winchester School. Dr. Moberley is understood to be a sound but moderate High Churchman, and to be free from all Ritualistic tendencies.

THE BISHOP OF LONDON will leave London on Monday next for the Continent, for the purpose of administering confirmation at a few places in Germany, and will be absent from England for a fortnight or three weeks.

MINISTERIAL MOVEMENTS.—It is understood that Mr. Maguire will succeed Mr. G. A. Hamilton as permanent Secretary to the Treasury. This appointment will create a vacancy at Cork. Mr. Stansfeld, of the Treasury, is about to visit Edinburgh, to inquire into the economy and efficiency that would result from the various Boards now sitting in Edinburgh on the Poor Law, Lunacy, and Education, being placed under the direct control and management of a Secretary for Scotland. In the event of such an office being created, it is expected that Mr. Gladstone will confer it on Mr. Baxter. The report that Mr. Chichester Fortescue is to be raised to the peerage, for the purpose of succeeding Earl Spencer as Lord-Lieutenant of Ireland, is contradicted.

Foreign.

FRANCE.—The Emperor is slightly indisposed. His Majesty held, nevertheless, on Wednesday evening, a reception, at which a large number of Senators were present. His Majesty has postponed his departure for the camp of Chalons till to-day. The departure of the Empress for the East has been fixed for the 25th inst. The Prince Imperial will accompany her Majesty as far as Corsica. Queen Isabella left Paris on Saturday for Trouville, where she will spend two or three weeks. The Emperor, on the eve of her departure, paid her a visit which lasted more than an hour. The health of Marshal Niel has become worse, and his life is despaired of. Admiral Rigault de Genouilly has been appointed Minister of War *ad interim*. The Emperor signed yesterday several decrees granting an amnesty to certain persons convicted of press offences and political misdemeanours. The Senate has appointed a committee of ten members to draw up the report on the *Senatus Consultum*, and has elected M. Rouhet as its president. M. Devienne has been appointed its reporter. In the sitting of the committee on Thursday an amendment was moved by Count de Sartiges, proposing that in case the Senate should reject a Bill adopted by the Legislative Body, a mixed committee of Senators and Deputies should be formed to settle the points in dispute. The *Constitutionnel* of yesterday asserts that the project of empowering the *Conseils Généraux* to elect henceforth the members of the Senate has not met with the approval of the majority of the commission. The action against the *Journal Universel* was concluded on Friday. M. Millet, the manager, and M. Ducuing, one of the Editors, were condemned, the former to one month's imprisonment and to a fine of 500f., and the latter to two months' imprisonment. M. Gustave Flourens, who was wounded in a duel last week, is out of danger. A duel with pistols was fought on Monday between M. de la Pennerie, political director of the *Paris* newspaper, and M. Gustave Naxquet, chief Editor of the *Peuple*, of Marseilles. The adversaries were placed at 15 paces: one shot was exchanged, but without effect. The trial of the miners in the Loire district, who took part in the recent riots, has terminated. Sixty-two were condemned to imprisonment for terms varying from one to 15 months; 10 others were acquitted.

SPAIN.—It is said that General Prim intends to offer the crown to King Luis of Portugal. According to this project Spain and Portugal would be united, like

Austria and Hungary, under one Sovereign, the King to reside a great part of the year in Madrid. In consequence of a fresh Carlist conspiracy being discovered in Madrid numerous persons have been arrested, among whom are 3 priests and 17 gendarmes. At Burgos 30 persons, 12 priests, and several canons of the Church, have been arrested. Balenzague, the leader of the Carlist band in Leon, has been shot by order of the sergeant who arrested him; and nine persons have been executed in Barcelona, without trial, on the mere suspicion of having taken part in the movement. A band of Carlists has appeared in Catalonia, but has been dispersed by the Government troops, nine of the insurgents being killed in the encounter. The Carlist leader, Cobecilla Estartus, has since crossed the French frontier, and entered Catalonia, at Pincorda, at the head of a band of 500 men. Other bands of Carlists are expected to enter the country from different points of the frontier. Mr. Forbes, of Boston, who is reported to have instructions from the United States' Government to negotiate with the Spanish Government for the purchase of Cuba, has had several interviews with General Prim and Marshal Serrano. M. Waisweller, the representative of Messrs. Rothschild, has had frequent and long interviews with General Prim and Senor Ardanaz, the Minister of Finance.

PORTUGAL.—The Marquis Sa da Bandeira announced on Wednesday in the Chamber of Deputies that the Ministry had tendered its resignation, which had been accepted by the King. The Duke de Loule was entrusted by his Majesty with the formation of a new Ministry, which has been constituted as follows.—President of the Council and Minister of the Interior, Duke de Loule; War, General Maldonado; Finance, M. A. J. Braancamp; Public Works, M. Lobrouvila; Foreign Affairs, M. Mendez Leal; Marine, M. Biboludo da Silva; Justice, M. Lucciano de Castro.

BELGIUM.—M. Victor Hugo is now at Brussels, paying a visit to his family.

MECKLENBURG SCHWERIN.—The Grand Duchess Marie gave birth to a Princess on Tuesday morning.

AUSTRIA.—In the sitting of the Reichsrath Delegation on Monday, after a general debate on the estimates of the Ministry for Foreign Affairs, Count Beust, the Chancellor of the Empire, contradicted an assertion that he had meddled with German affairs or exercised any kind of pressure for the formation of a South German Confederacy. He reiterated his former assertion that no alliances whatever existed between Austria and other European Powers; but he added that in France Austria had a good friend. It was, besides, a question whether Germany could help her if she required it. The French Government up to the present time had always shown itself friendly towards Austria. France sincerely entertained kindly sympathies for all the peoples of Austria. Most of the disagreements with Prussia arose from the publication of the Red Book, and Baron von Werther, the Prussian Minister in Vienna, was not an impediment to the establishment of better relations between the two countries. The true policy of Austria was one of alliances, not abroad, but at home. In the sitting of Tuesday, after several speakers had demanded the suppression of the Legations in the small German States, and the appointment of a *Chargé d'Affaires* instead of an Ambassador at Rome, Count Beust made a speech, in which he explained the necessity for maintaining the Legations at the small German Courts, and opposed the demand for reducing the Embassy at Rome. He said that Protestant States were now taking up towards the Papal Government the same attitude as the Catholic Powers. The Austrian Government was resolved to allow nothing derogatory to its dignity, and the answer made by it to the last Papal Allocution was decided in tone, though couched in diplomatic terms. A better understanding of the position of affairs was beginning to prevail at Rome. In conclusion, he said that the fact of the Papal posts at the Courts of Vienna and St. Petersburg not being filled up had no political significance. The proposals of the Committee to suppress the Legations at Hamburg, Lubeck, Bremen, Osnenburg, and Brunswick were adopted. All the other amendments were rejected. The expenses for the diplomatic service and the extraordinary expenditure were then approved. In the sitting of Thursday the discussion was closed, and the estimates of the Ministry for Foreign Affairs and Finance were agreed to in accordance with the Committee's report. A commission, consisting of representatives of different ministries, has been appointed to draw up a Bill subjecting convents to the general law on associations, which is to be enlarged in order to bring them under its surveillance.

HUNGARY.—In a full sitting of the Hungarian Delegation on Saturday, in answer to inquiries respecting the frontier dispute with Roumania, Herr Von Orizy, in the name of the Government, said that no violation of the frontier had been committed by Hungary. The Roumanian Government, however, was sending 290 men, with 12 pieces of artillery, to the frontier, a proceeding which under given circumstances would be met by the Hungarian Government with the requisite energetic action. The Delegation afterwards agreed to all the estimates of the Foreign Office. This is considered as a vote of confidence in Count Beust's foreign policy. In the sitting of Monday the Budget of the Ministry for Foreign Affairs, amounting to 1,131,210 florins, was agreed to. The estimates for the consulates in China and Japan were struck out. Herr Orizy, in answer to inquiries, said that the Government would protect the interests of the Protestant Hungarians in Roumania, and that the Government was now engaged in discussing the subject of consular jurisdiction in the East.

ITALY.—It is semi-officially stated that Count Cambray Digny does not intend to make any fresh issue of rentes, and that he will be in a position to

present a satisfactory financial scheme at the opening of Parliament.

RUSSIA.—A new auriferous stratum has been discovered in that part of Siberia traversed by the affluent of the Angara, at a distance of about 200 miles from Teniseisk.

GREECE.—The discussion in the Chamber of Deputies, in reply to the speech from the throne, terminated in the adoption of the address by a large majority. All the country villas around Athens, usually occupied from the month of May, are now empty, in consequence of the general insecurity of life and property from the prevalence of brigandage.

THE PRINCIPALITIES.—Letters from Bucharest state that the persecution of the Jews continues. The Jews are now deprived of the liberty of following their trades, are disabled from acquiring houses, and are not allowed to reside in villages.

EGYPT.—The expected letter from the Porte on Monday. It is reported that the contents are not of such a serious character as was expected, and that the Viceroy will experience difficulty in giving a satisfactory reply. He is to be present at the annual festival of the opening of the Cairo Canal. This step was attributed to the importance to please his subjects, who attach a superstitious surmount this ceremony. It is expected that the Viceroy will afterwards go to Ismailia to be present at the letting of the waters of the Bitter Lakes.

PERSIA.—At the recommendation of the British and Russian Embassies the Porte has come to a provisional agreement with the Persian Ambassador to observe a provisional boundary line until the completion of the Turco-Persian Commission's map, which is expected from London.

INDIA.—Mr. Seton-Karr will go to England in October, and be succeeded in his post as Political Secretary by Mr. Aitchison. A telegram is published in the *Daily Gazette* from Peshawar, asserting that Shere Ali has been shot at and wounded, and that Ismael Khan, Shere Ali's nephew, has escaped. Conflicting reports are current respecting the exact details of this news. The *Delhi Gazette* says that it has received a confirmation of its statement that the news has been wounded, whereas the *Bombay Times* and *Pioneer* declare the news to be a fabrication. The attractions at Agra during the Duke of Edinburgh's visit in January is to be an industrial exhibition, open to the whole army of India. The operations in the Bhandra coalfields have been successful with the most encouraging results. One coal seam has been discovered 30 feet in thickness, and of such extent that it alone could supply all the Indian ways with fuel for 30 years to come.

CHINA.—It is believed at Hong Kong that the Chinese authorities at Peking have officially intimated to Sir Rutherford Alcock that the Duke of Edinburgh cannot be received by the Royal family of China on a footing of equality. Sir Rutherford Alcock has expressed his approval of all Consul Gibson's acts in the Peking affair, including the taking of Ansping. At a meeting of the Hong Kong Association a strong expression of opinion was pronounced against the removal of Consul Gibson from his post. The Yang-tseu export vessels have returned to Shanghai.

AUSTRALIA.—A good deal of discussion has taken place since the arrival of the last mail in reference to the announcement that the Imperial Parliament had been asked to vote Prince Alfred 3500l. in payment of the presents he made in the Australian colonies. It was said that the articles in themselves were of a valuable kind, and that when all the presents to official and other public persons are reckoned up, only a small portion of the 3500l. can be accounted for. A member of the Legislative Assembly has therefore given notice of motion for an inquiry, in order to discover how the bulk of the gifts was disposed of. The Victoria Parliament was engaged in discussing a Land Bill. The session of the Parliament was to meet in September. The question of preserving meat for exportation to Europe was increasing. A number of diamonds, four gold nuggets, and rich quartz reefs had been found recently in Queensland. The Queensland Parliament was sitting, and a proposal had been brought forward for paying the members of the Tasmanian rich quartz discoveries had been made.

NEW ZEALAND.—Accounts from Wellington announce the formation of a new Ministry, which has declared its policy with regard to the rebels to be of a defensive character. Two hundred rebels had been rendered. On the 8th May the rebel force surprised Colonel St. John's troop at Opepe, and wounded two officers and five privates, and wounded the body of the beach at Poverty Bay.

UNITED STATES.—President Grant and Secretary Fish have returned to New York. It is reported that Admiral Porter has been appointed to the command of the West India squadron, and that at a meeting of the Cabinet it has been decided that the Spanish gun-boats shall not be released. The press regard the recent destruction of Spanish gun-boats as indicating that the Administration is about to adopt a policy more favourable to Cuban independence. It is reported that prominent members of Congress are strongly urging the Administration to accord belligerent rights to the rebels. At a meeting of the Cabinet held on Tuesday last, it was resolved to postpone a decision on the Cuban question until the next meeting, to be held a fortnight hence. Important dispatches were looked for in the morning from General Sickles at Madrid. Numerous American journals express satisfaction at the refusal of the British Government to recognise the *Republique Haggerty* as the United States Consul in Cuba. The *New York Herald* denounces his appointment.

as a mark of ignorance, and a wanton insult to Great Britain. The Alabama elections have terminated in the return of four Democratic and two Republican representatives to Congress. At the Tennessee elections on the 5th inst. Mr. Senter, Conservative, was elected Governor by a majority of nearly 40,000 votes. There is now a Conservative majority in the Legislature, and it is almost certain that the late President, Mr. Andrew Johnson, will be returned to the Senate. The Ohio Democracy have nominated Mr. George H. Pendleton as their candidate for the post of Governor. Mr. Pendleton immediately accepted the nomination. General Turbeel, Secretary of the Radical Republican Committee of Mississippi, had an interview in New York with President Grant, from whom he received assurances that the members of the Administration were on the side of the Radicals of Mississippi. The President expressed a wish to trust the Southerners, but declared that the Conservatives of Mississippi were too much connected with the Democrats. The Radical press asserts that the President's expression of sympathy with the Radical branch of the Republican party in Mississippi was intended also to apply to the entire South. M. Mariscal, the Mexican Minister, in presenting his credentials to President Grant, made an acknowledgment of the great obligations of Mexico to the United States, for assisting her to resist European aggression. United States Bonds were depressed on Thursday, in consequence of the renewed agitation of the question of subjecting bonds abroad to taxation. Large orders to sell bonds have been received from Europe. A serious riot between Radical blacks and Democratic whites is reported from Mobile, in which large numbers were wounded on both sides. It is reported that 50,000 Coolie labourers have been actually constructed for by planters in Mississippi, Alabama, and Louisiana. The eclipse of the sun on the 7th inst. was observed to great advantage in New York and the States generally. Great darkness prevailed; and in some parts of the West the sun was totally eclipsed. The phenomenon greatly alarmed the black population.

CANADA.—Reports of the crops in Western Canada are favourable beyond precedent. A meeting has been held at Quebec to adopt measures to check the emigration of French Canadians to the United States.

NEWFOUNDLAND.—The steamer Germania, from New York to Hamburg, was lost in a fog on Saturday night in Trepassy Bay. The passengers and crew were all saved, but the mails and cargo, including \$50,000 dollars in specie, were lost. On Sunday the steamship Cleopatra, from Montreal for London, was wrecked at the same place. The passengers and crew were all saved. Both vessels were totally lost.

MEXICO.—Advices from Mexico state that 10,000 Indians in the Chapas States have revolted against the Government of Juarez. The Mexican member of the Joint Commission for the settlement of pending claims has declared that the claims of Mexico will exceed those of the United States.

CENTRAL AMERICA.—The Government of Nicaragua has offered any aid that may be required by the French engineers for exploring the route of the proposed interoceanic canal. The Cotopaxi volcano in Ecuador is now in active eruption.

Parliament.

In the House of Lords on Saturday the Consolidated Fund (Appropriation) Bill, the Seeds Adulteration Bill, the Nitro-Glycerine Bill, and other Bills were read a third time and passed. On Monday the Royal Assent was given by commission to the Bankruptcy, Telegraphs, and other Bills. The Commons' amendments to the Habitual Criminals Bills and other measures were agreed to. The Duke of Devonshire moved that the Commons' amendments to the Parochial Schools (Scotland) Bill be considered. Lord Mansfield moved as an amendment that the amendments be considered that day three months' on the ground that after the Bill left their lordships' House it had been completely changed by the Commons, and it was now too late to communicate with the House of Scotland in order to ascertain their wishes with respect to it. Lords MELVILLE and SELKIRK expressed the unreasonableness of persevering with the amendments, and Lord COLONSAI insisted that such hurried consideration could not prove satisfactory. Earl GRANVILLE reminded the House that earlier in the session the Bill went through Committee in a single night, and he contended that the Commons' amendments could be considered in a single sitting. On a division, Lord Mansfield's amendment was carried by 55 to 43. The Bill was therefore lost. On Tuesday the House resumed its proceedings, and disposed of a few remaining Bills. Lord REDERSDALE moved that the Parochial Schools (Scotland) Bill be reprinted, with amendments introduced by the Commons, in order to show what it was that each House had agreed to. He said that no member of the late Ministry had taken part in the division of Monday proved that the Commons were not influenced by party motives, and it also showed the inconvenience of delaying so long a measure until within a few days of the close of the session. After some observations from Lord REDERSDALE and RIBON, the motion was agreed to. On Wednesday, the Royal Assent having been given by commission to the Bills, the Commons were summoned to the bar, and the LORD CHANCELLOR read the Queen's speech proroguing Parliament, as follows:—

"We are commanded by Her Majesty to direct your attention to the fact that the Commons have not yet taken part in the division of Monday proved that the Commons were not influenced by party motives, and it also showed the inconvenience of delaying so long a measure until within a few days of the close of the session. After some observations from Lord REDERSDALE and RIBON, the motion was agreed to. On Wednesday, the Royal Assent having been given by commission to the Bills, the Commons were summoned to the bar, and the LORD CHANCELLOR read the Queen's speech proroguing Parliament, as follows:—

"The negotiations in which her Majesty was engaged with the United States of North America have by mutual consent been suspended; and her Majesty earnestly hopes that this delay may tend to maintain the relations between the two countries on a durable basis of friendship.

"Her Majesty has a lively satisfaction in acknowledging the untiring zeal and assiduity with which you have prosecuted the arduous labours of the year.

"In the Act for putting an end to the Establishment of the Irish Church, you carefully kept in view the several considerations which, at the opening of the session, were commended to your notice.

"It is the hope of her Majesty that this important measure may hereafter be remembered as a conclusive proof of the paramount anxiety of Parliament to pay reasonable regard, in legislating for each of the three kingdoms, to the special circumstances by which it may be distinguished, and to deal on principles of impartial justice with all interests and all portions of the nation.

"Her Majesty firmly trusts that the Act may promote the work of peace in Ireland, and may help to unite all classes of its people in that fraternal concord with their English and Scottish fellow-subjects which must ever form the chief source of strength to her extended empire.

"Her Majesty has observed with pleasure your general and cordial readiness to unite in the removal, through the Assessed Rates Act, of a practical grievance which was widely felt.

"Her Majesty congratulates you on having brought your protracted labours on the subjects of bankruptcy and imprisonment for debt to a legislative conclusion, which is regarded with just satisfaction by the trading classes and by the general public.

"The law which you have framed for the better government of endowed schools in England will render the large resources of those establishments more accessible to the community, and more efficient for their important purpose.

"It may reasonably be expected that the Act for the supervision of habitual criminals will contribute further to the security of life and property.

"The measure which has been passed with respect to the contagious diseases of animals will, as her Majesty believes, add confidence and safety to the important trades of breeding and feeding cattle at home, without unnecessarily impeding the freedom of import from abroad.

"By the repeal of the tax on fire insurances you have met a long-cherished wish of the community; and in the removal of the duty on corn her Majesty sees new evidence of your desire to extend industry and commerce, and to enlarge to the uttermost those supplies of food which our insular position in a peculiar degree both encourages and requires.

"Her Majesty trusts that the measure for the purchase and management of the electric telegraphs by the State may be found to facilitate the great commercial and social object of rapid, easy, and certain communication, and may prove no unworthy sequel to that system of cheap postage which has passed with much advantage into so many countries of the civilised world.

GENTLEMEN OF THE HOUSE OF COMMONS.—

"We are commanded to state that her Majesty thanks you for the liberal supplies which you have granted for the service of the year, and for the measures by which you have enabled her at once to liquidate the charge of the Abyssinian expedition.

MY LORDS AND GENTLEMEN.—

"Her Majesty reflects with pleasure that, in returning to your several homes, you may contemplate with thankfulness the fruit of your exertions in the passing of many important laws, a portion of which we have now had it in command to notice.

"During the recess you will continue to gather that practical knowledge and experience which form the solid basis of legislative aptitude; and her Majesty invokes the blessing of the Almighty alike upon your recent and your future labours for the public weal."

The Lord Chancellor then, in her Majesty's name, prorogued Parliament to Thursday, October 23.

In the House of Commons on Friday, after progress had been made with the Parochial Schools (Scotland) Bill, as far as the 49th clause, the Government of India Act Amendment, Governor-General of India, and Habitual Criminals Bills were forwarded a stage. In Committee of the whole House, a resolution was passed authorising the Admiralty to expend the sum of 10,500*l.* on astronomical observations, to be made in various portions of the world, in 1871, on the transit of Venus, Mr. CHILDERS explaining that the opportunity would be a most interesting one for ascertaining the distance of the sun from the earth, and that the expenditure would be extended over five years. Sir R. PALMER called attention to the report of the Marriage Law Commissioners, and asked if the Government intended to introduce next session a Bill establishing a marriage law as nearly as possible uniform for all parts of the United Kingdom, upon principles of equality as between all Churches and religious denominations. Mr. BRUCE admitted the scandal of having different marriage laws in the three kingdoms, but could not promise that the Government would bring in a Bill next session, as they were already deeply pledged in the matter of extradition treaties, foreign enlistment, the Irish land question, and education in England. The subject, however, should have the earliest possible attention. Mr. J. B. SMITH called attention to the report of the Master of the Mint on the condition of our gold coinage, and asked if the Government were prepared to recommend the adoption of any measure extending to this country the advantages of the International Coinage Convention of December, 1865. The CHANCELLOR of the EXCHEQUER, in reply, said that the gold coinage was in a most unsatisfactory condition, and that the waste occurring under our present system was enormous, for of 98,000,000 sovereigns coined since 1850, according to Mr. Jevons' calculation, 44,000,000 had disappeared altogether from circulation. Unlike other countries, we charged nothing for coining bullion, but gave back the manufactured article in exchange for the raw material brought to the Mint without imposing a "mintage" or "seigniorage." As a result of this a regular trade had been established (the chief seat of which was at Brussels) of picking out the heaviest sovereigns and melting them down, and they were also largely exported as bullion. After 18 years' wear, on an average, a sovereign became so reduced in weight as to be no longer a legal tender, but we took no pains to call in our light coinage, and the consequence was that 31½ per cent. of our sovereigns and 40 per cent. of our half-sovereigns were not of the legal weight. To meet

this evil a charge of 1 per cent. should be made at the Mint to repay the cost of coining. This would raise the value of the sovereign in proportion, and arrest the process of depreciation, which had now attained such an extent that the cost of calling it in and recoining it would be 400,000*l.* With regard to an international coinage, the French Mint was about to coin a 25*l.* gold piece, which would be about 2*l.* less in value than our sovereign, and if we were to take 1 per cent. out of the value of our sovereign for mintage, the value of the two would about correspond. As the Spanish doubloon, the American eagle, and the Prussian Frederic would be nearly identical with this 25*l.* piece, the way would be cleared for a general European coinage. He had nothing now to propose, but wished the subject to be ventilated in the country during the recess. Mr. G. H. MOORE complained of representations of cruel treatment suffered by O'Donovan Rossa, at the convict prison at Chatham. Mr. BLAKE gave an account of a visit which he had lately paid to the prisoner in question, and Mr. BRUCE repeated the assurance he had given on a former occasion that the statement of the alleged cruelty was grossly exaggerated, and that there was no truth whatever for the charge that the prisoner had his hands manacled behind his back for 35 days and nights. Mr. H. B. SHERIDAN called attention to the delay on the part of the railway companies in providing a means of communication between passenger and guard in express trains. Mr. BRIGHT explained that the companies were doing all in their power to comply with the law, but they had not yet had time to apply a system of communication to the whole of their rolling stock used for passenger traffic. The House then resolved itself into Committee, and went through the remaining clauses of the Parochial Schools (Scotland) Bill. On Saturday the Canada (Rupert's Land) Loan Bill, as amended, was read a third time and passed. The Parochial Schools (Scotland) Bill, as amended, after a brief discussion, confined almost exclusively to Scotch members, was considered, and ordered to be read a third time. Mr. W. E. FORSTER withdrew the Endowed Schools (No. 2) Bill explaining that its object was to establish a Council independent of the Government, for examining and giving certificates to schoolmasters, and expressing a hope that the subject would be ventilated in the recess. On Monday Mr. T. CHAMBERS gave notice that he would next session call attention to the necessity of some change in the Church of England, consistent with her doctrines and opinions, to bring her more into harmony with the feelings and wants of the great mass of the people. The Parochial Schools (Scotland) Bill was recommitted, for the purpose of introducing several new amendments, and was then read a third time and passed. The Steam Boilers Inspection Bill was withdrawn. In Committee of the whole House, Mr. SHAW LEBEVRE brought in a Bill of 300 clauses to Amend and Consolidate the Mercantile Marine Law, and Mr. M'LAREN brought in a Bill for the Abolition of Compulsory Church Rates in Scotland. Lord ELCHO, in a house of eight members, called attention to a memorial recently presented to the Government, signed on behalf of 30,000 miners, praying for a special inquiry into the causes of recent accidents in coal mines. Mr. BRUCE, in reply, said that he did not agree in the necessity of a special inquiry, as the causes of all these accidents in a general way were perfectly well known. From the pressure of business it had been found impossible to legislate this year, but he hoped to take up the subject next session. On Tuesday the Lords' amendments to the Bishops Resignation Bill and the Titles to Land Consolidation (Scotland) Act (1868) Amendment Bill were agreed to. In reply to Mr. MONK, the CHANCELLOR of the EXCHEQUER stated that no steps would be taken by the Government during the recess with regard to the new Courts of Justice. In answer to Mr. KINNAIRD, the LORD-ADVOCATE expressed his regret at the rejection of the Parochial Schools (Scotland) Bill by the House of Lords, and declined any absolute pledge for next session, though he hoped the Bill might be reintroduced with better hopes of success. On Wednesday Mr. MONSKILL stated, in answer to Mr. M'ARTHUR, that the Government had determined upon introducing the system of religious equality into the island of Jamaica, and that the governor had been instructed to avoid, as far as possible, even the appearance of giving exclusive favour to any one denomination. Mr. VERNON HARCOURT gave notice for next session of a resolution for the abolition of the ratepaying clauses of the Reform Act. The House was then summoned to the Upper House to hear the Queen's Speech, and the session was brought to a close with the usual formalities.

City Intelligence.

MONEY MARKET, FRIDAY.—BRITISH FUNDS: Consols closed at 92½ to 92¾ for Money, and 92½ to 93 for Account; New and Reduced Three per Cents., 92½ to 93; Bank Stock, 244 to 245; Exchequer Bills, March, par to 5*s.* 6*d.*, and June, 2*s.* to 7*s.* 6*d.*; India Five per Cents., 111½ to 112.—FOREIGN: Spanish, 29 to 30; Egyptian (1864), 91½ to 92½; Ditto (1868), 77½ to 78½; Viceroy's Seven per Cents., 81 to 81½; Ditto Nine per Cents., 97½ to 97¾; Italian, 55½ to 55¾; Mexican, 12 to 12½; Peruvian, 79½ to 79¾; Russian (1866), 93½ to 94; Orel, 83½ to 84; Charkof, 82½ to 83½; Nicolas, 67½ to 68½; Moscow, 81½ to 82½; Turkish Five per Cents., 44½ to 45; Ditto Six per Cents., 66½ to 67½; United States 5-20 Bonds, 88½ to 88¾; Erie, 19½ to 19¾; Illinois, 94 to 94½.

Metropolis and its Vicinity.

THE NEXT LORD MAYOR.—The ill-health of Alderman Dakin is admitted on all hands as a good reason why he should be passed over for 1869 and 1870. The

alderman next in succession for the Chair is Alderman Besley, who is prepared to undertake the duties of the office, and will ask the Livery on September 29 to return him to the Court of Aldermen as one of the candidates.

THE STAR OF INDIA—On Friday the Companionship of the Star of India was conferred by the Duke of Argyll, as representative of her Majesty, on some of the gentlemen who have been recently considered worthy of being enrolled in the order. At first it was proposed that the decorations should be bestowed in the midst of an imposing ceremonial, but the idea was ultimately abandoned. Only five of those to whom the honour had been awarded appeared in person at the India Office on Friday to receive their badges from the Duke of Argyll. They were Synd Ahmed Khan, Captain Meadows Taylor, Mr. Richard Price Harrison, Mr. G. N. Barlow, and Mr. Richard Vickers Boyle. They proceeded one by one into the Council Room, where the Secretary of State handed them their badges, with a few words of congratulation. The new Companions afterwards lunched together in one of the rooms of the India Office.

THE HOUSES OF PARLIAMENT—On Friday morning, about half-past 12, while the House of Commons was sitting, a loud explosion was heard in the enclosure on the east side of the tower, near the Speaker's landing-stairs. The police, on proceeding to the spot, found an empty canister which had contained gunpowder, and a yard and a-half of fuse, which was on fire at one end. It was immediately extinguished and thrown into the Thames by a gentleman who happened to be on the spot. The canister, which would hold about a pound and a-half of powder, is supposed to have been mischievously dropped from Westminster Bridge, as the grass close to the bridge wall had the appearance of being burnt.

GUSTAVE DORÉ IN LONDON—M. Gustave Doré and Mr. Blanchard Jerrold have been making a systematic exploration of London, from Wapping to Kensington, among high and low, with the view to a great work on the metropolis. It is said that M. Doré has made a most interesting collection of studies.

THE SALMON FISHERIES—The Select Committee appointed to inquire into the present state of the laws affecting the salmon fisheries of England and Wales, and to report whether any and what amendments are required therein, have reported that "in consequence of the late period of the session, they have been unable to complete their inquiry into the matters referred to them, and they have accordingly agreed to report the evidence taken before them, and to recommend to the House the reappointment of the Committee in the next session of Parliament."

SUNDAY TRADING BILL—Mr. Thomas Hughes, M.P., accompanied by a deputation of Lambeth tradesmen, waited on the Home Secretary on Friday, and presented a memorial, signed by upwards of 20,000 persons, complaining of the large increase of selling and hawking goods on Sundays, and of the great difficulty experienced by private members in bringing this subject before Parliament, and praying that during the recess her Majesty's Ministers would take the matter into consideration, with a view of making it a Government question.

NEW ROMAN CATHOLIC CHURCH—On Thursday week the foundation stone of a new Roman Catholic Church in Eden Grove, Holloway, dedicated to the "Sacred Heart," was laid by Archbishop Manning. At the conclusion of the ceremonial, which was of an elaborate character, the Archbishop alluded to the change of public opinion with regard to the Catholic religion, and argued that the current of feeling showed a tendency to Catholic ideas and Catholic practices, and a gradual uprising in favour of unity of faith which would ultimately bring this country under the sway of the Catholic Church. The new church is to be built from the designs of Mr. Pownall, in the early English style, and will be of red brick, with a tower. It is situated in a very prominent position, in the most thickly-populated part of Holloway, and is to have clergy-house and schools attached.

LONDON BRIDGE—The Court of Common Council, at its last meeting, sanctioned a report from one of its committees by which an extensive restoration of London Bridge will be effected. This step has been taken in consequence of repeated complaints from persons who are obliged to cross the bridge daily, and from many members of the Court, who alleged that it is the most neglected public way in the city, and a disgrace to the Corporation. Previously to the report of the committee being brought up, a petition was presented from the season-ticket holders of the London Bridge Railways, urging that further provision should be made for the foot traffic over the bridge. In accordance with the recommendation of the Committee, the carriage way of the bridge will be entirely repaved, the lamps repaired, the gates and railings at the top of the several sets of stairs repainted, and other repairs effected, at a cost of nearly 4000*l*. The carriage traffic across the bridge will be entirely stopped for 10 or 14 days during the progress of the works.

NEW FINSBURY PARK—On Saturday Sir John Thwaites, with most of the members of the Metropolitan Board of Works, formally opened and gave up to public use the new park near Hornsey, which is to bear the name of Finsbury Park. The ceremony occupied but a short time, and appeared to excite little interest in the neighbourhood. The site of the park is on the southern side of the Seven Sisters Road and Wood Green, with the Manor House on the east and the Great Northern Railway on the west. The cost of the whole park was 94,000*l*, of which sum property purchased and compensation absorbed 51,000*l*; works, 26,800*l*; shrubs and trees, 2100*l*. The cost of the freehold land was at the rate of about 17*l* an acre. It contains about 120 acres. St. James's Park is barely 83 acres, and the Green Park is only 71 acres, so that

the new park is more than a third larger than either, and is, in fact, next to Hyde, Regent's, Battersea, and Victoria, the largest park in London. The designs for laying out the park, the planting, and gardening operations generally, were the work of Mr. Mackenzie.

WORKING MEN'S INTERNATIONAL EXHIBITION OF 1870—A deputation of working men last week waited upon Mr. Bright, M.P., at the Board of Trade to ask him to bring in a short Bill early next session to protect the inventions that might be exhibited at the Working Men's International Exhibition to be held next year. Mr. Bright expressed his entire sympathy with the object of the deputation, and promised to comply with the request.

METROPOLITAN WORKING MEN'S CLUBS—The excursion of the London Working Men's Clubs and Institutes, on Monday next, to Hurstbourne Park, near Whitechurch, Hampshire, the seat of the Earl and Countess of Portsmouth, will be joined by a very large number of persons. Among the clubs whose members will join the excursion are the following:—Shaftesbury Hall (Notting Hill) Club, Brixton Hill Working Men's Club, St. Mary Charterhouse Working Men's Club, Clerkenwell Club, Greenwich Club, Hackney Working Men's Institute, Holloway Working Men's Club, London Artisan's Club (Newman Street), Peckham Working Men's Club, St. James's, Soho, Club, St. Anne's, Soho, Club, Southwark Working Men's Club, Bedford Institute (Spitalfields), Stoke Newington Working Men's Club, and Christchurch, Clapham, Club. The members of these clubs, together with those of the Foresters, Hearts of Oak, building, trade, and co-operative societies, who are expected to join the excursion, will probably bring up the number of excursionists to 1500; but Lord and Lady Portsmouth have expressed their readiness to provide tea in Hurstbourne Park for 2000 persons. Special trains will leave Waterloo Station at 9.10 and 9.30 A.M. on Monday for Whitechurch, and the Hon. Auberon Herbert, chairman of the Council of the Working Men's Club and Institute Union, as well as many leading patrons of working men's clubs, will accompany the excursionists.

THE CONDITION OF THE THAMES—The report of the conservators of the Thames for the past year was published on Tuesday. It says that the condition of the river near the main drainage outfalls at Barking and Crossness has continued to receive their anxious attention. Repeated surveys having convinced them that shoals have been created by the deposit from these outfalls, the conservators made a formal complaint to the Secretary of State for the Home Department, and although no further decrease of the depth of water or actual impediment to the navigation has yet been caused, the conservators find that the deposited matter now spreads over an increasingly extensive area of the bed of the river, and this fact must be regarded with considerable apprehension as to the results. The conservators feel it their duty to remark that a considerable portion of the sewage of the metropolis north of the Thames still continues to pass into the river between Chelsea and the Isle of Dogs. The extension of the system of steam-towing has made it obvious that the obstruction to the navigation, caused by Battersea and Fulham Bridges, ought no longer to be permitted. Without the authority of Parliament no effectual improvement can be made, and that authority will therefore be sought in the ensuing session. The conservators have not, they say, omitted any opportunity for improving the condition of the water. They have given the requisite notices to discontinue passing sewage and refuse into the river. In many cases the discharge has been stopped, and in many others non-compliance has arisen from the uncertainty as to the best mode of disposing of the sewage. In nearly every case the local authorities and others have now decided to adopt some practical scheme, so that in a short time the conservators hope they may be able to announce that sewage and other impurities no longer pass into the river westward of the metropolis. A scheme has been approved for the better drainage of the country near Oxford, by deepening and altering the channel of the river, but the conservators find it will be necessary to obtain parliamentary powers to enable them to carry it out satisfactorily.

MEETING ON THE DEPRESSED STATE OF TRADE—On Wednesday evening a meeting of working men was held in the Shoreditch Town Hall "to take into consideration the present critical state of the country, the depression of trade, and the general want of employment consequent on the importation of foreign manufactured goods, and to petition Parliament for a commission of inquiry as to the working of our commercial policy." The chair was taken by Mr. John Owen, who opened the proceedings in a brief speech, and was followed by Mr. Bartlett, Mr. Sangster, Mr. Brooks, and Mr. Rose, all of whom advocated a return to Protection from their own and most dissimilar points of view. They condemned emigration, because Englishmen might be wanted to defend their country; and condemned the French Treaty, on the ground that it gave protection to France, and the products of French industry. They disapproved, in fact, of all commercial treaties, and referred to the example of America to show that what was, whether rightly or wrongly, considered one of the most advanced countries in the world, protected the native manufacturers, or those who sought her shores, with stringent prohibitive duties, in order that their own industries might not be subjected to foreign competition. The present stagnation of trade, the increase in the number of bankrupts, the increase of pauperism, the increase of emigration, were all attributed to the spread of the principles of Free Trade. Most of the speakers admitted that food should be allowed to enter the kingdom duty free, but some recommended that when foreign articles were superior to those of our own production, a strong preferential

duty should be levied, while all were unanimous in denouncing a policy which gave to the foreigner every advantage which was refused to our own manufacturers. One of the speakers, a person called Riddle, declared against the aristocratic owners of the land in England, and, amid continued cries of "Question," went on to inquire why we kept Royal paupers in England, and why is our own real poor. The following resolution was then put to the meeting, and carried unanimously:—

"That the principle of Free Trade should be based upon equality of international exchanges; but other nations in England, and is the cause of the present depression of trade, meeting, therefore, considers it to be the duty of the Government to institute an immediate inquiry into the working of this unreciprocated Free Trade contributes towards producing what extent it may be limited, so as to produce an effectual remedy."

FALSE WEIGHTS AND MEASURES—At the Petty Sessions held at the Islington Vestry Hall on Tuesday 50 persons were summoned for having in their possession false weights and measures. Of these 23 were licensed victuallers; beer-shop keepers, four; warehouse dealers, four; dairymen, three; oilmen, three; chandler's-shop keepers, two; greengrocers, two; mongers, two; butcher, one; coal dealer, one; chandler, one; fishmonger, one; iron merchant, one; grocer, two. Two cases were adjourned, and one offender could not be found. The fines amounted to 20*l*.

PROPOSED FENIAN DEMONSTRATION—A "grand" Irish monster excursion to Hampton is advertised for Sunday, the 29th inst. "The committee," says an advertisement, "request that every intelligent Irishman who loves God and Fatherland will rally around the national banner on this occasion. Every representative of the several London districts will provide his own van, and take charge of his own contingent of patriots. The latter will meet at the central point of assembly, Lincoln's Inn Fields, whence the procession of Irishmen and the noble daughters of Erin, accompanied by bands and banners and outriders, whose duty it will be to open a free way for the assemblage, will proceed to the appointed spot at the charming and interesting village of Hampton. The names of the men who have favoured the excursion with their support and countenance form a sufficient guarantee that the excursion will be carried out in the true and undying spirit of nationality. Its object will be to make the influence and the power of our country visible in the heart of the enemy, and to raise upon English soil that glorious banner which has braved a thousand disasters, only to float victoriously again over the citadel of our tyrants."

FATAL EXPLOSION ON THE RIVER—On Thursday morning an explosion occurred on the river, opposite the Custom House, by which three persons lost their lives. A steam-tug, carrying an engine of 12-horse power, was lying near the Tower Stairs, when, in the absence of the engineer, who had gone ashore to buy fuel, the boiler suddenly exploded. The vessel was shattered into fragments; the boiler, which weighed nearly 2 tons, was driven upwards to a height of 60 feet, and the captain and stoker were blown to atoms. Some portions of the body of the stoker have been recovered, but those of the captain have not been found. Considering the crowded state of the river, and the close proximity of the tug to other vessels, it is remarkable that only one other case of personal injury occurred. This was a sailor on board the Rotterdam steamer Hollandia, lying a short distance off, who was so much injured that he died soon after reaching Guy's Hospital. Many of the surrounding vessels had their rigging much damaged, and several fragments fell on the deck of a Woolwich steamer, but no passengers were unhurt. The boiler was nearly intact, and no cause can be assigned for the accident.

FATAL COLLISION IN THE CHANNEL—On Sunday night the North German Lloyd steamship Deutschland, on her passage from Bremen to Southampton, came into collision off Hastings with the schooner Mary Boltwood, laden with flints from Dieppe. The schooner was cut in two, and sank immediately, the captain, who was on deck at the time, being rescued by the Deutschland, which stood by for upwards of an hour, but could neither see nor hear anything of the remainder of the crew, consisting of two men and a boy. It appears that the schooner saw the steamer not put her helm apart, according to the regulations, while on the part of the steamer it is stated that the schooner's lights were only visible at a short distance when it was too late to avert the accident.

SOLDIER HIGHWAYMEN—At the Woolwich Petty Court on Wednesday, three artillerymen belonging to the B Battalion at Woolwich, named Gault, Lunnan, and Hays, were charged with committing a highway robbery, with violence, on Mr. George Sturges, a man stealing from him a gold Albert chain, in Wood Street, and 10*s*. The prosecutor resides in the Blackheath Road, by Coombe Park, near Charlton, about midday on the 5th, when he saw the three prisoners coming towards him. One of them asked him if he would oblige them with a fusee. He was feeling in his pocket for one, when the prisoners Lunnan and Hays threw him with great force to the ground. Lunnan held him down, and, holding in his hand a large knife or dagger, threatened to murder him if he made any resistance or called for help. Hays then took his money, watch, and guard from his pocket. They then decamped, followed by Mr. Sturges for some distance, and on meeting a constable he gave information which led to their apprehension. The prisoners Gault did not take any active part in the robbery, but was wanted to see if anybody was coming along. Mr. Patten fully committed all the prisoners for trial.

THE HENDON MYSTERY.—As far back as June 28, a young woman called Elizabeth Warburton, a governess at Mill Hill, was found in an insensible condition on the rails of the Midland Railway, at Cricklewood, near Hendon. She was on the up goods line, and being seen by a youth employed in the neighbourhood he managed without assistance to remove her and to place her in a carriage, which he passed over the spot. Rumours and conjectures of all kinds at once started into existence, the most current being that she had been thrown out of the train on the up-line, in the expectation that she would be cut to pieces by the next train. She was taken to St. Mary's Hospital, where some time elapsed before she regained her senses, and it was not until Tuesday that she was well enough to be questioned. It now turns out that she had no fellow-passenger, but that looking out of the window, the door, which was unfastened, gave way, causing her to fall from the train, which must then have been travelling at the rate of from 25 to 30 miles an hour. She stated distinctly that she was not assaulted by any one, and that she never got into the carriage at any part of her journey. With regard to the bruises and other marks on her body, the medical gentlemen stated that all of them might have been caused by a fall from a train going at the rate of from 25 to 30 miles an hour.

STRUCK AT CHARING-CROSS STATION.—On Friday afternoon Captain Bowker, of the 109th Regiment, on his way from India, threw himself from the balcony of the smoking saloon of the Charing-Cross Hotel on the platform of the interior of the station. He was, of course, killed on the spot, his head being completely smashed. At the inquest on Monday it was proved that he had suffered from sunstroke, and was subject to fits of depression and mental derangement, and the jury returned a verdict of Temporary Insanity. One of the witnesses said that he arrived at the hotel a few minutes after the melancholy affair, to keep a dinner appointment with the deceased.

ATTEMPTED MURDER IN SOUTHWARK.—A daring outrage was perpetrated on Monday afternoon, in the neighbourhood of the Old Kent Road. In Trafalgar Road, just opposite the Victory Tavern, resides Mr. Peake, a Controller of Excise, with his family, all of whom had gone out except Mrs. Peake and her youngest daughter, aged about 15. At about a quarter to 10 o'clock Mrs. Peake, who was lying down in the back bedroom, was aroused by a man entering the room, and striking her a violent blow on the left temple with it, and then, supposing the chisel end of a "jemmy." He then turned to leave the room, but hearing Mrs. Peake cry out, he returned and struck her down with another blow, which fractured her skull. The daughter, who was upstairs dressing, on hearing the noise, ran to her mother's help, when she saw the man with the blood-stained "jemmy" in his hand. She rushed back, and having locked the door, ran to the window, and screamed for assistance. Mr. Wrigglesworth, the proprietor of the Victory Tavern, his barman, and others rushed to the place, but were too late to intercept the man, who escaped with a confederate, who was in waiting. No policeman could be found in the neighbourhood until one hour and five minutes after the discovery of the outrage. An examination of the premises showed that an entrance had been effected by breaking a kitchen door in the area, the steps leading to the front door acting as a screen.

PUBLIC HEALTH.—The Weekly Return of the Registrar-General of Births and Deaths in London and 13 other large towns of the United Kingdom, for the week that ended on Saturday, August 7, 4526 births and 3446 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 27 per 1000 persons living, being 27 per 1000 in London, 28 in Edinburgh, 24 in Dublin, 26 in Bristol, 25 in Birmingham, 35 in Liverpool, 33 in Manchester, 27 in Sheffield, 24 in Bradford, 28 in Leeds, 27 in Hull, 27 in Newcastle-upon-Tyne, and 29 in Glasgow. In Paris the annual rate of mortality in the week ending on August 7, was 22 per 1000; the rate in London during the seven days ending August 5, was 45 per 1000, in Vienna, 35 per 1000 during the week ending July 31. In London the births of 1070 boys and 1130 girls, in all 2130 children, were registered last week. In the corresponding weeks of 10 years, the average number, corrected for increase of population, was 2087. The deaths registered in London during the week were 1630. It was the 31st week of the year, and the average number for that week, corrected for increase of population, was 1634. The present return is therefore 4 below the estimated

The magistrates said that additional police officers should be stationed in the district.

BRADFORD.—At the Borough Court, on Wednesday, R. Dixon Smith, a builder and quarry owner, was charged with having unlawfully detained or falsely imprisoned Miss Mercy Wood, who is in a state of unsound mind. An intimacy commenced between the prisoner and Miss Wood many years ago. She was a person of money and property, and resided until late years with her mother in Westgrove Street. Some time after her mother's death her relatives, who knew she was subject to intervals of unsound mind, desired her to leave the house and place herself under their supervision and care, but she strongly persisted in rejecting all advice to this end. One day, when the matter of her removal had been the cause of some altercation and quarrel between Miss Wood and her brothers, the prisoner, on coming to the door and finding it locked, obtained a ladder, entered the house, and finding Miss Wood there, removed her in a cab. Since that time, said to have been more than four years ago, Miss Wood had been in the care of the prisoner, sometimes at his house in Infirmary Street, Bradford, and sometimes elsewhere, and all applications on the part of her sister to see her and speak to her have been refused repeatedly. Latterly the neighbours of the prisoner have been sometimes shocked to see Miss Wood in a state of nudity at the garret window of the prisoner, and it was through their complaints to the authorities that steps were at length taken to remove her from the prisoner's custody. On Friday, March 2, 1866, the prisoner received at the Bradford Banking Company's bank a cheque for 454l. 2s. 8d., payable to Miss Wood, and endorsed first by the prisoner and next by Miss Wood, and a tenant of Miss Wood had also paid her rent to the prisoner for the house which he let to her. On the 7th of July Superintendent Shuttleworth, of the Bradford police, entered the prisoner's house with a warrant, and found Miss Wood in bed in the garret—a room said to measure 2 yards by 4½ yards—crowded with furniture. She seemed much reduced and emaciated, and was removed to the union workhouse, and was afterwards sent as a lunatic to an asylum. The prisoner held the key of the staircase leading to Miss Wood's garret, and unlocked the door to allow the officer to make his search. Two surgeons gave evidence as to Miss Wood being of unsound mind. The prisoner was committed for trial, but admitted to bail, himself in 200l. and two sureties in 100l. each.

CANTERBURY.—The newly-appointed Archdeacon of Canterbury, Dr. E. Parry, in his first charge to the clergy, delivered at his visitation a day or two since, at St. Margaret's Church, Canterbury, said:—

"Few will be found to deny that in these days there is a larger to the Church from within and without. We are threatened by old perils re-appearing in modern forms, as well as by new dangers arising from causes which did not exist, or exist in less degree, and in other combinations, in earlier times. Time was when the Church in this country suffered from a general lack of zeal and earnestness, the traces of which, in spite of all our efforts, may still be detected. In our own day, thank God, those perils are few and far between where the work of God is not being pushed forward with an energy and vigour, the fruit whereof is plainly visible to the most superficial observer. But this very abundance of activity is not without its weak side. Earnest Christian men among the clergy and laity, impelled by a praiseworthy desire to advance the kingdom of Christ, and casting about for means whereby Satan's kingdom may be assailed, have had their hands upon ancient weapons long disused, and have furnished them up afresh. An elaborate and ornate ritual, appealing urgently to the senses, employed at first as it was said specially with a view to attract worshippers—a view with which few cannot cordially sympathise—has been made to centre around the exaltation of doctrines teaching the sacred mystery of the Eucharist, which the formularies of the Reformed Church of England have, I venture to think, wisely refrained from defining too closely on technical or philosophical words of human devising. How far these, our brethren, lay and clerical, imagine it likely that the Church of England would set herself seriously to the business of undoing the work of three centuries since I cannot presume to determine. If they think such a retraction possible, I cannot but think they fail to read aright the lessons of history and to interpret truly the direction of religious thought in this country. On the other hand, it would be equally unwise and ungenerous to ignore the material advantages which have accrued to the Church of England from the efforts of the religious school whose latest developments are thus prominently forced upon our attention. It has been asked by those holding widely differing views, whether we can afford to lose those men—to miss from our body the example of that strong zeal and love of souls? Is the Church in these realms, it is urged, to be narrowed down to the bare dimensions of a sect or party, from which all is diligently to be pared away which does not precisely square with the views of Christian practice and belief held by the majority? How this, one of the uppermost questions of the day is to be answered, time will show. The solution of the problem may be near at hand. Let us pray for the peace of Jerusalem. But not less obvious or real are the dangers from without. History is written rapidly in these days. A seven weeks war changes the map of Europe. A session of Parliament opens a new volume in the annals of the Church. The existence of a Church establishment which less than two years ago seemed founded upon a rock, is openly menaced, even in England, and certainly, if we are to stand when the threatened assault is made, we must be as one amongst ourselves. The common safety demands loudly a certain oneness of action in dealing with the dangers which surround and threaten our national Church."

DEVONPORT.—The Secretary of State for War has acceded to an application that the trial of private Taylor, who shot Corporal Skulha at Devonport Barracks last week, shall take place at the Central Criminal Court instead of at Exeter Assizes. Private Dixon, who shot his corporal at Aldershot, will also be tried at Newgate. In the case of Taylor the plea of hereditary insanity will be put forward for the defence.

DORCHESTER.—Jonah Detheridge, who was convicted at the recent assizes for the murder of a warder called Trevett at Portland Convict Prison, was executed on Thursday within the walls of the county gaol. During his trial his conduct was brutally indifferent, and neither the chaplain nor the Wesleyan minister who

visited him had the slightest effect in bringing him to a sense of his guilt or of the position in which he was placed. After being pinioned in the prison he attempted to run up the steps of the scaffold, but stumbled in the attempt to show his indifference. He was picked up by the warders, and led to the scaffold, where he took his place upon the drop perfectly unmoved. His last words were a fierce refusal to the entreaty of the Wesleyan minister who had attended him, to spend his last moments in prayer.

DURHAM.—The Sisters of Mercy, who have been for some time doing duty in the convent in Framwellgate, have departed in a body, without asking leave of the proper authorities. An insufficient allowance of food is the alleged ground of their desertion.

HONITON.—Great excitement has prevailed in this town during the week, in consequence of the sudden illness, through poisoning, of the rector, the Rev. Prebendary Mackarness, and his family. The rev. gentleman had some Devonshire junket on Sunday evening with his curate, the Rev. Mr. Littleton, Mr. C. C. Mackarness, three young daughters, a son, and two servants. On the following morning the rector was seized with vomiting as from poison, and every one else who had eaten the junket had similar symptoms. Doctors were called in, and the patients suffered severely. Up to Thursday, with the exception of the rector, all were progressing satisfactorily. Mrs. Mackarness and the youngest child, who did not have any junket, were not ill. A pig which ate the remains of the junket is expected to die. The poisoning remains a mystery. No suspicion of foul play attaches to anybody, and the poisoning is supposed to be accidental.

LANCASTER.—A bequest of 5000l has been left by the late Dean of Durham to the Northern Counties' Idiot Asylum, now erecting in this town, and Mr. Titus Salt, of Saltaire, has since forwarded to the committee of the charity the princely donation of 5000l.

LOUGHBOROUGH.—A shocking case of cruelty to a lunatic has just come to light in this neighbourhood. In consequence of information, a gentleman sent by the Commissioners of Lunacy, accompanied by the medical officer of the Leicestershire and Rutland Lunatic Asylum, several magistrates, and a police superintendent, visited a lodge-house in the parish of Sheepshed, near this town, occupied by a small farmer named Henry Black. They there found a lunatic, 74 years old, with his hands fastened in front of him by handcuffs and his feet encircled by manacles, occupying a small apartment, to the wall of which he was chained. From the farmer Black it was elicited that the lunatic's name was Bagley Wild, a relative of the late Mr. Wild, J.P., of Costock, Notts. He had been under Black's care for 30 years, and previously in another man's custody for a like period. During the whole of the time he had been kept chained up in the manner described. Black had been receiving 1l a week for his charge, who was well nourished, healthy, and clean. He was, however, never relieved from his chains, asleep or awake. When taking his meals he was fastened to a chair, and when he retired to bed at night he was fastened by chains to the bed, while the handcuffs encircled his wrists. He has now been removed to the county lunatic asylum.

MARGATE.—During the gale which blew from the W.N.W. on Monday night a vessel, supposed to be a schooner yacht, and having a gilt ball at the masthead, foundered a little to the eastward of Margate Sand head buoy. The name of the vessel has not been ascertained. It is supposed that the crew have perished.

MERTHYR.—The coroner's inquiry into the Ferndale Colliery explosion has been further adjourned for two months. This delay was necessary in order to clear the colliery of water, and to give increased facilities to the Government inspectors and the mining engineers in making a thorough examination of the pit. The bodies not yet discovered are also likely to be found when the water is removed. As far as the inquiry has gone the evidence shows that the management was always considered remarkably good, and that the only complaints were an occasional scarcity of horses, cogs, and rails.

NEWPORT.—A confession of an extraordinary character has just been made in this town by a boy named Charles Gritt, who says that he poisoned Miss Emily Collier, the daughter of Mr. Collier, oil merchant, in Dock Street, on Easter Monday. The boy, who was taken from the Industrial Schools at Caerleon, gave the young lady some wheat, some of which she ate. She told her mother that Charles had given her some wheat, and that it tasted very nasty. She was told to throw it in the fire, which she did, and it was noticed that it emitted a peculiar flame. In the evening the young lady was taken ill, and next day a doctor pronounced her case hopeless, paralysis of the brain having set in, and on the following Thursday she died. Mrs. Collier, it appears, had an idea that her daughter did not die a natural death, but no suspicion ever crossed the minds of the family that she had been poisoned. Mr. Collier had some choice fowls in his possession, all of which died about the same time in a very strange manner. The boy has now confessed that he got some poisoned wheat from the Caerleon schools, which he gave to Miss Collier, and that he also gave some to the fowls. There is no doubt that he attempted to poison Mr. Collier's eldest son by putting poison in his tea-kettle, as the young man was ill for a week about the time his sister died. The boy absconded after making the confession, but was soon captured by the police. On Monday he was taken before the borough magistrates, when he expressed his sorrow for what had happened, and said that he gave the young lady some poisoned wheat in order to see what effect it would have on a human being. He was remanded for a week in order to obtain evidence and the body has since been exhumed.

ORMSKIRK.—On Wednesday Lord Stanley presided

Provincial.

BIRMINGHAM.—At the borough police-court, on Wednesday, William Oram, tool-maker, of Aston Cross, and his wife, were charged with coining. A detective and two other detectives visited the house on Monday, and found there, and on the persons of the wife, a large number of counterfeit shillings and pence, as well as moulds, white metal, a galvanic battery, and all the appliances of counterfeit coinage. The woman was discharged, and the husband committed for trial at the assizes.

GLoucester.—The Rev. Canon Carter a Roman Catholic, attended last week before the magistrates to answer charges of riotous attacks upon the inmates of St. Nicholas Street Nunnery. He said that Sunday before last the nuns had been attacked by rough boys, and from chapel, that on the following Sunday they were surrounded and stoned, and the nunnery itself had been attacked. Stones were thrown over the walls into the garden, and the nuns were taking their exercise, and it was therefore asked for the protection of the bench.

at the annual dinner of the Ormskirk and Southport Agricultural Society, and addressed the meeting at some length on agricultural topics. In the course of his speech he took occasion to refer to the present land system, and to the proposal to substitute for it the ownership of the land by those who cultivated it. He said:—

"There was in the present day a school of thinkers, available and kindly hearted men,—men, no doubt, conscientiously possessed with the truth of the theory they set forth,—who believed that it would be a great gain to this country if the land were to be in general the property of those who worked it with their own hands. In other words, instead of our system of landlord and tenant, they wanted that peasant proprietary which already prevailed in many parts of Europe. Now that system was, in his mind, equivalent to the substitution of hand labour for machinery, and to the separation of the capital of the country from the soil of the country. To his mind, therefore, it involved not progress but retrogression—not going forward but going back. It was like going back from the system of the great factory, with its thousand hands, to the hand-loom weaver. It was ignoring, as he conceived, the entire tendency and all the requirements of modern industry and life. His own opinion was, that our threefold system of landlord, tenant, and labourer was economically the best and the most productive. If the tenant were degraded—he thought he always ought to be guarded, if he desired it—by leases and agreements fairly framed in the interests of both parties, then he saw nothing in the present system which involved any other dependence than the system of, not one-sided, but mutual dependence which must and ought to exist in a civilised country between one class and every other class."

PENDLETON.—A shocking murder has been perpetrated in this town. The dead body of a young factory woman, named Kate Macdonald, was found on Monday night in the canal, covered with wounds and bruises. Both arms were fractured, one in two places, the right collar-bone dislocated, five or six of the upper ribs on both sides were broken; and there were bruises and internal injuries of a frightful character, which had evidently been inflicted before death. At present there is no clue to the perpetrator of the outrage.

RYDE.—An inquest was held on Tuesday in this town on the body of Mr. Cornelius Grinnell, an American yachtsman, of New York, who had come to England for the purpose of taking part in the regattas. He had purchased at Cowes the steam-yacht Hawk, of 142 tons, and had recently been elected a member of the Royal Victoria Yacht Club. Mr. James Gordon Bennett, owner of the yacht Dauntless, said that he had known the deceased about 10 days, since his arrival at Cowes. He had seen him about three years ago in New York. He believed he lived in London, but he did not know his age. On the previous night he dined with deceased, at the Royal Victoria Yacht Club, and left the club with him and Mr. Homans, about 12 o'clock. As they had no rooms, the deceased offered to allow the witness and Mr. Homans to sleep in his sitting-room, at 35, Pier Street. They all three went upstairs together. In a few minutes witness went downstairs, leaving Mr. Homans and deceased upstairs. When he got to the front door he saw a body lying partly on the pavement and partly in the road. Mr. Homans and witness's servant ran downstairs, and said that Mr. Grinnell had fallen out of the window. He assisted in carrying the body upstairs. Blood was streaming from the back of the head. The deceased was quite sober when witness left the room. Mr. Sheppard Homans, of New York corroborated this evidence, and added that after Mr. Bennett went downstairs the deceased had an impression that Mr. Bennett was going to look for another room rather than intrude on his kindness, and he said, "I will see; I will get out on the balcony." He then drew up the Venetian blinds, opened the window, and stepped out. He disappeared, and witness not hearing or seeing anything of him, looked out of the window. Seeing no balcony, the thought flashed across his mind that he had fallen out. He looked out of the window and then ran downstairs and found the body lying under the window. He felt the pulse and found it perfectly motionless. In his opinion death had been instantaneous. He was sure he was quite sober, and wished to state that as strongly as words could convey it. Dr. Ollard said that he was sent for shortly after 2 o'clock, and found deceased quite dead, evidently from a fracture in the base of the skull. The jury returned a verdict of "Accidental death," and appended to it an opinion that the window was in an unsafe condition and required protection. At the request of Sir J. Burgoyne, their foreman, they expressed on behalf of the whole British community, and especially of the yachtsmen, their sorrow at the untoward accident to one of their visitors. The body of Mr. Grinnell has since been embalmed by the new American "Nekrosozoi" process, and will shortly be transmitted to New York.

SALISBURY.—On Saturday the Right Rev. Dr. Hamilton, Bishop of Salisbury, was committed to his last resting place, near the grave of his friend and predecessor in the see, the late Bishop Denison. The ceremony was peculiarly impressive, and both in the cloisters and in the cathedral itself, a vast number of persons were present to witness the proceedings. In the city the tradesmen's shops were closed and business suspended during the time of the funeral. The Mayor and Corporation and 200 of the clergy of the diocese in surplices formed part of the funeral procession, in addition to the Bishop's own immediate family, relatives, and personal friends, among whom were the Bishop of Rochester, Lady Herbert of Lea, Mrs. Gladstone, Sir E. Hulse, Lord Ernest Bruce, Mr. George E. Eyre, Sir F. H. H. Bathurst and Miss Bathurst, Mr. H. Seymour, M.P., Mr. E. Denison, M.P., &c. The pallbearers were Mr. J. Brymer, the Hon. Sidney Herbert, Earl Nelson, Mr. C. Raikes, Mr. J. Floyer, M.P., and Lord Heytesbury; the pall being of a violet colour, with a deep white border, and a large white cross down the centre. The coffin was of polished English oak, with a raised oak cross on the lid, at the foot of which was the following inscription,

engraved underneath a mitre on a brass plate:—"Gualterus Kerr Hamilton, S. T. P., Episcopus Salisburyensis. Obit. die 1 Aug. 1869. Æt. 69. Requiescat in pace." The funeral procession was met at the western entrance to the cathedral by the dean, canons, archdeacons, sub-dean, prebendaries, minor canons, lay vicars, and choristers. On the coffin being placed in the choir, the pastoral staff was laid upon it and the usual service was gone through, the lesson being read by the Rev. Prebendary Fraser, after which an anthem was sung, and a voluntary played on the organ as the procession passed into the cloister-green. The choral service at the grave was very touching, and bouquets and wreaths of flowers were thrown upon the coffin by the younger members of the Bishop's family. After the service had been concluded a hymn was sung by the choir, and joined in by those present, and the organ played the "Dead March" as the procession left the place of burial. At the bottom of the grave there was a cross formed of flowers, and around it, upon the ledge for the coffin to rest upon, were the words "O, death, where is thy sting? O, grave, where is thy victory?"

SHANKLIN.—The picturesque thatched public-house, built under the boughs of an old oak, overlooking the Chine, from which it derived its name, was destroyed last week by fire. On Wednesday night, between 10 and 11 o'clock, the back part of the roof was found to be in flames, which spread with such rapidity that no effectual efforts could be made to stay it. Neither the landlord nor the tenant were insured.

SHEFFIELD.—Another case of rattening has occurred near this town. A scythe-grinder, named Kay, who was in the employ of Mr. Hellewell, of Hackenthorpe, was rattened on the 5th inst. of three grinding bands. Kay is a member of the Grinders' Union, and is not backward in his payments; but it is believed that he works a little under the other men, and that this is the cause of the present proceeding, as well as of his having been rattened about 18 months ago.

USK.—A few weeks ago a forgerman, named Thomas Roper, delivered himself up to the police, stating that on the 15th June, 1867, he murdered a woman named Jane Edwards, at Llanbaddyoh, and threw her body into the Usk. It was said the police had got some evidence which would corroborate the prisoner's confession; but the grand jury at the Monmouth Assizes, on Friday, ignored the bill against the prisoner, who was accordingly not put upon his trial.

WIGAN.—The inquest on the persons killed by the Haydock explosion was resumed on Tuesday, when Mr. Higson, the Government Inspector, called attention to his circular of January last, suggesting discontinuance of the excessive use of powder. He put in another circular on the same subject, asking the colliery proprietors to confer with a view to remedy the evils complained of. The jury then returned the following verdict:—

"We find that the explosion was of fire-damp, caused by a shot igniting the gas brought from a fall in Pilkington Brow to Pilkington's Place; and we are of opinion that this explosion was greatly aggravated, and the loss of life considerably increased, by the great quantity of gunpowder in the mine. If proper care had been taken to remove the gas from the cavity in the fault, we think the explosion would not have occurred. We recommend that the coals be cut on one side, and that all blasting operations be carried on at night during the absence of workmen. We consider it objectionable for the 9-foot air to return through the 6-foot workings."

The coroner asked the jury whether they considered the explosion was a matter of accident, or wished the point to be left open. The foreman said they wished it to be left open, as they thought due care had not been taken about the cavity.

Ireland.

RETURN OF THE LORD-LIEUTENANT.—It was proposed some days ago in the Roman Catholic journals to give Earl Spencer a significant welcome on his return to Ireland, in acknowledgment of his efforts in passing the Irish Church Bill; but on Friday morning, on his arrival at Westland Row, only about 50 persons were present. Among them was the Lord Mayor, who regretted that he had no address to present to his Excellency, but promised to call together the Town Council to adopt one. Earl Spencer replied that he would be happy to receive it.

THE IRISH CHURCH CONFERENCE.—The Standing Committee of the Irish Church Conference held its final meeting on Wednesday in Trinity College. A letter from the Archbishops of Armagh and Dublin was read announcing that all the bishops who attended the recent meeting were of opinion that it was not expedient to re-assemble the Conference, as it would be distasteful to a large body of churchmen. The Committee expressed their deep regret at the decision, and their cordial concurrence with the resolution passed by the prelates on the 4th inst., declaring the desirability of convening the General Synod, representing clergy and laity in equal numbers, and their earnest desire that that object should be as speedily as possible carried out.

THE CHURCH BILL.—The Corporation of Waterford last week passed a vote of thanks to the Premier for the successful passing of the Church Bill.

THE ESMONDE WILL CASE.—At the adjourned Carlow Assizes the trial of the case of "Browne v. Esmonde" was opened before Mr. Justice Lawson. The plaintiffs as executors propounded the will of the late Lady Esmonde, the principal bequest in which was a sum of 30,000*l.* to Trinity College to found a collegiate institution in the county of Wexford in connection with it, to be called "The Grogan College." It will be recollected that the case was tried last year in the Probate Court before Judge Keatinge and a special jury, who, after a trial which lasted nine days, were discharged without coming to an agreement. Judge Keatinge having resigned, Judge Warren declined to hear the case on the second trial, having been counsel for the plaintiffs on the first occasion; and in

exercise of the jurisdiction conferred by the Probate Act he directed a trial before Mr. Justice Lawson. Mr. Dowse opened the case at great length, and said that the will was dated the 17th of 1867, and that by it Lady Esmonde left property (the entire of which, after deducting amount to 21,000*l.*) to Trinity College, for the purpose of founding a collegiate institution in the south of Ireland, to be called Trinity College. In addition to this principal bequest considerable sums for other charitable purposes had disposed of almost all her real property at the time by deed, and settled the greater part on the Countess of Granard, who had been her daughter, but as the Countess had become a Catholic, her mother determined to apply to the personal property to Protestant purposes, and only real estate which she possessed at her death. Consequently the only property in which the Lady Granard were interested, was a small property in Wexford worth about 7*l.* per annum. Her testamentary intentions, the position of the Church, the danger which threatened it, Mr. Butt's motions in Parliament in reference to Trinity and other public events. Mr. Butt addressed the jury for the defendants, and called as his principal witness the Countess of Granard, who deposed that she had prevented from speaking to her mother by her Deane, and that her mother showed no resentment her for changing her religion. Dr. Bowen, on the other hand, made, and the servants were called to show that was under the influence of those around her. Tuesday Dr. Ball summed up for the defendants, and abandoned the charges of undue influence and Mr. Macdonogh replied for the plaintiff. Mr. Justice Lawson, in charging the jury, confined their attention to the question of capacity at the time of the making of the will. The jury, after 18 minutes' deliberation, found a verdict establishing the will.

THE ORANGE ANNIVERSARY.—On Thursday celebration of the anniversary of the relief of Londonderry took place in that city with unusual pomp. It was attended by persons from all parts of the county. The procession was of enormous length, and at intervals stands of colours were displayed. A grand service took place at the cathedral, in which the Bishop of Down took part, and the Rev. Mr. Carpenter preached a sermon. Later in the day Mr. Johnston, M.P. presented with an address, a sash of honour, and a medal. Although great enthusiasm was manifested, the celebration passed off in the most orderly manner.

THE FENIAN OATH.—A Dublin paper professes to be a copy of the Fenian oath, found in a constabulary in a public-house in a county where agrarian crime is prevalent. The initiated, after swearing to be "true and loyal" to the brotherhood, each member of it, declares that he will owe allegiance to any Protestant or heretic Sovereign, prince, or potentate, and will not be "bound by oath delivered to him by them or their subordinates, they magistrate or else." He also pledges himself to aid in every way he can any of the brethren in trial, and, if a witness, "to disregard any oath sworn to him." After binding himself to exterminate heretics, he solemnly swears to "shoot, destroy, or pursue to death, any of the brotherhood who turn informers or traitors, or who may refuse to perform any duty ordered by his committee or officers, or any duty which may fall to him by law, or otherwise to execute."

Scotland.

THE AMERICAN CONSULATE AT GLASGOW.—In consequence of the refusal of the English Government to grant an *exequatur* to Captain James Hignarty, an American Fenian, whom President Grant has appointed United States' Consul at Glasgow, Mr. Motley has named Mr. Eastman, at present United States' Consul at Cork, to be Consul at Glasgow pending instructions from Washington.

THE MURDER AT GREENOCK.—On Saturday the brothers Barbour were fully committed for trial on a charge of murdering Mrs. Reid, in the house occupied by them in Greenock, on Saturday week. Ephraim Barbour, the elder brother, is charged with the crimes of assault, with intent, &c., and is charged with murder, without the aggravation of any other crimes.

Railways.

NARROW VERSUS BROAD GAUGE.—The Western Railway Company have given notice of suspension of their traffic between Hereford and Gloucester from to-night till the 23d inst., in order that the line may be converted from the broad to the narrow gauge. The line between Ross and Grange Court will be converted from the 23d to the 31st inst. for the same purpose.

WORKMEN'S TRAINS.—On Friday night a meeting was held at Silchester Hall, for the purpose of promoting cheap travelling for workmen on the Metropolitan and Great Western Railways. Mr. Stedman took the chair, and the subject was of great importance to the workmen of the surrounding districts, who, to the number of 5000, had signed a memorial to the Government, and he now asked the meeting to adopt. Letters were read from Archbishop Manning, Sir H. A. Hall, M.P., and others; and Mr. Cookson then moved the following resolution:—

"That it is the opinion of this meeting an extension of the plan of running trains at cheap fares, and at such hours as to be convenient to the workmen of the surrounding districts."

consists of 2334 Beasts, 8890 Sheep, and 234 Calves, from Ireland there are 250 Beasts; and 2040 from Norfolk and Suffolk.

Table with columns for s. d. s. d. and rows for Best Scots, Herefords, &c., Best Shorthorns, 2d quality Beasts, Best Downs and Half-breds, Do. Shorn.

There are a few more Beasts than on Thursday last, the trade is very dull for inferior qualities, but choice descriptions fully maintain Monday's quotations.

Table with columns for s. d. s. d. and rows for Best Scots, Herefords, &c., Best Shorthorns, 2d quality Beasts, Best Downs and Half-breds, Do. Shorn.

METROPOLITAN MEAT MARKET.—Aug. 14. Best Fresh Butter .. 16s. per dozen lb. Second do. do. .. 14s.

MARK LANE.—MONDAY, Aug. 9. There was again a very small supply of English Wheat at this morning's market, which was sold at an advance of 2s per qr upon the prices of this day's night.

Table with columns for PRICE PER IMPERIAL QUARTER and rows for WHEAT, BARLEY, OATS, RYE, BEANS, PEAS, MAIZE, FLOUR.

FRIDAY, AUG. 13. We have had changeable weather since the 6th inst., some days having been very wet, and the temperature low for the time of year.

The arrivals of English grain during the week have been very small, of foreign Wheat and Oats good, and of Barley none.

Table with columns for Wheat, Barley, Oats, Flour and rows for English, Irish, Foreign.

LIVERPOOL, August 10.—We had a good attendance at today's market, and for Wheat a good demand, at an advance of 7d. to 8d. per cental on red, and fully 6d. per cental on white descriptions.

SEED MARKET. The past week has witnessed the last touch given to the Seed Adulteration Bill. During the last month the minds of the trade have been so absorbed in watching its varying changes in its passage through both Houses of Parliament, that they have confined their purchases to the sowing requirements of the present moment.

White Mustard, and to note that all seeds required for present sowing are in good demand at very full rates.

Table with columns for AVERAGES and rows for Wheat, Barley, Oats and dates from June 26 to July 31.

WANTED, as FOREMAN, a middle-aged married Man, without children, who can be well recommended.

WANTED, an experienced FORESTER, who can also take charge of a Garden and keep Accounts.

WANTED, a YOUNG MAN, to assist in the Houses, under a Foreman. One accustomed to Grow for Market preferred.

WANTED, a MANAGING SHOPMAN for a Retail Business. Unexceptionable references indispensable.

WANTED, as SHOPMAN, Retail, a thoroughly experienced Man, able to take entire Management.

WANTED, a YOUNG MAN, who thoroughly understands the Care of Cattle, and Milks well; also care and Breeding of Poultry, and to assist in the Garden.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.

Gardeners and Under Gardeners. WM. CUTBUSH AND SON beg to state that they have at all times on their books MEN of various qualifications.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS, and GARDENERS and BAILIFFS, of various qualifications.

To Gardeners and Bailiffs (Head, Foreman, or Under). JAMES CARTER AND CO. having many applications for the above request that those WANTING SITUATIONS send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER.

GARDENER (HEAD).—A Clergyman strongly recommends a married Man (with one child), age 32, who has a thorough knowledge of Vines, Forcing, Greenhouse uses, and Flower and Kitchen Gardening.

GARDENER (HEAD).—Age 30, married, one child. Has a thorough practical knowledge of Gardening in all its branches; is also well versed in Land and Stock.

GARDENER (HEAD).—Age 39, married, thoroughly understands the profession in all its branches; also the management of Land, if required.

GARDENER (HEAD).—Age 35, married, understands the general Management of Kitchen and Flower Gardens, also Fruit and Plants.

GARDENER (HEAD).—CHARLES ROBERTS, Head Gardener to W. S. Tollemache, Esq., Dorfold Hall, Nantwich, Cheshire.

GARDENER (HEAD).—Age 39; thoroughly practical in every branch of the profession, understands Land and Woods, if required.

GARDENER (HEAD).—Age 38, married, Scotch, thoroughly understands Vines, Stove and Greenhouse Plants, Kitchen and Flower Garden.

GARDENER (HEAD).—Married, no family; thoroughly understands the Management of Pines, Vines, Early and Late Forcing, Stove and Greenhouse Plants, Flower and Kitchen Gardening.

GARDENER (HEAD).—Married, no family; an intelligent, sober, trustworthy Man, with a thorough knowledge of every branch of the profession.

GARDENER (HEAD).—Age 39, married, no incumbence; thoroughly understands Forcing of Vines, Pines, Melons, Cucumbers, &c., and Kitchen, Fruit, and Flower Gardening.

GARDENER (HEAD).—Age 28, has a thorough knowledge of Grapes, Peaches, Cucumbers, Melons, Stove and Greenhouse Plants, and Flower in Kitchen Gardening.

GARDENER (HEAD).—Single, has had 13 years' good experience in the Cultivation of Stove and Greenhouse Plants, Early and Late Forcing, and the Management of Flower and Kitchen Gardens.

GARDENER (HEAD), or FOREMAN in a Gentleman's Garden.—Is an excellent Propagator, and has been most successful in the Cultivation and Management of Vines, Stove and Greenhouse Plants, Fruits, Flowers, &c.

GARDENER (HEAD, WORKING).—Age 31, married; practical experience in England's best (Kew and Chatsworth) Gardens.

SHOPMAN or CLERK.—Fourteen years' experience in all branches of the Seed Trade, good knowledge of Flower and Florist Business.

SHOPMAN.—Respectable; experienced; good character from last situation.

SHOPMAN.—A competent Person; has had knowledge of Plants.

GARDENER (HEAD, WORKING).—Perfectly stands the profession. Wife a good Laundress. Highly recommended.—A. B. Post Office, Epsom.

GARDENER (HEAD, WORKING).—Married, understands Forcing Fruits, Flower and Kitchen, good character.—B. H., Messrs. Laws, Suffolk.

GARDENER (HEAD), where two sons are Peich, Melon, Strawberry, Cucumbers, Parsnips, Greenhouse Plants, and Flowering Plants, good character.—A. P. J., Strand, R. & S. Street, Suffolk.

GARDENER.—Age 35, married, situation.—W. W., Highgate, London.

GARDENER.—D. THOMSON, Drumming Garden, a married Man, of good practice, and where trust is appreciated.

GARDENER.—Age 28; desires situation in Nursery. Thirteen years' experience in industry. Good references.—G. S., West, London.

GARDENER (SINGLE-HAND).—Age 25, in Incumbence; well understands Flowering and Early and Late Forcing. Total Abstinence.—H. G., Seers, London, S.E.

GARDENER (SINGLE-HAND).—Age 23, eight years' experience in Melons, and Cucumbers, Stove and Greenhouse, and Kitchen Gardening.—H. JAMES, Highgate, London.

GARDENER (SECOND).—Married, understands and Greenhouse Plants and Vines, also a knowledge of Nursery.—J. A., 1, Barbara Cottages, Masterman's Park, Leyton, Essex.

GARDENER (UNDER).—Age 20, responsible to pay a small Premium.—F. P., Staple Road, Kent.

GARDENER (UNDER).—A respectable Young Man, no objection to Nursery. Three years' experience in Nursery.—N. S., Green, News Agent, Whitechapel.

FOREMAN, in a Gentleman's Garden. Good experience in all branches of the profession. Vineyard Nursery, Hammersmith, W.

FOREMAN, in a Gentleman's Garden. Good practical experience in all branches of the profession. Coleridge, S.W.

FOREMAN.—Mr. WHEELER would recommend his FOREMAN to any one requiring an energetic Young Man. A situation preferred. Manage the Plants, and gain a knowledge of the business. F. MOULAND, Sir F. H. Goldsmid, Bart., M.P., at the Regent's Park, N.W.

FOREMAN, or FOREMAN and PROPAGATOR. Well up in the Propagation and Growing of Stove and Greenhouse Plants, Ferns, Orchids, &c., and to take the Management of the Office Nursery. Good references from previous employers.—W. M., Walk, Beverley.

PROPAGATOR (FOREMAN, in a Nobleman's Garden). Great experience in the Propagation of Stove and Greenhouse Plants, and all other Plants, and in Nursery work. Good references.—O. Y., Mr. W. R. Red Bear Inn, Marsh Lane, Leeds.

PROPAGATOR (ASSISTANT). Well up in Grafting Rhododendrons, and all other references.—Y. Z., Lewis S. Woodthorpe, Manor, Healding, Essex.

BUCHANAN, David, in a Nobleman's Garden. To recommend an active YOUNG MAN, age 20, doors. Excellent character.—Address as above.

FRUIT FORCING.—FELTON, a Nobleman's Garden, in the parishment, where he could tourney Early and Late Fruit. Large and first-rate scale.—Apply, Birmingham Nursery, Road, Edgbaston, Birmingham.

IMPROVER, in a Nobleman's Garden. No objection to pay a Premium.—Mr. RICHES, Road, Isleworth, W.

IMPROVER, in a Nobleman's or Gentleman's Garden. Age 20, respectable, strong, active. Would give a Premium.—Excellent character.—A. B., Post Office, Epsom, Surrey.

IMPROVER.—A Young Man, who has had experience in Gardening. Would give a Premium.—A. D., 30, Pitt Street, West Street, London.

IMPROVER, in the Seed and Florist Business. Age 17; has had some experience in a Seed Nursery. Destructive of experience in the Garden. Wages not object as improvement.—C. B., Mr. Braden's, Post Office, Smithfield, E.C.

STEWARD, or AGENT, on a Gentleman's Estate. Age 31; thoroughly understands the Breeding and Management of Poultry; can Plan New Buildings and Measure.

AGENT, or ASSISTANT LAND AGENT. The Advertiser has for several years been in the Management of large Estates in Norfolk and is acquainted with the Agriculture of the county. High character will be given.—F. W., care of Solicitor, 17 and 18, New Bridge Street, London.

MANAGER of ESTATE or LAND. A Gentleman of good education, with sound knowledge, and 10 years' experience in Modern Agriculture and Engineering; also Breeding and Training. References as to integrity and capacity.—A. Z., Hackney, N.

BAILIFF.—Married, has had experience in the Management of Heavy Land. Wife can assist in the Management of Poultry.—A. B. C., New Pond Farm, B. & S. Street.

TO SEEDSMEN. All branches of the Seed Trade, good knowledge of Flower and Florist Business. Good references.—H. H., Post Office, London.

TO SEEDSMEN. Respectable; experienced; good character from last situation.—B. T. A., F. & S. Street, London.

TO THE SEED TRADE. A competent Person; has had knowledge of Plants.—L. M., Mr. G. Salmon, Post Office, Mitcham Lane, Streatham, Surrey.

The Gardeners' Chronicle Newspaper.

SATURDAY, AUGUST 21, 1869.

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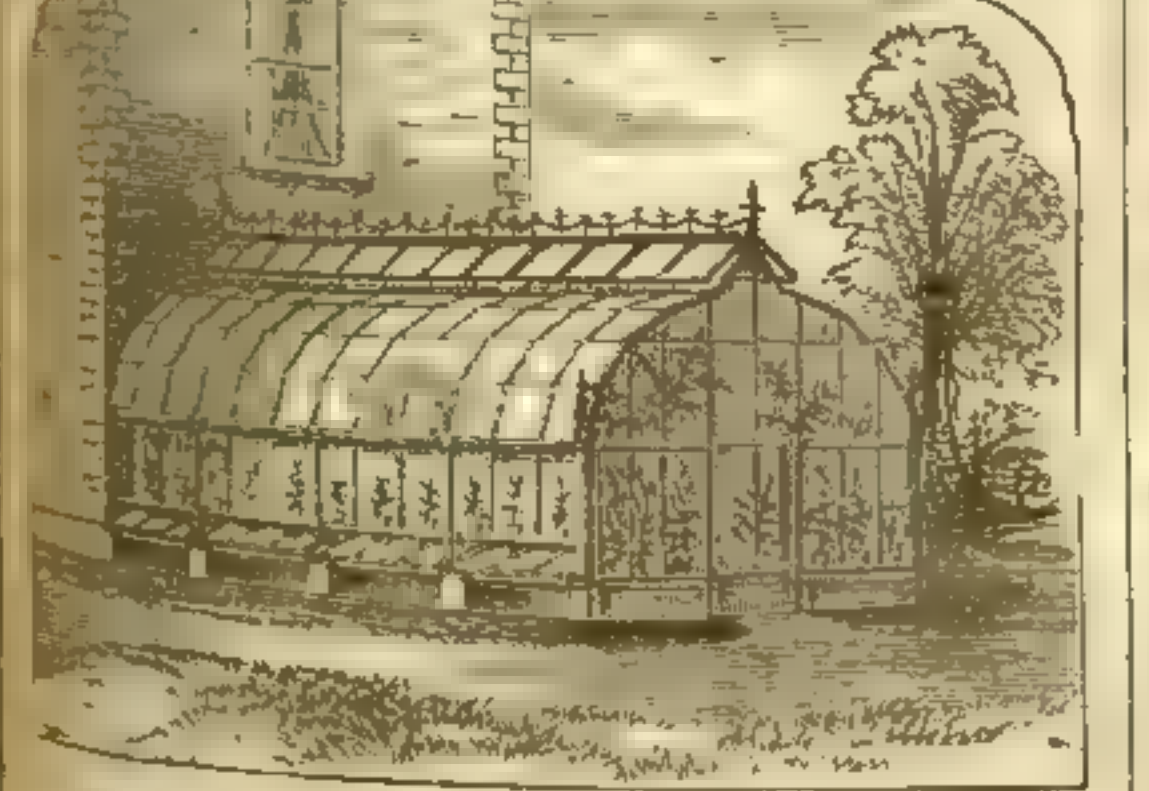
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Vases and Fountains, for the Garden and Conservatory. ANDREW HANDSIDE AND CO., Britannia Iron Works, Derby; and 32, Walbrook, London.

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Laying Down New, or Improving Old, Grass Lands FOR THE BEST PRACTICAL INFORMATION ON THE ABOVE SUBJECT SEE "PERMANENT PASTURES..."

DEPARTURE OF THE COURT FOR SCOTLAND.—The Queen and Royal family, accompanied by Prince and Princess Christian and their children...

THE COURT AT OSBORNE AND WINDSOR.—On Friday his Serene Highness Prince Gouthier, of Schwartzburg-Rudolstadt, visited the Queen. On Saturday the Grand Duke of Saxe-Weimar...

THE PRINCE AND PRINCESS OF WALES.—It is expected that the Prince will return to Marlborough House from Wildbad on the 25th inst., and leave on the following day for Abergeldie for grouse shooting.

PRINCE ARTHUR embarked on Saturday afternoon at Birkenhead in the City of Paris, screw steamer, for Canada, to join the Rifle Brigade.

THE KING OF SWEDEN is expected to arrive on Deeside at the end of this month, on a visit to the Prince of Wales at Abergeldie.

PARLIAMENTARY MOVEMENTS.—The Antrim election. The Antrim election is expected to be held in the near future.

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James torn and bloody, with several
 his face badly bruised. He
 name, and told a false story to two
 were attracted by his strange appear-
 before the police authorities could be
 presence he had gone to a hotel,
 on the upper floor, and committed
 himself out of window on the pave-
 some officers of the Lancers identified
 Lieutenant Neill. How he got into
 the countess, whether he walked along
 or managed to introduce himself at
 her friends had left her at Caserta, perhaps
 known, nor how he left the train, but the
 person seemed to show that he must
 from it after committing the murder.
 in his neck, it is said, were inflicted
 with a large hair-pin. The last important
 case by Cav. Fiorelli at Pompeii is a curious
 representing the Circus in its original state,
 that the building was surrounded by a row of
 The picture, of no value as a work of art,
 several interesting topographical details,
 returned to account in future excavations.

PRINCIPALITIES.—The elections of members
 in the first electoral district have been
 favour of the Government, and the Prince
 Demeter Ghika, has been elected.

—Accounts from Constantinople state that
 understanding has been arrived at
 the Sultan and the Viceroy of Egypt.
 contract was signed last week for 12,000,000l.
 to bear 6 per cent. interest and to be issued at
 The Budget for the current year shows an
 of 507,250 liras, and an extraordinary
 of 2,102,150, making a total deficit of 2,609,400
 which it is proposed to cover by the present loan.

—Talat Pacha left Alexandria on Thursday
 Constantinople, the bearer of the Khedive's reply
 recent letter of the Sultan. It is said to be
 most conciliatory language, and the French
 consuls have expressed to his Highness
 satisfaction at the termination of his differ-
 with the Sultan. Two Armenian prelates, Sahak
 and were released through the intercession
 of the British Government, have arrived at Cairo.

—Advices from the Taurus, dated the
 state that a band of the Babi sect from
 have been arrested at Teheran, charged
 plotting to assassinate the Shah. Many persons
 high positions are said to be implicated in
 The Persian troops have gained a victory
 the Turcomans, and captured the fortress of
 about 100 versts from Asterabad.

—The statement that Shere Ali had been
 a now declared to be wholly unfounded.
 are again current that Herat has been cap-
 but present no confirmation of them has been
 Two events have occurred at Bombay which
 as significant indications of the deter-
 of the Hindoos to break through the trammels
 Mr Rao Moroba Canoba, an ex-judge, has
 married publicly to a Hindoo widow, and Mr.
 Thackersey, and five other high-caste
 have denied the stringent orders of their
 across the ocean on a visit to Europe.

UNITED STATES.—President Grant has gone on a
 to the interior of the States of New York and
 Virginia. The Radical press claims that President
 recent expression of sympathy with the
 branch of the Republican party in Mississippi
 intended also to apply to the entire South. It is
 that the course taken by the President has
 great discontent in the South, and that one of
 consequences will be that the Conservative Repub-
 of Mississippi will unite with the Democrats
 nominate Mr. Dent as Governor on the
 Democratic ticket. The *New York Herald*
 regret at the President's open avowal
 sympathy with the Mississippi Radicals, as
 interference on his part; and says
 President Grant's intention was good, but
 he is inexperienced and a mere instru-
 in the hands of the Cabinet and Radical politi-
 The *Herald* also urges that the Cabinet should
 Chief Justice Chase has written a
 securing that the mission of the Republican
 been accomplished, and advocating the for-
 of a new party, to be composed of the Conser-
 vatives of the existing parties. The Washing-
 correspondents of the *New York Evening Post* and
 state that President Grant will probably
 the admission to their seats of the Virginian
 North Carolina, and several Western States
 that the corn crops have suffered badly from
 The *New York journals* express much satis-
 at the treatment the Harvard crew has met
 in England. An extensive system of smuggling
 was discovered on the Mexican frontier, in which
 prominent merchants of New Orleans are impli-
 The boilers of the steam-boat Cumberland
 on the Ohio river on Saturday. Twenty
 were killed, and the boat was blown to pieces.

—Advices from Havannah, from a Spanish
 state that Balmaseda has defeated the insur-
 under Jordan near Holguin. A conscription
 of all men between 20 and 55, has been

mentioned. Advices from Monte Video announce
 the termination of the revolution without further
 fighting. Carabello, the leader of the insurrectionary
 force, having submitted to the authorities.

CHILI.—A Spanish Protestant church, the first
 ever known in Chili, was opened on the 26th June
 in the pre-eminently Catholic city of Santiago. The
 United States' Minister Plenipotentiary attended the
 dedication.

City Intelligence.

BANK RATE OF DISCOUNT.—The directors of the
 Bank of England on Thursday further reduced their
 rate of discount from 3 per cent., at which it was fixed
 on the 15th ult., to 2½ per cent.

MONEY MARKET, FRIDAY.—BRITISH FUNDS:
 Consols closed at 93 to 93½ for Money, and 93½ to 93½
 for Account; New and Reduced Three per Cents., 93½
 to 93½; Bank Stock, 244 to 245. Exchequer Bills,
 March, par to 5s. pm., and June, 2s. to 7s. pm.

FOREIGN.—Turkish (1862), 66 to 66½; Ditto (1865), 66½
 to 66½; Ditto Five per Cents., 43½ to 43½; Ezyptian
 (1864), 90½ to 91½; Ditto Railway Debentures, 97½ to
 98½; Ditto Nine per Cents., 97½ to 97½; Ditto Viceroy
 Loan, 81 to 81½; Ditto (1869), 55½ to 55½; Italian, 55½
 to 55½; Ditto Tobacco Loan, 87 to 88; Peruvian (1867),
 79½ to 79½; Danubian Seven per Cents., 83½ to 84½;
 Ditto Eight per Cents., 90½ to 91½.

Metropolis and its Vicinity.

THE FORESTERS' FETE AT THE CRYSTAL PALACE.
 —The "Foresters' Fete," one of the events of the year
 at the Crystal Palace, took place on Tuesday. The
 weather was favourable, and nearly 69,000 members of
 the fraternity and their friends attended it. Robin
 Hood, Maid Marian, Friar Tuck, Little John, and
 their companions had many representatives, and the
 revels were brought to a close with a display of foun-
 tains, and an ascent of three balloons.

THE THAMES AT BARKING.—Mr. Rawlinson last
 week closed the inquiry on which he has been engaged
 for some time past on the effect of the metropolitan
 drainage on the river at Barking. The inhabitants of
 that town had memorialised the Home Secretary to the
 effect that the sewage was filling up Barking Creek,
 fouling the river and impeding its navigation. The
 Metropolitan Board of Works in reply, produced
 several engineers, who contended that the sewage
 matter emitted from the large sewers in London did
 not produce shoals, and that the sewage discharged
 from the outfalls was carried out to sea, and did not
 lodge on the banks, or return up the stream. On the
 other hand, it was proved that the sewage had been, at
 least occasionally, discharged when the tide was
 running up, sluices having been opened without
 authority. Evidence was also tendered as to the
 character of the mud deposited in Barking Reach, but
 Sir J. Karlake, on the part of the Board of Works,
 prevented its reception on the plea that he had no in-
 structions as to the line of cross-examination. Mr.
 Lloyd, however, in reply, stated that Dr. Letheby had
 reported that the mud was black and foetid, and in a state
 of active putrefactive decomposition. When examined
 with the microscope he found it to consist of broken-
 up sewage matter, with the remains of myriads of
 animalcules, and a large quantity of carbonate of lime in
 a partly crystalline state. Dr. Letheby further stated,
 "that the accumulation of large quantities of this mud,
 at the sewer outfalls, might be a cause for serious
 alarm, especially as it there met with sea-water, the
 sulphates of which might, by their chemical decompo-
 sition by the putrefying mud, occasion the escape of
 sulphuretted hydrogen, and set up that remarkably
 offensive change which was characteristic of the action
 of sewage upon sea-water." The evidence of Dr. Way
 was also tendered to the same effect. It was further
 stated, that so far from the sewage being annihilated,
 or even imperceptible at half a mile from the
 outfall, the stench was occasionally perceptible as low
 as Erith Reach or six miles and a half below the
 northern outfall; whilst the banks of the river four
 miles down, which used to be tolerably clean shingle,
 were deeply covered with sewer mud.

DR. CUMMING AND THE ECUMENICAL COUNCIL.
 —The Pope having called a General or Ecumenical
 Council for the 8th of December next at Rome, and
 invited the Christians of the whole inhabited world,
 including schismatics and heretics, to attend it, Dr.
 Cumming, of the Scotch Church, determined to accept
 the invitation, but being "in some degree acquainted
 with the subject," he addressed himself to Archbishop
 Manning, in order to discover, if possible, what kind of
 reception he, as a Protestant, was to expect. He stated
 that he was prepared to explain to the prelates in
 Council assembled why he and his brother Protestants
 reject the authority and doctrines of Rome, that
 whatever the Council might decree, he was prepared
 to adduce a contrary decree from the canons of
 previous Councils, or from Bulls or Encyclicals of
 Popes, or from both, having found in the history of the
 Church that Council had decreed against Pope and
 Pope had retaliated against Council, that Pope had
 contradicted Pope, and Council had anathematised
 Council, and that in the Romish Church there had
 been a historic *concordia discors* which rendered it in
 all respects the most disunited Church in Christendom.
 The Archbishop replied that the modes of procedure
 to be observed at the Council would be deter-
 mined by the supreme authority; but he sent Dr.
 Cumming copies of certain works in which he
 might find useful information on the subject.
 In one of these works there was a passage containing
 nothing less than the infallible judgment of a Pope
 on the reception to be accorded to a schismatic or
 heretic appearing and claiming to be heard at a

General Council." From this ordinance Dr. Cumming
 learnt that as a preliminary proceeding he would
 be required to "avail his petition to the tribunal
 and the judge" or, in other words, to recognise
 the authority of the Council according to its own
 pretensions, and to promise submission to its judg-
 ment under penalties exceeding severity. Not being the
 prospect of being consulted in the future, he
 addressed to the Pope an epistle in a state of which the
 following is a translation —

"Holy Father,—You have been pleased to invite to the
 Ecumenical Council the Protestants and those who are
 divided and separated from the Roman Church. We are
 heartily gratified for the invitation, and we are
 desirous to be present at the Council. I have sent many letters to
 you, and I have sent many letters to the Pope, and I have
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the theory that death had been caused by violence, and not by accident. A verdict was returned of "Wilful murder against some person or persons unknown;" and the Mayor, who was present at the inquiry, stated that a reward would be offered for information on the subject.

PLYMPTON—An inquiry was concluded in this town, on the 12th inst. concerning the alleged ill-treatment of a lunatic named Snawdon, by a man named Horn. The investigation was held in the presence of the district magistrates, Mr. Law, of London, appearing on behalf of the Commissioners in Lunacy. It appeared from the evidence that some time since the lunatic was placed under the care of Horn, who was to receive 15s. per week for his trouble, and was instructed to use handcuffs if his charge became violent. On the 17th ult. Mrs. Crews, who lived in an adjoining house, heard a sound of blows, and some one calling out as if in pain. She ran upstairs and was able to see into a room where Mr. Snawdon was lying on the floor; the defendant had his legs across his neck and was beating him with a stick. Ultimately he was handcuffed and tied to a tree; the handcuffs were tied with some thick rope, which Horn threatened to place around the lunatic's neck if he did anything again. For the defence it was contended that, as the lunatic was amenable to those only who showed themselves his masters, the alleged ill-treatment was quite necessary to control him. The defendant was fined 2l. and costs, with the alternative of two months' imprisonment.

SHEFFIELD—On Monday a great demonstration of colliers belonging to the South Yorkshire Miners' Association, was held in Hyde Park in this town, and was attended by upwards of 5000 miners. Many of the processionists afterwards left the park, and went to the Warren, where a number of non-unionists who work for Mr. Huntsman live. There are six cottages in the row, inhabited by persons named Hadfield, Glover, Ensor, Clark, and Mangles. A crowd of roughs were seen to go up to the houses, followed by a large crowd of men and women. Stones were thrown, and the women in the houses at once closed the doors and fastened the shutters. This, however, proved no protection, for instantly stones of large size were hurled through the doors, shutters, and upper windows. The inmates tried to escape, but were beaten back, and the women had to rush with their children into the cellars and back kitchens. The work of destruction was continued until not a whole door or window-frame remained. A number of the roughs then entered the houses, and smashed everything breakable. The bedrooms were visited, drawers and boxes were ransacked, and various movable articles, including Bibles and other books, were used as missiles, or torn up and scattered about the place. All this could be seen from Hyde Park, and Sergeant Bradbury, who was in command of a force of police officers at the grounds, sent a number of men to the scene of the riot. On the approach of the officers the mob dispersed. In the lower rooms of the houses there was a scarcely a whole article of furniture, while upstairs the beds were covered with large stones. The walls in many places were broken in. The houses of those who were denounced as knobsticks suffered most. The women state that among the mob were many wearing the decorations which appeared in the procession.

WINDSOR—Frequent complaints have appeared in print of the fees levied by the vergers of St. George's Chapel from all visitors. At last the Dean has taken a step to put an end to such complaints by affixing a notice at the north and south doors, stating that the Chapel may be seen every week-day from 12 till 4, and that the officers of the chapel are forbidden to receive any gratuity. The Chapel therefore may henceforth be seen as freely as the State apartments in Windsor Castle, which are under the control of the Lord Chamberlain's department, it being her Majesty's command that the officials who accompany visitors over the Castle shall not receive any gratuity whatever.

Ireland.

GREAT ORANGE DEMONSTRATION IN MONAGHAN.—The Orange demonstration at Clones, county Monaghan, for which great preparations had been making during the preceding fortnight, took place on Saturday. The meeting was convened for the purpose of enabling the Orangemen of Monaghan and the adjoining counties to unite in an emphatic protest against the conduct of the Government with regard to the Irish Church, the administration of justice, the Party Processions Act, and the recent dismissal of Captain Coote from the office of high sheriff. The meeting took place in Hilton Park, the seat of Mr. John Madden, J.P., and D.L., and was attended by about 20,000 persons. A great number of lodges—who marched in military array from their respective districts—mustered on the ground. In spite of the Party Processions Act the lodges marched with flags flying and bands playing, great numbers of the brethren wearing the emblems of the order. Many of them were armed, and at one part of the proceedings, at a signal given by a cannon shot, a continuous discharge of small arms was kept up for nearly two minutes. Great preparations had been made by the authorities to preserve the peace, for which purpose a squadron of hussars, a company of infantry, and a large body of constabulary had been drafted into Clones on the preceding day. A number of detectives were also brought from Belfast, but did not succeed in gaining admission to the grounds, as none but members of lodges were permitted to pass the gates, which were guarded by persons who keenly scrutinised and repelled every intruder. The chair was taken by Mr. John Madden, and, after addresses had been delivered by the Chair-

man, the Rev. Mr. Woodright, Captain Madden, Rev. Mr. Burnside, and other gentlemen, resolutions were unanimously adopted denouncing the Government with reference to the Church Act, the dismissal of Captain Coote, and the Party Processions Act. During the meeting a letter from Colonel Archdall, secretary to the Grand Lodge of Fermanagh, was read, and received with strong expressions of dissatisfaction. It stated that he would neither himself attend nor advise the Orangemen of his district to do so, because he did not see any practical measure proposed in the programme of the meeting, and was of opinion that such demonstrations tended to endanger rather than to promote the cause of Protestantism and the peace and prosperity of the country.

THE IRISH CHURCH.—The Primate and the Archbishop of Dublin have issued an address to the clergy and laity, stating that they have summoned provincial synods to meet in Armagh and Dublin to reform the representation of the clergy previous to the reassembling of a synod, and requesting the laity to prepare a representation of themselves against the time of meeting. They explain that they are slow in offering suggestions, as they consider it the best course not to do so. They seem to court freedom of lay action, and express their readiness to use the parochial system and diocesan conferences if the lay brethren wish it. The Dublin Synod will meet in St. Patrick's on the 14th of September. A synod of the clergy of the diocese of Limerick was held on Tuesday, and a meeting of the clergy and laity of the diocese of Down, Connor, and Dromore was held in Belfast yesterday. The bishop presided, and it was resolved that a diocesan synod, consisting of all the clergy of the diocese and an equal number of elected lay communicants, shall be held on the 7th of September.

THE CHURCH BILL.—The Liberal members of the Corporation of Dublin passed a resolution on Monday that a committee of the whole House prepare an address of gratitude for the Irish Church Act to Earl Spencer, Mr. Gladstone, and Sir John Gray.

MEETING OF THE ROMAN CATHOLIC PRELATES.—On Wednesday the Roman Catholic bishops of Ireland met in conclave at Dublin for the consideration of the questions now before the public, foremost amongst which is that of education, which is understood to be the chief point to which the main efforts of the Roman Catholics will be directed in the next session of Parliament. The present conclave has been assembled in consequence of the position taken by Dr. Ball, on behalf of Trinity College, on Mr. Fawcett's motion in the House of Commons just before the prorogation, the object being to obtain for the Catholic University a share of the revenues of the College and the Queen's University.

THE LAND QUESTION.—The *Irishman*, in an article headed "The Plague of the Landocracy," says that the landocracy in Ireland is a sign of foreign usurpation, and that landlords hold that which is not theirs. Every acre, it says, has been stolen, and is unjustly withheld from the Irish people, who must get rid of the plague. Another article says, "If you desire freedom, you must be prepared, when opportunity comes, to seize it." An article, signed by the Fenian Kicknam, urges the people to get arms.

THE AMNESTY QUESTION.—A great meeting, convened by the General Amnesty Association, was held a few days since at Waterford. It was stated that 10,000 persons were present. Mr. Napoleon Buonaparte Wyse was in the chair, and the first resolution was moved by Mr. Pierce Marcus Barron, D.L. The meeting adopted a series of resolutions similar to those passed in other places. The proceedings were throughout orderly and decorous.

THE LONDONDERRY RIOTS COMMISSION.—The Commissioners appointed to inquire into the riots which occurred at Londonderry during the visit of Prince Arthur, held their first sitting on Thursday. It was stated during the sitting that the Corporation are already negotiating for a change of the police force.

Scotland.

THE STATUE OF MARSHAL KEITH.—The statue of Marshal Keith presented by the King of Prussia to the town of Peterhead, Aberdeenshire, was unveiled on Monday. The statue is a duplicate in bronze of a statue of the Marshal now standing in the Wilhelm Platz, Berlin, and was presented to the town of Peterhead in reply to a request made to the King of Prussia for the original marble statue, which it was erroneously understood had been removed not to be again erected. The day was observed as a holiday in the town, and from the ruins of the old Castle of Inverurie, where the Marshal was born and spent his early days, several banners were displayed. The Earl of Kintore officiated at the removal of the veil, amidst the enthusiastic cheering of an immense crowd of spectators. A banquet was afterwards given in the Town Hall, and in the evening a public dinner, presided over by Provost Alexander, was held in the same place. The proceedings were brought to a termination with a ball in Prince Street Hall. The pedestal of the statue bears the following inscription:—"Field-Marshal Keith, borne at Inverurie, 1696; killed at the battle of Hochkirchen, 14th October, 1758. The gift of William I., King of Prussia, to the town of Peterhead, August, 1868. *Probus viri, fortis obit.*" The statue represents the Field-Marshal in uniform, standing with a scroll in his hand.

MURDER AT GRETNA GREEN.—On Friday morning, an old woman, who keeps a lodging-house at Gretna, went to the police to ask for assistance to remove a basket-maker and his wife, who had been quarrelling with her lodgers, and on her returning alone, the man and woman set upon her and beat and kicked her to death.

Railways.

FATAL COLLISION ON THE GREAT NORTH BRITISH.—A deplorable accident occurred at Barnet, a few minutes before midnight on Monday, to which it occurred were a passenger train empty to Southgate, after delivering its cargo at Barnet, and a goods train on its journey from London, and it arrived at Barnet at 11.30, was then detached, and passed from the rear of the train, to draw the empty carriage whose name is Murphitt, asked the signalman, "Is it right, and the reply was, "When you see Arthur South, said to Murphitt, "Now, Harry, and right away; make haste and jumped into his break, when the signalman A goods train was waiting at Whetstone this the signalman sent the message "ready" and "come on," "line clear" being about a mile off, on the London line ought to have been held over to allow the passenger train into the goods train about half a mile from the engine meeting engine. Murphitt jumped stoker, Casseldean, did the same after he were both so much injured that they had to be taken to the Royal Free Hospital. The engine of the passenger train reared against the other, and in a moment was an explosion of the gasometer in the rear of the passenger train (the train being in the front of the engine, where it burnt the carriages and the van continued to burn daylight. At the inquest on Tuesday a man who examined the body as it lay on the ground that the body was entirely charred, headless, and less. The bones of the legs were all broken but whether the result of a fracture or of a blow could not say. After some further evidence taken the inquest was adjourned.

BREAK-DOWN OF AN EXPRESS ENGINE.—On Friday morning as the night express from London to the east-coast route, was passing between the Preston and Inveresk Stations, it was brought to a stand by the breaking of the crank of the engine. A large number of sportsmen were among the passengers on their way to the north, and the occurrence caused them no slight annoyance, as they had the prospect of losing the trains by which they were to travel from Edinburgh. A disengagement, however, happened at the time to be at Inveresk, and was despatched with the train to Edinburgh, and arrived an hour and 25 minutes after the time. Personal injuries were caused by the accident.

COLLISION ON THE NORTH BRITISH.—On Tuesday morning the London express train, due at 6.5 A.M., ran into a mineral train at Preston siding. It appears that the mineral train was 10 minutes behind time, and that while it was shunting the express dashed into it. Fortunately the driver of the express observed the danger at a distance off, and reversed his engine, thereby lessening the force of the collision. Two waggons were destroyed, and the line was blocked up for an hour and a half. The passengers in the train escaped with little injury.

CHEAP WORKMEN'S TRAINS.—On Wednesday a deputation from the Great Western and Midland Working Men's Association for promoting cheap travel at convenient hours, morning and evening, was received by the directors of the Great Western Railway at Paddington Terminus, Sir D. Gooch, Bart., Chairman of the Company, presiding. The deputation presented a memorial, explaining the benefits that would be derived by working men and their families from being enabled to reside in open and healthy localities, and at a distance from the heart of the City and West-end, at the same time pointing out that such an arrangement would materially add to the financial interests of the railway companies. A requisition, signed by 6000 residents in Notting Hill, Kensal Green, Shepherd's Bush, Hammersmith, and Kensington, was also presented to the board. Sir D. Gooch, in reply, stated that the board would give immediate attention to the memorial, and confer with the directors of the Metropolitan Company on the subject.

COMPENSATION CASES.—At the assizes at Chester a curious railway case was tried before Justice Hannon, the plaintiff, Mr. Jelly, a commercial traveller, living at Bedford Leigh, having been seriously injured in collisions on the same railway within two years. On January 7, 1867, the plaintiff was severely injured in a collision at Warrington, in which a special jury awarded him 2000l. In March 1868, he was able partially to attend to business. On February 15, 1869, while travelling from London to St. Albans, the train in which he was a passenger ran into some coal waggons, and the plaintiff was thrown into the back and head. He was now brought to bed in a litter, and appeared to be in a very bad state. He said that his income before the second collision was between 400l. and 500l. per annum. The jury returned a verdict in his favour, damages 1500l.—At the Shrewsbury Assizes an action was brought against the Shrewsbury and Hereford Railway Company by the father of a Miss Handley, who was killed on the 10th of February close to the Bromfield Station on the 10th of February last. The evidence proved that deceased was walking at the station for a mid-day train to Ludlow, when an express train from Shrewsbury came up at a great pace, and actually smashed her to pieces. She was governess at the parish school at Bromfield, and was 25l. a-year. The damages claimed were 2000l.

business has been slow, and this a further loss. Paris, Aug 19
—Wheat has been less active, with a declining tendency
Flour trade dull. The eight marks are quoted 35s. 9d. per
280 lb. The stock at the Halle is estimated at 4162 cwts.

The arrivals of foreign Wheat are good, of Oats moderate,
of other grain small. There was a small attendance at this
morning's market, and millers were not inclined to purchase
Wheat except at a decline of 1s. to 2s. per qr., and factors not
being willing to comply, but little business resulted. Spring
Corn unchanged in value, except Oats, which are cheaper

ARRIVALS.

	Wheat.	Barley.	Oats.	Flour.
English ..	260 qrs	-- qrs.	1350 qrs.	-- sks.
Irish ..	" "	" "	" "	" "
Foreign ..	31,640 "	1360 "	34,250 "	{ 2430 "
	31,900	1360	35,580	{ 2780 brls.

LIVERPOOL, August 17.—At to-day's market we had an
average attendance, and owing to the change to favourable
weather the Wheat trade has been inanimate, and the few
transactions that occurred were at irregular prices, chiefly at
a reduction of 2d from last market day. Flour in moderate
request, and prices unchanged. Indian Corn met with a
good demand, at an advance of 1s. 6d. per qr. Beans firm, and
rather dearer. Peas in good request. Barley steady.

SEED MARKET.

We have to report an increase of activity in the agricul-
tural seed trade, the recent showers having caused a brisk
demand for sowing Mustard and Rape seed; white Mustard
has advanced 1s. to 2s. per bushel. Essex dwarf Rape seed is
firm. A few samples of new English Mustard and red Clover
seed have been shown in Mark Lane. For new Trifolium on
the spot we have an eager inquiry. We have had a fair trade
for new home-grown Trifolium. Of red Clover seed the stock
held is under the average, and the plant from which the new
must be saved, both in this country and on the Continent,
being confessedly thin and bad, we consider it certain that
values will advance considerably beyond those at present
ruling. Of white Clover seed there is very little left on hand
from last season, and as the area of growth of the new crop is
small, this description will probably be dearer. The quantity
of yearling Trefoil seed in store is large, new seed will, how-
ever, be exceedingly scarce, and of very inferior quality; and
we note an advance of 5s. per cwt. within the last eight or ten
weeks. The use of French grown Italian Rye grass has during
the last few years largely superseded that of other sorts; it is
2s. per cwt. dearer than last week. Of winter Tares the stocks
are entirely exhausted, the reports of the new crop are very
contradictory; we can hardly expect to see prices go so high
as those reached last year; only one sample of new English
has appeared at market, and this was of very poor quality.
On the whole, taking present values and stocks into considera-
tion, we think the seed trade is just now in a very healthy
state, and encouraging to go into stocks.

JOHN SHAW & SONS, 16, Water Lane.

AVERAGES.

	Wheat.	Barley.	Oats.
June 26 ..	46s 4d	32s 7d	29s 0d
July 3 ..	47 9	35 8	28 2
— 10 ..	48 11	30 6	27 0
— 17 ..	50 2	32 0	26 0
— 24 ..	50 11	30 3	27 3
— 31 ..	51 9	31 4	27 9
Average ..	49 4	32 1	27 2

PARTNERSHIP, or as MANAGER, with prospect of
Partnership. A Gentleman, who is in the prime of life, and
anxious for active employment, having had many years of experience,
wishes to meet with some opening in the Corn or Flour Trade, or
any similar Business. Any one requiring a perfectly trustworthy
person might have every confidence in his integrity and judgment,
and he can command £10,000 to £12,000 Capital of his own. The
Southern or Midland Counties preferred.—Address A. B., care of
Mr Nash, 4, Savile Place, Regent Street, London, W.

Botanical Collector.

MESSRS. VEITCH AND SONS are desirous of meeting
with an energetic, well-informed Young Man, who wishes to
go Abroad as a COLLECTOR of NEW PLANTS and other objects
of NATURAL HISTORY. Application, stating age, education,
and references, to be made in the first instance in writing.—Royal
Exotic Nurseries, King's Road, Chelsea, S.W.—August, 1869.

Bedford Local Board.—Sewage Irrigation Works.

MANAGER WANTED.—The Local Board of Bedford
are desirous of securing the services of a Man competent to
undertake the Management of their Sewage Farm. He will be
required to Set-out and Level the Carriers, to Superintend the
Ploughing, Sowing, and Laying-out of the Ground and the Disposal
of the Crops. Particulars of the duties to be performed and other
information may be obtained from the Town Clerk, Bedford.—
Applications to be sent to the Town Clerk's Office, Bedford, on or
before Tuesday, August 31, 1869. THEED WM PEARSE,
Bedford, August 13, 1869. Town Clerk.

WANTED, in a large Wholesale and Retail Seed
House in the Country, a competent and experienced Person,
to take the MANAGEMENT of the GARDEN SEED DEPART-
MENT. Good address and business-like habits, with good reference,
indispensable.—Apply, stating terms and references, to A., *Gardeners'*
Chronicle Office, W.C.

To Market Gardeners.

WANTED, a FOREMAN, for a 30 Acre Farm, near
Hounslow. Must be a first-rate Cropper, and understand
Fruit Trees. First-rate references required.—Apply to Mr.
DANCER, Nurseryman, Fulham.

WANTED, at Michaelmas, a WORKING FOREMAN
on a Heavy Land Farm of about 250 Acres. A married Man,
whose Wife will attend to Poultry. He must be active and industri-
ous, and capable of keeping a Dairy and some Simple Accounts.—
Address, stating terms, late employment, and other particulars,
A C D, Bayford House, Hertford.

WANTED—JOHN WATERER & SONS are desirous of
ENGAGING IMMEDIATELY a FIRST-CLASS PRO-
PAGATOR. It is essentially necessary he understands the Pro-
pagation of Conifers, Hard-wooded Shrubs, &c.—Apply by letter,
addressed American Nursery, Bagshot, Surrey.

WANTED, a GENERAL PROPAGATOR. Must
understand Roses, Fruit Trees, &c.—State age and salary,
&c., to JOHN LUFF, St. Mary's, Rattle, Sussex.

WANTED, by a Clergyman, a GARDENER, Single-
handed, and to take charge of a Cow and Pigs. He must
have a good practical knowledge of both Flower and Kitchen
Gardens, and of the care of Greenhouse Plants. Good character
especially required.—Rev A B, Post Office, Westerham, Kent.

WANTED, at Michaelmas, a married Man as BAILIFF
and GARDENER, for a Farm of 90 Acres. Wages 17s 6d
per week, with house rent and firing. His Wife must be a good
Plain Cook and Housekeeper, and will have 2s. 6d. per week, besides
£s a week during the residence of the Owner.—Direct H T. E.,
Mount Pleasant, West Heathley, East Grinstead.

WANTED, as IMPROVER, a strong Young Man,
of good character. Wages 10s.—Rev. J. E. GRAY,
Wembley Park, near London, N.W.

WANTED, in a Country Town, a SHOPMAN,
thoroughly competent to Manage and conduct a Seed Busi-
ness in all its branches. To live on the premises.—Applicants,
with all particulars, wages expected, &c., to be made to Mr
ALFRED LEGERTON, Seed Warehouse, 5, Aldgate, London, E.

WANTED, a Young Man, to act as SHOPMAN,
Under Management, and to assist in the Office. A know-
ledge of Greenhouse Plants desirable.—Apply to Mr WM PAUL,
Waltham Cross, London, N.

WANTED, a CLERK, in a Wholesale London Seed
Warehouse. He must Write a good hand, and have some
knowledge of the Trade.—Address, with full particulars, H.,
Gardeners' Chronicle Office, W.C.

WANTED, an APPRENTICE, in the Seed Trade, to
live with Employer. Premium required.—For particulars,
apply to THOS. B THOMSON, Birmingham and Midland Counties
Seed Warehouse, 20, High Street, Birmingham.

WANTED, a JUNIOR ASSISTANT, in the Seed
Trade, to live with Employer on the premises.—State age,
reference, and salary required, addressed to T. B. THOMSON,
20, High Street, Birmingham.

WANTED, in a Gentleman's Family, a DAIRYMAID,
who thoroughly understands the Management of a Dairy,
and who also understands Baking.—For further particulars, address
to K., Post Office, Bishops Lydeard, Taunton.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER
and BAILIFF), of various qualifications, recommended to
Gentlemen.—Further particulars given on application to Messrs.
E. G. HENDERSON and SON, Wellington Nursery, St. John's
Wood, London, N.W.

Gardeners and Under Gardeners.

WM. CUTBUSH and SON beg to state that they
have at all times on their books MEN of various qualifications,
whose characters will bear the strictest inquiry. Any Gentleman
making application would save time by clearly stating the duties
to be undertaken, wages offered, &c., so that suitable Men may be
selected.—Highgate Nurseries, London, N.

MR. WM. PAUL begs to announce that he has made
arrangements by which he will be enabled in future to
furnish Gentlemen with the NAMES, ADDRESSES, &c., of
GARDENERS, and GARDENERS and BAILIFFS, of various
qualifications, who are open to Engagements. The fullest particulars
as to services required and wages given should be forwarded with
application.—PAUL'S Nurseries, Waltham Cross, London, N.

To Gardeners and Bailiffs (Head, Foremen, or Under).

JAMES CARTER and CO. having many applications
for the above request that those WANTING SITUATIONS
will send NAME, ADDRESS, and COPIES of TESTIMONIALS
for ENTRY in their FREE REGISTER. Only those who can send
unquestionable references need apply.

Any Lady or Gentleman requiring GARDENERS or BAILIFFS
may rely upon J. CARTER and Co adopting the most stringent regula-
tions in reference to testimonials as to ability, honesty, &c.
JAMES CARTER and CO, 237 & 238, High Holborn, London, W.C.

GARDENER (HEAD).—Middle-aged, married, no incum-
brance; nine years' good character for sobriety, industry, and
ability.—A. B., Chalton Road, Gobe Fields, Mile End, London.

GARDENER (HEAD).—Single; thoroughly practical in
all branches of the profession. No objection to Ireland. Six
years' character.—J. B., Post Office, North Street, Grove Road, N.W.

GARDENER (HEAD).—Age 30; 17 years' experience
in Noblemen's and Gentlemen's Establishments in England
and Scotland. First-class reference.—G., Feltham, Middlesex.

GARDENER (HEAD).—Age 30, married, no incum-
brance; good experience in Melons, Grapes, Peaches, and
other Fruits, Stove and Greenhouse Plants, Vegetables, &c.—
X. Y. Z., Ridge, Wotton-under-Edge.

GARDENER (HEAD).—Age 25, 10 years' practical
experience in all branches of the profession. Two years' unex-
ceptionable character from present employer.—A. B., The Gardens,
Avoiside, near Warwick.

GARDENER (HEAD).—G. HOPKIRK, Gardener,
Somerleyton Hall, Suffolk, will gladly and with confidence
recommend a Young Man to any Lady or Gentleman who may
require the services of a steady, trustworthy, practical Man.—
Address as above.

GARDENER (HEAD).—Married, no family; thoroughly
understands the Management of Pines, Vines, Early and Late
Forcing, Stove and Greenhouse Plants, and Flower and Kitchen
Gardening. Wife a good Cook. Good character.—A. B., John
Higginson, City News Shop, Chester.

GARDENER (HEAD).—A Lady wishes to recommend
a steady, active, working, middle-aged married Man, who is
thoroughly practical in all the various branches of the profession.
Five years in last situation. No single-handed place accepted.—
M. N., 54, North Street, Edgware Road, London, N.E.

GARDENER (HEAD).—Married, no incumbrance;
understands the Growing of Grapes, Stove and Greenhouse
Plants, Early and Late Forcing, and Flower and Kitchen Gardening.
No objection to Meadow Land. Six years' character.—A. B.,
BRADFORD, 2, Cross Road, Twickenham Green, Middlesex, S.W.

GARDENER (HEAD).—C. TYLER, Gardener to Henry
Allsopp, Esq., Hindlip Hall, Worcester, is now at liberty to
engage with any Nobleman or Gentleman. Practical in every
department. Reference kindly permitted to present and previous
employers.—Address as above.

To Noblemen and Gentlemen.

GARDENER (HEAD).—Age 26; 10 years' experience.
Has officiated as responsible Foreman in a very extensive
Establishment; and can be highly recommended by several skillful
Gardeners for having a good useful education and a sound practical
knowledge of the profession.—T. REID, High Hall Gardens, Wigan.

GARDENER (HEAD).—Age 35, married; is open to
engage with any one requiring a first-class practical Man, of
20 years' experience in Early and Late Forcing, an excellent Kitchen
and Flower Gardener, and has had charge of extensive Establish-
ments. Can be well recommended.—H. G. 1, Pine-apple Place,
Maida Vale, London, W.

GARDENER (HEAD), no family.—THOMAS LODMAN,
11 years Gardener to Robert Hudson, Esq., is now disengaged,
and is open to treat with any Nobleman, Lady or Gentleman
requiring a thorough practical Gardener; Hard and Soft-wooded
Plant Grower, Flower and Kitchen Gardener, Early and Late
Forcing, also the Management of Stock. Eleven years' first-class
character from last place.—Address 123, Clapham Park Road, S.W.

A LADY wishes to recommend a thoroughly good HEAD
GARDENER, middle-aged, married, with two grown-up
daughters; also an excellent SECOND or UNDER GARDENER,
age 23, married, with one child. Only leaving their situations in
consequence of the death of their Mistress.—C. M. T., Woodville,
Ilfracombe.

GARDENER (HEAD), or GARDENER, BAILIFF,
and GENERAL SUPERINTENDENT. Married, has a
thorough knowledge of the profession.—M. R., Messrs. Osborn,
Fulham Nursery, London, S.W.

GARDENER (HEAD), or GARDENER and BAILIFF.
—Age 30, married; thoroughly practical and experienced in
Gardening and all its various branches, the Forcing of Fruits,
Flowers, and Vegetables, Stove and Greenhouse Plants, Flower and
Kitchen Gardening. Has been in some of the best Establishments
in Scotland and England. Good reference as to character and
abilities to past and present employers.—J. ANDERSON,
Gardener to the Ven. Archdeacon Sandford, Alvechurch Rectory,
near Redditch.

GARDENER (HEAD, W. H. H.)
stands the profession well. Highly recommended.—A. B., F. Street, London.

GARDENER (HEAD, W. H. H.)
Gentleman.—Has a thorough knowledge of the profession.
Address—J. ROBINSON, W. P. Street, Bolton.

GARDENER (HEAD, W. H. H.)
has had several years' experience. Can have an excellent character.—A. B., F. Street, London.

GARDENER.—Age 25, has a
the profession. Address—4, Royal Oak Place, Peckham Rye, London.

GARDENER.—A Young Man,
tation of Pines, Vines, Melons, Cucumbers, &c.—
Family.—F. M. B., Post Office, London.

GARDENER (SINGLE-HANDED)
no incumbrance, has a thorough knowledge of the
Vegetables and Flowers. Two years' experience.
Office, Addlestone, Surrey.

GARDENER, or SECOND GARDENER,
respectable Young Man. Can have a good character
from the Gentleman he is now leaving.—F. H.,
Langton, Tunbridge Wells.

GARDENER (UNDER).—Age 23,
once willing to make himself generally useful.
RODWAY, Jacob Rodway's, Cork Manufacturing
Gloucestershire.

GARDENER (UNDER), in a good position
improve.—Age 20; several years' experience in
Kitchen Gardens, also Melon and Cucumber
testimonials.—T. M., 6, Cochrane Terrace, St. John's
Wood, London, N.W.

GARDENER (UNDER), in a good position
the Foreman.—A Young Man, who has been
Houses.—Apply to Mr. T. RECORD, L. Street,
hurst, Kent.

FOREMAN, in a good Establishment
intelligent Young Man.—D. P. SMITH,
Twickenham, S.W.

To Nurserymen.

GROUND FOREMAN and PRM
Thoroughly experienced. Satisfactory references
and ability.—H. RAMSAY, Stamford Nurseries, Stamford,
Lincolnshire.

GROUND FOREMAN.—Sixteen years
some of the principal Nurseries. Wife a
Expert Budder and Grafter.—L. G., Mr. H.,
Upper Thames Street, E.C.

FARM BAILIFF.—A respectable Farmer
understands Farming in all its branches, and
and Selling of Cattle, and a good Account book
character.—A. B., Post Office, Arlington,
Gloucestershire.

IMPROVER, in a Gentleman's Establi
Glass.—Age 19; has had experience in the above
—A. B., 98, Wirttemberg Street, Clapham S.W.

DAIRY MANAGERS, in a Nobleman's
Family.—A Man and Wife, without any
the entire Management of a Dairy, also complete
Stock, and Kill Sheep or Pigs. No objection to
Good reference as to character can be given.—
E. J., Hallowell, Bexley, Kent, S.E.

SHOPMAN (ASSISTANT),—Six years'
experience in the London Seed Trade. After
September 1st Good references.—J. I. V.,
Gibbs & Co., Seed Merchants, corner of B.
Piccadilly, London, W.

GROOM or GARDENER.—Age
character.—F. T., 2, Nassau Terrace, Richmond,
Surrey.

Sauce.—Lea & Perrins.

THE "WORCESTERSHIRE"
Cognosseurs "THE ONLY GOOD SAUCE."
Appetite, and Aids Digestion. Unrivalled for
Ask for LEA & PERRINS' SAUCE. Beware of imitations.
Names of LEA & PERRINS on all bottles and labels.
Agents—CROSSE and BLACKWELL, London, and
Dealers in Sauces throughout the World.

WHEN the HAIR, through weakness
off, or turn grey, no preparation will
press of these evils, restore the ORIGINAL COLOR
a healthy and luxuriant growth, than Mrs. J. C. WELLS'
WORLD'S HAIR RESTORER. It is simple in
requiring no previous preparation of the hair
agreeable, and no pomade or hair oil is required
bottles, 6s., of chemists and perfumers.
Depot, 26, High Holborn, London.

CORNS and BUNIONS.—A Gentleman
tormented with Corns, will be happy to afford
information by which he obtained their complete
period, without pain or any inconvenience.—Forward
stamped envelop to F. KINGSTON, Esq., Ware House,
High Holborn, London.

COCKLE'S ANTIBILIOUS
THE SAFEST
FAMILY APERIENT.

In boxes at 1s. 1½d., 2s. 9d., 4s. 6d., and 1s.

COCKLE'S ANTIBILIOUS
in use the last 60 years for
INDIGESTION

In boxes at 1s. 1½d., 2s. 9d., 4s. 6d., and 1s.

COCKLE'S ANTIBILIOUS
in use the last 60 years for
BILIOUS AFFECTIONS

In boxes at 1s. 1½d., 2s. 9d., 4s. 6d., and 1s.

COCKLE'S ANTIBILIOUS
in use the last 60 years for
LIVER COMPLAINTS

In boxes at 1s. 1½d., 2s. 9d., 4s. 6d., and 1s.

COCKLE'S ANTIBILIOUS
THE OLDEST
PATENT MEDICINE

In boxes at 1s. 1½d., 2s. 9d., 4s. 6d., and 1s.

GOUT and RHEUMATISM.—The
of Gout or Rheumatism is quick relief
few days by that celebrated medicine, BLAIR'S
RHEUMATIC PILLS.

They require no restraint of diet or confinement
are certain to prevent the disease attacking any vital
Sold by all medicine vendors, at 1s. 1½d. and 2s.
obtained through any chemist.

ELECTRICITY IS
SELF-ADJUSTING CURATIVE and ELECT
Sufferers from nervous debility, indigestion,
now cure themselves by the only "Guaranteed Remedy"
protected by Her Majesty's Great Seal.

Free for One Stamp, by R. JAMES, Esq., Medical Officer
the London Hospitals, Percy House, Bedford Square,
N.B.—Medicine and Fees superseded. A Test given
details. Established 1840.

The Gardeners' Chronicle Newspaper.

SATURDAY, AUGUST 28, 1869.

MANCHESTER. For Samples and Prices apply to J. SHAW AND CO., 29, Oxford Street, Manchester.

HOT-WATER APPARATUS of every description, fixed complete in any part of the country, for Warming Greenhouses, Conservatories, Forcing Pits, &c. Plans and Estimates on application. J. JONES AND SONS, 35, King Street, Cheap side, London, E.C. Manufactory, 6, Bankside, Southwark.

IRON HURDLES (Silver Medal of the Royal Agricultural Society) SHEEP, 3s 6d, CATTLE, 4s 6d, OX, 5s 11d. List by post GATES and FENCING of every description. St. Pancras Iron Work Company, Old St. Pancras Road, London, N.W.

Caution to Gardeners.—When you ask for **SAYNOR AND COOK'S WARRANTED PRIZE PRUNING and BUILDING KNIVES**, see that you get them. Observe the mark SAYNOR, and the Corporate Mark, Obtain Warranted, without which they are not genuine. S & C regret having to caution Gardeners and others, but are compelled to do so, in consequence of an imitation, of common quality, having been sold for the genuine one, and which has caused many complaints to be made to them of Knives which were not of their make all of which are warranted both by Sellers and Makers. S & C PRUNING and BUILDING KNIVES are the best and the cheapest in the market. **SAYNOR AND COOK'S KNIVES** are the best and the cheapest in the market. **PAVING WORKS, Southwark.** Established upwards of 125 years.

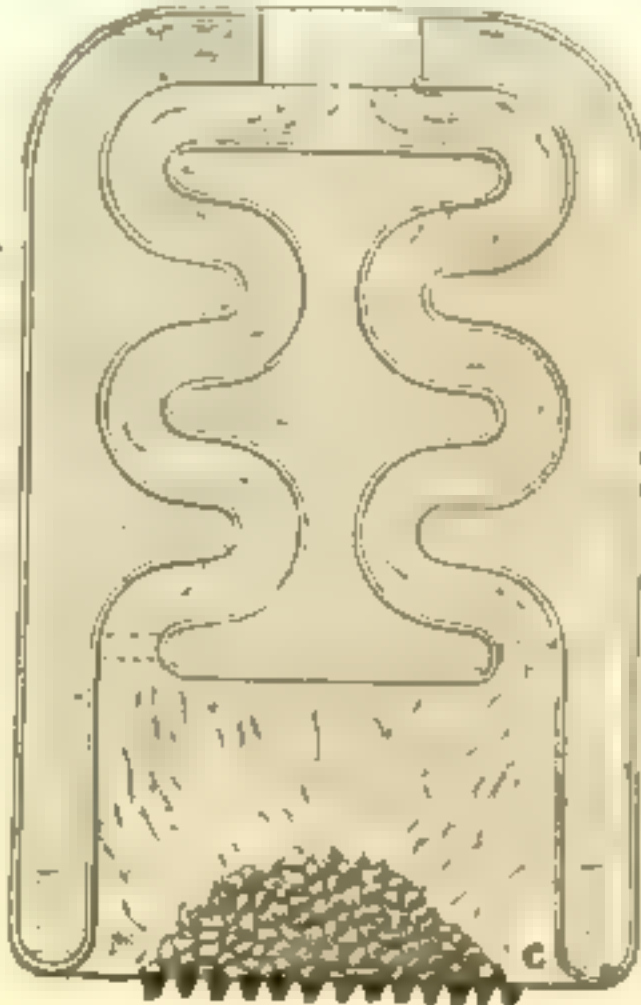
ORMSON'S NEW PATENT ECONOMIC BOILERS,
 CONSISTING OF
ORMSON'S CONVOLUTED BOILER, ORMSON'S CONCENTRIC SADDLE BOILER,
ORMSON'S TUBULAR BOILER.

MANCHESTER EXHIBITION.

OPINIONS OF THE PRESS—EXTRACTS.

From the "Sheffield and Rotherham Independent."

"What has taken our attention most, however, is the tent and its fittings, belonging to Mr. Ormson, of Chelsea, and we are glad to see it, because of the perfect novelty of the ideas set forth by him. In the first place, Mr. Ormson exhibits a perfectly new construction of boiler to be used in the heating of hothouses and conservatories. There are three forms of the application of the principle, called respectively, the Concentric Saddle, the Convoluted, and the Tubular, and in all the object, so successfully attained, is to present the largest amount of surface to the action of the fire. In most Boilers, the heat is communicated only in a lateral manner, and a large quantity of heat is returned to no purpose. In the new Boilers double the amount of surface is obtained from the same amount of fuel. Being made of wrought iron gives them another great advantage. Cast-iron Boilers are subject to cracking from expansion and contraction, and fearful mishaps have not uncommonly been sustained in winter from such causes. Such accidents are impossible with Mr. Ormson's Boilers."



From the "Scientific Review."

"Ormson's Patent Convoluted Welded Wrought-iron Boilers.—Mr. Henry Ormson, of Stanley Bridge, Chelsea, has recently patented a Hot-water Boiler, the merit of which is the retention of the fire, and consequent exhaustion of its power on the various heating surfaces of the Boiler between the water spaces, allowing it to pass up the chimney.

From the front it not only shows the outer water chamber, forming the boiler in direct contact with the fire; but two convoluted surfaces, between which the flame must pass.

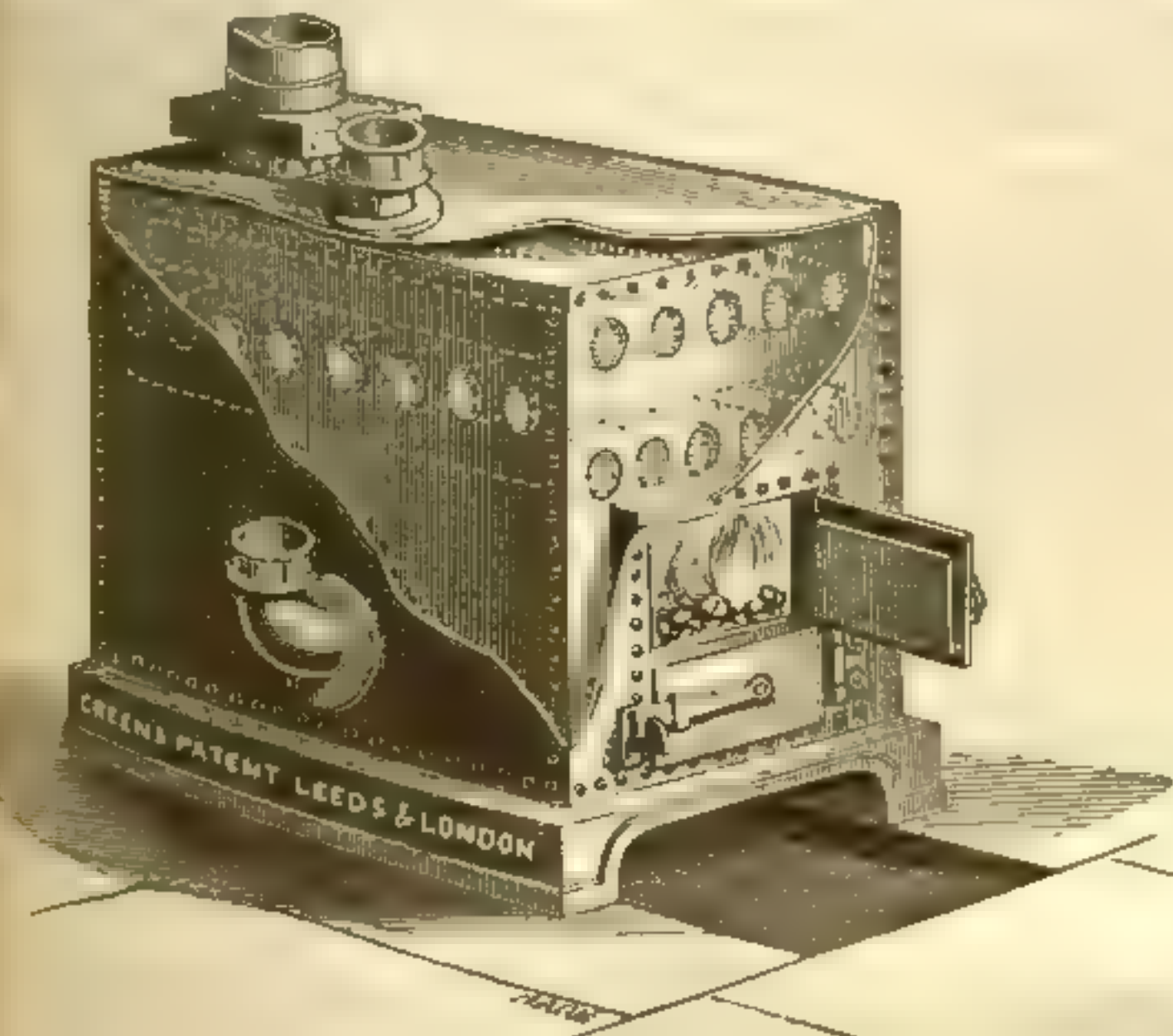
From the "Manchester Guardian."

"Particulars of such as deserve definite mention we must defer to another issue, in order that we may advert to one or two matters accessory to the main object of the Exhibition, and specially to Mr. Ormson's New Boilers for the heating of hothouses and conservatories. The speciality of these boilers is that while made of welded wrought iron, and thus rendered crack-proof (in strong contrast with Cast-iron Boilers), they are so constructed as to utilise the whole of the fire-heat, and give a much larger amount of heat for the same amount of fuel. This is accomplished by there being no lateral waste, as in all or most other Boilers. But those interested in the subject should go and view for themselves. Three forms of Boiler are exhibited, the Concentric Saddle, the Convoluted, and the Tubular. Mr. Ormson also exhibits some very ingenious Plans and Models for Gardens, by which the whole of the fruit-produce is secured, no matter what kind of season it may be. These we shall describe in our next."

"It not only checks the heat from passing away direct, but receives its full force; whilst the inner water-chamber is subjected in every part to the maximum of heat, and so is the inner surface of the other parts of the Boiler. Being set in a chamber of brick-work, it is evident that no appreciable loss of heat can ensue, consequently it must be most economical in consumption of fuel. These Boilers vary somewhat from the illustration, according to their size. They are adapted for heating Horticultural Buildings, Mansions, Churches, Public Buildings, &c., and, being made of Wrought-iron on the most improved system of welding that material, are very safe and extremely powerful Boilers."

HENRY ORMSON, HORTICULTURAL BUILDER TO HER MAJESTY,
 AND HOT-WATER APPARATUS MANUFACTURER TO THE COMMISSIONERS OF HER MAJESTY'S ROYAL PALACES AND PUBLIC BUILDINGS,
 AND TO THE ROYAL HORTICULTURAL SOCIETY,
STANLEY BRIDGE, KING'S ROAD, CHELSEA, LONDON, S.W.

GREEN'S PATENT IMPROVED TUBULAR HOT-WATER BOILERS



THE ABOVE BOILERS ARE

THE MOST EFFECTIVE AND DURABLE EVER INVENTED.

They can be set to work at a nominal cost, inasmuch as no brickwork is required, as will be seen from the above drawing, they are placed upon a Cast-Iron Sole-plate, which answers the purpose of Foundation and Ashpit.

From the peculiar and substantial manner in which these Boilers are made, they are warranted to last for years without getting out of order; in fact, we guarantee them for ten years, but feel convinced that they will serve all the purposes for which they are intended for a much longer period.

They are specially adapted for Heating Greenhouses, Churches, Chapels, Schools, Public Buildings, Entrance Halls, Warehouses, Workshops, &c.

THE FOLLOWING ARE THE ADVANTAGES OF THESE BOILERS:—

- 1st, They require no setting in brickwork.
- 2nd, They are complete in themselves, having perfect means of regulation.
- 3rd, They take up little room, and can be put in places inaccessible to other Boilers.
- 4th, They are economisers of fuel, owing to the great amount of heating surface upon which the fire acts in a direct manner, and the consumption of smoke.
- 5th, The fire can be made to last from 12 to 24 hours without attention.
- 6th, Any number of Flows and Returns can be annexed to the Boilers by means of T-pipes.
- 7th, By means of mud doors, they can be readily cleaned out when required.
- 8th, The Chimney is made of cast-iron, which can either be taken through a roof or turned into a flue, to meet the convenience of the situation that it may be fixed in.

THOMAS GREEN AND SON, SMITHFIELD IRON WORKS, LEEDS;
 and 54 & 55, BLACKFRIARS ROAD, LONDON, S.E.

unrivaled by any fleet previously... under all grades of steaming, power... excepting the unarmoured flying... The squadron is... 25 guns... of 150 horse power, V.C., C.B., Admiralty flag-ship... Captain Goodenough, Vice-Admiral Sir Thomas... Commander-in-Chief of the Fleet... 3 Northampton... 6 Hercules... 5 Bellerophon... 7... 7... 17 guns, 1000 tons, unarmoured... Captain Aplin. At Mediterranean fleet, under the command... will join, and the com... proceed on their cruise; at the... which the combined fleet will anchor... of Lisbon for two or three days... Admiral Milne's fleet will... and the Mediterranean, while the... will sail for Queens... arrive about September 27.

Foreign.

There was a panic on the Bourse on Tues... of a rumour that the Empress and... who left on Monday for Corsica... Cloud, in consequence of a relapse... health. Rentes fell considerably at... of the report, but rallied on the... official contradiction, though at the... they had not fully recovered their... The Constitutionnel of Tuesday... that the Emperor was quite well, and... his usual exercise that morning. The... the Prince Imperial arrived at Lyons on... and met with a cordial reception. They... Lyons for the night, and on Thursday... for Toulon, where they met with an... reception. Yesterday morning her... having visited the Cathedral and... authorities, embarked on board the... Corsica. The rumour that Prince... intended to visit Suez and India is... The Emperor presided at a Council... Saturday, and at another on Wed... Imperial decree was published on... General Lehoucq Minister of... of the late Marshal Niel. The... well known to many officers of the... for he served through the Crimean... commanded the artillery in chief after... General Thierry. He also commanded... the Imperial Guard during the Italian... In the sitting of the Senate on... M. Devienne read his report on the... In the 5th Article, which provides... any modification of which it may... acceptable, decide whether a law shall be... reconsideration by the Legislative Body... of a law by adopting a re... by a declaration of motives" have... Three additional paragraphs have been... 7th, and 11th Articles. The report... has not adopted the amendment... forward, and which tended to deprive... the power of selecting for mayors... belonging to the municipal councils. It... the results which have attended the... namely, tranquillity, development... increased wealth, France, sup... soldiers ready to proceed to the... by all Powers; in a word, it says... from a dictatorship to the... liberty. It states, in conclusion, that... can still improve upon that of... consolidate the work which has been... The Senate will commence the discussion... Consultum on the 1st of September... for the Department of the Seine... opened at Rouen on Tuesday. M... a speech on the occasion, and stated... of electing their own president and... be granted to the Conseils Généraux... Journal of Thursday states that the... granted by the Emperor does not apply... been convicted of offences against... Majesty, or any other political personage... published by the Rappel of... Henri Rochefort declares that he is... to France only if the electors should... A categorical denial has been given to... the Prince de la Tour d'Auvergne has... to Count Beust, expressing approval... a dispatch to the Prussian Govern... asserted that France has had no... in the interchange of the recent... between Vienna and Berlin. Queen... by the King Consort and the... Asturias, is on a visit to her mother... who has been residing for the last... Adresse, a suburb of Havre. Sir... is now in Paris, on his way to Ems... Codrington, who has been visit-

ing the Chalons camp, breakfasted at St Cloud on Monday. He did not, as a Paris paper asserted, find the Cross of Grand Officer of the Legion of Honour wrapped up in his breakfast napkin, but it was sent to him afterwards by the Emperor, the decoration being one which his Majesty has just won. The Medical Faculty of Paris have just granted, after the usual examinations, the degree of doctor of medicine to three ladies, one of whom is French, one Russian, and the other American. The American Lucas was attacked last week by two of the non-combatants of his performances at the Hippodrome, and died on Tuesday of his wounds. An explosion by fire-bomb has occurred in the Grison coal-pits at Monsteraid, near Ferrara. Fourteen persons were killed.

SPAIN.—General Prim and his family left Madrid for Vichy on Wednesday, and will possibly pass a couple of days at Paris, though that is not certain. Several Carlist bands, numbering altogether 300 men, which had assembled in the province of Castille, have been dispersed; and Tristany and 10 other insurgent chiefs have been arrested at Perpignan in the attempt to enter Spain. The priest Milla, a leader of a Carlist band, who had been sentenced to death by a Council of War, has been amnestied. The bishops have not obeyed the orders of the Government, and will be judicially proceeded against in consequence by the authorities. Admiral Mendez Nunez, who commanded the Spanish fleet at the bombardment of Callao during the late war with Peru, died on Saturday. Six thousand men are about to leave Cadiz for Cuba.

PORTUGAL.—The Chamber of Deputies on Friday voted, by a majority of 30 to 3, the indemnity to the South Eastern of Portugal Railway Company. The Queen has returned from abroad. The Cortes were closed by the King in person with the usual ceremonies. His Majesty delivered a short speech, in which he said that every effort was being made to restore the financial equilibrium and to revive the national credit. He also stated that the Ministers would seriously consider how to augment the imports and diminish the expenditure. His Majesty, in conclusion, stated that the independence of Portugal would be sedulously preserved.

BELGIUM.—Henri Leys, the painter, died at Antwerp on Thursday morning.

PRUSSIA.—The King has returned to Berlin. The Norddeutsche Allgemeine Zeitung, contradicting the rumours which have appeared in several newspapers, states positively that it is not intended to demand of the Parliament the sanction for any supplementary credit for the army budget.

BAVARIA.—The commission for the settlement of the question connected with the fortresses of South Germany was opened on Thursday by a representative of the Minister of War. The commission is composed of representatives from Bavaria, Wurtemberg, and Baden.

AUSTRIA.—The Vienna Gazette of Sunday publishes an autograph letter of the Emperor, dated the 19th inst., to the Minister of War of the Empire, ordering the dissolution of the two border regiments at Warasdin, and the dissolution of the 11th and 12th companies of the border regiment at Szliun, those Croatian military districts coming henceforth under civil administration. The same change is also to be made in the Croatian border-posts at Zengran and Sisseek. In conformity with this letter Count Taaffe and Count Andrassy, the respective Cisleithan and Transleithan War Ministers, are called upon by two other autograph decrees of the Emperor to draw up in accordance with the existing laws such administrative regulations as may be agreed upon between them for the execution of the proposed alterations. Two more Imperial decrees of the same date, addressed to the Minister of War for the Empire, order the latter to forward to the Ministries of both portions of the Empire the necessary information for constitutionally executing the proposed change. An Imperial decree convokes several Cisleithan provincial Diets between September 9 and October 2 next. The Minister of the Interior has addressed a circular to the Governors of the several provinces of the empire, stating that the present legislative system does not admit of an interference on the part of the Government on the question of reducing the number of days observed as holidays in Austria. The circular further states that if certain holidays are to be done away with as superfluous, the matter must be left to the discernment of the people themselves, to be dealt with by them as they think fit. The authorities will see that official business is duly attended to on all days in the year excepting those which are strictly observed as holidays, and will use their influence with the people at large to induce them to follow the same example. Field-Marshal Moering has been appointed Governor of Trieste.

HUNGARY.—The Emperor, who was expected at Pesth on Wednesday evening, was to inspect the Honved Battalions on Thursday, and afterwards proceed to the camp at Bruck. The case of Prince Karageorgevich was to be proceeded with before the Supreme Court on Thursday.

GREECE.—The King returned to Athens on Monday from Corfu. The Chambers have been prorogued for 30 days. A canal through the Isthmus of Corinth is the subject of conversation. It would not be more than three and a-half miles, and the expense is calculated at 12,000,000 fr. If this project were carried out the time between Marseilles and Constantinople would be reduced by about 14 hours.

ITALY.—The Official Gazette of Friday publishes a Royal Decree closing the present session of Parliament. A subsequent decree will shortly appear fixing the date of the opening of the new session. The Nazione contradicts the rumour that Count Cambray-Digny has concluded a financial operation of 300,000,000 liras with certain banking firms, on the security of the ecclesiastical property.

PAPAL STATES.—Accounts from Rome state that the Imperial Court will present two dogmas—the Infidelity of the Pope and the Spiritism and Corporeal Association of the Virgin Mary. It is said that the Pope has expressed a desire to rank his dogmas as articles of faith, and that a Protestant Union of Protestants had refused to take part in the Council.

THE PRINCIPALITIES.—The Countess is to meet on Wednesday for an extraordinary sitting. Advice from Lovitcha state that Prince Constantine received the return visit of the Emperor of Russia, the Crown Prince, and the Prince Alexis.

TURKEY.—Talahout Pasha, First Secretary of the Viceroy of Egypt, arrived at Constantinople on Monday in the Egyptian steamer Fakham, accompanied by the Grand Vizier's aide-de-camp, who had been the bearer of the Minister's letter to the Viceroy. Talahout Pasha proceeded immediately to the Grand Vizier's residence on the Bosphorus, and the latter at once communicated the Viceroy's reply to the Sultan. His Highness is stated to give therein ample assurances of his loyalty to the Sultan. Halil Bey, the Foreign Under-Secretary, was selected last week to proceed to Livadia, on behalf of the Sultan, to compliment the Emperor of Russia on his arrival there, but his mission has since been postponed in consequence of the indisposition of the Czar. Dukat Pacha was expected to return on Thursday, via Valera, with new propositions for carrying out the Roumelian Railway scheme.

EGYPT.—The Viceroy left Alexandria for Cairo on the 19th inst. It is said that he will visit Constantinople, on receiving an intimation that his explanatory letter has been found satisfactory.

RUSSIA.—Madie, Stella Coms, the favourite actress of the St. Petersburg public, who a few years ago was equally well known to London playgoers, has married a Russian gentleman of the name of Corvin-Kroukovsky.

CAPE OF GOOD HOPE.—The Cape Parliament has had a Bill under discussion regulating the relations of masters and servants. It was proposed to inflict on the servants flogging, imprisonment with hard labour, spare diet, and solitary confinement. The masters were only to be fined. Considerable indignation having been manifested by the European class likely to be affected, it was explained that the measure was intended to affect only Kafirs, and that the legislation must be impartial, but it was trusted that the discretion of the magistrates would protect Europeans. One of the members regretted that the farmers were not still allowed to shoot down all thieving niggers. The Basuto question was not yet settled. The colonists were much annoyed at the withdrawal of the troops, and the Cape Standard had published an article stating that when the troops were taken away the Cape would virtually cease to be a British colony, and would have to call upon the British ministry to place it in such a position that it might be able to seek the aid of Prussia, the United States, or some other foreign power. The diamond discoveries continued. Three Portuguese sailors had arrived at Port Elizabeth stating that they were wrecked in the Portuguese brig Nossa Senhora of Cononca, on the 29th of May last year between Delagoa Bay and Port Natal, and that besides the crew a detachment of troops was on board, making altogether 115 persons. All reached shore excepting the ship's doctor, who was drowned. After landing one soldier died from thirst. Four days after the wreck the captain, part of the crew, and the commander of the troops, with his wife and child, and 40 soldiers, left in the ship's long boat and a smaller boat for Delagoa Bay. The Kafirs treated all the rest well, and took them into the bush. Subsequently these three men ran away, and left 42 persons prisoners with the Kafirs.

INDIA.—The Indian Daily News says that, after all that has been said on the subject, it is possible there may be no durbar at Agra in honour of the Duke of Edinburgh, as the prospects of the crops in the adjacent provinces are not good, and there may, perhaps, be a famine. The Khyberis have refused to allow the guns presented by the British to Shere Ali to pass the defile. The Council of India is said to have set itself against the scheme for a railway to Darjeeling. The cattle disease in the Sonderbund has been declared to be identical with the rinderpest. Dr. Atmaram Sudaseo Jayaker, a Hindoo who has studied in England, and who belongs to the Covenanted Medical Service, has publicly abjured the religion of his fathers, and been baptised as a Christian at Ahmedabad. A Hindoo widow marriage has taken place at Calcutta, and caused some excitement in the native community. Two Bengalee ladies of good position have applied for admission to the Matriculation Examination in connection with the Calcutta University. The Hindoos have supplanted the Mahomedans in nearly all the Government offices. Even in the law offices, which the latter formerly monopolised, they have almost ceased to be employed. The natives of the Andaman Islands are said to be following the universal law, and dying out with the introduction of civilised habits. The King of Burmah is reported to have appointed a noble of the highest rank to sit as a court, jointly with the political agent, to hear cases between Burmese and registered European subjects. The old buildings in Fort Agra, some of the finest specimens of Mahomedan architecture in the country, are to be put in repair. A number of metal images, supposed to be upwards of 800 years old, and to be Hindoo idols, have been dug up in the fort of Gwahor. The discovery of a vein of meerschaum at Smla is announced by the local papers. A private of the 23d Welsh Fusiliers, named Green, who was sentenced to death for murdering a sergeant of the regiment, has been hanged at Bombay. A soldier named Gibson, belonging to the 26th Cameronians, has shot a native dead at Calcutta, after having been drinking heavily,

and the coroner's jury returned a verdict of Murder against him.

CHINA.—The Peking Government has definitively refused to ratify the Burlingame Convention with the United States. It appears that the Chinese text of Mr. Burlingame's credentials differed from the foreign version, and appointed him envoy to a tributary nation. Mr. Ross Browne, the American Minister, replying to an address of the British and American communities at Shanghai, emphatically denounced the policy of Mr. Burlingame, which he considered as evidence of the Chinese disinclination to progress. Equality in the relations was impossible, he said, at present, and a yielding attitude on the part of the foreign Powers would tend to produce war, as the revelations made proved the mistaken policy of the British Government. The death of Consul Gibson is announced. It is stated that it was hastened by anxiety, in consequence of the recent troubles. Great ill-feeling against foreigners is said to exist, on the part of the native, literary, and official classes at Foochow. Her Britannic Majesty's Consul at Hankow and a party of friends, when out on a picnic, were driven away by a mob of natives, who insisted that the foreigners were cooking and eating little children. The Chehien of Shanghai was recently mobbed and beaten, in order to force him to exact vengeance on a foreigner who had killed a Chinese. He was rescued by the French police. It is rumoured that some thousands of junkmen, with several hundred coolies, have signified their willingness to join the agitators of rebellion at Soochow. The gasworks at Peking have come into operation, and the Customs yamen is lighted from them. The Peking College is said to be failure. A larger number of pirates have been captured by H.M.S. Bouncer, in concert with two Chinese Imperial gun-boats, which did good service.

JAPAN.—The civil war is ended, and the Daimios are disarming. Mr. Fletcher, the British Consul at Yeddo, is dead. The Hayamaro steamer has been totally lost by striking on a rock in the Inland Sea. Twenty-one lives were lost, including Mr. H. D. Margesson, merchant, of Macao; Mr. Wainwright, Editor of the *Hioyo News*; Mr. Kalle, Mr. Muller, Herr Jachimek, the pianist; Captain Hill, and Mr. Watts, second engineer of the ship; six Chinese and eight Japanese. The vessel went down in seven minutes from the time of striking.

NOVA SCOTIA.—Prince Arthur landed at Halifax from the City of Paris on Sunday morning, after a voyage of less than seven days from Queenstown. His Royal Highness was cordially welcomed by Sir John Young, Sir Hastings Doyle, and other officials, and was escorted to the Governor's House by the 78th Highlanders. At his request, a formal public reception was postponed on account of the day being Sunday. On the following day a public reception was given to his Royal Highness. The Recorder, on behalf of the Corporation, read an address welcoming the Prince to Nova Scotia, and earnestly assuring his Royal Highness of their loyalty, and their deep respect and affection for Queen Victoria. The Prince, in reply, expressed his grateful thanks for the cordial welcome he had received, and his great satisfaction at finding how highly the people of Nova Scotia cherish the memory of his grandfather, who had governed the province. The affectionate allusion to the Queen, and the hearty welcome of her son, would, he said, give her Majesty great pleasure. A large procession of the trade societies and a review of the military by the Prince, followed the presentation of the address. The city was illuminated in the evening. On Tuesday his Royal Highness was the guest of the Bishop of Halifax. Sir John Young, the Governor-General of Canada, has been enthusiastically received at Halifax. At a banquet given in his honour, he disavowed the language attributed to him at Quebec predicting the severance of the Dominion from Great Britain. He declared he only meant that a change in the nature of relations was probable.

UNITED STATES.—President Grant is visiting in New Hampshire. Numerous American journals express surprise and regret at the report that Prince Arthur will not visit the United States. The *New York Herald* says the reception of the Prince of Wales, and the general regard for the Queen throughout the country, were guarantees that the Prince would be cordially welcomed. The Massachusetts Democratic State Convention have nominated Mr. John Quincy Adams as Governor. They have also adopted resolutions denouncing the present system of taxation and the high tariff, and favouring the early return to specie payments, the enforcement of the Monroe doctrine, and complete protection of the rights of naturalised citizens abroad. No mention is made of the national debt. The National Labour Congress is in session at Philadelphia, and delegates are present from all the States, representing various trades and manufacturing interests, regardless of party considerations. The platform adopted contains resolutions denouncing the national banking system, and favouring the payment of State bonds and all debts, both public and private, in currency. A further resolution favours the taxation of bonds and the reduction of the rate of interest of the National Debt, declaring that the present financial system was adopted as a necessity during the war, but is now perpetuated in the interest of the bondholder extortionists, to the detriment of the producing classes. The continued drought is reported to be doing great damage to the corn crops in the western and southern States. A riot occurred on Monday at Macon, Tennessee, between the whites and negroes. Two persons were killed, and a large number wounded, among whom were several officers of the sheriff. The negroes threaten to destroy the town. The disputes of Mr. James Fisk, jun., and Mr. Van Valkenburg, for the possession of the Albany and Susquehanna Railway,

in New York, have at last led to a collision. The traffic having come to a dead lock by Mr. Fisk being in possession of one end of the line, whilst Mr. Van Valkenburg had that of the other, they both started trains filled with their workmen, which ran into each other. The occupants of the carriages, or such of them as were not injured by the collision, then jumped out and fought with knives and pistols, and in the conflict several among them were seriously wounded. The means of transit being thus denied to the public, the governor of the province interfered, by appointing a receiver and superintendent of the railway on behalf of the State, leaving the belligerents to conclude their quarrel in another manner.

BRAZIL.—The allied Corps d'Armée, under General Portucho, is marching against Villarica, and the Brazilian squadron is steaming up the Tebicuary to attack Villarica. Active operations are imminent. The Prince of Saxe, with the Brazilian Princess and family, had left for Lisbon.

SOUTH AMERICA.—Captain Webber, an officer of the British artillery stationed at Gibraltar, left Buenos Ayres, about two months ago, with Lieutenant Wallace of the same corps, to cross the Cordilleras at the pass of Tinogasta, which is reported to be more than 16,000 feet above the level of the sea. When they reached a height of 14,500 feet Captain Webber was attacked with "puna," a disease peculiar to the high regions of the Cordilleras, and due to the effect produced upon the lungs and the circulation of the blood by the great rarefaction of the air. He became delirious, and Lieut. Wallace, who was himself suffering from the same cause, retraced his steps, keeping Captain Webber on his mule in a state of insensibility. Captain Webber died, however, when they had descended about 1000 feet, on May 2, and his body was buried on the side of the mountain. Lieut. Wallace returned to Buenos Ayres, which he reached on the 25th ult., and subsequently embarked for Gibraltar.

SANDWICH ISLANDS.—Advices from the Sandwich Islands state that the Duke of Edinburgh had arrived at Honolulu in the Galatea, on his way to Japan, and had been cordially received.

CUBA.—Accounts from Havannah, from insurgent sources, assert that the Volunteers are again becoming insubordinate, and that a conspiracy, in which several prominent Spaniards are involved, has been discovered in favour of Céspedes, the insurgent leader.

City Intelligence.

MONEY MARKET, FRIDAY.—**BRITISH FUNDS:** Consols closed at 93 to 93½, both for Money and Account; New and Reduced Three per Cents., 93½ to 93¾; Bank Stock, 244 to 246; Exchequer Bills, March, 3s. to 8s. pm., and June, 6s. to 10s. pm.; India Five per Cents., 112½ to 113½.—**FOREIGN:** Danubian Seven per Cents., 90½ to 91½; Peruvian, 79½ to 79¾; Charkof, 83½ to 84½; Orel, 84½ to 85; Egyptian Nine per Cents., 93 to 93½; Italian Tobacco Loan, 87½ to 88½; Turkish Five per Cents., 41½ to 41¾; Portuguese, 31 to 31½; Brazilian, 8½ to 85; United States 5-20 Bonds, 81½ to 81¾; Erie, 22½ to 23; Illinois, 91½ to 95½.

Metropolis and its Vicinity.

THE MAYORALTY.—Since the announcement that Alderman Dakin will not be put in nomination this year, in consequence of ill health, and that Alderman Besley, who is next in rotation, is prepared to serve, if elected, a requisition has been prepared, and is being numerously signed, inviting the present Lord Mayor, Alderman J. C. Lawrence, M.P., to discharge the duties of the office a second time.

MURDER OF MISS TINNE IN AFRICA.—Accounts reached London yesterday of the death of Miss Tinné, the African explorer. On her way from Murzuk to Ghat, on the Abergoush Road, lat. 20°, long. 13°, she fell a victim to the treachery of some camel drivers. Two of her attendants, European sailors, fell at the same time. Some members of Miss Tinné's family have already started from Malta to Tripoli to visit the scene of the disaster. Miss Tinné was hardly 30 years of age.

THE NEW VICAR OF ST. PANCRAS.—The Dean and Chapter of St. Paul's have conferred the vicarage of St. Pancras, vacant by the elevation of the Rev. W. W. Champneys to the deanery of Lichfield, on the Rev. Anthony Wilson Thorold, of Queen's College, Oxford, late Rector of St. Giles's-in-the-Fields, and now minister of Curzon Chapel, Mayfair. The vicarage is worth 1205l. a year.

DISTRIBUTION OF THE ANGLO-BELGIAN PRIZES.—The ceremony of distributing the prizes won at Wimbledon by English Volunteers, under the auspices of the Anglo-Belgian Prize Committee, took place on Friday at the studio of Captain Mercier at Albert Gate, Hyde Park. Lord Sefton presided, supported by a number of Volunteer officers, and the prizes were distributed by the Lord Mayor. At the conclusion of the ceremony, Colonel Labrow, of the 19th Surrey, moved the thanks of the committee to the King of the Belgians for his second donation of 150l. Captain Styan, of the Queen's, seconded the resolution, which was carried unanimously. Mr. Van de Velde, secretary of the Belgian Legation, returned thanks for the honour which had been done his King and his countrymen, and said that though he could promise that the citizens of Liege would give the Volunteers a most cordial welcome on their approaching visit, it must necessarily fall short of the reception given to the Belgian civic guard in this country. Colonel Carter moved a vote of thanks to the Lord Mayor, which was carried with enthusiasm.

THE REMOVAL OF GAS WORKS.—The great City gas companies are preparing to remove their works from the crowded localities in which they are now

placed, and carry them into the country. The Company has secured a site in the northern outfall of the great main, and the City Company at Blackman's...

THE LAND QUESTION.—A meeting of classes was held on Sunday morning at Green, under the auspices of the Reform League, for the purpose of a lecture from Mr. C. Bradlaugh on "The People." There were about 1000 persons present, Osborne being in the chair. The lecturer obtained life and happiness from the removal of all, and if there were any barrier of attention of the people should be removed. The landowners of the country had but 30,000, and while in 1800 the land was worth an amount of 2,300,000l., the rent received by the aristocracy being 22,500,000l., in 1850 it had increased to over 68,000,000l., while the redemption of the land-tax. Referring to a statement that the landed aristocracy were rich while they slept," he said that it was so, for the heads of families being benefited by the law of primogeniture and entail, the tocracy had provided for the younger sons ways out of the country's earnings. The property in land were different from those acquired by labour, and those who owned had no right to shut it up for pleasure, but to produce grain for the starving millions. He reform in the land laws—firstly, because it was lawful; secondly, because whether or not, they could do it, meaning thereby that the wealth of the nation was higher than mere personal attack on the Prince of Wales followed, and the fact that England is a Government was denied, the Government of a landed aristocracy. He did not advocate distribution of land, but he asked that the soil should share in the profits of the nation. The lecture closed with an eulogium of Mr. A vote of thanks was given to the lecturer.

TRADES UNION CONGRESS.—The Trades and Trades Societies Congress commenced on Monday at Birmingham on Monday. The following societies were represented:—Birmingham Amalgamated Society of Basketmakers, Birmingham Organised Trades of Nottingham; Levensham Association, Nottingham; Operative Birmingham (Manchester Order), Operative Society of London; London Working Men's Association, Progressive Society of Carpenters and Joiners, and London Central Society of House Painters and Decorators; United Flint Glassmakers' Society of Great Britain and Ireland; Potteries Trades Co-operative National Ironworkers, Darlington; Operative Society of Carpenters and Joiners; United Birmingham Albion Lodge of Carpenters and Joiners; United Trades Association of Birmingham; United Flint Glass Cutters' Society of Birmingham; Coopers and Casemakers' Society, Operative National Association of Scotland; Iron and Steel Wire Drawers' Society, Birmingham; Operative Nailcasters; Miners' National Association; National Association of Operative Pastors; Amalgamated Trades Council, South London Society of Railway Springmakers; Birmingham Building Company; Operative Bricklayers' Manchester Lodge. Mr. Wilkinson, of Birmingham, was appointed president, Mr. M'Neil, vice-president, and Mr. M'Neil, secretary. On Tuesday Mr. George Potter read a paper under the head of "The Power of Labour," but which was really an exposure of the ruinous consequences of intemperance in the temperance societies. At its conclusion the members expressed their opinion that the somewhat out of place, and Mr. Clare Denham, others condemned the political attack which the paper made upon the name of priestcraft. Mr. Walton, of Birmingham, in view of giving practical effect to the principle that the establishment of courts of arbitration and conciliation will greatly conduce to the peaceable settlement of all disputes between employers and employed, and be a means of preventing strikes and lock-outs, as well as being conducive to the trial and commercial enterprise of the country. Howell (London) seconded the motion, which was discussed at considerable length. Mr. M'Neil were in favour of arbitration and conciliation, but there were complaints that the results had not been in all cases satisfactory. Mr. Connolly, of London, representative of the masons, was strongly opposed to arbitration on the ground that it would tend to the degradation of the working-classes. The motion was carried on Wednesday, Mr. Snorrocks, of Manchester, moved on "Trades Unions and the Communal System." Mr. George Potter (London) moved in support of the congress the time had arrived when the legislation in regard to labour should be placed on the same footing with other legislation. Mr. G. Howell (London) moved the following resolution:—"That in any attempted legislation to trades' unions, the following principles be distinctly recognised—1. The entire repeal of the Combination Laws. 2. Complete protection of the trade funds. 3. No interference with, or attempt to remove, from trade funds. 4. In respect of the removal of the commissioners to compel the registration of

and to open accounts to the registrar, this would be against any exceptional clause from reference to other legal societies in the industry. After a long discussion the amendment was carried by a narrow majority. On a discussion took place on the subject of the number of apprentices that were allowed to enter any trade Mr. Manchester, moved that in trades where labour was in excess of the demand the apprentices was justifiable and fair, the number of apprentices being proportioned to the number of men employed to teach them. Mr. Burton moved an amendment in favour of leaving the matter to the trades most interested. This was afterwards carried in favour of the resolution. Mr. Odger moved an amendment relegating the matter to arbitration, which would apportion the number of youths in each trade to the number of men employed. After some discussion the original motion was carried. Among the papers read during the sitting were by Mr. G. J. Holyoake, on the subject of "Partnerships as one means of gaining the benefits of Trades Unions;" and one by Mr. A. A. Patten on "Co-operative and Industrial Partnerships," which led to a discussion on the co-operative principle.

THE THAMES EMBANKMENT.—It is reported that the Government has been given to the Thames Embankment of a building which shall accommodate both the War Office and the 3rd Guards.

TOMB OF HENRY VII.—The well-known monument in the chapel of Henry VII., in Westminster Abbey, has been cleansed and revived. The tomb itself is seen to be of black marble; the base and other metal adjuncts are gilt. The "builder" says:—"The gilding is for the most part in a excellent state of preservation. The subjects of the circular groups in the circular panels round the tomb are now obvious, and the inscription is legible. The dark metal screen around the tomb would prevent the restored brightness from interfering with the sombre harmony of the chapel as a whole, even were that brightness more garish than it is. Nothing has yet been done to the screen; but doubtless it will be cleaned and the small portions that are gilt brought out. Looking at the tolerably complete appearance of the monument at first sight, it is somewhat startling to hear that 1500 pieces are wanting to make it perfect, yet such we believe is the case."

EGYPTIAN EXPLORATION.—Dr. Gedge, of Bury St. Edmunds, has accepted the post of superintendent of the medical staff in Sir Samuel Baker's expedition to Lake Nyanza. Dr. Gedge is also entrusted by the Government of Egypt with the collection of natural history specimens for a museum about to be established at Cairo. Sir Samuel Baker's expedition, 1700 strong, will start from Alexandria on the 18th inst. for the Nile and Soudan.

THE CHURCH CONGRESS.—It has already been announced that the Church Congress of the present year will meet in Liverpool at the beginning of October. A working man's meeting will be held in connection with it, at which the speakers who are expected to address the meeting are the Archbishop of York, the Bishops of Oxford, Lichfield, and Peterborough, Mr. Gathorne Hardy, M.P., Colonel Akroyd, Mr. R. A. Cross, M.P., and Mr. E. Whitley. Admission will be by tickets, of which about 2500 will be issued, all gratuitous. The *Liverpool Courier* says:—"We understand that when Dr. McNeile, Dean of Ely, saw that the name of Mr. Mackonochie was mentioned as a speaker or reader at the Congress, he endeavoured to protest against the recognition of a man in Mr. Mackonochie's circumstances as a fellow-labourer, in a Church."

NEW LONDON CHURCHES.—A new church is about to be erected close to Finsbury Park, at a cost of 5000l. It will be a handsome structure in the early English style, and will contain between 900 and 1000 seats. The Rev. G. B. Latreille, of King's College, London, is the incumbent. A district church is about to be erected in the parish of South Hackney, of which the Rev. John C. Egan, M.A., will be the incumbent. A new church, to be dedicated to St. Matthew, is to be erected in Masborough Road, Brook Green, a district which is to be out of the parish of St. Paul, Hamstead. The Rev. William Handcock, one of the London Home Missionaries, will be the first incumbent.

NEW CHURCH AT RICHMOND.—On Thursday the Rev. Mary of Teck laid the foundation of a new church for a rapidly-spreading suburb of Richmond. The building to be dedicated to the Holy Trinity. The site was given by the late Lord Justice Mansfield, and the church, which will accommodate 1000 persons, will be erected in the early English style, according to the designs of Mr. Raphael Brandon.

RECTORY OF ACTON.—The valuable rectory of Acton has been conferred by the Bishop of London on the Rev. Charles Masgrave Harvey, curate of Hampstead.

POOR-LAW WORKHOUSE.—The poor-law inquiry into the ill-treatment of the poor in St. Pancras Workhouse was brought to a close on Saturday. Mr. G. B. Latreille, the Poor-law Commissioner, will make his report to the Poor-law Board, whose decision will then be made public.

ALLEGED CORRUPTION IN THE ADMIRALTY.—A letter has been addressed to the Admiralty by 148 persons employed at Somerset House, asking for an investigation into the statements made by Mr. Baxter, Secretary to the Admiralty in the House of Commons, that they consider cast an undeserved stigma upon a body of public servants. The reply from the Admiralty is as follows:—"The Admiralty are anxious that there should be no misunderstanding as to the expressions used by their Secretary on the occasion referred to, or as to the foundation for these expressions. It was stated by him that an extensive system of what is popularly termed 'tipping' had prevailed both at Somerset House and at the dockyards as well as in railways and other public companies, and that a vigorous effort should be made by the country to put an end to these practices. The truth of this statement my Lords have no doubt. The papers found on Mr. Gambier and Mr. Rumble, and information, which has reached their Lordships both before and since the trial, leave it beyond question that the practices they exposed and punished were not isolated, but that for years, in connection with the purchase and delivery of naval stores, large sums of money had been paid by contractors and received by officials under the Board of Admiralty. Their Lordships have endeavoured to follow up some of these cases, but in vain without success. But my Lords have no hesitation in saying that the great body of the service have been entirely free from the remotest suspicion of dishonesty. My Lords would add that, even had their Secretary implied (which was far from his intention) that officers formerly charged with the contract and receipt of naval stores had been generally corrupt, such an imputation could not affect the other branches of the service, to which the great body of the present memorialists belong. Under these circumstances, my Lords are not prepared to institute such an inquiry as the memorialists advise, it would be unnecessary so far as the honour of the department is concerned, and would impede rather than assist the ends of justice. But my Lords desire to reiterate the expression of their conviction that, while corruption of a most serious character has attended some of the transactions of the department, the character of the service generally is beyond suspicion, and they will take occasion to place this communication on record in the most unmistakable terms."

PENIAN EXCURSIONS.—It was announced last week that a Fenian excursion would start to-morrow (Sunday) for Hampton from Lincoln's Inn Fields, where a "procession of Irishmen and the noble daughters of Erin, accompanied by bands and banners and outriders," will assemble. Another excursion, which is expected to rival that with which the village of Hampton is to be infected, has since been announced. The announcement is headed, "The anniversary of the Siege of Limerick.—Grand National Demonstration. Grand river excursion to Gravesend, Sunday August 29, 1869." The manifesto of the committee says that, owing to the great success of the 31st of July excursion, and at the request of hundreds who were unable to attend it, the committee have resolved to celebrate the anniversary of the Siege of Limerick by a grand river excursion to Gravesend. The excursion will be larger, and carried out on a grander principle than any hitherto in London, and will be attended by several distinguished Irishmen. The manifesto concludes by saying:—"The committee, which is composed of representative Irishmen from all quarters of London, appeals to all honest and non-factional Irishmen to rally round them on this glorious occasion and give a hearty and mighty support. The committee only ask the support of the aristocracy of intellect and honesty, not of birth, and will feel content to see themselves surrounded by men with freeze coats and honest hearts—in other words, the 'mob' who are the hope of our nation, although not its *élite*."

COLLISION IN THE THAMES.—On Friday morning the *Hesperia*, of 500 tons, laden with a valuable cargo, for Singapore, was run down while riding at anchor near Gravesend by the steamer *Northumbria*, of 1000 tons, for Cardiff. It was the first voyage of the *Northumbria*, which ran into the *Hesperia* with such force as to bury her bows in her, cutting her down to the water's edge. Fortunately for the crew of the *Hesperia* the *Northumbria* was unable to extricate herself for some time, so that the crew had time to get safe on board, but as soon as she got clear the *Hesperia* went down in deep water. The *Northumbria* put back to the Victoria Docks. The *Hesperia* and her cargo were insured for 30,000l.

THE LATE EXPLOSION IN THE RIVER.—The inquest on the captain and seaman of the steam-tug which exploded a few days since near London Bridge, concluded on Tuesday, when the jury returned a verdict that George Charles Evans and Thomas Williams were killed by the bursting of the boiler, but there was not sufficient evidence to show the cause of such bursting. They added that they entirely exonerated the owners from blame, but felt that they could not separate without calling the attention of the Board of Trade to the inefficient manner in which boilers were tested.

EXPLOSION OF FIREWORKS.—On Thursday afternoon an explosion occurred on the premises of Mr. Darby, fireworks maker, in Regent Street, Lambeth Walk. Mr. Darby's manufactory is in the country, but in a large shed in the yard of this house he keeps a quantity of rockets, squibs, and other fireworks for immediate sale. The shed has been blown to atoms, the doors and windows of the adjoining houses were destroyed, and the windows of many houses in the neighbourhood were broken by the force of the explosion. Some children, who were playing in the street, were knocked down and scorched by the burning squibs. The explosion is supposed to have been caused by the heat of the sun acting on the roof of the shed and igniting its contents.

AFFRAY IN ST. JAMES'S PARK.—For some time past considerable ill-feeling has existed among the Westminster sewerage men and some labourers from King's Cross employed on the works opposite the House of Lords. On Saturday evening, just as people were entering the park to hear the band, a regular fight, which lasted more than 20 minutes, occurred, and, notwithstanding the excitement and the screaming of children, but one policeman could be found, and that not until the men had discontinued from sheer exhaustion. Two of the combatants were injured severely. It was only owing to the protection of several gentlemen that the policeman, when he appeared, escaped ill-treatment.

THE GREAT CITY ROBBERY.—Clement Harwood, clerk to Messrs. Harwood, Knight, and Allen, bill-brokers of Abchurch Lane, a son of the senior partner, was again brought before the Lord Mayor on the charge of stealing bills of exchange of the value of 15,000l. After a considerable amount of evidence had been taken, the prisoner was again remanded.

RELEASE OF ANOTHER PENIAN CONVICT.—It is announced that Martin Hanley Carey, Fenian convict at Millbank, in consequence of his mental condition, is to be at once transferred to Mountjoy Prison, Dublin, with a view to his release.

ATTEMPTED MURDER IN SOUTHWARK.—On Sunday morning a young woman named Eliza Raven, aged 20, residing with her parents in Ripley Street, New Kent Road, was standing with her sister at her father's door, when a young man called William Rauntree, aged 23, who lived next door, came up, pulled out a pistol, and exclaiming, "Take that," fired at her. The weapon does not appear to have been loaded with ball or shot, but the explosion wounded the arm of the girl, and the face and neck of her sister. The prisoner and the young woman had known each other as neighbours for about six years, but although he had not been recognised as her lover, his violence is believed to have been the result of jealousy. On searching him at the Police Station nine bullets and two packets of powder were found on his person, but the bullets would not fit the barrel of the pistol. He told the inspector that he had purchased the pistol on Saturday morning, and that his intention was to kill the young woman, and he was sorry that he had not succeeded. The prisoner was committed for trial on Monday, on the charge of attempting to murder.

THE CANNON STREET MURDER.—William Henry Hall, aged 22, describing himself as a painter, but refusing his address, was charged on Friday, on remand, before Colonel Jeakes, at Highgate, with having, according to his own confession, brutally assaulted a man, name unknown, in the Archway Road. On the previous Sunday the prisoner gave himself into custody at the Fleet Street Station, stating that he had on the previous night struck a man on the head with a brick in the Archway Road, and left him for dead, after quarrelling with him about a game at dominoes. He also stated that he committed the murder in Cannon Street some years ago. The prisoner was brought before Colonel Jeakes on the next day, and remanded to the House of Detention, in order that his state of mind might be inquired into. When brought up on Friday a certificate from the chief warden of the House of Detention was produced, stating that the prisoner had frequently been in custody, and had once undergone a term of six months' imprisonment, but no information was given as to his state of mind. The prisoner asked permission to speak, and on this being granted he said:—"About three years ago I murdered a woman in Cannon Street, and ever since then my conscience has not let me have any peace." Colonel Jeakes expressed his opinion that the prisoner was not in a fit state of mind to be at large, and remarked on the negligence of the Governor of the House of Detention in not causing a certificate to be sent as to the prisoner's mental condition. The prisoner said he was not mad, and urged the magistrate to settle the case of the murdered woman, as he might not see him any more. The police stated that the prisoner had several times threatened to commit suicide. The prisoner was again remanded, in order that he might be examined as to the state of his mind. On Monday he was again brought before the Highgate magistrates, when Colonel Jeakes said that it had been found, on inquiry, that his statements were untrue, and that he was perfectly sane. He was therefore discharged, the magistrate expressing his regret that he had no power to order him a good whipping as a rogue and a vagabond.

THE PUBLIC HEALTH.—The Registrar-General's Weekly Return states that in the week that ended on Saturday, August 21, 4428 births and 3159 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 25 per 1000 persons living, being 25 per 1000 in London, 28 in Edinburgh, 18 in Dublin, 23 in Bristol, 19 in Birmingham, 31 in Liverpool, 29 in Manchester, 29 in Salford, 25 in Sheffield, 25 in Bradford, 27 in Leeds, 21 in Hull, 25 in Newcastle-upon-Tyne, and 23 in Glasgow. In Paris the annual rate in the week was 22 per 1000. The rate in Berlin, during the seven days ending 19 inst., was 35 per 1000; and in Vienna 28 per 1000 during the week ending 14th inst. In London the births of 1065 boys and 1069 girls, in all 2134 children, were registered last week. In the corresponding weeks of 10 years, 1859-68, the average number, corrected for increase of population, was 2012. The deaths registered in London during the week were 1527. It was the 331 week of the year, and the average number for that week, corrected for increase of population, was 1464. The present return is therefore 63 above the estimated amount.

Provincial.

ALDERSHOTT.—It is stated that the Commander-in-Chief has exonerated Captain George, of the 7th Dragoon Guards, from all blame in connection with the late charge at Aldershott, in which one of the men of the Inniskilling Dragoons lost his life.—Another attempt to murder a non-commissioned officer was made in camp on Monday night, but fortunately without a fatal result. Serjeant Stacey, of the 5th Fusiliers, seeing Corporal Greeney coming towards his quarters, fired his rifle at him. The bullet passed close to his head, but without hitting it. Serjeant Stacey was immediately arrested, and said that he had been prompted by a sudden impulse to fire, and was extremely glad that he had missed his aim. On the next morning Quartermaster-Serjeant M'Elea, of the 5th Dragoon Guards, committed suicide by shooting himself with his carbine.

BRISTOL.—The sentence of death passed on William Pullin, for the murder of a policeman, at the recent Assizes has been commuted to penal servitude for life.

The Bishops of Rochester and St. Asaph, situated on the west bank of the river, nearly opposite the Castle, is in the style of the architect of Inverness, and consists of a nave, south aisle, transepts, and apsidal choir. The Chapter House on the north side is flanked by two towers at the intersection of nave and transept, and an ornamental iron screen is placed at the distance of 110 feet from the ground. The internal fittings and decorations are in the style of the 15th century.

MONUMENT.—On Friday afternoon the Duke of Stirling drove to the Abbey of Dryburgh, for the purpose of inspecting the National Monument, preparatory to receiving the Duke of Devonshire, in company with the Lords-Lieutenant of the counties of Edinburgh, Perth, the Sheriffs-Depute, and the Dean of the Guildry and the monument is to be handed over to the Duke of Devonshire on September 11, the anniversary of the opening of the Forth Railway Bridge. Mr. Burns, of Glasgow, the acting committee, stated that the monument already expended 13,000*l.*, and that the total cost would cost nearly 14,000*l.*

OMNIBUS.—A steam omnibus, or, to speak more correctly, an omnibus drawn by a road steamer, is to be introduced on a trip through Edinburgh on the 19th inst. The steamer has been built by Mr. R. V. Bell, a large omnibus proprietor in one of the counties of England, who intends to have his omnibus drawn by steam. The trial of last week was successful, with the omnibuses attached to it, and the rate of seven miles an hour, and ran down the incline to exhibit its speed at the rate of nine. It turned in the road with greater ease than if drawn by horses, was started and stopped instantaneously at the word of command, and ran up hill. It then proceeded from Leith, where the second stage of the trial was held, to the journey from Leith to the west end of the city, starting from Constitution Street, ran at a speed up Leith Walk and Leith Street, and then down Princes Street to the other with- out a stop, where it turned down South Charlotte Street, and on through North Charlotte Street to the top of the hill, where at the steepest point it was brought to a sudden standstill, to show how completely it could be commanded, and how entirely it could disengage itself from any kind of break. This was its final dis- play, when it went rapidly back to Leith. The trial was completely successful, and the dexterity with which it was managed, and the docility with which it obeyed the commands, turned whenever it was required, excited the interest and surprise.

Railways.

CALLING EXPRESS TRAINS TO STOP.—At the County Sessions, on Saturday, Mr. Joseph Hayes, a gentleman residing at Hertingford, was charged with an offence under the Act 31 Victoria, cap. 119, which requires that there be provided means of communication between the stations and guards and drivers of all railway trains of 20 miles without stopping. It appeared in evidence that on the 12th inst. defendant called the 2.45 express to Manchester, which does not stop until it reaches Hatfield. He should have got into a "slip" in the rear of the train, which is placed nearly in the centre of the train, and the driver and guard hearing the engine sound, looked round and saw the defendant at the window of the Bradford carriage, to the effect that he wanted to get out of the train just passed. The guard signalled to the train could not be stopped for such a purpose. Shortly after the train passed the defendant again, and on its being signalled to a standstill the defendant got out. The defence, said he could not find a "slip" at King's Cross, and got into the Bradford carriage under the impression made upon his mind by the time-table that the train stopped at Bradford. The magistrates having consulted for some time, the man said that they were of opinion that the defendant had been committed—that Mr. Hayes had been committed without sufficient cause. As, however, the defendant was the first case of the kind that had been brought before the Bench they would only inflict a penalty of 1*l.* Mr. Webb said he was afraid that the defendant would look upon the offence as a very light one, and that the remarks of the Bench were of more importance than the amount of the penalty. The defendant was committed to the House of Correction for 14 days. At Wakefield, on the 12th inst. a charge was preferred against Mr. Thomas Flockton, of Stockton-on-Tees, for obstructing a similar charge preferred against the same defendant. It appeared that on the

12th inst. the driver of the express from Leeds to London, when he had reached Sandal, 24 miles beyond Wakefield, heard his gong strike, and on looking down the side of the train saw a man gesticulating at a carriage window. In their printed instructions servants are told not to stop the trains out of the protection of station signals unless they perceive any immediate danger, and, beckoning that he would pull up at the next station, the driver went on until he reached Nostell, a short distance further on. At that place the defendant alighted and produced a ticket from Holbeck to Westgate, Wakefield, and said that his intentions were to go to Kirkgate station, in the latter town, and finding that it did not stop there, he thought he was perfectly justified in stopping the train. Mr. Oppenheim said that as the express was leaving Nostell, a pilot engine came in behind, and there was the possibility that had the train been stopped outside the signals a collision might have ensued. The Bench held that the case had been completely made out, but as it was the first which had been brought before them under the Act, they merely imposed a nominal penalty, which, including costs, amounted to 50*s.*

Law.

CENTRAL CRIMINAL COURT.—*Extraordinary Charge against a Detective Officer.*—Thomas Richards, 54, a retired police-sergeant, and one of the detective officers of the Brighton Railway Company, and William Crichtley, 58, jeweller, were charged with unlawfully conspiring together to defeat the ends of justice by endeavouring to induce two police-constables of the metropolitan force, named James Ham and George Ranger, to give false testimony in a charge of felony against two men, named Green and Simpson, in order to procure their discharge from custody. It appeared that in January last an inhabitant of Peckham was robbed of his watch, and that after a time the property was recovered by George Ranger, a sergeant in the metropolitan police. Ranger had seen two men, William Green and William Simpson, come out of a public house, and observed that a watch and chain were passed from Simpson to Green. Upon this he followed Green to a pawnbroker's, and ultimately took him into custody with the watch in his possession, which he had been vainly endeavouring to pledge. Pursuing the clue thus obtained, he went to the house of Simpson, whom he also apprehended, and discovered on his premises a considerable quantity of miscellaneous jewellery. The two prisoners, Green and Simpson, were thus in custody, awaiting their examination, when, on the 22d of May last, James Ham, an officer of the detective police, who had been employed with Ranger in making the arrests, received a letter requesting him to meet the writer at a place indicated. The letter also contained an overture from certain friends of the prisoners, intended to procure their discharge by corrupting the constables. Ham, on proceeding to the place appointed, found the prisoner Thomas Richards, formerly known to him, who, after a little preliminary conversation, made an offer of 20 sovereigns to the two policemen on condition of their getting Green and Simpson "turned up"—that is to say, discharged instead of being committed for trial. It was assumed that the constables on whose testimony the case would depend might so suppress or pervert the evidence as to efface the suspicion resting on the prisoners, and so put their conviction out of the question. Ham pretended to entertain these proposals, allowed Richards to explain himself, and then made a full report of the matter to his superior officer, who directed him to proceed with the affair. Accordingly he and Ranger went together to a certain public-house, where Richards received 20 sovereigns from the prisoner Crichtley, who had it appeared engaged him to tamper with the constables in the manner described. No sooner, however, had Richards handed the money to the policemen than they delivered it to their superintendent, and then proceeded to apprehend the men who had attempted to bribe them. The evidence of the two officers having been given at great length, Serjeant Ballantine, for the defence, reminded the jury that they were asked to convict the prisoners on the testimony of two policemen alone, and the Force might reasonably be supposed to contain members by no means deserving of such confidence; and that men who could put such a "plant" upon others as had been contrived by the constables, could not have any high sense of honour. Mr. Tanner, the late inspector of the detective police, gave the prisoner Richards a very good character during the long period of 30 years that he was in the metropolitan police. The Recorder, in summing up, said that the offence imputed to the prisoners was undoubtedly one of the most serious character, and one that would require their earnest attention. The only defence that appeared to be made on the part of the prisoners was that they were the victims of a conspiracy; but he could not help remarking that if any effect were to be given to such a defence it could only be upon the supposition that the two constables Ham and Ranger had entered into a most wicked compact, that they had procured the sum of 20*l.* in order to carry out their design, and that they had been guilty of the most wicked and deliberate perjury. The jury, after a very brief deliberation, found both prisoners *Guilty*. The prisoners were then placed at the bar with the two men, Green, and Simpson, 56, upon another indictment, which charged the two last with feloniously receiving a gold watch, the property of Henry Drake, and which had been stolen from him, and Crichtley and Richards with feloniously harbouring and aiding the other two prisoners, knowing the robbery to have been committed. The jury found Green and Simpson *Guilty*, and acquitted Crichtley and Richards. Evidence was then given that Green had been previously convicted of felony, and sentenced to 14 years' transportation; that Crichtley had been convicted of felony; that Simpson, whose real name was Miles Henton, had formerly lived at Bradford, and was a notorious receiver of stolen property. The Recorder sentenced Green and Simpson to penal servitude for 12 years; Crichtley and Richards to be imprisoned and kept to hard labour for two years, regretting that for an offence of such magnitude the punishment that the law enabled the Court to inflict was so inadequate. The grand jury having recommended that the police officers Ham and Ranger should be rewarded for the important services they had rendered, the Recorder expressed his concurrence in the recommendation, and ordered that each of them should be paid a sum of 5*l.*

Sporting.

THE INTERNATIONAL BOAT RACE.—The great race between the crews representing Oxford and Harvard Universities, from the crews to Mortlake, took place yesterday afternoon, in the presence of thousands of spectators, and ended in the defeat of the Americans, Oxford having won the race by three boat's lengths. Time, as taken by Benson's Chronograph, 22m. 41*s.*

INTERNATIONAL YACHT RACE.—It is stated that the challenge of Mr. Ashbury, the owner of the yacht Cambria, has been accepted by Commodore Bennett, of the American yacht

Dauntless, and that the race is to take place during the month of September, across the Atlantic, to the Sandy Hook Lighthouse.

Obituary.

THE HON AND REV. THOMAS COVENTRY died on Friday, after a short illness, in his 77th year. He was the eldest surviving son of the seventh Earl of Coventry, and had been M.P. for Severn Stoke, Upton-on-Severn, Worcestershire, since 1855.

THE HON MRS. FRANCIS CROFTON died on the 19th inst., at the Bridge of Allan, near Stirling.

SIR ROGER PALMER, Bart. died on Monday at Cefn Park, near Wrexham. He was born in 1780, and is succeeded by his son, Roger William Henry Palmer, Lieutenant Colonel of the 2d Life Guards, who served with considerable distinction in the Crimea, and was M.P. for Mayo from 1857 to 1863.

GENERAL J. STUART FRASER died on Sunday last at a ripe age. He entered the Madras army, and obtained his lieutenantancy in 1800. He served on the personal staff of Colonel Keating, and was present at the operations that took place in the expedition to the Isle of France, was assistant adjutant-general to the field army of reserve in 1814; and was present at the several actions that occurred during the Coorg campaign until the surrender of the district in 1834. For some years he was resident at Hyderabad. He became a major-general in 1838, and general in 1860.

CAPTAIN SAMUEL T. DICKEY, R.N. died at 25, Tavistock Crescent, Westbourne Park, on the 17th inst., aged 61. He entered the navy in 1799, and served in the Mediterranean, on the home station, in the West Indies, and the coast of Portugal. In 1811, while in command of the Cerberus frigate, he conducted for several weeks the blockade of Corfu in the face of a very superior force. In 1814 he was invalided home. He attained post rank in 1861.

WILLS.—The will of Lord Cranston, of Creeling, Scotland has been sworn under 45,000*l.* personalty; Lady Alexander 7000*l.*; Sir William A. Beckett, late Chief Justice of the colony of Victoria, 9000*l.*; Sir Robert Jukes Clifton, Bart., 5000*l.*; Sir William John Newton, 4000*l.*; Mr. Alexander William Rowland, perfumer and manufacturer of Macassar oil, 33,000*l.*; Mr. Walter Stevenson Davidson, banker, of St. James's Street, 400,000*l.*

Markets.

COVENT GARDEN.—Aug. 28. We have a fair attendance of buyers among wholesale dealers, but the retail trade has declined to quite a nominal figure, and few articles can be cleared at last week's prices. Importations continue heavy, and large arrivals of grapes from the Channel Islands are to hand this week. Flowers chiefly consist of Orchids, Pelargoniums, Gladioli, Calceolarias, Mignonette, Fuchias, Cockscombs, Asters, Kalosanthes coccinea, Liliums, and Dahlias, &c.

FRUIT.

Apples, per doz., 3s to 4s
Cherries, per lb., 9d to 1s
Figs, per doz., 2s to 4s
Grapes, per lb., 2s to 6s
Lemons, per 100, 8s to 14s
Melons, each, 1s 6d to 5s
Oranges, per 100, 8s to 14s
Peaches, per doz., 6s to 12s
Pine-apples, per lb., 3s to 6s

VEGETABLES.

Artichokes, green, p. doz., 2s
Beans, Kidney, p. 3 sieve, 3s to 4s
Beet, per doz., 3s to 4s
Cabbages, per doz., 1s to 3s
Carrots, per bunch, 4d to 8d
Cauliflowers, p. doz., 3s to 6s
Celery, p. bund., 1s to 1s 6d
Cucumbers, each, 4d to 1s
Endive, per doz., 1s 6d to 2s
Garlic and Shallots, per lb., 8d
Herbs, per bunch, 2d to 4d
Horse Radish, p. bund. 3s to 5s
Lentils, per bunch, 2d to 4d
Lettuces, p. score, 1s to 1s 3d
Mint, per bunch, 4d to 6d
Mushrooms, p. pott., 1s 6d to 2s
Onions, green, p. bun., 4d to 9d
Parsley, per bunch, 2d to 4d
Peas, English, p. qt., 2d to 1s
Potatoes, York Regents, p. ton, 80s to 120s
— Flukes, do., 80s to 130s
— New, do. to 6s p. cwt.
Spinach, per bushel, 2s to 3s
Radishes, p. doz., 1s to 1s 6d
Turnips, per bunch, 4d to 6d

HAY.—Per Load of 36 Trusses.

SMITHFIELD, Thursday, Aug. 26.
Prime Meadow Hay 100s to 110s
Inferior do. .. 80 90
New do. .. 80 90
Inferior do. .. 60 70
Straw .. 32 40
Clover, old .. 120s to 130s
Inferior do. .. 90 110
Prime new Clover .. 100 115
Inferior do. .. 80 90
CHARLES JAMES EASTON.

CUMBERLAND MARKET, Thursday, Aug. 26.
Sup. Meadow Hay 105s to 112s
Inferior do. .. 85 92
New do. .. 85 92
Superior Clover .. 120 134
Inferior Clover .. 90s to 118s
New do. .. 90 118
Straw .. 40 44
JOSHUA BAKER.

WHITECHAPEL, Thursday, July 26.
Fine Meadow Hay 98s to 108s
Inferior do. .. 80 95
Prime New Hay .. 80 90
Inferior .. 60 75
Straw .. 33 38
Prime 1st cut Clover 120s to 130s
Inferior do. do. .. 90 110
Prime 2d cut do. .. — —
New Clover .. 100 112
Inferior do. .. 80 95

METROPOLITAN MEAT MARKET.—Aug. 26.
Best Fresh Butter .. 15s. per dozen lb.
Second do. do. .. 13s.
Small Pork, 4s. 8d. to 5s. 4d.; Large Pork, 4s. 6d. to 4s. 4d. per 8 lb.

HOPS.—BOROUGH MARKET, Aug. 27.
Messrs. Pattenden and Smith report that the present hot and forcing weather is greatly benefiting those grounds where there is any possibility of improvement, though a very considerable proportion of the plantation is already too far gone. Trade is quite at a standstill, quotations remaining nominally firm.

ENGLISH WOOL.

There has been an improved inquiry for good fine and half-bred wools, and altogether a more cheerful tone has prevailed; but for the lower grades, and for most descriptions of skin wool, trade still keeps flat. The sales of Colonial Wool now being held in London, and which continue daily up to the 26th proximo, are going off with spirit at enhanced prices.

CURRENT PRICES OF ENGLISH WOOL. per lb.—s. d. s. d.
FLEECES—Southdown hoggots .. 1 1 to 1 2
Half-bred ditto .. 1 2 — 1 2 1/2
Kent Fleeces .. 1 3 — 1 4
Southdown ewes and wethers .. 1 0 1/2 — 1 1
Leicester ditto .. 1 2 — 1 3
BORTS—Clothing .. 0 10 — 1 6
Combing .. 1 0 — 1 8

LEADENHALL POULTRY, &c.
THURSDAY, Aug. 26.
A nominal trade with falling prices. A good supply of grouse, and the accounts of the partridges favourable. The

harvest has rather checked the supply of poultry, but still there is more than enough.

	s. d.	s. d.		s. d.	s. d.
Geese .. each	4 0	5 0	Pigeons .. each	0 5	0 9
Goslings .. "	5 0	5 6	Tame Rabbits .. "	1 0	1 9
Turkeys .. "	"	"	Wild Rabbits .. "	0 8	0 9
Turkey pullets .. "	4 0	5 0	Wild Ducks .. "	"	"
Ducks .. "	3 0	3 0	Pheasants .. "	"	"
Ducklings .. "	2 6	3 0	Hares .. "	2 0	2 6
Surrey Fowls couple .. "	7 0	10 0	Grouse .. "	2 6	3 0
Do. chickens .. "	5 0	7 0	Quails .. "	"	"
Barn-door Fowls .. "	4 6	8 0	English Eggs, p. 100 .. "	9 0	10 0
Leverets .. each	2 0	3 0	Foreign do .. "	6 0	6 0

Fresh Butter, 1s. 3d. to 1s. 4d. per lb.

METROPOLITAN CATTLE MARKET.

Monday, Aug. 23. We have a larger supply of Beasts, and a dull trade; prices are lower for all descriptions, and a clearance cannot be effected. There are a few more Sheep; trade is, however, active for them at fully late rates. Trade continues very bad for Lambs. Choicest Calves are rather dearer. Our foreign supply consists of 2605 Beasts, 8250 Sheep, 355 Calves, and 108 Pigs; from Ireland there are 140 Beasts; and 1990 from the Midland and Home Counties.

	s. d.	s. d.		s. d.	s. d.
Best Scots, Herofords, &c ..	5 0	to 5 2	Best Long-wools	5 0	to 5 4
Best Shorthorns	4 10	to 5 0	Do. Shorn	"	"
2d quality Beasts	3 0	to 4 0	Ewes & 2d quality	4 4	to 4 8
Best Downs and Half-breeds ..	5 4	to 5 6	Do. Shorn	"	"
Do. Shorn ..	"	"	Lambs ..	4 4	to 5 4
Beasts, 4736; Sheep and Lambs, 23,860; Calves, 363; Pigs, 188.			Calves ..	3 4	to 5 6
			Pigs ..	4 0	to 5 8

THURSDAY, Aug. 26.

Although the supply of Beasts is very much smaller, it greatly exceeds the demand. There is scarcely any business doing, and our prices are almost nominal. The number of Sheep is nearly as large as last week; trade for them is much worse, and a considerable proportion remains unsold. Lambs are rather more in request, but it is difficult to obtain any higher prices. Trade is dull for Calves at lower rates. Our foreign supply consists of 247 Beasts, 3600 Sheep, 323 Calves, and 10 Pigs.

	s. d.	s. d.		s. d.	s. d.
Best Scots, Herofords, &c ..	5 0	to 5 2	Best Long-wools	4 8	to 5 0
Best Shorthorns	4 10	to 5 0	Do. Shorn	"	"
2d quality Beasts	3 0	to 4 0	Ewes & 2d quality	4 0	to 4 6
Best Downs and Half-breeds ..	5 0	to 5 4	Do. Shorn	"	"
Do. Shorn ..	"	"	Lambs ..	4 4	to 5 8
Beasts, 728; Sheep and Lambs, 10,945; Calves, 642; Pigs, 35.			Calves ..	3 0	to 5 2
			Pigs ..	4 0	to 5 8

MARK LANE, Monday, Aug. 23.

There was a large supply of English Wheat to this morning's market, consisting principally of the new crop, the quality and condition of which were very variable; the best runs of white were sold at 48s. to 52s. per qr. inferior qualities at irregular prices; old was 3s. per qr. cheaper than on this day so on night, and to effect sales in foreign factors were obliged to submit to a similar reduction. There was no change in the value of Barley, Beans, or Peas. Oats were 6d. per qr. lower. Country Flour was 1s. to 2s. per sack, and American 1s. per barrel cheaper.

PRICE PER IMPERIAL QUARTER.		s. s.	s. s.
WHEAT, Essex, Kent, Suffolk.	White	51-53	Red..... 49-51
	— fine selected runs..	54-57	Red..... 51-54
	— Talavera ..	59-61	Red ..
	— Norfolk ..	41-56	Red ..
	— Foreign ..	41-56	Red ..
BARLEY, grind. & dist. 30sto34s	Clev.	—	Malting .. 40-48
	— Foreign.. grinding and distilling	25-28	Malting .. 32-40
OATS, Essex and Suffolk ..	—	—	—
	— Scotch and Lincolnshire..	Potato 25-33	Feed ..
	— Irish ..	Potato 24-26	Feed .. 22-25
	— Foreign ..	Poland and Brew 25-30	Feed .. 22-25
RYE ..	—	—	Foreign .. 32-38
RYE MEAL, Foreign ..	—	—	—
BEANS, Mazagan ..	89sto 41s. Tick	48-50	Harrow .. 18-50
	— Pigcon ..	50s to 56s ..	Winds ..
	— Foreign ..	Small 38-42	Longpod .. 39-41
PEAS, White, Essex, and Kent..	Boilers	40-42	Egyptian .. 41-43
	— Maple 41s to 46s ..	Grey 40-42	Suffolk .. 39-44
MAIZE ..	—	—	Foreign .. 28-30
LOUR, best marks delivered ..	per sack	43-47	—
	— 2d ditto ..	ditto 34-46	Country .. 34-46
	— Foreign ..	per barrel 25-28	Per sack .. 30-50

FRIDAY, Aug. 27.

We have to report, since the 20th inst., dry, hot, and forcing weather, which has enabled our farmers to secure a large part of their Wheat crop in much better order than appeared likely a fortnight ago, and the trade, disregarding now all unfavourable reports formerly current as to the yield and the exhausted stocks of old Wheat, look forward to large supplies of the new crop at once available for the mill. The result is a total absence of business throughout the markets of the kingdom, and where sales are attempted, a reduction of from 2s. to 5s. per qr. on old Wheat, both English and foreign, has been imperative. All sorts of spring corn were neglected, with prices against holders. Flour was unsaleable, although offered at a decline of 2s. to 3s. per sack and 1s. to 2s. per barrel. The arrivals of grain and seed laden vessels off the coast this week consisted of 42 cargoes, of which, with those left over from last week, there remained for sale, last night 36 cargoes. The floating trade has been very dull, under the influence of the fine weather. The samples of the late arrivals are in course of distribution. Wheat has declined about 8s. per qr., without inducing buyers to operate. Maize has barely maintained its value. There was no Barley off the coast in the early part of the week. Some transactions took place in grain for forward shipments and on passage, but, excepting Barley, the value of which remained unaltered, prices were against sellers.

The arrivals of all grain during the week have been small. There was a thin attendance at this morning's market, and scarcely any business was transacted in any description of grain, prices remaining nominally unaltered from Monday.

ARRIVALS.

	Wheat.	Barley.	Oats.	Flour.
English ..	990 qrs.	— qrs.	— qrs.	— sks.
Irish ..	"	"	"	"
Foreign ..	12,150 "	390 "	13,580 "	1900 "
				700 brls.
	13,140	390	13,580	

LIVERPOOL, August 24.—At to-day's market we had only an average attendance of buyers, and in Wheat a very limited business took place, at a reduction of about 2d. to 3d. per cental since Friday, or 6d. per cental on the week. Flour also met with a moderate inquiry, at a decline of 6d. on the rates of last market day. Indian Corn was in fair demand, at a decline of 6d. per qr. from Friday's rates, Oats dull, but

unchanged in value. Beans steady. Peas inactive. Oat meal nominally unchanged.

AVERAGES.

	Wheat.	Barley.	Oats.
July 17 ..	50s 2d	32s 0d	26s 0d
— 24 ..	50 11	30 3	27 3
— 31 ..	51 9	31 4	27 9
Aug. 7 ..	51 6	32 4	26 4
— 14 ..	52 0	30 10	27 11
— 21 ..	53 1	33 7	26 3
Average ..	51 7	31 9	26 11

SEED MARKET.

Owing to the want of rain the seed trade is now in a very quiet state; a few showers would doubtless cause a brisk demand for Mustard, Trifolium, and Rape seed. Prices in the absence of business remain without change. A few samples of new English winter Tares have been exhibited for the purpose of feeling the market, but values are not yet fixed; the yield is said to be small and the quality poor. Bird seeds are scarce and dear. Hemp seed is 1s. per qr. dearer. For Clover and Trefoil seeds holders demand more money; at this quiet time of the year, however, there is no great quantity of seed changing hands. Inactivity, but, at the same time, great firmness, are for the moment the chief characteristics of the agricultural seed trade.

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WANTED, a GARDENER and his WIFE, without children, to live in a Lodge in Staffordshire. The Man must be a good Working Gardener, and understand the Management of Vines and Orchard-house. The Wife will be required to attend to the Lodge Gate. Wages, 20s per week, rent free.—Y. Z., Chronicle Office, Wolverhampton, Staffordshire.

WANTED, a good WORKING GARDENER (married, without children), as MASTER of a small INDUSTRIAL SCHOOL; Wife as MATRON. Church people.—Address Miss O., Beckley Grove, near Oxford.

WANTED, a WORKING BAILIFF, for a very small Farm; Wife or Sister to undertake the Laundry, in a Clergyman's Family. Good references required. Good house, garden, and coal found. State what wages required.—Apply to Rev. W. G. RANDOLPH, Yate House, Chipping Sodbury.

WANTED, an active intelligent Man to act as MANAGER and SALESMAN of a NURSERY.—Knowledge of Outdoor Stuff principally required.—Apply by letter, with particulars, to NURSERYMAN, Gardeners' Chronicle Office, W.C.

WANTED, a WAREHOUSE MANAGER.—The undersigned requires an active, intelligent Man, to take the entire Management of their Warehouses, and the execution of orders for Agricultural Seeds. No one need apply who is not thoroughly experienced in the Cleaning and Storing of, as well as the execution of orders for Grasses, Turnips, and all other Agricultural Seeds. State age, experience, references, and salary required, in own handwriting, to Messrs. FRANCIS & ARTHUR DICKSON & SONS, Seed Merchants, Chester.

To the Seed Trade.

WANTED, a MANAGING SHOPMAN, for a Retail Business. Unexceptionable references indispensable.—Apply to J. AND R. THYNE, 63, Buchanan Street, Glasgow.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. E. G. HENDERSON AND SON, Wellington Nursery, St. John's Wood, London, N.W.

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WM. CUTBUSH AND SON beg to state that they have at all times on their books MEN of various qualifications, whose characters will bear the strictest inquiry. Any Gentleman making application would save time by clearly stating the duties to be undertaken, wages offered, &c., so that suitable Men may be selected.—Highgate Nurseries, London, N.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS, and GARDENERS and BAILIFFS, of various qualifications, who are open to Engagements. The fullest particulars as to services required and wages given should be forwarded with application.—PAUL'S Nurseries, Waltham Cross, London, N.

To Gardeners and Bailiffs (Head, Foremen, or Under). JAMES CARTER AND CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those who can send unquestionable references need apply. Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & Co. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c. JAMES CARTER AND CO., 237 & 238, High Holborn, London, W.C.

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GARDENER (HEAD).—Married, no incumbrance; thoroughly experienced in every branch of the profession. First-class reference.—W. B., Mr. Offin, Grocer, Chappel Street, Stockwell, Surrey, S.

GARDENER (HEAD).—J. STEWART, Nuneham Park Gardens, Abingdon, Berks, can with confidence recommend a Man of good practice. Wife an excellent Dairywoman. Single-handed place not objected to.

GARDENER (HEAD).—Age 30, married; understands the Forcing of Fruit, Flowers, and Vegetables, and the Management of Plants and Gardening generally. Good character from former situations.—T. M., 11, Ben Hill Place, Sutton, Surrey.

GARDENER (HEAD).—Age 34, married, no incumbrance; has had good experience in all branches of the profession. Wife a first-rate Laundress. First-class testimonials.—H. W., 10, Clementine Terrace, St. Anne Street, Chester.

GARDENER (HEAD).—CHARLES ROBERTS, Head Gardener to W. S. Tollemache, Esq., Dorfold Hall, Nantwich, Cheshire, is at liberty to treat with any Lady or Gentleman requiring the services of a scientific practical Gardener.—Apply as above.

GARDENER (HEAD).—Middle-aged, married, no incumbrance; nine years' good character for sobriety, industry, and ability.—A. B., 49, Carlton Road, Globe Fields, Mile End, London, E.

GARDENER (HEAD).—Age 25; 10 years' practical experience in all branches of the profession. Two years' unexceptionable character from present employer.—A. B., The Gardens, Avonside, near Warwick.

GARDENER (HEAD).—C. TYLER, Gardener to Henry Alcock, Esq., Hindlip Hall, Worcester, is now at liberty to engage with any Nobleman or Gentleman. Practical in every department. Reference kindly permitted to present and previous employers.—Address as above.

GARDENER (HEAD).—Age 37, understands all kinds of Forcing Fruit, Vines, Stoves, and Greenhouses. Kitchen Gardening. Good character. 6, Leinster Street, Cleveland Gardens, London, W.

GARDENER (HEAD).—Age 38, a Gentleman recommends a Gardener. Has had great experience of Fruit and Flowers, also a good Forcing. R. S., Eaton, Oxon.

GARDENER (HEAD), where to go. Seven and a half years' good character. Wages required, £85 per annum, with house and garden. For further particulars, address M. Mr., and Paradise Nurseries, Upper Holloway, London, N.

GARDENER (HEAD).—Age 37, a Gentleman recommends a Gardener. Has had great experience of Fruit and Flowers, also a good Forcing. R. S., Eaton, Oxon.

To Nobleman and Gentleman. GARDENER (HEAD).—Age 26; 10 years' experience in all branches of the profession. Good character from present employer.—T. REID, Bath.

GARDENER (HEAD), no family. 11 years Gardener to Robert Hudson, Esq., and is open to treat with any Nobleman or Gentleman requiring a thorough practical Gardener. Plant Grower, Flower and Kitchen Garden, also the Management of Stoves and Forcing, also the Management of Stock. Good character from last place.—Address 12, Upper Holloway, London, N.

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GARDENER (SECOND), to improve in a Garden Establishment.—Age 28, married; a Firm of 18 months' good character.—W. F., 10, Deodar Green Lane, Stoke Newington, N.

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Gardeners' Chronicle Newspaper.

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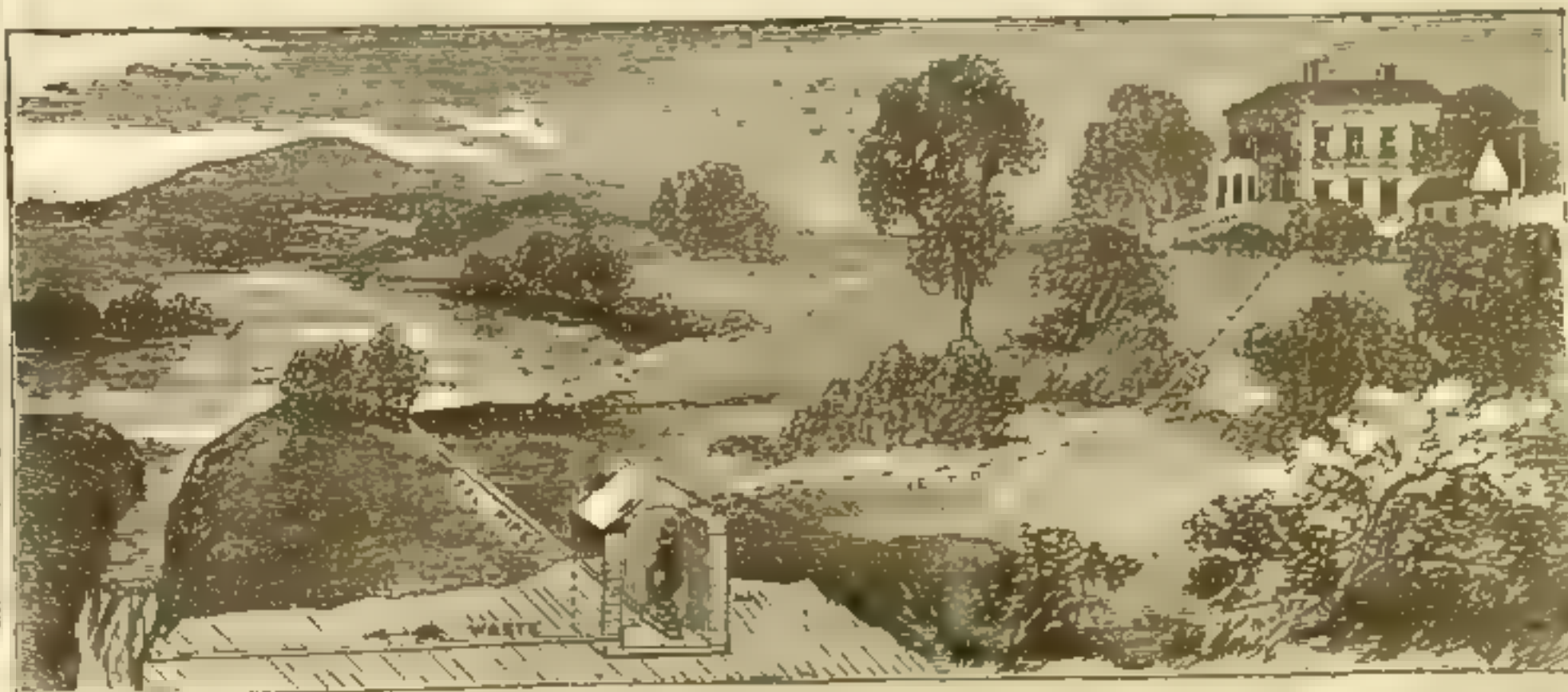
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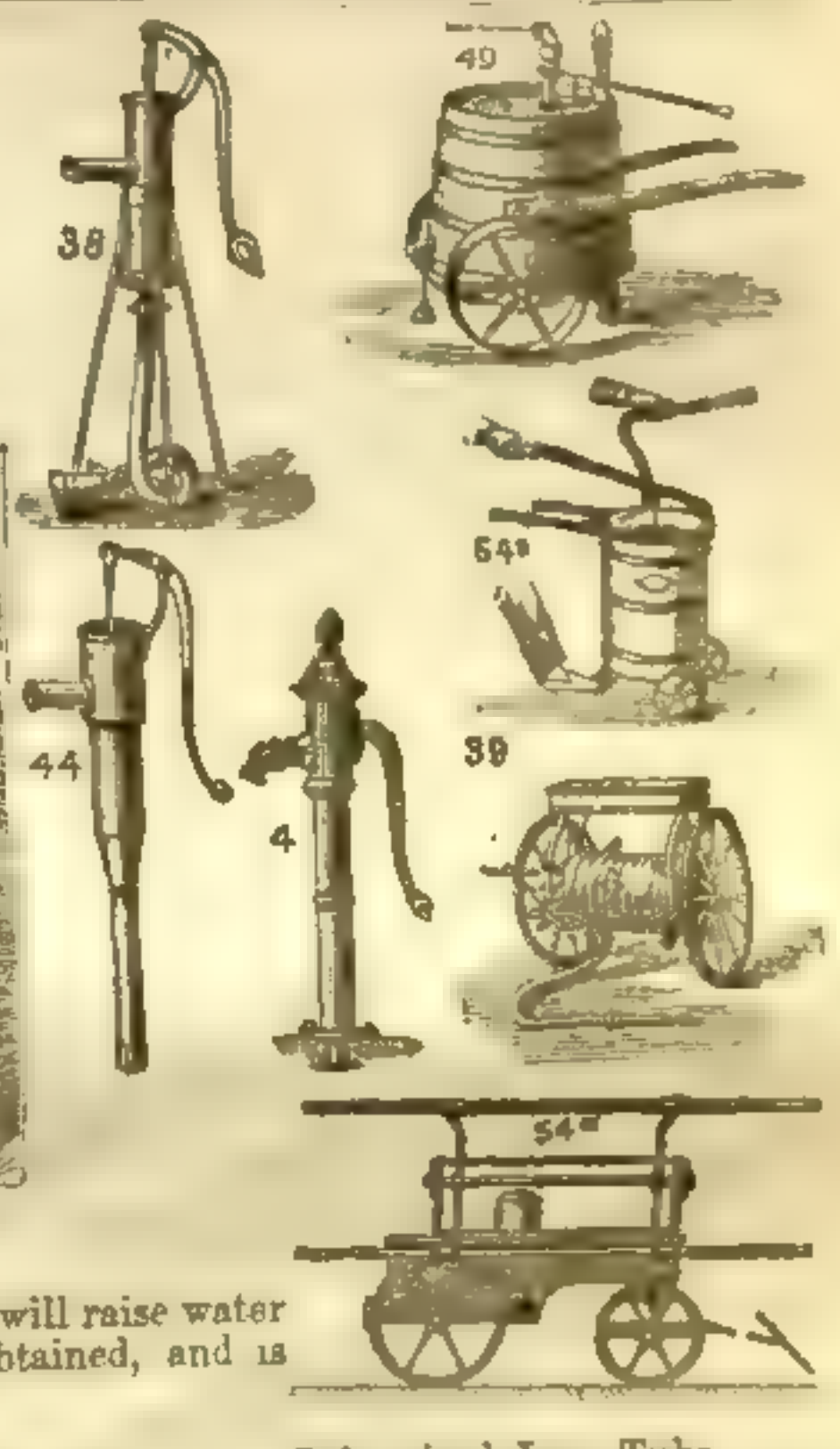
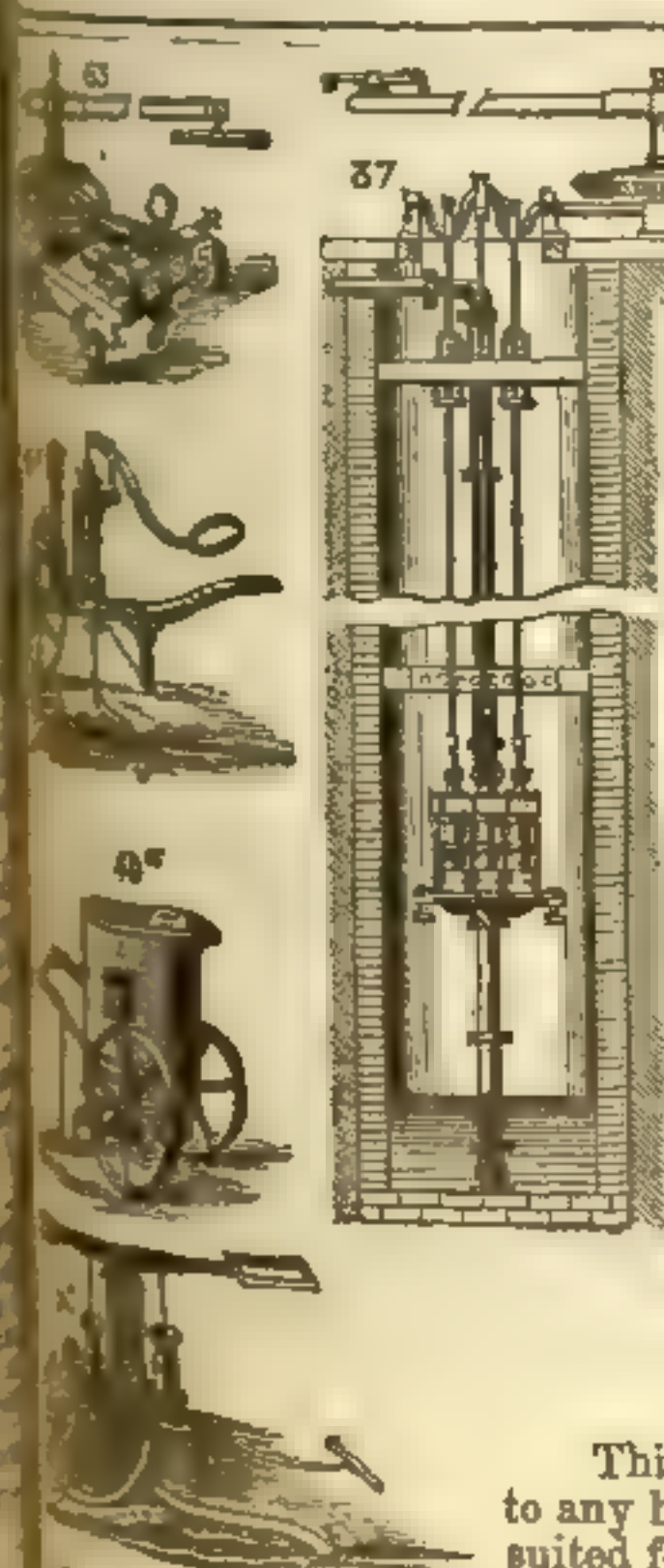
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turally old. The Christian clergyman was a dedicated man—their lives were not common lives—something had happened to them—there was a mark, a seal upon them. In speaking of the difficulties of a Christian minister, he said that it was possible for one who had pledged himself somewhat hastily, though with deep conviction, to every one of the Thirty-nine Articles, and to the multiform prayers and creeds, to find himself, as years advanced, less than certain about some of these particulars of doctrine. The service concluded at 10 o'clock, after which Dr. Vaughan and his guests took tea together. On Wednesday morning there was an administration of the Sacrament, and in the evening Dr. Vaughan delivered a private lecture. Before separating the whole party was photographed.

DOVER.—The Archbishop of Canterbury passed last week in this district of his diocese, performing various official acts, and making acquaintance with the clergy and laity of the locality. On Tuesday his Grace was present at the presentation of the new colours to the 91st Highlanders, and addressed the men in the garrison on the heights above Dover. On Wednesday he preached in the parish church of St. Mary, for the new church at Charlton. On Thursday his Grace opened the restored Norman church at St. Margaret's-at-Cliffe, and preached on the occasion. On Friday he consecrated the church at West Landon, near Walmer, and preached the sermon. In the afternoon of Friday he was received at Walmer Castle by the Prime Minister and Mrs. Gladstone, remaining their guest until Saturday morning, when he returned to Addington Park.

NORWICH.—The musical festival of the present year commenced on Monday evening with Mendelssohn's "Hymn of Praise" and Handel's "Acis and Galatea." On Tuesday, Wednesday, and Thursday evenings there were, as usual, miscellaneous concerts. Wednesday morning was devoted to a selection from "Hezekiah," an unpublished work by Mr. H. H. Pierson, and Spohr's "Fall of Babylon," originally brought out at the Norwich Festival of 1842. Thursday morning was occupied with Rossini's "Messe Solennelle," a new sacred cantata by Mr. Horace Hill, and Handel's "Dettingen Te Deum." Yesterday morning the festival was brought to a close as usual with the "Messiah." In the evening there was a dress-ball. The principal vocalists were Madlle. Titiens, Madlle. Ilma di Murska, Madame Talbot Cherer, Madame Patey, Madame Trebelli-Bettini, Mr. Vernon Rigby, Mr. Cummings, Mr. Arthur Byron, Signor Bettini, Signor Foli, and Mr. Santley. Mr. Benedict, as usual, was the conductor.

RAMSGATE.—At the recent regatta at this port the winning yacht, *Enigma*, was designed, built, rigged, and sailed by a working man called Henry Thornton, one of the keepers of a neighbouring lighthouse; who constructed her on an entirely new model of his own invention, working at her between the intervals of his ordinary duties as lighthouse-keeper day and night for the past 18 months, in a shed with only 15 inches clear space above and on either side in which to work. It is said that the yacht combines speed with safety, ample accommodation, and thorough seagoing qualities.

SALFORD.—On Saturday the coping stone of a new bridge over the Irwell at Lower Broughton was laid with some ceremony. The mayor, supported by the aldermen and corporation, Mr. Cawley, M.P., and other local personages, took their places on the centre of a platform which had been erected over the black sewage-laden water of the river, when the spectators from below made what is called "an ugly rush" by which the scaffold was upset, and the mayor, who had just commenced his speech, was precipitated with his friends into the inky liquid and mud beneath. They all, however, escaped without injury to life or limb.

Ireland.

THE IRISH CHURCH.—A meeting of laymen belonging to the Irish Church was held on Tuesday, the Earl of Meath in the chair, when a resolution requesting the Archbishop to convene the laity was adopted with only two dissentients. A number of laymen have, within the last week, pledged themselves to subscribe handsomely towards the re-endowment of the Irish Church, and it is anticipated that their example will be widely followed. The liberality of the laity will, however, altogether depend upon the manner in which the clergy admit them to a share in the reconstruction of the Church. A gift of 100*l.* a year in one instance for the life of a donor, and a donation of 1000*l.* in another, have been mentioned in the Dublin papers; but the most magnificent example is that of Colonel Tighe, of Woodstock, Kilkenny, who has offered to place 10,000*l.* in the hands of the new Church body if the present formularies, doctrines, and discipline of the Church of England be preserved, viz., 5,000*l.* to a sustentation fund, and 5,000*l.* towards providing a resident clergyman, with a salary of at least 300*l.* a year, for the parish of Inistioge, with his approval or that of his heirs.

PASTORAL OF CARDINAL CULLEN.—On Wednesday Cardinal Cullen issued a pastoral, in which he states that he will deprive of the sacraments any parents who send their children to the national model schools.

DEMANDS OF THE IRISH ROMAN CATHOLIC BISHOPS.—The Roman Catholic bishops have promulgated ten resolutions adopted at a meeting at Maynooth College, mainly on the education question. They condemn mixed education, demand a Catholic University or a national University with a Catholic College, access to University emoluments, representation in the Senate, a share in the funds devoted to the support of endowed schools, a re-arrangement of the Queen's Colleges on a denominational system, and also an immediate settlement of the land question.

PARTY PROCESSIONS.—On Tuesday a rumour reached Londonderry, where it caused no little excitement,

to the effect that the Royal Commissioners, who have recently concluded their sittings in that town, will report to the Lord-Lieutenant against party processions, in that part of Ireland especially.

EMIGRATION FROM IRELAND.—The official returns of emigration show that since 1853 one million and a-half of people have emigrated from Ireland.

FATAL ACCIDENT WITH A ROAD STEAM-ENGINE.—On Tuesday evening the Hon. Captain Henry Ward and Mrs. Ward were on a road locomotive steam-engine, with the Hon. Bandal and Clara Parsons, when, on turning a sharp corner of a street in Parsonstown, Mrs. Ward slipped off a stool on which she was seated, and, falling on the ground, the wheel ran over her head and killed her on the spot. An inquest was held on Wednesday at Birr Castle, when the jury returned a verdict of Accidental Death, acquitting all persons concerned in the management of the engine from any blame.

ACCIDENT TO AN EXCURSION TRAIN.—On Friday night a special train, from Tralee to Cork, containing about 100 excursionists, ran into a siding at Killarney Station, instead of stopping at the ticket platform, and ran with such force against the bank pier of a bridge as to smash the engine and a second-class carriage to pieces. The passengers received some cuts and bruises, but no serious injuries were sustained.

AGRARIAN MURDER IN MAYO.—The first agrarian murder in Mayo within living memory, was perpetrated on Sunday evening. A farmer named Hunter, a Scotchman, living five or six miles from Newport, in that county, was shot dead near his own house at 10 p.m. He was driving home on a car, with his wife, son, and servant, and, finding some obstruction on the road, pulled up. Immediately an assassin came out, and, lodging two pistol balls in his body, killed him instantly. The rest of the party were uninjured. It appears that Mr. Hunter had taken the lease of a farm containing bog, on which the tenants of the adjoining farm claimed right to cut turf. He was advised to bring an action of trespass against one of them. He selected a farmer named O'Neill, obtained a decree, and on Friday seized a growing crop. No one, however, would act as bailiff, whereupon he obtained a special warrant, and took charge himself. Several men have been arrested on suspicion. A few minutes after Mr. Hunter was shot, and within 300 yards of the same spot, Mr. Francis P. Vaughan, son of Colonel Vaughan, was fired at, and escaped uninjured.

MURDER AND SUICIDE NEAR WATERFORD.—On Friday evening Dr. Lannigan, R.N., who held the situation of physician to the infirmary at Kilmeador, near Waterford, murdered his wife, and then committed suicide. He was married about two years ago to his second wife, a Miss Lecky, a Waterford lady, of very respectable connections. The marriage did not prove a happy one. The lady was of a rather hot temper, and Dr. Lannigan took to drink. He became at last so intemperate that on the day of the tragedy he consumed 14 pint bottles of porter, besides a quantity of wine. He had several times threatened to take his wife's life, and on one occasion attempted to stab the housemaid. A clerical friend had been invited to dine with them on Friday, and Dr. Lannigan expressed a wish that advantage should be taken of his visit to have their child, a boy six months old, baptized. Mrs. Lannigan opposed this, wishing to have the ceremony performed in church. A quarrel arose, in which the doctor behaved with outrageous violence, putting a dinner knife to his wife's throat, and afterwards presenting a gun at her. She fled with her child to a neighbour's house, but after a short time, hearing that her husband had become quiet, she returned alone, leaving the child behind. What passed between her and her husband is not known, as he had sent the boy out on an errand, and the housemaid was outside in the grounds. About 15 minutes after her mistress's return this girl heard a shot, and soon afterwards another. She informed some of the neighbours, who effected an entrance through a window, and in the parlour found Mrs. Lannigan quite dead, bleeding profusely from a wound in the left cheek, while across her lay her husband, with a bullet wound in his temple from which the brain protruded. A revolver, the instrument of the double murder, was grasped in his right hand. He was then alive, but died within two hours.

SUSPECTED MURDER IN MONAGHAN.—James Criggy, a Roman Catholic, died on Saturday, near Newbliss, Monaghan, under very suspicious circumstances. It is believed that he received a savage and brutal beating. The Coroner, who went to hold an inquest, was stoned, and obliged to leave without holding it. The police were also attacked. The Attorney-General's attention has been called to the matter.

THE FENIAN AMNESTY.—A meeting in support of the amnesty movement was held on Friday in the market-place of Mullingar. About 1500 or 2000 persons attended—a much smaller concourse than the promoters of the demonstration expected. A platform decorated with green leaves was erected for the speakers, of whom the principal were the Rev. Mr. Coyne and the Rev. Mr. Culloch, who extenuated the guilt of the prisoners, and appealed to the Premier to release them, in the full assurance that their liberation would be in reality, and not in name only, a message of peace. Several resolutions were passed in furtherance of the object of the meeting.

FENIAN FUNERAL.—A great Fenian demonstration took place on Wednesday at Glasnevin, at the funeral of a man named Dalton, who was some time ago imprisoned as a "suspect," under the Habeas Corpus Suspension Act. The coffin, festooned with laurels, was borne on the shoulders of eight men, while a hearse, bedecked with green wreaths, followed, empty. About 200 young men, wearing green neck-ties and ruffles, marched in military array after the hearse,

and the procession was closed by about a hundred bearing women and children, many of whom were dressed entirely in green, while all wore the national colour in some portion of their attire.

Scotland.

THE BRAEMAR GATHERING was held at Mar Lodge on Thursday, in the presence of the Prince and Princess of Wales, Prince Leopold, and Prince Alfred, and Prince Leopold, from Balmoral. The gathering was splendid, and the attendance of guests was large. The Prince of Wales attended the Mar Lodge in the evening.

Railways.

COLLISION ON THE GREAT NORTH on Thursday, the 26th ult., the train shortly after 3 p.m., on arriving at Methley and Stanley, came into collision with a train of nine coal waggons and a break, which had broken loose from the engine at Lofthouse. Two coal waggons were smashed, and the coal train broke and the tender of the train engine were much injured. The latter train was severely shaken, but with the exception of a little girl, no injury.

FATAL COLLISION ON THE YORK AND GREAT NORTH BOROUGH.—On Wednesday afternoon a collision between a passenger and cattle train took place at Strensall, seven miles from York, which resulted in the death of a shepherd who was tending sheep to an agricultural show. The passenger train halted at a small station to attach a train for the show when the other train came in despite of the danger-signals displayed. The passenger train escaped without injury, but several of the passengers were much shaken.

THROWING STONES AT A TRAIN.—On Wednesday, 13, and George Puney, 11, were charged at Brentford with throwing stones at a train in the parish of Isleworth. The engine-driver, that at 9.30 p.m. he was passing with the train Sion Lane Bridge, near Woke House, was struck by stones thrown from the bridge, which produced, struck the engine and lodged on board. He saw two boys on the bridge, but about the same size as the prisoners but could not identify them. He picked up the three largest of the stones, and called out to some platelayers in the opposite direction, have caused his train to strike the gauge-glass, when an explosion occurred which might have seriously injured the engine and stoker. A platelayer proved the prisoners and giving them into custody of the constable. The chairman said after this could not allow the prisoners to be at large would be remanded for a week, with a view to them into a reformatory for three years.

Sporting.

THE INTERNATIONAL BOAT RACE.—The details of this race, the result of which was last. The signal for the start was given at 11. The Harvard crew, which had obtained by sides, and had chosen the Middlesex shore into the water first, but the Oxonians were under way, although not to such good advantage did the Americans get their boat off the Head, about half way between the Star and mon's yard, they led by half a length, and advantage to a whole length opposite the house, the cheers of the American spectators, cheers of the multitude, creating a deafening the Bishop's Creek, on the Middlesex side, more to their lead, and when they passed the site of the Old Half-mile Post, they were rowing a stroke of at least 12 to the minute. The Oxonians, on the other hand, were pulling a very steady stroke to the minute, with a Lurry, and with every appearance of keeping it up all the way; but, nevertheless, appeared to be moving so slowly when compared to the Americans, that people began to wonder. At Craven Cottage the two crews, which had been wide of one another, closed together, entering the long reach for the Soap Works, this the Oxford approached the Harvard crew, the coxswain of the latter was compelled to keep out of danger, and a slight touch of his left hand rudder line caused his boat to ground at the same time, the Harvard crew leading by something over a length. At the Harvard coxswain, apparently, struck the slack water under the Middlesex shore, and bared the Oxford crew, the latter giving way at once. This little advantage the American boat a further advantage, at the Grass Wharf, above the Cottage they led, and quarter, or thereabouts. Below Rossbank the two boats were crossing the water for the shore below Hammersmith, the Oxford crew, but the Harvard men once more were in the Crab Tree, and steered well out towards where the flood tide was less spent than the Oxonians were taken. Consequently, it appeared as if the Harvard crew were the Oxford men altogether astern, and the probable race certainly looked anything but favourable to the crew. In rounding the point below the on the Surrey shore, the aspect of affairs an important change, the Oxford crew beginning to hold their own, and, as they breasted the Soap Works, perceptibly the Americans. A tremendous cheer was raised which had gathered on the wharf and its neighbourhood, to be taken up and repeated in throats as the crews came in sight of Hammersmith, which from the water appeared to be a mass of white after passing the Soap Works, and when the boat

SEED MARKET.

There is still very little doing in the seed trade, the want of rain having for the time completely checked the consumptive demand. In the absence of transactions values of all kinds of agricultural seeds remain without change. Winter Tares are in good request, and realised high rates. It is now quite evident that the yield will be exceedingly short; prices, it is thought, will advance considerably. New Mustard seed has come to market at lower terms than those at first demanded, but the quality of the majority of the samples is very poor. We have a fair trade for new English Rye, and also for winter Barley and Oats. A good downfall of rain would, without doubt, cause great activity to prevail in the seed trade.

JOHN SHAW & SONS, 16 Water Lane, E.C.

HOPS.—BOROUGH MARKET, Sept 3.

Messrs. Pattenden and Smith report that the trade continues dull, prices, however, being firm. The accounts from the plantations this week are very unfavourable, the cold weather keeps the Hops back, and red mould is spreading generally throughout the whole plantation.

To the Seed Trade.

WANTED IMMEDIATELY, an experienced and efficient Person to MANAGE an extensive RETAIL SEED BUSINESS, in a large town.—Messrs. FRASER, GOAD, and RATFORD, Seed Merchants, Bishopsgate Street Within, London.

WANTED, a trustworthy, respectable, and efficient Man as HEAD GARDENER, where two and a Youth are kept. It is requested that none will apply whose character for a series of years will not bear the strictest investigation.—J. C., Post Office, Ingatestone, Essex.

WANTED, a married MAN, to take charge of the Houses, where Fruit and Flowers are grown for Market. Wages, £1 per week, with cottage.—R. CLARKE, Market Gardener, Twickenham.

WANTED, a GARDENER, thoroughly experienced in the Laying-out of New Grounds, and well acquainted with the Propagation and Management of Hardy Shrubs and Ornamental Trees. References must be unexceptionable. Wages, 25s. per week.—Apply, by letter only, to B. R., 93, Cannon Street, City, E.C.

WANTED, as GARDENER, 20 miles from London, an industrious Working Man, who has been accustomed to Superintend Men, and can have a first-rate character for sobriety, efficiency, and civility. An excellent cottage (unfurnished) found, with milk, coal, and vegetables. Wages, £1 1s. per week.—Address, M. D., Gardeners' Chronicle Office, W.C.

WANTED, a WOODMAN and GAMEKEEPER.—The Advertiser requires for an Estate in the Midland Counties a steady, respectable Man, who is well experienced in the double duties of Woodman and Gamekeeper. State age, experience, references and wages required, to Messrs. FRANCIS & ARTHUR DICKSON & SONS, Seed Merchants, Chester.

WANTED, in a London Nursery, a YOUNG MAN accustomed to the work, and who can assist with the Outdoor Planting. Wages 15s.—Apply to WOODROFFE and SON, The Westbourne Nursery, Harrow Road, London, W.

WANTED, a Young Man, about 18 years of age, as IMPROVER, in a Nobleman's Gardens, where a general system of Gardening is carried on. A Premium will be required.—Apply to Mr. PHIPPS, The Gardens, Ingestre Hall, Stafford.

To the Seed Trade.

WANTED, in a Wholesale House in London, a competent Man, as SECOND SHOPMAN. He must not be less than 27 or 28 years old, and be able to give unexceptionable references. To a suitable Man this will be a permanent situation, with an increasing salary.—X., Mr. B. A. ARNOTT, 69, Mark Lane, E.C.

WANTED, as GARDENER and GROOM, a married Churchman Wife to take Washing.—Address Rev. E. S. B., S. Katharine's, Savernake Forest, Hungerford.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. E. G. HENDERSON and SON, Wellington Nursery, St. John's Wood, London, N.W.

GARDENERS (EXPERIENCED).—JOSEPH MEREDITH, The Vineyard, Garston, near Liverpool, begs to intimate to Ladies and Gentlemen requiring the above, that he has on his REGISTER some excellent MEN for every class of situation, whom he can strongly recommend from his personal knowledge of them.

LUCOMBE, PINCE, AND CO. have always on their Register experienced GARDENERS, whom they can recommend to be in any situation, whether as Head Gardener to a large establishment, or Gardener and Bailiff, or Under Gardener. Any Lady or Gentleman applying to L. P. and CO. will have their best attention.

Michaemas Engagements.

MR. T. BOWICK has the pleasure of recommending several tried and experienced Men as FARM BAILIFFS, FORESTERS, and WORKING FOREMEN; also HEAD CARTERS, SHEPHERDS, HERDSMEN, STEAM-ENGINE DRIVERS, &c.—Bedford, August, 1899.

Gardeners and Under Gardeners.

WM. CUTBUSH AND SON beg to state that they have at all times on their books MEN of various qualifications, whose characters will bear the strictest inquiry. Any Gentleman making application would save time by clearly stating the duties to be undertaken, wages offered, &c., so that suitable Men may be selected.—Highgate Nurseries, London, N.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS, and GARDENERS and BAILIFFS, of various qualifications, who are open to Engagements. The fullest particulars as to services required and wages given should be forwarded with application.—PAUL'S Nurseries, Waltham Cross, London, N.

To Gardeners and Bailiffs (Head, Foremen, or Under). JAMES CARTER and CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those who can send unquestionable references need apply.

Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & Co. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c. JAMES CARTER and CO., 237 & 238, High Holborn, London, W.C.

GARDENER (HEAD), age 26, single.—WILLIAM ROOPE, Head Gardener to the Rev. Dr. BRISCOE, is at liberty to engage with any Lady or Gentleman requiring the services of a thorough practical Working Man. Three years' good character.—The Rectory, Nutfield, Redhill.

GARDENER (HEAD).—Age 40, married, a steady, active Man; thoroughly practical in all branches of the profession. Seven years in last situation. Can be highly recommended. No single-handed place accepted.—A. B., 39, Exeter Street, Sloane Street, Chelsea, W.

GARDENER (HEAD), no family.—THOMAS LODMAN, and 11 years Gardener to Robert Hudson, Esq., is now disengaged, and is open to treat with any Nobleman, Lady or Gentleman requiring a thorough practical Gardener; Hard and Soft-wooded Plant Grower, Flower and Kitchen Gardener, Early and Late Forcing, also the Management of Stock. Eleven years' first-class character from last place.—Address 129, Clapham Park Road, S.W.

GARDENER (HEAD).—Age 30; 17 years' experience in Noblemen's and Gentlemen's Establishments in England and Scotland. First-class reference.—G., Feltham, Middlesex.

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GARDENER (HEAD).—Can take the Management of an Estate, Woods, Farm, Buildings, &c., thoroughly experienced. Satisfactory references as to character and ability.—T. S., Hurrell's Post Office, Fulham, S.W.

GARDENER (HEAD).—Age 35, Married, one child; practically acquainted with the Management of Pines, Vines, Melons and Cucumbers, Stove and Greenhouse Plants, and the general routine of a gentleman's place.—H. N., the Gardens, Wandsworth Lodge, Upper Tooting.

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GARDENER (HEAD).—Age 28; has a thorough knowledge of Grapes, Peaches, Cucumbers, Melons, Stove and Greenhouse Plants, and Flower and Kitchen Gardening. Five years' excellent character from last employer.—A. B., Post Office, Hill Street, Upper Clapton, N.

GARDENER (HEAD).—Age 30, married, one child; has a thorough practical knowledge of Gardening in all its branches; is also versed in Land and Stock, and also in Laying-out New Grounds. Four years' first-class testimonials.—G. F., 6, Bishop's Hood Road, Highgate, N.

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GARDENER (HEAD, or SINGLE-HANDED).—Married, no incumbrance; 13 months' good character.—A. AGER, 13, Carlton Hill, St. John's Wood, N.W.

GARDENER (HEAD, or SINGLE-HANDED).—Age 24, married; good experience. No objection to Stock.—G. L., Mrs. Sayers, Mitcham Common, Surrey.

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GARDENER.—Age 29; thoroughly understands the profession. Good character.—A. B., 2, Mount Pleasant Lane, Upper Clapton, Middlesex, N.E.

GARDENER.—A Young Man, single; understands Pines, Vines, Stove and Greenhouse Plants, &c.—W. WOOD, Fillongley Hall, Coventry.

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GARDENER, or GARDENER and BAILIFF.—Age 25; thorough practical knowledge of the profession in all its branches. Understands Book-keeping. Unexceptionable references can be given from present as well as previous employers.—HOUSE-KEEPER, Portland Arms Hotel, King's Lynn, Norfolk.

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GARDENER (SINGLE-HANDED, or where another is kept).—Wife as Laundress or Needle-woman.—B. D., Post Office, Hindfeld, Berks.

GARDENER (SINGLE-HANDED).—Age 26, married, no incumbrance; thoroughly understands Flower and Kitchen Gardening, and Early and Late Forcing. Twenty-two months' good character.—W. B., J. Sears, Stationer, Lee Green, S.E.

GARDENER (SINGLE-HANDED, or where assistance is given).—Age 23, married, no incumbrance; thoroughly understands the profession in all its branches. First-class character from present situation.—Address, in the first instance, to Mr. A. A. JAMES, Nurseryman, Lower Norwood, S.

GARDENER, where one or more are kept.—Age 26, married, no incumbrance. Good reference as to character and ability.—BETA, Post Office, Woolwich.

GARDENER (UNDER, or SINGLE-HANDED), in a Nobleman's or Gentleman's Garden.—Age 26, single, good character.—A. B., 2, Park Terrace, Park Road, Hornsey, N.

To Gentlemen and Gardeners.

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To the Seed Trade.

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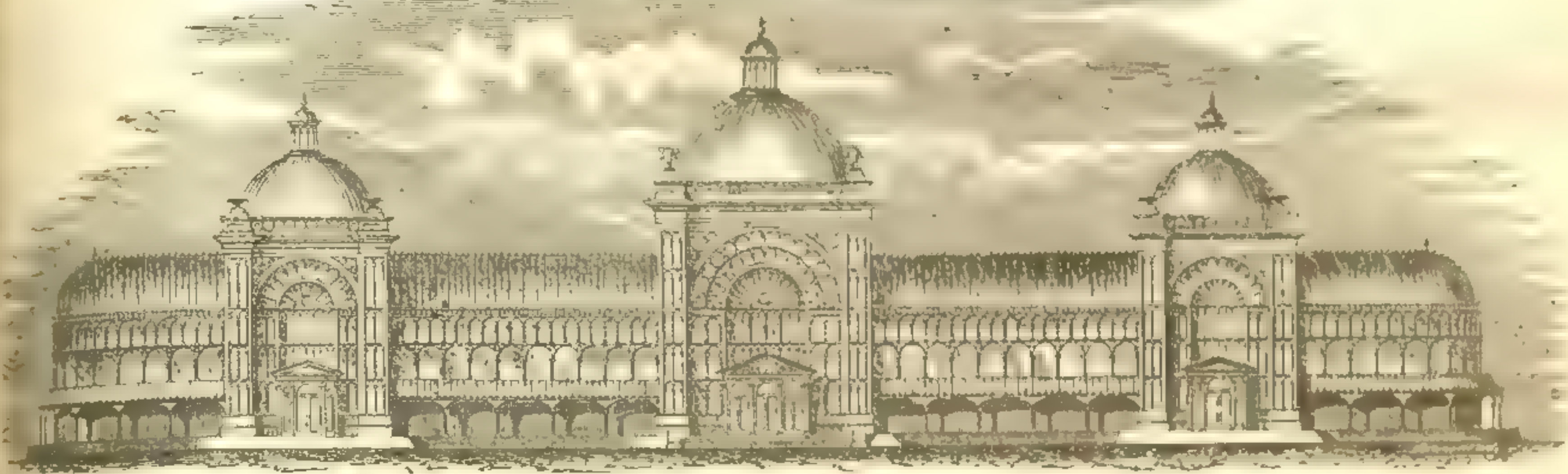
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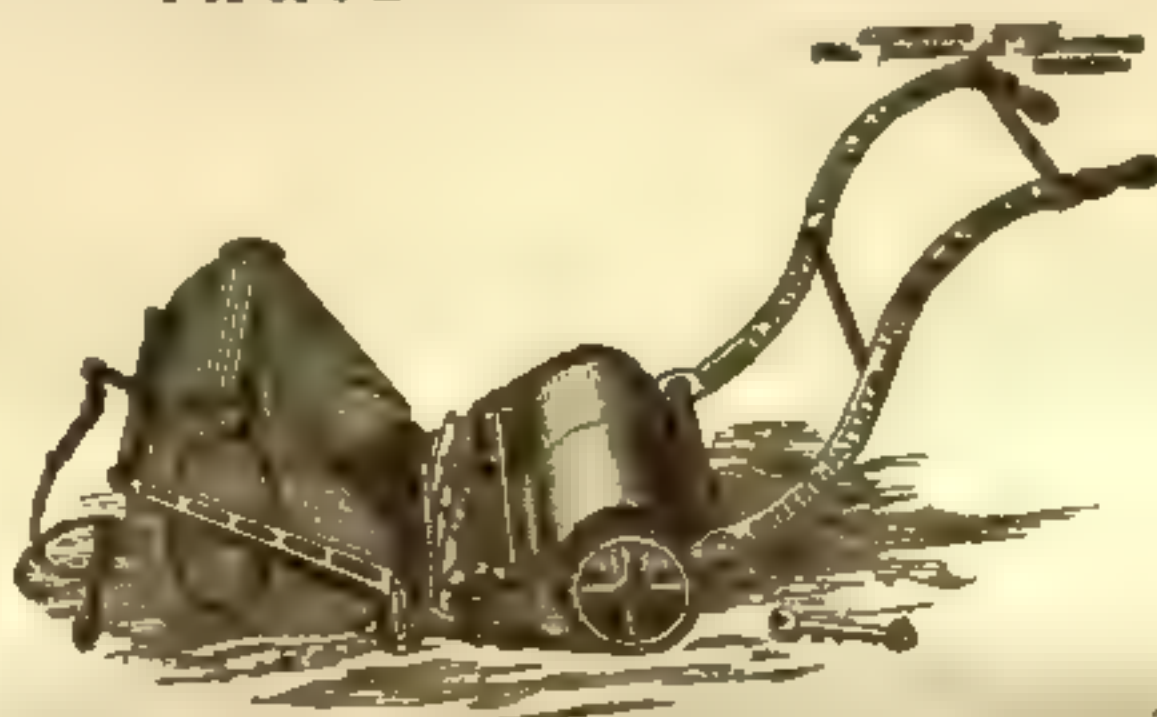
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PROTECTION from the SCORCHING RAYS of the SUN. "FRIGI DOMO" NETTING, 2 yards wide, 1s. 6d. per yard run.

Two yards wide 1s. 9d. per yard run. Four yards wide 3s. 6d. per yard. An improved make, 2 yards wide .. 1s. 9d. per yard. An improved make, 3 yards wide .. 2s. 8d. per yard run.

VARIOUS.—Two Thousand RAILWAY-CARRIAGE WINDOWS, in Mahogany Frames, thick Plate Glass for Garden use, 4d. per square foot; 300 yards STRAINED WIRE FENCING, six wires; 100 IRON STANDARDS, BOLTS, and WICKET GATE, &c.

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WHOLE-WORLD POLICIES granted for a single extra payment of 10s. per £100, where no special Liability to foreign residence then exists. Policies on lives of full age when assured, after five years' existence without incurring extra charge for foreign license, allow unrestricted residence in any part of the world.

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EMIGRANTS' HOUSE TENT, Four Rooms, £20; One Room, £8.—Boarded Floor, Sides, and Partitions. PORTABLE HAMMOCKS, 4s.; CAMP STOOLS, 2s. 3d.

THE NEW Vade Mecum (Invented & Manufactured by CHARLES H. VINCENT, OPTICIAN, of 23, Windsor Street, Liverpool), consists of a TELESCOPE well adapted for Tourists, &c., to which is added an excellent MICROSCOPE of great power and first-class definition.

VISITORS to the SEA-SIDE, TOURISTS and TRAVELLERS exposed to the Sun and Dust, will find the application of ROWLANDS' KALYDOR both cooling and refreshing to the face and skin.

WHEN the HAIR, through weakness, begins to fall off, or turns grey, no preparation will sooner arrest the progress of these evils, restore the ORIGINAL COLOUR, and produce a healthy and luxuriant growth, than Mrs. S. A. ALLEN'S WORLD'S HAIR RESTORER.

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PRACTICE with SCIENCE; a Series of Agricultural Papers. Edited by the Rev. J. CONSTABLE, M.A., Principal of the Royal Agricultural College, Cirencester. 1. Laws of Rent Property as affecting Agriculture. By J. Welford

FINANCIAL POSITION on January 1, 1880. Existing Assurances £1,117,000. Reversionary Bonus thereon 539,000. Annual Income 200,000. Invested Funds 1,540,000. Share Capital, fully Subscribed .. 1,000,000. Claims and Bonus paid 1,650,000.

AMMUNITION OF THE ARMY.—In consequence of the recent events at Aldershot, and in some of the garrison towns, the Commander-in-Chief has issued a general order that from henceforth the service ammunition of the army is not to remain in the custody of the soldiers, but be deposited in the regimental magazines.

GRESHAM LIFE ASSURANCE. Realised Assets exceed Annual Income. Payments under Policies Cash Bonus divided.

ROYAL SCHOOL. The SESSION will BEGIN on MONDAY. Prospectuses may be had on application to the TRENHAM HOUSE.

Home News.

THE QUEEN IN SCOTLAND.—The Princesses continue at Inverness, their rival on the 1st inst, her Majesty has excursions in the neighbourhood.

THE PRINCE OF WALES was expected at Abergeldie Castle on Thursday for Marlborough House, on his way to Sandringham.

THE BENGAL PRINCES.—On Friday afternoon the Nawab Nazim of Bengal, with Prince Ali Bahadur, Prince Soliman Kudr Bahadur, and suite, visited Windsor Castle.

MR. GLADSTONE.—The Premier has been expected to visit Whitby, for which borough he is a member; but at present the right hon. gentleman has deferred his visit, and is now staying at Rydale, the seat of the Duke of Cleveland.

CHIEF JUSTICE COCKBURN.—It was reported a few days since, that Sir Alexander Cockburn, in consequence of ill health, intended to resign the Judgeship of the Queen's Bench before the commencement of Michaelmas term.

THE BISHOP OF BATH AND WILLS sent in his resignation, under the new Act, on Monday. THE BISHOP OF WINCHESTER has not made an intention, on resigning his see, to claim a pension of 3500l., instead of the 6000l. to which he was entitled.

THE BISHOP OF LICHFIELD continues to suffer from nervous prostration and loss of sleep, but is to take carriage exercise in the Peak district, where he will probably remain for a few days longer.

KNIGHTHOOD.—The Queen, on the recommendation of Mr. Gladstone, has ordered the issue of Letters Patent under the Great Seal conferring the dignity of Knight of the United Kingdom on Mr. William Drake, of Oatlands Lodge, Surrey, of the firm of Bircham, Dalrymple, Drake & Co., solicitors, Park Street, in recognition of the services rendered to him to the Liberal party.

THE IRONCLAD FLEETS.—The Channel squadron under the Admiralty flag, was joined on the 25th inst. by the Gibraltar by the Mediterranean squadron, under the command of Alexander Milne. On Friday morning the combined fleet steamed slowly out of the bay, the Channel squadron on the starboard and the Mediterranean squadron on the port side.

THE CONTROLLERSHIP OF THE NAVY.—It is understood that Mr. Reed is to be the new Controller of the Navy.

THE RITUAL COMMISSION.—The Archbishop of Canterbury has issued a circular to the bishops, in which he has expressed his regret that the ritual commission should have been appointed at a time when the country was so much afflicted by the late war.

...last week with the clergy of West Darford, at Aldington ... as follows on the Ritual Com-

...well to the appliances and plans ... brought under discussion, ... the education of the clergy ... The clergy have always most carefully kept ... of doctrine are not within its scope. ... it has not before itself to examine what ... is altered so as to further the present work ... increase its usefulness. It may be well ... changes which are likely to be proposed, it ... to consider them, and weigh them, before ... laid open. But, first, let one point be ... Great alarm is expressed on one side lest the ... should act without Convocation; on the ... should interfere with the prerogative ... Now, really both dangers are somewhat ... depend upon it the greatest difficulty will ... to legislate at all; there is a tendency ... to ignore the whole matter; and if Parliament ... will be in consequence of the expressed and ... Church, whether expressed ... any other method. Now it lies, ... to consider well what the weak ... system are, and if they find it wanting, ... the needs of the time, then to let it be known ... modifications in their system. The Ritual ... has been sitting long, and the changes which ... have now been drawn up, and are at ... debated among the divinity professors ... and other dignitaries of the Church. ... up as follows:—1. A new lectionary ... been a idea, assented to edification; some ... A greater elasticity has been given to the ... principal changes are in the daily lessons. ... the ordinary daily service. Evidently, ... the service as it stands at present does ... Even the City churches which have a ... thinly attended. A shorter service there- ... shorter, but strictly based upon the ... Every facility for dividing services, ... different services at different times, according to ... of different congregations. 4. In the burial ... of a difficulty commonly felt will be ... are the chief matters dealt with by the Ritual ... nothing revolutionary need be anticipated. The ... Prayer-book will be preserved intact."

Foreign.

The Empress and the Prince Imperial ... Cloud on Friday night from Corsica. ... rumours respecting the Emperor's ... a serious panic on the Bourse on ... French funds fell nearly 3 per cent, ... of a few hours the panic spread to ... capitals of Europe. The Journal Official ... morning had the following articles on the

rumours respecting the Emperor's health ... at the Bourse yesterday, and appear ... with foreign speculators, have no foundation. ... up every day, and transacts business as usual; ... the rheumatic pains still continue, his Majesty's ... seemed the least uneasiness."

of Tuesday evening said:— ... in the weather have revived the rheumatic ... the Emperor was suffering, and his Majesty ... to take his usual walk in the gardens of ... last night, however, the Emperor slept very ... the repose has been followed by a sensible improve- ... condition."

... the Emperor presided at a Council of ... which lasted one hour and a-half. His ... with the Ministers, and took part ... The Emperor afterwards prome- ... time in the park of St. Cloud, and ... night. On Thursday morning a marked ... in his state of health was manifest. ... took a drive during the day in the ... pleasure, and seemed to have derived ... from this first excursion. In the ... Senate on Friday the debate on the ... was resumed, and M. Delangle ... previous question, in order that the ... of President Bonjean should not be ... consideration. This motion was ... M. Bonjean, Viscount de la Guéron- ... M. Léverrier, and was rejected on a ... majority of 75 to 43. In the sitting of ... amendment of President Bonjean was ... as was also an amendment moved ... demanding that any difference of ... between the Senate and the Legislative Body ... by a joint sitting and vote of both ... The Senate also rejected an amendment of ... the President of the Legislative Body ... for six years by the members of that ... of the approval of the Emperor. ... of the *Senatus Consultum* were after- ... In the sitting of Monday, MM. Delisle ... of Ségur d'Aguesseau, and several ... spoke in favour of amendments they had ... were, however, rejected, and all the ... adopted, the Bill in its entirety was ... of 134 to 3. M. Brenier asked if ... to the treaties with England, for which ... and if their prolongation would be sub- ... Legislative Body. M. de Forcade replied ... relation was a matter of course, if ... were not denounced by either party. Con- ... new Act was requisite, and there was ... to the Chamber. He added that ... Government persisted in the principles ... conclude the commercial treaties with ... Powers. M. Rouher then read an ... declaring the Senate prorogued, and ... dated amid cries of "Vive l'Empe- ... Imperial decree was published yesterday ... the *Senatus Consultum* with the articles

relative to the budget, which formed a schedule to it. M. Ledru Rollin has published a letter stating the grounds upon which he has refused to avail himself of the general amnesty granted by the Emperor. He believes that it would be his duty to be in Paris among those who are fighting the good fight without truce, that he does not delight in the condition of a refugee, and finds no fault with those who struggle to accept the amnesty, but as he was found guilty and condemned by default, to transportation on the charge of complicity in a plot against the Emperor's life, the amnesty would not exonerate him from the necessity of undergoing a criminal trial. He says that he would not shrink from such a trial, but as he could only be acquitted by being brought face to face with the accusers and witnesses of 12 years ago, and as some of these are now expiating their guilt in Cayenne and other distant penal settlements, it would be necessary for him to remain in prison all the time required to send out an order for those men, and to bring them back. He also asserts that "as soon as the amnesty was signed orders were sent to all the outposts that he should be arrested on his arrival."

SPAIN.—The office of the Ministry of the Interior was occupied on Wednesday by the National Guard. The Government had ordered the suppression of a part of the National Guard, which aroused suspicions of some hidden designs on the part of the Government, and during the night the post was occupied—the National Guard remaining under arms. Several deputies belonging to the Republican party tried persuasion, and succeeded in restoring obedience among the mutineers. At five o'clock on Wednesday morning the post was given up and tranquillity re-established. It is rumoured in Madrid that a letter has been written to Dom Fernando of Portugal, by the Duke de Saldanha, expressing regret at his Majesty's refusal to accept the Crown of Spain. The *Official Gazette* of Tuesday publishes a Ministerial decree, ordering proceedings to be taken in the Supreme Court against the Bishops of Santiago, Osma, and Urgel, on the charge of disobedience to the commands of the Government. The last band of Carlists in the province of Gerona has disappeared. The Minister of Justice has proposed that the number of the clergy should be reduced to five archbishoprics and 32 bishoprics.

PORTUGAL.—The health of the Queen of Portugal is not considered satisfactory by her physicians, although improved by her recent voyage. The King has returned from Oporto. The yield of olive oil throughout Portugal is reported as almost a total failure, and the wine crop is very scanty.

SWITZERLAND.—In reply to the circular despatch of Prince Hohenlohe, the Bavarian Foreign Minister, on the subject of the approaching (Imperial) Council, the Swiss Federal Council has declined to take any share in the action proposed, on the ground of its incompetency. Orders have been issued prohibiting recruiting in Switzerland for the Egyptian army.

PRUSSIA.—Prince Frederick of Hohenzollern-Hechingen died on Friday of apoplexy, at the castle of Nettlow. By his death the line of Hohenzollern-Hechingen becomes extinct. The semi-official *Provincial Correspondence* says that there can be no doubt of the fact that the request addressed by the Chief Magistrate of Frankfurt to the Minister of the Interior for the recall of the police measures banishing those persons who have adopted Swiss nationality will not be complied with. The great autumn parade of Prussian troops for the present year was held before his Majesty on Monday week. All the members of the royal family then in Berlin were present. At a quarter to 10 o'clock the troops appeared on the ground, the infantry in columns, the cavalry in regimental columns and squadrons, and the artillery and train in line. Prince August of Wurtemberg, General of the Guard, commanded. The troops were drawn up in two lines. At 10 o'clock his Majesty arrived with a brilliant suite, including all the foreign generals and officers now in Berlin, and the military plenipotentiaries of foreign Courts. When the first line had passed, the second was inspected, commencing from the left wing. In the meantime the first line formed for a march past. After they had performed this evolution twice the troops left the ground. The soldiers appeared in their parade uniform, the infantry with their cooking apparatus strapped on their knapsacks. The non-Prussian German officers present and the Prussian officers of other regiments took their places among the troops on parade. The weather was fine, and a large crowd had collected to view the spectacle.

BAVARIA.—The ex-King and Queen of Naples have been in Bavaria for the last few days, on a visit to King Louis. For three years the ex-Queen had not visited her native country, and only went there in 1865 to re-establish her health, gravely compromised by the fatigues and privations of the siege of Gaeta. Her Majesty is sister to the Empress of Austria, the Countess de Trani, and the Princess Maximilien de la Tour et Taxis.

BOHEMIA.—The festival in commemoration of John Huss took place at Prague on Saturday, and partook more of an anti-German than an anti-clerical character. Many Russians, Slavs, Frenchmen, and Englishmen were present. A letter sympathising with the object of the festival was received from Garibaldi.

HUNGARY.—The Hungarian Diet will probably not be opened before the middle of October. Prince Karageorgewicz has been set at liberty on bail.

RUSSIA.—Accounts from Livadia state that the Emperor has been suffering for some days from indisposition, but is now completely recovered. The Empress also, in consequence of having taken cold, has been slightly unwell. The Minister of Finance has made a speech at the Council of the Credit Establish-

ments, in which he stated that the public debt has been reduced in 1862 by 400,000,000. The sum of the *Trésor* of Bokhara, valued at 14,000,000, has been sent to St. Petersburg to complete the redemption of a loan made to the Russian Court. The Emperor has been visited by a present from his father-in-law, the Emperor of Austria.

ITALY.—Cabinet Councils have been held daily since the return of the King, to consider the question of re-organising the *Senatus Consultum* of the Italian Parliament. Serious differences of opinion are still in progress on the subject. Senator Ferrero, who opposes the dissolution, was favoured by the President and Senator Marini, and has gone over to take the same step.

THE PRINCIPALITIES.—Prince Charles of Romania, the Viceroy of Transylvania, on his way to the Emperor of Austria and will probably return to Switzerland to visit his family. His Highness will afterwards go to Paris, Brussels, and Berlin, to visit the Sovereigns representing the protecting Powers of Rumania.

TURKEY.—A panic prevailed in the money market on Tuesday, in consequence of the apprehensions respecting the illness of the Emperor Napoleon. Great anxiety was also felt in Government circles on the subject. The newly appointed Armenian Patriarch, Monsignor Ignatius, died on the 24th inst., from the effects of an operation performed for a carcinoma. He was buried with great pomp on the very day on which he was to have been presented at the Porte to receive the *berat* confirming his election.

PERSIA.—Intelligence from Teheran states that the Turco-Persian frontier question has been arranged at Constantinople, and the ratification of the treaty on the subject is expected shortly.

EGYPT.—It is understood that the settlement of the dispute between the Sultan and the Viceroy is mainly due to the good offices of England, France, and Austria. The Viceroy has telegraphed his assent to the conditions contained in the Grand Vizier's second letter, and was expected to arrive at Constantinople on Monday on a visit to the Sultan.

ABYSSINIA.—Prince Kassa, of Tigre, will, it is believed, take vengeance on the murderers of Mr. and Mrs. Powell and the Swedish missionaries.

CAPE OF GOOD HOPE.—The Cape Parliament had refused to pass the proposed income tax, and asked the Government for a scheme of further retrenchment, to balance the expenditure with the income. Governor Wolhouse, in reply, proposed to reduce the two existing Houses of Parliament to one legislative Chamber, the members of Parliament to 15, 12 elective for five years, to abolish 14 fixed divisions; to reduce salaries in governmental departments by 7000*l.*, and withdraw 5000*l.* annual grants to agricultural societies, libraries, museums, and botanical gardens. Sir Walter Currie had driven the Korthams, who lost heavily in kudu and wounded, out of their island strongholds in Orange River. The Tatin gold fields were reported to prove satisfactory to Sir John Swinburne, who was about to return to England to develop his company. The diamond discoveries continued. The Griquas were successfully searching their streams for gems. A warrant had been issued against Dr. Twells, Bishop of Orange Free State, charged with committing an undiscussable offence. The bishop was absent on a visitation tour to the Transvaal, and his friends asked the public to suspend their judgment until the case had been heard. His chaplain, who has been closely associated with his daily life for years, speaks with the utmost confidence of the bishop's perfect innocence.

INDIA.—A plot against the Ameer Shere Ali has been discovered at Cabul. His nephews, Sirdar Ismail Khan and two brothers, were the instigators, and were arrested and sent to British territory, to be kept under surveillance by the Government of India. Sirdar Ismail Khan escaped from his Afghan escort, but his brothers will be detained at Lahore. The Shah of Bokhara has thought it more prudent to pay the arrears of his tribute to Russia than to run the risk of another struggle. He has consequently imposed a tax on all the cultivated land of his dominions, and engaged, as soon as it is realised, to make over his arrears to the Russian agent at Bokhara. The King of Burmah has at last consented to carry out the treaty in full. Several Brahmins who took part in the late Hindoo widow remarriage at Bombay have been excommunicated from their caste.

CHINA.—The reported refusal of the Peking Government to receive the Duke of Edinburgh is confirmed.

AUSTRALIA.—The release of Mr. Kenealy, the Fenian convict in Western Australia, by order of the home Government, has been the cause of a difficulty between the colony of Victoria and the mother country. After his release, Mr. Kenealy made his appearance in Melbourne, and as he was to be followed by 30 or 40 accomplices similarly situated, and a considerable sum of money had been forwarded from Ireland to be paid to them on arrival, the colonial Government was urged on all sides, and by men of all parties, to enforce the laws of the colony, by which any person convicted of felony by any Court of the Empire can be forbidden to reside in Victoria, and ordered to depart under severe and summary penalties. The Land Bill had passed through Committee of the House of Assembly with but few alterations. A Committee of Inquiry into the alleged corrupt administration of the public lands had been appointed. The estimates had not been passed, but an additional supply had been granted. The South Australian Parliament was sitting. The Governor of New South Wales had returned from his northern tour. Diamonds had been found at Echuca, South Australia, and it was stated they exist there in large numbers. Six tons of pearl had been brought to Adelaide from the Western Australian fisheries, valued at 35*l.* per ton.

NEW ZEALAND.—Accounts from New Zealand state that the rebellion is increasing, and that great alarm

prevails. The 18th Regiment had been detained in the island. Fresh hostilities with the natives had occurred on the East Coast. It was reported that Rowi was plotting a union of the Hau-Haus with the friendlies, whilst 200 Arawas had marched against Te Kooti. The Wanganui papers mention the capture of the rebel chief Tauroa and 122 men, women, and children. A new Ministry has been formed, under the presidency of Mr. Fox, consisting of Mr. Gisborne, Colonial Secretary; Mr. Carrill, Postmaster-General; Mr. Vogel, Treasurer; Mr. M. Lean, Minister of Defence. The policy of the new Ministry is to be in some matters diametrically opposite to that of its predecessor. It proposes to withdraw the forces now in the interior, and convert them, as far as possible, into a purely defensive force, and to send commissioners to England to obtain the assistance of two regiments going home, the colony paying 40*l.* per man annually for the services.

UNITED STATES.—Mr. John A. Rawlins, Secretary of War, died on Monday, aged 38, and Senator Fessenden died on Thursday. President Grant has appointed General Sherman acting Secretary of War until Mr. Rawlins' successor should be appointed. The Vermont election on Tuesday resulted in Mr. Peter T. Washburn (Republican) being elected Governor by a majority of 20,000. The New York journals state that at an interview held on Tuesday between Mr. Fish, Secretary of State, and several foreign Ministers, it transpired that the Administration has determined to recognise the belligerency of the Cuban insurgents before Congress should meet. Such recognition was only temporarily delayed through the exertions of Senor Roberts, the Spanish Minister, who has urged the Administration to consider the serious consequences which were likely to follow, as Spain would exercise the right to search American vessels under the treaty of 1795, stating further that, in case of war, which probably would follow, Spain would not be bound by the stipulations of the treaty of Paris prohibiting privateering. The departmental offices have been closed from Monday to yesterday out of respect to the memory of Mr. Rawlins, the late Secretary of War. Mr. Hoare, the Attorney-General, has given an opinion to the effect that the members of the New Virginia Legislature are not obliged to take the test oath, but that the Legislature cannot enact laws until it ratifies the suffrage amendment. A Cuban filibustering expedition has been intercepted on the Apalachicola River, Florida, and prevented sailing. In Wisconsin the Republican Convention has nominated Mr. Lucian Fairchild for Governor, and declared in favour of a revision of the tariff and taxation to cause them to fall equitably on all classes; it has also favoured the payment of the national debt in gold. The California election has resulted in the return of a small Democratic majority in the Legislature. The last Legislature was Democratic. The Cotton crop of the United States will, it is said, be almost certainly an average crop, and probably a crop considerably above the average. General Butler has written a long letter condemning the charges published by Mrs. Stowe in "Macmillan's Magazine" against Lord Byron, and exposing their gross inaccuracy in regard to the dates. A dreadful calamity occurred on Monday in the coal region of Avondale, at Plymouth, in Pennsylvania. The colliery had not been in use for some time, on account of the labourers being on strike, but they resumed work on Monday, when a shaft more than 300 feet deep caught fire at the bottom, from the ventilating furnace timbers being dry. In a few moments the entire shaft and buildings above were in flames. The fire continued for some hours, and rubbish fell down and choked the shaft; 202 men and boys who were in the mine were believed to have been suffocated. Two men sent down the shaft on Monday night were suffocated. On Tuesday efforts were made to force air down the shaft by a steam fan. An attempt was also made to effect an entrance to the colliery from an adjacent colliery by drilling a hole from one gallery to another. On Thursday, after much hard work, the explorers penetrated the inner chamber, and found that every collier in the workings had perished. The bodies were brought to the surface, when it was found that they numbered 202, and had all evidently died from suffocation. Several persons were overcome by the carbonic acid gas during the explorations, but all of them were resuscitated. Great distress was manifested at the pit mouth, which was surrounded by hundreds of weeping relations. A hurricane occurred at Boston on Wednesday evening. The Colosseum was partially destroyed, several buildings were injured, and steeples blown down. One man was killed. The hurricane also deranged the telegraph land lines, and prevented any messages being received from New York.

CANADA.—Governor-General Sir John Young returned to Ottawa on Tuesday. Prince Arthur left Picton on Monday for Shadiac, New Brunswick. His Royal Highness arrived at St. John's, on Tuesday, and was enthusiastically received. At a levee, held on Saturday, at St. John's, Newfoundland, Sir John Young made a speech in which he stated that opposition to confederation was rapidly subsiding. He praised the energy and industry of the people of the province, and predicted that the Dominion, led by Great Britain, would rapidly attain to a condition of virtuous prosperity. The strike of the ship labourers at Quebec has been compromised, and order is restored.

HAYTI.—Advice has been received from Hayti announcing that Sainave has been defeated and badly wounded at Aux Cayes. He is said to be preparing to abandon the contest. The Cacos have captured Gonaives.

CUBA.—A telegram from General Caballero de Rodas, Governor-General of Cuba, announces the dispersion of the insurgents in the central district.

City Intelligence.

MONEY MARKET, FRIDAY.—BRITISH FUNDS: Consols are 92½ to 92¾ for delivery, and 92½ to 93; New and Reduced Three per Cents, 91½ to 91¾ ex div.; Bank Stock, 243 to 245; Exchequer Bills, March, 2s to 6s. pm, and June, 6s. to 10s. pm.; India Five per Cents, 113½ to 114. — **FOREIGN:** Egyptian (1884) Bonds, 90 to 91; Ditto (1868), 74½ to 75½; Viceroy's Seven per Cents, 79½ to 79¾; Ditto Nine per Cents, 96½ to 97½; Turkish Five per Cents, 40½ to 40¾; Ditto Six per Cents, 64½ to 64¾; Charkof, 80½ to 81½ ex div.; Mexican, 11 to 12; Italian, 51½ to 51¾; Argentine, 79 to 79½; Peruvian, 78½ to 79; United States 5-20 Bonds, 82½ to 83½; Erie 23½ to 24; Illinois, 94 to 95.

Metropolis and its Vicinity.

THE MAYORALTY.—A deputation of Liverymen waited on the Lord Mayor, Alderman J. C. Lawrence, M.P., on Wednesday, and presented him with a requisition, signed by 1336 Liverymen, asking him to allow himself to be again nominated for the mayoralty. His lordship acceded to the request, and a committee was thereupon formed to promote the Lord Mayor's re-election. On the same day a meeting of the Ward of Aldersgate was held in favour of the return of Alderman Besley. Resolutions condemning the attempt to secure the re-election of the present Lord Mayor, as an act of manifest injustice to the other Aldermen who had not yet filled the office, were unanimously carried, and Alderman Besley, who was present, expressed his intention to fight the principle to the end, and to poll to the last elector.

OPENING OF THE NEW MANSION HOUSE STREET.—On Wednesday morning that portion of the new street lying between the Mansion House and Queen Street, Cheapside, was thrown open for foot passengers. The portion of the street now open intersects the former thoroughfares of Bucklersbury, St. Pancras Lane, Size Lane, and Queen Street, in each of which a few houses, not being in the direct line of street, are left standing. In the course of a few days the whole length of street, from the Mansion House to Earl Street, Blackfriars, will be paved and thrown open for foot and carriage traffic.

THE ALBERT ASSURANCE COMPANY.—Another meeting of policy-holders has been held in Manchester, at which a resolution was passed against approving of any arrangement until Mr. Kirby was dismissed from the office of provisional liquidator. Another meeting of policy-holders was held on Monday at the Cannon Street Hotel, and was attended by representatives of some of the London banks, and of the Calcutta and Bombay policy-holders. Arrangements were made for securing united action in behalf of the policy-holders and annuitants. On Tuesday, in the Chancery Chambers, an application was made for an appointment to inspect the books. The chief clerk refused to interfere, and remitted the whole question to the Vice-Chancellor, who will sit on the 17th inst., at Lincoln's Inn, to hear the petition and other applications in the matter. On Wednesday the Manchester committee of the policy-holders met and passed two resolutions—one of confidence in Mr. S. P. Price, if he will act as liquidator for the policy-holders, and recommending Mr. David Chadwick, M.P., to be joined with him; the other recommending reconstruction under new management, or that efforts be made to get a first-class office to take the Albert's business. On Thursday a stormy meeting of the London policy-holders was held, Lord William Hay in the chair, at which neither the provisional liquidators, the solicitors, nor any party supposed to be connected with the directors, could obtain a hearing. Ultimately it was resolved to reject the scheme of reconstruction proposed by the provisional liquidators, to appoint an independent committee to confer with the provincial committees on the best mode of saving the wreck of the property, and to take all necessary steps for testing the liability of the shareholders in the amalgamated companies to make good the losses on the policies of their respective companies. The following gentlemen were appointed as the committee—Mr. Bell, representing Indian interests; Mr. Bird, Mr. Cundy, General Cunningham, representing interests of upwards of 100,000*l.*; Mr. Edlin, Q.C.; Mr. Matthews, of Grindley & Co.; Mr. Webster, Q.C.; Mr. Omanney, and Mr. Wyld, late M.P. for Bodmin.

THE VOLUNTEER VISIT TO BELGIUM.—At a meeting of the Anglo-Belgian committee, at the offices of the Belgian Vice-Consulate, on Tuesday, the executive committee, who have just returned from Belgium, reported that all arrangements for the reception of the English volunteers, and the shooting at the Liege and other *filles*, have been completed satisfactorily. The report showed that nearly 1200 names of English riflemen intending to be present had been received, and notwithstanding the restriction to 600 for the banquet and medals at Liege, there is no doubt that the aggregate number will reach 1300 or 1400, representing about 160 or 170 regiments. The shooting will take place at Liege and Spa. The Burgomaster of Brussels has announced a grand entertainment in honour of our countrymen on their return home.

OPENING OF THE SOUTHERN EMBANKMENT.—The Southern Embankment, as far as it is possible to carry it, is now opened to the public from Westminster Bridge to the point where it terminates in High Street, Vauxhall. The only difficulty which presented itself in constructing the second portion of the Embankment—from Lambeth Bridge to the Potteries—was in the bridge itself, which at one time seemed to be a great obstacle in the establishment of through communication for foot passengers, from the fact that the foot of the bridge lay right across the Embankment, and

consequently prevented a continuation of the road going from the Embankment round the river on to it again, and the difficulty was overcome by a slight incline.

THE NEW PALACE OF WESTMINSTER.—To give more light to the central portion of the Houses of Lords and Commons, the windows in the Peers' corridor were replaced by plain glass. A large number of workmen were engaged in removing the old windows, the place of which temporary glass was put. **THE TEMPLE CHURCH.**—The church will be re-opened on the 31st of October, by which time that the alterations in progress in the building will be completed.

CHURCH OF ST. MARY-LE-STRAND.—This church was re-opened, after having been closed some weeks. Some months since Dr. Lushington, Sir Travers Twiss, the judge of the High Court, for a faculty to pull down the high part of the church, and to reconstruct the interior of the church. The application, and the faculty was granted. Ignatius preached in the church on Wednesday evening, in connection with the Society for the Propagation of the Gospel.

NEW TELEGRAPH TO INDIA AND CHINA.—The prospectus has been issued of the India and China Submarine Telegraphs Limited, of 350,000*l.* in shares of 20*l.* The telegraphic system of British India, Java, and the Straits Settlements, and China, and the capital now asked for the cable from Ceylon to Penang. The cable, of 1800 fathoms length, is proposed to be of the gutta-percha patented by Mr. Varley, and is to be laid by the India-rubber, Gutta-percha Works Company for 325,000*l.*

NEW STEAMBOAT PIERS.—Two new piers, similar in design and dimensions to those on the Thames Embankment, will be opened in a few days at Hungerford and Westminster. These are the only stations on the river which are placed.

IMPROVEMENT OF LONDON BRIDGE.—The proposals proposed by Mr. Hamilton Fyfe will be further considered by the Council during the present month. Mr. Fyfe proposes that an additional width of 21 feet should be placed on it wrought-iron cantilevers, and bolted in the face of the bridge, so that there be no danger of the cantilevers falling. The greatest weight that can be brought on the present width of the carriage-way of each of the footways 9 feet. By the proposed carriage-way would be increased to 12 feet, so that each of the footways to be increased by 21 feet.

THE DOCKYARDS.—It is stated that the Government are in favour of the abolition of Sheerness dockyard, and that requisite arrangements can be carried out at Chatham, Portsmouth, Devonport, and Plymouth. The abolition of Woolwich, Deptford, and other dockyards is in accordance with the report of the committee which sat some time since, and the concentration of all the naval resources proposed that Sheerness dockyard will be reserved for the deposit of naval stores.

BRIXTON MANOR HOUSE.—This ancient well-known to all who are acquainted with the southern suburbs of London, is about to be sold.

VELOCIPEDE EXHIBITION.—On Monday a national velocipede exhibition was opened at the Crystal Palace, and has been continued for a week. Several English and foreign machines were exhibited their machines, and had agents to point out the advantages claimed for their inventions, and to show their capabilities. A velocipede circus was formed under the management of Mr. Hook, the velocipede champion, and for nearly two hours the performance of M. Moret and M. Michaux, of Paris, and of the champion rider of Belgium, and of Mr. J. C. Geo, as the "jockey" excited much interest and applause. The performance of Mr. Hook, the velocipede champion, formed on the bicycle by M. S. N. Master Barber, aged respectively 15 and 16, principal features of the entertainment. Hon. R. Lowe, the Chancellor of the Exchequer, is frequently to be seen practising on a velocipede at his residence at Warlingham, was an old hand on Monday, and watched the operation with an evident interest. The number of velocipedes on hand is said to be 100.

DESTRUCTIVE FIRE.—A destructive fire occurred on Friday night at Day and Martin's houses in Holborn. It occurred in a block of buildings occupying the centre of a block of buildings, between two large shops, with a passage between them, which is a large clock known to all as the "clock" in Holborn. The fire was not subdued until Day & Martin's central store was destroyed. Accidents occurred during the fire. Mr. M. a metal chaser, who was standing on a platform, was killed by the fall of an iron beam. A policeman had his hands cut by a beam as he was trying to cut a piece of timber. A watchman at the factory was burnt by the fire. An inquest on Mr. Evans was held on Monday, and a verdict of Accidental Death was returned. **SALE OF SHAW BUSINESSES.**—At

a man named Edgington, calling himself an agent for the disposal of businesses, and a woman called Mrs. Cox were charged with conspiracy to defraud. It appeared that the male prisoner sold a cigar business named Day for 70*l.*, representing its profits for a week, and giving her a guarantee, signed by a man who was put forward as the proprietress of the business, to refund the premium at the end of a week. The takings were not found as stated. The takings were next to nothing, varying from 1*l.* to 2*l.* On attempting to recover the 70*l.* a married woman, pleaded coverture, and she was separated from her husband, and held out of protection against him, she was thus unable to defeat the action. Nine previous examinations had taken place; and Alderman Dakin had taken Mrs. Cox and Edgington for trial on a charge of conspiracy to defraud.

LATE CHARGE OF FORGERY IN THE CITY.—The Mansion House on Tuesday the prosecution against the late Harwood, clerk in the house of Harwood, Knight & Allan, bill brokers and of Abchurch Lane, who absconded to New York with 15,000*l.* belonging to the firm, but was withdrawn by the prosecutors, in consequence of a son of the leading partner. The 11,600*l.* which was found on the prisoner when arrested at New York was ordered to be handed over to the firm.

WOOLWICH ARSENAL ROBBERIES.—On Tuesday, at the Woolwich Police Court, William Dabery, John Arthur Jones, and Thomas Wright were brought up for final examination on the charge of stealing a quantity of goods from the Royal Arsenal, and of having entered into a conspiracy to defraud her Majesty of the goods in question. It was shown that within a brief period 112 cwt. of waste paper had been accounted for, while 660 cwt. had actually been sent to the stores, the difference being, as stated by the prosecution, not waste, but uncut reams of paper, which might be resold as new. The prisoners were committed for trial, bail being refused.

THE MURDER OF MDLLE. TINNE IN THE INTERIOR OF AFRICA.—The Malta correspondent of the Times writing on the 30th of August, says:—

Accounts have been received from the interior of Africa by Baron de Testa, Dutch Consul at Tripoli, respecting the murder of Mdle. Tinne and two Dutch attendants, her only European attendants. The melancholy event took place in the Ouadi Berdjoudj, one day's journey from Scharaba, and five days to the west of Mourzouk. The last letter from Mdle. Tinne, who left Tripoli for the interior on the 30th of January, was dated from Scharaba, and received at the same time with the account of her murder, which was written soon after the occurrence by one of the Arab servants of the deceased, Mohamed Ben Hassan el Bannar. The party, escorted by an Arab, El Hadj Ahmed Bu Selah, sent by El Hadj Ikhenoukhen, the chief of the Touaregs, who was waiting at Tabarat to meet her, fell in with a party of Arabs and eight Touaregs, headed by El Hadj Escheikh Bou Bekar, another Touareg chief, who disputed the right of escort, alleging that he had been ordered by El Hadj Ikhenoukhen to conduct her to Mourzouk. I may here mention, by way of parenthesis, that El Hadj Ikhenoukhen visited Paris in 1863, with Dr. Meyer, the author of "Les Touaregs du Nord." Ultimately the two parties agreed to go on together. Mdle. Tinne had seen El Hadj Escheikh Bou Bekar about a fortnight previously at Mourzouk. The party had received presents from her. The evening, Sunday, August 1, the six Arabs and eight Touaregs pretended to dispute among themselves as to who should carry the palanquin of Mdle. Tinne. The Touaregs were armed with lances and sabres. The Arabs, on the pretence of defending themselves, seized the arms of Mdle. Tinne's attendants, which were lying on the ground while the attendants were being loaded. Mdle. Tinne and the two Dutch sailors advanced to separate the combatants. One of the sailors, named Ootsmans, was immediately wounded through by a Touareg with a lance, which also wounded a negro who was behind him. Mdle. Tinne was stretching out her right arm in a commanding attitude when a Touareg struck off her hand with a sabre, and an Arab shot her in the breast, causing instant death. The other sailor, Jacobsi, who had reached to her help, was then shot dead by an Arab. The responsibility of the crime was ingeniously divided between the members of the two tribes. All the attendants, consisting of Arabs and negroes, were allowed to escape, except a young negress named Jannina, who was carried off by the Touaregs. It appears that Mdle. Tinne proposed making a tour in the Touareg territory, while awaiting supplies and fresh camels from Tripoli, and intended to return to Mourzouk, to start thence for Bournou. She had met at Mourzouk Dr. Nachtigall, a Prussian traveller, who was charged with presents from the King of Prussia to the King of Bournou, and who had left on a short journey eastwards to the country of the Tibous, also intending to return to Mourzouk for supplies before proceeding to Bournou. Baron de Testa has sent orders for the survivors of Mdle. Tinne's party to return immediately to Tripoli. The Ouadi Berdjoudj is, according to Barth, in the territory of Fezzan, and consequently within Turkish jurisdiction; but the Pacha holds to the contrary, and it is well known that he raises tribute there where he can do so. He promises to do his utmost to punish the offenders to justice, but as he had previously confessed his inability to protect travellers beyond Mourzouk, he is scarcely responsible for the catastrophe. The sad news reached Tripoli on August 18, and was despatched at 12.40 by telegraph, and was received by Mdle. Tinne's family in Liverpool at

9.30 P.M. of the same day. The intelligence was confirmed on the 21th by a second despatch. By the first steamer leaving Marseilles two of the nephews of the deceased lady arrived at Malta, en route to Tripoli, in order to take the necessary steps, if possible, for the recovery of the bodies, orders for the interment of which had been sent from Mourzouk by the Turkish authorities, who had also directed that all papers and effects found on the scene of the murder should be carefully collected. M. O. Houdas, Professor of the Lycée d'Alger, a friend of the late Mdle. Tinne, has arrived here from Tripoli, and to this gentleman I am indebted for many of the particulars of this lamentable event."

MORE MILITARY SUICIDES.—An order for removing the service ammunition from the soldiers' pouches arrived at Pembroke Dock on Tuesday, but before the order was carried into effect another military suicide had occurred—Sergeant Little, of the 36th Regiment, having blown his brains out with his rifle. On the following day another suicide was perpetrated at Hounslow barracks, by Quartermaster Seggie, of the 9th Lancers, who cut his throat with a penknife.

THE PUBLIC HEALTH.—The Registrar-General's Weekly Return states that in the week that ended on Saturday, Sept. 4, 4472 births and 3179 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 25 per 1000 persons living, being 23 per 1000 in London, 26 in Edinburgh, 25 in Dublin, 18 in Bristol, 26 in Birmingham, 35 in Liverpool, 29 in Manchester, 24 in Salford, 29 in Sheffield, 24 in Bradford, 29 in Leeds, 37 in Hull, 22 in Newcastle-upon-Tyne, and 26 in Glasgow. In Paris the annual rate in the week ending September 4 was 25 per 1000. The rate in Berlin during the seven days ending the 2d inst. was 31 per 1000, and in Vienna 25 per 1000 during the week ending the 28th ult. In London the births of 1128 boys and 1028 girls, in all 2156 children, were registered last week. In the corresponding weeks of 10 years, 1859-68, the average number, corrected for increase of population, was 2072. The deaths registered in London during the week were 1391. It was the 35th week of the year, and the average number for that week, corrected for increase of population, was 1353. The present return is therefore 38 above the estimated amount.

Provincial.

ALBESHOT.—On Saturday the finding and sentence of a court-martial on Private Niel, of the 1st Battalion 12th Regiment, on a charge of wantonly, and without justifiable cause, loading his rifle in his barrack-room, were read before the battalion. The Court found the prisoner guilty, but, in consideration of his good character, sentenced him to undergo an imprisonment, with hard labour, for a period of 12 months. On Monday the finding and sentence of a court-martial on Private Charles Hill, of the 2d Battalion 2d Queen's, for loading his rifle, and threatening to "die for" a man in the same regiment, named John Keen, was read on parade in presence of the battalion. The prisoner was found guilty, and sentenced to 672 days' imprisonment with hard labour in the divisional military prison. On account of the prisoner's youth and former good character, the Commander-in-Chief, in confirming the proceedings, remitted half the term of imprisonment. On Friday a court-martial was held on Sergeant Stacey, for attempting to shoot Corporal Greenley. Both men belong to the 2d Battalion 5th Fusiliers, were quartered together, and were apparently good friends. The defence was, that the prisoner, who was subject to fits, and had that evening been allowed to fall out at drill on account of sickness, was not in his right mind. The result will not be known until the finding of the Court has been submitted to the Commander-in-Chief.

BADMINTON.—The annual dinner of the Badminton Farmers' Club was celebrated on Wednesday. About 300 ladies and gentlemen sat down. The Duke of Beaufort had been announced to preside, but being called away on important business, the Duchess undertook to supply his place, and when she entered the tent in which the dinner was served she was received with loud and ringing cheers. At the conclusion of the repast the Duchess proposed the usual loyal and patriotic toasts, and that of "Success to the Club," in admirable speeches. The enthusiasm of the farmers knew no bounds, and their delight reached its climax when Lady Blanche Somerset, her grace's daughter, rose and responded to the health of the younger branches of the Beaufort family.

BRISTOL.—The Social Science Congress will be held in this city from the 29th inst. to the 6th October. On the first day a special service will be held in the afternoon at the Cathedral, and a sermon preached by the Bishop of Gloucester and Bristol, and in the evening the inaugural address will be delivered by the President, Sir Stafford Northcote. Mr. G. W. Hastings will preside over the department of jurisprudence, the Rev. Charles Kingsley over that of education, Dr. Symonds over that of health, and the Right Hon. Stephen Cave over that of economy and trade. During the sitting there will be a conference of ladies interested in educational, sanitary, and other social subjects, under the superintendence of Miss Mary Carpenter. A working men's meeting is also organised, and evening soirées are to take place. There will also be excursions to Cheddar, Tintern Abbey, and the training ship at the mouth of the river. The following are some of the special questions to be discussed:—

Municipal Law Section.—1. What ought to be the legal and constitutional relations between England and the colonies? 2. What is the most expedient mode of introducing into England a system of public prosecution? 3. What limits ought to be placed by law to charitable endowments? **Reformatory Section.**—1. Can infanticide be diminished by

legislative enactment? 2. What have been the results of the Industrial and Reformatory Acts of 1866? **Educational Department.**—1. Is an unsectarian scheme of education inconsistent with religious teaching? 2. How may the State best promote the education of the destitute and neglected portion of the population? 3. In what way can the Endowed Schools Bill be worked so as to bring the educational endowments within the scope of the Health Department.—1. Can Government interference limit the spread of infectious diseases? 2. What legislative measures might be proposed to diminish the prevalence of infectious diseases? 3. Is it desirable that State should interfere in the management of the poor-law? 4. In what respects may the administration of the poor-law be improved? 3. How may the condition of the agricultural labourer be improved? **Jurisprudence.**—1. The Relations between England and her Colonies. 2. Charitable Endowments. 3. The Ownership and Occupation of Land.

—The Lords of the Admiralty have granted to the Bristol Training Ship Association the loan of H.M.S. Formidable, the late flagship at Sheerness, as a training ship for houseless and destitute boys, and Commander Poulden, R.N., has been appointed Captain Superintendent.

CARNARVON.—On Tuesday the yacht of Mr. Griffith, of Lansair Hall, while sailing through the Straits with a party of servants on board, was suddenly capsized in a squall near the Menai Bridge. Two sailors managed to swim ashore, but the butler and a lad were drowned. Half an hour previously the yacht of the Mayor of Carnarvon, with a party of friends on board, was driven ashore on the Anglesey coast, and had an extremely narrow escape.

CHESTER.—On Tuesday an intimation was received that the Prince and Princess of Wales will pay a visit to this city about the middle of October, and be present at the opening of the new town hall, which has just been completed at a great cost.

COWES.—The proposed yacht race from England to America has been abandoned. The owner of the Cambria accepted Commodore Bennett's challenge to race the Dauntless from Cowes to New York, starting on the 1st inst.; this date was afterwards extended to the 7th or 8th, but it was stated the Dauntless could not be got ready until the 16th, and as there was no doubt this would run the yachts into the equinoctial gales, it was ultimately arranged that the match should be abandoned. The American yacht, Meteor, with Mr. Lorrillard, her owner, and a party of friends on board, which has been expected to arrive at this port for some time, put into Bermuda on the 25th ult. Great anxiety had been felt for her safety, as she had been 25 days at sea on her way from New York to Cowes.

LIVERPOOL.—Dr. James Seaton Smith, of Rodney Street, who died after a short illness on Friday night, has left by will the sum of 10,000*l.* for the Liverpool Hospital for Cancer and Skin Diseases, of which he was the founder.

MANCHESTER.—On Sunday morning the Rev. Michael Gallagher, minister of the Protestant Reformed Church in this city, followed by his congregation, went to the church of St. John the Baptist at Hulme, where the ritual is said to be extremely high. They were refused admission, and eventually Mr. Gallagher took his departure, leaving a crowd behind. Soon afterwards, on the Rev. J. M. Bromhead, the curate, quitting the church, he was roughly handled by the mob, and was forced to take refuge in a cab, the windows of which were broken, and a chorister was severely injured. One of the rioters was apprehended by the police in the act of throwing stones, and a warrant was issued by the magistrates for the apprehension of Mr. Gallagher. On Tuesday the rev. gentleman was brought up at the borough police court, and remanded on bail until Wednesday, when he was sentenced to pay a fine of 5*l.*, or be imprisoned for two months. An application to bind him over to keep the peace was refused, on the ground that it could not be complied with under the statute. The man apprehended in the act of stone throwing was sentenced to pay a fine of 30*s.* and costs, or to be committed for a month.

MOBBUBY.—The parish church of this town, where Ritualist services have been performed, was entered a few nights ago and stripped of all the furniture which might be associated with "high" service. The altar cloth, candles, flowers, and decorations were carried away, and vases and other ornaments were smashed. The perpetrator of the outrage has not been discovered.

NEWPORT.—The examination of the boy Charles Gritt, who stands charged on suspicion with having poisoned Miss Emily Amelia Collier, was resumed by the borough magistrates on Thursday of last week. Mrs. Collier described the symptoms which were shown in her child's illness before she died, and more particularly the languor and contractions of the legs. Not long after this some of the fowls, which it was the prisoner's duty to feed, were attacked in a similar manner and died. This tended to throw suspicion on the prisoner, and Mrs. Collier threatened to send him back to the Caerleon Industrial School, when he confessed that he had given Miss Collier poisoned wheat. On Friday the inquest was resumed, when a report was read from Professor Taylor, stating that he had analysed the whole of the stomach, the greater part of the intestines, one half of the liver, one kidney, the spleen, one half of the heart, and one fourth of the lungs, all of which were carefully submitted to all the usual tests and processes for the detection of mineral and vegetable poisons, with the result that no trace of poison was found in any one of these organs. The poisons specially sought for were arsenic, antimony, mercury, copper and other metals, as well as phosphorus, the vegetable poisons—such as strychnine and morphia—Butler's vermin killer, &c., and the results were that no poison was present in the viscera of the deceased. The inquiry was again adjourned in order that another analysis might be made by Dr. Letheby. On Thursday

the inquest was resumed, when a letter was read from Dr. Tidy, of the London Hospital, stating that Dr. Letheby was abroad, and that Dr. Tidy would conduct the analysis in his absence. A letter was also read from Professor Taylor, expressing his belief that the child died, not from poison administered to her, but from latent disease of the brain and that if a post mortem examination had been made at the time of death, and the brain inspected, it was most probable that the cause of death would have been discovered. The inquest was again adjourned.

OXFORD.—The statement made some time since that the eldest son of the Viceroy of Egypt would commence a course of study at Christ Church, in October, is confirmed by the fact that Alderman Randall's residence, known as Grandpont House, and situated over a tributary of the Isis, has been taken for his Highness, and that preparations have already been commenced for his reception.

PENDLETON.—A short time since the body of a girl, with the ribs and limbs broken, was found in the canal, and a verdict of "Murdered by some persons unknown" was returned. It was identified as that of a young woman, who was some days afterwards found to be alive. Since then the inquiries of the police have resulted in the discovery of the real name and parentage of the deceased. The body has been exhumed, and the surgical testimony now inclines to the supposition that the injuries and broken bones might have been caused after death by boats passing over the corpse at the bottom of the canal.

ROCHDALE.—The Right Hon. J. Bright, M.P., has addressed the following letter to Mr. Leonard Kaberry, jun., of this town:—

"Dear Sir,—I thank you for the newspaper. There are knives in the world, and there are sharp points, and the one class preys on the other. The Tory party is always driven to these tricks; they cannot otherwise appeal to the multitude. If they explain that many Customs duties have been repealed, they will perhaps kindly tell the working men what duties they will put on again. Is it the duty on corn, or cattle, or do they wish a duty on imported cotton? If a foreigner will not buy cheaply from us, will it mend the matter if we refuse to buy cheaply from him or from some other foreigner? If wages have risen from 2 to 5 per cent. since 1840, is this consistent with a wrong policy as to our foreign trade? The pamphlet to which you refer bears the marks of having been written in Bedlam; it is a mere confusion of figures, and is wholly without logic or sense. The good harvest will tend to restore health to the general trade of the country, and when we have a sufficient supply of cotton Lancashire will recover from its present distressed condition. It is more cotton we want, and not more tax on imports. I suspect the people of Lancashire will not fail to understand this."

ROYSTON.—It is proposed to erect at this place a small hospital for the treatment of such of the sick poor as cannot receive proper attention at their own homes. Lord Dacre has given a site, and the Hon. Mrs. Vernon Harcourt heads the subscription list with a donation of 200l. Others of the local gentry have put their names down for sums of 100l.

SHEFFIELD.—The Cutlers' Feast for the present year took place on Thursday the 21st inst., Mr. Mark Firth, who has held the office of Master Cutler for three years in succession, in the chair. After the usual loyal toasts Mr. Roebuck proposed "The Army, Navy, and Volunteers." He said:—

"It was pitiful economy to pinch and make miserable the men who served them. His belief was that no money could be so well spent as in making them happy and comfortable and contented in their condition, and that those who would say that the brave men who sacrificed health and life to their service ought to be looked upon as mere labourers and hirelings, were not England's friends. What they ought to do was to link the army to them by the bonds of strong affection; and they could only do so by dealing with them justly, and dealing with them justly meant dealing with them generously. The next service was the navy. Why, the navy of England had saved England—had made England what she was. In the last great war with France, where would England have been had it not been for the great victory of Trafalgar? Therefore, he said that they owed the navy their deepest consideration, and they ought to deal with them as he had said they should do with the army. They ought to make them comfortable, make them enlightened, make them their friends, and not to treat them as they have been treated in times past—as the slaves of the country. But an English army and an English navy were expensive defences. To maintain an English army and an English navy would not cost more than it would to maintain a horde of barbarians under the command of a despot, and an English army turned out would cost as much as would bring a horde of barbarians from the north of Europe to invade the country. Recollect, then, that they could not compete in numbers with the large bodies of the nations around them; but they had in their own people a body of the path and strength of the country, which was in reality the chief defence of the nation—he meant the Volunteer force. They were a supplement to the army—but not the army; and while the Volunteer spirit remained it would be a check upon everybody who intended to invade England. Therefore he said that, as they ought to be generous to the army and to the navy of England, so they ought to be to the Volunteers. In them they had a body of men drawn from all ranks of society, the peasant shoulder to shoulder with the peer's son, and every man standing in his rank knew that he was fighting for the same thing. What was that thing? It was England, and the enthusiasm that led the gentlemen forward led the peasant forward; and it was to maintain the home and sanctuary of his father."

In returning thanks for the Navy, Mr. E. J. Reed, C.B., the chief constructor, made the following remarks on the iron-clad fleet in relation to the general expenditure of the Navy:—

"Since the first ironclad ship of war was laid down, the nation has expended upon the construction of ironclad ships 10 millions sterling. Ten millions since May, 1859, and no more! During the same period the country has expended upon its navy alone in other ways 106 millions, the total expenditure in the 10 years being 116 millions, of which 10 millions alone have found their way into the construction of armour plated ships, and I may say that it is impossible to study the political circumstances of Europe at this moment without feeling that that is a very important fact, because the 100 millions which may have been and no doubt have been, very properly expended, may be said at this moment to have passed away. The 10 millions only remain in the form of the powerful ironclad fleet of which the First Lord of the Admiralty has a fractional part in his hands at the present moment. I may say it does appear to me to be of supreme

importance that as large an amount as possible of that fleeting and passing expenditure that leaves no result after the termination of a short period shall be reduced, that the greatest possible economy shall be practised, in order that we may be able to expend liberally upon that navy which is our abiding strength, and upon which we must rely in the time of our difficulty and need. My own opinion is that very great economy indeed may be practised, and will be practised, from year to year so long that the limits of our naval expenditure goes upon objects other than the construction of iron-plated ships. The navy was never equal in strength to what it is now, when our Government has not neglected to apply to it the test of economy. They have shown great boldness in the changes they have made, and I am glad that these changes have occurred, because they will tend to produce results, the abolition of that vilest of imposters—red tape, resulting from the immediate action taken by the responsible officers of the Crown."

The Marquis of Hartington responded to the toast of Her Majesty's Ministers, Lord Wharncliffe responded to that of the House of Lords, Mr. H. F. Beaumont, Mr. Hildfield, and Mr. Mundella to that of the House of Commons. The Marquis of Hartington spoke as follows on the labours of the past session and on the prospects of the next:—

"We have just risen from a long and most laborious session. I suppose, though I speak in the presence of many members of Parliament, none can remember a session more lengthy or more laborious. And the task of the Government has not been lighter than that of the House in which it has sat. But we have had the advantages and the support, the cordial support, of a stronger majority than has supported any Government in 100 years—a majority, strong not only in its numbers, but in the energy and definite faith with which it came back from the new constituencies to Parliament, in the wisdom, in the true wisdom, of the principal measure which the Government had to bring forward. I do not wish to trespass upon your time in talking of the past. I fear that the future does not present lighter labours for us to look forward to. It never was our ambition to limit the work which we had undertaken to the destruction of any institution, however necessary we might think that that part of our task was. Our hope is, if possible, not only to destroy, but also to build up, to raise in our sister kingdom of Ireland a structure of confidence, a structure of good feeling between ourselves and our Irish fellow countrymen, and of good feeling between the various grades and sections and classes of those Irish fellow countrymen themselves. How far we are from the accomplishment of any such object, though I say it with the deepest regret, almost every account now coming from Ireland shows. I think I may say that the task which lies before us in the future is one not less arduous but far more arduous than that through which we have just passed. We have undertaken, as you know to attempt to deal in the next session of Parliament with what is called the Irish Land question. Might I here speak in the presence of an assembly of mixed political opinions, an assembly, the majority, perhaps, of whom do not agree with the political opinions which I hold—might I venture to express a hope, and an earnest hope, that that question, when it comes to be debated in Parliament next year, may be debated with as little as may be of party political feeling. And why should it not be so? This particular question has never yet been made the battle ground of party feeling; men are not tied and bound by watchwords and ancient professions of faith, which they find it often so difficult to maintain, and yet so much more difficult to get rid of. Men are comparatively unpledged upon this question. It is a subject, to state the fact, to state the fact, to state the fact, and I will say in honest indignation, to try to grapple with it. Therefore, I have some hope that they may be disposed in the next session to treat this, as it is called, as one of the greatest and most important questions affecting our future, and for once to abstain from making it a mere stalking horse, or battle horse of party. When we think of the enormous interests which are involved when we think that on the one side may be involved the future pacification of Ireland, and the immense gain not only to our national strength but to our national happiness, which would be involved in such a change as that, and when we think, on the other hand, of the enormous damage which might ensue to the interests of property of all kinds, not only in Ireland, but throughout this country, if this question is settled, or attempted to be settled, on principles which are unsound or ill conditioned, then I say we have another reason for hoping and for earnestly imploring men of all political parties if possible to put away for a time all party feeling, and to discuss this subject like statesmen and patriots. It is not only the property of Irish landlords which is at stake, it is not only the property of English landlords, but it is property of all kinds which will be at stake; for do not suppose for a moment that any discussion will arise next year, or that any measure can be passed, without principles and doctrines being enunciated equally hostile not only to the interests of landlords but of capitalists of every description. I invite, therefore, the cordial co-operation not only of parties but of all classes when the question is brought forward next session."

WINCHESTER.—The execution of William Dixon, a private in the 7th Fusiliers, for the murder of Corporal Bratt, took place on Monday within the walls of the county gaol. The culprit, since the commission of his crime, exhibited a most contrite state of mind, and left behind him an appeal to his fellow soldiers and others to shun the love of drink which led him to commit the crime. He ascended the scaffold with fortitude and resignation, and died almost instantaneously without a struggle. A black flag was hoisted on the prison gate as the drop fell, and remained there for an hour; but not more than 50 persons were outside the gaol during the execution. An inquest on the body was held in the afternoon, in accordance with the new law.

WORCESTER.—The 14th meeting of the three choirs of Worcester, Hereford, and Gloucester commenced in this city on Monday, and has continued during the week. Monday was devoted to rehearsals, and on the four succeeding days there were eight performances. During the mornings oratorios or sacred selections were given in the cathedral. The evening concerts, which consisted of miscellaneous selections, took place in the College Hall. The oratorios were Mendelssohn's "Elijah," a new oratorio composed expressly for these festivals, by Mr. Arthur L. Sullivan, entitled "The Prodigal Son," selections from Handel's "Judas Macabean," Rossini's "Messe Solennelle," Mendelssohn's "Hymn of Praise," and Handel's "The Messiah." The concert of Tuesday evening included Mr. J. F. Barnett's cantata "The Ancient Mariner," which was produced for the first time at the Birmingham Festival, and a prize glee by Earl Beauchamp. The principal

singers were Mdlle. Titiens, Madame Trosch, Mr. Sims Reeves, Mr. Stanley, Madame Sherrington, Madame Patey, Signor Vernon Rigby, and Mr. Lewis Thomas. Mr. led the band, which with the chorus numbered 350 performers. Mr. G. Townshend Smith was the organist, and Dr. Wesley at the piano was the conductor.

Ireland.

ELECTION OF A REPRESENTATIVE Peer, in room of the late Lord Castlema.

EXPECTED VISIT OF THE CHANCELLOR OF EXCHEQUER.—The Mayor of Cork has received communication that the Channel Fleet of the Admiralty on board, will visit the 27th inst., when the First Lord of the Admiralty will lay the foundation-stone of the naval docks at Haulbowline. The Council have resolved to invite the Lord and Lady Spencer to be present at the ceremony. An objection was made to this invitation, that it might be regarded as implying a Government's refusal to release the Peer, but the objection was overruled.

THE REORGANISATION OF THE CHURCH.—The preparation for the forthcoming Synod of the Church of Ireland, which has been invariably adopted, approving the association of the laity with the clergy in the government of the Church, and protesting against the admission to the Synod of the future Church of any members, except the Archbishops and Bishops. A clerical meeting held at Kildare on Monday, the Rev. J. M'Cormick, rector of Geashill, met Lord Digby, the patron of the living, had an intention of allocating towards the future of the parish the 5000l. or 6000l. which he received as compensation for the surrender of the endowment thus provided by the building charge, for which amount he has his life. Long conferences have also been held at Limerick, Dunmanway, and Skull County. The purpose of electing representatives to the diocesan synods. At the Limerick meeting the opinion was strongly expressed that the laity should be represented in the proportion of three to two of the clergy. Several influential speakers also appeared to carry the meeting with them. The Church required very great reform, that the book should be revised, and all passages which seemed to inculcate doctrines opposed to the Bible; that the Church Body should remove clergymen preaching heretical doctrines; that no one should be ordained to the ministry who did not by his life and conduct manifest a true regard for the office. On Monday the Archbishops of Dublin and Dublin were presented with the resolutions passed at the recent meeting of the laity. The Archbishop intimated their willingness to accede to the resolutions, that they should take the initiative in representing the laity by requesting the Bishop of each diocese to issue a circular to the officiating ministers, or congregation, for the purpose of suggesting the convening of a meeting of delegates to a diocesan meeting. Of these delegates one in every five will be chosen at the diocesan meeting as delegates to attend the Lay Conference held in Dublin on the 5th of October.

CARDINAL CULLEN ON THE CHURCH BILL.—Cardinal Cullen has ordered a three day's thanksgiving in the chapels of his diocese for the passing of the Church Bill. He praises Mr. Gladstone as an eloquent and provident statesman, and announced during the ceremonial a relic given by Pope Pius IX. to be exposed for the veneration of the faithful.

THE ORANGE ANNIVERSARIES.—At the opening of an Orange hall in Antrim on Monday Mr. Johnston, M.P., said it had been stated that 5000 Roman Catholics had sworn to put down the anniversaries of the Battle of the Boyne, but the Orangemen, if necessary, would turn their lodges into rifle clubs, and man the walls of Derry once more. He declared that those who were trying to sow disunion between the Protestants of Ireland and England were Jesuits, seeking to divide England by engaging the Protestants of the north in a fratricidal contest. The cry had been, to put all in a position of religious equality, and that would be contended; but was she now, Cardinal Cullen and his followers, were now wanted ascendancy in education. They now wanted ascendancy in education. They trusted that Great Britain would sternly resist their claim.

THE LAND QUESTION.—Sir John Gray has made an urgent appeal to Mr. Johnston, M.P., as the champion of the Orangemen, to join the movement of the land question, on the ground that the tenantry in the north are as much interested in reform of the land laws as those in the south.

THE ATTEMPTED MURDER OF CAPTAIN LAMBERT.—It is stated that the Special Commission for the trial of Barrett on the charge of attempting to murder Captain Lambert will be opened at Galway on the 27th inst.

THE FENIAN CONVICTS.—A meeting was held at Bray a few days since for the purpose of aiding the movement to procure the release of the Fenian convicts, or, as they are described at such gatherings, the "political prisoners." As Bray is only a half hour's drive by rail from Dublin, and is a favourite holiday resort, the meeting was attended by about 200 persons, at least half of whom were women. All sported "the green" more or less. A large number of brass bands kept up the entertainment. Resolutions of the usual character were adopted.

Name, the Fenian, formerly a prisoner in the part in the Jaemel packet expedition...

Scotland.

FRASER'S PFERAGE. - A new claimant has appeared in the person of Simon Fraser, late Colonel of the general Fraser claims to be descended of the houses of Bruce and Stuart.

HOUSE. This ancient family seat is situated on the west side of the town...

THE HERMITAGE AT DUNKELD.

On Monday morning the hermitage at Dunkeld was blown up by a barrel containing the powder...

Railways.

AN EXCURSION TRAIN. - On Monday morning an excursion train occurred at Windermere to an excursion to the lakes of Windermere and Manchester.

Obituary.

CHARLES GORE, G.C.B., K.H., Colonel and Lieutenant-Governor of Chelsea died on Saturday after a few days' illness...

THOMPSON, F.R.S., died on Tuesday, at the age of 77 years. He was first educated at the Grammar School which was at the time conducted by the Rev. Mr. ...

Worcestershire, and in 1860 to the second daughter of the Rev. William Curvis Wilkes of ...

MR. THOMAS LAWRENCE DEHAN, for many years Editor of the Hampshire Independent, died on the 27th ult., at Southampton.

WILLS. - The will of Lord Justice Selwyn has been sworn out for 100,000l. personality, the Hon. Ellen Mary Spring Rice 3,000l. ; Sir Robert Shafto Adair, Bart., 60,000l. ; Mr George Ashburner, of Tilgate, Sussex, 160,000l. ; Mr John Beadle, of South Elm, near Hull, 2,000l. ; Mr. Thomas Wilson, of Park House, Cottingham, 200,000l.

Markets.

COVENT GARDEN - Sept. 11.

Trade has been very slack here during the past week. Foreign importations are very heavy, consisting of the usual sorts of Apples and Pears at this season, with little or no demand for them.

FRUIT.

Cherries, per lb., 9d to 1s; Figs, per doz., 2s to 4s; Grapes, per lb., 2s to 6s; Lemons, per 100, 8s to 14s.

VEGETABLES.

Artichokes, green, p. doz., 2s to 4s; Beans, Kidney, p. 1/2 sieve, 3s to 4s; Beet, per doz., 2s to 3s; Cabbages, per doz., 1s to 2s; Carrots, per bunch, 4d to 8d; Cauliflowers, p. doz., 3s to 6s; Celery, p. band, 1s to 1s 6d; Cucumbers, each, 4d to 1s; Endive, per doz., 1s 6d to 2s; Garlic and shallots, per lb., 8d; Herbs, per bunch, 2d to 4d; Horse Radish, p. bund, 3s to 5s; Leeks, per bunch, 2d to 4d.

HAY. - Per Load of 36 Trusses.

SMITHFIELD, Thursday, Sept. 9. Trade very slow for meadow hays, first cut Clovers in demand.

CUMBERLAND MARKET, Thursday, Sept. 9.

Sup. Meadow Hay 100s to 110s; Inferior do. 70 90; New do. 70 90; Superior Clover 112s 135.

WHITECHAPEL, Thursday, Sept. 9.

Fine Meadow Hay 98s to 108s; Inferior do. 80 95; Prime New Hay 80 90; Inferior do. 60 75; Straw 33 38.

ENGLISH WOOL.

We have had a steady market, but without change in price. The very marked rise, however, in Colonial wools, which are now 10 to 15 per cent. above the prices current last May, is not unlikely, we think, sooner or later, to produce a favourable impression.

CURRENT PRICES OF ENGLISH WOOL. per lb. - s. d.

FLEECES - Southdown hoggets 1 1 to 1 2; Half-bred ditto 1 2 - 1 2 1/2; Kent Fleeces 1 3 - 1 4; Southdown ewes and wethers 1 0 1/2 - 1 1; Leicester ditto 1 2 - 1 3; SORTS - Clothing 0 10 - 1 6; Combing 1 0 - 1 8.

LEADENHALL POULTRY, &c.

THURSDAY, Sept. 9. Geese each 5 0 - 6 0; Pigeons each 0 6 - 0 8; Goslings 5 0 - 6 0; Tame Rabbits 1 0 - 1 8; Turkeys 2 0 - 2 6; Wild Rabbits 0 6 - 1 0; Turkey pullets 4 0 - 5 0; Partridges, young 1 0 - 1 6; Ducks 2 0 - 2 6; Pheasants 2 0 - 2 6; Ducklings 2 0 - 3 0; Hares 2 0 - 2 6; Surrey Fowls, couple 6 0 - 9 0; Grouse 2 0 - 3 0; Do. chickens 5 0 - 6 0; Quails 2 0 - 3 0; Barn-door Fowls 4 0 - 7 0; English Eggs, p. 100 8 0 - 10 0; Leverets each 2 0 - 2 6; Foreign do 8 0 - 9 0; Fresh Butter, 1s. 0d. to 1s. 3d. per lb.

METROPOLITAN MEAT MARKET. - Sept. 11.

Best Fresh Butter 16s. per dozen lb.; Second do. do. 14s.; Small Pork, 4s. 8d. to 5s. 4d.; Large Pork, 4s. 0d. to 4s. 8d. per 8 lb.

METROPOLITAN CATTLE MARKET.

MONDAY, Sept. 6. The supply of Beasts is about the same as on Monday last; the trade is very dull, and, except for choicest descriptions,

prices are lower. The number of sheep is about the last week. Prices of the average are not better than in the last week. The number of sheep is about the last week. Prices of the average are not better than in the last week.

Table with columns: a. d. s. d. and rows for Best Long wools, Do. Short, Ewes & 2 1/2 quality, Do. Shorn, Lambs, Calves, Pigs.

Beasts, 4742; Sheep and Lamba 10,000; Calves 10,000; Pigs, 60,000.

We have a large supply of Beasts and a very limited supply of sheep. The number of sheep is about the last week. Prices of the average are not better than in the last week.

Table with columns: a. d. s. d. and rows for Best Long wools, Do. Short, Ewes & 2 1/2 quality, Do. Shorn, Lambs, Calves, Pigs.

Beasts, 1125; Sheep and Lamba, 11,245; Calves, 500; Pigs, 30,000.

The weather since the 31st inst. was fine, with occasional showers. The recovery in prices of Wheat noted last Friday made some further progress during the early part of this week, but it appears to have been too rapid, as the extreme rates realised in some markets could not be sustained, and we have now, under the influence of large foreign arrivals from the South of Europe, to report a dull trade, at an advance in the value of new English Wheat of 1s. to 2s. per qr., which must be chiefly attributed to the improved condition of Barley which is difficult to sell, and fairly 1s. per qr. cheaper.

Table with columns: a. d. s. d. and rows for WHEAT, Essex, Kent, Suffolk, White, Red, Foreign, BARLEY, OATS, RYE MEAL, BRAW, PEARL, MAIZE, FLOUR.

ARRIVALS.

Table with columns: Wheat, Barley, Oats, Flour and rows for English, Irish, Foreign.

The arrivals of English grain this week have been small, of foreign moderate. There was a poor attendance at this morning's market. English Wheat brought Monday's prices; for foreign the demand was limited, and but little business transacted. Spring corn was unchanged in value.

LIVERPOOL, Sept. 7. - We had an average attendance at today's market, and for Wheat only a moderate request, at a decline of 1d. to 2d. per cwt. since Friday. Flour dull, and 6d. per sack easier, Indian Corn quiet, and about 6d. per qr. lower. Oats and Oatmeal quiet. Peas held firmly. Barley rather dearer.

Table with columns: Wheat, Barley, Oats and rows for July 31, Aug. 7, 14, 21, 28, Sept. 4.

SEED MARKET.

In consequence of the recent acceptable showers we have more doing in the seed trade, a fair demand having sprung up for those kinds of seeds required for immediate sowing. Trifolium incarnatum is scarce, and sells freely at an advance of 1s. to 2s. per cwt. White Mustard seed is in good request,

on somewhat easier terms. Essex Rape seed is without change. New English winter Tares are in exceedingly short supply, and must be quoted 9d. to 1s per bushel dearer on the week. Winter Barley, Oats, and Rye move off steadily at recent currencies. Bird seeds are firm. In Clovers and Trefoils there is for the moment no speculation, all descriptions are, however, held with much firmness. More rain would be very welcome.

JOHN SHAW & SONS, 16, Water Lane, E.C.

HOPS—BOROUGH MARKET, Sept 10

Messrs. Pattenien and Smith report that a few small parcels of the new growth have arrived at market, which move off slowly at about the following quotations—Weald Kents, 80s. to 100s.; Sussex, 70s. to 84s. Picking will not be general for at least another week. Growers already complain that the Hops come down very short of expectation. The quality is likely to be good this year.

WANTED, as HEAD GARDENER, a steady Young Man, single, to live on the place. Must be experienced in Fruit and Plants.—H. MEE, Prescott Nurseries, near Liverpool.

WANTED, a first-class FOREMAN, in a first-class Garden, where the Owner is his own Head Gardener. Must have a knowledge of all necessities to a first class garden. Terms, £1 per week, free furnished house, fuel and milk, at 1 use of vegetables.—For full particulars, send references, apply to H. MERVYN LARRY IRVINE, Castle Irvine, Irvinestown, County Fermanagh, Ireland.

WANTED, a NURSERY FOREMAN and PROPAGATOR (Indoors).—Apply by letter only, stating previous engagements, expected salary, and age, to S. GLENDINNING AND SONS, Chiswick, W.

WANTED, a steady industrious Man, as FOREMAN and PROPAGATOR in a Nursery. Must have skill and experience in both indoor and outdoor departments.—Address, stating age, qualifications, and salary required, Mr. THORNHILL, Nurseryman, Sale, Cheshire.

WANTED, a TRAVELLER, thoroughly acquainted with the Seed and Nursery Business, for counties south of the Humber.—Apply, stating full antecedents, to PETER LAWSON AND SON, 20, Budge Row, Cannon Street, London, E.C.

To the Seed Trade.

WANTED, IMMEDIATELY, an experienced and efficient PERSON to MANAGE an extensive Retail Seed Business in a large town.—Messrs. FRASER, GOOD, and RATFORD, 81, Bishopsgate Street Within, London, E.C.

WANTED, a competent steady Man, to MANAGE a SMALL FARM, and to attend occasionally to other business.—Address, stating age and wages required, to F. M., Mr. Edwin White, Bookseller, Do. custer.

WANTED, a GARDENER, who practically understands the Cultivation of Pines, Vines, Melons, &c.; also Store and Conservatory Plants.—Address, Rev. W. C. RANDOLPH, Yale House, Chipping Sodbury.

WANTED, a MAN and his WIFE.—The Man to take charge of a small Garden, and the Woman as good Plain Cook and General Servant. The family is very small, and in occasional residence only.—Apply by letter to S. G., No. 29, Panton Street, Haymarket, W.C., stating particulars, when an interview may be arranged.

WANTED, for New York, as SHOPMAN, an active intelligent Young Man, who thoroughly understands the Seed Trade, and can produce first-class references.—Apply to W. D., Messrs. Peter Lawson & Son, Southwark Street, London, S.E.

Assistant in Seed Shop and Office.

MESSRS. PAUL AND SON REQUIRE a YOUNG MAN, 21 to 25 years of age, in the above capacity. A thorough worker, willing, and active, is required. Wages, to commence, 18s to 20s per week.—Apply by letter, giving references, to the "Old" Nursery, Cheshunt.

WANTED, in the Seed Trade, an APPRENTICE.—Premium expected.—Address, by letter, X., Gardeners' Chronicle Office, W.C.

WANTED, a COWMAN and UNDER GARDENER, 10 miles South of London.—A married Man, without children, about 30 years of age. His Wife to attend Lodge Gate, and assist in the House. A first-rate character will be required.—Address A. M., 146, Gresham House, Broad Street, City, E.C.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. E. G. HENDERSON and SON, Wellington Nursery, St. John's Wood, London, N.W.

Michaelmas Engagements.

MR. T. BOWICK has the pleasure of recommending several tried and experienced Men as FARM BAILIFFS, FORESTERS, and WORKING FOREMEN, also HEAD CARTERS, SHEPHERDS, HERDSMEN, STEAM-ENGINE DRIVERS, &c.—Bedford, August, 1890.

LUCOMBE, PINCE, AND CO. have always on their Register experienced GARDENERS, whom they can recommend to fill any situation, whether as Head Gardener to a large establishment, or Gardener and Bailiff, or Under Gardener. Any Lady or Gentleman applying to L. P. and CO. will have their best attention.
Exeter Nursery, Exeter.

Gardeners and Under Gardeners.

WM. CUTBUSH AND SON beg to state that they have at all times on their books MEN of various qualifications, whose characters will bear the strictest inquiry. Any Gentleman making application would save time by clearly stating the duties to be undertaken, wages offered, &c., so that suitable Men may be selected.—Highgate Nurseries, London, N.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS, and GARDENERS and BAILIFFS, of various qualifications, who are open to Engagements. The fullest particulars as to services required and wages given should be forwarded with application.—PAUL'S Nurseries, Waltham Cross, London, N.

To Gardeners and Bailiffs (Head, Foremen, or Under) JAMES CARTER and CO. having many applications will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those who can send unquestionable references need apply.

Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & Co. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c.
JAMES CARTER and CO., 237 & 238, High Holborn, London, W.C.

GARDENER (HEAD).—Middle-aged, married, no incumbrance; 9 years' good character for sobriety, industry, and ability.—A. B., 40, Carlton Road, Globe Fields, Mile End, London, E.

GARDENER (HEAD).—Middle-aged, single; practical in Pines, Vines, Exotics, Flower and Kitchen Gardening, &c. Three and a half years' unexceptionable character.—Y. Z., 7, Oak Street, New Town, Ealing, Middlesex, W.

GARDENER (HEAD).—Married, no incumbrance, thoroughly practical in the Growth of Fruits, Flowers, Vegetables, Forcing, &c. Likewise a good knowledge of Farming.—B. P., Aldridge, Beckley, Oxon.

GARDENER (HEAD).—Age 35, married, 18 years' experience. Has a thorough knowledge of the profession. Ten years in last situation as Head Gardener. Good character. Wife good Laundress.—A. B., Park Street, St. Alban's, Herts.

GARDENER (HEAD): age 26, single.—WILLIAM Roots, Gardener to the Rev. Dr. Briscoe, is at liberty to engage with any Lady or Gentleman requiring the services of a thorough practical Gardener. No single-handed place accepted.—The Rectory, Nutfield, Redhill.

GARDENER (HEAD).—Age 40, married; a steady, active Man; thoroughly practical in all branches of the profession. Seven years in last situation. Can be highly recommended. No single-handed place accepted.—A. B., 39, Exeter Street, Sloane Street, Chelsea, W.

GARDENER (HEAD).—Age 39, married, no incumbrance, thoroughly understands Forcing of Vines, Pines, Melons, Cucumbers, &c., and Kitchen, Fruit, and Flower Gardening. Has 14 years' first-class character from the gentleman he has just left.—A. J., Boxted, near Colchester, Essex.

GARDENER (HEAD).—Married, without incumbrance, understands the Management of Vines, Pines, Early and Late Forcing, Greenhouse Plants, and Flower and Kitchen Gardening. His Wife is also thoroughly competent to take charge of Poultry. He has a good character from the situation he is now leaving.—X. Y., Wolsey Grange, Esher.

GARDENER (HEAD), no family.—THOMAS TODMAN, 11 years Gardener to Robert Hudson, Esq., is now disengaged, and is open to treat with any Nobleman, Lady or Gentleman requiring a thorough practical Gardener; Hard and Soft-wooded Plant Grower, Flower and Kitchen Gardener, Early and Late Forcing, also the Management of Stock. Eleven years' first-class character from last place.—Address 129, Clapham Park Road, S.W.

GARDENER (HEAD, WORKING).—Thoroughly acquainted with the profession. Wife a good Laundress if required. Good character.—A. B., Mr. Nichols, News Agent, Westow Street, Upper Norwood, S.

GARDENER (HEAD, WORKING).—Age 30, married, one child; thoroughly understands the Growing of Stove and Greenhouse Plants; also Fruit and Vegetables. First-class character from last situation.—D. F., Mr. J. Emenys, Baker Street, Orsett, Essex.

GARDENER (HEAD, or SINGLE-HANDED).—Thoroughly understands Kitchen and Flower Gardening, and Late and Early Forcing. Two years' excellent character from his last situation.—A. B., Post Office, Hurstmonceux, Sussex.

GARDENER (HEAD, or good SINGLE-HANDED).—Age 32, understands Vines, Houses, Pits, Frames, and Flower and Kitchen Gardening.—W. P., Mr. Harlock's, Warrington, Peterborough.

GARDENER (HEAD, or SINGLE-HANDED).—Middle-aged, married; understands the Management of Vines and Cucumbers, Flower and Kitchen Gardening, Early and Late Forcing, and Stock and Meadow Land. Six years' character.—A. B., 1a, Addiscombe Road, Croydon, Surrey.

GARDENER (HEAD), where three or four are kept.—Age 32, married, no incumbrance; understands Vines, Melons, Cucumbers, Stove and Greenhouse Plants, Flower and Kitchen Gardening, &c. Wife could Manage Dairy and Poultry if required.—G. E., at Mr. Gillings, Godstone, Surrey.

GARDENER (HEAD), where two or more are kept, in a Gentleman's Family.—Age 40, married, with family; understands management of Vines, Melons, Cucumbers, Wall Fruits, Stove and Greenhouse Plants, Kitchen and Flower Gardening. Twenty-one years' good character.—H. W., Herringswell House, Mildenhall, Suffolk.

GARDENER (HEAD), or NURSERY SALESMAN.—ANDREW MEIKLE, Road Hall, Whalley, Lancashire, is desirous of meeting with an engagement in either capacity.—Address as above.

GARDENER.—Married; understands Forcing, and Flower and Kitchen Gardening. Three years' good character.—E. M., Headington, Calne, Wilts.

GARDENER.—Married, one child; well understands the profession. Eight years' good character.—J. ROBINSON, 2, Beard's Place, Lime Road, Brixton.

GARDENER.—Age 37, married, respectable; perfectly understands Forcing Houses, Greenhouses, Orchard Houses, &c. Four and a half years' good character.—J. ARNOLD, Boscombe, Ringwood, Han's.

GARDENER.—Age 34, married, small family; experienced in Chatsworth and Kew Gardens; several years' experience as Head; has recently left a model Garden. Wages, 21s per week, cottage, fuel, &c.—GARDENER, Mr. Cant, Nurseryman, Colchester.

GARDENER.—JOHN STEVENS, formerly of the Royal Horticultural Gardens, Chiswick, and for many years Gardener to F. E. Williams, Esq., Malvern Hall, Solihull, one of the principal Exhibitors of Plants, Fruits, and Flowers in the Birmingham district, is open to an Engagement, on account of the breaking-up of the Establishment. Accustomed to the Erection of Fruit and Plant-houses, Heating Apparatus, Measurement and Sale of Timber, Management of Covers, and to the General Superintendence of a large number of Men. Excellent character from recent Employers. Liberal wages expected.—Address as above.

GARDENER (SINGLE-HANDED), in a small quiet family.—Middle-aged, no incumbrance; good references.—Y. Z., Post Office, Witham, Essex.

GARDENER (UNDER), or can take the Management of a Garden with Greenhouse.—Age 24, single; good reference.—W. D., Post Office, Westerham, Kent.

GARDENER (UNDER), to assist in Nursery.—Age 24, respectable; good references.—A. E., 9, Canton Street, Upper Clapton, N.E.

GARDENER (UNDER), where Gardening is well carried out.—Age 25, married; well recommended by present and previous employers.—P. COCHRANE, The Deepdene Lodge, Dorking, Surrey.

GARDENER (UNDER).—Age 21, respectable; wishes to improve himself. Has been in a Small Garden for the last two years, and from which he can have an excellent character.—J. H., Edmonds, News Agent, Clapham, S.W.

GARDEN and ESTATE SUPERINTENDENT.—A Gentleman's Gardener (age 60), with 40 years' practice as Principal in good Gardens, desires a situation as above. Wages left to Employer after being approved of, and then low wages accepted, with cottage or lodge to live in, and firing and vegetables found. One Daughter, age 30, as Housekeeper.—W. M., 1, Cromwell Terrace, Grove Road, Hounslow, W.

FOREMAN, in a good place.—Age 23; eight years' first-class experience. Highest references.—State full particulars to A. F., Post Office, Kingston-on-Thames.

FOREMAN.—Age 25; has had 11 years' experience in first-rate Gardens.—J. ROBERTS, Chanel, Ford, near Shrewsbury.

FOREMAN, in the Houses in a Gentleman's Garden.—Age 25, nearly two years in last situation. Unexceptionable references.—H. B., Post Office, Beckenham, Kent, S.E.

FOREMAN, in a Nobleman's or Gentleman's Garden.—Age 28, single; thorough experience in all branches. Good references.—O. G., 4, St. George's Terrace, Hurstpierpoint.

FOREMAN, in a Nobleman's or Gentleman's Garden.—Age 24, single; has filled similar situations before. Unexceptionable references from last employer.—D. H., 2, Devonshire Place, Turnham Green, W.

FOREMAN (GROUND), PROPAGATOR, &c.—Thoroughly experienced in Roses, Fruit Trees, Shrubs, Ornamental Trees, &c. Knows Trees and Shrubs well, also their Botanical Names, and the Value of general Nursery Stock. Quick in the execution of Orders, and understands the general Routine of Nursery Work.—Unexceptionable references as to character and ability.—ALPHA, Post Office, Upper Gloucester Place, N.W.

FOREMAN (GROUND).—Age 33, 15 years' experience in some of the leading Nurseries.—C. E., The Crown House, Acton, W.

FOREMAN, or could Manage a Nursery.—Well up in all branches of Nursery Business. Steady and energetic. Unexceptionable references from previous employers.—C. D., 3, Howe Street, E.C.

FOREMAN, or UNDER, in a Nobleman's or Gentleman's Establishment, where Fruit Forcing is carried on. Has filled similar situation. Good character.—Y. Z., Hingham, near Attleborough, Norfolk.

PROPAGATOR.—Has a thorough practical knowledge of the Propagation of Hard and Soft-wooded Plants, Budding and Grafting.—A. B. C., 1, Eton Cottage, Bellingham, Bello Bridge, Acton, W.

IMPROVER, in a Nobleman's or Gentleman's Garden.—No objection to pay a Premium.—Mr. G. B., Hounslow.

FARM BAILIFF, at Michaelmas.—Thoroughly practical experience; a good Accountant, and a good Wife a good Dairywoman. Good references.—A. B., Roydon, Essex.

BAILIFF.—A Gentleman wishes to employ a Bailiff for his late Bailiff, and can strongly recommend as an active, intelligent, and thoroughly practical man, acquainted with all branches of his profession.—A. B., Ford Road, Hounslow, N.

BAILIFF (WORKING), or FOREMAN.—Thoroughly trustworthy, understands Dressmaking, Laundress and Dairywoman.—L. G., Post Office, Hounslow.

BOOK-KEEPER.—An experienced and qualified Book-keeper wishes for a permanent position in a Nursery and Seed Establishment. Is a good Penman, and Correspondence. Can refer to London Houses and to Employer.—Further particulars on application by letter to Gardeners' Chronicle Office, W.C.

TRAVELLER and SALESMAN, for a Nursery in either England, Scotland, or Germany, from Holland; having been some years in the latter country, and is quite acquainted with the trade in Germany, and Belgium, is quite acquainted with the trade.—Letters to be addressed to J. K., care of Mr. W. W., Terrace, Acre Lane, Brixton, London, or to J. K., Haarlem, Holland.

LODGE-KEEPER, &c., or any Situation.—Married; the Advertiser, having had a long and disabled from heavy work. Testimonials of the highest G. P., Gardeners' Chronicle Office, W.C.

WAREHOUSE FOREMAN, or in a Shop.—Manage a small Country Shop or Branch by married; highest testimonials.—W. M. S., 2, Clarendon Bridge Road, Battersea, S.W.

SHOPMAN, SHOPMAN and CLERK, or ASSISTANT SALESMAN.—Age 15; 11 years' Unexceptionable reference.—C. P., Messrs. Paul & Son Nurseries, Cheshunt.

SHOPMAN, or SECOND SHOPMAN.—A good experience, both Wholesale and Retail.—Once.—J. J. S., care of Toote & Co., 41, Westmoreland Street, London, W.

To the Seed Trade

SHOPMAN, or ASSISTANT.—Age 23, 7 years' experience in all branches of the Seed Trade. Good references.—E. Y., Post Office, York.

SHOPMAN (ASSISTANT).—Age 22, 10 years' experience in the Seed Trade. Good references.—J. T. Gibbs & Co., corner of Half-moon Street, Piccadilly, W.

GROOM, &c.—Age 19; to see after a Horse or where a Cow or two are kept; would be required.—S. T., Post Office, Biddow, Chesham, Bucks.

DINNEFORD'S FLUID MAGNESIA.—The best remedy for Acidity of the Stomach, Headache, Gout, and Indigestion; and the best for delicate constitutions, especially adapted for Children and Infants.

DINNEFORD AND CO., 172, New Bond Street, and of all Chemists throughout the World.

CORNS and BUNIONS.—A Gentleman, tormented with Corns, will be happy to afford information by which he obtained their complete removal, without pain or any inconvenience.—Forward stamped envelope to F. KINGSTON, Esq., Ware, Herts.

COCKLE'S ANTIBILIOUS.—THE SAFEST FAMILY APERIENT.

In boxes at 1s. 1½d., 2s. 9d., 4s. 6d., and 10s.

COCKLE'S ANTIBILIOUS.—in use the last 69 years for INDIGESTION.

In boxes at 1s. 1½d., 2s. 9d., 4s. 6d., and 10s.

COCKLE'S ANTIBILIOUS.—in use the last 69 years for BILIOUS AFFECTIONS.

In boxes at 1s. 1½d., 2s. 9d., 4s. 6d., and 10s.

COCKLE'S ANTIBILIOUS.—in use the last 69 years for LIVER COMPLAINTS.

In boxes at 1s. 1½d., 2s. 9d., 4s. 6d., and 10s.

COCKLE'S ANTIBILIOUS.—THE OLDEST PATENT MEDICINE.

In boxes at 1s. 1½d., 2s. 9d., 4s. 6d., and 10s.

THE MARVEL OF SCIENCE.—Cure for SELF-ADJUSTING CURATIVE and MENTAL Sufferers from nervous debility, indigestion, and other ailments. Guaranteed to cure. Now cure themselves by the only Guaranteed Remedy protected and sanctioned by the Faculty of Medicine. Free for One Stamp, by H. JAMES, Esq., Medical Director of the London Hospitals, Percy House, Bedford Square, W. N.B.—Medicine and Fees superseded. A Testimonial. Established 1840.

The Best Remedy for Indigestion.

NORTON'S CAMOMILE PILLS.—Recommended as a simple but certain remedy. They act as a powerful Tonic and general. Their operation is safe under any circumstances. Persons can now bear testimony to the benefit of their use. Sold in bottles at 1s. 1½d., 2s. 9d., and 4s. 6d. in the Kingdom. CAUTION.—Be sure to get the PILLS, and do not be persuaded to purchase the cheap imitations.

BILIOUS and LIVER.—Indigestion, Sick Headache, Loss of Appetite, Giddiness, Spasms, and all Disorders of the Liver are quickly removed by that well-known Remedy, NORTON'S CAMOMILE PILLS. They unite the recommendation of the most successful operation with the most successful effect, and require nothing can be better adapted.

Sold by all Medicine Vendors, at 1s. 1½d. and 4s. 6d. or obtained through any Chemist.

**The Gardeners' Chronicle
Newspaper.**

SATURDAY, SEPTEMBER 18, 1869.

FOWLER'S PATENT STEAM PLOUGH
CULTIVATOR may be SEEN at WORK in every
County in England.
Particulars apply to JOHN FOWLER and CO., 71, Cornhill,
E.C.; and Steam Plough Works, Leeds.

IRON HURDLES
(Silver Medal of the Royal Agricultural Society).
SHEEP, 3s. 5d.; CATTLE, 4s. 2d.; OX, 4s. 11d.
List by post. GATES and FENCING of every description.
St. Pancras Iron Work Company, 10, St. Pancras Road, London, N.W.

THE TANNED LEATHER COMPANY.
Armit Works, Greenfield, near Manchester
TANNERS, CURRIERS, and MANUFACTURERS of IMPROVED
TANNED LEATHER DRIVING STRAPS for MACHINERY.
PRIME STRAP and SOLE BUTTS.
Price Lists sent free by post.
Warehouse: 81, Mark Lane, London, E.C.

Caution to Gardeners.—When you ask for
SAYNOB AND COOKE'S WARRANTED PRIZE
PRUNING and BUILDING KNIVES, see that you get them.
Observe the MARK SAYNOB, also the corporate Mark, Ostrich
WARRANTED W.L. at which name are genuine.
S & C regret having to caution Gardeners and others, but are
obliged to do so in consequence of a complaint, of common
kind, having been made for the genuine one, and which has caused
many complaints to be made in them of Knives which were not of
their make, and of which are warranted both by Sellers and Makers.
S & C'S PRUNING and BUILDING KNIVES are the best and
the cheapest in the market.
Faxon Works, Sheffield. Established upwards of 125 years.

NOTICE.

- ROYAL HORTICULTURAL SOCIETY, LONDON.
- ROYAL ZOOLOGICAL SOCIETY, LONDON.
- ROYAL BOTANIC SOCIETY, LONDON.
- ROYAL BOTANIC GARDENS, DUBLIN.
- ROYAL BOTANIC GARDENS, LIVERPOOL.
- ROYAL BOTANIC GARDENS, CAMBRIDGE.
- ROYAL WINTER GARDEN, DUBLIN.
- ROYAL DEPARTMENT OF SCIENCE AND ART, LONDON.

It is with great gratification that we announce our permission to refer upon any occasion to the various

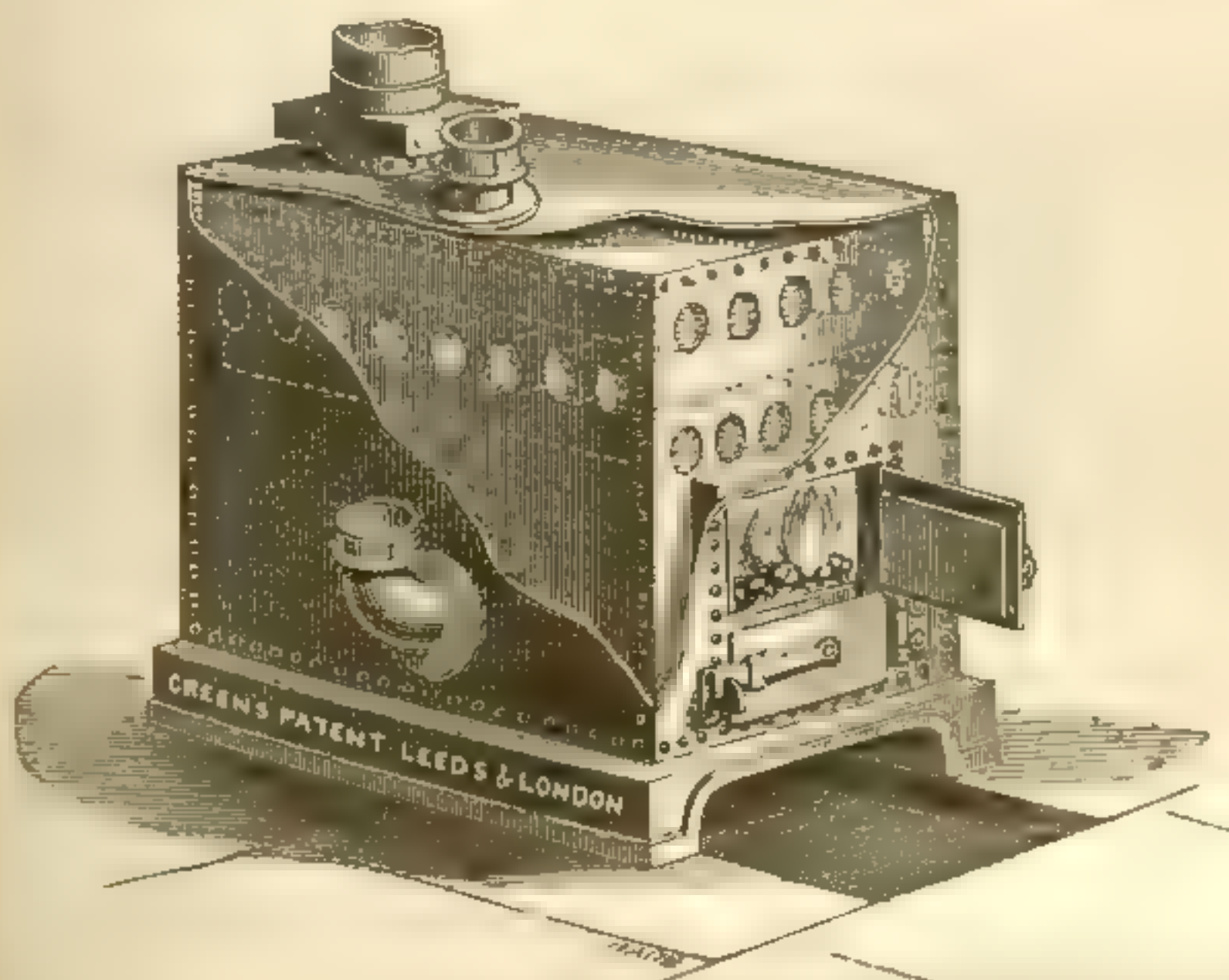
HEATING APPARATUSES at the above, where our "ONE BOILER SYSTEM"

HAS FOR YEARS BEEN SUBJECTED TO THE MOST CRITICAL TESTS WITH EVERY SATISFACTORY RESULT.
IT IS MATCHLESS FOR EFFICIENCY, AND IS WORKING THE LARGEST APPARATUS ON RECORD.

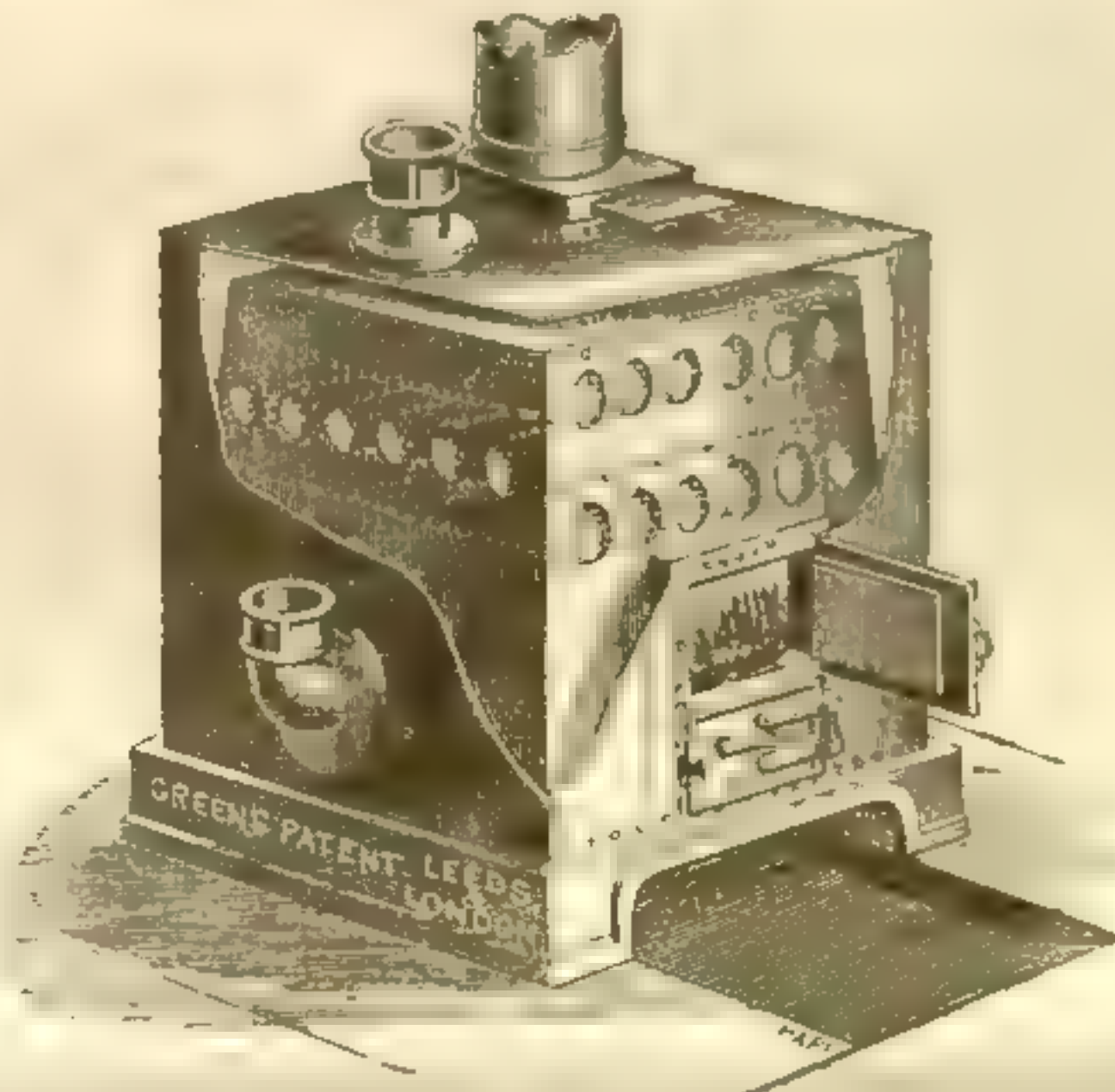
These are no theoretical statements, but positive facts, and it is not too much to add, that no boiler in Great Britain

For List of Details, see "ILLUSTRATED BOOK of DESIGNS" (12th Edition), which can be obtained by addressing a note to
JOHN WEEKS AND COMPANY, HORTICULTURAL ENGINEERS, &c., KING'S ROAD, CHELSEA, S.W.

GREEN'S PATENT IMPROVED TUBULAR HOT-WATER BOILERS



OBLONG BOILER.



SQUARE BOILER.

THE ABOVE BOILERS ARE

THE MOST EFFECTIVE AND DURABLE EVER INVENTED.

They can be set to work at a nominal cost, inasmuch as no brickwork is required; as will be seen from the above drawing, they are placed upon a Cast-Iron Sole-plate, which answers the purpose of Foundation and Ashpit.
From the peculiar and substantial manner in which these Boilers are made, they are warranted to last for years without getting out of order; in fact, we guarantee them for years, but feel convinced that they will serve all the purposes for which they are intended for a much longer period.
They are specially adapted for Heating Greenhouses, Churches, Chapels, Schools, Public Buildings, Entrance Halls, Warehouses, Workshops, &c.

THE FOLLOWING ARE THE ADVANTAGES OF THESE BOILERS:—

- 1st, They require no setting in brickwork.
- 2nd, They are complete in themselves, having perfect means of regulation.
- 3rd, They take up little room, and can be put in places inaccessible to other Boilers.
- 4th, They are economisers of fuel, owing to the great amount of heating surface upon which the fire acts in a direct manner, and the consumption of smoke.
- 5th, The fire can be made to last from 12 to 24 hours without attention.
- 6th, Any number of Flows and Returns can be annexed to the Boilers by means of T-pipes.
- 7th, By means of mud doors, they can be readily cleaned out when required.
- 8th, The Chimney is made of cast-iron, which can either be taken through a roof or turned into a flue, to meet the convenience of the situation that it may be fixed in.

PRICE LISTS ON APPLICATION.

THOMAS GREEN AND SON, SMITHFIELD IRON WORKS, LEEDS:
and 54 & 55, BLACKFRIARS ROAD, LONDON, S.E.

London mail train. His Royal Highness... at Marlborough House on Saturday morning... the Prince went to the Gaiety Theatre...

THE BISHOP OF EXETER.—It is... authority that the Bishop of Exeter, on... addressed a letter to the Archbishop of Canterbury...

BARONETRIES.—Mr. Titus Salt, of Saltaire... and Crow Nest, Yorkshire, and Alderman... M.P. for Greenwich, have received from the Queen the offer of a baronetcy...

MOVEMENTS.—There are now two... vacancies in East Cheshire, caused... by the death of Mr. E. C. Egerton...

COMMISSIONS.—The Beverley and... water Commissions have been sitting this week... the Norwich Commission will not reassemble until...

COMBINED FLEETS.—The ironclad fleet, consisting of 14 ships, arrived at Lisbon on Monday...

Foreign.

EMPEROR.—The Emperor's health continues to improve. On Friday, notwithstanding the rainy weather which prevailed, his Majesty drove into Paris...

The Government has determined to send 24,000 men to Cuba, and certain commercial firms in Havannah have offered to provide 20,000 to defray the expenses of their conveyance to the island...

PORTUGAL.—The crop of olives is reported to be a total failure throughout the country. On Wednesday the King visited Mr. Childers and the two admirals on board the British fleet...

BELGIUM.—The Belgian Government has replied to the circular note of Prince Hohenzoln, to the effect that the only line of conduct possible with reference to the Ecumenical Council in Rome is one of complete abstention...

SWITZERLAND.—The conference on the St. Gothard Railway project assembled in Berne on Wednesday, in the Federal Palace, under the Presidency of M. Woltz, the President of the Swiss Confederation...

PRUSSIA.—On Monday, during the festivities at Koenigsberg, in honour of the visit of the King, a deplorable accident occurred. Owing to the crush of spectators, the railings of a bridge gave way...

AUSTRIA.—Prince Charles of Roumania was received by the Emperor Francis Joseph on Friday. His Highness, together with the Prussian and Italian Ministers, dined at Court in the evening...

SAFELY COAST.—Dr. Peterman has received a first letter from the German expedition to the North Pole, containing intelligence to July 29. Contrary winds and storms had detained the expedition until July in the North Sea...

RUSSIA.—A letter from St. Petersburg states that the Czar has been suffering at Livadia from attacks of melancholy, to which he is constitutionally subject, and that he refuses during entire days to see any one whatever...

ISTS, attended by members of the Universities of Gubla, Posen, and Poland, has been opened at Warsaw. M. Meyer, president of the Scientific Association, was chosen president, and M. Galinski, of Paris, vice-president...

ITALY.—Senor Ferrer's bill for the withdrawal of his resignation, which he had placed in the hands of King Victor Emmanuel, has been ordered to remain provisionally in force...

SICILY.—The fourth Congress of Italian naturalists has just been held in Catania, and was attended by upwards of 100 members. Professor Araras, of Catania, filled the president's chair. Papers were read by the president on the geology of Mount Etna...

TRINITY.—The Grand Vizier's second reply to the Viceroy of Egypt, which has already been announced, expresses the Sultan's satisfaction at the assurances given by his Highness of fidelity to the Porte...

EGYPT.—The visit of the Viceroy to Constantinople, for which all preparations had been made, has been deferred until October. The Viceroy objects to two of the conditions insisted upon in the Grand Vizier's second letter...

INDIA.—The Maharajah of Jeypore has been appointed a member of the Legislative Council of India, and has given a magnificent ball at Simla in honour of the Earl and Countess of Mayo...

EGYPT.—The visit of the Viceroy to Constantinople, for which all preparations had been made, has been deferred until October. The Viceroy objects to two of the conditions insisted upon in the Grand Vizier's second letter...

AUSTRALIA.—Australian papers state that a number of fine pearls, discovered at the fisheries carried on in the vicinity of Nicol Bay, Western Australia, have been exhibited in Melbourne. They are of great size and beauty, the most valuable among them resembling in shape and dimensions the eyeball of a large fish...

UNITED STATES.—Senor Lemus, the Cuban Envoy, had a long interview on Wednesday with Mr. Fish, the Secretary of State. President Grant and his family are making a tour through Pennsylvania. The Republicans carried the Maine election on Monday, re-electing Mr. Chamberlain as Governor by a majority...

DOCKYARD.—This dockyard as a naval establishment to-day, all work being stopped, the arts and crafts draughted to other...

LOSING OF SHEPNESS DOCK.—Inquiries made by some of the Shepness as to the truth of the Government had decided on Shepness as a naval establishment...

FIFES.—In consequence of the severe gales and on the coast of Belgium, a number of English Volunteers, bound to the...

CANAL.—The Canal Company has just issued orders for the navigation of the Suez Canal, on the 17th of November next...

EQUINOCTIAL GALES.—Since Friday last, the metropolis and suburbs were visited with storms, the equinoctial gales have set in with severity. On Saturday the thunderstorm between 4 and 5 o'clock, and was accompanied by rain, and a rapid succession of lightning...

EXPLOSION OF PARAFFIN AT SEA.—During the storm of Sunday night an explosion of paraffin occurred on board the steamship Lady Wodehouse in the Channel off Folkestone, while on her voyage from London to Dublin. On the port side of the vessel were stowed several barrels of paraffin oil, and on the starboard side some large cases of lucifers and vesuvian matches...

THE MAIL STEAMSHIP CAENATIC.—On Saturday the Peninsular and Oriental Company's steamer, Carnatic, while on her voyage from Suez to Bombay, ran on the Island of Shadwan, at the mouth of the Red Sea from the Gulf of Suez. It was seen that she must have run on the island at full speed...

safety, but lost everything they possessed. Another of the company's steamers the Sunda, rescued them from the island on the following day, or they might have all perished. The Carnatic had on board the mails for India. The following are the names of the passengers and officers lost:—

LOSS OF THREE YACHTS.—The schooner yacht Creusa, of 180 tons, belonging to Mr. W. J. R. Bout, was driven from her anchorage in Cherbourg harbour during the hurricane of Saturday night, and drifted on the rocks under Fort Hamade where she continued bumping until daybreak the men-of-war in the harbour taking no notice of the blue lights which she burnt as signals of distress...

ANOTHER FIRE IN THE STRAND.—Early on Saturday morning a fire broke out in a house in the Strand, opposite the Adelphi Theatre, occupied by Messrs. Innes & Co., wine merchants, and Messrs. Grey & Eskell, dentists. In a few minutes nine or ten steam and manual engines and 47 firemen were on the spot, but the fire was not extinguished until the premises had been gutted...

THE RELEASE OF THE FENIAN PRISONERS.—A preliminary demonstration of "Republicans of all nations" was held on Monday night on Clerkenwell Green, preparatory to the holding of a "grand demonstration of Republicans" in Trafalgar Square on Monday next. The object of the movement is described as being "to promote the release of the political prisoners."

ATTEMPTED MURDER AND SUICIDE.—On Sunday morning a young man named James Gobey, 21 years of age, living in Schoolhouse Lane, Stepney, attempted to murder a girl named Mary Anne Chambers, 17 years of age. They had been living together until a few weeks ago, and had one child about seven months old; but he treated the girl with such brutality, that some weeks ago she returned to her mother. On Sunday the man went to the mother's, and, after some altercation, seized the child and took out his knife to murder it. Two women prevented him from accomplishing his purpose, and at that moment the girl herself came in, upon which he stabbed her in two places, and then rushed into a back room and cut his own throat...

MURDER AND SUICIDE AT POPLAR.—On Tuesday morning the neighbours of a mechanic named Jonathan Judge, residing at St. Leonard's Road, near the East India Docks, finding that the shutters were closed at nearly 10 o'clock, broke into the house, and found the whole family very dead in the bedroom, suffocated by the fumes of gas. The wife and her two children, with their bodies on the floor, and the man across the bed. A tin tray was on the floor with a tin pan upon it, containing the expiring embers of the charcoal. The windows and every crevice were stopped by paper pasted over them, and in the room were two chairs of paper furniture. The furniture to read yes, and one of them was staked with the cushions of both, fastened, and was shown that she was a party to the crime. A fact which, was used to frighten her children being distressed. As the report on Wednesday it was stated that the husband, who had served in the 24th Foot in India and was considered a sober steady man, had been out of work for three weeks, and that the whole family had been in great poverty. The jury, after deliberating for an hour, returned a verdict of Willful Murder against Jonathan and Clara Judge for destroying their two children, and of Suicide while in a state of unusual mind in regard to themselves.

THE PUBLIC HEALTH.—The Registrar-General's Weekly Return states that in the week that ended on Saturday, Sept. 11, 1876 births and 3561 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 27 per 1000 persons living, being 20 per 1000 in London, 24 in Edinburgh, 22 in Dublin, 21 in Bristol, 25 in Birmingham, 31 in Liverpool, 20 in Manchester, 24 in Salford, 27 in Sheffield, 26 in Bradford, 22 in Leeds, 33 in Hull, 24 in Newcastle-upon-Tyne, and 27 in Glasgow. In Paris the annual rate in the week ending September 11 was 21 per 1000. The rate in Vienna during the week ending the 14th inst. was 25 per 1000. In London the births of 1069 boys and 1058 girls, in all 2127 children, were registered in the week. In the corresponding weeks of 10 years, 1859-68, the average number, corrected for increase of population, was 2055. The deaths registered in London during the week were 1601. It was the 36th week of the year, and the average number for that week, corrected for increase of population, was 1332. The present return is therefore 269 above the estimated amount.

Provincial.

ALDERSHOT.—On Saturday morning Inspector Smith, of the metropolitan police, arrested three men in the act of robbing one of the Government forage barns at Aldershot. For some time past suspicions had been excited, and a watch set over several of the stores. The men arrested on Saturday were Stephen Chandler, agent for Mr. Harry Loney, of Norwich, contractor for the supply of oats and hay to the troops at Aldershot; James Spring, carrier in the employ of Chandler; and Corporal Henry Jones of the Cammussariat Staff Corps. It appeared that Sergeant Luscombe, of the metropolitan police, who was watching the East Cavalry Barracks forage barn on Saturday morning, saw Chandler and Spring drive up to the barn, at the door of which they were met by Corporal Jones, the non-commissioned officer in charge, who unlocked the door, and helped the others out with the sacks of oats, which were put into the cart. The door was then locked again, and Jones was in the act of going away when the arrest was made. Subsequently a search-warrant was obtained, and Chandler's house at Ash examined, when 19 sacks of oats, of the presumed value of 157, were discovered. Later in the day the prisoners were taken before the chairman of the petty sessions, and remanded until Thursday, when they were all committed for trial at the quarter sessions, but admitted to bail.

BIRMINGHAM.—On the new burgess roll for this borough there are the names of upwards of 2000 women, and for Edgbaston, 475.

BOLTON.—On Saturday night the Hon. Algernon Egerton, M.P. for South-east Lancashire, laid the foundation stone of a new school at Hawkshaw, and spoke at some length on the public questions of the day, making special reference to the Irish Church, the land question in Ireland, and the French treaty. In speaking of the latter he said that he had always been a free trader himself, and differed in that respect from a great many good Conservatives, but he was bred up in free trade notions in the school of Sir Robert Peel. This question of the French treaty, however, was a different thing, and though Mr. Bright had told them that those who had notions upon free trade contrary to his own must be knaves or fools, yet he (Mr. Egerton) ventured to dissent from him. There were no doubt many flagrant anomalies and injustices contained in the French treaty. It pressed to a certain extent upon the silk trade of this country, and he believed to some extent also upon the importation and exportation of bleached cloth, both in this country and out of it; and in other cases there were minor regulations which ought to be altered.

BRISTOL.—The Formidable, 78 guns, which has been granted by the Government as a training ship for destitute boys of this city, arrived on Saturday from Sheerness, and anchored off Portishead. She left Sheerness on the previous Monday, and was towed round by a Liverpool steam tug-boat. She encountered a rough passage, and did not reach Portishead till Saturday afternoon.

COVENTRY.—At the annual meeting of the Warwickshire Agricultural Society on Tuesday, Mr. Newdegate, M.P., made the following remarks on the Irish land question.—

"I come from the atmosphere of the House of Commons, and all that I can say of it is that at the close of last session the members of the House appeared to me to have suffered from it very severely. There was a general wash-out. The limits of these islands would not confine the members. They went by flocks to the German baths as though they needed some system of purification. Mr. Gladstone himself was not

offer are soft and in bad condition. Essex dwarf Rapeseed is without alteration. We have had a brisk demand for winter Tares, these are in very short supply, and must be quoted 1s. to 1s. 6d. per bushel dearer. We have some new foreign Canary seed just to hand, the quality of which is very good. Hemp seed continues scarce and dear. As yet there is little if any inquiry for Trefoils and Clovers, no doubt a speculative demand will soon spring up. In winter Barley, Oats, and Rye we have no change to report.

JOHN SHAW & SONS, 16, Water Lane, E. C.

WANTED, a first-class PROPAGATOR (indoors) of Hardy Plants, such as Conifers, Rhododendrons, &c. Must furnish unexceptionable references as to ability, sobriety, &c. A. Z., Gardeners' Chronicle Office, W.C.

WANTED as PROPAGATOR and GROWER of SOFT-WOODED PLANTS, a middle-aged, sober, civil Man. Wages £1 per week. Apply by letter only, stating age and where last employed. JOHN MORSE, Nurseryman, Dursley.

WANTED, a GARDENER and his WIFE, without any children, to live in a lodge in Staffordshire. The Man must be a good Working Gardener, and understand the management of Vines and Orchard house. The Wife will be required to attend to the Lodge Gate. Wages, 20s. per week, rent free. Apply, by letter only, to Y. Z., Gardeners' Chronicle Office, W.C.

To Gardeners.

WANTED, as SECOND GARDENER, an experienced Man. Apply to THOMAS SIMPSON, The Gardens, Broomfield Lodge, near Chelmsford, Essex.

To the Seed Trade.

WANTED IMMEDIATELY, an experienced and efficient Person, to MANAGE an extensive RETAIL SEED BUSINESS in a large Town. Apply to Mr. W. SKIRVING, Queen Square, Liverpool.

Traveller.

WILLIAM ROLLISSON AND SONS are in WANT of a TRAVELLER. None need apply but those who have a thorough knowledge of Plants, and the general Nursery Trade. The Nurseries, Tooting, London, S.W.

HANDY MAN REQUIRED as FURNACE MAN. Must well understand Painting and Glazing, &c. Liberal wages, and furnished room found. Apply to Mr. WILLCOCK, Gardens, Southwood, Hildenborough, Tunbridge.

WANTED, a strong active Man, who understands the WORKING of a STEAM ENGINE, for a Gentleman's place, 12 miles west of London. He must combine other duties with it; Carpenter and Glazier for rough work, or Milking Cows and Feeding Pigs, or Gardening work. Wages 18s. per week for a competent Man. Apply by letter, with all particulars, to L. D., Post Office, Hounslow, W.

WANTED, a BOOKING CLERK, with some knowledge of the Seed and Bulb Trade. Apply to WM. PAUL, Paul's Nurseries and Seed Warehouse, Waltham Cross, N.

WANTED, a YOUNG MAN, for a Florist's Shop. A little experience required in the Seed way. Apply by letter only, stating terms and references, G. D. TAVINER, Shepherd's Bush Green, W.

WANTED, an active Youth, who has about completed his Apprenticeship to the Seed Trade, as a JUNIOR ASSISTANT in a large Seed Establishment. Must have been accustomed to Vegetable, Flower, and Agricultural Seeds. Apply per letter, stating experience and wages expected, to D. 21, Post Office, Manchester.

WANTED, in the Seed Trade, an APPRENTICE. Premium expected. Address, by letter, X., Gardeners' Chronicle Office, W.C.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen. Further particulars given on application to Messrs. E. G. HENDERSON and SON, Wellington Nursery, St. John's Wood, London, N.W.

Michaelmas Engagements.

MR. T. BOWICK has the pleasure of recommending several tried and experienced Men as FARM BAILIFFS, FORESTERS, and WORKING FOREMEN; also HEAD CARTERS, SHEPHERDS, HERDSMEN, STEAM-ENGINE DRIVERS, &c.—Bedford, August, 1890.

Gardeners and Under Gardeners.

WM. CUTBUSH AND SON beg to state that they have at all times on their books MEN of various qualifications, whose characters will bear the strictest inquiry. Any Gentleman making application would save time by clearly stating the duties to be undertaken, wages offered, &c., so that suitable Men may be selected.—Highgate Nurseries, London, N.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS, and GARDENERS and BAILIFFS, of various qualifications, who are open to Engagements. The fullest particulars as to services required and wages given should be forwarded with application.—PAUL'S Nurseries, Waltham Cross, London, N.

To Gardeners and Bailiffs (Head, Foremen, or Under).

JAMES CARTER and CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those who can send unquestionable references need apply. Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & Co. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c. JAMES CARTER and CO., 237 & 238, High Holborn, London, W.C.

To NOBLEMEN, GENTLEMEN, and NURSERYMEN.

A Nurseryman and Market Gardener, who is relinquishing Business, will be at liberty to engage on October 11. Having had several years' practical experience in the above capacity, any one requiring a person of strict integrity and honesty, combined with a good education, may rely on the Advertiser as a suitable person. Testimonials of the highest character.—Communications addressed to A. B., Mr. Glyde's, St. Matthew's, Ipswich, will be promptly attended to.

TRAVELLER, COLLECTOR, &c.—Mr. CHARLES J. CLARKE, late of the Windmill Hill Nursery, Gravesend, begs to inform his numerous friends and others that he is entirely disconnected with the late Firm of C. J. Clarke & Brother. Such being the case, he is desirous of a situation as TRAVELLER, COLLECTOR, CORRESPONDENT, SALESMAN, &c., in all of which, and other capacities, he has had considerable experience. He would be happy to make himself useful, and to employ his extensive influence and connection in favour of any Firm employing him. Character and references the very best.—All letters on any matter intended for him, please address, Mr. CHAS. J. CLARKE, 2, Zion Place, Gravesend.

GARDENER (HEAD).—Has had thorough experience; good character.—J. B., Post Office, Woolstone, near Southampton, Hants.

GARDENER (HEAD).—Age 35, married, no incumbrance; has a thoroughly practical knowledge of the profession in all its branches, including Early and Late Forcing, &c. Good character.—W. G., Wellington Nursery, St. John's Wood, N.W.

GARDENER (HEAD).—Age 35, married; understands the general Management of Kitchen and Flower Gardens, also Pines, Grapes, and Stove and Greenhouse Plants. Five years in last place.—W. W., The Gardens, Quenby Hall, Leicester.

GARDENER (HEAD).—Age 34; well versed in all branches, also in Stock and Land, and Breeding and Rearing of Cattle. Six years' character.—E. E., Mr. Leznon's, Bookseller, Tooting, S.W.

IMPROVER, in Forcing and Greenhouse Work.—Age 17; three years' good character.—T. MARTIN, The Point, Newick, Uckfield, Sussex.

IMPROVER (in every department of Gardening).—A Young Man; would give services free for a month.—K. W., Stroutian Lodge, Cotnam, Bristol.

GARDENER (HEAD).—Age 37, married, Teetotaler; thoroughly understands the profession in its various branches. Well experienced in Growing Gardennias, Stephanotis, &c., for Market.—A. R., Beckenham Lodge, Beckenham, Kent, S.E.

GARDENER (HEAD).—Married, no incumbrance; thoroughly experienced in every branch of the profession. Can take the Management of Woods, Plantations, and Farm, or general Management of an Estate. Satisfactory references as to character and ability.—Y. Z., Messrs. Osborn, Nurserymen, Fulham, S.W.

GARDENER (HEAD).—Age 40, married; a steady, active Man; thoroughly practical in all branches of the profession. Seven years in last situation. Can be highly recommended. No single-handed place accepted.—A. B., 39, Exeter Street, Sloane Street, Chelsea, W.

GARDENER (HEAD).—Age 40, married, no family; thoroughly understands Early and Late Forcing, Fruit, Flower, and Kitchen Gardening. Wife to take charge of Poultry if required. Two years' good character.—S. R., 7, Cromwell Road, Upper Holloway, N.

GARDENER (HEAD).—EDWARD JONES, Gardener to Edward Martin, Esq., Kempton Hall, Loughborough, is desirous to obtain a situation in a good Establishment, where Horticulture is carried out with good spirit. Thoroughly practical in all branches of the profession. Will be at liberty October 23.

GARDENER (HEAD).—Middle aged; a practical Man, in Forcing of Pines, Vines, and Peaches; a good Cultivator of Orchids, Ferns, Stove and Greenhouse Plants; is well acquainted with Growing of Vegetables and Hardy Fruit; and has had extensive practice in the Flower Garden, Planting of Evergreens and Ornamental Trees. Can be recommended for ability, integrity, and good conduct.—Address, in the first instance, Mr. PORTER, Cross, Oswestry.

GARDENER (HEAD), age 28, married.—W. MOORE, Gardener to the Right Hon. Earl Brownlow, Belton House, Grantham, Lincolnshire, can with the greatest confidence recommend to any Nobleman or Gentleman requiring the services of a thoroughly practical, trustworthy, energetic, steady Gardener, a Young Man, with ample experience in Fruit, Vegetable, and Plant Cultivation, including Flower Gardening. No single-handed place accepted.—Mr. MOORE will be glad to answer any further inquiries addressed as above.

GARDENER (HEAD), or LAND STEWARD.—Middle-aged; highly respectable. Practical in all the branches of Horticulture. Good testimonials.—A. F., 273, Great College Street, Camden Town, London, N.W.

GARDENER (HEAD, or SINGLE-HANDED).—Age 32, single, understands both Indoor and Outdoor work.—W. P., Mr. Harlock's, Werrington, Peterborough.

GARDENER (HEAD, or good SINGLE-HANDED).—Married, understands the profession in all its branches. Three years' character.—W. H., Epsing, Newmarket, Suffolk.

GARDENER (HEAD, WORKING).—Age 24, single; eight years' excellent character. Can give first-class references from late employers.—W. H., Post Office, Dorking.

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GARDENER, in or near London.—Age 26, single; thoroughly understands the profession. Wages 18s. Twelve months' good character.—A. B., 3, Surrey Street, Croydon, Surrey.

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GARDENER (UNDER).—Age 20, single; good reference.—W. WELSFORD, Church Hill House, West Teignmouth, Devon.

GARDENER (UNDER).—Age 22; wishes a change. Can be well recommended.—H. D., 16, Norland Road, Notting Hill, London, W.

GARDENER (UNDER), or can take the Management of a Garden with Greenhouse.—Age 24, single; good reference.—W. D., Post Office, Westerham, Kent.

GARDENER (UNDER).—Age 21, steady; five years' good character.—W. B., Mr. Dimond, Baker, Crystal Terrace, Wandsworth Road, Clapham, S.W.

GARDENER (UNDER).—Age 20; strong, active, willing, and industrious; has been employed in the Plant Department of a noted Establishment for three years, and now wishes for a change to where the general branches of Gardening are carried on. Good character from present employer.—G. M., Post Office, Cookham, Berks.

A GENTLEMAN employing a deserving Man, of great talent and taste in FORMING some NEW GARDENS, is anxious to recommend him to any other Gentleman.—For particulars, address ULMUS, Mr. T. Bridgen, London Bridge, E.C.

GENERAL FOREMAN or WORKING MANAGER (with a view to Partnership or otherwise).—Long experience with several leading firms, including the one he is now leaving.—MANAGER, 2, Grove Villa, St. Peter's Grove, Hammersmith, W.

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PROPAGATOR (GENERAL), especially of Clematis, Rhododendrons, and Conifers.—R. C., Caterham Nursery, Caterham, Surrey.

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FARM BAILIFF.—Age 34, married; trustworthy and respectable. Has had practical experience in Farming, and in the Management of a Small Estate. Good Scholar, and accustomed to keep Accounts. Excellent references as to character and general ability.—Mr. STEPHEN REYNOLDS, Post Office, Crawley, Sussex.

FARM BAILIFF, at Michaelmas next.—Age 42, married; thoroughly understands the Management of Light, Heavy, and Mixed Soils, also Breeding, Rearing, and Feeding all kinds of Stocks; Land and Timber Measuring, Building, Draining, &c., and is a good Accountant. Twenty years' practical experience in the most approved System of Norfolk Farming. Wife can manage a Dairy and Poultry if required. Good reference.—N. O. P., Post Office, Worstead, Norwich.

IMPROVER, in Forcing and Greenhouse Work.—Age 17; three years' good character.—T. MARTIN, The Point, Newick, Uckfield, Sussex.

IMPROVER (in every department of Gardening).—A Young Man; would give services free for a month.—K. W., Stroutian Lodge, Cotnam, Bristol.

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SHOPMAN (or UNDER).—Age 24, good character. The Retail Trade. Nine years' experience.—A. A., Victoria Cottages, Waltham Cross, N.

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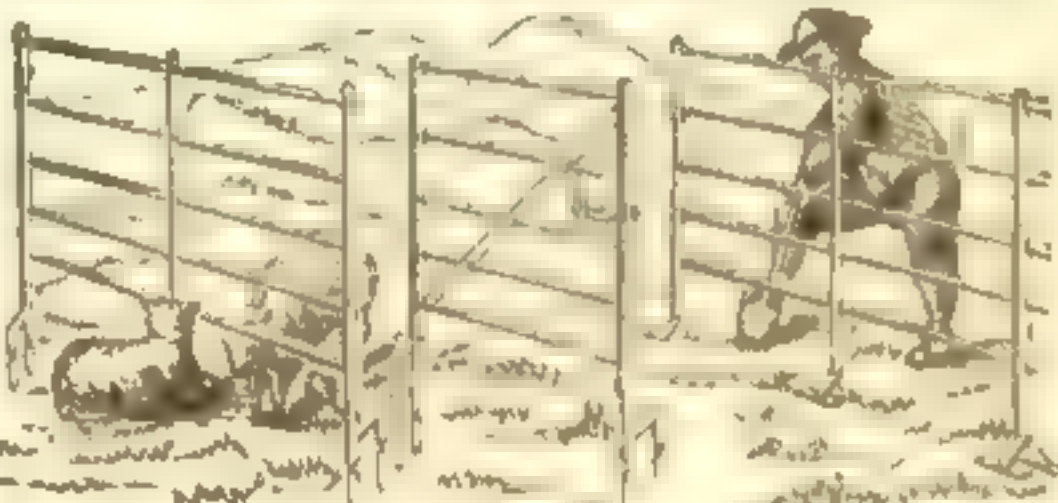
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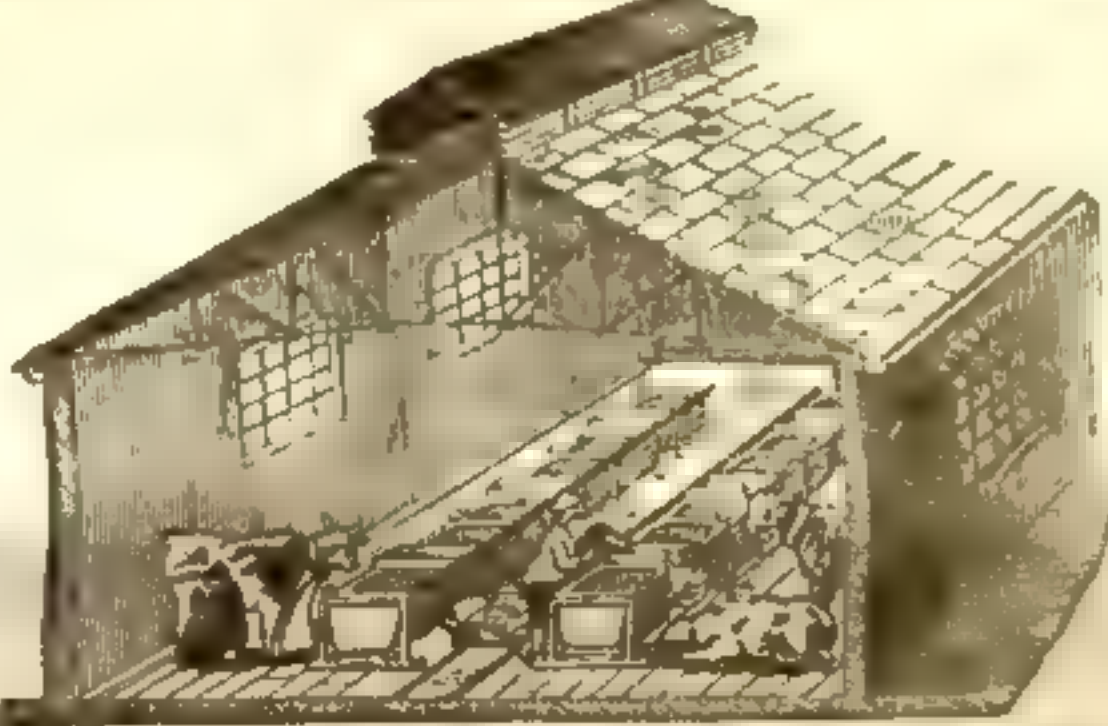
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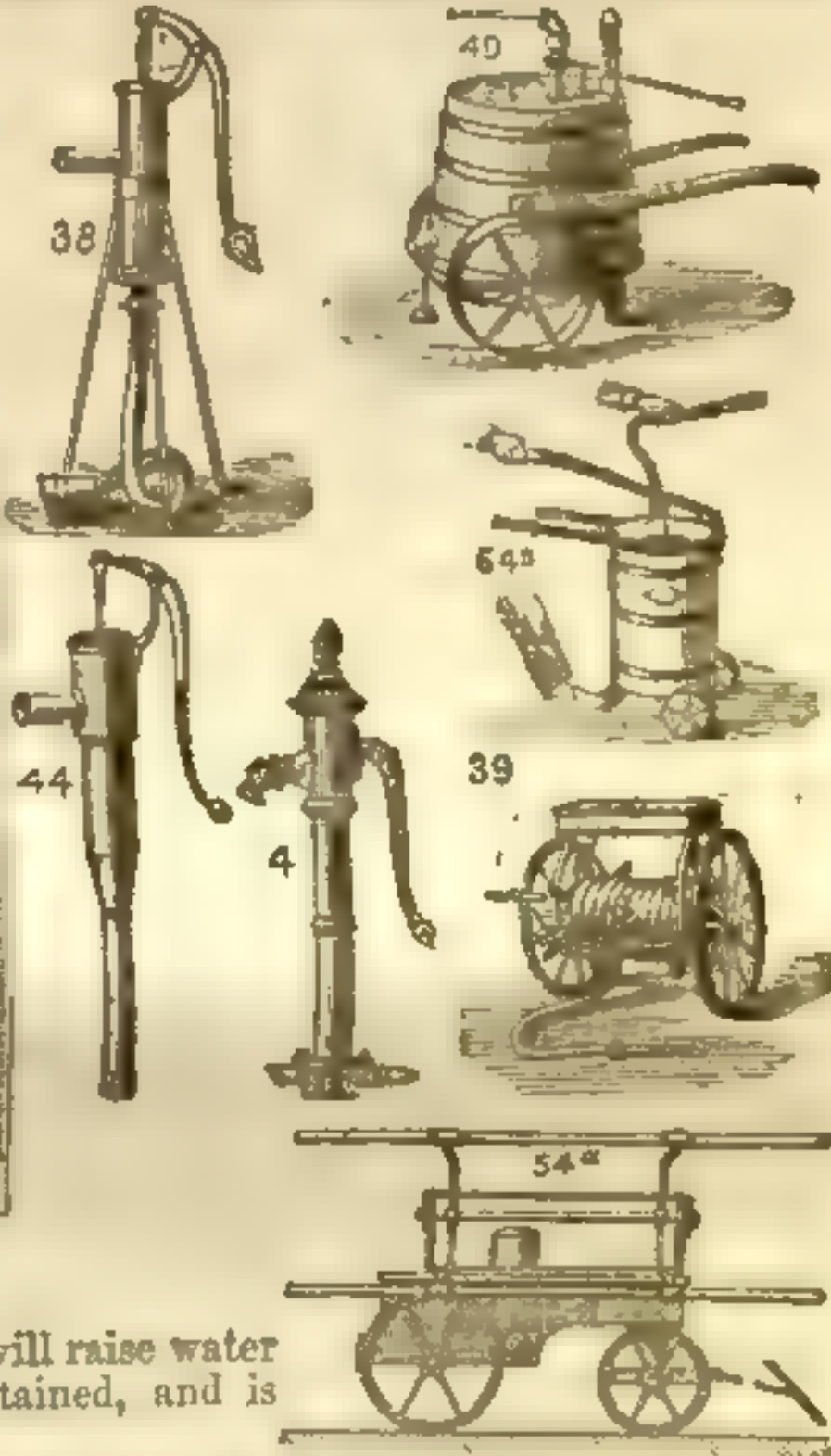
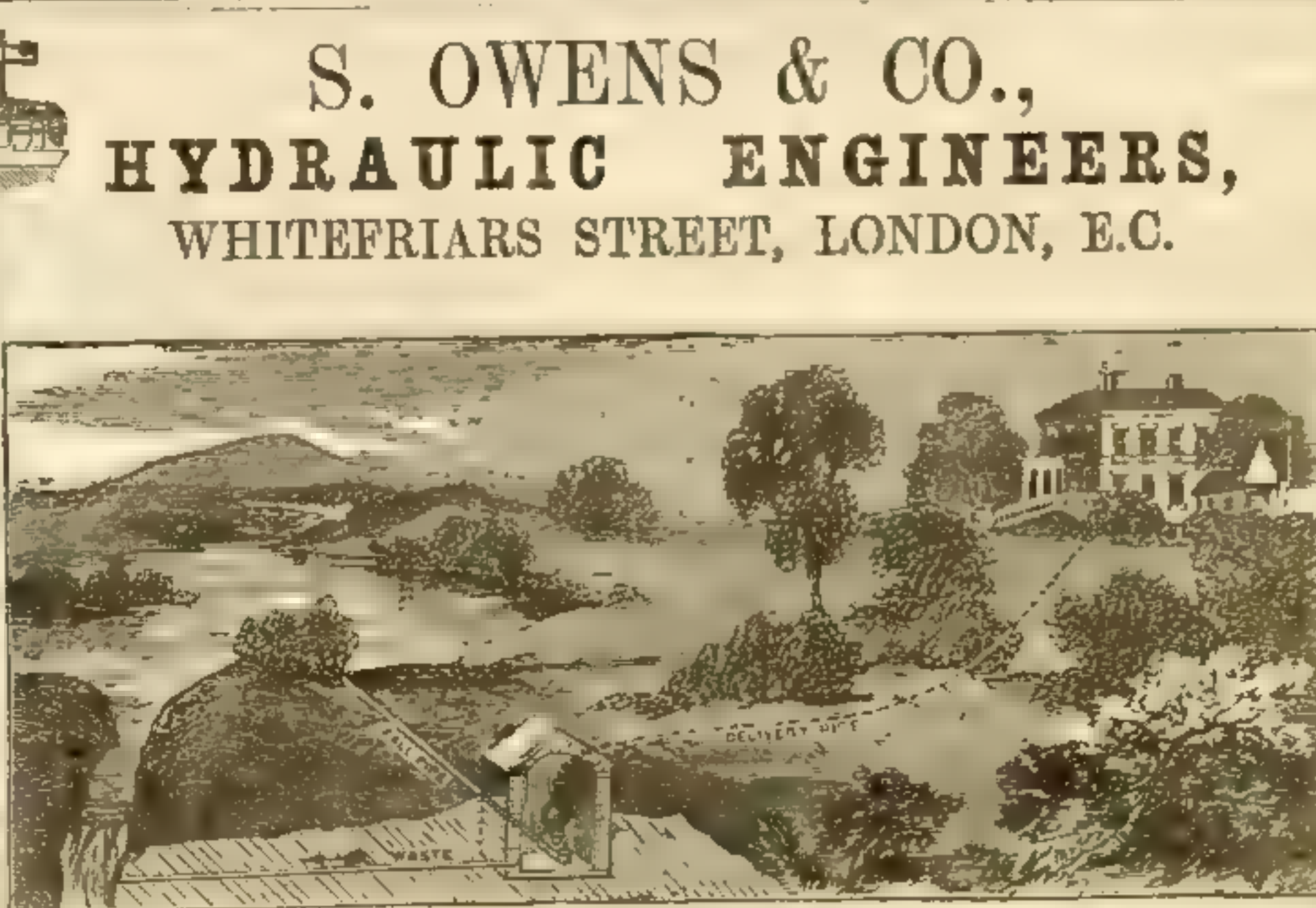
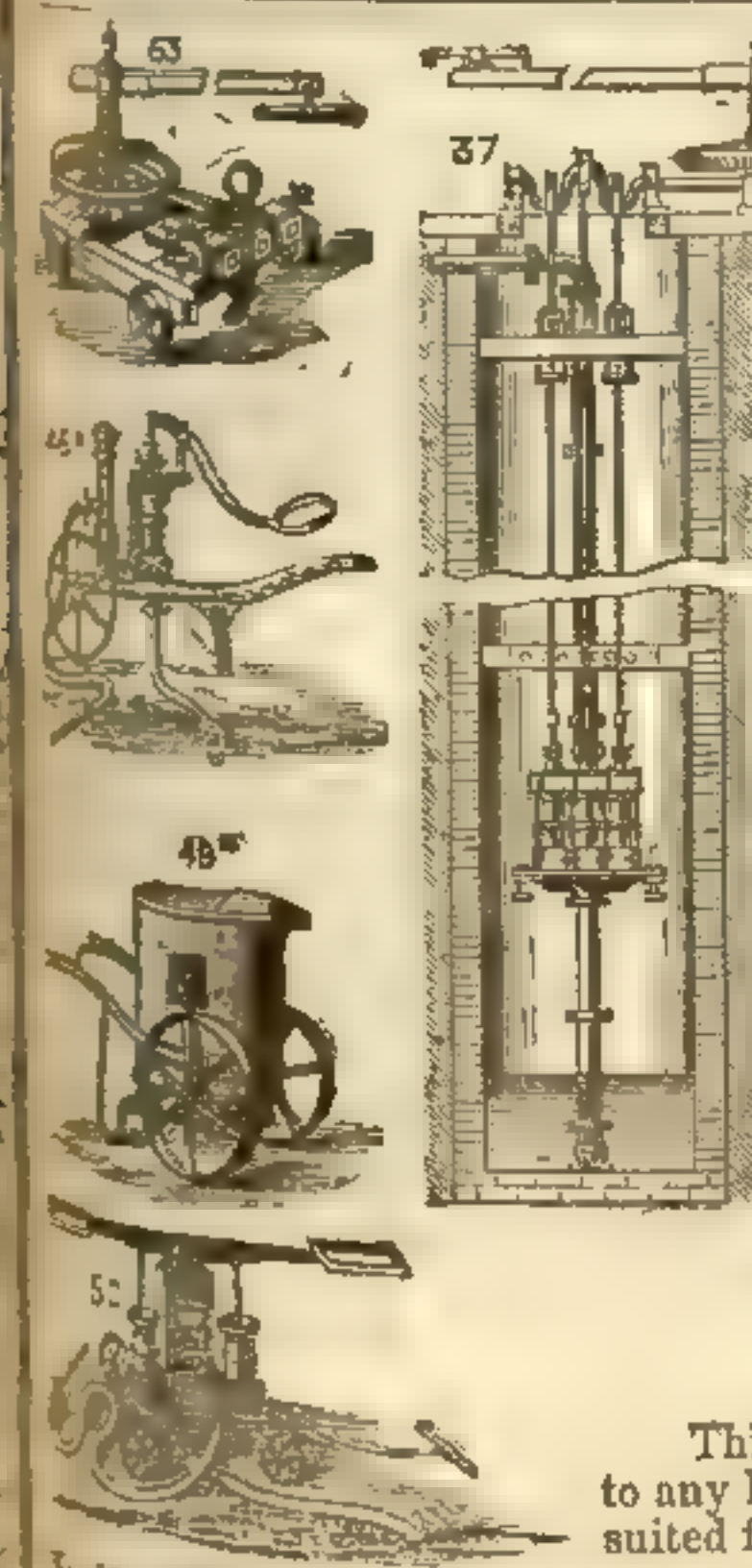
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JOHNSON AND SHAW'S FARMERS ALMANAC CALENDAR for 1870, will be published on October 11.

Linnean Society. This day is published, price 18s. MUSCI AUSTRO-AMERICANI. By W. A. MERRILL, A.L.S., being Vol. 12 of the Botanical Journal of the LINNEAN SOCIETY OF LONDON.

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WINTER and SPRING on the SHORES of the MEDITERRANEAN, or, the Rivers, Meadows, Corn, Sicily, Algeria, Spain, and Biarritz, as Water Colours.

By J. HENRY BENNETT, M.D. JOHN CHURCHILL AND SONS, New Burlington Street.

the civil lists, the palaces, all the armies, and not a single people; who reigned, governed, and organised at the present moment." He called upon them to "look at the future; to think of the day certain, inevitable, near at hand perhaps, when the whole of Europe would be cultivated like that noble Swiss country which welcomed them at that moment. That little people had its grandeur, it had a country which was called a Republic, it had a mountain which was called the Virgin. Like Switzerland, let them have a Republic for citadel, and may their immaculate and inviolable liberty be, like the Jung-frau, a virgin peak in full light. He saluted the future revolution!" This speech was received with a storm of enthusiasm.

PRUSSIA.—The Prussian Diet, in accordance with a Royal ordinance, is convoked for October 6, when it will be opened by the King in person. The King of Prussia was to pay a visit to Mecklenburg yesterday, to be present at the christening of the infant daughter of the Grand Duke. The Crown Prince and Princess, with their eldest children, will leave Berlin for Italy on October 5. The Crown Prince will subsequently proceed, by way of Brno and Constantinople, to Egypt, to be present at the opening of the Suez Canal, the Crown Princess, with her children, proceeding in the meanwhile to Switzerland. The 15th anniversary of the death of Blucher was celebrated on the 12th inst. with some solemnity at Kriebowitz, where his body is buried. The Humboldt Centenary Festival began at Berlin on the 14th, with the inauguration of the new park, which is to be called the "Humboldt-Hain." During the ceremony a telegram was received from the Crown Prince and Princess stating that Berlin honoured itself in celebrating the memory of its great citizen, the hero of science, the friend and faithful servant of his Sovereign, the man whose heart beat warmly for the people, and who merited, as few had done, the gratitude of his own age and that of posterity. The upper classes of Prussian society, however, testified their resentment at the advanced opinions of Humboldt, and the revelations of his friend Varnhagen, by absenting themselves altogether from the ceremony.

FRANKFORT.—The removal of the young men of this city who have been banished on account of their having adopted Swiss nationality commenced on Friday. Among others a son of one of the citizens, 16 years of age, was taken by the police to Offenbach.

SAXONY.—The Court Theatre at Dresden was totally destroyed by fire on Tuesday. The firemen were successful in preventing the fire spreading to the adjacent Museum, containing the celebrated gallery of pictures.

BAVARIA.—The Government recently requested the theologians of the University of Munich to inquire and report whether the relations between the Church and the State would be seriously affected by the Pope's Syllabus being adopted pure and simple by the forthcoming Ecumenical Council at Rome. The professors have rather evaded the direct question; but have expressed their opinion that some of the articles of the Syllabus are scarcely reconcilable with themselves, and that the Jesuit Father Schrader, who is its official exponent, has perhaps not thoroughly comprehended its real purport. At the same time a joint address has been issued by 19 German bishops who have recently met at Fulda, in which they say:—

"Never can, and never will, an Ecumenical Council establish a dogma not contained in Scripture or in Apostolical traditions, or proclaim doctrines in contradiction to the principles of justice, to the right of the State and its authorities, to culture, to the true interests of science, or to the legitimate freedom and well-being of nations."

AUSTRIA.—The State revenue during the first half-year exceeds the estimates by several millions of florins. This surplus is obtained both from the direct and indirect taxes. Field-Marshal the Archduke Albrecht has addressed a letter to the Emperor, proposing to form a fund for granting loans to officers of the army in poor circumstances, and presenting 110,000 florins as a first donation for this purpose. The Austrian Government has returned to the Italian Government all the Venetian manuscripts and books which belonged to the archives of the Venetian public library, and which were carried off by the Austrians when they left that city. It is said that among them there are some very curious volumes relating to the Inquisition.

GALICIA.—In the sitting of the Galician Diet on Tuesday the proposal of Herr Smolka, not to send members to the Reichsrath, was discussed on the first reading, and the motion to refer it to a committee was rejected. The proposal, therefore, has fallen to the ground.

GREECE.—King George and the Royal family returned to Athens on Sunday, after a stay of five months at Corfu.

ITALY.—The report of the official committee appointed to inquire into the causes of the grist-tax disturbances in Central Italy last January was published on Monday. The committee recommends an amnesty for all persons implicated through ignorance, the redistribution of the land-tax in the provinces of Reggio and Modena, the exemption of peasants from active service in the National Guard, the construction of a railway between Parma and the seaport of Spezzia, and the redistribution of the movable property-tax among the agricultural population in general. With reference to the grist-tax, the committee advises that ample facilities should be afforded to the Administration to make use of a mechanical teller, or to introduce constant personal supervision. Annexed to the committee's report is one by Signor Ferraris, who considers the railway referred to unnecessary. In other respects he says the Government is well disposed to support the recommendation of the committee. A report of Count Cambray-Digny is also appended, stating that the grist-tax is now being levied everywhere. He says:—

"Although the revenue budget of the current year be unsatisfactory, there is no ground for uneasiness for the future. The Government has only to pursue the course marked out

for them in order to obtain from the grist-tax the sum necessary for securing an equilibrium of the budget, which it would be impossible otherwise to obtain. The amount of the tax collected to the end of August was 9,959,944 lire, and the amount due 19,732,764."

In addition to the loan of 60,000,000 of lire, concluded with certain foreign banking establishments, Count Cambray-Digny has negotiated a loan of 7,000,000 lire with the Bank of Naples. General the Maréchal Cadogan was present at the military manoeuvres at Borgo San Lorenzo on Sunday and Monday. Signor Luigi Poletti, the most celebrated Italian architect, has just died at Milan, aged 77. His last work was the reconstruction of the church of St. Paul at Rome, which the Pope desired to have terminated by the period fixed for the opening of the Council.

TURKEY.—A telegram from Constantinople states that the difficulty between the Porte and the Viceroy of Egypt remains unsettled. It is stated that the French, English, Austrian, and Italian Governments are in favour of the withdrawal of the demands as to the budget and foreign loans, but the Porte remains firm. Under these circumstances, the Viceroy's visit to Constantinople is postponed for the present. The Porte has received an intimation that the Crown Prince of Prussia purposes visiting the Sultan in the course of October next. The Sals-Bazaar Palace will be prepared for his reception. An Arab tribe has revolted between Fao and Bagdad, and has cut the telegraph lines. Indian messages are telegraphed to Bagdad, and thence forwarded by estafette to Fao.

EGYPT.—The Viceroy has countermanded the preparations for his departure for Constantinople. The Italian squadron, under the command of the Duke D'Aosta, arrived at Alexandria on Monday. Prince Hassan left on the 14th for England, to pursue his studies at the University of Oxford.

CAPE OF GOOD HOPE.—Bishop Twells has left for Natal, after placing his resignation in the hands of the Bishop of Cape Town as metropolitan. The condition of some parts of the colony is deplorable, from the want of rain. News from the frontier states that the gold diggings were proving very successful. A large number of seekers were on the way to the diamond beds near the Vaal river. The Portuguese had ceded the southern part of Delagoa Bay to the Transvaal Republic.

INDIA.—The hulls of the Thunderer and Morayshire, which were lost in the cyclone that swept over the Bay of Bengal in 1867, have been discovered by some fishermen among the Sunderbunds. The Thunderer had 165,000*l.* in her bullion hold, and hopes are entertained that it may be recovered. Experiments have been successfully tried at Darjeeling and Calcutta, by which it has been proved that a brilliant gas can be got from sewage. It is now proposed to apply the process to some of the larger cities. The proceedings thus far have given so much satisfaction that the Indian Government has granted a sum of 4000 rupees for further experiments. The inventor of the process is sanguine that "the sewage of towns will turn out to be a great benefit, instead of remaining a singular nuisance."

CHINA.—The Austrian Embassy to China arrived at Peking on the 14th August. The iron ship Hamilla Mitchell, from Glasgow to Shanghai, has been totally lost on the Leuconna Rock, within 130 miles of her destination, with a cargo valued at 130,000*l.*, and specie to the amount of 50,000*l.* The crew saved themselves in the ship's boats, and reached the port in safety.

JAPAN.—The Duke of Edinburgh arrived at Jeddo on the 29th ult. Some of the principal Japanese priests are memorialising the Government to oppose Christianity.

UNITED STATES.—The members of the Cabinet have all returned to Washington. President Grant was expected at the White House on Wednesday. The Washington correspondent of the *New York Herald* states that the Administration will repudiate the action taken by General Sickles at Madrid with regard to Cuba. According to the *World*, Mr. Fish, the Secretary of State, insists on the recall of General Sickles. The remainder of the New York Press and numerous other journals, on the other hand, state their belief that the Administration approve the course taken by General Sickles and will soon recognise the belligerency of the insurgents. Mr. Walker was installed on Tuesday as Governor of Virginia, with the usual ceremonies. The New York Democratic Convention has adopted resolutions favouring the fullest protection of the rights of American citizens abroad, especially in Great Britain and Cuba, and charging President Grant's Administration with prolonging disunion for partisan purposes. The Massachusetts Republican Convention has renominated all the present State officers, and, on the motion of Senator Sumner, has adopted resolutions affirming that the United States suffered incalculable injury during the rebellion by the aid and encouragement given by Great Britain to the rebels, but that the question of the reparation to be offered or accepted was a matter for further consideration; the settlement of the American claims by the transfer of Canada to the United States being impracticable, inasmuch as Canada was already gradually approaching union with the United States.

CANADA.—Prince Arthur was cordially welcomed at Montreal on Saturday, at Toronto on Monday, and at London on Tuesday, on which day he visited the Industrial Exhibition at that place. The American Press continue to publish articles urging his Royal Highness to pay a visit to the United States.

BRAZILS AND PARAGUAY.—Accounts from Asuncion to the 15th ult. state that the allies had gained an important victory. Comte d'Eu, with the allied army, had taken Piribebin and Asourra. Lopez and Mrs. Lynch had fled. The Brazilian General, Mena Baretta, was killed in the battle. The Provisional

Paraguayan Government was formally installed on the 15th, and the war was at an end. There was much excitement in Buenos Ayres and Montevideo on account of the news.

City Intelligence.

MONEY MARKET, FRIDAY.—**BRITISH.**—Consols are 92½ to 93½ for Delivery, and 92½ to 93½ Account, New and Reduced Three per Cent. 2s. to 6s. pm.; June, 6s. to 10s. pm.; India 5 per Cent., 114½ to 114½—**FOREIGN.**—Argentine 80½; Brazilian, 83 to 83½; Egyptian (1864) 79½ to 79½; Ditto Nine per Cent., 79½ to 79½; Ditto (1868), 74½ to 75½; Viceroy's Seven per Cent., 52 to 52½; Ditto (Tobacco Loan), 79½ to 79½; Italian, 78½ to 79½; Portuguese, 33½ to 34½; Spanish, 27½ to 27½; Moscov, 83½ to 83½; United States 5-20 Bonds, 81½ to 82½; Illinois, 92 to 93.

Metropolis and its Vicinity.

FUNERAL OF LADY PALMERSTON.—On Friday afternoon the body of Viscountess Palmerston was buried in the grave of her illustrious husband in the north transept of Westminster Abbey. The procession consisted of a hearse and four boxes, and three mourning coaches containing the members of her ladyship's family. The first contained her son, the Right Hon. W. Cowper, her grandsons, Earl Cowper, the Hon. Henry Cowper, M.P., and the Hon. W. Cowper. In the second were her son-in-law, the Earl of Shaftesbury, with his sons, Lord Ashley, the Earl Evelyn Ashley, and the Hon. Cecil Ashley. In the third were her grandsons, Lord Jocelyn, Lord Sudley, Lord G. Jocelyn, Dr. Prothero Smith, and Dr. Drape. They were followed by a large number of private carriages among which were those of the Austrian, Russian, and Turkish Ambassadors, the Duchess of Inverness, the Duchess of Wellington, the Countess of Sutherland, Baron Rothschild, the Dowager Duchess of Somerset, Mrs. Lane Fox, Sir George Shee, Hon. F. B. St. John, Henry Bulwer, Sir George Bowyer, Mrs. Baker, &c. The service was performed by Lord John Thynne, sub-dean, assisted by Archdeacon Jennings and a Rev. Canon Nepean. The attendance of strangers at the Abbey was very limited; about 100 tickets for the north transept had been issued to the domestic staff of the family and their friends, while the few of the general public who were present as spectators were admitted to the nave. Before the arrival of the procession a startling incident occurred. A gentleman, who had entered the transept, and on passing the monument the head of the grave, the gentleman not perceiving the gloomy light, fell heavily into the open grave. He was at once extricated, with no further injury than a severe shake and a cut in the head.

REPLY OF THE POPE TO DR. CUMMING.—Archbishop Manning has received the following letter from the Pope, in reply to a letter recently addressed to the Holy See by the Rev. Dr. Cumming, asking for an invitation given to Protestants to attend the forthcoming Ecumenical Council was to be considered as allowing him to address the Council on doctrinal questions.—

"POPE P IUS IX. TO OUR VENERABLE BROTHER H. S. B. ALBISHOP OF WESTMINSTER.
"Venerable Brother,—Health and the Apostolic blessing. We have seen from the newspapers that Dr. Cumming, of Scotland, has inquired of you whether leave will be given to the approaching Council to those who dissent from the Catholic Church to put forward the arguments which they think can be advanced in support of their own opinions; that, on your replying that this is a matter to be decided by the Holy See, he has written to us upon the subject, and if the inquirer knows what is the belief of Catholics with respect to the teaching authority which has been given to our Divine Saviour to His Church, and therefore with respect to its infallibility in deciding questions which belong to dogma or to morals, he must know that the Church cannot permit errors which it has carefully considered, judged, and condemned to be again brought under discussion. This is what has already been made known by our letters when we said 'I cannot be deceived or deceived.'"
"Heath, in order that He might apply to all generations the fruits of His redemption, He has given to His Church—Peter His only Church—that is, the only holy Catholic and Apostolic Church—and gave to him all power on earth, so that for whatsoever he shall bind on earth, it shall be bound in heaven, delivering the same faith to all peoples, and tribes, and nations, we thereby signified that the primacy, both of jurisdiction, which was conferred upon Peter and his successors by the Founder of the Church, is placed upon a hazard of disputation. This, indeed, is the king upon which the whole question between Catholics and all who dissent from them turns, and from this dissent, as from a fountain, all the errors of non-Catholics flow. For, if the Church, which teaches mankind especially the things of faith and the rule of morals, and which also directs and governs them in whatever relates to eternal salvation, and which has varied in its teaching, if there be a change and instability never cease. If therefore an inquirer will consider either the primacy which is held by the Church as to the infallibility of its judgment, or what we have written respecting the primacy and teaching authority of Peter, he will at once perceive that no room can be left at the Council for the defence of errors which have already been condemned, and that we can, I do not have to say, Catholics to a discussion, but have only urged them to themselves of the opportunity afforded by the Council, which the Catholic Church, to which they themselves belonged, gives a new proof of its close unity and moral vitality, and to satisfy the wishes of their souls, by withdrawing them from a state in which they cannot be sure of their salvation. If, by the inspiration of Divine grace, they shall perceive their own danger, and shall seek God with their whole heart, they will easily cast away all preconceived and adverse opinions, and, laying aside all desire of personal glory, they will return to the Father from whom they have long

* The Letters Apostolic of September 13, 1868, addressed to all Protestants and other non-Catholics.

We, on our part, will joyfully run to... and embracing them with a father's charity, we... and the Church will rejoice with us, that our... were dead have come to life again, and that they... have been found. This, indeed, do we earnestly... have been found. This, indeed, do we earnestly... have been found. This, indeed, do we earnestly...

THE EUROPEAN ASSURANCE SOCIETY.—The... assurance collapse, that of the European... has been apprehended for some weeks, and is... to prove more disastrous than that of the... has been announced. Two petitions were... on Wednesday before Vice-Chancellor James for... up the society, and it was ordered that the... stand over until Saturday week, all receipts... of premiums being meanwhile kept separate... The outstanding policies of the society are stated... for an amount of between nine and ten millions... to which they are under contract... payment of annuities amounting, according to... statement, to 16,000l. per annum, but which... now to be considerably beyond that sum. The... revenue was more than 350,000l. The... was started in 1853, and the subscribed... about 900,000l., of which less than a... has been paid up. The company has taken... business of 33 other companies, and was... empowered by special Act of Parlia... with "the Royal Naval, Military, and East India... department as under the especial patronage of... Most Gracious Majesty the Queen," and also as... specially authorised by Parliament to guarantee... of Government officials."

ALBERT ASSURANCE COMPANY.—On Friday, on... the petitions to wind up this company, Vice-... Chancellor James, on the resignation of Mr. A. R. Kirby... Mr. Price sole provisional official liquidator... at Marlborough Street Police-court, Mr... on the application of Mr. Straight on behalf of... and other policy-holders, granted summonses... to-day, against the directors and managing... for conspiring together, between the years 1864... to defraud certain persons of various sums of... On Tuesday a meeting of the shareholders... on adjournment from a meeting held on the... which was intended to bring the company... the operation of the Joint-stock Companies'... This, however, has been rendered impracticable... the proceedings taken in Chancery, and the meeting... the appointment of a committee of five to... with the committee of policy-holders. Mr. Price... official liquidator, who attended the meeting, said... to a question, that he believed there had... an improper abstraction from the funds of the... and that every penny had been honourably... and expended. He thought the accounts would... the expenditure of every penny that had come... the hands of the directors.

GREENWICH HOSPITAL.—The final arrangements... the last batch of in-pensioners to leave Greenwich... under the new system of augmented pensions, a... minimum being 36l. 10s. per annum, were con... on Monday; and on Tuesday all the inmates, with... the exception of 10 or 20 of the aged and helpless... were removed from their wards in chairs, and... in omnibuses to be conveyed to the nearest... for places they had chosen as their future... in different parts of Great Britain and Ireland. Some... who thus accepted their discharge on the... allowance, left on the understanding that the... will be open to them in the event of failing... but seeing that they will in future be so widely... in different parts of the country, the re... are likely to be very few. Many of them are of... old age, and the inhabitants of a house in... where one of them had chosen his place of... refused to receive him, and he had to be taken... to the Hospital, where he was readmitted, as was... another extremely aged man, who had given the... of a street not in existence, where his friends, he... It is understood that those now under... treatment will be removed to other naval... establishments.

GREENWICH DOCKYARD.—On Friday this dockyard... after being open for about 300 years. Every... had been taken by the Government to render the... productive of as little local injury as possible.

HOUSLOW POWDER MILLS.—No less than... were suspended at the powder mills of Messrs... on Friday for having in their posses... and lucifer matches, each being searched as... on the premises. The men are provided with... of rules, and orders are posted in all parts of the... cautioning those employed not to carry either... matches.

LARGE FEETS.—About 500 English Volunteers... through Ostend on Friday, on their way to... They were met at the place of debarkation by... magistrates and other civic authorities, and by... Civic with a band playing. The whole town... out to see them. The *vin d'honneur* was pre... them at the railway station, and they departed... amid a scene of great enthusiasm. They... arrived by the same route on Saturday and... On Tuesday the handsome vase subscribed... English volunteers was presented to the... at the Hotel de Ville, in the presence of... of officers and men, who were received... entrance hall by a guard of honour of the fire... The King of the Belgians visited the... on the same day, and welcomed the Volunteers... which was received with great enthusiasm. On... the Burgomaster of Liège, and Alderman and... Cotton. It had been arranged that the Lord

Mayor should fire the first shot, and a Henry rifle was... handed to his lordship, but after tugging away at the... trigger for some minutes, he handed the rifle to the... burgomaster, who fired, and got the bull's eye which... was intended for the Lord Mayor. There is a deal of... grumbling at the arrangements; men say they do not... get their right scores, and though they are delighted... with Spa, they are disgusted with the shooting. It is... also said, that in consequence of the extortionate... charges of the hotel and lodging-house keepers of Lige, many of the Volunteers have returned to England, being unable to bear the expense of a longer stay.

INTENDED EMIGRATION OF FINLEN AND BROAD-HEAD.—Mr. Finlen having, according to his own statement, "failed during his 20 years' advocacy of political and social reform to free England of her aristocratic oppression," has resolved to sail for the New World, and an entertainment was given on Tuesday night, at the New Hall of Science, Old Street, St. Luke's, with the view of raising the necessary funds for him to pay his passage. A varied programme was provided for the occasion, and between 700 and 800 of the "friends of freedom," which included a large number of women and children-in-arms, responded to the appeal. Mr. J. P. McDonnell, who presided during the evening, eulogised the patriotism of Mr. Finlen, denounced the veal Press of England, and declared his everlasting adherence to the Republican cause. The performance then proceeded in the most orderly manner, in accordance with the arrangement of the programme, the crowning feature being a recitation, "The Jacobins of Paris," and a farewell address by Mr. Finlen himself. In the course of his speech he expressed himself strongly against the Press of England and Scotland Yard detectives, promised to work in America for the cause of England, and expressed a hope that the day was not far distant when England and America would walk hand in hand to sweep away the "odious aristocracy." The notorious Broadhead, of Sheffield, has also resolved to emigrate. Some months ago the magistrates declined to renew his license for the sale of spirits, and under the new Act for the regulation of beer-houses they have also taken away his beer license. A "Broadhead Emigration Fund" has been started, with the Rev. J. F. Witty, vicar of St. Matthew's, Sheffield, as the hon. sec. 20l. has been already subscribed, and money is said to be coming in liberally.

APPREHENDED HIGH TIDE.—Captain Saxby, R.N., about eight months ago addressed a letter to the papers, expressing his belief, founded on meteorological theory, that the period from October 5 to 7 will be marked by "high tides and destructive storms." The prediction has excited great alarm along the coast, and while Captain Saxby himself has been adjured to give assurances that the Channel Islands, and Jersey in particular, with the levels of Southsea, Portsmouth, &c., will all be in existence after October, the residents in the eastern counties have applied to the Astronomer Royal for information. In reply, Mr. Airy states that he has received more inquiries on the subject than he can answer, and refers all persons interested in the subject to the "Nautical Almanac," published by the Admiralty, in which are predicted the positions of the principal heavenly bodies for two or three years in advance, as well as the height and times of high water at numerous ports for the two tides on every day in the year. On examining these tables, says the Astronomer Royal, it will be seen that, though the tide of October 6 is the highest of the year, it is only 1 inch higher than the tide of February 28, which, he believes, did no mischief. "There is not, therefore," he adds, "the smallest ground for alarm in the height of this tide, as depending on the positions of the sun and moon. The most injurious tides are usually those which follow a continuance of heavy westerly or north-westerly winds on the Atlantic."

THE LOSS OF THE CARNATIC.—The Peninsular and Oriental Steam-ship Company have received the following telegram, dated Suez, Sept. 18:—

"Carnatic struck reef two miles north of Shadwan. When left part of starboard bow and after foretopmast nearly level with water and only visible. Ship supposed to have parted amidships, and after part sunk in deep water. Specie and mails forward; hope to recover. Cargo hopeless. Further appliances unnecessary."

The only mail that was on board was the Indian mail which left London on Sept. 3. Captain Pope, one of the passengers lost, was on his way to join his regiment in India, as was also Ensign Cuppage, son of Brigadier Cuppage. Mr. T. A. Thompson was a surgeon in the Peninsular and Oriental service, and was proceeding to Bombay to join his ship. Mr. Warren was also in the company's service. A special officer of the London Salvage Association, Captain Grant, left London last week with two divers, for the scene of the wreck, to recover, if possible, the 40,000l. specie, or part of it.

THE FENIAN PRISONERS.—On Monday evening a demonstration, organised by the "International Democratic Association" for the purpose of promoting the release of the Fenian prisoners, was held in Trafalgar Square. As usual on such occasions the speakers addressed their audience from the platform of the Nelson monument, which was duly illuminated by a few lamps suspended from a pole. At half-past 7, when it was quite dark, Mr. G. H. Moore, M.P., began to address the meeting, which was insignificant as an expression of the opinion of the metropolis. He said that he had been taken to task for what he had said some time ago, but he now repeated in England the words he had enunciated before his constituents across the Channel. The English people were generous and merciful, but the Government was cruel, barbarous, and bloody. Having sketched the history of penal legislation in England, where he said not very long ago scores of people were sent to the scaffold for trivial offences, he repeated what he had said some days ago in Ireland, that the diadem of England had been the black cap, and its throne had been the gallows. England

had been the greatest country in the world for effecting the demoralisation and degradation of man. The government of Ireland had been beyond all extenuation. He trusted not in the English Lords and Commons, but in the justice of the English people for the redress of the grievances of which he complained. How were the criminal statutes to which he had referred wiped out? The Lords, Commons, and clergy were willing to offer the ghastly oblation to the devil, but the juries, consisting of Englishmen, were unwilling to be parties to the homedial cruelty of the judges. He hoped that every town in England would show forth its moral strength, and would assert that the strong should not oppress the fallen. The prisoners for whom he pleaded had engaged in a fatal enterprise. He had warned them in vain against entering on it. They should consider at the same time that the Government had been bad and their objects had been honourable. They had not stained their purpose by a single act of violence or plunder. They had been convicted of treason-felony. He admitted the treason-but he denied the felony. The following resolutions were then unanimously carried:—

1. That while this meeting fully recognises the right and the duty of the Executive to repress and punish all illegitimate resistance to its authority, it is of opinion that such punishment should be limited by the nature and extent of the insurrection and the personal guilt of the insurgents.
2. That in all these circumstances it is the duty of the Government to extend to the prisoners still confined for political offences have been more than sufficiently punished, and that the extension of a full and unconditional amnesty to these men would advance the cause of good government throughout the empire.

Messrs. Weston, Johnson, Bligh, Bradlaugh, Hennessey, and Murray, subsequently addressed the meeting, some of them in very violent language. The meeting occupied upwards of two hours and a-half.

THE PUBLIC HEALTH.—The Registrar-General's Weekly Return states that in the week that ended on Saturday, Sept. 18, 4321 births and 3109 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 25 per 1000 persons living, being 23 per 1000 in London, 25 in Edinburgh, 25 in Dublin, 29 in Bristol, 23 in Birmingham, 30 in Liverpool, 28 in Manchester, 21 in Salford, 26 in Sheffield, 31 in Bradford, 27 in Leeds, 21 in Hull, 28 in Newcastle-upon-Tyne, and 25 in Glasgow. In Paris the annual rate of mortality in the same week was 23 per 1000. The rate in Berlin during the week ending the 16th inst. was 20 per 1000, and in Vienna 27 per 1000 during the week ending the 11th inst. In London the births of 957 boys and 937 girls, in all 1944 children, were registered in the week. In the corresponding weeks of 10 years, 1859-68, the average number, corrected for increase of population, was 2087. The deaths registered in London during the week were 1409. It was the 37th week of the year, and the average number for that week, corrected for increase of population, was 1306. The present return is therefore 108 above the estimated amount.

Provincial.

BARNSELEY.—A fire broke out on Monday at the bottom of the cupola shaft of the High Style Colliery, and has since assumed such alarming proportions, that it has been determined, as the only means of extinguishing the flames, that some stoppings shall be built quite close to the bottom, for the purpose of excluding the air. As there is a communication from the High Style to the Mount Osborne Collieries, where upwards of 600 men and boys are employed, the fire has thrown nearly the whole of them out of work. The bodies of four of the persons who had been so long entombed in the workings of the Oaks Colliery, were recovered last week. All of them were identified by the little clothing left on them.

BROMLEY.—A young man named Davis was arrested on Monday for having discharged a loaded gun at a girl named Whiteman, to whom he had been paying his addresses, but who wished to break off the connection. Little hope is entertained of the girl's recovery, the whole charge of large shot having lodged in the left breast.

CAMBRIDGE.—Professor John Robert Seeley, Fellow of Christ's College, Cambridge, now Professor of Latin in University College, London, and well-known as the author of "Ecce Homo," has been appointed to the chair of Modern History in this University, vacant by the resignation of Canon Kingsley.

CARDIFF.—The steamship Golden Fleece, of 2000 tons, which left this port on the 10th inst. for Alexandria with a cargo of coals, sprung a leak, while riding at anchor off Barry Island, and sunk before she could be run ashore. She has since broken in two, and become a total loss. The whole of the crew were landed in safety, with the exception of one man, who assisted to get the boats off, but was missed shortly after. The Golden Fleece cost her original owners over 100,000l. She was built originally for the East India and Australian service, and she was also largely employed during the Crimean War.—The Marquis of Bute has signified his intention to celebrate his approaching birthday by paying the whole of the debt that still remains on the Cardiff Infirmary; and his agent has written to the treasurer of the institution to know the exact amount of the debt, that he may send a cheque for its discharge at once.

CONISTON.—On Sunday morning a lady and gentleman, visitors to the lakes, hired two ponies and a guide, in order to ascend Coniston Oldman, a mountain much visited by tourists in this district. Soon after ascending it, they were overtaken by a violent storm of wind and rain, accompanied by a dense mist. Unable to proceed further they arranged to return, but in consequence of the obscurity in which everything was wrapped, and the danger of the descent, the

lady and gentleman were obliged to proceed on foot, the guide taking charge of the ponies. After travelling some distance the ponies became restive, and the guide was obliged to stop. The party, consequently, became broken, and the lady and gentleman had to proceed alone to Coniston, where they arrived at a late hour after much danger, and many hours' exposure to the storm. The guide, however, did not return, and as nothing had been heard of him on Monday, searchers went out, and in a short time found him lying dead upon the mountain side, with the two ponies standing beside him. It is supposed that he was starved to death during the storm, which was one of the most violent ever experienced, even in this wild region.

FEVERSHAM.—An explosion occurred on Tuesday at Messrs. Hall & Son's powder works at this place. One man was seriously injured, and three mules were destroyed.

KENILWORTH.—A considerable portion of the ruins of Kenilworth Castle having shown signs of falling, the Earl of Clarendon, the owner, is repairing and strengthening the great hall, Leicester's buildings, and parts of the external walls on either side. His lordship is also restoring some of the doorways, windows, and fire-places. In the course of the repairs excavations have been made, and underground apartments, cells, and passages revealed which had been hid for centuries. The great hall, 90 feet by 45 feet, still retains several of its fine gothic windows, and some of the towers yet rise 70 feet high.

LANCASTER.—At the borough Police Court, on the 14th inst., Henry Butler, a man of gentlemanly appearance, from Seaforth, near Liverpool, was charged with forging a bill of exchange for 1500*l.*, with intent to defraud Mr. G. M. Simpson, of the firm of Hennings & Simpson, bill discounters, of Jermyn Street, London. It appeared, from the statement of the prosecutor, that the prisoner had represented himself to be Lieutenant Cooke, of the 17th Lancers, and had been in communication with Mr. Simpson, respecting the bill of exchange, from Lancaster. A bill was forwarded, and on the 1st of September Mr. Simpson received a telegraphic message, dated from the Vicarage, Lancaster, stating that Lieutenant Cooke had signed the bill, and requesting Mr. Simpson to forward the money. Having some suspicion, Mr. Simpson went to Lancaster on Friday, and then discovered that no such person was staying at the Vicarage. From subsequent inquiries made by the police, it transpired that prisoner had been at the telegraph office, and had left instructions for any telegram from Mr. Simpson to be sent to the post office at Lancaster, the officials at which place had also been desired to keep his letters till called for. It was also proved that Lieutenant Cooke had neither written nor signed any of the letters or the bill. On the 13th he presented himself at the post office, and was handed over to the police. He was remanded for a few days, when he was committed for trial at the next assizes, bail being refused.

MANCHESTER.—A meeting of the executive committee of the National Reform Union was held on Tuesday, when Mr. George Wilson, who was in the chair, showed the great advantages derived from free trade, in answer to the revivers of protection. He said that he would be no party to asking for reciprocity, if retaliation was meant by it. He proposed rather to have a congress of free-traders of all nations to carry out still further its advantages. Reciprocity gained by such means would be more lasting. Mr. Jacob Bright, M.P., was for the reciprocity of freedom, not of restraint and trammels on trade. He contended that by putting 25 per cent. on the Chinaman's tea, while our cottons were charged 5 per cent., we had denied reciprocity, and that to lay all the fault on foreigners was to put the saddle on the wrong horse. To say that the people should work hard, and then not have the freedom to lay their wages out in the cheapest market might be Tory reciprocity, but was not his. He traced a good deal of the suffering of trade to the recent American and German wars, and suggested that stupendous crimes must be expected to be punished by great suffering and disaster.

NEWPORT.—The inquiry into the cause of the death of Emily Amelia Collier, daughter of Mr. H. Collier, oil merchant, who was supposed to have died from the administration of poison by a boy named Charles Gritt, now in custody on the charge of wilful murder, was concluded on the 16th. Some further evidence was given, showing that no poison could be found in her body, or in the fowls which were also supposed to have been poisoned; after which the jury unanimously returned a verdict that there was no evidence to prove that Miss Collier came by her death otherwise than naturally from inflammation of the membranes and substance of the brain.

SHEFFIELD.—In consequence of the continuance of the fire in the East Kettford Pit, it was determined on Friday to fill up the shaft, with a view of extinguishing the flames. A large body of men were set to work, and on Saturday the work was accomplished, several hundred tons of rubbish being thrown down the shaft. The bodies of the two men who could not be reached when the fire broke out had not been recovered when the work of sealing the shaft had commenced. What time will elapse before the pit will admit of being reopened is very doubtful. In the similar accidents at the Wombwell Main and the Oaks Colliery, nearly a year elapsed before those in charge were able to reopen the shafts.

SHIELDS.—On Tuesday, the 14th, the Duke of Northumberland, who was accompanied by the Duchess, the Dowager Duchess, and Earl and Countess Percy, laid the foundation-stone of a new school in connection with St. John's Church, Percy Main, near North Shields, one of the five district churches built and endowed by the late Duke. The schools, which will be built on a site given by the Duke, will be of stone.

SOUTHAMPTON.—The passengers and crew of the West India Mail steamer *Atrato*, which was sent to the Motherbank last week, were released from quarantine on Sunday.

STAFFORD.—The Chain pit of the Clough Hall Colliery, in North Staffordshire, has been burning for several days, and up to Saturday morning the flames had not been extinguished. The cause of the fire is said to be a large "blower" of gas. The seam of coal now being worked ordinarily gives off a large quantity of gas, and a large blower being added to it a flame was created which spread to the coal and set it on fire. The manager and the men used every endeavour to put out the fire, but without avail. At length the horses and men were brought out of the pit for safety, and the water-engine was stopped, in order that the water might accumulate and exclude the air. There have been several explosions, and the accumulated water has acted as a buttress. The amount of the damage has been considerably lessened by this means. The latest accounts state that the fire has not been subdued, but it is confined to one pit.

STALYBRIDGE.—On Monday a shocking discovery was made at Micklehurst, near this town. A woollen weaver, named James Schofield, resided with his wife at The Cotes, a lonely place among the hills near the junction of Lancashire, Cheshire, and Yorkshire. Of late they have not lived together very happily. On Monday the bodies of both were found in the house, the head of the woman being nearly severed from the body. Both were dead, and it is supposed that the husband first cut his wife's throat, and afterwards his own. They were between 50 and 60 years of age.

TYNEMOUTH.—On Tuesday, the 14th, the Prudhoe Memorial Convalescent Home was opened at Whitley, near North Shields. This fine building has cost about 20,000*l.*, and commands a view of the north-eastern coast. The structure is arranged upon the pavilion plan, which has prevailed in Germany and France so many years, and which Miss Nightingale and the Crimean Commissioners have so strongly recommended. It consists of a central block, containing the administration department, while from a corridor running at right angles with this various rooms project both at the back and front, which leave open spaces between them for air and sunshine. The exterior of the building is very imposing. The home has been erected by public subscription as a memorial of the late Duke of Northumberland. At the opening ceremony the chair was occupied by Mr. Orde, Chairman of Quarter Sessions; and the home was declared open by Eleanor Dowager Duchess of Northumberland. The speakers were the Duke of Northumberland, Earl Percy, Sir W. J. Armstrong, Sir Walter Riddell, the Right Hon. T. E. Headlam, the Mayor of Newcastle, Archdeacon Bland, the Under-Sheriff of Northumberland, and Dr. Bruce.

WORCESTER.—The accounts of the pecuniary results of the recent musical festival state that in spite of the success of the festival in a musical point of view, and the large sum raised by the sale of tickets, the amount collected at the doors of the cathedral was below that of the preceding festival by nearly 300*l.*, and less than the amount collected at Hereford by 150*l.*

Ireland.

THE CHURCH SUSTENTATION FUND.—The Archbishops of Armagh and Dublin, and the Dukes of Leinster and Abercorn have issued a circular stating their readiness to receive contributions for the Church Sustentation Fund. Mr. Evelyn Philip Shirley, the owner of very extensive estates in County Monaghan, has announced his intention of purchasing the tithe rentcharge from the Government, and immediately handing over to the Church Body a new rentcharge equal to the old one. Mr. Thomas Cook Trench, of Millicent, County Kildare, has subscribed 3000*l.* to the sustentation fund of the Irish Church.

TENANT-RIGHT CONFERENCE.—On Thursday, the 16th, a Tenant-Right Conference, which may be regarded as the formal opening of an organised agitation on the subject, was held at Cork. The chair was occupied by Mr. Timothy Dorgan, president of the Cork Farmers' Club, and among those present were Mr. Maguire, M.P., Mr. Murphy, M.P., Mr. Shaw, M.P., the Mayor, and Mr. Butt, Q.C. The Limerick, Clare, and Tipperary Farmers' Club and the Macroom and Mallow Farmers' Club were represented by deputations. Mr. Butt, Q.C., spoke at great length, and said that the meeting would inaugurate a tenant league that would never relax its exertions until every tenant in Ireland could say he had a home upon which no landlord dared intrude so long as the tenant fulfilled his obligations; a hearth that no bailiff or agent dared despoil as he paid his rent. Mr. Maguire, M.P., said so long as there was not security of tenure there could be no true loyalty in the breasts of the people. Mr. Shaw, M.P., said he had only one opinion on the question—namely, that the tenant right of the North should be legalised and made general throughout Ireland. Resolutions in favour of the extreme views of fixity of tenure propounded by Mr. Butt, were unanimously adopted. Leases for any term were scouted, as also was compensation for improvements in any form. It was also resolved to found a Tenant League for the better agitating of this claim between the present time and February next; and the Ministry were formally warned that no "half-measure," no "peddling Bill" will answer.

THE TURRET SHIP SCORPION.—Last Friday an order was read on board the turret ship *Scorpion*, lying in Cork harbour, directing that she should immediately sail for Bermuda. The officers and crew protested against her putting to sea in such weather, or proceeding on a long voyage at all, as in the gale off this coast she had proved unseaworthy. The sailing

is now countermanded, and when the

THE FENIAN PRISONERS.—An inquest was held in Clonmel on Sunday, and was attended by about 25,000 persons. The Government was received with a "but justice." A collision took place between a party of Fenians and a party of Orangemen, who were proceeding from Lurgan to Clonmel for the purpose of escorting home from Clonmel to Lurgan just undergone three months' imprisonment. The Fenians were travelling, and brought it to a triumph.

ROBBERY OF ARMS.—On Wednesday a house of a respectable farmer, near Mallow, Cork, was entered, in the owner's absence, with blackened faces, who took away the arms are supposed not to be strangers, but persons likely to lead to their discovery.

AGRARIAN MURDER IN MEATH.—On Monday night, a man named Thomas R. was a pensioner, who owned about 40 acres of land in the market. On coming into possession of the land two years ago, he found five or six tenants, each of whose holdings he cut off a portion of the farm for himself, compensating them with a year and a half's rent. This, however, excited resentment against him, and he was a "marked man." On Saturday he was returning from market in a cart, and about 10 o'clock he was attacked within a few miles of his home by two men who were lying in wait. One of the men ran away, and the murderer struck the head to atoms with a stone hammer. The same name as the deceased, and the two men were as well as a man named Quinn, had been under suspicion. The jury at the inquest returned a verdict of "Wilful Murder by some persons unknown."

Scotland.

MYSTERIOUS DISAPPEARANCE OF THE JUSTICE CLERK.—The Lord Justice Clerk (Mr. Patton) has been missing since Monday. He went to his estate at Glenalmond, Perthshire, on Saturday, and it appears that on Monday he went out before breakfast for a walk, and did not return. During Monday and Tuesday he made for his lordship, but no trace of him was obtained, and it is feared that, as he was walking in the direction of the Ayr, he accidentally fallen into the river, where he has been drowned. The river was drizzled on Monday and Wednesday, and about 200 persons were sent into the moors in search of him. The Procurator-General's county arrived at Glenalmond on Thursday, but up to midnight on Thursday he had not been discovered. During the day, however, a silk necktie and an empty razor-case, slightly stained with blood, were found on the banks of the river, and were thought to belong to his lordship, while an ash splinter bent over the stream was distinctly impressed with finger-marks in blood, as if some one had assisted himself into the water. From these instances it has been inferred that his lordship, at the moment of temporary insanity, has committed destruction. Great excitement prevails in Perthshire where his lordship has long been highly respected.

MONUMENT TO ROBERT BRUCE.—At a meeting held in Stirling it has been resolved to erect a monument to King Robert Bruce at Bannockburn.

VALUE OF LAND IN SCOTLAND.—The Duke of Portland bought the estate of Caithness. The estate was put up for sale, and after competition was knocked down at 9140*l.* Less than 20 years ago it was valued at 2425*l.*

UNIVERSITY OF GLASGOW.—Mr. James the proprietor of the paraffin oil works presented 10,000 guineas for the permanent endowment of a chair of technical chemistry in the University, Glasgow, with liberty to found bursaries in connection therewith.

Railways.

ACCIDENT TO THE SCOTCH LIMITED MAIL.—Thursday the 16th inst., at about 10 o'clock, a mail from the north to London was running at a rapid rate between Banbury Lane and London, when suddenly came upon some wagons on the line belonging to a goods train. The steam engine and the breaks applied, but the mail was brought to a stand. The driver and the engine, and received severe injuries. The goods train was smashed up, two engines were broken, and the front of the mail was damaged. The darkness of the hour, and the nature of the collision occasioned much alarm to the passengers, several of whom were shaken, but none of them sustained any injury. The mail was delayed for four hours.

THE LATE COLLISION ON THE GREAT NORTHERN.—An inquest was held at Barrhead on Monday, the 16th inst., on the body of Arthur South, the guard of a goods train on the Great Northern, who was killed on the 15th inst. by his train coming into collision with a passenger train on the Great Northern, the passenger train being on the wrong line. The jury returned a verdict that the deceased was accidentally killed—that the train being on the wrong line was due to the

The Gardeners' Chronicle Newspaper.

SATURDAY, OCTOBER 2, 1869.

RENDLE'S PATENT GROUND VINERIES AND PLANT PROTECTORS.

From the "JOURNAL OF HORTICULTURE, COTTAGE GARDENER, AND COUNTRY GENTLEMAN," conducted by GEORGE W. JOHNSON, Esq., F.R.H.S., and ROBERT HOGG, Esq., LL.D., F.L.S., F.R.H.S., Thursday, August 19, 1868.

RENDLE'S PATENT GROUND VINERIES AND PLANT PROTECTORS.

The same Mr. Rendle who rendered this service to horticulture in his earlier days, invented a mode of protecting tender crops, which ought to obtain all the popularity which its merit demands. The contrivance consists in glazing Rendle's patent protecting bricks, low structures which may be called without the aid of putty, by merely slipping the sheets of glass into a notch. We cannot better explain the principle than by referring our readers

to the accompanying woodcuts. The length to which these little structures may be carried is limited only by the extent of ground at command, and their width by the strength and length of the glass employed to glaze them. The uses of these structures are similar to those of the ground vinerias, and although applied to the culture of the Vine, they are equally applicable to that of other crops, such as early Peas and Salads; the propagation, by cuttings and grafting, of valuable plants in pots, and also for the protection of less hardy plants during winter.

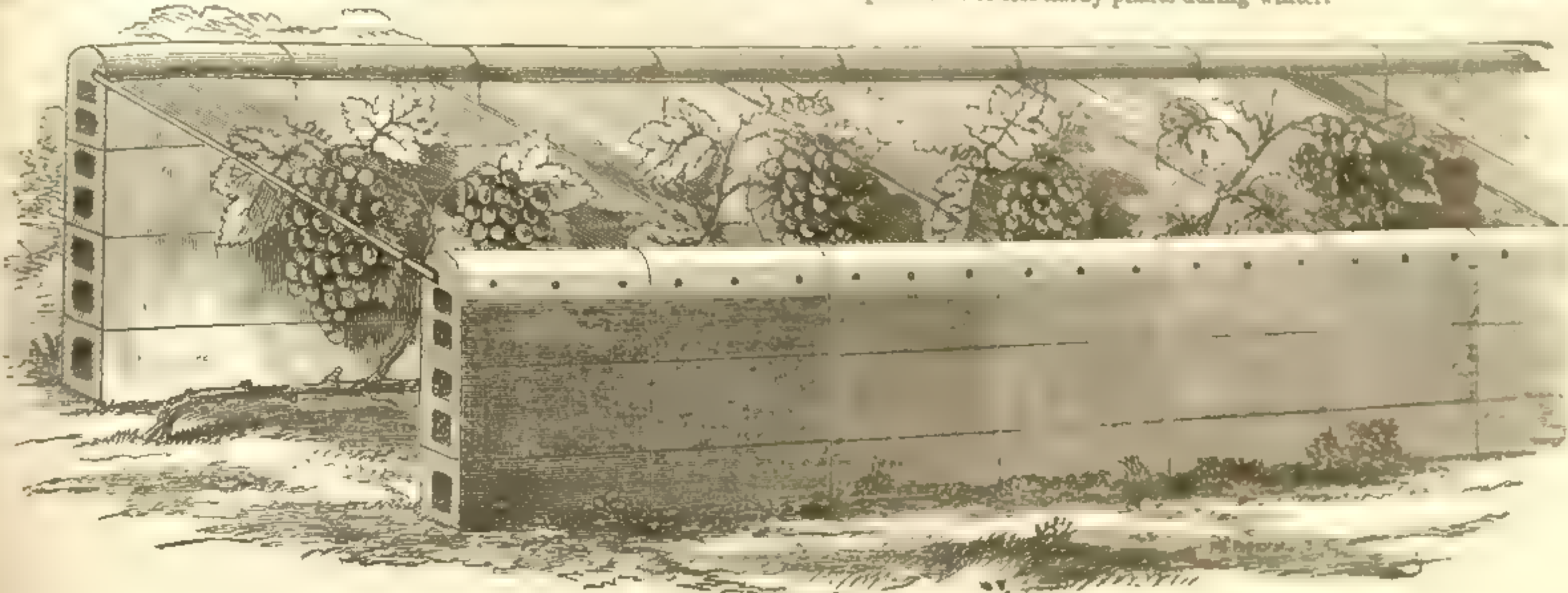


Fig. 1

PATENT GROUND VINERY, as now in use at Mr. Rivers', at Sawbridgeworth, 10 FEET for ONE GUINEA.

In Fig. 1 we have the representation of a ground vinery. The drawing, which is supplied by Mr. Rendle, is not quite to our mind, as it represents the walls of the structure solid, whereas we would suggest that they be pigeon-holed so as to admit of the circulation of air necessary in so small a space to ensure health and vigour

to the plant enclosed. We have seen at Mr. Rivers' an experiment with these tiles erected after this fashion, and it succeeds admirably. The Vine is the picture of health and vigour, and under the glass there is the needful amount of humidity to secure health and keep down red spider. Fig. 2 shows its application to the protection and hastening of Strawberry crops.

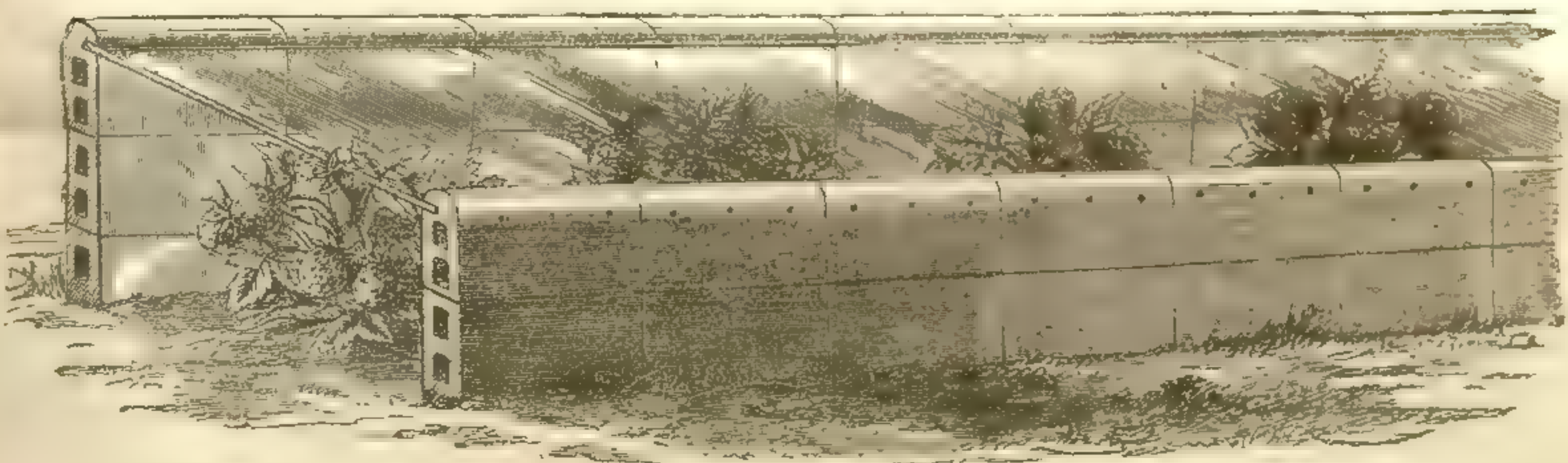


Fig. 2.

STRAWBERRY GROWER and FORCING FRAME, 12 FEET for ONE GUINEA.

We would strongly urge Mr. Rendle to adopt the pigeon-hole principle. It is for the general hardy use of the "protectors;" but it admits also of their being used for forcing. When so employed heat may be applied by a lining of heating pipes placed all round them. As yet this is but the initiation of an idea which is of great development, and we see in it a fund of interest and usefulness in the eyes of horticulturists. The great recommendations of this plan of Mr. Rendle's

are cheapness, durability, disuse of putty and paint, and the total dispensation with the services of what are called "skilled workmen" in their erection. The material of which they are made is also an important element in the question, for the heat absorbed by bricks during the day will be given off at night, and in this respect bricks have the advantage over such structures made of wood and glass only.

RENDLE'S PATENT GROUND VINERIES AND PLANT PROTECTORS.

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Patent Ground Vinerias	2s. to 2s. 6d. per running foot.
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Mr. Rivers has kindly consented to allow the Patent Ground Vinerias to be seen at Sawbridgeworth.

Mr. Rivers has kindly consented to allow the Patent Ground Vinerias to be seen at Sawbridgeworth.

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Home News.

THE QUEEN IN SCOTLAND.—On Thursday, the 23rd
ult., the Queen, accompanied by Princess Louisa and
Prince Leopold, went to the Glassalt Sheil, and
returned to Balmoral on Saturday. Mr. Gladstone left
the Castle on Saturday for Dundee. On Sunday the
Queen and Royal family attended Divine service in the
parish church, Crathie. The Rev. Andrew Gray, of
St. John's Church, Glasgow, officiated. On Monday
the Queen drove out, accompanied by Princess Christian
and Princess Louisa. The Queen gave a ball in the
evening to the servants, tenants, and gillies on the
Balmoral and Abergeldie estates. On Tuesday morning
the Queen visited Braemar Castle, accompanied by
Prince and Princess Christian and Princess Beatrice,
and in the afternoon drove out with Princess Louisa.
Her Majesty and the Royal family are expected to
leave Balmoral about the 5th or 6th of November for
Windsor.

THE PRINCE AND PRINCESS OF WALES, with
their children, Prince Albert Victor, Prince George,
Princess Louisa, and Princess Victoria, arrived at
Marlborough House on Thursday morning from the
Continent. Their Royal Highnesses arrived in Paris
on Sunday from Wildbad. On Monday the Princess
was slightly indisposed. On Tuesday their Royal
Highnesses paid a visit to the Emperor and Empress
at St. Cloud. On Wednesday the Prince de la Tour
d'Auvergne, the Minister for Foreign Affairs, paid a
visit to their Royal Highnesses, who left Paris in the
evening for London. On Thursday the Duke of Cam-
bridge visited the Prince and Princess at Marlborough
House. Their Royal Highnesses have accepted an
invitation to visit the Earl and Countess Spencer at
Althorp. The Prince has engaged to shoot with the
Earl of Derby and Lord Lonsborough during the
season.

PROPOSED ABDUCTION OF PRINCE ARTHUR BY
THE FENIANS.—The New York papers state that the
Fenian Brotherhood have just held two meetings at
the Fourth Street head-quarters, and that it had been
ascertained from authentic sources that the committee
had under consideration the abduction of Prince Arthur
either in Canada or in the United States should he pay
a visit to that country.

THE SAXE-COBURG FAMILY.—The Grand Duke
Ferdinand and Duchess Clementine of Saxe-Coburg
left St. Leonards on Wednesday for Twickenham, on a
visit to the Duke and Duchess d'Aumale. The Prince

and Princess Augusta of Saxe-Coburg, with their
youthful family, left St. Leonards on Tuesday for
Vienna. The Duke Ferdinand and the Duchess
Clementine will leave Twickenham for Balmoral
on a visit to her Majesty.

THE VACANT LORD JUSTICESHIP.—It
has already been announced that the Government had
expressed Lord Westbury to accept the vacant
Lord Justice. When the same offer was made in
November last his lordship declined to accept it,
stating that he was of more use to the public
capacity in the House of Lords. On the 23rd
by Lord Granville and Mr. Gladstone. On the
subject, he agreed to refer the question to the
Chancellor, on the understanding that the Chan-
cellor considered he would be of more use to the
Justice he would accept the office, and if he
refusal would rest solely on public grounds. It
stated that the Lord Chancellor, after referring
the question, has decided that it would be in the
public interest that Lord Westbury should be
away from the appellate tribunal of the House
of Lords.

NEW BARONETCIES.—Mr. Gladstone has
granted baronetcies to Mr. William Jackson, of
formerly M.P. for North Derbyshire, to Mr. John
man Earle, of Allerton Towers, near Liverpool,
Major-General Francis Seymour, C.B., and
waiting to the Queen, and formerly equerry to
Prince Consort.

PARLIAMENTARY MOVEMENTS.—There
is a prospect of the representation of the Universities
and Aberdeen, caused by the promotion of Mr. John
Gordon, the late Lord Advocate, is announced
as the Liberal candidate; and Mr. Smith, of
Sheriff has fixed Wednesday, October 6, as the
nomination for East Cheshire, and the day of
for the Saturday following. A requisition is
of signature in Dudley, calling upon Mr. Gladstone
resign his seat in Parliament, on account of his
connection with the Albert Assurance Office.

MR. GLADSTONE arrived on Saturday at
on a visit to his brother, Sir Thomas Gladstone,
left Balmoral on that morning, and was met at
Bauchory by the road across the Cairn of
Fasque, a distance of about 17 miles. On Sunday
attended divine service in Fasque chapel, and
wards visited Fettercairn. On Monday he arrived
Dundee, and immediately drove to campden,
Wednesday he visited Perth, and on Tuesday
accompanied by Mrs. Gladstone and daughter,
arrived at Hawarden Castle, Flintshire, where he
remain four or five weeks.

THE REVENUE.—The Revenue Returns for
year and quarter, ended Sept. 30, were published
yesterday. They show an increase of 2,952,000
year, and an increase of 107,735l. on the quarter.
year's account shows an increase in the
843,000l.; Stamps, 177,000l.; Property-tax,
Post Office, 80,000l.; Crown Lands, 15,000l.;
lancous, 515,205l.; and a decrease in the
259,000l.; Taxes, 41,000l. The quarter's
an increase in the Excise of 142,000l.; Stamp
Taxes, 18,000l.; Property-tax, 68,000l.;
10,000l.; Crown Lands, 1000l., and a decrease
Customs of 155,000l.; Miscellaneous, 71,250l.

THE MASTERSHIP OF THE MINT.—It is
that Dr. Lyon Playfair, M.P. for the University of
Edinburgh and St. Andrew's, is a candidate for the
office of Master of the Mint, vacant by the death of
Professor Graham.

THE ARMY.—Major-General Whistler has
appointed Colonel Commandant of the Royal Artillery
in the room of the late General Conran. The
of the 6th Foot, vacant by the death of the late
Charles Gore, has been conferred on Major-General
Crofton; and the colonelcy of the 95th Foot
by this promotion, has been conferred on Major-
General Robe.

THE CHANNEL SQUADRON.—The Agincourt
the vessels forming the Channel Squadron anchored
Queenstown on Monday morning. The Inconstant
been sent on to Pembroke to repair damage done
The Agincourt anchored off the Cork Yacht Club
and the other ships in the roads.

Foreign.

FRANCE.—The Emperor, who is announced to be
excellent health, presided at a Council of Ministers
St. Cloud on Saturday. On Sunday the Empress
Empress attended the races at the Bois de Boulogne
and were very warmly received. The preparations for
the journey of the Empress to the East are complete
and it is stated that her Majesty will leave for
Constantinople. The French Imperial yacht
arrived at Venice on Tuesday, to await the arrival
of the Empress. As matters are at present arranged
Majesty will visit the King and Queen of Greece
Corfu, where the Ambassador of the Porte
will be waiting for her on board an Imperial yacht.
She is to arrive on the 15th at Constantinople. Great
preparations are making by the Porte for the
which are likely to be permanent advantages to the
environs of Constantinople, for they include a
Buzykderé, and other substantial improvements.
From Constantinople the Empress will visit
Egypt, will visit Alexandria, Cairo, and
will not wait for the opening of the canal
for Nov. 17, before which date, probably about
her return to Paris is expected. The rumors are
Emperor will proceed to Vichy or Biarritz, and
be entirely devoid of foundation. The Empress
Princess of Wales paid a visit to the Emperor
Empress on Tuesday afternoon. On Wednesday
Prince de la Tour d'Auvergne paid a visit

declines the mediation proffered by the United States with reference to Cuba. A telegram from Washington, dated Tuesday, states that in consequence of the explanations which have been exchanged between the Spanish and American Governments, the latter has declared that it had never had any intention of offering to mediate in Cuba, and had been actuated solely by humanitarian motives. M. Catacasy, the new Russian Minister, was officially received by the President on Friday, and M. de Bille the new Danish Minister, was officially received on Saturday. The New York Convention met on Wednesday, and adopted resolutions in favour of gold payment of the Debt, equalisation of taxes, and negro suffrage; sympathising with Cuba, and favouring the acquisition of the island when its people should desire it. The Radical Republicans of Mississippi have nominated General Alcorn as Governor, and a negro as Secretary of the State. The Indians of Wyoming territory are renewing hostilities. The following is a summary of the speech delivered last week on the Alabama question by Senator Sumner, as chairman of the Massachusetts Republican Convention:—

"America has suffered fearfully at England's hands on the Alabama question. This he said not bitterly, but sadly; but, in view of England's complicity with rebellion, he would not attempt to set any price on the debt England owed to the United States, and he would not make any formal demand for a dollar of money or a word of apology, but would leave it to England, after due consideration of the subject, to offer what reparation she deemed to be proper, it remaining to America to decide what reparation she required. The question had been asked, why not lay claim against France for injuries done; but the reply was, while France and England alike sinned in according belligerent rights to rebels, the damage was not done openly to American commerce by an enemy's blockade runners built under the shelter of the French Government, as in the case of England. As to the proposed annexation of Canada to the United States, he was certain the day was coming which would see the whole land joined under the Government of the United States."

WEST INDIES.—Several severe shocks of earthquake occurred at St. Thomas on the 17th ult. No lives were lost, and there was no serious damage done.

HAYTI.—President Salnave has been shot in an assault on Aux Cayes. He had proceeded to that place in his war-vessel Galatea for the purpose of carrying out the final arrangements for reducing it. He effected a landing, and commanded the assault in person, when, in a skirmish, he received two bullet wounds in the chest. He was immediately taken on board the Galatea, and conveyed back to Port-au-Prince for surgical treatment; but it was believed that his wounds were mortal.

BRAZILS AND PARAGUAY.—Further details of the fighting in Paraguay have been received. On Aug. 16 there was an engagement at Curuguaty, in which 5000 Paraguayans were defeated with a loss of 20 guns. On the 17th there was another engagement, when 1600 Paraguayans were again defeated and 12 guns taken. Lopez fled after the battle, with the remnant of his troops, who were almost without arms, Count d'Eu pursuing him. The Paraguayans had abandoned their last six steamers in the river Mandevira. Forty-four British subjects had been liberated. Communication had been established with the Allies by the river Mandiensa. The Provisional Government at Asuncion had declared Lopez an outlaw.

CHILI AND PERU.—The fears caused by the prediction of Mr. Falb, that the west coast of South America was to be destroyed about the 1st October by some convulsion of Nature, had been raised to extreme terror by the occurrence of severe earthquakes along the coast, which was rapidly losing its inhabitants, and business of all descriptions was at a standstill. Severe shocks had been felt at Copiapo and at Iquique, which was consequently deserted. At Arica 40 shocks had occurred, all more or less strong. Similar reports of earthquakes have been received from Tacno and Arequipa. Much apprehension was felt of the forthcoming 1st of October.

City Intelligence.

MONEY MARKET, FRIDAY.—**BRITISH FUNDS:** Consols are 92½ to 93, both for Delivery and Account; New and Reduced Three per Cents., 91½ to 91¾; Bank Stock, 238 to 240 ex div.; Exchequer Bills, March, par to 5s. pm.; June, 7s. to 11s. pm.; India Five per Cents., 114 to 114½.—**FOREIGN:** Argentine, 81½ to 82; Brazilian, 83½ to 84; Egyptian (1864), 86 to 87 ex div; Ditto (1868), 76½ to 76¾; Viceroy's Seven per Cents., 80½ to 81; Ditto Nine per Cents., 97 to 98; Italian, 52½ to 53; Ditto Tobacco Loan, 84 to 86; Peruvian, 79½ to 80½; Portuguese, 33 to 34; Orel, 84 to 84½; Nicolas, 67½ to 67¾; Moscow, 83 to 83½; Charkof, 80½ to 81; Spanish, 28 to 28½; Turkish Five per Cents., 42 to 42½; United States 5-20 Bonds, 84½ to 84¾; Erie, 24 to 24½; Illinois, 94 to 95.

Metropolis and its Vicinity.

ELECTION OF LORD MAYOR.—On Wednesday, being Michaelmas Day, the Livery assembled in Guildhall for the election of a Lord Mayor for the year ensuing. The Common Hall was a very noisy one. The Lord Mayor and Alderman Besley were both put in nomination, Alderman Wilson being adopted as the nominal colleague for both parties. The feeling of the Livery was clearly in favour of Alderman Besley. The show of hands was largely in his favour, and at the close of the poll for the day it was found that he had polled 324, while only 149 voted for the Lord Mayor. On Thursday Alderman Besley not only maintained but increased his majority, the numbers voting for him being 1083, against 437 for the Lord Mayor. At noon yesterday Alderman Besley had polled 1202 votes, and the Lord Mayor 510, being a majority for Alderman Besley of 692. The Lord Mayor afterwards retired from the contest, but the polling must be continued, as a matter of form, for four days longer.

PRESENTATION TO THE LORD MAYOR.—On Monday the citizens of the ward of Walbrook presented to the Lord Mayor a full length portrait of himself, painted by Mr. Williams. His lordship, in acknowledging the compliment, defended some of his acts as a magistrate, but made no allusion to the contest for the mayoralty.

INTERNATIONAL EXHIBITION FOR 1871.—At the meeting of the Council of the Liverpool Chamber of Commerce, on Wednesday, a letter was read from the Commissioners of the Exhibition of 1871, announcing that an International Exhibition will be held in London in 1871.

THE FRANKLIN EXPEDITION.—A telegram from New York states that Dr. Hall, the Arctic explorer, has arrived at New Bedford, this week, from Repulse Bay, after an absence of five years. He discovered the skeletons of several of Sir John Franklin's party at King William's Land, and brings numerous relics of the Franklin expedition. Lady Franklin immediately telegraphed to New York, inquiring, "Has Hall brought journals or any writings?" The message returned by Mr. Grinnell was "None."

THE POPE AND DR. CUMMING.—Dr. Cumming, in reply to the Pope's communication, has published a long letter combatting the Roman claims put forth in behalf of the supremacy of St. Peter. Dr. Cumming says:—It was my earnest and pure desire, as invited, to "avail myself of the opportunity of the council" to be allowed to prove to the assembled council that the dark and hopeless picture of coming perdition for all who are separated from the Church of Rome, sketched by the venerable Pontiff in his address to us, is neither warranted by the Word of God nor borne out by general councils held during the first 500 years of the Christian era; and that our distinctive doctrines, such as justification by faith alone in the Redeemer's righteousness, and the way to Heaven—neither Pope, prelate, nor priest, but Christ alone, open to the worst, the oldest, and wickedest, without priestly absolution, or penance, or pay; and our salvation, not by anything done by us, but what was done for us on a Judean hill 1800 years ago—are clearly stated, often and in various forms, in that Book which the Church of Rome and the Protestant Church both hold to be divine.

MR. JEFFERSON DAVIS, late President of the Southern Confederation, left Southampton for the United States on Saturday in the steamer Baltimore.

ARRIVAL OF THE FIRST TEA SHIP.—The Thermopylae, owned by Messrs. G. Thompson & Co., has arrived off the Lizard in 88 days from Foochow, with the new season's tea. This is the quickest passage ever made. The average is 95 to 100 days against the monsoon.

THE ALBERT LIFE OFFICE.—On Saturday the directors of the Albert Life Assurance Company were brought before Mr. Knox, at Marlborough Street, on a charge of defrauding the shareholders by issuing false reports representing the condition of the company to be other than it was. Mr. Straight, who appeared for the prosecutor, applied for an adjournment of the case till he could examine the books of the company, but this the magistrate refused. The case, therefore, went on, and two witnesses were called, one of whom was a Mr. Leo, the leading prosecutor, who deposed that he had recently bought in the open auction rooms 240 shares, expecting from the reports that they would yield him a large profit; the other being Mr. Price, the provisional liquidator, who explained the affairs of the company, and stated that he had found in the books no trace of fraud on the part of the directors. The case was then adjourned for three weeks, the directors being admitted to bail on their own recognisances of 10l. each, leave being given to the prosecution to examine the books. The joint committees of the policy-holders appointed by the various London and provincial meetings have agreed to recommend to Vice-Chancellor James the appointment of Mr. W. J. White, of King Street, and Mr. A. Young, of the firm of Turquand, Youngs & Co., as the liquidators of the company. A movement has since been initiated by the Manchester, Birmingham, and Hull committees for the appointment of Mr. Chadwick and Mr. Price.

THE EUROPEAN ASSURANCE SOCIETY.—Mr. Lake, the general manager of the European Assurance Society, has telegraphed to the local agents of the Society that "the petition in Chancery is most treacherous and unexpected, and that the directors are determined to resist to the uttermost." A numerous meeting of the shareholders was held on Monday at the Langham Hotel, Sir Frederic Smith, K.H., in the chair, when, after full explanations from the accountant, resolutions were passed, deprecating the attempt to enforce a liquidation, and urging the directors to oppose the petition for winding-up by every means in their power.

NEW TELEGRAPH COMPANY TO AMERICA.—A prospectus has been issued of the Great Oceanic Telegraph Company (Limited), with a capital of 600,000l., for a cable from Ireland to Nova Scotia direct. The proposed charge is 1s. 6d. per word, or half the rate charged by the existing companies.

TELEGRAPH TO THE SCILLY ISLANDS.—A telegraph line, in length 31 miles, was completed on Tuesday from the Land's End to St. Mary's, one of the Scilly Islands, by which means the receipt of shipping intelligence will be much accelerated. The undertaking has been effected by a few private subscribers.

TELEGRAPHIC NEWS COMPANY.—A prospectus has been issued of the Home and Foreign Telegraphic News Company (Limited), with a capital of 20,000l., in 4000 shares of 5l. each, for the collection and supply of news to the various London and provincial news rooms, chambers of commerce, and the Press. This has hitherto been done by the telegraph companies, but when all the telegraphs are taken over by the Post Office this department will be abandoned, the authorities, under

the advice of Mr. Scudamore, confining their operations to the transmission of messages alone, leaving the collection and supply of news to others.

INJURY TO THE ATLANTIC TELEGRAPH.—An accident has occurred to one of the cables of the Atlantic Telegraph Company, about the locality of Heart's Content, near the locality of the accident. The injured cable is the one last used for communication between the two countries, and was interrupted by the accident.

THE ABYSSINIAN EXPEDITION.—Mr. M.P. for Sunderland, and chairman of the Committee, left Sunderland last week for London, with Captain Beaumont, M.P. for North Devon, proposes to make further inquiry into the expediency of an expedition to Abyssinia.

ANOTHER POLITICAL DEMONSTRATION.—A metropolitan demonstration is announced for Sunday in Hyde Park on Sunday, October 22, in connection with the movement for the unconditional release of Fenian political prisoners. It is stated that several Irish gentlemen of influence will be present. The demonstration is promoted by the London Amalgamated Society and Clerkenwell Reform League, and the Labourers' Society, a body numbering several thousands of men, and strictly composed of Irishmen. A committee has been appointed to attend to the arrangements, no effort is to be spared to make the demonstration imposing one, both in regard to influence and numbers. Several deputations from Ireland are also expected.

PROPOSED DIVISION OF THE DIOCESE OF WINCHESTER.—The Dean of Winchester, the Dean of Jersey, the Dean of Guernsey, the Archdeacon of Surrey and Winchester; the Rectors of Lambeth, Olave (Southwark), Streatham, Abbotts Risclosure, Holy Rhood (Southampton), Epsom, and beneficed clergy in the diocese of Winchester, have forwarded a memorial to the Prime Minister, that as the Bishop of Winchester has expressed an intention of resigning his see in October next, and is convinced that the occasion is such as to require consideration of a division of the diocese, and the consequence of the large revenues of the see which will be placed at the disposal of the Ecclesiastical Commissioners when the resignation of the present Bishop is completed, there seem to be peculiar advantages in carrying out such an arrangement. The memorial adds that it will be deemed sufficient ground for the present step to state that the population of Hampshire in 1861 was 481,515, that of Surrey exceeded 1,267,794, spread over an area of above a million and a half statute acres, and that the number of parishes exceeds 1000.

PROPOSED EXTENSION OF THE METROPOLITAN RAILWAY TO THE MANSION HOUSE.—An application was made by the Metropolitan Railway Company to carry the railway under the street to the Mansion House, instead of a station intended, stopping at Queen Street. The Company said that he had been consulted on the subject by Mr. Devon and Mr. Baxter, but that looking at the fact which the company had thrown in the way of the Board, owing to their not having been enabled to complete their works within the time originally contemplated, he was of opinion that they would accede to the proposition. He thought that the question whether it would be policy to discontinue large numbers of passengers at a point where the street was already congested, and that a station 200 yards from the Mansion House would be of no practical purposes for public use. Mr. H. L. Collinson hoped that the Board would not entertain the proposition. The company would require Parliamentary powers to go to the Mansion House, and the consent of the Board alone would not enable them to carry out the scheme. He moved that the proposition should be entertained. Mr. Collinson moved as an amendment that as the proposition involved matters affecting public convenience, it be referred to the general purposes committee for consideration. Mr. Cyrus Legg seconded the amendment, and after discussion it was carried by a large majority.

THE WIDENING OF PARK LANE.—At a meeting of the Board of Works a letter was read from a solicitor, stating that if the Board would repeal of the Act to open up Hamilton Place, it would widen Park Lane and pull down the Mansion House instead, a lady, whose name did not appear, would contribute 50,000l. for the purpose. The Chairman said that the provisions of the Act had no interest in the property, but simply to preserve the ornamental gardens of Hamilton Place, which she had enjoyed for the last 31 years. The Chairman said that the provisions of the Act had been obtained from Parliament which had been obtained most expensively, and therefore the offer, which was a most extraordinary one, could not be entertained. A clerk was therefore ordered to return a certificate of acknowledgment of the offer, and state the probability of its acceptance.

THE SOUTHERN EMBANKMENT.—It has been stated in some of the local journals that the Southern Embankment had been opened. It is now announced by the authority that this is not the case, but that the works are of opinion that it is not ready for opening to the public one month from the present date.

THE STATUE OF MR. PEARODY.—Mr. P. has addressed a letter to the committee who are in charge of Mr. Story's statue erected to his memory near the Royal Exchange, expressing his objections to the Prince of Wales, the American Minister, and others who took part in the inauguration, and stating

international character which was given to the... had been especially gratifying to him, the... had ever been which could tend to con-... the two great nations of England and... both of them very dear to him, and... at the present time. In conclusion

hope that the course of my life, now drawing... may justify when finished all the honours... have been so freely bestowed on me, of which this... and I cannot more strongly express my... to say that I do not believe there could be found... a kingdom a man of any rank, however high, wh... honoured by such a noble testimonial as you... to a humble American citizen."

FACTORY OF STEPNEY.—The Bishop of Lon-... appointed the Rev. Joseph Bardsley, Secre-... the London Diocesan Home Mission, to the... of St. Dunstan, Stepney, vacant by the death... of R. Lee.

REGISTRATIONS.—At the City Registration... on Friday a point was raised before the Revising... of considerable practical importance. A... claimed for his counting-house in Biliter... of two rooms, communicating inter-... each other, and entering from a door in a... stair, for which he paid a rent of 657. It was... these premises were not structurally... from the rest of the building. A long argu-... and the barrister took time to consider... it is said that about 800 other claims... this decision. At the same sitting the... barrister decided that a solicitor occupying... a house without structural severance, ... was not also described as a money scrivener, ... to be on the register, inasmuch... only specified counting-houses, and... was no dictum of any judge to say that... could be considered a counting-... Monday, however, a case was brought... which the Lord Chief Justice had in 1863... very point in favour of the solicitors. On... barrister annulled his former decision, ... that he would reinsert on the lists all... that had been struck off in consequence of... judgment. Mr. Gupin, M.P., was disallowed... on the premises of the National Freehold... Society. In most of the Metro-... Courts a good deal of trouble has been caused... understanding respecting the lodger claims, ... were on the list for last year not being... was too late that they must renew their... registration. In East Surrey a difficulty... arose as to overseers put on the lists those... the 127 franchise which were new, omit-... that had before been on the registrar, while... that the list of such voters shall be... from year to year. The Revising Barrister... to retain the names thus omitted, but as the... was important he offered to grant a case.

POOR-LAW BOARD AND THE ST. PANCRAS... —At a meeting of the St. Pancras... Monday, a letter was received from the... Board, embodying the substance of Mr. Bere's... late inquiry into the charges against... and the guardians, and giving the final... thereon. The Poor-law Board agreed with... in his opinion that the charges were due to... Mr. Herley's strong opinions, and strong but not... unworthy desire to carry his opinions into... Mr. Herley was very injudicious in the... he used, which conveyed a different meaning... which he intended. The Board acquitted him... motives, but did not agree with his opinion... ordinary patients should correspond in descrip-... of the in-patients of an hospital, and all the... ward-patients with the out patients. The letter... report were referred to the visiting committee... upon. Dr. Ellis was then called in, and... introducing the names of guardians into... his medical report-book. He was also... chairman that the Board was very anxious... resign. Dr. Ellis made no reply either... or the request, but simply bowed and... A resolution was passed, thanking Dr... for the reports he had drawn up in defence... and condemning Dr. Markham, Poor-law... whose conduct," it said, "towards Mr... of his own profession, they denounce as... unprofessional, and deserving of the severest... of the Poor-law Board."

EXTRACTION OF GAS FROM SEWAGE.—At the... meeting of the Metropolitan Board of... the present season on Monday last, Sir... alluded to a paragraph which had... in a new-paper to the effect that gas was... in India from sewage, inferring that the... might be obtained from metropolitan... He said that the writer ignored the fact that... sewage consisted principally of solid matter, ... which would render the cost of... too heavy to be of practical utility. At the... the Board would give very facility to... of the experiment upon the subject.

OF THE CARNATIC.—A letter from Cap-... of the Carnatic, which was wrecked on the... on the 12th ult., ascribes the loss of the... current off Jubal Island, which must... ship to the westward. He was on deck... ran on the reef, and though it would... on the islands in the ship's boats all... the vessel seemed so safe while she... among the rocks, that a committee... on inspecting the condition of the... with the request of the captain, ... that they would rather remain where they

were than attempt to go ashore. During the whole of... the 13th, therefore, all hands remained on board. Not... till the morning of the 14th were they piped away... The captain tells us that at 10 A.M. on that day he was... assisting some ladies into a boat, and the remaining... passengers were leaving the vessel in a quiet and... orderly manner, when she "suddenly slipped down... stern foremost, heeling over, and leaving the forepart... only out of the water." Concerning the manner in... which those who were lost came by their death the... narrative is very obscure, but a heavy surf appears to... have been beating on the shore, and some of the boats... were capsized in going through it.

FATAL FIRE AT BAYSWATER.—About three o'clock... yesterday morning a fatal explosion took place at 69, ... Moscow Road, Bayswater, occupied by Mr. Titheredge, ... dealer in fireworks and confectionery, which resulted... in the immediate death of two adult persons and five... children. The persons killed were three children of... Mr. Titheredge, Mrs. Jack, a lodger, her two sons and a... daughter, and the eldest son, who was a parochial... schoolmaster in the country, having come to town to... spend the holidays with his mother. Mr. Titheredge, ... who is an invalid, was severely burnt, but was rescued... by the next-door neighbour and taken to St. Mary's... Hospital, where he lies with little hope of his recovery... The house was entirely destroyed.

MURDER IN THE BOROUGH.—On Sunday morning... a murder and attempt at suicide was perpetrated in... Little Suffolk Street, Borough. A married man named... Martini, a Spaniard, with five children, made the... acquaintance of a young married woman named... Johnson, who had separated from her husband. It... seems that the girl was transferring her favours to a... third man, which so enraged Martini that he cut her... throat in her sleep, attempted ineffectually to cut his... own, and then went and gave himself up at the police-... station. The inquest was held on Tuesday, and as the... murderer had sufficiently recovered to appear before... the magistrate, the charge was also investigated at the... police-court. The evidence adduced was much the... same in both cases. The coroner's jury returned a... verdict of Wilful Murder, and the magistrate com-... mitted him for trial on the same charge.

THE PUBLIC HEALTH.—The Registrar-General's... Weekly Return states that in the week that ended on... Saturday, Sept. 25, 4720 births and 2982 deaths were... registered in London and in 13 other large towns of... the United Kingdom. The annual rate of mortality... was 24 per 1000 persons living, being 22 per 1000 in... London, 19 in Edinburgh, 24 in Dublin, 21 in Bristol, ... 23 in Birmingham, 23 in Liverpool, 25 in Manchester, ... 24 in Salford, 27 in Sheffield, 25 in Bradford, 28 in Leeds, ... 26 in Hull, and 24 in Newcastle-upon-Tyne. In... Paris the annual rate, in the same week, was 23 per... 1000. In London the births of 1144 boys and 1108... girls, in all 2252 children, were registered in the... week. In the corresponding weeks of 10 years, ... 1859-68, the average number, corrected for increase... of population, was 2110. The deaths registered in... London during the week were 1362. It was the 58th... week of the year, and the average number for that... week, corrected for increase of population, was 1282... The present return is therefore 80 above the estimated... amount.

Provincial.

ATHERSTONE.—At the Warwick Assizes in March... last Michael Adkins, a miner, was sentenced to death... for the wilful murder of his wife at Baddesley Endors, ... near this town. A petition praying for a respite of the... capital sentence was presented, and on the eve of his... execution the prisoner was respited during her Ma-... jesty's pleasure. The governor of Warwick Gaol has... now received a communication from the Secretary of... State, commuting the sentence of death to 12 months'... imprisonment, with hard labour, from the date of the... conviction.

BIRMINGHAM.—On Monday evening Mr. C. Dickens... delivered the inaugural address at the opening of the... winter session of the Birmingham and Midland... Institute, in the Town Hall. The hall, which is... capable of containing 3000 persons, was densely... thronged, the majority of the audience being ladies. ... Mr. Dickens, on taking his seat on the platform at eight... o'clock, was loudly cheered. In the course of his address... he dwelt in eloquent terms on the advantages which... had been conferred by the institution, referring to... several instances in which distinction had been attained... by its pupils. He exhorted the students to have the... courage to be ignorant of a great number of things, in... order that they might avoid the calamity of being... ignorant of everything; adding that such imagination... and invention as he happened to possess would never... have served him as they had done had they not been... accompanied by the habit of commonplace, humble, ... drudging attention. A vote of thanks to Mr. Dickens, ... moved by Mr. Dixon, M.P., having been unanimously... passed, Mr. Dickens, in reply, said that he would take... that opportunity of discharging himself of his whole... political creed, which was that his faith in the people... governing was infinitesimal; his faith in the people... governed was illimitable.

BRISTOL.—The 13th annual meeting of the National... Association for the Promotion of Social Science was... opened in this city on Wednesday, under the pre-... sidency of Sir Stafford Northcote, M.P., and will be... continued until the 6th inst. The Bishop of Gloucester... and Bristol preached the opening sermon in the... Cathedral, after which Sir S. Northcote delivered his... inaugural address, in which he dilated on the improve-... ment of the law, the promotion of national education, ... and the better care of the people's health—subjects, he... said, on the right method of doing which the public... mind was not made up, and on which public opinion... was apt to be largely influenced by the discussions of... the Conference. On Thursday the Congress divided

itself into four departments, in each of which special... questions were brought forward for discussion, intro-... duced by papers selected for the purpose by the Council. ... The first department—Jurisprudence and Amendment... of the Law—was under the presidency of the founder... of the Association, Mr. G. W. Hastings, and had a... section on the reformatory question, presided over by... Sir J. Eardley Wilmot. The second, or educational... department, was presided over by the Rev. Canon... Kingsley, and dealt with the various questions relating... to education, whether of the upper, middle, or lower... classes of society. The third, or health department, ... under Dr. J. A. Symonds, was devoted to the various... questions relating to the public health. The fourth... department related to economy and trade, and was... presided over by the Right Hon. S. Cave, M.P. Excursions... have been planned to the Bristol training-ship, the cliffs... and caverns of Cheddar, the Wyndoliff and Tintern Abbey.

BOLTON.—On Saturday a man named Henry... Whittle, aged 48, a weaver at Westhoughton, five miles... from this town, murdered his daughter-in-law, with a... hatchet, and then cut his own throat. He had been... residing at the house of his son, a collier, in Chapel... Walks, and since the marriage of the latter, on New... Year's Day, he had frequently quarrelled both with his... son and his daughter-in-law, and a fortnight ago had... threatened to murder them. They had consequently... told him to seek a home elsewhere, and in revenge he... murdered the woman in his son's absence. He then com-... mitted suicide. He bore a bad character in the village, ... and had been sent to prison for assaulting his wife, ... from whom he had lived apart for several years. At... the inquest on Tuesday the jury returned a verdict... that Ellen Whittle was murdered by her father-in-law, ... Henry Whittle, and that the latter afterwards com-... mitted *felo de se*.

EXETER.—On Friday the remains of the Bishop of... Exeter were interred by the side of his wife, in the... churchyard of St. Mary's Church, near Torquay. Upwards... of 150 of the clergy of the diocese, besides several... thousand spectators, were present. The cere-... mony was performed by the Dean of Exeter, and the... funeral was of a very simple character. The coffin was... borne to the grave on the shoulders of six old men, who... were in the employ of the late prelate. Archdeacon... Phillpotts was the chief mourner, and was accom-... panied by his brothers and sisters and other members... of the family.

HOUNSLOW.—On Saturday afternoon William... Smith was brought before the magistrates, at petty... sessions, charged with the wilful murder of his wife. ... It appeared that the man had been away from home... for several weeks in search of work, and that during... his absence his wife had been carrying on an intrigue... with some of the soldiers in Hounslow barracks. When... he returned he found his wife drinking with some... soldiers in a beer-house kept by her sister. This... led to a quarrel, and on her attempting to run upstairs... he followed, and struck her on the head with some... heavy weapon. She fell to the foot of the stairs, and... when picked up was found to be dead. The prisoner... then ran out of the house, but was afterwards captured... by the police. The magistrates committed the prisoner... for trial for Wilful Murder, and expressed themselves... with great severity against the deceased's sister and her... husband, who allowed the dead body to lie at the foot... of the stairs for three hours without sending for either... a doctor or a policeman, while they went on drawing... beer and serving their customers as if nothing had... happened. At the inquest on Tuesday it appeared... from the medical evidence that the injury to the skull... was probably the result of a fall, and not of a blow. ... Ultimately the jury returned a verdict of "Man-... slaughter against William Smith under circumstances... of great provocation."

JERSEY.—Considerable excitement has been caused... in this island by the prediction of a great tidal wave... for the 6th inst. Numbers have prepared to leave the... island to avoid the threatened catastrophe. These... apprehensions have been in some measure shared by... the military authorities, who felt anxious about the... safety of the troops occupying Elizabeth Castle, which... stands many feet above high-water mark. A com-... munication made to the Board of Trade for informa-... tion on the matter, was forwarded to the Meteorological... Office, whence an assurance has been transmitted to... Jersey that no danger need be apprehended, as there... was no reason to believe that the tidal wave would... attain a greater height than a few feet above the... ordinary spring tides. The Lieutenant Governor... caused the communication to be published, which had... a somewhat reassuring effect on the minds of the... public.

KINGSTON.—The Home Secretary has granted a full... pardon to Archibald Brown, who was sentenced at the... spring assizes in 1863, to five years' penal servitude for... forgery. The prisoner, who was only 16 years of age, ... was the son of a deceased gentleman at Surbiton, and by... means of forged cheques obtained a considerable sum... of money from Messrs. Shrubsole's bank in this town. ... The condition of the pardon is that the prisoner shall... immediately quit England, and remain abroad during... the remainder of the five years.

LEDSHAM.—On Monday week, after a harvest... thanksgiving at the parish church, a man named... Richard Kellett, foreman to Mr. Morrett, a farmer in... this place, was attacked with such violence by a number... of Irish labourers or harvesters, that he was found... dead in a footpath of the road leading from Ledsham... to Leeds. Three Irishmen were taken into custody... on suspicion of being concerned in the outrage. The... jury, however, at the inquest on Tuesday, returned a... verdict of Wilful Murder against some person or... persons unknown.

LEEDS.—An inquest was held at the Town Hall on... Monday on the body of Priscilla Sunter, the wife of a... miner and beer-house keeper at Whitkirk, near this

town. The deceased had only been married to the prisoner about two years, and had been so systematically beaten and ill-used that she had been obliged to leave his house on several occasions, and in one instance appealed to the magistrate for protection, when her husband was sent for three months to prison. Numerous witnesses were called to testify to the complaints the deceased had made to them of the brutal conduct of her husband, and the jury having returned a verdict of Wilful Murder against him, he was committed for trial at the assizes.

LIVERPOOL.—On Tuesday, in the large hall of St. George's Hall, the Mayor inaugurated a statue of the Earl of Derby, executed by Mr. Tneed, at a cost of 1000*l.*, for the Corporation, as an acknowledgment of his lordship's gift of the Derby Museum to the town. The statue is of heroic size, executed in Carrara marble, and is an excellent likeness. At the same time the Mayor also unveiled a statue of Mr. Joseph Mayer, of Liverpool, which has been executed for the Corporation in Carrara marble by Fontana, and placed in the hall in commemoration of Mr. Mayer's gift of his valuable museum of historical art to the town.

PONTYFRIDG.—A conference of miners was held in this town on the 16th ult., and was fully attended by delegates from Glamorgan and Monmouth. Mr. Pickard, agent for the South Lancashire Miners' Union, urged the formation of a union for the defence of the miners' interests. He said that what was wanted was an understanding between masters and their men. Competition was now so great that the interests of the working man were thrown aside. A compulsory mines inspection now was needed, and an extension of the provision of the Factory and Workshops Regulations Act should be made applicable to the children of the miners. The only effectual way of obtaining these things was by combination. The whole of the 52 delegates, representing 11,000 men, reported a general disposition to combine, and a union was then formed and an executive appointed.

STALEYBRIDGE.—At the inquest on the bodies of James and Alice Schofield, who were found dead at Micklehurst last week, the jury found, as regarded the death of the woman, a verdict of Wilful Murder against James Schofield; and with regard to the latter a verdict of *felo de se*.

WATFORD.—The Earl of Clarendon, Minister of Foreign Affairs, was present on Monday at the annual dinner of the West Hertfordshire Agricultural Association, and spoke as follows on the Irish land question, and the prospects of peace:—

"There is coming on a great occasion on which the two Houses of Parliament may unite in harmonious action. The question of the tenure of land in Ireland is a momentous, a vital, and not a party question. I do not say that it is not a party question by way of modifying opposition. The party that is in power always preaches to the party out of power moderation and not to be factious. That is a very old system, and one that is systematically disregarded. But I say that it is not a party question, because each successive Government, Liberal or Conservative, has faithfully promised, has sincerely attempted, and has signally failed to legislate for Ireland upon the question. The necessity still exists. It is not a party question, it is acknowledged here and more every day, and I therefore do not see why men of all parties, with honest purposes and calm moderation, should not unite together to produce a measure that would be perfectly satisfactory. There is no evil without a remedy; and there are evils connected with the tenure of land in Ireland that must be abated. The great problem to solve is to do justice to the many and to do injustice to no one. I admit that the solution of such a problem is difficult, but it is not impossible. Indeed, I think that the word 'impossible' should be erased from the vocabulary of every public man when remedial measures are in question, and more especially when the question is the application of them to Ireland. You will not expect to learn from me what course the Government intend to pursue, and, indeed, I think that if I told you that their minds were made up and that there was a Bill ready, you would receive the information with surprise and dissatisfaction, because you would feel sure that in the two months which have passed since Parliament was prorogued the amount of information, of statistics, and of data necessary for the formation of a judgment could not have been collected, and that if any determination had been taken already it would be crude and imperfect. But, although I will not tell you what the Government will do, I will tell you what they will not do. They will not adopt any of those wild and subversive schemes of which we have heard so much during the last few days. I cast no blame upon those who bring them forward. They, likely enough, may believe in the possibility of the accomplishment of what they propose; but I say that they are enemies of equitable settlement, which is the only settlement we can look forward to; and those who strive and labour to excite expectations that are extravagant and cannot be realised are no friends of the Irish people. But the Irish people, whatever may be their faults, are not fools. They are a quick-sighted people, and when the time comes I shall expect they will be amenable to reason, if that which is just and practicable is offered to them. I have now the honour of addressing practical men, and I would ask any gentleman here present to take a farm at will on which the landlord never did, and never intended to do, anything. Then, suppose he built upon that farm a house and a meadow, erected fences, and drained it, and was then turned out at six months' notice by the landlord, who took to himself the whole benefit of the tenant's labour and expenditure. I ask if there could be language strong enough in this country—in those meetings that are now being held, and in the Press—to condemn the felonious act of such a landlord as that. Far be it from me to say that any such proceedings are resorted to on the large and well-managed estates in Ireland, of which I could give you a long list. But the power does exist. It is too often exercised, and it ought to be abated, because so long as it exists there can be no confidence between landlord and tenant. I do not say that exceptional legislation may not be necessary with reference to the wants, the wishes, and the usages of an agricultural people like the Irish; but I believe that if the rights of property are scrupulously upheld, and its duties rigidly enforced by law, a measure will be produced which will entitle the Government and Parliament to say they have fulfilled their obligations and entitle them to the support and praise of every honest man. Before I sit down I ask your leave to be an exception to the prohibition of alluding to political matters, but at the same time I promise you it shall produce no dissent and not call for any reply, because the word I wish to say is not upon domestic, but upon foreign politics. In the office I have the honour to hold, I am not only enabled but compelled to know much of what passes in foreign countries and in the councils of foreign

countries. I have been for some time on the Continent, and I returned last week. I had there the opportunity of collecting opinions, and I have seen some persons who exercise no little influence on the destinies of Europe, and, although I have not the gift of prophecy, though I do not pretend to see farther into futurity than other men, yet I cannot help, on this occasion, expressing my belief that at no time within the last three years—at no time since the war between Prussia and Austria—have we had a fairer prospect of maintaining the inextinguishable blessings of peace."

WINDSOR.—The Prince of Wales has intimated his intention of discontinuing to keep his pack of harriers. In making, through Lord Bridport, this announcement to the farmers in the neighbourhood, over whose grounds the harriers have principally hunted, his Royal Highness has expressed his warm thanks for the courtesy they have always shown him, as well as for the liberal feeling they have evinced for so long a period by permitting the hounds to hunt over their land.

Ireland.

THE LORDS OF THE ADMIRALTY AND THE LORD-LIEUTENANT AT CORK.—The Channel fleet with the Lords of the Admiralty arrived at Queenstown on Monday. They had weathered the gale, but the Northumberland lost two men overboard. The Lord-Lieutenant also arrived at Cork on Monday, and was cordially received. The Corporation presented an address praying for the release of the Fenians, to which his Excellency replied that the petitions were receiving consideration from the Government. The Lord-Lieutenant then drove to Fota, the residence of Mr. Smith Barry, M.P., where he remained on a visit during his stay in Cork. On Tuesday the Cork Farmers' Club presented an address to the Lord-Lieutenant, praying for the release of the Fenian prisoners, and also for legislation on the land question, which, while securing a fair rent to the landlord, would enable the tenants to live on their farms and not compel them to emigrate. In the evening the Corporation entertained his Excellency at a banquet, at which he spoke of the facilities of Cork Harbour and the enterprise of its citizens, and said that for the development of the country's resources they should depend less on the expenditure of the public money than on self-reliance. Relative to the Fenian conspiracy, and replying to amnesty addresses, his Excellency said their grievances were not to be redressed by acts of violence, but in Parliament. During the day a deputation of the Queenstown Town Commissioners waited on the Lords of the Admiralty, and presented an address, urging the speedy completion of the docks. Mr. Childers replied that the Government had spent the full proportion of the aggregate estimate for such works on Haulbowline Dock. On Wednesday the Lord-Lieutenant, with the Mayor, visited the Exchange. His Excellency, accompanied by Countess Spencer, the Mayor, and others, then went down the river and inaugurated the naval docks at Haulbowline. A banquet was afterwards given by the Lords of the Admiralty on board the *Agincourt*.

THE MARQUIS OF HARTINGTON ON THE LAND QUESTION.—At the dinner of the Lismore Farming Society, on Friday, the Marquis of Hartington, who presided, spoke on the land question. He said:—

"While carefully disclaiming any intention of speaking for the Government, tenant-farmers should look at the question not only from their own point of view, but from that of land-lords, labourers, and the general public. Englishmen would never consent to deprive, without adequate compensation, persons of rights legally acquired, which they have not palpably misused. Tenant-farmers should be prepared to show how they propose to compensate landlords or guard their rights. Parliament would not legislate on the question unless satisfied that it would be for the advantage of labourers as well as farmers, who should show that the legislation proposed would be as good for labourers as themselves. It was to the public interest that land should be most effectively cultivated, and farmers solvent, and farmers should show that under the proposed legislation Ireland would be made to produce as much as under the best system of agriculture. If farmers did not view the question thus, they would find by bitter experience that Parliament would be less disposed than ever to legislate for the benefit of one class alone."

CARDINAL CULLEN ON THE LAND QUESTION.—Cardinal Cullen arrived at Wexford on Tuesday, and was presented with several addresses. In replying to one he said:—

"By remaining united, by so moderating our demands that, founded on justice, and not interfering with the legitimate rights of any class, they may tend to the well-being of the State, we may rest assured that the day is not far distant when the industrious tenant may enjoy in undisturbed tranquillity the honest earnings of his labour, and the Catholic parent have the means of educating his children according to the teaching of his own Church, without sending them to model schools or Queen's colleges, and exposing them to the dangers of imbibing pernicious doctrines."

THE LAND QUESTION.—A meeting, attended by 2000 persons, was held on Wednesday in the Market Hall, Tipperary, to discuss the land question. The Rev. Dr. O'Connor, C.C., presided. Very violent speeches were delivered by Dean O'Brien and Mr. Butt. An address to the people was adopted, denouncing landlord power of eviction as fatal to the peace of the country, and destructive to property; perpetuating war of classes; admitting landlords' right to increased rent when the circumstances of the country, tested by the price of produce, warrant it; and calling on all classes to join in an effort to emancipate the people from the slavery of the present land tenure.

THE ATTEMPTED MURDER OF CAPTAIN LAMBERT.—The Lord Chief Justice on Monday opened the special commission at Galway for the trial of Barrett, charged with the attempt to murder Captain Lambert. The town was greatly thronged. Upwards of 200 jurors were summoned. The Chief Justice, in charging the grand jury, said he believed that this and all similar outrages originated from an agrarian spirit, and that the instigators and perpetrators designed to drive landlords

away by terror, in order that they might have the land free of rent. He counselled the grand jury to be dismayed, but to remain in the protection of Government. The trial proceeded with. The array was returned, and the challenge of Attorney-General stated the case. We insist on evidence was given. The effect that prior to the array Barrett reached Athlone another in Captain Lambert's grounds, being recalled, swore that he was fired at. The Solicitor-General's court rose. On Thursday the jury being discharged with a verdict after being locked up three days for acquittal and three for a verdict was adjourned to the 14th of next month will again be put on his trial. A juror called Jackson, who was one who dissented from acquittal, was pelted with stones. He took refuge in barracks, the sentry of which was shot through the town had their carriage with stones. Nobody was injured. The town was quiet. Captain Lambert was guarded during the trial by a large force of two disguised constables have been

THE FENIAN PRISONERS.—On Monday a meeting was held at Cork, to demand amnesty for the Fenian prisoners. The meeting was headed each by a band and banner, and a military array to the City Park, each with a green sash or rosette. Mr. Brian O'Connell presided, and there were five towns on the platform, including ex-Mayor O'Sullivan. Resolutions, which were of the usual nature, were passed unanimously. A similar meeting was held at Inchicore, near Dublin. About 1000 persons said to have been present, accompanied by bands, and followed by large crowds. The speakers were:—Dr. Waters, of the *Irishman*; Mr. J. Reilly, barrister-at-law; Mr. Eagan. Resolutions were passed in favour of the release of the prisoners. On Monday the Abstinence Society, which recently presented Gladstone a memorial to the Queen for the release of the Fenian prisoners, received a letter from Gladstone's private secretary, acknowledging the memorial and engaging on Mr. Gladstone's part to pledge the Government to any proposal which "felt bound in justice to render his terms loyal and becoming terms in which the Government had approached the Throne, and the true character to the offences and appearance of the persons now in confinement."

Scotland.

THE LORD JUSTICE CLERK.—All doubts as to the fate of the Lord Justice Clerk are at an end. The worst apprehensions have been realised. The body was found on Friday in the River Clyde, a little below the Bridge of Buchanty, and was drawn from a pool in which it was at the bottom. It would be found. The body was drawn from a creper, which had caught hold of the right hand. There was a deep gash in the forehead of the deceased, showing that he had been struck on his own hand. The body, which was dressed in black clothes, was at once removed to the House.

THE COURT OF SESSION.—Mr. Moncrieff, advocate, has been appointed to the office of Lord Justice Clerk of Scotland, in room of the late Mr. Clerk.

RESIGNATION OF BISHOP TERROT.—The resignation of Edinburgh (Dr. Terrot) has resigned his office. The election of his successor must take place in a few weeks.

THE WALLACE MONUMENT.—On Saturday last the national monument to Sir James Wallace, erected on the Abbey Craig, near Stirling, was handed over by the committee of subscription to the Provost, magistrates, and Town Council. The future custodians of the structure were the magistrates and other officials mentioned in the resolution from the Corn Exchange, and proceeded to the Wallace Street and Stirling Bridge to the monument where they met the monument committee. A ceremony was performed in the afternoon in the presence of about 1000 persons, Lord Jerviswoode presiding. Mr. Moncrieff, secretary, read a report, which stated that the cost of the monument was resolved upon and that the foundation-stone was laid in June. After many difficulties had been overcome, the monument had at last been completed, at a total cost of 1*l.* 8*s.* 8*d.* The amount subscribed was 1000*l.* leaving a deficiency of nearly 1000*l.* The estimate of the cost of the monument was 1000*l.* The committee, in concluding their report, said:—"We have had no other object in view than to carry out our countrymen's wish and to share to the long-neglected but illustrious memory of the great champion of Scotland—William Wallace." On the same day a committee was appointed to deal with the remaining business affairs connected with the monument. Lord Jerviswoode, the convener of the committee, then formally handed over the monument

PROVOST, magistrates, and council, of Swansea Hospital, are proprietors of the monument, in the name of the Provost Rankin, in the name of the council, expressed the great...

Sporting.

MARKET AUTUMN MEETING. SIR C. LEGARD'S VESPASIAN BEAT. Grand Duke Michael Stakes.—Sir J. walked over. Match.—Prince Soltykoff's...

Obituary.

PATTON, Lord Justice-Clerk of Scotland, whose death and suicide has been noticed in our columns, was born in 1793. He was educated at the University of Oxford. In 1828 he was called to the Scotch bar, where he soon obtained a high reputation, being especially noted at one time for his success in cases in which he was engaged...

weeks, having been elevated to the bench as successor to Lord Robertson. Lady Augusta Westmoreland, sister of the Marquis of Ailesbury, died on the 29th inst., at Westworth Castle, near Bathurst, in her 74th year. The ladyship was born in 1794, and married in 1816, Mr. Frederick William T. Vernon Westmoreland of Westworth Castle, Yorkshire.

GENERAL PHILIP HARRIS, commanding the Allahabad division, died suddenly on the 31st ult., of cholera, brought on by the labour and exposure he had undergone in providing for the health and comfort of the troops of Allahabad, during the recent long and severe visitations of cholera. He visited one or more hospitals (often distant several miles from the station) every day, and on these visits addressed kind and cheering words to every suffering patient in hospital. He was attacked at 4 in the morning, and died a few minutes to 10 in the afternoon.

MAJOR JOHN JESSOP, C.B., of Butterley Hall, died a few days since in his 90th year. He joined the 44th Regiment as ensign in 1799, served through the Egyptian campaign, was at the landing at Aboukir, and at the battle of Alexandria when Abercrombie was killed. He afterwards served through the Peninsular War, and was present at the action on the Coa, at Fuentes d'Onor, and at Barba del Puerca. He also served in the campaign in Holland, being on the Staff of Lord Lynedoch, and was Assistant Quartermaster-General at the battle of Waterloo, where he was wounded. Soon after the peace he retired from the army. He married in 1818 the second daughter of the Rev. T. de Burg, by whom he had a daughter, who died in 1844, and two sons, Mr. William Jessop, of Butterley Hall, and Mr. John Jessop, both of whom survive him.

THE REV. CANON BLOOMFIELD, M.A., one of the oldest clergymen in the diocese of Peterborough, died a few days since. He was educated at Sidney Sussex College, Cambridge, where he took his B.A. degree in 1808. He was ordained in 1809, and having served various offices in the Church, was nominated in 1814 by the Duke of Rutland to the vicarage of Bisbrooke, near Uppingham, which he held to the time of his death. In 1854 he was nominated by Bishop Deane to an honorary canonry in Peterborough Cathedral. He was the author of a well-known edition of the Greek Testament.

THE REV. DAVID EMERTON, for many years principal of Hanwell College, and lately chaplain of the Galignani Hospital, and acting chaplain to the British Embassy, died in Paris last week. He was a man of considerable literary attainments, and had devoted much time and attention to the subject of international education.

WILLS.—The will of Lord Taunton has been sworn under 140,000l. personality; Mr. David Jones, late M.P. for Carmarthen, 60,000l.; Mrs. Harriet Richardson, of Lombard Villas, Greenwich, 25,000l.; Mr. Richard Greaves, of Warnford Court, stock and sharebroker, 20,000l.; Thomas Holdsworth Brooking, of New Broad Street, merchant, 50,000l.; Mr. Benjamin Edgington, of Duke Street, Southwark, and the Elms, Upper Tooting, marquee, tent, rickelath and improved tarpauling manufacturer, 120,000l.

Markets.

HAY.—Per Load of 36 Trusses. SMITHFIELD, Thursday, Sept. 30. Trade firm. Supply short. Prime Meadow Hay 80sto 90s 120s to 132s Inferior do. 60 70 90 100 New do. 80 90 100 110 Inferior do. 50 60 70 80 Straw 30 38 CHARLES JAMES EASTON. CUMBERLAND MARKET, Thursday, Sept. 30. Sup. Meadow Hay 90s to 100s Inferior Clover 100s to 115s Inferior do. 65 84 New do. 80 90 Straw 34 40 Superior Clover 112 135 JOSHUA BAKER. COVENT GARDEN.—Oct. 2. Stocks have accumulated to a great extent, and a thin attendance of buyers renders it necessary to force the trade, especially in articles not in general consumption. Good Lisbon Grapes can now be had, at prices varying from 6l. to 1s. per lb. Pears comprise the sorts named last week. Choice varieties of Apples are somewhat scarce. Flowers

chiefly consist of Malagoutana, Mignonette, Pacheta, Litheme, Aetosa, Nodium spectabile (Familiar of garden) Valeriana purpurea, and a few Primulas.

FRUIT.

Apples, p. 3 sieve, 1s to 1s 6d. Pigs, per doz., 2s to 4s. Filberts, per lb., 6d to 1s. Grapes, per lb., 1s 6d to 2s. Lemons, per 100, 2s to 3s.

VEGETABLES.

Artichokes, green, p. doz., 1s to 2s. Beans, Kidney, p. 4 sieve, 3s to 4s. Beet, per doz., 2s to 3s. Broccoli, p. bunch, 1s to 1s 6d. Brussels sprouts, p. 4 sieve, 3s to 3s 6d. Cabbages, per doz., 1s to 1s 6d. Carrots, per bunch, 6d to 8d. Cauliflowers, p. doz., 1s 6d to 2s. Celery, p. bunch, 1s to 1s 6d. Cucumbers, each, 6d to 1s. Endive, per doz., 1s 6d to 2s. Garlic and Shallots, per lb., 8d. Herbs, per bunch, 2d to 4d.

LEADENHALL POULTRY, &c.

Geese 4s to 6s. Goallings 4s to 6s. Turkey 4s to 6s. Turkey pullets 4s to 6s. Ducks 2s to 3s. Ducklings 2s to 3s. Surrey Fowls, couple, 7s to 8s. Do. chickens 8s to 10s. Barn-door Fowls 8s to 10s. Leverets 1s to 2s. Pigeons 1s to 2s. Tame Rabbits 1s to 2s. Wild Rabbits 1s to 2s. Partridges 1s to 2s. Hares 1s to 2s. Green 1s to 2s. Quails 1s to 2s. Fuglish Eggs, p. 100, 9s to 10s. Foreign do 8s to 9s. Fresh Butter, 1s 6d to 1s 8d per lb.

METROPOLITAN MEAT MARKET.—Best Fresh Butter 16s. per dozen lb. Second do. 15s. Small Pork, 5s. 6d. to 6s. 6d.; Large Pork, 4s. 6d. to 5s. 6d. per 8 lb.

METROPOLITAN CATTLE MARKET.

MONDAY, Sept. 27. We have a larger supply of Beasts and a dull trade; prices for all descriptions are lower and several lots remain unsold. The number of Sheep is about the same as on last Monday. The demand has increased, and prices on the average are lower. The trade is very much worse for Calves. A few choice Lambs make about the same as on Thursday last. Our foreign supply consists of 2100 Beasts, 2010 Sheep, 222 Calves, and 20 Pigs, from Ireland there are 230 Beasts and 2500 from the Midland and Home Counties. Best Scots, Herefords, &c. 4 8 to 5 0. Best Shorthorns 4 6 to 4 10. 2d quality Beasts 2 8 to 3 4. Best Downs and Half-breds 5 0 to 5 4. Do. Shorn 4 0 to 5 0. Beasts, 4734; Sheep and Lambs, 19,640; Calves, 800; Pigs, 100.

MARK LANE.—Monday, Sept. 27.

There was only a moderate supply of English Wheat to this morning's market, and the sales made were at a reduction of 1s. to 2s. per qr. on last Monday's rates. The attendance was good, but the business transacted in foreign Wheat was very small, at 1s. per qr. decline on the week. Barley of all descriptions was steady in price, but a slow sale. Beans and Peas were without change. Oats were 6d. per qr. lower. Flour was dull of sale, at a decline of 1s. per sack for country marks, and 6d. per barrel. New Mustard seed sold at 12s. to 12s. 6d. per bushel, according to condition.

PRICE PER IMPERIAL QUARTER. WHEAT, Essex, Kent, Suffolk, White 45-50 Red 41-45. Foreign 47-54. BARLEY, grind. & dist., 3s to 3s 6d. OATS, Essex and Suffolk 25-33. RYE, Foreign 39-41. BEANS, Mazagan 39s to 41s. PEAS, White, Essex, and Kent 40-42. MAIZE, Foreign 29-30. FLOUR, best marks delivered per sack 43-47.

FRIDAY, Oct. 1.

Millers and dealers expecting a further reduction of Wheat have deferred purchasing, and as the deliveries were in excess of the consumption the trade has been dull, and where sales were forced a reduction of 1s. per qr. on old and 2s. on new Wheat, both homegrown and foreign, has been admitted to, but during the last day or two less pressure to force sales has been manifest. The value of spring corn of all descriptions has given way, but the reduction has been small.

and hardly in any case more than about 6d. per qr. on Barley, Beans, Peas; new Oats, however, declined 6d. to 1s. per qr. in several markets. Flour was much neglected, and 1s. per barrel and sack cheaper, with a very slow sale. Birmingham quotes a reduction of 3s. 4d. per sack. Since Friday last 92 grain and seed-laden vessels have arrived off the coast, of which, with those left over from last week, there remained for sale last night 82 cargoes. The floating trade, owing to the increased supply, showed depression during the preceding week, and arrived Wheat sold at 1s. to 2s. per qr. less money. Maize was about 6d. to 1s. per qr. cheaper. Barley a quiet sale. In Rye there was nothing doing. In cargoes on passage and for forward shipment but very little business has been done, and prices remain nominal. Paris, Sept. 30.—Wheat is in very limited demand, and prices lower. Flour a dull trade. The eight marks are quoted 3s. 6d. per 250 lb. The stock at the Halle is estimated at 4215 cwts.

The arrivals of all descriptions of English grain this week have been small, and of foreign to a fair extent. There was a very poor attendance at this morning's market, and scarcely any business transacted; prices are nominally the same as on Monday, but to effect sales a decline of fully 1s. per qr. would have to be submitted to. With the exception of prime malting Barley, which was in fair demand, all descriptions of spring corn must be quoted rather lower. New Oats sold at 6d. to 1s. per qr. less money.

ARRIVALS.

	Wheat.	Barley.	Oats.	Flour.
English ..	1340 qrs.	380 qrs.	— qrs.	— sks.
Irish	— "	— "	930 "	— "
Foreign ..	26,500 "	1610 "	29,430 "	{ 1290 "
				{ 9990 brls.
	27,840	1990	30,410	

MANCHESTER, Sept. 30.—Since our last report the trade has continued inactive, and prices have ruled generally in favour of buyers in the limited business passing. From abroad the imports into Liverpool have again been large of Wheat, Flour, and Indian Corn, and fair of Beans. From Ireland the receipts of Oats and Oatmeal have increased. At our market this morning English Wheat met a slow sale, at a decline of 1s. per qr., and foreign must be noted 2d. per cental lower. The demand for Flour was limited, at a reduction of 6d. and 1s. per sack. Oats receded 1d. to 2d. per 45 lb., Egyptian Beans 6d., and Indian Corn 6d. per qr.

AVERAGES.

	Wheat.	Barley.	Oats.
Aug. 21 ..	53s 1d	33s 7d	26s 3d
— 28 ..	54 2	32 7	26 2
Sept. 4 ..	51 11	36 8	26 8
— 11 ..	49 10	37 10	25 11
— 18 ..	50 5	38 3	25 5
— 25 ..	50 6	37 3	25 6
Average .	51 8	36 0	26 4

SEED MARKET.

The seed trade still rules very quiet, excepting for those few kinds required for present use. Winter Tares are in fair demand at high rates. For Trifolium incarnatum small orders come to hand, which are executed at the late advance. Canary seed, owing to the arrivals of new foreign, is a little easier. Of Hemp seed the stocks are now quite exhausted; a supply of new Dutch will, however, be on the market in the course of a few days. There has lately been more doing in Clover seed, and several parcels of fine quality have changed hands. Red Clover and Trefoil seeds excite just now but little attention. We have a good inquiry for old feeding Tares. Foreign Linseed sells steadily, without change in value. New French Italian is in fair request. Mustard, Rapeseed, winter Barley, Oats, and Rye are without alteration. New garden Peas and Beans are now beginning to come to market.

JOHN SHAW & SONS, 16, Water Lane, E.C.

ENGLISH WOOL.

We have had a very quiet market, without any improvement in prices.

CURRENT PRICES OF ENGLISH WOOL.	per lb.—s. d.	s. d.
FLEECES—Southdown hoggets	1 1 to 1 2
Half-bred ditto	1 2 — 1 2½
Kent Fleeces	1 3 — 1 4
Southdown ewes and wethers	1 0½ — 1 1
Leicester ditto	1 2 — 1 3
SORTS—Clothing	0 10 — 1 6
Combing	1 0 — 1 8

WILLIAM ROLLISSON AND SONS beg to inform the Nobility, Gentry, and the Trade that they have engaged Mr. T. FOX as TRAVELLER to represent their Firm, and he will shortly commence his journey.
The Nurseries, Footing, London.—Oct. 2.

WANTED, in one of the first Seed Houses in Germany, a CORRESPONDENT for the English Language. Some acquaintance with the Seed Trade, as well as French, necessary. Best references required. Good salary.—Apply by letter, K. 122, Spring Lane, Sheffield.

WANTED, a General Out-of-Door NURSERY FOREMAN, who has a good knowledge of his business. Must be a successful Budder and Grafter. None need apply who cannot furnish unexceptionable references as to ability, honesty, and sobriety.—Apply to H., care of Messrs. Hugh Low & Co., Clapton Nurseries, London, N.E.

South Metropolitan District School, Sutton, Surrey. MARKET GARDENER WANTED.

THE MANAGERS require the services of a WORKING GARDENER. His duties will be (under the direction of the Superintendent) to Manage the Land under Cultivation, to Instruct in Agriculture, &c., all such Boys as are placed under him for that purpose, and to act as Foreman over the Labourers on the Farm. He must be able to keep simple Accounts, and no person need apply whose character and fitness for the office will not bear the strictest inquiry. Wages, 21s. per week, with unfurnished cottage, coals, milk, and vegetables.—Applications, with testimonials, stating age, whether married or single, and number of children (if any), are to be sent to me on or before October 11 next, and notice will be given to those Candidates whom the Managers desire to see. By order of the Managers, JOSEPH BURGESS, Clerk. Vestry Hall, Waiworth, Sept. 24.

WANTED, a WORKING GARDENER, who thoroughly understands his profession.—Wages, 21s. per week, with coals and lights found, also an unfurnished dwelling-house. A Married Man, without children, and whose Wife is a first-class Cook or Landress, would be preferred.—Address, with references, C. A. R., Post Office, Harrow.

WANTED, a young single Man, as ROSE GROWER; one who has just served his time under a first-class Propagator preferred.—Apply, by letter only, stating wages required, to E. M., Gardeners' Chronicle Office, W.C.

MESRS. VEITCH AND SONS REQUIRE an active Young Man for the PROPAGATING DEPARTMENT of their Coombe Wood Nursery. One about 17 or 18 years of age, and who would remain two or three years on a rising scale of wages, preferred. Lodgings, &c., provided.—Apply personally or by letter at The Royal Exotic Nursery, Chelsea, S.W.

WANTED, in a London Nursery, an active YOUNG MAN, of good address.—He must possess a thorough knowledge of Plants, as he will be required to Collect Orders and Wait upon Company. A good Salesman indispensable.—Apply, in own handwriting, to B. S. WILLIAMS, Victoria Nurseries, Upper Holloway, N.

WANTED, an ASSISTANT, in a Provincial Seed House, capable of taking the entire Management of Shop, attending to Markets, &c.—Apply by letter, with references and salary required, to T. B., Hurst & Son, 6, Leadenhall Street, E.C.

WANTED, 30 miles from London, a MAN and WIFE (without incumbrance preferred), to live in the Lodge or in the House. Man to be able to Drive, and to take charge of a Horse, also to be a good Gardener. Wife must be a good Cook.—Address F., care of Mr. Hopcraft, 1, Mincing Lane, London, E.C.

WANTED, in October, in the neighbourhood of Middlesex, a good PLAIN COOK, where four other Servants are kept. Wages, £14 to £20, according to experience. Good references necessary. State age, &c.—A. R. S., Post Office, Middlesborough

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. E. G. HENDERSON AND SON, Wellington Nursery, St. John's Wood, London, N.W.

Gardeners and Under Gardeners.

WM. CUTBUSH AND SON beg to state that they have at all times on their books MEN of various qualifications, whose characters will bear the strictest inquiry. Any Gentleman making application would save time by clearly stating the duties to be undertaken, wages offered, &c., so that suitable Men may be selected.—Highgate Nurseries, London, N.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS, and GARDENERS and BAILIFFS, of various qualifications, who are open to Engagements. The fullest particulars as to services required and wages given should be forwarded with application.—PAUL'S Nurseries, Waltham Cross, London, N.

To Gardeners and Bailiffs (Head, Foremen, or Under). JAMES CARTER AND CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those who can send unquestionable references need apply. Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & Co. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c. JAMES CARTER AND CO., 237 & 238, High Holborn, London, W.C.

GARDENER (HEAD).—Age 38, married, without incumbrance. First-class references as to character and ability.—J. S., Gardeners' Chronicle Office, W.C.

GARDENER (HEAD), age 33.—A Gentleman leaving his residence wishes to obtain a situation for his Gardener, who has been with him for the last nine years.—Apply by letter to Y. Z., Adams, Printer, Pudding Lane, City, E.C.

GARDENER (HEAD).—Age 38, married; thoroughly practical in every department. Good Grape Grower, and Flower and Kitchen Gardener. Understands Woods, Land, and Stock, and the general work of an Estate. Can be highly recommended.—S. J., West Street, Somerton, Somerset.

GARDENER (HEAD).—Age 40, married; thoroughly understands Early and Late Forcing; a good Plant Grower, Kitchen and Flower Gardener. Seven years in last situation. Can be highly recommended.—S. F., Mr. Thoru's, Commerce Place, Lower Norwood, S.

GARDENER (HEAD).—Middle-aged, married, no incumbrance; has a practical knowledge of the profession in all its branches, the Laying-out of Grounds and Erecting of Hot-houses; and a thorough knowledge of Farming, and Management of an Estate, if required. Satisfactory references.—A. B., Mr. Hurrel's, Post Office, Fulham, S.W.

To Noblemen and Gentlemen.

GARDENER (HEAD), where trust and confidence are required.—Age 40, married; understands Early and Late Forcing in all its branches, and the general routine of a large Garden. Preference given where Horticulture is encouraged. Nine years' good character.—G. Cuan, Messrs. Henderson, Pine Apple Place, Edgware Road, W.

To Noblemen and Gentlemen.

GARDENER (HEAD).—Middle-aged, married, no incumbrance; is a thorough master of the profession in all its branches, and perfectly capable of undertaking the most responsible situation. Has been in present employment over 10 years, and can have the highest references.—Mr. GEO. J. CHILD, 49, Darley Street, Bradford, Yorkshire.

GARDENER (HEAD), age 28, married.—W. MOORE, Gardener to the Right Hon. Earl Brownlow, Belton House, Grantham, Lincolnshire, can with the greatest confidence recommend to any Nobleman or Gentleman requiring the services of a thoroughly practical, trustworthy, energetic, steady Gardener, a Young Man, with ample experience in Fruit, Vegetable, and Plant Cultivation, including Flower Gardening. No single-handed place accepted.—Mr. MOORE will be glad to answer any further inquiries addressed as above.

GARDENER (HEAD, WORKING).—Age 40, married, no incumbrance; thoroughly practical both in Early and Late Forcing, Fruit, Flowers, and Kitchen Gardening. Two years' good character.—R. S., 7, Cromwell Road, Upper Holloway, N.

GARDENER (HEAD, WORKING).—Age 25, no incumbrance; thoroughly understands the profession in all its branches. Wages expected, 60s. per annum, with house and firing. Unexceptionable character.—J. M., Post Office, Spondon, near Derby.

GARDENER (SINGLE-HANDED), or HEAD, where two or three are kept.—Age 24; good character.—J. GOUGH, Valentine's, Ilford, Essex, E.

GARDENER.—Age 40, married; thoroughly understands the profession. Four years' good character from present employer.—JAMES CASTLE, East Pallant, Chichester.

GARDENER.—Age 28, married, no incumbrance.—G. H. WALKER, Mr. Morse's, Nurseryman, Dursley, Gloucestershire.

GARDENER (UNDER).—Age 20; used to Outdoor and Indoor Work in a Gentleman's Garden. Two years' reference.—T. KNIGHT, Whitminster House, near Stotborough, Gloucestershire.

GARDENER (UNDER).—Age 21; five years' experience. Good reference.—THOS. MARSDEN, Adlington, near Chorley, Lancashire.

PROPAGATOR, or FOREMAN and PROPAGATOR.—Long experience in Town and Provincial Nurseries; successful Grafter of Azaleas, Camellias, Conifers, Roses, Rhododendrons, &c., also Budder and Grafter of Roses, Fruit Trees, &c.—W. R., 49, Kedleston Street, Derby.

PROPAGATOR, &c.—Has had much experience in Growing Plants for Market, Potting, &c.—References from last employer, who would be lived many years.—A. B., Post Office, Kennington Park Road, S.E.

PLANT GROWER, in a Nobleman's or Gentleman's Garden; or to the Trade as PLANT GROWER, or PLANT GROWER and SALESMAN.—F. T. A. Byst. Lane, Harmer Smith.

TO NURSERYMEN and GARDENERS.—The Advertiser would give £10 for further information in a large Establishment.—X. Y., Post Office, Dulwich, S.E.

To Nurserymen, &c. MANAGER.—Thoroughly practical, with 20 years' experience in the Management of Nurseries and Propagation of Fruit Trees, Conifers, &c. house Plants, Camellias, Azaleas, Rhododendrons, &c. make Drawings, Estimate and Carry out the most modern and approved principles.—Apply to G. W., T. Bridgden, 52, King William Street, City.

A GENTLEMAN is anxious to recommend his Agent to any Gentleman or Agent who requires of a thoroughly trained Young Man of 22 years of age, and several years assisted in the Management of large Nurseries and Suffolk.—Address W. F., Post Office, Epsom.

FARM BAILIFF.—Age 34, married; respectable. Has had practical experience in the Management of a Small Estate. Good Salary, to keep Accounts. Excellent references as to character and ability.—Mr. STEPHEN REYNOLDS, Post Office, Epsom.

To Seed and Corn Dealers. SALESMAN, WAREHOUSEMAN MANAGER of a small concern.—Age 30, D. D., The Mount, East Woodhey, near Newark.

WAREHOUSEMAN or SHOPMAN.—10 years' experience in the Wholesale and Retail of a secondary consideration. First-class references.—J. C. Maze, Lisburn, Ireland.

To the Seed Trade. SHOPMAN.—THOMAS ROBERT, 1, Market Street, Messrs. Henry Clarke & Sons, 39, King Street, W.C., desires an engagement as above.—14, Tottenham Garden, W.C.

To the Seed Trade. SHOPMAN, or ASSISTANT SHOPMAN.—Seven years' experience in all branches of the Seed Business. Excellent references from last employers.—W. F., Post Office, Epsom.

To the Seed Trade. SHOPMAN (ASSISTANT), in a first-class business.—Age 24; seven years' experience, with knowledge of the business. Good references.—J. J. L., 24, Easton Road, Epsom.

SHOPMAN (ASSISTANT), or CLERK.—Young man experienced in all branches of the Trade. Has been present employer; reference to them.—A. H., York Wood, Colchester, N.B.

CLERK or BOOK-KEEPER.—Age 22 years' experience in a first-class business. References.—Z. A., G. Huntley, Stationer, Broad Street, Epsom.

To the Seed Trade. CLERK, or CLERK and TRAVELLER.—Man of considerable experience. Has held positions for both London and Provincial Houses. Excellent references.—G. F., 1, Belle Vue Villas, Clarence Road, London, N.

GROOM, under a Coachman, or HELPER. Stables.—Age 19; can be highly recommended. Kempston Hoop, Bedford.

HORSEMAN (SECOND), or STUD GROOM, or HELPER and COACHMAN, in a Gentleman's Establishment. Married Man, of high reputation for respectability and ability. Weight, 9 stone.—M. H., 138, Stork's Road, London, S.E.

ELEGANT PERSONAL REQUISITES. ROWLANDS' MACASSAR OIL, for promoting the restoring, improving, and beautifying the hair, 10s. 6d., and 21s. per bottle. ROWLANDS' Oriental preparation for improving the complexion, eradicating cutaneous defects, 4s. 6d., and 10s. ROWLANDS' ODONTO, or PEARL DENTIFRICE, the teeth a pearly-like whiteness, and gives a freshness to the breath. 2s. 6d. per box. Sold by chemists. Ask for "Rowlands'" articles.

WHEN the HAIR, through weakness, begins to fall, or turn grey, no preparation will counteract the progress of these evils, restore the ORIGINAL COLOUR, and a healthy and luxuriant growth, than Mrs. S. A. L. WORLD'S HAIR RESTORER. It is simple in its ingredients, requiring no previous preparation of the hair; is agreeable, and no pomade or hair oil is required with it. Bottles, 6s., of chemists and perfumers. Depot, 263, High Holborn, London.

DINNEFORD'S FLUID MAGNESIA.—The best remedy for Acidity of the Stomach, Headache, Gout, and Indigestion; and the best preparation for delicate constitutions, especially adapted for Ladies and Infants. DINNEFORD AND CO., 172, New Bond Street, London, and of all Chemists throughout the World.

CORNS and BUNIONS.—A Gentleman, who has been tormented with Corns, will be happy to afford information by which he obtained their complete removal, without pain or any inconvenience.—Please send stamped envelope to F. KINGSTON, Esq., Ware, Herts.

IN the AUTUMN PARR'S LIFE PILLS are taken by thousands. They clear from the system all impurities, promote appetite, aid digestion, purify the blood, and give a regular bowels. Persons suffering from headache, pains in the shoulders and the back, gout, rheumatism, debility, are particularly recommended to try PARR'S PILLS. They have never been known to fail in affording relief.

COCKLE'S ANTIBILIOUS PILLS.—THE SAFEST FAMILY APERIENT. In boxes at 1s. 1½d., 2s. 9d., 4s. 6d., and 11s.

COCKLE'S ANTIBILIOUS PILLS.—in use the last 69 years for INDIGESTION. In boxes at 1s. 1½d., 2s. 9d., 4s. 6d., and 11s.

COCKLE'S ANTIBILIOUS PILLS.—in use the last 69 years for BILIOUS AFFECTIONS. In boxes at 1s. 1½d., 2s. 9d., 4s. 6d., and 11s.

COCKLE'S ANTIBILIOUS PILLS.—in use the last 69 years for LIVER COMPLAINTS. In boxes at 1s. 1½d., 2s. 9d., 4s. 6d., and 11s.

COCKLE'S ANTIBILIOUS PILLS.—THE OLDEST PATENT MEDICINE. In boxes at 1s. 1½d., 2s. 9d., 4s. 6d., and 11s.

THE MARVEL OF SCIENCE.—CURE FOR NERVOUS DEBILITY, INDIGESTION, RHEUMATISM, &c. now cure themselves by the only "Guaranteed Remedy" protected and sanctioned by the Faculty. Free for One Stamp, by R. JAMES, Esq., Medical Director of the London Hospitals, Percy House, Bedford Square, W.C. N.B.—Medicine and Fees superseded. A Test given in details. Established 1840.

Gardeners' Chronicle Newspaper.

SATURDAY, OCTOBER 9, 1869.

ARTICULAR REVIEW, No. 254, SATURDAY, OCTOBER 18

CONTENTS: LOWER ANIMALS, SUPPLY OF LONDON, THE IRISH CHURCH, CONSERVATIVE POLICY.

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BOOK OF VINE and FRUIT TREE... under GLASS, with carefully prepared Lists...

NEW METHOD of GROWING FRUIT... JOHN FOSTER, Southacre Rectory, Brandon...

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ANNUAL FARM ACCOUNT BOOKS... The Press on application to the Author, Binfield...

WATER and SPRING on the SHORES of the... TERRANEAN, or, the Riviera, Mentone, Italy...

PRINTS - A Job Lot of ENGRAVINGS and... for Framing, Screens, Retaining, &c...

HOTEL, 162 and 163, Strand, adjoining... and Somerset House. It is a Hotel has been...

GENERAL LIFE ASSURANCE... TRUSTEES: The Lord Chancellor, Lord Cairns...

FINANCIAL POSITION on January 1, 1869... Assurance and Bonus £4,650,000...

POLICIES granted for a single extra payment... where no special Liability to foreign residence...

CONDITIONS of Assurance printed thereon are... to secure to Policies of the Society, when once...

BEAM LIFE ASSURANCE SOCIETY... 37, Old Jewry, London.

PROFESSOR TENNANT, F.G.S., will DELIVER a... of LECTURES on MINERALOGY applied to...

Home News. IN SCOTLAND.—On Wednesday, the... Queen drove to the Glassalt Shiel with...

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THE BISHOPRIC OF EXETER, vacant by the death of Dr. Phillpotts, has been conferred on the Rev. Dr. Temple, Head Master of Rugby School, one of her Majesty's Chaplains, and the author of the introductory essay in the two celebrated volumes of "Essays and Reviews" and more recently of some "Sermons," preached in the chapel at Rugby.

THE BISHOPRIC OF CARLISLE.—It is stated that the bishopric of Carlisle has been offered to Archdeacon Durnford, Archdeacon and Canon of Manchester, and Rector of Middleton, Lancashire.

THE VACANT LORD JUSTICESHIP.—It is understood that Vice-Chancellor James will be appointed successor of the late Lord Justice Selwyn as one of the Lords Justices of Appeal in Chancery.

THE COMMAND-IN-CHIEF IN INDIA.—It has been announced that Lord Napier of Magdala will succeed Sir William Mansfield as Commander-in-Chief in India. The latest news from India says that the Government have asked Sir W. Mansfield to retain his office for another year.

SCOTTISH LAW APPOINTMENTS.—Mr. Moncrieff, the Lord-Advocate, has been appointed Lord Justice-Clerk, in the room of the late Mr. Paton, and Mr. George Young, M.P., Solicitor-General for Scotland, has been appointed to succeed him as Lord-Advocate. Another vacancy has occurred on the Scotch bench this week, by the sudden death of Lord Maner.

PARLIAMENTARY MOVEMENTS.—The Gazette of last night contained a proclamation further proroguing Parliament till December 23 next. The nomination Parliament took place at Maccolesfield on Wednesday, when Mr. Cunliffe Brookes and Sir E. Watkin were proposed, the former in the Conservative, the latter in the Liberal interest. The show of hands was declared to be in favour of Sir Edward Watkin, and a poll was demanded for Mr. Brookes. The Scottish Universities Union, on Saturday, resolved unanimously to invite Mr. John Stuart Mill to become a candidate for the Universities of Glasgow and Aberdeen, and to bring forward Dr. Prosser James for the Universities of Edinburgh and St. Andrews, in the event of Dr. Laonel Playfair being appointed Master of the Mint. The Liberal party in Glasgow are desirous of bringing forward Mr. Arolabald Smith, of Jordan Hill, as a candidate for the Universities of Glasgow and Aberdeen, but have postponed a final decision till after consultation with the Liberals of Aberdeen. The Conservative element in London have formed a committee to promote the election of Mr. Gordon, the late Lord-Advocate, for these universities. There is a vacancy for Waterford caused by the appointment of Mr. Blake to be a Commissioner of Fisheries. Mr. J. Stuart Mill is mentioned as a candidate for Tipperary.

THE ELECTION COMMISSIONS.—The Cashel and Sligo Election Commission was opened on Tuesday. The Bridgewater, Norwich, and Beverley Commissions are still sitting. At Bridgewater, on Wednesday, Mr. Westropp, who on the previous day refused to disclose the names of two ladies who furnished money to the "Man in the Moon," gave in the names in writing, which proved to be those of his wife and her sister. The Commissioners decided that the ladies must be examined. They were accordingly summoned by telegraph, and on Thursday Mrs. Westropp and her sister deposed to furnishing £5000 for the election of 1866, but stated that Mr. Westropp knew nothing of it until after the trial of the petition. During the sitting Mr. Ansley, one of the commissioners, stated that he had received an anonymous letter, informing him that his life was in danger, and warning him not to leave the town alone. He treated the communication with contempt, and expressed his determination to punish the writer if he could discover him. Mr. Thompson gave evidence as to supplying £1500 for Mr. Paton's election.

THE CHANNEL FLEET.—Rear-Admiral Chads has been appointed second in command of the Channel squadron. The Lords of the Admiralty returned to Whitehall on Wednesday, having visited Pembroke, Plymouth, and Portsmouth since they left Cork. The fleet, which is now under the command of Sir T. M. Symonds, is ordered to fill up with coal at Pembroke, and to sail about the 10th inst. on a cruise, possibly to Lisbon or Madeira and back.

THE ALABAMA QUESTION.—The Hon. William Beach Lawrence, Editor of Wheaton's "International Jurist," and believed to be one of the ablest of living authorities on that subject, made a speech on Monday night at the Social Science Congress, in which the following important passage on the Alabama question occurred: "What I am going to say on this question now understood to be pending between the United States and Great Britain will be said as a publicist, and not as a citizen of my country. I am strictly a private individual, and I am responsible for my own opinions. This is not to be taken as a pledge to any party. As for the Alabama question, I will only say that I believe it to be the construction of the law of nations, as it was given by the United States, and that it is a violation of the treaties of 1794, for vessels captured by French privateers fitted out in our ports, and for vessels captured within our waters, and which it was not in our power to return, do not form a precedent entitled to weighty consideration. On the other hand, as far as respects the complaint for reparation on the belligerent rights of the Confederates, I cannot use too strong language in pronouncing its utterly baseless character. No treaty in international law is ignorant that belligerency is a staple question of fact. With the late Sir Cornwall Lewis, we may ask, if the array of a million of men on each side does not constitute belligerency, what is belligerency? But what was the proclamation of the President, followed up by the condemnation of your ships and cargoes for a violation of the blockade which is established, but a recognition of a state of war? At this moment the United States, in claiming the property of the late Confederate Government, place before your tribunals their title on the fact of their being the successors of a Government. I repeat that, however valid our claims may be against you on other grounds, there is not the slightest pretext for any claim against you based on the public admission of a notorious fact, the existence of which has been recognized by every department of the Federal Government."

Foreign.

FRANCE.—The Emperor presided at a Council of Ministers on Saturday, and on Sunday an Imperial decree was issued convoking the Senate and the Legislative Body for November 29. This delay in the meeting of the Chambers has been received by a storm of indignation and discontent on the part of the Republican and Opposition journals, which demand the immediate convocation of the Corps Legislatif, and declare that it is unconstitutional to postpone it beyond the 26th inst., on which day Messrs. Keratry, Raspail, Gambetta, Bancel, and other ultra Republicans declared their intention of "opening the session" on their own responsibility. On the other hand, although many habitual staunch supporters of the Empire and the public generally are of opinion that the Government has made a mistake in postponing the meeting of the Legislative Body until November 29, the Government organs assert that the delay will give the Emperor two months for choosing his new Ministry and preparing the way for the practical application of the constitutional reforms. They also assert that the absence of the Empress has in no way influenced the Government in fixing the date for the meeting of the Chambers, but they do not notice the statement of the Vienna Presse, that the Emperor, in his speech at the opening of the Chambers, will be able to announce that "an agreement has been arrived at between the Powers for a general and simultaneous disarmament." With regard to the declared intention of MM. Keratry, Raspail, Gambetta, and others of the ultra-Republican party, to attend at the Palais Bourbon on the 26th inst., and declare the session of the Legislature to be opened, in spite of the Government, it appears that the project has been so strongly denounced that M. Keratry has at length deferred to public opinion, and announced that he "abandons the idea of an isolated

manifestation; the interests of the country requiring that the contest which is being carried on between the representatives of the nation and personal power should not end in a popular riot." In the *Avenir National* of Thursday, M. Peyrat, the chief Editor, combats the project of a manifestation for the 26th inst., which he looks upon as fatal and inopportune, adding that most of the members of the Democratic party entertain the same opinion. The Empress left Paris on the evening of Thursday, the 30th ult., on her journey to the East. Her Majesty arrived at Venice on Saturday, and embarked immediately on board the Imperial yacht *Aigle*. In the evening the Empress visited the Piazza di San Marco, which was specially illuminated. Her Majesty also received the city authorities. King Victor Emmanuel, attended by the Ministers General Menabrea and Signor Minghetti, arrived at midnight, and was much cheered. On Sunday the King paid a visit to the Empress on board the Imperial yacht. At night a serenade was given to her Majesty on the Grand Canal, which was magnificently illuminated, and crowded with richly decorated gondolas. On Tuesday and Wednesday the Empress visited various objects of interest in the city, and left on Thursday morning for Greece. Her Majesty received a farewell visit from the authorities on board the *Aigle*, when she decorated the mayor with the cross of the Commander of the Legion of Honour, and warmly expressed her thanks for the cordial manner in which she had been received during her stay. Prince Charles of Roumania arrived in Paris on Wednesday morning, and was received by the Emperor at St. Cloud in the afternoon. Baron de Talleyrand-Perigord, formerly French ambassador at St. Petersburg, has been created a senator. A letter has been sent to Father Hyacinthe by the General Superior of the Carmelites, ordering him to return to his convent within 10 days, under penalty of major excommunication, and of a note being issued declaring him to be dishonoured in the eyes of the Church. The rumour that the body of Kinck, sen., had been discovered is without foundation. A telegram from Guebwiller, announces the arrest of Traupmann's father. His mother arrived in Paris on the 30th ult. Another great fire broke out at Bordeaux on Tuesday night in the ship-building yards near the harbour, and destroyed property to the value of a million francs.

SPAIN.—An insurrection of a very serious character broke out last week in Catalonia, Andalusia, Murcia, Galicia, Saragossa, and part of Arragon. The Republican headquarters in Catalonia were at Mauresa, and in Andalusia at Medina-Sidonia. In Galicia the insurgents captured the civil Governor, the military commander, and other authorities at Orense, and ransacked the revenue offices. In Murcia they proclaimed the Republic, and were supported by the neighbouring localities. In Reuss the Republicans issued a pronunciamento in favour of the insurrection, committed several assassinations and robberies, violated nuns in the convents, and levied forced contributions upon the inhabitants. In Santander an understanding was established with Torrela Vega, Laredo, and Castro to cause a rising in those places on a fixed day. In Valladolid also a rising was threatened, with the view of cutting off communication with France. The Republic was proclaimed at Gandesa la Carolina and other places. The Mayor of Tortosa took the command of an insurrectionary band which started from that town. In all these places there was great destruction of telegraph wires, bridges, viaducts, and other railway works. Some of the Republican Deputies left Madrid to raise the provinces in the north and centre of Spain, their plan being to raise all the provinces, and afterwards to attempt a *coup-de-main* upon Madrid from various points at once. In this emergency the Government took immediate measures to suppress the movement. Several thousand insurgents who had left Reuss, in obedience to the orders they had received, which were to avoid all engagements with the troops, are said by the Ministerial journals to have been defeated on Monday by General Baldrich, with a loss of 80 killed and 300 wounded. Other accounts assert that these statements are unfounded. The Republican bands at Orense and Murcia, and several bands in Andalusia and Catalonia, have been completely dispersed. The chief of the band at the former place had been taken prisoner, and the authorities who had been captured by the insurgents have been released. The insurgents, in other provinces, are also flying, after having committed great havoc. At the opening of the Cortes on Friday the Government brought in a bill suspending the guarantees of personal liberty throughout the Peninsula, and authorising the proclamation of martial law. The Bill was vehemently opposed by the Republican Deputies Castelar and Orense, and supported by the Minister Sagasta, who delivered a forcible speech against the Republicans, accusing them of awful atrocities. The debate was continued on Monday, and was of a very animated character. In reply to the attacks of Senor Garrido, Admiral Topete defended the policy of the generals of the Liberal Union, and said that when the proper moment arrived he should energetically support the candidature of the Duke de Montpensier. Senor Castelar condemned the endeavour to raise an Italian prince to the throne of Spain. When the Republican members signified their intention of withdrawing from the Chamber, and of taking no part in the vote, General Prim endeavoured, first persuasively, and then more sternly, to dissuade them from adopting this course. Castelar replied that they might yield to persuasion, but not to menace. The Bill was then carried. No division on the question was taken, as the Republican party left the house before the vote was called for. The new law was published in the official *Gazette* of Thursday. The Volunteers of Madrid have formally tendered their support to the Government to sustain order, and some battalions have left this week for the

scene of operations. The American Government has withdrawn its offers of friendly mediation in the affairs of Cuba, but the note presented by General Sickles has not been withdrawn. It is said that the Ministry is convinced that there is no chance of a majority of the Cortes voting in favour of the Duke of Genoa. Notwithstanding the disturbances in the country, the troops destined to proceed to Cuba are being embarked daily.

DENMARK.—The Rigsdag was opened on Monday by the King in person, who delivered the speech from the throne. His Majesty said:—

"The joy which has been universally manifested at the marriage of the Crown Prince is a guarantee of the sympathy which exists between the nation and the Royal family. Through the national representatives I thank the whole people for their testimonies of attachment. The same sentiments have shown themselves beyond the frontier among the Danes of Schleswig, who addressed to us and to the newly-married couple affectionate proofs of their sympathy and devotion. As our joy has been theirs so is their sorrow ours. We firmly believe with them that those who are and wish to remain Danes will be once more united to Denmark. The Prussian Government, it is true, has not in the present circumstances a sufficient motive for the renewal of negotiations relative to this question, but our convictions, so far as the justice and the well-understood interests of the two countries are concerned, is so immovable that we cannot relinquish the hope of seeing similar views adopted by the Prussian Government, and a solution thereby brought about which shall restore relations of durable friendship between Denmark and the North German Confederation. The nation continues to progress in the path of material and intellectual development. Important lines of railway have recently been opened, and other great public works are being prosecuted. The agricultural districts have been blessed with a plentiful harvest, and the improvement in commerce is lightening the burdens which had been necessitated by the works undertaken for the development of the country and the defence of its independence."

The sentiments expressed by the King in reference to Schleswig were loudly cheered by the Assembly.

SAXONY.—The small town of Frauenstein, near Chemnitz, was almost entirely destroyed by fire on Saturday night.

SWITZERLAND.—The federal Government has refused to interfere in any way in the affair of the banishment of Frankfort citizens, excepting in cases where a whole family may have acquired the rights of Swiss nationality.

PRUSSIA.—The Prussian Chambers were opened on Wednesday by the King in person. In the speech from the throne his Majesty touched upon various home questions which required legislation, and, in referring to the financial position of the country, said that the endeavours of the Government to equalise the revenue and expenditure had not met with the desired success, and that additional taxation would therefore be necessary. His Majesty concluded his speech with the following remarks on the foreign policy of the Government:—

"The unremitting endeavours of my Government for the maintenance and consolidation of peace, for guarding our relations with foreign Powers from being disturbed in any way, have, by God's help, been crowned with success. I fully trust that also in future the foreign policy, which will be directed by me in the same spirit, will be followed by the same good result—viz., the establishment of peaceful and friendly relations with all foreign Governments, the development of traffic, and the maintenance of the authority and independence of Germany. I had lately the gratification of receiving in several provinces of my monarchy manifestations of loyalty and confidence which gave me much pleasure. In that spirit which dictated these manifestations I recognise a fresh security for the steady and hopeful prosperity of the Fatherland, and it will be my unceasing endeavour to further the same in all directions to the best of my abilities. Success greatly depends upon your cordial co-operation with my Government, and I rejoice to be able to express my confident hope that also during this session this co-operation for the welfare of the country will not be found wanting."

The King will shortly return to Baden-Baden, and will remain there with the Queen until the end of October. The Crown Prince left Berlin on Sunday for Baden and Vienna. The semi-official *Provincial Correspondence* says that this visit of the Prince to the Austrian Court is rightly regarded everywhere as an important indication of the value which both the Prussian and Austrian Governments attach to the renewed realisation of friendly relations. A fourth German Protestant Congress was opened at Berlin on Wednesday by a sermon from the chief Court chaplain, Herr Schwarz, of Gotha. Professors Bluntschli, of Heidelberg, and Holtzendorf, of Berlin, have been elected Presidents.

BADEN.—The Lower House of the Baden Diet adopted on Tuesday, with only six dissentient votes, the Address proposed by the National Liberals. The counter-draught of an Address moved by the Ultramontanes was rejected. The latter advocated the formation of a South German Bund, the dissolution of the Chambers, and the dismissal of the Ministry. During the debate there were several violent "scenes" between the members of the Ministry and the clerical deputies.

BAVARIA.—The voting for the election of a President of the Lower House of the Diet has now lasted four days without result. Six ballotings have been held, and each time Herr Edel, the Progressist candidate, and Herr Weisz, the candidate of the Ultramontanes, obtained 71 votes each. On Wednesday the Lower House was dissolved by Royal decree.

AUSTRIA.—The Crown Prince of Prussia arrived at Vienna shortly after 9 P.M. on Wednesday, and was received by the Emperor and the highest military and civil authorities. On the Prince leaving the train, the Emperor advanced, and a most cordial greeting took place. The Emperor wore the uniform of the colonel of a Prussian regiment, while the Crown Prince of Prussia was dressed as an officer holding a similar rank in the Austrian army. The military bands struck up the Prussian national anthem. The Prince having reviewed the guard of honour appointed to escort his Highness, proceeded with the Emperor and his suite

in court carriages to the Imperial Hofburg. Count Beust has received from Admiral Petz, announcing the Chinese treaty of commerce was signed September, and that the Austrian expedition for Japan.

ITALY.—The King has signed a decree reorganising the tax-collecting department of the financial administration. His Majesty went to Venice on Monday to receive the Empress of the French. In the afternoon he attended the Ecumenical Council at Rome, of which the King of Italy is President. The King of Italy, stating that the Italian Government will not attend the Ecumenical Council at Rome, it expressly and absolutely reserves to itself the liberty of action under any circumstances which might be necessary, in order to maintain the kingdom and the rights of the Italian people. The King arrived at Brindisi on Sunday for Alexandria in the Italian steamer *Amadeus*. Several shocks of earthquake were felt at Santo Gemignano, in the Maremma, on the 26th ult. and the following day. The levelled to the ground, and many churches, museum and the churches of the Maremma, felt less severely at Sienna, Cortona, Grosseto, Volterra, Certaldo, and Poggibonsi.

THE PRINCIPALITIES.—Prince Charles of Saxe-Coburg and Gotha left Brussels on Sunday to continue his tour. In consequence of Queen Victoria's illness, the Prince before leaving Belgium was appointed the Minister of War, to London with a letter addressed to her Majesty. He is also charged with the mission of expressing the English Government sentiments of cordiality on the part of the Roumanian people.

TURKEY.—The Grand Vizier and other Ministers, left yesterday in the Sultan's yacht for the Dardanelles, accompanied by three ironclads to receive the Empress Eugenie on her arrival at Athens. Djemil Pacha has arrived from Constantinople on the 22d inst., and will be accompanied to the Dardanelles by the Prussian squadron now in the Bosphorus. The palace occupied by the Sultan at Wales is being prepared for the reception of the Empress. Twenty thousand troops have been ordered by the Sultan at the camp of Hunkar. A grand review will be held in the presence of the Empress of the French. His Majesty has ordered 30,000 to be distributed as largesse among the troops. A second cargo of American cotton, by the Porte from the American Government, has been converted into Sniders, has arrived. The Sultan's policy which has been favourable to the Viceroy in the Egyptian controversy, has been approved by the Sultan. The decree ordering the suspension of general considerations, and specifies in article 1st, that upon those who sustain the professions of tapha Fazyl Pacha. It is, however, understood that the question is on the eve of a settlement. The Viceroy will come to Constantinople on the 10th inst. The Empress, and that the Sultan will be present in person at the inauguration of the Canal. Medjid Pacha, the Director of the Canal Bureau, and nephew of Fuad Pacha, has been named as the political testament of the Sultan. The *Levant Herald*, and alleged to have been written by Fuad Pacha to the Sultan, to whom it contains several fundamental reforms. The Sultan maintains its belief in the authenticity of the document. A local loan has been procured by the Sultan to meet immediate liabilities, and that the large loan of eight millions sterling point of being concluded. Messrs. Camille de Witt, of the Abyssinian Expedition, have arrived at Constantinople. They left on Wednesday into the alleged irregular purchase of mules at Constantinople, and will be in a few days for Smyrna, Alexandria, and so on. The Bishop of Gibraltar will hold a conference at Constantinople next week. Telegraph communication between Bagdad and Fao is expected to be re-established shortly.

INDIA.—The statement that Lord Mayo would visit Simla in October for a tour through Kashmir, has been confirmed. It is confidently asserted that the deficit of 2,000,000 in the ordinary budget for the present year, and that a further deficit of 2,000,000 is expected for the present year. It is reported that a rebellion has broken out on the Persian Gulf, and also said to have occurred between the British and the Turks near Bagdad. Civil war continues in the Punjab. It is generally believed that no further progress will be made in the Punjab. Agra, the festivities being confined to the celebration of the Government has requested the Viceroy to continue in office for a second year. Lord Napier, Governor of Madras, has written a minute, showing the position and the necessity of irrigation in the Madras Presidency, and the water supply of the city. Impertinent attacks have been made by Captain Cole in the Punjab on the perpetration of unsuspected atrocities by the Rajah of that State. The latest reports from the Punjab are of a most gloomy nature. The province is increasing suffering and darker prospects are before it. A victory has been gained in Turkestan by the British. The Ameer Shere Ali. His Highness has been defeated in the field. It is believed that the Ameer of Bokhara will visit India next year. Cholera has broken out at Subathoo, and the Majesty's 11st Regiment at Subathoo, and some of the Lancers at Lucknow. Endeavours are being made to establish an Indian Society upon the ruins of the Albert Assurance Company.

... Duke of Edinburgh ... August 29. It is understood ...

Accounts from Melbourne state that a remarkable event in the way of diamond mining has yet occurred has been the finding of a diamond, of the extraordinary weight of ... The stone was discovered in August last ... between Bendemeer and Armidale, England district of New South Wales, size about as large as a turkey's egg, and ... The confidence of the manager of the ... at Armidale was such that he ... Valuable diamond mines have ... in the district of Mulgee, in the ... South Wales, and many hundreds of ... been sent to Melbourne from the ... when skirts the plain whereon the ... Madree stands. A valuable discovery of ... has been made on a section belonging to ... near Ballkannah, in South Australia. The ... of a very rich description, and only ... with copper to a very slight extent.

NEW ZEALAND.—The Minister for Defence and ... has proposed to the Parliament that an ... made to the Imperial Government for the ... troops, the colony paying for their services. ... however, has been moved in the House ... the policy of self-reliance. Should the ... be defeated, it is probable they will ... appeal to the country. The 18th Regi- ... remain in the colony by request of the ... The natives in the Waikato district, ... three parties, have quarrelled, and fight- ... is probable. Fresh discoveries of gold ... from Taranaki, Collingwood, Coromandel, ... Islands, and Stewart's Island (the extremity ...), where gold is being found on the sea- ... in the range. The quartz throughout the ... is described as generally auriferous. A dis- ... urred at Hokitika on July 19, by which ... at 20,000*l.* was destroyed.

His Royal Highness Prince Arthur, after ... out hunting near Brantford, arrived at ... on Sunday, and was received with great ... A procession, which numbered 30,000 ... was formed to welcome him.

UNITED STATES.—Three steamers, the Alabama, ... and Lillian, with 1600 men on board, under the ... of General Joicouria, escaped last week ... American ports. They had appointed to meet off ... of Florida, whence they sailed on Friday for ... The steamer Hornet, alleged to be a Cuban ... at Smithville, North Carolina, on ... She was seized by the Marshal and ... Wilmington, where she will be detained in ... wait the action of the Washington autho- ... heavy storm, with an unprecedented fall of ... the Atlantic States on Sunday and Mon- ... damage to railway property generally ... by the floods.

WASHINGTON.—A telegram was received on ... in Victoria, the capital of British Columbia, ... the total destruction by fire of the Angli- ... in that city.

URUGUAY AND PARAGUAY.—Accounts from the ... indicate a speedy termination of the war. The ... were pursuing the remnant of Lopez's force in ... retreat to the mountains. Much difference of ... existed at Buenos Ayres respecting the pro- ... on of the war, owing to the ignorance ... prevailed concerning the strength and resources ... It was stated that the Congress intended ... to declare the war at an end, and to with- ... the Argentine troops. It is stated that the war ... cost the Allies 66,888,000*l.*, and 189,840 men, Brazil's ... upwards of 56,000,000*l.* and 168,000 men. ... who had been detained as prisoners in ... a number (mostly engineers, their wives, ... had arrived at Buenos Ayres, and ... had sent, through the Consul, handsome ... for their relief.

City Intelligence.

MARKET, FRIDAY.—**BRITISH FUNDS:** ... 93½ for Delivery, and 93½ to 93½ for ... New and Reduced Three per Cents, 91½ to ... Exchequer Bills, ... June, 7s. to 11s. pm.; India Five ... 11½ to 11½.—**FOREIGN:** Argentine, 81½ ... Brazilian, 83 to 84; Egyptian (1864), 85½ to ... Ditto (1863), 76½ to 77½; Viceroy's Seven ... 81 to 81½; Ditto Nine per Cents, 98 to ... Ditto Tobacco Loan, 84 to 86; ... Portuguese, 33 to 34; Orel, ... Nicolai, 67½ to 68½; Moscow, 83 to 83½; ... Spanish, 26½ to 27; Turkish Five ... 42½ to 42½; United States 5-20 Bonds, 84 ... 28½ to 28½; Illinois, 93½ to 94½.

Metropolis and its Vicinity.

ELECTION OF LORD MAYOR.—The polling for ... of Lord Mayor was brought to a close on ... when the number of votes recorded were ... For Alderman Besley, 1501; the Lord ... Alderman Wilson, 588; Alderman ... The official declaration was made yester- ... which the sheriffs proceeded to the Court of ... for the purpose of returning the names of ... candidates at the head of the poll, in order ... the Aldermen might choose one of them to be ... for the year ensuing. The sheriffs after- ... announced that the election had fallen upon ... Alderman Besley stood forward ... the Livery for the high honour they had ... upon him, and said that the Livery had

achieved a great triumph on the occasion. A resolu- ... tion of thanks to the Lord Mayor was then moved and ... carried by a large majority.

SAFETY OF DR. LIVINGSTONE.—A missionary, who ... landed at Falmouth on Wednesday from Zanzibar, ... brings important intelligence concerning the safety of ... Dr. Livingstone. He states that letters had been ... received at Zanzibar by Dr. Kirk from the great ... traveller himself, dated Lake Tanganyika, February, ... 1859. At that time Dr. Livingstone was well, but ... short of provisions. He had been deserted by all the ... Europeans who had accompanied him, and was then ... living on rice and fruits supplied by Arabs. Mr. and ... Mrs. Lee, two missionaries who left Zanzibar in ... June, have also arrived at Falmouth, and bring ... intelligence of Dr. Livingstone, but not of so late a ... date as that given above. Dr. Livingstone was ... seen about 14 months since by an intelligent and ... apparently trustworthy Arab at Lake Tanganyika, ... when he was making his way to the western part of ... the lake. No doubt of his safety existed at Zanzibar ... It was expected that he would be first heard of at ... Congo, or some other place on the West Coast of ... Africa.

THE HIGH TIDES.—A tidal wave of considerable ... magnitude swept up the English Channel on the 29th ... ult., but though it was particularly felt in narrow ... estuaries, it caused little damage. At Plymouth the ... tide swept in suddenly to a height of 2 or 3 feet above ... its previous level, and as quickly receded. This was ... repeated several times, each time with diminished ... force. At Penzance it receded and came in about every ... 20 minutes, running out of the harbour at about ... five miles an hour, and returning at the same speed ... At Truro, fully an hour before any flow of the tide ... was due at Truro Quay, a "bore" tide, about 18 inches ... high, ran rapidly above Boscawen Bridge, and retreated ... in about 10 minutes. In less than an hour there was ... a similar occurrence, followed by others like it during ... the forenoon. At Haverfordwest, on the coast of ... Pembrokeshire, it flowed and ebbed five times, rising ... about 2 feet in a quarter of an hour, and after pausing ... a minute or two ran out rapidly. The first, but not ... the highest, of the predicted tides of the present week ... occurred on Tuesday evening. The wind was light ... and blowing off the land and down the Channel. On ... the South Devon and Cornwall coasts the water only ... rose a few inches above the ordinary spring tides, but ... in the rivers and estuaries on the north coast it rose ... much higher, and at Truro it was 2 feet higher than ... computed by the tables. At Brixham, which is open ... to the wind, it rose 3 feet; and at Bideford, on the ... North Devon coast, even more. On Wednesday large ... numbers of persons assembled on the Thames Embank- ... ment and on London, Southwark, and Westminster ... bridges, in expectation of the fulfilment of the prediction ... of an unusually high tide. It did not, however, rise ... more than a foot above the average spring tides, and no ... damage was done in London. Accounts from the coast ... state that, in anticipation of seeing a great phenomenon, ... visitors from the inland districts arrived during ... Wednesday in great numbers to swell the crowds of ... residents who assembled on the shores. The tide no- ... where rose much above its ordinary height, and the ... people separated with feelings of disappointment ... mingled with thankfulness. The highest rise took ... place in the Bristol Channel, the rise at Cardiff being ... 35 feet 3 inches, as against 36 feet 6 inches during the ... high spring tide of last March. The strong south- ... easterly winds blowing off the French coast from ... Biarritz to Brest, and off our own shores from Penzance ... to Liverpool, acting adversely to the flow of the Atlantic ... tidal wave up the British Channel, rendered any very ... unusual phenomenon either at London or along the ... southern coast improbable. On Thursday the excite- ... ment in the Metropolis was less marked, and not half ... the number of persons assembled on the banks of the ... river. The first full tide in the morning occurred ... shortly before three o'clock, when the water at the ... new entrance to the London Docks rose to a height of ... more than 29 feet, but no damage was done. Many ... people living in the lower parts of Lambeth and ... Southwark suffered much anxiety during the night, ... and were afraid to go to bed, expecting their houses ... to be inundated. They were much relieved when the ... time of high water had passed and the ebb commenced. ... The tide in the afternoon was timed to reach its ... extreme height at London Bridge at 20 minutes past ... 3; but long before that time numbers of persons were ... assembled on the Custom House Quay, the Embank- ... ment, and the various bridges, to witness its rise. ... Favoured by a light easterly breeze it ran up very ... swiftly, and by two o'clock not only covered the abut- ... ments of Waterloo and Vauxhall bridges, but was on a ... level with the pathway of the Embankment. It did ... not rise more than a few inches higher, and no ... damage was done. Accounts from the coast state that ... at some places the tide during the day was a little ... higher than ordinary, but nowhere was the rise suffi- ... cient to cause any alarm.

OPENING OF THE HOLBORN VIADUCT AND BLACK- ... FRIARS BRIDGE BY THE QUEEN.—At a meeting of ... the Common Council, held at Guildhall on Thursday, ... it was intimated that the Queen, in compliance with ... the wishes of the citizens of London, expressed through ... the Corporation, will attend the ceremony of opening ... the New Bridge at Blackfriars, should her health and ... strength permit. This announcement was received ... with acclamation, and a committee was appointed to ... make the necessary arrangements for the auspicious ... occasion. The day on which the ceremony will take ... place has not yet been definitely fixed, but it is under- ... stood that the new bridge will be opened early in next ... month, and that the Holborn Valley Viaduct will be ... inaugurated on the same day.

PROPOSED RAILWAY EXTENSION TO THE MANSION ... HOUSE.—The question of extending the Metropolitan ... District Railway to the Mansion House was again

brought before the Metropolitan Board of Works on ... Friday, when Sir W. T. ... all the great ... bankers in the City were unanimous in favour of the ... extension, and moved that it be referred to the works ... and general purposes ... Mr. Westerton ... seconded the motion. Mr. H. L. Taylor strongly con- ... demned the proposal, and said that if the Metropolitan ... District Railway were allowed to pass, the Exchange ... would never rest satisfied until they got within the Exchange ... itself and upset the statue of the Queen. After ... some discussion the motion was carried by a one ... dissentient. On Thursday, at the Court of Common ... Council, a communication from the Metropolitan ... Board of Works was read, requesting to be informed ... of the views of the Corporation with regard to the ... railway company's proposal. Mr. Deputy Lowman ... Taylor said that there could scarcely be a greater ... nuisance than to erect a railway station in the very ... centre of the City, and in close contiguity to the ... official residence of the Lord Mayor, and then to ... carry a subway thence to the Royal Exchange. He ... moved that the communication from the Metropolitan ... Board be referred to the Commissioners of Sewers. ... Mr. Lawley, chairman of the General Purposes Com- ... mittee, seconded the motion, although he thought it ... was the duty of the Corporation to afford every ... facility to the public in connection with railway ... communication, and so relieve their overcrowded ... thoroughfares. Sir Wm. Rose understood that the rail- ... way company had no Parliamentary powers to do what ... they contemplated, and for such a company to come into ... the City of London, to a point within 200 or 150 yards ... of the Royal Exchange, and ask that court to give ... them what Parliament had not granted them the power ... to do, was a monstrous proposition. He moved an ... amendment to the effect that the Metropolitan Board ... of Works be respectfully informed that the subject ... referred to in their communication could not be enter- ... tained by that court, unless a direct application was ... first made to it by the railway company. Mr. Deputy ... Jones seconded the amendment. Mr. J. E. Saunders ... opposed it, and particularly dwelt upon the necessity ... of a subway from the proposed terminus at the Mansion ... House to the Royal Exchange, as a convenience to ... merchants and bankers living at the West End of the ... town. On a division the amendment of Sir William ... Rose was carried by a majority of 16 in a court of 110 ... members. On that becoming, in point of form, the ori- ... ginal question, another discussion took place, in which Mr. ... M'George urged that there was no responsible body ... before the court, and that in its then shape it was one ... of the crudest suggestions ever submitted to a public ... body. Mr. Isaacs, chairman of the City Lands Com- ... mittee, replied that the court had not said that they ... would not entertain the question, but that the appli- ... cation should be made to them by the proper parties ... and in a proper way. He argued also that the Commis- ... sioners of Sewers, to whom it was proposed to refer it, ... had no authority in the matter, inasmuch as the new ... street was not yet under their control, and that this ... was an attempt to enlist the co-operation of the court ... by a side wind. The proposal of the railway company ... was strongly opposed by Mr. Medwin and Mr. Knight, ... and ultimately the motion of Sir William Rose was ... adopted.

THE NEW PALACE OF WESTMINSTER.—Four more ... statues of Kings and Queens have been placed in the ... Royal Gallery leading from the Victoria Tower to the ... House of Lords: those of Queen Elizabeth, James I., ... Edward I., and Queen Anne. They have been sculp- ... tured by Mr. J. B. Philip in Caen stone, but are ... intended to be gilt. The statues which had previously ... been placed there were those of Richard I., Edward ... III., Alfred the Great, and William the Conqueror. ... Only four niches now remain to be occupied.

RE-OPENING OF THE TEMPLE CHURCH.—On ... Sunday last the Temple Church was re-opened for ... Divine service, after having been closed for two months ... for repairs.

ARCHBISHOP MANNING ON THE PAPAL SYLLABUS. ... —On Sunday Archbishop Manning delivered a dis- ... course on the Pope's Syllabus at the pro-cathedral in ... Kensington. He expressed his belief that if the Pope ... had confined himself in the Syllabus simply to faith ... and morality in the ordinary personal sense of the ... word, very little would have been heard of it, but ... because his Holiness had pointed out and condemned ... all those errors in political philosophy which lay at the ... root of morals the world had been in uproar. He then ... went through the several points of the Syllabus, ex- ... plaining and defending each of them. "The meaning ... of modern civilisation," he said, "was a state of political ... society founded upon divorce, secular education, ... infinite divisions, and contradictions in matters of ... religion, and the absolute renunciation of the supreme ... authority of the Christian Church. Could it, then, be ... matter of wonder that when the Roman Pontiff ... published the Syllabus all those who were in love with ... modern civilisation should have risen in uproar against ... it? Or could it be wondered that when the world, with ... great courtesy sometimes, with great superciliousness ... at another time, and great menace always, invites ... the Roman Pontiff to reconcile himself to liberalism, ... progress, and modern civilisation, he should say— ... 'No; I will not, and I cannot. Your progress ... means divorce; I maintain Christian marriage. Your ... progress means secular education; I maintain education ... intrinsically and necessarily Christian. You maintain ... that it is a good thing that men should think as they ... like, talk as they like, preach as they like, and propagate ... what errors they please. I say that it is sowing error ... broadcast over the world. You say I have no authority ... over the Christian world, that I am not the vicar of the ... Good Shepherd, that I am not the supreme interpreter ... of the Christian faith. I am all these. You ask me to ... abdicate, to renounce my supreme authority. You tell ... me I ought to submit to the civil power, that I am the ... subject of the King of Italy, and from him I am to

receive instructions as to the way I should exercise the civil power. I say I am liberated from all civil subjection, that my Lord made me the subject of no one on earth, king or otherwise, that in his right I am sovereign. I acknowledge no civil superior, I am the subject of no prince, and I claim more than this—I claim to be the supreme judge and director of the consciences of men—of the peasant that tills the field and the prince that sits on the throne—of the household that lives in the shade of privacy and the Legislature that makes laws for kingdoms. I am the sole last supreme judge of what is right and wrong. Your progress is departure from Christian civilisation; in that path you may have many companions, but me you will not find." Dr. Manning concluded by saying:—

"And now one word by way of illustration as to a state of Rome and of London. Rome is the proof of the supernatural society of which I have spoken. Long years of residence in Rome and an intimate knowledge of it, still longer years of residence in London and a more complete intimacy with the metropolis of my own country, enable me to declare that in point of piety, of morality, of public order, of true civilisation, which makes charity, courtesy, justice, and goodwill between man and man, Rome is incomparably beyond London. London, with 2,500,000 of men, of whom two-thirds never set their foot in a place of Christian worship—2,500,000 men of whom I know not how many have never received the sacrament of Christian baptism—2,500,000 men of whom I know not how many have never sanctified their life by Christian marriage—this is a subject too deep and too large; I cannot enter upon it; and I end with these words. There is but one name given under heaven whereby we may be saved, namely, Jesus Christ; one faith, one baptism for the remission of sins, one fold under one shepherd, and there is one Chief Pastor who represents him, the Vicar of Jesus Christ, of whose supreme authoritative declarations I have spoken to you to-day."

SCIENTIFIC INSTRUCTION FOR WOMEN.—An important experiment is about to be tried at the South Kensington Museum to promote the instruction of women in science. By permission of the Lord President, Professors Huxley, Guthrie, and Oliver, will next month commence a course of lectures on natural science. The fees will not exceed a shilling a lecture, with voluntary examinations, and the terms will be even lower to schools and governesses. The Duchess of St. Albans, Mary Marchioness of Salisbury, the Countesses of Tankerville, De Grey, and Granville, Lady Northcote, and many other ladies have expressed their willingness to assist this experiment. The Hon. and Rev. F. Byng, of Onslow Gardens, is the treasurer and secretary.

THE MEMBERS FOR MIDDLESEX AND THE IRISH LAND QUESTION.—A meeting of the Middlesex Agricultural Society was held on Friday at Bedford, and the members afterwards dined together at Hounslow. The members for the county were both present. Lord George Hamilton, who was in the chair, adverted to the Irish agitation on the land question, and said that while he did not believe they would ever get fixity of tenure, for then their next equally clamorous demand would be for release from rent, he thought a tenant-right rent, such as exists in Ulster, might probably be carried. Lord Enfield expressed his hope that Ministers would bring forward a complete scheme on the question, and would stand or fall by the second reading of the Bill.

GREENWICH HOSPITAL.—The question of converting a large portion of this hospital into a naval museum is now under the consideration of the Admiralty; and it has been suggested that the Victory, Nelson's old ship, now in Portsmouth Harbour, should be moored in the Thames, opposite the building, with easy access from the shore for visitors.

THE LONDON GAZETTE.—The editorship of the *London Gazette*, vacant by the death of Mr. Behau, has been given by Mr. Gladstone to Mr. Thomas Walker, for many years connected with the London newspaper press.

WOOLWICH DOCKYARD.—On the 30th ult. this Dockyard ceased to exist as a naval establishment. The official dwellings are mostly empty, and Rear-Admiral Edmonstone, C.B., whose flag was hauled down on Friday, has vacated the residence occupied by the Superintendent. The staff of clerks, with the exception of three, have also ceased their duties.

THE POST OFFICE TELEGRAPHS.—The office of engineer in the new department of the Post Office Telegraphs has been conferred upon Mr. R. S. Culley, the present engineer of the Electric and International Telegraph Company.

NATIONAL EDUCATION LEAGUE.—The first general meeting of this body is to be held at Birmingham on the 12th and 13th inst., and will be attended by Messrs. G. Dixon, M.P., Jacob Bright, M.P., Professor Fawcett, M.P., A. J. Mundella, M.P., Edmund Potter, M.P., George Melly, M.P., Archdeacon Sandford, Professor Thorold Rogers, Hon. Auberon Herbert, Dr. Hodgson, Mr. Odgers, and by deputies from the branch societies which have been formed in London, Birmingham, Manchester, Liverpool, Leeds, Bradford, Sheffield, Nottingham, Leicester, Bristol, Southampton, Bath, and other large towns. The Association, which has for its object to secure the education of every child in England and Wales, was projected in January last by a few gentlemen in Birmingham, and has already made such rapid progress that it consists of 1400 members in different parts of the country, and this number increases daily. Among those who have already signified their adhesion to the principles of the league are 40 members of Parliament, including the Earl of Portsmouth, Mr. Jacob Bright, Mr. Carter, Sir C. W. Dilke, Bart., Professor Fawcett, the Hon. Captain Grosvenor, Sir H. Hoare, Mr. Thomas Hughes, the Marquis of Lorne, Mr. Melly, Mr. Miall, Mr. Mundella, Dr. Lyon Playfair, Mr. Edmund Potter, and Mr. P. A. Taylor. In the circular issued by the league the means by which the object is to be attained are stated as follows:—"1. Local authorities shall be compelled by law to see that

sufficient school accommodation is provided for every child in their district. 2. The cost of founding and maintaining such schools as may be required shall be provided out of local rates, supplemented by Government grants. 3. All schools aided by local rates shall be under the management of local authorities, and subject to Government inspection. 4. All schools aided by local rates shall be unsectarian. 5. To all schools aided by local rates admission shall be free. 6. School accommodation being provided, the State or the local authorities shall have power to compel the attendance of children of suitable age not otherwise receiving education."

MEETING OF ALBERT POLICY-HOLDERS.—At a meeting of the London and provincial committees of Albert policy-holders, at the Cannon Street Hotel, on Thursday, Lord William Hay, Mr. Webster, and Mr. Bird were appointed a committee to negotiate with the Alliance for the working of the Albert business on the terms proposed by the secretary of that company.

PARISH OF ST. PANCRAS.—The St. Pancras guardians are still at variance with their staff. The clerk has resigned; Mr. Blake, the master, was dismissed on Monday on the charge of insolence to one of the visiting committee. Dr. Ellis, the medical officer, was invited at the last meeting to resign; but as he has not done so the board on Monday declared his office vacant.

THE AUSTRALIAN MEAT QUESTION.—On Wednesday a meeting, composed chiefly of artisans, was held at the Edmonton Institute, with the object of practically testing the Australian preserved meat for which the colonies are desirous of creating a market in England. The test applied was that of giving the wives of a very large number of artisans instructions how to prepare a dinner, and then supplying them with the means of publicly cooking a dinner for themselves and husbands. The meat experimented upon was the salted and boneless mutton and beef of which the first importations reached this country a few months since. The curing was then not so good as it is now, and the meat now supplied is "prime," looks well, and eats well. About 180 artisans and their wives sat down to the experimental dinner, attended by the Rev. Arthur Hall and the committee of the Institute. The women received their instructions from Mr. D. Tallerman, the manager of the agency in England, and they set the meat before their husbands, not in joints, but in Irish stew, meat dumplings, meat and potatoes, mince-meat pies, and in other forms whereby the salt of the meat was absorbed. A meeting was afterwards held, at which several gentlemen spoke of the importance of the English meat supply being added to by an importation which was at once cheap and wholesome, the meat being from the best lands in Australia, and the price being below the cheapest "cag-mag," as the working population term the "wet" meat of London. Mr. Tallerman also cooked some food after the usual fashion of London wives, and showed that they threw away in the water the best part of the meat by cooking it alone. He pointed out the great saving the artisans' pockets would experience if this meat, cooked with vegetables, and so forming a pleasant and wholesome dish, were adopted by the operative classes of this country, and said that assistance would at the same time be given to Australia in finding a market for her flocks. He stated that in Norton Folgate "penny dinners" were given of this meat daily, and the prejudice previously existing among the classes in that district against all preserved meat was rapidly disappearing. A discussion followed, after which the working men, by a vote, pledged themselves to use the Australian meat, whether they at first liked it or not, for a period of six weeks, as a portion of their meat food.

IMPROVED CABS.—The Council of the Society of Arts, with a view of effecting an improvement in the construction of hackney carriages suited to the metropolis, has announced its intention of offering the society's gold medal for the best and most convenient open carriage for two persons; a silver medal for the second best ditto: a gold medal for the best closed carriage for two persons; a silver medal for second best ditto: a gold medal for a carriage for four persons, open or closed, or both; a silver medal for second best ditto. In making the awards, lightness of construction and durability will be especially considered, and the awards will be made after actual trials of carriages extending over a certain period. In these trials the small amount of vibration and noise will be duly considered by the judges. The Council also offer the society's silver medal for the best instrument, "to be affixed to a cab or other hackney carriage, for indicating the fares between the passenger and the driver, whether by registering the distance travelled or otherwise, and which instrument shall also indicate, for the convenience of the cab-owner and of the driver, the total distance travelled during the day, and the total amount earned."

FATAL ACCIDENT TO AN ALLEGED FENIAN.—At a fire which took place in Bear Yard, Clare Market, on Thursday week, a cab, which came up in the confusion, was driven against the kerb and overturned, throwing a man who was inside upon his head. He was taken up insensible, and conveyed to King's College Hospital, where he was recognised as "Colonel Kelly," the Fenian prisoner who was rescued at Manchester with Burke when Serjeant Brett, who was in charge of the police van, was murdered. It was said that he had been working for the past two years, in fact, almost ever since the rescue, as a "reader" at a printer's office in Chancery Lane, under the name of Martin, but that he still kept up his intimacy with his old Fenian associates, and was on his way to a Fenian meeting when the accident took place. Some scraps from Fenian newspapers were found in his pockets, but no document or criminatory article of any kind was found at his lodgings. The detective officers, however, persisted in declaring that he was the rescued Fenian who at Manchester went under the name of

Deasy, though his real name was supposed to be Martin. He died in King's College Hospital on Saturday week. From the injuries he had sustained, and on the positive declaration that it was not that of the man rescued by the mob at Manchester, the inquest on Tuesday the evidence clearly showed that the detective officers were mistaken, that it was Edward Martin, a compositor, who had been steadily working at the Queen's College, Dalston, from January, 1867, till he met his death. The Coroner having remarked that the deceased had been clearly proved as having been the man rescued by the mob at Manchester, the jury returned a verdict of "Accidental Death."

THE FATAL FIRE AT BAYSWATER.—On the seven persons who perished in the fatal fire at Bayswater, which broke out on Monday, the witnesses were examined, was a witness who was examined, Mrs. Titheridge, her eldest daughter, and her neighbours with the policemen and the firemen, but none could throw any light upon the cause of the fire; for the wife knew nothing of it except that some were in the shop, and that she always sold them under the direction of her husband. It appeared that only 45 minutes elapsed between the commencement and its extinction, and that the alarm reached the station. The fate of the fire was much commiserated, especially that of the poor Jack, who had returned that very evening from his mother from a long residence in Australia.

ROBBERY OF A POOR-BOX AT CHARING CROSS HOSPITAL.—On the night of the 30th ult. a box of Charing Cross Hospital, placed in a conspicuous position at the corner of King William Street, facing the Strand, and immediately in front of a lamp, was broken open, by means of a crow-bar, and its contents abstracted. A waterman is on duty at a cab-stand in front of the hospital till 10 o'clock morning, and it is, therefore, presumed that the robbery was effected after that hour.

THREATENING A MAGISTRATE.—On Thursday, Arthur Brown, a foreigner, was examined at the Westminster Police Court, on remand, charged with threatening to murder Mr. T. J. Arnold, one of the magistrates of the Court, threatening to murder him, and to take his money. It appeared from a statement made by a prisoner to Inspector Humphreys, that he had told Mr. Arnold, who, he said, had fined him 16s. ten years ago for being drunk. He denied sending the threatening letters, but stated that they were written by a man named Jackson, who lived at Pleasure Street, Jersey. The prisoner was committed to the House of Detention.

CHARGE OF VIOLATION OF DUTY BY A POLICE-SERGEANT.—On Thursday, at the Marlborough Street Police Court, Inspector Tierney, of the City of London Police-Sergeant Mackenzie were charged with being guilty of a violation of duty. The complaint was made by Rose Burton, the keeper of a house in Jermyn Street, who complained that the police would not allow her to conduct her business in peace. The officers, it was alleged, entered her house and behaved in a very improper manner, and entered her bath-room when she was absent. It was stated that the officers continued to loiter at the bath-room door for five hours. The defence was that the complainant used every means in her power to defeat the object of the officers, and that the officers acted as they did in the discharge of their duty. Mr. Tyrwhitt said the case was of considerable importance. When he saw a woman so eager to convict a woman because she had been convicted before, he must look very closely at the law, to see if there was any authority for the conduct themselves as they had done. The complainant had been convicted, and it was proper for the officers to look after the house, but it was rather hard to be persecuted on that account. He would refer the case to the magistrate, and give judgment in a few days.

DOUBLE MURDER AND ATTEMPTED MURDER.—On Monday afternoon a terrible crime was committed at Wood Green. A man named Hinson, a soldier who had been in the army, lived in a cottage in Truro Road, Wood Green, but had emigrated to Hendon, to which he went every Monday, and returned only on Saturday night. He had for some time been separated from his wife, and had been a long time with a young woman called Maria Death, a governess, whom he had three children. Adjoining the cottage was a villa called Elder Cottage, which was owned by Mr. William Douglas Boyd, who had recently returned from Japan, and had a business in the City of London. From some cause Hinson suspected that the woman was carrying on an intrigue with Mr. Boyd, and on Monday morning he left home as if to go to work as usual, but in fact concealed himself in the garden. The woman left Wood Green for London, and returned with Mr. Boyd on Tuesday, which arrived at 5 o'clock. Hinson was at the station, evidently expecting that they would come. When they left the train he made a most desperate attack on Mr. Boyd outside the station. Mr. Boyd's standers went to Mr. Boyd's assistance, and Mr. Boyd then went home with the woman. As soon as Mr. Boyd got inside the cottage Hinson took down a revolver, which was loaded, and shot her in the breast, causing immediate death, after which he beat her head against the stock of the gun. He then went in search of Mr. Boyd, whom he found in his stable, and with the word struck him on the temple with the stock of the gun and killed him on the spot. He was afterwards taken into custody, when he refused to say his own name, but not a severe one, and was immediately lodged in the police-station. At the inquest which was opened on Tuesday, one or two of the servants of Mr. Boyd, said that they did not know there was any illicit connection between the

English Church Union; and he firmly expressed his conviction that every man who did not wish to see our churches turned into warehouses, and the preaching of the Gospel over-riden by long processions of groaning and muttering priests, would join the Church Association, and help them by their purses and prayers to stand firm upon the rock upon which the Reformation had placed them, and that, whatever might be done to the Church, and to those, they would not let it live and die in the plain simple Gospel truth, and ceremonial of the reformers of 500 years ago. Those who had troubled the diocese of Carlisle, by introducing into it little heresies, had no little to do with accelerating the Bishop's sufferings and illness. The subject most in the Bishop's heart was his diocese, and he feared there were wolves coming to devour the flock.

CHESTER.—The Prince of Wales has intimated to the Mayor his intention to be present at the opening of the new Town Hall, in that city, on the 14th inst. In consequence of the state of her health the Princess will be unable to accompany him.

CROYDON.—Mr. Robert Parnell, of Bishopsgate Street, has expended 10,000l. on a new church, which was opened last week, near this town.

GLOUCESTER.—A conference of clergy and laity was opened yesterday in the Shire Hall of this city, under the presidency of the bishop of the diocese. The subjects discussed were—1. The best mode of promoting and maintaining the spiritual efficiency of the National Church. 2. Church organisation in the diocese, present and future. 3. Middle-class education in town and country. The subjects were introduced by the Earl of Ducie, the Rev. Canon Powell, and the Rev. J. W. Sherningham.

HANLEY.—At the Revision Court for North Staffordshire on Friday, a question was raised as to the right of pew-owners in St. John's Church to vote as freeholders. It was stated that there had been a regular traffic in the pews, some of which had been sold for 150l. each, the purchasers being desirous of acquiring votes. Mr. Sheelen, the barrister, said it was inconsistent with the rights of the Church that a person should have such an estate in a pew in the church as would entitle him to a vote for knights of the shire. There had been a conveyance, under a special Act, of a right to sit in a certain pew, but no right to vote. The vote was disallowed.

HYTHE.—It is said that the sea is encroaching so rapidly on the coast line at Hythe, Sandown, and other points, as to excite serious fears for the safety of Romney Marsh. Lydd Point is steadily increasing from the accumulation of beach which is swept from other places, and as the old castle of Sandown is supposed to interfere with the movement of the shingle which would form a natural defence to the coast, steps are being taken to memorialise the Government to remove it.

LIVERPOOL.—The Church Congress for the present year was opened in this town on Tuesday. The proceedings commenced with a sermon by Dr. Howson, Dean of Chester, who enforced the duty of forbearance and patience among the different schools of Churchmen, and of a generous treatment of Nonconformists, whether Protestant or Romanist. The inaugural address was afterwards delivered in St. George's Hall, by Dr. Jacobson, Bishop of the diocese, followed by papers and addresses on "diocesan organisation," and "clerical education and our ancient universities." After the discussion of these papers, a protest, signed by 30 clergymen of Liverpool, and by two readers of papers, Mr. Garbett, of Surbiton, and Mr. James Bardsley, of Manchester, was presented against the Rev. Mr. Mackonochie being allowed to read a paper, or take any part in the Congress, on the ground that though he had been condemned by the Privy Council for illegal practices at St. Alban's, Holborn, he had impugned the judgment of the Council, and had not even professed to submit to it, except under protest, and in the barest possible manner. It was also stated that two members, Dr. McNeile, Dean of Ripon, and Mr. Ryde, had withdrawn themselves from the Congress on account of Mr. Mackonochie having been allowed to take part in it. On Wednesday the subjects were—"Phases of Unbelief, and how to meet them;" "Recreations of the People;" "Education, including Sunday School;" "Church work among Seamen;" and "Capabilities of our Cathedrals." On the first subject papers were read by the Rev. E. Garbett, Canon Woodgate, Mr. R. Lowndes, and Mr. R. H. Hutton; and on the second by the Rev. J. Erskine Clarke. On Thursday the subjects were—"Improvement of the Church's Service: How to increase the Attendance on them: Revision of the Rubrics;" "Church Patronage, and Superannuation of the Clergy;" and "Eastern Churches." Yesterday was devoted to—"The Church's Work in Large Towns;" Weekly Offertory and Almsgiving: "Sinai and Palestine." Among those who took a part in the proceedings were the Archdeacon of Ely, Mr. J. M. Clabon, Rev. Canon Gray, Rev. D. Salmon, Archdeacon Ffoulkes, Earl Nelson, Bishop Ryan, Mr. G. E. Street, A.R.A., Rev. P. H. Stern, Mr. H. Birley, M.P., Rev. W. D. MacLagan, Rev. Canon Trevor, Rev. A. H. Mackonochie, Mr. Morrison, M.P., Mr. Raikes, M.P., Right Hon. J. R. Mowbray, M.P., Rev. W. Saumarez Smith, the Dean of Durham, Alderman Hubback, the Dean of Cashel, Hon. Charles L. Wood, Mr. Antonio Brady, Mr. Collins, M.P., and Rev. Dr. Tristram. On Thursday evening there was a working men's meeting in St. George's Hall, the speakers being the Archbishop of York, the Bishops of Chester, Oxford, Rochester, Lichfield, Peterborough, Sodor and Man, Rev. Dr. Taylor, Mr. Cross, M.P., Mr. Edward Whitley, &c. Yesterday evening there was a *soirée* in St. George's Hall, and a seamen's meeting, under the presidency of Earl Nelson. This morning there will be a morning service at Chester Cathedral, at eleven o'clock, and a sermon by the Archbishop of York, on behalf of the Sinai and Palestine Exploration Fund.

LEEDS.—The late Mrs. Burton, of Roundhay, who was a member of the Wesleyan body, has left the large sum of 32,000l., free of legacy duty, in aid of several

religious and benevolent institutions. Of this sum 15,000l. is to be expended on the erection of chapels and schools for Wesleyan Methodists in Cumberland and Scotland.

MALDEN.—The county of York has marked its respect for the memory of the late Earl of Carlisle by two distinct monuments. A chapel to the Castle Howard Reformatory has been erected by those who differed from the proposal to adopt a work of art, and a Grecian column has been erected by others on the summit of Bulmer Hill, at the southern edge of the Howard demesne, about six miles from this town. The work was designed by Mr. F. P. Cockerell, of London, and was selected by a committee from a series of competitive designs. The monument bears the following inscription—"In memory of George Wm. Frederick, seventh Earl of Carlisle, Viscount Morpeth, K.G." Upon the Castle Howard face of the pedestal is the inscription—"He to whom this monument was raised, AD. MDCCLXIX, in private life was loved by all who knew him. By his public conduct he won the respect of his country, and left the bright example of a true patriot and earnest Christian." On the York face is the following—"He to whom this monument was raised, by public subscription, during 12 years represented in the House of Commons—firstly, Yorkshire, secondly the West Riding; and, during eight years, was Viceroy of Ireland." The cost of the column is estimated at over 2000l. The site is so well chosen that the column is visible to the whole Vale of York, the greater part of the Vale of Derwent, the West Riding hills, the Yorkshire Wolds, and a large part of the North Riding.

MALVERN.—An institution of a novel character has been established near this town, the object of which is "to afford to the working clergy opportunities of refreshment to body and soul at the lowest reasonable cost." The institution is under the direction of a "Council of Reference," consisting of Lord Lyttelton, the Earls of Glasgow and Strathmore, Lord Eliot, Lord Richard Cavendish, the Hon. C. L. Courtenay, Sir H. E. F. Lambert, the Hon. H. Watpole, Hon. C. L. Wood, Hon. and Rev. H. Douglas, Hon. and Rev. R. Liddell, Mr. R. Brett, Mr. R. Few, Dr. Gully, and other gentlemen; and the Rev. James Skinner, M.A., vicar of Newlands, has been appointed warden provisionally.

MANCHESTER.—Mr. Robert Barnes, of this city, has intimated his intention, not only to purchase the Cheadle Hall estate and present it to the trustees of the Royal Infirmary, for use as a convalescent hospital, but to supplement the purchase money to the extent of 10,000l., for the purpose of rendering the place thoroughly suitable.

NEWCASTLE-UPON-TYNE.—It is intended to hold a conference in this town next month, to consider the question of education, when papers on the denominational and secular systems will be read and discussed.

PLYMOUTH.—On Friday morning, at 1 o'clock, the brig *Sea Spray*, with wheat for Cork, had a collision with the Italian barque *Nicolo Secondo*, with coals for Genoa, 16 miles off the Lizard. The barque sunk, and the captain and seven seamen were drowned. The mate, three seamen, and the owner's son, were saved. Both vessels had left the Sound on the previous morning.

PORTSMOUTH.—Sir James Elphinstone, M.P., attended a dinner of his constituents on Tuesday, and spoke as follows on the state of the Navy—

"He believed that they had a cheering future before them in Portsmouth. There had recently been a cruise of the Channel fleet; and the result of that cruise had been to reduce the navy of England to one ship. In the gale of wind which the fleet experienced, if the Monarch had put forth her powers as a belligerent instead of a friend, the whole fleet would have been at her mercy. From the very commencement he had advocated the turret system, and placing the weights in ships in their right places, and he maintained that the navy of England was now confined to the Monarch, and to the ship that was to succeed her. They would have to reconstruct the fleet at a cost of about 10,000,000l., and having reduced one dockyard and knocked up that at Woolwich, there was a future for Portsmouth, which he hoped would be the port which would produce the future navy of England. The turret system, which would soon be adopted throughout Europe, was the only principle on which ships should be armed; and they now had a practical solution of the question. The First Lord of the Admiralty took a vessel constructed on this principle to sea, and in a gale of wind the whole fleet was practically at the mercy of the only turret ship, which could have sunk every other ship in the squadron. This was something for Portsmouth to look to.

READING.—The Hon. Auberon Herbert, the unsuccessful Liberal candidate for Berks at the last election, having offered 1000l. towards the establishment of free public libraries in that county, the matter has been discussed in several towns. Mr. Walter, M.P., declined accepting from Mr. Herbert any contribution towards the expenses of the contest, and under these circumstances the offer of 1000l. by Mr. Herbert was made, on condition that Reading should receive 250l., and five other towns 150l. each, provided that each of them shall raise an equal sum towards the same object. The libraries so established are to be maintained and regulated by the Public Libraries Act of 1855, which enacts that the expenses shall be paid out of the borough fund, and that the rate to be levied for the purpose shall not exceed one penny in the pound. At Windsor it has been resolved to adopt the Act, and accept Mr. Herbert's offer. At Reading the corporation have asked Mr. Herbert to devote the 250l. towards the fund now raising to establish a new grammar-school in that borough. The inhabitants of Wallingford have raised a sufficient sum to secure the amount promised, and propose to incorporate the new library with the Mechanics' Institution. A public meeting in connection with the same object has been held at Newbury, under the presidency of the mayor, when the feeling of the meeting was adverse

Provincial.

BIRMINGHAM.—On Monday Lord Stanley visited the works of Messrs. Clay, Inman & Co., at which place, which have been built by the Industrial Development Company, the majority of whose shareholders are working men. On Tuesday he presided at their celebration of the completion of the works, and in the evening he delivered the inaugural address at the new Operative Trades' Hall, intended for the use of the various Trades' Societies.

BIRMINGHAM.—At the Police Court on Monday, Watson, aged 16, was charged with being a vagrant. She was found wandering about the streets on Sunday morning, and stated that she had been detained as a prisoner during the past three weeks in the Roman Catholic convent in Lowe Street. Having been made, it was ascertained that she had been recommended into the convent about three weeks ago, on the recommendation of Father Dowling, to whom she stated that she had attended the ritualistic services at St. Alban's, Holborn, and wished to become a Catholic. It was also found that she had been taken through the window, on being reprimanded for the impropriety of conduct by the lady superior; and it was stated that there was any necessity for her being taken that way, and she was said to be perfectly sane when she pleased. The case was remanded for Tuesday, when it was stated to the magistrates that her brother had agreed to look after her, and take her home. The charge of ill-treatment was then dropped, and the girl left the court with her friends.

BIRMINGHAM.—On Monday four men, named Wilson, Mather, and Kay, were charged with having unlawfully assaulted police-constables Barber and Croft while in the execution of their duty. About 100 men on Saturday morning the prisoners, with a view to their escape, were seen coming out of Sir W. Croft's home preserves, heavily laden with bags and bundles. A fearful struggle ensued, in which police-constable Barber was left for dead on the ground; two other constables were disabled; one of them was taken to the hospital, and the fourth contrived to get away. The deposition of Barber was taken by a county magistrate, and all the prisoners but Croft were taken to his home, and he has identified them. They were committed for a week.

BIRMINGHAM.—At the recent annual meeting of the Birmingham Branch of the Church Association in this city, Mr. Crose, who presided, made the following remarks on the English Church Union:—

"The object of the English Church Union in promoting the English Church, but what he should call Popish, and called the Church Association into existence; and he would define himself simply to the last three authentic documents of the society—the monthly circular of that society, and August—to ascertain what their authentic documents were, and see from the most reticent of them—Dr. Pusey—whether they could not gather sufficient evidence to show that there was a deep design to inflict and insinuate into the Church of England. He thought there was evidence to show that the English Church Union was the head-quarters, and fountain of the ritualistic movement in this country. Except the recognition of the Pope as the head of the Church, there was not a single doctrine that was held by Papists, but might be found in the writings of members of the English Church Union, and members of the Church of England. So far he was in agreement with 'externals.' Passing to 'essentials,' Dr. Pusey's opinions on the doctrine of the Trinity, and on the Reformation was a fiction, a sham, and a blessed reformers might justly distinguish with a difference. But they might be distinguished from the spiritual presence of Christ in the Eucharist, and His actual presence. Let them, then, distinguish between the doctrines and opinions upheld by the English Church Union, and which they were prepared to defend before a court of law. He cordially repeated what he had said before the Bishop of St. David's, that no Churchman should desire the subversion of the Reformed Church of England, or too strongly oppose the proceedings of the

to an increase of the local burdens by levying a rate for the maintenance of a free library, and it was resolved to ask Mr. Herbert to present the money to the Working Men's Institute.

SHREWSBURY.—In November, 1867, a German Jew, named Zusman, travelling for Mr. Cohen, watchmaker and jeweller, of Birmingham, was murdered and robbed of a large quantity of watches, gold chains, seals, and other articles of jewellery, at a lonely spot not far from Oaken Gates. In 1868 suspicion fell upon two men named Harris and Hart, living in the neighbourhood. They were apprehended, and after a very long examination before the magistrates Hart was discharged, and Harris committed on the capital charge. He was tried at the Shrewsbury Assizes, but the evidence failed to satisfy the jury, and he was acquitted. A few days since part of a watch, which was undoubtedly one of those which Zusman had in his case at the time of his murder, was discovered in a manure-pit at the Old Post Office Inn in this town. It had evidently been wrenched off from the other parts, and bore the name of I. Cohen, Birmingham, upon the dial plate. It is a significant fact that both the accused individuals had more than once previous to their apprehension lodged at the Old Post Office Inn, where the portions of the watch were found.

SUNDERLAND.—The trustees of the Hudson Annuity Fund have completed a contract with the North British Assurance Company for the purchase of an annuity for Mr. George Hudson of 520*l.* by an investment of 4000*l.* at the rate of 13 per cent. Of this sum the York treasurer has provided 1500*l.*, and the London, Newcastle, and Sunderland treasurers have raised the remaining 2500*l.* The residue of the subscriptions, estimated to produce the sum of 1000*l.*, when realised will be invested by the trustees.

WIGAN.—On Tuesday week a farmer named John Brown, residing at Dig Moor, Upholland, described as remarkably quiet when sober, but the opposite when drunk, killed one of his farm servants, named George Ashton, in a fit of madness from drink. On the previous day they had been with Brown's wife and daughter to the ceremony of laying the foundation-stone of a Primitive Methodist chapel at Dig Moor, and had attended the tea party which followed, after which they adjourned to a public-house, where they remained drinking till midnight, when they went home. They there obtained more drink, though they were all completely intoxicated, and at last Brown became wild and threatened to kill the whole of them. He thereupon seized the poker, and beat Ashton unmercifully about the head until he died. He then obtained a white sheet, which he threw round him to represent a surplice, and taking a book pretended to read the Burial Service over the remains. He was taken into custody, and the coroner's jury on Monday, after a few minutes' deliberation, returned a verdict of Wilful Murder against him.

YORK.—The Archbishop of York has taken the first formal step in the Chancery Court of this city against the Rev. Charles Voysey, rector of Healaugh, near Tadcaster, for heresy contained in sermons preached by him, letters of request having been lodged by the archbishop in the registry. The articles, which will be forthwith filed, set out the specific charges which Mr. Voysey will have to answer. An appearance has been entered on behalf of Mr. Voysey, and the case will in all probability be tried in the forthcoming term.

Ireland.

VISIT OF THE LORD-LIEUTENANT TO WATERFORD. The Lord-Lieutenant and the Countess Spencer paid a visit to Waterford on Monday. His Excellency was presented with addresses from the Chamber of Commerce and the Mayor and Corporation of the city. The address of the latter contained an allusion to the land question, in noticing which, in his reply, his Excellency said that he need not point out the difficulties of the question. They might be sure that every endeavour would be made by the Government to introduce and carry a measure which would be fair and equitable to all whose interests were concerned. If they succeeded one more difficulty would be removed which, while it remained unsettled, must retard the progress of the country.

THE IRISH CHURCH.—The arrangements for the assembling of a National Synod of the Irish Church are proceeding satisfactorily. Diocesan conferences have been held in various places, and delegates elected. A lay conference will assemble in Molesworth Hall, Dublin, on the 12th inst. Viscount Powerscourt has announced his intention to purchase the tithe rent-charge on all his estates, and place it in the hands of the governing body of the Church, which is equal to a gift of 19,000*l.* Captain Richard Cooper has announced his intention to purchase the rent-charge on his estate, and re-endow the Church. Another gentleman, formerly a parishioner, on learning that the Rev. Dr. Foley intended to purchase his own glebe-house and hand it over to the Church, has promised to do the same in his own parish. Among the first contributions paid in to the Sustentation Fund were 2000*l.* from the Earl of Derby, and 2000*l.* from Mr. Peek, M.P. for Mid-Surrey.

AMNESTY MEETINGS.—The agitation to obtain a release of the Fenian prisoners is spreading over the country, and daily acquiring increased strength. At a meeting held at Ennis, on Sunday, from 15,000 to 20,000 persons walked in procession, and 2000 mounted men formed part of the array, all of them wearing green emblems. The Rev. Mr. Kenny, C.C., presided, and the principal speakers were the Rev. Messrs. Quaid and Vaughan. A resolution was passed declaring that the unconditional release of the exiled and suffering convicts would do more for the peace and harmony of the Irish people than has yet been done by the present

Liberal Government. Another resolution pointed to the example of France and America, and expressed an opinion that any further confinement of the prisoners would be "a stain on the Constitution under which we live, and dishonourable to the civilisation of our age." On the same day a still larger meeting was held at the Devil's Bit, in Tipperary, the numbers being estimated at 10,000. The procession was headed by the clergy of the town, well mounted, and wearing green favours, followed by a host of well-mounted farmers. The Rev. Mr. Kerman, C.C., of Templemore took the chair, and Mr. P. Gill, of Kenagh, the Rev. Mr. Power, and others addressed the meeting. Mr. Gill said that they had met to let the British Government know they wanted justice and reform, not revolution; but if progress emanated not from reform it should from revolution. On the same day a meeting was held at Hannahstown, near Belfast, at which the principal speaker was Mr. A. J. Kenna, who said that England had always acted on the principle that where nothing would be yielded to magnanimity or justice it could be made to yield to pressure. He was proceeding, as an illustration of this, to show that one king went down upon the block to give place to the man who deluged their country with blood, when a voice cried out, "There will be no more of them," a remark which was received with cheers. Another meeting was held on the same day in Newry. It was feared that the Orange party would interrupt the proceedings, and a large force of police was mustered in the town to prevent disturbance. No opposition, however, was offered, Mr. Johnston, M.P., having advised the Orangemen not to interfere. About 5000 people attended the meeting, which was held in a large field, and 20,000, it was stated, were collected in the town. The trades marched in procession, with banners bearing such mottoes as "Release our Heroes," "Tenant Right," "Justice, not Mercy," and green arches with "national" flags were suspended across the streets. The Rev. Mr. O'Hagan occupied the chair. Resolutions, more temperate than at some of the earlier meetings, declaring that it would be just, wise, and politic of the Government to release the prisoners, and that the policy of conciliation would be considered incomplete while one remained in penal servitude, were adopted unanimously. On Monday a meeting convened by the Mayor, in compliance with a requisition signed by a number of members of Parliament, magistrates, and respectable citizens, was held in Cork. The Mayor presided. Mr. Murray, the High Sheriff, moved the first resolution, to the effect that the liberation of the Fenian prisoners would be received with satisfaction by all classes of the Irish people. He eulogised the present Administration for its liberal policy towards Ireland, and as an evidence of this referred to the passing of the Church Bill. The mob exclaimed that the Fenians were the means of passing the measure, and after Mr. Maguire, M.P., and others had in vain attempted to address the meeting, the proceedings closed amid great excitement. At all these meetings the "crownless harp" has been a favourite symbol, and at Ennis the absence of the royal emblem was peculiarly remarkable.

GREAT PROTESTANT DEMONSTRATION.—An important meeting is to be held on the 21st inst., at Belfast, to give "Protestants the opportunity of expressing their views on the religious, educational, and social condition of the country." The Duke of Abercorn is to preside, and the Earl of Erne, the Earl of Lanesborough, Viscount Massereene, Viscount Templetown, Viscount Crichton, Mr. William Johnston, M.P., Sir Thomas Bateson, M.P., and other noblemen and gentlemen, will be present. Resolutions approving of "the practice of tenant-right as it exists in Ulster" are to be proposed, and the meeting will pledge itself to "support any equitable measure calculated to improve the relations between landlord and tenant, and to insure to the industrious tenant-farmers of Ireland compensation for all their improvements." On the evening of the meeting there will be a grand banquet.

RIOT AT NEWRY.—A serious disturbance occurred at Newry on Monday night, caused by a report being circulated that the Orangemen were attacking the convent. The Catholics turned out in large numbers to defend it, and the police were obliged to charge to prevent a collision. Some persons were injured.

ATTEMPTED MURDER IN MEATH.—On Monday Mr. John Armitage Nicholson, of Balrath House, near Kells, was fired at in open day, while driving from the Kells Petty Sessions, accompanied by a lady and an armed policeman. A slug grazed his face; the coachman and the lady were so seriously wounded that the coachman has died. This is the second attempt on Mr. Nicholson's life within a month. Nine men are in custody.

THE LAND QUESTION.—A meeting to discuss the land question was held on Sunday at Kingstown, and was attended by about 4000 persons, chiefly of the working class, most of whom wore green leaves or ribbons in their hatbands. Mr. D'Arcy, M.P., and Sir John Gray were the principal speakers. The former thought that the landlord who refused fair terms to good tenants should be done away with; and the latter expressed his conviction that the people ought to be rooted in the soil of the land which God had given them, and that the hands of landlords, who had stolen the property of the people, should be so tied that they could steal no more. A resolution was adopted to the effect that the laws at present governing landlord and tenant in Ireland are unjust, and require the interference of the Legislature.

THE CASHEL MURDER.—A man named Ryan, who was arrested a few days ago on a charge of complicity in the murder of an old man, named M'Grath, near Cashel, a few weeks ago, has committed suicide in Cashel Bridewell. Dwyer, who was arrested at the time of the murder, is still in custody.

Scotland.

COURT APPOINTMENTS FOR SCOTLAND.—The Queen has appointed the Rev. Dr. Archibald Charteris, D.D., to be one of her Majesty's Justices in Ordinary in Scotland, in the room of William Muir. The Queen has also appointed Laycock, Professor of the Practice of Medicine in the University of Edinburgh, to be one of her Majesty's Physicians for Scotland, in the room of James Begbie.

FLORE MACDONALD.—It is stated that a biography of Flora Macdonald, the heroine of the Jacobite cause, carefully kept in the family repository, is to be published in Edinburgh. The biography is being edited by her last surviving descendant, and contains some anecdotes hitherto unpublished, of the escape of the Prince.

TRAINING SHIP FOR THE CLYDE.—A line-of-battle ship Cumberland having been sent from the Admiralty as an industrial training vessel for the destitute and homeless boys of the West coast, the ceremony of her commissioning vessel took place last week in Row Bay, near Greenock, under the presidency of the Lord Provost of Glasgow. The *Glasgow Herald* states that the fever has broken out on board the vessel on Monday evening 20 of the boys were taken to the Hospital in a prostrate condition. The disease is a very virulent type, and the sufferers were not favourably.

STEAM OMNIBUSES FOR GLASGOW.—At a meeting of the Glasgow police board Monday night Mr. Man & Drummond obtained the sanction of the authorities to run steam omnibuses by way of experiment, on the streets of Glasgow.

TRIAL OF TWO BROTHERS FOR MURDER.—At Glasgow Circuit Court, on Tuesday, two brothers named Barbour, were indicted on a charge of murdering a poor washerwoman at Greenock. The outrage was one of a peculiarly atrocious nature. The elder pleaded guilty to the minor part of the homicide, and escaped with 15 years' penal servitude, and the younger escaped punishment, on the ground that he had merely concealed his brother's crime.

Railways.

TRAM RAILWAYS.—A prospectus has been issued by the Tram-Railway Company of Great Britain (Limited), with a capital of 100,000*l.*, in which the company proposes to purchase the patent of Thomas Page, C.E., the engineer and architect, of Westminster Bridge, and of Mr. Haworth, of the purpose of bringing, by properly constructed tram or roadrails, into direct communication with existing railway systems, outlying towns and villages, without building costly viaducts, embankments, bridges, or making tunnels and cutting, for the purpose of constructing and working the same. It is stated that the cost per mile of a tram railway, the company's system will average about 1000*l.*, the cost per mile of the railways already in existence, including purchase of land, &c., has averaged 10,000*l.* A locomotive, invented by Mr. Page, will be used, where required: it will ascend steep gradients, make no noise; and, by incorporating with it the characteristics of Allen's economic engine, will be worked at a cost of about one-third of an ordinary locomotive. Among the first districts to be selected for its introduction are those of the Great Northern Railway in Devonshire, the vicinity of the Cambridge and of Bolton in Lancashire and the iron and coal fields of Yorkshire. The experiment will be watched with interest by shareholders of existing railways and by the trading and agricultural classes at present removed from direct access to the chief lines of traffic.

Sporting.

THE INTERNATIONAL SCULLING MATCH.—The match between Walter Brown, the American champion, and the English crew did not take place on Thursday, as previously expected, in consequence of Brown's suffering from an acute attack of fever, which prevented his sitting in his boat. Sadler was substituted, and Brown and his friends have returned to their homes.

Miscellaneous.

SANITARY REFORM.—The immense progress made in sanitary legislation in this kingdom in the last few years is well known. Mr. Simon, the member of the Privy Council, maintains that the sanitary law now affirmed in our statute-book are such as to put into full effect, would soon reduce to quite a negligible amount our present very large proportions of the population affected by the disease. But when we mark the degree to which the intentions of the Legislature are required to be carried out, the contrast presents itself. Mr. Simon has pointed out that not only have permissive enactments been unapplied, but even nuisances which the law relatively declares intolerable have, on an enormous scale, been suffered to continue; and diseases which mainly represent the inoperativeness of the law still occasion, he believes, fully a fourth of the entire mortality of the country. The main reason for this will be found in the complexity and the obscurity of the law and the division of the legislative power. The Legislature meant to proceed in these matters cautiously and tentatively, and the impulse which has come from many different quarters, from two or three departments of the Government, has led to the confusion and incoherency of result, such as has been attained if all had originated from or proceeded to a single chief ministry for the subject-matter.

have again to report dull markets throughout the kingdom, leading to a further reduction of 1s. to 2s. per qr. We must ascribe this decline chiefly to the large arrivals of foreign Wheat and Flour, which consumption was unable to take off, while importers being disinclined to land, pressed sales. Spring Corn was equally neglected. Oats, except fine old, were 1s. per qr. cheaper. Beans, Peas, and Barley declined 1s. to 2s per qr., excepting at a few markets on the East coast, where feeding Barley was in good demand at late rates. Flour was sold slowly, at a decline of 1s per barrel and sack. Since Friday last 101 grain and seed-laden vessels have arrived off the coast, of which, with those left over from last week, there remained for sale last night 102 cargoes. Best samples of Wheat off the coast have been held firmly; inferior sorts, however, met with a very slow sale, and as at the end of the week the arrivals increased, prices tend down wards. Maize commanded better attention, at an advance of about 6d. per qr., whilst Barley was easier to purchase. For Rye the bids made from the Continent are at declining rates. Linseed was easier to buy. Business in cargoes on passage and for forward shipment was at a standstill, excepting a chance transaction in Barley.

There are large arrivals of foreign Wheat and Oats this week, but small of Barley and English grain. There was a poor attendance at this morning's market, and English Wheat met with scarcely any demand, but millers showed no disposition to purchase foreign, excepting at a decline, and as Sellers were not willing to submit to any reduction, prices remain nominally the same as on Monday. New Oats were 6d. per qr cheaper, and other descriptions of spring corn unchanged in value.

ARRIVALS.

	Wheat.	Barley.	Oats.	Flour.
English ..	810 qrs.	10 qrs.	— qrs.	— sks.
Irish	— " "	— " "	2400 " "	— " "
Foreign ..	36,790 " "	1750 " "	73,220 " "	{ 1320 " "
				{ 2100 brls.
	37,000	1760	75,620	

LIVERPOOL, Oct. 5.—There was a fair attendance of millers and dealers at to-day's market, but only a limited business in Wheat took place, at a decline of 1d. to 2d. per cental on Friday's rates. Flour dull and 6d. per barrel lower. Indian Corn in fair request, at an advance of 6d. per qr. Beans dull, and 6d. per bushel lower. Oats and Oatmeal dull, and rather lower. Peas firm.

AVERAGES.

	Wheat.	Barley.	Oats.
Aug. 28 ..	54s 2d	32s 7d	25s 2d
Sept. 4 ..	51 11	36 8	26 8
— 11 ..	49 10	37 10	25 11
— 18 ..	50 5	38 3	25 5
— 25 ..	50 6	37 3	25 6
Oct. 2 ..	49 8	37 8	24 7
Average ..	51 1	36 8	26 0

SEED MARKET.

Our market is still quiet, no speculation having yet sprung up for any kind of seed; the consumptive demand, as is usual at this time of the year, is now very limited. Winter Tares are in fair request at high rates. A supply of new Dutch Hempseed has now reached us, which meets with a brisk demand. Canary and all other seeds are without alteration in value. JOHN SHAW & SONS, 16, Water Lane, E.C.

ENGLISH WOOL.

A fair amount of business has been done, and there appears a more general disposition to purchase, at fully late rates, though an advance is only very reluctantly given.

CURRENT PRICES OF ENGLISH WOOL. per lb.—s. d. s. d.

FLEECES—Southdown hoggets ..	..	..	1 1	to 1 2
Half-bred ditto	1 2	— 1 2½
Leicester Fleeces	1 3	— 1 4
Southdown ewes and wethers	1 0½	— 1 1
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SORTS—Clothing	0 10	— 1 6
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MESSRS. VEITCH AND SONS wish to ENGAGE a PERSON thoroughly competent to undertake the Cultivation and Propagation of their Collection of Ferns, including all the best Stove, Greenhouse, and Hardy kinds. The Greenhouse Palms would also be under his charge.—Apply by letter, stating references and wages required, to the Royal Exotic Nursery, King's Road, Chelsea, London, S.W.

Landscape Works.

MR. RANSLEY TANTON, F.R.H.S., LANDSCAPE GARDENER AND GARDEN ARCHITECT, is in WANT of Four Single Men as FOREMEN of GANGS, in Remodelling a Nobleman's Estate and Gardens. State qualifications, &c.—The Nurseries, Epsom.

WANTED, a General Out-of-Door NURSERY FOREMAN, who has a good knowledge of his business. Must be a successful Budder and Grafter. None need apply who cannot furnish unexceptionable references as to ability, honesty, and sobriety.—Apply to H. Carr of Messrs. Hugh Low & Co., Clapton Nurseries, London, N.E.

WANTED, an experienced HEAD GARDENER, without children. Preferred if Wife good Cook or Launderess.—C., Telegraph Office, 13, Old Steyne, Brighton.

WANTED, a YOUNG MAN, to take charge of a Collection of Bulbs and Alpine Plants. Must have a fair knowledge of them.—Box 3, Post Office, Chester.

WANTED, at Clapham, as GARDENER, a Young Man, thoroughly competent to attend to a Small Garden, look after a Pony and Chaise, and make himself generally useful. Can sleep in the house.—Apply at 24, Piccadilly, W.

WANTED IMMEDIATELY, a good WORKING GARDENER, to Superintend the Draining, Laying-out, and Planting of 2 acres of Grounds, and Kitchen Garden, to a new built house. Can live in the lodge of two rooms.—Apply to Mr. W., 10, Serjeant's Inn, Fleet Street, London, E.C.

WANTED, a young single Man, as ROSE GROWER; one who has just served his time under a first-class Propagator preferred.—Apply, by letter only, stating wages required, to E. M., Gardeners' Chronicle Office, W.C.

WANTED, as PROPAGATOR, a Young Man having a good practical knowledge of Indoor Plants, &c. Must be well recommended for honesty, sobriety, and steadiness.—Copies of testimonials with references, to A. CAMPBELL AND SONS, 7, Eden Quay, Dublin.

WANTED, as BAILIFF and GARDENER, for a Farm of 90 Acres, an active, handy, married Man, who thoroughly understands Live Stock. Wages, 17s. 6d. a week, with house-rent and firing. Wife must be a good Cook and Housekeeper, and will have 2s. 6d. a week, besides 5s. a week during the residence of the owner. Children objected to.—H. T. E., Mount Pleasant, West Heathley, East Grinstead.

WANTED, an intelligent Young Man, as JUNIOR CLERK for a leading Provincial House. State experience, age, and salary expected.—B 9, Gardeners' Chronicle Office, W.C.

WANTED, a YOUNG MAN, with a good knowledge of the Agricultural Seed Trade, to assist in Putting up Orders, Book-keeping, and Making-out Accounts. One who has just completed his Apprenticeship, and from a Provincial house, preferred.—Apply, stating wages expected and experience, to GEO. RUTHERFORD, Manager for John Bennet Lawes, Seed Warehouse, Market Street, Shrewsbury.

WANTED IMMEDIATELY, a Working Gardener and Wife (without children), as LABOUR MASTER and MATRON of an Industrial School. Church people.—Miss COOKE, Beckley, Oxford.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. E. G. HENDERSON AND SON, Wellington Nursery, St. John's Wood, London, N.W.

Gardeners and Under Gardeners.

WM. CUTBUSH AND SON beg to state that they have at all times on their books MEN of various qualifications, whose characters will bear the strictest inquiry. Any Gentleman making application would save time by clearly stating the duties to be undertaken, wages offered, &c., so that suitable Men may be selected.—Highgate Nurseries, London, N.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS, and GARDENERS and BAILIFFS, of various qualifications, who are open to Engagements. The fullest particulars as to services required and wages given should be forwarded with application.—PAUL'S Nurseries, Waltham Cross, London, N.

To Gardeners and Bailiffs (Head, Foremen, or Under). JAMES CARTER AND CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those who can send unquestionable references need apply. Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & Co. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c. JAMES CARTER AND CO., 237 & 238, High Holborn, London, W.C.

GARDENER (HEAD).—Age 36, married; understands his profession. Good character.—W. W. PEARCE, News Agent, Wimbledon, S.W.

GARDENER (HEAD).—Age 40, married, no incumbrance; thoroughly understands the profession. Fourteen years' good character.—JOSEPH SMITH, 6, Grimaby Road, Louth, Lincolnshire.

GARDENER (HEAD).—Age 35, married; thoroughly understands Gardening in all its branches. First-class testimonials, and 4 years and 9 months good character from the Nobleman he is leaving.—T. O., Foot's Cray, Kent, S.E.

GARDENER (HEAD).—Married, no incumbrance; thoroughly understands the Growing of Grapes, Stove and Greenhouse Plants, and Flower and Kitchen Gardening. Six years' character.—A. B. BRADFORD, 2, Cross Road, Twickenham, S.W.

GARDENER (HEAD).—Age 26, married, no incumbrance; has a thorough practical knowledge of the profession in all its branches. Can be highly recommended.—H. F., Post Office, Water End, Hemel Hempstead.

GARDENER (HEAD).—B. RICHARDSON, late Head Gardener to Sir J. W. C. Hartopp, Bart., Four Oaks Park, Warwickshire, wishes a re-engagement where a thorough practical experienced Man is required. Disengaged in consequence of the place being let. Highly recommended.—Address as above.

GARDENER (HEAD).—Age 38, married; thoroughly practical in every department. Good Grape Grower, and Flower and Kitchen Gardener. Understands Woods, Land, and Stock, and the general work of an Estate. Can be highly recommended.—S. J., West Street, Somerton, Somerset.

GARDENER (HEAD).—Married, no incumbrance; steady, trustworthy, and capable of carrying out the most approved system of Flower Gardening; thoroughly practical in Early and Late Forcing of Fruits, Flowers, and Vegetables, and the general routine of Kitchen Gardening. First-class testimonials as to character and ability.—R. TAYLOR, Gunton Park, Norwich.

To Noblemen and Gentlemen.

GARDENER (HEAD).—Middle-aged, married, no incumbrance; is a thorough master of the profession in all its branches, and perfectly capable of undertaking the most responsible situation. Has been in present employment over 10 years, and can have the highest references.—Mr. GEO. J. CHILD, 49, Darley Street, Bradford, Yorkshire.

GARDENER (HEAD), or FOREMAN.—Age 30, single; 15 years' experience. Has been Foreman in some of the best Noblemen's places, and is desirous of obtaining a similar situation or otherwise. Character will bear the strictest investigation as to ability and morality.—G. C., 31, Robertson Street, High Road, Lee, S.E.

GARDENER (HEAD, WORKING).—Age 25, no incumbrance; thoroughly understands the profession in all its branches. Wages expected, 60l. per annum, with house and firing. Unexceptionable character.—J. M., Post Office, Spondon, near Derby.

GARDENER (HEAD), where four or five are kept.—Age 27, single; thoroughly understands the profession in all its branches. Ten years' experience. Can be highly recommended.—Y. Z., Post Office, Petworth, Sussex.

GARDENER.—Age 28, married, no incumbrance.—H. WALKER, Mr. Morse's, Nurseryman, Dursley, Gloucestershire.

GARDENER.—Age 40, married; thorough practical knowledge of his profession in all its branches. Land, Stock, and Poultry, if required. Four years' character from last situation.—B. A., Post Office, Acton, Middlesex, W.

GARDENER.—Age 27, married; understands Early and Late Forcing, Fruits, Flowers, Vegetables, and Flower and Kitchen Gardening. Good references.—J. KING, Rectory Cottage, Beaulieu, Southampton.

GARDENER (SINGLE-HANDED, or otherwise).—Married; understands Greenhouse, Cucumbers, Melons, and Kitchen and Flower Gardening. Three years' character.—W. J. H., Exning, Newmarket, Suffolk.

GARDENER (UNDER).—Age 19; strong, active, willing, and industrious. Has been 5 years in a Gentleman's Establishment noted for the growth of Choice and Rare Plants. Now wishes for a change where the general routine of Gardening is carried on. Good recommendation.—J. G., 4, Stamford Road, Page Green, Tottenham, N.E.

FOREMAN, in a Nobleman's or Gentleman's Garden.—Age 25, single. Unexceptionable references from last employer.—R. T., 3, Highbury Place, Bath.

FOREMAN (age 21).—J. BOLTON wishes to recommend a Young Man used to Early and Late Forcing of Fruits, Flowers, Vegetables, &c., and Flower and Kitchen Gardening. Four years' good character.—J. B., The Gardens, Birstall Hall, Leicester.

FOREMAN (age 25).—WILLIAM STEWART, Gardener to W. H. H. Broadley, Esq., M.P., Welton House, Brough, East Yorkshire, can, with the greatest confidence, recommend his Foreman in the above capacity to any Nobleman's or Gentleman's Gardener in want of the same.—Address as above.

PROPAGATOR (GENERAL), or FOREMAN and PROPAGATOR (HEAD and SORROWWOOD).—Up in Azaleas, Camellias, Conifers (by cuttings), Roses, and Rhododendrons. Expert Grafter; Outdoor Budder and Grafter, &c.—X. Y., New Buildings, Beeston, Notts.

To Landowners.

A GENTLEMAN having a limited income, is glad to undertake the ACCOUNTS of an ESTATE, RENTS, &c. Terms moderate. Highest references.—30, Richmond Terrace, Clapham Road, London, S.W.

A GENTLEMAN is anxious to recommend his Agent to any Gentleman or Agent who requires a thoroughly trained Young Man of 22 years, several years assisted in the Management of an Estate and Suffolk.—Address W. F., Post Office, Eye.

IMPROVER, under a good practical first-class Nursery or Garden.—Young Man, capable practice in Gardening. Good character.—Lodge, Hempton, Deddington, Oxon.

ASSISTANT.—Age 18, respectable. Advancing under his father. Good character.—C. G., Pilgrim Hall, Brentwood, Essex.

WAREHOUSE FOREMAN, or in a Seed Shop.—Manage a Small Country Shop or Branch. Married; 18 years' experience in the Trade. W. M. S., 2, Caledonian Terrace, Bridge Road, London, S.W.

SHOPMAN, SHOPMAN and CLERK, or ASSISTANT SALESMAN.—Age 25, 11 years' experience in the Seed and Bulb Trade.—W. H., Rowthorne, near Chesterfield.

SHOPMAN or ASSISTANT.—Age 20; 10 years' experience in the Seed and Bulb Trade.—W. H., Rowthorne, near Chesterfield.

SHOPMAN, or ASSISTANT.—Age 22; 10 years' experience in London and Provincial Houses. From last employer.—SEEDSMAN, 61, Seymour Place, Square, W.

CARPENTER, JOINER, and RUSTIC WORKER.—A Gentleman's or Nurseryman's Estate.—Age 27; 10 years' experience in the Trade. G. S., 10, Pound Row, Camberwell, S.E.

DAIRYMAID (Ayrshire).—Thoroughly experienced in the Management of Poultry. First-class testimonials.—S. B., Home Farm, Glamis, Scotland.

The New Vade Mecum (Invented & Manufactured by CHARLES H. VINCENT, OPTICIAN, of 23, Water Street, Liverpool), consists of a TELESCOPE with Tourists, &c., to which is added an excellent MICROSCOPE of power and first-class definition, quite equal to others of 5 times the price. Wonderful as it may seem, the price of a generous combination is only 3s. 6d.; and Mr. Vincent's carriage free) anywhere, with printed directions, upon simple Post-office order or stamps to the amount of 3s. 6d.

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Sauce.—Lea & Perrins. THE "WORCESTERSHIRE" pronounced by connoisseurs "the only good Sauce," the appetite and aids digestion. Unrivalled for palatability. Ask for LEA AND PERRINS' SAUCE. Beware of imitations, and see the names of Lea & Perrins bottles and labels. Agents—CROSSE AND BLACKWELL, London, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100. Dealers in Sauces throughout the World.

WHEN the HAIR, through weakness, becomes off, or turn grey, no preparation will sooner restore it to its original colour, than the ORIGINAL COLOUR and a healthy and luxuriant growth, than Mrs. S. I. A. WORLD'S HAIR RESTORER. It is simple in its preparation, requiring no previous preparation of the hair; is perfectly agreeable, and no pomade or hair oil is required. Bottles, 6s., of chemists and perfumers. Depot, 266, High Holborn, London.

THE TEETH and BREATH.—A good ever insures favourable impressions, while the general health of the utmost importance to every individual, both in general health by the proper mastication of food, and the possession of pure and sweet breath. Among the various ROWLANDS' ODONTO, or PEARL DENTIFRICE, for its excellence in purifying, embelishing, and preserving important and attractive objects.—Court Circular.

CORNS and BUNIONS.—A Gentleman, tormented with Corns, will be happy to afford information by which he obtained their complete removal, without pain or any inconvenience.—Forward stamped envelope to F. KINGSTON, Esq., Ware, Herts.

DINNEFORD'S FLUID MAGNESIA.—The best remedy for Acidity of the Stomach, Headache, Gout, and Indigestion; and the best medicine for delicate constitutions, especially adapted for Ladies, Children, and Infants. DINNEFORD AND CO., 172, New Bond Street, London, and of all Chemists throughout the World.

COCKLE'S ANTIBILIOUS PILLS.—THE SAFEST FAMILY APERIENT. In boxes at 1s. 1½d., 2s. 9d., 4s. 6d., and 11s.

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COCKLE'S ANTIBILIOUS PILLS.—THE OLDEST PATENT MEDICINE. In boxes at 1s. 1½d., 2s. 9d., 4s. 6d., and 11s.

The Best Remedy for Indigestion. NORTON'S CAMOMILE PILLS are recommended as a simple but certain remedy for indigestion. They act as a powerful Tonic and general Aperient; and their operation; safe under any circumstances; and those persons can now bear testimony to the benefits to be derived from their use. Sold in bottles at 1s. 1½d., 2s. 9d., and 11s. each. In the Kingdom. Caution.—Be sure to ask for "NORTON'S PILLS," and do not be persuaded to purchase the various imitations.

NOVEMBER FOGS are COMING, indeed. Are here, and many are suffering from COUGHS, ASTHMA, INFLUENZA, &c. Immediate relief may be obtained by the use of SPENCER'S PULMONIC ELIXIR. It is a powerful property which can be beneficial in cases of asthma, and all complaints of the chest and lungs. SPENCER'S Pulmonic Elixir may be had of all the Druggists and Medicine Vendors throughout the world, at 1s. 1½d. and 2s. 9d.

patent to be passed under the
 the dignity of a Baronet of the
 —Admiral David Salomons, of
 Place, and Broom Hill, Tunbridge;
 Talbot, Hertfordshire, and
 Gloucestershire: General Francis
 O'Connell, Esq., of Lakeview,
 of Kerry; Titus Salt, Esq., of
 Yorkshire; Joseph Watworth,
 Esq., of Sarncliffe, Derby-
 shire; Esq. of Ardwick, Manchester;
 Esq. of Allerton Tower, Woolton,
 William Jackson, Esq., of Birkenhead
 LONDON.—A case of yellow fever,
 occurred on board one of the ships
 of the Flying Squadron a few days
 on August 25, but the contagion
 the energy displayed by the medical
 the goodness of the weather. The ship on
 had made its appearance was in
 no other cases were apprehended.
 of Monte Video on September 11, for
 Hope.

Foreign.

The Emperor left St. Cloud on Tuesday
 where the Ministers joined him on
 Government have given notice, in the
 that in consequence of the disorders
 from several meetings, it has
 putting in force the law investing the
 Police with power to stop any meeting
 consider likely to disturb the public
 meeting was held at Belleville on
 the presidency of M. Lissagaray, at
 the dissolved, but the crowd resisted the
 struggle ensued, during which a few
 One, pretending to be wounded,
 the Boulevard de Belleville, shouting,
 "I am being murdered." This person was
 being examined by the doctors it was
 he had received no wound at all. On
 Tuesday evenings there were other meet-
 ings, and some disturbances were expected,
 but passed off quietly, the authorities having
 taken precautions against any disorder. The *Rappel*
 publishes a letter from M. Victor Hugo, in
 which he encourages the idea of a manifestation
 on the 10th inst., and advises the deputies
 not to declare themselves absolved from
 duty. The letter says—"On the day when I
 am elected I will be with you. This
 I cannot do." The *Moniteur de l'Armée*
 says the Emperor has not deemed it necessary
 to fill the vacancy in the command of the 6th
 corps, and that the Staff of that corps will
 be reorganised. A meeting was held at Rouen on Satur-
 day for the purpose of protesting against the renewal of
 commercial treaties with England and other
 countries. M. Puygarbier was elected president
 of the meeting. Another meeting was held on Tuesday,
 at which 200 persons were present. M. Puygar-
 bier was president, who was received with great
 enthusiasm in the abrogation of the commercial
 treaties compatible with the government of the
 country. The Bishop of Ajaccio and
 M. Bave, the poet, critic, and Senator, died on
 Tuesday. Disturbances of a serious character
 occurred at St. Aubain, Aveyron, on Thursday and
 Friday week, in consequence of a strike among
 the workmen employed by the Compagnie d'Orleans. The
 rioters attempted to drown the chief engineer of
 the railway, and wounded the Sub-Prefect and his
 family. They also burnt the general stores and ware-
 houses of the company. On Friday morning an actual
 riot occurred, during which the mob attacked the
 railway station upon their assailants, killing ten and
 wounding several more of the rioters. On Sunday
 the rioters remained at the furnaces by the men on
 the others employed at the forges followed
 the strike as soon as a supply of coals had
 been obtained. At Decazeville the men are at work, and
 in a peaceful disposition. On Tuesday work was
 resumed, and M. Callon received full powers
 from the workmen on strike in a conciliatory
 spirit. The interest in the Pantin tragedy has been
 revived by the report that the body of Kinck, the
 murdered child, had been found in
 the garden, between Olwiller and Wattwiller,
 and that wounds had been found on the body, and
 that the murder had occurred about six weeks back.
 However, it has proved to be without foundation.
 The Emperor has made up his mind to brave the
 "note of infamy," the "penalties decreed against him by the
 Carmelites in the event of his not
 leaving his convent within ten days. On the day
 the ten days' grace expired he sailed from
 Paris towards the end of the year, by which
 the Imperial Council may be expected to have
 the real business before it.
 The telegrams from Spain continue to
 be alarming in the provinces. In Saragossa
 the Volunteers attacked the troops who
 were some prisoners, and a sanguinary fight
 lasted 21 hours, and ended in the defeat
 of the Volunteers, each party having lost a large number
 of men. Government artillery having played heavily
 against the Volunteers. On Friday and Saturday the
 Volunteers of Valencia attacked the troops with such
 energy that the Government was compelled
 to send reinforcements. On Sunday there was
 a general attack on the city, in order that
 the Volunteers might collect their dead and wounded. On
 Monday the Government troops, who had been waiting

for reinforcements, were to have recommenced the
 attack, but it was delayed in consequence of the rebels
 breaking up the railways. A frigate was stationed off
 the town, ready to assist in the attack. The Volunteers
 had then some 40 pieces of artillery and occupied the
 principal places in the town. The Government troops
 attack the town, when the Volunteers, swayed by these
 terms, prepared to surrender, and on the 10th inst. they
 must surrender at discretion, and without any
 conditions. Sundry defects of rebel banners, and
 their consequent dispersion, are reported from
 Andalusia, Granada, and Catalonia, where the
 Government state that the disturbance is reduced
 to small groups of insurgents, who avoid encounters
 with the troops and employ themselves in destroying
 railways and telegraphs. In Catalonia the band of
 Suer, comprising 1000 men, is reported to have been
 defeated at Junquera, close to the French frontier, and
 to have turned against the chiefs, who fled across the
 frontier. In the same province 1500 insurgents are
 said to have laid down their arms. About 6000
 insurgents have submitted themselves in the pro-
 vinces of Tarragona, Gerona, Lerida, and Barcelona.
 Bejar, in Old Castile, is in insurrection, and the
 peaceful inhabitants have abandoned the town
 to the insurgent population. The Municipality
 of Ternel, aided by the Volunteers de la Libertad,
 have proclaimed the Republic. At Valencia and
 Grenada the Volunteers resisted the order for their
 disarmament, and, after a struggle, occupied the
 the fields. The two insurgent leaders, Paul
 and Salvochea, have fired the town of Cartha-
 gena. Cabeilla and Carbajal have been shot at by
 Senor Saler, a member of the Cortes, has been killed at
 Saragossa. Senor Castelar, the deputy, has been
 threatened with assassination by Republicans, and has
 left the country for Portugal. The other Republican
 Deputies are secreting themselves, owing to a rumoured
 intention on the part of the Government to arrest
 them by virtue of the Liberties Suspension Act. The
 Cortes have nominated a committee to report upon
 what course shall be adopted respecting the Republic.
 Deputies actually in the field—over 20 in number.
 On Wednesday, on the recommendation of the com-
 mittee, the Cortes authorised legal proceedings against
 those Deputies who have joined the insurrection. A
 great number of Republican papers have been
 suppressed by the authorities. Senor Pruneda,
 one of the members of the Cortes compromised
 in the outbreak at Saragossa, has been arrested.
 General Prim on Saturday held a grand review of
 the troops in the capital, mustering 8000 to 10,000 in
 number, evidently with the intention of showing his
 real military strength, and to disprove the current
 rumour that the garrison had been reduced by detach-
 ments to 3000. Except in Madrid, the Volunteers in
 all the principal towns of the provinces have been dis-
 armed, and martial law has been proclaimed in Cata-
 lonia, Aragon, Old Castile, Valencia, and Murcia, and
 Cordova. The inhabitants of Madrid have been in-
 structed to arm their servants, if they believe them faith-
 ful, in order to defend their houses from pillage in case
 of a riot, and precautions have been taken against a
 surprise of the offices of the Ministry of the Interior,
 which would put the insurgents in possession of the
 telegraph wires. The Republican clubs have also been
 ordered to be closed. Numerous families have taken
 alarm in the south of Spain, and have sought refuge at
 Tangier.
 PRUSSIA.—The *Provincial Correspondence* of Wed-
 nesday says that the friendly reception which the
 Crown Prince of Prussia met with during his late
 visit to Vienna entirely confirms the belief that the
 Court of Austria is quite as much alive as is the
 Prussian Government to the importance of drawing
 closer the friendly ties which formerly existed between
 the two Courts. The Prussian Budget was presented
 to the Diet on Friday, and shows a deficit of nearly
 five million and a half thalers. In the sitting of the
 Lower House of the Diet on Tuesday Herr Lowe put
 a question to the Ministers relative to the concession
 of the premium loan of 100 millions to the Discount
 Company in Berlin. Herr Braun proposed that the
 Government should be requested to introduce a Bill
 abolishing the principle of premium loans within the
 North German Confederation. The Finance Minister
 stated in reply that the Government were occupied
 with the legal settlement of the question, but that it
 had no longer any objection to the premium loan, since
 thereby a foreign market could be opened to the
 Prussian funds. Nevertheless, the vote of the Diet
 would be duly taken into consideration. A shock of
 earthquake was felt along the Rhine in the night
 between the 21 and 23 October. It was but slightly
 felt at Boppard and Cologne, but in the intermediate
 localities of Bonn, Coblenz, and Neuwied, it was very
 alarming. In some places the inhabitants rushed into
 the street, believing their houses were about to fall on
 them, domestic fowl left their roosts, and a low rumbling
 noise was heard. The undulation at Remagen was
 from north-west to south-east, and lasted about
 two seconds.
 BADEN.—In the sitting of the Second Chamber on
 Monday, the treaty with the North German Confederation,
 whereby the subjects of the Grand Duke will be
 allowed to serve in the North German army, and vice
 versa, was discussed. The treaty was adopted, only
 three dissentient votes being given by members of the
 Ultramontane party.
 AUSTRIA.—The Crown Prince of Prussia left Vienna
 on Saturday morning for Venice. The Emperor pre-
 sented several of the suite of his Royal Highness with
 decorations. The Emperor Francis Joseph will start
 for his journey to the East on the 24th inst. His
 Majesty, according to present arrangements, will pro-
 ceed from Pesth by rail to Basiasch and thence by
 steamer to Rustchuk and Varna, where the Austrian

squadron will be waiting to receive him. He will then
 embark with V. Admiral Togo on board the
 yacht Graf von Constantinople, where he will stay a few
 days, and will proceed thence, with the Emperor of the
 French and the Sultan, to Jaffa, a combined fleet of
 Austria, Prussia, and France, and a combined fleet of
 escort. From Jaffa their Majesties will continue their
 journey to Jerusalem, and afterwards re-embark at
 Jaffa for the Suez Canal. The Emperor will visit
 Athens on the return journey, and will pass through
 upon Italian soil, in which case an interview with
 King Victor Emmanuel will certainly result. The
 Austrian Government has replied to the offer of the
 Prince of Montenegro to use his good offices with the
 refractory inhabitants of Bocche-de-Catara, to the
 effect that it knows perfectly well how to put down
 any disturbance that might arise, and that the
 waves and children of the insurgents would be
 allowed to return to the neighbouring territory of Mon-
 tenegro. The recruitment in the district of Ragusa is
 proceeding without any opposition.
 HUNGARY.—The Catholic Congress at Pesth was
 closed on Wednesday after arranging the mode of
 election. The Plenum Commission has finished its
 labours. The Hungarian Diet will commence its
 session to day.
 SWITZERLAND.—The international conference on
 the St Gothard railway question have concluded
 their deliberations on the draft of the treaty, and the
 final protocol has been signed.
 GREECE.—The Empress of the French arrived at
 Athens on Sunday evening. During her stay her
 Majesty visited the most celebrated antiquities of the
 city, and dined at the Royal palace. On Monday
 evening her Majesty left for Constantinople.
 RUSSIA.—General Fleury, the new French Am-
 bassador, has arrived at St. Petersburg with the
 Emperor Napoleon's reply to the invitation of the
 Czar to visit the International Exhibition in 1876. The
 Emperor of the French expresses his thanks for the
 invitation and promises to resume his health and the
 state of politics do not prevent his journey. The
 Ambassador of Bokhara has applied to Russia for assist-
 ance against Sher Ali, and proposes the payment of
 the payment of a tribute. He has also proposed his
 son with an embassy to the Czar in order to secure his
 succession to the throne through the protection of
 Russia.
 ITALY.—The Crown Prince arrived at Venice on
 Sunday morning, and was received by the Royal
 delegates, Signor Nigra and Cortina. The Prince
 proceeded on board a Royal gondola to the Doge's
 Hotel. On Tuesday evening his Royal Highness
 visited the Apollo Theatre, which was specially ad-
 mitted. An immense crowd of people surrounded
 the Prince, and the band played the Prussian Anthem.
 On Thursday his Royal Highness left for the
 Prince Humbert and the Princess Margherita arrived
 at Naples on Friday.
 PAPER STATE.—Some of the papers of the
 Emperor Napoleon, the excavations executed by his Majesty's
 orders and at his cost have produced most valuable
 results for archaeology, and for the history of ancient
 Rome. The works directed by Chevalier Pietro Rosa,
 member of the Paris Academy of the Fine Arts, have
 lately brought to light nearly the whole extent of the
 Palace of the Caesars, and a description of them will be
 included in the supplement which Signor Rosa is
 preparing for the purpose of issuing to his great work on the
 Palatine edifices.
 THE PRINCIPALITIES.—On Saturday an explosion
 of gunpowder took place in a shop at Braza, and
 caused great destruction. Several persons were killed
 on the spot, and others severely injured.
 TURKEY.—The Imperial yacht Aigle, with the Em-
 press Eugenie on board, preceded by the Sultan's
 yacht, and attended by English, French, Italian, and
 Russian despatch-boats carrying the ambassadors, and
 the Turkish iron-clad squadron, under the command of
 Ibrahim Pasha, following in the rear, arrived in the
 Bosphorus on Wednesday afternoon, and proceeded to
 the Palace of Beglerbey, on the Asiatic shore. On the
 arrival of the Empress in the Bosphorus the girls from
 the Catholic schools of Constantinople, who were on
 board a French steamer, sang a hymn of welcome, and
 the Empress warmly bowed her acknowledgments. The
 yacht Aigle dipped her flag when the squadron arrived
 at the Palace of Beglerbey, and the Sultan went off in an
 elegant caïque specially constructed for the Empress.
 On landing his Majesty gave his arm to the Empress,
 and escorted her up the avenue to the Palace, whilst
 royal salutes from the Asiatic and European sides of
 the Bosphorus were fired, and the bells of Constantinople
 were rung. The Sultan then returned to the Palace
 of Dolma-Bakera, and a general amnesty was proclaimed.
 After sunset the vessels at the Golden Horn and
 in the Bosphorus, and the minarets and mosques
 were lighted up, and a general illumination took
 place, and fireworks were displayed from the Sea
 of Marmora to the Black Sea. The Emperor
 of Austria will arrive on a visit to the Sultan early
 in November. Fud Pacha's political testament
 is now positively ascertained to be apocryphal.
 Messrs. Candlish and Beaumont have finished their
 inquiry at Constantinople, and left for Smyrna.
 Several witnesses gave evidence of extravagant expen-
 diture for the Abyssinian expedition in Constantinople.
 There was a heavy gale last week in the Black Sea,
 attended by several shipping disasters. The English
 steamer Capri, from Odessa for England with wheat,
 foundered at the entrance of the Bosphorus and the
 captain, chief officer, engineer, and 14 men were lost,
 seven were saved.
 EGYPT.—The Viceroy is at Cairo, and there is no
 appearance of his intending to leave for Constantinople.
 His Highness has engaged all the vacant bed-rooms in
 Cairo, as well as all the disposable vehicles for the open-

ing of the Suez Canal. The price he is to pay for the former is 2l. 10s. a day, and for the latter 4l.—so that his guests will be lodged, boarded, and driven about for nothing.

CAPE OF GOOD HOPE.—Accounts from Cape Town to September 5 state that the Parliament was engaged in retrenching the public expenditure. The Bill for making all religious support voluntary had been rejected, as had also the Paper Currency Bill. Bishop Twells was alleged to be on his way to England, under an assumed name, in a sailing ship from Natal. The drought had entirely broken up, and there had been large falls of snow in the eastern and western provinces. The Tatin goldfields were turning out very satisfactorily. Several new diamond discoveries had been made.

INDIA.—The projected Durbar has been abandoned, in consequence of the prevailing scarcity and the famine in Rajpootana. The Duke of Edinburgh is expected at Calcutta on December 20, and many Indian princes and nobles will be invited to meet him. The Viceroy will leave Simla on the 19th inst., will visit Nynceetal Halls (?), and reach Calcutta on Nov. 8.

AUSTRALIA.—A parliamentary crisis has arisen at Melbourne, and a vote of want of confidence in the Government is pending in consequence of their having nominated Mr. Rolfe (who is not a member of Parliament) to the post of Commissioner of Customs. The supporters of the Ministry are indignant at this appointment. The Legislative Assembly has resolved to abolish the State aid grant in five years, diminishing the amount by 10,000l. in each year. Mr. Fawcner, the founder of the colony, is dead. Kenealey and the other pardoned Penians have been expelled the colony under the Criminals Influx Prevention Act. In New South Wales a postal treaty has been arranged with Queensland, in accordance with which a monthly mail is to be established by way of Torres Straits, to alternate with that by King George's Sound. The captain of the United States steamer Kearsage has been fitted at Sydney. It is reported that the Fiji Islands have solicited an American protectorate. In South Australia a telegraph line is about to be laid from Adelaide to the north-west coast. The Queensland Parliament has passed the estimates, and is about to be closed. The electors of Kennedy, in North Queensland, have elected, by a majority of one, the Right Hon. John Bright as the representative of that district in the Queensland Parliament, because he had expressed himself in favour of separation from the south, on the alleged ground that the northerners are ground down by taxation for the sole benefit of the southern part of the colony.

NEW ZEALAND.—The colonists have agreed to offer England subsidies for 1500 soldiers for five years. The rebels are quieted, and no further massacres are reported. Earl Granville, in his last despatch to Sir George Bowen, refusing the aid of Imperial troops, states that there are three alternative principles on which the relations between the colony and the Home Government might be settled if the loan of troops were to be prolonged. Firstly, the Home Government might manage the war according to its own views of justice and expediency; but to this the colony would not consent. Secondly, the Home Government might lend its name and let the colony drag it through whatever doubtful byroads of policy it pleased; but to this the Home Government could not agree. Thirdly, there might be Imperial troops subject to orders from the Horse Guards, and colonial troops subject to the Governor and his Cabinet, but the probable effects of this division of authority may be conjectured even from the experience of the former Maori war. Lord Granville therefore says that there is no alternative between making this war an Imperial war, and keeping the Imperial resources out of it entirely. He says that it is doubtful whether, under any circumstances, the Government would be justified in taking back the conduct of New Zealand affairs, which it yielded up at the colony's own desire. If it did resume the burden, it would certainly do so only on condition of the colonists consenting to let it act on its own policy, and not on theirs, and the colonial overtures betray not the faintest symptom of willingness to accept any control by the Home Government.

UNITED STATES.—Ex-President Franklin Pierce died on Friday at Concord, of dropsy, aged 65. President Grant has appointed General William M. Belknap, of Iowa, Secretary-of-War, in the room of General Sherman. At the Pennsylvania election, on Wednesday, Mr. John W. Geary, Republican, was re-elected Governor by a majority of about 5000. At the Ohio election on Tuesday Mr. Rutherford B. Hayes, Republican, was re-elected Governor by about 7000 majority. At the Iowa election Mr. Samuel Merrill, Republican, was re-elected Governor by about 25,000 majority. The vote was smaller than usual in both States. No returns from Indiana or Nebraska have been received. The New York Republicans have nominated General Sigel as State Secretary, and Mr. Horace Greeley State Comptroller. Ex-President Phillimore has been elected President of the National Commercial Convention now sitting at Nashville. Mr. Boutwell, the Secretary of the Treasury, made a speech on Saturday night at Philadelphia, in which he urged the people to support the Administration of General Grant, who fully deserved their confidence. He deprecated any expansion of the currency, and declared that the national debt should be paid honestly and manfully in coin or its equivalent. Since March 1 the debt had been reduced by 56,000,000 dollars; this reduction, while the country was still crippled by the late war, showed the ease with which, in view of the rapidly increasing wealth of the country, the entire debt could be paid. The present system of taxation would permit an annual reduction of the debt by 100,000,000 dollars. He believed that the increasing confidence throughout the

world in the capacity and honesty of the United States would enable the Government to fund the debt at a rate of interest not exceeding 4½ per cent. He favoured a greater taxation of luxuries and accumulated property, in order to relieve the taxation of the poorer classes; and he hoped that the coming elections would result in the triumph of the Republican party, as the success of their opponents would injure the credit of the Government abroad. Mr. Jefferson Davis arrived at Baltimore on Friday. The Cuban privateer Hornet put into Cape Fear River, North Carolina, on Sunday, short of coals. She was sold to the Cuban insurgents at sea after leaving Halifax, her name being changed to that of the Cuba. The Government authorities seized her on Monday, and took her to Wilmington, where the Government has ordered an adjudication by the Courts, and has held the officers to bail, preparatory to their trial for violation of the neutrality laws. The commander has since demanded the release of his vessel on the ground that she cleared from a British port for Cuba. The decision of the authorities on the subject will be given to-day. Eastport, Maine, was entirely destroyed by the recent high tides.

CANADA.—His Royal Highness Prince Arthur was enthusiastically received at Montreal on Saturday.

NEW BRUNSWICK.—Great damage was done on Monday week by storm and high tides at New Brunswick. The loss is estimated at several million dollars.

PERU AND CHILI.—Great consternation existed at Lima in consequence of news having arrived of very severe earthquakes in the southern provinces on August 20, 21, and 24. A large quantity of property had been destroyed, and on the latter day the shocks were frightful. At Iquique and Arica the sea receded with fearful velocity, and returned 6 feet beyond the usual level several times. Business was totally paralysed, and Arica was deserted. Several shocks of earthquake had been felt in Chili, but they were nothing like so severe as those that were occurring almost daily in the south of Peru.

City Intelligence.

MONEY MARKET, FRIDAY.—**BRITISH FUNDS:** Consols are 93½ to 93¼ for Delivery, and 93¼ to 93½ for Account; New and Reduced Three per Cents, 91½ to 91¼; Bank Stock, 236 to 238 ex div.; Exchequer Bills, March, par to 5s. pm.; June, 7s. to 11s. pm.; India Five per Cents, 113½ to 114½.—**FOREIGN:** Argentine, 81½ to 81¼; Brazilian, 83 to 83½; Egyptian (1864), 85½ to 86½ ex div.; Ditto (1868), 76½ to 77; Viceroy's Seven per Cents, 81½ to 81¼; Ditto Nine per Cents, 98½ to 99½; Italian, 52½ to 52¼; Ditto Tobacco Loan, 84½ to 85½; Peruvian, 79½ to 80½; Portuguese, 33 to 34; Orel, 84½ to 85½; Nicolai, 68 to 68½; Moscow, 83½ to 83¼; Charkof, 80½ to 81; Spanish, 26½ to 27½; Turkish Five per Cents, 42 to 42½; United States 5-20 Bonds, 81½ to 82 ex div.; Erie, 23 to 23½; Illinois, 93½ to 94.

Metropolis and its Vicinity.

THE CONTEMPLATED VISIT OF HER MAJESTY TO THE CITY.—A special meeting of the members of the Bridge House Estates and Improvement Committees of the Corporation of London was held on Friday, at Guildhall, to take into consideration the correspondence laid before the Court of Common Council on the previous day, on the subject of the contemplated visit of the Queen to the City, for the purpose of opening the new Blackfriars Bridge and the Holborn Viaduct. The correspondence which has taken place between Mr. Gladstone and the Lord Mayor was discussed, and although it cannot be said that her Majesty has definitely signified her pleasure on the subject, there can be no doubt that the Queen is disposed to be present at the opening of the new bridge, if her health will permit. The City authorities are desirous, in the event of her Majesty being able to attend the opening of the new bridge, that she should also be present at the opening of the Holborn Viaduct, which is considered to be the more important public work of the two, and there is a strong feeling that both should be opened to the public on the same day. At the meeting on Friday Mr. J. Paterson and Mr. Deputy Fry were elected joint chairmen of the committees, but all definite arrangements were postponed until the wishes of her Majesty were known. It is rumoured in the City that the opening of the Bridge and Viaduct will take place on Friday, the 5th, or Saturday, the 6th of November, in which case they will be in the mayoralty of Alderman J. C. Lawrence, M.P. for Lambeth, the present Lord Mayor.

SAFETY OF DR. LIVINGSTONE.—A telegram from Bombay states that a letter of Dr. Kirk to the Bombay Government has been published, stating that a caravan which had reached Zanzibar reports Dr. Livingstone's arrival at Miya. The road between the coast and Miya was open and safe. Small parties of men and another caravan were expected. Another telegram says that Dr. Kirk has received a letter from Dr. Livingstone, dated Lake Banglewo, July 8, 1868, saying:—"I have found what I believe to be the sources of the Nile, between 10° and 12° south." Dr. Livingstone was in good health and spirits when the letter was dispatched.

OPENING OF BUNHILL FIELDS CEMETERY TO THE PUBLIC.—On Thursday this time-honoured place of sepulture, called by Southey the "Campo Santo of the Dissenters," was formally opened to the public, with much ceremony, under the auspices of the Corporation of the City of London, for purposes of peaceful recreation. For the last 17 years it has ceased to be used as a burying-ground, and was at one time threatened with appropriation to secular uses. The Lord Mayor officiated at the ceremony, assisted by the Sheriffs, the principal officers of the Corporation, the Earl of Shaftesbury, Mr. Reed, M.P., Mr. S. Morley, M.P., and a large number of clergymen of various denominations. Several of the speakers alluded to the

large number of eminent Nonconformists among whom were John Bunyan and General Fleetwood, Cromwell's Secretary of State, Erskine and Lady Maria Pugh; Mrs. Quaker; Dr. Isaac Watts; Danton; Ritson, the antiquary; Stothard and Thomas Hardy and John Horne; David Nasmith, the founder of the Rev. Joseph Hughes, founder of Dr. Thomas Goodwin; the Rev. D. of the Puritans; Dr. Abraham "Encyclopaedia;" and many more.

OPENING OF THE HOLBORN Viaduct.—On Thursday morning this viaduct was thrown open to foot passenger traffic, and continued to be used six o'clock in the evening. During the day an immense number of people passed over it, and for some hours at mid-day so dense was the traffic that locomotion was extremely difficult. The completeness and strength of the work was admired, and the carved stonework of the buildings erected at each corner of the viaduct, Farringdon Street was the source of great admiration. The handsome iron gates and stonework at the front of St. Andrew's Church also attracted a number of spectators.

COURT OF COMMON COUNCIL.—On Wednesday the Court of Common Council was held, at which the office of Lord Mayor. A resolution to approach to the new Poultry and Meat Market widening Long Lane, was adopted. A committee on the improvement of London was read, the conclusion of which was that no alteration could be determined on till it was known what effect the other improvements in the city have upon the traffic. The bridge, however, was closed for a fortnight for repairs, after which the Bridge is opened, though pedestrians will be unable to pass.

ROYAL MILITARY ACADEMY AND COLLEGE.—An official inquiry as to the policy of the Royal Military Academy at Woolwich with reference to the Military College at Sandhurst has terminated. The commissioners have resolved not to recommend the adoption of the plan, although it is believed that various improvements will be carried out with reference to the training, and the standard of elementary education required from candidates before admission to the Academy.

THE HIGH TIDES.—The fate of the trial record was sealed on Friday. There is no record on record. The tide at London Bridge in the morning was 2 feet lower than the spring-tide in March, and on the southern coast it was even lower than was on the previous Wednesday. At Jersey, so much apprehension had existed, it only exceeded that of an ordinary spring-tide by 1 foot 7 inches. Although, however, the tides were so high on the coasts, they committed great ravages on the Atlantic seaboard. At New Brunswick, on the 4th and 5th, property estimated at several million dollars was destroyed, and Eastport, Maine, was entirely ruined.

MERCANTILE MARINE PENSIONS.—The Mercantile Marine Pensions Bill, which was introduced on Friday contains regulations with reference to the pensions payable by the Board of Trade to the support of Greenwich Hospital. To be eligible for pensions applicants must prove at least 25 years of service prior to January 1, 1835; must not be over 55 years of age, and must have been incapacitated from age. The amount of pension is limited to the sum of 3l. 8s. a year. The amount applicable to these pensions, and paid by the Board to the Board of Trade, is 4000l. per annum.

PROPOSED RAILWAY EXTENSION TO THE MANSION HOUSE.—On Tuesday the committee of the Metropolitan Board of Works considered the application of the Metropolitan Railway Company, for permission to construct a railway terminus in the new Mansion House Street, which was referred by the City Commission of Sewers, who stated that they could give no opinion on the merits of the application till they were furnished with more information with respect to it. This report was unanimously agreed to by the board.

HARVEST HOME IN THE CITY.—On Tuesday the church of St. Edmund the King and St. Dunstons, Lombard Street, was crowded to excess by the Rev. Stephen E. Gladstone, the son of the late Minister, and the curate of St. Mary the Lamb, deliver a discourse on the harvest home, giving. Every available spot was filled long before the hour announced for the commencement of the service. The church was tastefully decorated, the chancel being placed in the recesses of the west end, either side, while the chancel rails and pulpit were adorned with pears, apples, and other fruits. At the commencement of the service a procession, headed by the Rev. P. G. Hill, the curate, and the Rev. S. Gladstone, emerged from the choir, and took their seats in the choir. The service was choral, was then proceeded with, and at its conclusion, Mr. Gladstone, who wore the Order of the Bath, preached from the 15th chapter of the 1st Epistle to the Corinthians.

CESSATION OF THE "MORNING STAR."—The Morning Star and Evening Star ceased to appear on Wednesday. The proprietors, in making the announcement, stated that when the journal was first published, 14 years since, one of its objects was the propagation of political principles which were then counted extreme in their Liberalism; the other was to establish the feasibility of providing journals of the best sort under what were then the untried conditions of a penny newspaper. The latter has been proved to be the success of the enormous number of contemporaries in London and the provinces which have repeated

and the former has been justified by the political ideas which the *Star* was founded on. It is now accepted and organic articles of the creed; and causes which seemed forlorn and seemed impossible to have achieved a triumph. Under these circumstances, they say no longer any sufficient reason for dividing the strength of the Liberal party.

THE SERPENTINE.—In consequence of the operations which have been going on for the greater portion of the bed of the Serpentine exposed to view, a pool of water of an extent alone remaining. This is not only for the benefit of the fish, but for the purification of the Serpentine, as any water remains, the fish are to be removed. The process was completed on Monday under the supervision of Mr. Frank Buckland, inspector of the other gentlemen. Several hauls of the bream, carp, Prussian carp, tench, and perch. There was also taken a lake of 2 inches, which had been put into the Round Pond in Kensington Gardens.

HOME FOR LOST DOGS.—On Saturday an order for the removal of the Home at Islington. Mr. Pavitt, the manager of the Home, was summoned before Mr. Mansfield on a complaint made against him by a Mr. Baker, of Islington, the substance of which was, that the Home was an intolerable nuisance, and injurious to the health of the person who removed the dead dogs to carry away any number not exceeding in the whole three tons a week. After hearing the evidence on both sides, the magistrate said that until something was proved he should refrain from ordering the removal of the Home.

EMBEZZLEMENTS IN THE CITY.—At the Mansion House, William M'Lachlan, a stockbroker, was charged on the charge of embezzling and converting to his own use Maryland Bonds and other securities belonging to General Sir John Douglas and amounting to more than 10,000*l.* The prisoner represented himself to be a stockbroker, and that capacity had been entrusted with bonds amounting to the amount of about 110,000*l.*; of which he had sold 100,000*l.*, paying to the proprietor about 97,000*l.*, while of the remaining 10,000*l.* was alleged that he had appropriated the same to his own use. After evidence had been given on the subject the prisoner was remanded. On Monday a young foreigner, named Buchler, was brought before the Lord Mayor on a charge of having uttered a bill of 1857*l.*, with intent to defraud. There was much dispute about the facts; but the defence contended that the fraud, if there was one, was against a Prussian bank and not against Messrs. Worms, before the Court had no jurisdiction. The Lord Mayor took a different view of the matter, and intended his intention to commit the prisoner for trial.

SUPPOSED FENIAN COLONEL KELLY.—In consequence of the fact that the coroner's jury at King's Hospital last week returned a verdict that the deceased Colonel Kelly was a printer's reader, named Martin, the police authorities and persons connected with the Government still believe that Colonel Kelly was in reality Colonel Kelly. Kelly and Martin were similar in height, weight, size, looks, and every particular. Both had a scar on the cheek, and received a bayonet wound in the abdomen. Kelly was a new Kelly and went to the bedside of the deceased Martin and then looking at the photograph of Kelly, Kelly and Martin were one and the same man.

It was ascertained that Martin was in the office of getting leave of absence from the Queen's office, Dalston, and he was absent for three weeks towards the end of 1867, during which the rescue of Colonel Kelly occurred. That Kelly is still the belief not only of detectives and others who knew him well. A Kilkenny correspondent of the *Daily Express* states that Edward Kelly was the son of a licensed victualler in Upper Street, Dublin, and that when the *Irish People* was first published, he was employed, was seized he escaped France, and then came to England. The correspondent positively that he was none other than the reported "Colonel Kelly," the latter having assumed the name. At the funeral, which took place on Monday morning at Leytonstone cemetery, there was a Fenian demonstration, which afforded evidence that the deceased, whether Kelly or Martin, must have held a high position in the Fenian brotherhood. As early as 10 o'clock crowds of all ages began to assemble in Lincoln's Inn Fields and the adjacent streets. Up to 12 o'clock the crowds continued to augment until the square and the neighbouring streets were blocked up by a mass of people. The greatest order, however, was observed. No more than the ordinary number of persons were to be observed. Shortly after 12 the procession was to take part in the procession were in order in Lincoln's Inn Fields. The members of the United Society of Labourers mustered 1000 strong; the members of St. Patrick's were numbered nearly 3000, while unions and organisations numbered in the aggregate 10,000. The marshals and officers of the various unions wore green silk scarves, with a black crape and green rosettes on the left arm, while every man and woman in the procession wore a green rosette or riband with a piece of black

crape attached. At least 90 per cent of the processionists were Irish, including the better class of mechanics, artisans, and labourers, and were all becomingly, and many of them respectably, attired. Meantime the funeral cortege was being marshalled in Strahope Street, Clare Market. It consisted of a hearse, drawn by four horses and two mourning coaches, with two horses each. The hearse, consisting of several well-known Fenian leaders, having taken their places in the coaches, the coffin containing the body was brought out of the undertaker's shop in which it had been placed since the funeral, and instead of being placed inside the hearse, was carried in front of it, on the shoulders of two men. The hearse was of oak, covered with black cloth, and studded with white nails and plates. The cortege proceeded with great difficulty, owing to the narrowness of the street. Great Wyld Street, and Great Queen Street, into Lincoln's Inn Fields, accompanied by 100 delegates from the lodges in the Brotherhood and the other societies. On arriving in Lincoln's Inn Fields it halted, when the coffin was placed inside the hearse, with the cry of "Hats off" which was responded to by nearly all present. The procession then took the following route to its destination:—Carey Street, Chancery Lane, Fleet Street, St. Paul's Churchyard, Cheap-side, Cornhill, Leadenhall Street, Whitechapel, Mile End Road, Bow, and Stratford. There was no hostile interference on the part of the police, both the metropolitan and city force doing all in their power to facilitate the progress of the procession. As it passed through the city the procession comprised fully 6000 persons, walking six deep. At Whitechapel Church it was joined by a contingent of at least 1000, and by other large bodies at Mile End, Bow, and Stratford, from which place the road to the cemetery was lined with crowds of people. So great was the crowd at the gates of the cemetery, that it was with the utmost difficulty the mourners and others immediately concerned could obtain admittance. A full Catholic service was then performed, in the presence of between 5000 and 6000 persons. At the conclusion of the service the crowd dispersed in a quiet and orderly manner.

PROPOSED AMNESTY TO THE FENIAN PRISONERS.—A meeting, consisting of about 4000 persons, was held a few nights since in a field adjoining Lancaster Road, Notting Hill. According to the placards and handbills which were circulated, the object of the meeting was "to promote the release of incarcerated and exiled patriots, and to urge upon the Government the necessity of granting an immediate and unconditional release of all political prisoners who are now pinning in British prisons." A resolution to the following effect was carried:—"That it is impolitic on the part of the Government to detain the Fenian prisoners longer in custody; that no concession of justice to Ireland shall be deemed satisfactory unless accompanied by a free and unconditional pardon to the Fenian prisoners, and that their free pardon would be the best means of conciliating the feelings of the people of Ireland."—On Wednesday night a meeting, composed of about 1000 persons, was held in Union Street, Borough, to promote the release of the Fenian prisoners. Resolutions were carried to the effect that the Government will act wisely as well as generously by granting an immediate and unconditional release to all the political prisoners, and pledging the meeting to support the great amnesty demonstration in Hyde Park on Sunday, the 24th inst. Some details were given of the arrangements for the procession on the 24th. The different organisations will march from their respective localities and meet in Trafalgar Square at 1 o'clock. The "ladies' procession" will form on the National Gallery side of the square. The procession will be headed by five horsemen, followed by the central body; after which will come the "ladies' procession," followed by the district bodies, trades, benefit societies, &c. There will be bands and banners in the procession.

THE LATE FIRE AT BAYSWATER.—The adjourned inquest on the persons who were killed by the recent fire and explosion at Bayswater was held on Monday, when Mr. Titheridge, the occupant of the shop, was examined, but he could throw no light on the origin of the fire. Other witnesses suggested that it might have been an explosion of gas. The jury returned a verdict that there was no evidence to show how the fire originated, and suggested that a more efficient fire station should be maintained in the neighbourhood.

FATAL FIRE AT NEWINGTON.—On Sunday morning, shortly before 6 o'clock, a fire was discovered at Newington Butts, on the premises occupied by Mr. Alfred M'Micken, a tailor, and his family, consisting of his wife, an adult son, two young children, and a female servant. They retired to rest at midnight on Saturday, when all appeared safe. About 6 o'clock next morning Mr. M'Micken suddenly opened the door of his house and raised a cry of fire. Engines were promptly in attendance, with an escape, and the fire was speedily extinguished. The conductor of the escape succeeded in rescuing Mr. M'Micken, Alfred M'Micken, a child, and Louisa Woodward, the servant; all three were much burnt, and were unconscious when rescued. Mrs. M'Micken and the eldest son were found dead. The persons rescued were placed in a cab for the purpose of being taken to St. Thomas's Hospital; but Mr. M'Micken died in the cab from the effects of the injuries he had received, and the child Alfred died in the hospital in the course of the afternoon, making four deaths in all. The servant girl was not so much injured as at first supposed, but is still in the hospital. The fire is supposed to have originated in the smouldering of some hot ashes in a dust bin, where, among other refuse, waste slips of cloth had been thrown. The inquest was opened on Wednesday, but was adjourned to obtain the evidence of the servant, who was on that day too ill to be examined.

THE MURDERERS OF MIDDLE TINNÉ.—Accounts

from Tripoli to September 30 have been received at Malta, announcing that the Turkish Government have succeeded in capturing the assassins of the late Mlle. Tinné, and recovering the young negress Justina and some of the stolen property. The Turkish chief Ibrahim claims any connection with the escort which betrayed Mlle. Tinné, and has associated in bringing the murderers to justice. He has placed the young negress and the recovered effects under the protection of the chief who was to have escorted Mlle. Tinné, and they will be shortly sent on from Malta to Marseilles and Tripoli, where the negress and servants are expected to arrive in the first week in November.

THE WOOD GREEN MURDERS.—It has been discovered that 16 years ago Boyd, the man who was murdered at Wood Green, was a Fenian, and married a widow lady who had 2000*l.*, which her former husband had left her. Boyd spent the whole of the money, treating her very badly, and at length deserted her, leaving her almost penniless. She had not heard of him for seven years until she saw the account of the murders in the papers a few days ago. A marriage which Boyd contracted in Japan four years ago is therefore bigamous, and the person whom he then married will lose all claim upon any property he may have left. The murdered woman was buried on Saturday afternoon at the Tottenham Cemetery, in the presence of a large number of people. The funeral was fixed for the previous day, but it was delayed in order to have the parish coffin covered with cloth, the expense being defrayed by public subscriptions. On Sunday Wood Green presented a very remarkable appearance. Thousands of people poured into the park from about nine in the morning until dusk, to visit the scene of the murders. There were cabs, carriages, and other vehicles crowded to an enormous extent, while the omnibuses that came down were quite filled both inside and out. The public-houses were all open, and were frequented by vast numbers of people. Before 1 o'clock drunken men, and women too, were seen struggling through the crowd on their way to or from Bound's Green Road. About mid-day the whole neighbourhood was as busy as a fair. Elder Cottage was sold by auction at Garraway's on Wednesday. It was described as "with gardens in front and in the rear, and good detached stabling, very pleasantly situated in Bound's Green Road, facing the Alexandra Park Palace, let to Mr. Boyd at a rental of 33*l.* per annum." The iron house where the Hinsons lived is to be taken away, or the practice of letting it for a dwelling, which had been pursued for the last 14 years, discontinued.

MURDER AND SUICIDE NEAR HOUNSLOW.—On Monday morning a shocking tragedy was enacted near Hounslow, the victim being a gentleman of position and influence in the neighbourhood. About midway between Twickenham and Hounslow is the little village of Whitton. A great deal of the small house property in the hamlet is owned by a Jewish family named Kyezor, the principal of whom, Mr. Louis Kyezor, about 83 years of age, was the representative of his parish on the Twickenham Local Board, Quartermaster-Sergeant of the local Volunteer Corps, and a supporter of most of the institutions of Hounslow, Twickenham, Isleworth, and Brentford, where he had made himself very popular by his energetic advocacy of what he called "justice to the working people." His speeches delivered at the various public gatherings were always animated, and at times extremely humorous. With the members of the rifle corps he was also very popular, and he encouraged good shooting by presents of many handsome prizes. Adjoining his residence is a row of cottages known as Kyezor's Place, at No 13 in which lived an old gentleman named Thomas Hyden Green, aged 82. For nearly 50 years he had been employed as a stamper at Somerset House, but for the last few years he had been living on a pension at Whitton, being a tenant of Mr. Kyezor's. The latter for some time had reason to complain of a nuisance caused by Mr. Green, and had threatened to obtain the assistance of the magistrates unless the nuisance were abated. Mr. Green paid no attention to these threats, but as Mr. Kyezor had no wish to resort to extreme measures, he wrote to Mr. Green's friends, asking them to use their influence to persuade him to remove what was an eyesore to the neighbourhood. These letters having been ineffectual, Mr. Kyezor gave him notice to quit. On Sunday night Mr. Green was observed to take down three old horse pistols which he kept in the house, and to set about cleaning them. He then loaded two of them with heavy charges of large shot, and put them aside. His housekeeper asked what he intended to do with them, but he told her to mind her own business. It had been customary with Mr. Kyezor to leave his house soon after 8 o'clock every morning, and to take a short walk round the village. On Monday morning at 8 o'clock Mr. Green posted himself by the side of the road, about a dozen yards from Mr. Kyezor's villa, having a loaded pistol in his pocket. Mr. Kyezor came out at about 20 minutes past 8 o'clock, and had scarcely proceeded half-a-dozen yards when Mr. Green took the pistol from his pocket, levelled it at Mr. Kyezor, and shot him in the abdomen. Mr. Kyezor immediately dropped to the earth as if dead. Mr. Green, with the smoking pistol still in his hand, rushed into his own house before any one could stop him, snatched up the second pistol, discharged the contents into his own heart, and fell to the ground a corpse. Mr. Kyezor lingered in great agony until Tuesday morning, when he died from the wounds he had received, his recovery having been pronounced hopeless from the first. At the inquest on Wednesday the jury, after a short deliberation, found that Thomas Hyden Green killed Mr. Kyezor wilfully, feloniously, and with malice aforethought, and in a second verdict, found that he committed suicide while in a state of temporary insanity. It was stated at the inquest that Green's real name was Edwards,

and that he gave Lord Harrowby notice of the Cato Street conspiracy, and was advised by his lordship to change his name to Hidon. It appears, however, that Hidon was the name of the man who gave the information, and there is no doubt that this was Green's real name. The funeral of Mr. Kyezor took place on Thursday at the Jewish Cemetery, at Mile-end. Every mark of respect was shown by the inhabitants of Whitton to his memory, and there was a large gathering of people from the neighbouring parishes, including the local Volunteers. The funeral procession was nearly half a mile in length.

THE PUBLIC HEALTH.—The Weekly Return of the Registrar-General states that in the week that ended on Saturday, Oct. 9, 4113 births and 2870 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 23 per 1000 persons living, being 22 per 1000 in London, 25 in Edinburgh, 21 in Dublin, 18 in Bristol, 21 in Birmingham, 25 in Liverpool, 23 in Manchester, 26 in Salford, 24 in Sheffield, 24 in Bradford, 27 in Leeds, 20 in Hull, 22 in Newcastle-upon-Tyne, and 25 in Glasgow. The annual rate of mortality in Berlin during the seven days ending the 7th inst. was 27 per 1000. In London the births of 1119 boys and 1099 girls, in all 2218 children, were registered in the week. In the corresponding weeks of 10 years 1859-68, the average number, corrected for increase of population, was 2081. The deaths registered in London during the week were 1867. It was the 40th week of the year, and the average number for that week, corrected for increase of population, was 1312. The present return is therefore 55 above the estimated amount.

Provincial.

BIRMINGHAM.—The first general meeting of the members of the National Education League was held in this town on Tuesday. There was a large attendance both of ladies and gentlemen, the latter including many of the most forward promoters of the educational movement in all parts of the country. Mr. George Dixon, M.P., chairman of the Provisional Committee, was called to the chair; Mr. John Jaffray officiating as treasurer, and Mr. Jesse Collings as the honorary secretary. The "list of members" included residents in every county. On Wednesday evening a crowded and enthusiastic meeting was held in the Town Hall, the Mayor in the chair. Mr. Dixon, M.P., proposed a resolution recommending the scheme of the National Education League as the one best adapted to secure the education of every child in the country. The motion was seconded by Professor Fawcett, M.P., supported by Mr. Mundella, M.P., and carried unanimously. Mr. Joseph Chamberlain, of Birmingham, moved the next resolution, requesting the executive committee of the National Education League to prepare a Bill, based upon the principles of the League, for introduction into the House of Commons during the next session of Parliament. Mr. Cremer seconded the motion, which was supported by Alderman Carter, M.P. for Leeds, and Mr. Lloyd Jones, and carried.

BLACKBURN.—On Monday morning at an early hour Mr. James Eastham, a respectable farmer, brother of the town clerk of Clitheroe, was on the New Bridge, Hurst Green, near Stonyhurst, when three rough-looking men, with a dog, came along the bridge. Suspecting that they were poachers, he said, "What's your game?" The poachers thereupon kicked and struck him, and then raised him on the side of the bridge, and pitched him into the brook, a depth of about 12 yards. A constable on duty in the neighbourhood at 2 A.M., heard Mr. Eastham's groans, and on going down to the brook found him bleeding about the legs and face, and dreadfully injured. The constable carried him on his back to the Sherbines Arms, where it was found that one of his legs was broken, and his ribs, back, and face much hurt. He was taken to his farm at Mytton, but faint hopes are entertained of his recovery. Three men were apprehended, and charged with the attempted murder; but as Mr. Eastham was not able to identify them, they were discharged.—On Monday the county magistrates committed for trial the five men implicated in the murderous poaching affray on the morning of the 2d inst., and in which two policemen, named Barber and Higgins, who displayed extraordinary courage, were seriously maltreated.

BOLTON.—On Monday morning a desperate encounter took place between eight gamekeepers and 16 poachers, at Longworth Moor, Belmont, near this town. The poachers had been previously suspected, and as they were passing along the road, with three dogs, shortly after midnight, the gamekeepers rushed out upon them with truncheons. The poachers retaliated, using as weapons, it is supposed, the hatchets employed in the manufacture of laths. Four of the gamekeepers were dreadfully cut about the head, and one of them is not expected to live. One of the poachers was left behind insensible, but he was carried off by the others while the keepers were removing their wounded comrades. Four men have been apprehended, and on Thursday they were remanded until the wounded gamekeepers are well enough to identify them.

CARDIFF.—There seems to be no doubt that the Red Jacket, which sailed from this port on the 11th ult. with a cargo of coals for Bombay, foundered in the Channel during the heavy gales which swept the English and French coasts about the middle of last month. A large vessel was seen to founder suddenly off Brest, and a great quantity of wreck has been washed ashore on the coast of Devon, some of which had the letters "Red Jacket" painted on it. The Red Jacket was a very fine vessel of nearly 2400 tons, and at one time was the crack ship of the celebrated White Star Line of Australian clippers.

CHESTER.—The Prince of Wales arrived in this city on Thursday evening shortly before 6 o'clock. There were present on the platform to receive him, Mr. Gladstone, Earl Grosvenor, Lord de Tally, and the Bishop of the diocese. His reception by the population as he proceeded to the Grosvenor Hotel was of the most enthusiastic description. There was an effective torchlight procession, with illuminations.

DARLINGTON.—On Sunday night a man named Owen Hanlon, who has long been suspected of Fenianism, and who was apprehended some time since in connection with the murder of Philip Trainer, drew a loaded revolver on five policemen outside a beerhouse in this town, but was seized so suddenly that he was prevented from firing the weapon. He was brought before the magistrates on Tuesday, and remanded until Thursday, when he was committed for trial.

DONCASTER.—Dr. Vaughan, while positively declining any personal gift from his parishioners on the occasion of his departure from this town, asked one favour of the mayor and town council, which he said he should value above any other recognition of his services. This favour was the authoritative closing of the Saturday market at a somewhat earlier hour of the night, in order to prevent the neglect of the Sunday consequent upon the indefinite extension of business on the eve of the day of rest. No step has yet been taken in consequence of this request.

EXETER.—The nomination of Dr. Temple to the see of Exeter has been received with great dissatisfaction by the High Church party in the diocese. A meeting of the English Church Union was held in this town on Monday night, Lord Eliot, the late Liberal M.P. for the borough, in the chair. Dr. Temple's nomination was strongly condemned, and the chairman and the other speakers strongly urged the dean and chapter to refuse their consent to the nomination, and dare the Minister to put in force the penalties of *premunire*. A resolution was unanimously adopted asking the rural dean to convene a meeting for the purpose of memorialising the dean and chapter of Exeter to refuse to sanction the appointment. On Thursday a rural diocesan synod to consider the subject was held at Plymouth, and was attended by 40 clergymen. After a long discussion a motion was proposed approving the appointment, but it was received with much laughter, and was not seconded. A second motion, asking Dr. Temple to disavow the opinions expressed in "Essays and Reviews," was lost by a small majority. A third motion, recommending the chapter to refuse to elect the new bishop, was afterwards proposed, but negatived by a majority of two. Several of the clergymen present abstained from voting. The last proposition was opposed by the Low Church party, but supported by the members of the High Church. A memorial against the appointment of Dr. Temple is in progress, but the clergy will sign it as private individuals. It is reported that the election of Dr. Temple will be opposed in the chapter.

On Monday morning William Taylor, the soldier who was sentenced to death at the recent sessions of the Central Criminal Court for shooting his corporal at the Devonport barracks, was executed inside the Devon county prison. During his imprisonment the convict had shown great penitence, and paid marked attention to the ministrations of the chaplain. A black flag was hoisted outside the gaol when the drop fell. Only a few stragglers collected in the road which runs alongside the prison. An inquest was afterwards held on the body before the county coroner. This is the first execution which has taken place in the West of England under the new Act.

LIVERPOOL.—The Church Congress was brought to a close on Friday evening by a grand *soirée* and musical performance in St. George's Hall. Votes of thanks were given to the Bishop of Chester for presiding over the Congress; to the Mayor and Corporation for the use of the Hall, and the ample accommodation it had furnished to the inhabitants for their hospitality; and to the local committee for the admirable arrangements they had made for the Congress. It had previously been resolved, on the motion of Earl Nelson, seconded by the Dean of Ely, that the next year's Congress should be held at Southampton. On the previous day there was a long discussion on the weekly offertory, during which the Rev. A. H. Mackenzie was the principal speaker. He was received with great and long-continued applause, which showed that the signers of the protest against his appearance at the Congress were in a woeful minority. In the evening of the same day a working men's meeting was held in St. George's Hall, under the presidency of the Bishop of Chester, at which the Archbishop of York, the Bishop of Oxford, the Bishop of Sodor and Man, the Dean of Ely, the Rev. Dr. Taylor, Archdeacon Denison, Mr. Cross, M.P., and Mr. Graves, M.P., were the speakers. The Bishop of Oxford was received with cheers mingled with hisses, which prevented his making himself heard for a few moments; but Archdeacon Denison was unable to obtain a hearing until the Archbishop of York succeeded in inducing the meeting to hear him patiently.

MAIDENHEAD.—This town has been thrown into a state of excitement this week by the fact that a nurse had mysteriously disappeared with a little girl, the daughter of Colonel Hickie. Late on Saturday night, when the discovery was made, many rumours were afloat of the supposed insanity of the nurse, of the ditches in the neighbourhood being searched, rivers dragged, and nothing found. The police suggested the propriety of searching the box of the missing nurse, when it was found that she had taken all her things with her, but no clue could be found at either of the railway stations. On Monday a reward of 100*l.* was offered to any person who shall restore the child alive and unhurt to its parents at Kidnells Park. The nurse is said to be an Irishwoman, and had received

notice to quit, for which she had threatened to be revenged. It is supposed that she walked to the four or five hours, and it is believed she was in Hammersmith.

Ireland.

PROPOSED VISIT OF THE QUEEN.—It is stated that the wish entertained by the Queen to visit this country next year, is likely to be carried out, and that arrangements are in progress at the royal Lodge, with a view to a visit from the Queen next.

THE IRISH CHURCH.—The lay delegates of the Irish Church held their first General Synod on Tuesday, the Lord Primate presiding. The attendance of the laity from all parts of the country was large. After some discussion it was carried by a large majority, that while the two orders of the Church in the future Church body should be kept together, yet, in case of a vote, it should be left for members to require that the vote should be taken in each order separately, so that no important resolution could be adopted without the consent of both of the clergy and laity. It was also agreed that the laity should be represented in the process of the two to one of the clergy.

THE ATTEMPTED MURDER OF CAPT. LAMBERT.—On Monday the Attorney General moved in the Queen's Bench, for a writ of *certiorari*, to be granted next month, to move for the removal out of the Galway of the trial of Barrett, for attempting to assassinate Captain Lambert. The writ was granted.

AMNESTY MEETINGS.—The Fenian demonstration in Dublin in favour of an amnesty to the prisoners took place on Sunday, and passed off quietly in consequence of a police notice prohibiting the procession by a devious and unnecessary route, and no general procession through the city, but the trades, with their banners and insignia, met at points, and proceeded to the place of meeting near to the Phoenix Park. Every person in the procession, as well as those who lined the streets, wore green scarfs or ribbon, and nearly all the ladies played had the Irish harp on them without exception. It is estimated that from 80,000 to 100,000 were assembled at Cabra. Mr. Butt presided, and the attempt to stop the procession had completely frustrated the demonstration, and made it more successful. They were assembled to declare the will of the people. Their voice would echo in the ears of the members of the council of the Government, the organs of the whole civilised world, proclaiming the necessity of thunder that the political prisoners must be released. He believed the time for argument had passed, that the question had gone beyond the mere release of a few prisoners. Mr. G. H. Moore denounced what he called "that vile, effeminate, tyrannical national self-conceit and national vanity that called itself English public opinion, which did not represent either the instincts or the interests of the people of England, which was an adulterated compound of sanctimonious hypocrisy and secret infidelity, outward swagger and half inherent funkiness, was at once arrogant and servile, overbearing and infirm of purpose, which was not born of the genius of the English people, but was the spawn and the gabbler of the weakest and vainest representatives of the English social system." He assailed the "barking hounds of the English press" for their comment on his recent speech in Trafalgar Square, and denounced "the mongrels, and the turpits who were barking at his heels." He said that it was the duty of Irishmen to differ from their masters, and that until their masters condescended to open their minds. When Englishmen showed that their religion it was seditious in Irishmen to theirs, when Englishmen expelled their king from the throne it was disloyal in the Irish people to defend his cause; when they elected a man to be their king, and limited the throne to a German family, it was seditious in the Irish people to laugh at their presumption.

It was concluded by moving a resolution to the effect that unconditional release of the political prisoners be an act eminently calculated to promote peace and to satisfy the people. Mr. H. Essey seconded the resolution, which was carried. Mr. Leverett, Roman Catholic priest, moved a second resolution, declaring that the imprisonment of the prisoners, in disregard of the feelings of the people of Ireland, was calculated to bring the strongest discontent. Mr. G. Russell, of the Trades' Association, moved the next resolution, to the effect that the release of the prisoners would be an effect that the Irish people as a great concession to the Irish nation. Mr. J. Collins seconded the resolution, which was adopted. The chairman then presented a petition to Mr. Gladstone, which was unanimously adopted. The trades then marched round the streets afterwards passed through the city, flying and bands playing, but everything was done quietly. Mass meetings were also held on Sunday in two county towns—Kanturk and Bandon. The unconditional release of the Fenian prisoners. The streets were paraded by men and women, the procession, accompanied by bands and banners, people wore green rosettes and sashes. In the town several triumphal arches with mottoes were erected in the streets. The principal speakers at both demonstrations were priests, who led the processions, the majority of whom came from rural districts.

Scotland.

EDINBURGH.—It is announced that the election of a successor to Bishop...

TO THE EARL OF STAIR.—On the 10th inst., Lord Stair, who is at present the guest...

ON DRESIDE.—It is stated that the Duke of Wales has purchased Dallyfour Woods...

STEAM OMNIBUS IN EDINBURGH.—An omnibus is about to be submitted to the Town...

THELAND GOLDFIELDS.—The licences for the gold fields having expired last week, a large number...

Railways.

ACCIDENT ON THE MIDLAND.—On Saturday a frightful accident occurred at the Long Eaton...

Sporting.

MARKET SECOND OCTOBER MEETING.—The following were the results of the races...

WEDNESDAY.—Oatlands Plate.—Mr. Crawley's Compton...

THURSDAY.—Handicap Sweep.—Mr. Watt's Myotis beat...

FRIDAY.—Bull and Pig Match.—Duke of Bedford received...

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Obituary.

LORD DYNEVOR died somewhat suddenly on the 7th inst., at Great Malvern...

LADY CAROLINE BURGESS died on Tuesday last, after a long illness...

THE HON. MRS. JOHN BOYLE died on the 6th inst., at Cavendish House...

MR. WOODWARD, librarian in ordinary to the Queen at Windsor Castle...

MR. CHARLES MASON, assistant manager of the London and North-Western Railway...

WILLS.—The will of Mr. James Sidebottom, of Manor House, Hollingworth...

Markets.

HOPS.—BOROUGH MARKET, Oct. 16. Messrs. Pattendon & Smith report a steady demand...

Marketable Fashions 14th and 15th inst., and a few Pompos...

APPLES, p. 4 size, 1s to 1s 6d; 2s to 2s 6d; 3s to 3s 6d; 4s to 4s 6d...

VEGETABLES.—Lettuce, per bunch, 2d to 4d; Cabbage, per bunch, 2d to 4d...

HAY.—Per Load of 36 Trusses. SMITHFIELD, Thursday, Oct. 14. Supply large, and prices rule about the same.

CUMBERLAND MARKET, Thursday, Oct. 14. Sup. Meadow Hay 80s to 90s; Inferior do. 60s to 70s...

WHITECHAPEL, Thursday, Oct. 14. Fine Meadow Hay 80s to 90s; Inferior do. 60s to 70s...

COALS.—Oct. 14. Walls End Hetton, 11s.; Walls End Harwell, 10s. 6d.

ENGLISH WOOL.—There has been a steady business doing at somewhat hardening prices...

CURRENT PRICES OF ENGLISH WOOL, per lb.—s. d. s. d. FLEECES—Southdown hoggets...

LEADENHALL POULTRY, &c. THURSDAY, Oct. 14. Geese .. each 6s-7s; Pigeons .. each 9s-10s...

METROPOLITAN MEAT MARKET—Oct 16. Best Fresh Butter .. 18s per dozen lb. Second do. do. .. 16s.

METROPOLITAN CATTLE MARKET. MONDAY, Oct. 11. The number of Beasts is not quite so large as on Monday last...

Best Scots, Herefords, &c. 5 0 to 5 4; Best Long-wools 5 0 to 5 4; Do. Shorn

Best Scots, Herefords, &c. 5 2 to 5 6; Best Long-wools 5 4 to 5 6; Do. Shorn

MARK LANE.—MONDAY, Oct. 11. There was a moderate supply of Wheat from Essex and Kent to this morning's market...

were a dull trade, at 1s. per qr. decline. Flour was neglected, and 6d. per barrel and 1s. per sack cheaper.

PRICE PER IMPERIAL QUARTER.			
WHEAT, Essex, Kent, Suffolk, White	43-49	Red	39-48
— fine selected runs, do.	45-53	Red	42-50
— Talavera	56-58		
— Norfolk		Red	
— Foreign	40-55		
BARLEY, grind & dist, 30 to 32s Chev	40-43	Malting	30-40
— Foreign, grinding and distilling	24-27	Malting	32-42
OATS, Essex and Suffolk	22-24		
— Scotch and Lincolnshire, P. tato	24-26	Feed	21-24
— Irish	3-2	Feed	22-25
— Foreign, Poland and Brew	22-25	Feed	18-21
RYE	32-38	Foreign	32-38
RYE MEAL, Foreign			
BEANS, Mazagan, 38 to 48s Tick	48-50	Harrow	48-50
— Pigeon, 59s to 66s Winds		Longpod	
— Foreign, Small	42-43	Egyptian	39-41
PEAS, White, Essex, and Kent, Boilers	40-42	Suffolk	41-43
— Maple 41s to 45s		Grey	40-42
MAIZE, best marks delivered, per sack	43-47		
— 2d ditto	32-44	Country	32-44
— Foreign, per barrel	2-26	Per sack	3-36

FRIDAY, Oct 15

Stocks of warehoused Wheat and Flour have considerably increased in some of our larger ports during September, and as the supply from abroad has this month been large (a portion going direct to the millers), great dullness has continued to prevail in the trade, causing a further reduction of fully 1s. per qr. in the value of Wheat, while business was most restricted, but during the last day or two we noticed less inclination to force sales. The reduction in the value of warehoused Wheat since the middle of August is about 6s. per qr., but for floating cargoes the decline has in some cases been much heavier. With the exception of fine malting Barley, which is 1s. per qr. dearer, Spring Corn of all descriptions has been neglected, at a further reduction in value. Flour continued a slow sale, and must be written 6d. per barrel and 1s. per sack cheaper. The arrivals of grain and seed-laden vessels off the coast this week consisted of 102 cargoes, of which, with those left over from last week, there remained for sale last night 111 cargoes. Arrived cargoes of Wheat, after having been in good demand at the commencement of the week, have, owing to increasing arrivals off the coast, been a dull sale at 1s. to 2s. per qr. less money. Maize fluctuated, and closes fractionally cheaper. Barley was a quiet trade, and Rye barely maintained its late value. There was nothing doing in cargoes on passage and for forward shipment, except a transaction in East India Rape seed.

With the exception of Barley, the arrivals of foreign grain are good, of English small. There was a poor attendance at this morning's market, and the little English Wheat on offer was taken at the full prices of Monday. For foreign the demand was very limited, and the few sales made were at that day's quotations. Oats brought an advance of 6d. per qr., but other descriptions of spring corn were unchanged in value.

ARRIVALS.

	Wheat.	Barley.	Oats.	Flour.
English ..	1320 qrs.	990 qrs.	— qrs.	— sks.
Irish	— "	— "	1150 "	— "
Foreign ..	32,570 "	1430 "	36,050 "	{ 930 2590 brls.
	33,890	2420	37,200	

MANCHESTER, Oct. 14.—The trade has remained in a dull state throughout the week, with prices still tending in favour of buyers. At Liverpool the arrivals from abroad have been less extensive of Wheat, liberal of Indian Corn and Flour, and fair of Beans. Moderate supplies of Oats and Oatmeal have come to hand from Ireland. Our market this morning was fairly attended. Wheat and Flour were, on the whole, less pressed than previously, but the demand was limited, at barely the currency of this day se'nnight. Oats moved off slowly, at a further decline of 1d. to 2d. per bushel. Egyptian and new English Beans were each 1s. and 2s. per qr. cheaper. Indian Corn must be quoted 6d. per qr. lower.

AVERAGES.

	Wheat.	Barley.	Oats.
Sept. 4 ..	51s 11d	36s 8d	26s 8d
— 11 ..	49 10	37 10	25 11
— 18 ..	50 5	38 3	25 5
— 25 ..	50 6	37 3	25 6
Oct. 2 ..	49 8	37 8	24 7
— 9 ..	48 1	35 0	24 8
Average ..	50 1	37 7	25 5

SEED MARKET.

In the continued absence of all speculation there is but little passing just now in the agricultural seed trade. We have a limited consumptive demand for seeds required for autumn sowing. Winter Tares are in diminished request, and can now be bought for less money. Small orders still come to hand for Trifolium incarnatum. New English Rye for seed is offering at a low price. White Mustard seed is advancing in value. English Rape seed is firm, at recent currencies. Linseed, both imported and home-grown, is steady at late rates. Hemp seed we note 2s. per qr. dearer. Our Dutch letters state that in consequence of the deficiency of the crop values for this article are rapidly advancing. New Canary seed meets with a ready sale at the low rates now current. There has been some inquiry during the past week for Alsike seed. Windsor and Longpod Beans and also garden Peas are now offering. French Italian is in fair demand; values on the other side appear to be on the rise.

JOHN SHAW & SONS, 16, Water Lane, E.C.

WANTED, a GARDENER.—Apply by letter, with full particulars, addressed to HENRY NEWBERRY, Esq., Docklands, Ingatestone, Essex.

WANTED, a GARDENER, who has been used to Market Work, or to Rose Growing.—Apply, The Orchard Nursery, Mortlake, Surrey, S.W.

WANTED a good GARDENER (SINGLE-HANDED).—A good Fruit Grower, and one who can cultivate for profit will meet with a comfortable place. A cottage found.—Apply, stating wages, to J. B. S., South View House, Basildon.

WANTED, a YOUNG MAN, to take charge of a Collection of Bulbs and Alpine Plants. Must have a fair knowledge of them.—Box 3, Post Office, Chester.

WANTED, an energetic YOUNG MAN, of good address, to Manage a Small Seed Business near London. A knowledge of Plants necessary.—SEEDS, Messrs. S. Dixon & Co., 42a, Moorgate Street, London, E.C.

WANTED, in a small Nursery, an active YOUNG MAN, with a good knowledge of Plants.—Apply to C. FAIRINGTON, 4, Elm Tree Road, St. John's Wood, London.

WANTED, a LAD, about 18 years of age.—One used to Gardening, and to live in the house.—Address, Mr. KENDALL, 25, Drury Lane, W.C.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. E. G. HENDERSON and SON, Wellington Nursery, St. John's Wood, London, N.W.

Gardeners and Under Gardeners. W. M. CUTBUSH and SON beg to state that they have at all times on their books MEN of various qualifications, whose characters will bear the strictest inquiry. Any Gentleman making application would save time by clearly stating the duties to be undertaken, wages offered, &c., so that suitable Men may be selected.—Righgate Nurseries, London, N.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS, and GARDENERS and BAILIFFS, of various qualifications, who are open to Engagements. The fullest particulars as to services required and wages given should be forwarded with application.—PAUL'S Nurseries, Waltham Cross, London, N.

To Gardeners and Bailiffs (Head, Foremen, or Under). JAMES CARTER and CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those who can send unquestionable references need apply.

Any Lady or Gentleman requiring GARDENERS or BAILIFFS may apply to J. CARTER & Co. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c. JAMES CARTER and CO., 237 & 238, High Holborn, London, W.C.

DAVID MITCHELL, NURSERYMAN and SEEDSMAN (late Head Gardener, Hamilton Palace), can with confidence recommend to any Nobleman or Gentleman some first-class HEAD GARDENERS. Highest references can be given.—Apply, in first instance, to DAVID MITCHELL, 3, Hanover Street; or Dean Park Nurseries, Edinburgh.

GARDENER (HEAD); 30 years' experience; thoroughly understands the Management of Land. Good character. Testotaller.—P.W., Post Office, Walford New Town, Herts.

GARDENER (HEAD).—Married; of thorough working habits. Well acquainted with the various branches of the profession. Excellent character.—E. M., Post Office, Hendon, Middlesex, N.W.

GARDENER (HEAD).—Age 38, married; thoroughly practical in every department. Good Grape Grower, and Flower and Kitchen Gardener. Understands Woods, Land, and Stock, and the general work of an Estate. Can be highly recommended.—S. J., West Street, Somerton, Somerset.

GARDENER (HEAD).—Married, no incumbrance; has a thorough practical knowledge of the profession in all its branches, including Early and Late Forcing, &c.; can take charge of Meadow Land. Nine years' character.—A. G., Burton House, Waltham Green, Fulham, S.W.

To Noblemen and Gentlemen.

GARDENER (HEAD).—Middle-aged, married, no incumbrance; is a thorough master of the profession in all its branches, and perfectly capable of undertaking the most responsible situation. Has been in present employment over 10 years, and can have the highest references.—Mr. GEO. J. CHILD, 49, Darley Street, Bradford, Yorkshire.

GARDENER (HEAD), age 28, married.—W. MOORE, Gardener to the Right Hon. Earl Brownlow, Belton House, Grantham, Lincolnshire, can with the greatest confidence recommend to any Nobleman or Gentleman requiring the services of a thoroughly practical, trustworthy, energetic, steady Gardener, a Young Man, with ample experience in Fruit, Vegetable, and Plant Cultivation, including Flower Gardening. No single-handed place accepted.—Mr. MOORE will be glad to answer any further inquiries addressed as above.

GARDENER (HEAD, or good SINGLE-HANDED).—Age 30, married; thoroughly understands Vines, Peaches, Cucumbers, Melons, and Flower and Kitchen Gardening.—J. T., 216, Syston Street, Leicester.

GARDENER (HEAD, WORKING).—Age 33, married; thoroughly understands the profession in all its branches. First-class reference from last employer.—J. E., Victoria Road Nursery, Tranmere Park, Birkenhead.

GARDENER (HEAD, WORKING).—Age 38, no incumbrance; understands Greenhouses, Forcing, and Flower and Kitchen Gardening, &c. Two years' character.—M. H., 6, St. Hugh's Road, Annerley, Surrey, S.E.

GARDENER (HEAD, WORKING).—Age 39, married, no incumbrance; thoroughly understands Forcing of Vines, Pines, Cucumbers, Melons, &c.; Kitchen, Fruit, and Flower Gardening. Can have 14 years' first-class character from the gentleman he has just left.—T. A., Oakley, near Bishop Stortford, Herts.

GARDENER (HEAD), where one or more are kept.—Age 27, single; seven years' references.—C. M., Post Office, Heightington, Lincoln.

GARDENER (HEAD), where one or more are kept.—Age 33, single; has a thorough knowledge of all the branches of Gardening. Would prefer living in the house. Good references.—G. R., Tunstall Hall, Market Drayton.

GARDENER (HEAD), where two or more are kept.—Age 29; thorough knowledge of the profession in all its branches. Five years' unexceptionable character from last employer.—W., Post Office, Hill Street, Upper Clapton.

GARDENER.—Age 28, married, no incumbrance.—H. WALKER, Mr. Morse's, Nurseryman, Dursley, Gloucestershire.

GARDENER.—Married; practical; 25 years' experience. Sixteen years in last situation. Can be highly recommended.—G. L., Post Office, Wood Street, Walthamstow, N.E.

GARDENER.—Age 46, married, one child; understands Flowers, Fruits, and Vegetables. Can be highly recommended by his present employer.—J. B., Post Office, Stock, Essex.

To Hotel Keepers and Others.

GARDENER.—Age 34, experienced; thoroughly understands Market Gardening in all its branches, also Early and Late Forcing. Good character.—C. G., Post Office, Old Brentford.

GARDENER (PLAIN).—Married, no incumbrance; a good knowledge of Land, Cattle Buy and Sell Stock. Wife a good Laundress or Dairywoman. Unexceptionable character.—F. C., Post Office, Warrenpoint, Newry, Ireland.

GARDENER (SINGLE-HANDED).—Age 22, single; no objection to look after Pony and Trap, and live in the house. Good character.—A. B., Post Office, Banstead, Surrey.

GARDENER (SECOND), in a Gentleman's Garden.—Several years' experience. Good character from late employer.—A. B., Mr. T. Teague, Tavnton, near Gloucester.

GARDENER (SECOND).—Age 30, single, highly respectable; has lived in families of the greatest distinction as Foreman; experienced in all the different departments. Unexceptionable reference.—A. M., Post Office, Lee Green, Kent, S.E.

GARDEN and ESTATE SUPERINTENDENT.—A Gentleman's Gardener, age 60, with 40 years' practice as principal in good Gardens, desires a situation as above. Wages left to employer after being approved of, and then low wages accepted, with cottage or lodge to live in, and firing and vegetables found. One Daughter, age 30, as Housekeeper.—W. M., 1, Cromwell Terrace, Grove Road, Hounslow, W.

C. SMITH, GARDENER and BAILIFF for 20 years to the late Arthur Anderson, Esq., The Grove, Norwood, is open to engage with any Nobleman or Gentleman requiring a trustworthy person in either of the above capacities.—1, Wilton Terrace, Thornton Heath, near Croydon.

AGENT and ESTATE BAILIFF (22-30) who has been in his employ for 13 years in the above capacity, is an excellent Farmer and most efficient Assistant. He receives the highest character.—A. H. Mearns, Booksellers, Cockspur Street, Charing Cross, London, W.C.

MANAGER (WORKING).—Con. d. value of Nursery Stock generally.—A. L. M., Ashford, near Staines, Middlesex.

PROPAGATOR (HARD or SOFT-WOODS).—Married Man. Ten years' experience. Salary, 25s. per week.—A. B., 12, Gener's, Great Yarmouth.

PROPAGATOR (SOFT-WOODS).—London Market. Age 22.—F. A., Abbey Road, London, N.W.

ASSISTANT, under a Propagator.—Are 21. Grafters of Roses, and quick at Cutting, Potting, and Good references.—O. F., Post Office, Hammersmith, London, W.

IMPROVER.—Age 21; having had some experience in Gardening, would like to engage as above. Small references.—G. M., The Gardens, Huntingdon.

PACKER.—Young Man, has had 3 years' experience in the Trade. Good character.—J. W., Gardeners, London, N.W.

To the Seed Trade. CLERK, or CLERK and TRAVELLER.—Man of considerable experience. Has had 10 years' experience for both London and Provincial Houses. Good references.—G. F., 1, Belle Vue Villas, Chancery Row, London, N.

SHOPMAN.—Age 23; six years' experience in knowledge of Nursery Business; first-class references. Unexceptionable.—C. J., 7, Mill Place, King's Road, Chelsea, London, S.

To Seedsmen. SHOPMAN (ASSISTANT), or UNDER WAREHOUSEMAN.—Age 20; six years' experience in a Wholesale Nursery Business. Good references.—H. R., 21, Northgate, London, E.

Public Notice.

MR. MECHI (assisted by his Son) is a well-known Business with his original vigour, at No. 112, Regent Street. His extensive Show Room, 65 yards long, reaches to the Strand. Here will be found his celebrated MAGIC PASTE, invented 43 years ago, and approved in every country; his equally well known RAZORS, and CUTLERY. The superior Fittings and Arrangements of his designed DRESSING BAGS and DRESSING CASES, for Ladies and Gentlemen, are well known in most of the Indian Climate, merely requiring on their return to the little polishing and refitting. A Dressing Bag or Dressing Case, scarcely be called useful unless its Cutlery, Brushes, and Internal Fittings are of the best quality, and in perfect use. This has always been most strictly attended to in the Establishment.

The extensive GENERAL STOCK embraces a variety of Elegancies suitable for Wedding Presents or Birthdays. Catalogues, with Photographed Engravings, and various articles, forwarded Post Free. Prices are marked figures on every article, and since Mr. Mechi's return to the country he has made a considerable reduction in prices for ready cash. Most of the Exhibition Cases have been sold, and a few remain. Any article not approved may be exchanged for Work Boxes, Dressing Cases and Despatch Boxes repaired and refitted.

JOHN JOSEPH MECHI, 112, Regent Street, opposite the Theatre and next door to Messrs. Nicoll, and the Storehouse of the

COAL SCOOPS.—WILLIAM S. BURTON, General Ironmonger, by appointment to H.R.H. the Prince of Wales, sends a CATALOGUE gratis and post-paid upwards of 700 Illustrations of his unrivalled Stock of Electro-plate. Table Cutlery. Britannia Metal Goods. Dish Covers, Hot-water Dishes. Iron and Brass Bedsteads. Stoves and Fenders. Marble Chimney-pieces. Kitchen Ranges. Lamps, Gaseliers. Tea Trays, Urns and Kettles.

With Lists of Prices, and Plans of the Twenty-two Rooms at 39, Oxford Street, W.; 1, 1a, 2, 3, and 4, Northampton Street, and 6, Folly's Place; and 1, Newman Yard, London.

WHEN the HAIR, through weakness, or loss of, or turn grey, no preparation on earth, however greasy these evils, restore the ORIGINAL COLOR, and give a healthy and luxuriant growth, than Mrs. S. S. S. WORLD'S HAIR RESTORER. It is simple in its composition, requiring no previous preparation of the hair, and is agreeable, and no pomade or hair oil is required, and is sold in bottles, 6s., of chemists and perfumers. Depot, 26d, High Holborn, London.

COCKLE'S ANTIBILIOUS PILLS. THE SAFEST FAMILY APPLICANT. In boxes at 1s. 11d., 2s. 9d., 4s. 6d., and 11s.

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COCKLE'S ANTIBILIOUS PILLS. In use the last 60 years for LIVER COMPLAINTS. In boxes at 1s. 11d., 2s. 9d., 4s. 6d., and 11s.

COCKLE'S ANTIBILIOUS PILLS. THE OLDEST PATENT MEDICINE. In boxes at 1s. 11d., 2s. 9d., 4s. 6d., and 11s.

CORNS and BUNIONS.—A Gentleman, who has been tormented with Corns, will be happy to state the relief obtained by which he obtained their complete removal in a period, without pain or any inconvenience.—F. KINGSTON, Esq., War. Herts. stamped envelop to F. KINGSTON, Esq., War. Herts.

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DINNEFORD and CO., 112, New Bond Street, London, and of all Chemists throughout the World.

The Gardeners' Chronicle Newspaper.

SATURDAY, OCTOBER 23, 1869.

HOT-WATER APPARATUS of every description, and complete in any part of the country, for Warming Greenhouses, Conservatories, Forcing Pits, &c. Plans and Estimates on application. **W. H. & SONS**, 57, King Street, Cheapside, London, E.C. Manufacturing, 6, Bankside, Southwark.

By Royal Letters Patent.

SHREWSBURY'S NONPAREIL GAS BOILER, for the Heating of Conservatories, Propagating, and Fern Cases, and Greenhouses, Public Buildings, &c., from 45s. Approved of by the Board of Health, and tested on application. Enclose 6d. for SHREWSBURY, Lower Norwood, S.

CRANSTON'S PATENT GLASS BUILDINGS for HORTICULTURE. Plans and Estimates free. Published free for 30 stamps, Third Edition, **DESCRIPTIVE** and splendidly Illustrated from existing Buildings. By the Author and Patentee, **JAMES CRANSTON**, Architect, Temple Row, Birmingham. **H. J. GROWTAGH**, Manager.

GRAY'S OVAL TUBULAR BOILER.

INTERNATIONAL EXHIBITION, CLASS IX., No. 2119.

Mr. GRAY begs to call the attention of the Nobility, Gentry, Nurserymen, Gardeners, &c., to his **NEW OVAL TUBULAR BOILER**.

Acknowledged by practical judges to be a great improvement on every form of Tubular Boiler yet introduced. It has proved itself superior to all other Boilers for quickness of action and economy of Fuel, doing its work with one-third less the amount required by any other.

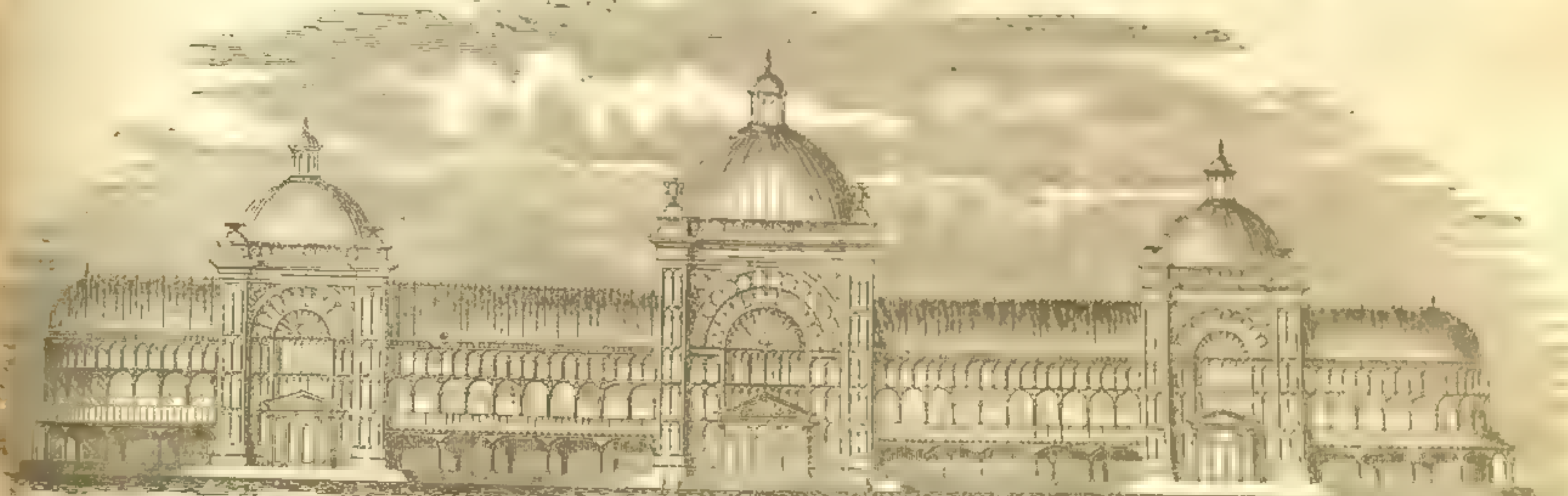
Extract from Report in GARDENERS' CHRONICLE of International Exhibition, May 24, 1862, page 476.

"The upright form of Boiler is usually made on a circular plan, rather than a square, it seems possible that the makers on the oval plan should bring the tubes more closely together during the burning fuel, and thus being a, the change, though a slight one, with the fire. The usual form of a furnace being a parallelogram, it is no doubt an improvement."

They are made of all sizes, which, with prices, may be had on application.

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T. H. P. DENNIS & COMPANY, PATENTEES, HORTICULTURAL ENGINEERS AND BUILDERS IN WOOD AND IRON.



T. H. P. DENNIS AND COMPANY beg to direct the attention of Noblemen, Gentlemen, Nurserymen, and Gardeners, to the many and varied improvements they have in every description of Horticultural Erections. They continue to Manufacture Buildings of the highest order in Wood, Galvanized Metal, and their HIGHLY APPROVED Wrought Iron Construction. They have much pleasure in announcing that by the aid of modern appliances, in their Manufactory, all kinds of Horticultural Buildings are constructed at the most moderate prices consistent with the high standard of their workmanship. Every description of Garden Structure arranged, designed, and heated on T. H. P. D. & CO.'S improved system, will be guaranteed to fully answer the purpose for which they are intended.

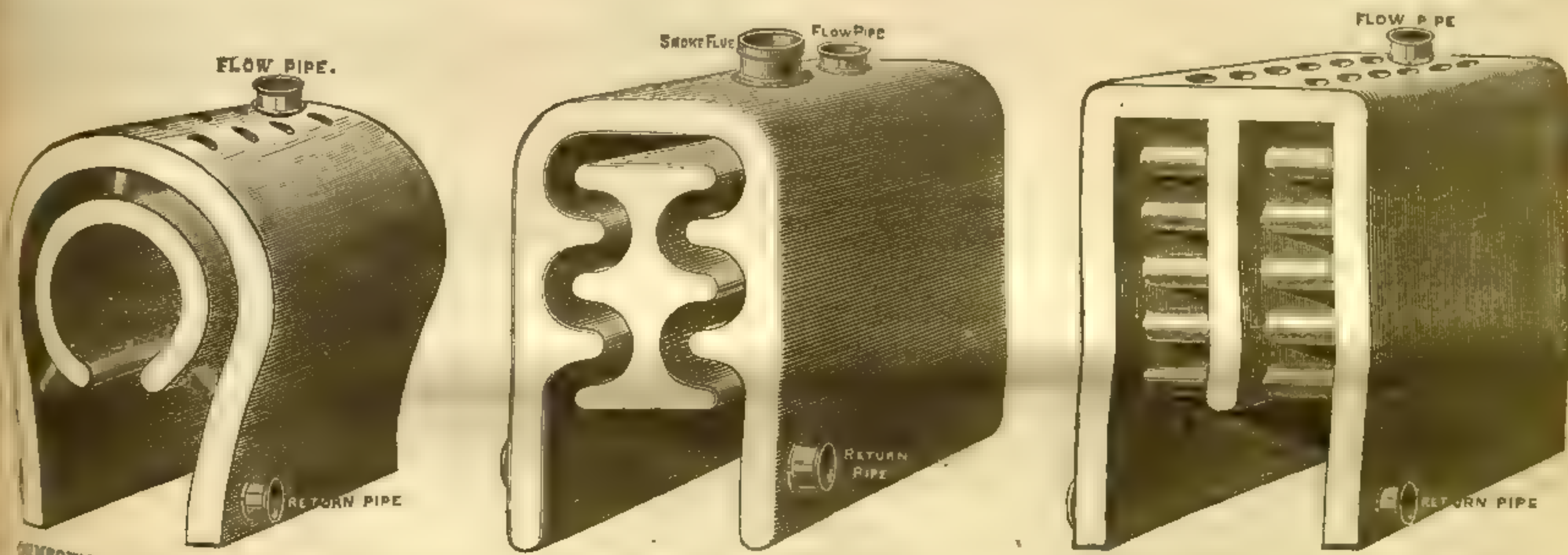
Gentlemen waited upon by Members of the Firm to advise and arrange for contemplated Buildings.

See NEW HOT-WATER BOILER and other Specialities and Patented arrangements are described in other Advertisements, and also in our Catalogue, which may be had on application.

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BY HER MAJESTY'S ROYAL LETTERS PATENT.

ORMSON'S NEW PATENT ECONOMIC BOILERS.



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From the Construction of these Boilers, it will be at once seen that the object of the Inventor is to economise fuel, by concentrating its entire force and vertical action on the surface of the Boiler, and not wasting it by Heating Brickwork and Chimneys, a fault common to the great majority of Boilers now in use. These Boilers are made of the best Welded Wrought-iron, of good substance, having no overlapping plates, holes, or rivets, and are therefore perfectly secure against expansion and contraction of the metal, an occurrence so frequent and fatal to all forms of Cast-iron Boilers. Please to state diameter and length of Pipe to be Heated.

HENRY ORMSON, HORTICULTURAL BUILDER TO HER MAJESTY,

AND HOT-WATER APPARATUS MANUFACTURER TO THE COMMISSIONERS OF HER MAJESTY'S ROYAL PALACES AND PUBLIC BUILDINGS, AND TO THE ROYAL HORTICULTURAL SOCIETY,

STANLEY BRIDGE, KING'S ROAD, CHELSEA, LONDON, S.W.

ITALY.—A Ministerial crisis occurred last week at Florence. All the Ministers, with the exception of Signor Ferraris, the Minister of the Interior, declared in favour of reassembling the Parliament and obtaining a vote for a provisional budget, and then dissolving the Parliament. Signor Ferraris, on the other hand, advised that the Cabinet should go before Parliament with a programme likely to obtain a majority, and that it should only be dissolved if defeated. In consequence of this difference of opinion Signor Ferraris and Signor Piranti, Minister of Justice, tendered their resignations. The King accepted them, and nominated Signor Rudini, Prefect of Naples, to the office of Minister of the Interior, and Signor Vigliani to that of Minister of Justice, and it is considered certain that they will accept portfolios in the new Cabinet. The King has invited the Emperor of Austria to visit Italy on his return from Egypt, and it is considered probable that the invitation will be accepted, and that the scene of the interview will be Naples, where the Empress of the French is also expected on her return home from the East. The accouchement of the Princess Marguerite, wife of the Crown Prince, will take place at Naples about the same time.

GREECE.—The Crown Prince of Prussia arrived at Athens on Wednesday evening, and was received at the railway station by the King.

THE PRINCIPALITIES.—Prince Charles of Roumania and the Princess Elizabeth of Neuwied were betrothed at Neuwied, near Coblenz, on Saturday. The marriage will be solemnised between the 10th and 15th of next month at the Castle of Wied. The Prince and his bride will immediately afterwards leave for Roumania. The House of Wied belongs to the Evangelical creed, whilst the branch of the House of Hohenzollern to which Prince Charles belongs is Roman Catholic. The Princess is 26 years of age, and the Prince 31.

TURKEY.—The Empress of the French, accompanied by her ladies of honour, visited the Sultana Validé, on the 13th inst., and afterwards dined with the Sultan and chief Ministers at the Palace of Dolma-Baktchi, returning to the Palace of Beglerbeg at night. On the morning of the 14th her Majesty visited St. Sophia and other mosques, as well as the principal objects of interest at Stamboul, salutes being fired during the whole time of her passage to and from Beglerbeg. In the afternoon the Empress received the return visit of the Sultana Validé. On the 15th her Majesty witnessed, from a window of the Dolma-Baktchi Palace the Imperial procession to mid-day prayer at the Mosque of Behiktach. The Sultan was on horseback, attended by a brilliant escort. Subsequently the Empress received the members of the diplomatic body and their wives at the Beglerbeg Palace, and then steamed up the Bosphorus in the Sultan's yacht to witness the promenade to the Sweet Waters of Asia. The weather was splendid, and the scene very interesting. There were innumerable caïques and yachts on the water, all gaily decorated, and thousands of persons assembled on the shore, including the cream of the female Turkish aristocracy and Turkish women of the middle classes in brilliant costumes, on foot and in carriages, besides many Arabs and Europeans. The Empress and her suite landed in a State caïque at the Sultan's kiosk, and there was a military reception, music being played by the band. Her Majesty, who was dressed in a yellow and lilac dress, and wore a yellow plumed hat and a black lace mantilla, then appeared on the balcony of the kiosk, and afterwards passed several times round the sward and up the valley in an open carriage, preceded by high Turkish dignitaries on horseback. She afterwards went on foot amongst the Turkish ladies, and, after remaining several minutes in conversation with them, embarked with her suite in a State caïque, rowed by 14 men. On the return to the Beglerbeg Palace the grounds were lighted up, and the ironclads and men-of-war up the harbour were illuminated. On Tuesday afternoon the Empress left for Alexandria, taking the direct route. The Sultan bade her Majesty farewell at the palace of Beglerbeg. The Imperial yacht *Aigle* was accompanied by the French men-of-war *Ajaccio* and *Forbin*, and by the Sultan's yacht and four Turkish ironclads. Troops lined both sides of the Bosphorus, and the forts fired a parting salute. During the whole day the weather, previously bad, was uninterruptedly beautiful. The Emperor of Austria is expected to arrive at Constantinople on the 28th inst., and will probably remain five days. The Crown Prince of Prussia will arrive on the 26th inst. In honour of both Imperial and Royal guests a grand review will be held on the shores of the "Sweet Waters." The English Ambassador will leave in the *Antelope* on November 5 for an excursion in Syria, and proceed thence to Suez for the inauguration of the Canal. The question of opening the Dardanelles and the Bosphorus for navigation at night by merchant vessels has been solved by the Porte having consented to allow in future outward bound vessels to pass through both Straits at night.

THE HOLY LAND.—A Jerusalem letter reports the expected arrival of the Duchess d'Aosta, in the fulfilment of a vow made by her Royal Highness during her recent illness. She will, it is said, bring with her a magnificent offering to the Church of the Holy Sepulchre which she then promised to the Virgin, and which consists of an emerald of great value, that has for several centuries formed an heirloom in the family of the Pozzi della Cisterna.

EGYPT.—The Empress of the French arrived at Alexandria yesterday morning at daybreak in the Imperial yacht, *Aigle*. No salute was fired on her arrival, in accordance with her request. The Empress disembarked at half-past 10, and proceeded direct to Cairo, accompanied by the Viceroy, who had arrived on the previous day from Cairo to receive her Majesty. The Viceroy has invited the principal repre-

sentatives of science, art, and literature in the great Universities of Europe to be present at the opening of the Suez Canal. He will pay their expenses there and back, and they are to be his guests during their stay in Egypt. Professor Max Müller has been invited from Oxford. The Viceroy's liberal invitations has caused such a demand for the necessaries of life that the price of beefsteaks at Cairo is said to be 15 francs a pound.

ABYSSINIA.—Messrs Powell and Jenkins, the relatives of Mr. and Mrs. Powell, who were murdered in Abyssinia a few months back, have arrived at Suez from Massowah. With the assistance of 3000 men, placed at their disposal by Kassa, they invaded the hostile tribe's territory, captured the chief perpetrators of the crime, burned three villages, and carried away 1400 head of cattle as a present to Kassa. They brought away the remains of Mr. and Mrs. Powell, and recovered all their property, with the exception of their jewellery and money, but they could obtain no traces of their son, as his body was not found buried with those of his parents; and whether he was also killed or carried away is not known.

COAST OF AFRICA.—Advices received from French settlements at Senegal, state that a military post on the frontier of Cayor was threatened by the native chief Laddier. A convoy had been set from St. Louis to provision the garrison and put the place in a complete state of defence. The troops serving as an escort to the convoy have already had two engagements with several bands of fanatics who are Laddier's followers.

INDIA.—The Supreme Government contemplates a legislative prohibition against the indiscriminate killing of useful and ornamental birds (which supply good and wholesome food) during the breeding season, and has called upon the subordinate Governments for expressions of opinion. The Begum of Bhopal has just established a school of industry to be called the "Prince of Wales School." The Maharajah of Jodhpore has requested the British Government to construct a metalled road through his territory, employing British engineers at his expense, and further, has consented to bear all the expense of constructing the portion of the proposed railway from Agra to Ahmedpore which passes through his territory. Cholera of a virulent type is said to be prevalent at Peshawur, and a number of European cases are reported. It is remarked that the disease appears to be spreading as it did two years ago in the direction of Cabul and Cashmere, and to gather strength as it goes.

CHINA.—A wing of the Emperor's palace at Peking has been destroyed by fire. It contained the printing blocks for most of the works issued from the Imperial press, and the loss is said to be incalculable.

JAPAN.—The Mikado has entrusted all the important posts in the empire to Satsuma, Chosiu, Tossa, and Nadjena, ignoring altogether the claims of the other princes, many of whom are very influential. He has further ordered all the Daimios within a certain period to deliver up their war material, receiving payment for the same in paper. The punishment of the rebel chiefs is not yet decided upon. It is said that the British fleet are to congregate at Yedo, and that the Mikado will visit the vessels.

CANADA.—Accounts from Ottawa of the 20th inst. state that Prince Arthur had gone upon a hunting excursion in the Ottawa Valley.

UNITED STATES.—President Grant has written a letter to the editor of the *New York Ledger*, in which he emphatically declares that he had no connection with the recent gold excitement at New York, as was insinuated by certain journals and irresponsible persons. He has also denied the report, published by the *New York Herald* and *Baltimore Sun*, that he had had an interview with an agent of Messrs. Rothschild relative to a loan for the redemption of the public debt. The pastors of the Evangelical churches of Boston have tendered Father Hyacinth a public reception. The privateer *Hornet* has been liberated by the United States Courts of Wilmington, but was thereupon seized by the naval authorities, and her officers held prisoners. The crew were put ashore. The Virginia Legislature has elected Lieut.-Governor Louis and Judge Johnson to be members of the United States' Senate. The steamship *Trade Wind* went down at sea on the 24th ult. on her way from New Orleans to Belize, Honduras. The passengers and crew took to the lifeboats. One of these, having on board the captain and Mr. Corner, Chief Justice of British Honduras, was picked up, and taken to New Orleans. They had been three days without water. Some of the men became delirious, and one of them jumped overboard and was drowned. A steamer was sent from New Orleans in search of the other boats.

CUBA.—Intelligence from Cuba states that three steamers, with heavy reinforcements, arrived at Havannah on Sunday from Cadiz. The Captain-General has transmitted to the home Government documents proving the existence of an understanding and conspiracy between the insurgents on the island and the Republicans in Catalonia and Andalusia. In accordance with this understanding the Cuban insurgents were to assist with money the Spanish Republicans, in return for which, should a Republic be established, the independence of the island was to be recognised.

NEWFOUNDLAND.—It is said that the rock on which the steamships *Germania* and *Cleopatra* were wrecked off the Newfoundland coast has been ascertained to have been lately upheaved by volcanic agency. The British Government are about to send out a surveying party to mark and buoy all the dangerous rocks.

BRAZILS AND PARAGUAY.—The Brazilian Chambers had been prorogued until the 30th September. A modification of the Ministry is probable. Advices from Paraguay to the 5th ult. state that Lopez was at St. Estanislau. An expedition was leaving for the river Jeju upwards of 100,000 Paraguayans were

said to be making their way to Asuncion in a vessel the greatest misery and starvation. The Paraguayan provisional Government, and asked for protection.

City Intelligence.

MONEY MARKET, FRIDAY.—BRITISH CONSOLS are 93½ to 93¾, both for Delivery and New and Reduced Three per Cent. Consols, 236 to 238 ex div, Exchequer B. Consols, 114 to 114½. FOREIGN—Argentine 82 to 83; Brazilian, 83 to 84; Egyptian, 1804, 82 to 83; Ditto (1878), 70½ to 71; Viceroy's Consols, 81½ to 81¾; Ditto Nine per Cent., 100 to 100½; Italian, 52½ to 52¾; Ditto Tobacco Loan, 33½ to 34; Orel, 82 to 82½ ex div, 82½ to 83; Moscow, 83½ to 84; Charkof, 80½ to 81; States 5-20 Bonds (1865), 81 to 81½ ex div, 20½ to 21.

Metropolis and its Vicinity.

THE QUEEN'S VISIT TO THE CITY.—It is announced that her Majesty will visit the City on Saturday, November 6, for the purpose of opening a new bridge at Blackfriars, and the Holborn Viaduct. On Tuesday afternoon the joint committees appointed by the Corporation to make the necessary arrangements in connection with the approach to the bridge, assembled at Guildhall. Her Majesty will be accompanied by Mr. Gladstone and several other Ministers. A procession will then be formed, and will proceed from the bridge, along Bridge Street, Farringdon Street, Farringdon Road, and then along Charterhouse Street to the Holborn Viaduct, where her Majesty will declare open to the public, and take her leave. An address of welcome to her Majesty will be presented to her Majesty by the Corporation, and a Royal reply will be made. There will be no further pageant or ceremony, and her Majesty will probably pass in one of the Royal carriages from the bridge to the viaduct, and afterwards proceed to Windsor. It was decided on Thursday by the Council of Common Council, at a sitting with closed doors, that the proposed celebration of the event by a grand banquet should be abandoned. The arrangements to be carried out by the City are not yet determined on. With respect to the new bridge, the roadway is all but finished, and approaches are in progress, the ornamentation is advanced, and the structure, which is in all respects imposing, will be in complete work in order by the time her Majesty sets foot upon it, though a section of the intended decoration will afterwards remain to be carried out. The Holborn Viaduct is also nearly finished, and the arch which carries the new roadway over Farringdon Street, now that it can be seen to proper advantage from below, strikes the eye as being all that is graceful and elegant in design, consistent with the requisite strength and solidity.

VISIT OF SIR MOSES MONTEFIORE TO PRINCE CHARLES OF ROUMANIA.—At the instance of the Board of Deputies of British Jews, and in accordance with resolutions agreed to at a meeting held last week, Sir Moses Montefiore has consented to undertake a journey to the Continent, in order to confer personally with Prince Charles of Roumania, and bespeak his Highness's favourable consideration on behalf of the Roumanian Jews, whose condition has aroused the sympathy of the chief European Governments. Sir Moses left for Paris last week, and Prince should have left that city before his departure, was his intention to continue his journey, in the hope of meeting his Highness in some other capital.

THE NOMINATION OF DR. TEMPLE.—A very interesting and influential meeting of clergy and laity was held on Wednesday at the British Hotel, Cockspur Street, in protest against the appointment of Dr. Temple to the see of Exeter. The number of laity present from all parts of the country was very remarkable. The meeting was taken by the Rev. C. W. Page, perpetual curate of Christ Church, Westminster, and senior student of Christ Church, Oxford. After considerable discussion as to the exact terms of the motion, in which the Dean of St. Paul's, the Rev. Mr. Williams, the vicar of Kingston, and others took part, it was resolved to appoint a committee of clergy and laity to memorialise the Dean and Chapter of Exeter and the Crown against the nomination, and otherwise to take such steps as may be advisable in the matter. At the urgent request of the meeting the Rev. Dr. Pusey addressed them, and said that he could not refrain from expressing his opinion as to the horrible scandal which would be caused by this appointment. Bearing in mind the soul-destroying influence of "Essays and Reviews," to which he could bear witness from his position at Oxford, he could not bear witness from his position at Oxford, he could not admit the miserable excuse pleaded in favour of the bishop-nominate that the essays were independent of each other, and he could not help feeling that those support of the appointment were preferring party to Almighty God and the souls of men. In fact, the other essays were but commentaries on Dr. Temple's essay. He felt that their first step should be to strengthen the hands of the Dean and Chapter of Exeter, the moral weight of whose refusal would be intensified if from different parts of England a feeling on the subject was expressed, and thereby they might avert what in the sight of Europe would be so horrible a scandal. It was then resolved unanimously to request the Earl of Shaftesbury to be chairman, and Dr. Pusey to be vice-chairman, and the following were appointed members

the Earl Nelson, the Deans of St. Gloucester, Ripon, and Carlisle, the Right Hon. Gathorne Deshayes, Mr. S. W. Parquhar, Mr. J. G. Talbot, Mr. E. Brett, Mr. B. C. L. Bevan, the Rev. C. D. Wilson, D. Moore, and J. W. ... to add to their number. The ... Mr. John Boodle were appointed, and Mr. G. Noel Hoare treasurer. ... of the Earl of Shaftesbury having ... the *Record*, declining to act in ... a deputation consisting of the ... Dean Mansel, Mr. Fitz Roy, and ... on Thursday ... and asked him to reconsider his ... and to act with the High Churchmen ... as Dr. Temple. Lord Shaftesbury ... the deputation very courteously, ... a positive answer then, saying that he ... to sleep over a matter of importance.

HIGH HUNT.—On Tuesday afternoon a bust created by public subscription, in memory of Leigh Hunt, in Kensal Green Cemetery, was unveiled by Lord Houghton, in the presence of relatives, and of a small party of literary gentlemen. His lordship delivered an address on the occasion in one of the little side rooms on the ground, the day being too cold and the outdoor orations. The bust, which is of marble, was executed by Mr. Durham, R.A., and successfully portrayed Leigh Hunt's kindly features. The following quotation from his works was placed beneath the bust—

"Write me as one
That loves his fellow-men"—

by the statement that "James Henry Leigh Hunt was born October 19, 1784, and died August 28,

PROPOSED RAILWAY STATION AT THE HOUSE.—At the meeting of the Metropolitan Board of Works on Friday a report from the solicitor was read, on the proposition of the Metropolitan District Railway Company to carry their line the entire length of the new street to the Mansion House, and to construct a station at its termination opposite the Mansion House, in lieu of carrying the line to the Tower, and constructing a station on the street as originally intended. The report stated that the railway company had no power by any means to make the deviation and station as proposed, and that the Board, in the present state of the law, had no power to give effect to the application, without the concurrence of the Commissioners of Sewers of the City of London. The Board stated. At a meeting of the Common Council on Thursday, a letter from Lord Devon, chairman of the railway company, was read, inviting the Council to assist in carrying the line to the Mansion House and placing the City station there instead of on the street. The letter was referred to a committee.

THE ABBEY.—It is stated that the whole of the fees now paid for the maintaining and showing and protecting the chapels and tombs in the Abbey is under the consideration of the Chapter.

HOUSE STREET.—On Monday morning the thoroughfare, which has but recently been completely opened for traffic. For some days the street has been opened to foot-passengers. After the opening, and throughout the day, the vehicles passing through it were very numerous, and the Poultry and Cheapside were somewhat relieved, a large number of the vehicles from the West End to the Bank having crossed them in preference to the new street, thus necessitating the necessity of proceeding round St. Martin's Lane. There is now a complete street from the Mansion House, almost as far as Blackfriars.

EASTERN CABLE.—It is expected to leave the day with the electric cable for the line between Bombay and Suez. On Wednesday the chairman, and friends of the company dined at the Albion Tavern in honour of the event. The chairman, who presided, in proposing the toast of the "Indian Submarine Telegraph Company," said he hoped that the cable between Bombay and Suez would not be completed until after the opening of the Falmouth and Malta cable in the following June, thus completing our telegraphic communication with India. The Right Hon. Mr. Gladstone, late Finance Minister for India, in the evening announced that on that very day the principal Chinese ports, by means of the cable, were to be opened to Singapore, and thence also to Australia.

TEA-SHIP RACE.—It is understood that the race has been won by the *Sir Lancelot*, which left Foo on July 18, and arrived in the Straits on the 11th inst., after a passage of 21 days, the shortest on record. The *Sir Lancelot* was first in the tea trade, and lost it last year only by a few hours.

PEAN LIFE ASSURANCE COMPANY.—The court on Friday gave judgment in favour of the Pean Life Assurance Company. After Mr. Glasse, Q.C., and Mr. Dickinson, Q.C., had addressed the court in favour of the petitioners. The Vice-Chancellor, after commenting on the novelty of the case, said that from the important interests involved, he had granted a stay in vacation, and for the same reason he had refused to give judgment. He reviewed the evidence on both sides, and concluded that the petitioners had failed to satisfy him that the company had not been shown to be unable to pay its

debts, for no creditor appeared to have been sent away from its doors unpaid. Nor was it just or equitable for him to stop authoritatively the progress of a business which had, in his judgment, assets which covered its liabilities, the actuaries who had given adverse testimony having, in his opinion, omitted to take account of the fact that the company had a reserve readily available in the form of uncalled capital. He therefore dismissed the petitions, with costs.

THE ALBERT LIFE OFFICE.—The prosecution of the directors of the Albert Assurance Company was dismissed by the magistrate on Saturday. Mr. Lee, the prosecutor, was to have been cross-examined on the evidence he gave at the first hearing of the case, as well as upon various incidents of his previous life and character, but when the case was called on he was not in court, though, in addition to the usual notice of adjournment, he had on the previous day received a summons to be present. Mr. Straight, his counsel, however, admitted that he had been bankrupt in 1868, only a few months before he bought the shares which gave him a *locus standi* to prosecute, and that he had gone to Southampton to collect a debt on the very day on which he had been summoned to appear in court, and that his real name was not that under which he had proceeded against the directors. The magistrate said that after his experience of cases which had broken down through the absence of important witnesses, "who dared not come forward," he had "the worst opinion of the proceeding on account of the absence of Mr. Lee," and that he "presumed everything against the *bona fides* of a person who ought to be in court, but who was, in fact, somewhere else." Under these circumstances it was not fair to the directors of the company to keep the charge hanging over their heads, and he dismissed the summons, intimating at the same time that if Mr. Lee wanted to go on he could take out fresh summonses, which would be heard on Saturday. On Thursday Mr. Bromby appeared in court with Mr. Lee, and applied for fresh summonses, but Mr. Knox refused to entertain the application unless it was made by Mr. Straight, who had previously appeared as counsel, and an assurance given by that gentleman that he had carefully looked into the case, and was satisfied there was *bona fide* ground for a prosecution. He did not, he said, consider that Mr. Lee was a *bona fide* shareholder, and therefore did not feel himself justified in bringing the directors to that court again on his application.

DISTRIBUTION OF PLANTS.—It is announced that the First Commissioner of Her Majesty's Works intends to have distributed this autumn among the working classes and the poor inhabitants of London the surplus bedding-out plants in Battersea, Hyde, the Regent's, and Victoria Parks, and in the Royal Gardens, Kew. The clergy, school committees, and others interested, on making application to the superintendents of the parks nearest to their respective parishes, or to the Director of the Royal Gardens, Kew, will receive early intimation of the number of plants that can be allotted to each applicant, and of the time and manner of their distribution.

REPORTED DEMONSTRATION OF UNEMPLOYED WORKMEN.—It is rumoured that the working classes of London intend, on the Queen's visit to the City to open the new Blackfriars Bridge and Holborn Viaduct, to parade before her Majesty a double line, two or three deep, of unemployed men, as an evidence of the large amount of distress and compulsory idleness existing among them. On Wednesday a handbill of a very violent character was circulated in the districts where the working classes mostly reside, calling on the men of London to attend in tens of thousands on the day of opening the bridge by the Queen, and to "let their cry be for work." It is stated, however, that some prominent members of the unemployed league who took part in the agitation of last year are opposed to the demonstration, on the ground that it will be perfectly futile and inefficacious as regards the unemployed, and will only mar the harmony of the great City ceremonials.

THE FENIAN PRISONERS.—An open-air meeting was held on Sunday afternoon, on a space of ground near the Middlesex end of new Chelsea Bridge, to demand from the Government the release of the Fenian prisoners. It was estimated that between 2000 and 3000 persons were present. A Mr. Hogan was in the chair, and the speeches were of the usual violent character. On Thursday a crowded meeting of the general committee and delegates for conducting the demonstration in Hyde Park to-morrow, in favour of the release of the prisoners, was held in Brook Street, Holborn. Mr. J. Merriman took the chair, and said he had attended the meeting in consequence of the appearance of the letter addressed by Mr. Gladstone to the Limerick Amnesty Committee. He had considered that letter seriously, and the conclusion at which he had arrived was that it would be most advisable, in the interests of the prisoners themselves, that the proposed demonstration should not take place, or that it should be postponed. A long discussion ensued, many speakers opposing the views of the chairman. Ultimately the following resolution was put:—"That the proposed demonstration be adjourned until a future day, to be decided upon by the committee." There being no seconder to the resolution, it fell to the ground. The chairman then said, that as it appeared to be the unanimous feeling of the committee that the demonstration should take place, he should be at his post on Sunday to perform the duty he had undertaken. In spite of this decision, it is doubtful whether the meeting will take place; the more moderate party considering that it would be impolitic to hold the meeting after the letter which Mr. Gladstone has addressed to the Irish committee.

GREAT STORMS.—On Monday and Tuesday the metropolis was visited by a violent gale, which caused a large amount of damage in the river, and loss of several

lives. Small craft were swamped and sunk by the force of the wind and tide, and several large vessels broke from their moorings and ran in collision with others. Accounts from various parts of the coast also indicate sudden and violent storms, shipwrecks, and loss of life. Since Monday night a disastrous gale has been raging on the north-western and southern coasts, and upwards of 100 vessels have been wrecked or damaged. A large Prussian brig, called the *Moritz Keuchenheim*, was lost off Scilly, with only one of the crew saved, the others being drowned. The pilots at that port affirmed that they saw the *Leith* passenger steamer *Britannia* founder, but the statement has proved unfounded, as she withstood the storm, and reached Leith in safety. The barque *Josephine* was driven ashore near Dunbar and four of the crew drowned. The ship *Frank Shaw*, of 1000 tons, was wrecked on Monday afternoon on the Goodwin Sands, when 11 hands were lost. Something like the long expected great tidal wave is also reported to have deluged several of the northern harbours, and done much damage.

THE PUBLIC HEALTH.—The Weekly Return of the Registrar-General states that in the week that ended on Saturday, Oct. 16, 4221 births and 2870 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 23 per 1000 persons living, being 21 per 1000 in London, 21 in Edinburgh, 21 in Dublin, 21 in Bristol, 21 in Birmingham, 26 in Liverpool, 27 in Manchester, 31 in Salford, 23 in Sheffield, 27 in Bradford, 23 in Leeds, 23 in Hull, 21 in Newcastle-upon-Tyne, and 21 in Glasgow. In Paris the annual rate in the same week was 21 per 1000. The rate in Berlin during the seven days ending the 14th inst. was 21 per 1000, and in Vienna 21 per 1000 during the week ending the 9th inst. In London the births of 1009 boys and 1041 girls, in all 2053 children, were registered last week. In the corresponding weeks of 19 years 1859-68, the average number, corrected for increase of population, was 2102. The deaths registered in London during the week were 1405. It was the 11st week of the year, and the average number for that week, corrected for increase of population, was 1324. The present return is therefore less by 19 than the estimated amount.

Provincial.

BIRKENHEAD.—At the Police Court on Monday, two men named Duncan, father and son, were sent to prison for wrecking the cargo of the ship *Empress*, which was stranded near Liverpool. They had been employed in removing the cargo. The stolen property was found in their house.

BRIGHTON. An alarming accident occurred on Sunday to one of the large pleasure yachts which make daily trips from this town. The *Sun Park* started about noon on the last excursion of the season, with 20 passengers on board, and on returning to the station ran upon a pile connected with the Western Outfall Works, and knocked a large hole in her bottom. The yacht was discovered to be settling rapidly, and all sail was set for the land. Attracted by signals of distress, a number of passengers were taken off by the boats which went to their rescue. At a short distance from the West Pier the vessel sank, fortunately in shallow water, and the remainder of those on board were picked up and taken ashore.

CAMBRIDGE.—The Rev. W. G. Cox has resigned the office of Public Orator, which he has held since 1857.

CHESTER.—The opening of the new Town Hall, the main object for which the Prince of Wales visited Chester, took place on Friday, and the general joy of the inhabitants. The first event of the day was the presentation of addresses. The first was presented by the lord-lieutenant and magistrates of the county; the second by Lord de Tabley and the Freemasons of the city. Shortly after 12 o'clock a procession was formed from the Grosvenor Hotel, through the main thoroughfares of the city to the new Town Hall. Two open carriages were drawn up at the hotel, in the first of which were the Mayor, Recorder, Sheriff, and Town Clerk; and in the second the Prince, the Countess Grosvenor, Lord Egerton of Tatton, and Earl Grosvenor. The procession advanced along Foregate Street to the principal entrance of Grosvenor Park, then made the round of the park, and returned into Foregate Street by the same gateway. In the park were placed in long succession the school children of the city, numbering about 7000. After leaving the park the *cortege* passed through the principal streets, which were crowded with spectators. Within the barriers were the members of the various Friendly Societies, wearing their sashes. The new Town Hall is a fine stone building in the Victorian Gothic style, with an imposing front to the open market space. From the centre of the front rises a square-pointed tower of great elevation, which gives considerable architectural pretensions to the whole pile. After the cathedral, it is the finest edifice in the city. The internal arrangements are good, and the decorations ample; it contains a number of rooms, including the council chamber, the public hall, and the ball-room. The scene in front of the building was remarkably effective. The City Volunteers mustered in strong force, and looked well. The galleries on either side and in front of the hall were filled with ladies, bands played, and the church bells rang their merriest peals. Shortly after 1 o'clock the Royal procession arrived. The Prince received a flattering ovation from the immense assembly, and repeatedly bowed his acknowledgments. His Royal Highness was received at the entrance of the Town Hall by the Mayor and Corporation, when an address from the mayor, aldermen, and burgesses, in which the Prince was addressed as the "Earl of Chester," was read by the Recorder. In reply, the Prince said that he was not less proud than his predecessors were to hold the

lower prices are submitted to. Sheep are also more plentiful; on the average prices are lower, although a fair clearance is effected. Choice Calves are scarce and dear. Our foreign supply consists of 748 Beasts, 1260 Sheep, and 230 Pigs.

Best Scots, Herefords, &c.	5 4 to 5 6	Best Long-wools	5 4 to 5 8
Best Shorthorns	5 0 - 5 4	Do. Shorn	4 4 - 5 0
2d quality Beasts	3 4 - 4 0	Ewes & 2d quality	4 4 - 5 0
Best Downs and Half breeds	5 8 - 5 10	Do Shorn	4 4 - 5 0
Do. Shorn	4 0 - 4 4	Lambs	4 0 - 6 4
Beasts, 1835; Sheep and Lambs, 1865	Calves, 330; Pigs, 40.		

METROPOLITAN MEAT MARKET.—Oct. 23.

Best Fresh Butter	19s. per dozen lb.
Second do. do.	16s.
Small Pork, 5s. 4d. to 5s. 8d.	Large Pork, 4s. 4d. to 4s. 8d. per 8 lb.

MARK LANE.—MONDAY, OCT. 19.

The supply of Wheat from Essex and Kent to this morning's market was small, and mostly sold at an advance of 1s per qr upon the prices of this day se'night. There was a fair attendance, and some sales of American Wheat were made at the above improvement, but in Baltic qualities very little business was transacted, and such we cannot raise our quotations. Barley was quiet trade at late rates. Beans and Peas were unchanged in value. For Oats there was a fair demand, at an advance of 6d per qr, on new and 1s per qr on old. Flour was rather dearer.

WHEAT, Essex, Kent, Suffolk. White	41-50	Red	40-49
— fine selected runs...do.	46-54	Red	43-51
— Talavera	57-59		
— Norfolk		Red	
— Foreign	40-55		
BARLEY, grind. & dist. 30sto32s. Chev.	40-43	Malting	36-40
— Foreign, grinding and distilling	24-27	Malting	32-42
OATS, Essex and Suffolk	22-24		
— Scotch and Lincolnshire Potato	24-26	Feed	
— Irish	23-25	Feed	21-24
— Foreign	22-25	Feed	19-21
RYE	32-38	Foreign	32-38
RYE MEAL, Foreign			
BEANS, Mazagan. 38s to 40s. Tick	48-50	Harrow	48-50
— Pigeon	59s to 56s	Winds	Longpod
— Foreign		Small	42-43
PEAS, White, Essex, and Kent	40-42	Suffolk	41-43
— Maple 41s to 45s	40-42	Foreign	39-44
MAIZE		Foreign	29-31
FLOUR, best marks delivered per sack	41-47		
— 2d ditto	32-44	Country	32-44
— Foreign	23-29	Per sack	30-56

FRIDAY, OCT. 22.

During the past week we have experienced severe storms and frequent rain, in the northern districts snow has fallen. The arrivals of foreign produce since the 15th inst. have been on a more moderate scale than of late, and as the colder weather stimulated consumption, causing at the same time some fear of an early closing of the navigation of the Baltic, we have to report an increasing disposition to purchase Wheat, which has led to an advance of 1s. to 2s. per qr in many of our leading markets. In the value of Spring Corn of all sorts we have noticed no quotable change, excepting in Oats, which have been a better sale at about 6d. to 1s. per qr. advance in Newcastle and in this market. Flour was easier to quit, with slight improvement in value for American barrels and country marks. The arrivals of grain and seed laden vessels off the coast, which in the last six weeks averaged about 1000 tons per week, have since Friday last, considerably fallen off, they consisted of 7 cargoes, of which, with those left over from the preceding week, there remained for sale last night 44 cargoes. With the decrease in supplies the trade for all articles has assumed a better tone at improving prices; arrived Wheat commanded from 1s. to 2s. per qr. more money, fine qualities being principally in request. Maize was 1s. to 1s. 6d. per qr. dearer. Barley and Rye participated in the advance, higher bids having been made for the latter on a continental account. A large business has likewise been done in Wheat and Maize on passage and for forward delivery, at improving rates.

The arrivals of English grain are small, and moderate of foreign. There was a poor attendance at this morning's market, and the English Wheat on offer was partly sold at an advance of 1s. per qr.; for foreign the demand was limited at the extreme prices of Monday. Barley, Beans, and Peas were unchanged in value. Oats were a slow sale at late rates.

ARRIVALS.

	Wheat.	Barley.	Oats.	Flour.
English	1180 qrs.	950 qrs.	— qrs.	— sks.
Irish	—	—	1700	—
Foreign	22,770	6660	27,210	180
	23,950	7610	28,910	— brls.

LIVERPOOL, Oct. 19.—There was a good attendance at today's market, and Wheat sold freely at an improvement of about 3d per cental on the prices of last Friday, or from 4d. to 5d. per cental on the week. Flour also met with a good demand, at an advance of about 9d. since last market day. Indian Corn was in very fair request, prices being about 6d. to 1s. in sellers' favour. Oats and Oatmeal neglected. Beans in better request, at an advance of 6d. per qr. from Friday.

AVERAGES.

	Wheat.	Barley.	Oats.
Sept. 11	49s 10d	37s 10d	25s 11d
— 18	50 5	37 5	25 5
— 25	50 6	37 3	25 6
Oct. 2	49 8	37 8	24 7
— 9	48 1	38 0	24 8
— 16	47 0	38 1	24 1
Average	49 3	37 10	25 0

SEED MARKET.

The transactions at our market are still very limited, no speculation having yet sprung up, and the consumptive demand being at present quite small. Winter Tares meet with less inquiry, and are obtainable on lower terms; as the stocks remaining on hand are very light, a revival of demand would doubtless give a decided check to the downward tendency. New English Rye for seed can now be bought at a very low figure. Mustard and Rape seed are firm. We have a brisk demand for New Dutch Hemp seed, the quality of which is this season very fine. New Canary seed moves off steadily, at the low prices now current. Linseed is without change in value. There has been some inquiry during the past week for fine red Clover seed; no great quantity of seed has, however, changed hands. Windsor and Longpod Beans are now in fair request. We have had some business passing in new French Italian at a slight advance on previous currencies. JOHN SHAW & Sons, 16, Water Lane, E.C.

W. M. DILLISTONE, Horticultural Architect and Valuer, Sible Hedingham, Essex.

WANTED, a PARTNER, in a small NURSERY, FLORIST, and JOBBING BUSINESS, in Islington. Cash required, £50. G. R., 32, Rotherfield Street, Islington, N.

WANTED, for the "GARDENERS RECORD," an energetic LONDON REPRESENTATIVE to canvass for Advertisements.—THOMAS EDMONDSON, 3, Bane Street, Dublin.

WANTED, in a large Provincial Seed House, a MANAGER, who would be capable of taking the entire charge of the Shop, also to give some attention to the Correspondence. One who has been accustomed to both the Wholesale and Retail preferred.—F. S., Hurst & Son, 6, Leadenhall Street, London, E.C.

WANTED a General NURSERY WORKING FOREMAN.—One who has had the Management of Men; must be a good New Ground Workman and Landscape Gardener; unexceptionable references required.—Apply by letter in own hand, stating age and wages, to A. YOUNG, Balham Hill Nursery, London, S.W.

WANTED, as SUB-FOREMAN, in one of the largest Fruit Tree Nurseries in the neighbourhood of London, an expert BUDDER, GRAFTER, and TRAINER. Good wages offered to a suitable and permanent man.—Apply, in own handwriting, to A. B. Gardner & Co., 101, E. W.C.

WANTED, a first-class PROPAGATOR of CONIFERS, RHODODENDRONS, &c.—State age, qualifications, and all particulars, by letter only, to R. R., Gardeners' Chronicle Office, W.C.

WANTED, a good GARDENER (SINGLE-HANDED).—Must thoroughly understand Flowers, Fruit, and Vegetables, and have good character from previous employers.—H. S., 19, New Bridge Street, E.C.

WANTED, a KITCHEN GARDENER, with some knowledge of Farm Duties.—Married, without incumbency; Roman Catholic Religion. Wages 11s and cottage. Wife must be a competent Laundress, and will receive 2s. per day.—Apply to Mr. T. BOWICK, Bedford.

WANTED, a YOUTH in a Seed Shop, who has had some experience in the Retail Trade, and Writes a good hand.—A. B., 13, Warwick Road, Stoke Newington, N.

WANTED, a respectable LAD, about 13 or 14 years old, to assist in the Seed Shop, and to make himself generally useful.—Address, in own handwriting, to B. E., Victoria and Paradise Nurseries, Upper Holloway, London, N.

WANTED, at the November Term, a Married Couple, without incumbency, the Man as GARDENER and COWKEEPER, the Woman as DAIRYMAID. Wages, 22s. a week, with house and fringe.—Apply, with references as to character, to the Rev. A. D. SHAFTO, Brancepeth, Durham.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. E. G. HENDERSON and SON, Wellington Nursery, St. John's Wood, London, N.W.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS, and GARDENERS and BAILIFFS, of various qualifications, who are open to engagements. The fullest particulars as to services required and wages given should be forwarded with application.—PAUL'S Nurseries, Waltham Cross, London, N.

To Gardeners and Bailiffs (Head, Foremen, or Under). JAMES CARTER and CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those who can send unquestionable references need apply.

Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & Co. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c. JAMES CARTER and CO., 237 & 238, High Holborn, London, W.C.

DAVID MITCHELL, NURSERYMAN and SEEDSMAN (late Head Gardener, Hamilton Palace), can with confidence recommend to any Nobleman or Gentleman some first-class HEAD GARDENERS. Highest references can be given.—Apply, in first instance, to DAVID MITCHELL, 3, Hanover Street; or Dean Park Nurseries, Edinburgh.

Gardeners and Under Gardeners.

WM. CUTBUSH and SON beg to state that they have at all times on their books MEN of various qualifications, whose characters will bear the strictest inquiry. Any Gentleman making application would save time by clearly stating the duties to be undertaken, wages offered, &c., so that suitable Men may be selected.—Highgate Nurseries, London, N.

Gardeners in Want of Places.

GARDENERS in YORKSHIRE and adjoining Counties in WANT of PLACES may apply, with all particulars, to W. JACKSON and CO., Nurseries, Bedale, Yorkshire.

GARDENER (HEAD).—Age 40, married, no incumbency; thoroughly understands the profession. Has a 14 years' good character.—JOSEPH SMITH, 6, Grimsby Road, Louth, Lincolnshire.

GARDENER (HEAD).—Age 38, married; thoroughly practical in every department. Good Grape Grower, and Flower and Kitchen Gardener. Understands Woods, Land, and Stock, and the general work of an Estate. Can be highly recommended.—S. J., West Street, Somerton, Somerset.

GARDENER (HEAD).—Age 32, married, no incumbency; understands Vines, Melons, Cucumbers, Stove and Greenhouse Plants, and Flower and Kitchen Gardening. Good character. Wife, Dairy and Poultry, if required.—G. E., Post Office, Godstone, Surrey.

GARDENER (HEAD), to any Nobleman or Gentleman.—Age 30, married, one child; well understands Greenhouse, Conservatory, and Stove Plants, Forcing of Grapes, Pines, Peaches, Melons, &c.; the Management of Kitchen and Flower Gardens. Four years' good character from last situation.—G. B., 11, York Street, Portman Square, W.

To Noblemen and Gentlemen.

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To Noblemen and Gentlemen.

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SATURDAY, OCTOBER 30, 1869.

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- ROYAL BOTANIC GARDENS, DUBLIN.
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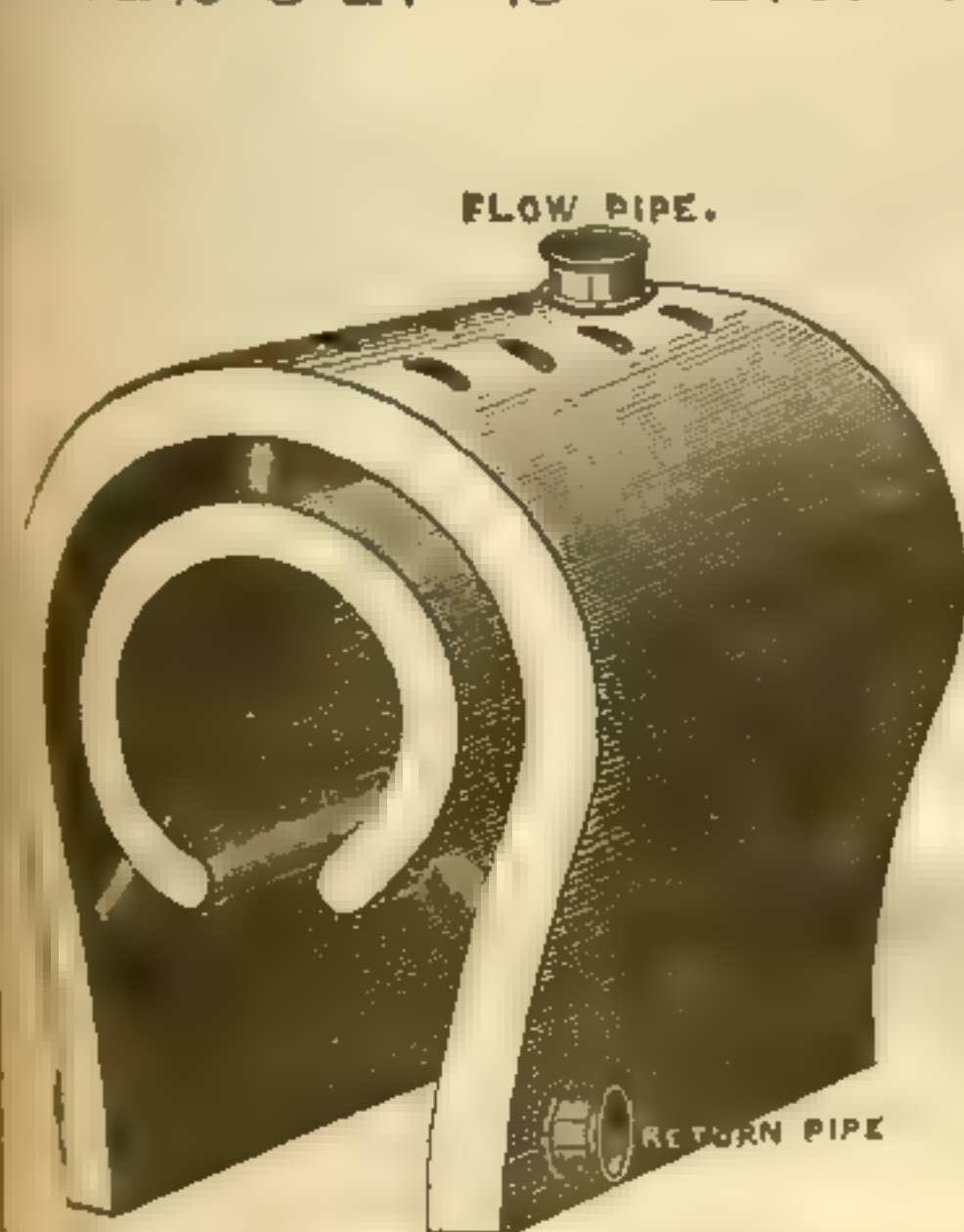
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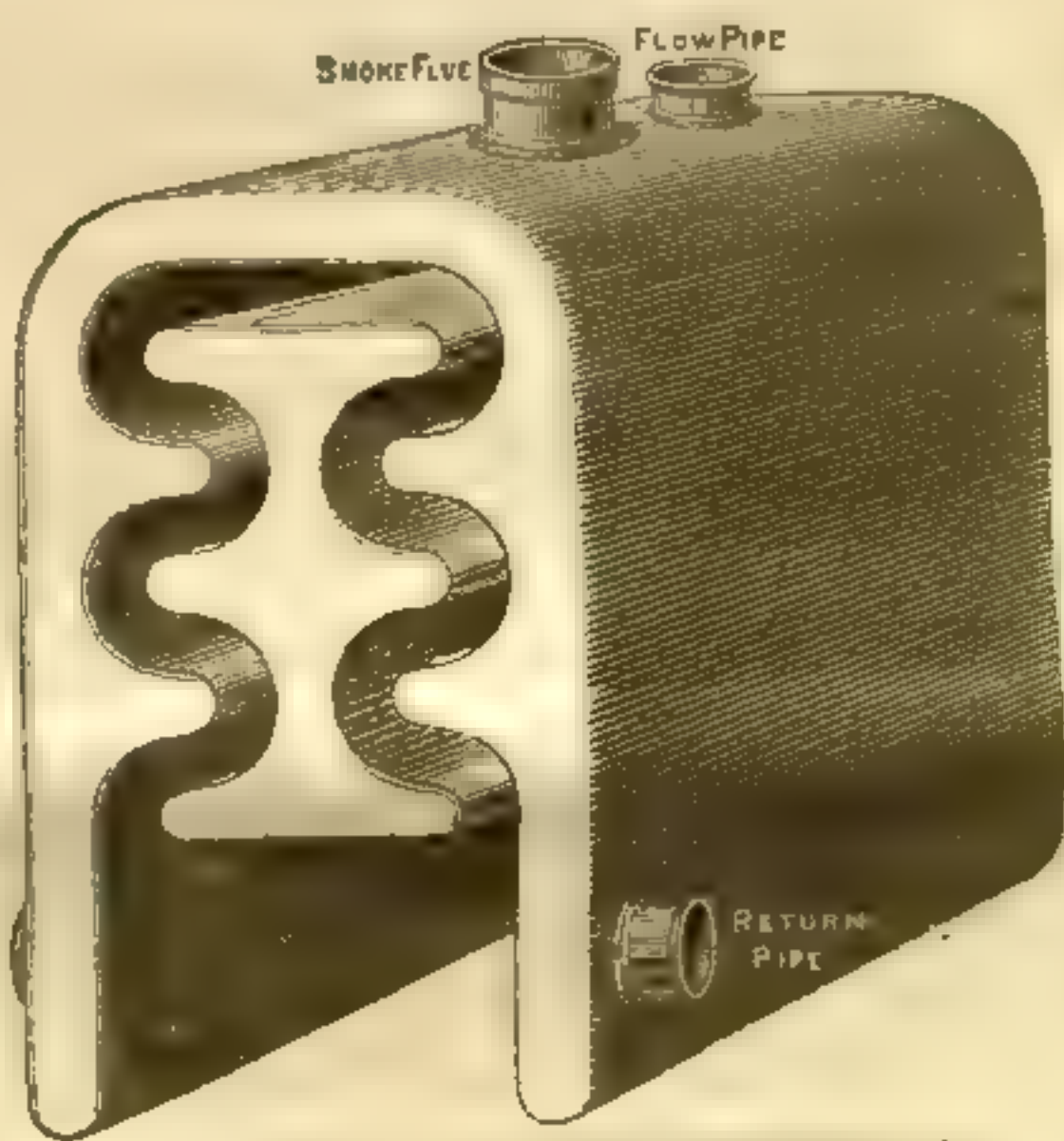
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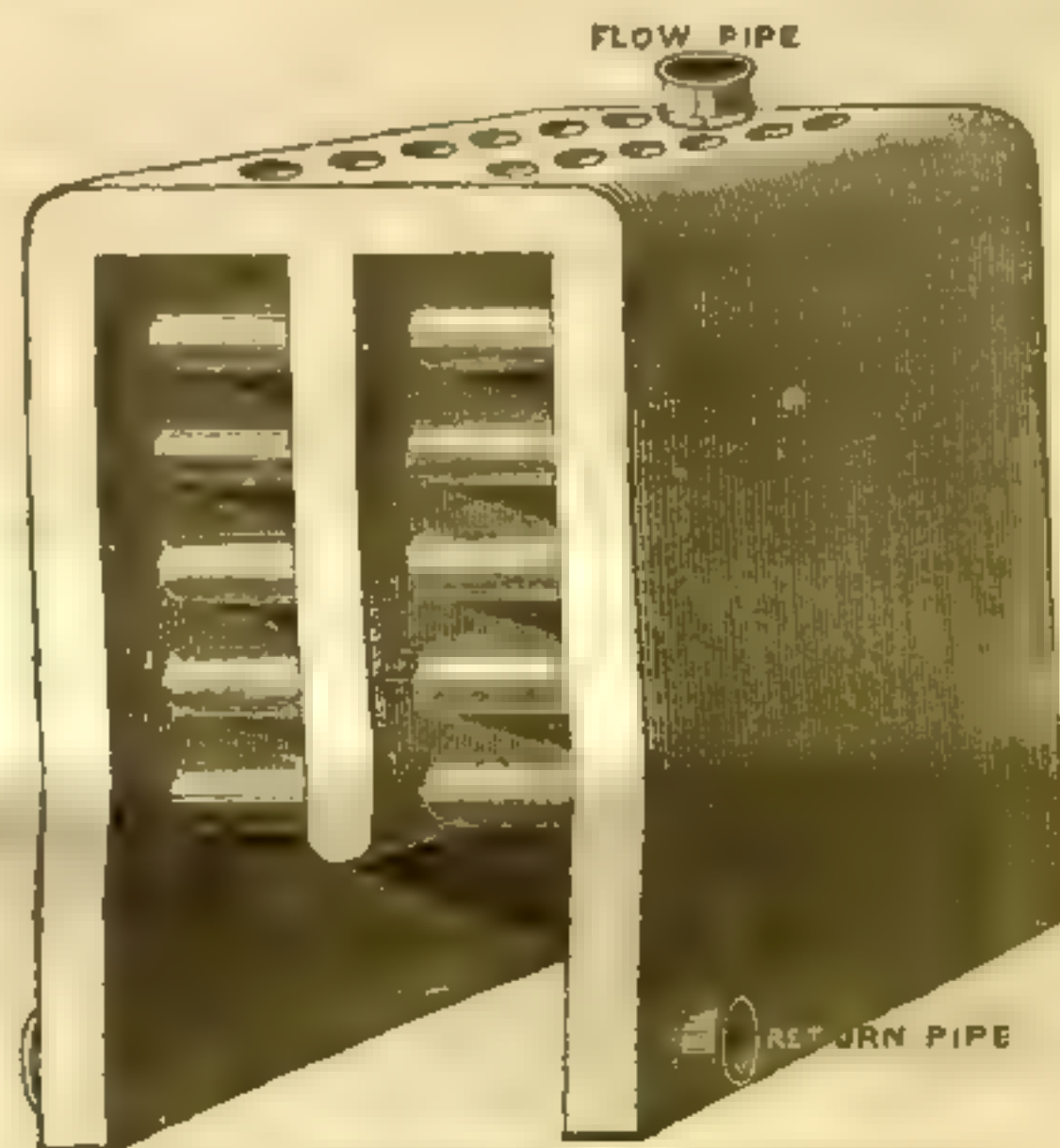
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Home News.

THE COURT IN SCOTLAND.—On Wednesday, the 20th inst., the Queen went out in the morning with Princess Beatrice, and in the afternoon drove out with Prince Leopold. On Thursday, the 21st inst., the Queen went out with Princess Louisa and Prince Leopold. The Dowager Duchess of Athole and Miss Moray arrived at the Castle on a visit. On Friday the Queen walked and drove in the morning with Princess Beatrice, and in the afternoon went out with the Duchess of Athole. The Right Hon. Edward Cardwell left the Castle. On Saturday the Queen drove out with the Marchioness of Ely. On Sunday the Queen and Royal family attended Divine service at the parish church of Crathue. The Rev. Dr. Taylor officiated. On Monday the Queen went out in the morning with the Marchioness of Ely, and in the afternoon with Princess Louisa and Princess Beatrice. According to present arrangements the Queen and Royal family will leave Balmoral for Windsor on Wednesday next.

THE PRINCE AND PRINCESS OF WALES.—On Saturday the Prince arrived at Marlborough House from Gunton Park. The Princess, with Prince Albert Victor, Prince George, Princess Louisa, and Princess Victoria, returned to Marlborough House from Chiswick. It is announced that the Prince will visit Scarborough on Monday next, on his way to Grimston, on a visit to Lord Londesborough.

PRINCE AND PRINCESS CHRISTIAN left Floors Castle on Tuesday on a visit to the Earl and Countess of Minto at Minto House, and are expected to arrive at Frogmore this evening from Scotland.

THE KING AND QUEEN OF THE BELGIANS will arrive in England next week on a visit to the Queen. As an acknowledgment of the hospitality shown to English Volunteers in Belgium a committee has been formed for the purpose of giving their Majesties a hearty national English reception, and the Lord Mayor has accepted the office of president.

THE CABINET.—A Cabinet Council was held on Tuesday at the official residence of the First Lord of the Treasury in Downing Street. Another Council is summoned for to-day.

THE MADRID EMBASSY.—The Right Hon. H. A. Layard, First Commissioner of Works, has been appointed to succeed Sir J. Crampton as her Majesty's Minister at Madrid.

MINISTERIAL CHANGES.—Mr. Ayrton, M.P. for the Tower Hamlets, has succeeded Mr. Layard as First Commissioner of Works, and Mr. Stansfeld, late third Lord of the Treasury, has been appointed Financial Secretary of the Treasury.

PARLIAMENTARY MOVEMENTS.—The accession of Lord Stanley to the peerage, consequent on the death of the Earl of Derby, has caused a vacancy for Lynn. Lord Claud John Hamilton, son of the Duke of Hamilton, is the Conservative candidate for the vacant seat. The appointment of Mr. Layard as British Minister at Madrid has caused a vacancy in Southwark. Several candidates have been spoken of for the vacant seat, but it is understood that Mr. Milner Gibson will be the Government candidate, Mr. Morgan Howard the Conservative candidate, and either Mr. Robert Coningsby or Mr. William Allen the working men's candidate. Mr. Bernal Osborne is a candidate for Waterford, in opposition to Sir Henry Barron and Mr. Malcolmson.

BISHOPRIC OF SALISBURY.—The confirmation of Dr. Moberly as the Bishop of Salisbury took place on Wednesday, at Bow Church, Cheapside, with the usual ceremonies. The consecration took place on Thursday at Westminster Abbey. The Archbishop of Canterbury officiated, assisted by the Bishops of London, Oxford, and Chester.

THE BISHOPRIC OF EXETER.—The Gazette of Tuesday contained the official announcement that the Queen had ordered a *congé d'elire* to the Dean and Chapter of Exeter, empowering them to elect a Bishop, in the room of the late Dr. Phillpotts, and recommending the Rev. Dr. Frederick Temple, D.D., to be by them elected Bishop of the said See.

GARTER KING AT ARMS.—The Gazette of Tuesday announced that the Queen had directed Letters Patent to be passed under the Great Seal, granting to Albert William Woods, Esq., Lancaster Herald, the office of Garter Principal King of Arms, vacant by the death of Sir Charles George Young.

ILLNESS OF MR. PEABODY.—Mr. George Peabody is lying dangerously ill, at 80, Eaton Square. He was in a state of unconsciousness from Tuesday afternoon until Wednesday night. He was somewhat better yesterday morning, but is still in a critical state.

THE CHANNEL SQUADRON.—Under the command of Vice-Admiral Sir T. Symonds, left Milford last week for an experimental cruise to Lisbon, Gibraltar, Madeira, and the Canary Islands. The squadron arrived in the Tagus on Wednesday, and it is expected that it will winter there.

THE ELECTION COMMISSIONS.—The Beverley Commissioners last week committed to York Castle, on an alleged charge of contempt, Messrs. Flint and Fitzgerald, two tradesmen of that town, who refused to be sworn, on the ground that there had been inquiry enough. They were sent to York handcuffed, in charge of a police officer. On Wednesday an application for writs of *habeas corpus* was made to Mr. Justice Hayes in Chambers, and after a long argument on the question whether the Court had been legally adjourned by two of the Commissioners only, the judge ordered the writs to be issued, and to be made returnable to the full Court on the second day of term.

Foreign.

FRANCE.—The Emperor returned to Paris on Monday in order to be on the spot in case there should be any disturbance on Tuesday. The Prefect of Police issued a notice cautioning the public against taking part in any demonstrations; and the Government made every preparation to prevent, and if necessary to repress, a riot. In the evening the Emperor was present at the opera, and was much cheered. On Tuesday a heavy rain fell during the whole morning, and there were no demonstrations whatever on the part of the Republicans, M. Raspail, at the last moment, having published a letter advising his friends to stay at home. There were well-dressed crowds in the Place de la Concorde, but the absence of blouses was conspicuous. M. Gagne was the only member of his party who kept his appointment before the Obelisk; he addressed the crowd, and read some verses suitable to the occasion. The mob jeered and hooted, and a serjeant of police having interfered, M. Gagne immediately desisted. At 2 o'clock the Emperor, who, when in Paris, usually enjoys his after-lunch cigar in the small reserved garden of the Tuileries, strolled thence by the terrace along the quay, in order to see the Demonstration for himself. He was recognized by the mob as he was looking down from the terrace which overlooks the Place de la Concorde. A crowd of 2000 people, in the Place and in the Gardens, loudly cheered his Majesty, and the only cry heard during the day was that of "Vive l'Empereur." There was a total absence of the working population from the streets. No meeting of any kind took place in any quarter of Paris, and the day passed in perfect tranquillity. In the evening the Emperor was present at the Théâtre Français, where he was received with cheers. On Wednesday his Majesty presided at a Council of Ministers, and returned to Compiègne in the evening. In spite of the general absence of demonstrations in the streets on Tuesday, it is well known that there is a strong undercurrent of revolutionary feeling in Paris, and that a large number of people are ripe for mischief. On the 21st a meeting of the electors of the circumscription was held in the Rue Lyon, at which M.M. Jules Simon and Garnier Pages were admitted. M. Simon said, "We shall not go to the Place de la Concorde on the 26th inst. We all here swear to fight, but only when we have prepared our batteries." M. Simon added that the Left would cause an inquiry to be instituted by the Chamber relative to the events of St. Aubin. Applause followed M. Simon's speech, and the meeting separated shouting "Vive la Republique." Several persons who attended this meeting subsequently went the round of the workshops of the Faubourg St. Antoine, endeavouring to persuade the workmen to get up a manifestation for the 26th inst., but the latter refused to entertain the suggestion. The *Constitutionnel* says that in the recent deliberations at Compiègne there has never been any question of convoking the Legislative Body for any other date but that originally fixed, —namely, November 29. In reply to a recent article in a London newspaper, expressing apprehension of a secret *entente* between France and Russia, the *Patrie* says:—

"The Government of the Emperor does not want war, and has no desire to enter into any adventurous enterprise. Satisfied with our pacific relations with the different nations of Europe, we endeavour neither to disturb those relations nor to render them in any particular way more intimate. We wish, in the interest of the peace of the world, to see Prussia and Austria, Count Bismarck and Count Beust, live together on good terms."

The Crown Princess of Prussia, with her five children, and her sister, the Princess Alice of Hesse, have arrived at Cannes to pass the winter. The interrogation of Traupmann, the Pantin murderer, by the examining magistrate, M. Douet d'Arcq, was resumed on Monday, and continued on Tuesday, each time lasting several hours. Nothing new was elicited, the criminal persevering in his former statements.

SPAIN.—The Republican insurrection having been entirely suppressed, the Government and the Cortes on Friday entered on the consideration of the questions connected with the clergy, and the Monarchical or Republican form of government. The Cortes appointed a committee of five deputies from each of the three prominent parties, Progressists, Unionists, and Demo-

crats, for the purpose of drawing up a resolution on these questions, but neither the Ministers were able to come to any decision on the subject. In the Cabinet also the same subjects under consideration. M. threatened to resign the Regency. A take place between the Unionists and the General Prim made great efforts to threatened rupture of the Coalition. the Ministerial crisis was tided over sent by mutual concessions. The agreed to suspend other differences. the question of the choice of a monarch. ings of members of the Cortes were held day night, to discuss the question. Many of gressist party did not think the Duke of suitable choice. The Unionists, on the other were unanimously in favour of the Duke pensier. Very animated discussions took no decision was come to. The Republican Figueras was present at the sitting of the Republican deputy Calvo has been sent by a council of war. Senor Orense, the minority in the Cortes, who was committed to custody while preparing to take refuge. The Protestant Bishop, Dr. Alhama, and Protestants, have been arrested in the Church at Granada, it is supposed, for reasons. General Prim has declared that if the (Ecumenical Council at Rome) decisions contrary to the Spanish law Belgian law on public order has been basis of the Spanish law.

PORTUGAL.—The British fleet, consisting of iron-clad steamers, arrived in the Tagus from Milford Haven; all well.

DENMARK.—The Chinese Embassy has been received at the Court of Copenhagen, on Monday for the Netherlands.

SWEDEN.—The King of Sweden arrived on Monday, and was received by the Imperial family and the civil and military authorities. He was decorated with flags, and a hearty welcome given to the Royal visitor, who afterwards lodged at the Danish palace at Fredensborg.

BELGIUM.—The Communal elections took place on Tuesday, and were attended with considerable interest. At Brussels the retiring Bargeinist Councillors were re-elected; and on a second ballot to decide between the three other retiring Councillors and the oppositon, the three old Councillors were rejected, and the Opposition candidates elected instead. At Antwerp, Namur, and Louvain the candidates were all elected, except in a few cases where a second balloting will be required. M. Hubert, the candidate of the Moderate Catholics, was elected by 1200 votes against M. Vervy, the candidate of the Progressives. Liberal candidates were successful at Tournai and Bruges. The results of the elections in the country, so far as they are known, are increasing influence of the coalition between the Radical and Radical parties in the large towns, therefore, weakened the Ministerial party. A double murder was discovered last week. Madame Van de Poel, a widow lady, 75 years of age, her daughter, about 40 years of age, were found in their own house murdered in a most brutal manner. All the signs of a fearful struggle having been by the unfortunate ladies with their hands. They were last noticed alive on the 15th. On the 15th a card was found on the door with the word "Absent" and six days elapsed before suspicions were entertained. All was not right. The door was then opened and the crime discovered. It has since been ascertained that the ladies had sold out an investment in the morning before the murder. That sum is in the amount of 500 francs in gold and silver were found in the room where the murders were committed. The artificer whom they had employed to repair the house has been apprehended on suspicion. His face is scratched, his clothes are bloody, and he cannot account for his whereabouts on the night of the murder. While Brussels has been by the discovery of these murders, a man named Moustier has been apprehended in the village of near Mons, charged with the murder of three sheep farmers, brothers, called T. whom he had dealings in business. The man was the eldest of the brothers, who were returned; a second went to inquire after the fate of the third, and was also disappeared; the third went, and was found dying made disclosures which led to his apprehension. Bodies of the three brothers were found in a pit in the prisoner's garden. He has confessed his guilt, and inculpated an old man, who had been as an accomplice.

PRUSSIA.—The King returned from Cannes on Monday. Herr von der Heydt, late Minister of Finance, on Monday tendered his resignation to the King, by whom it was accepted. Herr von der Heydt, President of the Ocean Trading Company, has been appointed his successor. The Lower House of the Diet commenced on Friday the preliminary deliberations on the resolution of Herr Ebert, that all cases of political and press offences should be tried by the jury. The resolution was agreed to by a majority of 158 to 121. In the sitting of Monday the House adopted a resolution declaring that a session for a lottery loan of 100,000,000 francs should be issued by the Discount Company.

the welfare of the State. A resolution was passed calling upon the Government to refer to Federal legislation, the whole of the lawfulness of lottery loans.

The Emperor Francis Joseph started on his Eastern tour. Measures were taken with the Italian Government with the insurrectionary movement. The resignation of M. Wenkeim, of the Interior, has been accepted. M. has been appointed to fill the vacant post. He was well known in 1849 as the mover in the insurrection, has been tried before a jury on a charge of inciting to revolt, and sentenced to six months imprisonment.

A column of Austrian troops under General Schuler had an engagement on the 20th with the insurgents, who were repulsed with considerable loss. Imperial forces only suffered a loss of two men. During the night between the 20th and 21st the insurgents surprised, through the desert and convent of Stagnavich, killing the Austrian commander and a number of the garrison. Buzina was also threatened by them. In the forts Trinita and Gorazda were the insurgents, who were repulsed with considerable loss, and driven back beyond fort Trinita. The gunboat Sxreiter successfully captured the insurgents before Budua, when the latter capitulated. The forts of Gragati and Budua have been strengthened and provisioned, but while on the march between those forts and Budua severe encounters with the insurgents took place on both sides during these engagements are reported. Colonel Javanowich is reported to be in command of the insurrection forces part of the army. It is said that a general rising of the Southern Slavians has for some time been in preparation. The insurgents have received reinforcements from Montenegro and Herzegovina, and fight under the banner of the Southern Slavians. In view of this state of things, the Governor of Bosnia has reported that it is necessary that the Austrian forces should operate on Turkish territory, especially on the Montenegrin frontier. In view of this report, the Minister for foreign affairs has applied to the Sublime Porte to permit to cross the Turkish boundary.

The King arrived at Florence on Friday the 14th, and signed a decree convoking Parliament on November 16. The official journals confirm that an interview will be held between the King and the Emperor of Austria, but the place of the projected meeting are not known. It is asserted that Garibaldi intends to visit the King early in December. The Official Gazette has announced the appointment of Signori Rudini and Visconti as Ministers of the Interior and of Justice. A commission has been organised by the Neapolitan Government to offer to the ex-Queen of Naples a pension of 100,000 francs for the child of which she is to be confined. The sums contributed have reached a large amount, and about 50,000 francs will be required for the purchase of the cradle alone. The Neapolitan Government are also preparing a similar manifestation in favour of the young Duchess of Parma, who is in an interesting situation.

ALBANIA AND THE HERZEGOVINA.—It is said that the Government has discovered a wide-spread conspiracy in Albania and the Herzegovina, in connection with the rising in Dalmatia, and that 1300 Christian volunteers of the province of the Herzegovina are to make common cause with the Dalmatians. The conspirators of the movement were arrested on the coast, and depots of arms and ammunition have been seized. It is also said that Austria and Turkey are to hold a convention, providing for collective operations against the insurrection.

EGYPT.—The Sultan is said to have abandoned his intention to visit Egypt for the opening of the Suez Canal, chiefly on account of the expense it would cost. The Crown Prince of Prussia and Prince Hesse arrived in the Bosphorus on Sunday the 10th, on board the Sultan's yacht, attended by the Prussian corvette Hertha, and the Turkish battleship. The Grand Vizier and the Turkish Ministers went on board to compliment the Prussian and Hessian monarchs. The Sultan and suite awaited their Royal Highnesses at the entrance of the palace of Beglar, and gave them a cordial greeting. Subsequently the Crown Prince of Prussia returned the visit of the Sultan at the palace of Dolmabahatche. On Monday evening the Sultan gave a grand dinner in their honour. The Crown Prince of Prussia, in an Italian yacht, arrived at Constantinople on Monday, and was cordially received. His Highness proceeded to the Sultan's Kiosk at the Bosphorus. The Emperor of Austria, Prince Rustchuck on Wednesday morning, and was expected to reach Constantinople on Thursday. On the Bosnian frontier and at Gurgevo great preparations had been made for his reception. A definite arrangement has been granted for Roumelian railways, to open direct communication between Thrace and the ports of Salonica, Enos, and Constantinople. The Empress Eugénie, previous to her departure for Egypt, received the wives of the Egyptian Ministers, and gave the Grand Cross of the Legion of Honour to the Seraskier, and minor Orders to other officers. Her Majesty also conferred the Cross of the Legion of Honour on Admiral Pasha, for the services he rendered in the Adriatic during the Cretan crisis, and also for his attendance on her Majesty with the squadron of the Mediterranean during her stay at Constantinople.

TELEGRAPHIC.—Telegraphic communication between Constantinople and Fao is still interrupted, the Arab insurgents continuing masters of the field and preventing

the telegraph workmen from repairing the wires. As soon as the insurrection is suppressed communication will be at once restored.

COAST OF AFRICA.—A great battle has been fought at Bonny between Ako Jumbo and Ja-Ja. The fight lasted 36 hours, and there was immense slaughter. Ja-Ja's forces were completely defeated, and the town of Bonny was nearly destroyed during the battle. Ako Jumbo captured 70 guns, ranging in calibre from 36 to 63-pounders. Bodies were lying on the beach in large numbers, and many were floating in the creek. The bush also was filled with fugitives.

EGYPT.—The Empress of the French was received with great enthusiasm on her entry into Cairo, and illuminations and fêtes were given in her honour. On Monday her Majesty, accompanied by the Khedive, left for Upper Egypt. The International Commission on the Jurisdiction Question commenced its sittings on Thursday.

CAPE OF GOOD HOPE.—Accounts from the Cape to September 11 state that the Parliament had been in session 87 days, and that the verdict of the country was that the session had been more barren of fruitful results than any of its predecessors. On August 23 the Paper Currency Bill was rejected by the Council by a majority of 11 to 10 votes, and the Voluntary Bill was lost on the same day in the House of Assembly by 35 to 28. On August 30 the Assembly determined to consider the Estimates of 1869, for the purpose of retrenchment; and on September 11, after many protracted debates, the report of the Committee was adopted by the House, and sent by address to the Governor. The most exciting discussion which occurred on the Estimates was relative to the 10,000*l.* required by the Imperial Government for payment of the troops. On September 7, Mr. Molteno moved resolutions declaring that the colony could not continue to pay the colonial military allowance of 10,000*l.* per annum. After a discussion, which lasted the whole afternoon, and till past 10 o'clock at night, the resolutions were adopted by a majority of 23 to 20. The excitement throughout the colony when the vote became known had been unprecedented since the establishment of its Parliamentary institutions; and so general a demonstration of feeling had not been seen since 1861, when the Legislative Council, in the absence of some Eastern members, agreed to disallow the same allowance. The newspapers, with only one or two exceptions, condemned in the strongest terms the action of the Parliament. Mr. Pinous, of Bloemfontein, who had been on a diamond-hunting expedition to the Vaal River, had returned with four diamonds—one of 7*1*/₂ carats, found on an island in the Vaal River; one 3*1*/₂ carat; one of 2*1*/₂ carats, found on the bank of the Vaal, on the Free State side; and one quite small. The second and third are of the first water. Mr. Charles Kuypers Mons has taken seven diamonds to Hope Town, one of which weighed 22 carats. The Free State Church has elected Archdeacon Merriman as the future bishop.

INDIA.—The Gazette of India publishes a Government despatch to the Duke of Argyll, which confirms the news that a reduction of 1,250,000*l.* has been ordered in the expenditure on public works next year, and of 800,000*l.* during the current year. Large savings in the civil and military estimates are also contemplated. Mr. Seton Kerr left on the 9th for England. A cyclone occurred near Saugor on the night of the 7th inst. Azim Khan died on the 6th inst. at Arood, midway between Meshed and Teheran.

JAPAN.—The Duke of Edinburgh has been received by the Mikado publicly, as well as privately, and with marked cordiality, an event considered as unprecedented and of a highly gratifying character. His Royal Highness proceeds by the Tien-tein route to Peking. A complimentary dinner has been given by the foreign residents of Yokohama to Admiral Keppel, at which the Duke of Edinburgh was present. The French Consul at Yokohama has announced that appeals from the Consular Courts of Siam and Japan will henceforth be made to the Imperial Court at Saigon instead of Pondicherry.

UNITED STATES.—President Grant has appointed George H. Butler, nephew of General Butler, United States Consul-General for the British East Indies. The Tennessee Legislature has elected Mr. Henry Cooper, Democrat, as Senator, defeating Mr. Andrew Johnson by one vote. It is considered probable that Mr. Brownlow will resign the Senatorship, and that Mr. Johnson will be elected to fill the vacancy. The Democrats of California have succeeded in electing 11 out of 14 district judges. A severe shock of earthquake was felt at 5 A.M. on the 22d, from Boston to St. John, New Brunswick. No material damage was done.

CUBA.—A decree was promulgated at Havannah on Monday establishing unrestricted religious liberty in Cuba and Porto Rico. The document is of a very liberal character, declaring that Spain cannot remain isolated from the general movement in Europe and the world, and that this consideration is more powerful for the Antilles because of their lying so near America, where religious liberty is recognised by law. No one is to be prevented from holding office because of his religious belief. A Protestant Church will probably now be established at Havannah. The Captain-General has suspended all the magistrates of Havannah for abuses of their judicial functions.

HAYTI.—The first Haytien naval engagement has taken place off Cape Hayti, between the President's steamers Salmave and Alex Petion, and the insurgent steamers Quaker City and Florida. The Salmave was badly damaged, but the action was indecisive.

PERU.—A general panic has seized all the inhabitants at Callao. The city was deserted, and soldiers and police were patrolling it to prevent robbers from taking formal possession. The entire southern seaboard of Peru had been abandoned by the population, and all business was paralysed. The schools were

virtually closed, parents dreading to let their children out of their sight, every one was hurrying forward with fear to the days between Sept. 30 and Oct. 5 for the realisation of Albe's predictions, and even the mercenary-war in the bay of Callao had retired behind the line of shipping in anticipation of coming events. The panic was expected to last through the first fortnight in October, even if the predictions were not realised. Strong shocks of earthquake continued in the south of Peru. Three heavy shocks were felt in Guayaquil on Sept. 27, and great alarm prevailed also in Ecuador.

City Intelligence.

MONEY MARKET, FRIDAY.—BRITISH FUNDS: Consols are 93½ to 93¼, both for Delivery and Account; New and Reduced Three per Centa, 91½ to 91; Bank Stock, 287 to 289; Exchange per 100*l.* March, par to 5*1*/₂ p.m.; June, 5*1*/₂ to 10*1*/₂ p.m.; India Five per Centa, 114½ to 115½.—FOREIGN: Argentine, 84½ to 84; Brazilian, 83½ to 84; Egyptian 1864, 87 to 87½ ex div., Ditto (1863), 77½ to 77; Viceroy's Seven per Centa, 82½ to 82½; Ditto Nine per Centa, 99 to 99½; Italian, 53½ to 53½; Ditto Tobacco Loan, 84½ to 85½; Mexican, 13½ to 13½; Peruvian, 82½ to 83; Portuguese, 84 to 84½; Orel, 81½ to 82½ ex div.; Nicolai, 68 to 68½; Moscow, 83½ to 84; Charkof, 80½ to 81; Spanish, 27½ to 27½; Turkish Five per Centa, 42½ to 42½; United States 5-20 Bonds, 82½ to 82½ ex div. —FIVE PER CENTA: Illinois, 98 to 99.

Metropolis and its Vicinity.

THE APPROACHING VISIT OF THE QUEEN TO THE CITY.—The members of the joint committee appointed by the Court of Common Council to make arrangements for the opening of Blackfriars Bridge and Holborn Viaduct met at Guildhall on Monday, when it was resolved that as the King and Queen of the Belgians will probably arrive in England on November 4, they should be invited to accompany her Majesty. It was resolved that seats should be erected on the eastern side of new Blackfriars Bridge to accommodate 3000 persons, and a like number on each side of the viaduct. It has not yet been determined whether there will be a procession to escort her Majesty from the bridge to the viaduct, as the Queen's wishes will be consulted upon the subject; but it is the wish of many members of the Corporation that there should be a procession, and that the bridge and viaduct, as well as the houses in the line of route, should be decorated. The committee have not yet determined the part to be taken in the ceremony by the various public bodies connected with the metropolis, or the number of seats to be appropriated to the members and their friends. They have however resolved that the Court of Common Council shall be represented by 18 members, consisting of six aldermen and 12 commoners.

THE DEAN OF EXETER.—The Dean of Exeter, in conjunction with Dr. Pusey, has replied that, with all respect for the distinguished members of the committee appointed to oppose Dr. Temple's appointment to the Bishopric of Exeter, he declines to act as president or to become a member of it. Dr. Close, the Dean of Carlisle, has also declined to act upon a committee of which Dr. Pusey is the vice chairman, on the ground that he cannot see the wisdom and candour which would lead him to endeavour to put down one class of error by the aid of another. Bishop Fowler, who has been lately administering the diocese of Exeter, has appended his name to the memorial against the appointment of Dr. Temple, accompanied by a subscription to the funds of the committee. His Lordship claimed a vote in the Chapter as a sub-dean, the Chapter, however, declined to allow the vote, but after taking counsel's opinion they have reversed their judgment, and summoned the sub-dean. Thus the greater Chapter will elect. It is thought probable that Bishop Fowler will move in the Chapter the election of Prebendary Mackarness. The Council of the Church Association have memorialised Mr. Gladstone not to recommend the Queen to sanction the proposed nomination until Dr. Temple has satisfied the clergy and laity by "purging himself of his complicity in the erroneous opinions on account of which 'E-says and Reviews' were condemned by the two archbishops and 24 bishops." The Dean of Exeter and the Archdeacon of Totnes, on the other hand, have made known their determination not to oppose the election, partly from a feeling that Dr. Temple has not been fairly treated, and partly from a conviction that the refusal to elect would be both a breach of the law and ineffectual to prevent the appointment. The clergy of the diocese of Carlisle, and those of the rural deanery of Sutton, near Maidstone, have memorialised the Dean and Chapter of Exeter against the election. The Council of the English Church Union has resolved that it would be premature on their part to recommend any action by the Union in its collective capacity at the present stage of the case. In answer to a memorial from the deanery of East, in the county of Cornwall, requesting Dr. Temple to disavow his participation in the extreme opinions advanced by the other essayists, he has addressed to the rural dean the following letter:—

"Rugby, October 22, 1869.

"Rev. Sir,—I have the honour to acknowledge your letter of the 20th, enclosing a memorial from the rural deanery of Exeter. I regret very much the anxiety and excitement described by the memorialists as caused by my nomination to the bishopric of Exeter, and I should be glad if I could rightly do anything to allay these feelings. But to allow that a bishop designated or a rector designate, or any other person appointed to officiate in the Church, should after nomination, be liable to be called on to make declarations other than those required by law, would seem to me to be so serious an infringement of the lawful liberty guaranteed to all ministers of the Church of England, that I really dare not take the responsibility of giving it a sanction in my own case. My regret at being driven to this decision is much diminished by the confidence that I feel

that personal intercourse will rapidly dissipate most of this uncomfortable feeling, and that the result to be desired will come of itself, though I am not at present able to hasten it. Will you be kind enough to assure the memorialists that it is not from want of concern, but from a sense of duty, that I am unable to answer them, and believe me, yours faithfully,
"F. TEMPLE."

THE LATE EARL OF DERBY AND THE COURT OF COMMON COUNCIL.—At a meeting of the Court of Common Council on Thursday, the following resolutions in reference to the late Earl of Derby were carried, after some opposition on the part of some present to the expressions implying approval of his lordship's statesmanship—

"That this Court has received with the deepest feelings of sorrow and regret the mournful intelligence of the death of the Right Hon. Edward Geoffrey Stanley, Earl of Derby, K.G., &c., her Majesty's late Prime Minister. That this Court regards the decease of this eminent statesman as a great loss to the nation, and, in expressing its high admiration of his abilities as a scholar and a legislator, desires to convey to the Countess of Derby its heartfelt and sincere sympathy with her on the irreparable loss she has sustained."

THE MIDDLE TEMPLE.—It is announced that Dr Vaughan, the Master of the Temple, will read the Greek Testament daily, except Saturday and Sunday, during the Law Term, beginning on Tuesday, November 2, in the Lecture Room under the Library of the Middle Temple, at 8 o'clock A.M. Any graduates, whether laymen or clergymen, will be admitted, if their names are sent to Dr. Vaughan beforehand by letter. The subject for this Term will be the Epistle to the Colossians.

THE PROPOSED RAILWAY STATION AT THE MANSION HOUSE.—At the meeting of the Metropolitan Board of Works on Friday, a deputation from the vestry of St. George-in-the-East presented a memorial against the amended scheme of the Metropolitan District Railway Company, and opposed the abandonment of the line to Tower Hill, on the ground that that district is almost entirely destitute of railway accommodation. The memorial was referred to the General Purposes Committee. Mr. Newton subsequently moved that the railway company be informed that the Board will strenuously oppose any project which will prevent the railway being carried to Tower Hill, and the inner circle from being completed by them according to the original scheme. Mr. Roche opposed the motion, and moved the "previous question," urging that this was a subject with which the Board had nothing to do, and deprecating any spending of the ratepayers' money in a Parliamentary contest. After a long discussion the original motion was agreed to.

DEPARTURE OF THE GREAT EASTERN FOR INDIA.—On Saturday the Great Eastern, laden with the Anglo-Indian cable, left Sheerness, and proceeded down the harbour at 2½ knots speed, using her screw only. The wharves of the dockyard were crowded with the artizans, who greeted the ship with loud cheers as she passed, the compliment being returned by the crew of the Great Eastern. On passing the Pembroke, flagship of Admiral Warren, similar courtesies were exchanged by both crews, the men of the Pembroke afterwards manning the rigging, while the admiral's band played an appropriate air. The paddles were then set in motion, and the speed increased to five knots, at which rate the ship proceeded two miles below the Nore, where she brought up to take in her stores. On Sunday she left the Nore for Portland, where she will complete her coaling, and leave the first week in November for Bombay, touching at St. Vincent and the Cape of Good Hope.

THE AMNESTY DEMONSTRATION.—On Sunday, notwithstanding the recommendation of the chairman of the Amnesty Committee, the great demonstration in favour of releasing the remainder of the Fenian prisoners was held in Hyde Park. It had been arranged that the various processions should leave Charing Cross at 1 P.M., and before that hour Trafalgar Square was crowded. Along the terrace under the National Gallery was drawn up the first part of the procession, a body of 500 women, which was afterwards increased by further arrivals to above 1000. These were headed by a young female dressed in green, and bearing a small green banner embroidered in gold, with a harp and the words "God save Ireland." On the arrival of the committee at half-past 1 the procession started, headed by six horsemen, after whom were borne, side by side, the American flag and a large green banner, similar to that which headed the women's procession. Next came the Amnesty Committee and a brass band, followed by the "Ladies' procession." Banners with the inscriptions "Release our brethren," "Let the captives free," &c., were borne in this procession. Next came the St. Patrick's Brotherhood, the United Labourers, some friendly societies, and the district processions. The general procession moved through Pall Mall, Regent Street, Grosvenor Square, and Audley Street into Oxford Street, and so to the Marble Arch, where a dense crowd was already assembled. The greater number of the processionists were respectably attired, each wearing a green rosette, or green branch to imitate yew. Along the whole route crowds of spectators accompanied the procession, and in the park many thousands of people, who took no part in the demonstration, assembled to witness it. The contingents from Holborn, Finsbury, Clerkenwell, and the eastern districts did not arrive at Charing Cross in time to accompany the first part of the procession, and they took the route along Piccadilly, entering by Hyde Park Corner. In this procession marched the "Pioneers of Liberty," displaying a banner with the words "Disobedience to tyrants is a duty to God;" and an orange banner with the words in blue letters, "Put your trust in God, but keep your powder dry." Another motto was "Release the prisoners, or retract the pledge to govern Ireland in accordance with Irish opinion." Hyde Park presented an aspect in some degree similar to that which it displayed during the late Reform agitation. A fragment of a tree was made

use of as a platform, round which the roughs kept up a constant pressure, which in some measure disturbed the business of the day. The trees in the vicinity were occupied as usual by boys and men. In another place was a crowd closely packed together to listen to two men going through a burlesque of the Litany, the burden of which was the land laws. At other spots might be seen a couple of men arguing some political question, who thus also attracted a number of listeners. But save the few hundreds who surrounded the chairman and those round the banners alluded to, a very large proportion of those in the park had evidently come out to see the crowd, former experience having shown that little was to be feared. The Chairman (Mr. J. J. Merriman) having, not without some difficulty, made his way to the platform, commenced his address by stating that he was there simply as a member of the great English Liberal party, and that neither he nor the 100,000 people who had signed the memorial in favour of releasing the prisoners were either Fenians or quasi-Fenians. He entered at great length into the question of the prisoners' guilt, and into the general question of mercy to political prisoners, and described Mr. Gladstone's recent declaration as a lamentable mistake. He concluded as follows:—

"The Government cannot shirk the serious issue, and must determine for themselves whether Ireland shall be to the Gladstone Ministry what it has been to every previous Whig and Tory Government for many generations, an unconquerable difficulty, or an easy and pleasant task to govern. Up to the present moment no rational and well-informed man will deny that Mr. Gladstone's Irish administration has been a failure. Able and sincere as we know him to be, he has shown himself an improvident political husbandman in the management of his Irish estate. He has sown precious seed on a rocky, or at least an unprepared soil; and if the crop has turned out unsatisfactory, who is to blame? If the same course be pursued no better result can be looked for. The Irish Church Bill has failed to touch the Irish heart, or heal the wounded conscience of the nation. Those other measures of 'conciliation and justice' to which Mr. Gladstone refers will fail to realise those objects unless preceded by an amnesty. Some of our critics observe this, and blame the Irish people for it. I do not join in this denunciation. If the mind and heart of the Irish people had been appealed to by the Reformed Parliament and the Cabinet of Mr. Gladstone in proper time, by a broad and generous exercise of the royal prerogative of mercy, no one would have cause of complaint or grief at the manner in which these matters were received. It is no threat on my part. I do not understand the language of menace. It is but a fact I state when I say that, blame the Irish people as you may, rail at them till the present Ministry ceases to exist, and you will only discover in the end that you have increased the evil you wished to cure. The desires of the people must then be taken into account. What an unwise policy is that which turns a deaf ear to a nation's prayers. Oh, let us yet, for the sake of England as well as Ireland, indulge a hope that this concession to the will of a people may not be postponed until the alienation of their sympathies has been completed."

Mr. Clapham, town councillor of Leeds, representing the Leeds Amnesty Committee, moved the first resolution as follows:—

"That this meeting considers the political condition of Ireland renders it expedient that the whole of the political prisoners should be liberated, and that their further detention is liable to engender prejudice and ill-feeling against the Government and people of England."

He urged that if the Government would not release these men, they ought to be placed in a special prison and not treated as burglars or pickpockets. Mr. Ryan seconded the resolution, which was passed unanimously. Mr. M'Donnell then read a memorial to the Queen founded upon the resolution, and concluding with the expression of an opinion that the exercise of her Majesty's prerogative at the present time, by which the prisoners would be restored to liberty and their families and kindred, would awaken a strong sense of gratitude towards her Majesty's crown and person among all classes and creeds in Ireland, and would greatly tend to facilitate the task of government in that country, and to strengthen its attachment to Great Britain. Mr. Robinson then moved a vote of thanks to the committee, which was seconded by Mr. Kelly, and passed. Mr. M'Donnell replied, and a vote of thanks to the chairman brought the proceedings to an end. At the place where the Holborn and Clerkenwell division had halted, speeches in favour of the amnesty were made to a considerable crowd by Mr. Osborne and others. The speaking at the first platform commenced at three, and the whole of the proceedings terminated at about a quarter past four. The utmost good order was observed throughout, and the police in the park were so few as to be scarcely observable. There was, however, a strong reserve of police at hand, but no occasion presented itself for calling them out.

ENDOWED CHARITIES OF THE LONDON COMPANIES.—The digest compiled by the Charity Commissioners states the gross income of endowed charities vested in the City companies at 99,027*l.* No less than 53,912*l.* is applicable to the support of almshouses, their inmates, and pensioners, 1369*l.* to distribution of articles in kind, 112*l.* to distribution in money, 182*l.* to the general uses of the poor; 19,008*l.* to education, 5647*l.* to apprenticing and advancement, and 903*l.* to the clergy. Sums amounting to 17,983*l.* are paid to other parishes and schools. The Drapers' Company administers as much as 15,182*l.* of these funds, including the Bancroft Charity Estate, producing nearly 4500*l.* a year, the Howell Charity, producing 3819*l.* for schools, and various small endowments, including such items as 8*l.* for preachers at St. Paul's, 40*l.* for the Arabic professor at Cambridge, sums for poor prisoners, sermons, &c. The Mercers' Company's endowed charities have a gross income of 13,148*l.*; including 6547*l.* for Whittington's almshouses, 1800*l.* for the Mercers' School in which the company educate 70 boys, Lord Camden's charity of 1083*l.* a year for apprenticing and advancing, and Sir T. Bennett's trust fund of 1042*l.* a year, against which stands "company's dinner," 153*l.* The company have also the control of St. Paul's School, and claim the estates as their own property, but the question whether this is a charity under the Act had not been

decided when the return was compiled. The moneys of the moneys' Company administer 8412*l.* a year applicable for education. The Goddard endowments produce 7301*l.* the M. Bowes's almshouses, with more than 1000 scholars. The Skinners' Company administer a School and exhibitions absorbing 6000*l.* workers' Company administer 6000*l.* Taylors', 6333*l.*; the Haberdashers' charities vested in other companies amount; but some endowments are expended. The Haberdashers' Jones's "Golden Lectureship" has an income of 400*l.*, applicable for a series of lectures.

ST. PANCRAS AND THE POOR-LAW BOARD.—St. Pancras guardians sent a deputation to the Poor-law Board last week, to procure a withdrawal of the suspension order, which deprives them of the officers of the workhouse. Mr. G. Jones, avenging themselves on officials who were adverse to the guardians at the late meeting, he said, the guardians showed a conciliatory spirit, and the Poor-law Board would reconsider the order of the 200th clause. On Monday, at the meeting of the Board of Guardians, the report was read, when it was almost unanimously resisted the authority of the Board, and suggestions made by the President.

NEW COUNTY PRISON FOR MIDDLESEX.—At a meeting of the Middlesex magistrates, the question of a site for the new prison was discussed, and it was resolved to erect a new prison in the neighbourhood of Clerkenwell, approved by a large majority. An agreement was opened with the Home Secretary with a view to the present gaol prisoners confined for more than a year, and thus render a new prison unnecessary. On Wednesday evening a public meeting, in the vestry, was held at St. Pancras Vestry Hall, against the erection of the new prison at a cost of 130,000*l.*, and to urge upon the Poor-law Board the necessity of a fair representation of the ratepayers in controlling the expenditure of county rates, as proposed by a Bill brought into Parliament during the past session. Mr. Chamberlain occupied the chair, and Mr. W. Turner moved the first resolution, deprecating the new prison at a cost of about 130,000*l.*, an additional cost of 20,000*l.* a year maintenance, notwithstanding that the cost of the county amounts to 570,000*l.*; and the desirability of postponing the further consideration of the subject with a view of seeing whether the prisons in the country and not fully occupied prevent an additional burden being thrown upon ratepayers of the county, who are already suffering from a great depression, partly in consequence of the increase of local taxation. Mr. Hoppey seconded the resolution, which was carried unanimously.

THE EVANGELICAL ALLIANCE.—The conference of the Alliance for the present year will be held on Tuesday, November 23, with a business meeting on Wednesday, November 24, morning at 10 o'clock, and a devotional meeting, at which the annual address will be delivered by the chairman; praise and prayer, reading and exposition of the Scriptures. The meeting to commence at 12. 1, Chairman's address; 2, appointment of secretaries of conference; 3, the order of business; 4, the practical resolutions adopted in 1846 will be read and discussed; 5, abstract of annual report to be read by the chairman; 6, cash account, by the treasurer; 7, Chairman to nominate a committee to propose the list of resolutions for the ensuing year; 8, Address—The Doctrine of Protestant Reformation; their basis of union, and the importance of a common testimony to them in all countries at the present time; 9, resolutions thereon; sermons to be preached at St. Paul's Church, and the Wesleyan and Central chapels in the evening. Thursday, November 24, Morning—1, Chairman's address; 2, review of the progress of the Alliance; 3, addresses on the following subjects:—The relation of Christianity to modern science; the true and proper basis of union, its manifestation and intimate progress of Christ's Kingdom on earth. Evening—Addresses by foreign gentlemen and pastors of churches on the following subjects:—The progress of the Gospel in the different nations of the world; the importance of strengthening the bond of union between true believers in this and foreign lands. Friday morning, November 26, public breakfast for members and visitors, at which resolutions submitted; at 11.30, business meeting—1, Chairman's address; 2, appointment of executive committee for the ensuing year; 3, addresses on the following subjects:—1, Next general conference of Christians in all countries to be held in New York in September; reports will be presented of arrangements and addresses of delegates from the American Alliance; 2, Home missions; Christianity among the infidel population of our great cities; 3, public meetings.

THE CRIMEAN WAR.—Mr. Kinglake has been several weeks in the Crimea, preparing observations and examinations of the whole of the conflict, for the conclusion of his work on the Crimean War. All the Russian authorities, and especially

room in the house of the resident priest. There was a large attendance of clergy and laity, and many of the artillerymen stationed at Shoeburyness were also present. The new church, which is situated in Cliff Town, is a Gothic building, in the early English style, is brick and stone mixed, with some excellent carving. It is 85 feet long by about 30 feet wide, and it is so arranged that, if required, it can be enlarged. The architect is Mr. Goodman, of Southend. The Archbishop preached the sermon, and expressed the pleasure which he felt at opening that beautiful church in a place where hitherto there had been none, and he thanked those who, though not members of his church, had kindly and generously assisted the congregation. The music was executed by the choir of St. Aloysius, London, the members of which went down for the occasion. Professor Barnett conducted. In the afternoon Dr. Manning held a confirmation in the new church.

UTTOXETER.—Lord Vernon has recently erected at Sudbury several model cottages for farm labourers. Each cottage contains a living-room, three bed-rooms, entrance-porch, scullery, pantry, fuel-store, piggery, privy, cesspit, and ashpit. The cottages have been built with bricks made on the estate.

WINDSOR.—All the efforts to continue the harriers as a Royal pack having failed, it was resolved at a meeting held at the Castle Hotel on Saturday to present a requisition to Sir Robert Bateson Harvey, of Langley Park, inviting him to accept the mastership of the hounds on their becoming a subscription pack. In the short space of an hour not only was the requisition numerously and influentially signed, but 15 gentlemen put their names down as guarantors for the expenses to be incurred. Sir R. Harvey accepted the requisition, and on Monday the hounds, when sold at Tattersall's, were knocked down to him at 130 guineas, being 10 guineas above the reserve price, all competition having been withdrawn. The Prince of Wales has since requested the committee to accept the pack as a present.

Ireland.

THE VACANT LAW OFFICES.—It is believed that Mr. Gladstone will offer the Irish Solicitor Generalship, vacant by the appointment of Mr. Serjeant Barry to the Attorney Generalship, to Mr. Dowse, M.P. for Londonderry.

THE FENIAN PRISONERS.—Mr. Gladstone's letter refusing the amnesty demanded for the Fenian prisoners, has not produced the sensation which might have been expected. There is but one opinion among all the loyal and well-disposed classes, no matter what their politics—that no other course was left open to the Government, and that the time had come when such a declaration was absolutely required in order to check a mischievous agitation. The "National" journals, however, denounce Mr. Gladstone and threaten vengeance. The *Irishman* charges the Premier with having violated his promise to "abandon for ever the policy of conquest," and says, "that if England desire civil war she shall have it." *Ireland*, it says, "now stands before the world a nation. England has left us little to lose by civil war, save mud cabins and growing crops. A little labour and a genial sun would soon repair our losses, but more than sunshine would be necessary to restore London and Manchester. Ireland seeks not war, but justice. If England prefer war, the choice is her own." This article is followed by a republication of an essay by Mr. Kickam on the "Use of Arms," and by articles appealing to the Protestant spirit of resentment on account of the Disestablishment of the Church, and recommending a strictly logical application of the doctrine of "felonious" landlordism by contending for the right to resist by force the intrusion of landlord "felons" into the tenant's property, and to shoot them in self-defence. The *People of Ireland* prefaces its cry of indignation with the words, "The Gaeler's Reply: What shall Ours be?" After a good deal of angry writing, it says that a higher issue than the release of the political prisoners is involved in Mr. Gladstone's reply. "He has ignored the solemnly expressed wish of the Irish people. He has defied Ireland. We wait the reply of the Irish nation." The *Flag of Ireland* declares that the constitutional demand of an earnest and united nation has been contemptuously flung back in their teeth, and it thanks England for the lesson; adding that "it is the last constitutional appeal that will come from this land." The *Nation* says that the opportunity for a splendid act of policy and justice has been passed blindly by, and asks what is it, after all, but a continuance of the policy of British rule in Ireland since Ireland first endured the curse of foreign sway, and another proof that though time may bring its changes to all the lands of the earth, the fatal principle of British rule for Ireland remains unchanged. Mr. Isaac Butt has transmitted to Mr. Gladstone an address, in which the Premier was entreated to release the Fenian convicts, on pain of forfeiting the glory he won by his two famous letters to Lord Aberdeen in favour of Poerio and his companions. The address pointed out that if Mr. Gladstone was sincere in denouncing the treatment of the Neapolitan State Prisoners as a barbarous injustice, he could not, without recanting his doctrine of 18 years ago, advise the continued detention of the Fenians. Mr. Gladstone has replied in a letter to Mr. Butt, from which the following is an extract:—

"I should be sorry, indeed, to suppose myself capable of advising, or desiring, that a severer measure of justice should be applied to my misguided, yet, I hope, not irrecoverable fellow-countrymen than I was led to ask on behalf of any persons suffering elsewhere. Permit me, however, to observe that, saving the fact that in each case the persons concerned were within prison walls, in no particular can the two cases be said to correspond. In due course of justice, as fixed by the law of the land, the Fenian prisoners received a free and open trial, under a lawful Government, and they were found

guilty by juries of their fellow-countrymen. The prisoners in the kingdom of Naples were arrested and imprisoned without due legal process, were, in a vast proportion, not tried at all, and when they were tried, were tried largely by exceptional, not regular, tribunals. When they were condemned they were condemned not by the free verdict of a popular jury, but by sentences of judges dependent on the Government for their bread; on a Government, moreover, of which the title rested on a flagrant breach of the most solemn oaths, and of the written legal constitution of the country. The acquaintance, sir, which you possess with Italian history and affairs, in addition to your many other distinctions, renders me glad to have the opportunity of addressing to you this reference to the facts."

VISITATIONS OF THE TWO ARCHBISHOPS.—The Archbishops of Armagh and Dublin held their visitations on the 19th inst., and addressed the clergy on the present circumstances of the Church. Their charges derived more than usual interest from the opinions expressed at the recent lay conference, to which their Graces were expected to give some response from the episcopal bench. The Lord Primate in his charge deprecated the weakness and folly of spending in recriminations and complaints the little time which remains for preparation to meet the coming change. He reminded the clergy that many who took different views from them are as warmly attached to the Church as themselves, and have given to it liberal contributions and assistance. He expressed a hope that no alteration except what was unavoidable would be made in the Liturgy, observing that to make the Church the Church of a party would be to defeat the catholicity of its mission, while to extend it unduly would be fatal to the orthodoxy of its creed. He declined to enter into the question of commutation in the absence of sufficient information, and exhorted them to exercise an unprejudiced judgment, to cultivate a spirit of moderation, to avoid the discussion of proposed changes until they should have got over the pressure of their immediate difficulties, and especially to guard against the formation of parties. He regarded the system of voting by orders as a great protection to their independence. Both clergy and laity were thereby invested with the power of preventing any party changes, and the Bishops could also exercise a salutary control. He deemed it a happy circumstance that the laity had adopted this system. The Archbishop of Dublin commenced by reviewing the passage of the Church Act through Parliament, and complained bitterly of the conduct of the House of Lords, which had promised so much, and done so little, to mitigate the severity of the measure. He entered into a long argument on the subject of commutation, the tendency of which was to abate any undue expectations of pecuniary advantage to the Church from its direct action. The hints and statements that a vast sum being realised, something like a re-endowment would be obtained from commutation would, in his opinion, come to nothing. Any attempt to encroach upon the fair liberties of the clergy, to impose upon them any other condition of faith, or any active agitation for the revision of the Prayer-book or Articles, would bring about a jealousy on their part in the matter of giving to any body that increased hold upon them which ultimately commutation would give to the Church Body. He went further, and said that not only must there be the absence of agitation on these points, but reasonable securities that nothing of the kind shall be attempted. He believed, however, that the laity had as little desire as the clergy to lift their anchors and drift. He pointed out the risk of forfeiting, through innovations, the sympathies of their brethren in England, and reducing the Church of Ireland to a provincial level and rent into fragments. For himself he declared that the Church cannot afford to part with, and would be at a most unhappy strife with its own usefulness if it attempted to part with, either of the great theological tendencies which are making themselves felt within it. His Grace expressed satisfaction at the adoption by the laity of the plan of voting by orders, and advised the clergy to agree to the recommendation of the late conference that the lay representatives should be twice as many as the clerical. He earnestly urged, especially upon those in foremost positions, the duty of giving liberally to the Church, and that the assistance of those who advocated disestablishment ought not to be rejected, as some proposed.

AMNESTY MEETINGS.—Notwithstanding Mr. Gladstone's letter, the amnesty mass meetings were repeated on Sunday. The gathering in the county of Cork was at Carrigaline, eight miles from the city, the contingent of which was conveyed by railway train. There were bands, banners, and party rosettes as usual. The chair was taken by a Roman Catholic parish priest, the Rev. Mr. M'Swiney. Ex-Mayor O'Sullivan and Town Councillors Beardon and O'Brien, and others, addressed the meeting, and denounced the letter of Mr. Gladstone, whose name was received with groans, and hissed vigorously. Resolutions were adopted to the effect that no measure will be satisfactory to Ireland until the prisoners are released. When a resolution on the land question was tendered the people would not listen, and dispersed. An amnesty meeting was also held at Tralee on Sunday, which was attended by about 1000 people, among whom there was not one person of any social position superior to the small farmer or cottier, not a single magistrate, and, strange to say, not one priest. On Wednesday evening a crowded meeting, convened by the Amnesty Association, was held in the Mechanics' Institution, Dublin. Resolutions were passed expressing regret at Mr. Gladstone's refusal, declaring a determination to continue the agitation, and to form local amnesty associations throughout the country.

OUTRAGE ON COUNT DE JARNAC.—One of the most popular of the resident proprietors of the county Tipperary, the Count de Jarnac, received last week the following threatening letter:—

"Take notice: If you are determined to bring about another Ballycohey affair, you'll be met with by a watchful antagonist,

who will point at you with the back prostrate upon Thostown plain. This shall value your days in this life.—To Count de Jarnac, Count de Jarnac immediately assembled the yard of Thomastown Castle, the tenants and labourers on the property, and the letter to them addressed them, and stated that the letter referred to town village, which fell in in America of Thomas Burns, the A farmer named Ryan had tilled crops for the two preceding years, to give up possession of the land ultimately promised to do so, or should be allowed to take away. After he had removed the crops, however, he still declined to give action for ejectment was brought Ryan called on Mr. Butler, the subject of his conversation was that he up possession. On the following morning ing letter was received through the post de Jarnac.

ATTEMPTED MURDER IN MEATH.—An attempt was made on Sunday night of Mr. Gargan, steward of Mr. John J.P., of Moynalty, near Trim. Mr. Gargan where near his own house, in the second attempt which has been made two years.

AGRARIAN MURDER IN LEITRIM.—O'Brien, of Mohill, was found brutally Friday morning in a ditch within his own house, and within sight of the Currateriff. It is supposed that he was shot gunshot wound in his neck; but he was beaten to pieces with stones, presented and shapeless mass, that no distinct traces, and it was nearly impossible was fired at or not. The agrarian, as Mr. O'Brien, in the capacity of his cousin, Mr. Cornelius O'Brien, the estate in Sligo, had had some difficulty with the tenants, and obtained ejectments against three families at the Quarter Sessions of now just ended. He was generally well liked by all. Nine persons were on suspicion, and the police have succeeded in clothes stained with blood in the house them.

ANOTHER ATTEMPTED ASSASSINATION.—On Tuesday night the county surveyor of John H. Brett, was fired at through the window of his residence at Bathkeale, and wounded. A man named Bourke has been The cause of the attempt is unknown.

Scotland.

THE BISHOPRIC OF EDINBURGH.—The Bishop of Edinburgh, recently announced his intention to resign his see on account of the names of several eminent clergymen mentioned in connection with it. The bishop, however, reconsidered his determination, and not to resign, has issued a commission of Moray and Ross to administer the diocese of Edinburgh is now, therefore, in position, that whereas it had until late Dr. Terrot and Dr. Morrell, who resigned a few weeks ago—it is now placed under the direction of another see.

THE FACULTY OF ADVOCATES.—On Gordon, Q.C., was unanimously elected Faculty of Advocates, in room of Mr. appointed Lord Justice Clerk.

FREEDOM OF EDINBURGH TO SIR JAMES.—On Tuesday Professor Sir James presented with the freedom of the city. The Lord Provost, in presenting the referred to the respect held for Sir James of his chloroform and acupuncture.

THE TELEGRAPH TO SHETLAND.—The of another step in the northward extension graphic communication is reported. The of the Orkney and Shetland Telegraph, Wick to the Pentland Frith, was opened inst. As the greater part of the cables lines connecting the islands have been expected that communications will soon be throughout.

Railways.

FATAL ACCIDENT ON THE GREAT On Sunday night, as the 8 o'clock train to Peterborough was approaching Weymouth, 22 miles from King's Cross and two from several of the carriages ran off the rails. of the accident is said to have been some points, which prevented their being properly that the wheels of one of the carriages them, the carriage and those which thrown off the line. Two passengers, Walden, a farm bailiff, and his wife, the spot, and a third—Charles Wells, Welwyn—was so injured that he morning. Several other persons were seriously. The inquest was opened and adjourned.

FATAL COLLISION ON THE NORTH. Friday evening a collision took place between passenger train and several coal wagons between Auckland and Durham. The fireman were killed on the spot, and 12 passengers slightly injured. The jury at the inquest

land there are 6 Beasts; from Ireland, 570; and 2180 from the Midland and Northern Counties.

Best Scots, Herefords, &c.	5 2 to 5 4	Best Long-wools	5 2 to 5 6
Best Shorthorns	4 10 - 5 2	Do. Shorn	.. .. .
2d quality Beasts	3 0 - 4 0	Ewes & 2d quality	4 0 - 4 10
Best Downs and Half-breds	5 4 - 5 8	Do. Shorn	.. .. .
Do. Shorn	.. .. .	Lambs	.. .. .
Beasts, 5498; Sheep and Lambs, 17,925; Calves, 193; Pigs, 265		Calves	.. 3 8 - 5 8
		Pigs	.. 4 0 - 6 0

THURSDAY, Oct. 28. The number of Beasts is very much smaller than on Thursday last; trade is not brisk, yet prices are rather higher than on Monday. The supply of Sheep is very small, so also is the demand; choicest descriptions being scarce make rather higher rates. Choice Calves are also dearer. Our foreign supply consists of 249 Beasts, 475 Sheep, and 110 Calves.

Best Scots, Herefords, &c.	5 4 to 5 6	Best Long-wools	5 4 to 5 6
Best Shorthorns	5 0 - 5 4	Do. Shorn	.. .. .
2d quality Beasts	3 0 - 4 0	Ewes & 2d quality	4 0 - 4 10
Best Downs and Half-breds	5 6 - 5 8	Do. Shorn	.. .. .
Do. Shorn	.. .. .	Lambs	.. .. .
Beasts, 562; Sheep and Lambs, 17,200; Calves, 202; Pigs, -		Calves	.. 3 8 - 6 0
		Pigs	.. .. .

ENGLISH WOOL. We have had a quiet but steady market. Supplies of English Wool being still ample, prevent any improvement as yet, but Colonial grades, both here and abroad, are in good demand, with decreasing stocks and decidedly higher prices; this probably will, sooner or later, affect the English demand also.

CURRENT PRICES OF ENGLISH WOOL. per lb.—s. d. s. d.

FLEECES—Southdown hoggets	.. .. .	1 1 to 1 2
Half-bred ditto	.. .. .	1 2 - 1 2 1/2
Kent Fleeces	.. .. .	1 3 - 1 4
Southdown ewes and wethers	.. .. .	1 0 1/2 - 1 1
Leicester ditto	.. .. .	1 2 - 1 3
SORTS—Clothing	.. .. .	0 10 - 1 6
Combing	.. .. .	1 0 - 1 8

HAY.—Per Load of 36 Trusses, SMITHFIELD, Thursday, Oct. 28.

Prime Meadow Hay 80sto 90s	.. .. .	120s to 130s
Inferior do. .. 60 70	.. .. .	90 110
New do. .. .. .	.. .. .	100 110
Inferior do. .. .. .	.. .. .	80 90
Straw 26 32	.. .. .	.. .. .

CUMBERLAND MARKET, Thursday, Oct. 28.

Sup. Meadow Hay 90sto 97s	.. .. .	98s to 101s
Inferior do. .. 70 84	.. .. .	.. .. .
New do. .. .. .	.. .. .	33 40
Superior Clover .. 128 134	.. .. .	.. .. .

WHITECHAPEL, Thursday, Oct. 28.

Fine Meadow Hay 80s to 90s	.. .. .	120s to 132s
Inferior do. .. 60 75	.. .. .	100 110
Prime New Hay .. 80 86	.. .. .	.. .. .
Inferior 60 70	.. .. .	100 112
Straw 26 34	.. .. .	85 95

MARK LANE.—MONDAY, Oct. 25. The supply of English Wheat to this morning's market was small, but the little improvement noted on Friday was lost, and factors accepted the prices of last Monday. There was a fair attendance.

limited to a few needy purchasers at the prices of this day so'night. Fine malting Barley was scarce, and fully as dear, but there was no alteration in other descriptions. Beans and Peas were unchanged in value. The Oat trade was quiet at the rates of this day week. Flour meets with little inquiry, and prices are unaltered.

PRICE PER IMPERIAL QUARTER.

WHEAT, Essex, Kent, Suffolk. White	44-50	Red	40-49
— fine selected runs .. do.	46-54	Red	43-51
— Talavera	57-59	Red	.. .. .
— Norfolk .. .. .	.. .. .	Red	.. .. .
— Foreign	40-55	.. .. .	.. .. .
BARLEY, grind. & dist. 30sto32s. Chev.	140-43	Malting	36-40
— Foreign .. grinding and distilling	24-27	Malting	32-42
OATS, Essex and Suffolk	22-24	.. .. .	.. .. .
— Scotch and Lincolnshire .. Potato	24-26	Feed	.. .. .
— Irish Potato	23-25	Feed	21-24
— Foreign Poland and Brew	22-25	Feed	19-21
RYE	32-38	Foreign	32-38
RYE-MEAL, Foreign .. .. .	.. .. .	.. .. .	.. .. .
BEANS, Mazagan .. 38sto40s. Tick	48-50	Harrow	48-50
— Pigeon .. 50s to 55s .. Winds	.. .. .	Longpod	.. .. .
— Foreign Small	42-43	Egyptian	30-41
PEAS, White, Essex, and Kent .. Bolders	40-42	Suffolk	41-43
— Maple 41s to 45s Grey	40-42	Foreign	39-44
MAIZE .. .. .	.. .. .	Foreign	29-31
FLOUR, best marks delivered .. per sack	43-47	Country	32-44
— 2d ditto ditto	32-44	Per sack	30-56
— Foreign per barrel	23-26	.. .. .	.. .. .

FRIDAY, Oct. 29. The first two days of the past week have been very fine; since then it has been cold, with some snow, and severe frost for the time of year. The improved demand for Wheat and Flour noted last week has not been long sustained; the foreign arrivals and home deliveries competing with increased warehoused stocks, could not be taken off by consumers, and where sales were pressed the late small advance has been lost again. We find no quotable change in the value of spring corn, but malting Barley meets more general attention, while Beans are neglected. Flour has been a difficult sale at prices in favour of buyers. Since Friday last 19 grain and seed-laden vessels arrived off the coast, of which, with those left over from the preceding week, there remained for sale last night 22 cargoes. The trade in floating cargoes during the past week has been very quiet, and the animation lately observed has gradually disappeared. Arrived cargoes of Wheat met with a slow sale, at a reduction of 1s. per qr. Maize was about 6d. per qr. cheaper. Rye and Barley were but little inquired after. Business in cargoes on passage and for forward shipment was limited, sellers of Wheat holding for late rates. Maize was about 6d. per qr. easier, and in other articles no transactions were recorded.

The arrivals of English grain are small, but fair of foreign. There was a moderate attendance at this morning's market, and the little English Wheat on offer brought Monday's quotations, and in foreign only a limited business was transacted at that day's rates. Spring corn was steady, without alteration in value.

ARRIVALS.

Wheat.	Barley.	Oats.	Flour.
English .. 1730 qrs.	1740 qrs.	.. qrs.	.. aks.
Irish .. .. .	.. .. .	860 ..	.. .. .
Foreign .. 18,460 ..	6940 ..	33,570 ..	600 ..
			100 brls.
20,210	8680	34,430	

MANCHESTER, Oct. 28.—A dull feeling has prevailed in the trade since our last report. Wheat and Flour have both been

difficult of sale, at prices in favour of buyers, but in other articles no material change in value has occurred. Our market this morning was numerously attended. English Wheat met a slow sale, and all but the finest qualities were 1s. per qr. lower; foreign, at the same time, being offered at a reduction of 3d. per cental, without leading to more than a limited business. Flour was neglected, and 6d. per sack cheaper. Oats, being less plentiful, brought 1d. per 45 lb. more. Beans and Indian Corn ruled steady.

AVERAGES.

	Wheat.	Barley.	Oats.
Sept. 18	50s 5d	38s 3d	25s 5d
— 25	50 6	37 3	25 6
Oct. 2	49 8	37 8	24 7
— 9	48 1	38 0	24 8
— 16	47 0	38 1	24 1
— 23	46 1	38 6	24 2
Average	48 7	37 11	24 9

SEED MARKET. There is but little to report concerning the London seed trade, the business transacted during the week having been very limited in extent, and no material change in values having taken place. Winter Tares, with less inquiry, are noted 6d. per bushel cheaper. Hemp seed continues very scarce and dear; our letters from Rotterdam quote an advance of 2s. per qr. In Canary seed there has been a fair trade passing at moderate rates. As the Borough houses are just now giving their sole attention to Hops, Clovers and Trefoils are for the moment neglected. The Rape seed trade is firm. Windsor and Longpod Beans are now on sale in our market, and values are beginning to be fixed. Feeding Linseed, owing to the cold weather, is in improved demand. Königsberg spring Tares for future delivery are now offering at very low prices. For new French Italian Rye-grass higher rates are demanded on the other side.

JOHN SHAW & SONS, 16, Water Lane, E.C.

METROPOLITAN MEAT MARKET.—Oct. 30.

Best Fresh Butter	18s. per dozen lb.
Second do. do.	16s. "
Small Pork, 5s. 0d. to 5s. 8d.; Large Pork, 4s. 4d. to 4s. 10d. per 8 lb.	

WANTED IMMEDIATELY, a MAN of thorough business habits, to take the Management of a Country Nursery near a large town, where Plants, &c., are grown (not propagated) for Market, &c. A Small Seed Business connected therewith. The strictest integrity indispensable.—Apply by letter, stating wages required, &c., to WM. DILLISTONE, Horticultural Agent, &c., Sible Hedingham, Essex.

To Gardeners. WANTED, for the Country, a HEAD WORKING GARDENER, who has a thorough knowledge of Forcing and Conservatory work.—Apply, by letter only, to B. B., Mr. Henry Flanders, 43, Newgate Street, London, E.C.

WANTED, a HEAD WORKING GARDENER.—Must be thoroughly acquainted with the Culture of Stove and Greenhouse Plants, good Grape Grower, and an efficient Flower and Kitchen Gardener. Cottage found.—Apply, stating all particulars, wages required, &c., to J. B. S., The Laurels, Taunton.

WANTED, a WORKING GARDENER and Wife (without children preferred), as MASTER and MATRON of an Industrial School. Church people.—Miss C. Beckley Grove, near Worcester.

WANTED, a Man and his Wife, without incumbrance, to live in the house. Man as good WORKING GARDENER, Wife as good PLAIN COOK. All found except beer. Good character indispensable.—Apply, stating wages required, and other particulars to J. W., Mrs. James, Fishmonger, Broad Street, Worcester.

WANTED, a Man and his Wife (Catholics).—The Man as GARDENER, and to take the Management of Sheep in the Lambing season; he will also be required to Sing in a Choir. The Woman must be a thorough good LAUNDRESS.—Apply by letter to Mr. COLLINS, at Messrs. Burns, Oates & Co.'s, 17, Portman Street, London, W.

WANTED, a GARDENER (single), to live in the house, and make himself generally useful. Will have to Milk Cows.—Apply R. B. JORDISON, Esq., South Ockendon, Essex.

WANTED, a first-class PROPAGATOR of CONIFERÆ, RHODODENDRONS, &c.—State age, qualifications, and all particulars, by letter only, to R. R., *Gardeners' Chronicle* Office, W.C.

WANTED, an intelligent, active MAN, of experience in the Plant and Seed Trade, to assist in taking and executing Orders.—Apply to JOHN MITCHINSON, Seedsman, Truro.

WANTED, for a Nursery, a CLERK (under 25), well up in Botanical terms.—Apply in own handwriting, stating age, salary, and references, to N. M., *Gardeners' Chronicle* Office, W.C.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. E. G. HENDERSON and SON, Wellington Nursery, St. John's Wood, London, N.W.

To Gardeners and Bailiffs (Head, Foremen, or Under). JAMES CARTER and CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those who can send unquestionable references need apply. Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. Carter & Co. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c. JAMES CARTER and CO., 237 & 238, High Holborn, London, W.C.

DAVID MITCHELL, NURSERYMAN and SEEDSMAN (late Head Gardener, Hamilton Palace), can with confidence recommend to any Nobleman or Gentleman some first-class HEAD GARDENERS. Highest references can be given.—Apply, in first instance, to DAVID MITCHELL, 3, Hanover Street; or Dean Park Nurseries, Edinburgh.

Gardeners and Under Gardeners. WM. CUTBUSH and SON beg to state that they have at all times on their books MEN of various qualifications, whose characters will bear the strictest inquiry. Any Gentleman making application would save time by clearly stating the duties to be undertaken, wages offered, &c., so that suitable Men may be selected.—Highgate Nurseries, London, N.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS, and GARDENERS and BAILIFFS, of various qualifications, who are open to Engagements. The fullest particulars as to services required and wages given should be forwarded with application.—PAUL'S Nurseries, Waltham Cross, London, N.

GARDENER (HEAD).—Age 39, married, no family; has just left one of the leading places in the county, and is at liberty to re-engage with any Nobleman or Gentleman requiring the services of a thoroughly practical Gardener whose personal character and qualifications are highly recommended to give every satisfaction.—Apply firstly to N. B., Post Office, Thirsk, Yorkshire.

GARDENER (HEAD).—Age 38, married, no family; practical in every department. Good knowledge of Flower and Kitchen Gardening. Good knowledge of Stock, and the general work of an Estate. Can be recommended.—S. J., West Street, Somerton, Somerset.

GARDENER (HEAD).—Middle-aged, no incumbrance; has a thorough knowledge of all its branches, and can undertake the Management of Farming, Plantations, Laying out of Grounds, and the Buildings if required. Satisfactory references on application. Wade's Library, 13, High Street, Kensington, W.

GARDENER (HEAD, or SINGLE-HANDED).—No incumbrance. Wife a good Landlady. Can be recommended.—B. W., Mr. Newbury, 164, Friars Street, London, E.C.

GARDENER.—Married, a practical man. Hants. H. H., Mr. Adams, Victoria Road, Hants.

GARDENER (SECOND).—A responsible position. Has been used to the House. Not particular as to place.—A. R., Post Office, Caterham.

GARDENER (SECOND, or OTHER).—Fruit and Flowers is extensively cultivated. Has experience in other large establishments.—B. C., The Gardens, Wokingham, Berks.

GARDENER (UNDER), in a Nursery.—A respectable Young Man. Six years' experience in various places.—J. B., Post Office, Didsbury, near Manchester.

GARDENER (UNDER), in a Gentleman's Garden.—Age 22; has been used to Glass, but wishes to be in Plant and Fruit Growing. Three years' good experience. The Gardens, St. Giles's, Cranborne, Dorset.

FOREMAN, in a Nobleman's or Gentleman's Garden.—Age 25, has a thorough practical knowledge of all its branches. First-class references. A Premium given for a long time for the highest character.—A. B., 24, Cochrane Terrace, St. John's Wood, W.

PROPAGATOR (INDOOR).—Ten years' experience in London and Provincial Firms in the Propagation of General Nursery Stock.—B. C., *Gardeners' Chronicle* Office, W.C.

AGENT and ESTATE BAILIFF.—A man wishes to recommend a thorough, trustworthy man who has been in his employ for 13 years in the above capacity. He is an excellent Farmer and most efficient Accountant. He receives the highest character.—A. B., Messrs. J. & W. Booksellers, Cockspur Street, Charing Cross, W.C.

LAND AGENT.—The Advertiser, who has good testimonials and references, is in want of a Salary moderate.—B., Mr. Gibson's, Land Surveyor, 24, Terrace, York.

INDOOR SERVANT (SINGLE-HANDED, or OTHER).—Age 29; thoroughly understands the business up in Hunting appointments. Can be well recommended.—31, Morford Street, Bath.

To the Seed Trade. SHOPMAN and TRAVELLER, or MAN.—Wm. COCKER, for many years Manager of the late James Veitch & Son, of Exeter, wishes to recommend as SHOPMAN and TRAVELLER for a Wholesale and Retail Establishment.—WM. COCKER, Veitch & Sons, Royal Exotic Nursery, Chelsea, S.W.

To Seedsmen and Nurserymen. SHOPMAN.—Age 23; six years' experience in knowledge of Nursery Business; first-class references. Unexceptionable.—C. J., 7, Mill Place, King's Cross, London, W.

SHOPMAN, or ASSISTANT.—Age 21; six years' experience in London and Provincial Houses. Good references from last employers.—SEEDSMAN, 61, Bowyer Lane, Finsbury Square, London, W.

SHOPMAN, or ASSISTANT.—Age 21; six years' experience in the Seed Business. Good references from good Houses.—E. W., 1, Warrington.

SHOPMAN (ASSISTANT), or WAREHOUSEMAN.—Age 21; six years' experience. Good references.—1, Pembroke Street, Cork.

COWMAN, &c., to look after two or three cows. Married, is a good Miler, and thoroughly understands the Management of Stock, and can assist in the General Management of a Farm and Chase. Good character. Can look after a Horse and Chase. Good character. Employer.—H. GORDON, 7, Shakespeare Terrace, Road, Stoke Newington, London, N.

THE DECAY of the TEETH and GUMS. Various causes, but principally it may be attributed to neglect, ill-health, and the use of tooth-powders containing other deleterious acids, which gradually corrode the teeth, while they corrode the enamel. It is hard to point out MESSRS. ROWLANDS' ODONTALGIC DENTIFRICE, as a preparation free from all such ingredients, and eminently calculated to embellish and preserve the structure; to impart a grateful fragrance to the breath; and to perpetuate the graces of the mouth.

DINNEFORD'S FLUID. The best remedy for Acidity of the Stomach, Headache, Gout, and Indigestion, and the best for delicate constitutions, especially adapted for Ladies and Infants. DINNEFORD and CO., 172, New Bond Street, London, and of all Chemists throughout the World.

CORNS and BUNIONS.—A Gentleman, who has been tormented with Corns, will be happy to afford information by which he obtained their complete removal, without pain or any inconvenience.—Forward name on stamped envelope to F. KINGSTON, Esq., Water, Barn.

COCKLE'S ANTIBILIOUS PILLS. THE SAFEST FAMILY APERIENT. In boxes at 1s. 1 1/2d., 2s. 6d., 4s. 6d., and 11s.

COCKLE'S ANTIBILIOUS PILLS. In use the last 69 years for INDIGESTION. In boxes at 1s. 1 1/2d., 2s. 6d., 4s. 6d., and 11s.

COCKLE'S ANTIBILIOUS PILLS. In use the last 69 years for BILIOUS AFFECTION. In boxes at 1s. 1 1/2d., 2s. 6d., 4s. 6d., and 11s.

COCKLE'S ANTIBILIOUS PILLS. In use the last 69 years for LIVER COMPLAINTS. In boxes at 1s. 1 1/2d., 2s. 6d., 4s. 6d., and 11s.

COCKLE'S ANTIBILIOUS PILLS. THE OLDEST PATENT MEDICINE. In boxes at 1s. 1 1/2d., 2s. 6d., 4s. 6d., and 11s.

NOVEMBER FOGS are COMING. In-door. Here, and many are suffering from COUGHS, ASTHMA, INFLUENZA, &c. Immediate relief can be obtained by the use of SPENCER'S PULMONIC ELIXIR. Every property which can be beneficial in cases of Croup, Asthma, and all complaints of the Chest and Lungs.

Gardeners' Chronicle
Newspaper.

FRIDAY, NOVEMBER 6, 1869.

Heating Apparatus

EDDITH continues to supply and fix HEATING APPARATUS in VINERIES, and every kind of GREENHOUSE BUILDINGS, &c. The Vineyard, Garston, near Liverpool.

H O T - W A T E R P I P E S.

	per yard	CASH PRICES		
		2-inch	3-inch	4-inch
PIPES	1 6	2 3	3 0	
ELBOWS	1 6	2 3	3 0	
TURNS	1 6	2 3	3 0	
SILHONS	1 6	2 3	3 0	
VALVES	1 6	2 3	3 0	

No credit will be given when Pipes, &c., are invoiced at the above prices.
J. JONES AND SONS,
6, Bankside, Southwark, London, S.E.
Price Lists, with terms for credit and for delivery at country stations, will be sent on application.

JAMES BOYD AND SONS, HORTICULTURAL BUILDERS, PARKY, N.B. Manufacturers of CONSERVATORIES, GREENHOUSES, VINERIES, and every description of HOT WATER HEATING APPARATUS for Horticulture, Burrows, Churches, Mansions, Warehouses, &c.

JAMES BOYD & SONS beg to call attention to the superior facilities they possess for executing all orders entrusted to them, in a first-class style, at a moderate price, and with despatch. Their works are fitted with the most improved machinery, especially adapted for the trade. Their system of ventilation gives the most perfect result, and is superior to any other system in use. It is adapted to all kinds of buildings, and is secured during wet weather, without admitting the rain. Plans and Estimates on application.

BY HER MAJESTY'S ROYAL LETTERS PATENT.

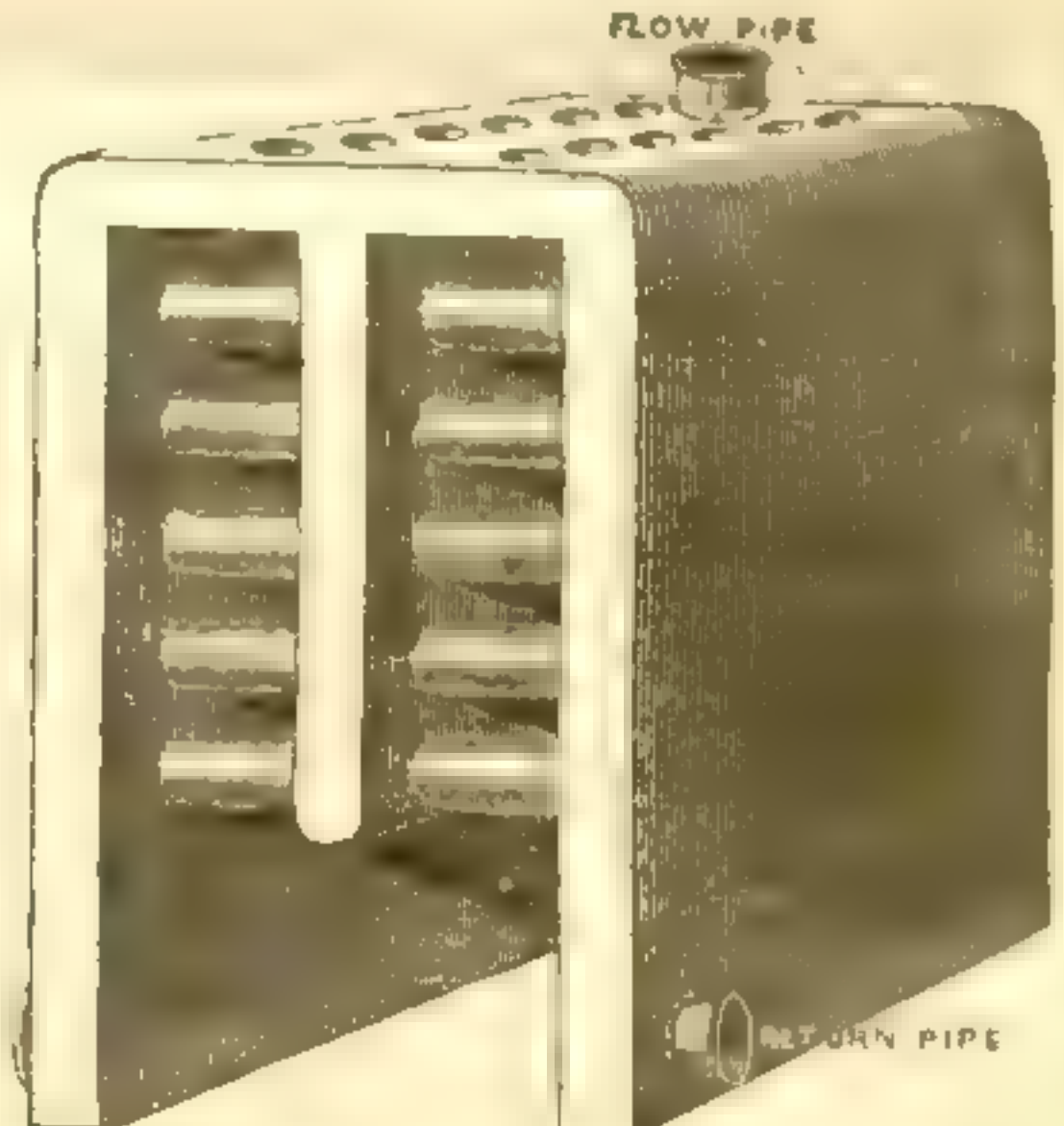
ORMSON'S NEW PATENT ECONOMIC BOILERS.



ORMSON'S PATENT CONCENTRIC SADDLE BOILER.



ORMSON'S PATENT CONVOLUTED BOILER.



ORMSON'S PATENT TUBULAR BOILER.

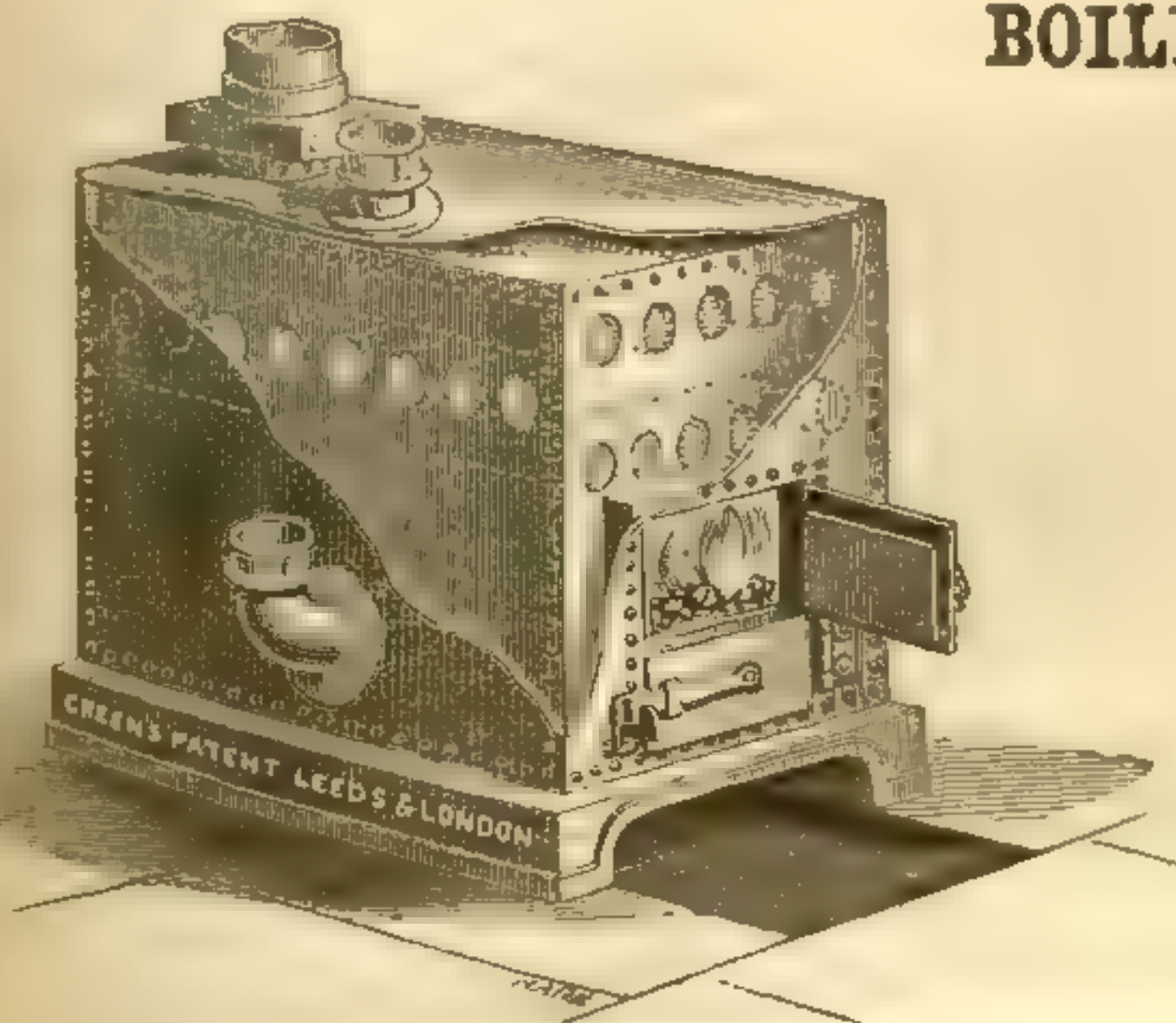
The construction of these Boilers, it will be at once seen that the object of the Inventor is to economise fuel, by concentrating its entire force and vertical action on the interior of the Boiler, and not wasting it by Heating Brickwork and Chimneys, a fault common to the great majority of Boilers now in use. They are made of the best Welded Wrought-iron, of good substance, having no overlapping plates, holes, or rivets, and are therefore perfectly secure against expansion and contraction of the metal, an occurrence so frequent and fatal to all forms of Cast-iron Boilers. The diameter and length of Pipe to be Heated.

HENRY ORMSON, HORTICULTURAL BUILDER TO HER MAJESTY,

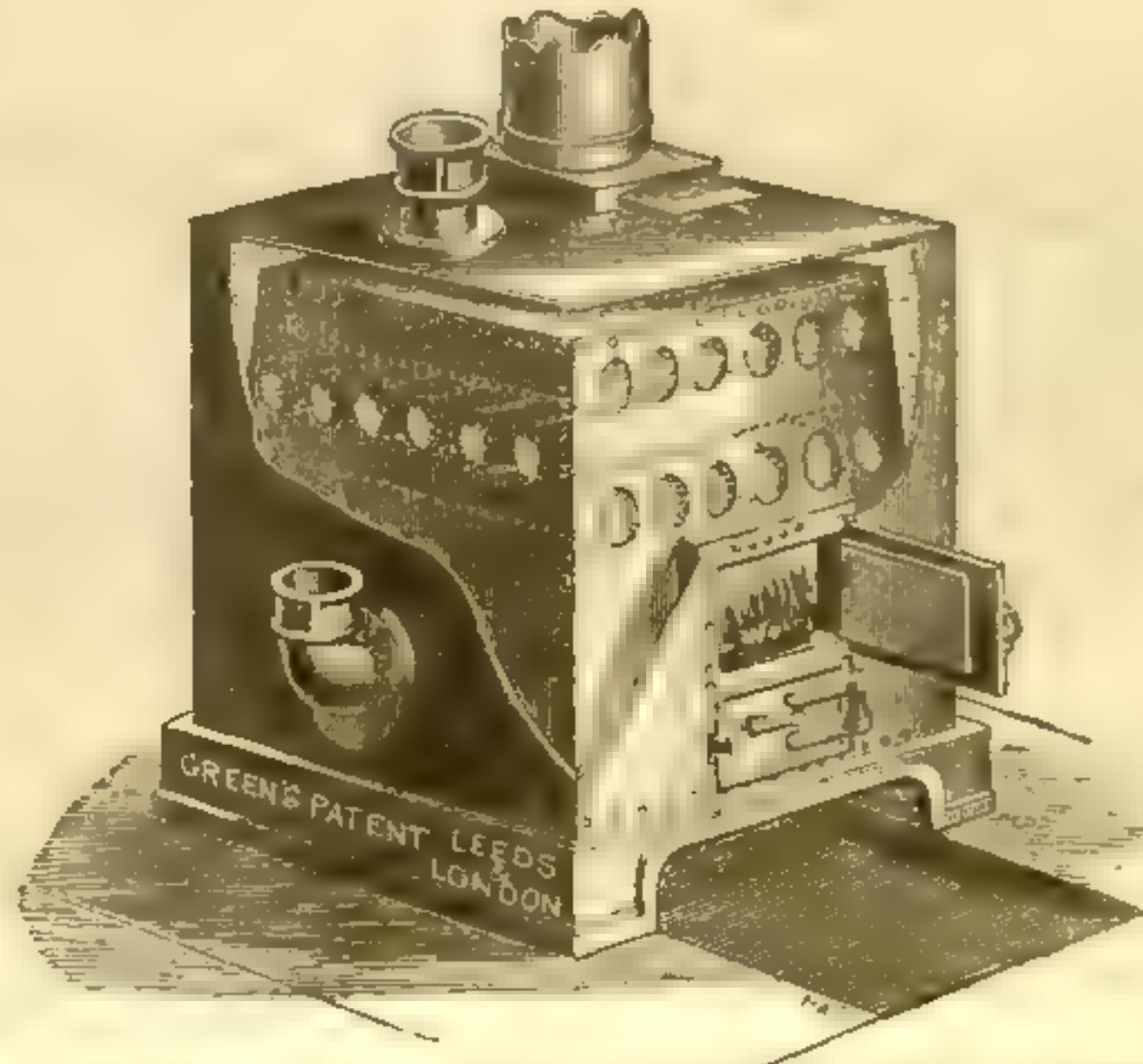
HOT-WATER APPARATUS MANUFACTURER TO THE COMMISSIONERS OF HER MAJESTY'S ROYAL PALACES AND PUBLIC BUILDINGS, AND TO THE ROYAL HORTICULTURAL SOCIETY,

STANLEY BRIDGE, KING'S ROAD, CHELSEA, LONDON, S.W.

GREEN'S PATENT IMPROVED TUBULAR HOT-WATER BOILERS.



OBLONG BOILER.



SQUARE BOILER.

THE ABOVE BOILERS ARE

THE MOST EFFECTIVE AND DURABLE EVER INVENTED.

They are set to work at a nominal cost, inasmuch as no brickwork is required; as will be seen from the above drawing, they are placed upon a Cast-Iron Sole-plate, the purpose of Foundation and Ashpit. In the peculiar and substantial manner in which these Boilers are made, they are warranted to last for years without getting out of order; in fact, we guarantee them for a much longer period. They are adapted for Heating Greenhouses, Churches, Chapels, Schools, Public Buildings, Entrance Halls, Warehouses, Workshops, &c.

THE FOLLOWING ARE THE ADVANTAGES OF THESE BOILERS:—

- 1st, They require no setting in brickwork.
- 2nd, They are complete in themselves, having perfect means of regulation.
- 3rd, They take up little room, and can be put in places inaccessible to other Boilers.
- 4th, They are economical of fuel, owing to the great amount of heating surface upon which the fire acts in a direct manner, and the consumption of smoke.
- 5th, The fire can be made to last from 12 to 24 hours without attention.
- 6th, Any number of Flows and Returns can be annexed to the Boilers by means of T-pipes.
- 7th, By means of mud doors, they can be readily cleaned out when required.
- 8th, The Chimney is made of cast-iron, which can either be taken through a roof or turned into a flue, to meet the convenience of the situation that it may be fixed in.

PRICE LISTS ON APPLICATION.

THOMAS GREEN AND SON, SMITHFIELD IRON WORKS, LEEDS;
and 54 & 55, BLACKFRIARS ROAD, LONDON, S.E.

Ministers to his presence, and strove, by every argument, to induce Admiral Topete to remain in the Government. The latter remained in the Government for 24 hours for the first time. On Thursday the Admiral, in writing, and personally visited the Emperor, and declared that after mature reflection it was his duty to persist in his resignation, but he would, however, that he would remain in the Government, and that Marshal Prim would be the Regent with the firm intention of maintaining the situation. The Progressists and Democrats yesterday to consider the situation at Madrid in consequence of the Emperor's resignation. In the Cortes on Tuesday the Emperor explained that the cause of the resignation was the question of the candidatures to the throne. Every effort to solve that question had failed, on account of the attitude of the Government, however, would be to the principles of the revolution, and Artanaz of the Unionist party, proposed the Government. The Cortes then held a private meeting of the majority of the Cortes on Saturday night, and sat till 2 o'clock on Sunday. Several speeches were made, and a conciliatory attitude on the question of the Duke of Genoa, and 64 votes in favour of a second balloting of the Duke, and those against him 52. On Monday 134 members of the majority gave in their candidatures, 65 members still in opposition, 141 Deputies have since given in their candidatures, and there are now only 100 members of the Republicans. Marshal Prim, however, can carry the Duke's election, and he has Royal Highness will ultimately give him 180 votes, which would give him a majority of more than half the number of Deputies to vote in the Cortes. Senior Ardanaz, who was Minister of Finance in the Provisional Government, has resumed the duties of his office, and has accepted the portfolio of Foreign Affairs. Senior Ardanaz made his financial statement on Saturday, and estimated the revenue of the coming year at 656,966,035f., and the expenditure at 656,966,035f. A tax of 20 per cent. will be imposed on the bonds of the External and Internal Debt, and other classes of securities. The redemption of the bonds is postponed, except with regard to mortgages. There is to be a reduction of 20 per cent. in the salaries of all civil servants, and of 30 per cent. in the salaries of the clergy.

PORTUGAL.—The Commercial Association of Lisbon will meet shortly to deliberate on the question of the differential duties on imports. The steamer *Estephania*, having on board the representatives of the Portuguese Government to be present at the opening of the Suez Canal, sailed last night for Alexandria.

RHINE.—On Sunday evening, and again on Monday night, severe shocks of lightning were felt at Frankfort, Darmstadt, Wiesbaden, and the neighbouring localities. At Wiesbaden on Monday night 21 distinct oscillations were felt. On Wednesday evening severe shocks were felt at Frankfort, Darmstadt, and Grossgerau, and a large number of inhabitants of Darmstadt were obliged to take refuge.

RUSSIA.—The *New Prussian Cross Gazette* of Berlin says that there is no foundation for the report that Count Bismarck will shortly return to the same paper announces that the deputation of the Schleswigers charged with the presentation of a memorial to the King of Prussia has not been received by His Majesty, and that the address has been referred to the Minister of the Interior. In the sitting of the Lower House of the Diet on Friday, the preliminary discussion on the estimates for 1870 commenced. At the outset of the debate the new Minister of Finance, Herr Camphausen, made a speech in which he expressed his hope that the House would support the Government in its earnest endeavour to restore order to the finances, and showing the utmost possible regard to the resources of the country. On Thursday the House having moved a resolution that the expenditure should be reduced, and that the House of the Diet should call upon the Government to advocate a general disarmament, Herr Lasker, of the National Liberals, gave notice of his intention to move, in lieu of that resolution that the House should pass a modified order of the day, that the Military Budget of the North German Confederation for 1871 is already determined by the Government.

RUSSIA.—In the sitting of the Lower House of the Diet on Thursday, the preliminary debate on the estimates for 1870 commenced. The Minister of Finance, Herr Camphausen, proposed that the whole of the 4 per cent. debt existing in the old Prussian Empire should, by a voluntary arrangement, be converted into a 4½ per cent. Rente Debt, the interest of which the State would not be bound to pay. The Minister also stated that with the sanction of the House the Government would increase the taxation by 25 per cent. The official journals publish a telegram from Constantinople stating that the Porte has granted permission to the Austrian troops to march through the Turkish territory.

The note of the Porte states expressly that in consequence of the suzerain relations existing between the Porte and Montenegro, the Montenegrin and Turkish territories will be placed on the same footing as regards the Austrian troops.

DALMATIA.—After an engagement, which lasted four hours, the Austrian troops on Tuesday drove back the insurgents beyond Serravalle. General Dornik advanced as far as Poberoja, without meeting with any opposition. The Imperial troops afterwards occupied several important strategic points near Sisse, the result of which was the mission of a deputation of 10 persons from the Zuffa to the Governor of Dalmatia, with an offer of submission on the part of the insurgents. The deputation admitted that the new Austrian regulations were not the cause of the insurrection which they attributed, on the contrary, to the Serbo-Slavonian agitation. The Popen and other fanatics had excited the people, to whom they held out hopes of foreign assistance. The deputation represented the insurgents as discouraged, and divided amongst themselves.

HUNGARY.—The trial of Prince Karageorgewicz, for complicity in the assassination of the Prince of Serbia, continues. The Public Prosecutor asks the Court to condemn the Prince to death, on the ground that morally he was the responsible originator of the crime. The statutes for the election of the Catholic Congress have been sanctioned.

GREECE.—The Emperor of Austria arrived at Athens on Wednesday morning, on his way from Constantinople to Egypt.

RUSSIA.—St. Petersburg is threatened at this moment with total inundation. At the last advice the Neva had already overflowed its banks, and guns had been fired to warn the tenants of ground floors to remove themselves and their families to higher storeys, or to abandon the city. This is the first flood that has taken place at St. Petersburg for 15 years. The last was in 1824, when 462 houses were destroyed, and 3800 seriously damaged. 20,000 people were then left without shelter, and 600 drowned.

ITALY.—The King, on Monday, caught a severe cold, accompanied by fever, at his hunting seat at San Rossore, near Pisa. On Wednesday morning a great improvement took place in the condition of His Majesty, who is expected to return to Florence very shortly. The interview of the Emperor of Austria with King Victor Emanuel will take place at Brindisi on the 37th or 28th inst. The King will be accompanied by the President of the Council of Ministers. The Duchess of Genoa has left for Naples, in order to be present at the approaching confinement of Princess Margherita. A Royal decree was issued on Sunday, convoking the Senate and Chamber of Deputies for the 18th inst. A Circular Note has been addressed by the Government to its diplomatic agents abroad, explaining the attitude of Italy in regard to the Commemorial Council. The Government declares that it reserves to itself the right to reject any decisions of the Council which may be in opposition to the laws of the kingdom and the spirit of the age. Among other conditions brought forward against the meeting of the Council, the Note lays stress upon the fact of the occupation of the Papal States by foreign troops. General Garibaldi is expected to arrive in Florence early in December, in order to appear in the Chamber of Deputies and demand an account from the Government regarding the arrest of his friends, and particularly of his son-in-law, Canzio, detained many months in prison, and afterwards set at liberty by a declaration of "no ground for accusation." Two Government engineers and a contractor have been captured by brigands in the province of Aquila. Letters from Sardinia state that murders and robberies are frequent, and that widespread brigandage prevails in that island.

THE PRINCIPALITIES.—The President of the Ministry, M. Ghyka, in the absence of Prince Charles, opened the Bucharest and Gurgevo Railway, on Sunday, in the presence of all the members of the Ministry and other guests of distinction.

TURKEY.—The Emperor of Austria arrived at Constantinople on Friday from Varna, and alighted at the Palace of Dolmabahatche. The ships in the bay were all gaily decorated, and the city was illuminated in the evening.

EGYPT.—The Empress Eugénie reached Luxor on the 1st inst. Her Majesty there met the French and German savants who have been invited by the Khedive to be present at the inauguration of the Suez Canal. The International Commission on the jurisdiction question, consisting of the Consuls of England, France, Austria, Russia, Prussia, and Italy, commenced its sittings on the 28th ult. M. de Lesseps has announced that the Suez Canal will be ready throughout for navigable purposes by the 15th inst., and that at the inauguration on the 17th a Turkish vessel, drawing 21½ English feet, with a number of other vessels, will pass through it from Port Said to Suez. Within a fortnight afterwards the depth of water will be increased to 24 feet.

INDIA.—The Viceroy was to return from Simla on the 9th inst. All idea of a Durbar at Agra on the arrival of the Duke of Edinburgh has been given up. A camp will be formed there, but on a far smaller scale than was originally contemplated. A *Gazette Extraordinary* was published on the 4th ult., containing a detailed account of the financial position of India. It states that instead of having a surplus of 213,500l., as was estimated in the Budget for 1868-69, the actual result for that year showed a deficit of 2,273,380l. The chief items of increase in the expenditure were the Civil Charges, which had risen by 700,000l.; public works (exclusive of railways), by 816,631l.; home charges, by 856,276l.; and railways, by 456,645l. In parts of Rajpootana, Sind, and Guzerat, there have been immense swarms of locusts, such as

have never been known before, and very serious devastation has been the consequence. The foundation stone of a Protestant church, the cost of which is to be paid by the King of Burmah, has been laid at Mandalay. Her Majesty's steamer *Porto* ran aground near Cape Guardafui whilst cruising in quest of whale shows, and sustained considerable damage. It is stated that the Arabs have fired upon her Majesty's gunboat *Clrde* near Muscat. It is expected that her Majesty's steamer *Daphne* will shortly proceed to the Persian Gulf.

CHINA.—An English missionary has been murdered near Pientsin. The Rev. J. W. Morrison, of the Missionary Society, in company with Mr. Hedges, were in a boat anchored in the Great Canal, and during the night of August 25 the boat was attacked by armed robbers, and Mr. Morrison was killed, whether from personal violence or from falling into the water in the scuffle, is not known. Five robbers injured no one else seriously. The body was recovered from the canal some days afterwards.

AUSTRALIA.—The great "diamond," the discovery of which caused so much excitement last summer, has been ascertained to be a mere mass of rock crystal. The Supreme Court of Victoria, after argument, confirmed, on September 1, the order of the justices requiring Kennedy, one of the Panamas who was pardoned by the Queen and who went from Western Australia to Victoria, to leave the latter colony within a week. He thereupon took his departure, it was supposed, for South Australia. The Hon. John Pascoe Fawcett, founder of the colony of Victoria, died a few weeks ago, aged 76. It was only a little more than 34 years ago that he sailed up the Yarra and commenced a colony the growth of which has been unexampled in history, and which, in all probability will never be surpassed.

UNITED STATES.—At the elections in New York on Tuesday the Democrats carried the elections for State officers. Mr. Nelson being returned as State Secretary over General Sigel, and Mr. Allen his State Comptroller over Mr. Horner. Governor. They also secured a majority in the State Legislature. The Republicans also carried Massachusetts electing the State Comptroller with Mr. Chaffin as Governor by a majority of 10,000 over Mr. Adams. They also carried Wisconsin, electing Mr. Fairchild as Governor by a majority of 10,000, and the State of Minnesota electing Mr. Austin Governor by a majority of 1,000, and secured a majority in the West Virginia Legislature. The Democrats have carried the elections in both Houses of the New Jersey Legislature. They have also carried Maryland, by a majority of 25,000, electing every member of the Legislature. Governor Holden, of North Carolina is enrolling negro militia to assist the civil officers of Orange and Chatham counties to enforce the laws. The steamer *Storowal* was burnt on the Mississippi, near Cairo, on the 27th inst. Of the 258 passengers and crew on board only 88 were saved. Two of the stokers were burnt, nearly all of them being drowned.

CANADA.—Prince Arthur left Ottawa by special steamer on the morning of the 19th ult. for the hunting grounds on the Lower Ottawa. At Montreal the Prince had a magnificent greeting. His reception at the great Lacrosse tournament was probably one of the most unique and striking he ever experienced. Two rows of Lacrossists—one Indians, the other whites—all in full costume, with crosses in their hands, were waiting to receive his Royal Highness, and as he rode up between, the Indians gave him an original war-whoop, while the whites responded with a genuine British cheer. He then accepted an address from the Lacrossists, a gold-mounted cross, and a copy of the first book ever published on the game, written by Dr. Beers, a member of the Montreal Lacrosse Club.

BRAZILS.—The Chamber of Deputies has been prorogued until the 15th inst. The Ministerial difficulty continues, differences of opinion existing among the members of the Cabinet. The Government has announced that warlike operations will be prosecuted until the clauses of the triple alliance are fulfilled. Count D'Eu, the commander-in-chief, is still engaged in preparations for continuing the pursuit of Lopez, who is either at San Estanislau or San Ysidro.

City Intelligence.

BANK RATE OF DISCOUNT.—The Directors of the Bank of England on Thursday raised their rate of discount from 2½ per cent. to which it was lowered on August 19, to 3 per cent.

BARNED'S BANKING COMPANY.—On Thursday Messrs Charles and Lewin Mozley, two of the directors of Barned's Banking Company, were charged at the Mansion House with the issue of a false and fraudulent prospectus, and conspiring together to defraud the shareholders of 2,600,000l. Mr. Lewis stated the case for the prosecution in a lengthy address, and the further hearing was then adjourned until the 12th inst.

MONEY MARKET, FRIDAY. — BRITISH FUNDS: Consols are 93 to 93½ for Delivery, and 93½ to 93½ for Account; New and Reduced Three per Cents., 91½ to 91½; Bank Stock, 237 to 239; Exchequer Bills, March, par to 5s. pm.; June, 5s. to 10s. pm.; India Five per Cents., 114½ to 115½; — FOREIGN Argentine, 83 to 83½; Brazilian, 83 to 83½; Egyptian (1871), 8½ to 8½ ex div.; Ditto (1868), 76½ to 76½; Viceroy's Seven per Cents., 81½ to 82½; Ditto Nine per Cents., 98½ to 99½; Italian, 53½ to 53½; Ditto Tobacco Loan, 84 to 85½; Mexican, 13½ to 13½; Peruvian, 81½ to 81½; Portuguese, 33 to 33½; Orel, 81 to 81½ ex div.; Nicolas, 65 to 65 ex div.; Moscow, 83½ to 83½; Charkof, 80½ to 81; Spanish, 26½ to 26½; Turkish Five per Cents., 42½ to 42½; United States 5-20 Bonds, 83½ to 83½ ex div.; Erie, 20 to 20½; Illinois, 98 to 99.

Metropolis and its Vicinity.

THE QUEEN'S VISIT TO THE CITY.—It was announced yesterday that the Queen's visit to the City this morning, for the purpose of opening Blackfriars Bridge and the Holborn Valley Viaduct, will be made in State. The Royal progress, moreover, has been so planned that the fullest opportunity will be given to the citizens of witnessing the procession in various parts of the metropolis. The arrival of the Royal train at Paddington station has been so timed as to enable the procession, after traversing the intervening streets and spaces, to reach Blackfriars Bridge at 12 o'clock. On leaving the Great Western terminus the Queen will drive through the Parks to the Horse Guards, and passing under the arch into Whitehall, will proceed by Parliament Street, Westminster Bridge, York Road, Stamford Street, and Blackfriars Road to the Surrey side of Blackfriars Bridge, where the City authorities will be in waiting. Having arrived at the centre of the bridge, where a pavilion has been erected, the royal carriage will halt, and the Lord Mayor, having alighted from his carriage, will approach her Majesty with the Corporation address of welcome to the City. His lordship will be accompanied by the sword and mace-bearers, the principal City officers, and the six aldermen and 12 commoners appointed to form the deputation. Subsequently the Lord Mayor will present the chairman of the Bridge House Estates Committee, who will hand to her Majesty an emblazoned description of the new bridge, prepared by Mr. Joseph Cubitt, the engineer of the work. After her Majesty has formally declared the bridge open, a procession will be formed, consisting of the members of the deputation in carriages, the sheriffs' and Lord Mayor's carriages following; and in this way her Majesty will be escorted along Bridge Street, Farringdon Street, Farringdon Road, around New Charterhouse Street, past the western side of the Meat Market, through Smithfield, and along Giltspur Street to the eastern end of the Holborn Viaduct. At the pavilion which has been erected in the middle of the viaduct the Lord Mayor will again leave his carriage, and present to her Majesty Mr. Deputy Fry, chairman of the Improvement Committee, under whose superintendence the work has been completed. He will also hand to the Queen an emblazoned description of the work, prepared by Mr. William Haywood, the engineer. As soon as this ceremony has been completed, her Majesty will declare the viaduct open to the public, and will then return to Paddington along Holborn and Oxford Street, making a *détour* through Margaret Street at the point where the main thoroughfare of Oxford Street is for the time interrupted. The arrangements which have been made on the bridge and viaduct will accommodate 6000 visitors. Great preparations have been made by all the leading inhabitants along the line of route, and the day will be kept as a general holiday in the City.

DR. LIVINGSTONE.—A letter was received by the Bombay Government, on the 5th ult., from Dr. Kirk, Acting Political Agent at Zanzibar, dated September 7, 1869, in which he states that he has received a letter from Dr. Livingstone, dated Bangwelo, July 8, 1868. In that letter Dr. Livingstone says:—"I may say I have found what I believe to be the sources of the Nile, between 10° and 12° south, or nearly the position assigned to them by Ptolemy." The sources of the river appear from the letter to consist of a number of large lakes, and Dr. Kirk, in writing of these lakes, says "they are probably 10 days' march in length, and, like the Nyasa-Tanganyika and the Albert Nyanza, overhung by high mountain slopes, which open out in bays and valleys." This description of the appearance of the lakes and mountains appears to have been obtained from the Arab traders who brought the doctor's letter to Zanzibar. Dr. Livingstone was in good health and spirits when he wrote this letter from Bangwelo. A letter has since been received at the *New York Herald* office in London from a relative of the United States Consul at Zanzibar, which says that in this letter Dr. Livingstone states that he has heard that two sets of supplies had reached Ujiji from Zanzibar for his use, but that he had not yet been there for them; that he asks that a further supply might be sent there—and among the articles he wishes to be included are nautical almanacs for the years 1869 and 1870—which looks as though he purposed remaining in the country yet a long time. He gives no hint as to his intention for the future.

THE VOLUNTEER VISIT NEXT YEAR.—The National Guards of Paris propose to invite the Belgian Civic Guard and the English Volunteers to a rifle competition next year in the vicinity of Paris. It is said that the Emperor Napoleon and Lord Clarendon, having been consulted, have expressed themselves as favourable to the project.

THE NOMINATION OF DR. TEMPLE.—Mr. Gladstone has addressed the following letter to the Hon. and Rev. E. V. Blich:—

"Rev. Sir,—I am truly sorry that I cannot concur in the objection which in your letter you have stated to Dr. Temple's appointment, but I fully recognise the transparent sincerity of purpose with which it is written. Indeed, your candour induces me to suggest that you might relieve your own mind in some considerable degree by a perusal of Dr. Temple's sermons, or some of only the first among them on Good Friday. I do not learn that the highest and most responsible authorities of the Church are dissatisfied with the nomination of Dr. Temple. At the same time, I do not seek to transfer to them any portion of the responsibility which belongs entirely to myself. You are at liberty to make any use of this letter which you may think proper. I cannot, however, close it without congratulating you in the sense and courage you have shown in labouring to dissipate the powerful and useful agency of the offertory from the mischievous conceptions of religious parties, with which it has in truth no connection whatever.—I have, &c., W. E. GLADSTONE."

ST. PAUL'S CATHEDRAL.—On Tuesday morning, the conclusion of the service, the Rev. Canon Gregory expressed his sorrow at the disgraceful manner in

which the services of the cathedral were attended by the vicars-choral and their assistants. He said that the performance of the services had become a public scandal, and that it was a question whether the services should not be entirely discontinued. On All Saints' Day, he said, one of the greatest festivals of the Church, there were only two gentlemen present at either service, and there were only three that morning. He did not particularly single out the gentlemen present, as they were the most regular in their attendance, but there were others who were systematically lax in the performance of their duties. These remarks were answered by one of the singing men, who said that their attendance was as regular as they had engaged to make it, and that they should be happy to attend more services if they were paid better, for the miserable stipend they at present received compelled many to seek other engagements to keep them from starving. Canon Gregory then said that the service of God and the public service were above the convenience of the individual, and that the present was not the time and place to discuss the question of pay. He then announced that the time of the services would in a short time be altered to suit the public convenience, and stated that he would make all England ring with the story of the disgraceful performance of the services at St. Paul's; and if that, his public remonstrance, had no effect in procuring a better administration, he would invoke the power of the visitor of the cathedral.

THE RECTORY OF BARNES.—The Rev. Henry Melvill will resign the rectory of Barnes at Christmas. The living, which is in the gift of the dean and chapter of St. Paul's, will be conferred upon the Rev. Henry Holme Westmore, M.A., minor canon of Manchester.

NEW ROUTE TO AUSTRALIA.—A new line of communication for the Australian trade is likely to be established between Milford Haven and a North American port, thence by the Union Pacific Railway to San Francisco, and thence by a new line of steamers to Australia, China, and India. The Great Western Railway Company have undertaken to afford every facility for the transport of this new traffic over their line.

THE OPEN SPACE NEAR THE MANSION HOUSE.—A deputation of the bankers, merchants, &c., of the City of London had an interview with the Metropolitan Board of Works on Friday, and presented a memorial praying the Board to preserve the ground opposite the west side of the Mansion House as an open space. Mr. Joseph addressed the Board at great length in support of the memorial. Mr. Saunders moved that it be referred to the Works and General Purposes Committee for consideration and report. Mr. Newton said it was his opinion that the deputation had come to the wrong place in asking them to sacrifice land to the value of upwards of 200,000*l.* If it was desirable to open up and beautify the Mansion House, the City of London ought to contribute something towards the expense of doing so. The motion of Mr. Saunders was then agreed to.

WIMBLEDON COMMON.—The question as to the right to enclose Wimbledon Common is likely to form the subject of very expensive litigation. Earl Spencer, the lord of the manor, has leased 140 acres of the common for farm cultivation, and the inhabitants and others who have common rights dispute his lordship's power to enclose any portion of it. A bill in Chancery has been filed by Mr. H. Peek, M.P., on behalf of a committee, and an answer has been put in. A very strong party feeling prevails on the subject around Wimbledon.

TECHNICAL EDUCATION FOR THE WORKING CLASSES.—On Thursday evening a largely-attended meeting of the masters and members of the Livery Companies of the City of London was held in the Mansion House. The Lord Mayor took the chair, and said that he had convened the meeting for two reasons—firstly, because he had taken the greatest interest in the subject of technical education; secondly, because about the middle of June last year a request was made to him to preside over a meeting, called by the committee of the Common Hall, of all the various companies of the City, to take into consideration the subject of technical education. In studying the history of the City companies, it would be seen that each of them had exercised a considerable influence in the education of their working people, in training the latter up in the knowledge of that which was used by them in the various arts with which they were connected. The necessity for the employment of the various branches of art was the same as of old. The manufacturers of England had to yield lately to foreign competition, and although the same spirit and capability existed in English manufactures as formerly, still they had to contend with much foreign rivalry, which it was their duty to oppose. The Government had acknowledged the necessity of technical education, and had established schools of art and design at Kensington, but these had failed to reach the masses of the people. It was therefore the duty of the various livery companies to take the matter into their own hands. The object of the meeting was to elicit opinion as to the best mode of applying the system. He would suggest that the companies should try the experiment for a period of three years. They should, firstly, have classes formed for the study of drawing; secondly, they should hold exhibitions annually of the various works wrought, and offer a premium for the best. They should also hold examinations in the arts and in drawing. Alderman Cotton, Mr. Stoddart, Mr. Watney, and others, then addressed the meeting, advocating technical education. Mr. Wickmaster, of the School of Science and Art, Kensington, stated his opinion that, although a theoretical knowledge of the process of manufacture might be imparted by oral instruction, still it was inferior to mechanical training. A resolution was passed pledging the livery companies of London to support the project.

THE ALBERT ASSURANCE COMPANY.—The liquidators of this company have on Monday next, to consider a scheme with the approval of the Board of an assurance society, under which policies on lives now assured will be placed on equitable and advantageous arrangement, if adopted by the opinion of the liquidators on the liabilities of the Albert.

THE NEW LEAGUE.—The third meeting of the new League was held at Old Bailey, on the 27th ult. Mr. H. H. Weston moved that the programme be adopted without any change, leaving it to the executive committee appointed to put them into shape. The main points of the resolutions are:—The present owners out of the national debt to be liquidated of the national debt to be "The Political and Social Reform League" a name that would cover everything for and against the name. Those in favour of the name would express their objection to a long name. Mr. H. H. Weston seconded the proposition. There were two great parties in the League, the upper and middle classes, and the labour party. The labour party was seconded by several. Mr. Weston moved that neither "social" nor "political" anything definite. The greatest objection carried on under the name of social reform term "Tory" was identified with the land, and "Liberal" were identified with money. "Labour League" would be the most definite name for a working-men's party. After some further discussion the original proposition for amendment was rejected by 32 against 17. Then proposed that the name should be "The Labour League." This met with general approval and was carried by a large majority as an amendment. When put as a substantive resolution it was held up against it. The next question was should be the president. The promoter of the movement proposed Mr. Odger, others proposed Mr. Bradlaugh, and some thought that the presidents should be done away with. Mr. Weston declared that he would not accept the proposal and was of opinion that the League could not exist without a president. The Chairman of the International went on very prospectively president, every council meeting appointed a man for the evening, and the council of the League could not do better than follow the example then moved and seconded that no president be appointed; the proposition was carried. A council of about 40 members was then appointed, the following were unanimously appointed:—Mr. Weston, treasurer; Mr. Boon, secretary; Mr. Eccarius, assistant secretary. A vote of thanks to the promoters of the movement and another to the man concluded the proceedings.

THE COLONIES AND THE UNEMPLOYED.—The Queen is in course of signature of a proclamation to see that measures are taken to employ the large number of persons at present unemployed and willing to work to go to her Majesty's dominions where their labour and where they may prosper and increase the wealth of the whole empire. The petitioners also state they have heard "with alarm and indignation" that her Majesty has been advised to consent to the Colonies, "containing millions of unemployed which might be employed profitably, both by the Colonies and ourselves, as a field for emigration in order to discourage and defeat a disunion, they humbly pray that England and her Colonies and dependencies may be incorporated into one British Empire, and that it be made that her Majesty is Sovereign thereof in manner as she has been proclaimed Queen of the Colonies. The petitioners also ask her Majesty to send Parliament without delay, that they may be enabled to discuss the causes of the present distress and seek a remedy.

HIGH TIDES.—On Wednesday afternoon the river rose to a height far exceeding that in the early part of last month, and as much as 10 feet was done to property on both sides of the river. The wind during the day was N.W., but fortunately not high, or the result might have been very disastrous. As it was, the first indications of an unusual rise were apparent about 1 o'clock, at which time the tresses of all the bridges on the river were under water. As the tide had then still some distance up, tradespeople in the low-lying districts of Elms, Battersea, and Wandsworth, became alarmed, and at once set about barricading the houses. At last the water washed over the roadways, and in Nine Elms Lane reached the footways. Great damage was done to houses and market gardens, and numbers of boats were carried away. At Chatham the tide rose 21 feet above the yard, which is a foot and a half more than the rise at the beginning of last month. At Ramsgate it rose much higher than has been known for many years, covering the landing-stage, submerging the

penetrating into the lower part of the house, and other premises. On Thursday, it was high water at London Bridge, and the water assembled on the Embankment and in the districts most with its rise, and in the districts most from floods the doors were barricaded with timber. The wind blew with the full force from the north-west, but the water did not rise above Trinity mark, and therefore but little of the way into the thoroughfares, and no damage was done. It is stated that to-day and to-morrow the water will be very high, more especially if the present

LOSS OF AN EMIGRANT SHIP.—The last week respecting the foundering of the emigrant ship, *Weser*, with 346 persons on board, has proved to be unfounded. The Lloyd's have traced their shipping and have been unable to find such a vessel, nor any ship missing.

ACCIDENT AT HORNSEY.—On Tuesday a fatal result resulted from larking with three carpenters, at half-past 8, left off breakfast. For that purpose they went to a house next to that in which they were a loaded gun had been left by a Potter. One of the three, named Tucker, pointed it at another, named May, and told him to prepare to die, and pulled the trigger. May's heart and left lung, killing Tucker, who was greatly distressed at the "lark," was taken before the magistrate, and a large of man-laughter, and remanded. On Thursday the jury returned a verdict on "Misadventure," with a censure on the conduct of the three, and a severe censure on Potter, by whom the gun was left loaded.

FATAL FIRE AT NEWINGTON BUTTS.—The circumstances of the fatal fire at Newington Butts was resumed on Friday, when it was given to show that the charges of inattention against the fire brigade and police were unfounded. After a long inquiry of 16 hours the jury returned a verdict that the fire and loss of life were accidental, and that the conduct of the firemen, Watling, as well as that of the police and the public generally, were highly praiseworthy.

CHARGE OF EMBEZZLEMENT IN THE CITY.—Richard, the stockbroker, charged with fraudulently converting to his own use a large amount of railway stock, was again brought before the magistrate at the Mansion House on Tuesday. It was stated that securities to the value of £10,000, the property of the executors of Dunlop Douglas, of Ayrshire, who died last year, were entrusted to him, some for safe custody and some for sale; that he had paid £8,500 on account of the securities, and that the estate would be reduced by his default to the extent of £15,000. He was charged with a similar misappropriation of £100,000 and other securities, belonging to Major Douglas. After several witnesses had been examined in support of these charges, the prisoner was committed for trial.

FORGERY AND EMBEZZLEMENT IN THE CITY.—A series of forgeries has been discovered in the City amounting to many thousands of pounds. William Lindon, described as of 21, Walcott Street, Craven Street, Strand, and for whose apprehension a warrant has been issued, is the party implicated. The forgeries have been committed in relation to bills of lading upon large quantities of corn and other commodities, and two persons, connected with the Corn Exchange, are alleged to have been defrauded to the amount of about £10,000. On Tuesday an adjudication of bankruptcy was made against the accused on the petition of a creditor. He has not yet been apprehended. On Wednesday a banker's clerk, named George Hyde, aged 25, was charged before Sir Robert Carden, at the Mansion House, with stealing a 500*l.* note, and embezzling £100*l.*, the property of his employers, Messrs. Hoare & Co. Evidence in proof of the theft of the money was given, and it was stated that the note, which was stolen in October, 1867, was found at the Bank of England six months afterwards in the gambling rooms of Monaco. The prisoner was committed for trial.

SCUTTLING A SHIP.—On Monday, James B. Boman, the captain and part owner of the ship *England*, and Thomas Helbern, the carpenter, were brought up at the Mansion House for examination on the charge of scuttling the ship on the high seas, for the purpose of defrauding the ship's owners. The witnesses were the cook, the steward, who deposed that they saw the carpenter and the carpenter down in the after hold with a quantity of augers; that the ship had been previously water-tight, but began to fill soon afterwards, and the crew then took refuge on board a Portuguese vessel. The witnesses admitted that no secret was kept from the crew, that the ship had been leaking, and that the crew were tired with pumping. The Lord Chief Justice committed both the prisoners for trial.

MYSTERIOUS DEATH AT PENGE.—The death of Mrs. Emily Fowler, who died by strychnine poisoning, under very suspicious circumstances at Penge a few days ago, was concluded on Saturday. The coroner, in summing up, said that there was not a shadow of evidence against the husband, and the jury returned an open verdict, to the effect that deceased died from the effects of strychnine, but by whom or how it was administered there was no evidence to show. It is doubtful whether the police authorities will think it necessary to institute a further inquiry.

PUBLIC HEALTH.—The Weekly Return of the Registrar-General states that in the week that ended on Saturday, Oct. 30, 1466 births and 3279 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 26 per 1000 persons living, being 25 per 1000 in London, 22 in Edinburgh, 21 in Dublin, 23 in Bristol, 25 in Birmingham, 32 in Liverpool, 31 in Manchester, 29 in Salford, 27 in Sheffield, 24 in Bradford, 24 in Leeds, 21 in Hull, 32 in Newcastle-upon-Tyne, and 27 in Glasgow. In Paris the annual rate in the same week was 21 per 1000, the rate in Berlin during the seven days ending the 28th ult. was 26 per 1000. In London the births of 1077 boys and 1102 girls, in all 2179 children, were registered in the week. In the corresponding weeks of 10 years 1859-68, the average number, corrected for increase of population, was 2181. The deaths registered in London during the week were 1536. It was the 131 week of the year, and the average number for that week, corrected for increase of population, was 1372. The present return is therefore 164 above the estimated amount.

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Provincial.

BAENSLEY.—Considerable excitement was caused in this town on Tuesday by the announcement that the mail cart which carries the letters and remittances from Wombwell and Hoyland had been stopped and the contents stolen. It appears that the driver of the mail gig was emerging from Wombwell Wood, which is a very lonely road, when four men sprang upon him, dragged him off his seat to the road, where one of them covered his eyes, whilst the two others robbed the mail of its contents. The driver was kept in this state until the two had decamped with their booty, when the other released him and took to his heels. The horse made off, but the driver overtook it, and drove with all speed to the nearest police-office. Upon searching the wood and the adjoining fields two private bags, belonging to the Darfield Main and the Wombwell Main Coal Companies, were found unopened; but another bag, containing a sum of money, besides letters, has not been found; nor have the thieves.

BELPER.—On Wednesday night a man named Hitchcock, while out with his wife, kicked her savagely till she became insensible, and then dragged her home, inflicting additional injuries. She died on Thursday morning, and shortly afterwards her husband, who had been taken into custody, committed suicide in the lock-up, during the absence of the superintendent at Derby, where he had gone to make arrangements for holding the inquest. The prisoner hung himself to the bars of the cell window by his neckerchief.

BIRMINGHAM.—At the borough sessions, on Saturday, Fanny Letitia Baker was convicted of swindling and bigamy, and sentenced to penal servitude for seven years.

BOLTON.—On Tuesday evening an aggregate meeting of the supporters of the strike was held. The meeting was a very excited one, and some of the speakers were for resisting the masters' reduction of 5 per cent. At the close a vote was taken by ballot, when the numbers for the strike were 213, against 397. Work was resumed on Thursday.—John Ramsden, Edmund Ramsden, John Harwood, and Henry Marsden were charged before the county magistrates last week with poaching on Mr. Hick's estate, and committing a murderous assault on his keepers. The prisoners were identified by the wounded gamekeepers, and were committed for trial at the assizes.

BROWLEY.—The young man Davis, who is charged with shooting his sweetheart, Frances Whittington, at this place, was brought before the magistrates on Wednesday. The evidence of the prosecutrix, who, though in an extremely weak state, was able to attend, proved that the act of the prisoner was deliberate and intentional. The defence was that the gun went off by accident. The prisoner was committed for trial.

BLACKPOOL.—Since Tuesday night a great storm has been raging in this town, and at noon on Thursday it appeared to culminate. For many hours the wind had been blowing at a hurricane pitch, and between 11 and 1 on Thursday the tidal water rose to a greater height and with more violence than the oldest inhabitant could remember. At noon it ran "mountains high;" many houses were flooded to the depth of 2 feet or 3 feet, and in spite of closed doors fastened up with clay, and drawn shutters, the violence of the sea broke in upon several, sweeping round, and coming in at the back with immense fury; the spray of the waves dashed over the houses, and some persons were apprehensive that the whole of South Shore would be washed down. The water between the Manchester and Fox Hill Hotels rushed over the walls, and flooded the Blackpool and Lytham Railway, a portion of which was washed away. No trains were able to run between Blackpool and Lytham, and travellers had to pass to and fro by other conveyances. The two piers stood the storm well, though considerably shaken at times. Fortunately, the wind blew from the N.N.W.; if it had come from the S.W., terrible destruction would have been caused. The tidal water had not been cleared out on Thursday evening, and if the gale continued, great destruction was anticipated. Some persons, fearing the tide of Thursday night, removed their furniture, and abandoned their dwellings entirely.

BRISTOL.—On Thursday night, the Avon steamer, trading between Newport and Bristol, came into collision with the steamer *Athlete*, off Pill, a few miles below this city. The Avon sank in five minutes. Twenty passengers were on board, and were all rescued with difficulty in the steamer's own boats. The crew swam ashore. Hundreds of pigs, sheep, and other animals were drowned.

CAMBRIDGE.—The election of public orator took place on Tuesday in the Senate House, the Vice-Chancellor presiding. There were only two candidates, the

Rev. A. Holmes, M.A., Fellow of Clare, and formerly of St. John's, and Mr. R. C. Jebb, M.A., Fellow of Trinity. It was understood that Mr. Holmes was actively supported by St. John's, and Mr. Jebb by Trinity. At the close of the poll the numbers were, for Mr. Jebb, 527, for Mr. Holmes, 383. Mr. Jebb was therefore declared duly elected. The University was in a state of excitement throughout the day.

CANTON.—An annual meeting of gentlemen from different parts of the town was held on this city on Friday, under the presidency of Mr. Russell, of Dalaman, chairman of quarter sessions, to consider a proposal to erect a memorial to the late Bishop Wallbridge. After different suggestions had been discussed, it was decided that a fund should be raised, the first object of which should be the erection of a monument in *Catharine Cathedral* to the memory of the late prelate, the remainder of the money to be applied to the completion of the new parish church of St. Mary's Without.

ETON.—The authorities of Eton College have proposed various important alterations in the constitution of their governing body. It is to consist for the future of the Provost of Eton and King's, of three members elected respectively by the Hebdomadal Council at Oxford, the Council of the Senate at Cambridge, and the Eton Masters, who are not, however, to elect one of their own body. Further, the Lord Chief Justice and the President of the Royal Society are each to nominate a member, and the seven persons thus chosen are to elect colleagues, who are not to be fewer than two or more than five. This is considered a very fair representation of the various interests concerned in the system of education pursued at Eton, and henceforth the Universities, the professions of the Church, the Law, and Natural Science will each be able to assert the claims of those subjects of study in which they are chiefly interested.

LIVERPOOL.—Miss Rye sailed from the *Mersey* last week for Quebec, with 100 female emigrants, 70 of them being orphan girls, from five to eleven years of age, chiefly from the Liverpool Industrial Schools. On arriving at Quebec Miss Rye will take the girls to a "Home" she has provided for them at Niagara, where they will be carefully trained, up to the age of 15, for domestic service.

MANCHESTER.—The Congress of the National Education Union, which has been sitting in this city for several days, after long discussions on the denominational system in all its bearings, was brought to a close on Thursday by the adoption of the following resolutions:—

"That this Congress desires to record its general approval of the scheme of the National Education Union, and is of opinion that it ought to foster the best and further legislation for the comprehensive extension and completion of a national system of education." "That the Congress earnestly invites the friends of the existing system of national education to enrol themselves members of the Union—to meet together in their respective localities to form themselves into local unions for united action, and to sustain the cause of national education by subscribing to the journal of the Union, and to invite the clergy and ministers of religion to use their influence in this behalf." "That the best thanks of the Congress be respectfully tendered to the Earl of Harrowby, Mr. Hugh Birley, M.P., the Hon. Algernon E. Egerton, M.P., and the Right Hon. W. P. Cowper, M.P., for their kindness in presiding, and to the readers and speakers of the respective sessions of Congress."

MARGATE.—The Australian packet ship, *Swiftsure*, of 1400 tons, from Melbourne to London, with a cargo of wool, several boxes of specie, and about 120 passengers, went ashore on Margate sands about half-past seven on Wednesday evening, but as there did not appear to be any immediate danger she made no signals of distress. The crew tried their utmost to get the vessel off, but without success, and on the tide falling they desisted. On Thursday morning a lugger brought ashore about a dozen passengers, including two or three ladies, with a quantity of luggage. Other passengers had previously landed at Dungeness. At spring tide she floated, and was towed off by the steam-tugs. It is believed that she has not sustained much damage.

NEWARK.—A shocking suicide was committed on Wednesday night, the 27th ult., by the Rev. Herbert R. Hand, second master of the grammar school in this town. Deceased, who was about 25 years of age, only entered on his duties on the previous Saturday week. He was observed to be depressed, but the head master, the Rev. H. Plater, thought it arose from a violent cold from which he was suffering. He had been at Oxford, and lived at Exeter, and had the best testimonials, one, from the Dean of St. Paul's, speaking highly of his mental qualifications and goodness of heart. At the inquest a porter on the Great Northern Railway deposed that deceased came up to him on Wednesday night, and asked, "Which side does the express run?" He replied, "This side, sir," whereupon deceased said, "Thank you." He appeared quite rational and free from excitement. The guard of a goods train stated that in passing he saw something like a man lying across the metals, and at first thought it was a dog. The body was subsequently found on the spot indicated, completely cut in two. No letters were found upon him, only three pieces of lead pencil and 2*d.* The jury returned a verdict of "Temporary insanity."

OXFORD.—A convocation will be held on Friday, the 12th inst., for the purpose of electing a Chancellor in the place of the late Earl of Derby. It is generally understood that the only candidate who will be put in nomination is the Marquis of Salisbury.

PRESBURY.—The funeral of the Earl of Derby took place on Friday in the church of St. Mary's, Knowsley, distant a mile and a half from Knowsley Hall. This church was erected by the late Earl himself, and the mortuary chapel beneath was constructed under his superintendence. His father, the 13th Earl, was buried in the parish church of Ormskirk, with all the predecessors of his race from 1573, when that church was

first erected. Before then, the burial-place of the Stanleys was the ancient monastery of Burscogh, which seems to have been demolished at the time of the dissolution of the religious houses. The admission to the church was by ticket, but from its limited size, after places had been reserved for the members of the family and the servants from Knowsley Hall, accommodation remained for barely 250 persons. Applications were made to Admiral Hornby, upon whom the arrangements devolved, for four or five times that number of tickets. In the distribution of these a preference was invariably given to the tenantry or others connected with the household, in accordance with the Earl's wish that only those should be present to whom he had been intimately known. All who were provided with tickets were required to be in their places by half-past 11 o'clock, but the funeral procession did not move from Knowsley Hall till after 12. The hearse, drawn by six horses, and having on its panels the armorial bearings of the Stanley family, was preceded by a servant carrying the coronet of the late Earl upon a velvet cushion. Eight mourning coaches followed the hearse, each drawn by four horses. The first of these was occupied by Lord Stanley, the Hon. F. Stanley, the Hon. Colonel Stanley, and Captain Stanley, his son. In the other mourning coaches were Colonel Long, the Hon. W. Wilbraham, brother of Colonel Long, the Hon. W. Hopwood, the Rev. F. Hopwood, Mr. Arthur Hopwood, Mr. Charles Hopwood, the Earl of Wilton, Lord Grey de Wilton, Mr. Penrhyn, the Rev. Mr. Penrhyn, the Hon. Colonel Talbot, the Rev. P. Champayne, Lord Skelmersdale, Admiral Hornby, the Rev. E. Hornby, Mr. Edmund Hornby, Lord Hyde; Dr. Miller and Dr. Gorst, medical attendants of the late Earl; Mr. W. Laurence, solicitor; and Mr. Hale, Mr. Molt, Mr. Slatter, Mr. W. Molt, and Mr. Holme, officers of the estate. Following the mourning coaches, on foot, were about 70 servants, members of the household and of the outdoor establishment, wearing scarves and hat-bands. The route of the procession lay for a mile through Knowsley Park, and for the entire distance no one but members of the family and immediate dependents of the late Earl were permitted to join the ranks. The remaining half-mile, however, intervening between the park gates and the church was crowded with occupants, who made their way to that point, some on foot, others on horseback, in vehicles of every description, many from the nearest railway station, the majority of them being in mourning. The funeral service was read by the Rev. W. L. Feilden, the incumbent, and at its conclusion, and after the chief mourners had retired, the members of the congregation were allowed to enter the vault, which contains a family tomb, 10 feet in length, about 14 feet wide, and 11 feet high, and designed for the reception of 24 coffins, of which the first was that of the late earl. The body was enclosed in three coffins: the first made of oak grown upon the estate, the second of lead of unusual strength and weight, and the third also of oak, covered with crimson velvet and gilt furniture. Both the second and third coffins bore plates with suitable inscriptions. That upon the outer coffin was as follows:—

"The Right Hon. Sir Edward Geoffrey Stanley, 14th Earl of Derby, Baron Stanley of Bickerstaffe, and a Baronet, K.G., P.C. Born March 29, 1799, died October 23, 1869."

ROCHESTER.—The Earl of Jersey, who is the owner of Rochester Castle, having offered to the Corporation the castle and adjacent grounds on lease for a long term of years at a nominal rental, a meeting of the citizens was held in the Guildhall on Friday, the mayor presiding, for the purpose of considering the desirability of accepting the offer, in order that the castle grounds might be laid out as a public park and pleasure grounds for the use of the inhabitants. The proposal was strongly opposed by Mr. W. Manclank, a magistrate of the city, who now rents the castle grounds from the Earl of Jersey, but the meeting unanimously decided on accepting his lordship's offer, and authorised the Corporation to levy a rate to maintain the grounds as a public park, a proposition by Mr. Manclank that the offer be not accepted not finding a seconder. About 1000*l.* has been raised in subscriptions among the inhabitants to lay out the grounds, and it was stated that 2000*l.* would be forthcoming for the purpose.

SHEPHERNESS.—On Wednesday afternoon a frightful accident occurred on board her Majesty's gunboat *Thistle*. Her engines were on trial when one of her boilers, a high-pressure one, suddenly split down a crack which had not been observed in one of the plates, and discharged such a volume of steam that 10 men were killed, viz., four engineers, three stokers, two fitters, and an engineer student. Eight others were severely scalded, and one at least lies in an extremely dangerous state. The ship, which was a double screw composite gunboat of 465 tons and 120-horse power, afterwards anchored off the Mouse Light. The cause of the accident is not known.

SHEFFIELD.—William Broadhead, on Friday evening, took his farewell of Sheffield at a music-hall, in the presence of a very large audience. He was dressed in deep mourning, and had all the appearance of a dissenting preacher. He delivered a speech, in which he expressed the belief that rattening and outrages would continue, and represented himself as leaving the town in order that the finger of suspicion might no longer point at him as the instigator of such crimes, while he regarded himself as the instrument of an imperative necessity.

WOLVERHAMPTON.—On Monday evening a fatal fire broke out at the works of Messrs. William Evans & Son, iron braziers and japanners, in this town. By the carelessness of one of the japanners the plug from a barrel of spirit of tar had been mislaid, and the liquid allowed to run to waste. A lighted paper was brought to look for the plug, and the spirit was thus fired. A number of workpeople, including several women, were

instantly enveloped in flames. Two persons were burnt to death, and seven others were so seriously injured that they were removed to the hospital, where one of them died on the next day. Two of the deceased were young women, and the other was a lad, all of whom were engaged in the workshops. One of the women was observed burning to death in the midst of the spirits, but could not be saved; the other leaped into the burning spirits in which the first was dying, and broke her leg by the jump, and the boy was found suffocated in the japanning stove, where he had taken refuge.

YARMOUTH.—Intelligence received at this port up to Saturday leaves little doubt of the total destruction of at least 10 smacks, and the consequent loss of about 30 men and boys. Portions of Yarmouth smacks have been washed up on the Dutch coast, while other portions have been seen drifting in the North Sea.

Ireland.

TENANT-RIGHT DEMONSTRATIONS.—On Monday a tenant right meeting, convened by the high sheriff of the county of Limerick, which was expected to prove an imposing demonstration, was interrupted by the Fenian amnesty party, and entirely prevented. The platform was pulled down and destroyed, and numerous rough scenes occurred, in which a policeman was injured. On the same day a demonstration in support of "fixity of tenure and an equitable adjustment of the land question" was held in Cavan, and was numerously attended. Resolutions condemnatory of any Land Bill which would not embrace fixity of tenure were agreed to. Previous to the meeting an attempt was made, by the removal of a rail, to throw off the line to Cavan a train which was conveying about 190 farmers and five priests to the meeting. There is reason to believe that the Fenian party were the perpetrators of the outrage, which was fortunately discovered in time. A more extraordinary outrage, however, took place afterwards. While the Rev. James Dunne, parish priest of Belturbet, was returning from the meeting in the evening, in company with a number of his parishioners, near Drummullure, they exhibited green flags and uttered party cries, which greatly irritated the Orangemen. At length shots were fired at the car by a party in ambush. A man named Edward Morton was shot dead, and several others were wounded. The horse in the car, in which the priest and curate were seated, was shot dead. At the inquest held on Wednesday on the body of Morton, a verdict of Wilful Murder was returned against one of the prisoners named White, and six others as accessories, all of whom were committed for trial. The funeral of the deceased was attended by an immense concourse of people. At the tenant-right meeting in Sligo last week about 1500 were present, most of the humbler class wearing green in their hats; some green flags were displayed. The chair was filled by Mr. Denis M. O'Connor, M.P. Bishop Gilooly was present, and a few Conservative gentlemen. Resolutions were adopted declaring that tenure of land should be so altered as to give encouragement and security to tenant's industry, secure continuous occupation of holding at equitable rents, and full compensation for improvements; the tenant to be bound not to waste the soil or sublet against the landlord's wish, and the rent to be settled by the fluctuation of the markets; and the new Land Bill to encourage mixed husbandry and reclamation of waste land. The resolutions were prepared at a conference held on the previous day, at which representatives from some county landlords were present. On Monday a meeting of tenant-farmers of the county Londonderry was held at Magherafelt, at which resolutions were carried to the effect that no settlement of the land question in the county of Londonderry would be just or satisfactory which did not legalise the right of the tenants to the continuous occupation and enjoyment of their farms; and that it was their firm conviction that the establishment of a class of peasant proprietors by Government loans would greatly conduce to the peace and prosperity of Ireland.

CARDINAL CULLEN'S PASTORAL.—Cardinal Cullen has issued another pastoral letter to the clergy of his diocese. After a long exposition of the doctrines of his Church, he renews his attack on secret societies, including the Freemasons, the godless system of education, and other kindred topics. He denounces the fabrications of the Protestant press regarding the aims of the Ecumenical Council, and warns all good Catholics that it is their duty not to inquire what the general council intends to do, but patiently to await its infallible decisions, and to bow their heads submissively when they are authoritatively promulgated. He declares that the independent Catholics, who have refused to practise this submission, are enemies within the bosom of the Church, "carried away by the corrupt spirit of the age." He laments the prevalence of assassination, and concludes by desiring his clergy to pray for their Protestant brethren, who are now engaged in reconstructing their Church, and to ask the Author of Light to give them knowledge of the truth and lead them into the bosom of the one holy Catholic and Apostolic Church, which is not, he says, the work of man, or owes its origin to Acts of Parliament or to mixed meetings of clergy and laity, but was founded by Christ and the Apostles.

THE LATE OUTRAGE IN TIPPERARY.—The tenantry of the Count de Jarnac have held a meeting and denounced in indignant terms the outrage committed on their landlord; and, in order to assist in detecting the author of the threatening letter, they subscribed, before separating, the sum of 125*l.* as a reward for such information as shall lead to his discovery. Since then another landlord in the county has received a similar missive.

THE FIFTH OF NOVEMBER.—It was announced on

Saturday in Belfast that the Fifth of November was celebrated by a grand *soirée* in Uster House, under the auspices of the Grand Orange Lodge, which was presided over by Mr. Wm. Johnston, M.P.

THE LATE ATTEMPT ON MR. BRETT.—The late attempt on the life of Mr. Brett, who was removed from the county of Wicklow, has been removed from the county of Wicklow, as there is reason to believe that upon his life would be repeated. His father, who is now in Wicklow, proposed to go down to receive information that he was to the same risk, although he has had any one, and his only offence is that he is going on favourably, and the Roman Catholic Bishop, Lord Monsell, M.P. When he was applied to the Government to remove the county, but some difficulties were still kept at the post of danger, ever, be removed. Another county has had to be sent to the police. Their only crime is that they certificates to road contractors for properly executed. A man, whose party who fired at Mr. Brett, or for plicity with a road contractor called outrage. It is said that the prisoner than one occasion hovering about Mr Brett previous to the attempt being made on

Scotland.

ADMISSION OF LADIES TO MEDICAL STUDY.—At a meeting of the University of Edinburgh, the Rev. Dr. Phin, of Galashiels, disapproved the resolution of the University to admit ladies to medical study. The motion was seconded by Dr. Andrew Masson, seconded by Professor Bennett, resolution admitting ladies be approved. Professor Masson's motion was carried by a majority.

MEDICAL MAN FOR BALMORAL.—It is settled that a medical man will be appointed to the office of Medical Officer to Her Majesty at Balmoral for the benefit of the district. Dr. Marshall, practitioner at Balmoral, is spoken of for the position.

STEAMBOAT COLLISION IN THE GULF OF GOSWOLD.—On Saturday morning a collision took place between the screw steamer *Tern*, from Glasgow, and the *William Connal*, from Havre, in which the latter sunk within minutes of the occurrence. The only persons sustained was in one of her bow pates. The *Connal* was a steamer of 550 tons, and had a general cargo on board.

PROPOSED STATUE TO DR. CHALMERS.—A subscription is to be opened in Edinburgh for erecting a statue in that city to the memory of the late Rev. Dr. Chalmers.

Railways.

COLLISION ON THE LONDON AND NORTH-WESTERN RAILWAY.—On Saturday morning a serious collision took place between two goods trains near Dudley. One train was coming down the Dudley branch, and the other was coming up towards a siding at Dudley Port. The goods from Birmingham to Liverpool, without stopping. By some mishap the wheels of the Dudley train got off the rails at a point of junction with the main line, and across the metals, rushed into the centre of a pool goods train, of which five trucks were overturned, and 11 others considerably damaged. Goods destroyed were a large consignment of cartridge cases for the Russian Government.

ACCIDENT ON THE NORTH-EASTERN RAILWAY.—On Friday night as a heavy coal train from Colliery was running along the Towson Viaduct towards Gateshead, it was run into by a lighter train which had been taken out from the Gateshead Viaduct on a trial run, and was returning. The collision and several heavily laden coal trucks were thrown over the embankment, and others were smashed. The only person injured was the driver of the coal train, who was pitched over the embankment, but his injuries are not expected to prove fatal.

THE SOUTHERN COMPANIES.—In the House of Commons, on Friday, a Bill was presented by the southern railway companies for the amalgamation. That Bill was thrown out of the House by the strong expression of public opinion against the raising of the fares contained in the Bill. At a meeting of the directors of the Eastern and Chatham and Dover Companies, on Friday, it was decided not to renew the amalgamation Bill in the forthcoming session.

THE FATAL ACCIDENT ON THE GREAT NORTH-WESTERN RAILWAY.—The adjourned inquiry on the fatal accident near Welwyn railway station on the 22nd ult. resumed on Monday at Hatfield. The inquiry lasted nearly seven hours, but no satisfactory explanation of the actual cause of the carriage running off the rails was obtained. The foreman of the locomotive was under examination four hours, and the signalman at the Welwyn Junction was under examination four hours, from whom he had at first thought guilty of the accident, but he was afterwards absolved from all blame, and confidently believed after a full examination of the locality of the accident

carriages, that the catastrophe was brought about by the breaking down of one of the carriages, the spring of which he had found to be fractured. The inquiry was again adjourned for a week.

Law.

Case of Queen's Bench—(ittings in Banco before the Lord Chief Justice and Justices Mellor, Lush, and Hannet.)—The case of the Queen's Bench, sitting in Banco before the Lord Chief Justice and Justices Mellor, Lush, and Hannet, was adjourned for a week. The case concerned the powers of the Commissioners of the Court of Chancery, and the question of whether they could hold meetings without the assent of the State.

Shaw v. The Rev. W. J. E. B. — This case concerned the view of Prome, at the instance of the Association, for alleged heretical doctrines promulgated in certain publications. The case excited much interest, as it will form a leading case on the subject of the prosecution against Mr. Mackonochie. The only question to be decided was whether he was bound to admit Article V. as to the presence in the Holy Eucharist. That charge was not admitted by the commissioners when the inquiry was made, and in the letters of request sent by the bishop to this effect, the charge was directed against the defendant, who had been charged with heresy in the criminal charges.

Case of a Threatening Letter to a Magistrate. — A man, of the name of Brown, a respectable dressed man of age, was indicted for feloniously sending a threatening letter to James Arnold, Esq., one of the magistrates of the Westminster Police Court, demanding money with interest, and with intent to extort money from him. In July, 1869, the prisoner was convicted at the Westminster Police Court of an assault at Cremorne, and fined £100. The money was paid, and nothing more was heard of the case until, on the 1st of June last, Mr. Arnold received a letter, threatening his life unless he paid a certain sum of money. The letter was headed "Compensation for the loss of my property, which had resulted to an innocent man by your conviction and exorbitant fines. Mr. Arnold, I demand the matter over to the police, who will require advertisement, and thus discovered the author of the letter. He was convicted, but sentence was deferred until next session.

Sporting.

THE GREAT RACE FOR THE CHAMPIONSHIP.—The first of the great races between the picked men of London and the representative crews of the Thames and the Trent took place yesterday afternoon, over the course from Mortlake to Mortlake, and was won by the Tyne crew by three minutes. Time of race, 29 minutes 43 seconds. The return race will be rowed on the 13th inst., from the High Level to the High Level, on the Tyne.

Obituary.

MARQUESS OF WESTMINSTER, K.G., died on Sunday at Bath, Wilts, after a few days' illness, in his 75th year. His lordship was born in 1795, and received his education at Westminster School, which half-a-century ago was the chief place of education for the sons and grandsons of the Whig Houses—such as the Russells, the Grosvenors, and the Grosvenors. He was there a schoolfellow of the late Archbishop Longley, who were his seniors, and who maintained the friendship of his life. He afterwards kept his house at Christ Church, Oxford, where he took his Bachelor's degree in 1815, and proceeded M.A. three years later. While bearing the courtesy title of Lord Belgrave, he entered Parliament at the general election of 1818—now more than 50 years ago—as one of the members for Chester, a city in which, at that time, the Grosvenor influence was even more absolute

than it is now. He was chosen on this occasion without opposition, and, though opposed at the election of 1820 by one of the Berrons, he shared the opposition of Chester with his cousin, the late General Grosvenor, for 12 or 13 years. He failed to obtain the office of the House of Commons, but Chester has since then been the seat of the Grosvenor family, if not two, to St. Stephen's. At the dissolution consequent on the late Reform Bill in 1832, Grosvenor was elected into the House of Commons, and he held the office of Secretary of State for the Colonies, and of Secretary of State for the Home Department. He was created Earl Grosvenor in 1834, and he held the office of Secretary of State for the Colonies, and of Secretary of State for the Home Department. He was created Earl Grosvenor in 1834, and he held the office of Secretary of State for the Colonies, and of Secretary of State for the Home Department. He was created Earl Grosvenor in 1834, and he held the office of Secretary of State for the Colonies, and of Secretary of State for the Home Department.

MR. GEORGE PEABODY died on Thursday night in Eaton Square, in his 75th year. He was born at Danvers, in Massachusetts, in February, 1795. His father, though originally in Lumbic circumstances, was descended from Francis Peabody, one of the old Puritan stock, who emigrated from Northamptonshire, or Hertfordshire, generations back, and settled in New England. He found a home at Topsfield, a small town in the heart of Essex, Massachusetts, where he built the first man in the neighbourhood, and became an independent man. At 11 years of age George Peabody was apprenticed to a Mr. Silvester Proctor, who kept a "grocery store" at Danvers. He there spent four years, until at the age of 15 he felt anxious to try his hand at business on a larger scale. With this object in view, after a year spent with his grandfather in Vermont, he joined his brother David in 1811 in a dry goods shop which he had opened at Newburyport, but their house having been destroyed by fire in 1812, he joined an uncle, John Peabody, who was settled in the District of Columbia, and soon became the leading spirit and mainstay of the business. War with England was soon afterwards declared, and two months later a British fleet ascended the Potomac, and menaced the capital and its neighbouring ports. In this emergency, the young clerk, though not yet of age, joined a volunteer company of artillery, and did active duty for some months at Fort Warburton. Having spent two years in his uncle's service he attracted the attention of a Mr. Elisha Riggs, who invited him to join him in the dry goods trade, for which Mr. Riggs found the capital. This partnership proved a most successful and satisfactory arrangement. In 1815 the house was removed to Baltimore, seven years later its operations were such as to justify the opening of branches at Philadelphia and New York, and about the year 1820, by the retirement of Mr. Riggs, George Peabody found himself the senior partner, and the virtual director, of one of the largest of mercantile firms. Having spent several years in managing the house in Baltimore, he resolved in 1827 to take up his abode in England. In that year he came to London, and, within a few years later, from the American firm, he established himself in the City as a merchant and banker. He had not been long in England when those untoward events occurred which shook American credit abroad, and his adopted State of Maryland was in sore pecuniary straits. Mr. Peabody at once came forward and repaid the State for having afforded him a home by negotiating a loan for it free of cost. When the American Department at the Great Exhibition was in danger of appearing on the day of opening a mere chaos of unassorted goods, he advanced £50,000 to save his countrymen from mortification. When a faint hope awoke in America that survivors of Sir John Franklin's expedition might be rescued, his purse enabled Mr. Grinnell to undertake the generous enterprise of sending out an expedition to search for them. His vast gifts of millions of dollars for the formation of institutions at Danvers, Baltimore, and other places in America, and for various other purposes from 1836 downwards, dazzled the world. But the deed by which his name will be longest remembered in this, his adopted country, was his noble gift of a quarter of a million to the poorest classes of London, which has already borne fruits by the erection of homes for the working classes in various parts of the Metropolis. This act of "princely munificence," as it was styled by the Queen in an autograph letter which she addressed to Mr. Peabody, was wholly without parallel, and was, in her Majesty's words, "an act which will ever carry its best reward in the consciousness of having contributed so largely to the assistance of

those who can so little help themselves as the poor of London. All sorts of honours were offered to Mr. Peabody in recognition of his generosity, among others that of either a baronetcy or the title of Viscount of the City of London. The Queen, however, declined both offers, and contented herself with the title of Baron Peabody, which he received in 1845. He was also created Viscount of the City of London, and was appointed one of the lords of the Treasury in 1845. He was also appointed one of the lords of the Treasury in 1845. He was also appointed one of the lords of the Treasury in 1845.

THE REV. J. C. BADES, Precentor of Westminster Abbey died on the 29th ult., at Chalfont St. Giles, aged 64. He was appointed in 1831 to the office of precentor in ordinary to King William IV., and continued in the same office during the reign of her present Majesty. In the same year he was appointed to a minor canonry in St. Paul's Cathedral, and while discharging his duties in that capacity, he was, during one of the week-day services, fired at by a person in the body of the church, but escaped unhurt. In 1839 he was nominated by the dean and chapter of St. Paul's to the rectory of Harton, and in 1841 was appointed to a minor canonry, with the precentorship of Westminster Abbey.

MR. FREDERICK NORTH, M.P. for Buntingford died at his residence, Hastings Lodge, on Friday. He was son of Mr. F. F. North, of Hastings, and Rowley, Norfolk, and was born in 1801. He received his education at the school of St. John's College, Cambridge, where he was senior optime in 1822. He was afterwards admitted a student at the Inner Temple. Having considerable business interests in the borough previous to the Reform Bill, he was in 1831 elected member for Hastings, and represented the borough from 1832 to 1857, when he was unsuccessful. He supported the Whigs in their great measure of Reform, and opposed the Irish Tithe Bill. In 1847 he was re-elected without opposition, and he was also in 1857. In 1859 he was elected to the House of Commons, but was defeated in 1860. At the last general election he was returned for Hastings, but he was defeated in 1860. He was a member of the House of Commons from 1859 to 1860. He was a member of the House of Commons from 1859 to 1860.

GENERAL COLES, Colonel of the 65th Regiment, died on the 27th ult. He was upwards of 80 years of age. He entered the army in 1803, and served in India under Lord Lake in 1804, and in the campaign of 1805 and 1806. On the termination of the war in India he returned to England, and served in the Spanish campaigns of 1808 and 1809. He was promoted to the rank of Major-General in 1810, and served in the campaign of 1810, and in the campaign of 1811. He was promoted to the rank of Major-General in 1810, and served in the campaign of 1810, and in the campaign of 1811. He was promoted to the rank of Major-General in 1810, and served in the campaign of 1810, and in the campaign of 1811.

MAJOR-GENERAL MITMAN, Commander of the forces at the Mauritius, died on the 24th ult. at The Old Palace, Richmond. He entered the army as ensign and lieutenant in the Coldstream Guards in 1835, and served with the Guards in the Canadian Rebellion in 1838. He also served in India during the mutiny, and commanded a field force in the Ghazipur district in 1857, and at Azinghar in 1858, where he commanded the left wing of the 37th Regiment, until relieved by Ligard's force. He afterwards held a bridge on the Benares Road with a small picket against a large force of mutineers, and secured the passage of a large convoy of stores and ammunition into the Azinghar entrenchment. For this service he received a medal. He was appointed major-general on the Staff at the Mauritius in 1866.

MR. JOHN BRUCE, F.S.A., Treasurer of the Camden Society, and formerly Director and Vice-President of the Society of Antiquaries, dropped dead in Montagu Square on Thursday evening, the 24th ult. He had for many years been engaged in the important work of calendaring the Domestic State Papers preserved in her Majesty's Record Office. The period to which he devoted his attention was the reign of Charles I., with all the history of which he was intimately conversant. He was the author of many valuable contributions to the Archaeologia of the Society, and edited several of the volumes published by the Camden Society, of which he was one of the founders. For some time past he had suffered from difficulty of breathing, but was nevertheless in a, pleasant health on the evening of the 24th ult. His death, a post-mortem examination showed that he was lying on his back on the pavement, apparently in a fit. A doctor was directly sent for, and by his direction Mr. Bruce was taken to St. Mary's Hospital, Paddington, and on admission was pronounced dead. A post-mortem examination showed that the cause of death was fatty degeneration of the heart. The jury at the inquest returned a verdict of "Death from natural causes."

WILLS.—The will of Major-General McGregor, Bengal Army, has been sworn under £9,000 personality. Lieut. Colonel Atchison, of Rose Hill, Barking, £2,000; Mr. George Jones, R.A., of 6, Park Square, Regent's Park, 25,000; Mr. W. H. N. Myers, of Leeds, stockbroker, 30,000; Mr. Richard S. Butterfield, of Wakefield, 181,000; Mr. Francis Bligh Hooper, of Kent, 30,000; Mr. James Hewitt, of Durham, 10,000.

Markets.

COVENT GARDEN.—Nov. 6. The markets remain without much improvement, but the supply of foreign goods has been more limited, except in Oranges and Lemons, the latter article being much more freely attainable at less rates. Peas consist of Chaumontel, Marie Louise, and Gion Moreau, with common varieties.

Flowers chiefly consist of Pelargoniums, Mignonette, Fuchsias, Chrysanthemums, Primulas, Heaths, Veronicas, and a few Cyclamens.

FRUIT.

Apples, p. 1/2 sieve, 1s to 1s 6d; Cobs, per lb., 9d to 1s; Filberts, per lb., 6d to 9d; Grapes, per lb., 1s 6d to 5s; Lemons, per 100, 8s to 14s; Melons, each, 1s 6d to 5s; Oranges, per 100, 8s to 14s; Pears, per doz., 2s to 3s; Pine-apples, per lb., 4s to 6s.

VEGETABLES.

Artichokes, p. doz., 3s to 4s; Beet, per doz., 2s to 3s; Broccoli, p. bundle, 1s to 1s 6d; Brussels Sprouts, p. 1/2 sieve, 2s to 3s; Cabbages, per doz., 1s to 1s 6d; Capsicums, p. 100, 2s to 2s 6d; Carrots, per bunch, 4d to 8d; Cauliflowers, p. doz., 1s 6d to 3s; Celery, p. bund., 1s to 1s 6d; Cucumbers, each, 6d to 1s; Endive, per doz., 1s 6d to 2s; Garlic and shallots, per lb., 8d; Herbs, per bunch, 2d to 4d; Horse Radish, p. 100, 3s to 5s; Leeks, per bunch, 2d to 4d; Lettuces, p. score, 1s to 2s; Mint, per bunch, 4d to 6d; Mushrooms, p. pott., 1s 6d to 2s; Onions, green, per bun, 4d to 9d; Parsley, per bunch, 2d to 4d; Potatoes, York Regents, p. ton, 60s to 105s; Flukes, do., 80s to 120s; Salsafy, per bundle, 1s to 1s 3d; Scorzonera, do., 1s to 1s 3d; Seakale, per lb., 4s 6d; Spinach, p. bushel, 2s to 3s; Radishes, p. doz., 1s to 1s 6d; Tomatoes, per doz., 9d to 1s 6d; Turnips, per bunch, 4d to 6d.

POTATOS.—SOUTHWARK, Monday, Nov. 1.

During the past week the arrivals coastwise and from abroad have been very small, but more plentiful by rail; the prices are very various, owing to the great difference in the samples that are coming to this market, many being much blighted, and the consumption small for the season. The following are this day's quotations:—York Regents, per ton, 70s. to 100s.; Kent and Essex do., 60s. to 90s.; Lincolnshire do., 60s. to 90s.; East Lothian do., 70s. to 100s.; Perth, Forfar, and Fife do., 70s. to 80s.; French and Belgian Whites, 60s. to 80s.

HOPS.—BOROUGH MARKET, Nov 5

Messrs. Pattenden & Smith report there has been a general clearance made of almost the entire growth of new English Hops, prices for which are daily advancing. Importations from the Continent are very small, and from America not so large as anticipated.

ENGLISH WOOL

We have had a firm market, and though prices are not much better, still the impression gains ground that English Wool cannot much longer form an exception to the general improvement in the article.

Table with columns for FLEECES (Southdown hoggets, Half-bred ditto, Kent Fleeces, Southdown ewes and wethers, Leicester ditto) and SORTS (Clothing, Combing) with prices in s. d. and s. d.

HAY.—Per Load of 36 Trusses.

SMITHFIELD, Thursday, Nov. 4.

Table with columns for Prime Meadow Hay, Inferior do., New do., Inferior do., and Straw, with prices in s. d. and s. d.

CUMBERLAND MARKET, Thursday, Nov. 4.

Table with columns for Sup. Meadow Hay, Inferior do., New do., Superior Clover, and Inferior Clover, with prices in s. d. and s. d.

WHITECHAPEL, Thursday, Nov. 4.

Table with columns for Fine Meadow Hay, Inferior do., Prime New Hay, Inferior do., and Straw, with prices in s. d. and s. d.

METROPOLITAN MEAT MARKET.—Nov. 6.

Best Fresh Butter .. 18s. per dozen lb. Second do. do. .. 16s. Small Pork, 5s. 0d. to 5s. 6d.; Large Pork, 4s. 4d. to 4s. 8d. per 8 lb.

METROPOLITAN CATTLE MARKET.

MONDAY, NOV. 1.

We have a shorter supply of Beasts than on Monday last, yet the number is considerable; trade is slow, and it is difficult to maintain Thursday's advance. The number of Sheep is also smaller, but the demand has very much decreased, and prices on the average are lower. There are very few choice Calves on offer. Our foreign supply consists of 2543 Beasts, 1670 Sheep, and 275 Calves; from Scotland there are 23 Beasts; from Ireland, 549; and 1990 from the Midland and Northern Counties.

Table with columns for Best Scots, Herefords, &c., Best Shortboms, 2d quality Beasts, Best Downs and Half-breds, Do. Shorn, and Best Long-wools, Do. Shorn, Ewes & 2d quality, Do. Shorn, Lambs, Calves, Pigs.

THURSDAY, NOV. 4

The number of Beasts is small, yet it exceeds the demand; choicest qualities are making about the same as on Monday, otherwise trade is exceedingly dull. The supply of Sheep is about the same as on Thursday last; the demand is very small, and Monday's quotations are not realised throughout. Calves are lower. Our foreign supply consists of 136 Beasts, 180 Sheep, 212 Calves, and 10 Pigs.

Table with columns for Best Scots, Herefords, &c., Best Shortboms, 2d quality Beasts, Best Downs and Half-breds, Do. Shorn, and Best Long-wools, Do. Shorn, Ewes & 2d quality, Do. Shorn, Lambs, Calves, Pigs.

MARK LANE.—MONDAY, NOV. 1.

There was a poor supply of English Wheat to this morning's market, which was sold at the rates of this day's night. The attendance was good, but foreign met with little inquiry, and in some instances rather less money was accepted, the business transacted being to a moderate extent only. There

was no change in the value of Barley, Beans, or Peas, but Oats met a dull sale at a decline of 61. per qr. Flour was quiet at late rates.

Table with columns for WHEAT, BARLEY, OATS, RYE, RYE MEAL, BEANS, PEAS, MAIZE, and FLOUR, with prices in s. s. and s. s.

FRIDAY, NOV. 5.

Excepting some heavy storms off our coasts, the weather since the 29th ult. has been fine. We have no improvement to report in the Wheat trade during the past week, the deliveries continuing in excess of the demand; business has been slow, and in some instances an allowance has been made to effect sales of new Wheat, but the value of fine old has been generally maintained in the markets of the kingdom. Maltng Barley has brought an advance of 6d to 1s. per qr.; the price of other descriptions, as well as that of old Oats and of Peas, has been well sustained, but now Oats and Beans were cheaper to sell. Flour moved off very slowly, and prices were in buyer's favour. Since Friday last 19 grain and seed-laden vessels arrived off the coast, of which, with those left over from the preceding week, there remained for sale last night 32 cargoes. The trade in cargoes arrived off the coast was slow during the past week, and prices for arrived Wheat were 1s. per qr. lower. Maize gave way, and was the turn in buyer's favour. Barley quiet, and Rye tending downwards. We noticed hardly any disposition to enter into transactions for forward delivery of any kind of grain. Paris, November 4.—There was very little doing in either Wheat or Flour. The six marks are quoted at equal to 33s. per 280 lb. The stock at the Halle is estimated at 1560 cwts.

The arrivals of English grain this week are very small, and moderate of foreign. There was the usual attendance at this morning's market. English Wheat met a slow sale at Monday's quotations, and but very little business was transacted in foreign. In the value of spring corn there was no change, excepting for Oats, which were 6d. to 1s per qr. cheaper.

ARRIVALS.

Table with columns for Wheat, Barley, Oats, and Flour, with quantities in qrs. and prices in s. d.

Nov. 2.—We had an average attendance at our market to-day, and Wheat met with a moderate consumptive demand, at about previous rates. Flour quiet and unchanged. Indian Corn was but in limited request, at prices rather in favour of buyers. Oats and Oatmeal neglected. Beans firmer. Peas unchanged.

AVERAGES.

Table with columns for Wheat, Barley, and Oats, with prices for Sept. 25, Oct. 2, and Average.

SEED MARKET.

The inactivity that has so long characterised the agricultural seed trade has continued during the present week, and we have consequently but little to add to our last report. Winter Tares meet with small inquiry, at drooping values. Hemp seed is still very scarce and dear. New Canary seed is in large supply, and can now be bought at very moderate rates. We have a fair demand for feeding Linseed. There has been some speculation in white Clover seed; prices are tending upwards. All other kinds of seeds are without quotable variation. JOHN SHAW & SONS, 16, Water Lane, E.C.

WANTED a GARDENER, who thoroughly understands Greenhouse, Vinery, and Kitchen Gardening; and whose character for ability and industry will bear strict investigation. A second man kept. Wages 25s. per week.—Address, FELTON AND SONS, Birmingham Nursery, 56, Harborne Road, Birmingham.

WANTED, a YOUNG MAN, who has a knowledge of the Garden and Flower Seed Business, for a small Provincial Town. One who has a knowledge of Nursery Stock preferred.—Apply to ANDREW G. DALY, Nurseryman and Seedsman, Newry, Ireland.

To Jobbing Gardeners.

WANTED, in a West-end Florist's Shop, an active YOUNG MAN, not over 20, who thoroughly understands Jobbing, and can make himself generally useful. Wages 12s per week; hours, 7 to 8, must read and write well. Also an active intelligent BOY, who has been used to a Nursery or Shop. Wages, 10s. per week. Apply any day before 1 o'clock, at R. GREEN'S, 28, Crawford Street, Baker Street, W.

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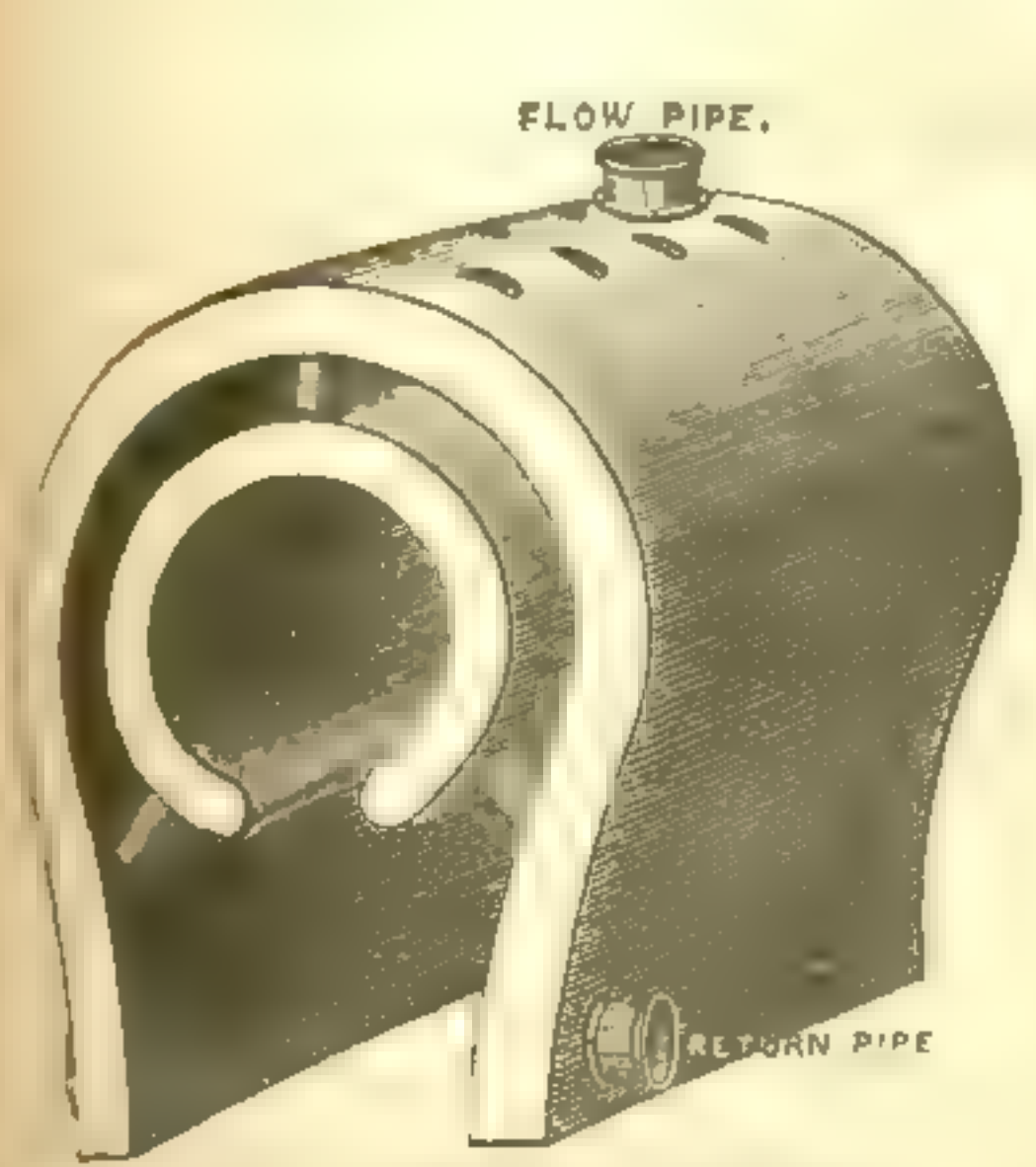
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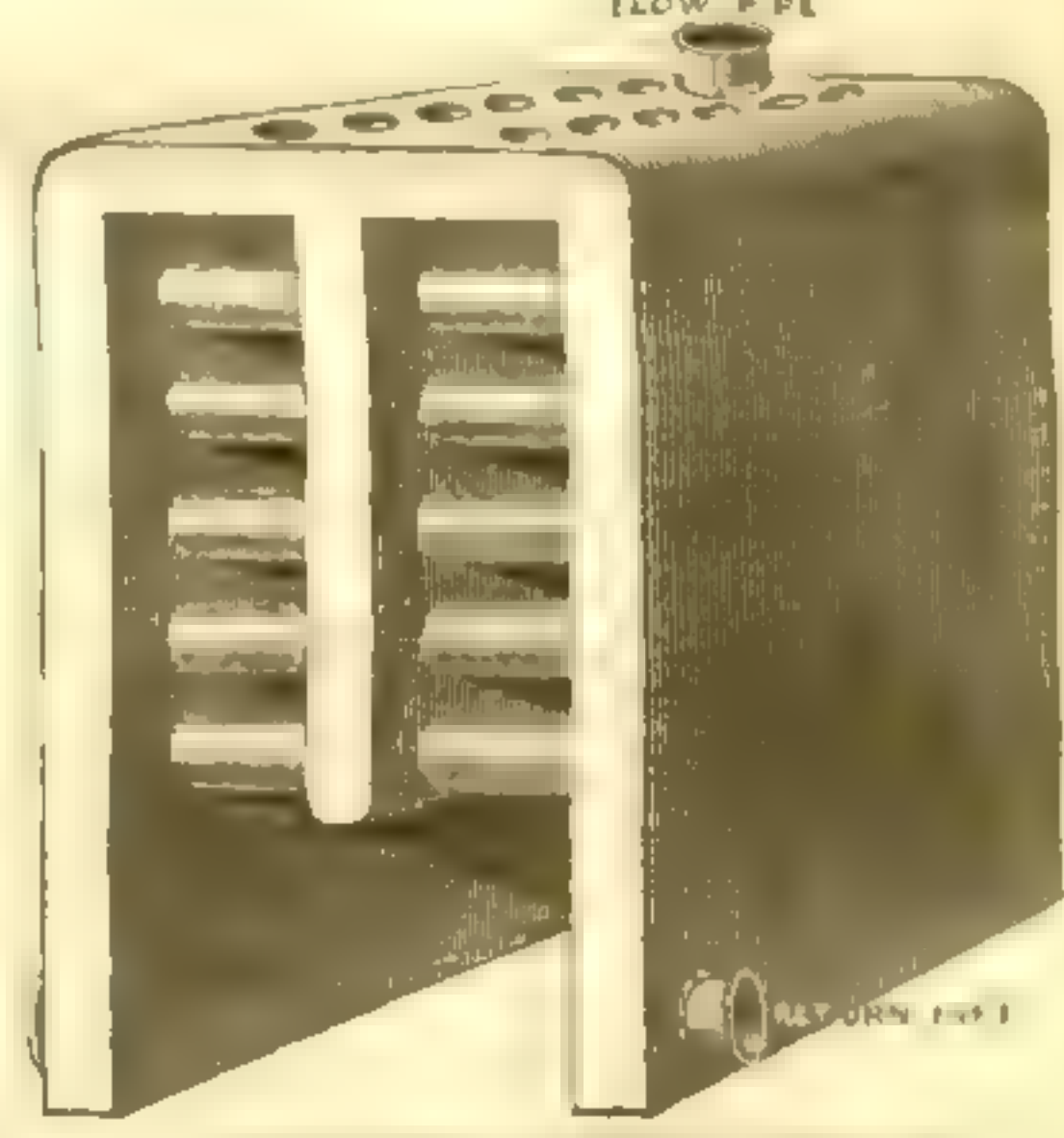
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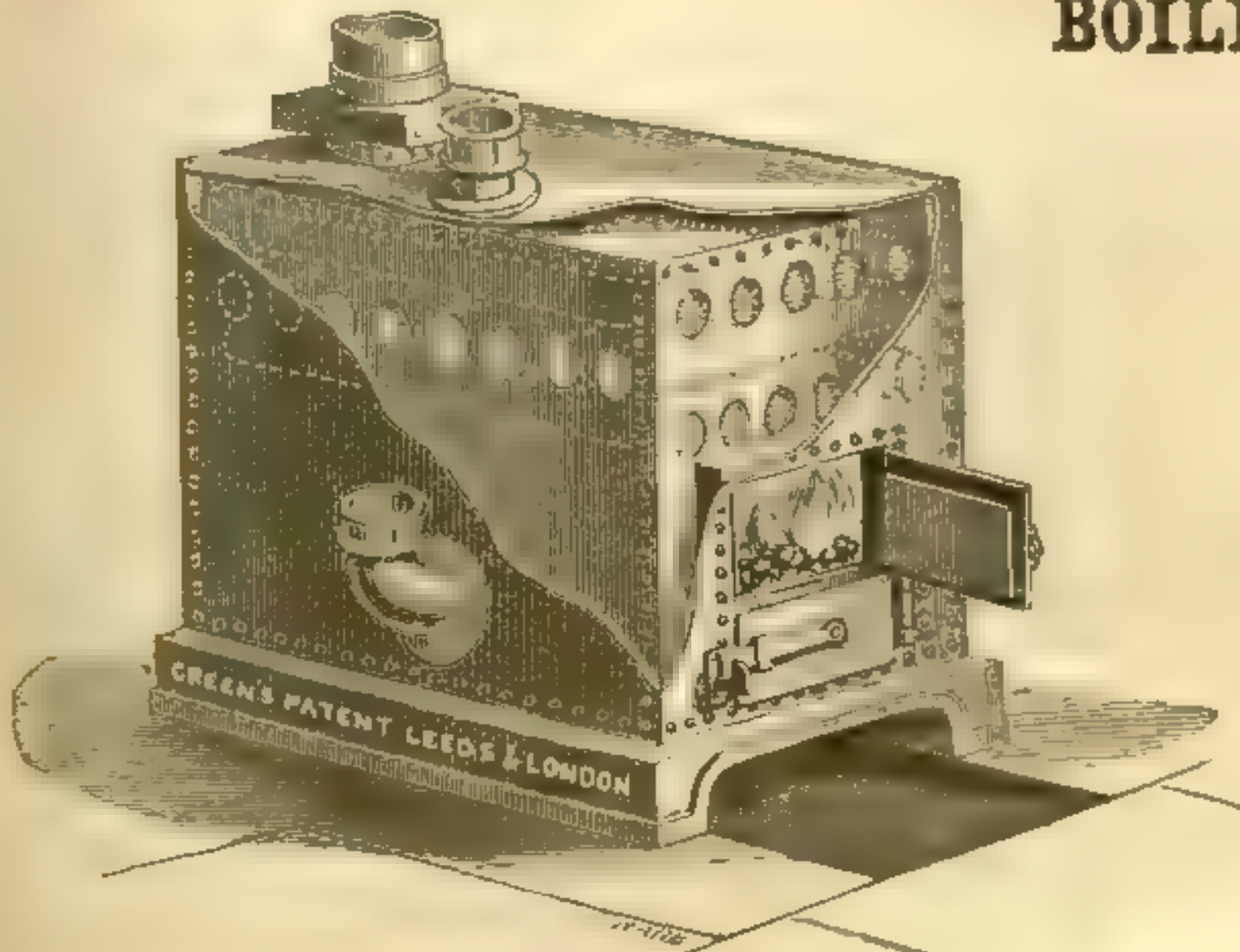


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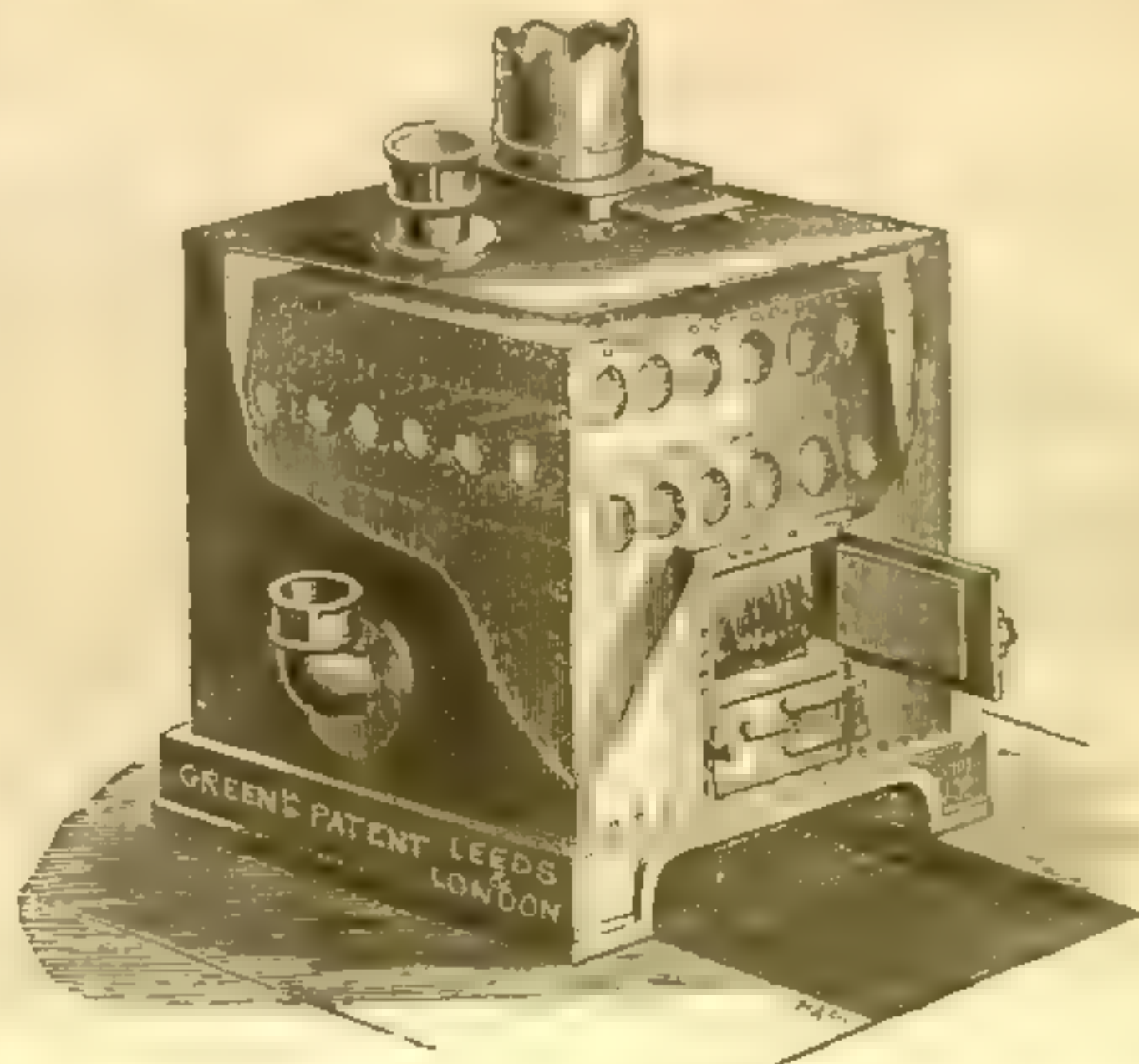
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Home News.

THE COURT.—The Queen and Royal family continue
at Windsor. On Friday the Queen, accompanied by

Princess Louise, went to London, and paid a visit of
condolence to the Countess of Derby at her residence
in St. James's Square. Her Majesty afterwards visited
the Princess of Wales at Marlborough House,
and returned to Windsor at half-past six. The
Princess Louise remained in town, and accompanied
the Prince and Princess of Wales to the Gaiety
Theatre in the evening. On Saturday morning the
Queen walked and drove in the grounds, and in the
afternoon drove out. On Sunday morning the Queen
and Royal family attended Divine service in the private
chapel; the Rev. T. J. Rowsell preached the sermon.
On Monday the King of the Belgians and his daughter,
Princess Clothilde, arrived at the Castle on a visit to the
Queen. The Belgian Minister and Baroness de Beaulieu
and Viscount Sydney arrived at the Castle on a visit.
On Tuesday morning the Queen walked out with the
King of the Belgians and Princess Louise. In the
afternoon the Queen drove out with Princess Beatrice.
The King of the Belgians drove out with Princess
Louise and Prince Christian. The Prince of Wales,
the Duke of Cambridge, the Duchess of Argyll, the
Earl of Clarendon, Mr. and Mrs. Gladstone, and Vis-
count Jocelyn arrived at the Castle. On Wednesday
morning the Queen went out in the grounds with Prince
Leopold. The King of the Belgians visited M. and Madame
Van de Weyer, at New Lodge. The Prince of Wales and
Prince Christian went out shooting. In the afternoon
the Prince of Wales, the Duke of Cambridge, Baroness
de Beaulieu, Mr. and Mrs. Gladstone, and Viscount
Jocelyn left the Castle. The Queen drove out with
Princess Beatrice. The King of the Belgians rode out
with Princess Louise. The Austrian Ambassador
arrived on a visit. In the evening the Queen had a
dinner and an evening party. On Thursday morning
the Queen drove out. The King of the Belgians rode
on horseback with Princess Louise. The Duke de
Nemours, the Duke and Duchess d'Alençon, and
Princess Marguerite of Orleans visited her Majesty
and the King of the Belgians, and remained to
luncheon. The Duchess of Argyll, the Austrian
Ambassador, and the Earl of Clarendon left the
Castle.

THE KING OF THE BELGIANS, accompanied by his
daughter the Princess Clothilde, landed at Dover on
Monday afternoon, and after receiving an address from
the Corporation proceeded to Windsor Castle on a visit
to her Majesty. The Queen of the Belgians was pre-
vented by indisposition from accompanying the King.
On Tuesday morning the Princess Christian drove his
Majesty, in her pony phaeton, to Cumberland Lodge,
to view the ruins of the fire. In the afternoon Sir
James C. Lawrence, ex-Lord Mayor, Alderman Cotton,
and Captain Mercier, as a deputation of the Belgian
Reception Committee, had an audience with his Majesty
to learn the King's pleasure as to the presentation
of an address of welcome, signed by the Lord Mayors
of London, York, and Dublin, the Lord Provosts of
Edinburgh, Glasgow, and Aberdeen, 30 lord-lieutenants

of counties, 22 high sheriffs, 211 magis-
trates, 8 high bailiffs, 8 high constables, &c. The
King in reply said that Queen Victoria had
her wish that the address should be presented to
at Buckingham Palace, for which purpose he
attend there on Thursday, the 25th inst. at 9
His Majesty added that he would visit
the Lord Mayor's invitation to a
Mansion House on the same evening
to present the freedom of the City
he leaves this country.

THE PRINCE AND PRINCESS of
Friday the Prince, accompanied by
Saxe-Weimar, went out shooting to
the afternoon the Queen, accompa-
Louisa, visited the Prince and Prin-
Marlborough House. Prince Tunk
Envoy of the Sultan of Tringago, had
the Prince and Princess, for the pur-
a letter and some articles of work-
Highness. In the evening the Prince
accompanied by Princess Louisa, went
Theatre. On Saturday the Prince
Count Gleichen, went out shoot-
Park, and afterwards went to
took luncheon with Prince and Prin-
The Princess drove out. On Sunday
and Princess attended Divine
Monday Prince and Princess Christian
Prince and Princess at Marlborough L.
remained to luncheon. In the after-
drove out with Princess Christian. The
Prince left Marlborough House for W.
visit to her Majesty. The Princess de-
Wednesday the Prince returned to
House from Windsor. The Princess de-
the evening their Royal Highnesses went
of Wales' Theatre. On Thursday the
the Hoiborn Viaduct, and afterwards went
on a visit to the Queen. The Prin-
is announced that the Prince will visit
Countess de Grey at Studley Royal, near
beginning of next month.

NEW PEERS.—The following gentlemen
be raised to the Peerage of the United
The Earl of Southesk, the Earl of
Edward Howard, the Right Hon. J. Fitz-
Sir John Acton, Bart., Colonel Greid-
Mr. George Carr Glyn, and Mr. T. Ar-
Peerages have also been offered to, and
Mr. W. B. Beaumont, M.P. for South
land; Mr. George Grote, F.R.S., the ban-
torian of Greece; and Mr. Edward El-
Andrew's. A peerage offered to Mr. C. R. M.
M.P., is also said to have been declined.
that Mr. Fitzpatrick will take the title of
Lord Edward Howard that of Lord G.
that of Lord Wolverton, and Mr. Robert

ILLNESS OF THE ARCHBISHOP OF CANTERBURY.
—It was announced yesterday that the Ar-
Canterbury is seriously ill at Broadstairs, and
Seymour Haden, his medical attendant, is
summoned by telegraph from London.

THE NEW BISHOPS.—The Dean and
Carlisle, on Friday, unanimously elected
as Bishop of that see. The consecra-
place in York Minster, on the 30th inst.
and Chapter of Bath and Wells, on Thur-
mously elected Lord Arthur Hervey as B-
see. Dr. Moberly was enthroned as
Bishop of Salisbury, in the Cathedral of
is said that the prelates who will con-
Temple as Bishop of Exeter, are the Ar-
Canterbury, the Bishops of Winchester,
and Worcester. Bishop Ewing, of Scotlan-
take part in the ceremony.

THE BISHOPRIC OF ST. ASAPH.—It is
there is no truth in the report that the
St. Asaph has resigned his see, much less
successor has been determined upon.

THE DEANERY OF ELY.—Mr. Gladstone
the Deanery of Ely to the Rev. Dr. Merivale,
Fellow and Tutor of St. John's College, Cam-
honorary D.C.L. of Oxford, and Chaplain to the
of Commons.

PARLIAMENTARY MOVEMENTS.—Mr. W. E.
stone was re-elected for Whitchy on Wed-
a majority of 182 over Major Worsley, the
tive candidate. On the same day Mr. Ly-
worth, the Liberal candidate, was elected for
by a majority of upwards of 100 over Mr. R.
The election for Glasgow and Aberdeen
began on Monday, and was to continue
The latest returns gave Mr. Gordon, the Lib-
of the late Conservative Government, a
more than 500 over Mr. Smith. The elec-
Waterford took place on Thursday, when
Barron and Mr. Bernal Osborne were put
ination. The show of hands was in favour
Osborne. The poll takes place to-day
rumoured that Lord Enfield is about
from Middlesex in favour of Mr. Glad-
elevation of Mr. Talbot to the peerage
a vacancy in Glamorganshire. Mr. D. Lynn
of Penllergare, near Swansea, will be the
candidate, and Mr. G. T. Clark, of Down, has
be the Liberal candidate for the vacant
report that Mr. Corry intended to retire
representation of the county of Tyrone has
tradicted. It is stated that Mr. Bernard
son of the Right Hon. J. W. Fitzpatrick,
candidate for Queen's County. At a meeting
Liberal electors of Southwark on Friday, a motion
it was not expedient to bring forward Sir
Waterlow, after a long discussion, was carried
large majority. Sir F. Lyoett, Mr. Labourer

Mr. Odger, were mentioned as candidates for the resolution in favour of either of them.

COMMISSIONS.—On Monday a resolution was made to obtain the release of the prisoners committed to York Castle for evidence before the Beverley Commission. The Commission is to hear arguments on both sides. The Commission is to be composed of the Lord Chief Justice, the Lord Justice of Appeal, and the Lord Justice of the Queen's Bench. The Commission is to be discharged the rule, on the ground that the Commission had full power to commit to prison the prisoners.

HOUSE.—Considerable reductions are to be made in the Custom House. Mr. Morgan, the principal clerks in the Treasury, is to be discharged. The financial system adopted in the Inspector-Generals' Department, is to be examined by the Parliamentary Secretary of the Treasury, and reporting on the same to the House of Commons.

Foreign.

A rumour is current that an interview will be had at Nice next month between the Emperor and the Czar. The Emperor presided at a meeting of Ministers at Compiègne on Sunday, and reviewed the regiments of Zouaves and of the Guards. His Majesty was expected at the Tuileries yesterday, to stay till Tuesday. On Thursday on the Bourse that M. Ollivier will be appointed Minister of the Interior, and M. Forcade de la Roquette Minister of Finance; and that the Ollivier Ministry will be on the understanding that the Legislative Assembly will be dissolved after the voting of the Budget, the Electoral Bill, and Reconstruction of the Bill, all which measures the Legislature itself will be asked to draw up. The Ambassador, Baron Werther, presented his credentials to the Emperor on Monday, and said that his efforts to maintain and cement the friendship and good understanding which so long existed between the Courts and Governments of Prussia, and also of the North German Confederation, and which, based upon mutual interests, countries so cordially desire to develop, he would be obeying the express wish of his Sovereign. The Emperor, in reply, said:—

"The sentiments which you have expressed to me for your Sovereign. Like him, I wish to see friendly relations between Prussia, the North German Confederation, and France. I cannot but congratulate you on the choice made by the King in sending you to Paris, and I beg you to rely upon the kindly reception which will be accorded to you."

M. Ledru Rollin returned to Paris on Friday evening, and on the same night attended a meeting at the Rue La Chapelle, at which he was present, but would perhaps take his seat if the ground of his refusal to come to Paris at Compiègne was that his presence might provoke the responsibility of which he would not wish to assume. On Saturday night several meetings were held, but nothing of a remarkable character took place, with the exception of one in the evening, when M. Rochefort, alluding to the refusal of M. Ledru Rollin to come to Paris, is reported to have said:—"I saw decidedly that that man was not fit to be a Minister." At a meeting at the Folies on Sunday, M. Rochefort denied having any connection with the Orleanist party, and that he had never seen eight years old who was not baptised, and would be. He then contradicted the report that he was said to have used on the subject respecting M. Ledru Rollin, and stated that he had said that M. Rollin did not take a correct view of the position of the Government. At another meeting held on Sunday in the Rue de la Harpe, M. Felix Pyat declined to condescend as a candidate refusing to take a candidature to a working man. He alluded to the *ouvriers* to rise and shake off the yoke under the weight of which they were oppressed. The members of the Left met at the residence of M. Jules Favre on Sunday, and read a manifesto, which was published on Monday evening, with the signatures of 27 deputies, including those of MM. Gambetta, Jules Favre, and Ernest Picard. The manifesto attacked the interpellations and reforms which the Government intend to introduce in the Chamber of Deputies. It asks the suppression of the law which every man on attaining his majority is called upon to demand that the right of declaring war should be vested in the national will, and points to the franchise as the means by which the renovation of the country is to be attained. It concludes by saying that the nation must be freed simultaneously from the demagogic violence by which it is oppressed. The *Reforme* attacks this manifesto, and the deputies of the Left have agreed rather as to the substance of their manifesto than as to the ideas expressed. It therefore congratulates M. Gambetta upon not having signed the document. A meeting was held at Marseilles on the 20th, at which resolutions were passed declaring that M. Gambetta had forfeited the confidence of the electors, that he had sold himself, and was in bad health and incompetent. A meeting was held on Sunday night at Doudeauville, in which 2000 persons were present. The

manifesto of the Left was read and received by the audience with a burst of derisive laughter and hisses. The assembly decided almost unanimously that M. Gambetta was a traitor to the cause of the people, and had broken his word. M. Carnot has announced himself a candidate in opposition to M. Rochefort. The electoral committee of the Chamber of Deputies to take the oath had been elected. M. Louis Blanc in the place of M. Ledru Rollin; but at a private meeting on Tuesday M. Gambetta read letters from MM. Louis Blanc and Barbes, declaring that they would not come to Paris, the former as he did not wish to cause a disturbance, and the latter on account of his health. M. Ledru Rollin and M. Barbes recommended the working of a disturbance. It is now asserted that the Emperor intends to bring forward M. Gambetta as the candidate of the Left, to oppose M. Carnot. It is said that the Emperor has decided on making M. de Lesseps Duc de Suez, in honour of the opening of the Canal. Prince Napoleon is at Compiègne. The Princess has returned to the Palais Royal. A meeting of the manufacturers of silk stuffs at Lyons has petitioned the President of the Chamber of Commerce to use all his influence to maintain the French Commercial Treaty with England. Monseigneur Dupanloup, Bishop of Orleans, has addressed a letter to the clergy of his diocese, in which he declares himself averse to a definition of the personal infallibility of the Pope, as inopportune. He blames the intemperate language of such journals as the *Civita Cattolica* and the *Univers*, which have opened the discussion on this delicate question, and prejudged the decisions of the Ecumenical Council; and says that a declaration of personal infallibility would be inopportune at the present time, because it would be useless and dangerous; would drive schismatics and heretics still further from the Church, their restoration to which ought not to be despaired of, would provoke the mistrust even of Catholic Governments, and would revive the hatred of the Pontifical power. He blames the Pope who confounded the spiritual with the temporal, and arrogated to themselves claims to dominate over thrones, referring particularly to the Bull of Paul III., which released the subjects of Henry VIII. from their oath of allegiance. This Bull, he says, was calculated rather to precipitate the English nation into heresy than to bring it back to the Church, and was for all Christendom a great misfortune. The celebrated vineyard of Clos-Vougeot has been sold by auction for 1,632,000f. to the Marquis de la Garde.

SPAIN.—The Ministerial journals assert that the Duke of Genoa, if elected, will accept the Spanish Crown. It is expected that at the elections which will be held shortly to fill up the 30 vacant seats in the Cortes, members will be returned prepared to vote in favour of the Duke. It is estimated that the number of votes for his Royal Highness will then amount to 200. Admiral Topete was elected Vice-President of the Cortes on Friday, by a majority of 133 to 5. General Prim informed the Cortes that the Deputies Caimo and Suner had been condemned to death, that the Deputy Ameller had been condemned to perpetual exile, and the Deputy Serraclara to 12 years' confinement. The Bishop of Havana was arrested on Friday at Cadiz. A considerable sum of money for the Carlist chiefs was found in his possession. In the sitting of the Cortes on Saturday the Minister Becerra, in replying to questions from the Porto Rico Deputies, said that in a few days he would read the projected Constitution for that island, treating it not as a colony, like the relation of Canada to England, but as a Spanish province. He condemned slavery, which he said must be gradually abolished, with indemnification to owners. The Porto Rico Deputies spoke in favour of abolition. In the sitting of Thursday the Cortes discussed the Bill relative to the elections for the 39 seats which are vacant, when the Minister of the Interior declared that these elections would not be held until after the raising of the state of siege. A rumour is current in Madrid that the Italian Government has refused its assent to the candidature of the Duke of Genoa for the throne.

BELGIUM.—In the sitting of the Chamber of Representatives on Tuesday M. Frere Orban, in reply to M. Dumortier, said that the late Franco-Belgian railway difficulty had certainly excited the national susceptibilities in a slight degree; still the difficulty might almost be a subject of congratulation, since it had served to place the relations of Belgium and France on a better footing than ever. The conventions concluded were unobjectionable from a political point of view, and were especially favourable to manufacturing interests.

SWITZERLAND.—The Swiss Government has communicated to the Swiss Government its desire to join the Convention for the promotion of a uniform system of coinage, to which France, Italy, Belgium, and Switzerland, have already given their adhesion.

PRUSSIA.—The marriage of Prince Charles of Roumania and the Princess Elizabeth of Neuwied was celebrated on Monday in the presence of the Queen of Prussia, the Grand Duchess of Baden, the Count and Countess of Flanders, all the members of the Hohenzollern family, as well as the Ambassadors of the principal Sovereigns of Europe. In the sitting of the Chamber of Deputies on Friday, the motion of Herr Ebert, extending the trial by jury to political and press offences, was finally discussed and adopted. In the sitting of the Upper House on Monday, a resolution proposed by Count Von Munster declaring the granting of the concession for a lottery loan of 100,000,000 thalers to be incompatible with the welfare of the State, was adopted, as was also a Bill fixing 21 years as the age at which Prussian subjects shall henceforward attain their majority. In the sitting of Wednesday the motion of Count Lippe, relative to the

connection between Federal and Prussian legislation, was discussed, when the Minister of Justice declared in the name of the Government that the proposition could not be entertained. After a long debate the House passed to the order of day by a majority of 54 to 42.

GERMANY.—In the sitting of the Chamber of Deputies on Friday a motion requesting the Government to use its endeavours to bring about a peace between the North and South and end of no war, was adopted. The North German Confederation was unanimously adopted.

DALMATIA.—The last appeal to the insurgents to submit having proved ineffectual, the Austrian troops on Tuesday commenced marching forward in four columns against the district of Krive. The insurgents are partially retreating and partly being driven back by the advancing columns.

RUSSIA.—An Imperial rescript was issued on Thursday ordering the usual conscription to take place in January, at the rate of four in every thousand inhabitants throughout the empire, including Poland. The Emperor received the new French Ambassador, General Fleury, on the 11th inst. A Special Commission has been appointed in connection with the Second Division of the Imperial Chancery for the purpose of revising the existing censorship and press regulations. The following is a list of the presents brought by the son of the Emir of Bokhara for the Emperor and Empress.—For the Emperor.—Three magnificent sets of furs covered with precious cashmeres; three sets of Astracan furs of rare quality, enveloped with cashmeres; four splendid sets of harness, ornamented with precious stones, for saddle-horses. For the Empress.—A diamond ring of great value; a cashmere handkerchief of exquisite workmanship; a valuable piece of cashmere, and a dialium set with precious stones.

ITALY.—The King left his bed on Friday for a few hours, and is now well enough to sign decrees. The Italian papers are filled with the details of the events which took place between the King and the parish priest of San Rossore, when the latter was required to administer the last sacrament to his Majesty during his recent dangerous illness. The King being under sentence of excommunication, the priest applied to the Archbishop of Pisa, Cardinal Corsi, for instructions before he administered the sacrament. The Archbishop in reply enjoined the priest to obtain from the King, before admitting him to the rites of the Church, a retraction of all that he had done against the Church, and an engagement in writing, in the presence of two witnesses, to repeal, in case of recovery, all the laws which were displeasing to the clerical party. To these proposals the King replied:—"I have lived as a Christian in the faith of my forefathers, and in that faith I am ready to die. As King I have, in imitation of the example of my ancestors, done that which my conscience as Sovereign urged me to do for the good of my country." In the face of the King's firmness the priest had not courage to insist on the execution of the orders he had received, and administered the sacrament. The Archbishop was displeased at this, and again sent him to the King to demand at least a verbal retraction. To these fresh proposals the King replied that he would have been glad to listen to him if he had come to speak to him about death, but that if he wanted to talk about politics he must address himself to his Ministers. The Italian Parliament was opened on Thursday by Commission. The Speech from the Throne, after expressing gratitude for the manifestations of affection evinced during the King's illness, says:—

"The birth of the Prince of Naples will be a fresh pledge for the unity and liberty of the country. The relations of Italy with foreign Powers are extremely satisfactory, and if peace is the wish of all nations desiring progress it is particularly so with Italians, who are intent upon the interior re-organisation of their country. The Government has not thought it expedient to interfere with the Bishops who are going to Rome to attend the approaching Ecumenical Council, but the King hopes that a word may go forth from that assembly to reconcile faith and science, religion and civilisation. In any case the nation may be assured that the King will maintain intact the rights of the State and the dignity of the people. The King urges as of great importance the restoration of the finances of the kingdom, and the speedy adoption of the Budget. When the Budget shall have been voted the Government will present several Bills with the view to improve the present system of taxation, and thereby provide for the necessities of the Treasury. As the nation has never hesitated to make any sacrifice to maintain unbroken faith in all its engagements, it is for the Government and the Parliament to ensure that these sacrifices shall be really efficacious. Together with these financial Bills the Government will introduce various measures for the reform of the internal administration and of the penal law, and for the promotion of legislative unification, the reorganisation of the land and sea forces, the extension of trade and credit, and the transformation of the National Guard."

The health of the Princess Margherita and of the infant Prince of Naples is excellent. An enthusiastic popular demonstration in honour of the Royal family occurred on Friday on the Piazza Plebiscito and at the Stook Erohauga. Congratulatory telegrams have been received by Prince Humbert and Princess Margherita from all parts of Italy and from the European Sovereigns. A Royal decree, dated Sunday, has been issued, granting an amnesty to political offenders and to persons implicated in the Grist Tax Riots. The Tribunal of Florence on Monday evening condemned Major Lobbia to one year's military punishment, Signor Martinati to six months' ordinary imprisonment, and Signori Caregnato and Lovelli to three months' imprisonment each. Signor Benelli was acquitted. The sismograph at the Vesuvian Observatory has been extremely agitated since the 9th inst.

TURKEY.—The Council of Ministers met on the 11th inst., to consider the reply of the Khedive, in which his Highness substantially concedes all the points demanded by the Sultan, except that one relative

majority are opposed to the revival of the ancient synods, a very large number are in favour of a diocesan conference in some form or other. Your own memorial tends to confirm this opinion. I do not possess the same opportunity of ascertaining the opinion of the laity, and yet I feel it to be due to their position in the Church, and essential to the success of any such measure as that which we are considering, that their opinion should be sought, and their consent obtained, before any steps are taken for its practical adoption. At the present time, and as at present informed of the feeling of the laity upon the subject, I am not prepared to assemble a diocesan conference; but I will endeavour at an early opportunity as may be given me, and as effectually as I can, to ascertain the opinion of the laity upon the question.

OXFORD.—The Marquis of Salisbury was on Friday almost unanimously elected Chancellor of the University of Oxford, in the room of the late Earl of Derby. Only one vote was given for the other candidate, the Earl of Carnarvon.—The Bishop of Oxford delivered his farewell charge to the clergy of his diocese on the 11th inst. The following is a summary of the more important portions:—

"During the 24 years of his episcopate he had consecrated 19 new churches, re-opened 24 restored ones, and confirmed 2,000 candidates. During the same period 2,000,000 had been voluntarily contributed in the diocese for Church purposes and charities. With regard to recent controversies in the Church, he said that it was the special charge of the Church of England to resist the insidious assaults of Popery. In the Church of Rome it was asserted that there was but one dogma, and no room for any differences. The taunt was as unsound as it was easy to offer, for all sections of the Church did not teach one doctrine. Instead of that divergency in the Church being an evil, he held that it was a sign of life, and he would no more make every voice in a diocese speak in the same tone than he would abolish the music of Nature by requiring the same note from every songster. There were, however, limits to such differences. Now that they were bringing their united action to a close, he had the blessing of seeing amongst his warmest friends the representatives of every school of thought. He could not endure to be the bishop of a party when God's providence had called him to be the bishop of a diocese. To a certain extent the rule of liberty as to thought must be extended to the rule of observance. Feeling that strongly, few things had grieved him more than the recent controversy in the Church respecting dresses and externals. With the mighty work they had to do, with the growing masses on every side, it was heartbreaking to see the zeal of earnest spirits diverted from its true mission, and see it miserably wasted on unmeaning contests as to the cut of a surplice or the colour of a stole. In such a strife both sides appeared to him to be in the wrong, because both exalted things comparatively indifferent into an utterly undue importance. It was hard to understand religion which consisted on one side in refusing to wear a surplice, and on the other in convulsing a parish by introducing into its services the startling novelty of a gorgeous vestment. He had always held in these mere outward matters that, provided the law was not infringed, nor a weak brother offended, it would be wrong to force on others his own disinclination to change. Therefore, when in a rising town or parish there had been a corresponding progress of ritual, he had always felt that, instead of discouraging it, it was better to guide and moderate rather than oppose its development. He had always associated himself with the living works of the diocese, whenever he found them calculated to assist increasing devotion. He must be allowed to say that there might be changes involving great doctrinal questions. Very small alterations in some cases might indicate very great changes, and with regard to such changes it was impossible to be too watchful. The Church and the nation at the Reformation rejected at once the tyrannous usurpation of the Bishop of Rome and the whole system of superstitious accretions which, under the shadow of the Papacy, had overgrown the fair proportions of primitive truth. That great change was obtained at the price of a convulsion which could hardly fail to injure, and even to destroy something, and to endanger more things, which, though good and valuable in themselves, were more or less connected with the discarded errors. There was one change which he viewed with great apprehension, and that was the tendency manifested in certain quarters to change the idea of the Holy Eucharist from a communion of the faithful into a function of the celebrating priest. In his most mature judgment there was no lawful progress in increased reverence for that great sacrament upon the lines of our own Church, but the adoption of the views, and therefore of the practice, of another Church to whose doctrine as to the Holy Eucharist it naturally belonged; whereas it was absolutely subversive of that which had been received amongst ourselves. We should most earnestly resist all movement towards Rome as she is—first of all, because the accomplishment of such a movement would most certainly involve the loss of that most blessed heritage of the truth of God, which of His great mercy, through the fires of martyrdom, and the anguish of a whole generation of our fathers, He had given to us; and next because every semblance of success helped more than anything else, by giving a shock to long-established habits of belief, the progress of that flood of lawless infidelity which revelation showed us as the plague of the last days, and which seemed to have been already largely poured forth upon the air around us. Already he believed we had so suffered. Faith among us endured a far sadder shock from perversions to Rome than from the scientific discoveries by some supposed mainly to enlarge its continuance. Between true science and the Christian revelation there could be no conflict. The Queen of Science must be at one with her imperial sister, though too eager and perhaps half-instructed followers of each might indulge in passionate brawls and unseemly contention. While some injured true science by setting her up as hostile to the Christian faith, there were some who decided science in order to exalt revelation; but the one evil corrected the other. Hatred of science was unworthy of a Christian man, for his God was the God of Nature as truly as He was the God of Grace; nor need we be afraid of the result if some sought to array science against Christianity. The assault of such enemies against the sacred deposit of truth the Church had from the first endured, and could endure again and again. Only internal corruptions could make her fall before her enemies. The perversion of mighty ones among the Church's children to the corruption, untruthfulness, and superstition of the Papacy, was an injury to the faith, and a real danger against which we were bound to strive."

BUGBY.—The following are the candidates for the head-mastership of Rugby School:—Rev. Herbert Snow, assistant master of Eton, formerly Fellow of St. John's, Cambridge; Rev. Edwin Abbott Abbott, head master of the City of London Schools, formerly Fellow of St. John's, Cambridge; Rev. Albert Wratishaw, head master of Bury St. Edmund's School, formerly Fellow of Christ's, Cambridge; Rev. William Waite, assistant master of Eton, formerly Fellow of King's, Cambridge; Rev. John Percival, head master of Clifton College, formerly assistant master of Rugby, and Fellow of Queen's, Oxford; Rev. Henry Highton, formerly

head master at Cheltenham College, assistant master of Rugby, and Fellow of Queen's, Oxford; Rev. Arthur Faber, head master of Malvern College, formerly Fellow of New College, Oxford; Rev. Henry John Wickham, assistant master of Winchester College, formerly Fellow of New College; Mr. Theodore Walrond, formerly assistant master of Rugby, afterwards Fellow and mathematical tutor of Balliol; Rev. Andrew Hayman, assistant master of Bradfield School, formerly scholar of Merton College.

SALTIRE.—St. Titus Salt, who has just completed the erection of a Mechanics' Institution in this town, is about to provide a park and recreation ground for the benefit of his workpeople. About 12 acres of land are to be set apart for this purpose. The grounds will be laid out in flower beds and shrubberies, and provision will be made for cricket, croquet, bowls, and other outdoor amusements. The means for indoor recreation will also be provided. The whole cost will amount to several thousand pounds.

SHEERNESS.—Her Majesty's gun-vessel Rocket, the sister ship to the Thistle, the boiler of which exploded about a fortnight since, had an exceedingly narrow escape from an explosion on Friday morning. While trying her machinery at the Maplin Sands at full speed, the boilers primed to such an extent as to blow nearly all the water out of them, rendering it necessary to draw the whole of the fires. The alarm in the engine-room and stokehole was very great, being heightened by the remembrance of the calamity on board the sister vessel. Some of the men became so unnerved as to be obliged to go on deck, but others remained at their posts, and by their exertions prevented another catastrophe. The cause of the priming is unknown. The Thistle is ordered to be paid out of commission, all standing, and to be placed in the first division of the Steam Reserve.

SHIELDS.—The North Shields Free Library was opened by the Mayor and civic authorities on the 4th inst. Among the speakers was the member for the borough, Mr. Smith. The proceedings were very successful, and concluded with a *conversazione*. This is the first free library on Tyneside.

WARRINGTON.—On Thursday morning the 11th inst., Mr. Samuel Gleane, farmer, of Great Sankey, near this town, was killed by a gun-shot wound in the back, while driving his cart from the Sixsmiths farm to St. Helen's. At the inquest on Saturday, Joseph Gleane, son of the deceased, stated that his father left his house at 6 o'clock on the Thursday morning in a cart for the purpose of delivering his milk at St. Helen's, according to his usual custom. Josiah Gleane, his nephew, living upon a farm at Burtonwood, a few miles from that of the deceased, deposed that he saw his uncle's horse and cart at the door shortly before 7 o'clock. On going to the cart he found his uncle lying in the vehicle quite dead, with large clots of blood near him. On taking him home, and sending for a medical man, it was found that he had

been shot. A farmer named Roberts, who lives upon the road where the deceased passed every morning, gave evidence that on the morning in question he heard him pass in the cart about the usual time. A few minutes afterwards he heard the report of a gun. It was loud, as if the gun had been heavily loaded. He took, however, no notice of the occurrence, but soon afterwards heard that deceased had been killed. Dr. Smith, of Warrington, deposed that he had examined the body, and found on the left side a large gun-shot wound. In the heart and other parts of the body he found pieces of lead, which seemed to be chippings. No heavy shot had been used to charge the gun, which had been fired from a distance of between 4 and 8 yards, and from a lower level than that which deceased occupied. The shot also had been fired after deceased had passed the murderer, because the shot had hit him from behind. The witness also expressed a positive opinion that death had not been caused by deceased himself. The inquest was adjourned to Tuesday next, to enable the police to make further inquiries. Although the family have offered 200*l.* for information leading to the discovery of the murderer, none has yet been obtained. It is not supposed that the murder arose out of any attempt at robbery, 4*l.* or 5*l.* in sovereigns and loose silver having been found in the pockets of deceased, who is described as having been a good master and a kind neighbour. The only matter upon which he is known to have had any difference with anybody has arisen through the preservation of his game; and it is said that he had recently a quarrel with some poachers, and shot one of their dogs. It is also said that during last autumn he sued one of his labourers in the County Court, and that the defendant refused to appear on the summons, and had not been seen in the neighbourhood since that time. He was an Irishman, and was supposed to have returned home.

WIGAN.—A fatal colliery explosion occurred on Monday evening at the Moss Hall Coal Company's pit at Ince, near this town. Twenty-seven dead bodies have already been brought up, and it is believed that 19 more are in the pit. On Tuesday it was found that the pit was on fire, and as there was no doubt that all the men in the pit were dead, orders were given to close both shafts.

WINDSOR.—On Saturday forenoon, shortly after 9 o'clock, a fire broke out at Cumberland Lodge, in the Great Park, the residence of Viscount Bridport. The flames broke out in the apartments occupied by Mrs. Thurnson, the housekeeper, who was with difficulty rescued by Lord Bridport from the flames. The Windsor Brigade engine, and the engines from the Windsor Infantry and Cavalry Barracks, and Windsor Castle were promptly despatched to the Lodge, under the command of Lieutenant Dundas, Colonel Williams, Lord Somerset, Lord Carington, Marquis of Worcester, &c. By the time the engines arrived the fire had spread over a considerable portion of the

building, and unfortunately the nearest house was at Oxpond, a quarter of a mile distant. At past 11 o'clock the premises were in a state of lead running in every direction, and the fire continued until 2 o'clock, when they were partially extinguished, and it was hoped that the wing built in the reign of Queen Anne, and occupied by Lord Bridport, would be saved. The fire however continued to smoulder until day morning, about 1 o'clock, after which Lord Bridport returned home, it again being feared that the time were in great danger, but by the exertions of soldiers and others in charge, the fire was finally subdued by passing buckets of water through the passages which were in flames. Present on Saturday morning, and in the afternoon the Queen, with Prince Leopold, Prince Beatrice, arrived at the Lodge, and Lord Bridport the extent of the damage. Shortly afterwards the Princess Louise and the Christian family at Windsor met in the State apartments. The Queen, with Prince Leopold, Princesses again visited the ruins on Monday morning. The King of the Belgians and Prince Albert visited them on Tuesday. The plate belonging to Lord Bridport was removed by command of Her Majesty from Windsor Castle, in one of the Royal barges. It is supposed to have been caused by a beam of wood falling in one of the upper rooms of the State apartments. The housekeeper stated that she had perceived a smell of smouldering for the last two days, but could not ascertain from whence it came. The fire was confined to the State apartments, built in the reign of George III. for his brother, the Duke of Cumberland, including a large banquet-hall, a billiard room, library, reading-room, grand entrance-hall, and a suite of rooms above. Many valuable articles of property of the Prince of Wales, bearing the date of their purchase, were taken into the hall for safety, but the rapidity of the flames were entirely consumed, and they could be removed.

Ireland.

THE PRIME MINISTER AND THE IRISH.—The speech of Mr. Gladstone at Guildhall has furnished suggestive texts for articles in the "national" press. They accept the admission of "seven centuries of wrong," and moralise upon it after their own fashion. They point to legislative independence as the only remedy, and exhort the people to place their confidence in the promises of the British Government at the inauguration of a new swindle under the name of agitating for fixity of tenure, which was obtained save from an Irish Parliament. When concessions, it says, have been made to Ireland in time, or in any other time, have been made in English fears, not granted by English justice. The *People of Ireland* says that it is sheer folly to suppose that the promised Tenant-Right Bill of Mr. Gladstone will remedy matters. What Ireland wants, it says, is a native Government, under which the land would belong to the country, and be managed by it for the benefit of all its people. That could be effected at the first session of the Parliament of free and independent Ireland, and to that complexion it must come.

TENANT-RIGHT MEETINGS.—A tenant-right meeting, attended by about 5000 persons, was held at Scotstown, county Monaghan, last week. Mr. Wall, J.P., in the chair. The first resolution was: "That the people of Ireland are entitled to a fair rent, at a fair rent." Mr. A. J. M. Keenan, who moved the next resolution, which was: "That the so-called tenant-right of Ulster is a mere delusion," said that it was a lie to say that the condition of the rest of Ireland were like that of Ulster, the country would be happy. The right, he said, meant only oppression of the tenant and the tenant-farmers of Ulster would be exchanged for fixity of tenure at a fair rent. The proceedings terminated with the adoption of a petition to Parliament. A "Tenant-right League" was inaugurated at Kilkenny on the 10th inst. Mr. Bryan, M.P., in the chair, supported by Lord Bellow, Mr. Mulholland Marum, Mr. D. Wick, and several priests. Mr. Marum said that though he had written to every gentleman in the county soliciting their cooperation, few had favoured him with a reply. He proposed the adoption of the rules of the Munster Club, which were agreed to. The proceedings were frustrated by remarks from persons in the meeting about the Fenian prisoners and the release of Lord Carrick and other landlords. A meeting, attended by about 8000 persons, was held at Saltmills, Wexford, on Sunday, at which Mr. M.P., presided, and said he would not support a Bill giving security of tenure, but would support the principle whether the Bill passed or not. He said that the power of ejecting a tenant, and to deprive him of the power of a periodical valuation based on the price of agricultural produce. The Rev. Jeremiah H. H. who moved one of the resolutions, said the services of millions of the Irish race scattered over the face of the earth must be conciliated. There should be no question of tenure and fair rents. "There was no count"

Ireland, for Irishmen were never happy Tuesday a meeting was held at Lord Granard in the chair, supported by the county and for New Ross. Resolved in favour of sixty of tenure at fair that in any measure for the relief of the interest of the labouring class, and characterising as a gross and the alleged imputation of the measure to the Roman Catholic

DEMONSTRATION AT WATERFORD.—A demonstration was organised in Waterford on Tuesday, with bands at its head playing the national air, to the hill of Ballybracken, in support of Ireland, a Republic, and an independent Constitution. The banners were headed "Mackay for Ireland!" and "Upwards of 12,000 persons were

MURDER.—A man, whose name is not given, but who is supposed to be a Cotter or Reardon, has been arrested on suspicion of being concerned in the murder of a private inquiry was held on Tuesday, and he was remanded. The authorities are in communication with London, and more arrests are expected.

Scotland.

OFFICIAL OFFICERS IN SCOTLAND.—The Earl of Dalhousie and Sir William Clerk, one of the Secretaries of State, have been appointed to enquire into the administration of the public departments in Scotland.

JUDICIAL DECISION.—It is understood that the Government have determined on not filling up the vacancy in the Court of Session for the year 1869.

UNIVERSITY OF EDINBURGH.—The University of Edinburgh, under the sanction of the Chancellor, have passed the following regulations for the education of women in the University—"1, women admitted to the study of medicine in the University shall be conducted in separate classes; 2, the instruction of women for the purpose of medicine shall for this purpose be per- mitted to study medicine professionally may be conducted in separate classes; 3, the professors of medicine shall for this purpose be per- mitted to give instruction in such classes, as the Court may from time to time think fit and the fee for the full course of instruction in medicine shall be four guineas; but in the event of students proposing to attend any such course, it shall be in the power of the pro- fessors to provide a reasonable remuneration at a rate, it shall be in the power of the subject to make arrangements for a higher fee subject to the sanction of the University Court; 6, all students attending such classes shall be subject to all the regulations of the University; 7, the regulations shall take effect as from the com- mencement of the session 1869-70."

RECTORSHIP OF ABERDEEN.—The Rectorship of Aberdeen, which Mr. Grant Duff, M.P., Under-Secretary of State for India, was elected to the office next month, and there are already several candidates for a contest for the chair. It is understood that he will be opposed by Sir James Maxwell, Bart., of Keir. The election will take place on December 24.

ADDRESS WITH ENGLAND.—On Friday night the Rector of the Philosophical Institution in Aberdeen gave an address by the Right Hon. James Mackay, Lord Justice Clerk. The subject was "The Union of the Crowns and union of the kingdoms of Scotland and England." His lordship traced the history of the union which had been produced by those events on the progress and social condition of the country. He remarked that it was not until the bonds uniting the two countries were severed, and at the results which had been produced by mutual amity.

NEW CABMEN.—An important movement has commenced in Edinburgh to afford employment to the cabmen. Through the exertions of Mr. A. Mackay, a neat wooden building, designed by Mr. Mackay and provided by subscriptions from inhabitants of the neighbourhood and the cabmen themselves, has been erected at two stand at Randolph Crescent. The building is provided in it, by which a full view in each direction can be commanded; and entered by a door from the street-side. A gas-stove is to be provided for heating the stand. A gas-stove is to be provided for heating the stand. A gas-stove is to be provided for heating the stand.

IRISH GOLD DIGGINGS.—The operations during the last few weeks have been unproductive, and the number of persons employed has not been equal to that of the previous season, so that it is generally believed that the gold-mines in Sutherland is, for the present at least, abandoned.

Railways.

THE MIDLAND.—On Wednesday evening an express, from Derby to Leicester, was derailed at the Trent junction. Several persons were injured; one named Shaw, a traveller, is lying at Leicester, seriously injured. The men in the ballast van at the rear had their lives.

ABANDONMENT OF PROPOSED LINES.—The first series of notices for various railway Bills in the next session, which were issued on Saturday, are remarkable for the large number of applications they contain for the abandonment of proposed lines. The South-Eastern ask for power to abandon the construction of the extension line to Cranbrook, which was authorized five years since, and also of all the railways between Tonterden and Apolonia and Appetore and Stargate. The Great Northern ask to abandon the Watford and Edgware line, which was also authorized five years since, and the Lancashire and Yorkshire ask to abandon a portion of the Ripponian branch. It is also understood that neither of the three rival Brighton schemes will be proceeded with in the forthcoming session.

THE EASTON STATION.—The London and North-Western intend to enlarge the Easton terminus, and considerably improve it. The works will commence about the latter end of this month.

PENNY RAILWAY FARES.—The movement to establish penny fares for working men living in the suburbs is making great progress in Liverpool. The London and North-Western Company have nearly completed branch lines by which Bootle, West Derby, Walton, and other suburbs of Liverpool, will be connected with their main lines, and it is intended to establish a system of penny fares for working men.

Sporting.

THE GREAT TYNE BOAT RACE.—The four-oared race for the championship was rowed on Thursday on the Tyne, over a distance of three miles and a quarter. The competitors were the Thames crew and the Newcastle crew, which was recently successful on the Thames. At starting the waves were so high that both crews could scarcely row. The Thames crew got away with the lead, which they kept for half a mile, when the Tyne men came to the front, and, after a neck and neck struggle, went ahead, and won easily by two lengths and a half. Time, 28 min. 50 sec.

Obituary.

VISCOUNT CANTERBURY died on Saturday, after a lingering illness, at his town residence in Clarendon Street. He was the second son of Charles John Manners Sutton, second Viscount Canterbury of the City of Canterbury, and Baron Billesley of Bottesford, county Leicester, in the peerage of the United Kingdom, was the eldest of the two sons of the Right Hon. Sir C. Manners Sutton, G.C.B., Speaker of the House of Commons, and grandson of the Archbishop of Canterbury, by his first wife, the eldest daughter of Mr. J. Denison, of Ossington Hall, Notts. He was born in 1812, and succeeded to the title on the death of his father in 1845. He married, in 1838, the youngest daughter of the late Mr. Charles Thompson, of Winchingham Hall, Norfolk, by whom he has a numerous family. He was nominated by his grandfather, the Archbishop, to the reversion of the office of Registrar of the Canterbury Prerogative Court, and in its discharge received a pension. His baronetcy, which was created in 1831, devolved on his only son, the Hon. Sir John Manners Sutton, K.C.B., who was elected to Trinity College, Cambridge, and succeeded to the baronetcy in 1867. He was elected to the House of Commons for the borough of Cambridge in 1839; but was unseated on petition. He was, however, returned at the general election in 1841, and continued to represent the borough till the dissolution of Parliament in 1847. He was Under-Secretary of State for the Home Department from 1841 to 1846, was appointed Lieutenant Governor of New Brunswick in 1854, which appointment he held till 1861. In 1864 he was appointed Governor of Trinidad, which post he held till 1866, when he was appointed Governor of Victoria.

BARONESS WINDSOR died on the 9th inst., at St. Leonard's. Her husband, Harriet Windsor Clive, Baroness Windsor of Stanwell, in the peerage of England, was the youngest daughter of the eleventh and fifth Earl of Plymouth, by the daughter and coheir of the second and last Lord Archer. She was born in 1757, and married in 1811, the Hon. Robert Henry Clive, youngest son of the first Earl of Powis, by whom she leaves a son and three daughters. The barony of Windsor, which fell into abeyance on the death of the sixth Earl of Plymouth, in 1843, remained between her ladyship and her sister the late Marchioness of Downshire. On the death of the Marchioness her Majesty was pleased to terminate the abeyance, and declare her ladyship by letters patent to be Baroness Windsor, as the surviving coheir of her brother, and thirteenth in succession to the barony of Windsor. The title descends to her grandson Robert George, son of the late Hon. Colonel Robert Clive, M.P., who died in 1853, by Lady Mary Selina Bridgeman, youngest daughter of the late Earl of Bradford. The young peer was born in 1857.

LADY HENRIETTA LOUISA FRANCES CATHART, died on the 10th inst., at St. Leonard's. She was the second daughter of the late General Earl Cathart, G.C.B., sister of the present earl and of Lady Elizabeth Douglas and Lady Adelaide de Trafford.

SIR HENRY RICH, BART., died a few days since at Sonning, near Reading. He was the youngest son of the late Admiral Sir Thomas Rich, and was born in 1803. He married, in 1852, the youngest daughter of the late Rev. James Forkinson, of Dorchester Hall, Cheshire. He was educated at St. John's, and afterwards went to Trinity College, Cambridge, where he graduated B.A. in 1825. He served in the army for 30 years, and was at the taking of Mehadia, the battle of Kirkee, for which he received a medal. For some time he was a groom in waiting to her Majesty. He was a zealous reformer, and was the author of several political pamphlets. He contested Knaresborough unsuccessfully in 1831, and again in 1834, but was returned for that borough in 1837. In 1846 he was first elected for Richmond, without a contest, and represented that constituency till 1861, when he accepted the Chiltern Hundreds, to make room for Sir Roundell Palmer. He was a Lord of the Treasury from 1846 to 1852, and had the dignity of baronet conferred on him in 1863.

SIR DAVID CONNOR, BART., died on the 12th inst. at Hastings. He was born in 1802, and married, first, in 1833, the third daughter of General the Hon. Robert Meade, and the grand-daughter of the first Earl of Clanwilliam; and, secondly, in 1856, the daughter of the late Mr. William Baker. He succeeded to the baronetcy on the death of his father, the fifth baronet, in 1854. He was educated at Sandhurst, and served with the 13th Light Dragoons in India, and afterwards in the 12th Lancers. He succeeded to the baronetcy by his eldest son by the first marriage, Edward Augustus Thurlow, born in 1839, who entered the army in 1855, became Captain of the 32d Regiment in 1859, but retired from the service in 1864.

SIR JAMES PRIOR, KNT., R.N., Deputy-Inspector of Hospitals and Fleets, on the retired list, died on Sunday last at Brighton, aged 82. He entered the medical service of the

navy at an early age; served on the Eastern Coast of Africa, the East India Company's ships, and finally was for some time Surgeon to Admiral Boscawen. He was present at the capture of Mauritius and Java, and was afterwards employed in the 1st Regiment of Foot Guards, and was promoted to St. Petersburg in 1805. He was present at the battle of Borodino, and was afterwards employed in the 1st Regiment of Foot Guards, and was promoted to St. Petersburg in 1805. He was present at the battle of Borodino, and was afterwards employed in the 1st Regiment of Foot Guards, and was promoted to St. Petersburg in 1805.

THE REV. W. H. BARNES, M.A., Vicar of All Saints, Chelsea, died a few days since from a fall of some stone steps, while on a visit to the Dean of Bath. He was in his 53rd year, having graduated at Christ's College, Cambridge, in 1814. As a contributor to the "Quarterly Review" he was distinguished by his lucid and powerful style. He was elected to the pulpit in 1838, and his younger days he enjoyed a high reputation.

ADMIRAL THE HON. JOHN GORDON, youngest brother of the fourth Earl of Aberdeen, died on the 11th inst., at his residence in Queen Anne Street, London. He was in the 73rd year, having graduated at Christ's College, Cambridge, in 1814. As a contributor to the "Quarterly Review" he was distinguished by his lucid and powerful style. He was elected to the pulpit in 1838, and his younger days he enjoyed a high reputation.

REAR-ADMIRAL WARREN, C.B., senior officer on the coast of Ireland, died on the 11th inst., after a short illness. He entered the service of the navy in 1800, and was engaged in various sea services, and the Indian service. He for some time commanded the Channel Squadron, and in 1831, he was appointed to command the Mediterranean Squadron, and in 1834, he was appointed to command the Channel Squadron. He was made a Companion of the Bath in 1831, and a Rear-Admiral in 1833.

REAR-ADMIRAL HENRY COLLEGE DRACON, died on the 11th inst., at Leonard Place, Kensington, on the 9th inst., at the age of 81. He entered the navy in 1800, and accompanied the first Lord Nelson in the capture of the combined fleets of France and Spain. He was present at the capture of the Marsouin and Belle Isle in 1800, and the capture of the Spanish fleet in the Bay of Cádiz in 1805. He was present at the capture of the Spanish fleet in the Bay of Cádiz in 1805, and at the capture of the Spanish fleet in the Bay of Cádiz in 1805.

MR. W. M. BEST, one of the reporters of the Court of Queen's Bench, died on Wednesday, after a short illness. His treatise on the principles of evidence, published in 1849, attracted much attention at the Bar, and Baron Alderson publicly stated that it exhibited more real brains than any law book published during his lifetime. He had a high reputation in the profession as a lawyer, jurist, and scholar. He was a Master of Arts and Bachelor of Laws of Trinity College, Dublin, was called to the English Bar in 1834, and a few years ago was elected a Bencher of Gray's Inn.

WILLS.—The will of Lieut.-Col. Sir Trevor Wheler, Bart., of Alderley House, Leamington, has been sworn under 16,000l. personality; Mr. Charles Moore, M.P., late of Worcester, Lipperry, and Grafton Street, Bond Street, 10,000l.; Sir Thomas Murray Wilson, Bart., 1st of the manor of Hampstead, 12,000l.; Sir Charles George Young, Master King of Arms, 6,000l.; Mr. Robert Bright, of Bristol, and Abbots Leigh, Somerset, 7,000l.; Mr. William Edgar, of the firm of Swan and Edgar, stock-mercers, Piccadilly, and Eagle House, Clapham Common, 4,000l.; Mr. Alexander Beethfeur, of Moscow Road, Bayswater, 6,000l.; Miss Elizabeth Barton, of Wakefield, 140,000l.; Mr. Charles Lawrence, 70,000l.; Mr. Morley Smith, 60,000l.; Mr. Robert Bullen, 60,000l.; Mr. Thomas Prioleaux Ball, 45,000l.; Mr. Josiah Lewis, 40,000l.; Mr. George Jessop, 35,000l.; Mr. William John Campion, 30,000l.; Mr. John Talents Fisher, 40,000l.; Mr. Walter Butterfield, of Stanhope Terrace, Hyde Park, 20,000l.

Markets.

Table with market prices for various goods including Apples, Oranges, Pears, Grapes, Vegetables, and Fruits. Columns list item names and their corresponding prices per unit.

POTATOS.—SOUTHWARK, Monday, Nov. 15. During the past week the arrivals coastwise have been small, but more plentiful by rail. The trade for best samples

has been a little better. Quotations.—York Regents, per ton, 70s. to 100s.; Kent and Essex do., 60s. to 85s.; Lincolnshire do., 60s. to 80s.; East Lothian do., 70s. to 100s.; Perth, Forfar, and Fife do., 70s. to 80s.; French and Belgian Whites, 60s. to 70s.

ENGLISH WOOL

We have had a steady business doing in English Wool, and the tendency for all classes is decidedly towards firmness, though so far it has been impossible to obtain any marked rise, which, when the decided advance of Colonials here, and all classes of foreign Wool on the Continent, is taken into account, is rather singular, and we cannot but fancy that English must soon have its turn.

CURRENT PRICES OF ENGLISH WOOL.	per lb.—s. d.	s. d.
FLEECES—Southdown hoggets	1 1	1 2
Half-bred ditto	1 2	1 2 1/2
Kent Fleeces	1 3	1 4
Southdown ewes and wethers	1 0 1/2	1 1
Leicester ditto	1 2	1 3
SORTS—Clothing	0 10	1 6
Combing	1 0	1 8

COALS.—Nov. 17.

Holywell Main, 17s. 6d.; West Hartley, 17s.; Walls End Elliot, 21s. 3d.; Walls End Haswell, 23s.; Walls End Tunstall, 20s.; Walls End East Hartlepool, 21s. 9d.

HOFS.—BOROUGH MARKET, Nov. 19.

Messrs. Pattenden & Smith report that the market though quiet is firm, holders in all instances standing out for late rates. Stocks of all descriptions are extremely reduced.

HAY.—Per Load of 36 Trusses.

SMITHFIELD, Thursday, Nov. 18.		CLOVER, old		
Prime Meadow Hay 80sto 88s	60	70	120sto130s	
Inferior do.	50	70	Inferior do.	90 110
New do.	50	70	Prime 2d out	100 110
Inferior do.	50	70	Inferior do.	80 90
Straw	26	32		

CUMBERLAND MARKET, Thursday, Nov. 18.

SMITHFIELD, Thursday, Nov. 18.		CLOVER, old		
Sup. Meadow Hay 84sto 94s	65	75	98sto110s	
Inferior do.	65	75	New do.	34 38
New do.	65	75	Straw	34 38
Superior Clover	118	130		

WHITECHAPEL, Thursday, Nov. 18.

SMITHFIELD, Thursday, Nov. 18.		CLOVER, old	
Fine Meadow Hay 80s to 90s	60	75	100 110
Inferior do.	60	75	100 110
Prime New Hay	80	86	100 112
Inferior do.	60	70	85 95
Straw	26	34	

METROPOLITAN CATTLE MARKET.

MONDAY, Nov. 15.

We have a larger supply of Beasts; however, there is a good demand for the choicest qualities at fully late rates; trade is dull for second-rate, at rather lower prices. The number of Sheep is about the same as on Monday last; trade is good for choicest qualities, at a slight advance; middling and inferior are no dearer. There are very few Calves on offer; high prices are realised. Our foreign supply consists of 1929 Beasts, 3070 Sheep, and 47 Calves; from Scotland there are 44 Beasts, from Ireland, 703; and 1900 from the Midland and Northern Counties.

s. d.	s. d.	s. d.	s. d.
Best Scots, Herefords, &c.	5 4 to 5 8	Best Long-wools	5 6 to 5 8
Best Shorthorns	5 2 to 5 6	Do. Shorn	4 6 to 5 0
2d quality Beasts	3 4 to 4 0	Ewes & 2d quality	4 6 to 5 0
Best Downs and Half-breds	5 8 to 5 10	Do. Shorn	4 0 to 4 6
Do. Shorn	4 0 to 4 6	Lambs	4 0 to 4 6
Beasts, 4583; Sheep and Lambs, 16,980; Calves, 56; Pigs, 90.		Pigs	4 0 to 4 6

THURSDAY, Nov. 18.

The supply of Beasts is shorter. Trade is not very brisk, but Monday's quotations are fully maintained. The number of Sheep is also smaller; there is a very slack attendance of purchasers, and no alteration in prices. Calves are selling about the same as on Monday. Our foreign supply consists of 415 Beasts, 500 Sheep, and 231 Calves.

s. d.	s. d.	s. d.	s. d.
Best Scots, Herefords, &c.	5 4 to 5 8	Best Long-wools	5 6 to 5 8
Best Shorthorns	5 2 to 5 6	Do. Shorn	4 6 to 5 0
2d quality Beasts	3 4 to 4 0	Ewes & 2d quality	4 6 to 5 0
Best Downs and Half-breds	5 8 to 5 10	Do. Shorn	4 0 to 4 6
Do. Shorn	4 0 to 4 6	Lambs	4 0 to 4 6
Beasts, 587; Sheep and Lambs, 3665; Calves, 292; Pigs, 10.		Pigs	4 0 to 4 6

METROPOLITAN MEAT MARKET.—Nov. 20.

Best Fresh Butter .. 18s. per dozen lb.
Second do. do. .. 16s.
Small Pork, 5s. 4d. to 6s. 0d.; Large Pork, 4s. 4d. to 5s. 0d. per 8 lb.

MARK LANE.—MONDAY, Nov. 15.

There was a small supply of Wheat from Essex and Kent to this morning's market, and the sale was slow at a decline of 1s. per qr., some quantity being left over at a late hour. For foreign there was a limited demand, and the sales made were at a reduction of 1s. to 2s. per qr. Barley was 1s. per qr. cheaper. There was no change in the value of Beans or Peas. Oats were in rather better inquiry, at an advance of 3d. to 6d. per qr. The nominal top price of Flour was reduced 4s. per sack, and foreign was 1s. per sack, and American 6d. per barrel lower.

PRICE PER IMPERIAL QUARTER.	s.	d.	s.	d.
WHEAT, Essex, Kent, Suffolk. White	42-49	Red	39-48	
— fine selected runs do.	44-53	Red	42-50	
— Talavera	56-58	Red	—	
— Norfolk	—	Red	—	
— Foreign	40-53	Red	—	
BARLEY, grind. & dist. 29sto31s. Chev.	39-42	Malting	35-39	
— Foreign.. grinding and distilling	23-26	Malting	31-41	
OATS, Essex and Suffolk	22-24			
— Scotch and Lincolnshire.. Potato	24-26	Feed	—	
— Irish .. Potato	23-25	Feed	21-24	
— Foreign .. Poland and Brew	22-25	Feed	19-21	
RYE .. Foreign	32-38	Foreign	34-38	
RYE-MEAL, Foreign	—			
BEANS, Mazagan .. 36s to 38s	48-50	Harrow	49-50	
— Pigeon .. 50s to 56s	—	— Longpod	—	
— Foreign .. Small	41-43	— Egyptian	38-40	
PEAS, White, Essex, and Kent .. Boilers	40-42	Suffolk	41-43	
— Maple 41s to 45s .. Grey	40-42	Foreign	37-42	
MAIZE, best marks delivered, per sack	39-43			
— 2d ditto .. ditto	28-40	Country	28-40	
— Foreign .. per barrel	22-25	Per sack	29-55	

FRIDAY, Nov. 19.

Last Friday night the cold weather left us again, since then it has been variable. Foreign supplies of Wheat and Flour

into our principal ports having continued on a large scale; millers and dealers felt justified in expecting lower rates, they paused, therefore, in their purchases, and the result has been a very wretched trade throughout the past week, at a decline varying from 1s. to 3s. per qr. on Wheat. Spring Corn of all descriptions has been neglected, at 6d. to 1s. per qr. reduction in value. Flour moved off very slowly at about 1s. per barrel and sack below late rates. The arrivals of grain and seed-laden vessels off the coast this week consist of 125 cargoes, of which, with those left over from the preceding week, there remained for sale last night 106 cargoes. The floating trade has been exceedingly quiet throughout the week, buyers, under the influence of heavy arrivals (samples of which are now in course of distribution), were holding back, and arrived Wheat closed at a reduction of nearly 2s. per qr. Maize was steady, without any quotable alteration in price. In Barley and Rye hardly anything doing. There was no demand whatever for cargoes on passage or for forward shipment. Paris, November 18.—The Wheat and Flour trade are very quiet, with a downward tendency in prices. The eight marks are quoted at equal to 35s. 9d. per 280 lb. The stock at the Halle is estimated at 6500 cwts.

The arrivals of English and foreign grain this week are moderate. There was a very poor attendance at this morning's market, and little disposition to purchase Wheat, either English or foreign; the little business done was rather under Monday's prices. Spring corn was unchanged in value.

ARRIVALS.

	Wheat.	Barley.	Oats.	Flour.
English ..	2170 qrs.	1850 qrs.	— qrs.	— ska.
Irish ..	—	—	—	—
Foreign ..	21,410 "	6820 "	16,630 "	{ 1520 "
	23,580	8170	16,630	{ 4770 brls.

LIVERPOOL, Nov. 16.—We had a fair attendance at our market to-day, and for Wheat but a moderate request, at a reduction of 2d. per cental since Friday. Flour depressed, and 6d. per sack and barrel lower. Indian Corn in moderate request, at a decline of 3d. per qr. Beans 6d. per qr. lower. Barley steady. Oatmeal dull.

AVERAGES.

	Wheat.	Barley.	Oats.
Oct. 9 ..	48s 1d	38s 0d	24s 8d
— 16 ..	47 0	38 1	24 1
— 23 ..	46 1	38 6	24 2
— 30 ..	46 2	38 3	23 0
Nov. 6 ..	47 1	38 5	23 10
— 13 ..	46 11	38 9	23 11
Average ..	46 11	38 4	23 11

SEED MARKET.

We have nothing new or important to report this week concerning the agricultural seed trade. Our markets are quiet but firm. The speculative demand for white Clover seed still continues, and the result of this inquiry has been an advance of 2s. to 3s. per cwt. Prices on the Continent for this description, as well as for Alsike, are also on the rise. Fine samples of new bold purple red Clover seed are scarce, and readily command high rates. Trefolli seed excites for the moment little attention. Hempseed sells freely at the late advance. New foreign Canary seed, owing to heavy arrivals, is now unprecedentedly cheap. We have a revived inquiry for winter Tares; these are now obtainable in our market at from 6s. to 10s. per bushel. The Linseed trade is firm. Rape and Mustard seeds are without alteration.

Wanted, a Nursery Foreman.

REQUIRED, an active, competent, first-class FOREMAN, to take the out-of-door Management of a large Provincial Nursery. None but those possessing decided ability and unexceptionable references need apply.—Address, by letter only, Z. Z., *Gardeners' Chronicle* Office, W.C.

MESSRS. VEITCH AND SONS wish to ENGAGE a PERSON thoroughly competent to take the Management of the Packing Shed, and to see to the general execution of orders, including the correct Naming of Plants, &c.—Apply by letter, stating references and wages required, to The Royal Exotic Nursery, Chelsea, S.W.

WANTED, an active WORKING MAN, for a Small Nursery.—One used to the Spade, and with some knowledge of Greenhouses and the Growth and Propagation of Bedding and Hardy Herbaceous Plants, &c. Wages, 20s. per week, with outgo. Address, by letter only, with full particulars, stating last engagements, &c., to F. D., *Gardeners' Chronicle* Office, W.C.

To Gardeners.

WANTED, by the Managers of the Metropolitan Asylum District, for the ASYLUM at Leavesden, near Watford, a PERSON who thoroughly understands the Cropping and Cultivation of a Kitchen Garden (about 7 acres in extent). The Person to be appointed, whose age must not exceed 40 years, will be required to enter upon his duties forthwith. Wages, 25s. per week, without a house or any other advantages.—Applications in the handwriting of the Candidates, on Forms provided for the purpose, accompanied by Testimonials of competency, must be forwarded to me, at the Offices of the Managers, 37, Norfolk Street, Strand, not later than Wednesday, November 21. Due notice will be given to those Candidates who may be required to attend the Committee. By Order, W. F. JEBB, Clerk to the Managers, 37, Norfolk Street, Strand, W.C.—Nov. 8, 1890.

WANTED, ONE or TWO YOUNG MEN, in the Herbaceous Department, at the Hale Farm Nurseries, Tottenham, Middlesex. N.B.—Must have some knowledge of that class of plants.

WANTED, TWO or THREE active, industrious YOUNG MEN, who have had some experience, as IMPROVERS in a good Nursery, principally Glass.—Address, by letter only, stating wages required, F. and H., *Gardeners' Chronicle* Office, W.C.

To the Seed Trade.

WANTED, a Young Man, as an ASSISTANT. State salary.—Apply, in first instance, F. R., 16, Chapel Street, Cheetham Hill, Manchester.

WANT PLACES.—Letters to be Post Paid.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS, and GARDENERS and BAILIFFS, of various qualifications, who are open to Engagements. The fullest particulars as to services required and wages given should be forwarded with application.—PAUL'S Nurseries, Waltham Cross, London, N.

Gardeners and Under Gardeners.

WM. CUTBUSH AND SON beg to state that they have at all times on their books MEN of various qualifications, whose characters will bear the strictest inquiry. Any Gentleman making application would save time by clearly stating the duties to be undertaken, wages offered, &c., so that suitable Men may be selected.—Highgate Nurseries, London, N.

DAVID MITCHELL, NURSERYMAN, 2, HAMILTON PLACE, GARDENERS. Highest references. For instance, to DAVID MITCHELL, 2, HAMILTON PLACE, Park Nurseries, Edinburgh.

To Gardeners and Bailiffs (Head, Foreman, &c.) JAMES CARTER AND CO. will send NAME, ADDRESS, and COPIES of ENTRY in their FREE REGISTER. Only unquestionable references need apply. Any Lady or Gentleman requiring GARDENERS may rely upon J. CARTER & CO. as being the only persons in reference to testimonials as to GARDENERS. JAMES CARTER AND CO., 237 & 239, Brompton Road, London, W.

LUCOMBE, PINCE, AND CO. REGISTERED experienced GARDENERS, recommend to fill any situation, whether large Establishment, or Gentleman and Lady's. Any Lady or Gentleman applying to L. P. will receive the best attention. Exeter Nursery, Exeter.

Head Gardeners and Journeymen THOMAS KENNEDY AND CO. SEEDSMEN, Dumfries, have at present excellent GARDENERS, &c., in WANT of whom they can highly recommend.

EXPERIENCED GARDENERS and BAILIFF, of various qualifications, recommended. Further particulars given on application to E. G. HENDERSON AND SON, Wellington Square, Wood, London, N.W.

GARDENER (HEAD).—Age 28, married, thoroughly understands the Management of all the departments of a Nursery. A. B., Wm. Sage, Gopial Hall, Althorp, Leicestershire.

GARDENER (HEAD).—Age 30, married, thoroughly understands the profession. Can be highly recommended. G. S., 16, Castle Road, Kentish Town, N.W.

GARDENER (HEAD).—Age 30, married, thoroughly understands the profession. Can be highly recommended. Sir Walter James, W. H., Batebanger, Sandhurst, Kent.

GARDENER (HEAD), or GENERAL MANAGER. Age 38, married, one child; thoroughly understands the Management of all the departments of a Nursery. Over nine years' good character.—A. B. Fording, Fording, Essex.

GARDENER (HEAD).—Age 30; has a practical knowledge of the profession in all its branches lived for 5 years as Foreman to Mr. Picher, Gardener to a Esq., West Hill, Wandsworth, S.W. No single branch accepted.—Mr. PILCHER will answer further inquiries.

GARDENER (HEAD).—Thoroughly practical in all branches, also Kitchen Gardener, Baker and Dairywoman. Highly recommended. Three years' good character.—S. D., 1, Burrow Row, Wandsworth, Surrey, S.W.

GARDENER (HEAD, or no objection to a small place).—Age 49, married; understands Greenhouses, Pits and Frames, and Kitchen and Flower Gardening, and nine months' good character.—W. N., B. Surrey.

GARDENER (HEAD), where two or three years' experience. Age 32, single; 16 years' practical experience in Scotland. Six years' character.—J. P., Mr. W. Upper Tooting, Surrey.

GARDENER (HEAD, WORKING).—Age 21, married; thoroughly understands the Management of all the departments of a Nursery, house Plants, Vines, Melons, Cucumbers, and Fruit. Good character.—Two and a half years' good character. Office, Greenford, near Southall.

GARDENER (HEAD, WORKING).—Age 21, single; thoroughly practical and experienced in all branches, including the Cultivation of Pines, Vines, Peaches, Apples, Oranges, Lemons, and Citrons, Stone Fruits, &c. Fernery, &c. Three years and eight months' experience.—A. B., 7, Oak Street, Ealing, Middlesex, W.

GARDENER (HEAD), or GARDENER and BAILIFF. Age 38, married, one child; has had good experience in both branches. Can be highly recommended. Street, Somerton, Somerset.

GARDENER.—The Bishop of OXFORD obtains a situation for his Gardener, of whose integrity, honesty, sobriety, and trustworthiness he can speak highly.—G. B., Cuddesdon Palace, Wheatley, Ox.

GARDENER (SINGLE-HANDED, or UNDER GARDEN). Garden, where there is a general system of work on. Good references.—A. G., 5, James Place, Islington, N.

GARDENER (UNDER, or IMPROVER). Recommended by last employer.—B., Mr. A. Farm, Galton, Red Hill, Surrey.

PROPAGATOR, or FOREMAN.—Has a practical knowledge of the profession in all its branches. A. B. C., 1, Stafford Villas, Stafford Road, Acton, W.

STEWARD, or FARM BAILIFF.—Age 30, married, no family; has had considerable experience in Farming, Rearing, Buying, and Selling all kinds of Cattle, Horses, and Sheep. Management of both Heavy and Light Land. Good character from last situation.—L. M., Messrs. 20, Budge Row, Cannon Street, London, E.

FARM BAILIFF.—A Gentleman who needs of a Farm Bailiff, wishes to recommend. He thoroughly understands his business, is honest, and very industrious.—G. E. H., Post Office, Clatford, Andover.

CLERK, or BOOK-KEEPER.—Age 25, single; experience in a first-class business house. D. H., G. Huntley, 95, Broad Street, Reading.

SHOPMAN (ASSISTANT), or WAREHOUSEMAN. Age 21; six years' experience. Good references.—& Son, 6, Leadenhall Street, London, E.C.

SHOPMAN, or ASSISTANT.—Age 21; class experience in London and Province. Good knowledge of the Nursery and Florist Business. himself useful in the above capacity if required.—E. W., 48, Allen Street, Warrington.

The Best Remedy for Indigestion. NORTON'S CAMOMILE PILLS are recommended as a simple but certain remedy. They act as a powerful Tonic and general restorative; their operation; safe under any circumstances; persons can now bear testimony to the benefits of their use. Sold in bottles at 1s. 11d., 2s. 6d., and 5s. 6d. in the Kingdom. CAUTION.—Be sure to get the PILLS, and do not be persuaded to purchase any other.

NOTHING SUCCEEDS LIKE PARR'S LIFE PILLS. It was a saying of Tallyrand that "Nothing succeeds like PARR'S LIFE PILLS" and it is peculiarly applicable to PARR'S LIFE PILLS, the history of the world never was a discovery made of curative elements forming so complete an antidote to the decay of the human frame. In cases of Rheumatism, Stomach Complaints, Bile, Gravel, Cutaneous Affections, indigestion, &c., PARR'S PILLS give immediate relief to the slightest pain or inconvenience.

The Gardeners' Chronicle Newspaper.

SATURDAY, NOVEMBER 13, 1869.

HOT-WATER APPARATUS of every description, fitted complete in any part of the country, for Warming Greenhouses, Conservatories, Forcing Pits, &c. Plans and Estimates on application.

JOHN NASH AND SONS 35, King Street, Chancery Lane, London, E.C. Manufacturing, 6, Bankside, Southwark.

The Only Stove without a Flue.

NASH AND JOYCE'S PATENT, for WARMING HALLS, SHOPS, GREENHOUSES, &c.

These Stoves burn without attention or replenishing 12 to 24 hours. From 1s 6d to Six Guineas. **PATENT FUEL**, 4s. 6d. per bag.

STOVES made expressly for Greenhouses, to burn all winter by filling up with the Patent Fuel every 12 hours.

S. NASH, Patentee, General Furnishing Ironmonger, 253, Oxford Street, W.; **Joyce's Stove Depot**, 119, Newgate Street, E.C., and **Leinster Terrace**, Bayswater, W. Prospectus of Patterns and Prices post free.

JAMES WATTS AND CO., HOthouse BUILDERS and HOT-WATER APPARATUS MANUFACTURERS, 33, Old Kent Road, London, S.E.



200 CUCUMBER and MELON BOXES and LIGHTS, all sizes, Glazed and Painted complete, ready for immediate use, packed and sent to all parts of the Kingdom.

Strong **ZINC HAND-GLASSES**, all sizes.

References to the Nobility, Gentry, and Trade in most of the Counties in England.

By Royal Letters Patent
G. SHREWSBURY'S NONPAREIL GAS BOILER, for Heating Conservatories, Greenhouses, and Forcing Pits, Coach Houses, Halls, Bathing Rooms, &c. &c. Approved by all purchasers. Prices and particulars on application to **G. SHREWSBURY**, 121, Strand, London, W.

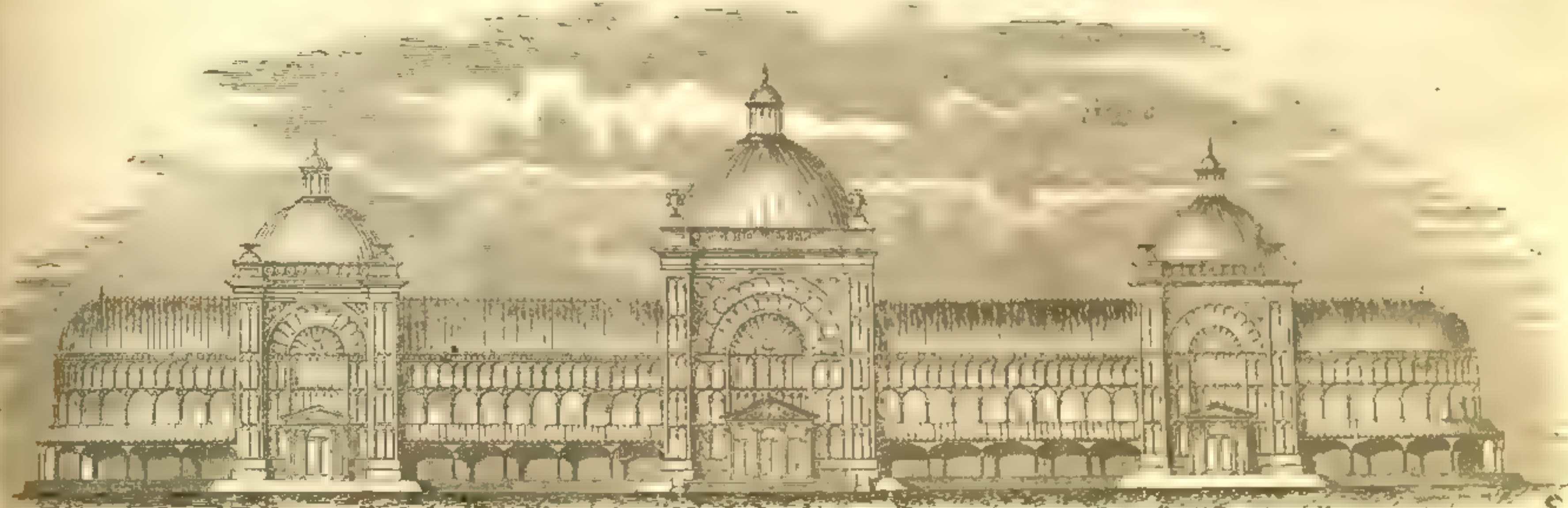
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MELON LIGHTS Each

12 ft. by 4 ft.	1 1/2 in. thick glass used 40	5 0
"	" " 3/4 in. thick glass used 40	3 0
"	" " without Portable Box, and Painted	1 3 0
"	" " Painted four coats, and Hatched over	1 6 0
"	" " Lacked and Delivered in Railway Van	1 10 0
6 ft. by 2 ft.	Double Lights, do.	8 18 0

Woodwork only Prepared at 1/6 ft. 6
" Framed and Glazed with 16 oz. Sheet .. 6 0 0
" Delivered, and Fixed with Ironwork .. 0 1 0
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Shrewsbury Steam Machinery Works, 121, Strand, London, W.

IRON HURDLES
(Silver Medal of the Royal Agricultural Society)
SHEEP, 3s 6d, CATTLE, 4s 2d, OX, 4s 11d
List by post. **GATES and FENCING** of every description
St. Pancras Iron Work Company, Old St. Pancras Road, London, N.W.

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Gentlemen waited upon by Members of the Firm to advise and arrange for contemplated Buildings.

Our NEW HOT-WATER BOILER and other Specialities and Patented arrangements are described in other Advertisements, and also in our Catalogue, which may be had on application.

ANCHOR IRON WORKS, CHELMSFORD.

BY HER MAJESTY'S ROYAL LETTERS PATENT.

ORMSON'S NEW PATENT ECONOMIC BOILERS.



ORMSON'S PATENT CONCENTRIC SADDLE BOILER.

ORMSON'S PATENT CONVOLUTED BOILER.

ORMSON'S PATENT TUBULAR BOILER.

From the Construction of these Boilers, it will be at once seen that the object of the Inventor is to economise fuel, by concentrating its entire force and vertical action on the surfaces of the Boiler, and not wasting it by Heating Brickwork and Chimneys, a fault common to the great majority of Boilers now in use. These Boilers are made of the best Welded Wrought-iron, of good substance, having no overlapping plates, holes, or rivets, and are therefore perfectly secure against failure from expansion and contraction of the metal, an occurrence so frequent and fatal to all forms of Cast-iron Boilers. Please to state diameter and length of Pipe to be Heated.

HENRY ORMSON, HORTICULTURAL BUILDER TO HER MAJESTY, AND HOT-WATER APPARATUS MANUFACTURER TO THE COMMISSIONERS OF HER MAJESTY'S ROYAL PALACES AND PUBLIC BUILDINGS, AND TO THE ROYAL HORTICULTURAL SOCIETY,
STANLEY BRIDGE, KING'S ROAD, CHELSEA, LONDON, S.W.

SHAW'S PATENT FAN. For Samples and Prices apply to J. SHAW AND CO., 29, Oxford Street, Manchester.

E. T. ARCHER'S "FRIGI DOMO." Patronised by Her Majesty the Queen for Windsor Castle and Frogmore Gardens, the Duke of Northumberland, Duke of Devonshire, late Sir J. Paxton for the Crystal Palace, Royal Gardens, Kew; Professor Lloyd for the Horticultural Society, &c.

The best Shading is "Frigi Domo" Netting. White or Brown, made of prepared Hair and Wool, a perfect non-conductor of heat or cold, keeping a fixed temperature where it is applied. It is adapted for all Horticultural and Floricultural purposes, for

PROTECTION from the COLD WINDS and MORNING FROSTS. "FRIGI DOMO" NETTING, 3 yards wide, 1s. 6d. per yard run. "FRIGI DOMO" CANVAS.

Table with 2 columns: Size and Price. Includes 'Two yards wide', 'Four yards wide', 'An improved make, 2 yards wide', 'An improved make, 3 yards wide', 'Scribble Canvas', 'Hessian Canvas'.

ELISHA THOMAS ARCHER, Wholesale and Sole Manufacturer, 7, Great Family Lane, Cannon Street, City, E.C., and of all Nurserymen and Seedsmen throughout the Kingdom.

JAMES PHILLIPS AND CO. beg to submit their prices as follows - GLASS for ORCHARD HOUSES.

As supplied by them to Mr. Rivers, to the Royal Horticultural Society, and to most of the Nobility, Clergy, and Gentlemen of the United Kingdom. Each Box contains 100 feet. The prices only apply to the sizes stated. Squares 20 by 13, 20 by 13, 20 by 14, 20 by 15.

Table with 2 columns: Size and Price. Includes 'Fourth quality', 'Third ditto', 'Seconds', 'English'. Also includes 'Horticultural Glass' table with sizes like '11 by 9', '12 by 9', '13 by 9'.

Table with 2 columns: Size and Price. Includes '6 by 4', '8 by 6', '10 by 8', '12 by 10', '14 by 12', '16 by 14', '18 by 16', '20 by 18'.

London Agents for HARTLEY'S IMPROVED PATENT ROUGH PLATE. LINED OIL, Genuine WHITE LEAD, CARSON'S PAINTS. PAINTS of various colours ground ready for use.

THOMAS MILLINGTON AND CO., 87, Bishopsgate Street Without, London, E.C. Horticultural Glass Warehouse. As supplied to Her Majesty, the Nobility, Clergy, and the leading Horticulturists of the United Kingdom.

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Table with 2 columns: Size and Price. Includes '10 by 8', '12 by 9', '14 by 10', '16 by 12', '18 by 14', '20 by 16', '22 by 18', '24 by 20'.

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SHIRT GLASS. In Sheets for Cutting up, averaging from 5 to 9 feet super. 15 oz. 4th quality, per 300 feet case, 36s. 4th quality, per 200 feet case, 36s.

HARTLEY'S IMPROVED ROLLED ROUGH PLATE in 1-8th in., 3-16th in., 1-4th in., and 3-8th in. substances. BRITISH PLATE GLASS for Windows and Silvered for Looking Glasses, Coloured Glass, Glass Shades, Striking Glasses, &c., &c.

STUCCO PAINT, 2s. per cwt. This Paint adheres firmly to the walls, resists the weather, and is free from the glossy appearance of Oil Paint, resembling a stone surface, and can be made any required shade. It is mixed with milk or pure river water.

WHITE ZINC PAINT, 30s. per cwt. One hundredweight of pure Zinc Paint, with three gallons of Lined Oil, will cover as much as one hundredweight and a half of White Lead and six gallons of Lined Oil.

GENUINE WHITE LEAD 30 0 SECONDS WHITE LEAD 28 0 GROUND PATENT DRYERS, 3d. to 4d. per lb. OXFORD COBRE, 3d. to 4d. per lb. RAW UMBER, 4d. to 6d. per lb. BURNT do., 6d. to 9d. GREEN PAINT, a. 1s. shades, 2s. to 6d. 0 BLACK PAINT, 2s. to 3s. 0 RED PAINT, 2s. to 3s. 0

GROUND BRUSHES. DUSTERS. DISTEMPER BRUSHES. MILLED LEAD and PIPES. RASH TOOLS. OLD LEAD Bought or taken in exchange. The above are Net, for Cash, and as such cannot be booked. Lists of any of the above on application.

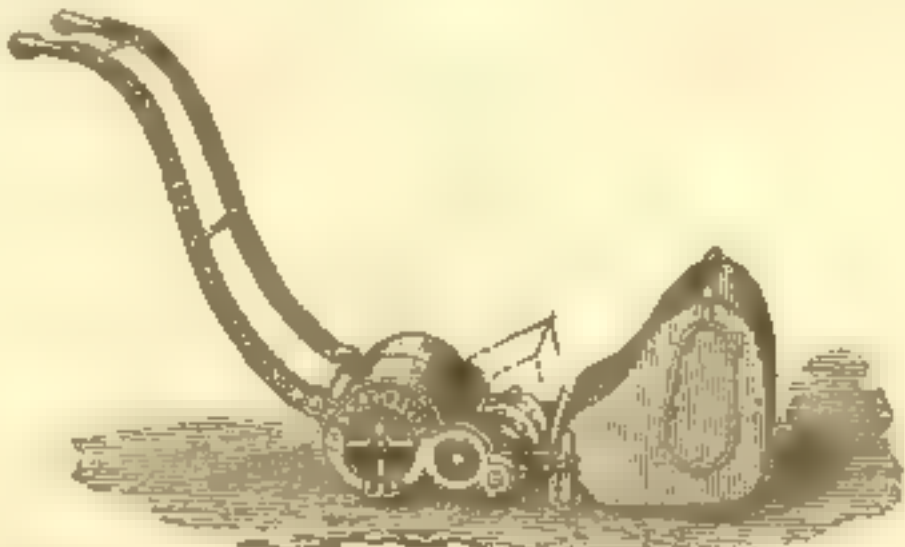
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LOOKER'S PATENT EARTHENWARE PROPAGATING BOXES. The most simple, effective, and by far the cheapest arrangement for Raising Seeds, Striking Cuttings, and other Horticultural purposes. Price, complete, from 1s. each - Hooper & Co., Covent Garden; Rosher & Co., Upper Ground Street, Blackfriars, Kingsland Road, and Queen's Road West, Chelsea; and Dixon & Co., 38a, Moorgate Street. BENJAMIN LOOKER, Inventor and Sole Manufacturer, Kingston-on-Thames.

Caution to Gardeners. - When you ask for SAYNOR and COOKE'S WARRANTED PRIZE PRUNING and BUDDING KNIVES, see that you get them Observe the mark SAYNOR, also the Corporate Mark, Obtain Warranted without which none are genuine. S. & C. regret having to caution Gardeners and others, but are compelled to do so, in consequence of an imitation, of common quality, having been sold for the genuine one, and which has caused many complaints to be made to them of Knives which were not of their make, all of which are warranted both by Sellers and Makers. S. & C.'S PRUNING and BUDDING KNIVES are the best and the cheapest in the market. Faxon Works, Sheffield. Established upwards of 126 years.

SHANKS'S PATENT LAWN MOWERS for 1869, The Patent for which is recently introduced and SHANKS'S MACHINE

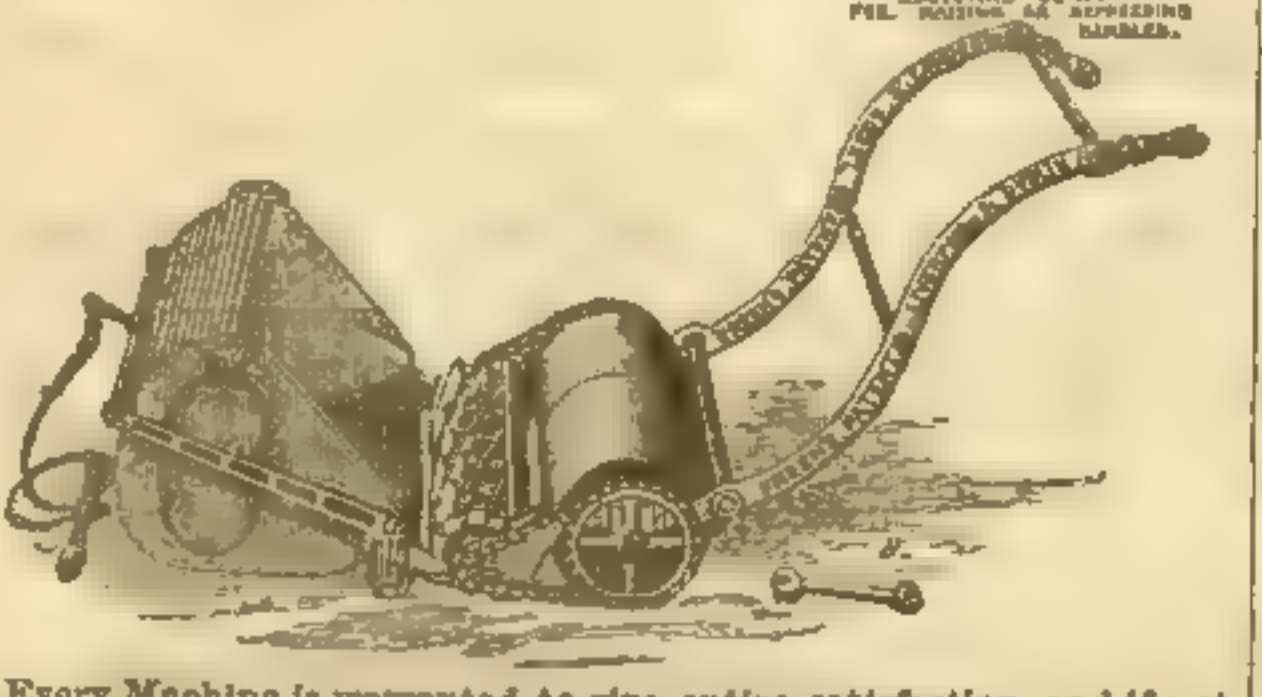
Several important advantages possessed by no other Lawn Mower PATENT DOUBLE-EDGED SOLE-PLATE, WIND-GUARD, &c. The unprecedented Sale for 1868, notwithstanding the Dryness of the Season, forms the most convincing testimony how much these advantages have been appreciated. ALEXANDER SHANKS & SON beg to intimate that, among all the Exhibitors of Lawn Mowers at the Paris Exhibition, they are the only Firm to whom the Jury awarded a Medal. The Silver Medal then awarded is the highest Prize ever given at any Exhibition for Lawn Mowers.



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A Wind-Guard has also been introduced to prevent the Mown Grass being blown past the Box during the prevalence of wind. There is no ribbing with these Machines. The Lawn when mown has a most beautiful appearance, being as smooth as a piece of velvet. Every Machine warranted to give ample satisfaction, and if not approved of can be returned at once unconditionally. Illustrated Circulars, with full particulars, sent free on application. ALEXANDER SHANKS & SON, Design Iron Works, Arbroath, and 27, Leadenhall Street, London, E.C. A Stock of all sizes of Lawn Mowers always kept at 27, Leadenhall Street.

GREEN'S PATENT SILENS MESSORS, or NOISELESS LAWN MOWING, ROLLING, and COLLECTING MACHINES for 1869.



Every Machine is warranted to give entire satisfaction, and if not approved of, can be returned at once unconditionally. PRIZE MEDALS AWARDED TO GREEN'S PATENT LAWN MOWERS.

First Prize Medal at the International Exhibition, London, 1862. First Prize Medal at the International Exhibition, Dublin, 1865. First Prize Medal at the Namur Exhibition. First Prize Medal at the Gand Exhibition. First Prize Medal at the Laeken Exhibition. First Prize Medal at the Liere Exhibition. First Prize Medal at the Brussels Exhibition, on two occasions. First Prize Medal at the Hamburg Exhibition.

GREEN'S Patent Lawn Mowers have proved to be the best, and have carried off every Prize that has been given, in all cases of competition. The extraordinary success of GREEN'S Patent Lawn Mowers is an established fact. During the last five years the demand has been unprecedented, which alone is a proof of their superiority over all others. The following are their characteristic features: - 1st. Simplicity of construction, every part being free of access. 2d. They are worked with far greater ease than any other Lawn Mower 3d. They are the best to get out of order.

GREEN'S Patent Lawn Mowers combine all the advantages of self-sharpening, and when the cutters become blunt by running one way round, they can be reversed again and again, bringing the sharp edge of the cutters against the bottom blade, which operation can be done by any inexperienced person, owing to the peculiar adaptation of the Machine, which is possessed by no other. Illustrated Price Lists free on application.

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"Invaluable," the invariable report. THE "VOWEL" WASHING MACHINE sent to all parts of Great Britain upon trial, carriage free. Particulars free by post. BRADFORD AND CO., 63, Fleet Street, London, E.C.; Cathedral Steps, Manchester; 23, Dawson Street, Dublin

The New Vade Mecum (Invented & Manufactured by CHARLES H. VINCENT, OPTICIAN, of 23, Windsor Street, Liverpool), consists of a TELESCOPE well adapted for Tourists, &c., to which is added an excellent MICROSCOPE of great power and first-class definition, quite equal to others sold at ten times the price. Wonderful as it may seem, the price of this ingenious combination is only 3s. 6d.; and Mr. Vincent sends it (carriage free) anywhere, with printed directions, upon receipt of Post-office order or stamps to the amount of 3s. 10d.

Advertising in Ireland. THE GARDENERS' RECORD, published for the Horticultural Journal published in Ireland. Price 1d. per copy. Glenny's Garden Almanac, 1874. NOW READY, containing a List of all the latest Novelties in Flowers and Fruits, and full instructions to Amateur Gardeners. Price 1s.; Post free, 1s. 1d. T. T. LEMARE, 1, Ivy Lane, Paternoster Row, London, E.C. Now ready, price 1s., sewed; or 2s. bound, and containing 573 Diaries.

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S. AND T. GILBERT'S large and well selected series of every facility for the CHOICE of Books of a light and amusing character, with an elegant BOUND STOCK; a combination suitable for every selection. The establishment of Free Trade in Books direct, enables them to continue to allow a liberal count off the published price of all new unreduced the convenience of book buyers generally, Catalogues valuable and popular works of the day are occasionally sent post free on application. Their Show Rooms, Books of the nature described, are always open for sale in the same as issued by the Publishers, the discount understood, not being allowed in consequence of any Shipping and Export orders are estimated for on special terms. Copyright sheet Music is obtained and supplied at half price sent postage free for cash. S. AND T. GILBERT have spent much study for many years to BOOKBINDING, and of business great care is bestowed, and appropriate to the production of work, strong in character, and made by skilled workmen and the use of good lasting materials given. The attention of book buyers, Secretaries, Librarians, Families, and others is kindly solicited. Catalogues new in preparation, forwarded at post free, on application. Please write for Catalogues. S. AND T. GILBERT, Booksellers, &c., 4, Copthall Buildings, of the Bank of England, London, E.C.

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THE SOCIETY OF PAINTERS in WATER COLOURS. - THE EIGHTH ANNUAL EXHIBITION OF SKETCHES and STUDIES by the MEMBERS. OPEN on MONDAY, Nov. 29, at their Gallery, 5, Pall Mall. Admission 1s. WILLIAM CALLOW, Secretary.

Home News. THE COURT AT WINDSOR. - On Saturday the Queen went to London for the purpose of opening the Blackfriars Bridge and the Holborn Viaduct. Her Majesty, who was accompanied by Princess Louise, Prince Leopold, and Princess Beatrice, left the Palace at a quarter before 11 o'clock, and returned 15 minutes past 2. On Sunday the Queen and her family attended Divine service in the private chapel. The Rev. R. W. Church, rector of Wharfedale, preached the sermon. On Monday the Queen went to the morning and afternoon. On Tuesday the Princess of Wales arrived at the Castle, and remained to luncheon. The band of the Royal Horse Guards played in the quadrangle a selection of music during the luncheon in honour of the Prince's birthday. The Royal Highnesses afterwards returned to Marlborough House. On Wednesday morning the Judge-Advocate General had an audience of her Majesty. On Thursday the Queen held a Council, at which Sir Alexander Spearman and Mr. Acton S. Ayton, M.P., were sworn as members of the Privy Council, and took the oaths as members of the Board. Earl De Grey and Ripon, the Rector

day the district of Zuppa surrendered to the authorities. The troops, after having rested for a few days, will commence operations against the Crioschianians. During several of the recent severe engagements, the Montenegrins occupied their own frontier, and thus partially prevented the insurgents from crossing.

RUSSIA.—The Emperor on Friday received the son of the Emir of Bokhara and the other members of the Bokhara mission. His Majesty said he hoped that henceforth friendly relations would be maintained and increased between Russia and Bokhara, and added that Russia had not been the cause of the rupture between the two countries. On the friendly assurances of the Emir of Bokhara being communicated to the Emperor, his Majesty said he viewed the fact of the Emir's son being sent to St. Petersburg as a pledge of their sincerity.

ITALY.—The Princess Margherita gave birth to a son on Thursday night. Both are doing well. The Prince has received the names of Victor Emanuel Ferdinand, and the title of Prince of Naples. The King of Italy was in so dangerous a state on Saturday, that Prince Napoleon and Princess Clotilde were summoned by telegram from Paris, Prince Humbert was summoned from Naples, and the Duke and Duchess of Aosta, who had gone to Egypt for the opening of the Suez Canal, were recalled to Italy, while the departure of the Commissioners, who had been appointed by the Italian Government to accompany his Royal Highness to Suez, was suspended. On Sunday the King was informed of the serious nature of his illness, whereupon he immediately sent for his confessor, and received the sacrament with the greatest tranquillity, in the presence of Prince Humbert and Prince Carignano. During the day a copious military eruption appeared, and a sensible and progressive mitigation manifested itself in all the symptoms of the King's illness. On Monday his Majesty's health had sensibly improved, and he was entirely out of danger. On Tuesday the King continued to regain strength, and is now progressing so satisfactorily that Prince and Princess Napoleon returned to France. Prince Carignano, Prince Humbert, the President of the Senate, the Minister of the Household, and the officers of State left for Naples to be present at the confinement of Princess Margherita. On Thursday the Duke and Duchess of Aosta arrived at Taranto from Cairo, but on receiving favourable news of the King's health, their Royal Highnesses set out on their return to Egypt.

GREECE.—The Emperor of Austria left Athens on Friday evening for Jaffa. On Saturday the Ministry received a vote of confidence from the Chamber of Deputies. The division list showed 93 members to be in favour of the Government, while only two were recorded in opposition. The remaining deputies abstained from voting.

TURKEY.—The Porte sent four steamers last week to *Astoria* with reinforcements for the armies of Bosnia and the Herzegovina, as a precaution against a possible extension of the Dalmatian revolt to the Turkish border provinces. The Turco-Persian difficulty is finally settled, and the English and Russian Ambassadors have just delivered to the Porte, attested by their signatures, an elaborately executed map of the Turco-Persian border, on which the British and Russian commissioners have been working for some years past. It is understood that the Emperor of Austria has endeavoured to prevail upon the Sultan to proceed to Suez, but his Majesty has definitively declined to be present at the opening of the canal. It is stated that the British, French, and Austrian Ambassadors have opened negotiations with the Porte with the view of freeing merchant vessels from the onerous and disadvantageous regulations which have been in force since 1866 at the entrance and passage of the Dardanelles and Bosphorus. It is added that the Turkish Government appears disposed to give a favourable consideration to the representations of the three Powers.

THE HOLY LAND.—The Emperor of Austria arrived at Jerusalem on Tuesday from Jaffa, after 11 hours' journey on horseback. His Majesty was accompanied by several Bedouin chiefs and a body of some 800 horsemen. The Emperor visited the Church of the Holy Sepulchre, and alighted at the Austrian Hospice.

EGYPT.—The Duke and Duchess d'Aosta sailed from Alexandria on Saturday night for Italy. The Italian fleet left on Tuesday for Taranto. The Empress Eugénie is still in Upper Egypt, and has proceeded as far as the Second Cataract. Her Majesty was expected at Siout on Tuesday on her return to Cairo, where she will arrive to-day. The festivities in connection with the inauguration of the Suez Canal will commence at Port Said on Tuesday. On Thursday there will be a ball at Ismailia. The inauguration of the monument to Lieutenant Waghorn, the originator of the overland route, was to take place at Suez yesterday. The English squadron, consisting of five iron-clads and three despatch boats, arrived at Alexandria on Wednesday morning.

CAPE OF GOOD HOPE.—Accounts from the Cape state that a heavy fall of snow had occurred at Natal, and a large number of sheep had been killed by it. The Tatin goldfields were proving very satisfactory, and well-accredited specimens of richly-yielding quartz had reached Natal. The diamond discoveries on the banks of the Orange River were also increasing. A heavy gale prevailed in Algoa Bay on September 19 and 20. Out of 13 large vessels at anchor 11 were wrecked—namely, the English barks Argali, England, Fingoe, Forres, Sarah Black, the brig Duke of Buccleuch, the brigantine Flash, the French bark Jeanne, the German bark Major von Safft, the Norwegian bark Sea Snake, and the Swedish brig Gustaff. Captain Christopher, his son, and seven men of the Sea Snake were drowned. The other crews were saved. The bark Amersham was

also wrecked off Struy's Point on September 19, but the crew were saved. The dispute between the Cape Parliament and the Governor on the question of retrenchment still remained unsettled. The flying squadron, which left Monte Video on September 11, arrived at the Cape on October 4. Her Majesty's ship Luffey anchored in Table Bay, and her Majesty's ships Liverpool, Scylla, Endymion, Bristol, and Barossa went on to Simon's Bay.

INDIA.—The death of Azim Khan is officially confirmed. His nephew is supposed to have returned to Teheran.

UNITED STATES.—Senor Roberts, the Spanish Minister, has addressed a note to Mr. Fish, the Secretary of State, reminding him of the principles laid down by Mr. Seward and Mr. Adams in their controversies with Earl Russell, Lord Stanley, and Earl Clarendon, and asking how the United States can stultify themselves by recognising the belligerency of the Cubans after protesting against the recognition of the belligerency of the Southern Confederacy by Great Britain and France. Mr. Fish has replied that the Government of the United States has as yet no intention of recognising Cuban belligerency. He, moreover, maintains the doctrine of his predecessor regarding the British and French recognition of the belligerent rights of the Southern Confederacy, and he deprecates the course taken by the Cubans in the United States, where they have on several occasions violated the neutrality laws. Mr. Fish and the Hon. John Rose are framing a new Canadian reciprocity treaty. The Press throughout the country express great regret at the death of Mr. Peabody, and publish highly eulogistic biographies of him. Bells were to be tolled, religious services held, and other demonstrations of mourning made yesterday in Boston, Baltimore, Danvers, and other American cities, during the time of his funeral in London. Mr. Robert J. Walker died on Thursday. The National Reform Convention of Jewish rabbis, in session at Philadelphia, have passed resolutions in favour of adopting modern languages in the prayers, and of introducing modifications in the dietary, marital, and other laws. Admiral Stewart, of the United States Navy, is dead. The small-pox is raging among the Indians of Montano and Idaho; 500 deaths have occurred among the Grosventre tribe. The yellow fever has appeared at Puerto-Principe.

CANADA.—Chancellor Vanskoughnet, the Chief Equity Judge at Ontario, died at Toronto on Sunday.

City Intelligence.

MONEY MARKET, FRIDAY.—**BRITISH FUNDS:** Consols are 93½ to 93¾ for Money, and 93½ to 93¾ for Account; New Three per Cents, 91½ to 91¾; and Reduced, 91½ to 91¾; Bank Stock, 237 to 239; Exchequer Bills, March, par to 5s. pm.; June, 5s. to 10s. pm.; India Five per Cents, 115 to 115½. — **FOREIGN:** Turkish Five per Cents, 42½; Ditto, Six per Cents, 66½; Spanish, 26½; Italian, 53½; Lombards, 22; United States 5-20 Bonds, 80½ ex div.; Erie, 21; Illinois, 98½ to 99.

Metropolis and its Vicinity.

THE QUEEN'S VISIT TO THE CITY.—On Saturday the Queen opened Blackfriars Bridge and the Holborn Viaduct in semi-State. The weather, though cold, was everything that could be hoped for in November. Her Majesty, accompanied by the Princesses Louisa and Beatrice and Prince Leopold left Windsor shortly before 11, and arrived at Paddington Station at 25 minutes after the hour. She was received on her arrival by the Duke of Wellington, as Lord-Lieutenant of Middlesex; Viscount Sydney, Lord Chamberlain; Lord Stratbairn, Gold Stick in Waiting, in their State uniforms; Captain Bulkeley, and other directors and officers of the railway; while Mr. Walker, one of the Assistant-Commissioners of the Metropolitan Police, was in waiting on horseback to precede the Royal cortège on its way to Blackfriars Bridge. The 36th Middlesex Rifles, under the command of Colonel Gordon Innes, with their band playing, were stationed in front of the station, and at a quarter-past 11, when the Royal outriders and five of the Queen's carriages entered the station, the scene was extremely brilliant. Several hundreds of ladies and gentlemen were admitted to seats within the station, while vast crowds of people, many of whom had arrived from the country by the early trains, lined the route to be taken by the procession. Within two or three minutes after the train had reached the platform the Royal cortège set out for Blackfriars Bridge. Some mounted policemen went first, followed by two of the Royal outriders. A carriage and four followed, in which were Captain Greville, M.P., Groom in Waiting; the Hon. Colonel Hardinge, C.B., Second Equerry in Waiting; Colonel Marshal, Silver Stick in Waiting; and the Hon. Colonel Percy Feilding, Field Officer of Brigade in Waiting. A second carriage and four followed, containing the Hon. Emily Cathcart and the Hon. Lucy Kerr, Maids of Honour; Major-General Sir T. M. Biddulph, K.C.B., Keeper of the Privy Purse; and the Hon. General Grey, Private Secretary. In a third carriage and four were Lady Caroline Barrington, Lady Superintendent; the Marchioness of Ely, Lady in Waiting; Viscount Torrington, Lord in Waiting; and General Lord Stratbairn, G.C.B., Gold Stick in Waiting. A fourth carriage and four was occupied by the Duchess of Roxburghe, Lady of the Bedchamber; Viscount Sydney, G.C.B., Lord Chamberlain; the Marquis of Ailesbury, K.G., Master of the Horse; and the Hon. Colonel de Ros, Equerry in Waiting. Next came the first portion of the escort of the 2d Life Guards, then two of the Royal outriders, and then the Queen's carriage drawn by six horses, and followed by the rest of the escort. The horses of the five carriages were magnificent, and the

outriders, postilions, and footmen were a scarlet liveries. The carriages were open. The Princess Louisa took her seat by the side of her Majesty, and Prince Leopold and the Duchess of Roxburghe sat opposite. As the Life Guards turned the station and the cortège turned the corner, the Volunteer band played the National Anthem. The multitude outside raised a shout of welcome. Her Majesty appeared to be in excellent spirits. She was in deep mourning, and wore a miniver muff and collar. A large number of people in Whitehall and Parliament Street, and every balcony and window along the route was more than filled. In Palace Lane the Westminster boys had assembled, and gave her Majesty several rounds of hearty cheering, which she graciously acknowledged. On Westminster Bridge the cheering was enthusiastic, as was the case at every point of the route. The Royal carriages drove across the bridge. The Royal carriages drove across the bridge, where the dignitaries of the city, a number of official personages and members of the House of Commons, including Mr. Bruce, the Home Secretary, Lady Hatherley, Mrs. Gladstone, the Hon. Mr. Bengal and his two sons and several of the other political members. Her Majesty was received by the Lord Mayor, Alderman James Clarke, Law Officer in his robes of office, attended by the sword-bearer, mace-bearer; the Sheriffs, the Chairman of the House Estates Committee, and a deputation of the Committee, consisting of two aldermen and several members. The Lord Mayor, according to custom, tendered to her Majesty the sword of State. Her Majesty graciously returned as a mark of respect that it was in good and loyal custody. The Queen stopped opposite the door, when, without a word, she bowed with gracious dignity, and then the Lord Mayor read the address of the Corporation. The address was not read, as was also the written answer. The Lord Mayor then presented the Queen the mover of the address, and the engineer; and the chairman of the House Estates Committee presented her Majesty a manuscript volume, bound in pale blue, containing on one page the Royal arms, and on the other the arms of the City of London, then a page next the descriptive text, and finally a page with the Blackfriars Bridge with the arms of the 12 companies. This volume her Majesty was pleased to accept, and the Queen then declared, in an audible voice, that the Bridge was open to traffic. The Lord Mayor and his attendants, Aldermen and Councillors, then returned to the carriages, and a procession was formed from the friars to the Holborn Viaduct, the Queen bringing up the rear. All along the route the streets were enormous, and the houses were decorated with mottoes, wreaths of evergreens, and window curtains. The Viaduct itself was lined on either side with covered galleries of such ample dimensions as to accommodate comfortably the thousands whom invitations had been issued by the Corporation. The galleries were arranged under canopies, decorated, and were so liberally set in scarlet cloth that something like two miles of scarlet were used in and near the Viaduct. A route the Queen was received with a shower of ringing cheers. On arriving at the platform in the centre of the Viaduct, the Lord Mayor presented to her Majesty Mr. Deputy Fry, the Mayor of the Corporation who had been most active in the motion of the Holborn Valley Improvement Bill. In turn, presented the engineer, Mr. Hayward. Deputy Fry then offered for her Majesty a large volume, containing a record of the Holborn Valley Improvements, which her Majesty handed to the Home Secretary. The Lord Mayor and other civic dignitaries then retired to the side of the Queen, who drove rapidly through Holborn Street to Regent Circus, where the Royal carriage turned up Langham Place to Cavendish Street, proceeded thence by Wigmore Street and Leinster Street to Edgware Road, and then by Somers Place and London Street to Pall Mall. Almost immediately after the Queen's departure through Holborn on her return, a smart sleet fell, but it only lasted a few minutes. Her Majesty reached Paddington at 12.15 P.M., and arrived safely at Windsor at 1.15 before 2 o'clock. In the evening the Lord Mayor and the Lady Mayoress entertained a large company at the Mansion House in honour of the occasion.

at the Mansion House, Alderman J. the retiring Lord Mayor, officially that her Majesty had been pleased to him the honour of a baronetcy, and had Grey to inform him that she had a heartier welcome, and that she meantime, in a private way, to express to the citizens of London. He from the Home Secretary the

received the Queen's commands to the deep gratification in which the Blackfriars Bridge and Holborn last, afforded her Majesty, and the Queen felt with the arrangements Her Majesty specially commands me she was with the manifestations of which she was greeted by the vast with her progress through the metro- the arrangements had been planned, and ceremony was conducted, her Majesty was largely due to the kindly, co-opera- of all classes of her loyal and loving is most kindly to acknowledge by the Queen to convey her best thanks to all the authorities concerned for the care the ceremony as little fatiguing as possible.

ANNIVERSARY OF THE PRINCE OF WALES.—Tuesday the 25th anniversary of the birth of the Prince the Royal standard was hoisted on the Government offices in the metropolis; and were fired at Woolwich, Windsor, and at illuminated, and the Royal tradesmen their houses, and afterwards dined to the number of 250, at Willis's Rooms. The was graced by the usual present of venison sent of his Royal Highness.

MAYOR'S DAY.—On Monday at Guildhall the Lord Mayor Elect, took the usual was installed in his new office, and received to Westminister. On Tuesday his lord- the Lord Mayor's dinner took place as usual and was attended by most of the speakers were the Prime Minister, the Lord the Chancellor of the Exchequer, the Home Mr Gladstone, in returning thanks for of Her Majesty's Ministers, spoke as of the state of Ireland and on the foreign

and comfort to think that in this island, the whole of us are natives, but one sentiment with respect to the Sovereign, the laws, and the country. But let us cross the Channel with which we have been so long united and legislative bonds, and to which we are bound the most sacred obligations, and how melancholy it is to face of this great assemblage, in the face of those of foreign countries whose commendations of been so eloquently expressed to-night, we should be to confess that in Ireland, which we have governed several hundred years, over which we have exercised at period almost an unbounded power, we have not yet the very first condition of a civilised and well-con- community, and have not yet brought the people's to harmony with our laws and institutions. That is the fact, which leads me to feel warranted that all Governments must rely on your and beg your forbearance, we must above to you this requisition. We have been called to with that important crisis in the affairs that crisis in which the minds of the people of now addressed more seriously than perhaps it we are towards dealing with that problem, and and resolute endeavours to see whether it may our power to put an end to that which has the brain, the speck on the fair fame of this the sight of the world for so many generations. In must not disguise it—we perceive a state of ally diseased, a people of noble capacity, of quick whose heart, notwithstanding, in too many not beat with that warm and lively attachment to the other united country or to the name and voice of law which we so familiarly and so gladly recog- the side of the Channel. Now, painful as it is to I think if Englishmen have a merit, it is that to hide what is faulty in their condition themselves or others—painful as it is to confess it, to confess that even this very year has been Ireland by a sad augmentation of those ages which, occurring as they do in a rarely free from a general tendency to a painful notoriety, and strike at the heart a deadly chill. What may be the causes of it might be premature and it would say, but one thing I know,—and I would that to the minds of those who are connected it—let not those who perpetrate them that is the path by which they are to attain to for the removal of grievances. On the one who lifts his hand to harm his neighbour at this moment is not only, as he always was, before God and man, but he is, before all things, the enemy of the best interests of his and thankful to be cheered on by you must feel to be a noble task, while we do not to its due performance,—namely, the to this country that strength and unity portion of the community it already possesses, have still to deplore, in considerable part, a dread and melancholy exception. For and labour, encouraged and cheered by the gene- we have received at the hands of our fellow- such is our task at home, and one word I must law abroad, for it is among the most interesting of this extraordinary age that the heart of the in all portions of the world acknowledges mutual quicker and more powerful than has been known time—that strengthening of the tie of interest from commerce and from speedy and almost communication does not end in the creation of but constitutes on every hand a thousand ties of relations, and, though slowly, is steadily conducting process establishing in a greater degree than hereto- of brotherhood among the scattered members

of the human family and therefore it is idle to say as is sometimes said, that foreign policy is a subject of small interest to England. Impertinent interference I trust, we shall always avoid—a meddling and ambitious desire for instruction I trust we shall always forewear, but sentiments of true brotherhood to those countries with which we are united by so many friendly ties cannot be banished from our hearts, and I would not venture in the face of an assembly of Englishmen to say that the people of this country are not interested in our relations with the world from political or any favourite schemes, for the best of all reasons that we have time to prepare, but without attending to them I think we are bound on every occasion that may offer to make every effort towards removing those difficulties and allaying those disturbances which may arise in the progress of the world, and I would not think that in that that we occasion since has returned to the friends who holds the seals of the Foreign Office has had the satisfaction of receiving the liberal and hearty acknowledgments of foreign Governments for the useful contributions he has made towards the maintenance of our relations. An exception, perhaps—a partial exception I might say. It is an exception of the deepest interest I refer to our relations with the United States. But there is no occasion that I should refer to those relations in any terms except those of peace and concord. Were I tempted to depart from that friendly strain I should indeed, be admonished to judge more correctly and to speak more wisely by an event which has happened in the city in the course of the last few days. Your quick associations will out-run my allusion. You will know that I refer to the death of Mr Peabody, a man whose special benefactions—which, indeed, secure the immortality of his name—is that which he regarded as his old mother country, but which, like- wise, in a broader view, is applicable to all humanity—taught us in this commercial age, which has witnessed the construction of so many colossal fortines, at once the noblest and most needful of all lessons—namely, he has shown us how a man can be the master of his wealth instead of being its slave. And most touching it is to know, as I have learnt, that while, perhaps, some might think he had been unhappy in dying in a foreign land, yet, so were his affections divided between the land of his birth and the home of his early ancestors, that that which had been his fond wish has, indeed, been realised—that he might be buried in America, but that it might please God to ordain that he should die in England. With the country of Mr. Peabody we are not likely to quarrel. It is true, indeed, that the care and skill of a physician, animated by the purest and most upright feelings, though they have not imperilled, yet have failed to lead to a final issue—at this moment the tangled questions of law that have been in discussion between the two countries, but the very delay that has taken place, instead of being a delay tending to anger, has been a delay promoted by kindred goodwill and by the belief that the intervention of a limited time may be likely to obviate any remaining difficulty. I speak with confidence in anticipating that that which the whole world would view with horror and amazement—viz. a partial strife between England and America—is above all things the most unlikely to grow out of this state of affairs. My confidence is, in the first place, in the sentiment which I know animates the Government of the United States as well as our own, it is in the sentiment which we believe to pervade the mind of the people of these two great countries, and permit me to add I have yet another source of confidence, connected with some of those changes which we are witnessing in our age in which we live. I mean this change in particular, that as in every country there has long been, and especially in the last several centuries, but only a free of law, and a of opinion that has led to a certain extent with the augmenting intercourse of nations there is now growing up what I may term an international opinion, a standard of international conduct higher than the standard which a particular nation sets up for itself, and to which it becomes more and more from year to year as we live necessary that each country should conform consistently with the rights and duties of the whole mass of the civilised community of the world. I know of no change, not even in connection with railways and telegraphs—I know of no change in the whole of the material and moral developments which we have witnessed in our time more beneficial to mankind than that moral authority of all nations over each nation, and depend upon it there is no greater guarantee for the permanent good order of society. Before sitting down I have to discharge myself of an office which has been committed by her Majesty to my unworthy hands. All your memories are full of the great celebration of Saturday, and I have received a special commission from the Queen to state to the Lord Mayor and the citizens of London that no words could be too strong to convey to their minds the gratification which she derived from the magnificent reception—as she has been pleased to term it—that you gave to her on the occasion of her visit to this ancient and loyal city.

MARRIAGES IN WESTMINSTER ABBEY.—On Monday the double wedding of the Ladies Albertina and Maud Hamilton, daughters of the Duke of Hamilton, to the Marquises of Blandford and Lansdowne took place in Westminster Abbey. The friends of the brides and bridesgrooms were admitted to the choir, transepts, and nave by tickets; and by 11 o'clock the building was completely filled, from the sacristium to the organ loft, and each side of the nave was lined with rows of well-dressed spectators. The Prince and Princess of Cambridge, and Prince and Princess Christian, the Duke of Cambridge, and Prince Edward of Saxe-Weimar were among the earliest arrivals. Shortly before half-past 11 the brides arrived at the west door of the Abbey and walked up the nave, led, the eldest by her father, the Duke of Abercorn, the youngest by her brother, the Marquis of Hamilton, and accompanied each by six bridesmaids. One set of bridesmaids wore blue silk skirts and white tunics, with blue sashes and blue bonnets; and the other set wore dresses exactly the counterpart of the former, only pink was substituted for blue. The bridesmaids were the Ladies Anne, Sarah, and Georgiana Churchill, sisters of Lord Blandford; Lady Georgiana Hamilton, sister of the brides, the Ladies Catherine and Beatrice Lambton, nieces of the brides; the Ladies Florence and Beatrice Anson, daughters of Lord Lichfield, and grand-daughters of the Duke of Abercorn; Lady Emily Fitzmaurice, sister of Lord Lansdowne, the Ladies Victoria and Albertha Edgcombe; and Miss Winifred Howard, cousin of Lord Lansdowne. The brides themselves were plainly but tastefully attired in high white satin dresses with long trains, and with Irish lace over them; and each wore three rows of pearls. The first part of the service was performed in the body of the chancel by the Rev. Lord Wriothersley Russell and the Rev. Lord John Thynne, assisted by Canon Nepean, the Precentor, the Rev. S. Flood Jones, the Rev. F. Harford, and the rest of the cathedral

body. The latter portion was read at the altar, Mr. Flood Jones and the choir chanting the verses and responses, and the bridal party, including the members of the Royal family and the immediate relatives of the brides and bridesgrooms, being accommodated with seats inside the altar rails. At the conclusion of the ceremony the bridal party repaired to the Jerusalem Chamber, where the registry of the marriage was duly signed and attested by the Prince and Princess of Wales, Prince George, the Duke of Marlborough and Abercorn, and the Dowager Lady Lansdowne. Among the company in the Abbey in addition to the Royal and other distinguished personages already mentioned, there were present Earl Granville, Mr. Disraeli and Lady Beaconsfield, the Earl of Mount Edgcombe, Lord and Lady Claude Hamilton, Lord and Lady Tankerville, Lord Henry Lennox, Lord Newry, Colonel Townshend, Lord and Lady A. Churchill, Lord and Lady G. Paget, the Duke and Duchess of Buccleuch, Lord and Lady Dalkeith, the Turkish Ambassador and his daughters, Lord Carrington, Colonel and Mrs. Gordon, Lady Russell, the Hon. Flora Macdonald, Lord and Lady Ailesbury, the Nawab of Bengal and his son, Lord and Lady Bath, the Duchess of Marlborough, Lord and Lady Walden, Lord and Lady Feversham, Lord Strathairn, Sir William and Lady Knollys, Lord and Lady Sydney, Lord and Lady Hamilton, the Duke and Duchess of Marlborough, the Dowager Lady Lansdowne, Lord and Lady Claud Hamilton, Sir Henry Holland, Mr. H. W. Fisher, the Rev. Dr Butler and Mrs. Butler, Messrs. Howard, Messrs. Curzon, the Hon. Mr Byng, Lord and Lady Lichfield, Lord and Lady Darham, Lord George Hamilton, Lord C. J. Hamilton, Admiral Baulie Hamilton, &c. On the return of the wedding party to the residence of the Duke and Duchess of Abercorn, Chesterfield House, South Audley Street, a sumptuous breakfast was laid out at which the Prince and Princess of Wales, the Duke of Cambridge, Prince and Princess Christian, and between 200 and 300 guests, sat down, and in the course of the afternoon the newly-married pairs drove off in travelling carriages for Bowood and Blenheim respectively, amid the cheers of a large crowd, which filled the southern end of South Audley Street and a great part of Great Stanhope Street also.

OPENING OF THE HOLBORN VIADUCT.—On Monday morning, at eight o'clock, the Holborn Viaduct was opened to the public for both foot passengers and carriage traffic, the former having had access given them on Saturday evening. The fine roadway had not been open many minutes, when cabs, carts, and wag-gons, poured across it from either end. On Tuesday something like consternation was caused by the discovery that no less than six out of the 12 massive columns of red granite which support the bridge over Farringdon Street had fissures from 9 to 12 inches in length at their base, and that a catastrophe, if not averted, was certainly possible. Six of these columns support the structure at either side, and divide the footpath from the roadway. The two next Fleet Street, on the west, or Holborn end, show fissures nearly from top to bottom. The lower portion of the second column is so dangerously split in two places that it is evidently only a question of time before the superincumbent weight forces out the lesser half and the whole mass comes to the ground. On the opposite side of the way four columns are affected, those at the ends only remaining intact. The smaller blocks on which the chief blocks rest have alone suffered as yet, but they have been all broken in two by the pressure upon them. The cracks are very extensive, with edges sharply defined, and run irregularly from top to bottom. The cause of this misfortune is that the granite is deficient in the density requisite to enable it to resist not only the weight of the superincumbent structure, but the vibration of the enormous traffic. In places the substance appears to be almost spongy, and where the cracks appear pieces can be chipped away almost with the nail. It is stated that one of the columns split a week before the opening of the Viaduct. On Thursday a report was made to the Corporation Improvement Committee on the subject, and Mr. Haywood, the engineer, stated that, in his opinion, the structure is perfectly safe for traffic; but suggested that three eminent engineers should be requested to examine and report on the matter. The committee adopted the suggestion, and nominated Messrs. Bidder, Clarke, and Harrison to examine the bridge forthwith.

OPENING OF NEW BLACKFRIARS BRIDGE.—On Tuesday morning, at 6 o'clock, the new bridge at Blackfriars was thrown open to the public for passenger and carriage traffic. During the morning the crowds on the new bridge examining it became so dense that the temporary structure had to be partially used to relieve the traffic.

FUNERAL OF MR. PEABODY.—The remains of Mr. George Peabody were removed yesterday from No. 80, Eaton Square—the residence of Sir Curtis Lampson, Bart.—to Westminster Abbey, where a funeral service was performed at 1 o'clock, in the presence of a great concourse of persons, including the Right Hon. W. E. Gladstone, Earls Clarendon and Granville, the Lord Mayor and Sheriffs, the Dean of St. Paul's, and several members of Parliament. The hearse was followed by a long line of carriages, including those of the Queen, the Prince of Wales, the Lord Mayor, the Sheriffs and Under-Sheriffs, Miss Burdett Coutts, the American Minister, Lady Franklin, the Duchess of Somerset, the Marquis Townshend, &c. The route taken was through Hobart Place, Grosvenor Gardens, and Victoria Street to Westminster Abbey. The service was performed by the Sub-Dean. To-morrow afternoon the Bishop of London will preach a sermon in the Abbey, in honour of Mr. Peabody's memory. The body will shortly be removed to America, to be buried at Danvers, in the grave of his

mother; and in order to mark the national sense of his noble benefactions, and to pay a fitting tribute to his memory, his remains will be conveyed to America in one of her Majesty's ships of war. For that purpose the Inconstant frigate is being prepared with all dispatch, and a fitting mausoleum is being erected on board. Mr. Peabody's will was made in New York in September last, and the executors named are Sir Curtis Lampson, Bart., and Mr. Charles Reed, M.P. for Hackney.

THE NEW CHIEF COMMISSIONER OF WORKS.—At his re-election for the Tower Hamlets on Monday, Mr. Ayrton spoke as follows of his new office of Chief Commissioner of Works:—

"It was alleged that he had accepted an office the duties of which he was not qualified to perform. But let him ask, in the first place, what those critics thought of his duties? There was a certain sort of people in this country who had been educated at our public schools and Universities, and who, instead of looking at matters as they stood in the present day, began by looking back to see what was done 200 or 300 years ago in Greece or Rome; and unless things were now managed as was the case in those remote times they thought them all wrong. These people might be said to live in a world of their own; and, having discovered that a certain officer performed the functions of an office about 200 years ago, they said he ought to perform the like functions now in this metropolis, and that he was not qualified to do so. He did not believe that any sensible body of Englishmen who did not belong to that school would agree with that; and he might tell them that the duties of the office did not in the least resemble those discharged many centuries ago by the Roman *ediles*. His duties were, in fact, of a very simple kind. But there were people very fond of what was called art, and some of them were very artful people, too, judging from the way in which they wrote anonymously in the newspapers; and they said he ought to be an architect, a surveyor, a sculptor, a painter, a gardener—whether a flower, an ornamental, or a market gardener it did not much matter, also a builder, and anything else they liked to propose. Well, he was bound to say he did not understand and had not been brought up to any of those callings. If the member of the House of Commons who accepted this office ought to be of those callings, it was clear he ought to be the best man in his profession; and unless they got in that House the best architects, the best sculptors, and so on, the only result would be that they would get an inferior architect and sculptor to look after all the architects and sculptors in the country; and so, instead of being made better, matters would be made much worse. The idea of those persons, therefore, was founded on an entire mistake. He was appointed to represent the Crown and the public, who had to pay the expenses of the Crown, as the employer of architects and other professional men. It was not his business to rank himself with those whom the Crown employed, but to take care that the public were well served, and that if they had to pay taxes they got full value for their money. It was his duty to look after those professional persons—not to be one of them. What he had to do was to see that people in office did not make too many demands on the public purse for public works and buildings; above all, to take care that people who had fancies did not indulge them at the public expense, and that nothing was taken out of the national taxes which he did not believe was absolutely necessary. Well, if he had any particular qualification for performing that duty, he had to some extent acquired it in the previous office he had held as Secretary of the Treasury, under the first Lord of that department, where it had been his duty to do very much the same sort of thing for many great departments of the Government. And a very unpleasant business they might conceive it was, because every office would be happy to spend money if they could get it, and there was always a disposition, when one man had to spend and another to supply the money, for the man who spent to put all the responsibility on the man who supplied it. When at the Treasury it was his duty to receive many applications to spend public money, to examine and see whether the outlay was necessary, and when he thought it was not to advise and urge the Government to refuse such applications. Therefore, the harder he worked at the Treasury his labours had this curious result, that the less of them was seen by the public, because when he was most successful in preventing expenditure the public saw nothing at all of what was done, and it was only when he was unsuccessful and when there was expenditure that the public knew what was done, through having to pay for it. Well, that was the sort of training he had had since the present Government came into office; and he thought they would agree that that was the right view to take of his position. Taken as Ministers must be from the ranks of the House of Commons, nothing, then, could be more absurd than to say that no one should hold a great political office unless he belonged to the particular profession with which it had to do. If no one could be Secretary of State for War except a general officer of the army or a manufacturer of great guns—if no one could be at the head of the Admiralty but an old admiral or a builder of iron ships, the result would be no end of expenditure upon soldiers or big guns in the one case, and upon sailors or big ships in the other. The object of the Government was to control those naval and military services, to represent the Crown and the taxpayers in the administration of these departments, to see that they did not cost more than was absolutely necessary; and, above all, that they did not swell themselves, upon one pretence and another, so as to entail undue burdens on the people. All the gentlemen selected by the present Prime Minister as civil heads of the army and navy were men possessing those qualifications which would enable them to keep down the expenditure that had grown up under the late Government; and the effect of bringing to bear on that work the resolution of men trained in political and civil life was, that in the very first year of their administration they had diminished the expenditure by more than two millions sterling, and had considerably reduced the public taxation."

THE TEMPLE CHURCH.—On Sunday morning the Rev. Dr. Vaughan, Master of the Temple, preached his first sermon in the Temple Church, and will continue to preach regularly throughout the year. He took for his text the words of St. Paul—"Who is sufficient for these things?"—and entered upon a thoughtful review of the present state of the Church. There was a very large attendance, many of the judges and benchers occupying seats. Dr. Vaughan has not appointed an assistant preacher, and the afternoon sermons will be preached by the Rev. Alfred Ainger, M.A., who was some time since elected by the benchers.

THE HIGH TIDES.—There was another high tide on the river on Saturday. It was high water at London Bridge about half-past 3, but fully a quarter of an hour before that time the buttresses of the bridges were covered, and the water rose above the level of the pavement on the Embankment. In consequence, however, of the preparations made along the banks of the

river after the high tide of the preceding Wednesday, very little water found its way into the docks and warehouses, and the inhabitants of houses near the river at Nine Elms, Battersea, Chelsea, and Wandsworth were able to resist the force of the rise by the construction of small dams. A large portion of land at Chelsea, Wandsworth, and Putney was again covered with water, which, at the former place, found its way into some of the streets. In contrast with the high tide, there was a very low one on Saturday, and again on Monday. So low, indeed, was the water that some of the steamers of the Iron Boat and Citizen Companies, in endeavouring to get to the piers at Waterloo, Westminster, and Charing Cross, went aground, and were not got off till the tide turned.

THE OPEN SPACE NEAR THE MANSION HOUSE.—At the meeting of the Metropolitan Board of Works on Friday a report was presented from the Works Committee, stating that they had considered the memorial of bankers and others of the city of London, praying the Board to preserve the ground opposite the west side of the Mansion House as an open space, and recommending that the memorialists be informed that the formation of the new street from Blackfriars Bridge to the Mansion House is a duty devolving upon the Board by Act of Parliament, and that it is beyond their present authority to accede to the prayer of the memorial. The recommendation was agreed to.

THE RED JACKET.—The ship Red Jacket, belonging to Liverpool, bound from Cardiff for Bombay, and for the safety of which speculation has for some time been running high, has been spoken at sea, all well. She sailed in the middle of the heavy gales of September, and sundry wreckage and a name-board marked "Red Jacket" having been picked up off Penance, was supposed to indicate the loss of the vessel. This uncertainty brought the case into the hands of speculative underwriters, and 80 guineas premium was at length quoted to effect re-insurances upon her. Many underwriters were induced to part with lines at 50 which they had taken at five guineas. There was, however, no evidence of her loss, and her safety has now been confirmed by her having been spoken, on October 6, off the Cape de Verde Islands.

BRITISH-INDIAN TELEGRAPH EXPEDITION.—The Great Eastern steamship, having completed her coals, to the amount of 10,500 tons, at Portland, left on Saturday, at 4 P.M., on her voyage to India. She was last reported off the Bill of Portland, everything working admirably, and the ship steaming easily seven knots against the fresh north-west gale of the evening of the 6th inst. The Chiltern left the Thames on Sunday morning with another portion of the Red Sea cable, and joins the Great Eastern at Bombay.

THE ALBERT LIFE OFFICE.—The scheme of the official liquidators of the Albert Life Assurance Company to facilitate the obtaining of new policies in an old-established office has been submitted to a meeting of the representatives of the London and provincial committees of the policy-holders. A resolution was proposed by Lord William Hay, seconded by Mr. James Bird, and supported by Mr. Wyld and others, approving the scheme, and recommending its adoption by the policy-holders generally. The details will be communicated to the policy-holders in the course of a few days. The case of the company was appointed to be further heard by Vice-Chancellor James on Tuesday on the question of reconstruction, when a further adjournment was asked for on the ground that the policy-holders had not concluded their meetings on the subject. The Vice-Chancellor allowed the adjournment.

THE WORKING MEN AND THE COLONIES.—On Monday, in about a hundred different parts of the metropolis, working men solicited the signatures of passers-by to a petition to her Majesty, praying that steps may be taken to enable the out-of-work class to emigrate. The petition also opposes the policy of abandoning our colonies, and, in conclusion, prays the Queen to at once call Parliament together, to take the subject into consideration. The petition is being largely signed.

THE GOVERNMENT AND THE FENIAN PRISONERS.—The English Amnesty Committee have resolved to advise the people of Ireland, the Irish resident in the United Kingdom, and English sympathisers, to abstain from the use of tobacco while the Fenian prisoners are kept in confinement. The Committee hope by this to effect such a diminution in the revenue as will convince Mr. Lowe, whom they consider the obstacle in the Cabinet to the release of the Fenians, that the case is a serious one for his department. On Tuesday night the following order was issued by the Committee to the Irish resident in London, and was eagerly signed:—"On and after the — day of —, 1863, no tobacco in any form is to be consumed until such date as that on which all the political prisoners shall be released from custody. Issued and approved by the Amnesty Committees."

THE POOR-LAW BOARD AND THE ST. PANCRAS GUARDIANS.—On Tuesday a very important decision of the Poor-law Board with respect to the parish of St. Pancras was made known at a meeting of the guardians. A letter was read stating that the reluctance of the guardians to increase their infirmary accommodation, and the disputes connected therewith, interfered so greatly with the due administration of the relief of the poor that the Board had determined to issue, as early as practicable, an order to annex St. Pancras to the adjoining Central London Sick Asylum district. The communication contained a detached statement of the facts which had led to the adoption of this course. The letter was referred to a committee.

ST. PANCRAS WORKHOUSE INFIRMARY.—An inquest was held on Monday on the body of a costermonger who had died in the infirmary of St. Pancras Workhouse. He was in an advanced stage of consumption, and could not have recovered; but the

medical testimony proved that his death was hastened by the foul and fetid state of the ward in which he was placed. The president of the Royal College of Surgeons in London, surgeon of St. Thomas's, said in evidence that he was accustomed as he was to the hospital ward, and that he was not to be wondered at that the ventilation was stopped up; the water was not changed into, and had no ventilation except the beds were full, and nine mattresses on the floor—37 in all—that there were but 520 cubic feet of air for each patient, or about half the amount required. The Poor-law Board. The jury returned a verdict that the deceased died of consumption, and that the death was accelerated by the unwholesome atmosphere in which he was placed in the workhouse. Inquests were held on six other persons who had died in the infirmary. The jury returned verdicts to the effect that the deaths were caused by the over-crowded state of the ward, the vitiated atmosphere, and the want of ventilation. The inquests adjourned.

THE LATE CASE OF SHOOTING.—At Huddersfield Tuesday Henry James Tucker, a cartman, was charged with causing the death of a fellow workman at Huddersfield by firing a gun at him, without knowing whether it was loaded, was committed to the custody of the Clerkenwell magistrate, on the charge of manslaughter. The coroner's jury had previously returned a verdict of "Death by misadventure."

THE PUBLIC HEALTH.—The Weekly Return of the Registrar-General states that in the week ended on Saturday, Nov. 6, 1624 births were registered in London and in 13 other parts of the United Kingdom. The annual rate of increase was 28 per 1000 persons living, being 28 in London, 24 in Edinburgh, 20 in Dublin, 22 in Birmingham, 26 in Liverpool, 29 in Salford, 30 in Sheffield, 26 in Bradford, 25 in Hull, 30 in Newcastle-upon-Tyne, and 26 in Glasgow. In Paris the annual rate of increase in the same week was 25 per 1000 persons. The births of 1177 boys and 1119 girls, 2293 children, were registered during the week corresponding weeks of 10 years 1853-62. The number, corrected for increase of population, was 1772, of which 241 were from scarlet fever. The deaths registered in London during the week of the 44th week of the year, and the average number per week, corrected for increase of population, was 1772. The present return is therefore 368 above the average amount.

Provincial.

ALNWICK.—On Sunday morning the Countess Percy was safely delivered of twin daughters, who, with their mother are doing well. The Countess was attended on the occasion by Professor Sir James Spence, of Edinburgh, and by Dr. Wilson, of Alnwick. The Countess of Argyll arrived at the castle on Saturday evening, Sunday, by a singular coincidence, was the day of the Countess Percy, who on that day was her 20th year.

CARDIFF.—Vice-Chancellor James on Tuesday having had an interview with Miss Esther L., ascertained that she had become a Curator of the estate of the late Mr. L., and directed that she should remain with Mrs. L. to enable the father to test his rights by a writ of *corpus* at common law. It was stated that the intention of the father to apply for the same was mentioned by the judge, and Miss Lyons will remain with Mrs. Keep.

CARLISLE.—A new prison for the county of Cumberland has just been completed in this city at a cost of 16,000*l*.

CARMARTHEN.—An atrocious murder was committed on Thursday evening, the 4th inst., in the neighbourhood of Conwil. The victim was Miss Esther Davis, the wife of a farmer, living at a place called Blaendaed. The house is situated in a secluded part of the country near the Carmarthen railway. About half-past 8 o'clock on Thursday evening Mrs. Davies was in a room at her farm, preparing supper, when some person unknown to her through the window. The charge entered her body just below the heart, and passed out of the side. She staggered and fell, when some one in the room ran to her assistance, but she died within 20 minutes after being shot. The persons who were at the time were two servant men, a boy, and a girl, and a servant. The bullet was subsequently found in the body of the deceased. It had entered an inch and a half into the chest, and has since been extracted, and is now in the possession of the police. On the following day the marks of the murderer's feet, in stockings, were traced across two fields, but the trace was not followed. On receipt of the intelligence Captain L., superintendent of the Carmarthen district, accompanied by Sergeant Scurry, proceeded to the scene of the murder, and were engaged during the night and up to eight o'clock on the following morning in investigating the circumstances, and the sequence of some facts which came to light. The body of the husband was taken into custody, but the inquest against him is exceedingly meagre. It is, however, that the deceased, who was a young woman, being only 22 years of age, had been married only a few weeks, and that before her marriage her husband, who is a man in comfortable circumstances, was absent from the house when the murder was committed. On Monday a number of policemen

A gun was found in a turf heap, but has been found to be a toy gun. The brother of the husband, who was shot, said that his gun had been lent to the tenant, and has been found to be correct. The gun was found on Monday, when the jury returned a verdict of "Wilful Murder against some person or persons."

The funeral of the Marquis of Westmeath took place on Monday at Exceston Church. The ceremony was as private as possible. The Marquis arrived at the church at 11 o'clock, and was followed by the Earl of Winton, followed by the Earl of Winton, followed by the Earl of Winton, followed by the Earl of Winton.

On Thursday morning the barque "The Captain Prince" with wheat for the Holyhead breakwater, and the captain's wife, two of his sailors perished. Five sailors were rescued from the wreck. On Monday, at a large public meeting held in the town, a resolution was passed against the free-trade policy with a view of the Government inquiry into the far unreciprocated free trade concession of trade and pauperism, was passed.

On Wednesday night Mr. Forster addressed at the Liverpool Institute on the subject of the Endowed Schools Bill. He pointed out the need for general education, and as a result of his address a spirit of compromise had produced a spirit of compromise. He felt certain that some education Bill, and he pushed them forward in the matter. He advocated the working classes staying longer at school, and all learning French, to be taught to boys who are obliged to leave school.

Among the most recent acts of Bishop Goodrich was the inhibition of the Rev. J. P. Goodrich, the "assistant priests" St. Michael and All Angels, at Swanwick, one of the most advanced centres of worship in the south of England. The Rev. J. P. Goodrich being thus deprived of their posts, and took their parts in the Sunday last, the Rev. J. P. Goodrich was acting as subdeacon at the third service of the Holy Eucharist. The suit of the Bishop of Winchester against Mr. Goodrich, came before the Dean of Winchester. An application was made on behalf of the Rev. J. P. Goodrich to have the suit dismissed, as the Dean had decided, notice must be given to the Dean.

still connected with the tenant-right agitation. Meetings were held on Sunday in Loughal, Millstreet, Listowel, and Killeeney, where the memory of Peter Crowley, a Fenian, who was shot dead in an encounter between the military and a party of Fenians, was specially honoured by the meeting. In Dublin the rival Amnesty Association and Tenant-Right Committee had meetings on Tuesday evening. A number of men broke into the room of the latter, threw flour in their faces, declared they would have no more humbug, smashed the lamps and furniture, tore up the papers, and carried off the minute-book. At a meeting of the Corporation of Waterford on Tuesday, a letter from Mr. Galstone was read, stating in reply to the amnesty memorial transmitted to him by the Corporation, that "the Government will weigh carefully all the circumstances connected with the subject, but that he can give no pledge whatever as to the decision which may be arrived at." Assurances from the provinces state that ballads of a very dangerous nature, recommending the murder of landlords and the non-payment of rent, are being sung in the fairs and rural gatherings. Some of the singers were arrested and brought before a magistrate at Clonmel, but immediately discharged. The policemen who took them into custody, it is stated, were hosted until they took refuge in their barracks.

ABANDONMENT OF AN INTENDED DUEL.—The O'Donoghue and Mr. George Henry Moore were on the point of fighting a duel last week, in consequence of the language used by them at the recent amnesty meetings. The challenge of the former was accepted by Mr. Moore, and the place of meeting decided upon, but at the last moment the seconds induced the principals to make some concessions to each other, and their honour was satisfied.

ATTEMPTED ASSASSINATION IN TIPPERARY.—An attempt was made on Sunday evening to assassinate Mr. Thomas S. M'Adam, residing near Newport, Tipperary. It resembled in some respects the attempt upon the life of Mr. Brett, the county surveyor of Limerick. Mr. M'Adam was sitting at the fire in his parlour, when a shot was fired through the window. The bullet passed close beside him, but he escaped unhurt. On the following day he received a letter, written in confused terms, in which he was told that his ancestors were traitors, and warning him to not only sell his place, but leave the country with his family within a month, or he would be a dead man. It is impossible to say at present whether this was an agrarian or a Fenian outrage, as Mr. M'Adam was neither a landlord nor an agent. No motive can be assigned for the outrage.

ASSASSINATION IN CORK.—On Sunday night David Callaghan, a corn porter, was shot on Penrose's Quay, Cork. Four men were seen by a ship's watchman to be quarrelling, a shot was fired, and two of the men decamped. One of the remaining two then fired a second shot, and also decamped. The body was found about one hour afterwards, with two wounds in the head. The murdered man was a known Fenian, and it is supposed that he was killed for some breach of the Fenian code. At the inquest on Monday the jury returned a verdict of Wilful Murder against three persons unknown.

THREATENING A PRIEST.—The Rev. Mr. Guinty, P.P. of Moynalty, county Meath, has received a threatening letter, in consequence of having denounced the attempt on the life of Gargan, the steward of Mr. Farrell. This is such a novel feature in agrarian crime, that the rev. gentleman on Sunday called the attention of his congregation to the fact.

Scotland.

THE SCOTCH EDUCATION QUESTION.—At the dinner of the directors of the Edinburgh Philosophical Institution on Saturday evening, Lord Moncrieff (Lord Justice Clerk) made the following remarks in regard to the education question:—

"I do not think the difficulties in the way of the settlement of the education question are ecclesiastical difficulties. I believe the ecclesiastical difficulties to be mere phantoms. The religious question does not stand in the way of Scottish education; there is no such difficulty presenting itself in this country. There are no mountains in the path; there are only molehills. But a great many molehills are as bad as one mountain, or rather a great deal worse. If you find the old accustomed road that you travel full of those little risings they are apt to trip your horse. If it were a mountain you could tunnel it, or make your road round it. It was over a molehill, I think, that William III's horse stumbled and brought that great potentate to his end. We manage the mountain well enough; it is levelled—that is, a railroad carried over it; and if the molehills can only be levelled also, there is nothing to impede the career of Scottish education. I have only one mortification in leaving public life. It is not that I have not succeeded in carrying a measure of education for this country—though that, no doubt, would have been a great and glorious achievement, which I should have been proud to have had my name connected with,—it is that, with no difficulties to speak of in our way, we are going to let England get precedence of us. I am sorry that that should be the case. I trust, however, that in other hands that cause may succeed, and that after all we shall be able, not to follow, but to set the example to the sister country in the question of education."

M. PREVOST PARADOL IN EDINBURGH.—M. Prevost Paradol was a guest at the Edinburgh Philosophical Institution dinner on Saturday, and, in replying to the toast of his health, said that he was deeply moved at the concord and loyalty shown when the Queen's name was pronounced, and at the sincere emotions of joy exhibited on a telegram being read announcing the Queen's progress through London among a loyal and contented people. He never, he said, envied anything for his country so much as seeing them so united, living in freedom and prosperity, and with the honest pride of being freemen.

THE LORD PROVOST OF EDINBURGH.—Mr. Law has been unanimously elected Lord Provost of Edinburgh for the next three years.

Railways.

THE LATE ACCIDENT AT WELWYN JUNCTION.—The adjourned inquest on the three persons killed by the collision at Welwyn Junction terminated on Monday, when the jury, after deliberating for half an hour, returned a verdict that the accident resulted from the accidental shifting of the points by the pointsman when the train was going over. They added a recommendation that an independent line should be made from Hatfield to Hertford.

Obituary.

SIR EDWARD CONROY, BART., of Ashurst, near Reading, died a few days ago, in his 83rd year. He was born in 1837. He was a member of the House of Commons, and in 1854 succeeded his father, Sir John Conroy, who was created a baronet in 1837, in recognition of his services to the Duke and Duchess of Kent, of whose household he was in his later years equerry and comptroller. He is survived by his wife and three children.

SIR JAMES FRANCIS REYNOLDS, BART., died a few days since. He was born in 1807, and having been educated at Winchester, served for some time as an officer in the army. He is succeeded in the baronetcy which dates from 1787 by his brother, Henry Reynolds, Esq.

MR. THOMAS WATSON, M.P., of Manchester, died on Sunday last. He was born in 1800, and was a member of the House of Commons from 1847 to 1852. He was a member of the House of Commons from 1847 to 1852. He was a member of the House of Commons from 1847 to 1852. He was a member of the House of Commons from 1847 to 1852.

Markets.

COVENT GARDEN.—Nov. 13.
Trade has been rather more active, and stocks have considerably diminished. Good Apples and Peas being in greater request. Consignments from abroad are still ample, and pressing the usual assortment of goods at this season, largely Oranges being among them. Flowers chiefly consist of Pelargoniums, Mignonette, Fuchsias, Chrysanthemums, Primulas, Geophytes, and a few Cyclamens.

FRUIT.

Apples, p. 3 slice, 1s to 1s 6d	Melons, each, 1s 6d to 2s
Cobs, per lb., 9d to 1s	Oranges, per 100, 8s to 14s
Fishers, per lb., 6d to 9d	Peas, per bush, 2s to 3s
Grapes, per lb., 1s 6d to 2s	Pineapples, per lb., 4s to 6s
Lemons, per 100, 8s to 14s	

VEGETABLES.

Artichokes, p. doz., 3s to 6s	Lettuces, p. score, 1s to 2s
Beet, per doz., 2s 6d to 3s	Mint, per bunch, 4d to 6d
Broccoli, p. bunch, 1s to 1s 6d	Mushrooms, p. pottle, 1s 6d to 2s
Brussels Sprouts, p. 2 slice, 1s to 1s 6d	Onions, green, per bush, 4d to 6d
Cabbages, per doz., 1s to 1s 6d	Parsley, per bunch, 2d to 4d
Carrots, p. 100, 2s to 3s 6d	Potatoes, York Regents, p. ton, 60s to 70s
Carrots, p. bunch, 4d to 6d	— Flukes, do., 8s to 12s
Cauliflowers, p. doz., 1s 6d to 3s	Scarf, per bundle, 1s to 1s 3d
Celery, p. bund., 1s to 1s 6d	Scorzouera, do., 1s to 1s 3d
Cucumbers, each, 6d to 1s	Seakale, per lb., 4s 6d
Endive, per doz., 1s 6d to 2s	Spinach, p. bush, 2s to 3s
Garlic and Shallots, per lb., 8d	Radishes, p. doz., 1s to 1s 6d
Herbs, per bunch, 2d to 4d	Tomatoes, per doz., 9d to 1s 6d
Horse Radish, p. bund., 2s to 5s	Turnips, per bunch, 4d to 6d
Leeks, per bunch, 2d to 4d	

POTATOS.—SOUTHWARK, Monday, Nov. 8.
During the past week the arrivals coastwise and by rail have been more abundant, and the quality of the samples very various. Trade is dull, and prices declining. The following are this day's quotations:—York Regents, per ton, 70s. to 90s.; Kent and Essex do., 60s. to 85s.; Lincolnshire do., 60s. to 85s.; East Lothian do., 70s. to 100s.; Perth, Forfar, and Fife do., 70s. to 75s.; French and Belgian Whites, 60s. to 70s.

ENGLISH WOOL.
The market for English Wools has maintained the same staidly but quiet tone which has characterised it of late. In Colonial descriptions, the sales which opened on the 11th inst. have established a further improvement of about 1d. per lb. on the last August series, making an average recovery of about 15 per cent. on the lowest period in May last.

CURRENT PRICES OF ENGLISH WOOL, per lb.—s. d.

FLEECES —Southdown hoggets	1 1 to 1 2
Half-bred ditto	1 2 to 1 2 1/2
Kent Fleeces	1 3 to 1 4
Southdown ewes and wethers	1 0 1/2 to 1 1
Leicester ditto	1 2 to 1 3
Sorts —Clothing	0 10 to 1 6
Combing	1 0 to 1 8

COALS.—Nov. 10.
Holywell Main, 17s 6d.; West Hartley, 17s.; Walls End Elliot, 21s 3d.; Walls End Haswell, 23s.; Walls End Tinstall, 20s.; Walls End East Hartlepool, 21s 2d. —Ships at market, 22; sold 21.

HAY.—Per Load of 36 Trusses.

SMITHFIELD, Thursday, Nov. 11.	
Fine Meadow Hay 80s to 85s	Clover, old 120s to 130s
Inferior do. 60 70	Inferior do. 90 110
New do. — —	Prime 2d cut 100 110
Inferior do. — —	Inferior do. 80 90
Straw 26 32	

CUMBERLAND MARKET, Thursday, Nov. 11.

Sup. Meadow Hay 85s to 95s	Inferior Clover 93s to 114s
Inferior do. 65 78	New do. — —
New do. — —	Straw 34 40
Superior Clover .. 125 132	

WHITECHAPEL, Thursday, Nov. 11.

Fine Meadow Hay 85s to 90s	Prime 2d cut Clover 120s to 132s
Inferior do. 60 75	Inferior do. do. 100 110
Prime New Hay .. 50 86	Prime 2d cut do. — —
Inferior do. 60 78	New Clover 160 112
Straw 30 34	Inferior do. 85 95

METROPOLITAN CATTLE MARKET.
MONDAY, NOV. 8.
The supply of Beasts is much shorter than on Monday last. Prices are rather higher for all kinds, but trade is not brisk. There are a few more Sheep than last week; trade is very dull; choicest qualities are, however, rather dearer. There are very few Calves on offer; they are readily disposed of at higher rates. Our foreign supply consists of 1967 Beasts,

Ireland.

CHURCH.—The General Synod of the Diocese of Down, Connor, and Dromore was held on Wednesday, under the presidency of the Bishop of Down, for the purpose of electing the members of the diocese, for the purpose of electing the members of the diocese, for the purpose of electing the members of the diocese.

MEETINGS.—The holding of amnesty meetings in the South with increased instances these demonstrations are

3920 Sheep, and 33 Calves; from Scotland there are 58 Beasts, from Ireland, 350; and 1580 from the Midland and Northern Counties.

s. d. s. d.	s. d. s. d.
Best Scots, Herefords, &c. 5 4 to 5 8	Best Long-wools 5 4 to 5 6
Best Shorthorns 5 2 — 5 6	Do. Shorn
2d quality Beasts 3 4 — 4 4	Ewes & 2d quality 4 4 — 4 10
Best Downs and Half-breds .. 5 6 — 5 8	Do Shorn
Do. Shorn	Lambs
Beasts, 3961; Sheep and Lambs, 16,210; Calves, 47; Pigs, 125	Calves 4 0 — 5 8
	Pigs 4 0 — 6 4

THURSDAY, NOV. 11

The number of Beasts is considerably larger than on Thursday last, but the dead markets being clearer, trade is active, and Monday's quotations are well supported. Sheep are rather more plentiful, yet they are freely disposed of at fully late rates. Choice Calves are scarce and dearer. Our foreign supply consists of 290 Beasts, 1010 Sheep, 231 Calves, and 5 Pigs.

s. d. s. d.	s. d. s. d.
Best Scots, Herefords, &c. 5 4 to 5 8	Best Long-wools 5 4 to 5 6
Best Shorthorns 5 2 — 5 6	Do. Shorn
2d quality Beasts 3 4 — 4 4	Ewes & 2d quality 4 4 — 4 10
Best Downs and Half-breds .. 5 6 — 5 8	Do Shorn
Do. Shorn	Lambs
Beasts, 1133; Sheep and Lambs, 5000; Calves, 270; Pigs, 55.	Calves 4 0 — 6 0
	Pigs 4 0 — 6 4

METROPOLITAN MEAT MARKET.—Nov. 13.

Best Fresh Butter 18s. per dozen lb.
 Second do. do. 16s.
 Small Pork, 5s. 4d. to 6s. 0d.; Large Pork, 4s. 8d. to 5s. 4d. per 8 lb.

MARK LANE.—MONDAY, NOV. 8.

There was a moderate supply of Wheat from Essex and Kent to this morning's market, the best samples of which were sold at the rates of this day so'night, but inferior qualities were 1s. per qr. cheaper. There was a fair attendance; foreign Wheat met with a limited inquiry only, and to effect sales it was necessary to submit to a decline of 1s. per qr. Finest malting Barley brought last week's quotations, but secondary qualities were 1s. per qr. cheaper. Beans and Peas were unchanged in value. The Oat trade was dull, and sales could only be effected at a decline of 6d. per qr. For Flour there was very little demand, and prices were rather cheaper.

PRICE PER IMPERIAL QUARTER.		s. s.	s. s.
WHEAT, Essex, Kent, Suffolk.	White 43-50	Red	40-49
— fine selected runs .. do.	45-54	Red	43-51
— Talavera	57-59		
— Norfolk		Red	
— Foreign	40-55		
BARLEY, grind. & dist. 30sto32s. Chev	40-43	Malting ..	36-40
— Foreign .. grinding and distilling	24-27	Malting ..	32-42
OATS, Essex and Suffolk ..	22-24		
— Scotch and Lincolnshire. Potato	24-26	Feed	
— Irish Potato	23-25	Feed	21-24
— Foreign Poland and Brew	22-25	Feed	19-21
RYE	32-38	Foreign ..	34-38
RYE MEAL, Foreign			
BEANS, Maragan .. 36sto38s. Tick	48-50	Harrow ..	48-50
— Pigeon .. 50s to 56s .. Winds		Longpod ..	
— Foreign Small	41-43	Egyptian ..	38-40
PEAS, White, Essex, and Kent ..	40-42	Suffolk ..	41-43
MAIZE Foreign ..	29-31		
FLOUR, best marks delivered per sack	43-47		
— 2d ditto ditto	32-44	Country ..	32-44
— Foreign per barrel	28-26	Per sack ..	30-56

FRIDAY, NOV. 12.

Since the 5th inst we have had fine weather, but the temperature has gradually gone below the freezing point. A continuation of large foreign supplies of Wheat and Flour during the past week, considerably in excess of the consumptive demand, has pressed heavily upon the markets of the kingdom, causing a slow trade, and, where sales were forced, a further decline of 1s. to 2s. per qr. on Wheat, both English and foreign. Prices of spring corn of all descriptions have also had a downward tendency, and we must reduce the quotations 6d. to 1s. per qr. generally. Flour was much neglected, and fully 1s. per sack and barrel lower. Since Friday last 59 grain and seed laden vessels arrived off the coast, of which, with those left over from the preceding week, there remained for sale last night 33 cargoes. The floating trade continues without animation, and prices were against sellers. Arrived Wheat has receded fully 1s. per qr. Maize closed steady at a slight reduction. Barley—none off the coast; and only one cargo of Rye changed hands at late rates. There is no disposition to enter into transactions for forward shipment.

The arrivals of English grain this week are very small, but good of foreign. There was a thin attendance at this morning's market. English Wheat brought Monday's quotations. For foreign there was but a poor demand, and prices were unchanged. Spring corn was firm at late rates.

ARRIVALS.

	Wheat.	Barley.	Oats.	Flour.
English ..	960 qrs.	760 qrs.	— qrs.	— sks.
Irish	— " "	— " "	— " "	— " "
Foreign ..	26,070 "	5550 "	48,790 "	{ 1380 "
				{ 8240 brls.
	27,030	6310	48,790	

LIVERPOOL, Nov. 9.—We had a good attendance at our market to day, but the transactions in Wheat were of a very limited nature, and sales were only effected at a decline of 2d. per cental for all descriptions on the rates of Friday last. Flour extremely dull, and about 6d. to 1s. per sack and 6d. per barrel easier than last market day. Indian Corn dull, and last Friday's prices were barely maintained. Oats and Oatmeal nominal. Egyptian Beans in small request.

AVERAGES.

	Wheat.	Barley.	Oats.
Oct. 2	49s 8d	37s 8d	24s 7d
— 9	48 1	38 0	24 8
— 16	47 0	38 1	24 1
— 23	46 1	38 6	24 2
— 30	46 2	38 3	23 0
Nov. 6	47 1	38 5	23 10
Average ..	47 4	38 2	24 1

SEED MARKET.

Our markets have been very thinly attended during the past week, and the amount of business transacted has been exceedingly limited; indeed, as is usual at this time of the year, the agricultural seed trade is now almost quite inactive. There has been some speculation in white Clover, and a fair quantity of seed has recently changed hands; other sorts,

however, receive at present no attention. Hemp seed is in short supply, and easily realises high rates; prices in Holland are rapidly advancing. Canary seed is without change in value. Feeding Linseed, on account of the cold weather, meets with a brisk demand. The Rape seed trade is firm. There has been an improved inquiry during the week for winter Taras; they can now be bought in our market at from 9s. to 10s. per bushel. New Haricot Beans are now offering.

HOPS.—BOROUGH MARKET, NOV. 12

Messrs Pattenden & Smith report the market somewhat quieter though firm, holders in all instances standing out for full values. Continental markets are somewhat higher, the general supply being everywhere remarkably limited.

To Gardeners.

WANTED, by the Managers of the Metropolitan Asylum District, for the ASYLUM at Leavesden, near Watford, a PERSON who thoroughly understands the Cropping and Cultivation of a Kitchen Garden (about 7 acres in extent). The Person to be appointed, whose age must not exceed 40 years, will be required to enter upon his duties forthwith. Wages, 25s per week, without a house or any other advantages.—Applications in the handwriting of the Candidate, on Forms provided for the purpose, accompanied by Testimonials of competency, must be forwarded to me, at the Offices of the Managers, 37, Norfolk Street, Strand, not later than Wednesday, November 27. Due notice will be given to those Candidates who may be required to attend the Committee. By Order. W F JEBB, Clerk to the Managers. 37, Norfolk Street, Strand, W.C.—Nov. 8, 1860.

F AND A. SMITH are in WANT of a COMPETENT HAND for Growing Pelargoniums, Calceolarias, Cinerarias, &c., and other Soft-wooded Plants. Salary progressive. None but energetic and persevering persons need apply.—Application by letter only, in own handwriting, stating age, experience, and references, The Nurseries, West Dulwich, S.E.

Gardener.

WANTED, a good practical GARDENER, who thoroughly understands Greenhouse, and Flower and Kitchen Gardening. Must have a good character, and be willing to work Single-handed, or with Assistance.—H., South Lodge, Southall, Middlesex.

WANTED, ONE or TWO YOUNG MEN, in the Herbaric Department, at the Hsie Farm Nurseries, Tottenham, Middlesex. N.B.—Must have some knowledge of that class of plants.

WANTED, a Working Gardener and Wife, Church people (without children preferred), as MASTER and MATRON of an INDUSTRIAL SCHOOL.—Miss C., Beckley Grove, near Oxford.

PACKER WANTED.—Apply, stating age, wages required, and where last or at present employed, to JAMES DICKSON and SONS, Newton Nurseries, Chester.

WANTED, a Lad, as JUNIOR CLERK, in a Wholesale Seed Warehouse. One who has a knowledge of the Trade preferred.—Apply, in own handwriting, stating age, experience, and salary required, to ALFRED LEGERTON, Seed Merchant, 5, Aldgate, London, E.

Cowman and Dairywoman.

WANTED, to take charge of Four or Five Cows, Dairy Pigs, and Poultry, and to be otherwise useful in outdoor work, a Man and Wife, without children. Residence provided in a lodge. Address, with particulars of ages, references, and wages, to A. G. S., Esq., The Hollies, Weybridge, Surrey.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs E. G. HENDERSON and SON, Westminster Nursery, St. John's Wood, London, N.W.

DAVID MITCHELL, NURSEYMAN and SEEDSMAN (late Head Gardener, Hamilton Palace), can with confidence recommend to any Nobleman or Gentleman some first-class HEAD GARDENERS. Highest references can be given.—Apply, in first instance, to DAVID MITCHELL, 3, Hanover Street; or Dean Park Nurseries, Edinburgh.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS, and GARDENERS and BAILIFFS, of various qualifications, who are open to Engagements. The fullest particulars as to services required and wages given should be forwarded with application.—PAUL'S Nurseries, Waltham Cross, London, N.

To Gardeners and Bailiffs (Head, Foremen, or Under).

JAMES CARTER and CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those who can send unquestionable references need apply.

Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & Co. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c. JAMES CARTER and CO., 237 & 238, High Holborn, London, W.C.

Gardeners and Under Gardeners.

WM. CUTBUSH and SON beg to state that they have at all times on their books MEN of various qualifications, whose characters will bear the strictest inquiry. Any Gentleman making application would save time by clearly stating the duties to be undertaken, wages offered, &c., so that suitable Men may be selected.—Highgate Nurseries, London, N.

LUCOMBE, PINCE, and CO. have always on their REGISTER experienced GARDENERS, whom they can recommend to fill any Situation, whether as Head Gardener to a large Establishment, or Gardener and Bailiff, or Under Gardener. Any Lady or Gentleman applying to L. P., and CO. will have their best attention. Exeter Nursery, Exeter.

GARDENER (HEAD).—Age 28; thoroughly experienced in each department of the profession. Highest testimonials.—A. B., Wm. Sage, Gopsal Hall, Atherstone, Leicestershire.

GARDENER (HEAD).—Age 33, married, one child; thoroughly understands the profession in all its branches. Good character.—A. B., 2, Vine Row Vineyard, Richmond, Surrey, S.W.

GARDENER (HEAD).—Age 30; has a thorough practical knowledge of the profession in all its branches. Has lived for 6 years as Foreman to Mr. Pilcher, Gardener to S. Rucker, Esq., West Hill, Wandsworth, S.W. No single-handed place accepted.—Mr. PILCHER will answer further inquiries.

GARDENER (HEAD).—Middle-aged, married, no incumbrance; has a thorough practical knowledge of Growing Pines, Vines, Peaches, Melons, Cucumbers, and Plants, the Management of Fruit, Flower, and Kitchen Gardens, and Pleasure Grounds, and Laying-out of Grounds. Satisfactory references can be given as to character and ability.—P. V., Messrs Osborne's Nursery, Fulham, London, S.W.

GARDENER (HEAD), where one or two are kept.—Age 28, married; used to a Large Vinery, Greenhouse, and Flower and Kitchen Garden. Five years in present situation as Head Gardener. Satisfactory references for leaving.—A. M. K., Bisbrooke Hall, Uppingham, Rutlandshire.

GARDENER (HEAD), or Single-handed.—Age 40, married, one child; thoroughly practical in every department. Excellent character.—F. G., Mr. Jennings, West Croydon.

GARDENER (HEAD), or GARDENER and BAILIFF.—Age 37, married, no family; has had thorough practical experience in both branches. Can be highly recommended.—A. J., Post Office, Mids Moreton, Buckingham.

GARDENER (SEED), in a Garden, and wishes to improve himself.—J. L. P.

GARDENER (UNDER).—Wishes to pay to be improved in Plant and Fruit with 10 Jigs.—L. M., Rose Cottage, Haslemere, Kent.

GARDENER (UNDER).—A Young Man, where a thorough can be obtained. A reasonable Office, Shooter's Hill Road, Bauxham.

FOREMAN (AGE 37), single.—M. to Mrs. Weston Wood, North can with confidence recommend to any Nobleman or Gentleman in the

FOREMAN (UNDER), in a the Houses preferred.—Age W. E. L., Post Office, H. denbar.

STEWART, or FARM BAILIFF married, no family, has had ing, Reading, B. 1. 4. and being all kinds of good character from last situation.—L. M., 20, Budge Row, Cannon Street, London.

AGENT and ESTATE BAILIFF A man wishes to recommend a who has been in his employ for 11 years is an excellent Farmer and most receive the highest character.—A. S. Messrs Booksellers, Cockspur Street, Charing Cross.

BAILIFF—Age 32, married, to undertake the entire Management of a Small Estate, including Gardening, Poultry Woman. Will be highly recommended and satisfactory reasons given for leaving.—The House, near Bridgewater, Somerset.

IMPROVER, in the Forcing and Gardening.—Age 21, no objection to a GARDENER, Rodney Stoke Rectory, near Somerset.

SEEDSMAN, or BOOK-KEEPER—experience in London and the Province of knowledge of Plants, and some experience in able references.—SEEDSMAN, Post Office, London.

To the Seed Trade. **SHOPMAN, or TRAVELLER.** Sixteen years' experience. T. ROBERTS, 14, Tavistock Street, Covent Garden.

SHOPMAN, or BOOK-KEEPER—experience. Good knowledge of Wellwood, Bridge of Allan, N.H.

SHOPMAN, or ASSISTANT.—Age experience in the Seed Trade.—J. G., Chesterfield.

SHOPMAN, or ASSISTANT.—Age class experience in London and Province knowledge of the Nursery and Florist himself useful in the above capacity of —E. W., 48, Allen Street, Warrington.

CARPENTER, on a Gentleman's Estate in a large town, who has a thorough business, also the Making and Repairing of Farm Implements. Is willing to make himself J. A. W., Post Office, Bromley, Kent.

BEDSTEADS, BEDDING, and BRASS BEDSTEADS and CHILDREN'S unrivalled, either for extent or moderation. Also supplies Bedding manufactured in the Hangings of guaranteed quality. Patent Iron and Brass Bedsteads in great variety. Complete suites of Bed-room Furniture in polished and japanned deal, always on show. WILLIAM S. BURTON, at his manufactory, and every article is guaranteed. China Tea and from 4s. the set of five pieces.

WILLIAM S. BURTON, furnishing iron and to H. R. H. the Prince of Wales, sends a upwards of 700 Illustrations of his to 39, Oxford Street, W.; 1, 1A, 2, 3, and 4, Newman Perry's Place, and 1, Newman Yard. With FACILITIES the cost of delivering goods to the of the United Kingdom is trifling. WILLIAM always, when desired, undertake delivery at a

WHITE and SOUND TEETH are personal attraction, and to health and proper mastication of food. ROWLAND'S DENTIFRICE, is of inestimable value in preserving the Teeth, Strengthening the Gums, and giving fragrance to the Breath. It eradicates Tartar and Decay, and polishes and preserves the Enamel, like pearl-like whiteness. Price 2s. 6d. per Box. Perfumers. Ask for Rowlands Odonto.

DINNEFORD'S FLUID The best remedy for Acidity of the Stomach, Headache, Gout, and Indigestion, and the best for delicate constitutions, especially adapted for Ladies and Infants. DINNEFORD and CO., 172, New Bond Street, and of all Chemists throughout the

COCKLE'S ANTIBILIOUS THE SAFEST FAMILY APERIENT. In boxes at 1s. 1/4d., 2s. 9d., 4s. 6d., and 10s.

COCKLE'S ANTIBILIOUS in use the last 60 years for INDIGESTION. In boxes at 1s. 1/4d., 2s. 9d., 4s. 6d., and 10s.

COCKLE'S ANTIBILIOUS in use the last 60 years for BILIOUS AFFECTIONS. In boxes at 1s. 1/4d., 2s. 9d., 4s. 6d., and 10s.

COCKLE'S ANTIBILIOUS in use the last 60 years for LIVER COMPLAINT. In boxes at 1s. 1/4d., 2s. 9d., 4s. 6d., and 10s.

COCKLE'S ANTIBILIOUS THE OLDEST PATENT MEDICINE. In boxes at 1s. 1/4d., 2s. 9d., 4s. 6d., and 10s.

NOVEMBER FOGS are COMING here, and many are suffering from ASTHMA, INFLUENZA, &c. Immediate relief may be obtained by the use of SPENCER'S PULMONIC ELIXIR, every property which can be beneficial in cases of Asthma, and all complaints of the Chest and Lungs. SPENCER'S PULMONIC ELIXIR may be had of all principal Druggists and Medicines Vendors throughout the Kingdom. In bottles at 1s. 1/4d. and 2s. 9d.

Gardeners' Chronicle Newspaper.

WEDNESDAY, NOVEMBER 27, 1869.

MATS. for Covering Garden Frames.—
TANANROG MATS are the cheapest and best, which gives the size of every class of Mat, and is made in the following manner:
1, Commercial Street, Shoreditch, London

Cheap Cisterns.

GALVANIZED IRON CISTERNS, with Lid and Bram Tap.

30 Gallons ..	20s.	150 Gallons ..	45s.
50 ..	24s.	200 ..	64s.
80 ..	31s.	250 ..	72s.
100 ..	38s.	300 ..	82s.

Square Cisterns, Strand Fencing, Gates, Netting, &c. Price Lists free.

S. SOTHERN, Henblas Street, Wrexham.

JAMES PHILLIPS AND CO.

beg to submit their prices as follows:—
GLASS for ORCHARD HOUSES,
to them Mr. Rivers, to the Royal Horticultural Society,
to the Nobility, Clergy, and Gentlemen of the United Kingdom.

The prices only apply to the sizes stated.
Squares 20 by 12, 20 by 13, 20 by 14, 20 by 15.

15 oz.	19s. 6d.
21 oz.	22s. 6d.
27 oz.	26s. 0d.
33 oz.	27s. 0d.

These prices include the boxes, which are not returnable.
HORTICULTURAL GLASS.
Sizes, 10-oz., in 100 feet boxes, boxes included.
These prices only apply to the sizes stated.

4ths.	3rds.	2nds.
13 by 9	14 by 10	15 by 11
16 by 10	17 by 11	18 by 12
19 by 11	20 by 12	21 by 13
22 by 13	23 by 14	24 by 15
25 by 14	26 by 15	27 by 16
28 by 15	29 by 16	30 by 17
31 by 16	32 by 17	33 by 18
34 by 17	35 by 18	36 by 19
37 by 18	38 by 19	39 by 20
40 by 19	41 by 20	42 by 21
43 by 20	44 by 21	45 by 22
46 by 21	47 by 22	48 by 23
49 by 22	50 by 23	51 by 24
52 by 23	53 by 24	54 by 25
55 by 24	56 by 25	57 by 26
58 by 25	59 by 26	60 by 27
61 by 26	62 by 27	63 by 28
64 by 27	65 by 28	66 by 29
67 by 28	68 by 29	69 by 30
70 by 29	71 by 30	72 by 31
73 by 30	74 by 31	75 by 32
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governors of this hospital, convened by the Prince of Wales, as President, was held on Monday, the 14th inst. A statement by the treasurer, Mr. White, of certain charges which have been made in the management of the institution, by some of the governors. The Prince presided, and there were present the governors, and the Rev. Mr. White, the treasurer. His Royal Highness, the Prince of Wales, said that as certain charges had been made in the newspapers against the management of the hospital, he had thought it would be a general court, in order to give Mr. White, the treasurer, an opportunity of making a statement, which he trusted would meet all the charges that had been made against the management of the institution. Mr. White then entered into a detailed account of the affairs of the hospital, and stated that the diet of the patients in St. Bartholomew's was superior to that of the London and provincial hospitals with which it had been compared, and that the daily average of beds in occupation, was second to none. As to the mode in which the expenses of the hospital had been expended, he read a list of the improvements made, which were referred to him by the whole medical staff, and by 18 physicians and surgeons, declaring that they considered it their duty to bear witness to the number and importance of the improvements made during the treasurer's tenure of office. These were improvements in the surgery and dispensary, in the wards appropriated to women, in the operation theatre, in the conversion of the hospital square into a place fit for open-air exercise, and in several other departments. By these improvements, they added, the hospital has been made at least equal to any other in the kingdom, both as an institution for relieving the sick poor, and as a school of medical science. Mr. White concluded his statement by the following resolution:—

Resolved, that the house committee to inquire and report to the next meeting—1. What measures should be adopted for the purpose of providing better sleeping quarters for the nurses. 2. Whether it is expedient to take what steps, in order to diminish the labour of the nurses, and to afford them longer periods of rest. 3. Whether any measures lately made for the purpose of securing the relief of the casual patients are sufficient, and if not, what further provision should be made for the object in view. 4. What course can be adopted for the purpose of promoting a more efficient institution in the country for the patients of the hospital.

Mr. Englewood seconded the motion. After some remarks by Alderman Sir W. Rose, Alderman Sidney, Alderman Sir S. Waterlow, and other gentlemen, the resolution was carried unanimously. Mr. William Helps moved the hearty thanks of the meeting to Mr. White for the fidelity and zeal with which he had discharged his duties during the 15 years of his treasurer'ship, and for his unabated confidence in his management. Mr. Englewood seconded the resolution, which was carried unanimously. On the motion of Sir Benjamin Philips, seconded by Mr. Charles Reed, M.P., a vote of thanks was given to the Prince of Wales for taking the chair was carried unanimously. His Royal Highness, in acknowledging the resolution, said that he was very glad to have the statement of the treasurer, and congratulated him on the successful way in which he had met the charges that had been brought against him. As the meeting were all deeply interested in the welfare of the hospital, he hoped they would forgive him for venturing to suggest that if they would come there oftener it would be the better for all parties, and they would be more conversant with the details of the management, and would thus give a greater support to the treasurer.

WINCHESTER PLAY.—The *Trinummus* of Plautus will be performed by the Queen's scholars in the theatre on the evenings of Thursday, December 9; Friday, December 11; and Thursday, December 16.

THE POOR-LAW BOARD ON CHARITABLE ORGANIZATION.—The increase of out-door poor in the metropolis has become so alarming that the Poor-law Board have thought it advisable to issue an important circular with respect to the assistance given by charitable organizations. The object of the Board is to obtain a better understanding between the guardians and the public, so that the benevolence of the latter may not be misapplied to the relief which the Poor-law renders legal. The document concludes as follows:—

It is to be considered by what means such an understanding can be brought about. The first point is that there should be every opportunity for every agency, official or voluntary, engaged in relieving the poor, to know fully and in detail the work performed by all similarly engaged. The lists of the relieving officers would form the basis for the necessary information. No funds are at the disposal of the Poor-law Board with which they could employ a staff and provide offices for organizing a general system of metropolitan relief. Other means must, therefore, be sought for providing that a public registering office should be established in every large district, where the names of all persons in receipt of parochial relief should be kept of all persons in receipt of parochial relief, with such particulars attached as might guide others in their inquiries. The clergy of all denominations, and the representatives of all the charities in the neighbourhood, should be invited to send in their lists to such offices, and to make themselves acquainted with the other names deposited there, by which means an accurate and complete reference book might be framed which would contain the necessary information about almost every person who had once received relief, either parochial or charitable. In order to give any sufficient legal power in the Poor-law Board to carry out this plan, the following measures are proposed:—1. To authorize the guardians to employ any reasonable remuneration for extra work to be done by the guardians or their agents, or by any other persons, in carrying out this plan. 2. To instruct their inspectors to facilitate the communication between the official and private agencies, where such communication may be of any service, and to assist in systematic relief operations in various parts of the

metropolis. It is evident that the suggestion made may be adopted in all those instances where the relief may be prepared to adopt them, without waiting for the approval of any central authority, which may be less desirable in the execution. The successful working of the plan in even a few of the largest and most pauperized districts would in itself be of great value, and undoubtedly secure a similar organization throughout the metropolis. When the means of communication are established, it might be possible to organize a system of relief, which the guardians might, with advantage, employ to observe the names of all persons in receipt of parochial relief, and to give money or food to those in receipt of parochial relief, upon the understanding that these gifts should be taken into account for the purpose of curtailing the ordinary relief. 3. They might apply to the relieving officer on behalf of all such totally destitute persons, and to the relieving officer if full within the sphere of the relieving officer, and when property is held, when the relieving officer is applied to for relief, and are bound to refuse it, because the applicants are not actually destitute in the strict sense of the term, they might pass on the names and addresses to the charitable agencies where they think the cases are likely to fall within the class which the charity undertakes to assist. It will, of course, be understood that the Poor-law Board have no power in this matter to act beyond granting the necessary authority for the expenditure of money, or for the appointment of relieving officers as described above. They can only invite the various charitable agencies and the boards of guardians to consider the suggestions which they have made. In order to give effect to the suggestions in the east end of London from the understanding established between the guardians on the one hand and the representatives of the charities on the other, with the co-operation of Mr. Selator Booth, then Secretary of the Poor-law Board, and Mr. Corbett, Poor-law inspector. At the time of the cotton famine the Poor-law authorities and the administrators of charities also worked together with great success. These precedents justify the belief that great benefits would result to the metropolis if a cordial understanding could be arrived at and arrangements made between all parties engaged in relieving the poor, based on practical and systematic rules in conformity with the general plan sketched in this minute.

LONDON BRIDGE.—The effect of closing the carriage-way of London Bridge last week, for the purpose of having it repaved, has caused such an excessive traffic over Southwark Bridge that the police authorities have issued an order directing that all vehicles from the Surrey side, bound for parts of the Middlesex side west of Blackfriars, shall cross the river by Blackfriars Bridge. The routes of omnibuses also have been altered, and some of them running south of the Thames now finish their journey on that side of the river, instead of proceeding, as formerly, to Cornhill.

WINTER GARDEN AND THEATRE IN LEICESTER SQUARE.—The site where Saville House stood, in Leicester Square, previous to the recent fire, has been secured for a winter garden and theatre of huge proportions. The whole block of buildings has been taken, and a public company is in course of formation, the shares to be 1*l.* each, not less than 25*l.* to be taken up. The auditorium of the new theatre will seat 3000 persons, and the stage will be larger than Drury Lane. A covered facade in front of the house is also contemplated, calculated to shelter 1000 people from the weather. The promoters of this company have secured a place in Isleworth for the supply of the plants and flowers.

WOOLWICH DOCKYARD.—Mr. Childers, the First Lord of the Admiralty, has requested Mr. Tite, M.P., to advise him in regard to the division of Woolwich Dockyard into plots, preparatory to the property being offered for sale by the Government.

DEPTFORD DOCKYARD.—The Market Committee of the City of London have recently inspected this dockyard with a view of considering its capabilities as a substitute for Billingsgate. The committee, who were conducted over the establishment by Captain Eardley Wilmot, the Superintendent, made a minute inspection, and fully discussed the advantages and disadvantages of the yard in reference to the contemplated change.

THE POOR-LAW BOARD AND THE ST. PANCRAS GUARDIANS.—A crowded meeting of the St. Pancras guardians was held on Monday, at which were present, among others, Sir William Bodkin, the Deputy Judge, Sir Sydney Waterlow, Mr. Wyatt, Mr. Wedgwood, Mr. Bodkin, jun., and Mr. Corbett, the Poor-law inspector. Letters were read from the Poor-law Board refusing to delay the proceedings regarding the sick and long, requiring the guardians to get ready without delay wards of the new Highgate Infirmary to accommodate 170 sick, a task which could be accomplished, the Board said, in a fortnight. As to the reduction of the numbers of out-door sick needing infirmary accommodation, by calling upon the relieving-officers to treat the patients as far as possible in their own houses, as the guardians had ordered, the Poor-law Board did not think there would be any appreciable reduction in this course, and, besides, it must show that the guardians rested on the supposition that the parish officers hitherto had been relieving fewer sick cases in the patients' houses than might properly have been so dealt with, and that the patients had been sent in preference to the infirmary. The Board doubted that this had really been the fact. The Board refused to permit the payment of any fee to a body of medical men who might examine and report on the infirmary, as the guardians had suggested in a resolution, for the Poor-law Board knew of no case in which they "could be relieved of their duty of determining, on their own responsibility, whether the workhouse infirmaries are fit for their purpose, and whether the class of patients can be best treated in the various wards." There was less occasion for the guardians acting upon this resolution, "as the question of the necessity for additional accommodation for the sick has long ago been decided upon, and its practical solution has been delayed by the noncompletion of the building at Highgate." "Gentlemen of the highest medical eminence were members of the Cubic Space Committee, and the Board would not think it right to diminish their requirements in consequence of private professional

opinions given in a particular case by authorities called in by the guardians." The Poor-law Board also directed that five wards should not be used as sick wards a day longer "than was absolutely necessary." The guardians were told that the parish could only have about a fourth of the representation of the new sick asylum district of which it was to form a part. The letters of the Poor-law Board were agreed to, and a committee, largely formed of the St. Pancras guardians, was constituted to carry out the new regulations, which, in accordance with the orders of the Poor-law Board, are not to be stopped, even by the legal points in the amendment of the Statute in the new Board, which will be formed for the other business. A paid nurse who gave evidence before the Coroner was ordered to be dismissed, because she would not speak in answer to a guardian's questions before Mr. Corbett, but Mr. Corbett, who was present, declared that he found no fault with the woman. It was agreed to send patients to Charing Cross Hospital in order to relieve the infirmary.

ST. PANCRAS WORKHOUSE INFIRMARY.—Inquests were held on Friday on the bodies of three persons, two adults and an infant, who had died in St. Pancras Workhouse infirmary. Medical evidence was again given as to the deadly state of the atmosphere in the sick wards, and Dr. Ross said that they "stank as bad as ever." Dr. Robertson stated that he considered it equivalent to consigning people to their graves to put them in such wards. The jury returned verdicts in the first two cases to the effect that death had been accelerated by the impure air of the wards, and in the third case, that of a fine baby, that death had been caused by congestion of the brain, arising from the effects of poison from an open drain outside the nursery of the workhouse. On Monday the inquest on James Plant and two other persons who had died in the infirmary was resumed and concluded. The case of Plant had been partly gone into some days ago, when in consequence of the startling evidence given by Mr. Solly, vice-president of the College of Surgeons, and Mr. Brudenell Carter, Fellow of the College, as to the condition of the infirmary wards, it was agreed to adjourn them, the coroner stating that "in justice to the public the jury should go more fully into the matter." After hearing evidence at great length, the jury returned a verdict in one of the cases that death had ensued from the effects of consumption, accelerated by the overcrowded condition and bad atmosphere of the ward. The jury added to the verdict the following remarks:—

"That the wards of St. Pancras Infirmary have been overcrowded for the last three years, and the jury desire to express their regret that the Poor-law Board have not enforced the sanitary measures which they have from time to time recommended to be carried out. They also feel that the board of guardians have failed in their duty towards the parish of St. Pancras in not carrying into effect the recommendations of the Poor-law Board."

The inquiry lasted nearly nine hours, and the other cases were adjourned till Monday. The Poor-law Board have since determined on instituting a public inquiry into the state of the wards of the Infirmary, and the charges preferred by the guardians against their medical officers. The date of the investigation is not yet fixed, but it is understood it will be conducted by a special commission, wholly unconnected with the board.

PARISH OF ST. CLEMENT'S DANES.—The gentlemen who are reading with Dr. Vaughan, the new Master of the Temple, with a view to holy orders, have volunteered their services to the rector of St. Clement's Danes for work in Clare Market, one of the worst parts of his parish, and are now engaged in domiciliary visits among a class of poor whose misery it would be scarcely possible to exaggerate. They are also taking part in the Church service, by reading the lessons at evening services, at which Dr. Vaughan himself has undertaken to preach occasionally.

THE OPEN SPACE AT THE MANSION HOUSE.—The Improvement Committee of the Corporation have had a conference with the Metropolitan Board of Works, for the purpose of requesting that the vacant ground opposite the western side of the Mansion House, in Wallbrook, may be preserved as an open space. The Board of Works, in reply, have informed the Improvement Committee of the Corporation that, having regard to the great value of the ground in question as building land, they feel it impossible to entertain the question of preserving it as an open space.

THE TELEGRAPHS AND THE GOVERNMENT.—It is stated that the Post Office authorities will not be in a position to take over the working of all the telegraphs on January 1, but the delay will not extend beyond three or four weeks, during which temporary arrangements will be made with the existing companies to carry on the business under the control of the Postmaster-General. Meanwhile, it is reported that the Chancellor of the Exchequer will not appear in the market as a borrower of the amount to be raised for compensation, but will meet it temporarily or otherwise by adjustments in connexion with various branches of the public accounts. The transfer of the telegraphs to the post offices in Ireland is, it is said, to be deferred for a year.

THE PROPOSED NEW COUNTY PRISON.—On Thursday a meeting of the Middlesex magistrates was held at the Sessions House, at Clerkenwell, and was attended by no fewer than 150 magistrates. A proposal to build a new prison for the county had been favourably considered at former meetings, and a committee had been authorised to enter into a provisional contract to purchase as a site the Highbury Vale estate for 12,250*l.* A motion to confirm this contract was opposed by Mr. Serjeant Payne, Lord Enfield, and others, and was defeated on a division by 48 to 35.

LOSS OF THE CLIPPER SHIP SPINDRIFT.—This celebrated clipper ship, which made such a splendid voyage last year from Foochoo Foo to the Thames with the first "teas of the season," ran ashore on Sunday

near Dungeness, and has become a total wreck. She left London a few days previously in charge of a Trinity House pilot for Shanghai, with a cargo valued at 200,000*l.* and on Saturday in the weather ran on the rocks near Dungeness. She soon filled with water, and portions of the cargo were washed ashore. All hands were saved. The ship was built especially for the China tea trade on the Clyde in 1867, was 500 tons register, and was owned by Messrs. Finlay & Co. of London. She was not insured.

THE HIGHBURY RIOTS.—Early on the morning of the 6th inst. a riotous mob of men who had been keeping "Guy Fawkes" night at Highbury Barn, perambulated the streets of Highbury and Islington, attacked the passers they met with, and destroyed property to a large amount. At the Islington vestry, on Friday, a series of resolutions was adopted, declaring that such outrages were primarily referable to the practice of allowing places of entertainment to remain open until an unreasonable hour, emphatically protesting against the continuance of such practice, and earnestly urging upon the licensing magistrates not to renew the licence to the proprietors of Highbury Barn. It was resolved to send a copy of the resolutions to the licensing magistrates, and to call for a searching investigation into the conduct of the police in the districts traversed by the rioters.

THE PUBLIC HEALTH.—The Weekly Return of the Registrar-General states that in the week that ended on Saturday, Nov. 20, 1892 births and 374 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 30 per 1000 persons living, being 31 per 1000 in London, 33 in Edinburgh, 23 in Dublin, 27 in Bristol, 24 in Birmingham, 29 in Liverpool, 33 in Manchester, 28 in Salford, 31 in Sheffield, 24 in Bradford, 23 in Leeds, 30 in Hull, 27 in Newcastle-upon-Tyne, and 36 in Glasgow. In Paris the annual rate of mortality in the same week was 25 per 1000. The rate in Berlin during the seven days ending the 18th inst. was 26 per 1000, and in Vienna 27 per 1000 during the week ending the 13th inst. In London the births of 1092 boys and 1093 girls, in all 2185 children, were registered last week. In the corresponding weeks of 10 years 1859-68, the average number, corrected for increase of population, was 2181. The deaths registered in London during the week were 1859. It was the 16th week of the year, and the average number for that week, corrected for increase of population, was 1566. The present return is therefore 293 above the estimated amount.

Provincial.

BRIGHTON.—A company has been incorporated by Act of Parliament, for the erection of a large public aquarium in this town. The site chosen is at the foot of the Chain Pier, below the cliff, commencing at the Toll House, where there is ample space for every requirement. A sea wall is to be built, and a road laid down, enclosing an area of ground measuring 700 feet by 100 feet. Towards the construction of this wall and roadway the corporation of Brighton have agreed to contribute the sum of 7,000*l.* The aquarium to be erected will not only afford a popular amusement, but by its scientific organisation and classification will be most valuable to students of natural history, and especially of ichthyology.

BUXTON.—The Duke of Devonshire has made a liberal offer to the inhabitants of this town. His Grace states that if they will form a public company to carry out a number of required improvements, with a capital of 10,000*l.*, he will take half the shares, and give in addition 8 or 9 acres of land at a nominal rent of 5*s.* per annum. A committee has been appointed to canvass the town and take other steps. It is stated that the land offered by the Duke is worth 9000*l.*, which, with the 5000*l.* of capital he offers to provide, will make his Grace's contribution to the scheme 14,000*l.*

CARDIFF.—The Marquis of Bute has just relieved the hospital-ship Hamadryad, at this port, from a debt of upwards of 1000*l.*, and has signified his intention of subscribing 1000*l.* towards the building fund of the new Glasgow University.

CARMARTHEN.—On Tuesday, David Davies, who was suspected of having murdered his sister-in-law, Esther Davies, on the 4th inst., was re-examined before the county magistrates. After a number of additional witnesses had been examined, the presiding magistrate said that, in the opinion of the court, there was not sufficient evidence to warrant the committal of the prisoner. He was accordingly discharged from custody.

FROME.—The inquest on the 11 men and boys killed by the explosion in the Mackintosh coal-pit at Newbury, near this town, three weeks ago, has resulted in a verdict of manslaughter against William Baker, chief oversman; Abraham Hamblin, lampman; and John Baynton. The latter was proved to have torn a division curtain. Mr. Lionel Brough, the inspector, said that all the rules had been violated in the pit. The inquiry lasted five days.

HATFIELD.—On Thursday the Vice-Chancellor, the proctors, and a delegacy from Oxford, arrived at Hatfield House, and admitted the Marquis of Salisbury as Chancellor of the University with the usual formalities.

HAWARDEN.—Mr. Gladstone, the Premier, has purchased the Aston estate, in this parish, comprising Aston Hall and Aston Lodge, in all about 923 acres; also three collieries, the whole producing a rental of about 2500*l.* per annum. The property formerly belonged to Admiral Dundas.

HEXHAM.—On Wednesday week, as Mr. C. G. Grey, of Dilston, the receiver of the Greenwich Hospital rents at Haydon Bridge, was being paid by the tenants at the Anchor Inn, the Countess of Derwentwater marched into the room at the head of a number of her "retainers." She was richly dressed, and wore a massive gold chain round her neck, with a sword sus-

pending by her side. She told Mr. Grey that he had no right to receive the rents of her tenants, as her advertisements had now become law by not being contradicted. Mr. Grey had her attendants at once expelled, when she was seized by Mr. Goodrich and Mr. Glover, and put out also. When they took her by the body and arms, she seized the hilt of her sword, intending to take it out to defend herself, but it was taken from her by one of the people in the room, and broken in two, it never having been out of the scabbard. She then took up a large stick and struck Mr. Grey very severely several times over the knuckles. They then forcibly removed her from the room, and pushed her down the stair, which caused her to fall against the table at the bottom, hurting her very much. She afterwards retired to a room which she had engaged for herself, and left about half-past 5 o'clock in her carriage. As she drove away from the inn her departure was greeted with cheers by the concourse of people that had assembled in front of it.

LEEDS.—A special meeting of the General Council of the Yorkshire Board of Education was held recently in this town, to consider the establishment of a Yorkshire College of Science. Lord F. Cavendish, M.P., President of the Council, occupied the chair, and there were also present—Mr. Baines, M.P., Colonel Akroyd, M.P., Mr. Walter Morrison, M.P., the Rev. Dr. Woodford, vicar of Leeds; Mr. H. W. Ripley, Mr. Jacob Behrens, and Mr. Isaac Holden, of Bradford, Mr. E. Huth, of Huddersfield, Mr. James Garth Marshall, of Leeds, &c. Letters of apology were read from Sir Harcourt Johnstone, M.P., Mr. A. Illingworth, M.P., Mr. Mundella, M.P., Mr. F. S. Powell, Sir P. Crossley, M.P., Mr. W. S. Stanhope, Sir Titus Salt, &c., expressing approval of the project which the meeting was met to consider. The Chairman spoke upon the importance in a country which had reached such a state of civilization as ours of workmen understanding the nature of the materials on which they were employed. In earlier days, when the resources of the country were unexhausted, that was comparatively an unimportant matter. Materials were close to the surface, timber was abundant, and altogether there was no immediate bad effect where those resources which Nature had given so abundantly were not used as economically as they might have been. But the case was very different when the country had arrived at such a stage as that which England had reached. If England was to maintain her position in the civilised world, she could only do so by using to the best advantage the resources Nature had endowed her with. He gave an instance from Middlesborough, showing the importance of technical knowledge to the skilled workman. Every foreign country was up and doing in the way of competition with this country, and if England was equal to them, it was to be feared she was not ahead of other nations in her manufacturing products. In considering whether Yorkshire was too large or too small for a science college he said he thought the example of Germany and Switzerland might help them, where such colleges existed for every 5,000,000 inhabitants. Wherever one was started in Yorkshire he hoped it would be on a sufficiently broad basis. Yorkshiremen still gloried in the traditions of their country, and in deciding upon the locality for such a college he was sure all would be determined that the institution when opened should be worthy of the county to which it belonged. Colonel Akroyd, M.P., moved—"That in the opinion of this meeting it is desirable that a College of Science should be established in Yorkshire." He pointed out the example which Lancashire had set on this subject, and with reference to a remark that the existing depression of trade made it an unsuitable time for the establishment of such a college, he said that depression arose from the competition of Continental manufacturers, and that afforded an additional reason why they in Yorkshire should lose no time in the formation of this college. Mr. W. Morrison, M.P., seconded the resolution from an agricultural point of view, but he did not think it likely for many years that the Craven farmers would study scientific husbandry. Other gentlemen also supported the resolution, and it was unanimously carried. Mr. I. Holden moved, Mr. Baines, M.P., seconded, and Mr. J. G. Fitch, Government Inspector of Schools, supported a resolution appointing a committee to investigate, consider, and propose the best means to be adopted, in co-operation with the Endowed Schools Commission. The committee includes all the mayors of Yorkshire and the chairmen of the Chambers of Commerce and Agriculture in the county.

LINCOLN.—Dr. Wordsworth, the Bishop of Lincoln, has sent in his formal application for the appointment of a suffragan bishop, which the Government had previously expressed their willingness to grant. It is understood that either Mr. Mackenzie, Archdeacon of Nottingham, or Mr. Morse, the vicar of St. Mary's in that town, will be selected for the appointment. It is at least 200 years since a bishop of this class has been appointed in England.

LOWESTOFT.—The Tyro fishing lugger, which arrived at this place on Tuesday evening, reports that seven of her crew of 11 hands were washed overboard on Monday by a tremendous sea, and were all drowned.

NEWCASTLE-ON-TYNE.—A shocking murder was committed in this town last week. A sailor called Weir had visited a woman in a low neighbourhood, and on leaving the house is supposed to have stabbed her in the breast. She died in a quarter of an hour, without being able to say more than that "A man did it." In the meantime the man had gone to the police to complain of being robbed, and being taken into custody, was horror-stricken at finding that the woman was dead. At the inquest on Saturday the suspicion was strong against Weir, but it was suggested that the stab might have been given by a man called Renwick, who had lived with the woman, from motives of

jealousy. Evidence was given which fully established Renwick's innocence, and the jury returned a verdict of Wilful Murder, but by whom there was no evidence to prove. Weir, however, remained in the hands of the police.

PORTSMOUTH.—On Friday a fever ward had been erected in connection with the new hospital, and Gosport Hospital, as a memorial to the late Lord Northbrook (who as Sir Francis Baring represented the borough for 35 years), was presented over to the committee of the hospital, and referred in eulogistic terms to the services of the late nobleman, and was presented to the committee after which Lord Northbrook's appreciation of the manner in which the memorial parties had joined in the memorial, and of the form which it had assumed, was the memorial was upwards of 1000*l.*

RUGBY.—The election of the new trustees of the School, in the room of Dr. Temple, took place on Saturday. The trustees present were Mr. Charles Bertie Percy, Right Hon. Sir C. B. M.P., Rev. C. W. Hoibech, Colonel North, H. C. Wise, M.P., Mr. C. N. Newstead, M.P., Mr. W. B. Davenport, M.P. There were several candidates, and the choice of the trustees fell upon Rev. Henry Hayman, B.D., of St. John's, Oxford, head master of St. Andrew's College, Berkshire.

SOUTHAMPTON.—The local board of health has contracted to dispose of the town sewage, which hitherto discharged into a stream, for the year 1892, a sum sufficient to pay the interest on the sewerage works.

Ireland.

THE LAND QUESTION.—A conference of landlords and tenant-farmers was held in Longford on Tuesday for the purpose of considering the resolutions proposed at a county meeting on the 1st inst. Earl Granard took the chair, and addressed the meeting delivered by his lordship, Colonel Grealy, M.P., and Mr. G. Slater, who, while denouncing the present land laws, insisted that justice should be done to landlords as well as tenants. Resolutions were adopted of fixity of tenure and rents at a value to be adopted. On Wednesday a demonstration of the farmers of county Leitrim was held at Carr Shannon, and was attended by 10,000 persons. Earl Granard in the chair. The necessity for reform was impressed by the speaker, and a resolution was demned. On the same day a large tenant meeting was held at the Mansion House, Dublin, at which Moylan in the chair, in the absence of the Lord Mayor. Addresses having been delivered by Mr. P. J. Dominic Corrigan, ex-Judge Little, Sir John and others, resolutions were adopted declaring the land question demands the immediate attention of Parliament, that Mr. Bright's proposition of establishment of peasant proprietary should be put out; and that a conference of landowners of Parliament, municipal corporations, and boards should be held to devise the best means of rooting the Irish race in the Irish soil.

FENIAN DEMONSTRATION IN CORK.—On Tuesday to commemorate the deaths of Larkin, Arthur O'Brien, who were executed at Manchester for the murder of constable Brett, about 1800 Fenians marched through Cork at night, led by a band playing "Dead March in Saul." They moved in a funeral step, four deep.

FENIAN OUTRAGE IN TIPPERARY.—On Monday night a mob in Tipperary wrecked the house of the Rev. Mr. Howley, P.P., his curate, the Rev. Mr. O'Neill, who lived with him, having become notorious for supporting Mr. Heron.

FENIAN ROBBERY IN CORK.—On Sunday the residence of Mr. O. C. Edwards, of the Island House, five miles from Cork, was attacked by armed Fenians, who, in the absence of the family, compelled the man in charge to give them arms, and carried off two guns.

THE CORK MURDER.—The Fenian man who was arrested by the police on suspicion of being implicated in the late murder, has been discharged, there being no evidence against his detention.

THE MURDER OF CAPTAIN LAMBERT.—Barrett, who is accused of having fired at Captain Lambert, at Athelmy, and whose trial before the Special Commission terminated in a *Quoere* verdict, was brought up before the Court of Queen's Bench last week, and pleaded "Not Guilty." A plea of indictment at Galway was tendered, but not accepted. The Attorney-General intimated that it was the intention of the Crown to move an affidavit in a new change the venue.

SUSPENSION OF AN ORANGEMAN.—The Orange Lodge of Antrim has expelled from membership for one year Mr. Dalway, M.P. for Carrickfergus, because he supported Sir Shafto Adams, Liberal candidate for the county. The lodge master, Mr. William Gwynn, was not consulted in the decision of the Lodge, but wished Mr. Dalway altogether.

PARTY PROCESSIONS.—A memorial from the Catholics of Derry has been presented to the Lieutenant, calling upon the Government to prohibit the party processions in that city, and to prohibit an Orange celebration which takes place annually.

THE FENIAN PRESS AND ORATOR.—The *Irish Standard* contains an editorial article, entitled "The flag," in which it commends the people of Ireland for declaring they will "unfurl the flag of independence, and seek the liberation of the nation," winning the freedom of the nation.

there is but one way of arranging the... and that is to hand over Ireland to the... who want it, and sooner or later will... an article headed "Self Reliance," the... insurrection are discussed at great... of the English garrison is estimated;... and spirit of the disaffected classes... against them; the military capacity of... is treated in contemptuous terms, and... with American officers, who are described as... themselves at the head of a movement in... the issue of a struggle is predicted with... the Irishman has an article on "Revolu-... with satisfaction on what was achieved... democracy, and ridiculing the sympathy... fate of Marie Antoinette and others of... who fill... to the revenge... It also repeats advice to... It is not, however, the news-... by which seditious language is uttered, ... speakers at the tenant-right and other... usually violent. At the recent meeting... over which Lord Granard presided, the... a parish priest, told the landlords that... and have no more patience with them—... had gone too far—that they had... and that their conduct would not be... He read, amidst great applause, ... article by John Mitchell, in these... words: "I would like to see a mad... in London, shoot the agent; and... the agent, shoot the bailiff, or all... He said that he did not read this as... with such advice coming from the... he saw that, unless a radical change... there would be terrible work in the... the nomination for Tipperary, on... Mr Ryan, in proposing Mr Crean, ... of the Brigade, as a candidate, said that... ditched out of their jackets because... up the old system of taking revenge, ... a law, patent, and most successful... he was not binding himself to, because... he was a man of peace; but now the tenant... trust father, brother, or mother with the... at he intended to do, but went out, took... and "tumbled" his landlord. This speech... with loud cries of "Bravo!" and... cheering.

district church only, and that the freehold was in the... bent of the parish, and not in the appellant. That the com-... mon fund of the Ecclesiastical Commissioners was derived... from various sources, and not from land in the parish; and... the Queen Anne's Bounty was not derived from land in the... parish. That the fees for marriages, baptisms, and churchings... were for personal services only, and that the burial fees... were in respect of the Cemetery Acts, and not for burials in... the churchyard of the church of which the appellant was... incumbent; and that he had no income worth 40s. a year... derived from the church property from the land belonging...

Mr. Justice... the appellant to... He had failed to do this, and had there-... blished his claim. The decision... was affirmed.

CENTRAL CRIMINAL COURT.

Frederick Hinson, 30, described as a carpenter, was charged with the wilful murder of Maria Death. He was also charged upon a second indictment with the wilful murder of William Douglas Boyd. The prisoner who is a tall, powerful man, and rather glibly... with... He had failed to do this, and had there-... blished his claim. The decision... was affirmed.

... charged with the wilful murder of Mary Ann Wright. The prisoner lived with Wright, who had previously lived with a man named Whitall. The prisoner having seen the woman talking to Whitall, became jealous, and in the middle of the night cut her throat so terribly as to cause instantaneous death. A child which lived with them, the mother of Whitall, was covered with her blood. The prisoner went at once to the station and gave himself up. The facts being proved, the plea of insanity was set up in defence. The jury acquitted the prisoner on that point, and he was ordered to be detained in the Mad House.

Sporting.

THE INTERNATIONAL SCULLING RACE.—The scullers' race for 50l. a side, between Walter Brown, the American champion, and William Sadler (younger brother of Joseph Sadler), of Putney, was brought to a conclusion on Friday afternoon on the Tyne, from Scotswood Suspension Bridge to the High Level Bridge at Newcastle. Brown, the American, took the lead at starting, but after rowing about three miles, Sadler gained upon him, and was apparently winning, when he suddenly faltered, and was obliged to stop, leaving his antagonist to row to the winning post alone. In the evening, at a public concert, Sadler stated he was out of condition, and wished to row Brown again in six weeks. Brown agreed to row on the Tyne for not less than 100l. a-side. Five pounds a side were deposited, and the men met to-day to deposit 50l. more each.

THE DOUBLE SCULL MATCH.—The great double scull match between the Thames and the Tyne oarsmen was rowed at Newcastle on Saturday. Kelley and Sadler represented the Thames, and Renforth and Taylor the Tyne. The distance was nearly four miles, and great interest was excited. The contest was severe, but terminated in favour of the Thames crew.

SIR JOSEPH HAWLEY AND THE SPORTING PRESS.—On Saturday, Sir Joseph Hawley appeared at Bow Street, to prefer a charge of libel against Dr. Shorthouse, editor, and Mr. Farrah, publisher of the *Sporting Times*, for having published in that paper an article in which, under the designation of Sir Joseph Scratchhawley, he was accused of entering horses for the Liverpool Cup, and then scratching them for his own benefit, to the loss of the backers. Sir Joseph having been sworn, stated that neither he nor any one commissioned by him had any bet upon the horses in question. The defendants were committed for trial. A similar charge was made against Mr. Gilbert Robins, solicitor, residing at Rathcoole, Hornsey, as the writer of a libellous article in the *Man About Town*, and he also was committed for trial.

Obituary.

LORD FOLEY died on Saturday morning at the Hôtel Bristol, Paris, on his return home from a tour in Germany, after a few hours' illness, from congestion of the lungs, in his 61st year. He was the eldest son of the third Lord, by his wife, Lady Cecilia Fitzgerald, fifth daughter of the second Duke of Leinster. He was born in 1838, and married, 1864, Lady Mary Fitzalan Howard, eldest daughter of the sixteenth Duke of Norfolk. By the eldest daughter of the first Duke of Sutherland. Before succeeding to the House of Lords on the death of his father in 1833, he had represented Worcester-shire in the House of Commons, and voted in favour of the first Reform Bill, having supported the Whigs before their accession to office, as well as Lord Grey's Government. Earl Grey gave him the Court appointment of captain of the Hon. Corps of Gentlemen at Arms, an office he has held throughout every succeeding Liberal Administration. He was also one of the

... the House of Lords. He is... his eldest son, born in 1836... HAYES, junior judge of the Court... on Wednesday at the West... his 63d year. On Friday last he as... 1st Prior sitting in the Hall Court, at... private room, previous to departure for... Kaker, when he was sud-... paralysis, which prostrated... his lordship.

... shortly afterwards had the... Council. He was raised to the bench... by the late Government, when Parliam... the number of judges, in order that... over election petitions might be transferred from the... Commons' committees. On that occasion he received the... honour of knighthood. Sir George Hayes married, in 1840, a... daughter of Dr. John Hall, a medical practitioner of reputation... in Leicester, and has left a large family.

GENERAL MAIDEN, commanding the Madras Northern District, died of apoplexy in that city on the 17th ult. He had only been... about two months ago, having arrived from Trichinopoly on the 15th. He entered the service in 1826, and in April last was appointed to the command of the southern... About two months ago he was promoted to the northern district. He was present with the force that marched from Bangalore in April, 1857, to quell the insur- rection in Canara; was employed in the suppression of the mutiny in Bengal, 1857-58-59, commanded the field detach- ment that proceeded from Derannah to Chota Nagpore to subdue the insurgents; defeated the rebels in an engagement in January, 1858, capturing four small field pieces, totally routing the enemy, and killing their leader. He also served with the force under General Whitlock in Bundelcund, and commanded the infantry detachment that proceeded in 1859, under Brigadier Faddy, against Rounmuss Singh.

PROFESSOR PENNY, the distinguished analytical chemist, and teacher of the science of chemistry at the Andersonian Uni- versity, Glasgow, died suddenly on Monday night.

MR. ANDREW SHAFER DOUGLAS, the oldest diplomatist servant of the Crown, died on Friday last, at his residence, 31, South Kensington. He was appointed... Secretary to Mr. Canning, then Secretary of State for Foreign Affairs, in March, 1807; and, as private secretary to the Earl of Pembroke, accompanied him on a special embassy to Vienna, in the same year. He succeeded Mr. Stratford Canning, now Viscount Stratford de Redcliffe, as private secretary for the Secretary of State, at the end of that year, and held that appointment till 1809, when he was appointed... of Legation at the Court of Palermo, was appointed... Civil Secretary in February, 1811, and during that year was Chargé d'Affaires at Palermo, where he again filled... Secretary of Legation, and Chargé d'Affaires from... to April, 1822. In 1824 he was appointed... Embassy at the Netherlands; and, on the depart- ure of the late Earl Granville, the then ambassador... Plenipotentiary ad interim till Sir Charles... ambassador in the absence was Minister... in 1826, on a pension of 700l. a year.

MR. THOMAS DESBOROUGH, the oldest member of the British artistic colony in Rome, died recently at an advanced age. During a period of nearly 70 years he painted with consummate skill and success the varied landscape scenes of Rome and its environs. He was an Englishman by birth, but of Swiss descent, and was known as the "English Signor Tomasso." Of simple and retiring habits, he was a great favourite with his brother artists of all nations, and numbered among his friends Thorwaldson, Canova, Overbeck, Tenerani, Gibson, Wyatt, Macdonald, and many others who appreciated his humorous geniality of manner. A large number of his artistic colleagues attended his funeral in the Protestant burial-ground at the Porta San Paolo.

MR. ARTHUR KETT BARCLAY, of Bury Hill, near Dorking, head of the firm of Messrs. Barclay, Perkins & Co., died on the 20th inst., in his 64th year. He was a Fellow of the Royal Society, and a deputy-lieutenant and justice of the peace for the county of Surrey.

Markets.

COVENT GARDEN.—Nov. 27. Heavy arrivals are reported from the Western Islands. Stocks of Oranges and Lemons are becoming large, and, for the season, are of excellent quality. Hot-house Grapes are very plentiful, and home-grown Pines more than sufficient for the trade. Vegetables of the usual rough sorts are abundant and good. Flowers chiefly consist of Mignonette, Fuchsias, Chrysanthemums, Primulas, Pansies, Cyclamens, and Heaths.

FRUIT.

Apples, p. 1/2 sieve, 2s 6d to 4s
Cobs, per lb., 9d to 1s
Chestnuts, p. bush., 8s to 14s
Filberts, per lb., 6d to 9d
Grapes, per lb., 1s 6d to 5s

VEGETABLES.

Artichokes, p. doz., 1s 6d to 2s
Beet, per doz., 1s to 3s
Broccoli, p. doz., 1s to 2s 6d
Brussels Sprouts, p. 1/2 sieve, 2s to 3s
Cabbages, per doz., 1s to 1s 6d
Cauliflowers, p. doz., 1s 6d to 3s
Carrots, per bunch, 4d to 8d
Celery, p. bunch, 1s to 1s 6d
Cucumbers, each, 6d to 1s
Endive, per doz., 1s 6d to 2s
French Beans, p. 1/2 doz. to 1s
Garlic and Shallots, per lb., 8d
Herbs, per bunch, 1d to 4d
Horse Radish, p. bunch, 3s to 5s
Lemons, per 100, 7s to 10s
Melons, each, 1s 6d to 2s
Oranges, per 100, 6s to 10s
Peas, per doz., 2s to 3s
Pumpkins, per lb., 1s to 2s
Peas, per bunch, 2d to 4d
Lettuce, p. score, 1s to 2s
Mint, per bunch, 4d to 6d
Mushrooms, p. pott., 1s 6d to 2s
Onions, green, p. bun., 4d to 9d
Parsley, per bunch, 2d to 4d
Potatoes, York Regents, p. ton, 80s to 105s
Spinach, per lb., 4s to 5s
Salsify, per bunch, 1s to 1s 6d
Sardines, p. tin, 1s to 1s 6d
Sea-kale, per lb., 4s to 5s
Squash, p. bush., 2s to 3s
Raspberries, p. doz., 1s to 1s 6d
L-mates, per doz., 5s to 6s
Turnips, per bunch, 4d to 6d

POTATOS.—SOUTHWARK, Monday, Nov. 27.

During the past week the arrivals have been moderate and steady, but plentiful by rail. The trade dull and slow. The following are the quotations—York Regents, per ton, 70s. to 100s.; Kent and Essex do., 60s. to 80s.; Lincolns do., do., 60s. to 80s.; East Lothian do., 70s. to 100s.; Perth, Forfar, and Fife do., 70s. to 80s.; French and Belgian Whites, 60s. to 70s.

ENGLISH WOOL.

We have had a steady demand, especially for the better qualities, and prices are a shade stiffer. Staplers generally ask rather more money, but so far buyers are unwilling to advance.

Railways.

ON THE PRESTON AND WYBE.—On a serious collision occurred in a fog near... A passenger train ran into the rear portion... of a goods train which was being shunted, ... the guard's van and a number of the... breaksman was hurt, and all the... much shaken.

Law.

COURT.—Bishop of Winchester v. R. H. E. Wix. Question arose as to the continuation of a... after the resignation of the bishop insti-... of Winchester, who has lately resigned, ... against Mr. Wix, vicar of Swanmore, ... against the Holy Eucharist contrary to the... of the Committee in the case Martin v. ... was commenced on May 14, on ... resigned the see of Winchester, and on ... was declared vacant by an Order in ... The defendant's counsel now ... from the suit, on the ground that ... the resignation of Bishop Sumner. ... of Winchester acted in his individual ...; and contended that there was ... association. Sir R. Phillimore, after ... the facts, gave judgment to the ... of the judge was promoted and could ... the title of the suit. He there- ... continued by an alteration in the ... of Winchester.

IN CHANCERY.—Morris v. Duke of Newcastle. The plaintiff in this case appealed to Lord... the decision of Mr. Winstow, the... oner, that the Duke of Newcastle, being... could not be adjudicated a bankrupt. ... dell Palmer, on behalf of the Duke, in... appeal, the Lord Justice reversed the deci-... Winstow, and decided that the Duke of... peer, could be made a bankrupt. Notice... of Lords against this judgment was at... the meantime the proceedings in bank-... ended.

MR. FISHER AND MESSRS. GIBSON.—... Mr. Gibson, President of the Poor Law... arose out of the bankruptcy of Sir... alleged to have obtained, in partnership... the plaintiffs, Messrs. Fielden and... from the Russian Government for the... railway in that country. Through the... of the plaintiffs were got rid of... them 40,000l. for their rights, of which sum... Mr Morton Peto, having become a bankrupt, ... to recover the balance of 30,000l. from... a party to the agreement. Vice-Chancellor... the case, at... ordered the plaintiffs to pay

... (sittings in Banco, before Lord... and Justices Willes, Keating, and Brett). ... v. Dear, responde, t.—In this... that the appellant had been appointed to the... of the Chapel, Bethnal Green (one of the... of the Chapel, Bethnal Green, since 1861, ... a year, deriving 100l. from the... Ecclesiastical Commissioners and 150l. from... He was also entitled to fees on... and was buried in his church, and to... from his parish in the cemetery of Bow, ... The appellant claimed to vote in... and to receive the freehold interest worth... it was contended that this was a

Trade in the manufacturing districts still continues dull, and though a large weight of wool is being used, the profits are very meagre.

CURRENT PRICES OF ENGLISH WOOL.		per lb.	s.	d.	s.	d.
FLEECES —Southdown hoggets						
		1	1	to	1	2
Half-bred ditto						
		1	2	—	1	2 1/2
Kent Fleeces						
		1	3	—	1	4
Southdown ewes and wethers						
		1	0 1/2	—	1	1
Leicester ditto						
		1	2	—	1	3
SORTS —Clothing						
		1	0	—	1	6
Combing						
		1	0	—	1	8

HOPS.—BOROUGH MARKET, Nov. 27.

Messrs. Pattenden & Smith report the market quiet, the demand being of an entirely retail character. Quotations unchanged.

HAY.—Per Load of 36 Trusses.

SMITHFIELD, Thursday, Nov. 25.		CUMBERLAND MARKET, Thursday, Nov. 25.	
Prime Meadow Hay 80sto 88s	Clover, old	Sup. Meadow Hay 84s to 85s	Inf. Clover
Inferior do.	Inf. do.	Inferior do.	New do.
New do.	Prime 2d cut	New do.	Straw
Inferior do.	Inf. do.	Superior Clover .. 125	130
Straw .. .. .	.. .. .	CHARLES JAMES EASTON.	

WHITECHAPEL, Thursday, Nov. 25.

Fine Meadow Hay 80s to 80s	Prime 1st cut Clover 120s to 132s
Inferior do.	Inf. do. do.
Prime New Hay	Prime 2d cut do.
Inferior	New Clover
Straw	Inf. do.

LEADENHALL POULTRY, &c.

HURSDAY, Nov. 25.

A full average supply, and no trade.

a. d. s. d.		s. d. s. d.	
Geese .. each	5 0—7 0	Pigeons .. each	0 6—0 9
Goosings	— — — —	Tame Rabbits ..	1 0—1 9
Turkeys	4 0—7 0	Wild Rabbits ..	0 9—1 0
Turkey pullets ..	— — — —	Partridges	1 0—2 0
Ducks	2 6—3 6	Pheasants	2 0—2 9
Wild Ducks	2 0—2 6	Hares	2 0—2 6
Surrey Fowls, couple	7 0—9 0	Grouse	— — — —
Do. chickens	5 0—6 0	Snipes	0 9—1 3
Barn-door Fowls ..	4 6—7 0	English Eggs, p. 100	10 0—11 0
Leverets .. each	2 0—2 6	Foreign do.	9 0—10 0

METROPOLITAN CATTLE MARKET.

MONDAY, Nov. 22.

The supply of Beasts is shorter than on Monday last, and trade is brisk; consequently there is a small advance in choicest qualities, but our top quotations must be considered the extreme rate. Sheep also are not quite so plentiful; they are readily disposed of at an advance on Thursday's quotations. Good Calves are still in demand, at full rates. Our foreign supply consists of 1406 Beasts, 1340 Sheep, and 151 Calves; from Scotland there are 53 Beasts; from Ireland, 1064; and 1658 from the Midland and Home Counties.

s. d. s. d.		s. d. s. d.	
Best Scots, Herefords, &c. ..	5 6 to 5 10	Best Long-wools	5 6 to 5 10
Best Shorthorns	5 4—5 8	Do. Shorn	— — — —
2d quality Beasts	3 8—4 4	Ewes & 2d quality	4 6—5 4
Best Downs and Half-breds ..	5 8—6 0	Do. Shorn	— — — —
Do. Shorn	— — — —	Lambs	— — — —
Beasts, 4181; Sheep and Lambs,	14,675; Calves, 159; Pigs, 160.	Calves	4 0—6 0
		Pigs	4 0—6 0

THURSDAY, Nov. 25.

We have a larger supply of English Beasts than on Thursday last, but not so many of foreign; trade is active for choicest qualities at Monday's quotations; a fair clearance is effected of all descriptions. Sheep are more plentiful, and there is scarcely any demand, prices are lower for the small amount of business transacted. Calves are lower. Our foreign supply consists of 258 Beasts, 1260 Sheep, and 192 Calves.

s. d. s. d.		s. d. s. d.	
Best Scots, Herefords, &c. ..	5 6 to 5 10	Best Long-wools	5 4 to 5 8
Best Shorthorns	5 4—5 8	Do. Shorn	— — — —
2d quality Beasts	3 8—4 4	Ewes & 2d quality	4 4—5 0
Best Downs and Half-breds ..	5 8—5 10	Do. Shorn	— — — —
Do. Shorn	— — — —	Lambs	— — — —
Beasts, 924; Sheep and Lambs,	5475; Calves, 265; Pigs, 30.	Calves	3 8—5 8
		Pigs	4 0—6 0

METROPOLITAN MEAT MARKET.—Nov. 27.

Best Fresh Butter	18s. per dozen lb.
Second do. do.	16s.
Small Pork, 5s. 4d. to 5s. 10d.;	Large Pork, 4s. 4d. to 4s. 8d. per 8 lb.

MARK LANE.—MONDAY, Nov. 22.

There was a good supply of English Wheat to this morning's market, and to effect sales it was necessary to submit to a decline of 2s. to 3s. per qr., from the prices of this day yesterday. Of foreign the arrivals continue liberal, and the business done was at a reduction of 2s. per qr. Grinding Barley was 6d. per qr., and malting 1s. to 2s. per qr., cheaper. Beans and Peas were 1s. to 2s. per qr. lower. The Oat trade was very dull, at a decline of fully 6d. per qr. Flour was neglected.

PRICE PER IMPERIAL QUARTER.		s.	s.	
WHEAT, Essex, Kent, Suffolk. White	40—49	Red	37—48	
— fine selected runs .. do.	42—53	Red	40—50	
— Talavera	56—58	—	—	
— Norfolk	—	Red	—	
— Foreign	40—53	—	—	
BARLEY, grind. & dist. 29sto31s. Chev.	189—42	Malting ..	34—38	
— Foreign .. grinding and distilling	22—25	Malting ..	30—40	
OATS, Essex and Suffolk	22—24	—	—	
— Scotch and Lincolnshire .. Potato	24—26	Feed	—	
— Irish Potato	23—25	Feed	21—24	
— Foreign Poland and Brew	22—25	Feed	19—21	
RYE	32—38	Foreign ..	34—38	
RYE-MEAL, Foreign	—	—	—	
BEANS, Mazagan 35s to 37s.	Tick	36—49	Harrow ..	36—49
— Pigeon 50s to 58s	Winds.	—	Longpod ..	—
— Foreign Small	41—43	Egyptian ..	38—40	
PEAS, White, Essex, and Kent .. Boilers	37—42	Suffolk ..	39—43	
— Maple 41s to 45s Grey	40—42	Foreign ..	37—39	
MAIZE	—	Foreign ..	29—31	
FLOUR, best marks delivered .. per sack	39—43	—	—	
— 2d ditto ditto	28—40	Country ..	28—40	
— Foreign per barrel	22—25	Per sack ..	29—55	

FRIDAY, Nov. 26.

The weather since the 19th inst. has been dull, foggy, and damp, with occasional frosty nights. Great depression has

continued in the Wheat trade throughout the markets of the kingdom, and although the large foreign arrivals were offered readily at about 2s. per qr. further reduction, only a small retail trade resulted, as confidence in existing prices is still wanting. The trade in Spring Corn has been equally depressed, and we have to quote a reduction of 1s. to 2s. per qr. upon Beans, Peas, and best Barley, while grinding sorts and Oats were 6d. to 1s. per qr. lower. Flour continues neglected at 6d. to 1s. per barrel and sack decline; Birmingham quotes 3s. 4d. per sack reduction. During the week 64 grain and seed laden vessels arrived off the coast, of which, with those left over from the preceding week, there remained for sale last night 70 cargoes. The floating trade has been quiet; for arrived Wheat there were but a few chance buyers, at a decline of from 1s. to 2s. per qr. Maize was a slow sale at easier rates. Barley unaltered. The few transactions in Rye show a fall of nearly 2s. per qr. No business for cargoes on passage or for forward shipment. Paris, November 25.—The trade in Wheat and Flour is very inactive, with a downward tendency in prices. The six marks are quoted at equal to 35s. per 280 lb. The stock at the Halle is estimated at 7575 cwt.

The arrivals of foreign grain this week are good. There was a very fair attendance at this morning's market, and English Wheat was sold at Monday's prices; for American qualities there was rather more inquiry, and a moderate amount of business resulted at the extreme rates of that day; other descriptions remained without change. Spring Corn was unaltered in value.

ARRIVALS.

	Wheat.	Barley.	Oats.	Flour.
English ..	1370 qrs.	2050 qrs.	— qrs.	— aka.
Irish	— " "	— " "	— " "	— " "
Foreign ..	33,260 "	9160 "	63,450 "	1510 " 6970 brls.
	34,630	11,210	63,450	

LIVERPOOL, Nov. 23.—Wheat is irregular in value at 2d. per cental under Friday's rates. There is some disposition to purchase, but so far very little has been done. Flour was dull, at 6d. to 1s. reduction. Beans, Oats, and Oatmeal are neglected. Indian Corn is quiet at Friday's rates; round yellow, 29s.

AVERAGES.

	Wheat.	Barley.	Oats.
Oct. 16	47s 0d	38s 1d	24s 1d
— 23	46 1	38 6	24 2
— 30	46 2	38 3	23 0
Nov. 6	47 1	38 5	23 10
— 13	46 11	38 9	23 11
— 20	46 8	38 8	23 5
Average ..	46 8	38 5	23 9

SEED MARKET.

We have to report an improved inquiry for Clover seeds. Fine samples of new red seed are scarce, and readily command high rates. For superior descriptions we note an advance during the week of 2s. to 3s. per cwt. The values of Alsike and white Clover seed are also tending upwards; new French Italian is in fair request at recent currencies. Canary seed continues cheap and plentiful. Hemp seed is in short supply; for the small quantity in our market long prices are easily obtained. Orders continue to reach us for winter Tares. Feeding Linseed is a little easier. The Rapeseed trade is firm. We have received some new Dutch White Runner Beans. Mustard seed is without change in value. Windsor Beans are scarce and dearer.

JOHN SHAW & SONS, 16, Water Lane, E.C.

COALS.—Nov. 25.

West Hartley, 16s. 9d.; Harton, 17s.; Brancepeth Cannel, 18s.; Perkins' Big Vein Stone, 22s.; Walls End Haswell, 19s. 3d.; Walls End Hetton, 19s. 3d.; Walls End Stewart's, 18s. 9d.; Walls End Tunstall, 17s. 6d.; Walls End South Kelloe, 19s.—Ships at market, 31; sold, 30.

Excellent Chance for a Gardener.

WANTED, a MANAGER, for a small Glass Nursery, near the Crystal Palace, to Grow for Market: half an acre and five Greenhouses. Wages £1, cottage, firing, with other advantages. He must deposit £50 as security, for which interest will be allowed.—G. GLENNY, Horticultural Agent, Gipsy Hill, Norwood.

WANTED, an active, middle-aged WORKING GARDENER, who thoroughly understands his business (married and without family), for a town in North Wales. Undeniable character requisite. Wages, £40 a year, with house accommodation.—W. J., Army and Navy Club, London, W.

WANTED, an efficient BOOK-KEEPER, who will generally have charge of the Counter, in a Small Establishment.—Apply, stating salary expected, to POTTER and FERRIGE, The Nurseries, Sutton, Surrey.

Seed Trade.

WANTED IMMEDIATELY, an energetic Young Man, well up in the Trade, as first SHOPMAN; must have a good address, and some knowledge of Nursery Stock. One from the country or Scotland preferred.—THOMAS PIERPOINT, 126, Bridge Street, Warrington.

Shopman.

WANTED, a SHOPMAN, of good address and character, to manage a small Seed Business.—EDWARD HOLMES, Nursery and Seedsman, Lichfield.

WANT PLACES.—Letters to be Post Paid.

Gardeners and Under Gardeners.

WM. CUTBUSH AND SON beg to state that they have at all times on their books MEN of various qualifications, whose characters will bear the strictest inquiry. Any Gentleman making application would save time by clearly stating the duties to be undertaken, wages offered, &c., so that suitable Men may be selected.—Highgate Nurseries, London, N.

DAVID MITCHELL, NURSEYMAN and SEEDSMAN (late Head Gardener, Hamilton Palace), can with confidence recommend to any Nobleman or Gentleman some first-class HEAD GARDENERS. Highest references can be given.—Apply, in first instance, to DAVID MITCHELL, 3, Hanover Street; or Dean Park Nurseries, Edinburgh.

To Gardeners and Bailiffs (Head, Foremen, or Under).

JAMES CARTER AND CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those who can send unquestionable references need apply. Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & Co. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c. JAMES CARTER AND CO., 237 & 238, High Holborn, London, W.C.

LUCOMBE, PINCE, AND CO. have always on their REGISTER experienced GARDENERS, whom they can recommend to fill any Situation, whether as Head Gardener to a large Establishment, or Gardener and Bailiff, or Under Gardener. Any Lady or Gentleman applying to L. P. AND CO. will have their best attention. Exeter Nursery, Exeter.

Head Gardeners and Journeymen THOMAS KENNEDY AND CO. SEEDSMEN, Dumfries, have at present excellent GARDENERS, &c., in WANT of whom they can highly recommend.

EXPERIENCED GARDENERS and BAILIFF, of various qualifications. Further particulars given on application.—E. G. HENDERSON and SON, Wellington Wood, London, N.W.

MR. WM. PAUL begs to announce arrangements by which he will furnish Gentlemen with the NAMES of GARDENERS, and GARDENERS of various qualifications, who are open to Engagements as to services required and wages given on application.—PAUL'S Nurseries, Wallington Wood, London, N.W.

GARDENER (HEAD).—Age 30, married, understands Vines, Peaches, Cucumbers, and Kitchen Gardening.—J. T., 214, Syston Street, London, N.W.

GARDENER (HEAD).—Age 28; thoroughly engaged in each department of the profession. References.—A. B., Wm Sage, Gospel Hall, Asherton, London.

GARDENER (HEAD).—Age 34, married, understands the profession. No objection to Horse. Good references from last employer.—F. R., Terrace, St. John's Road, Hoxton, N.E.

GARDENER (HEAD).—Age 30, married, thorough practical knowledge of the profession in all branches; first-rate character. Is well known to Mr. L. Osberton Hall, Workshop, who will answer any inquiry.

GARDENER (HEAD).—Thoroughly experienced in Fruits, and Plants. Wife good Cook, and excellent Housewife. Highly recommended by a Lady. Three years' experience.—S. D., L. Burrow Row, Merton Road, Wandsworth, London, S.W.

GARDENER (HEAD).—Age 38; well engaged in Land and Stock. Six years' good character.—Bookseller, Teddington, S.W.

GARDENER (HEAD).—Age 34, married, understands the profession in all branches; respectable and trustworthy. Thoroughly engaged in Forcing Vines, Peaches, Melons, Cucumbers, &c., and in Fruit, and Flower Gardening. Good character. No man he has left. Wife a good Laundress.—R. Y., 7, Seedsmen, Dumfries.

GARDENER (HEAD).—JOHN HAYES, Gardener to A. Smith Esq., Truroe Abbey, Cornwall. Practical experienced Man. He has lived at Truroe three years, and was six and a half years in his last practical acquirements will bear the strictest examination. Address as above.

GARDENER (HEAD, or SINGLE-MAN).—Age 38, married, one child; has had good experience in both branches. Can be highly recommended.—Street, Somerton, Somerset.

GARDENER, where two or more are required, married, no incumbence; understands the profession. Wife could take charge of Farm. Character; left through death of employer.—S. L., Street, Eaton Square, S.W.

SUPERINTENDENT of a TEA GARDEN, or other Horticultural or Agricultural. Advertiser is 30 years of age, stout and healthy, connected with an extensive Nursery and Seed business, had sole Management for some years. Possesses a ledge of practical Horticulture; has been some Management of Men. A first-rate Book-keeper and Accountant.—A. B. C., Gardeners' Chronicle Office, W.C.

To Noblemen, Gentlemen, and Others A CLERK of WORKS seeks a situation in the Erection or Repairs of the Mansions, general Work on an Estate. Has filled a similar class references.—F. H., 37, Albion Street, London, E.C.

SHOPMAN, or ASSISTANT.—Seven years' experience; part knowledge of Nursery Business. References.—L. S., 30, White Street, Birkenhead.

BREAKFAST.—EPPS'S GRATEFUL and COMFORTING. The Civil Service Gazette remarks:—By a thorough knowledge of the natural laws which govern the operations of nutrition, and by a careful application of the well-selected Cocoa, Mr Epps has produced a beverage with a delicately-flavoured beverage which is heavy doctors' bills.

Made simply with boiling water or milk. Sold in 1lb. tin-lined packets, label led.—JAMES EPPS and CO., Homeopathic Chemists, London, W.C.

HAIR RESTORED, PRESERVED, by the use of ROWLANDS' MACassar OIL and fragrant Oil is universally in high repute. Success during the last 60 years in promoting the growth of the human hair. Its invaluable properties have been attested by the Royalty and the Aristocracy throughout the world. 7s., 10s. 6d. (equal to four small), and 2s. per bottle. Ask for "Rowlands' Macassar" and Perfumers.

COCKLE'S ANTIBILIOUS THE SAFEST FAMILY APERT In boxes at 1s. 1/2, 2s. 9d., 4s. 6d., 6s. 6d., 10s. 6d., 15s. 6d., 20s. 6d., 25s. 6d., 30s. 6d., 35s. 6d., 40s. 6d., 45s. 6d., 50s. 6d., 55s. 6d., 60s. 6d., 65s. 6d., 70s. 6d., 75s. 6d., 80s. 6d., 85s. 6d., 90s. 6d., 95s. 6d., 100s. 6d.

COCKLE'S ANTIBILIOUS in use the last 60 years for INDIGESTION. In boxes at 1s. 1/2, 2s. 9d., 4s. 6d., 6s. 6d., 10s. 6d., 15s. 6d., 20s. 6d., 25s. 6d., 30s. 6d., 35s. 6d., 40s. 6d., 45s. 6d., 50s. 6d., 55s. 6d., 60s. 6d., 65s. 6d., 70s. 6d., 75s. 6d., 80s. 6d., 85s. 6d., 90s. 6d., 95s. 6d., 100s. 6d.

COCKLE'S ANTIBILIOUS in use the last 60 years for BILIOUS AFFECTIONS. In boxes at 1s. 1/2, 2s. 9d., 4s. 6d., 6s. 6d., 10s. 6d., 15s. 6d., 20s. 6d., 25s. 6d., 30s. 6d., 35s. 6d., 40s. 6d., 45s. 6d., 50s. 6d., 55s. 6d., 60s. 6d., 65s. 6d., 70s. 6d., 75s. 6d., 80s. 6d., 85s. 6d., 90s. 6d., 95s. 6d., 100s. 6d.

COCKLE'S ANTIBILIOUS in use the last 60 years for LIVER COMPLAINT. In boxes at 1s. 1/2, 2s. 9d., 4s. 6d., 6s. 6d., 10s. 6d., 15s. 6d., 20s. 6d., 25s. 6d., 30s. 6d., 35s. 6d., 40s. 6d., 45s. 6d., 50s. 6d., 55s. 6d., 60s. 6d., 65s. 6d., 70s. 6d., 75s. 6d., 80s. 6d., 85s. 6d., 90s. 6d., 95s. 6d., 100s. 6d.

COCKLE'S ANTIBILIOUS THE OLDEST PATENT MEDICINE In boxes at 1s. 1/2, 2s. 9d., 4s. 6d., 6s. 6d., 10s. 6d., 15s. 6d., 20s. 6d., 25s. 6d., 30s. 6d., 35s. 6d., 40s. 6d., 45s. 6d., 50s. 6d., 55s. 6d., 60s. 6d., 65s. 6d., 70s. 6d., 75s. 6d., 80s. 6d., 85s. 6d., 90s. 6d., 95s. 6d., 100s. 6d.

DINNEFORD'S FLUID The best remedy for Acidity of the Stomach, Headache, Gout, and Indigestion, and the best for delicate constitutions, especially adapted for Children and Infants. DINNEFORD AND CO., 172, New Bond Street, London, W. and of all Chemists throughout the world.

Foreign.

FRANCE — The Chambers were opened on Monday by the Emperor in person, who delivered the following Speech from the Throne.

"MESSIEURS LES SENATEURS, MEMBRES DE L'ASSEMBLEE... It is not only to establish in France the regular and peaceful exercise of Liberty... but to show the solidity of the edifice founded by universal suffrage; nevertheless, the uncertainty and disquietude which exist in the minds of the people cannot be denied... We must speak without any circumlocution... Liberty united with order. For order I will answer. And, gentlemen, to save Liberty; and to attain this object let us keep at an equal distance from reaction and revolutionary theories..."

"The measures which the Ministers will submit for your approbation all bear a sincerely liberal character... The mayors will be selected from among the Municipal Councils, excepting in special cases, for which provision will be made by the proposed enactment... At Lyons, as well as in the suburban communes of Paris, the formation of these councils will be committed to universal suffrage... Fresh prerogatives will be granted to the General Councils, and even the colonies will participate in this movement of decentralisation..."

"The statement of the situation of the Empire presents satisfactory results... Commerce is not at a standstill and the indirect revenues, whose natural increase is a sign of prosperity and confidence, have produced up to the present 30 millions of francs more than last year... But it is not enough to propose reforms, to introduce savings in the finances, and to administer affairs in an effective manner..."

"The progress of science brings nations together... While America joins the Pacific with the Atlantic Ocean by a railroad 100 leagues in length, and in all parts capitalists and thinkers agree to unite by electric communication the most distant countries of the globe..."

welcomed with great enthusiasm and when he said, "For order I will answer..." The Emperor's speech was also received with warm applause... M. Herbet... M. Paul Bethmont was the only member of the Left present at the ceremony... The Chamber of Deputies took place on Tuesday... M. Jules Favre... M. S. Schneider... The Municipal Council of Commerce of Marseille met on Saturday... The discovery of the body of Knuck, son, is confirmed... SPAIN.—The Republican minority returned to the Cortes on Saturday... DENMARK.—In the sitting of the Folkething on Monday the Minister of Finance presented the estimates of the Budget...

The Prince presided at the annual Corporation of the Scottish Hospital... Princess Louise and Princess Mary of Prussia... Prince of Wales attended the Grand Lodge of Freemasons in the Park... Prince and Princess at Marlborough... Monday next his Royal Highness will be the guest of the Earl and Countess of Devon at Studley Royal.

PRINCE LEOPOLD.—Prince Leopold suffering from ill-health, which is accompanied by her Majesty and the Duke of Clarence on Friday. The latest news of his Royal Highness is going on.

THE DUCHESS D'AUMALE.—Her Royal Highness the Duchess D'Aumale has been dangerously ill some weeks at Orleans House, Twickenham... Her Royal Highness is now better, and the medical men have ceased to attend on her, but yesterday morning they stated that since the previous bulletin there has been a gradual increase in the general health of the Duchess.

THE GARTER.—The Garters vacant by the Earl of Derby and the Marquis of Blandford have been bestowed on Viscount Stratford and Bar. de Grey and Ripon.

FRANCE.—The Gazette of Friday announced that the Emperor had directed letters patent to be passed granting the dignity of a Baron of the Kingdom to the Earl of Southesk, by the name of Earl of Southesk, in the county of Fife... Lord Fitzalan Howard, by the title of Earl of Gossop, in the county of Derby... Baron Castletown, of Upper Ossory, in the county of Wick...

MEMBERSHIP MOVEMENTS.—The Gazette of Friday announced the return of "Jeremiah O'Donoghue, Esq., deceased. It is said that the Government intend to nominate the convict Luby for the county of Wick... Mr. Fitzgibbon, a journeyman engineer, has also announced himself a candidate for the county of Wick... Mr. Odger has also announced himself a candidate for the county of Wick...

MEMBERS OF THE HOUSE OF COMMONS.—The Government have appointed the Rev. Henry White, chaplain of the Royal Chapel, Savoy, to be chaplain of the House of Commons, in succession to the Very Rev. Dean of Ely... Mr. Childers, the First Lord of the Admiralty, will be at once removed from the War Office in Pall Mall... Mr. Childers, the First Lord of the Admiralty, will be at once removed from the War Office in Pall Mall...

SHAW'S TIPPANY. For Samples and Prices apply to J. SHAW AND CO., 29, Oxford Street, Manchester.

TRELOAR'S FINE COCOA-NUT MATTING, warranted unbleached. No other kind is durable,--all other kinds are dear. Catalogue free by post. T. TRELOAR, Manufacturer, 87, Ludgate Hill, E.C.

RUSSIA MATS, for Covering Garden Frames.--ANDERSON'S TAGANROG MATS are the cheapest and most durable. Price List, which gives the size of every class of Mat, forwarded on free of charge. JAS. T. ANDERSON, 7, Commercial Street, Shoreditch, London.

Protection from Frost. GARDEN TARPAULINS, any size, strong, 1d. per square foot; 1500 MATS, new, 4 ft. 6 in. by 2 ft. 6 in., 1s. 6d. per dozen; 6 ft. 6 in. by 4 ft. 6 in., 3s. per dozen. POLICE CAPES, 16s. to 22s. per dozen, large CAPES, 3 feet deep, 4s. 6d. each. HORSES' LOIN CLOTHS, 1s. 6d. to 5s. each. Best TARPAULINS, 2s. per square yard; second quality, 1s. 6d. RICHARDSON, 99, Euston Road, London, N.W.

Indestructible Terra Cotta Plant Markers. MAW AND CO'S PATENT.--Prices, Printed Patterns, and Specimens sent post free on application; also Patterns of Ornamental Tile Pavements for Conservatories, Entrance Halls, &c. MAW AND CO., Bentball Works, Broseley.

LABELS, LABELS.--PARCHMENT or CLOTH LABELS.--Tree or Plant Labels, punched parchment, 4 inches long, 4s. per 1000, or 10,000 for 35s., cash on delivery. Sample Label sent on receipt of a postage stamp. Orders delivered free in London by JOHN FISHER AND CO., Label Works, Boston, Lincolnshire.

F. A. HAAGE'S WOOD GARDEN STICKS and TALLIES, commended by the Royal Horticultural Society, acknowledged to be the neatest, cheapest, and best Training Sticks and Tallies made.

The above can now be had, of all sizes, Wholesale, of BETHAM & BLACKYER, Cor's Quay, Lower Thames Street, London, E.C.; and Retail of the principal Seedsmen and Florists. Price Lists on application.

IRON HURDLES (Silver Medal of the Royal Agricultural Society): SHEEP, 3s. 6d.; CATTLE, 4s. 2d.; OX, 5s. 11d. List by post. GATES and FENCING of every description. St. Pancras Iron Work Company, Old St. Pancras Road, London, N.W.

Caution to Gardeners.--When you ask for SAYNOR AND COOKE'S WARRANTED PRIZE PRUNING and BUDDING KNIVES, see that you get them. Observe the mark SAYNOR, also the Corporate Mark, OBTAIN WARRANTED without which none are genuine. S. & C. regret having to caution Gardeners and others, but are compelled to do so, in consequence of an imitation, of common quality, having been sold for the genuine one, and which has caused many complaints to be made to them of Knives which were not of their make all of which are warranted both by Sellers and Makers. S. & C.'S PRUNING and BUDDING KNIVES are the best and the cheapest in the market. Paxton Works, Sheffield. Established upwards of 125 years.

The New Vade Mecum (Invented & Manufactured by CHARLES H. VINCENT, OPTICIAN, of 23, Windsor Street, Liverpool), consists of a TELESCOPE well adapted for Tourists, &c., to which is added an excellent MICROSCOPE of great power and first-class definition, quite equal to others sold at ten times the price. Wonderful as it may seem, the price of this ingenious combination is only 3s. 6d.; and Mr VINCENT sends it (carriage free) anywhere, with printed directions, upon receipt of Post-office order or stamps to the amount of 3s. 10d.

Horticultural Glass Warehouse. THOMAS MILLINGTON AND CO., 87, Bishopsgate Street Without, London, E.C. NEW LIST FOR ORCHARD-HOUSE GLASS as supplied to Her Majesty, the Notability, &c., by Mr. MILLINGTON, and the leading Horticulturists of the United Kingdom.

Table with 4 columns: in. in., 4ths, 3ds, 2nds, Best. Rows for sizes 20 by 12, 20 by 13, 20 by 14, 20 by 15, 20 by 16.

Table with 4 columns: in. in., 4ths, 3ds, 2nds, Best. Rows for sizes 10 by 8, 10 by 9, 10 by 10, 10 by 11, 10 by 12, 10 by 13, 10 by 14, 10 by 15, 10 by 16.

Table with 4 columns: in. in., 4ths, 3ds, 2nds, Best. Rows for sizes 14 by 10, 14 by 11, 14 by 12, 14 by 13, 14 by 14, 14 by 15, 14 by 16, 14 by 17, 14 by 18, 14 by 19.

Table with 4 columns: 4ths quality, 3ds, 2ds, Best. Rows for sizes 21 oz., 26 oz., 32 oz., 36 oz., and 4 oz.

SHEET GLASS is made only in the following substances, 15 oz. 21 oz., 26 oz., 32 oz., 36 oz., and 4 oz. HARTLEY'S IMPROVED ROLLED ROUGH PLATE in 1-8th in., 3-16th in., 1-4th in., and 3-8th in. substances. BRITISH PLATE GLASS for Windows and Stained for Looking Glasses, Coloured Glass, Glass Shades, Striking Glasses, &c., &c.

PAINTS, COLOURS, VARNISHES, &c. STUCCO PAINT, 2s. per cwt. This Paint adheres firmly to the walls, resists the weather, and is free from the glossy appearance of Oil Paint, resembling a stone surface, and can be made any required shade. It is mixed with rain or pure river water.

WHITE ZINC PAINT, 3s. per cwt. One hundredweight of pure Zinc Paint, with three gallons of Linseed Oil, will cover as much as one hundredweight and a-half of White Lead and six gallons of Linseed Oil. Special Dryers for this Paint.

IMPROVED ANTI-CORROSION PAINT, 2s. to 3s. per cwt. Anti-corrosion Paint is extensively used for all kinds of work in exposed situations, on Brick, Stone, Compo, Iron, Iron Bridges, Conservatories, Greenhouses, &c., and is easily laid on by any ordinary workman. Prepared Oil for ditto, 4s. per gallon.

Table with 4 columns: Per cwt., Per gallon, &c. Rows for GENUINE WHITE LEAD, SECONDS WHITE LEAD, GROUND PATENT DRYERS, OXFORD OCHRE, RAW UMBER, BURNT DO, GREEN PAINT, BLACK PAINT, RED PAINT, GROUND BRUSHES, DUSTERS, RASH TOOLS, DISTEMPER BRUSHES.

The above are Net, for Cash, and as such cannot be booked. Lists of any of the above on application.

FOR SALE, a (nearly new) Riveted Wrought-Iron HOT-WATER BOILER. Will Work 2000 feet of 4-inch Pipe; requires a Stoke-hole only 4 feet deep. W. T. HOOK, 37, Cornwall Street, Fulham, S.W.

FOWLER'S PATENT STEAM PLOUGH and CULTIVATOR may be SEEN at WORK in every Agricultural County in England. For particulars apply to JOHN FOWLER AND CO., 71, Cornhill, London, E.C.; and Steam Plough Works, Leeds.

TEN POUNDS PRIZE PLANS of PAIR of LABOURER'S COTTAGES, with Three Bed-rooms each. ROYAL AGRICULTURAL SOCIETY, Manchester Exhibition, 1869. Two Complete Lithographic Working Drawings, and full Printed Specifications can be seen and had at the STAND of Messrs. AMIES, BARFORD, and Co., at the ISLINGTON CATTLE SHOW, or of the Exhibitor, Mr. JAMES MARTIN, Land Agent, Wainfleet, Lincolnshire.

Smithfield Club Cattle Show, Islington. JEMMETT'S FARMER'S ACCOUNT BOOK, price 10s.; and FARMER'S POCKET BOOK, price 2s. 6d. Can be had at the BOOK STAND, 55, in the Gallery of the Agricultural Hall. SIMPKIN, MARSHALL, and CO.; and all Booksellers.

PROFESSOR LINDLEY'S INTRODUCTION to BOTANY, 4th Edition, with Corrections and Additions. Two Vols. 8vo, with Six Copper Plates and numerous Wood Engravings. Price 21s. cloth. London. LONGMANS, GREEN, and CO., Paternoster Row, E.C.

"Glimpses at Irish Gardens." By Mr. RICHARD DEAN, now publishing in THE GARDENERS' RECORD: an Irish Fortnightly Journal. Post free, 4d. Dublin: THOMAS EDMONDSON, 9, Dame Street.

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Table with 4 columns: Name, Position, Name, Position. Rows for Nath. Alexander, Esq., Harry Geo. Gordon, Esq., J. A. Arbuthnot, Esq., A. C. Guthrie, Esq., Harvey Brand, Esq., John A. Hankey, Esq., Edward Budd, Esq., Louis Huth, Esq., Alfred D. Chapman, Esq., Henry J. B. Kendall, Esq., Mark W. Collett, Esq., Charles Lyall, Esq., Sir F. Currie, Bart., Capt. R. W. Pelly, R.N., F. G. Daley, Esq., William Rennie, Esq., Bonamy Dobree, Esq., P. F. Robertson, Esq., John Entwistle, Esq., Robert Ryrie, Esq., George L. M. Gibbs, Esq., Lewis A. Wallace, Esq., Robert Gillespie, Esq., William B. Watson, Esq.

The Share Capital of this Corporation is £898,550, of which one-half, or £449,275, has been paid up. The total invested Funds on December 31, 1868, amounted to £2,502,540. A printed abstract of the General Balance-Sheet, together with particulars of the Life Department, may be had on application at the Head Office. The following items relating to the Life Business, have been abstracted therefrom.

Table with 2 columns: Item, Amount. Rows for Policy in force for, Annual Income from, Premiums, Interest, Accumulated Premiums.

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Home News.

THE COURT.--The Queen, accompanied by the Princesses, left the Castle on Friday afternoon for Chiswick. On Saturday morning the Queen went out with Princess Beatrice. In the afternoon she was accompanied by the Princesses, drove to ... and visited the Prince and Princess ... William Jenner arrived at Chiswick on Monday morning the Queen drove to the grounds. In the afternoon she was accompanied by Princess Beatrice, drove to ... visited the vaults of the chapel, where ... and Queen of the French, the Duchess ... the Duchess of Nemours are buried in the tomb and monument of the Duchess ... the parish church. On Tuesday ... out with the Princesses. In the afternoon she drove and walked. On Wednesday afternoon the Queen, accompanied by Princess Beatrice, returned to Windsor Castle. Princess Louise went to ... visited the Princess of Wales at Marlborough ... and returned to Windsor in the evening. On Monday morning the Queen, accompanied by Princess Beatrice, drove to ... walked and drove in the Home Park ... Wales and Prince Christian went out in the afternoon her Majesty went to ... the Princess of Wales at Marlborough ... ing to Windsor about half-past ... Princess of Teck, Princess Christian ... Victoria and Prince Adolphus of Teck ... Castle on a visit to her Majesty. On ... the Court will leave Windsor for ... 15th inst., and spend Christmas in the ...

THE KING of the BELGIANS, on his return from the South Kensington Museum, the Gardens, the Royal Albert Hall, the Memorial, and the Reform Club. On ... Majesty visited Prince and Princess ... Frogmore, and remained to luncheon ... the King of the Belgians, accompanied by ... took his departure from London, on ... Belgium. The Prince of Wales ... Majesty to the Charing Cross Station ... the Lord Mayor received a communication ... Secretary of State for Foreign Affairs ... of a telegram which the King of the ... mitted to the British Minister at Brussels ... day week, expressing his gratification with ... presented to him that day, and I with his ... the Mansion House.

THE PRINCESS of WALES is ... towards recovery, and the infant Princess ... THE PRINCE of WALES was ... the King of the Belgians, the Duke ... Prince Christian, Prince and Princess ... Count Gleichen, for the purpose of ... the Princess. Prince Edward of ... the Prince in the evening. On Saturday ... Highness dined with the Duke of ... Gloucester House, in commemoration of ... of the Princess of Teck. On Sunday ... attended Divine service at the ... James's. On Monday the King of the ... the Prince at Marlborough House ... Prince presided at a meeting of the ... Duchy of Cornwall. Prince and Princess ... visited his Royal Highness at Marlborough ...

some time at Berlin pursuing his military education, and a Prussian princess, the Princess Marie-Elizabeth, daughter of Prince Frederick-Charles, nephew of the King of Prussia. As the King of Wurtemberg has no children, Prince William is in fact heir-presumptive to the crown; and if the rumoured alliance should be realised it might have the gravest consequences for the future of South Germany.

BAVARIA.—The recent elections to the Diet having resulted in the return of 80 Ultramontanes and 74 Liberals, all the members of the Ministry placed their resignation in the hands of the King on Saturday.

PRUSSIA.—The Chinese Embassy was received in an official audience by the King on Thursday afternoon. Mr. Burlingame presented his credentials, and most friendly sentiments were exchanged between King William and Mr. Burlingame in the name of the Emperor of China. It is semi-officially stated that Count Bismarck intends to leave Varzin at Christmas for Berlin.

POLAND.—The German journals announce the death at Cracow, aged 80, of Count Ladislas Ostrowski, Marshal of the Diet of Poland in 1830 and 1831, and one of the most illustrious defenders of that country.

DALMATIA.—It is stated, in explanation of the withdrawal of the Austrian troops to the cantonments on the coast, that the further pursuit of the insurgents into the inaccessible parts of the mountains was found impossible, and that the troops were unable permanently to occupy the captured forts at Dragali and Zagvordie, in consequence of the severe weather. At several of the important strategical points occupied by the troops block houses have been erected.

ITALY.—The Ministerial crisis still continues. On Saturday Signor Lanza undertook the formation of a new Cabinet, but demanded as a condition of his accepting the task that General Menabrea, Count Cambray Digny, and the Marquis de Gualterio should resign their posts in the King's household. The King acceded to this demand, but up to Tuesday afternoon Signor Lanza had not completed the formation of a Cabinet. Count Beust, the Austrian Premier, arrived at Florence on Wednesday to congratulate the King on his recovery. The fêtes in honour of the birth of the Prince of Naples commenced in that city on Monday. The railway communication across Mont Cenis was totally interrupted between St Martin and Gran Croce by severe snowstorms and avalanches from the 24th to the 28th ult. On Friday morning the snow on the Susa side of Mont Cenis was four feet deep, and no English mail had been received at Florence since the previous Monday. It is announced that 6510 metres of the Mont Cenis Tunnel on the Italian side were completed last week. The tunnel is therefore half finished, and the works have now entered upon French territory.

GREECE.—The Chamber of Deputies has again passed a vote of confidence in the Ministry, the division list showing a majority of eight in favour of the Government. In the sitting of Monday the Ministry proposed a new Regency Bill, providing that in the King's absence from the country the Queen shall be Regent; that in the absence of the King and Queen the Regency shall be entrusted to the King's uncle, and in the latter's absence to his brother.

THE PRINCIPALITIES.—The Roumanian Chambers were opened on Saturday by Prince Charles. His Highness, in his speech, alluded to his marriage, and announced the complete restoration of friendly relations with foreign powers, and the removal of all mistrust as to the policy of the Roumanian Government.

TURKEY.—Three Ministerial Councils were held last week for the consideration of the Khedive's last reply, in which his Highness deferentially declined to submit his Budget to the Porte, and maintained his independent right to contract loans. A memorandum, written by the Vizier and approved by the Sultan, was signed by all the Ministers, firmly recapitulating, from a Turkish point of view, the rights and privileges conceded to Egypt by treaties and firmans, and summoning the Khedive to accept this document as a rule for his conduct in all relations with the Porte. Server Effendi left on Monday to convey this ultimatum to the Khedive.

EGYPT.—The Emperor Francis Joseph left Alexandria on Friday for Trieste; Baron Prokesch left for Constantinople; and Count Beust and Count Andrassy left for Brindisi. General Ignatieff, the Russian Ambassador to the Porte, arrived on Monday from Cairo, and in the evening the Khedive gave an official banquet in honour of Mr. Elliot, the British Ambassador. M. de Lesseps was married on the 25th at Ismailia. Mgr. Bauer officiated on the occasion. It is officially stated that within the 10 days preceding Saturday last 50 vessels, representing 35,000 tons, passed from the Mediterranean to the Red Sea, without doing any damage to the banks.

INDIA.—Arrangements have been made for the experimental transmission of mails from India to the United Kingdom by the Brindisi route. Mr. G. W. Hayward, who recently explored eastern Turkistan, has left Murree for Cashmere, the first stage in his endeavour to penetrate from India by the Pamir steppe to the valley of the Oxus. A Female Normal School for native girls (attended at present by three Parsee and 12 Hindoo girls) has been opened in Bombay.

ARABIA.—Colonel Pelly, Political Agent in the Persian Gulf, arrived in the beginning of last month at Muscat in the steamship Dalhousie, and demanded an explanation of the firing on the gunboat Clyde. After several attempts at evasion, Azan bin Ghes, the present ruler at Muscat, made an apology to the captain and officers of the Clyde on the quarter-deck of the Dalhousie. On the arrival of her Majesty's steamships Daphne and Nymph at Muscat, it is expected that they will be despatched to Bahrein, to chastise

the Sheik of that place for some recent offences against British subjects.

CHINA.—The Duke of Edinburgh has visited Peking incognito, and has since arrived at Shanghai, where his Royal Highness was enthusiastically received, and attended a grand ball given in his honour. It is stated that Sir Rutherford Alcock will shortly leave Peking, and that he has made definite arrangements regarding the revision of the treaty. The China clipper Inarime has been lost in the China seas, on her voyage from Foo-choo-foo for London. A reactionary conspiracy has been discovered at Manila. The principal person implicated committed suicide.

AUSTRALIA.—The debate in the Legislative Assembly at Melbourne on Mr. Byrne's motion disapproving the appointment of a gentleman without a seat in Parliament to the office of Commissioner of Customs resulted in the defeat of the Government, who thereupon resigned. Mr. Byrne was subsequently sent for, and had succeeded in forming a new Ministry. No definite policy had been made public, but on the reassembling of Parliament it was the intention of the Government to proceed with those measures already before the House. In Sydney the Parliament had reassembled, and many bills of an important character had been promised, including those for the reduction of the salaries of future Governors and Ministers. It had also been announced that the Government intended to resume assisted immigration. Kenealey, one of the Fenians who was transported to Western Australia, had arrived with 25 of the brotherhood, some of whom are going to America, while the others intended to return to Ireland. In the South Australian Parliament the Treasurer had introduced his budget, estimating the probable deficiency on the year at 97,000*l.* This he proposed to meet by increased taxation, which was rejected, and the Government were obliged to introduce a fresh budget, and promise retrenchment.

NEW ZEALAND.—The latest news from New Zealand brings intelligence of an attack by the rebel Te Kooti on the friendly allies under the command of Colonel M'Donnell. Te Kooti was, however, repulsed with the loss of 30 men. A general attack on the rebel position was about to be made. Seven bodies were discovered after the fight, and on examination it was found the rebels were well supplied with ammunition. The troops had seven wounded. The Wanganui rebels convicted of treason-felony have been sentenced to death.

UNITED STATES.—The Government retains the custody of the Spanish gunboats, but has permitted the construction of the vessels to be resumed. A plot has been discovered among the Cuban residents of New York to burn the gunboats. Generals Babcock and Ingalls have gone to San Domingo to aid the negotiations for the annexation of that Republic to the United States. A delegation of Hebrews visited President Grant on Tuesday, and urged him to intercede with the Emperor Alexander on behalf of the persecuted Hebrews in Russia. The President promised to comply with their request. The election in Mississippi was held on Tuesday, when the Radicals elected Mr. Alcorn Governor by a majority of about 8000 votes over Mr. Dent. The Conservatives have carried Texas, electing Mr. Hamilton Governor. Great reductions have been made in the Government departments of the United States. In the Treasury at Washington, in which 3000 clerks were employed at the commencement of the year, more than 600 have been discharged, causing a saving of 70,000 dollars per month. In the War Department 200 clerks have been discharged, and in the Post Office also great changes have been effected. One of the begging-letter writers, who have for some years levied such heavy contributions upon the executors and relatives of deceased persons in England, by pretending to have had intimate associations with the deceased, has been discovered at Philadelphia by the tact of a gentleman at Southampton, to whom he had applied, and who tracked him with the assistance of the Postmaster-General of the United States. He confessed his frauds, and admitted that he had passed as a widow, a disowned scion of nobility, a distressed tradesman, and a young English girl of high birth and expectations in temporary distress. In all these characters he had raised large sums of money, and he stated that within the last two years he had received from all parts of England as much as 3000*l.* by his devices. Mrs. Hammond, better known during the war of the Southern Secession as Belle Boyd, and who had lately been giving readings at California, has become insane from sickness and mental excitement, and has been placed in a lunatic asylum at Stockton.

PARAGUAY.—The allied forces on arriving at San Estanislau, found that it had been abandoned by Lopez. They advanced in pursuit of the latter, who was said to be at Guruguary. It is rumoured that Count d'Eu is about to return to Rio with half the Brazilian army, leaving General Polydoro in command of the remainder.

City Intelligence.

THE METROPOLITAN LOAN.—The tenders for 2,500,000*l.* Metropolitan Consolidated 3½ per Cent. Stock were opened on Thursday week at the Bank of England by Sir John Thwaites, chairman of the Board of Works, in the presence of the Governor and Deputy-Governor of the Bank. The tenders having been read, it appeared that at various prices they reached an aggregate of about 2,100,000*l.* The sealed minimum was then opened, and declared to be 94*l.* 10*s.*, at and above which price about 700,000*l.* was found to have been subscribed—one very large bid by a leading Stock-Exchange firm being at 96*l.* 3*s.* Many additional applications were afterwards sent in to the Bank at the minimum price of 94½, and at the meeting of the Board on Friday Sir John Thwaites announced that tenders had been received for 2,900,000*l.*, and that parties in

the City were ready to take up the remainder of the loan at the minimum price. He stated that the Board on this satisfactory result, and that the tenders had been placed at a less rate of interest than the Corporation of the City of London had offered, it was announced that the Bank of England had taken up the whole of the outstanding balance.

MONEY MARKET, FRIDAY.—Consols are 93½ to 93¾; New and Reconsols, 92 to 92½; Bank Stock, 23 to 23½; Bills, March, par to 5*s.* p.m.; and June, 100 to 100½; India Five per Cents, 112 to 112½; Argentine, 84½ to 85½; Egyptian, 104 to 104½; Italian, 54 to 54½; Mexican, 131 to 131½; Spanish, 27; Turkish Five per Cents, 43½; Ditto Six per Cents, 65½ to 66; 5-20 Bonds, 84½ to 85; Erie, 20 to 20½.

Metropolis and its Vicinity.

GRAND LODGE OF FREEMASONS.—The meeting of the Grand Lodge of Free and Accepted Masons of England was held on Wednesday night at the Albert Hall. There were upwards of 500 brethren present, and many were unable to obtain admission. At seven o'clock the Earl of Zetland, the Earl of Devon, the Prince of Wales was waiting to be admitted into the Grand Lodge, being entitled to enjoy the same by the privileges of past grand master. The Earl of Zetland, wardens, the grand deacons, the grand treasurer, the grand scribes, and twelve grand stewards were present to escort the Prince into the Grand Lodge. His Highness was received with extraordinary honours, the cheering being renewed again and again as he passed to the dais. He was plainly habited as a mason, and took his seat on the left of the grand master, who addressed him in a brief speech, in which he enumerated the various members of the Prince's family who had been patrons of Freemasonry, and members of the craft. The Prince was then proclaimed as such. His Royal Highness expressed his warm thanks for the honour conferred upon him, and for the cordial manner in which he had been received. The grand master then announced the nomination of the office which he had held for the Earl de Grey was nominated in his stead. The meeting will take place in March next.

THE APPROACHING GENERAL COUNCIL OF THE CHURCH OF ENGLAND.—On Wednesday the first of a series of meetings in reference to the approaching (Ecumenical) Council was held in the large room of the Freemasons' Hall. The Hon. Arthur Kinnaird, M.P., presided, and on the platform were the Hon. and Rev. Bishops of London, Mr. E. Baxter, the Rev. Dr. Cumming, Dr. Lushington, Rev. Prebendary Auriol, General Walker, the Rev. Donald Fraser, and other gentlemen. The Rev. Dr. Lushington, in opening the proceedings, said that the Council of the Reformation, who had proposed to meet in London to observe this month in prayer. The proposal had been cordially received in all parts of the world, and he had letters stating that prayer meetings in connection with the forthcoming Council would be held in all the chief towns of Italy, Spain, France, the United States, and India. He expressed his confidence that they might see the hand of God in the success of the man in the favour with which Dr. d'Aubigne had been received throughout the world. He proposed to hold another meeting that evening at 8th, 10th, 15th, 22d, and 29th of the present month. The Hon. and Rev. Baptist Noel then read a passage of Scripture and prayed, and was followed by the Rev. Prebendary Auriol, rector of St. Dunstan's, who read a passage of Scripture and prayed, and was followed by the Rev. Dr. Cumming. Dr. Lushington then read a passage of Scripture, and the meaning of the infallibility of which was explained much, after which the Rev. Mr. Boardman, of America, offered up prayers, and the Rev. Mr. Timothy, closed the meeting with prayer.

THE NEW MAGISTRATE.—Mr. Franklin Lushington has been appointed to the police magistracy vacated by the death of Mr. Burcham.

THE COLONIAL OFFICE AND THE CLEANING OF THE TOWN.—The second meeting of colonists was held on Wednesday at the Cannon Street Hotel, Mr. Lushington presiding. A series of resolutions relative to the unsatisfactory policy pursued by the Imperial Government towards the colonies was submitted, and several speeches were delivered by Sir George Grey and other gentlemen. It was stated that the movement was carried on in London, and another meeting was fixed for Wednesday next.

THE NEW GENERAL POST OFFICE.—The plan of the new General Post Office, designed by Mr. Brass, of Old Street, St. Luke's, has been accepted for building the new General Post Office. The site for the new building is the open space between the present post office in St. Martin's Lane and the site of the new building. The design is by Mr. Williams, of the office of the Surveyor-General. The facade will be 860 feet long and will be of classical design, and will present a fine architectural front.

ROYAL SOCIETY.—The anniversary meeting of the Royal Society was held on Tuesday evening at the Royal Society. The medal of this year was awarded to M. R. A. Dumas, eminent French physicist and chemist, for his physical researches; and the other to M. J. B. Biot, for his researches on the Astronomer Royal at the Cape.

THE ALBERT ASSURANCE COMPANY.—The directors of the Mutual Assurance Society have issued a circular to the policy-holders, stating that they have accepted a transfer of the Albert policies, the directors of which are able to pass a medical examination.

considerable discussion arose, and several suggestions were offered. Mr. Hoskins, of The Hingham, moved that a monument or memorial window be placed in the Cathedral. Mr. Craekanthorpe, of Newbiggen Hill, moved, as an amendment, that a monument only be erected. Mr. C. B. Holston, of Harker, advocated the erection of an additional wing to the Cumberland Infirmary, and the Rev. T. T. Shipman, of Nether Denton, proposed the raising of "the sum of 10,000*l.* in connection with the Diocesan Society, as a supplementary fund for the augmentation of poorer livings in the diocese, to be called the Bishop Waldegrave Augmentation Fund." Votes were then taken on each proposition, when Mr. Craekanthorpe's motion in favour of the erection of a monument was carried, Mr. Hoskins withdrawing that portion of his resolution which proposed the alternative of a memorial window. A committee was appointed to carry out the resolution, and about 200*l.* was at once subscribed.

CARMARTHEN.—The Government has offered a reward of 200*l.* for the discovery of the murderer of Esther Davies, who was shot at Blaendud on the 4th ult. Large posters, printed in English and Welsh, announcing the fact, have been distributed throughout the country.

CHOLEY.—For some months there has been considerable dissension in the parish of Heapey, near this town, owing to the incumbent, the Rev. J. Fisher, who is infirm, refusing to comply with the wishes of the congregation by appointing the Rev. J. Shaw to be his curate. The majority of his congregation, numbering about 500 persons, some time since left the church, and began to build a church for themselves, which is now completed. Ineffectual attempts at reconciliation having been made, a meeting of the congregation was held at Wheleton last week, to consider whether they should not leave the Church of England. A statement was made by Mr. Shaw, from which it appeared that Mr. Fisher had said that Mr. Shaw should never enter his church so long as he lived, and that this being so the Bishop of the diocese was powerless in the matter. The question was warmly discussed, one member observing that they had better go where they were wanted than stop in a church where they were not wanted; and another that they would only be going in advance, for shortly the Church of England would be disestablished. A resolution was then moved and carried unanimously, to the effect that "the congregation should leave the Established Church and join that called the Free Church of England." As 500 persons have now left, the parish church of Heapey has only a congregation of about 50.

DOVER.—On Saturday night the smack Jupiter, of Guernsey, from Montrose for Plymouth, was run down off the South Foreland, and foundered immediately. The captain and crew saved themselves in their own boat, which floated from the wreck, and landed in this harbour on Sunday morning.

LEEDS.—A public meeting in favour of the National Education League was held on Monday night in the Town Hall, the mayor in the chair. The speakers included Mr. George Dixon, M.P., Birmingham; Alderman Carter, M.P., Leeds; and several prominent Baptist and Independent ministers, who stated that the object of the League was to provide a good education for every child in the kingdom, and that the originators of the League were not secularists, but unsectarian. It was urged that denominationalism had not occupied all the ground of education, that there was ample scope for other systems, and that all might be worked side by side. It was resolved to support the local branch of the League.

LIVERPOOL.—Mr. Shaw Lefevre, Vice-President of the Board of Trade, addressed a meeting of merchants in this town on Monday. He explained the Merchant Shipping Bill, which is to be proposed next session. He said that the repeal of the French Treaty would be a great misfortune to England. But there was no fear of such a course being taken. France had treaties similar to that with this country with almost every European Government, and it would be almost against the comity of nations to abrogate the treaty with us while some of the treaties with other countries had five or six years to run. There was no objection to an inquiry into its operation, but it must be complete and not partial.—The borough magistrates last week decided that a bicycle is a carriage within the meaning of the Act, and fined a youth for driving one upon a footpath.

MANCHESTER.—A great public meeting will be held in the Free Trade Hall, on Monday evening, for the purpose of urging the Government to grant an inquiry into the present stagnation of trade, with a view to obtain justice for British industry. The chair will be taken by Mr. Richard Hawthorn, and the meeting will be addressed by the Hon. Wilbraham Egerton, M.P., Mr. Staveley Hill, Q.C., M.P., Mr. Whitehouse, M.P., Mr. Charley, M.P., Mr. Newdegate, M.P., Mr. Sidebottom, M.P., Sir H. Drummond Wolff, Major Egerton Leigh, Mr. Richardson-Gardner, &c. Organisations in London, Birmingham, Rochdale, Wakefield, Leeds, Hull, Cheltenham, Blockley, Harpurhey, Coventry, Radcliffe, Winsford, Staleybridge, Heywood, and Newton have already signified their intention to aid the committee.

NEWCASTLE-ON-TYNE.—A conference on education was held in this town on two days last week, at which the Birmingham League and the Manchester Union were fully represented. The chairmen were Sir William Armstrong, Right Hon. T. E. Headlam, M.P., Alderman Cowen, M.P., and the Mayor of Newcastle. A number of papers were read, and some very warm discussions ensued between the promoters of the rival systems, but no votes were allowed to be taken on the one side or the other. There was a public meeting in the Town Hall on the evening of the 25th, over which the Mayor presided. Among the speakers were Mr.

Dixon, M.P., the Dean of Durham, Rev. Thomas Vasey (Wesleyan), Rev. Canon Consitt (Catholic), Mr. Joseph Cowen, jun., Mr. Headlam, M.P., Rev. Dr. Rutherford (Independent), Rev. J. C. Street (Unitarian), the Rev. W. Stanyers, and others. A good deal of feeling was shown in the course of the discussions, and the systems of secular and denominational education were very fully discussed.

NORWICH.—A meeting of the guarantors and others interested in the recent Musical Festival was held on Saturday at the Shire Hall, Lord Stafford in the chair. A report from the general committee was read stating that the festival of 1879, though highly successful from a musical point of view, had been a failure in a pecuniary sense, as there was no surplus available for distribution among the local charities. The total receipts were 3,961*l.*, and the total expenses 3,969*l.*, so that the festival had been attended with a deficit of 1*l.* The concert had produced 3,170*l.* of the receipts, and the ball, 278*l.* The payments made to the principal vocal performers absorbed 1,211*l.*, and those to the instrumental band and organist, 811*l.* The report was adopted, and it was resolved, after a short discussion, that the festivals should be continued triennially.

OXFORD.—Mr. Edward S. Talbot, of Christ Church, the Warden Designate of the new Keble College, has announced that the institution will open in October, 1879, and that he is ready to receive names for entrance. The candidates will have to pass a matriculation examination similar to that which exists at many colleges, and such as will give some security that they will pass in "Little-go" without much additional preparation. There will be rooms for 100 students. In its composition Keble College will be exactly like those which now exist, drawing its members from all classes, and fitting them for all professions. It starts, however, with the special aim of being a cheap college, combining the ordinary advantages of life in a college with a cost lower than is possible at any of the old colleges. Mr. Talbot thinks that this may be done both by a lowered scale of college charges, paid as a fixed sum each quarter in advance (amounting probably to near 70*l.* per annum more or less) and also by such arrangements and disciplinary rules as will make economy easy and extravagance difficult. It will not be in any sense a party college.

RAMSGATE.—About midnight of Saturday last the foreign brig Bikubon, of Grimstad, from Poole for Grimstad, went ashore on the North Sands Head of the Goodwin Sands, during very thick weather. The crew succeeded in getting her off on the flow of the tide, but she was so leaky that she foundered soon afterwards in the Gull. The crew, nine in number, took to their boat on Sunday morning, and after rowing for several hours towards shore were picked up and landed at this port.

WALSALL.—The sum of nearly 1000*l.* in gold, notes, and drafts, were stolen a few weeks ago from the premises of Messrs. Duynan, Lewis & Lewis, solicitors of this town, by two boys called Samuel Thompson, aged 16, lately in Messrs. Duynan's employ, and Thomas Simpson, aged 17, one of his associates. They continued to attend to their duties, without exciting suspicion, for some days, when they absconded. They were traced to London, where they had engaged berths in a vessel about to sail for Australia. This fact came to the knowledge of Simpson's father before it was known to the police, and he made inquiries at the shipping office which alarmed the boys and caused them to leave London for Liverpool, where they were captured, at Woodside Ferry, on Friday week. On being apprehended on the bridge leading to the Woodside landing-stage, Simpson threw into the river a purse containing between 50*l.* and 60*l.* in gold and 60*l.* in Bank of England notes, and a bankers' draft for 600*l.* Thompson, who had in his possession the sum of 58*l.* 15*s.*, on his way to Bridewell, made his escape from the inspector who had him in charge, but was recaptured at Chester. Divers have since been employed to recover the money, but without success. They believe, however, that they will ultimately be successful, as the bottom of the river, near where the bag is supposed to be, is very stony.

WARRINGTON.—The inquest on the body of Mr. Samuel Gleave, the farmer, who was murdered on the 12th ult., near this town, terminated on Tuesday in a verdict of Wilful Murder against some person or persons unknown.

WIGAN.—A serious explosion occurred at Swan Lane Colliery, Hindley Green, yesterday morning at six o'clock. Four men were seriously burned, and another injured. The gas ignited at a naked light before work was begun.

YORK.—The hearing of the case Noble v. Voysey took place on Wednesday, in the Chancery Court of York Minster, before Mr. Granville Vernon Harcourt, the Chancellor. The question to be determined was the admission of the articles which had been filed against the defendant. The promoter of the action was Mr. Noble, of York, the archbishop's secretary; and the defendant was the Rev. C. Voysey, vicar or perpetual curate of Healaugh, near Tadcaster. The defendant was charged with having written and published certain books or pamphlets, entitled "The Shing and the Stone," in which he has maintained doctrines totally at variance with the articles of religion and the formularies of the Church. A commission of inquiry reported that there was sufficient *prima facie* ground for instituting further proceedings, and in July the archbishop inhibited the defendant from performing any services of the Church in the diocese of York until the sentence should have been given. Mr. Voysey now appeared in person, and entered into a long defence of his opinions. On Thursday the Chancellor gave judgment that all the allegations against Mr. Voysey had been proved, and that they were a ground for excluding him from the Church of England. He also condemned him in the costs. Notice of appeal was given.

Ireland.

REPORTED CHANGES IN THE IRISH GOVERNMENT.—The Dublin papers are full of reports of the probability of a speedy change in the Irish Government, or the Chief Secretary's resignation, and of the opinion which have been expressed by the officials of the Irish Government that measures to be taken in the future of the country. It is stated that the Cabinet the immediate adjustment of the Government for the effectual protection of the country, and the repression of revolutionary measures, and the suppression of seditious publications, other hand these counsels are given by the Chancellor and the Chief Secretary, that affairs should be allowed to take their course.

THE ELECTION OF O'DONOVAN.—The town of Tipperary on Friday, after the election of O'Donovan Russa was announced, the windows of the supporters of Mr. Heron were smashed, and the Mayor was hooted at as he passed through the streets. In the evening the streets with drums and fifes, and displayed green badges. In the morning the Mayor was hooted at as he passed through the streets. On Friday night an illuminated light procession took place in the town. There were 100 torches, several banners, and many tar-barrels and bonfires. The houses were illuminated. A large number of people was present, but there was no disturbance. At Kanturk, however, three incendiary fires were kindled simultaneously, and were said to have been kindled because the owners of the property had not taken part in the demonstration. Great rejoicing took place in Croom, Westport, Sligo, Rathkeale, and other places, on Friday and Saturday evening, in honour of Russa. In some places the windows of those who refused to illuminate were broken by the mob.

TENANT-RIGHT MEETINGS.—On Monday a tenant-right meeting, under the presidency of Mr. Callan, was held in Dundalk Courthouse, and was attended by about 50 persons specially admitted. The meeting lasted only five minutes. Two resolutions were proposed and carried, when an immense mob, yelling for "Amnesty," broke in. Lord Byles and Mr. Callan, M.P., tried to apologise for the meeting, but the mob, in spite of the protestations of several priests, would not listen to the gentlemen and priests on the platform, the mob cheering frantically "Rossa" "Amnesty" "God save Ireland!" A grand demonstration of tenant-farmers was held on Monday in Drogheda, the High-Sheriff presiding. Resolutions in favour of sixty of tenure and agrest were adopted.

CARDINAL CULLEN'S PASTORAL.—On Monday Cardinal Cullen issued a pastoral letter to the clergy of the diocese of Dublin, on his departure for Rome to attend the Oecumenical Council. He exhorted them to pray for the "assembled fathers," and to pray that their "straying brethren may be brought to the one fold and the one shepherd, and that they may profess the true faith, and become members of the one Holy Catholic Church, outside of which there is no salvation." He refers to the "wild theories" which are disseminated by a "seditious press," and says that from socialism, communism, anarchy, the spirit of religion prevent a return to a preservative. In conclusion he exhorts an attempt to revive the practice of dancing, and the continued efforts made, under various names, to revive and spread the seeds of Fenianism, and into a dangerous and destructive combination. He says, he has been abandoned by the Fenian men, while Fenianism is allied with Orangemen, interested land agents to prevent useful reforms.

ATTEMPTED ASSASSINATION IN KILDARE.—Another attempted assassination took place in county Kildare on Friday. A man named Doran was ploughing in his field when he was fired at and hit on the right side. He fell, and a second shot took effect in his left arm. He was carried to the hospital, and the assassin, who was a man named O'Connell, was shot, which missed, followed, and the assassin ran away. The injured man managed to get to the hospital, and was conveyed at once to Dublin, where the bullet was extracted, and found to have been fired from a revolver. It is believed that Doran was a tenant, his brother, a deputy agent, who was the consequence of having ejected a tenant.

ATTEMPTED ASSASSINATION IN CAVAN.—On Friday evening, as Sub-constable John Griffin was on duty at Stradone station, near Cavan, was proceeding on the road for a walk, while passing a plantation, he was fired at by two men concealed behind a wall. The bullets passed through his cap. Two men were arrested on suspicion.

Scotland.

THE EDUCATION QUESTION IN SCOTLAND.—A report from the committee on national education, brought up, and, after much discussion, was adopted on the table, it being doubtful whether the committee had authority to deal with it. The report on the Scotch Education Bill of last session, which had opposed the denominational schools, and was introduced with a view to the settlement of the question.

religion in schools should be struck

MEETING IN GLASGOW.—A meeting, probably 800 in number, was held on Sunday evening, for the purpose of constitutional measures to obtain freedom of the press in the prison...

COLLISION.—On Friday morning, at 10 o'clock, the steamer Rose, from London, was run into by the steamer from New York to Glasgow. The Rose was cut down below...

BOAT EXPLOSION ON THE CLYDE.—The boiler of a screw steam-lighter on the Clyde, between Innellan and Dunoon, exploded, and the whole crew, supposed to be men, who were blown to pieces.

ESTATES.—The Marquis of Bute, of Bute Castle, with the extensive estates, has been bequeathed to the Countess of Loudoun, for the same period as the late Marquis of Hastings.

Railways.

MEN'S PENNY TRAINS.—A meeting was held at the Ve-try Hall, Paddington, the 1st inst. in the chair, to consider a memorial presented to the Board of Trade, drawn up by the Western, Metropolitan, and Suburban Railway Association.

Law.

PRIVY COUNCIL.—Sheppard v. Rev. of France.—This case was specially argued on Thursday, on which occasion the Archbishop of York, the Bishop of Chelmsford, Sir J. Colville, and Sir J. Napier, came before their lordships on an appeal from the Dean of Arches as to the reception of the Eucharist by the wicked, which charge was not supported by the commissioners who were appointed to investigate the matter.

Colend Elphinstone, at the instance of the Church Association, against the Rev. John Purchas, incumbent of St. James', Brighton, for introducing Ritualistic practices, contrary to the rubric. The defendant did not appear to the proceedings. Witnesses were examined at great length on the charges, which were contained in about 40 articles. Mr. Stephens, Q.C., addressed the Court for the prosecution, in a speech which occupied nearly two days. He denounced the ceremonial as superstitious, and referred to the use of the vestments as a relic of the dark ages.

EXCHEQUER CHAMBER.—Sadler v. Smith. Appeal.—This was an appeal from the Court of Queen's Bench, the plaintiff having brought an action against defendant as holder of the stakes in a sculling match between Sadler and Kelly. The decision of the Court below was affirmed, and Sadler therefore gets his share of the stakes.

CENTRAL CRIMINAL COURT.—Arson.—John Cusack, 48, a licensed victualler, was charged with setting fire to his house, with intent to defraud two insurance companies. Prisoner kept the Dolphin in Redcross Street, Southwark, and an alarm of fire was given at 2 in the morning, after the place had been closed three hours. The firemen, who were soon at hand, got inside and extinguished the flames. They then found that the house had been fired in 14 different places, and the furniture and fittings saturated with paraffin.

MURDER.—John Fokett, 21, was charged with attempting to murder Mary Ann Talbot, his sweetheart, in New Church Road, Camberwell. Prosecutrix and prisoner had been for a walk on Sunday, September 26. On arriving at a short distance from the girl's home, prisoner took a knife from his pocket, and without a word attempted his intention, knocked her down, and began to stab her. A young man called Bradbury, who was passing, saw the man who was severely wounded on the head and jaw. The prisoner then tried to cut his own throat, and did wound himself, but not seriously. The jury returned a verdict of guilty with intent to murder, and the prisoner was sentenced to 15 years' penal servitude.

Obituary.

LADY BLANTYRE died at Nice, on the evening of the 24th ult. Her ladyship was the second daughter of the late Duke of Sutherland, by the third daughter of the sixth Earl of Carlisle, and was born in 1825. She married, in 1843, Lord Blantyre, by whom she leaves an only son and four daughters, one of whom is married to Sir David Baird, Bart., of Newbyth. Her ladyship was sister of the Duchess of Argyll, the Marchioness of Kildare, and the Marchioness of Westminster.

LADY CAMPBELL, widow of Major General Sir Guy Campbell, Bart., died on the 25th ult. She was the eldest daughter of Lord Edward Fitzgerald, son of the fifth Duke of Leinster, who died of wounds received in the Irish rebellion of 1798. She was born in 1795, and was the second wife of Sir Guy Campbell, Bart., to whom she was married in 1829. She had been a widow since 1849.

LADY COOKE died at Swansfield House, near Alnwick, on the 25th ult., in her 84th year. She was the widow of the late Sir William Bryan Cooke, Bart., of Whitley Park, Yorkshire; the daughter of the late Sir William Middleton, and the sister of the late Sir Charles Monck, of Belsay Castle.

MR. JOHN HODGSON, M.P. for Newcastle from 1830 to 1847, died a few days since, at the age of 64. He was an eminent archaeologist and antiquarian, and the author of several standard works.

MR. BURCHAM, the police magistrate, died on Saturday, after a painful and lingering illness, at the age of 61. He was educated at the Norwich Grammar School, and graduated B.A. at Trinity College, Cambridge, in 1830, and in 1835 was elected Fellow of his College. He was called to the Bar at the Inner Temple, in 1843, and selected the Norfolk Circuit. He was for some years one of the classical examiners, and an examiner of mental philosophy, in the London University. Both offices he resigned on his appointment as magistrate at Southwark Police Court on the death of Mr. Gilbert A. Beckett, in 1856. At the sitting of the court on Monday Mr. Partridge referred to the death of his late colleague, and described him as a refined and elegant scholar, an able lawyer, and a humane and impartial judge.

MADAME GRISOLDI died at the Hôtel du Nord, in Berlin, on the 27th ult., after a short but severe attack of inflammation of the lungs. She was the daughter of Gactano Grisoldi, an officer of Engineers under Napoleon, and was born at Milan in 1812. She was the younger sister of Giudetta and the elder of

Carolina the former a singer (the latter a dancer) both famous in their day. At the age of 17 she sang before the King in public, at Bologna, as Emma in the Armata di Rosalinda, who was present on the occasion, and distinguished for her brilliant future. Youth, uncommon personal attractions, a beautiful voice and judicious selection of her parts, were so remarkably levelled...

SHE afterwards went to Florence and Rome, where her talents were at once recognized by Bellini, who produced Norma in the three principal characters. She soon afterwards went to Paris, where she made her first appearance in Rossini's Semiramide. In 1834 she commenced her career in London as Nautica in La Gazza Ladra, with Rubini as Giannetto, Zucchi as Fernando Villabella, and Tamborini as the magistrate. This memorable event established her reputation, and after her appearance as Semiramide it was unanimously admitted that "Pasta having retired, her only successor was Grisi." Her career in London extended over the whole period that elapsed between 1834, the year of her first appearance, and the year 1854, the year of her so-called "farewell" performance, previous to her engagement with Signor Mattioli to sing in the United States. During her period of residence in London every year, except in 1842, many of the parts in which she had been successful were afterwards performed by other artists, but the parts of Nautica, Anna Bolena, Desdemona, Elvira, Lucia, Semiramide, Donna Anna, Rosina, &c., which she had sung in London, were never again performed in the United States. In the repertoire of the Opera House, London, every year, except in 1842, many of the parts in which she had been successful were afterwards performed by other artists, but the parts of Nautica, Anna Bolena, Desdemona, Elvira, Lucia, Semiramide, Donna Anna, Rosina, &c., which she had sung in London, were never again performed in the United States.

CAPTAIN JUSTINIAN BAKER, R.N., died on the 24th ult., at an advanced age. He was the only surviving officer of Lord Howe's fleet of the 1st of June 1794. He entered the navy in 1791, and was distinguished in the service of Lord Howe's fleet. He afterwards served in the expedition of Lord Duncan, and in the operations of the fleet of Lord Hood. From his return to the Navy in 1811, he was present at the capture and destruction of more than 100 vessels of war. He obtained the rank of commander in 1815, and was placed on the retired list in 1832.

WILLS.—The will of Colonel Alexander Barry Montgomery, C.B., 1st Foot, has been sworn under 10,000l. personality. Colonel Wigram, Scots Fusilier Guards, late of 17, Grosvenor Square, 40,000l.; Mr. John Mawdaley, of Hanover Square, 60,000l.; Miss Barlow, of Bootham, Yorkshire, 50,000l.; Mrs. Anne Gero-Langton, of Stapleton Park, Gloucestershire, 45,000l.; Rev. Leveson Russell Hamilton, of Bath, 25,000l.; Mrs. Mary Lithgow, of Ipswich, 20,000l.; Mr. John Green, of Hales Owen, 14,000l.

Markets.

COVENT GARDEN.—Dec. 4. The produce here during the past week has been very meagre, both of growers and of members of the trade, the consignments from the Continent being again large, there is a difficulty in effecting sales, unless at a reduction. Hothouse Grapes continue to be well supplied. Pines are somewhat lower in price. French Vegetables, comprising Barbe de Capucin, young Radishes, Carrots, Asparagus, French Beans, and Artichokes are at hand today. Lettuce are coming in in large quantities, but though they are making remunerative prices, the trade is not brisk. Flowers chiefly consist of Mignonne, Fuchsias, Chrysanthemums, Primroses, Primulas, and Heaths. These have not been so plentiful, owing to the sharp weather of the last few days.

Table with columns for Apples, Grapes, Lemons, Melons, Oranges, Pears, Pineapples, Vegetables, and Fruits. Includes prices for various items like Artichokes, Beet, Broccoli, Brussels Sprouts, Cabbages, Carrots, Cauliflowers, Celery, Cucumbers, Endive, French Beans, Garlic and shallots, Herbs, and Horse Radish.

POTATOS.—SOUTHWARK, Monday, Nov. 29. During the past week the arrivals with exception and in by rail have been more plentiful, and quite equal to the demand. The trade still continues dull. The following are this day's quotations:—Yorkshire Regents, per ton, 70s. to 100s.; Kent and Essex do., 60s. to 80s.; Lincolnshire do., 60s. to 85s.; East Lothian do., 70s. to 100s.; Perth, Forfar, and Fife do., 70s. to 80s.; French and Belgian Whites, 60s. to 70s.

Table for ENGLISH WOOL. Lists current prices for Southdown hoggets, Half-bred ditto, Kent Fleeces, Southdown ewes and wethers, and Leicester ditto. Also lists sorts of clothing and combing.

METROPOLITAN MEAT MARKET.—Dec 4. Best Fresh Butter .. 18s. per dozen lb. Second do. do. .. 16s. Large Pork, 4s. 4d. to 5s. 0d. per 8 lb. Small Pork, 5s. 4d. to 5s. 0d. per 8 lb.

HAY.—Per Load of 36 Trusses.
SMITHFIELD, Thursday, Dec. 2.
 Supply moderate. Trade very heavy at lower rates.

Prime Meadow Hay 75 to 84s	Clover, old .. 115 to 128s
Inferior do. .. 60 70	Inferior do. .. 90 105
New do. .. — —	Prime 2d cut .. 90 105
Inferior do. .. — —	Inferior do. .. — —
Straw 26 30	

CHARLES JAMES EASTON.

CUMBERLAND MARKET, Thursday, Dec. 2.

Sup. Meadow Hay 86s to 95s	Inferior Clover .. 90s to 110s
Inferior do. .. 70 80	New do. .. — —
New do. .. — —	Straw 32 38
Superior Clover .. 126 132	

JOSHUA BAKER.

WHITECHAPEL, Thursday, Dec. 2.

Fine Meadow Hay 80s to 90s	Prime 1st cut Clover 120s to 132s
Inferior do. .. 60 75	Inferior do. do. .. 100 110
Prime New Hay .. 80 88	Prime 2d cut do. .. — —
Inferior do. .. 60 70	New Clover .. 100 112
Straw 26 34	Inferior do. .. 85 95

METROPOLITAN CATTLE MARKET.
 MONDAY, NOV. 29.

The supply of Beasts is rather larger; there is, however, a good demand, and last Monday's quotations are well maintained. Sheep are more plentiful, and trade is dull for them; prices on the average are rather lower. Good Calves are scarce, and command higher rates. Our foreign supply consists of 1335 Beasts, 3740 Sheep, and 148 Calves; from Scotland there are 151 Beasts, from Ireland, 1459; and 1820 from the Midland and Home Counties.

Best Scots, Herefords, &c. .. 5 6 to 5 10	Best Long-wools 5 4 to 5 8
Best Shorthorns 5 4—5 8	Do. Shorn .. — —
2d quality Beasts 3 8—4 4	Ewes & 2d quality 4 4—5 0
Best Downs and Half-breds .. 5 8—5 10	Do. Shorn .. — —
Do. Shorn .. — —	Lambs .. — —
Beasts, 4371; Sheep and Lambs, 16,675; Calves, 154; Pigs, 120.	Calves .. 3 8—6 0
	Pigs .. 4 0—6 4

THURSDAY, Dec. 2

The number of Beasts is considerably larger than we have had on a Thursday for some time past; the demand is good, and Monday's quotations are readily obtained. The supply of Sheep is about the same as usual at this time of year; trade is dull, but prices for choicest qualities are not much altered. Calves are selling about the same as on Monday. Our foreign supply consists of 747 Beasts, 1475 Sheep, and 288 Calves.

Best Scots, Herefords, &c. .. 5 6 to 5 10	Best Long-wools 5 4 to 5 8
Best Shorthorns 5 4—5 8	Do. Shorn .. — —
2d quality Beasts 3 8—4 4	Ewes & 2d quality 4 4—5 0
Best Downs and Half-breds .. 5 8—5 10	Do. Shorn .. — —
Do. Shorn .. — —	Lambs .. — —
Beasts, 1742; Sheep and Lambs, 5010; Calves, 298; Pigs, —.	Calves .. 3 8—6 0
	Pigs .. — —

MARK LANE.—MONDAY, NOV. 29.

There was a moderate supply of English Wheat to this morning's market, but no improvement could be made on the rates of this day's night. The attendance was good; factors commenced by asking higher prices for foreign Wheat, and a fair business was transacted in winter American, at an advance of about 2s. per qr. upon the lowest prices lately paid, but other descriptions were no dearer than last week. Foreign and grinding Barley were rather cheaper; fine English malting and Beans and Peas unchanged in value. The Oat trade was quiet; Swedish were 6d., Russian 1s. per qr. cheaper. Flour sold slowly at late quotations.

PRICE PER IMPERIAL QUARTER.

WHEAT, Essex, Kent, Buff Ik. White 40—42	Red .. 37—48
— fno selected runs .. do. 42—53	Red .. 40—50
— Talavera 56—58	
— Norfolk — —	Red .. — —
— Foreign 40—53	
BARLEY, grind & dist., 29s to 31s. Chev. 39—42	Malting .. 34—38
— Foreign .. grinding and distilling 22—25	Malting .. 30—40
OATS, Essex and Suffolk 22—24	
— Scotch and Lincolnshire .. Potato 24—26	Feed .. — —
— Irish Potato 23—25	Feed .. 21—24
— Foreign .. Poland and Brew 22—25	Feed .. 19—21
RYE 32—38	Foreign .. 34—38
RYE-MEAL, Foreign — —	
BEANS, Mazagan .. 35s to 37s. Tick 36—40	Harrow .. 36—49
— Pigeon .. 50s to 56s .. Winds .. — —	Longpod .. — —
— Foreign Small 41—43	Egyptian .. 38—40
PEAS, White, Essex, and Kent .. Boilers 37—42	Suffolk .. 39—43
— Maple 41s to 45s Grey 40—42	Foreign .. 37—39
MAIZE — —	Foreign .. 29—31
FLOUR, best marks delivered .. per sack 30—43	
— 2d ditto ditto 28—40	Country .. 28—40
— Foreign per barrel 22—25	Per sack .. 29—55

FRIDAY, Dec. 3.

The rates to which the late large arrivals of Russian and American W heats were forced down, and the commencement of winter, have given confidence to dealers and millers to increase their stocks, and caused also some speculative purchases, in consequence of which a better feeling has been established throughout the markets of the kingdom, resulting in a recovery of 1s. to 2s. per qr. in the value of these descriptions of Wheat. In a few of the agricultural markets a similar improvement has taken place in the price of home-grown Wheat, but the movement is not strong, owing probably to the heavy stocks of foreign in the chief ports of the kingdom, and the fact that there are now about 1,250,000 qrs. of Wheat afloat for our shores from all parts of the world, and many cargoes overdue. Spring Corn of all descriptions has continued much depressed, and to effect sales a further slight decline was imperative. Peas being most neglected, gave way nearly 2s. per qr. in some places. Flour was saleable, at fully late rates. Since Friday last the supplies off the coast consisted of 57 cargoes, of which, with those left over from the preceding week, there remained for sale last night 61 cargoes. The floating trade has improved in tone. Black Sea Wheat recovered 1s. 6d. to 2s. per qr. from the late lowest rates. Maize tending upwards, Barley steady, Rye a little dearer. Business for cargoes on passage or for forward shipment remains suspended.

The arrivals of English grain this week are moderate, of foreign Wheat and Oats large. There was a fair attendance at this morning's market, and the English Wheat on offer was sold at the extreme rates of Monday; American was held for an advance of 1s. per qr., which was paid by needy purchasers only, other descriptions of foreign met with little inquiry, and prices were unchanged. Barley, Beans, and Peas were steady. Oats brought an advance of 6d. to 1s. per qr.

ARRIVALS.

	Wheat.	Barley.	Oats.	Flour.
English ..	1170 qrs.	1050 qrs.	— qrs.	— aka.
Irish ..	—	—	—	—
Foreign ..	57,150	4800	74,380	{ 1960 4870 bbls.
	58,320	5850	74,380	

LIVERPOOL, Nov. 30.—Wheat was in good demand for consumption, at 2d. per cental advance since Friday in all descriptions. Flour was in rather better inquiry, at extreme rates. Beans 6d. higher; Saldi, 37s. Oats and Oatmeal neglected. Indian Corn was in fair request, at 6d. per qr. more money; round yellow, 29s. 6d.

AVERAGES.

	Wheat.	Barley.	Oats.
Oct. 23 ..	46s 1d	88s 6d	24s 2d
— 30 ..	46 2	88 3	23 0
Nov. 6 ..	47 1	88 5	23 10
— 13 ..	46 11	88 9	23 11
— 20 ..	46 8	88 8	23 5
— 27 ..	45 6	88 1	23 5
Average ..	46 5	88 5	23 7

SEED MARKET.

Our seed markets continue quiet but firm. Values of all descriptions of Clover seeds are well maintained, but no great quantity of seed is just now changing hands. The sort most in request is large-grained purple seed; this kind is in limited supply, and easily realises high rates. For Alsike and white Clover seed holders abroad are raising their demands. French Italian has gone 1s. per cwt. dearer, the stocks in France having been greatly reduced by heavy purchases made for Germany. No attention is at present given to Trefoil seed. Canary seed, having reached its lowest, has advanced during the last few days fully 2s. per qr. New French Hemp seed continues scarce and dear; there is no Dutch now offering. Königsberg spring Tares, for future delivery, can now be bought at very low rates. The cold weather has caused an improved inquiry for boiling Peas. Mustard seed is very firm, and has met during the past week with a brisk demand. Rapeseed is without change. Feeding Linseed is in good request.

JOHN SHAW & SONS, 16, Water Lane, E.C.

HOPS.—BOROUGH MARKET, Dec. 3.

Messrs. Pattenden & Smith report the market quiet, the demand being of an entirely retail character. Quotations unchanged.

MESSRS. VEITCH AND SONS wish to ENGAGE a PERSON thoroughly competent to take the Management of the Packing Shed, and to see to the general execution of orders, including the correct naming of Plants, &c.—Apply by letter, stating references and wages required, to The Royal Exotic Nursery, Chelsea, S.W.

WANTED, a respectable Couple.—The Husband as thorough KITCHEN GARDENER, as the produce of the Garden is all grown for Sale; the Wife as good LAUNDRESS. Dwelling-house in the Garden; Laundry and all the appliances provided.—WM. HOLMES, Frampton Park Nursery, Hackney, N.E.

WANTED, for Portugal, a YOUNG MAN, well up in Flower Gardening and Propagating in all its branches, able to make Plans, and carry same out with taste.—S. DIXON & CO., Seed Merchants, 48a, Moorgate Street, London, E.C.

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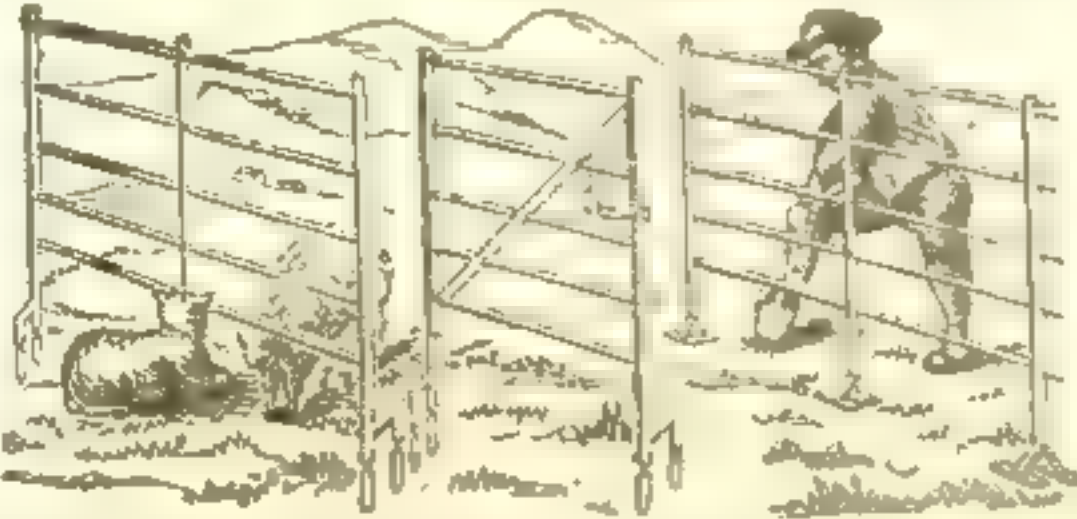
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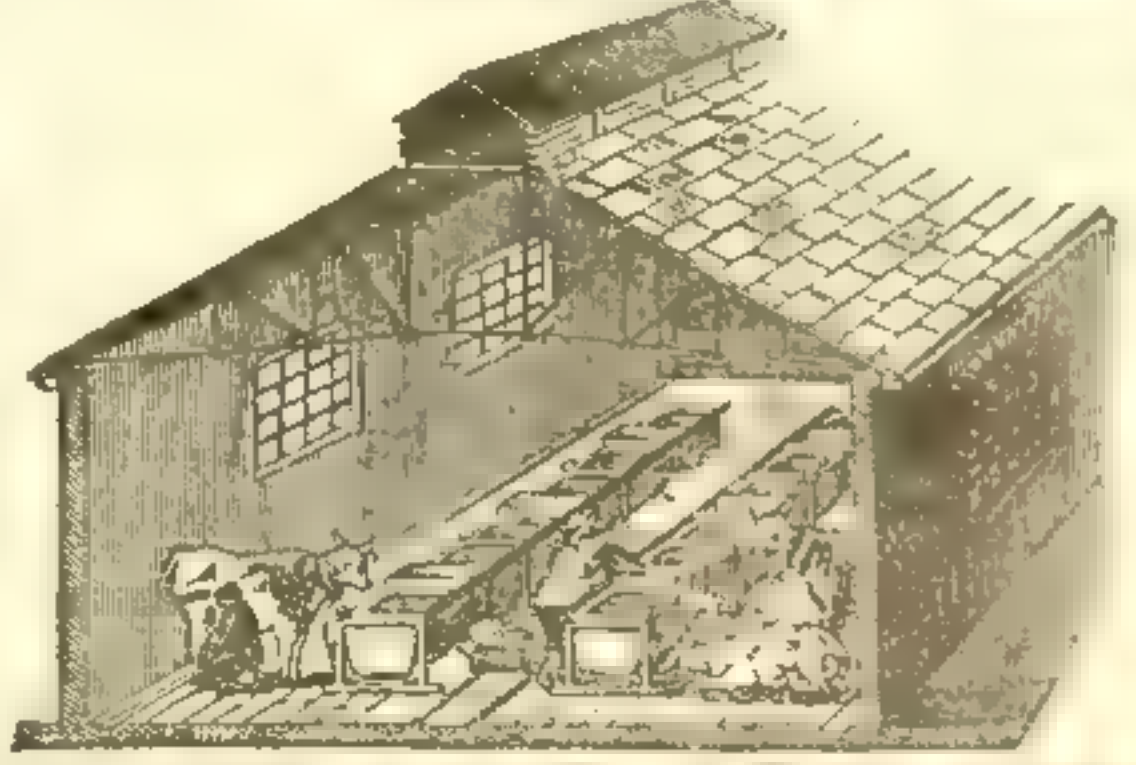
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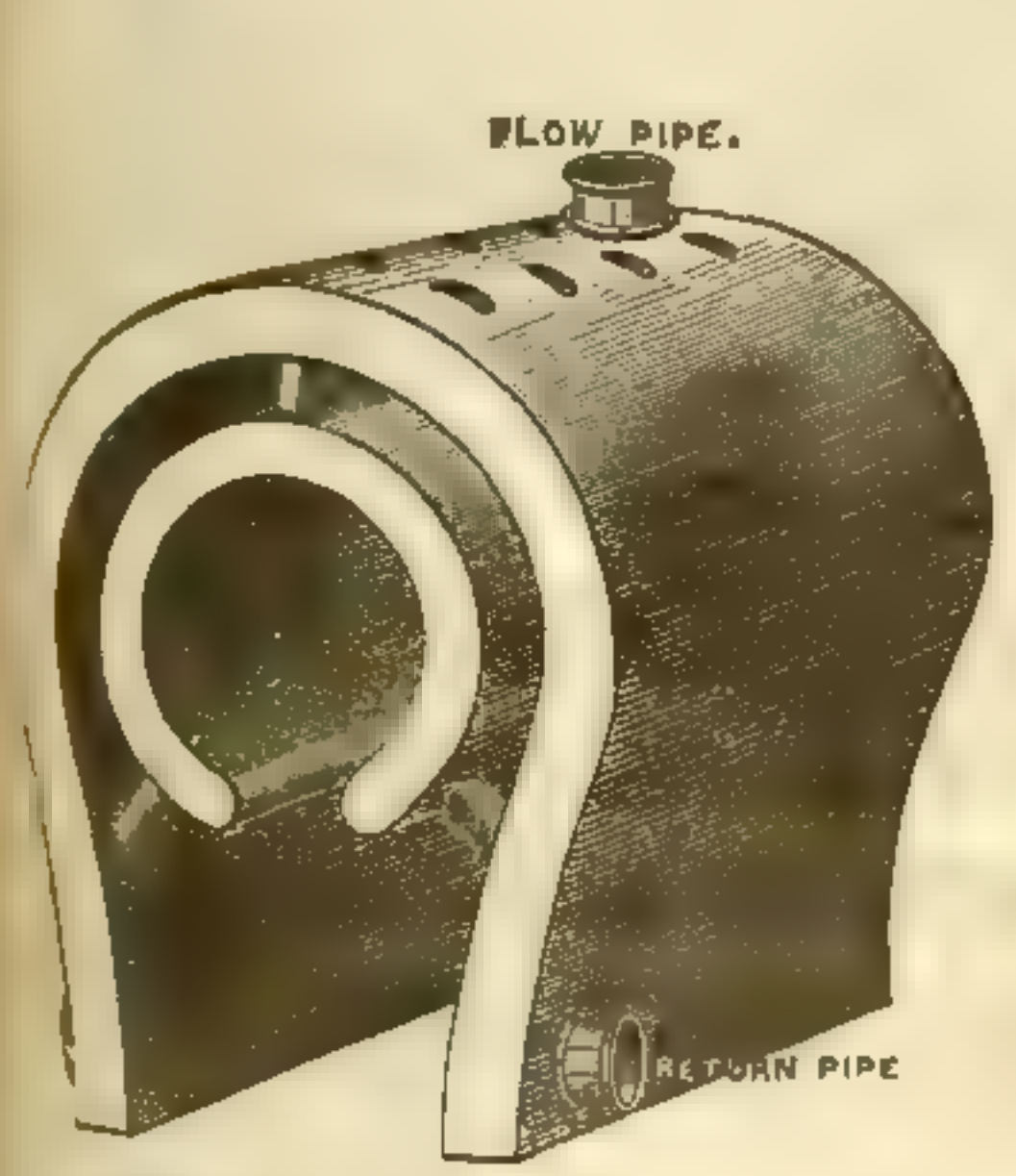
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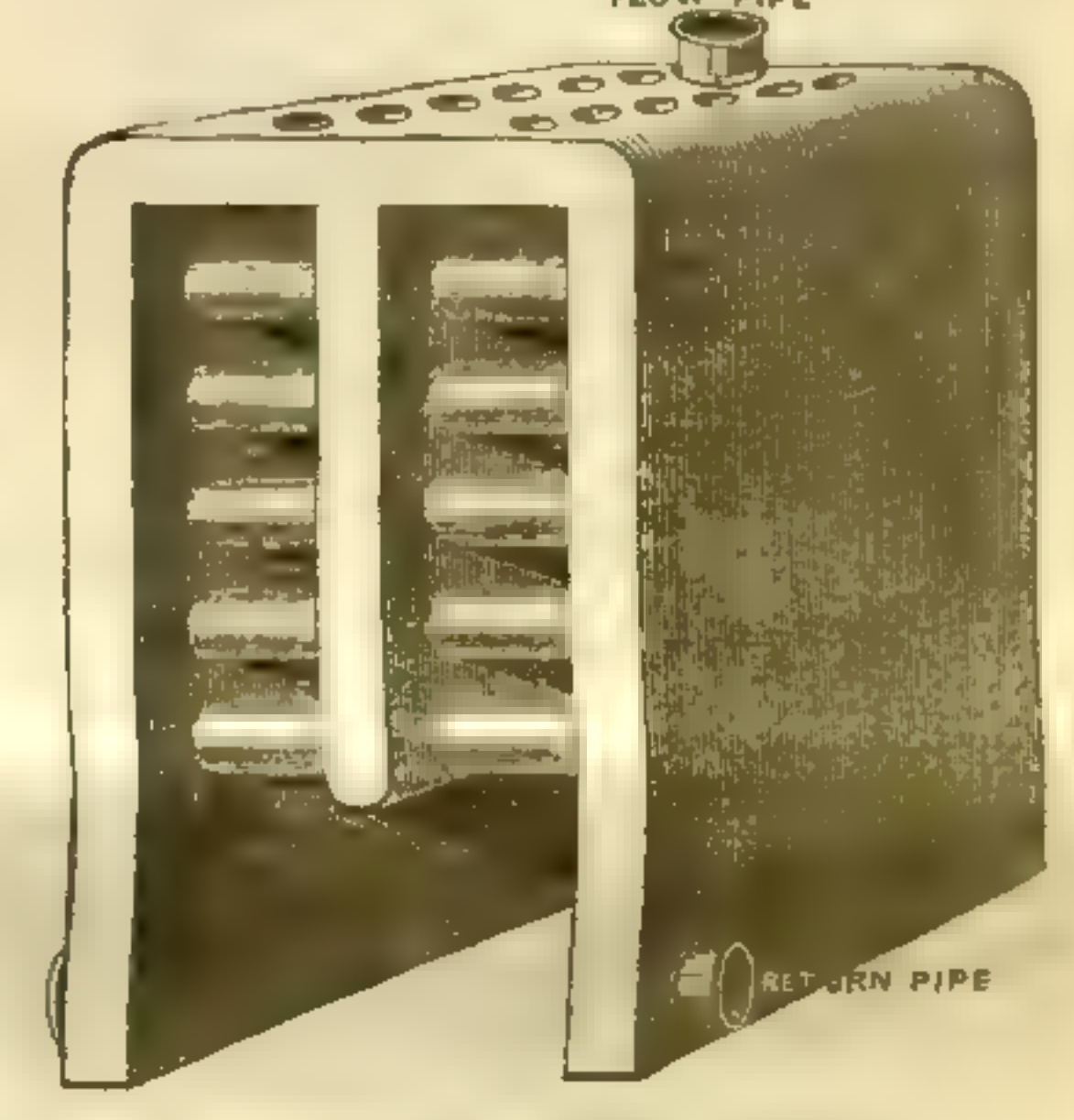
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Table with 2 columns: Item, Amount. Policies in force for Annual Income from— £1,804,489. Premiums .. £150,083. Interest .. 64,560. Total £2,019,132.

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Home News.

THE COURT.—The Queen and Royal family continue at Windsor. On Friday her Majesty drove out with Princess Teck. The Prince of Wales and Prince Christian, Prince Teck, and the Nawab of Bengal, went out shooting. Lady Jane Alexander arrived at the Castle on a visit. In the afternoon the Queen drove out with Princess Beatrice. On Saturday morning the Queen walked and drove in the grounds with Princess Louisa. Prince and Princess Teck, Princess Claudine, Princess Victoria, and Prince Adolphus of Teck, left the Castle for the White Lodge. Mr. George and Lady Charlotte Russell left for London. In the afternoon the Queen drove out with Princess Louisa and Princess Beatrice. The Lord Chancellor and Lady Hatherley arrived at the Castle on a visit. On Sunday morning the Queen and Royal family attended Divine service in the private Chapel. The Rev. Dr. Barry, Principal of King's College, preached the sermon. On Monday morning the Queen, accompanied by Princess Louisa and

Princess Beatrice, visited Sir James Clark at Bagshot Park, and remained to luncheon. The Nawab Nazim of Bengal, accompanied by his eldest son, Prince Ali-Kudr Hussan Ali Bahadour, went out shooting. The Lord Chancellor and Lady Hatherley and Lady Jane Alexander left the Castle. On Tuesday the Queen, accompanied by Princess Louisa, paid a visit of condolence to his Royal Highness the Duke d'Aumale, at Orleans House, Twickenham. Her Majesty travelled by a special train on the South-Western Railway to Twickenham, and returned to Windsor at 5 o'clock. On Wednesday morning the Queen drove out with Princess Beatrice. On Thursday morning the Queen walked in the Home Park with Princess Louisa. In the afternoon her Majesty, accompanied by Princess Beatrice, went to London and visited the Princess of Wales at Marlborough House. Her Majesty travelled by a special train on the Great Western Railway, and returned to Windsor at 6 o'clock. This afternoon her Majesty will hold a Council at Windsor Castle.

THE PRINCESS OF WALES.—A bulletin was issued on Saturday, stating that the convalescence of her Royal Highness is steadily progressing, and that the infant princess continues well. Her Royal Highness's recovery being so far advanced, it is considered unnecessary to issue any more bulletins.

THE PRINCE OF WALES went shooting in Bagshot Park on Friday. On Monday his Royal Highness visited the Cattle Show at the Agricultural Hall, and afterwards left town for Studley Royal, on a visit to Earl de Grey and Ripon. On arriving at Holbeck the Prince's carriage was attached to the North-Eastern train to Ripon, where his Royal Highness was heartily cheered by the persons assembled on the platform. The Prince was received and escorted to Studley Royal by Lord de Grey and Ripon, whose guest he remained till Thursday, when he returned to town. Yesterday his Royal Highness attended the funeral of the Duchess d'Aumale.

THE ARCHBISHOP OF CANTERBURY.—A bulletin was issued on Tuesday, signed by Mr. Seymour Haden, Mr. Walter and Mr. Raven, stating that the Archbishop is going on favourably, and has gained considerable general and some local power. His Grace had previously exchanged his bed for a couch in an adjoining room, and had been able to spend several hours a day with the members of his family. Motion is now complete in the leg, and sensibility is also returning to the affected arm. On Wednesday his Grace was able to be dressed for the first time since his attack.

THE CABINET.—A Cabinet Council was held on Tuesday in Downing Street. Another Council was held on Thursday; and another is summoned for to-day.

PARLIAMENTARY MOVEMENTS.—The Hon. Norman Grosvenor, son of Lord Ebury, was elected for Chester on Saturday, in place of his cousin, Earl Grosvenor, who has succeeded to the peerage as Marquis of Westminster. The Lynn election terminated on Wednesday. Both parties claimed the victory, but the official declaration of the poll shows that Lord Claud Hamilton, the Conservative candidate, was returned by a majority of 19 over Mr. Young, the numbers being 1051 to 1032.

CONFIRMATION OF DR. TEMPLE.—The election of Dr. Temple to the bishopric of Exeter was confirmed on Wednesday at Bow Church. Objections as to the orthodoxy of the bishop-elect were raised by Bishop Trower and others, but Sir Travers Twiss, the Vicar-General, held that it was only against the manner in which the election had been conducted that objections could be heard, and that they had nothing to do with other matters. The Queen had approved of Dr. Temple as the Bishop of Exeter, and had commanded the Archbishop of Canterbury to confirm and consecrate him. The archbishop had issued his fiat to him as Vicar-General, and he was of opinion that he had no power to review the appointment of the Crown. He therefore declared Dr. Temple duly elected. Dr. Temple was loudly cheered as he left the church. Bishop Trower and the clergy who are acting with him are now obtaining signatures to a memorial to the archbishops and bishops, praying them to avert from the Church the "shame and scandal with which it is threatened," by withholding the consecration of Dr. Temple.

CONSECRATION OF THE NEW BISHOPS.—The consecration of Dr. Temple to the Bishopric of Exeter will take place in Westminster Abbey on Tuesday the 21st inst. In the event of the Archbishop of Canterbury not being sufficiently recovered to officiate, the ceremony will be performed by the Archbishop of York, assisted by the Bishops of London, Chester, Worcester, and St. David's. Lord Arthur Hervey will be consecrated Bishop of Bath and Wells at the same time.

THE BISHOPRIC OF CARLISLE.—The installation and enthronement of Dr. Goodwin as Bishop of Carlisle will be solemnised in Carlisle Cathedral on Wednesday next. Hitherto these ceremonies have been conducted privately and by proxy; but on this occasion they will be public, and the new Bishop will preach a sermon.

THE BISHOPRIC OF WINCHESTER.—Bishop Wilberforce will be enthroned at Winchester on Thursday next, the 16th inst., and on the Monday following will hold a levée at Farnham Castle. His Lordship has appointed his son, the Rev. Ernest Wilberforce, late rector of Middleton Stoney, to be his chaplain; and has offered the living of Middleton Stoney, vacant by this appointment, to the Rev. Basil Wilberforce, who has declined it.

THE BISHOPRIC OF LINCOLN.—The Bishop of Lincoln has received an intimation that Archdeacon Mackenzie will be appointed Suffragan Bishop for the diocese. The Archdeacon was formerly incumbent of St. Peter's, Bermondsey, vicar of Great Yarmouth, and afterwards vicar of St. Martin's-in-the-Fields, London. He is now Archdeacon of Nottingham, Sub-Dean of Lincoln, and rector of South Collingham.

THE ARCHDEACONRY OF SUDBURY.—The elevation of Lord Arthur Hervey to the Bishopric of Bath and Wells, has been conferred on Mr. Chapman, M.A., vicar of St. James's, Strand. Mr. Chapman is described as "a distinguished Churchman."

THE COMMISSIONER GENERAL OF CUSTOMS.—Mr. Doyle, Bart., has been appointed to the office of Commissioner-General of Customs and Excise in place of Mr. Grey. The appointment will not take effect until the 1st of January next.

INDIA LAW APPOINTMENT.—Mr. J. C. has been appointed to the office of Secretary to the Government, in the place of Mr. J. C. on a superannuation. The salary of Mr. J. C. and the term of service seven years.

THE EDMUNDS ARBITRATION.—The Hon. George Denman and Mr. Charles Edmunds, arbitrators to whom the claim of the Crown against Mr. Edmunds was referred, was published on Saturday. They find that there is due from Mr. Edmunds to the Crown 7142l. 13s., independent of the 7872l. 5s. 6d. refunded by Mr. Edmunds. Each party is to pay his own costs.

Foreign.

FRANCE.—The Empress Eugénie, after a passage across the Mediterranean, landed at Aigle at Toulon on Friday night. Her Majesty thence by rail, and reached Paris on Saturday. The France announces that, in consequence of recent Parliamentary movements, the Ministers placed their resignation at the disposal of the Emperor, and that his Majesty has communicated to a letter from M. Ollivier, explaining the circumstances which attended the formation of the Chamber and the drawing up of the programme, which 98 deputies have already signed. The basis of their programme is the maintenance of law on public safety, the modification of the constitution, the revision of the laws, the suppression of the newspaper stamp duty, the maintenance of a policy of peace abroad, and the re-organisation of the Legislative Body on Friday. M. Ollivier demanded that in future the charge of the Legislative Assembly should be entrusted to National Guards. He said that the Ministers being themselves electors, were the natural opponents of the Chamber against any surprise from whatever quarter it might come. The present Government they were certain to surprise. M. Gambetta supported the Emperor's said—"You will one day, perhaps, regret not having taken this precaution." The Chamber proceeded with the verification of the election in the sitting of Saturday M. de Latour-Maubourg in the name of the officers of the Chamber, that they had resigned to the Emperor in order to remain in the Chamber afterwards resumed the verification of the elections. In the sitting of Monday the Chamber appointed to draw up a report on the M. Viellard-Migeon, in the department of Rhin, proposed to annul the election, on several irregularities, and because the candidate had only a majority of 123 votes over his opponent. M. Ernest Picard, Léon Keller, Chevandier de Valdrôme, and Léon Peyrusse supported the election, which was ultimately declared valid by the Emperor. Twelve deputies in all were declared duly elected in the sitting of Tuesday, on the motion for the election of M. Durand, Deputy of the Nord-Orientales, a proposal for a Parliamentary Commission was brought forward, and rejected by 137 votes. M. Durand was afterwards declared elected. In the sitting of Wednesday, M. Raspail tabled a bill, signed by himself and M. Fort, proposing decentralization in a financial interest and centralization in a political interest. The verification of the doubtful elections subsequently resumed. M. Forcade la Perrière, the Minister of the Interior, in defence of the Emperor's said:—"The Government wishes to establish true liberty, with the assistance of all. It is aware of which liberty is threatened, but this longer resolution and confidence. The Government will make it its glory to found liberty. In this task its predecessors have succeeded, the Government Emperor sets up a claim to be more qualified, and more resolute. It looks back upon its past of 18 years which have given to the country, but at the same time it intends to make the Empire the definitive founder of Liberty. This resolution is not a fresh incident; it is the result of the success of one another during the last 18 years. It is the result of the Emperor's prudence and firmness. The country has a right to demand a Liberal but strong Government. It shall have. This is the idea which the Emperor has in mind from the throne at the opening of this session. For order I will answer, and for liberty."

This speech was received with loud cheering. M. Jules Favre thereupon rose, and took note of the declarations of the Minister of the Interior, but saw a flagrant contradiction in the Liberal speech and the demand that the Emperor's said:—"The Government wishes to establish true liberty, with the assistance of all. It is aware of which liberty is threatened, but this longer resolution and confidence. The Government will make it its glory to found liberty. In this task its predecessors have succeeded, the Government Emperor sets up a claim to be more qualified, and more resolute. It looks back upon its past of 18 years which have given to the country, but at the same time it intends to make the Empire the definitive founder of Liberty. This resolution is not a fresh incident; it is the result of the success of one another during the last 18 years. It is the result of the Emperor's prudence and firmness. The country has a right to demand a Liberal but strong Government. It shall have. This is the idea which the Emperor has in mind from the throne at the opening of this session. For order I will answer, and for liberty."

LEADENHALL POULTRY, &c.

THURSDAY, Dec. 9.

A moderate supply, but no trade.

s. d. s. d.		s. d. s. d.	
Geese	each 4 0-6 0	Pigeons	each 0 9-1 0
Goslings	" " " "	Tan & Rabbits	" 1 0-1 8
Turkeys	" 4 6-9 0	Wild Rabbits	" 0 9-1 0
Turkey pullets	" " " "	Partridges	" 1 3-1 9
Ducks	" 2 6-3 0	Pheasants	" 2 0-3 0
Wild Ducks	" 2 0-2 6	Hares	" 2 0-2 6
Surrey Fowls couple	7 0-9 0	Grouse	" 0 3-3 6
Do. chickens	5 0-6 0	Snipes	" 0 9-1 0
Barn-door Fowls	4 6-7 0	English Eggs, p. 100	10 0-12 0
Leverets	each 2 0- "	Foreign do	9 0-10 0

Teal and Plovers, 6d. to 9d. each; Fresh Butter, 1s. 4d. to 1s. 6d. per lb.

METROPOLITAN MEAT MARKET.—Dec. 11.

Best Fresh Butter .. 18s. per dozen lb.
Second do. do. .. 16s.
Small Pork, 5s. 6d. to 5s. 8d.; Large Pork, 4s. 2d. to 4s. 8d. per 8 lb.

HAY.—Per Load of 36 Trusses.

SMITHFIELD, Thursday, Dec. 9.	
Prime Meadow Hay	75s to 84s
Inferior do.	60 70
New do.	—
Inferior do.	—
Straw	26 30

CUMBERLAND MARKET, Thursday, Dec. 9.

Sup. Meadow Hay 84s to 92s		Inferior Clover 95s to 112s	
Inferior do.	68 76	New do.	—
New do.	—	Straw	32 38
Superior Clover	123 130		

WHITECHAPEL, Thursday, Dec. 9.

Fine Meadow Hay 80s to 90s		Prime 1st cut Clover 120s to 132s	
Inferior do.	60 75	Inferior do. do.	100 110
Prime New Hay	80 86	Prime 2d cut do.	—
Inferior do.	60 70	New Clover	100 112
Straw	26 34	Inferior do.	85 95

METROPOLITAN CATTLE MARKET.

MONDAY, Dec. 6.

We have a larger supply of Beasts, and on the average prices are lower; the demand is, however, good for choice qualities. The number of Sheep is also larger, and the average quality pretty good; trade is slow, and prices are lower for all descriptions. Calves are not selling quite so well. Our foreign supply consists of 1541 Beasts, 4570 Sheep, and 146 Calves; from Scotland there are 237 Beasts; from Ireland, 900; and 2040 from the Midland and Home Counties.

a. d. s. d.		s. d. s. d.	
Best Scots, Herefords, &c.	5 6 to 5 10	Best Long-wools	5 4 to 5 6
Best Shorthorns	5 4-5 8	Do. Shorn	—
2d quality Beasts	3 6-4 0	Ewes & 2d quality	4 0-5 0
Best Downs and Half-breds	5 6-5 8	Do. Shorn	—
Do. Shorn	—	Lambs	—
Beasts, 4784; Sheep and Lambs, 18,435; Calves, 165; Pigs, 45.		Calves	3 6-5 8
		Pigs	4 0-6 4

THURSDAY, Dec. 9.

The number of Beasts is small, but quite equal to the demand; trade is dull, at rather lower rates than on Monday. In the Sheep market there is scarcely anything doing; a few of the choicest qualities find purchasers, otherwise our quotations are almost nominal. Good Calves are in request, but on the average trade is very dull. Our foreign supply consists of 182 Beasts, 1265 Sheep, and 211 Calves.

s. d. s. d.		s. d. s. d.	
Best Scots, Herefords, &c.	5 4 to 5 8	Best Long-wools	5 4 to 5 6
Best Shorthorns	5 2-5 6	Do. Shorn	—
2d quality Beasts	3 4-4 0	Ewes & 2d quality	4 0-5 0
Best Downs and Half-breds	5 6-5 8	Do. Shorn	—
Do. Shorn	—	Lambs	—
Beasts, 867; Sheep and Lambs, 4650; Calves, 241; Pigs, 20.		Calves	3 6-5 8
		Pigs	4 0-6 0

MARK LANE.—MONDAY, Dec. 6.

There was a moderate supply of English Wheat to this morning's market, which brought the extreme prices of this day's night. The attendance was good, but the demand for foreign Wheat only limited; American qualities brought an advance of 2s. per qr. upon the rates of this day week; other descriptions were unchanged in value. Fine malting Barley brought last week's quotations; other descriptions were a slow sale and rather cheaper. Beans were unaltered; White Peas 1s. to 2s. lower. Oats lost the advance quoted on Friday; the trade was steady at the quotations of last Monday. There was no change in the value of Flour.

PRICE PER IMPERIAL QUARTER.		s. s.	
WHEAT, Essex, Kent, Suffolk, White	40-49	Red	37-48
— fine selected runs.. do.	42-53	Red	40-50
— Talavera	56-58		
— Norfolk	—	Red	—
— Foreign	40-53		
BARLEY, grind. & dist. 29s to 31s. Chev.	39-42	Malting	34-38
— Foreign, grinding and distilling	22-25	Malting	30-40
OATS, Essex and Suffolk	22-24		
— Scotch and Lincolnshire.. Potato	24-26	Feed	—
— Irish	23-25	Feed	21-24
— Foreign	22-25	Feed	19-21
RYE	32-38	Foreign	33-36
RYE-MEAL, Foreign	—		
BEANS, Mazagan	35s to 37s.	Tick	36-49
— Pigeon	59s to 56s	Winds	—
— Foreign	—	Small	41-43
PEAS, White, Essex, and Kent	37-42	Suffolk	39-43
— Maple 1s. to 4s.	40-42	Foreign	34-39
MAIZE	—	Foreign	29-31
Flour, best marks delivered per sack	39-43		
— 2d ditto	—	Country	28-40
— Foreign	—	Per sack	23-55

FRIDAY, Dec. 10.

The frost left us again on Monday, and since then the weather has been foggy and damp; to-day is damp and milder. Excepting at a few of the smaller country markets, where the advance in the value of Wheat quoted last Friday has been slightly exceeded, the trade this week throughout the kingdom, and chiefly in the sea ports, owing to a continuance of large arrivals, has been very dull again, and the improvement quoted last week has been lost, business closing exceedingly inactive. Best Malting Barley was steady. Peas and Oats have further given way in price, but all other sorts of spring corn remained as last quoted. To effect sales in Flour a small decline had to be submitted to. The supplies off the coast consisted this week of 48 cargoes, of which, with those left over from the preceding week, there remained for sale last night 35 cargoes. Arrived Wheat was neglected, at 2s. per qr. decline, some cargoes being ordered off on consignment. Maize was fractionally cheaper; Barley quiet at late rates, of Rye only one cargo (imperfect) change hands. Rapeseed is advancing in value; Linseed quiet. With the exception of some few transactions in Maize, there was little disposition to enter into business for forward shipment.

The arrivals of English grain this week are moderate, of foreign Wheat and Oats good. There was a poor attendance at this morning's market. English Wheat was a dull sale, at barely Monday's quotations; for foreign there was but little demand, and factors would have accepted a decline of 1s. per qr. to effect sales. Spring Corn was steady at late rates.

ARRIVALS.

	Wheat.	Barley.	Oats.	Flour.
English	1180 qrs	1600 qrs.	10 qrs.	— sks.
Irish	—	—	—	—
Foreign	22,760 "	5730 "	57,010 "	1670 " brls.
	23,940	6730	57,020	

LIVERPOOL, Dec. 7.—Wheat closes quiet, and prices are 2d. per cental lower since Friday. Flour dull, and prices favour buyers. For Beans there was a steady demand, at late rates. Oats and Oatmeal were in retail demand, and prices are a shade easier. Indian Corn was in moderate request, at a reduction of 6d. per qr.; round yellow, 29s. 6d.

AVERAGES.

	Wheat.	Barley.	Oats.
Oct.	46s 2d	38s 3d	23s 6d
Nov.	47 1	38 5	23 10
	46 11	38 9	23 11
	46 8	38 8	23 5
	45 6	38 1	23 5
Dec.	44 3	37 0	22 6
Average	46 1	38 2	23 4

SEED MARKET.

At Mark Lane this week there has been a better attendance than usual, in consequence of the number of country agriculturists who are in town to visit the Cattle Show. We have a steady inquiry for fine red Clover seed, and what transactions there have been have taken place at an advance on late rates. Alsike and white Clover seed are also very firm. In Trefol there is just now nothing passing. For French Italian recent prices are well supported. Our reports from the other side describe the stocks to be getting reduced quite low. Bird seeds meet with a fair sale at last week's currencies. We have a good demand for feeding Linseed. Other kinds of seeds are unaltered.

JOHN SHAW & SONS, 16, Water Lane, E.C.

To Landscape Gardeners and Others.

THE TRUSTEES and COMMITTEE of the LUTON RECREATION GROUND are prepared to receive PLANS for LAYING OUT as a PEOPLE'S PARK the Recreation Ground at Luton, Beds.

A Premium of 30 Guineas will be paid for the best Plan. The Plans are to be sent to the undersigned (free of charge) on or before December 31 next.

The Trustees and Committee will not under any circumstances pay any travelling or other expenses, or undertake to accept any of the Plans submitted to them.

The Person whose Plan may be accepted will not necessarily be employed to carry out such plan, but the plan so accepted shall become the absolute property of the Trustees and Committee.

Nov 26. GEO SELL, 48, Stuart Street, Luton.

WANTED, a smart, single YOUNG MAN, 24 or 25 years of age, to take a Charge in the Sydney Warehouse of Messrs. Law, Somner & Co., Wholesale Seed Merchants in Australia and New Zealand. He must thoroughly understand the business, write a good hand, and know something of book-keeping. A person with London experience will be preferred. For further particulars apply to Messrs. WORMALD and ANDERSON, W.S., 23, St. Andrew Square, Edinburgh.

WANTED, an active, middle-aged WORKING GARDENER, married, and without family, for a town in North Wales. He must thoroughly understand his business, and be competent to take charge of the house during the absence of the Owner. The highest character and reference required. Wages £42 a year, with house accommodation. W. J., Army and Navy Club London, W.

WANTED, in a good Nursery (Glass) and Seed Establishment, a COMPETENT MAN, of good address, to look up Orders in the Home District, and to extend the connection, for which there are great opportunities. No application entertained which will not bear the strictest investigation as to character and ability.—Address, by letter only (stating wages expected, which will not be high to commence, but progressive), to A. S. W., *Gardeners' Chronicle* Office, W.C.

WANTED, a thoroughly respectable MARRIED MAN, without family preferred, where another is kept. He must understand Flower and Kitchen Gardening, and Conservatory; be quick, energetic, obliging, good character in all respects, and attend church.—Address by letter only, P. P., 6, Russia Row, Milk Street, Chesham, E.C.

WANTED, an active Man, to PROPAGATE HARD and SOFT-WOODED PLANTS. One accustomed to Growing for Market. Wages 15s. per week, with advance if worth it.—JOHN STEVENS, Nurseryman, Coventry.

WANTED, a YOUNG MAN, well up in general Propagation, especially Roses; one who has grown for Market preferred.—State age, qualifications and wages to Z. M., *Gardeners' Chronicle* Office, W.C.

WANTED, by a Gentleman, an unmarried Man as GARDENER, Single-Handed, and to take charge of a Cow and Pigs. He must be well acquainted with the Management of both Flower and Kitchen Gardens, and also of Greenhouse Plants. Respectability of character a special consideration.—D. C. L., Nesbit & Co., 21, Berners Street, Oxford Street, London.

WANT PLACES.—Letters to be Post Paid.

To Gardeners and Bailiffs (Head, Foremen, or Under). JAMES CARTER and CO. having many applications for the above request that those WANTING SITUATIONS will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those who can send unexceptionable references need apply.

Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & Co. adopting the most stringent regulations in reference to testimonials as to ability, honesty, &c.

JAMES CARTER and CO., 237 & 238, High Holborn, London, W.C.

LUCOMBE, PINCE, and CO. have always on their REGISTER experienced GARDENERS, whom they can recommend to fill any Situation, whether as Head Gardener to a large Establishment, or Gardener and Bailiff, or Under Gardener. Any Lady or Gentleman applying to L. P., and CO. will have their best attention. Exeter Nursery, Exeter.

EXPERIENCED GARDENERS (or as GARDENER and BAILIFF), of various qualifications, recommended to Gentlemen.—Further particulars given on application to Messrs. E. G. HENDERSON and SON, Wellington Nursery, St. John's Wood, London, N.W.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled in future to furnish Gentlemen with the NAMES, ADDRESSES, &c., of GARDENERS, and GARDENERS and BAILIFFS, of various qualifications, who are open to Engagements. The fullest particulars as to services required and wages given should be forwarded with application.—PAUL'S Nurseries, Waltham Cross, London, N.

Gardeners and Under Gardeners.

WM. CUTBUSH and SON have at all times on their books MEN whose characters will bear the strictest making application would save time and be undertaken, wages offered, &c., selected.—H. G. H. Nursery, London.

ROBERT VEITCH Men in his employ, whom he can recommend to any Gentleman or Head Gardener. SECOND GARDENER.—Nursery, Exeter.

DAVID MITCHELL, (late Head Gardener, Hamlet House) recommends to any Nobleman or Gentleman GARDENERS. Highest references can be given, instance, to DAVID MITCHELL, Park Nurseries, Edinburgh.

GARDENER (HEAD).—Age 40. branches. Six years' good character. High Street, Teddington, S.W.

GARDENER (HEAD).—Age 40. understands the profession. Horse. Good references from Terrace, St. John's Road, Buxton, N.E.

GARDENER (HEAD).—Age 40. thorough practical knowledge of the branches, first-rate character. Osberton Hall, Worksop, who will answer.

GARDENER (HEAD); middle-aged.—70. Head Gardener at Betchworth Old House, ment. Perfectly understands the profession. Leaving through gentleman removing from the Address, as above, near Reigate, Surrey.

GARDENER (HEAD); age 38.—English services to any Gentleman requiring a thorough Ten years in present situation. Reference to E. WELSH, Palace Gardens, Armagh, Ireland.

Isles of Scilly. GARDENER (HEAD).—JOHN HAVEN Gardener to A. Smith Esq., Treco Abbe engagement with any Nobleman or Gentleman practical experienced Man. He has lived in three years, and was six and a half years in practical requirements will bear the strictest Address as above.

GARDENER (SINGLE-HANDED). No objection to a Nursery. Good character. GRANGER, Quemerford, Calne, Wilt.

To Nurserymen and Florists. FOREMAN and PROPAGATOR.—Age 40. practical. Good references.—HORTUS, house, 29, Iron Gate, Derby.

PROPAGATOR, or FOREMAN.—Has a practical knowledge of the profession in all S. VINCE, 1, Stafford Villas, Stafford Road, Acton, W.

BAILIFF, or GARDENER and Bailiff. Thoroughly understands the business in all branches. Wife good Dairy and Poultry Woman. Office, Bramley, Kent.

AGENT and ESTATE BAILIFF (age 38).—A man wishes to recommend a thoroughly trustworthy who has been in his employ for 13 years in the is an excellent Farmer and most efficient receive the highest character.—A. B., Messrs. Bookellers, Cockspur Street, Charing Cross, London.

AGENT, or LAND STEWARD.—A man brought up a Practical Farmer, experience in the Management of Land good references as to character and Thomas Gibbs & Co., Seedsmen to the Royal England, Half Moon Street, Piccadilly, London.

To Noblemen, Landed Proprietors, and STEWARD, or UNDER STEWARD. (the Son of a Gentleman was known who has a practical knowledge of Land and Farming branches, wishes to meet with an engagement at THOS. BELL, Brookton House, Ecclehill, Stafford.

To Seed Merchants. IMPROVER.—A Youth (age 19) where he would have opportunities for three years in two first-class London Nurseries ment.—Y. Z., Post Office, Shooter's Hill, S.E.

ASSISTANT, in a Seed Shop.—Five and experience at Counter and Warehouse Work.—T. U., 14, Inglis Street, Inverness.

PAINTER and GLAZIER, on a Gentleman Married, no family. Willing to make Post Office, West Drayton, Uxbridge, Middlesex.

SHOPMAN and TRAVELLER, or Age 26, single; will be at liberty to accept knowledge of Nursery Business. Leaving disposal of a portion of the Business in which present engaged.—J. E. B., Mr. J. Stally, Seed Wales Road, Norwich.

SHOPMAN.—Age 21; six years Seed, Bulb, and Fancy Trade, also part Trade.—ALFRED JUDD, Post Office, Slough.

SHOPMAN.—Fifteen years' Trade, with Agricultural, Vegetable, and good knowledge of the Nursery and Florist's ence.—C. C., T. Petridge's, Seedsmen, Greenway.

SHOPMAN.—Age 24; six Wholesale and Retail. Knows the class references. Character unexceptionable. Henderson & Co., Malda Vale, London, W.

CHRISTMAS PRESENTS. GIFTS for all who court the ROWLANDS' MACASSAR OIL, preserver Hair beyond all precedent ROWLANDS' to the skin. ROWLANDS' ODONTO, or giving a pearl-like whiteness to the Teeth, to the breath. Sold by all Chemists and Ask for "ROWLANDS'".

DINNEFORD'S FLUID. The best remedy for Acidity of the Headache, Gout, and Indigestion, and for delicate constitutions, especially adapted and Infants. DINNEFORD and CO., 172, New Bond and of all Chemists throughout the W.

WHEN a PERSON TAKES COLD. charged with phlegm, which, oppressive natural effort is made for its relief—this only safe and prudent remedies to be adopted Nature in her work, by loosening phlegm, and expectoration, until the evil is removed. SPENCER'S PULMONIC ELIXIR is admirably adapted to promote expectoration, to loosen the phlegm, abate fever, allay the tickle of the cough, without tightening the chest, and disorders, as periodical coughs, or inveterate valuable in its effects, though of course longer use of the medicine is required.

The Gardeners' Chronicle Newspaper.

SATURDAY, DECEMBER 18, 1869.

FAXTON'S PATENT HOTHOUSES for the... are cheap, substantial, and easily fixed...
See Lists, with sizes, &c., free on application
for CONSERVATORIES, HEATING
A HANDBOOK of VINE and FRUIT-TREE
N. J. Fox, 15d
N. J. Fox, 7, Pall Mall East, London, S.W.
N. J. Fox, Goucester, Coventry, and Scotland.

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See Illustration in "Horticultural Journal," Dec. 2
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GRAY'S OVAL TUBULAR BOILER.

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NEW OVAL TUBULAR BOILER,

Acknowledged by practical judges to be a great improvement on every form of Tubular Boiler yet introduced. It has proved itself superior to all other Boilers for quickness of action and economy of Fuel, doing its work with one-third less the amount required by any other.

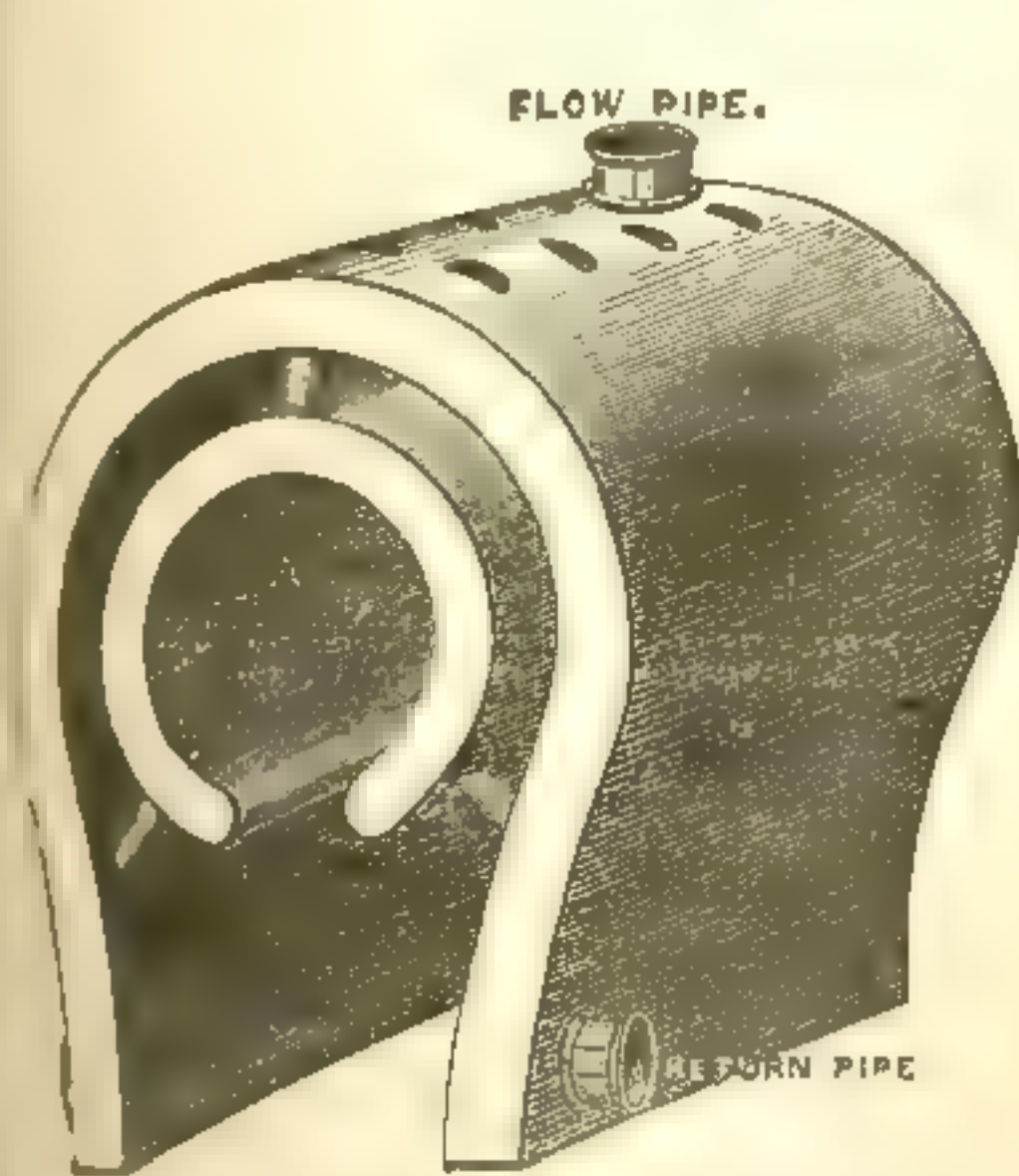
Extract from Report in GARDENERS' CHRONICLE of International Exhibition, May 24, 1862, page 476
"The upright form of Boiler is usually made on a circular plan, but the oval form given to Mr. Gray's variety of it is said to be preferable in consequence of its bringing the tubes in closer contact with the fire. The usual form of a furnace being a parallelogram rather than a square, it seems feasible that the tubes of the oval grate should bring the tubes more completely in contact with burning fuel; and this being so, the change, though a slight one, is no doubt an improvement."

They are made of all sizes, which, with prices, may be had on application.

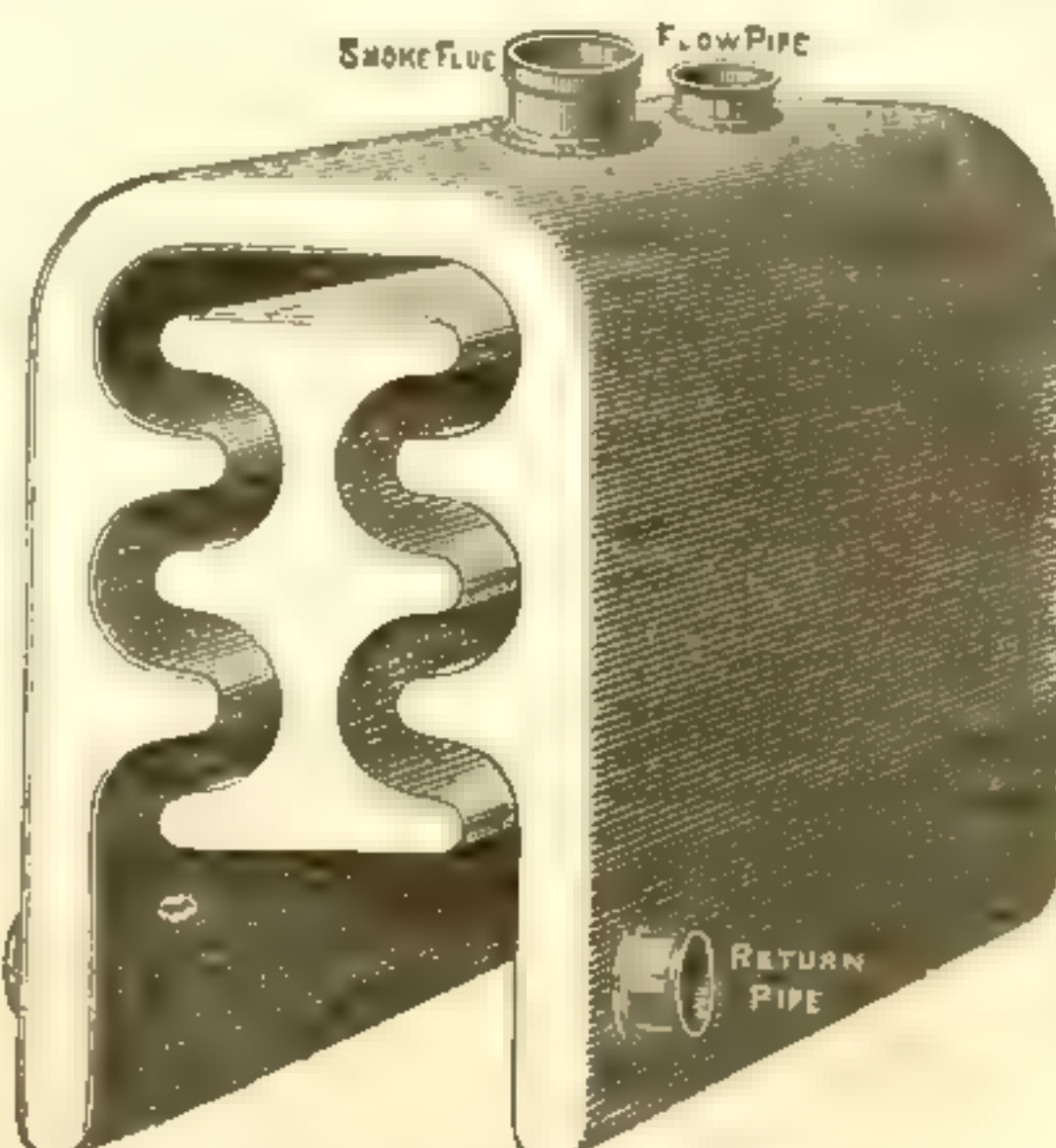
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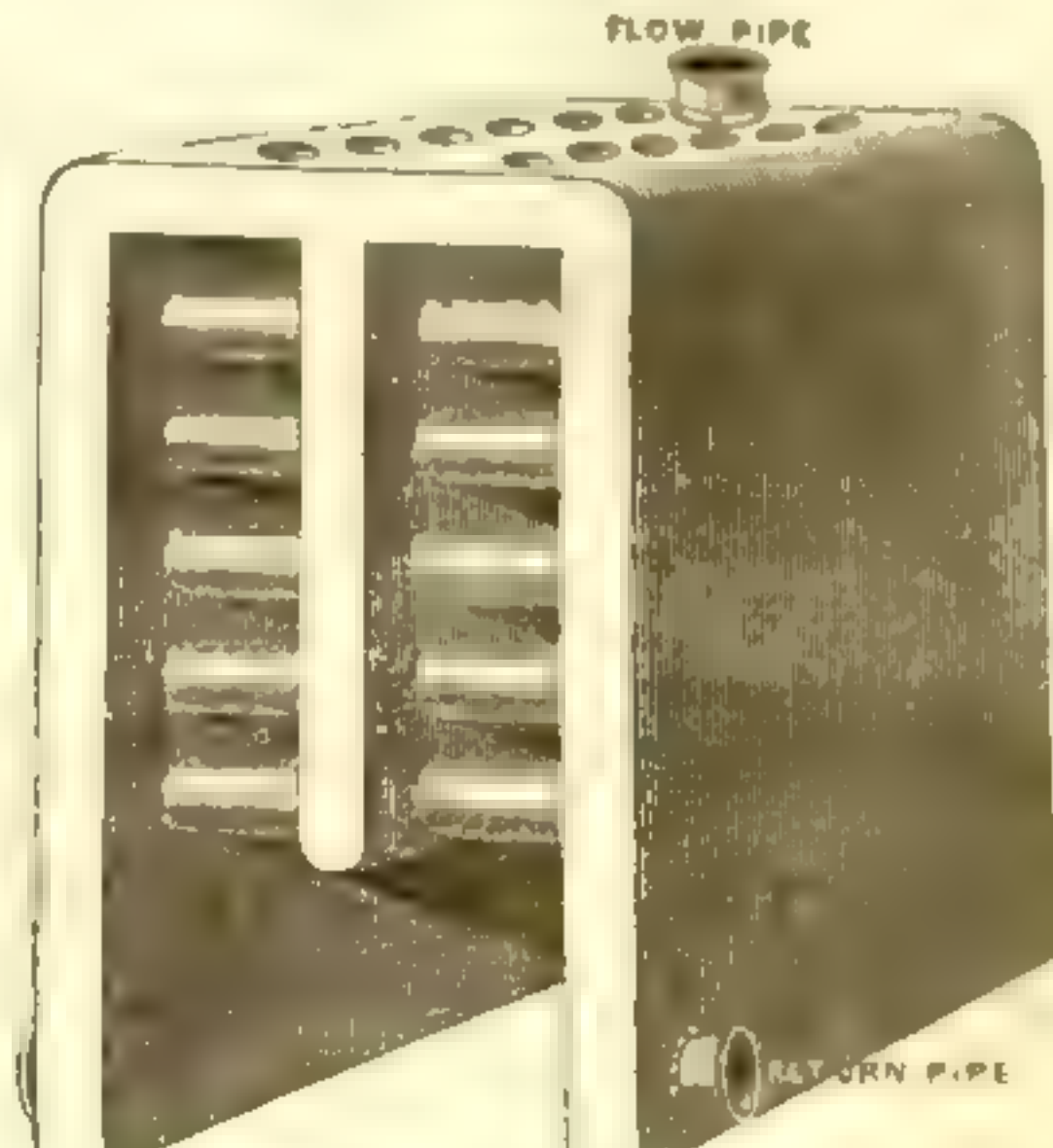
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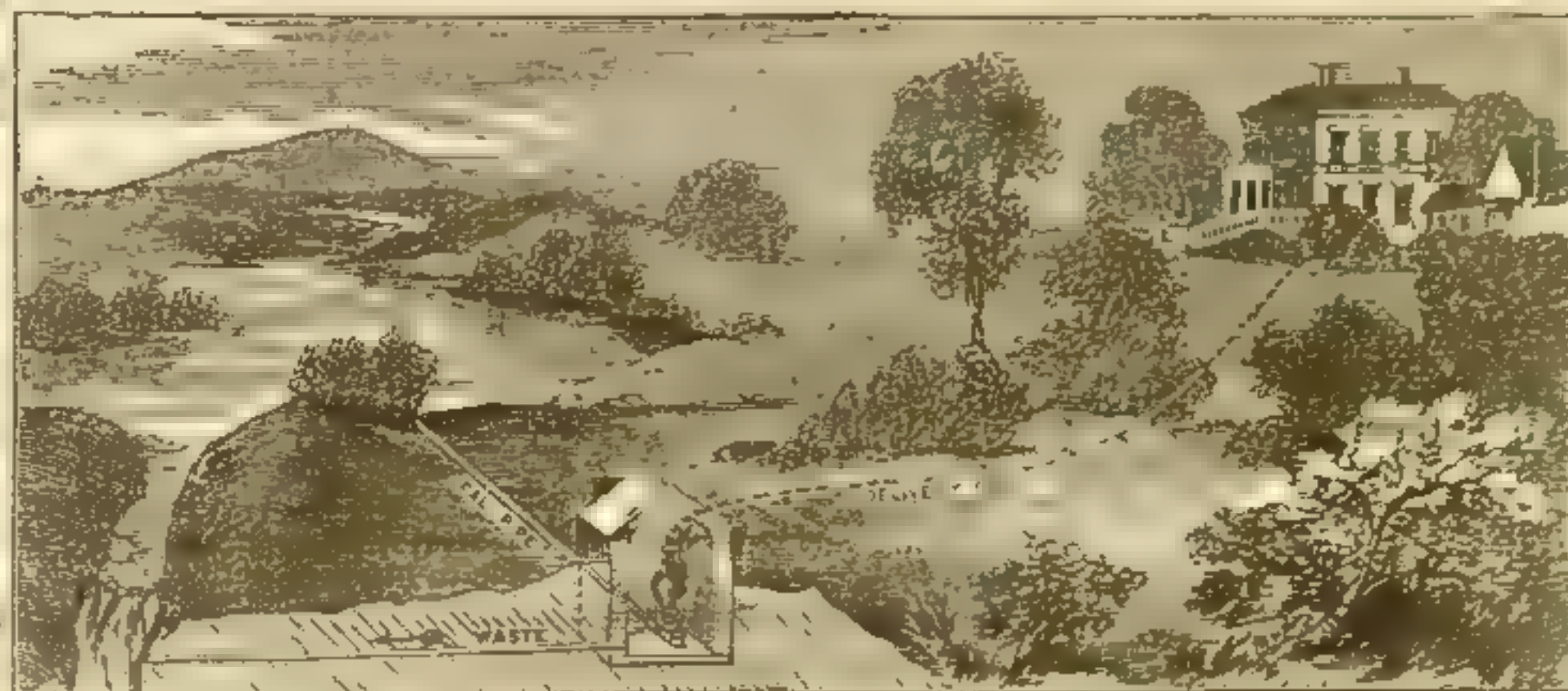
From the Construction of these Boilers, it will be at once seen that the object of the Inventor is to economise fuel, by concentrating its entire force and vertical action on a small portion of the Boiler, and not wasting it by Heating Brickwork and Chimneys, a fault common to the great majority of Boilers now in use. These Boilers are made of the best Welded Wrought-iron, of good substance, having no overlapping plates, holes, or rivets, and are therefore perfectly secure against expansion and contraction of the metal, an occurrence so frequent and fatal to all forms of Cast-iron Boilers. Please to state diameter and length of Pipe to be Heated.

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NOTICE: THE ATHENÆUM will be PERMANENTLY ENLARGED on and after the 1st of JANUARY, 1871.

"Glimpses at Irish Gardens." By Mr RICHARD DEAN, F.R.S. &c. THE GARDENERS' RECORD, an Irish Fortnightly Journal. Part First, 44.

Glenny's Garden Almanac, 1870. NOW READY, containing a List of all the latest Novelties of Flowers and Fruits, and full Instructions for Amateur Gardeners. Price 1s.; Post free, 1s. 1d.

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THE SOCIETY of PAINTERS in WATER COLOURS.—THE WINTER EXHIBITION of SKETCHES and STUDIES by the MEMBERS is NOW OPEN, 3, Pall Mall East, Ten till Five. Admiss on 1s. Gas on work days. WILLIAM CALLOW, Secretary.

Home News.

DEPARTURE OF THE COURT FOR OSBORNE.—The Queen and the Princesses are expected to leave Windsor this morning for Osborne, in order to spend Christmas in the Isle of Wight.

THE COURT AT WINDSOR.—On Friday the Marquis of Westminster and the Earl of Derby arrived at the Castle, and delivered up to her Majesty the insignia of the Order of the Garter worn by their late fathers. On Saturday the Queen held a Council at which the Bishop of Winchester and the Bishop of Carlisle did homage on their appointment. Viscount Stratford de Redcliffe and Earl de Grey and Ripon, were invested by her Majesty with the riband and badge of the Order of the Garter, after which Earl de Grey and Ripon was knighted by the Queen. The Bishop of Winchester was afterwards invested with the badge of office as Prelate of the Order of the Garter, and read the usual declaration. Sir Albert Woods also made the declaration of Office as Garter King of Arms. Alderman and Sheriff Joseph Causton and Mr. Sheriff James Vallentin received the honour of knighthood. On Sunday the Queen and Royal family attended Divine service in the private chapel. The Bishop of Winchester preached the sermon. On Monday Princess Louisa went to London and visited the Prince and Princess of Wales at Marlborough House. In the afternoon the Queen, accompanied by Princess Beatrice, drove to New Lodge. On Tuesday, being the anniversary of the death of the Prince Consort, the Queen and the Royal family went to the mausoleum at Frogmore. The Prince of Wales came down from London and met the Queen and Royal family at the mausoleum, where the Dean of Windsor read portions of Scripture and appropriate prayers. The Prince of Wales afterwards left Windsor for London. On Wednesday the Judge Advocate-General had an audience of her Majesty. On Thursday morning the Queen went out with Princess Louisa.

THE PRINCE OF WALES returned to Marlborough House on Friday from Studley Royal, and was present at the funeral of the Duchess d'Aumale. On Saturday the Prince went with the Duke of Cambridge to Richmond Park, and shot over the Duke's property at Coombe Wood. On Sunday the Prince attended Divine service at the Chapel Royal, St. James's. On Tuesday his Royal Highness went to Windsor, and attended the service in the Prince Consort's mausoleum. On Wednesday the Prince left Marlborough House for Sandringham.

PRINCE LEOPOLD has been for some days suffering from severe illness, but is now so far recovered that he was able to leave Windsor for Osborne yesterday morning.

THE ARCHBISHOP OF CANTERBURY.—A bulletin was issued on Tuesday, stating that during the past week the Archbishop of Canterbury has continued to gain strength.

ILLNESS OF THE DUCHESS OF ARGYLL.—Accounts received in town this week from Inverary Castle state that the Duchess of Argyll has been extremely ill for some days, from an attack of an apoplectic type, and that Sir James Simpson has been twice summoned from Edinburgh for consultation with Dr. Macdonald, the family physician. The latest accounts state that her Grace is in a critical condition, but is quite sensible, tranquil, and even cheerful.

THE CABINET.—A Cabinet Council was held on Friday in Downing Street. Another Council was held on Tuesday, another on Thursday, and another yesterday.

PARLIAMENTARY MOVEMENTS.—The Gazette of Tuesday summons Parliament for the "despatch of divers urgent and important affairs" on February 8. The same Gazette summons Convocation for the following day, the 9th. It is reported that Lord Courtenay will apply for the Chiltern Hundreds immediately on the assembling of Parliament, and that Mr. Wade will again be the Liberal candidate for the vacant seat. It is stated that the Liberals of Lynn will attempt to reverse the result of the late election on a scrutiny. A petition has been lodged against the return of Sir H. Barron for Waterford, on the ground of corrupt practices, illegal votes, and personation.

THE NEW BISHOPS.—The election of Dr. Wilberforce as Bishop of Winchester was confirmed on Saturday morning at Bow Church. In the afternoon the Bishops of Winchester and Carlisle went to Windsor, and did homage on their appointment. On Wednesday the Bishop of Carlisle was enthroned in the Cathedral of his diocese, and on Thursday the Bishop of Winchester was enthroned in Winchester Cathedral with great state and ceremony. The consecration of Dr. Temple to the see of Exeter, of the Rev. Lord Arthur Hervey to the see of Bath and Wells, and of the Rev. W. O. Stirling to the bishopric of the Falk-

land Islands, will take place at Westminster Abbey, under the sanction of the Archbishop of Canterbury to the Bishop of St. David's, Worcester and Ely.

THE MINT.—It has been determined by the appointment to the office of Master of the Mint, the present Deputy-Master, Mr. Freeman, to be the establishment, which will be the result of the election of Mr. R. R. W. Hamilton as Secretary to the Treasury.

THE CONSERVATIVE PARTY.—In the retirement of Lord Cairns from the Conservative party in the House of Commons, the meeting of the party will be held shortly for the purpose of electing his successor. It is understood that the choice will lie between the Marquis of Salisbury and the Earl of Derby.

Foreign.

FRANCE.—A change of Ministry is announced about to take place as soon as the verification of the elections is terminated. It is rumored that the Cabinet will be constituted as follows:—Minister of the Interior: M. Emile Ollivier; Minister of Foreign Affairs: M. Louvet; Minister of Justice: M. Segris; Minister of Public Instruction: M. de Freycinet; Minister of Commerce and Public Works: M. de Freycinet; Minister of War: Admiral Roussin; Minister of Marine: In the sitting of the Chamber on Friday the verification of the elections was resumed, when the election of M. Korisouet, for the Cotes du Nord, was ratified by 164 to 67. In the sitting of the Chamber on the 16th of the Loire, was ratified by 156 to 91. On the election of M. Girault proposed that the Chamber should be annulled, which was agreed to by the Chamber. The Left protested against the ground that it had taken them by surprise, long and uproarious debate ensued, during which Jules Favre moved that the discussion be postponed to Monday. This motion was ultimately carried to 86. In the sitting of Monday, in reply to a question of M. de Freycinet, the Minister of the Interior, reminded the Chamber that the law on this subject was enacted in 1830. He stated that the Government on its own responsibility granted absolute liberty to the Press, but had not given permission for the sale in the streets of newspapers in the streets, M. Forcade de la Roquette, Minister of the Interior, reminded the Chamber that the law on this subject was enacted in 1830. He stated that the Government on its own responsibility granted absolute liberty to the Press, but had not given permission for the sale in the streets of newspapers which had odiously attacked the Empire and the Constitution. He showed that this unenlightened classes, but in the other classes produced great perturbation. After some remarks by M. de Freycinet and Henri Rochefort, the Chamber dropped, and the Chamber resumed the discussion of the doubtful elections. The election of M. Forcade de la Roquette, which was annulled on Saturday, was ratified by the Chamber by a large majority, as was that of M. Joliot, the latter having 32 votes against 32. In the sitting of the Chamber on the 17th, M. Forcade de la Roquette, and 22 other deputies, presented a motion in favour of an immediate parliamentary session into the results of the treaties of commerce and the right of the Chamber to control the foreign policy of the country. M. Brame presented a motion, bearing the signatures of 50 deputies, in favour of giving notice before the Chamber of the withdrawal from the treaty of commerce with England. After some discussion the debate on the verifications of the elections. M. Garnier asked if the Government intend to permit newspapers to enter freely into France. M. Forcade de la Roquette, on behalf of the Government, replied that it was a question which an immediate affirmative or negative answer could not be given, because for an affirmative answer not being subject to the same taxes as French newspapers, ought not to enjoy in France the same advantages. M. Garnier Pagès rejoined that the answer of the Minister proved that, in spite of the liberalisation used by the Government, it had not made any progress forward. In answer to a question respecting the advertisements, which are given to only one of the papers, M. Forcade de la Roquette stated that on the subject would be introduced in the Chamber on the session. In the sitting of Wednesday the motion for inquiry into the election of M. Duvernois was rejected by 135 to 112. M. Duvernois was declared duly elected. The election of M. Duvernois as Deputy for the 8th Paris Circumscriptive District was declared valid. In the sitting of Thursday the report of the election of M. Calvet as Deputy of Finance, was issued on Monday. It stated that the floating debt has been reduced by 292 millions of francs. The Budget of 1868 showed a net surplus of 18,500,000f., and it is anticipated that the Budget of 1870 will show an equally favourable result. M. Garnier proposed to suppress the demi-decime, which would heavily upon the succession tax, and to reduce the minimum amount of rents which may be registered in the great book of the public debt from 100 to 50 francs.

1871 ... at 1771 ...

1871 ... million, leaving a surplus ...

Justice has been forwarded to the ...

the French Ambassador at ...

the obligation she has ...

Conorlat with the Holy See. A ...

her Royal Highness the Duchess ...

on Friday at the Chapel ...

the spot where the Duke of ...

the 13th July, 1812. About 2000 ...

including General Changarnier, ...

M. Guizot, Jun., Count Duhotel, ...

M. Prevost Paradol, M. Mignet, ...

Count de Keratry, M. Estancelin, ...

Count de Remusat, M. Regnier, M. ...

many others. A prefectorial ...

published, authorising the transfer of ...

Company's landing-place at ...

east to the west side of that harbour.

President of Tuesday asserts that the ...

AUSTRIA.—The Austrian Reichsrath was opened on Monday by the Emperor in person with the following speech from the throne.

Honoured Gentlemen of both Houses of the Reichsrath.—In assembling you again...

But such as the appreciating judgment of discerning...

Most deeply do I deplore the aberration which has rendered...

to as much as possible the sad results arising therefrom...

lation, and to deal with a series of measures affecting the...

most important branches of administration...

others which will be presented to you during the ensuing session...

in the same spirit of progress and of moderation and foresight...

into the peculiar circumstances and political and social require...

ments of the Empire which has hitherto marked your steps...

on the path of legislation. It is, however, necessary not...

alone to pass laws, but also, based as they are upon the...

Constitution itself, to obtain for them that general and...

actual recognition which, to my great regret, has not been...

accorded to them in many quarters. If experience has shown...

that alterations of the Constitution are desirable, the way to...

effect them is to be found in the Constitution itself. Most...

of the representative assemblies of my kingdom and countries...

DANIELA.—The latest reports from Germany...

notice of submission, and declared themselves ready to...

lay down their arms. The Crovocians have also petitioned...

the authorities to allow them to meet for terms, and the...

negotiations for that purpose will continue in a few days...

The Government has issued a proclamation forbidding the export of arms...

which have been sent from parts of the Adriatic during the course...

of the insurrection.

RUSSIA.—It is said that a Russian line of steamers from the Black Sea...

to Bombay via the Suez Canal, is about to be established...

with a contract recently made by one house at Moscow...

to ship 100,000 tons of cotton per week. An expedition...

is also being fitted out for the Balkan Bay of the Caspian Sea...

to attempt the discovery of a means of connecting the Caspian and Aral Seas...

by the bed of the ancient river Arax.

ITALY.—The official gazette of Tuesday announced that the King...

at Signor Sella's request, had associated Signor Lanza with him...

in the formation of a Cabinet. The gazette also published a decree...

containing the definitive Ministerial appointments, as follows:—President of the Ministry...

CAPE OF GOOD HOPE.—Accounts from the Cape state that the elections were to be held on the 6th of December, and Parliament is to assemble in Cape Town on January 20. The Governor is retrenching in all directions, and has addressed a circular to 30 of the temporary and 35 of the third-class clerks, informing them that after January 1 their services will be no longer required. The colony had been visited by a terrific storm, which began on October 20 and lasted four days, causing a great loss of life and property. There were no shipping casualties in Table Bay or Algoa Bay, but the tremendous fall of rain which accompanied the gale up the country increased the rivers to roaring torrents. The Beaufort west dam burst and washed away a large part of the town. No lives, however, were lost there. At several other places along the watercourses buildings, crops, and stock were destroyed, besides numerous fatal casualties. More diamonds and minerals have been discovered near the frontier of the Orange River Free State. The diamonds vary from half a carat to 150 carats, and are of extraordinary beauty. The territory in which they are found is upwards of 1000 miles in extent. Herr Manch, who has gone up the Vaal River, is said to have discovered a diamond mine, which also contains granates, topazes, and other precious stones.

INDIA.—The Duke of Edinburgh is expected at Calcutta on the 22d inst. The leading native inhabitants of Bombay have determined to present an address to his Royal Highness. It is considered probable that the Native Indian Regiments will be armed with Sniders as soon as the European troops, militia, and magazines are fully supplied with the Martini-Henry.

CHINA.—The Duke of Edinburgh landed at Hong Kong in State on November 2, and held a levee in the City Hall, after which several addresses were presented to him. Admiral Sir Henry Keppel, with Lady Keppel and family, left Hong Kong for England on the same day in the Peninsular and Oriental steamer *Salsette*.

UNITED STATES.—The House of Representatives on Monday passed, by a majority of 128 to 42, a resolution against the renewal of the Canadian Reciprocity Treaty. In the sitting of Wednesday a resolution was introduced by unanimous consent announcing the death of Mr. George Peabody, and reciting the honours paid him by her Majesty, the London authorities, the French Emperor, and others, and also the extraordinary preparations for the transfer of his remains to America. The President was authorised to order as many ships of war as were convenient and adequate for the occasion, to meet at sea the European convoy conducting it to America, and to make other preparations for the reception of the corpse, so as to be commensurate with the merits of the deceased. The resolution was made a special order for Monday. In the sitting of the Senate on Thursday Mr. Carpenter delivered a long and impressive speech in favour of recognising the Cuban insurgents as belligerents. Mr. Sumner spoke in opposition. The District Court of New York on Friday issued an order unconditionally releasing the Spanish gunboats, *Mr. Pierpont*, the District Attorney, having declared that the Government would not prosecute the libel, as a state of war did not exist between Spain and Peru. The gunboats will proceed immediately to Cuba. *Father Hyacinthe* sailed for France on Saturday in the *Pereire*.

RUPERT'S LAND.—The *Chicago Tribune* states that the latest advices from Winnipeg Territory represent the insurgents as still issuing rations from the stores of the Hudson's Bay Company, and state that they have placed a guard over Governor Mactavish, and repelled the messengers sent by Mr. McDougall.

BRAZILS AND PARAGUAY.—Intelligence from Rio announce that five skirmishes have occurred in Paraguay, and that Curugaty, the fourth town which Lopez had made his capital, was captured on September 28, after a slight resistance. Lopez had gone to Iguatemy, his last military post on the frontier, and the Government troops continued to pursue him.

HAYTI.—Salnave, by a *coup d'état* on the 17th ult., declared himself President for life. Generals Chevalier and Lubin, with their divisions, had deserted him and joined the revolutionists, who captured Cape Hayti on the 21st ult., and two of Salnave's steamers. Two generals whom Salnave held as hostages were shot at Brizartin on November 19.

City Intelligence.

MONEY MARKET, FRIDAY.—BRITISH FUNDS: Consols are 92 to 92½ for Money, and 92½ to 92½ for Account; New and Reduced Three per Cents, 91½ to 92; Bank Stock, 237 to 239; Exchequer Bills, March, par to 5s. pm. and June, 2s. to 7s. pm.; India Five per Cents, 111½ to 112 ex div.—FOREIGN: Turkish Five per Cents, 44 to 44½; Ditto Six per Cents, 66½ to 66½; Spanish, 27½ to 27½; Peruvian, 83½ to 83½; Italian, 51½ to 51½; Egyptian (1868), 78½ to 78½; Argentine, 85½ to 86½; United States 5-20 Bonds, 85½; Erie, 19½; Illinois, 99½.

Metropolis and its Vicinity.

THE LATE MR. PEABODY.—The remains of Mr. Peabody were removed from Westminster Abbey on Saturday and conveyed by special train to Portsmouth, where they were deposited on board her Majesty's turret ship *Monarch*, Captain Commerell, for conveyance to the United States. The ceremony was attended with all the respect and honour that could possibly be rendered, after the last tribute had already been paid by the Crown, the Government, and the nation, in the funeral service in Westminster Abbey. The special train conveying the body and the friends of the deceased from London (which had been provided free of expense by the London and South-Western Company as a testimony of their respect for Mr. Peabody), arrived in the dockyard at 3 P.M., when, in obedience to a signal gun

from the *Excellent*, the *Monarch* and all her Majesty's other ships in harbour dipped the British ensign. *Plymouth* also lowering her ensign from her peak at their peaks to "half-mast," and displayed the American ensign dipped to abreast their fore-topmast cross-trees, the *United States' corvette*. The guns of the *Duke of Wellington* afterwards took up the firing at minute intervals. The black case containing the coffin, having been removed from the railway car, was borne to the ship between a double line of American and English Marines, followed by the relatives and friends who had accompanied it from London, including Mr. Motley, United States' Minister in this country; Mr. Peabody Russel, Sir Curtis Lamson and Mr. Charles Reed, M.P., executors to the will of the deceased; Mr. J. S. Morgan and Mr. Somerby. The immediate mourners were followed by Admiral Sir James Hope and Admiral Key, Captain Hancock, and a number of American and English officers. The coffin, on reaching the deck of the *Monarch*, was received by the chaplain of the ship, and a few moments afterwards was reverently deposited on the bier in the pavilion on the quarter-deck, in official charge of Captain Commerell, in the presence of the Mayor and Corporation of Portsmouth in their robes of office, and a large body of official personages and naval and military officers. A few words were then exchanged between the American Minister and Captain Commerell, and then all not belonging to the ship returned to the shore. The warps holding the ship to the jetty were then let go, and the great ship, under slow speed, steamed out of the harbour to Spithead, where her anchor was let go. After she had anchored, the coffin was removed from the pavilion on the upper deck and placed in the mortuary chapel below, where it will remain during the voyage, the chapel being closed and placed under the charge of marine sentries. On Monday morning the *Monarch* took on board her powder and swung to ascertain the deviation of her compasses, but in consequence of a heavy rain setting in, which obscured from view the shore signals, this necessary operation could not be completed. It afterwards blew a heavy gale from the south-west, and as the storm has continued ever since, the *Monarch* and the *Plymouth* (U.S. corvette) had not been able to sail up to yesterday morning. On the arrival of the *Monarch* at Portland the body will remain on board for two or three days, and he in state in the mortuary chapel, which will be thrown open during the time to visitors from the shore.

DR. LIVINGSTONE.—Dr. Kirk, her Majesty's Consul at Zanzibar, has transmitted to the Secretary of the Bombay Government the following letter, which he received from Dr. Livingstone on the 2d October last:

"Ujiji, May 30, 1869.
"My dear Dr. Kirk,—This note goes by Musa Kamaala, who was employed by Koorji to drive the buffaloes hither, but by overdriving them unmercifully in the sun, and tying them up to save trouble in luring, they all died before he got to Unyanyembe. He witnessed the plundering of my goods and got a share of them, and I have given him beads and cloth sufficient to buy provisions for himself on the way back to Zanzibar. He has done nothing here. He neither went near the goods here nor tried to prevent their being stolen on the way. I suppose that pay for four months in coming, other four of rest, and four in going back would be ample, but I leave this to your decision. I could not employ him to carry my mail back, nor can I say anything to him, for he at once goes to the Ujijians and gives his own version of all he hears. He is untruthful and ill conditioned, and would hand off the mail to anyone who wished to destroy it. The people here are, like the Kilwa traders, haters of the English. Those Zanzibar men whom I met between this and Nyassa were gentlemen and traded with honour. Here, as in the haunts of the Kilwa hordes, slaving is a series of forays, and they dread exposure by my letters. No one will take charge of them. I have got Thani bin Suellim to take a mail privately for transmission to Unyanyembe. It contains a cheque on Ritchie, Stuart & Co., of Bombay, for 2000 Rs., and some 47 letters written during my slow recovery. I fear it may never reach you. A party was sent to the coast two months ago. One man volunteered to take a letter secretly, but his master warned them all not to do so, because I might write something he did not like. He went out with the party and gave orders to the head man to destroy any letter he might detect on the way. Thus, though I am good friends outwardly with them all, I can get no assistance in procuring carriers, and as you will see if the mail comes to hand I sent to Zanzibar for 15 good boatmen to act as carriers if required, 80 pieces of meritrano, 40 ditto of kinitra, 12 farsalas of the beads called jinsam, shoes, &c., and I have written to Seyd Majid, begging two of his guards to see to the safety of the goods here into Thani bin Suellim's hands, or into those of Mohammed bin Sahib. As to the work to be done by me, it is only to connect the sources which I have discovered from 500 to 700 miles south of Speke and Baker's with their Nile. The volume of water which flows north from latitude 12° south is so large, I suspect that I have been working at the sources of the Congo as well as those of the Nile. I have to go down the eastern line of drainage to Baker's turning point Tanganyika, Nyige Chowambe (Baker's?) are one water, and the head of it is 300 miles south of this. The western and central lines of drainage converge into an unvisited like west or south-west of this. The outflow of this, whether to Congo or Nile, I have to ascertain. The people of this, called Manyema, are cannibals, if Arabs speak truly. I may have to go there first, and down Tanganyika, if I come out unscathed, and find my new squad from Zanzibar. I earnestly hope that you will do what you can to help me with the goods and men. I am to be sent by Mr. Young, must surely have come to you through Fleming & Co.—I am, &c., DAVID LIVINGSTONE. A bag box, paid for to Nijji, was left at Unyanyembe, and so with other boxes."

UNITED PRAYER FOR THE COUNCIL AT ROME.—The fourth of the meetings for united prayer, in connection with the General Council at Rome, was held on Friday morning in Freemason's Hall. The Hon. Arthur Kinnaird, M.P., who presided, said that the subject chosen for consideration was "the attainment of a deeper knowledge of the Word of God" by Christians in England, Scotland, and Ireland, in Germany, Holland, Norway, Sweden, Switzerland, and other Protestant States of Europe, in the United States of America, in the colonial dominions of the British Empire, and in missionary stations; the con-

vers on in large numbers of those who love not, the truth; the enlightenment of those who have joined the Church of Rome, and who are inclined to do so. He stated that several missionary stations intelligence had been in meetings similar to those in London were held. Several prayers were offered, and it was decided that the meetings would be continued on the 22d and 29th inst.

THE SUEZ CANAL.—An important notice issued on Friday from the Hydrographic Office of the Admiralty in reference to the navigation of the Suez Canal, containing an elaborate report of Commander Nares, of her Majesty's surveying ship *Newport*, which passed through the canal during its opening. After touching upon the harbour of Said, the current pilot signals, &c., it states:—

"Thirty-five miles of the canal are subject to a squall was experienced (force 6), when the wind thick as an ordinary fog, and most distressing to the eye, much so that, had the ship been in the canal, there would have been great danger of its being driven from its proper channel. Fresh water is introduced into the canal for the greater part of the year, and soon as the water is no longer required, it will be used to irrigate the banks, and this nuisance in the total absence of wind, as quite completed. Through the canal, 100 miles there is either dredging or being on. For five miles in the Ballah and the lagoons south of it, dredging will be required until means are found to banks solid enough to prevent the water from the Serapeum cutting there is a barrier with only 18 feet water upon it, which is a case. Except for about 10 miles there is a barrier, the canal. Vessels drawing 12 feet of water can be open to ships drawing 20 feet of water that passed through the canal at the present Egyptian yacht, drawing 16 feet, and several ships grounded on the passage without delay. The grounding was not the fault of the 40 or 50 ships to get quickly out of the canal."

THE EAST INDIA SUBMARINE CABLE.—It has been definitely decided that the shore end of the India submarine cable shall be lodged at Port Cove, near the Logan Rock, at the Land's End. It has been in contemplation for some weeks within the last few days Sir James Anderson and Saunders have surveyed the district, and have determined that this is the most favourable site. The cable will pass through the Straits of Malacca, to the Isthmus of Suez, and thence to India as possible. The shore end of the cable will be landed at Sennen. A steamer of 2000 tons will visit the light-ship in mid-channel.

THE MEETING OF COLONISTS.—On Wednesday the weekly meeting of colonists was held at the Street Hotel, Mr. Youll in the chair. The resolution was adopted to the effect that the Colonists' citizenship, Imperial supervision, and Imperial commerce, and to promote all the best interests of the colonies, they, on their part, are not wanting in a recognition of their beneficial relationship. At noon a deputation, headed by the Duke of Devonshire, Viscount Bury, and Viscount Milton, were received by Granville at the Colonial Office, and Granville, in reply, said that he was exceedingly sorry to see England and all her colonies. He believed that the colonies were elastic, and there was really more than was supposed. At present, excepting the one of the most routine character, and a moment. He had proofs of confidence from the one minute a colony which, after deliberation, thought it necessary or expedient, and that when they went it would be on friendly terms.

PAYMENT OF ASSESSED TAXES IN A
On Monday night a largely attended meeting of tradesmen and working-men electors was held in Little Surrey Street, in reference to the forthcoming meeting of the assessed taxes 12 months in advance. G. M. Shee took the chair, and said that a meeting had been convened to protest against the scheme of the Chancellor of the Exchequer for January 1. He denounced the scheme as oppressive in the present depressed state of trade, and had been an elector of Southwark for 13 years, and always voted on the Liberal side, but he felt disgusted with the conduct of the Government in reference to the collection of the assessed taxes, and in treatment of the dockyard workmen, that he voted for the Conservative candidate at the election. Mr. Myers moved the following resolution:—"That this meeting considers the scheme of the Chancellor of the Exchequer for collecting the assessed taxes in advance in January next arbitrary and unjust in the present state of trade, and oppressive to the working classes, and hereby enters its strong protest against such a scheme." Mr. Baldwin seconded the resolution, which was supported by Messrs. Yates, Whitfield, and others, and carried unanimously. Mr. Williams said for the last 20 years he had voted for the Conservative candidates, moved,—

"That, as a practical protest against the scheme of the Chancellor of the Exchequer, this meeting resolves itself to support Colonel Bessford, the Conservative candidate, at the present election, and recommends the course to be taken by the electors of the borough of Southwark."

seconded the resolution, which was
by acclamation. The great majority of the
put down their names to form a com-
of Colonel Beresford.

VIADUCT.—At a meeting of the
Council on Thursday, a report was
George P. Bidder, T. E. Harrison,
the civil engineers who had been
the Viaduct, stating that the
had been caused by uneven
although severe frosts will probably
no danger to the safety of the
be apprehended. The report recom-
be allowed to stand untouched
when it will be seen what is required to

ROYAL SOCIETY.—Dr. John Davy, M.D.,
Humphrey Davy, has bequeathed to the
a fulfilment of an expressed wish of
a service of plate presented to Sir Hum-
for the invention of the safety lamp, to
in founding a medal to be given annually
important discovery in chemistry in
Anglo-America.

OF THE NATIONAL PORTRAIT GALLERY.
Wednesday the National Portrait Gallery in
George Street, Westminster, was closed, pre-
to the collection being removed to its future
the South Kensington Museum, where it
be again on exhibition in connection with
Portrait Gallery formed at the latter institution.

CLASS SCHOOLS CORPORATION.—The
of formally inaugurating the new school
Lower Street, City Road, and the third
of prizes, took place on Friday, in
of the Lord Mayor, the Sheriffs, and a
company. The school, in which over 900
receiving an excellent education, was
October last. The Lord Mayor said it gave
to be there to distribute the prizes
awarded, but it gave him still greater
with him the two sheriffs, who were,
prize men. The same energy, the
and the same industry which enabled
to obtain those prizes would enable the boys
to come to the sheriffs' time of life to obtain
prize of life. They should bear in mind
at the beginning of life, but unless
their present success would be only
and a snare. They must persevere in
with the same industry, and if
he ventured to guarantee the same
the Rev. W. Jowett, the Head Master,
report by the University of London in
with a wish expressed by the council.
was satisfactory and encouraging, and
the mental progress of the pupils. After
been read the Lord Mayor said that as
the man, he found one omission in it,
that there was no mention of the copy-
greatly prejudiced in favour of good
The head-master said that in reading
had omitted, for the sake of brevity, what
said of handwriting, but he would now
message, which said that every boy either
on the way to write, a clear and legible
this result was attained by good teaching.
remarks by Mr. Arthur Hobhouse, Lord
M.P., as chairman of the Society of Arts,
to the admirable work which was
the schools, and said that no one was
aware than he was of the importance of
handwriting in the transaction of business.
years he had held an onerous post under
which involved eight or ten hours' work
and he could testify that the labour was
increased by the impossible hieroglyphics which
clothed the greatest questions of the day—
many of these emanated from some who were the
of the Government of the country. Sir W.

thanked the Lord Mayor for his presence,
that they had procured a site on the south
river, where he hoped they would soon open
with equally successful results. The Lord
distributed the prizes to the boys to whom
had been awarded. Votes of thanks to Mr.
the assistant masters, the council, &c., were
and seconded by Mr. Freshfield, M.P., Mr.
Diamond, Rev. Mr. Best, Rev. Canon
and Mr. Gasiot, and carried unanimously.

HARLES MATHEWS, the comedian, will quit
on January 31 for Australia, where he is
series of performances, and, as a prelude
there, will take a farewell benefit at Covent
Theatre on Thursday, the 4th of the same

WOMEN'S INTERNATIONAL EXHIBITION.—The
the Workmen's International Exhibition to
in July next, at the Agricultural Hall, will
conference of delegates from the towns of
Kingdom, and of other countries on
next, at the rooms of the Society of Arts in
Adelphi. The business will be distri-
method of arrangement of exhibition;
and discussion of the proposed system
of workshops in the exhibition; 4, Re-
statements, and suggestions, from local com-
and 5, Statement and discussion as to the
of technical education. Mr. Mundella,
Mr. Morley, M.P., will successively occupy
during the day's sitting. In the evening a
meeting will be held at Exeter Hall, at which
Buxley will preside.

BARKING OUTFALL.—The report of Mr.

Rawlinson, C.B., the Government engineer appointed
to inquire into the complaints of the inhabitants of
Barking with reference to the outfall of the metro-
politan sewage, was presented to Mr. Braddon Saturday
Mr. Rawlinson reports that the allegations have only
been partially proved, that the cesspools and general
want of drainage in the town of Barking are more
prejudicial to the health of that town than the
proximity of the outfall of the sewage of London, and
that there has been no diminution of the main
channel consequent on the outpouring of the sewage.
He says that while the Metropolitan Board of Works
have protested against the bulging of the Thames
above London, they themselves continue to pour
into it the sewage of all the vast London popu-
lation. The question of the utilisation of sewage was
not referred to Mr. Rawlinson, but he expresses the
opinion that to accomplish this the Board must either
subsidise or guarantee any company undertaking the
work, or carry it out themselves. He states that
deodorisation and disinfection of the metropolitan
sewage by chemicals would be very costly to the rate-
payers, and in the results imperfect; and that river
pollution by town sewage, in the case of the Thames,
may be prevented. Experienced engineers have stated
that the cost of taking the sewage to Sea Beach
would greatly exceed the total cost of the metro-
politan system of main drainage and that the area
requisite to utilise the sewage would not be less than
70,000 acres. It is stated in the evidence attached to
the report that, as compared with guano at 11l. a ton,
the annual value of the London sewage is not less than
1,000,000l.

THE CAB SYSTEM.—On the 1st January there is to
be an entire change in the cab system throughout the
metropolis. There will be complete free trade in cabs
and carriages for hire as regards the rate of fares, but
each carriage is to have conspicuously painted on the
panels of the doors the fares at which passengers will be
conveyed. The charge will be the same, whether
one or more persons are conveyed. All misconduct by
drivers will continue to be punished as under the
existing regulations. It is expected that the new
system will not only be found a considerable im-
provement on the old, but will lead to the intro-
duction of a better class of vehicles. A meeting
of hackney-carriage proprietors was held on Tuesday in
Cambridge Hall, Newman Street, to consider the new
rules and regulations as submitted by Colonel Hender-
son, the Chief Commissioner of Police. The meeting
was called by the Amalgamated Association of Cab
Proprietors, and was requested to express an opinion
on a number of points. It was unanimously agreed
that a metal flag denoting the fare be displayed from
the top of the cab as an indication that it was for hire,
and that for the present cabs the present fares should
be adopted, with the following modifications:—No fare
under 1s., Hansoms to charge 2s. 6d. an hour when
engaged by time, children to be paid for as adults, and
luggage outside to be always paid for at 2d. a package.
The four mile radius to be reckoned along the roads,
and 1s. a mile to be charged under all circumstances
beyond it. The inspection of the cabs to be in Sep-
tember, and the lamp not to be insisted on.

**THE BISHOP OF LONDON AND THE POOR OF
ST. PANCRAS.**—On Saturday evening the Bishop of
London preached a sermon to the inmates of St. Pancras
Workhouse. The Vestry Hall had been specially pre-
pared for the occasion, and was crowded with the
paupers, about 500 being present. The bishop preached
from Hebrews ix. 27, 28. Many of the officials attended
with the paupers.

THE PAUPERISM OF THE METROPOLIS.—A con-
ference of ministers of various religious denominations,
and of others interested in the social welfare of the
East of London, was held on Wednesday at Sion College,
to consider "the desirableness of united action, with a
view of checking the increase of pauperism and im-
proving the condition of the deserving poor." The
Rev. F. G. Bloomfield presided, and there were
present the Earl of Lichfield, the Right Hon. G. J.
Goschen, M.P., President of the Poor-law Board; Mr.
Corbett, Poor-law inspector; Alderman Abbiss, the
Revs. T. Rowsell, W. Rogers, E. Cachemaille, S.
Hansard, M. Gibbs, T. Richardson, F. Kitto, W. Tyler,
F. S. Lea, J. Cohen, G. D. Griffin, Landshoot, Millman,
Canon Povah, Dr. Stallard, several Roman Catholic
priests, dissenting ministers, Jewish rabbis, and numer-
ous guardians of the poor. The Rev. Mr. Cummings
proposed the first resolution, declaring that it is
desirable to promote concerted action among those
engaged in the distribution of charitable relief in the
City and eastern districts of London, with a view to
prevent wasteful expenditure, to check the increase of
pauperism, and to make adequate provision for the
deserving poor. Alderman Abbiss, chairman of the
City of London Guardians, seconded the motion, which
was supported by the Rev. Mr. Green, Roman Catholic
priest; Mr. Alex, a member of the Jewish Guardians;
Mr. Goschen, M.P.; the Rev. Mr. Tyler, Congregational
minister; Mr. Charrington, Dr. Stallard, Mr. Corbett,
the Earl of Lichfield and other gentlemen. The
resolution was adopted, with only two dissentients.
Mr. R. Wigram moved the second resolution, appointing
a committee to consider the best means of carrying
the first resolution into effect, and to report to a future
conference. The Rev. J. Cohen seconded the motion,
which was carried unanimously. A committee was
then appointed. Mr. Goschen in moving a vote of
thanks to the chairman, said that the guardians would
give the charities all the information they could. They
would do as England did in her commercial policy;
they would give it freely without reciprocity, but they
would take any reciprocity which the charities thought
proper to offer in return.

**THE POOR-LAW BOARD AND THE ST. PANCRAS
GUARDIANS.**—On Monday, being the day appointed
by the Poor-law Board for the election of seven persons

by the St. Pancras guardians to fill the office of
members of the Metropolitan Central District Asylum
Board, there was a very large attendance, in conse-
quence of the understanding that there would be a
contest between the old and new guardians and ex-
cessive members. Mr. Ross took the chair and at that
time the ex-officio members present were Sir W. H.
Bodkin, assistant judge, Mr. Wyatt, J.P., Mr. Wood-
ward, J.P., Mr. Miles, J.P., Mr. Robertson, J.P.,
Mr. Bunker, J.P., Mr. Henry, J.P., Mr. W. S. J.P.,
Mr. Twining, J.P., and Mr. Stilwell, J.P. with
four old members exclusive of the chairman, made up
the majority of 14, whilst the new guardians only mustered
11 out of their 12 members. The voting then proceeded.
There was a great uproar at the commencement of
the proceedings, and much ill-feeling was caused by the
presence of the police. An attempt was made to carry a
resolution that they should withdraw, but the motion
was lost. Sir W. Bodkin moved that the special
business of the election of members to the Asylum
Board take precedence, which being seconded, Mr.
North objected, and said that he had himself a motion
on the paper as to the "scandalous conduct of Mr.
Wyatt," who he would take care should not escape
censure if it remained there for six months. The
uproar was renewed, the speakers indulging in many
remarks of a personal nature. An attempt was made
to postpone the election, but it was negatived.
Eventually, in order that the business might be got
through, the majority proposed a compromise, by which
four members should be elected by the old party and
three by the new. This was assented to and the follow-
ing were proposed and elected, the show of hands for
each, however, varied.—Mr. Ross (the chairman), 17
votes; Dr. Edmunds, 20, Mr. Chandler, 18, Mr. Bower,
17, Mr. Miles, J.P., 20, Mr. Robertson, 15, Mr.
Watkins, 14. Mr. Wyatt voted for Mr. Watkins.
Mr. North then moved his resolution condemning
of Mr. Wyatt, but on a vote being taken, it was decided
not to allow the motion to take precedence of other
business. Mr. Wyatt then rose to go, and remarked,
"You will not get anything by intimidation." As he
was leaving, Mr. Watkins shouted, so as to be heard by
the non-members, who were in strong force, "I hope
that Mr. Wyatt will go out as safe as he came in."
Fearful uproar followed this remark, and Mr. Wyatt
was immediately surrounded and treated in a
threatening manner, the crowd following him down
the steps and out of the hall. The scene inside among
the ratepayers became indescribable, several fights
appearing imminent. Business was altogether stopped
for a time, and it was resumed amidst the greatest con-
fusion. The Chairman said he never knew the rate-
payers to disgrace themselves so much before.

ST. PANCRAS WORKHOUSE NURSERY.—On Monday
evening another inquest was held on six more persons
who had died in St. Pancras Workhouse, two being
children who were inmates of the workhouse nursery,
and as to whose deaths inquests had been demanded by
their mothers. The medical evidence showed that the
cause of death was congestion of the brain, accelerated
by the atmosphere of the ward, which had been very
bad, arising mainly from foul drainage. The jury
returned a verdict that the deceased died from the
mortal effects of congestion of the brain, accelerated
by the unsanitary condition of the infant nursery in
St. Pancras Workhouse.

THE ORGANISATION OF RELIEF TO THE POOR.—
The plan for systematising the regular and irregular
charity of the metropolis is assuming a practical form,
and the operations of the various committees, both at
the East and West End, have already commenced.
At the meeting of the Marylebone guardians on
Friday, a special committee, which had been appointed
to confer with a deputation of the St. Marylebone
charitable relief committee, as to the best means of
giving effect to the recommendations contained in the
minutes of the Poor-law Board, submitted a report
on the subject of their interview, and on their recom-
mendation the following resolutions were unanimously
agreed to:—1. That the clerk be directed to supply the
St. Marylebone charity organising committee with
copies of the weekly lists of applications, and with an
alphabetical list, either monthly or otherwise, of all
applications for relief, with the results thereof. 2.
That the relieving officers be directed to avail them-
selves of the information afforded by the charity orga-
nising committee with respect to all applications for
relief. 3. That the relieving officers be directed to
investigate cases residing in their several districts
that may be referred to them by the charity orga-
nising committee as being, in the committee's opinion,
suitable for poor-law relief, the charity organising
committee, on the other hand, undertaking to
consider cases referred to them by the relieving
officers or by the guardians, on account of such cases
requiring relief other than can be legally given from
the rates. 4. That these recommendations be adopted
by way of trial, and on the understanding that the
charity committee reciprocate information, and that a
copy thereof be forwarded to the Poor-law Board, in
reply to the letter forwarded with the minute on poor
relief. The guardians of the Holborn Union have
appointed a committee to obtain information as to the
number and extent of the charitable agencies within
the union, and their relation to the pauper class, with
the object of bringing such information under the
notice of the president of the Poor-law Board. On
Tuesday evening a meeting was held at the St. Mary
Chamber school-room, Golden Lane, for the pur-
pose of considering the best means of organising
charitable relief in that neighbourhood, Mr. W.
McCullagh Torrens in the chair. Resolutions were
carried unanimously to the effect that the pre-
sent distribution of charitable funds tended to
waste, mendicancy, and imposture, and that,
pending the working of a more complete and general
action, it was desirable to make some attempt

in the immediate neighbourhood to improve the distribution of charitable relief. The first anniversary meeting of the Bluebeard Mendicity Society was held on Tuesday, the Earl of Lifford in the chair, when it was stated that during the first year of its existence the society had examined over 2000 cases, and given assistance, through their relieving officer, in 117 cases. The result of the issuing mendicity tickets had been almost to clear the district of tramps and professional beggars, thereby enabling the society to give substantial help to cases of real distress. Mr. Talbot, M.P., detailed the steps taken by the magistrates of Kent in general sessions to check the alarming increase of vagrancy in that county, and expressed an opinion in favour of more stringent action on the part of the magistrates and police in punishing confirmed impostors and habitual vagrants by sentencing them to terms of imprisonment.

DESTRUCTIVE GALE.—The high winds which have blown over London for some days past culminated on Wednesday morning in a terrific gale, accompanied by a heavy fall of rain and hail. In some parts of the metropolis the hailstones were as large as marbles, and numerous windows were broken. The wind blew down several chimney-stacks in the southern districts. One fell at Upland House, Dulwich Wood Park, the residence of Mr. W. O. Melhuish, and breaking through the roof, buried in the ruins a bed containing a nurse, nursemaid, and child. They were all, however, rescued without serious injury, though in an exhausted state. The gale lasted until late on Thursday night, accompanied by heavy falls of rain, by which the meadows and gardens at Hampton, Esher, and the surrounding districts, were flooded to the depth of 3 feet. On the river several barges were sunk or damaged, and great destruction of property is reported from the low lying districts on the banks.

THE CLERKENWELL EXPLOSION.—On Monday a meeting was held at the Vestry Hall, Clerkenwell, for the purpose of presenting the Rev. Robert Maguire, chairman, and Mr. Robert Paget, hon. secretary, of the Clerkenwell Relief Fund, with testimonials in acknowledgment of the energy and labour bestowed by them in raising and administering the fund of 10,000*l.* in aid of the persons who suffered from the Clerkenwell explosion two years since. The testimonials consisted of elaborately engrossed records of the services rendered by those gentlemen, with a silver salver to the former, and a purse of 100 guineas to the latter.

FORGERY OF BILLS OF LADING.—Two men, named Brown and Terry, were brought before the Lord Mayor, on Saturday, charged with forging and uttering bills of lading, with a view to defraud the Monarch Insurance Company. Brown was stated to have been for some time engaged in a series of frauds, and after much evidence had been given the prisoners were remanded.

EXECUTION OF THE WOOD GREEN MURDERER.—On Monday morning Frederick Hinson, who was condemned to death at the last session of the Central Criminal Court for the murder of a woman named Death, with whom he had lived for some years, and of a neighbour, named William Douglas Boyd, of whom he was jealous, underwent the last sentence of the law within the walls of Newgate. The culprit, almost to the last, entertained a belief that his sentence would be commuted. During his last moments the culprit became so faint that he had to be supported upon the scaffold by a turnkey, and when the drop fell he appeared to be dead almost in an instant. The prison bell tolled while he was proceeding to the scaffold, and when the drop fell a black flag was hoisted at the entrance of the gaol. A notice was also affixed outside the prison stating that the execution had taken place. The only persons present were the officials of the prison, some of the officers of the sheriffs, and the reporters.

THE PUBLIC HEALTH.—The Registrar-General's Weekly Report states that in the week that ended on Saturday, Dec. 11, 4699 births and 3873 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 31 per 1000 persons living, being 29 per 1000 in London, 37 in Edinburgh, 25 in Dublin, 33 in Bristol, 25 in Birmingham, 30 in Liverpool, 33 in Manchester, 32 in Salford, 41 in Sheffield, 31 in Bradford, 25 in Leeds, 29 in Hull, 30 in Newcastle-upon-Tyne, and 43 in Glasgow. In Paris the annual rate in the same week was 24 per 1000. In London the births of 1136 boys and 1131 girls, in all 2267 children, were registered last week. In the corresponding weeks of 10 years 1859-68, the average number, corrected for increase of population, was 2107. The deaths registered in London during the week were 1769. It was the 40th week of the year, and the average number for that week, corrected for increase of population, was 1608. The present return is therefore 151 above the estimated amount.

Provincial.

BURSLEM.—A town's meeting was held at Burslem on Wednesday evening in support of the Education League. The Chief Bailiff presided, and there was a large attendance. Messrs. Dixon, M.P., and Melly, M.P., Mr. Davies, stipendiary magistrate for the Potteries; Messrs. W. Woodall, T. Hulme, and other influential gentlemen were on the platform. Resolutions in favour of the League were passed with enthusiasm.

CAMBRIDGE.—On Monday a new gasometer, which had been erected in this town at an expense of 5000*l.*, was upset by a gale of wind, when the gas in escaping became ignited by a light some distance off. The whole of the gas was not destroyed at once, but continued for some time burning in an immense flame about 20 feet wide by 9 or 10 feet high. In about an hour the contents of the gasometer were consumed, and the flames ceased. About 70*l.* worth of gas was

consumed. Cambridge remained in darkness during the night, as the street lamps could not be lighted.

CARMARTHEN.—Four nurses from Guy's Hospital, accompanied by Mr. Griffiths, arrived at Carmarthen on the 8th inst., and proceeded that night to Pencader, distant about two miles from Llethernoyadd, the home of the "fasting girl," Sarah Jacob. The following day was occupied in a thorough examination of the room and bed in which the girl had been accustomed to sleep. This examination was made by the nurses in the presence of Dr. Lewis of Carmarthen; Dr. Corsellis and Dr. Davies of Llandyssul; Drs. Rowland and Herder of Carmarthen; the Rev. W. Jones, vicar of Llanfihangel; the Rev. W. Thomas of Llandyssul; and Mr. John Griffith, all of whom signed an official report stating that the room, the furniture, the contents of the drawers, the bed on which the girl was lying, and its coverings, her body, clothes, and hair had been fully examined, and that nothing of the nature of food had been found anywhere. The watch then commenced on the understanding that it is to continue for 14 days, at the end of which time a report is to be made; and if any doubt should then reveal it is probable the watch may be continued. The expenses attending the watch are to be defrayed by public subscription. A meeting of the committee was held at Pencader on Monday evening, when it was stated that the four professional nurses had not detected any food being conveyed to the girl, and were morally certain that she had not partaken of food. Up to Tuesday the girl had been watched for four and a half days and nights by two nurses, who are constantly with her, one on each side of her bed. Mr. H. Davies, a surgeon, who visited the girl on Sunday afternoon, found her pulse at 112 per minute, and her appearance natural and healthy. On Wednesday Dr. Lewis, of Carmarthen, visited her, and found that her pulse was 120 per minute, and that she was precisely the same weight as when the watching commenced, and there was no symptom of any physical prostration. The nurses reported that there had been no attempt to convey food to the child clandestinely, nor had she expressed the slightest wish to have food of any kind.

GLOUCESTER.—During the gale of Wednesday morning the chains of a large gasometer, recently erected in this city at a cost of 4000*l.*, were broken by the violence of the wind, and a rent having been caused in the gasometer by the fall of one of the chains upon it, about 70,000 feet of gas escaped, but though a light was near, no explosion occurred.

EGHAM.—The poachers who made so murderous an attack on her Majesty's keepers about a fortnight ago, in an encounter near the ruins at Virginia Water, were brought before the county magistrates last week and fully committed for trial. Both the keepers are still in a dangerous condition from the savage treatment they received, although hopes are entertained of their ultimate recovery.

ETON.—The Christmas vacation at Eton College commenced yesterday. During the last three weeks of "the half" measles have been very prevalent in the school, and there have been also a few slight cases of scarlatina. Five boys are at present in the sanatorium on the Eton Wick Road. A meeting of the new governing body was held at the office of the Public Schools Commission last week, when the number of the governing body was completed by the election of two members in addition to those previously elected. The governing body as now constituted is as follows:—The Provost of Eton, the Provost of King's, members *ex officio*; the Master of Balliol, elected by the Hebdomadal Council of the University of Oxford; the Master of Trinity, elected by the Council of the Senate of the University of Cambridge; Professor Stokes, elected by the President and Council of the Royal Society; Sir Roundell Palmer, Q.C., nominated by the Lord Chief Justice; Professor Lightfoot, D.D., elected by the Masters of Eton; the Rev. W. A. Carter, the Right Hon. S. H. Walpole, Lord Lyttelton, and the Earl of Morley, elected by the members of the governing body.

LEEDS.—On Saturday afternoon the men who were convicted a few days previously at Leeds, before Mr. Justice Lush, of robberies with violence at Leeds, Sheffield, Bradford, and Whitkirk underwent the punishment of 24 lashes each with the cat-o'-nine-tails in the borough gaol.

MAIDENHEAD.—Mr. Headington, of Bray, having made known to the Queen that the widow of an agricultural labourer named Plumridge, 101 years of age, living on the small income derived from the savings of her husband and herself as agricultural labourer, at Beach-on-Sea, near Bray, had repeatedly expressed a desire to see her Majesty, the Queen, on the 8th inst., in the most considerate manner gratified the wishes of Mrs. Plumridge. Her Majesty, accompanied by Princess Beatrice, and attended by the Hon. Caroline Cavendish, drove to the residence of Mr. Headington, who had the honour of showing her Majesty the way to Mrs. Plumridge's cottage. It is needless to say how much the old woman felt honoured by the visit, and by the kind way in which her Majesty and the princess conversed with her.

RICHMOND (YORKSHIRE).—On Saturday, John Mangles, a respectable, well-dressed man, who is well connected, but described as having no fixed residence, was charged with attempting to upset a passenger train by placing a sleeper on the line of rails on the 27th ult. The sleeper was soon after found between the rails, having been struck off by the guard bar, which was broken in doing it, the train having a narrow escape. It was proved that the prisoner was seen walking on the railway some time before, and that while at a public-house afterwards he appeared uneasy and startled, and debated whether he should travel by the train. Ultimately he went to Moulton and took a ticket for the Scorton Station, and rode in the train.

Though the engine knocked the sleeper and no shock was felt prisoner got out at said to two witnesses that they had run between the stations. He had also told in the afternoon that it might be the might see her. He was committed to York assizes.

PLYMOUTH.—A large French vessel, *merce de Paris*, from Rio Janeiro to ashore at Bigbury Bay, near this port night. Her cargo, composed of cotton and saved. Efforts were made on Sunday to but proved unsuccessful, and it is feared become a total wreck.

RUGBY.—Great dissatisfaction exists of the election of Mr. Hayman, Temple in the head mastership of ment, it is alleged, having been made than those of academical distinction and on the strength of testimonials in reference to another appointment. strong at Rugby itself, especially are intimately connected with the prosperity of the school, that 20 of them have presented a memorial to the trustees to them to reconsider the recent nomination to mastership.

WALLINGFORD.—On Sunday morning Richard Green, a dealer in wood, and known to be possessed of a considerable sum of money, was murdered at the bottom of his cart, opposite his house at Stoke Row, near this town. The supposed to have been committed on Saturday between Shillingford and Benson, and the robbery was home uninterrupted, a distance of seven Robbery does not seem to be the motive for the as the old man's money and watch were both upon him. Some deeds and money were missed from his house, and his son and nephew been taken into custody. An inquest was body at Stoke Row on Monday, when a Wilful Murder against some person at present was returned.

WINDSOR.—On Monday the foundation-stone new chancel of the parish church of New Windsor laid by the Princess Christian, in the presence very numerous congregation. It is intended to reconstruct the church, the proposed work new chancel, the re-seating of the interior, other alterations, both in the exterior and as will bring it more into harmony with the character of ecclesiastical buildings. The erection the new chancel will considerably enlarge the and afford an opportunity for altering the pew, which is so inconveniently situated that the participants of it cannot hear the sermon. The cost of entire reconstruction is estimated at about but at present only a portion of the work is contemplated, consisting of the erection of and organ chamber, the re-seating of the and the reconstruction of the The Bishop of Winchester and a large clergy, the Mayor and several members of the tion in their robes were present at the Monday. The religious service was conducted by the Vicar of Windsor, the responses being by parish choir. A silver trowel having been the Princess, her Royal Highness and laid the stone. The Bishop of Windsor delivered a short address, in the course said that he rejoiced infinitely in being was about to conclude his ministrations to take his humble part in the work of the and wish them God-speed in their undertakings.

WOKING.—A daring attack was made afternoon on Captain Bramley, the Woking Convict Prison. As the convict out of chapel, after Divine service, one of stated to have once been a prize-fighter, rushed the Governor, who was watching the prisoners in the chapel, and hit him twice in the breast in the loin with a round piece of old iron, which was filed to a point, but was rather blunt. A instantly sprang upon the man, who was and secured him. The Governor's wounds were regarded as dangerous.

WOLVERHAMPTON.—On Friday morning 120 colliers went down one of Lord D. this town, for their day's work. At noon in the ordinary course of things, would down to them, but an hour previously the drawing engine, about two tons in weight, snapped. The skips, one ascending and descending, were thus fixed about 100 feet impeded in the more distant workings. got air enough, but no food could be passed. The difficulty was not surmounted until 11 Friday night, when after an enforced abstinence of 17 hours they were all brought to the surface.

YARMOUTH.—The steamer *Xanthe*, of Shields for Gibraltar, with coals, was Saturday in the Wold by the steamer *R. L. Shields*. The *Xanthe* sank in 25 minutes and cargo were valued at 15,000*l.*

Ireland.

MILITARY PRECAUTIONS.—It is stated consequence of information which Government through private sources had received instructions to prepare seven flying under picked officers, ready to move at an ing on any parts of the country threatened with disaffection. On Saturday a squadron of goon Guards marched from Kingstown to

head of the well-known firm of Parsons, Thomson & Co., the University bankers.

WILLS—The will of Admiral Sir Robert Lambert Baynes, K.C.B., Admiral of the Fleet, has been sworn under 16,000 l.

Markets.

COVENT GARDEN.—Dec. 18.

Trade has been very quiet here during the past week, owing to the absence of orders from provincial markets.

FRUIT.

Apples, p. 1/2 sieve, 3s to 5s; Lemons, per 100, 5s to 10s; Cobs, per lb., 9d to 1s.

VEGETABLES.

Artichokes, p. doz., 3s to 6s; Beet, per doz., 2s to 3s; Broccoli, p. doz., 1s to 2s 6d.

POTATOS.—SOUTHWARK, Monday, Dec. 13.

During the past week the arrivals both coastwise and by rail have again been in excess of the demand.

HOPS.—BOROUGH MARKET, Dec. 17.

Messrs. Pattenden & Smith report a steady retail demand for all descriptions, late rates being fully maintained.

ENGLISH WOOL

There has been a moderate trade done without material alteration in value. Consumption continues large, and we cannot but fancy that between the end of the year and the beginning of the next it will run shorter than for some years past.

Table with columns: CURRENT PRICES OF ENGLISH WOOL, per lb.—s. d. s. d. FLEECES—Southdown hoggets, Half-bred ditto, Kent Fleeces, etc.

METROPOLITAN MEAT MARKET.—Dec 18.

Best Fresh Butter .. 19s. per dozen lb. Second do. do. .. 17s.

HAY.—Per Load of 36 Trusses.

SMITHFIELD, Thursday, Dec. 16. Prime Meadow Hay 75s to 84s; Clover, old .. 115s to 128s.

CUMBERLAND MARKET, Thursday, Dec. 16.

Sup. Meadow Hay 84s to 92s; Inferior do. .. 70 78; New do. .. 70 78.

WHITECHAPEL, Thursday, Dec. 16.

Fine Meadow Hay 75s to 82s; Inferior do. .. 60 72; Prime New Hay .. 70 72.

METROPOLITAN CATTLE MARKET.

MONDAY, Dec 13.

This being the "Great Market," we have a larger supply of Beasts than on ordinary occasions. The number is considerably larger than on the corresponding day last year.

Table with columns: s. d. s. d. Best Scots, Herefords, &c. 5 6 to 5 8; Best Shorthorns 5 2 to 5 6; 2d quality Beasts 3 4 to 4 0.

THURSDAY, Dec. 16

The number of Beasts is not larger than was expected, a considerable proportion consisting of those left over from Monday.

selling as on Monday. Our foreign supply consists of 426 Beasts, 2065 Sheep, and 257 Calves.

Table with columns: s. d. s. d. Best Scots, Herefords, &c. 5 6 to 5 8; Best Shorthorns 5 2 to 5 6; 2d quality Beasts 3 4 to 4 0.

MARK LANE.—MONDAY, Dec. 13.

The supply of English Wheat to this morning's market was very small, but to effect sales it was necessary to submit to a decline of 1s. per qr. upon the prices of this day's night.

Table with columns: PRICE PER IMPERIAL QUARTER, s. s. s. s. WHEAT, Essex, Kent, Suffolk. White 39-48; Red 36-47; fine selected runs 41-52; Talavera 55-57; Norfolk 39-52; Foreign 39-52.

FRIDAY, Dec. 17.

The Wheat trade throughout the markets of the kingdom has continued to suffer from the accumulation of stocks noticed in our last, and the fresh arrivals at our seaports far in excess of the consumptive demand.

The arrivals of English and foreign grain this week were moderate. There was a fair attendance at this morning's market.

ARRIVALS.

Table with columns: Wheat, Barley, Oats, Flour. English 1220 qrs, Irish 1550 qrs, Foreign 13,370 qrs.

LIVERPOOL, Dec. 14.—In the corn market Wheat was in moderate consumptive demand at 1d. to 2d. per cental reduction.

AVERAGES.

Table with columns: Wheat, Barley, Oats. Nov 6 47s 1d, 13 46 11, 20 46 8, 27 45 6, Dec 4 44 3, 11 43 8.

SEED MARKET.

Our markets have been thinly attended during the past week, and, as is usual at this time of the year, only a very limited amount of business has been passing.

To Landscape Gardeners and Others.

THE TRUSTEES and COMMITTEE of the LUTON RECREATION GROUND are prepared to receive PLANS for LAYING OUT as a PLEASANT PARK the Recreation Ground at Luton, Beds.

A Premium of 20 Guineas will be paid for the best Plan. The Plans are to be sent to the undersigned (free of charge) on or before December 31 next.

The Trustees and Committee will not under any circumstances pay any travelling or other expenses, or undertake to accept any of the Plans submitted to them.

WANTED, as HEAD GARDENER, an experienced and practical Man, married, without incumbrance. Write to take charge of a Lodge.—Write, stating terms and particulars, to J. D. W., 10, Cullum Street, City.

WANTED, a smart, single YOUNG MAN, 24 or 25 years of age, to take a Charge in the Sydney Warehouse of Messrs. Law, Somner & Co., Wholesale Seed Merchants in Australia and New Zealand.

WANTED, a FOREMAN, in a Large Nursery, previously employed, and salary expected.

WANTED, a PROPAGATOR, Market Establishment, and well able to manage the Men, wages moderate and progressive.

WANTED, a middle-aged Married Couple; the Man a GARDENER, and capable of making heavy doors; the Wife to Superintend the household.

WANTED, in a Gentleman's Garden, efficient and active UNDER GARDENER, but more than one could not be employed.

WANTED, a YOUNG MAN, Warehouse generally, and who can write paper parcels.—Address, by letter only, W. W., Office, W.C.

WANTED, a JUNIOR ASSISTANT, Trade, to live with employer of a Nursery, with reference, to T. B. T., care of Mr. Cooper, Nursery, W.C.

WANTED, a JUNIOR ASSISTANT, Must be highly recommended and a good staking eye, references, salary expected, and Messrs. JAMES DICKSON and SONS, Chester.

WANTED, a DAIRYMAID, to Milk Twelve Cows, and can Bake well.—Mrs. Foot's Cray, Kent, S.E.

WANTED, an experienced DAIRYMAN, Gentleman's Dairy, to live at the House, Butter the chief requisite. Recommended on application.—Address, stating wages, Mrs. Wood, Newcastle, Staffordshire.

WANT PLACES.—Letters to be Post Paid.

LUCOMBE, PINCH, and CO. REGISTER experienced GARDENERS, recommend to fill any vacant position in a large Establishment, or to superintend the work of any Lady or Gentleman's Nursery, L.I., and to give best attention. Peterborough, Essex.

EXPERIENCED GARDENERS, and BAILIFF, of various qualities, Gentlemen.—Further particulars given on application to E. G. HENDERSON and SON, Wellington Square, Wood, London, N.W.

MR. WM. PAUL begs to announce that arrangements by which he will be enabled to furnish Gentlemen with the NAMES, ADDRESSES, QUALIFICATIONS, and GARDENERS and BAILIFFS, who are open to Engagements, as to services required and wages, &c., on application.—PAUL'S Nurseries, Waltham, Essex.

WM. CUTBUSH and SON, who have at all times on their books MEN of whose characters will bear the strictest investigation, making application would save time by direct communication, and be undertaken, wages offered, &c., on application.—Highgate Nurseries, London, N.

JOHN HARRISON begs to inform Gentlemen that he has at the present time a number of clever experienced GARDENERS, served in some of the largest and best Establishments of England, and none are entered except those whose ability will bear the strictest investigation. Also a few Young Men in the Nursery waiting for engagements as GARDENERS and UNDER GARDENERS.—North of England Nurseries, Darlington.

To Gardeners and Bailiffs (Head, Foreman, &c.) JAMES CARTER and CO. having many vacant positions will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. On these, unquestionable references need apply.

Any Lady or Gentleman requiring GARDENERS, may rely upon J. CARTER & CO. adopting the most strict measures in reference to testimonials as to ability, &c. JAMES CARTER and CO., 237 & 238, High Street, London, E.C.

GARDENER (HEAD).—Meticulous knowledge of the profession. Successful in the culture of Orchids. First-class references.—W. SWAN, Whalley Range, Manchester.

GARDENER (HEAD); middle-aged; Head Gardener at Betchworth, and H. Leaving through gentleman removal from the country. Address, as above, near Reigate, Surrey.

GARDENER (HEAD).—B. RICHARDSON, Gardener to Sir J. W. Hartopp, Bart., was mentioned in the above capacity, where a thoroughly experienced person is required. Excellent testimonials, and abilities will bear the strictest inquiry. Address, of the place being let.—Cottensham Park, W. Sussex.

Isles of Scilly. GARDENER (HEAD).—JOHN HARRISON, Gardener to A. Smith Esq., Trevelyan, and engagement with a Nobleman or Gentleman of practical experience. He has been in the service three years, and was six and a half years in the practical acquirements will bear the strictest investigation. Address as above.

GARDENER.—Understands both English and French, and Gardening of all descriptions. Good character.—G. Y. S., Star Street, Terence Street, London, E.C.

GARDENER (SECOND), or FOREMAN, Establishment.—Age 23, single; has been in the service before. Three years in last place.—G. MARKHAM, Tenterden.

To Nurserymen and Florists. FOREMAN, or FOREMAN, Age 33; thoroughly experienced in the culture and Value of Plants. Will be at liberty at all times to Foreman to Mr. E. H. King's Road, Chelsea, S.W.

FOREMAN, or SECOND, in a good Nursery. Age 25, single; has fitted a similar establishment. References.—J. WILSON, Cambridge House, 11, St. James's Place, London, W.

To Noblemen, Landed Proprietors, and Gentlemen. STEWARD, or UNDER STEWARD, who has a practical knowledge of Land and the management of branches, wishes to meet with an employer. Address, THOS. BELL, Brockton House, Egham, Surrey.

FARM BAILIFF, on a Nobleman's Estate (under an Agent or otherwise).—A person practical in all branches of Farming. Satisfactory references. W. O., Messrs. Peter Lawson & Son, 20, Budge Row, London, E.C.

SHOPMAN, or ASSISTANT.—Age 29, experience in all branches of the Seed Trade.—Address, Office, Heath, near Chesterfield.

The Gardeners' Chronicle Newspaper.

FRIDAY, DECEMBER 25, 1869.

THE ASSURANCE CORPORATION, for LIFE, and MARINE ASSURANCES. Incorporated by Royal Charter, A.D. 1720.

- Directors: Harry Geo. Gordon, Esq., A. C. Guthrie, Esq., John A. Hankey, Esq., Louis Huth, Esq., Henry J. B. Kendall, Esq., Charles Lvall, Esq., Capt. R. W. Pelly, R.N., William Rennie, Esq., P. F. Robertson, Esq., Robert Rrie, Esq., Lewis A. Wallace, Esq., William B. Watson, Esq.

Capital of this Corporation is £890,550, of which one-third has been paid up. The total invested funds on 31st Dec. 1869, amounted to £4,602,540.

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THE ATHENÆUM, for DECEMBER 25th, contains SPECIAL ARTICLES upon the LITERATURE of ENGLAND, FRANCE, GERMANY, RUSSIA, ITALY, BELGIUM, SPAIN, HOLLAND, TURKEY, DENMARK, SWEDEN, PORTUGAL, HUNGARY, and AMERICA, forming a SURVEY of EUROPEAN and AMERICAN LITERATURE for the YEAR 1869.

NOTICE.—THE ATHENÆUM will be PERMANENTLY ENLARGED on and after the 1st of JANUARY, 1870. May be ordered of any Bookseller or News-Agent, price Threepence Single Copies sent by post on receipt of four postage-stamps. Published by JOHN FRANCIS, 20, Wellington Street, Strand, W.C.

Advertising in Ireland. THE GARDENERS' RECORD, published Fortnightly, by THOS. EDMONDSON, 9, Dame Street, Dublin. The only Horticultural Journal published in Ireland. Price 4d., post free.

THE FLORIST and POMOLOGIST, JANUARY, 1870, Price 1s., free by post for 13 stamps, contains— Coloured Plate of Princess Christian Rose. The Garden Mentor, by Mr. M. Saul, Stourton Park. Hints to Fruit Raisers, by Mr. W. Ingram, Belvoir Castle. New Plants of 1869, by the Editor. Dahia Imperialis, by the Editor, with Illustrations. The Pears at Tortworth Court, by Mr. A. Cramb, Tortworth. Tree Carnations, by Mr. W. Howard, Balham. Passiflora macrocarpa, by Mr. W. Miller, Combe Abbey. The New Chrysanthemums of 1869, by Quo. New Peas, by the Editor, with Illustration. The Lady's Slippers, by Mr. B. S. Williams, Holloway. Abrated Vine Borders, by Mr. W. T. Hill, Welbeck. The Amateur's Page, by Mr. J. Cox, Redleaf. The Tuberosa, by Mr. E. B. Bennett, Osberton. Garden Gossip. Obituary. Commencement of a New Volume. Published at 171, Fleet Street, London, E.C.

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Home News.

THE COURT.—The Queen, accompanied by Princess Louisa, Princess Beatrice, Prince Christian Victor, and Prince Albert of Schleswig-Holstein, left Windsor on Saturday morning for Osborne, for the Christmas holidays. The royal party crossed from Gosport in the yacht Alberta, and arrived at Osborne at 2 p.m. On Sunday the Queen and Royal Family attended Divine service at Osborne. The Rev. R. Duckworth officiated. Sir William Jenner, who accompanied Prince Leopold from Windsor on Friday, left Osborne for London. On Monday the Queen went out in the grounds with Princess Louisa, and drove out in the afternoon with Princess Beatrice. On Tuesday morning the Queen walked in the grounds with Princess Beatrice. In the afternoon her Majesty drove out with Princess Louisa. On Wednesday the Queen went out in the grounds with Princess Louisa. The Duke and Duchess of St. Albans arrived on a visit. On Thursday Prince and Princess Christian arrived from Frogmore.

THE PRINCE AND PRINCESS OF WALES.—The Princess was churched on Monday at the Chapel Royal, St. James's. Her Royal Highness afterwards drove out. On Wednesday evening the Prince arrived at Marlborough House from Sandringham. The christening of the infant daughter of their Royal Highnesses took place on Thursday.

THE ARCHBISHOP OF CANTERBURY is still progressing favourably, although regaining strength but slowly. The Government have consented to the request of his Grace for the appointment of a suffragan. The Archbishop is anxious it should be known that this application has been made quite independently of his present illness, and that no further step will be taken for several months, in order to ascertain whether his Grace's recovery is as complete as there is every reason to hope.

THE DUCHESS OF ARGYLL has so far improved that there are now hopes of her recovery. Sir James Simpson, who had been in attendance from the beginning, and Dr. Radcliffe, who was summoned from London last week, have both left Inverary Castle, and the latest telegram received in town states that the Duchess has passed another good night.

LORD CAIRNS.—The report that Lord Cairns has left England on account of his health is contradicted on authority. His lordship, who has proceeded with Lady Cairns and his family to Mentone, is perfectly well, and intends returning to be present at the meeting of Parliament.

REPORTED DEATH OF SIR STAFFORD NORTHCOTE BY DROWNING.—A rumour was current in Devon on Saturday that Sir Stafford Northcote had been lost in Sir George Stucley's yacht Deerhound, on her voyage home from Egypt. The report was wholly without foundation, the right hon. baronet having arrived in Paris in perfect health.

CONSECRATION OF THREE BISHOPS.—On Tuesday morning Dr. Temple, the newly-elected Bishop of Exeter, Lord Arthur Herve, the new Bishop of Bath and Wells, and the Rev. W. H. Stirling, the first Bishop of the English congregations in the Falkland Islands, were consecrated in Westminster Abbey under a commission issued by the Archbishop of Canterbury to the Bishops of London, St. David's, Worcester, and Ely. The Abbey was crowded to excess; but the commencement of the ceremony was delayed for some time by an unexpected incident. After the consecrating bishops, the bishops elect, and other dignitaries had assembled in the Jerusalem Chamber, the Bishop of London announced that he had received protests from the Bishops of Gloucester, Hereford, Lichfield, Lincoln, Llandaff, Bangor, Rochester, and Peterborough, against the consecration of Dr. Temple, as the author of a production condemned as heretical by both Houses of Convocation. More than one of these communications had been forwarded at a very late period, and some, it was understood, without any intimation of their contents being conveyed to Dr. Temple. The character and extent of the objections which they urged were laid before the prelates for their decision, and in so doing the Bishop of London quoted a number of authorities as to the course to be pursued under the circumstances, and stated that, as the clergyman to be consecrated was of blameless life, and had never been accused in any court, they were bound to obey the Royal mandate and perform the ceremony. In conclusion he expressed a hope that even then Dr. Temple would make a declaration of his orthodoxy. Dr. Temple, however, made no answer to this appeal, and the three other Bishops named in the Commission having been invited to deliver their opinions, expressed concurrence in the view taken by the Bishop of London, and their desire to proceed with the ceremony of consecration. The oath of allegiance was therefore administered by the Vicar-General to each of the Bishops elect in turn, after which a procession to the sacarium was formed, and the consecration took place with the usual solemnities. The new Dean of Durham, Dr. Lake, preached the sermon. In addition to the protests of the eight Bishops, a memorial was presented on Saturday to the Archbishops and bishops, praying them not to consecrate Dr. Temple. The document was signed by 1490 persons, including the Marquis of Bristol, the Earls of Dartmouth and Buckinghamshire, Lords Fitzwaller and Eliot, Sir John Pakington, M.P., Sir W. Bagge, M.P., Mr. Dimsdale,

THE GARDENER,

A MONTHLY MAGAZINE OF HORTICULTURE AND FLORICULTURE.

NEW ARRANGEMENTS FOR 1870.

The Proprietors beg to intimate to their Readers that they have made new arrangements in regard to the "Gardener," which they trust will prove acceptable to their Subscribers, extend the usefulness of the Magazine, and secure a largely increased amount of public support. Commencing with the Number for January the duties of the Editorship will be jointly discharged by Mr. William Thomson, Dalkeith Gardens—who, the establishment of the "Gardener," has done so much to insure its marked success, and who will continue to work the benefit of his great practical experience—and Mr. Richard Dean, Ealing, London. The object of the Proprietors in adopting these new arrangements is to give to the "Gardener" a broader character than it has hitherto possessed, and to make it acceptable in all parts of the United Kingdom, by including the widest range of subjects related to Horticulture. Practically, the Proprietors seek to give to the work, which will be published in London, the tone and scope belonging to a national Horticultural organ. The general line which has been followed in the past, and which has proved so successful under Mr. Thomson's management, will be adhered to, a larger prominence will be given to Floriculture; and, especially in the Department of Florists' Flowers, every endeavour will be made to supply the latest and fullest information. Condensed reports of the leading Exhibitions, giving their salient and interesting features, will be furnished, and other matters coming under the same category; and under the head of "Notes of the Week" will be given such miscellaneous intelligence, likely to be interesting to amateur and professional Horticulturists, as may not conveniently come in under other headings. The heading of "Garden Requisites" will be duly chronicled all inventions and improvements of real value to the Horticulturist; while "Garden Economies," under which will be included Bee-keeping, Wine-making, Preserves, &c., will have due prominence. No exertion will be spared to render the "Gardener" a monthly manual for all classes interested in the subjects to which its columns are devoted; and the Proprietors confidently anticipate that, under the able superintendence of Messrs. Thomson and Dean, it will hold its own among the leading Horticultural organs of the day.

Yearly Subscription, 6s., or free by post, 7s., payable in advance.

OFFICE OF THE GARDENER:—37, PATERNOSTER ROW, LONDON, E.C.

Orders received by all Booksellers and Newsmen.

M.P. Mr. Fowler, M.P., General Percy Herbert, M.P., Mr. Collins, M.P., Sir W. Farquhar, Baron Dunsdale, Bishop Chapman, the Deans of York, Norwich and Llanthyll, Archdeacons of Oxford, Taunton and Bedford, the Vice-Chancellor of the University of Oxford, the Rev. Dr. Pusey, Rev. H. P. Liddon, Rev. Canon Bright, Mr. L. H. May, the Hon. G. J. R. Gordon, Sir Arthur Hall, Mr. E. J. Barr, Sir C. A. Vincent, Sir C. R. Lubbock, Sir F. Ouseley, the Hon. H. W. P. de la Hun, Lord Nelson, the Hon. J. M. St. John, &c. Archdeacon Dunsen, moreover, read a formal protest in the parish church of St. Brent at morning and evening prayer on Sunday, and the day of consecration was observed in his church as a day of special humiliation and prayer that what was being done that day might not be visited upon the Church and the people.

THE BISHOPRIC OF OXFORD.—On Wednesday, in accordance with the Queen's *congé d'élire*, the Dean and Chapter of Christ Church, Oxford, elected the Rev. John Fielder Mackarness to be bishop of that see, in the room of the Right Rev. Dr. Wilberforce, translated to Winchester.

BISHOPRIC OF SIERRA LEONE.—It is stated that the bishopric of Sierra Leone, now vacant, has been offered to the Rev. Dr. Massingham, of Warrington.

COURT APPOINTMENT.—The Queen has appointed the Marquis of Normanby to be Captain of the Hon. Corps of Gentlemen-at-Arms, in the room of the late Lord Foley.

PARLIAMENTARY MOVEMENTS.—Mr. Labouchere has retired from the contest for Southwark, in order to prevent a Conservative being elected through the Liberal votes being divided. In consequence of an announcement that Lord William Hay is not recognised as a probable candidate on the Liberal side in the event of a vacancy in the representation of Berwickshire, Lord Dunsen has intimated that he will not proceed with his canvass of the county. It is stated that Mr. Edward Wynn Williams, eldest son of the late Mr. David Williams, M.P. for Merionethshire, has been solicited to stand as a candidate for the county in the place of his father. Mr. Henry Whitmore having announced his intention to retire from Bridgnorth, Mr. William Henry Foster, son of Mr. William Orme Foster, of Apley, has accepted an invitation from the Liberal electors to become a candidate for the seat.

ORDER OF THE BATH.—Mr. Secombe, who has been Financial Secretary in the India Office every since the extinction of the Old East India Company as a governing body, has been appointed a Civil Companion of the Bath.

OFFICIAL APPOINTMENT.—Mr. Charles Kendall, who was Assistant-Secretary of the Royal Defence Commission for many years, has been selected to fill the new office of Registrar of Habitual Criminals, under the Habitual Criminals' Act.

THE ARMY.—It is stated that the appointment to all first commissions (ensignies, &c.) in the Army has been stopped at the Horse Guards by an order of Government, and that the intended reduction of the infantry will be effected by the reduction of two companies in each battalion throughout the service.

THE NAVY. It is rumoured that the scheme of naval retirement is nearly completed, and that under its provisions all officers, both executive and civil, with the exception of flag officers and civilians of corresponding rank, will be allowed to retire at 50 years of age, and will be called upon to retire at 55. It is stated that the Admiralty have abandoned the idea of further reducing the strength of the Royal Marines.

APPROACHING COLLECTION OF TAXES.—The *Law Times* says that on January 1 all the taxes for the next year will not only become due, but be payable, and must be actually paid. For all their assessed taxes, except the inhabited house duty, they will be compelled, under severe penalties, to take out licences from the Excise, precisely as now for the keeping of dogs. Therefore the whole of the year's taxes must be paid in advance, instead of being collected half-yearly at the end of the year as hitherto. The income-tax is to be collected in like manner; the whole year is to be paid at once, in the same month of January, already severely burdened by the compulsory payment in advance of the assessed taxes. It adds that it gives its readers this notice "that they may make early preparation to meet a demand whose existence the public does not appear to have yet realised, but which, when it is understood, will create a commotion such as has not been seen for many a day." The *Pall Mall Gazette*, echoing the general impression concerning the practical effect of the new system under which the assessed and income taxes are thus to be collected in January, had speculated on the chances which the widow of a man who might have paid his taxes in advance in January and have died in February would have if she endeavoured to make the Chancellor of the Exchequer refund the money. Mr. Lowe thereupon addressed the following letter to the *Pall Mall Gazette*.

"The question cannot arise, because there is 'no arrangement that we are to pay our taxes in advance.' The taxes which fall due in January, 1870—the land tax, the house tax, and Schedules A, B, and D of the income tax—are imposed in respect of the year beginning April, 1869, and ending April, 1870. Of this year nine months will have expired before any portion of these taxes is demanded. The hardship, such as it is, consists not in the requiring the taxes to be paid in advance, but in requiring them all to be paid at the same time. It must, however, be remembered that for this hardship, the necessity for which I regret, the public has had an ample equivalent. By this means have we, instead of imposing fresh taxation, as was generally and very reasonably expected, been able to take one penny off the income-tax, to repeal the corn and fire insurance duties, to abolish the license for the sale of tea, and to remodel the taxes on locomotion."

THE VOLUNTEERS.—The Secretary of State for War held a conference at the War Office on Tuesday with a deputation of commanding officers of Volunteers, for the purpose of discussing the question of

increasing the capitation grant to the Volunteers. The result of the conference is that Mr. Cardwell proposes to connect the force with the army under one general organisation, but so as not to interfere with the functions of lord lieutenants. He will increase the grant to 30s. per head for every efficient, provided the man should enter the second class or first 60 rounds, 10 of which are to be "volley bring." The old system of finances is to be reverted to—that is, all expenditure will have to be vouched at the War Office. Commissioned officers will have to qualify themselves by joining a line or militia regiment for a month, or by passing an examination. Camp equipage and targets will be provided without charge, and all Government stores delivered free. As to ranges, it transpired that an inquiry is pending to see if it is not possible to provide two ranges near London for the use of metropolitan corps. Company drills to count for capitation grant must be with not less than 12 files, and battalion parades four companies of 16 files.

Foreign.

FRANCE.—The *Times* of Monday published a telegram from its Berlin correspondent stating that France had proposed disarmament at St. Petersburg, Vienna, Florence, Berlin, and it was supposed, at London. Accounts from Berlin state on good authority that no such proposal had been made by France to Prussia, and that it was doubtful whether the proposition had been made to the other Courts. It is now said that the idea of a disarmament was some time since the object of an exchange of correspondence between the British, French, Russian, Prussian and Italian Governments; but it was not initiated by the French Government, and the letters which passed between the interested Governments left little chance of the idea assuming a more tangible form. M. Emile Ollivier has categorically contradicted the statement that since the meeting of the Legislative Body he had been intrusted with the formation of a new Cabinet. In the sitting of the Legislative Body on Friday, on the reading of the minutes of the previous sitting, an animated discussion arose in reference to the dismissal of the Juges de Paix. Several speakers accused M. Cremieux of having commenced the dismissal of magistrates in 1848. M. Keller asked leave to interpellate the Government on the system of the temporary importation of cotton into France. The debate on the doubtful elections was then resumed, and the report of the committee on the return of M. Locesne as the Deputy for Havre, which proposed to declare him duly elected, was brought up for discussion. The conclusions of the committee were agreed to, and the election of M. Argeuse was afterwards ratified by a majority of 159 to 72. In the sitting of Saturday, after the election of M. Leroux was ratified, the election of the Duke de Rivoli was declared valid without discussion. In the sitting of Monday M. Rochefort moved an interpellation asking the Government to explain why Deputy Paul Angulo, an exile from Spain for having done his duty, had been expelled from France at a time when the presence of a deposed Queen, who conspires in open daylight, was imposed upon the French nation. In the course of his remarks he said the severity of the French Government in apprehension of a Republic was reasonable, since that form of Government was near at hand. The Minister of the Interior replied that France showed a generous hospitality to all foreigners—kings or subjects. Angulo had entered France after attempting to create civil war, and had afterwards failed in the duties he owed as a refugee by preaching insurrection. Thereupon the Government put into operation the law of 1849. The Minister added that the Government was resolved to treat as they deserved all attempts to stir up disorder, and would render the minority harmless, not by force, but by moral authority, supported by the concurrence of the entire people. Enthusiastic applause followed this speech, and, after a remark from M. Rochefort that Belgium and Switzerland gave refuge to Republicans, the matter was allowed to drop. The report of the committee on the election of M. Delheil, which proposed its ratification, was brought up. The election of M. André was declared valid. In the sitting of Tuesday M. Schneider, having recovered from his recent illness, resumed the presidency. Count Lehon moved for leave to interpellate the Ministry respecting the system of government in Algeria. M.M. Jules Favre and Lebœuf also spoke on the subject, and the Government consented to the motion, and fixed Jan. 20 as the day when the interpellation should be brought forward. The verification of the elections was then resumed, and the return of M. Chagot was declared valid by a majority of 154 to 62. In the sitting of Wednesday the elections of Messrs. Rouain and Marion were annulled. The Emperor gave an audience on Sunday to General Banks, who left on Tuesday on his return to America. M. Delangle, the late Minister of Justice, died on Tuesday afternoon. The official journal announces the total loss, with all hands, of the Imperial despatch boat Gorgone, off Ushant, as she was returning from the Spanish coast to Cherbourg. The heart of King Richard I. of England, which has hitherto been preserved in the treasury of the cathedral of Rouen, has just been placed in the tomb recently erected for that sovereign in the choir of the building, thus realising the last wish uttered by Coeur de Lion. The leaden plate on the urn bears the inscription, "Hic jacet cor Ricardi, regis Anglorum."

SPAIN.—Petitions, bearing a considerable number of signatures, have been received from some of the chief towns of the Peninsula, including Santander, Orense, Gualajara, Grenada, and Cordova, praying the Cortes to elect the Duke of Montpensier King of Spain. Rumours are current in Madrid that a reconciliation has taken place between the Duke of Montpensier and

Queen Isabella. Should this reconciliation be effected, a major portion of the members of the Cortes will coalesce with the Progressist party. It is believed that the King of Italy has postponed his departure relative to the candidature of the Duke of Salaparuta for the throne of Spain, till the votes are filed up, the desiderata will be filled after these for the meeting of the Cortes on Friday. The Minister of Justice, brought in several bills, civil and criminal cases, and a bill for regulations for civil marriages. In the day the interpellation moved on by Senor Castelar, on the conduct of the Government, and in his speech all the tendencies of the late insurrection were discussed. The Ministers have gone on a hunting party to the mountains of Toledo, attended by a battalion of infantry. In consequence of the large amount of destitution in the city of Madrid, an excursion is viewed with dissatisfaction by

PORTUGAL.—General Da Silva Malhoa, the Minister of War, has resigned. It is believed that no change in the Ministry will occur until the Cortes open on the 9th of January.

PRUSSIA.—The Upper House of the Prussian Legislature adopted almost unanimously the Bill for the consolidation of the Prussian State, and were also passed for carrying into effect the Rhine Navigation Act of the 17th of October, for establishing Courts to settle questions connected with the navigation of that river. A petition for the removal of the Elbe dues, was received by the Government for consideration. The Emperor, a Roman Catholic military general, has been suspended from office by the King of Prussia, for marrying the Princess of Prussia, a Protestant. It is believed that the Emperor will be obliged to promise that their issue should be brought up in the Catholic faith. The young man was tried at the Berlin Criminal Court on the charge of attempting to shoot the King of Prussia while performing Divine service in the church. He was found guilty, and sentenced to three years imprisonment with hard labour.

BAVARIA.—It is stated that Herr Von Braun has been appointed Minister of the Interior, and that Herr Von Lutz, the Minister of Justice, has been appointed Minister of Public Worship.

AUSTRIA.—It is stated on reliable authority that a majority of the Ministry have forwarded a memorial to the Emperor, through Count Von Taaffe, President of the Council of Ministers, and that at the same time the minority of the Ministry have again tendered their resignations. It is believed that the result of the crisis, the address at the end of January will be the place in various parts of the empire in favour of the Constitution. In the sitting of the Reichsrath on Saturday the Minister presented several Bills relating to the tax and public debt. It is announced that the Government has declared itself ready to negotiate a treaty of commerce with Austria and Hungary on the footing of the most favoured nations.

DALMATIA.—Advices from Cattaro state that an interview took place on Tuesday at Ladin between General Auersperg and a deputation from the Italian insurgents, to arrange terms of submission. The insurgents, showed evident signs of demoralisation and discouragement, stated they had been designing agitators, and regretted having taken arms against the Government. Another meeting is to take place to-morrow, when a larger number of delegates will be present, who will be recognised officially as the negotiators for the submission.

RUSSIA.—It is reported that the Emperor intends visiting Jerusalem next spring, and will visit the Sultan en route. Further advices have been made respecting the conspiracies in the population in different parts of Russia, in connection with the abolition of serfdom anniversary. The plotters had circulated prosercription notices, and the names of high Government officials and members of the National party. The conspirators were signed chiefly for the promotion of Socialism. The leaders who have been arrested will be tried before the ordinary tribunals. Most of them were taken in Moscow, but it is clear that the plot extends to several of the leading towns.

ITALY.—The Crown Prince of Prussia, Prince of Hesse, and the Queen of Württemberg, arrived at Florence on Friday. The Crown Prince and the Prince Louis of Hesse went on Saturday to Spezia, where they embarked for Cannes to meet Princess Victoria. The King and the Princess Duchess d'Aosta left on Sunday for Turin. Mr. Elliot and Lady Elliot left Florence on Wednesday for Constantinople, by way of Trieste. It is believed that the Duchess of Genoa intends to request the resignation of the Spanish Minister relative to the speech of General Prim, in the Cortes, on the candidature of her son for the Spanish throne. The Chamber of Deputies adjourned on Saturday, February 1, after voting the provisional exercise of the Government provisional exceptional powers, until the sitting of the Senate on Tuesday. Count Digny defended his financial administration, and said he hoped that party passion would not be the same obstacle to Signor Sella as it had been to him. Signor Lanza, the new Prime Minister, expressed reservations respecting some statements contained in Count Cambray-Digny's speech, and said

the financial discussion until a more moment. The committee of the Senate to examine the Provisional Budget then of the day, expressing regret that provisional exercise of the Budget and exceptional powers for the year 1861, and declaring that the Budget could not be declared that the Budget could not be of the day, which was equivalent to a of confidence. Signor Scialoja reported the consequences might be, the Senate upon the order of the day as proposed then postponed to Wednesday, when made a declaration stating that, by the Government had pursued with regard to the of the Great Tax it in no way the prerogative of the Senate, and would avoid the course objected to. He that the Senate would withdraw the day. The committee thereupon substitute the record of Signor Lanza's the provisional exercise of the Budget, the exceptional powers relative to the Great Tax, were then approved. The afterwards indefinitely prorogued. The much swollen from the continuous rain, relations are apprehended at Pisa.

VATICAN.—The Pope on Sunday received 600 subjects at the Vatican. After speaking with individually, he delivered an Allocution in which he dwelt upon the significance of the Christmas Festival, and said, "God, in humility, declared pride to be the enemy of the author of revolution." His Holiness then assembly, amid loud applause. The third session of the Council was held on the election of 14 out of the 21 ecclesiastics to compose the committee on matters related. The principal members were Bishops of Cambrai, Utrecht, Pozen, Malines, and Westminster; the Bishops of Poitiers, and Padabour; the Primate of Hungary and the Primate of Hungary.

The assembly then members as a committee on questions connected with discipline. The Apostolic bull "Sedis," October, which, out of consideration for the are, reduces the number of cases of excommunication, was promulgated on the 10th. A telegram from Rome says that the idea of the infallibility of the Pope loses ground. The Holy See has entrusted the exact wording of the bull to the Commission, which, however, does not seem to take this responsibility. It is certain that the Holy See betrays a decided anxiety lest it endanger their own prerogative in extending the power of the Pope. A letter on Fenianism by the Rev. Mr. Lavelle has reached Rome, and created a very great interest among the Irish bishops who are attending the Council. In this letter Father Lavelle says that the Fenians have never been formally expelled from the Holy Sea. The letter has been translated into Italian, and placed before the Prefect of the Propaganda for the consideration of the congregation which Cardinal Barnabo presides. The Cardinal's decision is announced. There are 16 cardinal's hats at the disposal of the Pope, and it is asserted that his Holiness will not create any more during the Council.

Some Ministerial modifications will be made in the Government. Mr. Zaimis, however, the President of the Council, is at the head of the Government.

PARLIAMENTS.—In the sitting of the House of Commons on Wednesday, Mr. Cuddeposc made an interpellation respecting the intrigues of the Government on Jews in Roumania and the "Alance Israelites" at Paris in connection with the Government whether M. Boerexo promises to Earl Clarendon that the Government should obtain civic rights.

The subscriptions to the new loan closed on Friday. The number of bonds subscribed was 93,061, and the aggregate amount was 1,861,220*l*. Server Effendi, the bearer of the loan, has returned from Egypt, and had an audience with the Sultan. The settlement of the Egyptian debt is confirmed. Omar Pacha, the Egyptian Minister, has retired from the Government, as an acknowledgment of his services, has granted him the full pay and a pension for the remainder of his life.

In the despatch sent by the Earl of Salisbury to the Government, his lordship said that he had expressed the sentiments both of her Majesty and the British public. He also congratulated the Government and nation on the constant progress of a work so fruitful in the political and commercial results. M. de Lesseps, his lordship said that he had expressed the sentiments both of her Majesty and the British public. He also congratulated the Government and nation on the constant progress of a work so fruitful in the political and commercial results. M. de Lesseps, his lordship said that he had expressed the sentiments both of her Majesty and the British public. He also congratulated the Government and nation on the constant progress of a work so fruitful in the political and commercial results.

resolved on enforcing the removal of the Basutos from the disputed lands. Mr. M'Corkindale, the representative of the company, the owners of the river Asooto lands, has arrived in the Norseman, to hasten the settlement of the dispute between England and Portugal as to the ownership of Delagoa Bay. The Norseman's cargo includes a handsome tiger, Kaross, a present to Queen Victoria from the Basuto Paramount Chief, Mosoth, and a box of diamonds value 2000*l*.

INDIA.—A public subscription is being raised in Calcutta to defray the expenses incurred in the reception of the Duke of Edinburgh. A large number of native chiefs will be in Calcutta during the visit of his Royal Highness, and Sir Jansettee Jejeebhoy, Bart., and his two sons are also going there to meet him. It is reported that two out of the four remaining regiments of Madras Cavalry—viz, the 3d and 14*th*—are to be disbanded, and the officers to be posted to the 1st and 2d. A serious outbreak of convicts occurred in the Central Gaol at Rangoon on the 15th ult., resulting in the death of the superintendent of the gaol, Dr. A. Connell Mainzay. Mr. Candlish and Captain Beaumont have been taking evidence in Bombay and Poona in connection with the Abyssinian inquiry. They intend to pay a brief visit to Calcutta.

UNITED STATES.—The *New York Times* states that Mr. Motley, the United States' Minister in London, has induced the British Government to accept a proposition for the transfer of the negotiations on the Alabama claims to Washington. Eighteen of the Spanish gunboats sailed for New York on Sunday evening, it is supposed for Cuba. Congress has passed a concurrent resolution authorising the President to make preparations for the reception of the remains of the late Mr. Peabody, as merited by his glorious deeds, and in a manner commensurate with justice and the dignity of a great people. It is reported that Mr. Fish, the Secretary of the Treasury, will soon resign his post. President Grant has nominated ex-Secretary Stanton to the post of Associate-Justice of the Supreme Court, vacant by the resignation of Mr. Grier, and the Senate has confirmed the appointment by a majority of 41 to 11. Mr. Wells, commissioner of the revenue, in his report to Congress, recommends a modification of the tariff. In the sitting of the Senate, on the 16th, Mr. Carpenter delivered a long and impressive speech in favour of recognising the Cuban insurgents as belligerents. Mr. Sumner spoke in opposition. In the House of Representatives on the same day, Mr. Munger, Democrat, from Ohio, made a speech advocating repudiation of the National Debt. Great excitement followed. Messrs. Brooks, Randall, Kerr, and Woodward, all Democrats, denounced repudiation, declaring that their party was in favour of an honest payment of the debt. The House adopted, by a majority of 123 to 1, a resolution declaring that "any proposition directly or indirectly to repudiate any portion of the debt of the United States is unworthy of the honour and good name of the nation; and the House, without distinction of party, hereby sets its seal of condemnation on any and all such propositions." The one negative vote was given by Mr. Jones, a Democrat, from Kentucky. In the sitting of Tuesday, the House adopted the Bill which the Senate had passed by a majority of 49 to 9, providing for the reassembling of the old Legislature of Georgia, to include the negro members, and declaring the ratification of the Suffrage Amendment by that Legislature to be a condition which must be fulfilled previous to the admission of the Georgian delegation to Congress. The result of the election in Texas is still doubtful.

CANADA.—The Canadian Parliament adjourned on the 23rd inst. until January 11. The Ontario Legislature has voted a sum of 24,000 *dols.* to promote and encourage immigration.

RUPERT'S LAND.—Intelligence from Winnipeg territory announces that Governor M'Dougall and Colonel Dennis, Surrogate-General, were at Pembina in Dakota territory on the 6th inst., organising a force of Sioux Indians and English half-breeds to suppress the insurrection on the Red River. It is reported that Riell, the insurgent leader, had 460 men under arms. The latest accounts state that the insurgents continued to show a determined resistance to the authorities, and had seized the prominent Canadian sympathisers in the settlement, and taken possession of a fort situate opposite Pembina. Colonel Dennis was reported to be retreating. George Francis Train harangued a meeting at Buffalo on the 18th inst., expressing his indignation against the Government at Washington for permitting Governor M'Dougall to organise an armed force on United States' soil.

PARAGUAY.—Lopez is reported to have fled from Paraguay towards Bolivia with only a few followers, his last resources having been cut off, while he is himself in despair on account of the demoralisation of his remaining forces and the want of provisions. His troops had mutinied, and he had shot upwards of 200. The allied forces in small detachments were pushing into the interior without resistance, and were daily finding proof of the almost total dismemberment of Lopez's army.

Metropolis and its Vicinity.

UNIVERSITY TESTS.—A deputation from the meeting held at Cambridge on the 20th ult. in favour of the abolition of University Tests, and also one from Oxford, waited on Mr. Gladstone last week, to lay before him their views on this question. There were present from Oxford—the Dean of Christ Church, Rector of Lincoln, Principal of Brasenose, President of Trinity, Sir B. Brodie, Professors Price, Wilson H. J. S. S. S., and Jowett, and Messrs. Neale and R. and from Cambridge—the Masters of St. John's and Christ's, Professor Loveing, Mr. Bradshaw, librarian, Mr. W. G. Clark, late public orator; Mr. Ferrers, tutor, of Caius; and Mr. Porter, tutor, of Peterhouse. The Master of St. John's presented the memorial from Cambridge with 116 signatures. Mr. Gladstone, in reply, said that there were three points on which he was agreed with the memorialists—1st, That the time had arrived when this question ought to be settled by some legislative enactment; 2d, that it should be by a compulsory, and not by a permissive measure; and, 3d, that it should be made a Government measure. He could not, however, give any specific promise at present that the Government would introduce a Bill next session. He had not consulted his colleagues on the point, and at present there was more important questions which engaged their attention, and which must be settled before they could decide whether they could bring in a Bill respecting the tests. He urged, however, that the passing of any such measure next session must depend very much upon the degree of harmony which was likely to prevail in regard to its provisions, and pressed those anxious for the settlement of the question to try and arrive at as many points of agreement as possible, for if new questions were started, and had to be fought out at every turn, it might be impossible, if only from lack of time, to get a measure passed in the ensuing session.

WESTMINSTER SCHOOL.—The new governing body of this school has now been fully constituted, and the first meeting was held on Monday. The *ex officio* members are the Deans of Westminster and Christ Church and the Master of Trinity College, Cambridge. The others are Sir R. Phillimore, nominated by the Lord Chief Justice; Mr. William Spottiswoode, F.R.S., nominated by the Royal Society; Canons Nepean and Conway, elected by the Chapter; Rev. H. L. Thompson, by Christ Church; Mr. J. L. Hammond, by Trinity College, Cambridge. The co-opted members are the Earl of Devon, the Master of the Temple, the Bishop of Exeter, and Mr. D. Acland, M.P. The numbers of the school have risen since the question of removal was set at rest by the Public Schools Bill, and two additional masters have been appointed within the year.

METROPOLITAN PUBLIC WORKS.—The Commons' Select Committee on the subject of the proposed viaduct on the Thames Embankment, from Hungerford Bridge to Wellington Street, Strand, were instructed also to inquire whether any controlling power over public works in the metropolis is vested in and exercised by any Government department. The committee, over which Lord E.cho presided, examined several gentlemen, and the evidence given by them has just been issued. The committee came to the following resolutions:—"That no general control over works and buildings in the metropolis, constructed under Parliamentary sanction, is at present vested in any Government or public officer or department, other than that now exercised by departments of Government over the buildings that are under their superintendence. 2. That the design and execution of unsightly works, such as the Charing Cross railway station, and the railway bridges across the streets and roadways of the metropolis, as well as the juxtaposition of the London, Chatham, and Dover Railway Bridge and the new Blackfriars Bridge, across the Thames, may be reasonably attributed to the fact that railway, gas, water, and other public companies, or corporate and chartered bodies, have not been hitherto required to deposit any designs, elevations, or models of projected works or buildings when applying for Parliamentary powers. 3. That having regard to the improvement of the metropolis, and as a security against its further disfigurement, it is desirable that whenever any public company or corporate body applies for Parliamentary powers to enable it to execute any works or erect any buildings in the metropolis, or to raise money for the execution or erection of such works or buildings, it should, before coming to Parliament, deposit at the office of the Commissioners of her Majesty's Works and Public Buildings, plans and elevations, designs or models, in like manner as railway companies are now obliged to deposit plans and sections at the Board of Trade; and the committee recommend that the standing orders be amended so as to effect this object. 4. That the First Commissioner of Works should report to Parliament on such plans and elevations, designs or models, and that such reports should be referred to the Committee on Private Bills, in the same manner as the reports from the Board of Trade and Admiralty are now referred." The chairman prepared and proposed the first three of these resolutions, though not exactly in the form in which they now stand. He proposed, also, to recommend that a general control over all public works and buildings in the metropolis should be vested in the First Commissioner of Works, that greater importance and influence should be attached to his office; that there should be a Parliamentary under or assistant-secretary; that the Commissioner should be assisted by a Board or Council of Advice, representing the City, the Metropolitan Board of Works, the Royal Academy, the Institute of Architects, and the Institute of Civil Engineers, each of these bodies to name three of its members, from whom the Government should select one to serve for three years, and then be re-eligible, all these members

City Intelligence.

MONEY MARKET, THURSDAY.—BRITISH FUNDS: Consols are 92½ to 92½; New and Reduced Three per Cents, 91½ to 92; Bank Stock, 235 to 237; Exchequer Bills, March, 1*s.* dis. to 1*s.* pm., and June, par to 5*s.* pm.; India Five per Cents, 111½ to 112—FOREIGN: Turkish Five per Cents, 44½ to 45; Ditto Six per Cents, 67½ to 68½; Peruvian, 83½ to 84½; Spanish, 27½ to 27½; Italian, 56 to 56½; Lombards, 20½ to 20½; Egyptian, 79 to 79½; Mexican, 13½ to 13½; Argentine, 86 to 86½; Brazilian, 86½ to 86½; United States 5-20 Bonds, 85½ to 86; Erie, 17 to 17½; Illinois, 99½ to 100.

HOPE.—We have accounts from the 19. In the eastern province all the elections were likely to be contested. A Reform Bill. The Cape papers state that Buchanan was to have 600 oxen for his services with Teakelo, to urge the claims of the Free State Government had

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consequence of the distress existing among the population from want of employment, to the efforts of the society by sending the labour of this country to the colonies, where it was in demand, and land lying waste, and by the free use of some of the money and the free use of some of the vessels now lying idle. It was also proposed that the deputation should be appointed at a public meeting in favour of emigration to be held at the Hall on the 4th of next month, over which Sir George Grey consented to preside.

TAXATION AND THE INCOME-TAX.—A meeting, largely attended, was held in the Square Rooms on Monday evening, to discuss the subject of local taxation and the pressure of the Income-tax. The meeting was presided over by Dr. Brewer, and was largely attended.

Mr. Pocock moved the first resolution—“That this meeting views with great uneasiness the enormous increase of local taxation, more particularly so in the face of new reassessment.”

Mr. Fleming, Mr. Verey, Mr. Mason, and Mr. Stanton moved the next resolution—“That this meeting strongly protests against the enormous increase of 4 per cent upon the rate for water, and would recommend that some authority shall have the power of settling equitable terms for the consumers, with power of purchasing if these terms are not agreed with.”

Mr. Hughes seconded the resolution, which was supported by Mr. Nichols, and carried unanimously. Mr. Ross moved the next resolution—“That this meeting considers the mode of assessing the Income-tax exceedingly arbitrary and unfair, and would suggest that each person make a return on affidavit if required, and that the assessors take the usual remedy against all persons as on the present system. The power appears to be too strongly vested in the assessor, who may use or abuse it to the great annoyance and loss of his parochial neighbours. A long discussion followed, in which, in spite of the chairman's determination to call them to order, and to support Mr. Ross, several speakers denounced the Chancellor of the Exchequer, and expressed a hope that the tax would not allow him to carry out the ‘thimble-rick’ intended. The resolution was eventually put to the vote, and carried amidst cheers. Mr. Sapwell moved the next resolution:—“That this meeting looks upon the enormous increase of the assessed and income taxes in this country as a very heavy pressure at so early a period of the year.”

Mr. G. D. Laycock seconded the resolution. Mr. Downes said they were nine months behind in the tax, and emphatically denied that the tax would be paid in advance—in thirteen months they would have to pay three years' taxation. He also moved against Mr. Lowe's policy, and accused the Chancellor of the Exchequer of ‘hoodwinking’ the country. A speaker in the body of the room argued that the present Act of Parliament the Chancellor of the Exchequer had the power, not only to obtain the law months' taxes in advance up to April, but to obtain the months' taxes in advance in addition. During the speech the Chairman repeatedly called the speaker to order, despite cries of ‘He is speaking to the point.’ A gentleman near the platform complained that the Chairman was pressing the resolution too much. The Chairman said that they must listen to the ruling or he would leave the chair. The resolution was then put and carried.

OUTDOOR RELIEF.—A crowded meeting of Metropolitan Relieving Officers was held a few days since at the Strand, Mr. B. Wates, of Woolwich, in the chair. There were present relieving officers from every district of the metropolis. A paper was read by Mr. Nagle, of Stepney, on the question of outdoor relief, and the recent minute of the President of the Poor-law Board. In his paper, Mr. Nagle dealt with the conditions on which relief should be given to pauper widows and children, and what sort of relief should be administered. Respecting the children he suggested that the guardians should hold themselves in readiness to provide for them adequate relief in housing, food, clothing, and schooling. He next desired the guardians to insist upon the maintenance of the family being entirely satisfactory to the locality and adaptability. Should such a family not be readily found, he suggested that homes should, at the cost of the Union, be provided, in which all the fatherless families in receipt of relief should be required to reside. Further, he would suggest that every fatherless pauper child to school at the age of three or four years, and that should be the conditions upon which relief was given to the mother.

In the discussion which followed Mr. Stanley, relieving officer of Poplar, said that in the case of the widow who neglected the education of her children had a most beneficial effect. Mr. Slight, of Old Town, said he found that by constantly sending the widows before the Guardians they were enabled to send their children to school. Mr. Jones, with respect to outdoor relief to old people, that needle-rooms should be provided for them, and called ‘pauper pay,’ and that would not occur in the outdoor relief. Mr. Birch, of Holborn, said that it was the wish of many guardians that the recent minute of Mr. Goschen. He had, however, told several guardians that the minute was a consolidation of the orders of the Poor-law Board which had been made over and over again, and that a fair test and trial should be given

to the people seeking outdoor relief, to ascertain whether they would work or not. In Liverpool the guardians established a large workshop, in which they offered the people 1s. 6d. to 2s. a day, and out of 800 applicants for out-door relief only 400 accepted the work offered them. A better system of testing the applicants was wanted in the metropolis, so as to see whether they were willing to work. He had tailors, shoemakers, and people of every trade applying to him, and he hardly knew how to test them. No better plan, in his opinion, could be provided than to provide some place for the children, so as to leave the mother's hands free to work. Nothing, he thought, could be better than for the charity Boards to take up the question of paupers' residences, because in that point lay the great defect of the Poor-law system. He could speak of many Unions in the metropolis in which no care was taken as to whether the children were sent to school or not. Other speakers followed, and the proceedings closed with the usual vote of thanks to the chairman.

ORGANISATION OF CHARITABLE RELIEF.—A meeting of guardians and representatives of the charities in Westminster was held on Monday for the purpose of organising a system of relief which should reach all deserving cases, and prevent any from obtaining duplicate assistance. Mr. J. G. Talbot, M.P., took the chair, and among those present were the Earl of Lichfield, Lord A. Churchill, Mr. W. H. Smith, M.P., the Rev. A. Borodaile, the Rev. J. H. Hamilton, the Rev. Cyril Page, &c. A resolution based upon the suggestions of the Poor-law Board was unanimously adopted, the chief object aimed at being such a registration of voluntary relief, as that persons who make a living out of the gifts of the benevolent may not be able to obtain assistance from two or three sources, a circumstance which now is believed to be extremely common. The Rev. Samuel Martin, an eminent dissenting minister, said the movement had the support of the nonconformist bodies. On Monday a meeting was held at the Islington Institution to consider the propriety of organising and establishing a society for repressing mendicancy in that parish. The Rev. Daniel Wilson, the vicar, occupied the chair, and said that the increase of mendicancy was becoming very serious. There was a great number of persons in Islington who made a regular traffic of begging, and who traded upon the benevolence of the public. The class of mendicants who were the greatest evil were those who begged from house to house. There were places in the parish where mendicants could buy petitions already written, and obtain lists of all the charitable people residing in the neighbourhood. It was proposed to establish a society which would employ two officers whose business would be to inquire into the real condition of those who applied for relief. Those who were impostors would be detected, and those who were really deserving would be relieved, either by the existing charities in operation in Islington, or, when these failed to meet a case, by the funds of the society. Mr. Hill explained at some length the advantages and the working of this system, and said that it had been successfully carried out, in co-operation with existing relief societies, in the parishes of St. George, Hanover Square, and Marylebone, in which districts a vast amount of imposture had been detected, and at the same time many deserving poor relieved. Resolutions approving of the proposed plan and appointing a committee were agreed to.

FORGERY OF BILLS OF LADING.—On Monday the two Gravesend boatmen, Brown and Terry, who were charged with a series of extraordinary frauds upon insurance companies, were again brought before the Lord Mayor at the Mansion House. The evidence showed that the success of these frauds, which extended over a whole year, appears to have been due to the boldness with which the prisoners had carried them into execution, and that the insurance companies had been robbed to the extent probably of 1200l. The prisoners were again remanded.

THE LATE MURDERS IN ABYSSINIA.—It is reported that the expenses incurred in recovering the remains of the late Mr. Thomas Powell, who, with his wife and others, met their death in so sad a manner while on a hunting expedition in Abyssinia last spring, amount to more than 15,000l. Chiefs had to be largely propitiated by costly presents, and Egyptian soldiers had to be employed in carrying out this mournful duty. One chief, or sheik, on being asked what form his present should assume, replied that he wished for the full uniform of a British general. His fancy has been complied with, and the cocked hat, plumes, sword, &c., are now on their way to Abyssinia. Mr. Henry Powell, who, with Mr. Jenkins, went out to recover the remains, has since his return suffered severely from ill-health.

THE PUBLIC HEALTH.—The Registrar-General's Weekly Report states that in the week that ended on Saturday, Dec. 18, 4530 births and 3630 deaths were registered in London and in 13 other large towns of the United Kingdom. The annual rate of mortality was 29 per 1000 persons living, being 26 per 1000 in London, 36 in Edinburgh, 24 in Dublin, 30 in Bristol, 29 in Birmingham, 33 in Liverpool, 33 in Manchester, 32 in Salford, 34 in Sheffield, 30 in Bradford, 30 in Leeds, 29 in Hull, 26 in Newcastle-upon-Tyne, and 40 in Glasgow. In Paris the annual rate in the same week was 26 per 1000. The rate in Berlin during the seven days ending the 16th inst. was 26 per 1000. In London the births of 1145 boys and 1034 girls, in all 2229 children, were registered last week. In the corresponding weeks of 10 years 1859-68, the average number, corrected for increase of population, was 2204. The deaths registered in London during the week were 1566. It was the 50th week of the year, and the average number for that week, corrected for increase of population, was 1541. The present return is therefore 25 above the estimated amount.

Provincial.

ALDERSHOT.—A Government inquiry, which is likely to have an important bearing upon the question of the utilisation of sewage and the liability of Local Boards of Health to execute works of drainage, was opened on Monday at the office of the Aldershot Local Board of Health. The Board has recently been threatened with proceedings in the Court of Chancery in consequence of an alleged nuisance caused by draining the town sewage into the river Blackwater at Ash. To this the Board answered that if any nuisance existed it was caused as much by the sewage from the Camp Farm as by the town drainage, and at a recent meeting the Board passed a resolution asking the Government, as contributors to the pollution of the Blackwater stream, to contribute also to the expense of cleansing it. The military authorities, in response, alleged that the pollution of the stream occurred before it reached the boundaries of their farm, and issue being thus raised, the Secretary of State for War applied to the Secretary of State for the Home Department for an official inquiry into the allegations on either side, and Mr. Bruce, in pursuance of the powers conferred upon him by the Sanitary Act, 1866, appointed Mr. Rawlinson, C.B., to make the official inquiry, which was opened on Tuesday before the members of the Local Board of Health and several military witnesses. The evidence was very voluminous, but the chief facts established upon the evidence of Mr. Martin, an innkeeper, residing near the Camp Farm; Mr. Fillingham, tenant of a cottage under him; Mr. G. Trimmer, Mr. F. Egar, chairman of the Local Board; and Dr. Shoolbraid, its medical officer, were that the water which left the Camp Farm after the application of the sewage to the land was very offensive in odour, and often black in colour; and, although no disease had yet been traced to it, there was reason to suspect that its effects were injurious in various ways, some of the cottagers attributing the bad condition of the water of their wells to the percolation of sewage abominations. On the other hand, Mr. Blackburn, lessee of the Camp Farm, while admitting that the sewage water was often black, stated that the blackness was caused by the iron-rust of the soil over which it had previously passed. Captain Salmond, Royal Engineers, said he had inspected the farm recently, in consequence of complaints which had been made, and found it in a good state. He understood that persons were in the habit of drinking the water which came through the subsoil pipes. Staff-Surgeon Major Thornton said there had been a few complaints in the North Camp about the farm when the wind was blowing from the south-east, but it did not blow from that quarter more than a dozen times in the course of a year, and the North Camp was remarkably free from zymotic disease. The Commissioners said that sewage farming was in its infancy. There was no doubt it must be made a special business, and the sewage must be applied to land in the proper proportion and at proper seasons. He thought Mr. Blackburn would bear him out that it would not do to irrigate the same land with the same volume of sewage for all kinds of crops, and if they attempted to grow Wheat they would simply waste their time. The Commissioners then, accompanied by the members of the local Board, proceeded to the farm to make a minute inspection of the system there in operation prior to reporting to the Secretary of State on the whole subject.

BIRMINGHAM.—On Wednesday Lord Napier of Magdala visited this town on a visit to Colonel Charles Ratcliff, at Widdrington, and received a flattering reception from the inhabitants. He was met at the Great Western Railway Station by the Mayor, members of the Corporation, and Volunteer officer. In the afternoon a public reception was given to his lordship at the Free Reference Library, when an address to him was read by the town clerk. In the evening Lord Napier was entertained at dinner at the Great Western Hotel, where, among the invited guests, were the Earl of Dartmouth, Earl of Lichfield, Lord Lyttelton, Sir Charles Adderley, M.P., Messrs. Dixon, M.P., Muntz, M.P., Newdegate, M.P., the Mayors of Birmingham, Coventry, Wolverhampton, Wenlock, &c. At eight o'clock the distribution of prizes to the prize marksmen in the Birmingham battalion of Rifle Volunteers took place in the Town-hall, Lord Napier handing the prizes to the successful candidates.

CAMBRIDGE.—A general committee of resident members of the University engaged in tuition, have adopted a scheme of arrangement for delivering lectures to women during the ensuing Lent term. This committee comprises Professors Adams, Babington, Cayley, Liveing, and Maurice, and about 20 other Fellows, tutors, or lecturers. The lectures will for the most part commence in the first week in February, and will comprise English history, English language and literature, Latin, Greek, German, French, algebra, and the principles of arithmetic, practical arithmetic, geometry, logic, political economy, botany, geology, physical geography, chemistry, harmony, thorough bass, and the theory of sound in its application to music. The lectures will be delivered twice a week within the period of University residence, and between the hours of 2 and 5 in the afternoon. The fee for a single course will be one guinea, and any woman having attained the age of 17 will be eligible for attendance. It is intended that the scheme shall be self-supporting; but the committee will be glad to accept funds for the formation of exhibitions.

CARMARTHEN.—Sarah Jacobs, the Welsh fasting girl, died on Friday evening in the presence of the four nurses from Guy's Hospital. Shortly after 3 o'clock in the afternoon she became delirious, but the parents refused to offer her food. She made no confession, but continued in a delirious state until she died. A meeting of the watching committee was held on Saturday

afternoon, when the nurses were examined and gave in a report containing a diary which they had kept from the time they took charge of the girl till her death. The report stated that for the first five days she was cheerful and slept well, sleeping the greater part of the time. She had a brief fainting fit on the sixth day, and her voice was not at all strong, having become weaker. On the 7th she was very restless, and had no sleep. Her feet being very cold, flannels were heated and wrapped round them. About 3 o'clock in the afternoon of the same day she was very cold, and could not get warm. Her father asked that her young sister should be put in the bed beside her, and this was done. The nurses then thought the girl was dying, and told the father and mother they might go near the bed, but they still watched to see that they gave her nothing. On Friday, the eighth day, she was very restless, but quieter than during the night. She died at three in the afternoon. Dr. Davis said he had cautioned the father on the condition of the girl on Friday, and offered to take away the watchers, but the father refused to give her food. Some time afterwards, however, he said that if the doctor wished to be persuaded that the girl could swallow he might offer her something; but it was then too late to do so. At the inquest on Tuesday, Messrs. Thomas and Phillips, surgeons, who made the *post-mortem* examination, deposed that the body was plump and well-formed, with indications of puberty; that the brain showed no indications of disease; there was no obstruction in the alimentary canal; the stomach contained three teaspoonfuls of semi-gelatinous substance; the small intestines were empty; in the colon and rectum there was half a pound of hard excrement; there was no malformation anywhere, and the body was free from disease. It was believed that deceased was afflicted with hysteria. Mr. Phillips spoke of a large hollow under the left arm capable of secreting a half-pint bottle. Mr. Davis, the surgeon, deposed that the girl was in a fit for one month in 1867, when there was a difficulty in ascertaining whether she was dead or alive. The inquest was adjourned to Thursday.

CHATHAM.—Further changes are to be made in the Chatham Dockyard, both by way of diminution and increase. From the 1st April next, in any future appointment of a master smith, the salary will commence at 150*l.*, increase 10*l.* every three years, and stop at 250*l.*; foremen of smiths will commence at 120*l.*, increase 10*l.* every seven years, and stop at 150*l.*; foremen of caulkers and joiners are to commence at 120*l.*, and increase 10*l.* every three years, up to 180*l.*. The limit of the salary of foremen of the yard will be 250*l.*. The Admiralty intend to make the following augmentations in the pay of artisans:—Leading men are to receive 6*d.* a day extra, as more work will devolve upon them from the intended abolition of the office of inspectors of the various trades; sawyers are to have an increase of 4*d.* a day, and joiners an increase of 2*d.* a day. With respect to compulsory superannuation of the dockyard hands, it appears that the general age will be 59, and that the men who are to be superannuated between the age of 55 and that age will only be those who are no longer capable, from advancing years, of doing what is considered a fair day's work.

DAFMOUTH.—The Mary, steamship, from Algoa Bay, bound to London, put into Dartmouth harbour on Tuesday, having on board three men, one of whom was handed over to the authorities on a charge of attempted murder, the other two being witnesses in the case. It appears that the bark Stirling, of Liverpool, lately left Cardiff for Aden, and that shortly afterwards one of the crew, named William Boyle, an Irishman, made an attempt on the captain's life, and stabbed him in the neck. The vessel then put into St. Vincent, one of the Cape Verd Islands, where the Mary, steamship, arrived for a supply of coal. The British Consul handed over the men to the captain of the Mary, requesting him to pass them over to the authorities at the first port he made. At the time of the Mary's leaving St. Vincent, the captain of the Stirling was doing well, and hope was entertained of his recovery.

DERBY.—The floods caused by the overflowing of the rivers in the midland districts have been very disastrous in this county. On Sunday, the road in front of St. Paul's Church, Little Chester, Derby, was five feet under water, and it was of course impossible to hold Divine service in the edifice.

DURHAM.—Joseph Whitfield, a pitman, who was tried a few days since at Durham for murdering his daughter, aged seven years, and acquitted on the ground of insanity, died on Friday night in the county gaol. He had been suffering severely before his trial from miner's asthma, and died of exhaustion.

EPSOM.—On Wednesday morning, as a man called Spooner was preparing to leave the village of Ewell for London with a load of flour, a man rushed into his house and threw into the fire, where the wife was making breakfast, a bag of gunpowder, and then committed suicide by stabbing himself. The house was blown down, and the husband was so seriously injured that he is not expected to recover. A railway porter passing at the time was also severely injured. The motive of the outrage is stated to have been jealousy, and the suicide confessed before his death that he had obtained the powder by breaking into the powder mills at Ewell Marsh.

HOUNSLOW.—On Friday afternoon a fatal explosion occurred at the gunpowder works of Messrs. Curtis & Harvey, at Hatton, by which three workmen were killed, and several others injured. The explosion occurred in a corning-house, which contained 1300 lb. of powder, and was completely destroyed, the machinery and other contents being scattered in all directions. The shock was felt for miles round. The last explosion that occurred at the Hatton Mills was about 10 years ago, and until recently the inhabitants of the neighbourhood were of opinion that these works were

quite safe, as it was believed that it was simply green charges that were worked prior to being removed to the Haworth Mills to undergo corning and finishing. The inquest was opened on Monday, and adjourned to Wednesday, when the jury returned a verdict of "Accidental Death."

LANCASTER.—Considerable damage has been occasioned in this county by the recent heavy rains. In the river Irwell, on Sunday, the water was 12 feet above the ordinary level, and in north, east, and west Lancashire there was nothing to be seen but a succession of great lakes, dotted here and there with a homestead, haystack, or tree.

LIVERPOOL.—A young man, who gave the name of Arthur Forrester, and who is suspected of being connected with the Fenians, was arrested on the 16th inst. in an eating-house in this town. On his person a loaded revolver was found, and in his portmanteau five others unloaded. He said he was a hawker, and bought them in Birmingham to sell again. He was remanded.

MANCHESTER.—The annual meeting of the Manchester National Society for obtaining Woman Suffrage was held on Monday, when it was determined to form a guarantee fund of 5000*l.* for the purpose of furthering the objects of the association. The speakers included Mr. Rylands, M.P. for Warrington; Mr. Charley, M.P. for Salford; Mr. Jacob Bright, M.P. for Manchester; Miss Becker, and Miss Ashworth. The Mayor of Manchester presided.—On Wednesday night a large meeting was held in the Free Trade Hall, at which resolutions were unanimously passed denouncing the recent political evictions in Wales, and advocating the ballot. Mr. George Wilson presided. Among the speakers were—Mr. Richards, M.P. for Cardiganshire; Mr. Osborn Morgan, M.P. for Denbighshire; Mr. Richard, M.P. for Merthyr Tydvil; Sir Edward Watkin, and Mr. Torr, barrister.

NOTTINGHAM.—Deluging rains which fell last week, have caused the Trent, the Derwent, and other rivers in the midland districts to overflow their banks. In the neighbourhood of this town the water rose very rapidly on Saturday night and Sunday morning, covering the meadows near the town and flooding the cellars of the houses in the lower parts. On Sunday afternoon the waters had passed the mark of the great flood of 1864, and reached the height of the flood of 1857. In the evening they were within 3 feet of the flood of 1852, the greatest inundation recorded for a long series of years. At Wilford Ratcliffe, and, indeed, throughout the whole of the Vale of Trent, the water has had the appearance of a vast lake, thousands of acres being submerged. Numbers of sheep have been carried away and drowned, bridges and railway embankments washed away, and considerable injury has been done to farm produce.

OXFORD.—The following letter has been addressed to the President of St. John's College, Oxford, by the Hon. Auberon Herbert:—

"Dec. 11.—My dear President,—I write to inform you that I have decided to resign my fellowship. I take this step for two reasons—first, because I do not believe in the Articles of the Church of England; and, secondly, because I am entirely opposed to the system of fellowships. I ought, perhaps, to add, that those fellowships which were gained, as in my own case, under the old conditions of restricted competition, seem to me specially indefensible. I will only say in this letter that I consider that the use which we make at present of very extensive funds is unwise and unjust, as it limits the number of those to whom we can offer the advantages of a University education. In a few days I shall take another opportunity of stating what I believe Oxford, with her great resources, might do for the whole people. I cannot separate myself from a society to which I have belonged a good many years without expressing my sense of the personal kindness which I have always received both from you and all other members of that society, however often or however widely we may have differed in matters of opinion.—I am, my dear President, very faithfully, AUBERON HERBERT."

PORTSMOUTH.—On Thursday week, while the wind was backing out to the southward and increasing in strength, her Majesty's line-of-battle ship Donegal, Captain Hewett, V.C., bound to China, and lying at Spithead in company with the Monarch and United States' screw corvette Plymouth, was signalled to proceed to sea. The order was obeyed, and the ship steamed out in the teeth of the gale. Eight hours afterwards she was off St. Alban's Head with storm sails split, ports stove in, quarter gallery washed out, and decks filled with water. She was also strained and leaked very much in her topsides, if not below the water line. After knocking about in the Channel all night she returned on Friday to St. Helen's Roads, beyond which no one who saw her get under weigh on the previous day supposed she had gone, and there anchored in safety. It is stated by the *Times* that the bill for making good the damages sustained by the Donegal will not be less than 1000*l.*, while in other quarters it is said that this estimate is greatly exaggerated. This latter statement derives confirmation from the fact that the ship sailed on Tuesday for China.

RUGBY.—The trustees of Rugby School met at Warwick on Monday, and after some discussion resolved not to revoke the appointment of Mr. Hayman to the head-mastership of the school.

SALFORD.—The *Manchester Guardian* states, upon authority which it cannot doubt, that on Saturday evening a telegram from the Horse Guards was received by Colonel Reynolds, the assistant adjutant-general for the district, intimating that the Fenians contemplated an attack upon the Militia Barracks in Salford, with the view of obtaining possession of about 800 stand of arms which were stored there. Colonel Reynolds lost no time in adopting measures for the defeat of the plot. The rifles were removed the same night to the Infantry Barracks, where, of course, they are safe against any sudden surprise. It has since been announced that the report has no foundation, and that the telegram made no mention of Fenianism.

SHEERNESS.—During the gale of Thursday night a sad disaster happened off this port, by which five chil-

dren lost their lives. The barge *Monarch*, Captain Chapman, master, had anchored for the night at Spithead, having on board, beside the master and his wife, five children between 13 and 3 years of age. The mother of these children was drowned in the barge in 1868, and her sister-in-law had since taken charge of them. About six o'clock on Thursday night the barge was blowing with the fury of a hurricane, and the waves dashed over the gunwales of the barge, filling the cabin with water, which rose to such a height as to likely to founder, Chapman got out the boat, and his sister and children into it, and pushed off. The boat soon got half full of water, and he expected it would also go down. He believed that three of the children were drowned in the boat by the waves dashing over them before there was any chance of help, and that they were knocking about till past two o'clock, when they were picked up by a fishing smack. He and his sister were saved, but the boat was swamped and all his children were drowned.

SKIPTON.—On Saturday Thomas Smith, a well-known man, was committed for trial at the assizes for having set fire to two haystacks belonging to the rectory of Addingham, a stable occupied by Mr. Joseph W. and the Wesleyans Reformers' Chapel.

WALLINGFORD.—On Thursday night, the 16th inst., constables repaired to Benson, and arrested Richard Pither, a cattle doctor, and Vandyke Polley, who was seen in the company of Richard Green on the evening of his murder. Pither was conveyed to Oxford Castle, and Polley to the Watlington police-station. The house of the murdered man, who was apprehended for removing some title-deeds and money from his father's house, has been liberated.

WARRINGTON.—It was announced at the weekly meeting of the Town Council last week that Colonel the Right Hon. J. Wilson-Patten, M.P., who resides in this town, had stated his intention to present a space of ground, measuring about 11½ acres, for a public park, to be devoted to the recreation and amusement of the people of the borough. Colonel Wilson-Patten has desired that the place shall not be ornamented as a park, but left for the recreation of the people, stipulating that the Militia and Volunteers should be permitted to use it as a drill-ground. A formal record of Colonel Wilson-Patten's liberality was placed upon the minutes.

WHITCHURCH.—A rural-decanal conference was held a few days since in this town, to consider certain queries submitted by the Bishop of Lichfield to the clergy and lay representatives of the diocese. Archdeacon Allen presided, and there were present Mr. Gwyn, Messrs. G. Brookes, Whitchurch; J. Bourne, Adderley; J. Davis and G. Jones, Ash; J. Christian, Ightfield; R. Houlding and J. Powel, Press; T. Eaton, Tilstock; J. Dawson, Whixall; Mrs. P. Andrews, A. Corbet, J. Evans, C. H. Prace, H. H. Price, A. J. Warren, and E. Cheere. The following resolutions were adopted:—

"1. Considering all circumstances, this meeting is not disposed to accept a conscience clause in villages, or in other places where the parents have not a choice of schools, or principle of perfect liberty of teaching to the teacher, or perfect liberty of withdrawal to the parent. 2. We see how education is to be generally enforced. 3. We think that school fees should be paid in all ordinary cases, but give no opinion as to the means that should be taken to meet the lowest stratum of society in large towns. 4. We think that a certificate of a certain amount of education should be required as a condition of employment, and that being allowed to the examiners to pass those unable to be incapable. We further think that Denison's Act should be made compulsory on Boards of Guardians, and that the duties of all persons receiving out-door relief should be required to attend school up to the age of 11, or up to the time when they may have received a certificate of instruction. We think that the Privy Council Office should be more liberal in giving grants in destitute districts; that all schools should be inspected; and that payments should be made for making allowances to the school where the teacher is certificated a high rate of payment. 5. We disapprove of local rates in support of schools." Archdeacon Allen disapproved of the resolution mentioned in resolution 4 being required as a condition of employment.

WORCESTER.—The floods have been very disastrous in their effects in several parts of this county, and in some parts all locomotion had been impeded or suspended. At Bewdley on Monday morning persons were prevented from getting into the town from the Worcestershire side. At Stourport the same state of things existed, and it was found necessary to barricade the bridge to prevent persons hazarding their lives.

WREXHAM.—The Board of Guardians of this town have resolved to adopt the system of boarding out pauper children. Persons who take children will be paid 3*s.* per week until the children reach the age of 13 years, when the amount will be lowered to 2*s.*

Ireland.

ANNIVERSARY OF THE SIEGE OF DERRY.—The anniversary of the closing the gates of Derry in the face of the army of James II. by the 'pretence boys' that city in the year 1689, was celebrated on Saturday in the usual manner, and, notwithstanding the threats of some and the prognostications of others, the peace of the town remained unbroken. This result was due in the first instance to the energetic action of the Government, who had massed together in the city a force so overwhelming as to overawe the most intrepid, and partly to the self-control of the Apprentice Boys, who carefully refrained from any insult to the Catholic fellow-townsmen. The Apprentice Boys, with their friends, numbering 2000, marched in procession, attended by their band, with ten stands of banners, colours, the city ensign, and a number of brass bands. Their band played "No Surrender," and the enthusiastic cheers of spectators in the streets and the ecstatic greetings of women who lined the way.

1860.]

The Bishop of Derry and the Rev. C. ... in the cathedral. The Rev. Thomas ... from the text, "Let every soul be ... to the higher powers, for the powers that be ... by God." On leaving the cathedral the ... was reformed, and passed through the prin- ... with the bands playing and colours flying. ... for the Queen were given at the gates. On ... Walker's Memorial Lundy's effigy was burnt ... cheering. While these proceedings were ... the Roman Catholic populace of the Bogside ... with drums and green banners, and ... demonstration by burning three effigies, ... to represent King William III., Mr. John- ... and Mr. Ferguson, the President of the ... Boys. A copious shower of rain fell oppor- ... of the day, and helped to extinguish ... of excitement. All has since continued ... and the best feeling now prevails on both

RIGHT MEETING.—A tenant-right meeting ... at Newtownlimavady on Monday. Mr. ... Cather, J.P., presided, and the meeting was ... Resolutions were passed declaring that ... and tenant should be considered as joint ... of the land, the tenants now possessing a valu- ... in their holdings, resulting from the ... labour and outlay of centuries, and ... "dismay" at the interference of landlords ... the tenants' property by capriciously increasing ... and limiting compensation to outgoing ... demanding that the tenants should be undis- ... as long as they paid fixed rents, to be adjusted ... by arbitrators, and that the tenants ... legal power to sell their tenant-right at ... They further declared that the tenants ... been robbed by land jobbers who purchased ... the Landed Estates Court. A committee was ... to watch over the Land Bill of the

PROSECUTION OF A PRIEST FOR SEDITIOUS LAN- ... The Government have directed that a prose- ... shall be instituted against the Rev. J. Ryan, a ... Catholic priest of Cashel, who at the recent ... of candidates for Tipperary said that the ... of taking revenge on the landlords was ... given up, and that the people were now acting ... patent, and most successful principle, by which ... went out, took their revolver, and "tumbled" ... landlord. Mr. Ryan has been suspended by his ... and the Rev. W. Mooney has also been sus- ... for writing a threatening letter to Colonel ... agent.

OUTRAGE IN KING'S COUNTY.—The barbarity ... King's County miscreants, who robbed the house ... of arms, and then cut off his nose, ... universal horror throughout Ireland. The ... was arrested on the grounds by Mr. Bailey ... has been identified by Mrs. O'Connor as ... she held her in the hall. His name is Comohy, ... from a place several miles away. Another ... has been arrested, and identified by Mr. ... as the one who mutilated his face. A part ... as well as the nose was cut off, and Mr. ... hands were severely cut in attempting to ... himself. The Daily Express says that Mr. ... is a Roman Catholic, and neither a landlord ... agent. It is difficult, therefore, to conceive ... as the cause of the bitter enmity which was ... in such a savage manner.

OUTRAGE IN ARMAGH.—A daring ... was committed on Sunday night near Beleek, ... county of Armagh. Charles Murphy, a bailiff ... property of Mr. C. H. L. Ward, of Stratford-on- ... was sitting at supper when a party of armed ... entered his house after firing shots, and struck ... the head with a pistol. He ran into a corner, ... assaulted him again. They also assaulted ... and daughters. One of them handed him ... and wanted him to take an oath, but he ... They smashed the furniture and windows ... went away. He supposes that they accuse ... being instrumental in getting some of their ... although there is no foundation for ... In February last he received a ... letter, and a party of men broke in his

OF WESTMEATH.—A meeting of magistrates ... on Friday for the purpose of considering the ... of the county of Westmeath, and obtaining an ... force. Threatening letters have been sent ... Charles Handcock, cautioning him against ... in two ejectment cases for non-payment of ... of the Hon. Temple Harris, of whom ... He is obliged to travel under the ... of two policemen. Mr. Maunsell, of ... and Mr. Gray, of Berrington, are similarly ... and it is stated that several other gentlemen ... obliged to leave the country in consequence

OF REINFORCEMENTS.—The Valorous ... Kingstown on Saturday, with 200 Marines, ... of the Royal Artillery, and the 47th Regiment ... from Barbadoes. The 47th proceeded at ... the Carragh, whence, after some change ... made in this garrison, they will return to

NOT AN IRISHMAN.—The second ... of the "Lenchus Mor," or ancient laws of ... by Dr. Hancock and the Rev. ... O'Mahony, which has just been issued, ... some interesting facts respecting the life of ... from which it appears that the patron ... was born in the vicinity of Glaston- ... and that the ceremony of his ... near Downpatrick was more probably ... prior to his return to England.

Scotland.

THE MARQUIS OF BUTE.—The Buteman says that ... it is rumoured that the Marquis of Bute, disgusted ... at some of the goings on in connection with the ... (Ecumenical Council, has left the "Eternal City," and ... is meditating a return to the Church of his Fathers. ... It is also stated that the Marquis took with him from ... Scotland to Rome a magnificent silver cross of Gothic ... workmanship, adorned with Scottish stones, and pre- ... sented it to the Pope, who directed that it was to be ... used as the processional cross of the Council. The ... cross was made by a well-known Catholic jeweller in ... Glasgow.

DISCOVERY OF GOLD IN INVERNESS-SHIRE.—It ... appears that the reports recently in circulation regard- ... ing the discovery of gold in Inverness-shire, or the ... neighbouring county of Moray, were not without ... foundation. The precious metal has been actually ... found in a stream in the parish of Daviot, but it has ... not yet been ascertained if it occurs in sufficient ... quantities to pay the working.

Railways.

THE METROPOLITAN.—It is understood that the ... section of this line between Westminster and Black- ... friars, passing along the Embankment, will be com- ... pleted and ready for traffic on May 1, and that if the ... contractors are put in possession of the land, the ... extension from Blackfriars to Cannon Street will also ... be completed by the same time. The capital in hand ... is more than sufficient to complete the work.

ACCIDENT ON THE GREAT WESTERN.—On Friday ... night a goods train was running into Brettell Lane ... station, near Stourbridge, when the driver discovered ... that a part of the train had become uncoupled, and had ... been left behind, but the missing trucks being left on a ... heavy gradient had followed, and on the driver revers- ... ing his engine to go in search of them they came dash- ... ing upon him with such force as to smash several ... carriages, and block both up and down lines. The down ... express from Paddington was then due, but the signal- ... man hoisted his distant signals, and telegraphed to the ... next box to do the same. This was promptly done, ... and the driver of the express was thus able to pull up ... in time to prevent a catastrophe.

COMPENSATION CASES.—In the Sheriffs' Court on ... Wednesday two actions, arising from the collision at ... the New Cross station, came on before the Under- ... Sheriff and a common jury. In the first, Rosapine v. ... the London, Brighton, and South Coast Company, the ... action had been brought in the Exchequer, when judg- ... ment was allowed to go by default, and the damages ... were laid at 500l., but a settlement was effected for 90l. ... In the second case, Mr. Kendall, a tavern-keeper, ... Bermondsey Street, obtained a verdict against the com- ... pany for 84l. 2s. 6d. During the trial it was stated ... that upwards of 60 actions had been brought on account ... of the accident, some of which have been arranged and ... others tried, and a number still remain undecided.

Law.

COURT OF QUEEN'S BENCH.—The Overend Gurney Prosecutions. ... On Saturday, at the opening of the sixth day's proceedings ... in the trial of the Overend and Gurney directors, Mr. Harding, ... the official liquidator, handed in a statement of the profits of ... the old firm during the ten years previous to the transfer, ... which gave an annual average of 220,000l. It was submitted ... that there was no evidence that Mr. Barclay, one of the ... defendants, had any knowledge of the alleged frauds, and, ... therefore, there being no case against him, he was entitled ... to be discharged. Upon this the Lord Chief Justice thought, on ... the other hand, there was no evidence to prove that he had ... not made himself acquainted with the state of affairs, and the ... question of fraud must go to the jury. Dr. Kenaly then ... addressed the Court for the prosecution, and had not concluded ... when the Court adjourned to Monday, when Dr. Kenaly con- ... cluded his address for the prosecution. The Solicitor-General ... then opened the defence on behalf of the Messrs. Gurney and ... Mr. Birkbeck, and had not concluded when the Court rose. ... On Tuesday the Solicitor-General concluded his speech amidst ... considerable applause from a crowded court. The Lord Chief ... Justice, in repressing such demonstrations, said he was not ... surprised that so fine a speech should produce emotion, but it ... should not be manifested in that shape. The counsel for the ... new directors then addressed the jury, and claimed for their ... clients ignorance of the real state of things, contending that ... they could not have had any motive in combining fraudu- ... lently to bolster up the firm if they knew it to be insolvent, ... and thus risk their own wealth and reputation. On Wednes- ... day the Lord Chief Justice commenced his summing up at the ... opening of the court, and did not conclude until two o'clock. ... It was altogether in favour of the defendants. The jury were ... only a quarter of an hour in consultation, and returned into ... court with a verdict of Not Guilty, which was received with ... applause. The prosecutor's counsel having applied for the ... costs of the prosecution, his lordship said that though he ... unhesitatingly agreed in the propriety of the verdict, yet, ... believing that this was a case for inquiry, and believing, also, ... that Dr. Thom was actuated, as against the defendants, by ... entirely honest motives in instituting this proceeding, he ... should not have hesitated to allow him costs, but inasmuch ... as, in his opinion and judgment, the uniting of the other ... defendants in the same indictment, and thereby shutting ... their mouths, was altogether unjustifiable, he could not allow ... the costs.

COURT OF EXCHEQUER.—The Saville House Fire: Malicious ... Prosecution.—It will be remembered that Mr. Morris was tried ... and acquitted on a charge of attempting to defraud the Gas- ... light and Coke Company, in respect to damages said to have ... resulted from a fire at Saville House, caused by the alleged ... defects of the company's service of gas. On Friday Mr. Morris ... sued the Gas Company in the Court of Exchequer for "malici- ... ous prosecution," and the defendants, after the trial had pro- ... ceeded for some time, agreed to a verdict for the plaintiff with ... 1500l. damages. The Lord Chief Baron said that the plaintiff ... left the Court without the slightest imputation upon his ... character.

NORFOLK CIRCUIT: CAMBRIDGE.—The Cambridge High- ... wayman.—Charles Trevor alias Horace Wright, 22, was charged ... with assaulting and stealing from Mrs. Perkins, the wife of ... Henry Perkins, Esq., the sum of 11., at Thriplow, on Octo- ... ber 16 last. It will be remembered that the prisoner, wearing ... a black mask, and armed with a pistol, stopped Mrs. Perkins

while she was in her carriage on her way to her home a ... Thriplow, he being at the time attired in full highwayman's ... costume, jack boots, &c., and riding a horse he had obtained ... from a livery stable in London. He afterwards stopped some ... country people in a cart, but as they said they were poor he ... would take nothing of them. He pleaded guilty; and as he ... had been previously convicted of a like offence, Mr. Justice ... Blackburn sentenced him to nine months' imprisonment with ... hard labour.

NORTHERN CIRCUIT: DURHAM.—The Stanley Murder.— ... Thomas Shield, aged 23, a pitman, was indicted for the wilful ... murder of Ralph Reed, at Stanley, near Lanchester, by ... stabbing him in the throat with a penknife. The jury found ... him Guilty of Manslaughter. Mr. Justice Lush said that as ... death had been caused by the use of the knife, the case was ... one which must be severely punished. He then sentenced ... the prisoner to penal servitude for 20 years. The Lanchester ... Murder.—Joseph Whitfield, a pitman, aged 47, was indicted ... for the wilful murder of his daughter, Ann Whitfield, eight ... years of age, at Lanchester, on July 26 last. The family was ... in a distressed state through the inability of the father from ... illness to work, and he appeared to have laboured under the ... delusion that by killing his children he would save them from ... misery. The doctor's opinion was that he knew what he was ... doing, but was not of sound mind. The jury acquitted ... him on the ground of insanity. The Thornley Murder.—James ... Hart, a pitman, was indicted for the wilful murder of Jonah ... Gott, at Thornley, on the 4th of December last. The prisoner, ... who was one of a party of Ludworth pitmen, had a quarrel ... with some Thornley men who had knocked him down, and ... kicked him while on the ground. The deceased had taken no ... part in the row, but the prisoner, believing that he had, ... attacked him, and, having got him down, kicked him so ... savagely as to rupture the jugular vein, which caused death. ... At the suggestion of Mr. Justice Lush, on the evidence of ... provocation, the counsel for the prosecution withdrew ... the charge of Murder, and the jury at once convicted ... the prisoner of Manslaughter. His lordship sentenced ... him to 15 years' penal servitude.—LIVERPOOL: Wife Murder.— ... John Gregson, a collier, aged 27, was charged with the wilful ... murder of his wife, Ellen Gregson, at Wigan, on the 18th of ... October last. In this case also death was caused by a kick, ... the prisoner having dealt her a terrific kick under the left ear ... with a heavy iron-shod clog which he was wearing at the ... time, by which the base of her skull was fractured, and she ... died almost immediately. The defence was that the crime ... was done in a drunken frenzy. The jury returned a verdict ... of Wilful Murder, with a recommendation to mercy. His ... lordship, in sentencing the prisoner to Death, remarked that ... the case was most clearly one of murder, but he would send ... the recommendation of the jury to the proper quarter. The ... prisoner heard the sentence with the utmost unconcern. The ... Skelmersdale Murder.—John Brown, 44, farmer, was charged ... with having at Skelmersdale, on the 28th September, wilfully ... murdered George Ashton. The deceased was a labourer, and ... on the 27th September went to the prisoner's premises with a ... threshing machine. On that day the prisoner had been ... engaged to lay the foundation-stone of a chapel, and as it was ... expected he and his family would be from home, the prisoner's ... son had given to the deceased the key of the house. The ... threshing machine was put in order, after which one of the ... men, know as "Scotty," went to sleep in the granary, and ... deceased and the other man (called Leatherbarrow) proceeded ... to a neighbouring public-house. In this public-house they found ... the prisoner, who had returned from the foundation-stone ... laying. After drinking some time, the prisoner, deceased, and ... Leatherbarrow left the public-house, and went in the direction ... of the prisoner's farm. On the way the prisoner wanted to ... fight Leatherbarrow, and on reaching his farm the prisoner ... ordered him to leave the premises, and struck him with a ... poker. The deceased, becoming frightened, went into an ... inner room, and Leatherbarrow left. About 3 o'clock next ... morning the prisoner went into an outbuilding where some ... Irishmen were sleeping, and, waking them, said some men had ... been in his cellar and drank his beer. The men went with the ... prisoner to the house, where, between the kitchen and the ... pantry, they found the deceased lying. The walls ... around were besmeared with blood, as were also the ... prisoner's clothes. The deceased, who was very weak, ... on seeing the Irishmen, requested them to take him to a ... place where he could lie on some straw. The Irishmen were ... about to lift the deceased, when the prisoner kicked him ... several times about the body. The deceased was removed to ... the barn, and at eight o'clock in the morning, at a short ... distance from the place where he had been laid by the Irish- ... men, he was found dead. The police, on examining the place, ... discovered two broken pokers in an oven, one of them being ... stained with blood. An examination of the deceased's body ... showed that he had received several violent injuries. The ... head was severely contused, one of the arms was broken, as ... were also the seventh rib and the breast-bone. The jury, ... under his lordship's direction, found the prisoner guilty of ... Manslaughter, and he was sentenced to penal servitude for ... 10 years.

Obituary.

THE EARL OF CRAWFORD AND BALCARRES died at the family ... seat, Dunecht, Aberdeenshire, on the 15th inst., in his 86th ... year. His lordship, the Right Hon. James Lindsay, Earl of ... Crawford and Balcarres, Lord Lindsay of Balcarres, Lord Bal- ... nell, in the peerage of Scotland; Baron Wigan of Haigh Hall, ... in the county of Lancaster, in the peerage of the United King- ... dom, was born in 1783, and was the eldest son of the 6th Earl ... of Balcarres, who, on the death of the 22d Earl of Crawford, ... in 1808, succeeded *de jure* as 23d Earl of Crawford. He married ... in 1811, the only daughter of the first Lord Muncaster, and by ... her had issue four sons, Lord Lindsay, the Hon. Major James ... Lindsay, Hon. Charles Hugh Lindsay, and the Hon. ... Colin Lindsay. On the death of his father, in 1825, he ... succeeded to the earldom of Balcarres, and in 1848 received ... from the House of Lords a confirmation of the earldom of ... Crawford, which had lain dormant since 1808, and, conse- ... quently, established his claim as premier earl on the Union roll ... of Scotland. He is succeeded in the titles and estates, both in ... Scotland and Lancashire, by his eldest son, Alexander William ... Crawford, Lord Lindsay, who was born at Muncaster Castle, ... in 1812, and married, in 1846, the eldest daughter of the late ... General James Lindsay, of Balcarres. He was educated at ... Trinity College, Cambridge, where he graduated M.A. in ... 1833, and he has distinguished himself in literature as the ... author of "Letters on Egypt and the Holy Land," a "Letter ... on the Evidences of Christianity," "The History of Christian ... Art," "Lives of the Lindsays," &c.

THE EARL OF ANTRIM died on Sunday last at Glenarm ... Castle, county Antrim. The deceased, Mark M'Donnell, Earl ... of Antrim and Viscount Dunluce in the peerage of Ireland, ... was the second son of the Countess of Antrim, by her mar- ... riage with Vice-Admiral Lord Mark Kerr, third son of the fifth ... Marquis of Lothian. He was born in 1814. He entered ... the navy in 1830, became a commander in 1846, and was made ... a captain on the retired list in 1864. In 1855 he assumed, by ... royal warrant, the name of "M'Donnell" only for himself ... and issue. He married, in 1849, the daughter of the late ... Major Macair, of Carrig, county Armagh, by whom he leaves ... several children. He succeeded to the title and estates in ... Ireland on the death of his elder brother, who inherited the ... earldom on the death of his mother in 1855, and died in 1855.

His lordship is succeeded by his eldest son, William Randal, Viscount Dunluce, born in 1851.

The Duchess de Coigny died on Sunday at Paris. She was the only daughter of Sir Hew Dalrymple-Hamilton, Bart., by his marriage with the eldest daughter of the first Viscount Duncan, and sister of the first Earl of Camperdown. She was born in 1801, and married in 1835 the Duke de Coigny, by whom she had two daughters, the eldest married to the present Earl of Stair, and the other married to Earl Manvers.

The Countess of Fife died suddenly on Saturday evening at her house in Cavendish Square, while conversing with her children, Viscount Macduff and Lady Alexina Duff. She was the second daughter of the 17th Earl of Erroll, by Lady Elizabeth Fitzclarence, one of the daughters of William IV. (by Mrs. Jordan). She was born in 1829, and married, in 1846, the eldest son of the Hon. General Sir Alexander Duff, who succeeded his uncle as Earl of Fife in 1857. Her ladyship leaves an only son, William Alexander, Viscount Macduff, born in 1849; and four daughters, Lady Anne Elizabeth Clementina, married to the Marquis Townshend; Lady Ida Louisa Alice, married to Mr. Hope; and two others, unmarried.

LADY HARRIET COWPER died on Saturday morning, at her residence in the Rue du Faubourg St. Honoré, Paris, after suffering for about a month with an internal abscess. She was the only daughter of the Earl of Blessington, by his first wife, the widow of Major Browne. She was born in 1812, and married in 1827, when quite a girl, the late Count D'Orsey. On the death of Count D'Orsey, in 1852, she married, secondly, the Hon. Charles Spencer Cowper, youngest son of the late Viscountess Palmerston by her first marriage with Earl Cowper.

GENERAL SIR DAVID CAPON, K.C.B., Colonel of the 106th Regiment (Bombay Light Infantry), died a few days since at his residence, Craven Hill, Hyde Park, at the age of 76. He was born in Bombay, and educated in England, after which he entered the military service of the East India Company in 1809. He served with the 1st Bombay Native Infantry in the expedition against Palampore in 1813; in the Konkan in 1817, and was present at the storming of the hill fort of Mudolungher. He commanded the troops at Aden in 1839, when the place was on two occasions attacked by large bodies of Arabs. He also commanded the 1st Brigade of the Bombay column army of the Punjab at the siege of Mooltan, in 1848-49, and in the attack on the town; also at the battle of Goojerat, and pursuit of the Sikh army, for which he received the medal with two clasps. He was nominated a Knight of the Bath in 1862, and in the same year was appointed colonel of the 106th Regiment. He attained the rank of general in 1868. He was the son of Lieut. Colonel John Capon, of the East India Company's Service, by the daughter of the late Colonel Proctor, of the Bombay Army. He married, in 1832, the fourth daughter of the late Dr. G. M. Burrows.

CAPTAIN MANNING, her Majesty's Lieutenant and Governor of Portland, died at Portland Castle on the 13th inst., after a long illness. He was nearly 80 years of age, was one of the magistrates for the county, and had resided at the Castle since 1834.

DR. JOHN GRANT STEWART, C.B., Inspector-General of Naval Hospitals and Fleets, died a few days ago. He entered the navy as assistant-surgeon, and obtained the rank of surgeon in 1840. He was specially promoted to be deputy-inspector in 1845 for having volunteered his services to go on board and take charge of the infected patients in the Eclair. In 1861, he was made an Inspector-general of Hospitals and Fleets. He was granted a good service pension in April last, and in June this year was made a Companion of the Bath for his civil services.

MR. GEORGE SAVILE FOLJAMBE died at Osberton Hall, near Worksop, on Saturday, in his 70th year. He had suffered from bronchitis for about a month, but no immediate danger was apprehended up to the middle of last week, when the attack assumed a more alarming aspect, and he became rapidly worse. He was born in 1800, and married in 1845 the Dowager Viscountess Milton, eldest sister of the Earl of Liverpool. He is succeeded by his eldest son, Francis John Savile Foljambe, Esq., of Aldwark Hall, near Rotherham, M.P. for East Retford.

MR. W. H. BARBER, whose name was before the public some years ago in connection with the Fletcher will forgeries, died on Friday of heart disease, in his 61st year. The case of Mr. Barber was remarkable as the first example of an innocent man obtaining compensation from the nation for a wrongful conviction by a criminal court; 5000*l.* having been voted to him by Parliament in 1859.

WILLS.—The will of Mr. Peabody has been sworn under 400,000*l.* personality in England; Lord Cranstoun under 4000*l.*; Sir Charles Rushout Rushout, Bart., of Seizecoat, Moreton-in-the-Marsh, Gloucestershire, 10,000*l.*; Mr. John Walker, Q.C., of 3, Old Buildings, Lincoln's Inn, and North Mymms, 100,000*l.*; Mr. James Box Wetenhall, stockbroker, 10,000*l.*; Mr. George Berkeley Harrison, merchant, Great Tower Street, 40,000*l.*; Mr. Edward Doudney, of 49, Lombard Street, tailor and woollen draper, 40,000*l.*

Markets.

COVENT GARDEN.—Dec. 24.

The market is very heavily supplied, and better prices cannot be obtained for either fruit or vegetables. Evergreens of the usual character are also abundant, and much lower in price than they have been for several years past. Flowers chiefly consist of Mignonette, Fuchsias, Chrysanthemums, Primulas, Poinsettias, Heaths, and Tulips.

FRUIT.

Apples, p. 1/2 sieve, 3s to 5s	Lemons, per 100, 5s to 10s
Cobs, per lb., 9d to 1s	Melons, each, 1s 6d to 3s
Chestnuts, p. bush., 8s to 14s	Oranges, per 100, 6s to 12s
Filberts, per lb., 6d to 9d	Pears, per doz., 3s to 6s
Grapes, per lb., 3s to 5s	Pine-apples, per lb., 3s to 5s

VEGETABLES.

Artichokes, p. doz., 3s to 6s	Leeks, per bunch, 2d to 4d
Beet, per doz., 2s to 3s	Lettuces, p. score, 1s to 2s
Broccoli, p. doz., 1s to 2s 6d	Mint, per bunch, 4d to 6d
Brussels Sprouts, p. 1/2 sieve, 2s to 3s	Mushrooms, p. pott., 1s to 1s 6d
Cabbages, per doz., 1s to 1s 6d	Onions, green, p. bun., 4d to 9d
Capsicums, p. 100, 2s to 2s 6d	Parley, per bunch, 2d to 4d
Carrots, per bunch, 4d to 8d	Potatoes, York Regents, p. ton, 80s to 105s
Cauliflowers, p. doz., 1s 6d to 3s	— Flukes, do., 80s to 120s
Celery, p. bund., 1s to 1s 6d	Salsafy, per bundle, 1s to 1s 3d
Cucumbers, each, 1s 6d to 3s	Scorzoneria, do., 1s to 1s 3d
Endive, per doz., 1s 6d to 2s	Seakale, p. punnet, 2s to 2s 6d
French Beans, p. 100, 2s 6d to 3s	Spinach, p. bushel, 2s to 3s
Garlic and shallots, per lb., 8d	Radishes, p. doz., 1s to 1s 6d
Herbs, per bunch, 2d to 4d	Tomatoes, per doz., 9d to 1s 6d
Horse Radish, p. bund. 3s to 5s	Turnips, per bunch, 4d to 6d

POTATOS.—SOUTHWARK, Monday, Dec. 20.

During the past week the arrivals coastwise have been moderate, but heavy by rail. The trade continues in a very languid state, and the consumption small for the period of the season. The quotations are:—Yorkshire Regents, per ton, 70s. to 100s.; Kent and Essex do., 60s. to 80s.; Lincolnshire do., 80s. to 85s.; East Lothian do., 70s. to 100s.; Perth, Forfar, and Fife do., 70s. to 80s.; French and Belgian Whites, 55s. to 65s.

HOPS.—BOROUGH MARKET, Dec. 24.

Messrs. Pattenden & Smith report there is more doing than is usual at this time of the year, and prices are well maintained. The stock of English is exceedingly limited, the bulk of the Hops now on the market being Americans, and for these there will doubtless be a good trade after Christmas.

COALS.—Dec. 23.

Cowpen Hartley, 17s.; Holywell Main, 17s. 9d.; West Hartley, 17s.; Walls End Elliot, 19s. 9d.; Walls End Braddyll's Hetton, 19s. 9d.; Walls End Haswell, 21s.; Walls End Hetton, 21s.; Walls End Hawthorn, 18s. 6d.; Walls End Tunstall, 19s. 3d.; Walls End Hartlepool, 20s.; Walls End Original Hartlepool, 21s.; Walls End South Hartlepool, 19s. 6d.; Walls End Tees, 19s. 3d.; Brancepeth Cannel, 18s.—Ships at market, 85; sold, 61.

ENGLISH WOOL

A moderate trade has been transacted, without material alteration in value.

CURRENT PRICES OF ENGLISH WOOL, per lb.—s. d.			
FLEECES—Southdown hoggets	.. ..	1 1	to 1 2
Half-bred ditto	.. ..	1 2	— 1 2 1/2
Kent Fleeces	.. ..	1 3	— 1 4
Southdown ewes and wethers	.. ..	1 0 1/2	— 1 1
Leicester ditto	.. ..	1 2	— 1 3
Sorts—Clothing	.. ..	0 10	— 1 6
Combing	.. ..	1 0	— 1 8

METROPOLITAN MEAT MARKET.—Dec. 24.

Best Fresh Butter 19s. per dozen lb.
Second do. do. 17s. do.
Small Pork, 5s. 4d. to 5s. 8d.; Large Pork, 4s. 4d. to 5s. 0d. per 8 lb.

HAY.—Per Load of 36 Trusses.

SMITHFIELD, Thursday, Dec. 23.

Supply moderate. Trade remains very heavy at about late quotations.	
Prime Meadow Hay 75sto 84s	Clover, old 115sto126s
Inferior do. 60 70	Inferior do. 80 100
Rowen 50 60	Prime 2d cut 95 110
Inferior do. — —	Inferior do. 75 85
Straw 24 30	

CHARLES JAMES EASTON.

CUMBERLAND MARKET, Thursday, Dec. 23.

Sup. Meadow Hay 84sto 92s	Inferior Clover .. 95sto115s
Inferior do. 70 76	New do. — —
New do. — —	Straw 34 38
Superior Clover ..126 132	

JOSHUA BAKER.

WHITECHAPEL, Thursday, Dec. 23.

Fine Meadow Hay 75sto 82s	Prime old Clover 120sto 130s
Inferior do. 60 70	Inferior do. do. .. 95 105
Prime New Hay — —	Prime 2d cut do. .. — —
Inferior — —	New Clover 100 112
Straw 24 30	Inferior do. 90 100

METROPOLITAN CATTLE MARKET.

MONDAY, Dec. 20.

We have a good supply of Beasts for the day; trade opened brisk, but declined towards the close; on the average prices are about the same as last week. Trade is active for Sheep, although the supply is fair; prices have advanced slightly. Choice Calves are considerably dearer. Our foreign supply consists of 429 Beasts, 2550 Sheep, and 94 Calves; from Scotland there are 111 Beasts; from Ireland, 547; from Norfolk and Suffolk, 300; and 740 from the Midland and Home Counties.

s. d. s. d.		s. d. s. d.	
Best Scots, Herefords, &c. ..	5 6 to 5 8	Best Long-wools	5 6 to 5 10
Best Shorthorns	5 2—5 6	Do. Shorn	.. ..
2d quality Beasts	3 4—4 0	Ewes & 2d quality	4 4—5 4
Best Downs and Half-breds	5 8—6 0	Do. Shorn	.. ..
Do. Shorn	.. ..	Lambs	.. ..
Beasts, 2128; Sheep and Lambs, 10,340; Calves, 128; Pigs, 175.		Calves	4 0—6 4
		Pigs	4 0—6 0

THURSDAY, Dec. 23.

This is very nearly a holiday market. The supply of all kinds of stock is very moderate, and there are very few purchasers at market. The small amount of business transacted is at about Monday's quotations. Our foreign supply consists of 423 Beasts, 740 Sheep, and 62 Calves.

s. d. s. d.		s. d. s. d.	
Best Scots, Herefords, &c. ..	5 6 to 5 8	Best Long-wools	5 6 to 5 10
Best Shorthorns	5 2—5 6	Do. Shorn	.. ..
2d quality Beasts	3 4—4 0	Ewes & 2d quality	4 4—5 4
Best Downs and Half-breds	5 8—6 0	Do. Shorn	.. ..
Do. Shorn	.. ..	Lambs	.. ..
Beasts, 615; Sheep and Lambs, 3550; Calves, 9; Pigs, —.		Calves	4 4—6 4
		Pigs	.. ..

MARK LANE.—MONDAY, Dec. 20.

There was a moderate supply of English Wheat to this morning's market, which was quickly sold at the extreme prices of this day se'nnight. The attendance was good, including several country millers, and a fair consumptive trade was done in foreign Wheat, American and Russian bringing an advance of 1s. per qr. upon the lowest quotations lately current. Barley and Beans were unchanged in value. Peas were cheaper. The Oat trade was steady, at the rates of this day se'nnight. There was no alteration in the price of Flour.

PRICE PER IMPERIAL QUARTER.			
WHEAT, Essex, Kent, Suffolk. White	39—48	Red.....	36—47
— fine selected runs ..do.	41—52	Red.....	39—49
— Talavera.....	55—57		
— Norfolk.....	.. ..	Red.....	.. ..
— Foreign.....	39—52		
BARLEY, grind. & dist., 29sto31s. Chev.	39—42	Malting ..	34—38
— Foreign... grinding and distilling	22—25	Malting ..	30—40
OATS, Essex and Suffolk	23—24		
— Scotch and Lincolnshire.. Potato	24—26	Feed .....	.. ..
— Irish Potato	23—25	Feed	21—24
— Foreign..... Poland and Brew	22—25	Feed	19—21
RYE.....	32—38	Foreign ..	33—36
RYE-MEAL, Foreign.....	.. ..	
BEANS, Mazagan... 35s to 37s. Tick	36—49	Harrow ..	36—49
— Pigeon .. 50s to 56s ..Winds	.. ..	— Longpod..	.. ..
— Foreign Small	41—43	Egyptian..	38—40
PEAS, White, Essex, and Kent..Boilers	37—42	Suffolk ..	39—43
— Maple 41s to 45s..... Grey	40—42	Foreign ..	35—38
MAIZE.....	.. ..	— Foreign ..	29—31
FLOUR, best marks delivered. per sack	39—43		
— 2d ditto..... ditto	28—40	Country..	28—40
— Foreign per barrel	22—25	Per sack..	29—55

WEDNESDAY, Dec. 22.

The attendance at market to-day is limited. English Wheat rather firmer than on Monday; foreign in moderate demand, but prices fully maintained. Trade for English Flour rather more firm; American quite as dear. Barley: choice malting rather dearer, grinding descriptions unaltered. Oats: arrivals moderate, and prices tending upwards. Beans firm. Peas rather easier than last week. Linseed a little cheaper. Rapeseed fully as dear. Maize without change. In floating cargoes trade for Wheat was steady; for Barley and Rye there was little inquiry.

AVERAGES.

	Wheat.	Barley.	Oats.
Nov 6	47s 1d	35s 1d	22s 1d
— 13	46 11	36 8	22 11
— 20	46 8	36 8	22 11
— 27	45 6	35 1	22 11
Dec. 4	44 3	35 1	22 11
— 11	43 8	36 1	22 11
Average ..	45 8	37 10	22 11

SEED MARKET.

The close of the year being so near at hand our markets are now quite inactive, and there is consequently no change in report in the value of any kind of seed. We have on hand low for white Mustard seed, the stocks of which are almost exhausted. Rapeseed is scarce and dear.

JOHN SRAW & SONS, 16, Water Lane, E.C.

WANTED, as WORKING FOREMAN on a Farm, active, intelligent Man, to Superintend and assist in the management of a Gentleman's Small Farm. He must have had considerable experience in the Management of Stock and Land, and be willing to himself generally useful. A married Man preferred, as he will have to live in the lodge.—Apply by letter, with full particulars salary required, number of family, age, and situation last held, to R. BOUSFIELD, Lambcreech Park, near Bath.

WANTED, a good WORKING GARDENER accustomed to Grow Grapes and Cucumbers for Market. Apply to WILLIAM HOLMES, Frampton Park Nursery, Hammersmith, W.

WANTED, a Man and his Wife.—The Man to be a KITCHEN GARDENER, the Wife as LAUNDRESS. Apply to WILLIAM HOLMES, Frampton Park Nursery, Hammersmith, W.

WANTED, a steady YOUNG MAN, to work in the Houses, under a Propagator; must be active in Tying and Watering. One who has some knowledge of Roses, and can make himself generally useful.—Apply, with wages, references, &c., to W. KNIGHT, Floral Nursery, Hammersmith, W.

WANTED, for the Country, a YOUNG MAN, to be in the Nursery Business; one having a Knowledge of Trade preferred. Good character indispensable.—Apply, with handwriting, to Q., care of Messrs. Beck, Henderson & Co., 221, Upper Thames Street.

WANTED, for a Retail Country Seed Trade pushing, energetic Man as TRAVELLER and Collector.—Apply, stating age, references, salary expected, and other particulars, to B. L. PIERPOINT, Seedsmen, Warrington.

WANTED, an ASSISTANT SHOPMAN, for a Wholesale and Agricultural Implement Warehouse.—Apply, with age, references, and salary expected, to T. McKEE, Belfast.

WANTED, an experienced DAIRYMAID, for a Gentleman's Dairy, to live at the Hall. The Dairy to be Butter the chief requisite. Recommendation and references on application.—Address, stating wages, Mrs. EASON, East Newcastle, Staffordshire.

WANT PLACES.—Letters to be Post Paid.

EXPERIENCED GARDENERS (or as GARDENERS and BAILIFF), of various qualifications, recommended by Gentlemen.—Further particulars given on application to E. G. HENDERSON and SON, Wellington Square, St. James Wood, London, N.W.

MR. WM. PAUL begs to announce that he has made arrangements by which he will be enabled to furnish Gentlemen with the NAMES, ADDRESSES, and REFERENCES of GARDENERS and BAILIFFS of various qualifications, who are open to Engagements. The charges for such services required and wages given should be determined on application.—PAUL'S Nurseries, Waltham Cross, London, N.

Gardeners and Under Gardeners. WM. CUTBUSH and SON beg to state that they have at all times on their books MEN of various qualifications whose characters will bear the strictest inquiry. Any making application would save time by clearly stating what be undertaken, wages offered, &c., so that suitable persons be selected.—Highgate Nurseries, London, N.

JOHN HARRISON begs to inform Gentlemen that he has at the present time on his list a number of clever experienced GARDENERS. Many of whom served in some of the largest and best Establishments in the Kingdom of England, and none are entered except those whose ability will bear the strictest investigation. Also a number of Young Men in the Nursery waiting for engagements as GARDENERS and UNDER GARDENERS.—North of England Nurseries, Darlington.

To Gardeners and Bailiffs (Head, Foreman, or Underman). JAMES CARTER and CO. having many openings for the above request that those WASTING their time will send NAME, ADDRESS, and COPIES of TESTIMONIALS for ENTRY in their FREE REGISTER. Only those whose unexceptionable references need apply. Any Lady or Gentleman requiring GARDENERS or BAILIFFS may rely upon J. CARTER & Co. adopting the most accurate and judicious reference to testimonials as to ability, honesty, &c. JAMES CARTER and CO., 237 & 238, High Holborn, London, W.

GARDENER (HEAD), where two or more are required.—Age 28; understands the general routine of a Nursery Office, Bracknell, Berks.

GARDENER (SECOND), or FOREMAN, in a Nursery Establishment.—Age 23, single; has filled a similar position before. Three years in last place.—G. MARSHALL, Tenterden.

FOREMAN and PROPAGATOR.—Age 40; has been in the Nursery Office, Derby.

FOREMAN (or SECOND), in a Nursery Establishment.—Age 25, single; has filled a similar position before. Three years in last place.—G. MARSHALL, Tenterden.

FARM BAILIFF, on a Nobleman's or other Estate.—Age 30; has filled a similar position before. Three years in last place.—G. MARSHALL, Tenterden.

FARM BAILIFF.—Middle-aged, married, and thoroughly understands the Farming Business in all its branches; Draining, Breeding, Rearing, Buying and Selling of Cattle, Horses, and Sheep, and could undertake the Management of a Dairy. The highest references from previous employers. Ability, trustworthiness, &c.—O. A. B. Post Office, London, W.

AGENT and ESTATE BAILIFF (Age 30) who has been in his employ for 13 years in the most efficient manner. An excellent Farmer and most efficient Accountant. Receive the highest character.—A. B. Messrs. Taylor & Co., Booksellers, Cockspur Street, Charing Cross, London, W.

AGENT or LAND STEWARD.—A Gentleman who has been brought up a Practical Farmer, and has had the advantage of Agriculture and the Management of Property in the most efficient manner. He has had the Management of Estates in one of the Western Counties. Can give the most reliable character and ability.—F. J. A. Messrs. Taylor & Co., Booksellers, Cockspur Street, Charing Cross, London, W.